we-ef

WE-EF LEUCHTEN
General Catalogue
Asia Pacific Edition
2016-2018

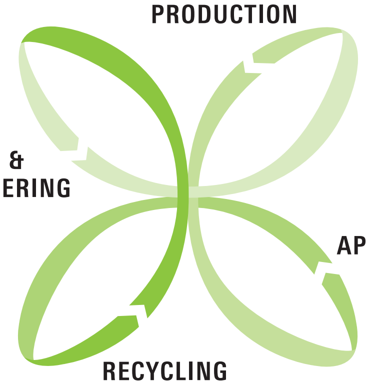
WE-EF is a global manufacturer of high-performance exterior luminaires renowned for outstanding engineering design and innovative optical systems. Established in 1950 in Germany, WE-EF is recognised worldwide as a leading exterior lighting specialist that provides professional lighting solutions for various applications, ranging from urban spaces to architectural projects.

As a pioneer and innovator of a wide range of application-specific modular LED lens technologies, WE-EF develops optical systems that deliver photometric efficiency together with high visual comfort.

WE-EF is dedicated to the philosophy of combining form and function, resulting in striking and timeless product designs.

Precision in the design process, careful consideration of material selection and high-quality manufacturing processes ensure that WE-EF luminaires are considered to be a benchmark of product performance, reliability and longevity as well as ease of installation.

Responsible resource management is practiced across all areas of operation, from product life-cycle assessments to sustainable business procedures.



Designed to endure

Design and Engineering

The most important element in the design process is the development of luminaires that encompass timeless design – design that best reflects their enduring qualities.

In addition, state-of-the-art engineering brings with it the highest standards with regard to environmentally-friendly materials and processes, i.e., high IP ratings, excellent thermal management and advanced optical systems. The development of high-end, efficient reflectors and lenses is one of the core competencies of WE-EF. This means compliance with international lighting and safety norms, while meeting the criteria of such organisations as the Dark Sky Society. Continual investment in research and development is the basic condition for meeting these requirements. WE-EF innovations, such as IOS® Innovative Optical Systems, 5CE Superior Corrosion Protection, ASC® Anti Slip Coating and OLC® One LED Concept, are just some examples of the company's continuing investment in technology.

The most significant WE-EF contribution to protecting the environment is the creation of products that are engineered to endure, essentially minimising the need to replace or recycle them for many years.

Production

'Made by WE-EF' is more than just an expression; the high quality level of in-house production processes includes:

- Tooling for HPDC and injection moulding
- Aluminium high-pressure die-casting
- CNC machining
- Powdercoating
- Pole manufacturing
- Assembly

Through continual investment in tooling and production processes, and ongoing training programmes for WE-EF employees, the highest standards of quality are achieved. In exterior lighting, the corrosion-resistance qualities of a product are crucial to their reliability and longevity. Durable and reliable corrosion protection can only be achieved when product development and production processes are considered together. Years of research, development and practical testing as well as experience in some of the most extreme climates on Earth have resulted in WE-EF's unique 5CE corrosion protection system. This system encompasses five critical elements:

- Substrate
- Conversion coating
- Powdercoating
- PCS hardware (polymer coated stainless steel)
- Process control

Application

Real and sustainable cost and energy savings can only be achieved through professional project planning, including the application of the latest optical systems and light sources. In streetlighting applications, for example, this means minimising the number of luminaires required by optimising the efficiency of the optical system, while at the same time limiting glare in line with international standards. In short, reduced installation and maintenance costs, less CO_2 and improved quality of light.

Recycling

More than 90 per cent of a WE-EF luminaire can be recycled. The main component, a marine-grade aluminium substrate, is refined from recycled aluminium. This recycled aluminium is also an 'energy storer'. Only five per cent of the original energy needed to process bauxite into aluminium is required for recycling. In other words, 95 per cent of the original energy input is also recycled.

Worldwide performance

With its in-depth understanding of regional practices and environmental standards, WE-EF provides architects, lighting designers and project consultants with comprehensive support for architectural and urban lighting projects.

Established more than 65 years ago in Germany, the WE-EF Group now comprises seven companies worldwide – each fully supported by an extensive network of regional distributors and agents.

● WE-EF group worldwide

WE-EF LEUCHTEN Germany
WE-EF LIGHTING United Kingdom
WE-EF LUMIERE France
WE-EF HELVETICA Switzerland
WE-EF LIGHTING United States of America
WE-EF LIGHTING Thailand
WE-EF LIGHTING Australia

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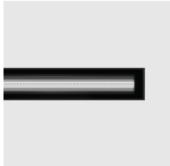

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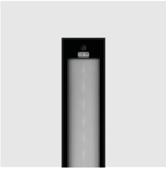

ETT100-FS LED
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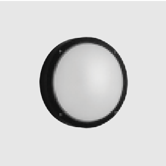

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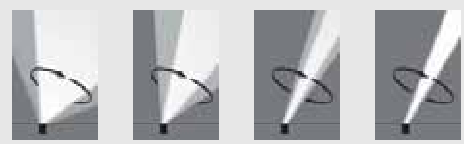
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

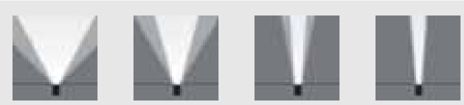


[B] [M] [EE] [EES]

ETC300-GB SERIES – LED GIMBAL
Page 24-27
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[B] [M] [EE] [EES]

ETC100-FS SERIES – LED FIXED OPTICS
Page 28-31
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



[B] [M] [EE] [EES]

ETC300-FS SERIES – LED FIXED OPTICS
Page 32-35
[B] Symmetric distribution, wide beam
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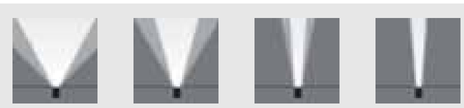
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



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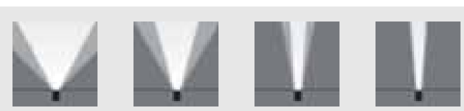
EVC100-FS SERIES – LED FIXED OPTICS
Page 36-39
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



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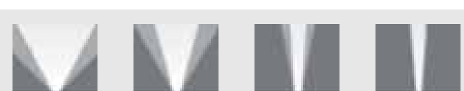
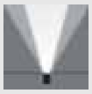
EVC300-FS SERIES – LED FIXED OPTICSS
Page 40-43
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



[B] [M] [EE] [EES]

ESC100-FS SERIES – LED FIXED OPTICS
Page 44-45
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'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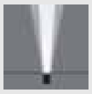
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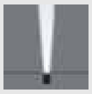
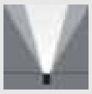

[EES]

ESC300-FS SERIES – LED FIXED OPTICS
Page 46-47
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'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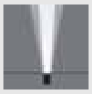
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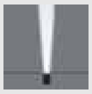
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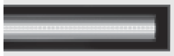
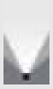


ETV100 SERIES – LED
Page 48-51
[LB] Symmetric distribution, wide beam
[LM] Symmetric distribution, medium beam
[LE] Symmetric linear distribution, narrow beam
[LEE] Symmetric linear distribution, very narrow beam
[LA10] Asymmetric linear distribution, wallwash


[LB]


[LM]

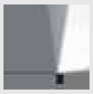

[LE]


[LEE]


[LA10]

ETT100-FS SERIES – LED MARKER LIGHT
Page 52-53
Diffused distribution

ETT100-FS SERIES – LED WALLWASH
Page 54-55
[A20] Asymmetric distribution, wallwash


[A20]

EFC100 SERIES – MARKER LIGHT

Inground luminaire. IP67. IK09. Stainless steel inground section. Die-cast dome made from marine-grade aluminium alloy. Luminaire can be driven over at low speed. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Optical lens made from PMMA. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 1.5 m of flexible PVC-free cable.

Integral EC electronic converter.

Luminaire installation blockout included in supply.

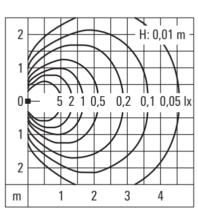
Light source:
LED 6-12 W, 3000 K and 4000 K

Available distribution:
Controlled

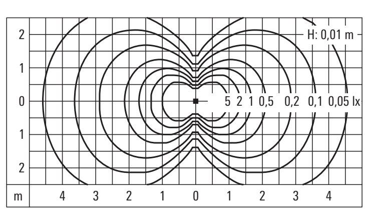
St Marys Axe. London (UK). Architect: Foster & Partners. Lighting design: Speirs + Major.

Controlled – One-sided		3000 K	lm	4000 K	lm
EFC120	LED 6W	**185-2526**	807	**185-2560**	807

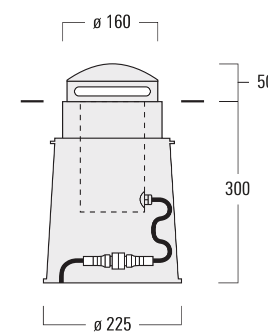
Controlled – Two-sided		3000 K	lm	4000 K	lm
EFC120	LED 12W	**185-2559**	2 x 807	**185-2768**	2 x 807

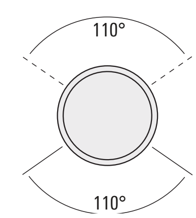


Controlled – One-sided



Controlled – Two-sided

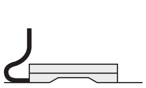




Accessories:

Sealable junction box – For inground mains connection.

SJB	for EFC120	**185-1624**



SJB

ETC100/300-FS EVC300-FS SERIES – MARKER LIGHT

[Factory-sealed] Inground luminaire. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens with opal diffuser, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Complete with cable gland and 1.5 m (ETC100-FS) or 0.5 m (ETC/EVC300-FS) of flexible PVC-free cable. Luminaire is factory-sealed and does not need to be opened during installation.

ETC100-FS: Mains converter required, to be ordered separately.

ETC/EVC300-FS: Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Luminaire installation blockout and sealable junction box included in supply.

Colour filters available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 0.5-1.5 W
(white, red, green, blue, yellow and RGB)
LED 3-12 W, 3000 K and 4000 K

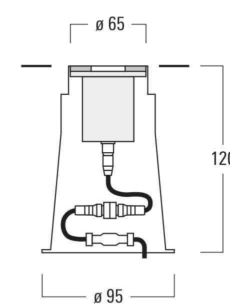
Available distribution:
Diffused

For corresponding ETC100/EVC100-FS series with slim blockout, refer to www.we-ef.com

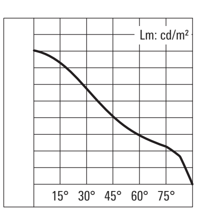
LED

Liverpool Innovation Park. Liverpool (UK). Landscape architect: Scott Wilson Landscape Architects, Manchester.

ETC109-FS
(flush with surface)



Diffused			Gear	lm	Lm [cd/m²]
ETC109-FS	LED 0.5W White	**185-9557**	[ON-OFF]	13	3787
ETC109-FS	LED 0.5W Red	**185-9558**	[ON-OFF]	18	4951
ETC109-FS	LED 0.5W Green	**185-9559**	[ON-OFF]	15	2759
ETC109-FS	LED 0.5W Blue	**185-9560**	[ON-OFF]	4	1416
ETC109-FS	LED 0.5W Yellow	**185-9561**	[ON-OFF]	18	1340
ETC109-FS	LED 1.5W RGB	**185-9562**	[ON-OFF]	24	3854

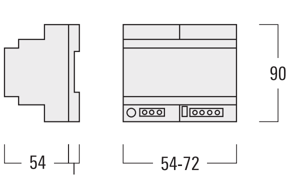


Diffused

Accessories:

Mains converter (230 V/12 V) – IP20. Mounting to 35 mm rail.

TVE-DC	for ETC109-FS	**400-0302**	12 V/12 W
TVE-DC	for ETC109-FS	**400-0309**	12 V/48 W



TVE-DC

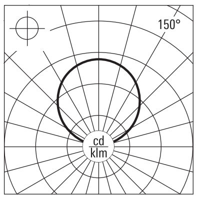
Installation cover

BE	for ETC109-FS	**185-1850**

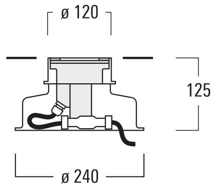
BE

ETC300-FS
(flush with surface)

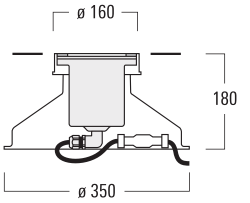
Diffused		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC319-FS	LED 3W/350 mA	**185-9945**	404	**185-9946**	404	117	51°/51°
ETC329-FS	LED 6W/700 mA	**185-7251**	738	**185-7252**	738	83	55°/55°
ETC339-FS	LED 12W/700 mA	**185-7261**	1476	**185-7262**	1476	76	56°/56°



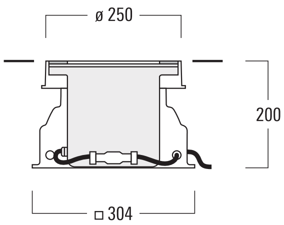
Diffused



ETC319-FS



ETC329-FS



ETC339-FS

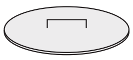
Accessories:

Dimming interface

1-10 V	for ETC319/329/339-FS	**430-0011**
DALI	for ETC329/339-FS	**430-0013**

Installation cover

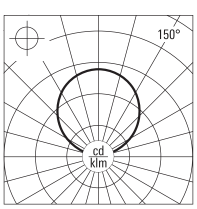
BE	for ETC319-FS	**185-9961**
BE	for ETC329-FS	**185-0796**
BE	for ETC339-FS	**185-0325**



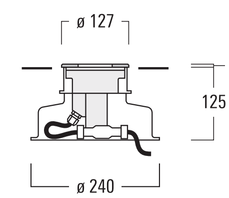
BE

EVC300-FS
(proud of surface)

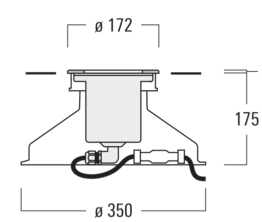
Diffused		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC319-FS	LED 3W/350 mA	**185-9948**	404	**185-9949**	404	117	51°/51°
EVC329-FS	LED 6W/700 mA	**185-7254**	738	**185-7255**	738	83	55°/55°
EVC339-FS	LED 12W/700 mA	**185-7264**	1476	**185-7265**	1476	76	56°/56°



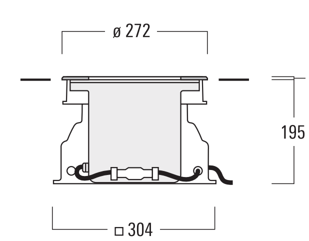
Diffused



EVC319-FS



EVC329-FS



EVC339-FS

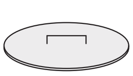
Accessories:

Dimming interface

1-10 V	for EVC319/329/339-FS	**430-0011**
DALI	for EVC329/339-FS	**430-0013**

Installation cover

BE	for EVC319-FS	**185-9961**
BE	for EVC329-FS	**185-0796**
BE	for EVC339-FS	**185-0325**



BE

ETC100-GB SERIES – GIMBAL

Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 1.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 20° tiltable and 360° rotatable. 1-10 V analogue dimming or DALI interface available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for ETC140-GB, available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K and RGBW on request)
(for HIT, refer to www.we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 23**

IOS®

LED

Parkdale Obelisk. Kingston (AUS). Landscape architects: Urban Initiatives. Lighting design: 2BDesigned.

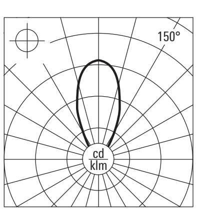
[B]

[M]

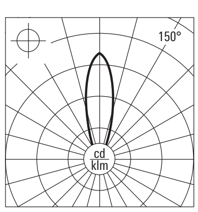
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC130-GB	6 LED 12W/700 mA	**185-7224**	1476	**185-7222**	1476	1081	24°/24°
ETC140-GB	12 LED 24W/700 mA	**185-7685**	2951	**185-7687**	2951	952	25°/25°

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-GB	3 LED 6W/700 mA	**185-7592**	738	**185-7595**	738	1633	21°/21°
ETC130-GB	6 LED 12W/700 mA	**185-7218**	1476	**185-7221**	1476	2175	17°/17°
ETC140-GB	12 LED 24W/700 mA	**185-7202**	2951	**185-7205**	2951	2339	17°/17°

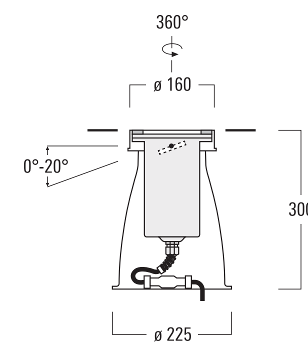


[B]

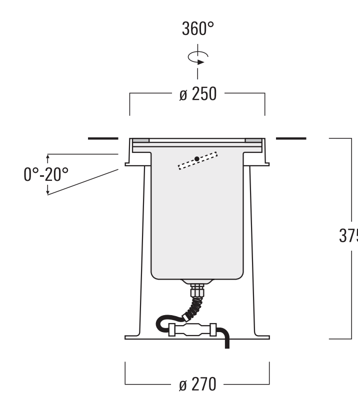


[M]

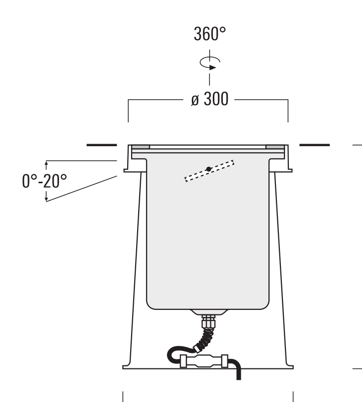
ETC120-GB



ETC130-GB



ETC140-GB



Accessories:

Dimming interface

1-10 V	for ETC120/130/140-GB	**430-0011**
DALI	for ETC120/130/140-GB	**430-0013**


[EE] **[EES]**

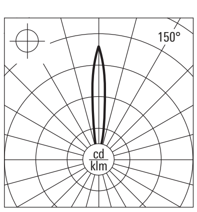
IOS® Innovative Optical System:

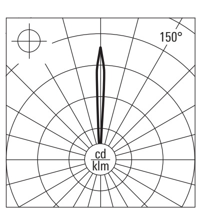
[EE] Symmetric distribution, very narrow beam

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-GB	3 LED 6W/700 mA	**185-7593**	738	**185-7596**	738	7530	7°/7°
ETC130-GB	6 LED 12W/700 mA	**185-7217**	1476	**185-7220**	1476	7418	7°/7°
ETC140-GB	12 LED 24W/700 mA	**185-7203**	2951	**185-7206**	2951	6728	8°/8°

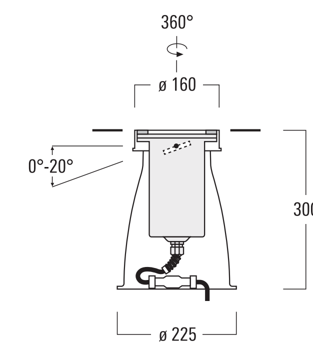
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-GB	3 LED 6W/700 mA	**185-7682**	738	**185-7684**	738	16462	5°/5°
ETC130-GB	6 LED 12W/700 mA	**185-7225**	1476	**185-7223**	1476	21083	5°/5°
ETC140-GB	12 LED 24W/700 mA	**185-7686**	2951	**185-7688**	2951	18322	5°/5°



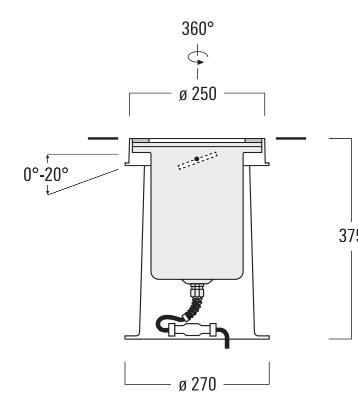


[EE] **[EES]**

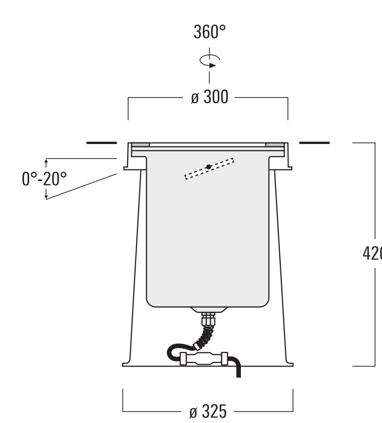
ETC120-GB



ETC130-GB



ETC140-GB



Accessories:

Dimming interface

1-10 V	for ETC120/130/140-GB	**430-0011**
DALI	for ETC120/130/140-GB	**430-0013**

OPTICAL ACCESSORIES – ETC100-GB SERIES

Internal Accessories

ETC120-GB: A maximum of two internal optical accessories. For example: flood or spread lens; colour filter; or louvre. Factory-installed.

ETC130/140-GB: A maximum of three internal optical accessories. For example: flood or spread lens; colour filter; or louvre. Optical adaptor IA (where applicable) to be ordered separately. Factory-installed.

Optical adaptor

IA	for ETC130-GB	**185-7420**
IA	for ETC140-GB	**185-7419**

Flood lens

IO-360	for ETC120-GB	**185-9613**
IO-360	for ETC130-GB	**185-9679***
IO-360	for ETC140-GB	**185-7582***

Linear spread lens

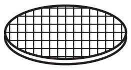
IO-180	for ETC120-GB	**185-9612**
IO-180	for ETC130-GB	**185-9678***
IO-180	for ETC140-GB	**185-7581***

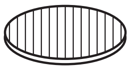
Colour filter

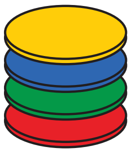
IF	for ETC120-GB	**on request**
IF	for ETC130-GB	**on request***
IF	for ETC140-GB	**on request***

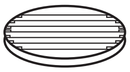
Linear louvre

IL	for ETC120-GB	**185-9614**
IL	for ETC130-GB	**185-9677***
IL	for ETC140-GB	**185-9568***


IO-360


IO-180


IF


IL

* Accessory requires optical adaptor IA, to be ordered separately.

ETC300-GB SERIES – GIMBAL

Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 0.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 20° tiltable and 360° rotatable. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for ETC340-GB, available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K and RGBW on request)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 27**

Town Hall. Reutlingen (D). Architect: Max Dudler. Lighting design: Kardorff Ingenieure.

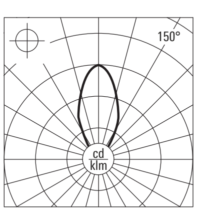
[B]

[M]

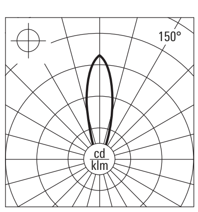
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC330-GB	6 LED 12W/700 mA	**185-9672**	1476	**185-9676**	1476	1081	24°/24°
ETC340-GB	12 LED 24W/700 mA	**185-7713**	2951	**185-7715**	2951	952	25°/25°

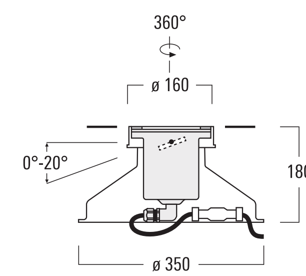
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC320-GB	3 LED 6W/700 mA	**185-7023**	738	**185-7026**	738	1633	21°/21°
ETC330-GB	6 LED 12W/700 mA	**185-7233**	1476	**185-7236**	1476	2175	17°/17°
ETC340-GB	12 LED 24W/700 mA	**185-9722**	2951	**185-9726**	2951	2339	17°/17°



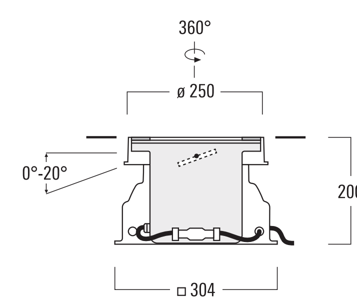
[B]



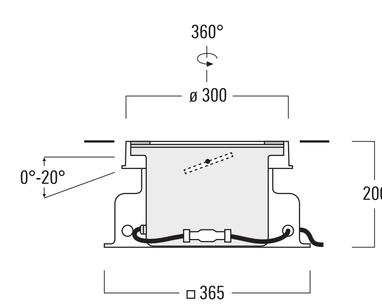
[M]



ETC320-GB



ETC330-GB



ETC340-GB

Accessories:

Dimming interface

1-10 V	for ETC320/330/340-GB	**430-0011**
DALI	for ETC330/340-GB	**430-0013**

[EE] [EES]

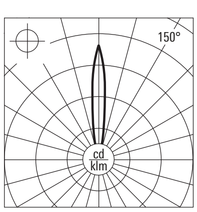
IOS® Innovative Optical System:

[EE] Symmetric distribution, very narrow beam

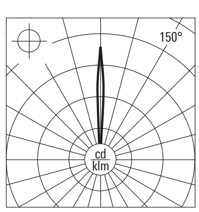
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC320-GB	3 LED 6W/700 mA	**185-7024**	738	**185-7027**	738	7530	7°/7°
ETC330-GB	6 LED 12W/700 mA	**185-7232**	1476	**185-7235**	1476	7418	7°/7°
ETC340-GB	12 LED 24W/700 mA	**185-9721**	2951	**185-9725**	2951	6728	8°/8°

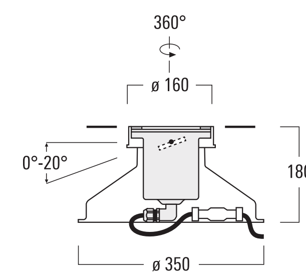
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC320-GB	3 LED 6W/700 mA	**185-7710**	738	**185-7712**	738	16462	5°/5°
ETC330-GB	6 LED 12W/700 mA	**185-7227**	1476	**185-7229**	1476	21083	5°/5°
ETC340-GB	12 LED 24W/700 mA	**185-7714**	2951	**185-7716**	2951	18322	5°/5°



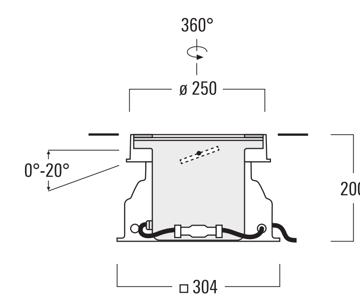
[EE]



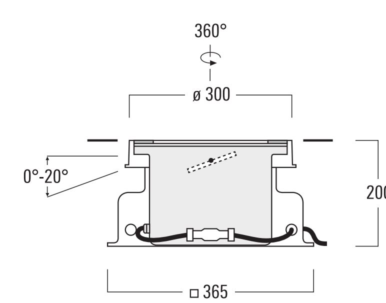
[EES]



ETC320-GB



ETC330-GB



ETC340-GB

Accessories:

Dimming interface

1-10 V	for ETC320/330/340-GB	**430-0011**
DALI	for ETC330/340-GB	**430-0013**

OPTICAL ACCESSORIES – ETC300-GB SERIES

Internal Accessories

ETC320-GB: A maximum of two internal optical accessories. For example: flood or spread lens; colour filter; or louvre. Factory-installed.

ETC330/340-GB: A maximum of three internal optical accessories. For example: flood or spread lens; colour filter; or louvre. Optical adaptor IA (where applicable) to be ordered separately. Factory-installed.

Optical adaptor

IA	for ETC330-GB	**185-7420**
IA	for ETC340-GB	**185-7419**

Flood lens

IO-360	for ETC320-GB	**185-9613**
IO-360	for ETC330-GB	**185-9679***
IO-360	for ETC340-GB	**185-7582***

Linear spread lens

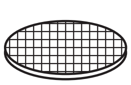
IO-180	for ETC320-GB	**185-9612**
IO-180	for ETC330-GB	**185-9678***
IO-180	for ETC340-GB	**185-7581***

Colour filter

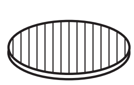
IF	for ETC320-GB	**on request**
IF	for ETC330-GB	**on request***
IF	for ETC340-GB	**on request***

Linear louvre

IL	for ETC320-GB	**185-9614**
IL	for ETC330-GB	**185-9677***
IL	for ETC340-GB	**185-9568***

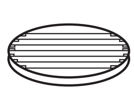


IO-360



IO-180

IF



IL

* Accessory requires optical adaptor IA, to be ordered separately.

ETC100-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 1.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for ETC130-FS and ETC140-FS, available on request.

ASC® Anti Slip Coating available on request.

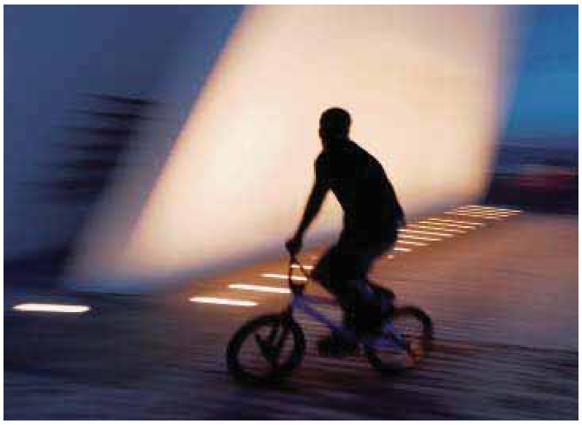
Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)
(for HIT, refer to we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 31**

IOS®

LED



Staten Island Memorial. New York (USA). Architect: Masayuki Sono. Lighting design: Fisher Marantz Stone.

[B] **[EE]** **[EES]**

IOS® Innovative Optical System:

[B] Symmetric distribution, wide beam

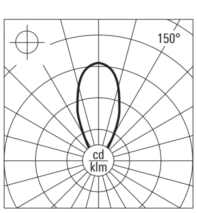
[EE] Symmetric distribution, very narrow beam

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

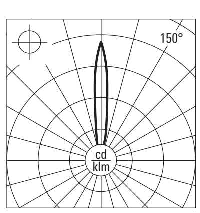
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-FS	6 LED 12W/700 mA	**185-7657**	1476	**185-7659**	1476	1081	24°/24°
ETC130-FS	12 LED 24W/700 mA	**185-7661**	2951	**185-7663**	2951	952	25°/25°
ETC140-FS	24 LED 48W/700 mA	**185-7138**	5903	**185-7143**	5903	1081	24°/24°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-FS	6 LED 12W/700 mA	**185-7600**	1476	**185-7603**	1476	7418	7°/7°
ETC130-FS	12 LED 24W/700 mA	**185-9157**	2951	**185-9160**	2951	6728	8°/8°
ETC140-FS	24 LED 48W/700 mA	**185-7139**	5903	**185-7144**	5903	7418	7°/7°

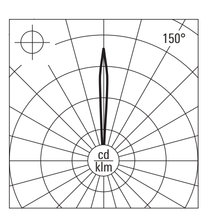
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-FS	6 LED 12W/700 mA	**185-7658**	1476	**185-7660**	1476	21083	5°/5°
ETC130-FS	12 LED 24W/700 mA	**185-7662**	2951	**185-7664**	2951	18322	5°/5°
ETC140-FS	24 LED 48W700 mA	**185-7140**	5903	**185-7145**	5903	21083	5°/5°



[B]

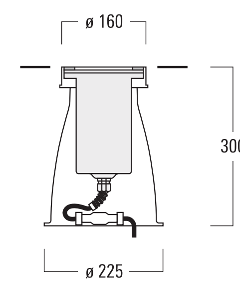


[EE]

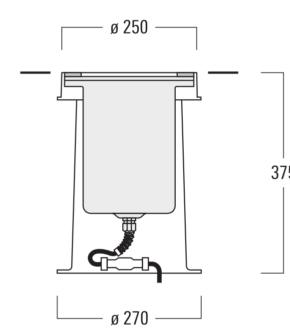


[EES]

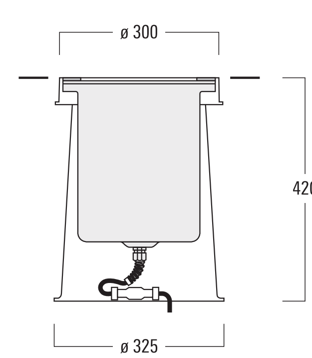
ETC120-FS



ETC130-FS



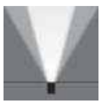
ETC140-FS



Accessories:

Dimming interface

1-10 V	for ETC120/130/140-FS	**430-0011**
DALI	for ETC120/130/140-FS	**430-0013**

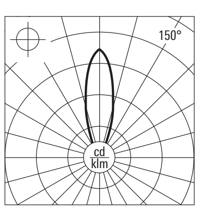


[M]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

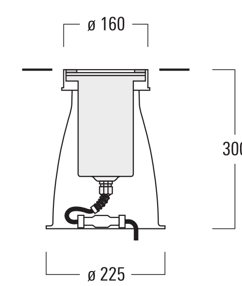
IO-20 wallwash lens.
See page 31 for details.

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC120-FS	6 LED 12W/700 mA	**185-7599**	1476	**185-7602**	1476	2175	17°/17°
ETC130-FS	12 LED 24W/700 mA	**185-9156**	2951	**185-9159**	2951	2339	17°/17°
ETC140-FS	24 LED 48W/700 mA	**185-7137**	5903	**185-7142**	5903	2175	17°/17°

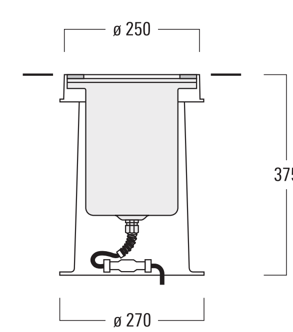


[M]

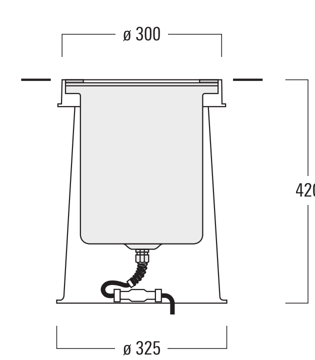
ETC120-FS



ETC130-FS



ETC140-FS



Accessories:

Dimming interface

1-10 V	for ETC120/130/140-FS	**430-0011**
DALI	for ETC120/130/140-FS	**430-0013**

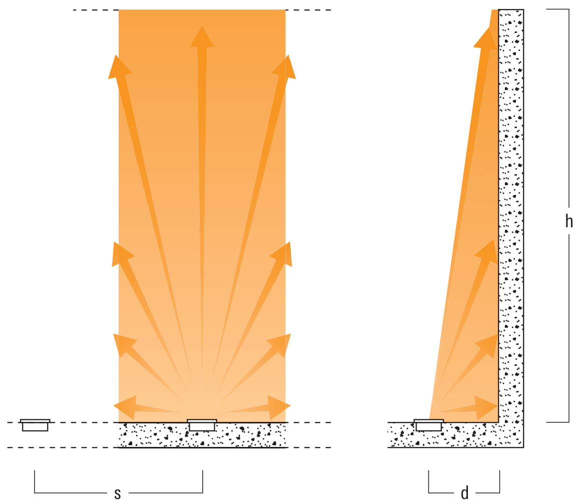
OPTICAL ACCESSORIES – ETC100-FS SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for ETC120-FS	**185-7028**
IO-20	for ETC130-FS	**185-9629**
IO-20	for ETC140-FS	**185-7589**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

ETC120/130/140-FS: One internal optical accessory. For example: flood or spread lens; or colour filter. Factory-installed.

Flood lens

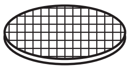
IO-360	for ETC120-FS	**185-7019**
IO-360	for ETC130-FS/ESC130-FS	**185-9628**
IO-360	for ETC140-FS/ESC140-FS	**185-7579**

Linear spread lens

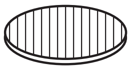
IO-180	for ETC120-FS	**185-7020**
IO-180	for ETC130-FS/ESC130-FS	**185-9627**
IO-180	for ETC140-FS/ESC140-FS	**185-7580**

Colour filter

IF	for ETC120-FS	**on request**
IF	for ETC130-FS/ESC130-FS	**on request**
IF	for ETC140-FS/ESC140-FS	**on request**



IO-360



IO-180

IF

ETC300-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 0.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Luminaire installation blockout and sealable junction box included in supply.

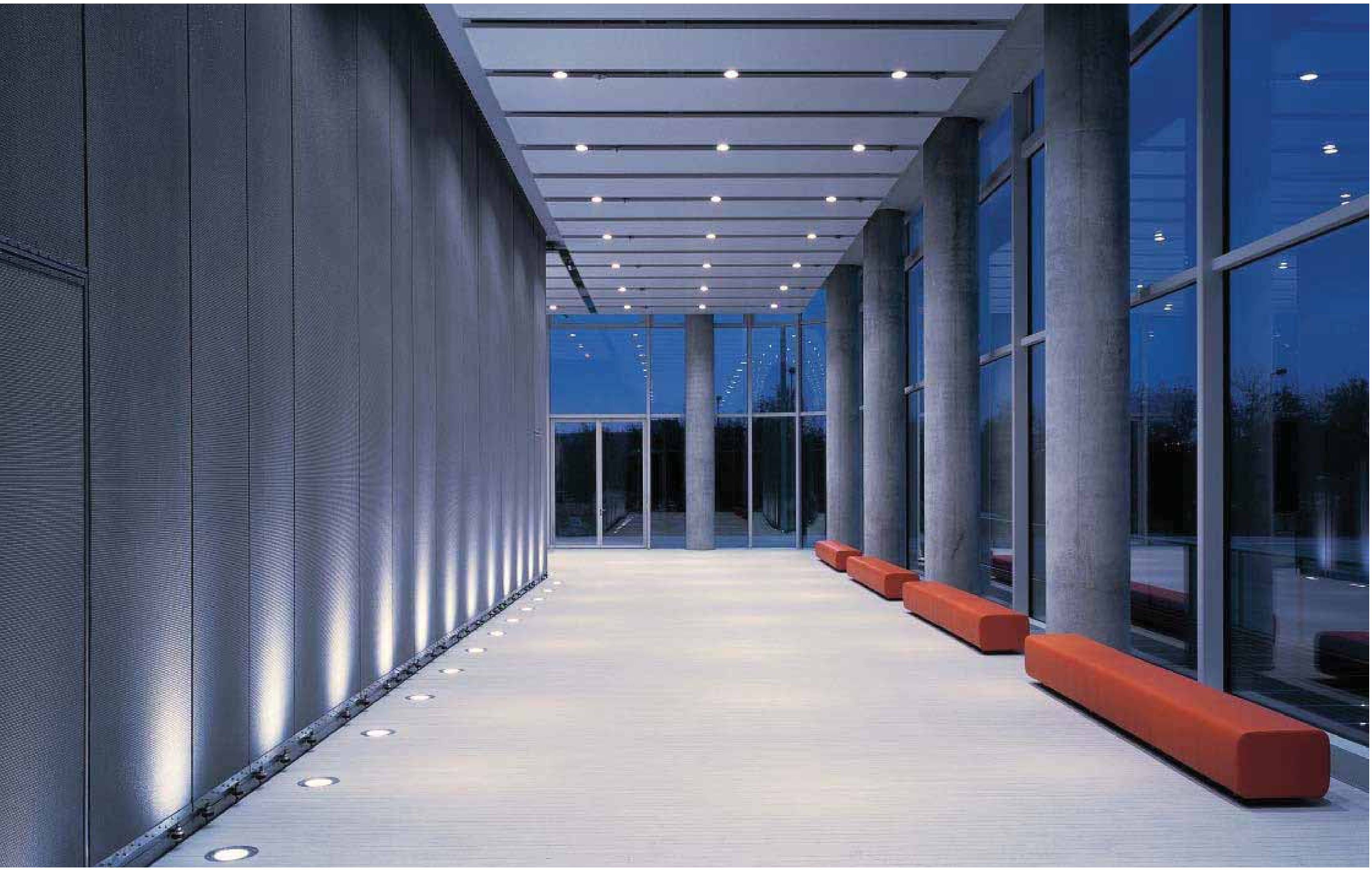
RGBW for ETC330-FS and ETC340-FS, available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 6-36 W, 3000 K and 4000 K
(2700 K and RGBW on request)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 35**



Bürogebäude Uptown. München (D). Architect: Ingenhoven Overdick und Partner. Lighting design: Kardorff Ingenieure.


[B]

[EE]

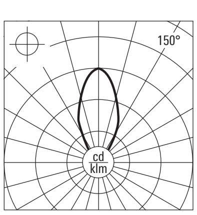
[EES]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

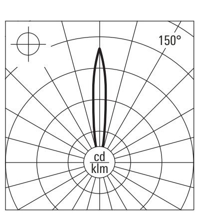
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC320-FS	6 LED 12W/700 mA	**185-7689**	1476	**185-7691**	1476	1081	24°/24°
ETC330-FS	12 LED 24W/700 mA	**185-7693**	2951	**185-7695**	2951	952	25°/25°
ETC340-FS	24 LED 36W/500 mA	**185-7697**	4435	**185-7699**	4435	1081	24°/24°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC310-FS	3 LED 6W/700 mA	**185-9927**	738	**185-9930**	738	7530	7°/7°
ETC320-FS	6 LED 12W/700 mA	**185-7118**	1476	**185-7121**	1476	7418	7°/7°
ETC330-FS	12 LED 24W/700 mA	**185-7032**	2951	**185-7036**	2951	6728	8°/8°
ETC340-FS	24 LED 36W/500 mA	**185-9748**	4435	**185-9752**	4435	7418	7°/7°

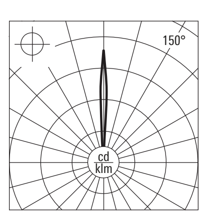
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC310-FS	3 LED 6W/700 mA	**185-9928**	738	**185-9931**	738	16462	5°/5°
ETC320-FS	6 LED 12W/700 mA	**185-7690**	1476	**185-7692**	1476	21083	5°/5°
ETC330-FS	12 LED 24W/700 mA	**185-7694**	2951	**185-7696**	2951	18322	5°/5°
ETC340-FS	24 LED 36W/500 mA	**185-7698**	4435	**185-7700**	4435	21083	5°/5°



[B]



[EE]

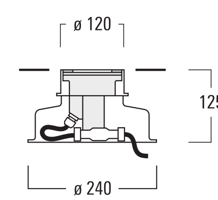


[EES]

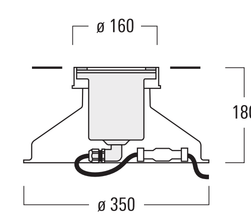
Accessories:

Dimming interface

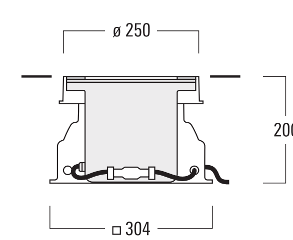
1-10 V	for ETC310/320/330/340-FS	**430-0011**
DALI	for ETC330/340-FS	**430-0013**



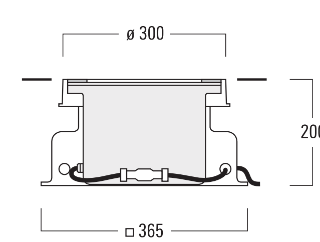
ETC310-FS



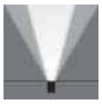
ETC320-FS



ETC330-FS



ETC340-FS

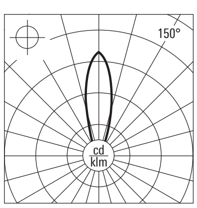


[M]

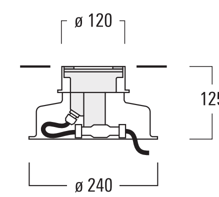
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

IO-20 wallwash lens.
See page 35 for details.

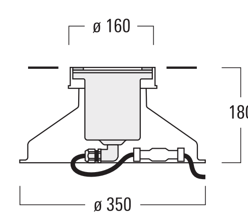
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
ETC310-FS	3 LED 6W/700 mA	**185-9926**	738	**185-9929**	738	1633	21°/21°
ETC320-FS	6 LED 12W/700 mA	**185-7117**	1476	**185-7120**	1476	2175	17°/17°
ETC330-FS	12 LED 24W/700 mA	**185-7033**	2951	**185-7037**	2951	2339	17°/17°
ETC340-FS	24 LED 36W/500 mA	**185-9749**	4435	**185-9753**	4435	2175	17°/17°



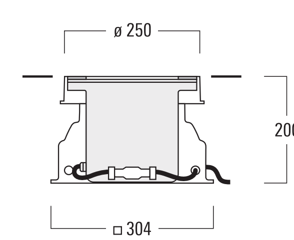
[M]



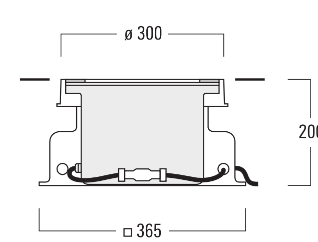
ETC310-FS



ETC320-FS



ETC330-FS



ETC340-FS

Accessories:
Dimming interface

1-10 V	for ETC310/320/330/340-FS	**430-0011**
DALI	for ETC330/340-FS	**430-0013**

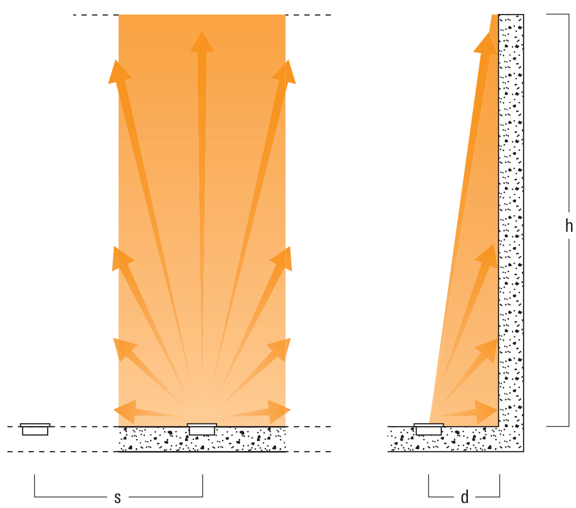
OPTICAL ACCESSORIES – ETC300-FS SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for ETC310-FS	**185-9950**
IO-20	for ETC320-FS	**185-7028**
IO-20	for ETC330-FS	**185-9629**
IO-20	for ETC340-FS	**185-7589**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

ETC320/330/340-FS: One internal optical accessory. For example: flood or spread lens; or colour filter. Factory-installed.

Flood lens

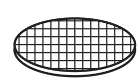
IO-360	for ETC310-FS	**185-9613**
IO-360	for ETC320-FS	**185-7019**
IO-360	for ETC330-FS/ESC330-FS	**185-9628**
IO-360	for ETC340-FS/ESC340-FS	**185-7579**

Linear spread lens

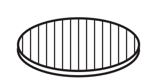
IO-180	for ETC310-FS	**185-9612**
IO-180	for ETC320-FS	**185-7020**
IO-180	for ETC330-FS/ESC330-FS	**185-9627**
IO-180	for ETC340-FS/ESC340-FS	**185-7580**

Colour filter

IF	for ETC310-FS	**on request**
IF	for ETC320-FS	**on request**
IF	for ETC330-FS/ESC330-FS	**on request**
IF	for ETC340-FS/ESC340-FS	**on request**



IO-360



IO-180

IF

EVC100-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 1.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for EVC130-FS and EVC140-FS, available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)
(for HIT, refer to we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 39**

Sungnyemun Gate. Seoul (KR). Architect: G.S. Architects & Associates. Lighting design: Nanam Architectural Lighting Design.

[B] [EE] [EES]

IOS® Innovative Optical System:

[B] Symmetric distribution, wide beam

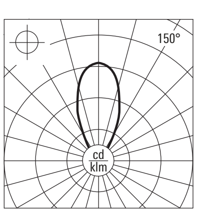
[EE] Symmetric distribution, very narrow beam

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

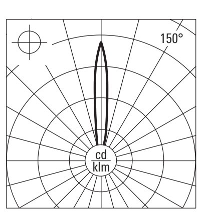
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC120-FS	6 LED 12W/700 mA	**185-7669**	1476	**185-7671**	1476	1081	24°/24°
EVC130-FS	12 LED 24W/700 mA	**185-7673**	2951	**185-7675**	2951	952	25°/25°
EVC140-FS	24 LED 48W/700 mA	**185-7149**	5903	**185-7154**	5903	1081	24°/24°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC120-FS	6 LED 12W/700 mA	**185-9195**	1476	**185-9198**	1476	7418	7°/7°
EVC130-FS	12 LED 24W/700 mA	**185-9165**	2951	**185-9168**	2951	6728	8°/8°
EVC140-FS	24 LED 48W/700 mA	**185-7150**	5903	**185-7155**	5903	7418	7°/7°

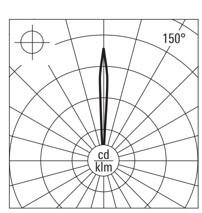
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC120-FS	6 LED 12W/700 mA	**185-7670**	1476	**185-7672**	1476	21083	5°/5°
EVC130-FS	12 LED 24W/700 mA	**185-7674**	2951	**185-7676**	2951	18322	5°/5°
EVC140-FS	24 LED 48W/700 mA	**185-7151**	5903	**185-7156**	5903	21083	5°/5°



[B]

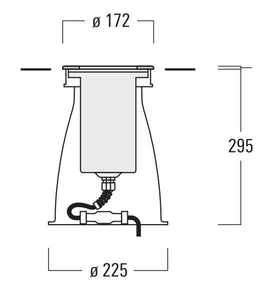


[EE]

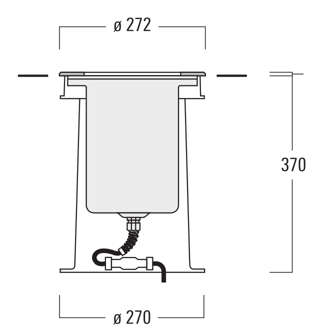


[EES]

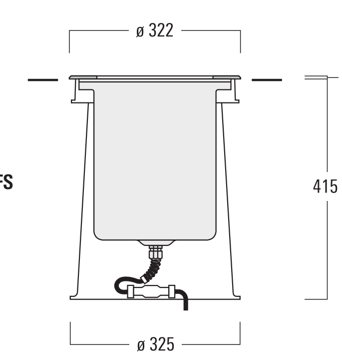
EVC120-FS



EVC130-FS



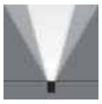
EVC140-FS



Accessories:

Dimming interface

1-10 V	for EVC120/130/140-FS	**430-0011**
DALI	for EVC120/130/140-FS	**430-0013**

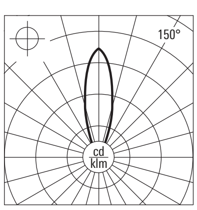


[M]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

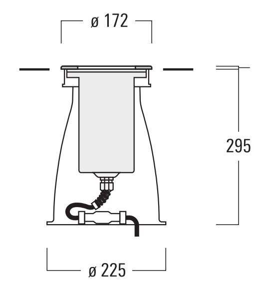
IO-20 wallwash lens.
See page 39 for details.

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC120-FS	6 LED 12W/700 mA	**185-9194**	1476	**185-9197**	1476	2175	17°/17°
EVC130-FS	12 LED 24W/700 mA	**185-9164**	2951	**185-9167**	2951	2339	17°/17°
EVC140-FS	24 LED 48W/700 mA	**185-7148**	5903	**185-7153**	5903	2175	17°/17°

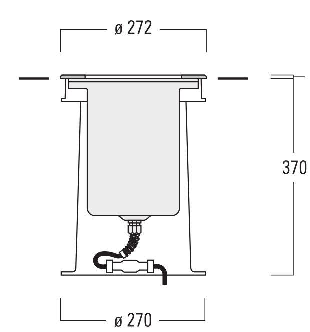


[M]

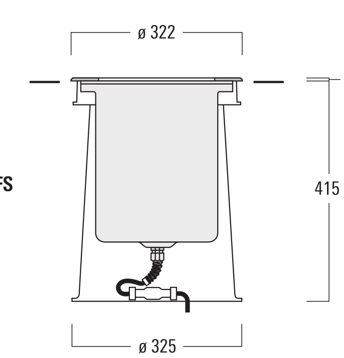
EVC120-FS



EVC130-FS



EVC140-FS



Accessories:
Dimming interface

1-10 V	for EVC120/130/140-FS	**430-0011**
DALI	for EVC120/130/140-FS	**430-0013**

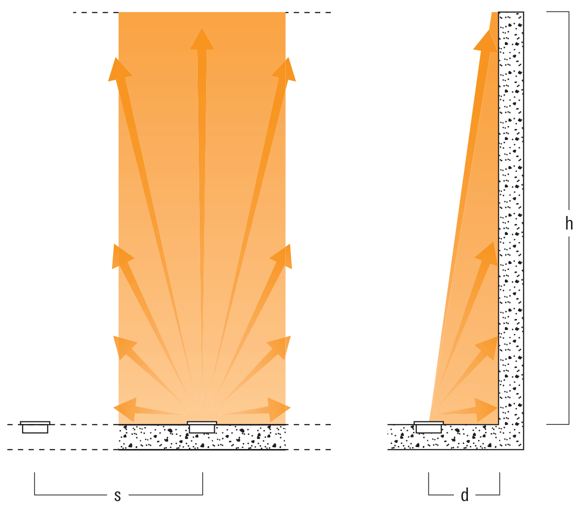
OPTICAL ACCESSORIES – EVC100-FS SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for EVC120-FS	**185-7028**
IO-20	for EVC130-FS	**185-9629**
IO-20	for EVC140-FS	**185-7589**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

EVC120/130/140-FS: One internal optical accessory. For example: flood or spread lens; or colour filter. Factory-installed.

Flood lens

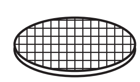
IO-360	for EVC120-FS	**185-7019**
IO-360	for EVC130-FS	**185-9628**
IO-360	for EVC140-FS	**185-7579**

Linear spread lens

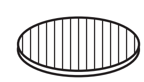
IO-180	for EVC120-FS	**185-7020**
IO-180	for EVC130-FS	**185-9627**
IO-180	for EVC140-FS	**185-7580**

Colour filter

IF	for EVC120-FS	**on request**
IF	for EVC130-FS	**on request**
IF	for EVC140-FS	**on request**



IO-360



IO-180

IF

EVC300-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK10+. Stainless steel construction including PCS hardware. Safety glass lens, max. load 5 tonnes. Luminaire can be driven over at low speed. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 0.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for EVC330-FS and EVC340-FS, available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 6-36 W, 3000 K and 4000 K
(2700 K and RGBW on request)

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical,** **page 43**

IOS.

LED

Port Philip Estate. Red Hill, Victoria (AUS).

[B]

[EE]

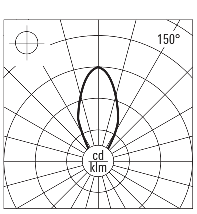
[EES]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

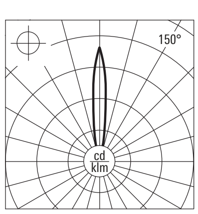
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC320-FS	6 LED 12W/700 mA	**185-7701**	1476	**185-7703**	1476	1081	24°/24°
EVC330-FS	12 LED 24W/700 mA	**185-7092**	2951	**185-7094**	2951	952	25°/25°
EVC340-FS	24 LED 36W/500 mA	**185-7705**	4435	**185-7707**	4435	1081	24°/24°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC310-FS	3 LED 6W/700 mA	**185-9936**	738	**185-9939**	738	7530	7°/7°
EVC320-FS	6 LED 12W/700 mA	**185-7126**	1476	**185-7129**	1476	7418	7°/7°
EVC330-FS	12 LED 24W/700 mA	**185-7072**	2951	**185-7076**	2951	6728	8°/8°
EVC340-FS	24 LED 36W/500 mA	**185-9763**	4435	**185-9767**	4435	7418	7°/7°

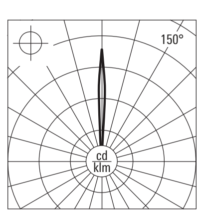
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC310-FS	3 LED 6W/700 mA	**185-9937**	738	**185-9940**	738	16462	5°/5°
EVC320-FS	6 LED 12W/700 mA	**185-7702**	1476	**185-7704**	1476	21083	5°/5°
EVC330-FS	12 LED 24W/700 mA	**185-7093**	2951	**185-7095**	2951	18322	5°/5°
EVC340-FS	24 LED 36W/500 mA	**185-7706**	4435	**185-7708**	4435	21083	5°/5°



[B]



[EE]

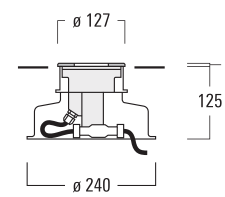


[EES]

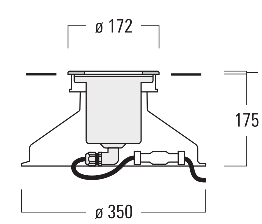
Accessories:

Dimming interface

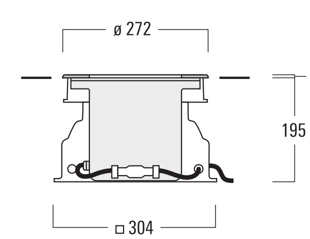
1-10 V	for EVC310/320/330/340-FS	**430-0011**
DALI	for EVC330/340-FS	**430-0013**



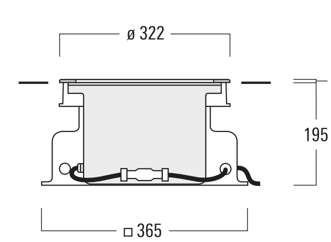
EVC310-FS



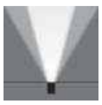
EVC320-FS



EVC330-FS



EVC340-FS

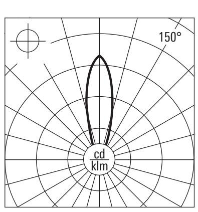


[M]

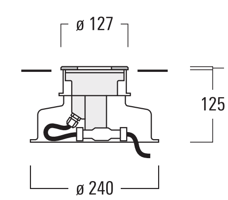
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

IO-20 wallwash lens.
See page 43 for details.

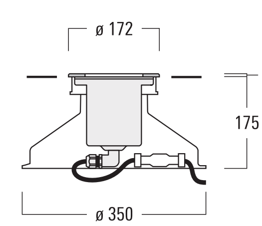
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
EVC310-FS	3 LED 6W/700 mA	**185-9935**	738	**185-9938**	738	1633	21°/21°
EVC320-FS	6 LED 12W/700 mA	**185-7125**	1476	**185-7128**	1476	2175	17°/17°
EVC330-FS	12 LED 24W/700 mA	**185-7073**	2951	**185-7077**	2951	2339	17°/17°
EVC340-FS	24 LED 36W/500 mA	**185-9764**	4435	**185-9768**	4435	2175	17°/17°



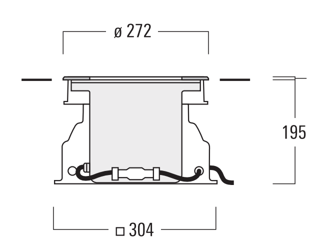
[M]



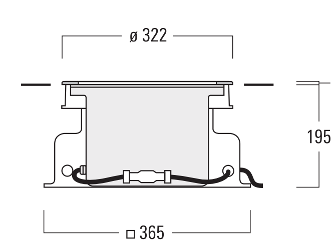
EVC310-FS



EVC320-FS



EVC330-FS



EVC340-FS

Accessories:

Dimming interface

1-10 V	for EVC310/320/330/340-FS	**430-0011**
DALI	for EVC330/340-FS	**430-0013**

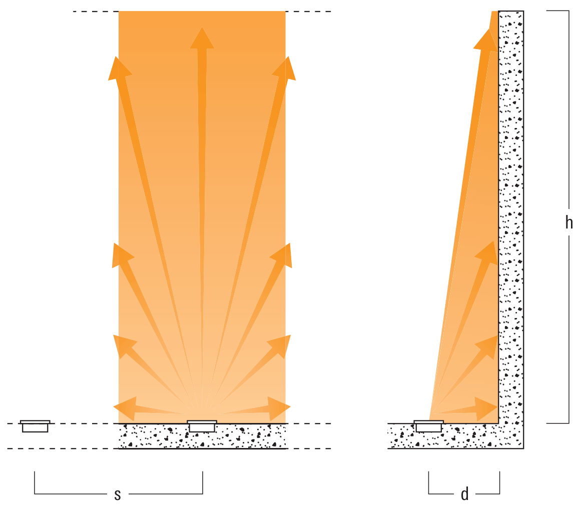
OPTICAL ACCESSORIES – EVC300-FS SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for EVC310-FS	**185-9950**
IO-20	for EVC320-FS	**185-7028**
IO-20	for EVC330-FS	**185-9629**
IO-20	for EVC340-FS	**185-7589**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

EVC320/330/340-FS: One internal optical accessory. For example: flood or spread lens; or colour filter. Factory-installed.

Flood lens

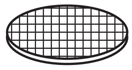
IO-360	for EVC310-FS	**185-9613**
IO-360	for EVC320-FS	**185-7019**
IO-360	for EVC330-FS	**185-9628**
IO-360	for EVC340-FS	**185-7579**

Linear spread lens

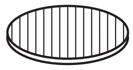
IO-180	for EVC310-FS	**185-9612**
IO-180	for EVC320-FS	**185-7020**
IO-180	for EVC330-FS	**185-9627**
IO-180	for EVC340-FS	**185-7580**

Colour filter

IF	for EVC310-FS	**on request**
IF	for EVC320-FS	**on request**
IF	for EVC330-FS	**on request**
IF	for EVC340-FS	**on request**



IO-360



IO-180

IF

ESC100-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK07. Stainless steel inground section. Die-cast hood made from marine-grade aluminium alloy. Construction helps to prevent accumulation of insects, leaves and debris on lens and restricts glare to passers-by. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 1.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Luminaire installation blockout and sealable junction box included in supply.

RGBW for ESC130-FS and ESC140-FS, available on request.

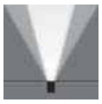
Light source:
LED 24-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)

Available distributions:
[M] [EE] [EES]

Accessories:
- **Optical, page 31**

IOS®

LED



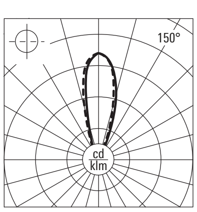
[M] **[EE]** **[EES]**

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

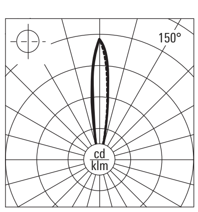
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC130-FS	12 LED 24W/700 mA	**185-7502**	2951	**185-7505**	2951	2378	13°/17°	15°/15°
ESC140-FS	24 LED 48W/700 mA	**185-7159**	5903	**185-7163**	5903	2378	13°/17°	15°/15°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC130-FS	12 LED 24W/700 mA	**185-7503**	2951	**185-7506**	2951	7672	7°/8°	7°/7°
ESC140-FS	24 LED 48W/700 mA	**185-7160**	5903	**185-7164**	5903	7672	7°/8°	7°/7°

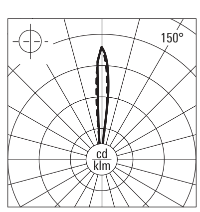
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC130-FS	12 LED 24W/700 mA	**185-7497**	2951	**185-7499**	2951	17197	4°/6°	5°/5°
ESC140-FS	24 LED 48W/700 mA	**185-7161**	5903	**185-7165**	5903	17197	4°/6°	5°/5°



[M]

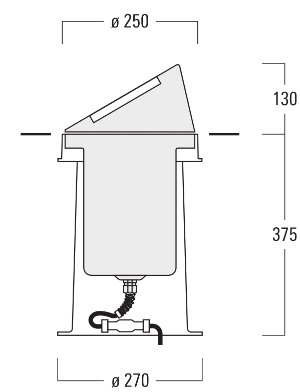


[EE]

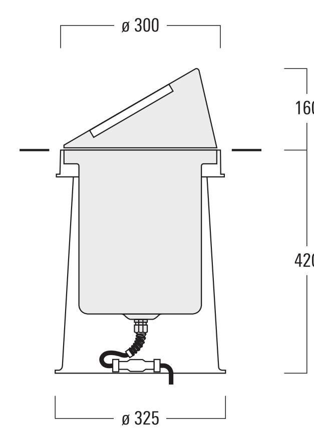


[EES]

ESC130-FS



ESC140-FS



Accessories:

Dimming interface

1-10 V	for ESC130/140-FS	**430-0011**
DALI	for ESC130/140-FS	**430-0013**

ESC300-FS SERIES – FIXED OPTICS

[Factory-sealed] Inground uplight. IP67. IK07. Stainless steel inground section. Die-cast hood made from marine-grade aluminium alloy. Construction helps to prevent accumulation of insects, leaves and debris on lens and restricts glare to passers-by. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Factory-sealed termination chamber with cable gland and 0.5 m of flexible PVC-free cable.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Luminaire installation blockout and sealable junction box included in supply.

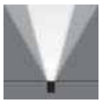
RGBW for ESC330-FS and ESC340-FS, available on request.

Light source:
LED 24-36 W, 3000 K and 4000 K
(2700 K and RGBW on request)

Available distributions:
[M] [EE] [EES]

Accessories:
- **Optical, page 35**

RMIT University. Bowen Lane, Melbourne (AUS). Lighting design and landscape architect: RMIT.



[M]

[EE]

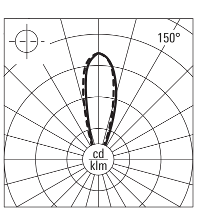
[EES]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

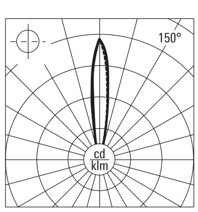
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC330-FS	12 LED 24W/700 mA	**185-7488**	2951	**185-7493**	2951	2378	13°/17°	15°/15°
ESC340-FS	24 LED 36W/500 mA	**185-7720**	4435	**185-7723**	4435	2378	13°/17°	15°/15°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC330-FS	12 LED 24W/700 mA	**185-7489**	2951	**185-7494**	2951	7672	7°/8°	7°/7°
ESC340-FS	24 LED 36W/500 mA	**185-7721**	4435	**185-7724**	4435	7672	7°/8°	7°/7°

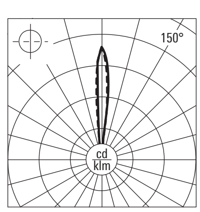
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ESC330-FS	12 LED 24W/700 mA	**185-7490**	2951	**185-7495**	2951	17197	4°/6°	5°/5°
ESC340-FS	24 LED 36W/500 mA	**185-7722**	4435	**185-7725**	4435	17197	4°/6°	5°/5°



[M]

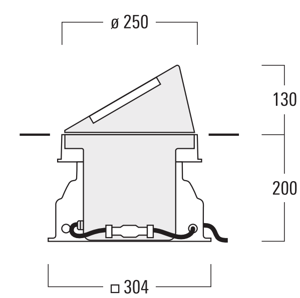


[EE]

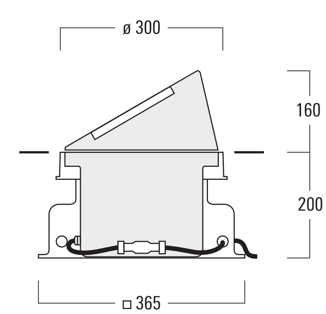


[EES]

ESC330-FS



ESC340-FS



Accessories:

Dimming interface

1-10 V	for ESC330/340-FS	**430-0011**
DALI	for ESC330/340-FS	**430-0013**

ETV100 SERIES

[Factory-sealed] Inground uplight. IP67. IK08. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Safety glass lens. Silicone rubber gasket. Complete with cable gland and 0.5 m of flexible PVC-free cable. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading.

Installation blockout (for single or multiple luminaire configuration) and sealable junction box required, to be ordered separately.

Light source:
LED 15-44 W, 3000 K and 4000 K, RGBW

Available distributions:
[LB] [LM] [LE] [LEE] [LA10]

Accessories:
- **1-10 V dimming, DALI or DMX interface, refer to www.we-ef.com**

IOS® **[LB]** **[LM]**

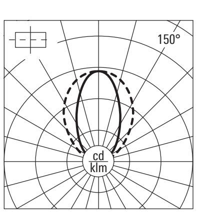
IOS® Innovative Optical System:
[LB] Symmetric linear distribution, wide beam
[LM] Symmetric linear distribution, medium beam

[LB]		3000 K	lm*	4000 K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV120	120 LED 15W	**186-0236**	2250	**186-0237**	2250	430	29°/29°	45°/45°
ETV130	180 LED 22.5W	**186-0251**	3375	**186-0252**	3375	430	29°/29°	45°/45°
ETV140	240 LED 30W	**186-0266**	4500	**186-0267**	4500	430	29°/29°	45°/45°

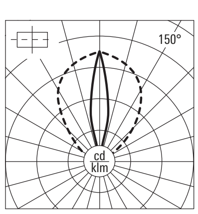
[LB]		RGBW	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV130	96 LED 33W	**186-0253**	3206	430	29°/29°	45°/45°
ETV140	128 LED 44W	**186-0268**	4275	430	29°/29°	45°/45°

[LM]		3000 K	lm*	4000 K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV120	120 LED 15W	**186-0239**	2250	**186-0240**	2250	827	14°/14°	49°/49°
ETV130	180 LED 22.5W	**186-0254**	3375	**186-0255**	3375	827	14°/14°	49°/49°
ETV140	240 LED 30W	**186-0269**	4500	**186-0270**	4500	827	14°/14°	49°/49°

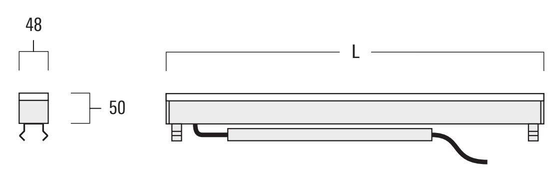
[LM]		RGBW	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV130	96 LED 33W	**186-0256**	3206	827	14°/14°	49°/49°
ETV140	128 LED 44W	**186-0271**	4275	827	14°/14°	49°/49°



[LB]



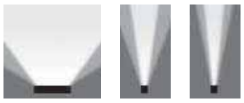
[LM]



Product Dimensions:

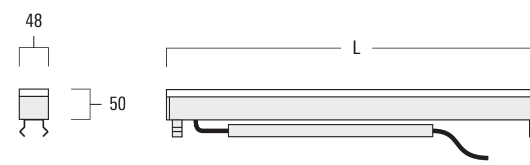
ETV100 series	L
ETV120	627
ETV130	927
ETV140	1227

* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.



IOS® [LE] [LEE]

IOS® Innovative Optical System:
[LE] Symmetric linear distribution, narrow beam
[LEE] Symmetric linear distribution, very narrow beam



[LE]		3000 K	lm*	4000 K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV120	120 LED 15W	**186-0242**	2250	**186-0243**	2250	1097	8°/8°	42°/42°
ETV130	180 LED 22.5W	**186-0257**	3375	**186-0258**	3375	1097	8°/8°	42°/42°
ETV140	240 LED 30W	**186-0272**	4500	**186-0273**	4500	1097	8°/8°	42°/42°

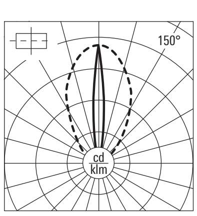
[LE]		RGBW	lm*			cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV130	96 LED 33W	**186-0259**	3206			1097	8°/8°	42°/42°
ETV140	128 LED 44W	**186-0274**	4275			1097	8°/8°	42°/42°

[LEE]		3000 K	lm*	4000 K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV120	120 LED 15W	**186-0245**	2250	**186-0246**	2250	1594	6°/6°	42°/42°
ETV130	180 LED 22.5W	**186-0260**	3375	**186-0261**	3375	1594	6°/6°	42°/42°
ETV140	240 LED 30W	**186-0275**	4500	**186-0276**	4500	1594	6°/6°	42°/42°

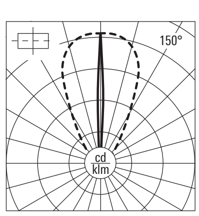
[LEE]		RGBW	lm*			cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV130	96 LED 33W	**186-0262**	3206			1594	6°/6°	42°/42°
ETV140	128 LED 44W	**186-0277**	4275			1594	6°/6°	42°/42°

Product Dimensions:

ETV100 series	L
ETV120	627
ETV130	927
ETV140	1227



[LE]



[LEE]

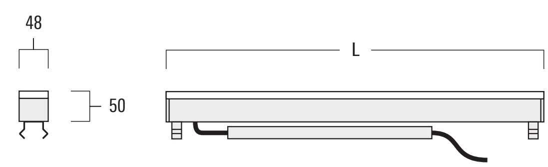
* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.


IOS® **[LA10]**

IOS® Innovative Optical System:
[LA10] Asymmetric linear distribution, wallwash

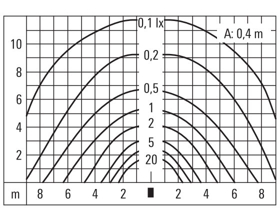
[LA10]		3000 K	lm*	4000 K	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV120	120 LED 15W	**186-0248**	2250	**186-0249**	2250	959	17°/12°	43°/43°
ETV130	180 LED 22.5W	**186-0263**	3375	**186-0264**	3375	959	17°/12°	43°/43°
ETV140	240 LED 30W	**186-0278**	4500	**186-0279**	4500	959	17°/12°	43°/43°

[LA10]		RGBW	lm*	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETV130	96 LED 33W	**186-0265**	3206	959	17°/12°	43°/43°
ETV140	128 LED 44W	**186-0280**	4275	959	17°/12°	43°/43°



Product Dimensions:

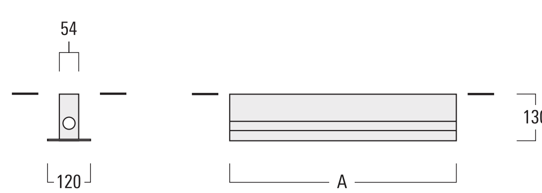
ETV100 series	L
ETV120	627
ETV130	927
ETV140	1227



[LA10]

Accessories:

Installation blockout		A
for 1 x ETV120	**186-0281**	675
for 2 x ETV120	**186-0282**	1304
for 3 x ETV120	**186-0283**	1933
for 4 x ETV120	**186-0284**	2562
for 1 x ETV130	**186-0285**	975
for 2 x ETV130	**186-0286**	1905
for 3 x ETV130	**186-0287**	2833
for 4 x ETV130	**186-0288**	3762
for 1 x ETV140	**186-0289**	1275
for 2 x ETV140	**186-0290**	2504
for 3 x ETV140	**186-0291**	3733
for 4 x ETV140	**186-0292**	4962



Sealable junction box – For Inground mains connection.

SJB	for ETV120/130/140	**185-1624**

* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

ETT100-FS SERIES – MARKER LIGHT

[Factory-sealed] Inground luminaire. IP67. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Safety glass lens with opal diffuser, max. load 3 tonnes. Silicone rubber gasket. Complete with cable gland and 1.5 m of flexible PVC-free cable. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading.

Luminaire installation blockout and sealable junction box included in supply.

Colour filters available on request.

ASC® Anti Slip Coating available on request.

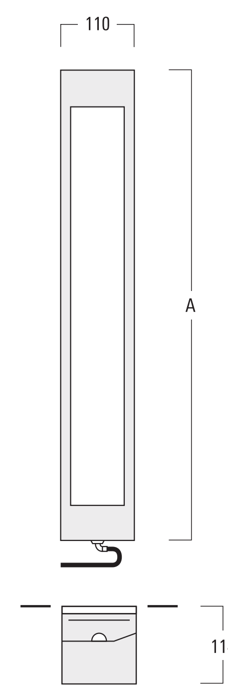
Light source:
LED 15-39 W, 3000 K and 4000 K

Available distribution:
Diffused

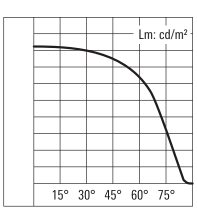
Accessories:
1-10 V dimming, DALI interface, refer to www.we-ef.com

LED

Castle Hill. Sydney (AUS). Architect: Environmental Partnerships NSW. Lighting design: Lighting, Art + Science.

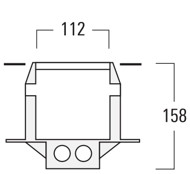


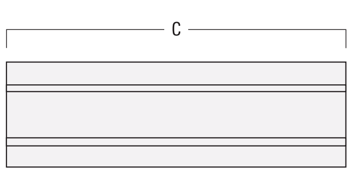
Diffused		3000 K	lm	Lm [cd/m²]	4000 K	lm	Lm [cd/m²]
ETT139-FS	30 LED 15W/125 mA	**186-8839**	405	2340	**186-8139**	440	2543
ETT149-FS	42 LED 21W/125 mA	**186-8849**	608	2330	**186-8149**	661	2532
ETT159-FS	60 LED 30W/125 mA	**186-8859**	810	2525	**186-8159**	880	2744
ETT169-FS	78 LED 39W/125 mA	**186-8869**	1052	2525	**186-8169**	1144	2744



Diffused

Length	A (luminaire)	C (installation blockout)
ETT139-FS	700	710
ETT149-FS	1000	1010
ETT159-FS	1300	1310
ETT169-FS	1600	1610





ETT100-FS SERIES – WALLWASH

[Factory-sealed] Inground uplight. IP67. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Safety glass lens, max. load 3 tonnes. Silicone rubber gasket. Complete with cable gland and 1.5 m of flexible PVC-free cable. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading.

Luminaire installation blockout and sealable junction box included in supply.

Colour filters available on request.

ASC® Anti Slip Coating available on request.

Light source:
LED 24-60 W, 3000 K and 4000 K

Available distribution:
[A20]

Accessories:
1-10 V dimming, DALI interface, refer to www.we-ef.com

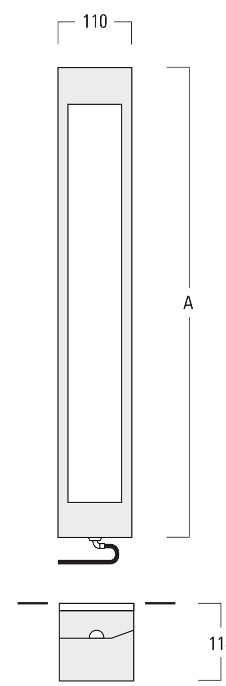
IOS®

LED

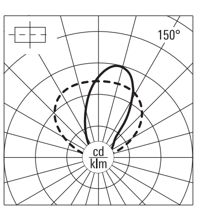
University Rose Garden. Hobart (AUS). Lighting design: ECOS.

[A20]

IOS® Innovative Optical System:
[A20] Asymmetric distribution, wallwash

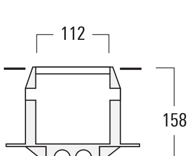


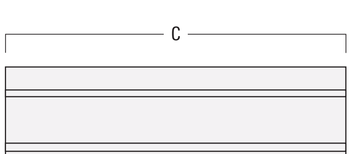
[A20]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}	$C_{90}C_{270}$
ETT130-FS	48 LED 24W/350 mA	**186-8503**	2521	**186-8504**	2740	242	24°/29°	61°/61°
ETT140-FS	72 LED 36W/350 mA	**186-8505**	3781	**186-8506**	4110	242	24°/29°	61°/61°
ETT150-FS	96 LED 48W/350 mA	**186-8507**	5042	**186-8508**	5480	242	24°/29°	61°/61°
ETT160-FS	120 LED 60W/350 mA	**186-8509**	6302	**186-8510**	6850	242	24°/29°	61°/61°



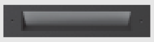
[A20]

Length	A (luminaire)	C (installation blockout)
ETT130-FS	700	710
ETT140-FS	1000	1010
ETT150-FS	1300	1310
ETT160-FS	1600	1610

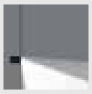




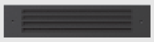
WALL LUMINAIRES RECESSED



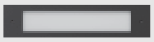
STF100 SERIES – LED
Page 58-59
[A75] Floor grazer



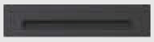
[A75]



STL100/SVL100 SERIES – LED
Page 60-61
Shielded distribution



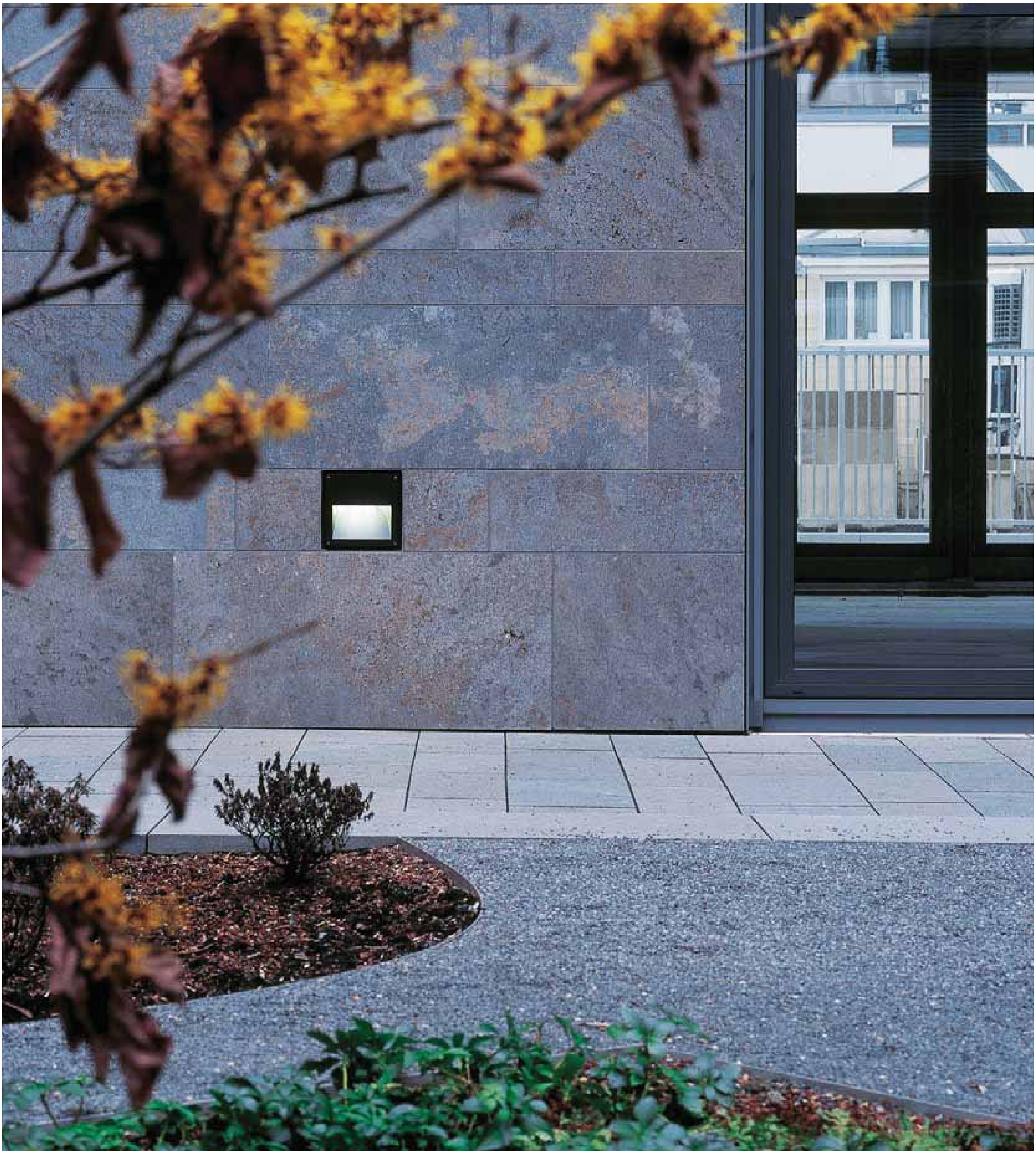
STO100/200 SERIES – LED
Page 62-63
Diffused distribution



STI100/200 SERIES – LED
Page 64-65
'Forward throw' distribution

QRO300 SERIES – LED
Page 66-67
Diffused distribution

QRI300 SERIES – LED
Page 68-69
'Forward throw' distribution



STF100 SERIES

[Factory-sealed] Steplight. IP66. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries.

1-10 V analogue dimming or DALI interface available on request. One cable entry.

Pre-installation blockout is recommended for mounting in concrete, available on request.

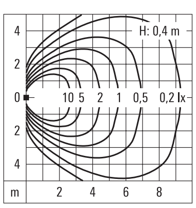
Light source:
LED 6 W, 3000 K and 4000 K

Available distribution:
[A75]

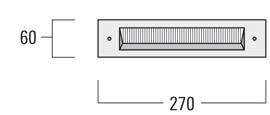
[A75]

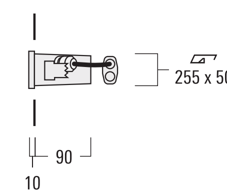
IOS® Innovative Optical System:
[A75] Floor grazer

[A75]		3000 K	lm	Factor*	4000 K	lm	Factor*
STF134	LED 6 W/500 mA	**190-9011**	710	0.95	**190-9012**	750	1.00



[A75]



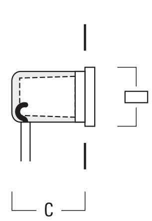


Accessories:
Dimming interface

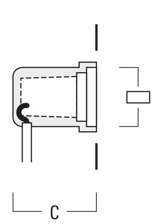
1-10 V	for STF134	**430-0011**
DALI	for STF134	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BST13-I	for STF134	**190-9030**	125

Installation blockout – Luminaire frame flush with surface.			C
BST13-II	for STF134	**190-9031**	135



BST-I



BST-II

* Multiplier for isolux values.

STL100/SVL100 SERIES

[Factory-sealed] Steplight. IP66. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Two cable entries.

1-10 V analogue dimming or DALI interface available on request. One cable entry.

Pre-installation blockout is recommended for mounting in concrete, available on request.

Light source:
LED 6 W, 3000 K and 4000 K

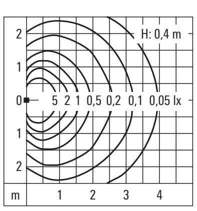
Available distribution:
Shielded

LED

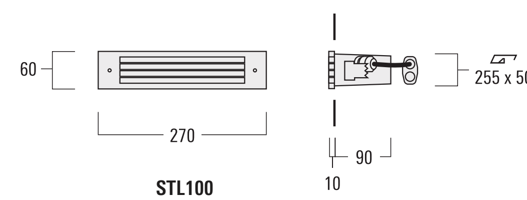
STL200

SVL200

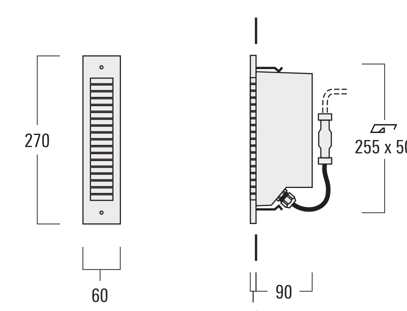
Shielded		3000 K	lm	Factor*	4000 K	lm	Factor*
STL134	LED 6W/500 mA	**190-9005**	710	0.95	**190-9006**	750	1.00
SVL134	LED 6W/500 mA	**190-9017**	710	0.95	**190-9018**	750	1.00



Shielded



STL100



SVL100

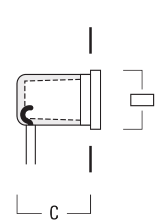
Accessories:

Dimming interface

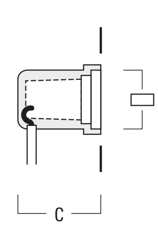
1-10 V	for STL/SVL134	**430-0011**
DALI	for STL/SVL134	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BST13-I	for STL/SVL134	**190-9030**	125

Installation blockout – Luminaire frame flush with surface.			C
BST13-II	for STL/SVL134	**190-9031**	135



BST-I



BST-II

* Multiplier for isolux values.

STO100/200 SERIES

Steplight. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Silicone rubber gasket.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Two cable entries.

1-10 V analogue dimming or DALI interface available on request. One cable entry.

STO100 series: IP66. IK10. Polycarbonate lens. Luminaire is factory-sealed and does not need to be opened during installation.

STO200 series: IP55. IK10. Polycarbonate lens.

Special version with VA stainless steel frame available.

Pre-installation blockout is recommended for mounting in concrete, available on request.

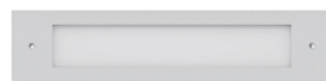
Light source:
LED 6-9 W, 3000 K and 4000 K

Available distribution:
Diffused

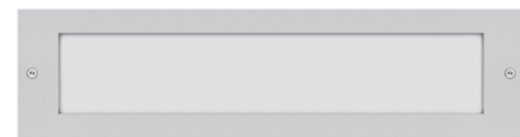
Drift Park. Rhyl, North Wales (UK). Landscape architect: Brock Carmichael Landscape Architects.

STO100

STO200

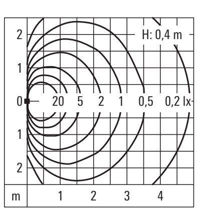


STO100 VA

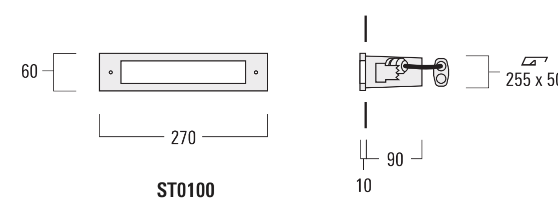


STO200 VA

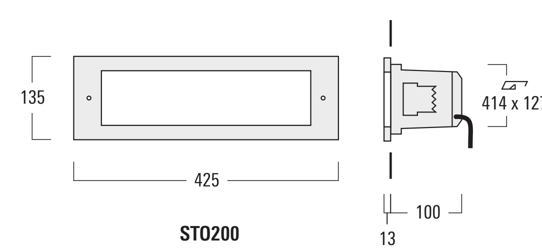
Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
STO134	LED 6W/500 mA	**190-9002**	710	0.95	**190-9003**	750	1.00
STO134 - VA	LED 6W/500 mA	**190-9014**	710	0.95	**190-9015**	750	1.00
STO279	LED 9W/350 mA	**133-0352**	1211	1.62	**133-0353**	1211	1.62
STO279 - VA	LED 9W/350 mA	**133-0354**	1211	1.62	**133-0355**	1211	1.62



Diffused



STO100



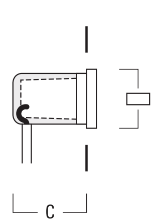
STO200

Accessories:

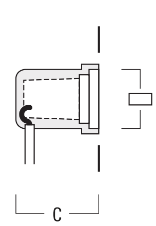
Dimming interface		
1-10 V	for STO134/STO279	**430-0011**
DALI	for STO134/STO279	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BST13-I	for STO134	**190-9030**	125
BST27-I	for STO279	**133-0217**	130

Installation blockout – Luminaire frame flush with surface.			C
BST13-II	for STO134	**190-9031**	135
BST27-II	for STO279	**133-0219**	145



BST-I



BST-II

* Multiplier for isolux values.

STI100/200 SERIES

Steplight. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Silicone rubber gasket.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Two cable entries.

1-10 V analogue dimming or DALI interface available on request. One cable entry.

STI100 series: IP66. IK10. Polycarbonate lens. Luminaire is factory-sealed and does not need to be opened during installation.

STI200 series: IP55. IK10. Safety glass lens.

Pre-installation blockout is recommended for mounting in concrete, available on request.

Light source:
LED 6-9 W, 3000 K and 4000 K

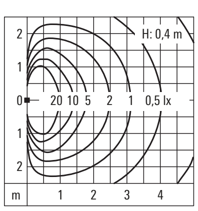
Available distribution:
'Forward throw'

Castle square. Lenzen (D).

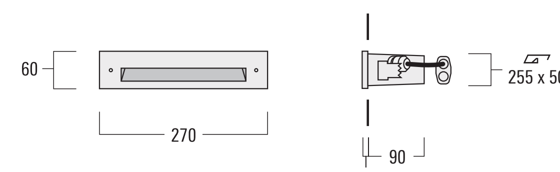
STI100

STI200

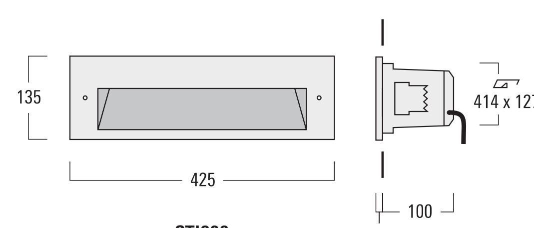
'Forward throw'		3000 K	lm	Factor*	4000 K	lm	Factor*
STI134	LED 6W/500 mA	**190-9008**	710	0.95	**190-9009**	750	1.00
STI279	LED 9W/350 mA	**133-0402**	1211	1.62	**133-0403**	1211	1.62



'Forward throw'



STI100



STI200

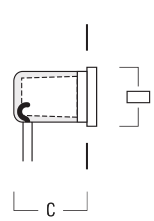
Accessories:

Dimming interface

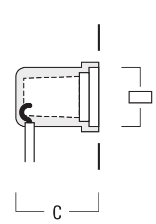
1-10 V	for STI134/279	**430-0011**
DALI	for STI134/279	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BST13-I	for STI134	**190-9030**	125
BST27-I	for STI279	**133-0217**	130

Installation blockout – Luminaire frame flush with surface.			C
BST13-II	for STI134	**190-9031**	135
BST27-II	for STI279	**133-0219**	145



BST-I



BST-II

* Multiplier for isolux values.

QRO300 SERIES

Recessed luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gasket. Two cable entries.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface available on request.

Pre-installation blockout is recommended for mounting in concrete, available on request.

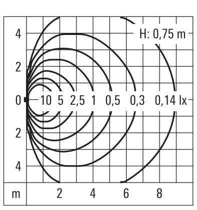
Light source:
LED 12-24 W, 3000 K and 4000 K

Available distribution:
Diffused

LED

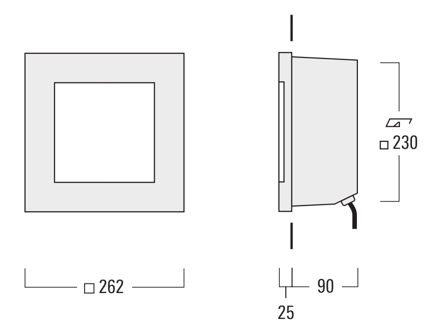
Train station Berlin Südkreuz. Berlin (D). Architect: J.S.K. GmbH. Lighting design: DE Consult.

Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
QRO359	LED 12W/350 mA	**197-0041**	1860	1.00	**197-0042**	1915	1.03
QRO379	LED 24W/700 mA	**197-9081**	3795	2.04	**197-9082**	3940	2.12

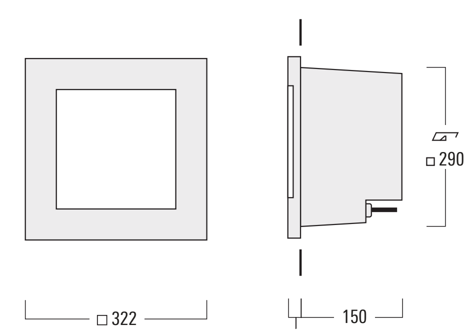


Diffused

QRO359



QRO379



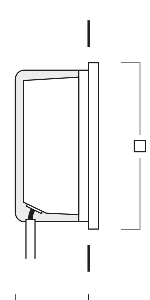
Accessories:

Dimming interface

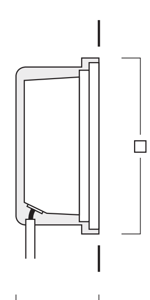
1-10 V	for QRO359/379	**430-0011**
DALI	for QRO359/379	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BQR25-I	for QRO359	**197-0129**	125
BQR30-I	for QRO379	**197-0131**	180

Installation blockout – Luminaire frame flush with surface.			C
BQR25-II	for QRO359	**197-0132**	150
BQR30-II	for QRO379	**197-0134**	205



BQR-I



BQR-II

* Multiplier for isolux values.

QRI300 SERIES

Recessed luminaire. IP55. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Two cable entries.

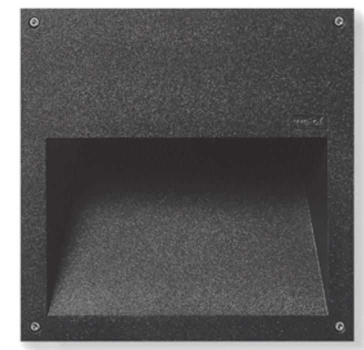
Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface available on request.

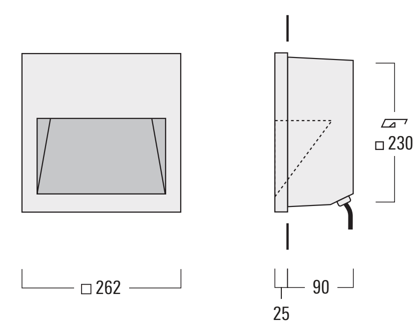
Pre-installation blockout is recommended for mounting in concrete, available on request.

Light source:
LED 6-12 W, 3000 K and 4000 K

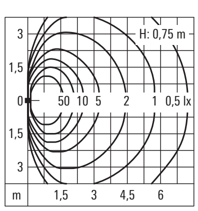
Available distribution:
'Forward throw'

John Curtain School of Medical Research. Canberra (AUS). Architect: Lyons. Lighting design: Umow Lai & Associates.





'Forward throw'		3000 K	lm	Factor*	4000 K	lm	Factor*
QRI354	LED 6W/500 mA	**197-9083**	710	0.47	**197-9085**	750	0.5
QRI354	LED 12W/500 mA	**197-9084**	1420	0.95	**197-9086**	1500	1.0



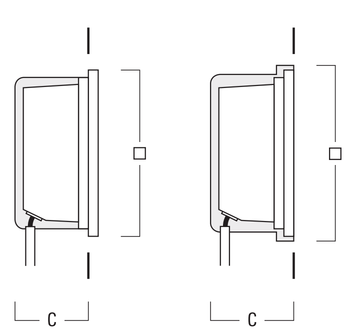
'Forward throw'

Accessories:

Dimming interface		
1-10 V	for QRI354	**430-0011**
DALI	for QRI354	**430-0013**

Installation blockout – Luminaire frame proud of surface.			C
BQR25-I	for QRI354	**197-0129**	125

Installation blockout – Luminaire frame flush with surface.			C
BQR25-II	for QRI354	**197-0132**	150

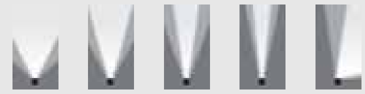


BQR-I **BQR-II**

* Multiplier for isolux values.

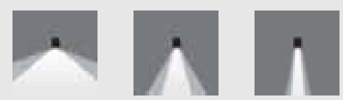
WALL LUMINAIRES SURFACE MOUNTED

VLR100 SERIES – LED
Page 72-75
[LB] Symmetric linear distribution, wide beam
[LM] Symmetric linear distribution, medium beam
[LE] Symmetric linear distribution, narrow beam
[LEE] Symmetric linear distribution, very narrow beam
[LA10] Asymmetric linear distribution, wallwash



[LB] [LM] [LE] [LEE] [LA10]

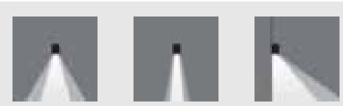
QLS400 SERIES – LED
Page 76-79
[S] 'Side throw' distribution
[M] Medium beam
[EE] Very narrow beam
[M/S] Medium beam up, 'side throw' down
[EE/S] Very narrow beam up, 'side throw' down
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down



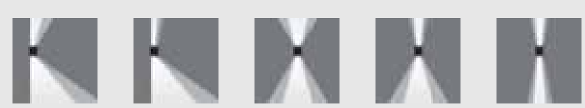
[S] [M] [EE]

[M/S] [EE/S] [M/M] [EE/M] [EE/EE]

VLS400 SERIES – LED
Page 80-83
[M] Medium beam
[EE] Very narrow beam
[A60] Asymmetric 'forward throw' distribution
[M/A60] Medium beam up, 'forward throw' down
[EE/A60] Very narrow beam up, 'forward throw' down
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down

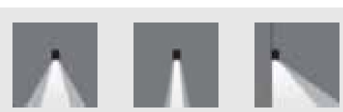


[M] [EE] [A60]

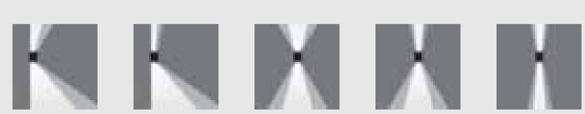


[M/A60] [EE/A60] [M/M] [EE/M] [EE/EE]

SLS400 SERIES – LED
Page 84-87
[M] Medium beam
[EE] Very narrow beam
[A60] Asymmetric 'forward throw' distribution
[M/A60] Medium beam up, 'forward throw' down
[EE/A60] Very narrow beam up, 'forward throw' down
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down

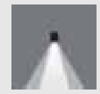


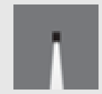
[M] [EE] [A60]

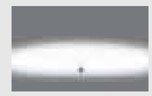


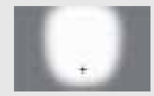
[M/A60] [EE/A60] [M/M] [EE/M] [EE/EE]

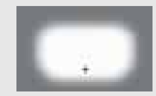
OLV300 SERIES – LED
Page 88-91
[M] Symmetric distribution, medium beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'
[S70] 'Side throw' distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution


[M]

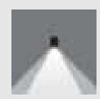

[EES]

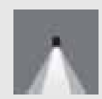

[S70]

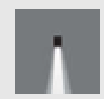

[A60]


[R65]

FLC102 SERIES – LED
Page 92-93
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

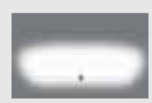

[B]

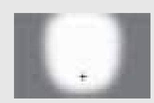

[M]

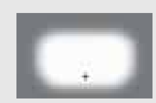

[EE]


[EES]

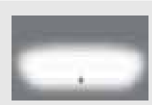
FLA400 #5 SERIES – LED
Page 94-97
[S65] 'Side throw' distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

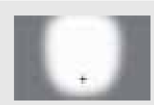

[S65]

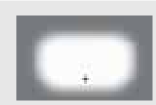

[A60]


[R65]

PIA200 SERIES – LED
Page 98-101
[S65] 'Side throw' distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution


[S65]


[A60]


[R65]

XLO200 SERIES – LED
DLO200 DLG200 SERIES – LED
DLS200 DLB200 SERIES – LED
Page 102-105
Diffused distribution

QLO200 SERIES – LED
Page 106-107
Diffused distribution

VLR100 SERIES

[Factory-sealed] Linear wallwasher. IP68. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. PMMA lens. Silicone rubber gaskets. IP68 cable connector and 1.5 m of flexible PVC-free cable. Luminaire is factory-sealed and does not need to be opened during installation.

Integral electronic DALI converter in thermally-separated compartment – with the exception of VLR110, remote IP66 DALI converter is included in supply. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading.

Light source:
LED 7.5-37.5 W, 3000 K and 4000 K

Available distributions:
[LB] [LM] [LE] [LEE] [LA10]

Heiligendamm Pier. Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr. Ing. Thomas Röhmhild.

IOS®

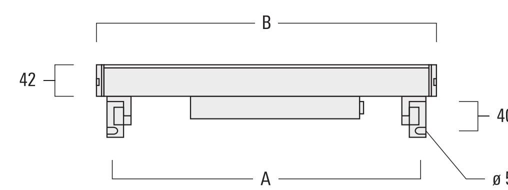
[LB]

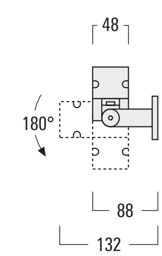
[LM]

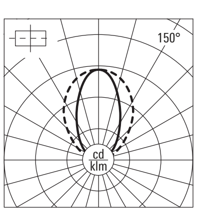
IOS® Innovative Optical System:
[LB] Symmetric linear distribution, wide beam
[LM] Symmetric linear distribution, medium beam

[LB]		3000 K	lm*	4000 K	lm*	C_0C_{180}	$C_{90}C_{270}$	cd/klm
VLR110	60 LED 7.5W	**187-0023**	1125	**187-0034**	1125	29°/29°	45°/45°	430
VLR120	120 LED 15W	**187-0024**	2250	**187-0038**	2250	29°/29°	45°/45°	430
VLR130	180 LED 22.5W	**187-0025**	3375	**187-0042**	3375	29°/29°	45°/45°	430
VLR140	240 LED 30W	**187-0026**	4500	**187-0046**	4500	29°/29°	45°/45°	430
VLR150	300 LED 37.5W	**187-0027**	5625	**187-0047**	5625	29°/29°	45°/45°	430

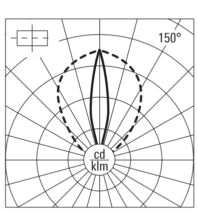
[LM]		3000 K	lm*	4000 K	lm*	C_0C_{180}	$C_{90}C_{270}$	cd/klm
VLR110	60 LED 7.5W	**187-0001**	1125	**187-0031**	1125	14°/14°	49°/49°	827
VLR120	120 LED 15W	**187-0002**	2250	**187-0035**	2250	14°/14°	49°/49°	827
VLR130	180 LED 22.5W	**187-0003**	3375	**187-0039**	3375	14°/14°	49°/49°	827
VLR140	240 LED 30W	**187-0004**	4500	**187-0043**	4500	14°/14°	49°/49°	827
VLR150	300 LED 37.5W	**187-0028**	5625	**187-0048**	5625	14°/14°	49°/49°	827







[LB]

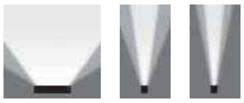


[LM]

Product Dimensions:

VLR series	A	B
VLR110	287	328
VLR120	587	628
VLR130	887	928
VLR140	1187	1228
VLR150	1487	1528

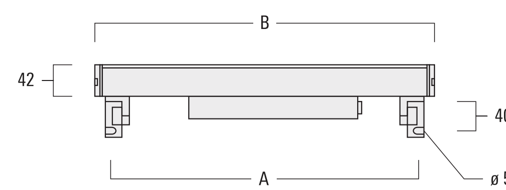
* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.



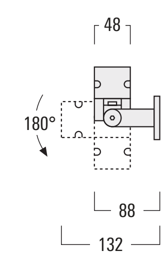
IOS® **[LE]** **[LEE]**

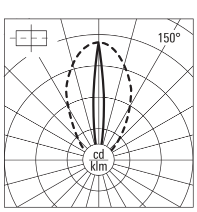
IOS® Innovative Optical System:
[LE] Symmetric linear distribution, narrow beam
[LEE] Symmetric linear distribution, very narrow beam

[LE]		3000 K	lm*	4000 K	lm*	C_0C_{180}	$C_{90}C_{270}$	cd/klm
VLR110	60 LED 7.5W	**187-0005**	1125	**187-0032**	1125	8°/8°	42°/42°	1097
VLR120	120 LED 15W	**187-0006**	2250	**187-0036**	2250	8°/8°	42°/42°	1097
VLR130	180 LED 22.5W	**187-0007**	3375	**187-0040**	3375	8°/8°	42°/42°	1097
VLR140	240 LED 30W	**187-0008**	4500	**187-0044**	4500	8°/8°	42°/42°	1097
VLR150	300 LED 37.5W	**187-0029**	5625	**187-0049**	5625	8°/8°	42°/42°	1097

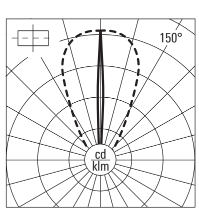


[LEE]		3000 K	lm*	4000 K	lm*	C_0C_{180}	$C_{90}C_{270}$	cd/klm
VLR110	60 LED 7.5W	**187-0009**	1125	**187-0033**	1125	6°/6°	42°/42°	1594
VLR120	120 LED 15W	**187-0010**	2250	**187-0037**	2250	6°/6°	42°/42°	1594
VLR130	180 LED 22.5W	**187-0011**	3375	**187-0041**	3375	6°/6°	42°/42°	1594
VLR140	240 LED 30W	**187-0012**	4500	**187-0045**	4500	6°/6°	42°/42°	1594
VLR150	300 LED 37.5W	**187-0030**	5625	**187-0050**	5625	6°/6°	42°/42°	1594





[LE]



[LEE]

Product Dimensions:

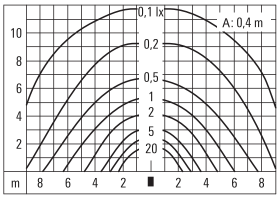
VLR series	A	B
VLR110	287	328
VLR120	587	628
VLR130	887	928
VLR140	1187	1228
VLR150	1487	1528

* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

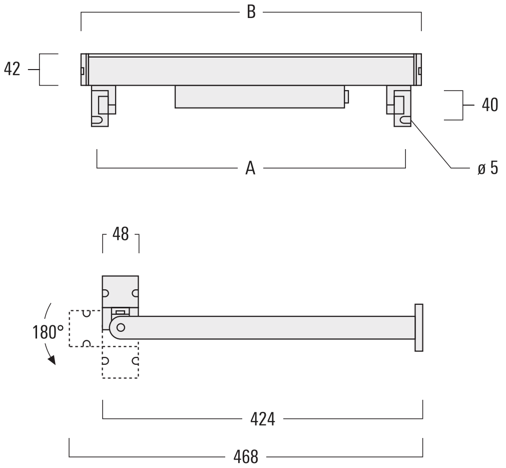
IOS® **[LA10]**

IOS® Innovative Optical System:
[LA10] Asymmetric linear distribution, wallwash

[LA10]		3000 K	lm*	4000 K	lm*	C_0C_{180}	$C_{90}C_{270}$	cd/klm
VLR120	120 LED 15W	**187-0014**	2250	**187-0329**	2250	17°/12°	43°/43°	959
VLR130	180 LED 22.5W	**187-0015**	3375	**187-0330**	3375	17°/12°	43°/43°	959
VLR140	240 LED 30W	**187-0016**	4500	**187-0331**	4500	17°/12°	43°/43°	959



[LA10]



Product Dimensions:

VLR series	A	B
VLR120	587	628
VLR130	887	928
VLR140	1187	1228

* Nominal lumens output based on LED manufacturer's data at 85°C T_J. For rated lumens at 25°C T_q and latest data refer to www.we-ef.com.

QLS400 SERIES

[Factory-sealed] Wall luminaire. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface available on request.

Luminaire can be mounted for up or down lighting.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K on request)

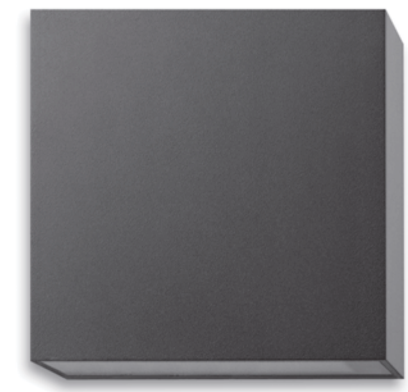
Available distributions:
[S] [M] [EE]
[M/S] [EE/S]
[M/M] [EE/M] [EE/EE]

IOS®

LED

[S] [M] [EE]

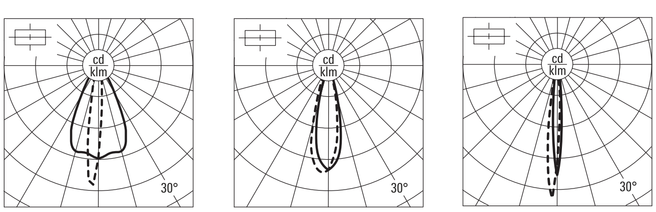
IOS® Innovative Optical System:
[S] 'Side throw' distribution
[M] Medium beam
[EE] Very narrow beam



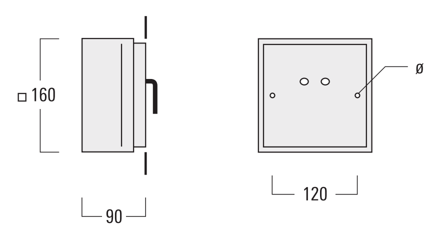
[S]		3000 K	lm	4000 K	lm	C_0C_{180}	$C_{90}C_{270}$	cd/klm
QLS410	3 LED 6W/700 mA	**131-9400**	738	**131-9403**	738	24°/24°	7°/7°	3123
QLS420	6 LED 12W/700 mA	**131-9437**	1476	**131-9440**	1476	24°/24°	7°/7°	3123

[M]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
QLS410	3 LED 6W/700 mA	**131-9401**	738	**131-9404**	738	14°/14°	3505
QLS420	6 LED 12W/700 mA	**131-9438**	1476	**131-9441**	1476	14°/14°	3505

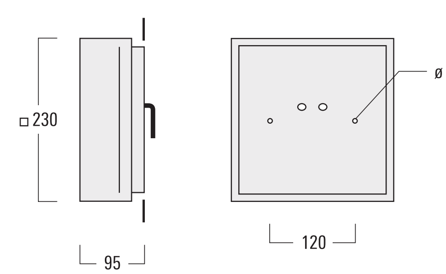
[EE]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
QLS410	3 LED 6W/700 mA	**131-9420**	738	**131-9421**	738	6°/6°	11593
QLS420	6 LED 12W/700 mA	**131-9460**	1476	**131-9461**	1476	6°/6°	11593



[S] [M] [EE]



QLS410



QLS420

Accessories:

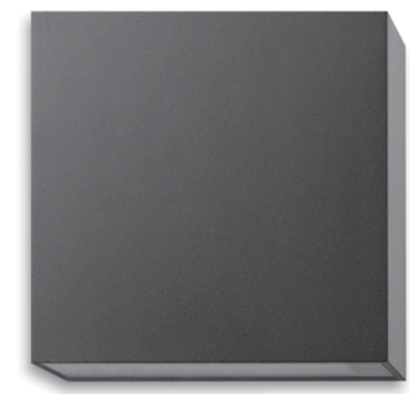
Dimming interface

1-10 V	for QLS410/420	**430-0011**
DALI	for QLS410/420	**430-0013**

[M/S]

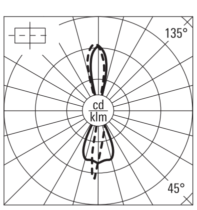
[EE/S]

IOS® Innovative Optical System:
[M/S] Medium beam up, 'side throw' down
[EE/S] Very narrow beam up, 'side throw' down

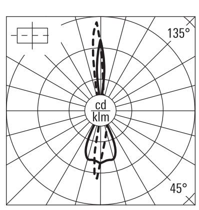


[M/S]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
QLS410	2 x 3 LED 12W/700 mA	**131-9407**	2 x 738	**131-9412**	2 x 738	14°/14°	3505	24°/24°	3123
QLS420	2 x 6 LED 24W/700 mA	**131-9444**	2 x 1476	**131-9449**	2 x 1476	14°/14°	3505	24°/24°	3123

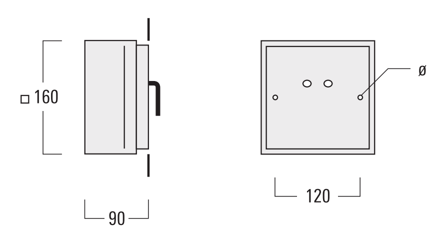
[EE/S]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
QLS410	2 x 3 LED 12W/700 mA	**131-9408**	2 x 738	**131-9413**	2 x 738	6°/6°	11593	24°/24°	3123
QLS420	2 x 6 LED 24W/700 mA	**131-9445**	2 x 1476	**131-9450**	2 x 1476	6°/6°	11593	24°/24°	3123



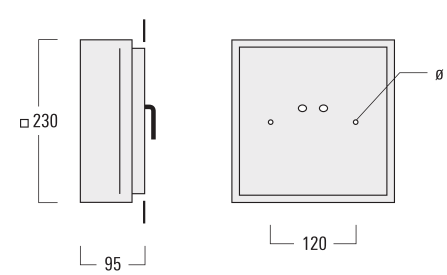
[M/S]



[EE/S]



QLS410



QLS420

Accessories:

Dimming interface

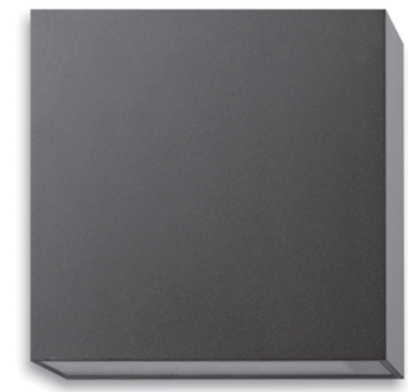
1-10 V	for QLS410/420	**430-0011**
DALI	for QLS410/420	**430-0013**


[M/M]


[EE/M]


[EE/EE]

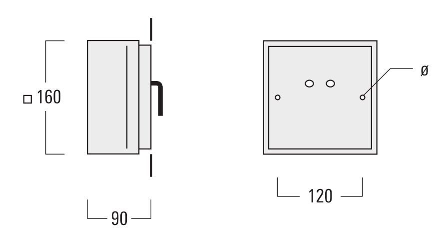
IOS® Innovative Optical System:
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down



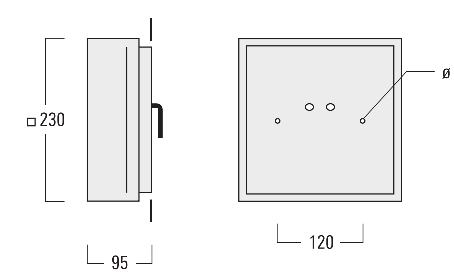
[M/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
QLS410	2 x 3 LED 12W/700 mA	**131-9409**	2 x 738	**131-9414**	2 x 738	14°/14°	3505	14°/14°	3505
QLS420	2 x 6 LED 24W/700 mA	**131-9446**	2 x 1476	**131-9451**	2 x 1476	14°/14°	3505	14°/14°	3505

[EE/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
QLS410	2 x 3 LED 12W/700 mA	**131-9410**	2 x 738	**131-9415**	2 x 738	6°/6°	11593	14°/14°	3505
QLS420	2 x 6 LED 24W/700 mA	**131-9447**	2 x 1476	**131-9452**	2 x 1476	6°/6°	11593	14°/14°	3505

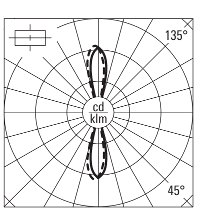
[EE/EE]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
QLS410	2 x 3 LED 12W/700 mA	**131-9416**	2 x 738	**131-9417**	2 x 738	6°/6°	11593	6°/6°	11593
QLS420	2 x 6 LED 24W/700 mA	**131-9453**	2 x 1476	**131-9454**	2 x 1476	6°/6°	11593	6°/6°	11593



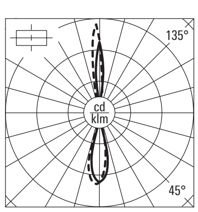
QLS410



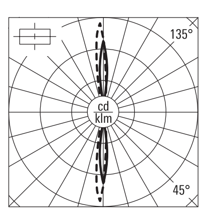
QLS420



[M/M]



[EE/M]



[EE/EE]

Accessories:
Dimming interface

1-10 V	for QLS410/420	**430-0011**
DALI	for QLS410/420	**430-0013**

VLS400 SERIES

[Factory-sealed] Wall luminaire. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface available on request.

Luminaire can be mounted for up or down lighting.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K on request)

Available distributions:
[M] [EE] [A60]
[M/A60] [EE/A60]
[M/M] [EE/M] [EE/EE]

[M]

[EE]

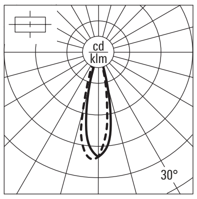
[A60]

IOS® Innovative Optical System:
[M] Medium beam
[EE] Very narrow beam
[A60] Asymmetric 'forward throw' distribution

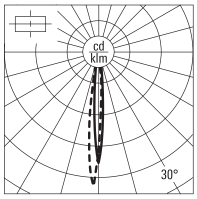
[M]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
VLS410	3 LED 6W/700 mA	**131-9503**	738	**131-9507**	738	14°/14°	3505
VLS420	6 LED 12W/700 mA	**131-9153**	1476	**131-9157**	1476	14°/14°	3505

[EE]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
VLS410	3 LED 6W/700 mA	**131-9504**	738	**131-9508**	738	6°/6°	11593
VLS420	6 LED 12W/700 mA	**131-9154**	1476	**131-9158**	1476	6°/6°	11593

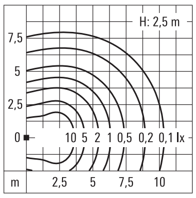
[A60]		3000 K	lm	4000 K	lm	Factor*
VLS410	3 LED 6W/700 mA	**131-9502**	738	**131-9506**	738	0.5
VLS420	6 LED 12W/700 mA	**131-9152**	1476	**131-9156**	1476	1.0



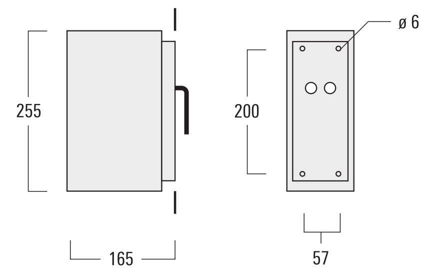
[M]

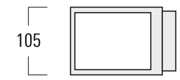


[EE]

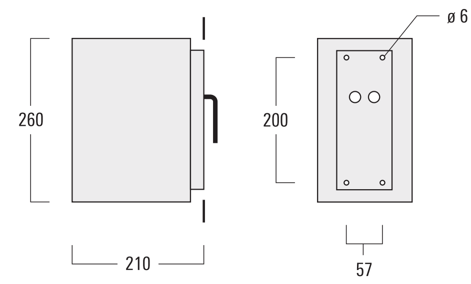


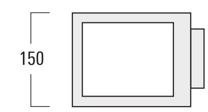
[A60]





VLS410





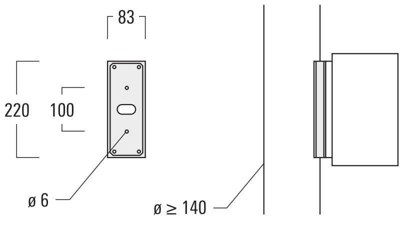
VLS420

Accessories:
Dimming interface

1-10 V	for VLS410/420	**430-0011**
DALI	for VLS410/420	**430-0013**

Column fitter

CF-410/420	for VLS410/420	**131-9140**



CF-410/420

* Multiplier for isolux values.

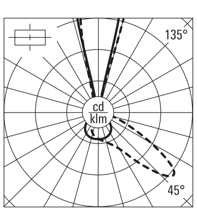
[M/A60]

[EE/A60]

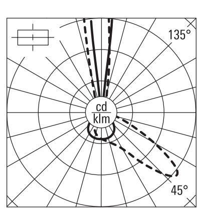
IOS® Innovative Optical System:
[M/A60] Medium beam up, 'forward throw' down
[EE/A60] Very narrow beam up, 'forward throw' down

[M/A60]		3000 K	lm	4000 K	lm	Up	cd/klm	Down Factor*
VLS410	2 x 3 LED 12W/700 mA	**131-9511**	2 x 738	**131-9517**	2 x 738	14°/14°	3505	0.5
VLS420	2 x 6 LED 24W/700 mA	**131-9161**	2 x 1476	**131-9167**	2 x 1476	14°/14°	3505	1.0

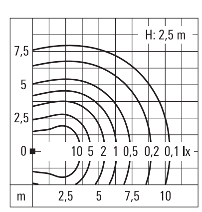
[EE/A60]		3000 K	lm	4000 K	lm	Up	cd/klm	Down Factor*
VLS410	2 x 3 LED 12W/700 mA	**131-9512**	2 x 738	**131-9518**	2 x 738	6°/6°	11593	0.5
VLS420	2 x 6 LED 24W/700 mA	**131-9162**	2 x 1476	**131-9168**	2 x 1476	6°/6°	11593	1.0



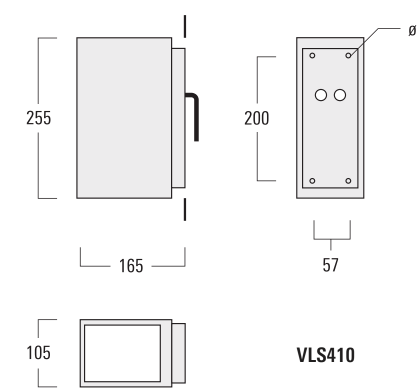
[M/A60]



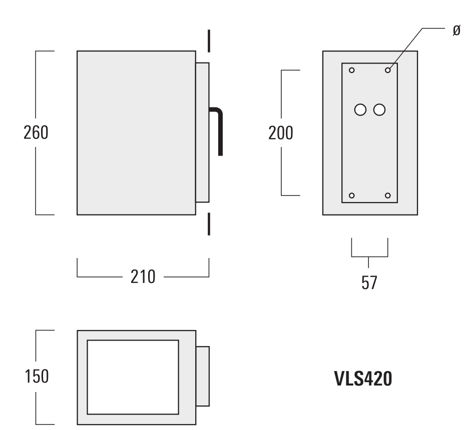
[EE/A60]



[_/A60]



VLS410



VLS420

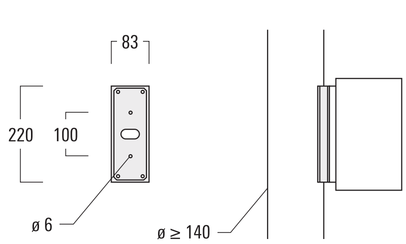
Accessories:

Dimming interface

1-10 V	for VLS410/420	**430-0011**
DALI	for VLS410/420	**430-0013**

Column fitter

CF-410/420	for VLS410/420	**131-9140**



CF-410/420

* Multiplier for isolux values.

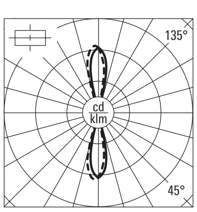
[M/M] [EE/M] [EE/EE]

IOS® Innovative Optical System:
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down

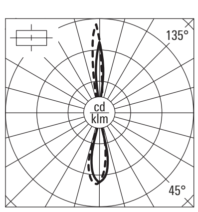
[M/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
VLS410	2 x 3 LED 12W/700 mA	**131-9513**	2 x 738	**131-9519**	2 x 738	14°/14°	3505	14°/14°	3505
VLS420	2 x 6 LED 24W/700 mA	**131-9163**	2 x 1476	**131-9169**	2 x 1476	14°/14°	3505	14°/14°	3505

[EE/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
VLS410	2 x 3 LED 12W/700 mA	**131-9514**	2 x 738	**131-9520**	2 x 738	6°/6°	11593	14°/14°	3505
VLS420	2 x 6 LED 24W/700 mA	**131-9164**	2 x 1476	**131-9170**	2 x 1476	6°/6°	11593	14°/14°	3505

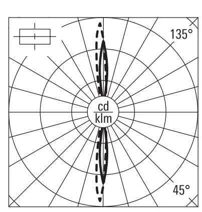
[EE/EE]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
VLS410	2 x 3 LED 12W/700 mA	**131-9515**	2 x 738	**131-9521**	2 x 738	6°/6°	11593	6°/6°	11593
VLS420	2 x 6 LED 24W/700 mA	**131-9165**	2 x 1476	**131-9171**	2 x 1476	6°/6°	11593	6°/6°	11593



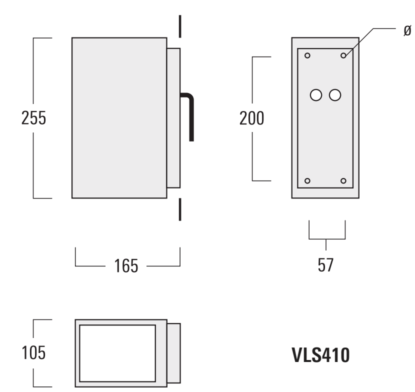
[M/M]



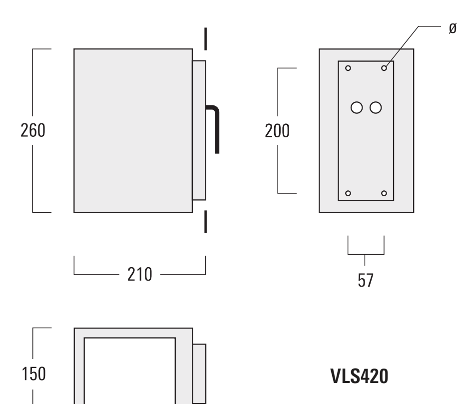
[EE/M]



[EE/EE]



VLS410



VLS420

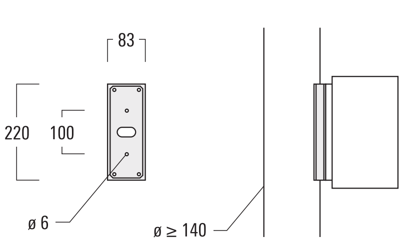
Accessories:

Dimming interface

1-10 V	for VLS410/420	**430-0011**
DALI	for VLS410/420	**430-0013**

Column fitter

CF-410/420	for VLS410/420	**131-9140**



CF-410/420

SLS400 SERIES

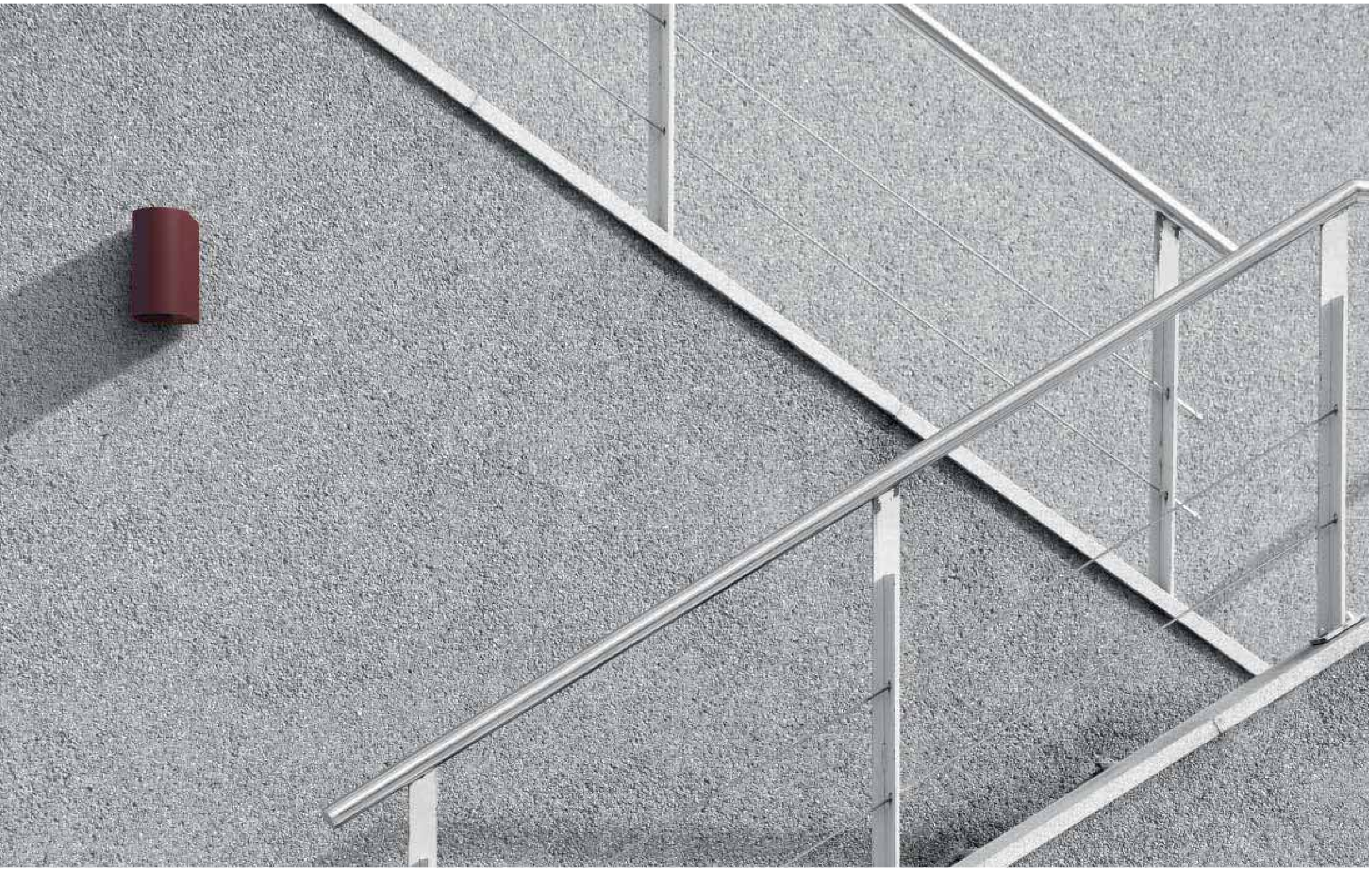
[Factory-sealed] Wall luminaire. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface available on request.

Luminaire can be mounted for up or down lighting.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K on request)

Available distributions:
[M] [EE] [A60]
[M/A60] [EE/A60]
[M/M] [EE/M] [EE/EE]



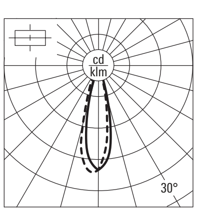
[M] [EE] [A60]

IOS® Innovative Optical System:
[M] Medium beam
[EE] Very narrow beam
[A60] Asymmetric 'forward throw' distribution

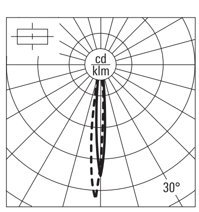
[M]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
SLS410	3 LED 6W/700 mA	**131-9473**	738	**131-9477**	738	14°/14°	3505
SLS420	6 LED 12W/700 mA	**131-9533**	1476	**131-9537**	1476	14°/14°	3505

[EE]		3000 K	lm	4000 K	lm	C_0C_{180}	cd/klm
SLS410	3 LED 6W/700 mA	**131-9474**	738	**131-9478**	738	6°/6°	11593
SLS420	6 LED 12W/700 mA	**131-9534**	1476	**131-9538**	1476	6°/6°	11593

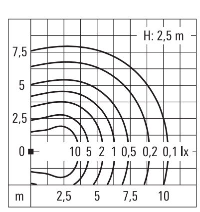
[A60]		3000 K	lm	4000 K	lm	Factor*
SLS410	3 LED 6W/700 mA	**131-9472**	738	**131-9476**	738	0.5
SLS420	6 LED 12W/700 mA	**131-9532**	1476	**131-9536**	1476	1.0



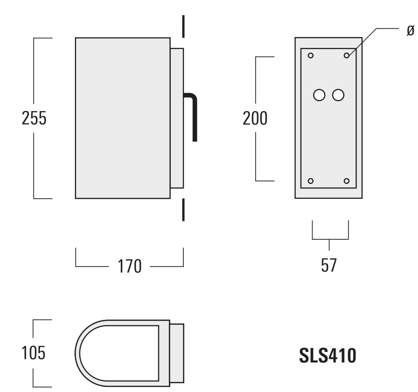
[M]



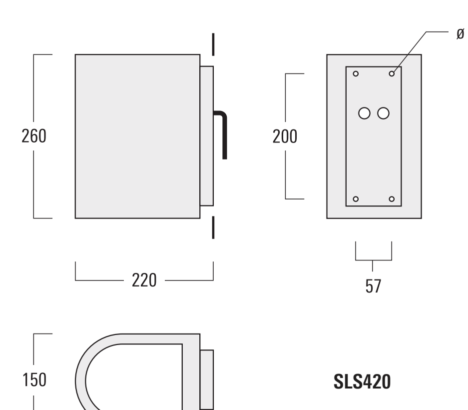
[EE]



[A60]



SLS410



SLS420

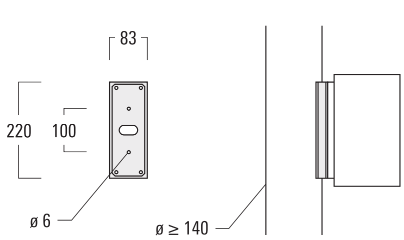
Accessories:

Dimming interface

1-10 V	for SLS410/420	**430-0011**
DALI	for SLS410/420	**430-0013**

Column fitter

CF-410/420	for SLS410/420	**131-9140**



CF-410/420

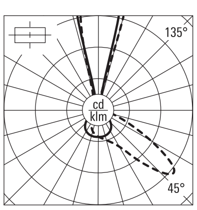
* Multiplier for isolux values.


[M/A60] **[EE/A60]**

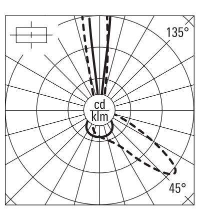
IOS® Innovative Optical System:
[M/A60] Medium beam up, 'forward throw' down
[EE/A60] Very narrow beam up, 'forward throw' down

[M/A60]		3000 K	lm	4000 K	lm	Up	cd/klm	Down Factor*
SLS410	2 x 3 LED 12W/700 mA	**131-9481**	2 x 738	**131-9487**	2 x 738	14°/14°	3505	0.5
SLS420	2 x 6 LED 24W/700 mA	**131-9541**	2 x 1476	**131-9547**	2 x 1476	14°/14°	3505	1.0

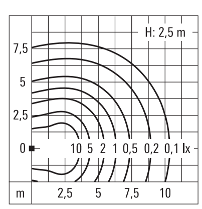
[EE/A60]		3000 K	lm	4000 K	lm	Up	cd/klm	Down Factor*
SLS410	2 x 3 LED 12W/700 mA	**131-9482**	2 x 738	**131-9488**	2 x 738	6°/6°	11593	0.5
SLS420	2 x 6 LED 24W/700 mA	**131-9542**	2 x 1476	**131-9548**	2 x 1476	6°/6°	11593	1.0



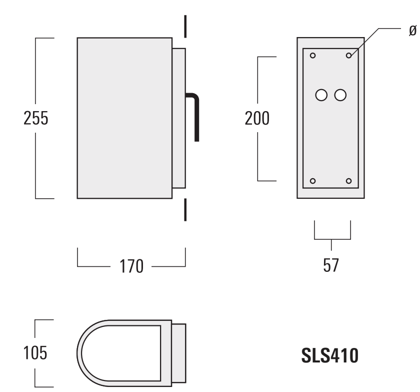
[M/A60]



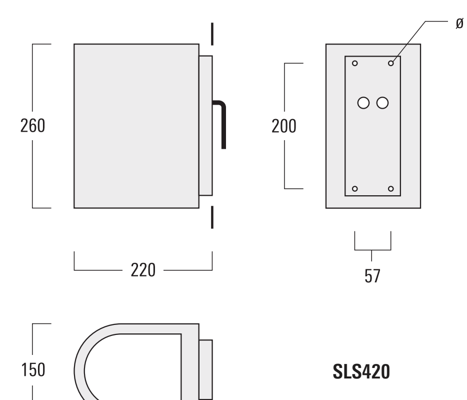
[EE/A60]



[_/A60]



SLS410



SLS420

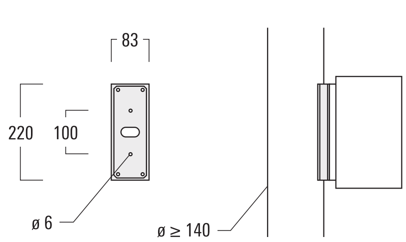
Accessories:

Dimming interface

1-10 V	for SLS410/420	**430-0011**
DALI	for SLS410/420	**430-0013**

Column fitter

CF-410/420	for SLS410/420	**131-9140**



CF-410/420

* Multiplier for isolux values.

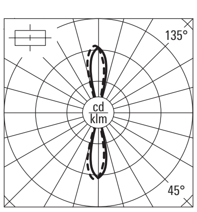
[M/M] [EE/M] [EE/EE]

IOS® Innovative Optical System:
[M/M] Medium beam, up and down
[EE/M] Very narrow beam up, medium beam down
[EE/EE] Very narrow beam, up and down

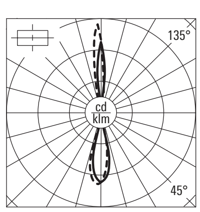
[M/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
SLS410	2 x 3 LED 12W/700 mA	**131-9483**	2 x 738	**131-9489**	2 x 738	14°/14°	3505	14°/14°	3505
SLS420	2 x 6 LED 24W/700 mA	**131-9543**	2 x 1476	**131-9549**	2 x 1476	14°/14°	3505	14°/14°	3505

[EE/M]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
SLS410	2 x 3 LED 12W/700 mA	**131-9484**	2 x 738	**131-9490**	2 x 738	6°/6°	11593	14°/14°	3505
SLS420	2 x 6 LED 24W/700 mA	**131-9544**	2 x 1476	**131-9550**	2 x 1476	6°/6°	11593	14°/14°	3505

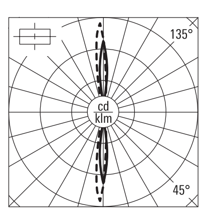
[EE/EE]		3000 K	lm	4000 K	lm	Up	cd/klm	Down	cd/klm
SLS410	2 x 3 LED 12W/700 mA	**131-9485**	2 x 738	**131-9491**	2 x 738	6°/6°	11593	6°/6°	11593
SLS420	2 x 6 LED 24W/700 mA	**131-9545**	2 x 1476	**131-9551**	2 x 1476	6°/6°	11593	6°/6°	11593



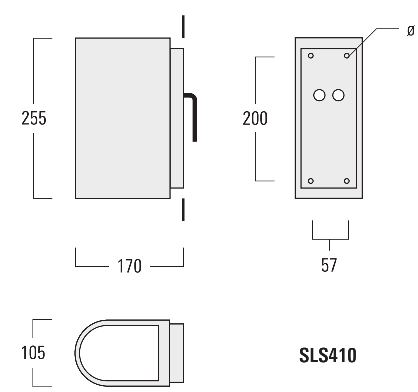
[M/M]



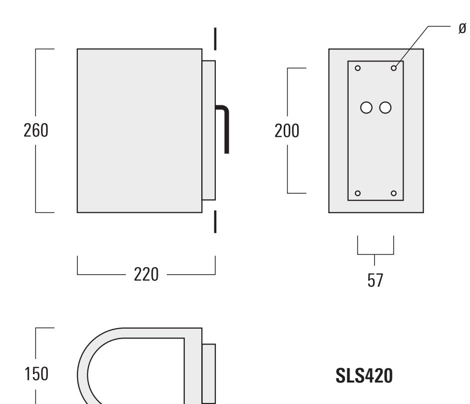
[EE/M]



[EE/EE]



SLS410



SLS420

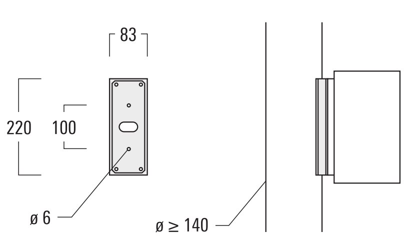
Accessories:

Dimming interface

1-10 V	for SLS410/420	**430-0011**
DALI	for SLS410/420	**430-0013**

Column fitter

CF-410/420	for SLS410/420	**131-9140**



CF-410/420

OLV300 SERIES

Wallwasher. IP65. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gasket.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries.

Luminaire can be mounted for up or down lighting.

Light source:
LED 12-48 W, 3000 K and 4000 K
(for HIT, refer to www.we-ef.com)

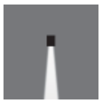
Available distributions:
[M] [EES] [S70] [A60] [R65]

IOS®

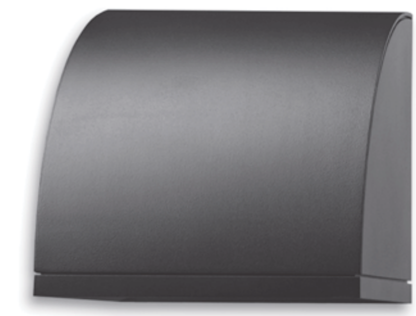
LED

Noltemeyerbrücke (Noltemeyer Bridge). Hannover (D).

[M]



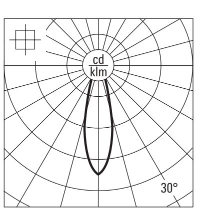
[EES]



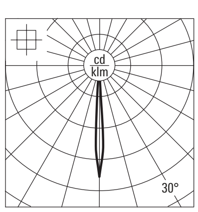
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
OLV330	12 LED 12W/350 mA	**132-0522**	1614	**132-0523**	1614	2196	16°/16°
OLV330	12 LED 18W/500 mA	**132-0532**	2217	**132-0533**	2217	2196	16°/16°
OLV340	24 LED 24W/350 mA	**132-0542**	3228	**132-0543**	3228	2196	16°/16°
OLV340	24 LED 36W/500 mA	**132-0552**	4435	**132-0553**	4435	2196	16°/16°

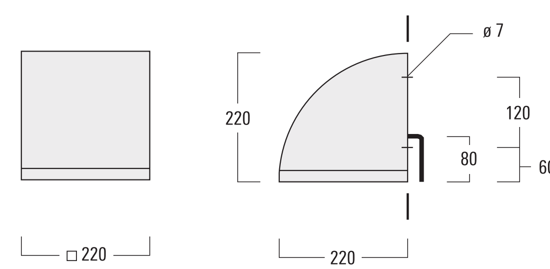
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
OLV330	12 LED 12W/350 mA	**132-0524**	1614	**132-0525**	1614	20389	5°/5°
OLV330	12 LED 18W/500 mA	**132-0534**	2217	**132-0535**	2217	20389	5°/5°
OLV340	24 LED 24W/350 mA	**132-0544**	3228	**132-0545**	3228	20389	5°/5°
OLV340	24 LED 36W/500 mA	**132-0554**	4435	**132-0555**	4435	20389	5°/5°



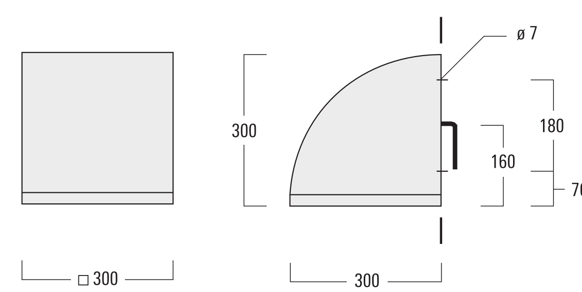
[M]



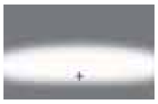
[EES]



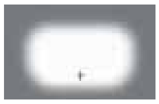
OLV330



OLV340

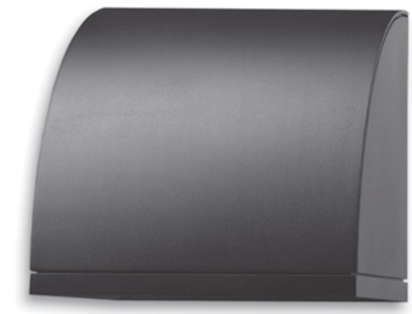


[S70]



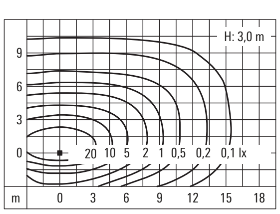
[R65]

IOS® Innovative Optical System:
[S70] 'Side throw' distribution
[R65] Rectangular 'forward throw' distribution

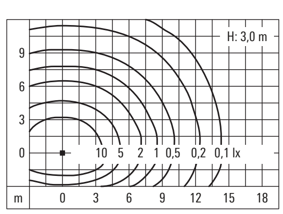


[S70]		3000 K	lm	4000 K	lm	Factor*
OLV334	12 LED 12W/350 mA	**132-0526**	1614	**132-0527**	1614	1.00
OLV334	12 LED 24W/700 mA	**132-0536**	2951	**132-0537**	2951	1.83
OLV344	24 LED 24W/350 mA	**132-0546**	3228	**132-0547**	3228	2.00
OLV344	24 LED 48W/700 mA	**132-0556**	5903	**132-0557**	5903	3.66

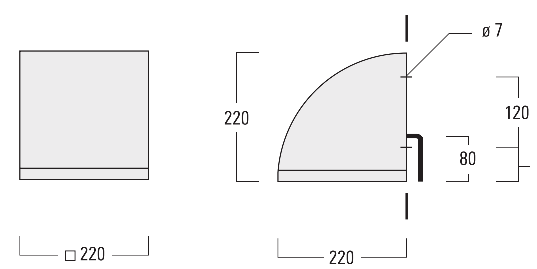
[R65]		3000 K	lm	4000 K	lm	Factor*
OLV334	12 LED 12W/350 mA	**132-0528**	1614	**132-0529**	1614	1.00
OLV334	12 LED 24W/700 mA	**132-0538**	2951	**132-0539**	2951	1.83
OLV344	24 LED 24W/350 mA	**132-0548**	3228	**132-0549**	3228	2.00
OLV344	24 LED 48W/700 mA	**132-0558**	5903	**132-0559**	5903	3.66



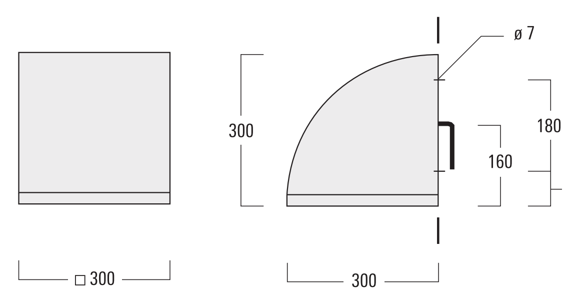
[S70]



[R65]

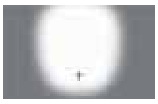


OLV334



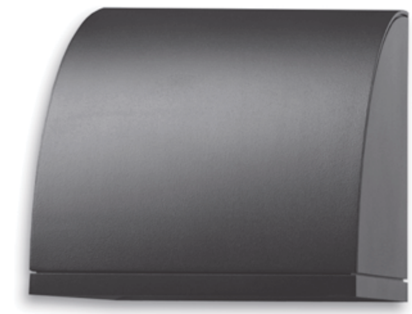
OLV344

* Multiplier for isolux values.

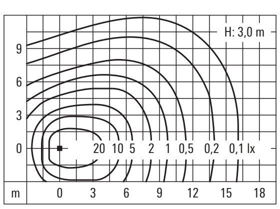


[A60]

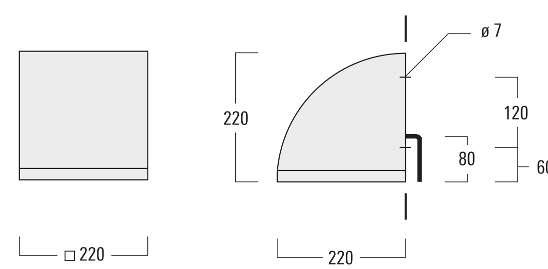
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution



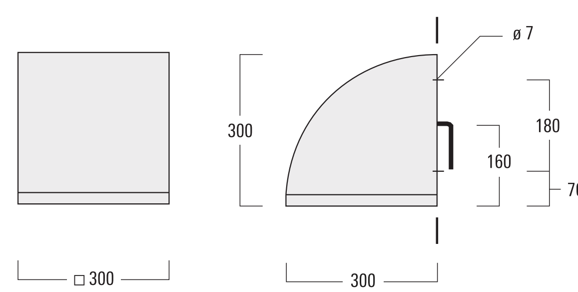
[A60]		3000 K	lm	4000 K	lm	Factor*
OLV334	12 LED 12W/350 mA	**132-0530**	1614	**132-0531**	1614	1.00
OLV334	12 LED 24W/700 mA	**132-0540**	2951	**132-0541**	2951	1.83
OLV344	24 LED 24W/350 mA	**132-0550**	3228	**132-0551**	3228	2.00
OLV344	24 LED 48W/700 mA	**132-0560**	5903	**132-0561**	5903	3.66



[A60]



OLV334



OLV344

* Multiplier for isolux values.

FLC102 SERIES

[Factory-sealed] Wallwasher. IP55. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K on request)
(for HIT, refer to www.we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

[B] **[M]** **[EE]** **[EES]**

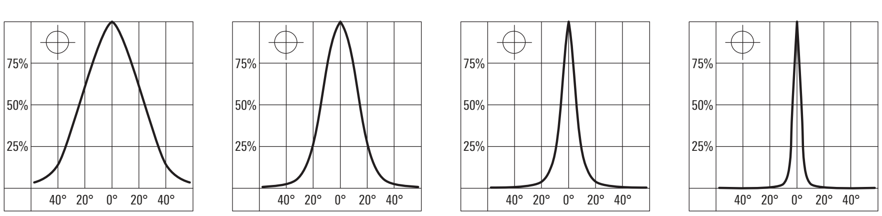
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC122	6 LED 12W/700 mA	**145-9383**	1476	**145-9385**	1476	934	25°/25°
FLC142	24 LED 48W/700 mA	**146-9959**	5903	**146-9964**	5903	934	25°/25°

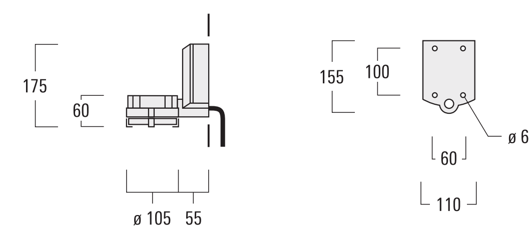
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC122	6 LED 12W/700 mA	**145-9374**	1476	**145-9377**	1476	2196	16°/16°
FLC142	24 LED 48W/700 mA	**146-9958**	5903	**146-9963**	5903	2196	16°/16°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC122	6 LED 12W/700 mA	**145-9375**	1476	**145-9378**	1476	7207	7°/7°
FLC142	24 LED 48W/700 mA	**146-9957**	5903	**146-9962**	5903	7207	7°/7°

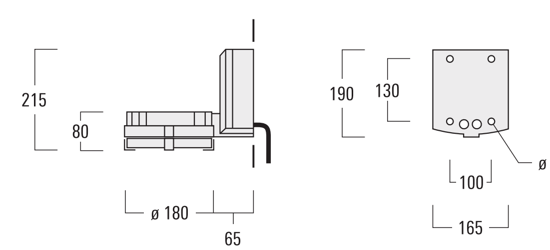
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC122	6 LED 12W/700 mA	**145-9382**	1476	**145-9384**	1476	22108	5°/5°
FLC142	24 LED 48W/700 mA	**146-9956**	5903	**146-9961**	5903	22108	5°/5°



[B] **[M]** **[EE]** **[EES]**



FLC122



FLC142

Accessories:

Dimming interface

1-10 V	for FLC122/142	**430-0011**
DALI	for FLC142	**430-0013**

FLA400 #5 SERIES

[Factory-sealed] Facade and ceiling washlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Light source:
LED 36-108 W, 3000 K and 4000 K
(2700 K on request)

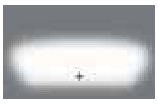
Available distributions:
[S65] [A60] [R65]

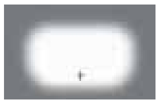
Accessories:
- **Mounting, page 97**
- **Optical, page 97**

IOS.

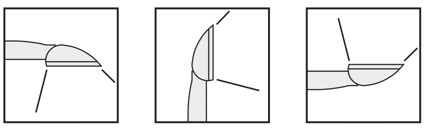
LED

02 Arena. London (UK). Architect: HOK Sports. Lighting design: ME Engineers.





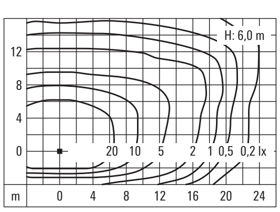
IOS® Innovative Optical System:
[S65] 'Side throw' distribution
[R65] Rectangular 'forward throw' distribution



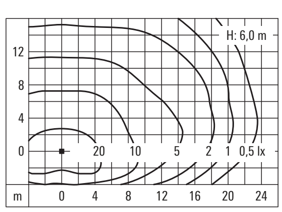
Suitable for downlighting, facade and uplighting applications.

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*
FLA441 #5	18 LED 36W/700 mA	**108-7743**	4427	0.55	**108-7744**	4427	0.55
FLA441 #5	18 LED 54W/1050 mA	**108-7753**	7020	0.87	**108-7754**	8100	1.00
FLA461 #5	36 LED 72W/700 mA	**108-7764**	8854	1.09	**108-7765**	8854	1.09
FLA461 #5	36 LED 108W/1050 mA	**108-7774**	14040	1.73	**108-7775**	16200	2.00

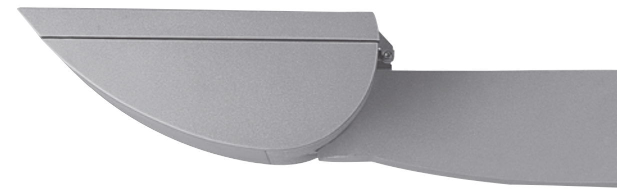
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*
FLA441 #5	18 LED 36W/700 mA	**108-7747**	4427	0.55	**108-7748**	4427	0.55
FLA441 #5	18 LED 54W/1050 mA	**108-7757**	7020	0.87	**108-7758**	8100	1.00
FLA461 #5	36 LED 72W/700 mA	**108-7768**	8854	1.09	**108-7769**	8854	1.09
FLA461 #5	36 LED 108W/1050 mA	**108-7778**	14040	1.73	**108-7779**	16200	2.00

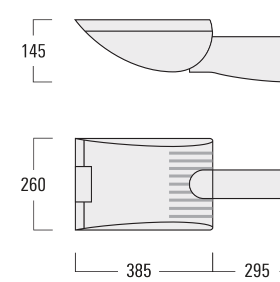


[S65]

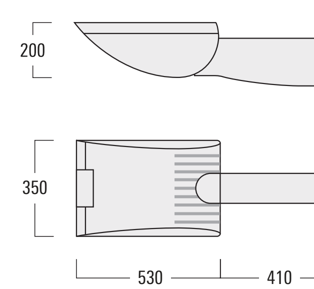


[R65]

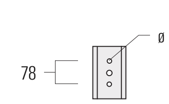




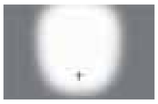
FLA441 #5



FLA461 #5

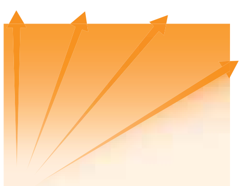


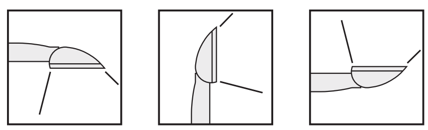
* Multiplier for isolux values.



[A60]

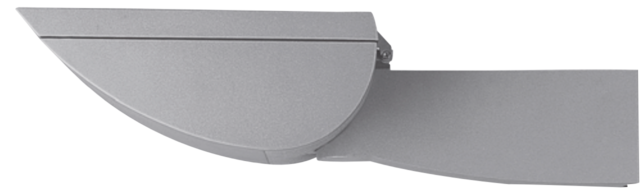
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution



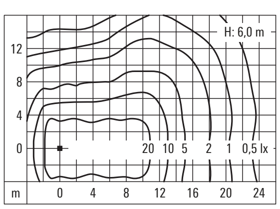


IO-360 surface wash lens.
See page 97 for details.

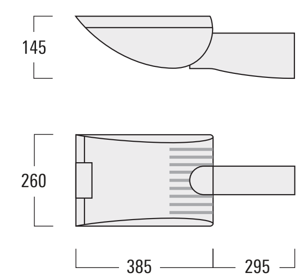
Suitable for downlighting, facade and uplighting applications.



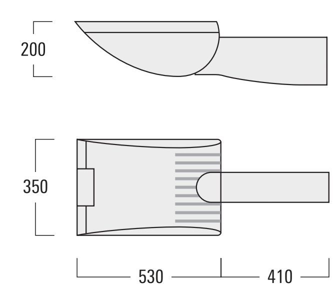
[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*
FLA441 #5	18 LED 36W/700 mA	**108-7749**	4427	0.55	**108-7750**	4427	0.55
FLA441 #5	18 LED 54W/1050 mA	**108-7759**	7020	0.87	**108-7760**	8100	1.00
FLA461 #5	36 LED 72W/700 mA	**108-7770**	8854	1.09	**108-7771**	8854	1.09
FLA461 #5	36 LED 108W/1050 mA	**108-7780**	14040	1.73	**108-7781**	16200	2.00



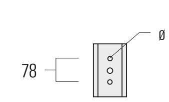
[A60]



FLA441 #5



FLA461 #5



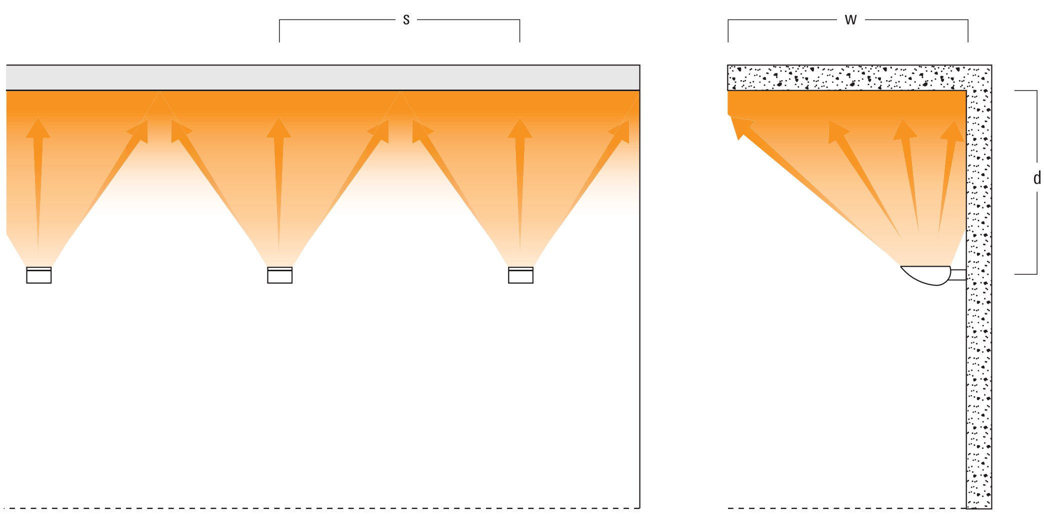
* Multiplier for isolux values.

OPTICAL ACCESSORIES – FLA400 #5 SERIES

IO-360 LED Surface Wash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Surface wash lens – For [A60] asymmetric 'forward throw' versions.		
IO-360	for FLA441 #5	**108-7790**
IO-360	for FLA461 #5	**108-7791**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [A60] asymmetric LED 'forward throw' LED optics. Luminaires fitted with the IO-360 surface wash lens are typically positioned at 0.7 x w away from the target surface and spaced up to 1.0 x w apart:

w = width of target surface
d = 0.7 x w = distance from target surface
s = 1.0 x w = spacing between luminaires

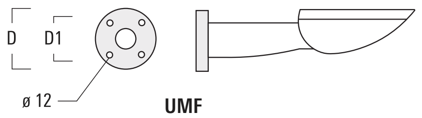
The IO-360 LED surface wash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

MOUNTING ACCESSORIES – FLA400 #5 SERIES

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Universal mounting flange			D/D1	kg
UMF20	for FLA441 #5	**310-9110**	180/150	0.9
UMF30	for FLA461 #5	**310-9109**	250/200	1.5

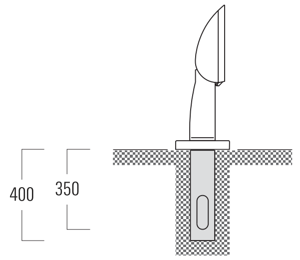
Facilitates installation to flat vertical and horizontal surfaces.



UMF

Planted root – Galvanised steel.			kg
ESV4	for FLA441 #5	**300-9100**	4.2
ESV6	for FLA461 #5	**300-0824**	12.6

Provides inground section for universal mounting flange in landscaped areas.



ESV

PIA200 SERIES

Facade and ceiling washlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket.

Integral EC electronic converter in thermally-shielded compartment. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

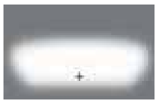
PIA230: ±30° tilt.
PIA240: +15°/-30° tilt.

Light source:
LED 24-72 W, 3000 K and 4000 K
(for HIT, refer to www.we-ef.com)

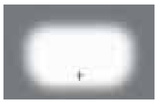
Available distributions:
[S65] [A60] [R65]

Accessories:
- **Optical, page 101**

McCarran International Airport, Terminal 3. Las Vegas (USA). Lighting design: Horton Lees Brogden Lighting Design.

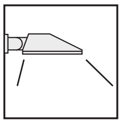


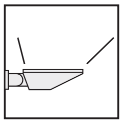
[S65]



[R65]

IOS® Innovative Optical System:
[S65] 'Side throw' distribution
[R65] Rectangular 'forward throw' distribution

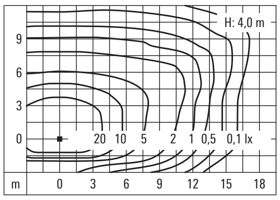




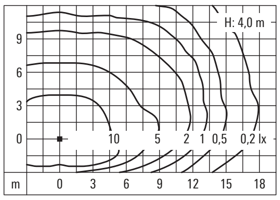
Suitable for downlighting and uplighting applications.

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*
PIA230	12 LED 24W/700 mA	**108-1660**	2951	1.00	**108-1661**	2951	1.00
PIA230	18 LED 36W/700 mA	**108-1747**	4427	1.50	**108-1748**	4427	1.50
PIA240	18 LED 54W/1050 mA	**108-1649**	7020	2.38	**108-1650**	8100	2.74
PIA240	24 LED 72W/1050 mA	**108-1759**	9360	3.17	**108-1760**	10800	3.66

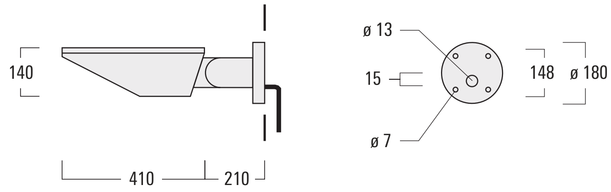
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*
PIA230	12 LED 24W/700 mA	**108-1664**	2951	1.00	**108-1665**	2951	1.00
PIA230	18 LED 36W/700 mA	**108-1749**	4427	1.50	**108-1750**	4427	1.50
PIA240	18 LED 54W/1050 mA	**108-1653**	7020	2.38	**108-1654**	8100	2.74
PIA240	24 LED 72W/1050 mA	**108-1761**	9360	3.17	**108-1762**	10800	3.66



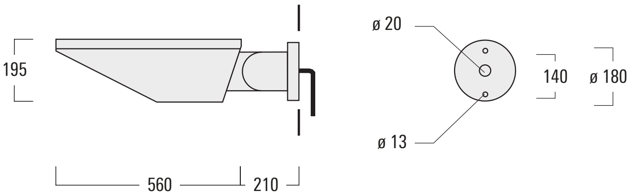
[S65]



[R65]

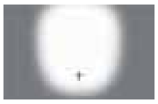


PIA230



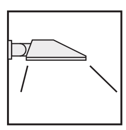
PIA240

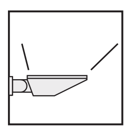
* Multiplier for isolux values.



[A60]

IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution

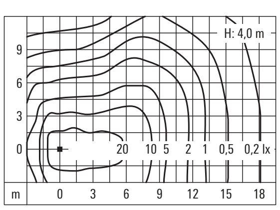




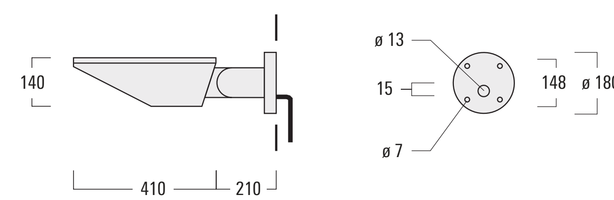
IO-360 surface wash lens.
See page 101 for details.

Suitable for downlighting and uplighting applications.

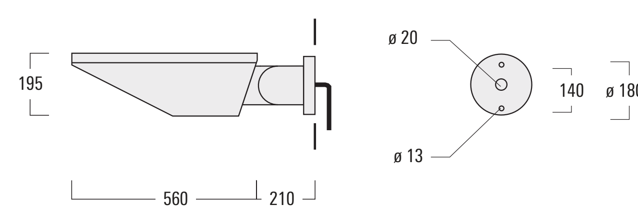
[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*
PIA230	12 LED 24W/700 mA	**108-1666**	2951	1.00	**108-1667**	2951	1.00
PIA230	18 LED 36W/700 mA	**108-1751**	4427	1.50	**108-1752**	4427	1.50
PIA240	18 LED 54W/1050 mA	**108-1655**	7020	2.38	**108-1656**	8100	2.74
PIA240	24 LED 72W/1050 mA	**108-1763**	9360	3.17	**108-1764**	10800	3.66



[A60]



PIA230



PIA240

* Multiplier for isolux values.

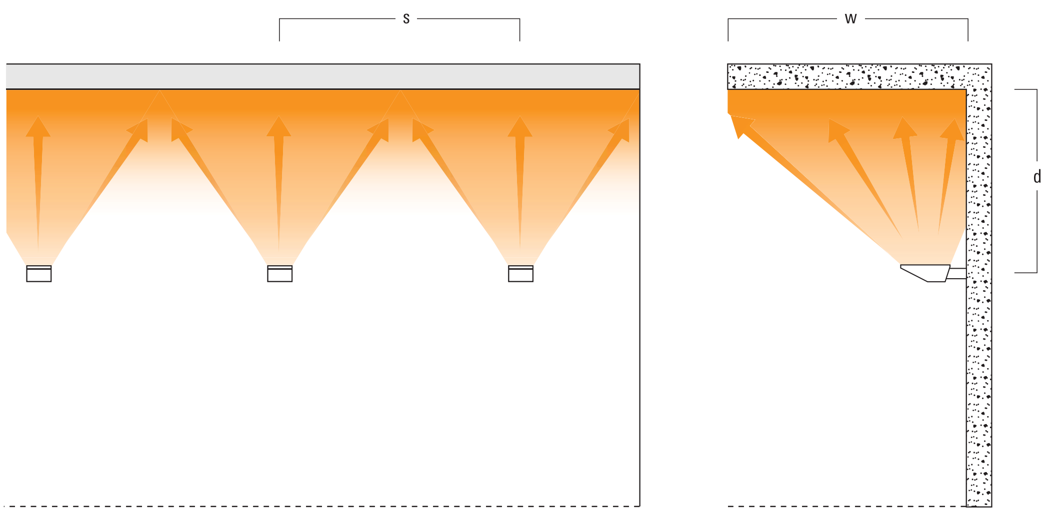
OPTICAL ACCESSORIES – PIA200 SERIES

IO-360 LED Surface Wash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Surface wash lens – For [A60] asymmetric 'forward throw' versions.

IO-360	for PIA230	**108-1851**
IO-360	for PIA240	**108-1852**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [A60] asymmetric LED 'forward throw' LED optics. Luminaires fitted with the IO-360 surface wash lens are typically positioned at 0.7 x w away from the target surface and spaced up to 1.0 x w apart:

w = width of target surface
d = 0.7 x w = distance from target surface
s = 1.0 x w = spacing between luminaires

The IO-360 LED surface wash lens is factory-installed within the luminaire.

XLO200/DLO200/DLG200/DLS200/DLB200 SERIES

Wall luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gasket. Two cable entries.

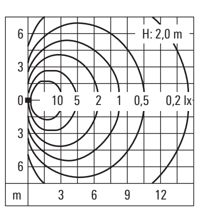
Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface available on request.

Light source:
LED 12-24 W, 3000 K and 4000 K

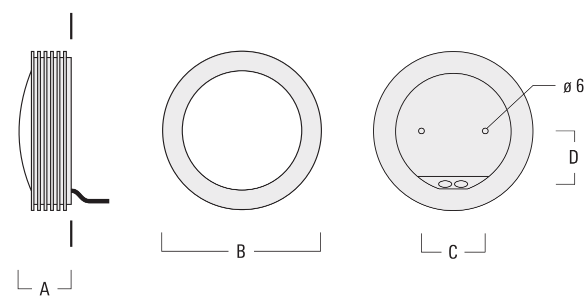
Available distribution:
Diffused

The National Museum of Liverpool. Liverpool (UK). Architect: 3XN & AEW. Lighting designer: Buro Happold Lighting.

Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
XLO229	LED 12W/350 mA	**195-9533**	1860	0.97	**195-9534**	1915	1.00
XLO239	LED 24W/700 mA	**195-9548**	3795	1.98	**195-9549**	3940	2.06



Diffused



Accessories:

Dimming interface

1-10 V	for XLO229/239	**430-0011**
DALI	for XLO229/239	**430-0013**

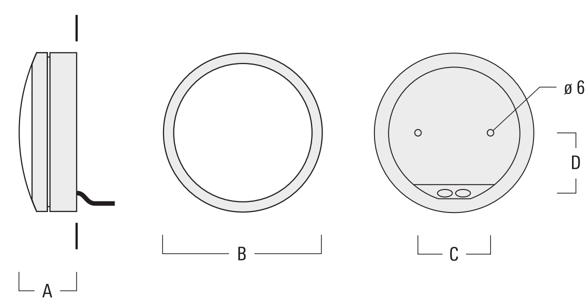
Product Dimensions:

XLO series	A	B	C	D
XLO229	85	ø 300	120	100
XLO239	125	ø 400	270	130

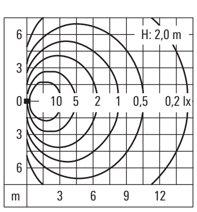
* Multiplier for isolux values.

DLO200

DLG200



Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
DLO229	LED 12W/350 mA	**195-9521**	1860	0.97	**195-9522**	1915	1.00
DLO239	LED 24W/700 mA	**195-9536**	3795	1.98	**195-9537**	3940	2.06
DLG229	LED 12W/350 mA	**195-9524**	1860	0.97	**195-9525**	1915	1.00
DLG239	LED 24W/700 mA	**195-9539**	3795	1.98	**195-9540**	3940	2.06



Diffused

Accessories:

Dimming interface		
1-10 V	for DLO229/239 DLG229/239	**430-0011**
DALI	for DLO229/239 DLG229/239	**430-0013**

Product Dimensions:

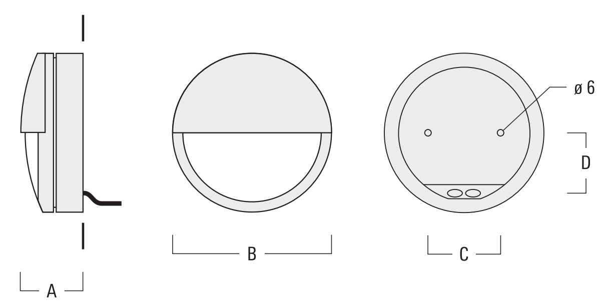
DLO/DLG series	A	B	C	D
DLO229	85	ø 262	120	100
DLO239	125	ø 350	270	130
DLG229	100	ø 262	120	100
DLG239	140	ø 350	270	130

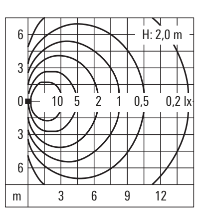
* Multiplier for isolux values.

DLS200

DLB200

Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
DLS229	LED 12W/350 mA	**195-9527**	1860	0.97	**195-9528**	1915	1.00
DLS239	LED 24W/700 mA	**195-9542**	3795	1.98	**195-9543**	3940	2.06
DLB229	LED 12W/350 mA	**195-9530**	1860	0.97	**195-9531**	1915	1.00
DLB239	LED 24W/700 mA	**195-9545**	3795	1.98	**195-9546**	3940	2.06





Diffused

Accessories:

Dimming interface

1-10 V	for DLS229/239 DLB229/239	**430-0011**
DALI	for DLS229/239 DLB229/239	**430-0013**

Product Dimensions:

DLS/DLB series	A	B	C	D
DLS229/DLB229	100	ø 262	120	100
DLS239/DLB239	140	ø 350	270	130

* Multiplier for isolux values.

QLO200 SERIES

Wall luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gasket. Two cable entries.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface available on request.

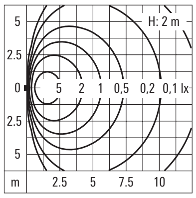
Light source:
LED 8-12 W, 3000 K and 4000 K

Available distribution:
Diffused

LED

Medienzentrum. Leipzig (D). Architect: Architekturbüro von Gerkan, Marg und Partner. Lighting design: Ebert-Ingenieure.

Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
QLO229	LED 8W/350 mA	**197-9047**	1020	0.68	**197-9048**	1080	0.72
QLO239	LED 12W/500 mA	**197-9088**	1420	0.95	**197-9089**	1500	1.00

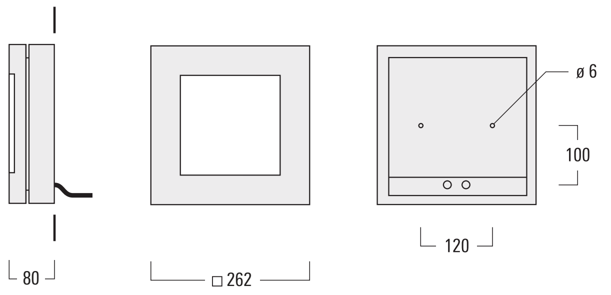


Diffused

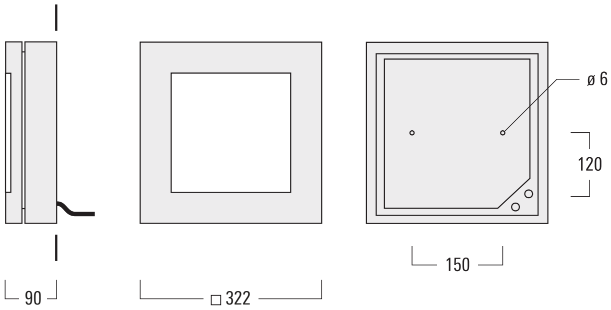
Accessories:

Dimming interface

1-10 V	for QLO229/239	**430-0011**
DALI	for QLO229/239	**430-0013**



QLO229

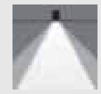


QLO239

* Multiplier for isolux values.

CEILING LUMINAIRES

DOR100 SERIES – LED
Page 110-111
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam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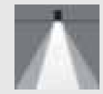
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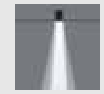

[EE]

DOC200 SERIES – LED GIMBAL
Page 112-113
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

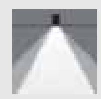

[B]

[M]

[EE]

[EES]

DOC200 SERIES – LED FIXED OPTICS
Page 114-115
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'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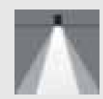
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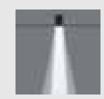
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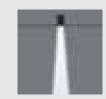
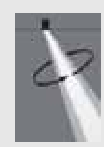

[EES]

DAC200 SERIES – LED GIMBAL
Page 116-117
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'


[B]

[M]

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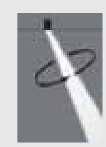
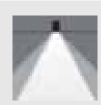
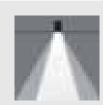
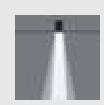
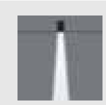
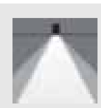
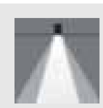
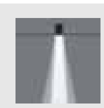

[EES]

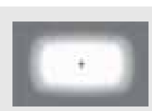
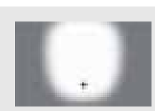
DAC200 SERIES – LED FIXED OPTICS
Page 118-119
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

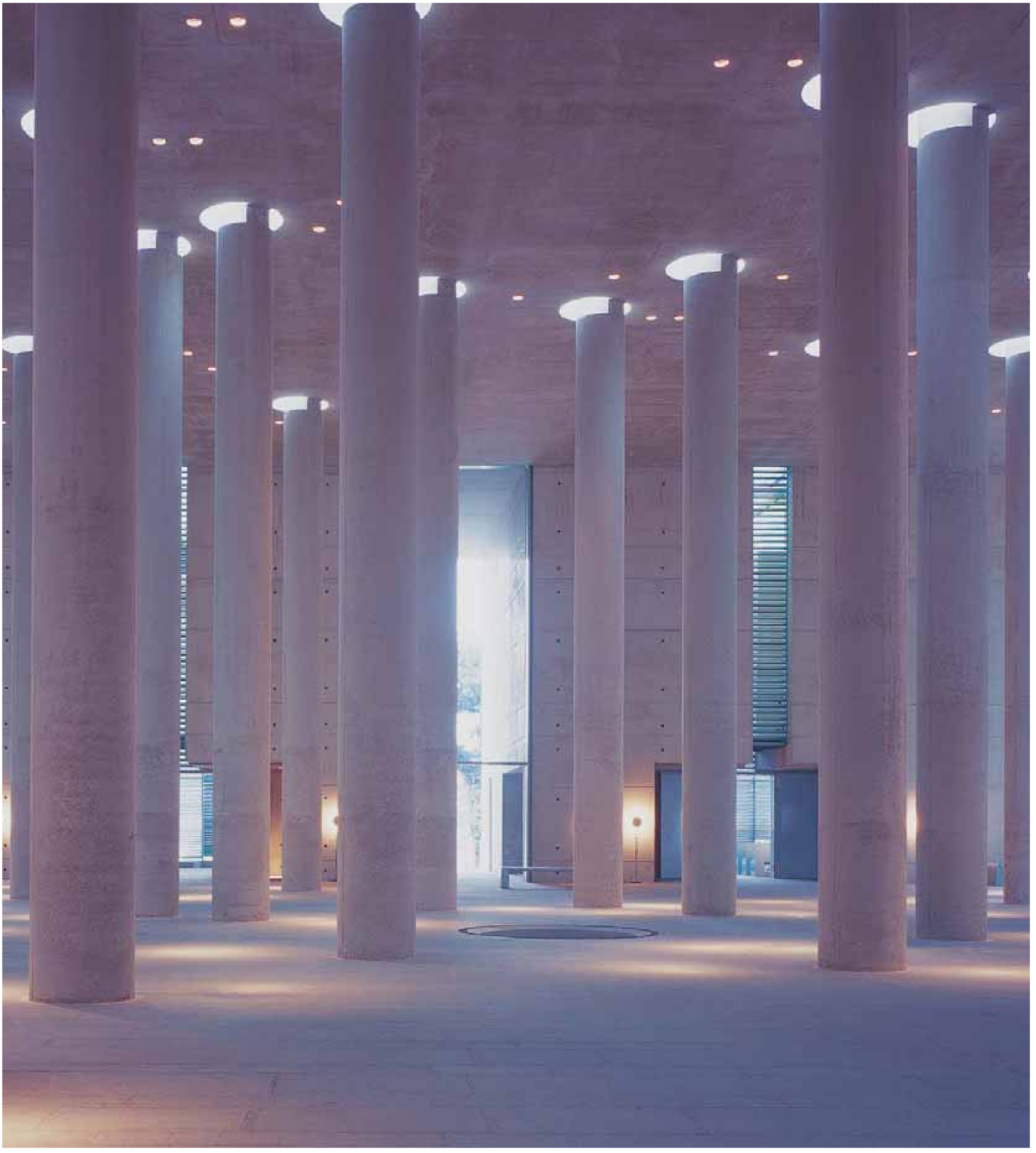

[B]

[M]

[EE]

[EES]

SBI100 SERIES – LED
Page 120-121
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam


[B]

[M]

[EE]

SBI400 SERIES – HIT
Page 122-123
[M] Bi-symmetric distribution, medium beam
[A60] Asymmetric 'forward throw' distribution


[M]

[A60]



DOR100 SERIES

[Factory-sealed] Downlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. PMMA lens (DOR120) or safety glass lens (DOR130/140). Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface available on request.

Pre-installation blockout is recommended for mounting in cast concrete ceilings, available on request.

Colour filters available on request.

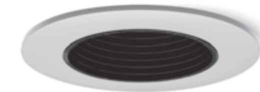
Light source:
LED 12-72 W, 3000 K and 4000 K
(2700 K on request)

Available distributions:
[B] [M] [EE]

For additional type of light distribution:
[EES] refer to www.we-ef.com

Accessories:
- **Mounting, page 124**

[B] [M] [EE]

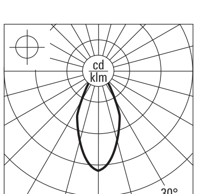


IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

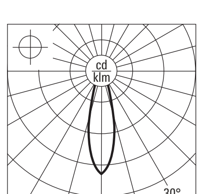
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOR120	6 LED 12W/700 mA	**135-9008**	1476	**135-9009**	1476	954	25°/25°
DOR120	6 LED 18W/1050 mA	**135-9016**	2340	**135-9019**	2700	1180	25°/25°
DOR130	12 LED 24W/700 mA	**135-9058**	2951	**135-9059**	2951	991	25°/25°
DOR130	12 LED 36W/1050 mA	**135-9065**	4680	**135-9068**	5400	1180	25°/25°
DOR140	24 LED 48W/700 mA	**135-9102**	5903	**135-9107**	5903	954	25°/25°
DOR140	24 LED 72W/1050 mA	**135-9118**	9360	**135-9121**	10800	1180	25°/25°

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOR120	6 LED 12W/700 mA	**135-9003**	1476	**135-9006**	1476	2626	14°/14°
DOR120	6 LED 18W/1050 mA	**135-9017**	2340	**135-9020**	2700	2040	20°/20°
DOR130	12 LED 24W/700 mA	**135-9053**	2951	**135-9056**	2951	2646	14°/14°
DOR130	12 LED 36W/1050 mA	**135-9066**	4680	**135-9069**	5400	2040	20°/20°
DOR140	24 LED 48W/700 mA	**135-9103**	5903	**135-9108**	5903	2626	14°/14°
DOR140	24 LED 72W/1050 mA	**135-9119**	9360	**135-9122**	10800	2040	20°/20°

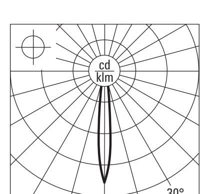
[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOR120	6 LED 12W/700 mA	**135-9004**	1476	**135-9007**	1476	8451	6°/6°
DOR120	6 LED 18W/1050 mA	**135-9018**	2340	**135-9021**	2700	6190	9°/9°
DOR130	12 LED 24W/700 mA	**135-9054**	2951	**135-9057**	2951	9244	6°/6°
DOR130	12 LED 36W/1050 mA	**135-9067**	4680	**135-9070**	5400	6190	9°/9°
DOR140	24 LED 48W/700 mA	**135-9104**	5903	**135-9109**	5903	8451	6°/6°
DOR140	24 LED 72W/1050 mA	**135-9120**	9360	**135-9123**	10800	6190	9°/9°



[B]

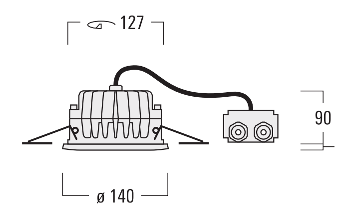


[M]

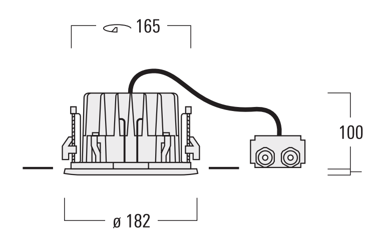


[EE]

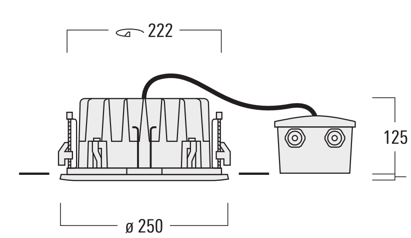
DOR120



DOR130



DOR140



Accessories:

Dimming interface

1-10 V	for DOR120/130/140	**430-0011**
DALI	for DOR120/130/140	**430-0013**

DOC200 SERIES – GIMBAL

Downlight. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 30° tiltable and 355° rotatable. Two cable entries.

Pre-installation blockout is recommended for mounting in cast concrete ceilings, available on request.

Light source:
LED 18 W, 3000 K and 4000 K

Available distributions:
[B] [M] [EE] [EES]

Accessories:

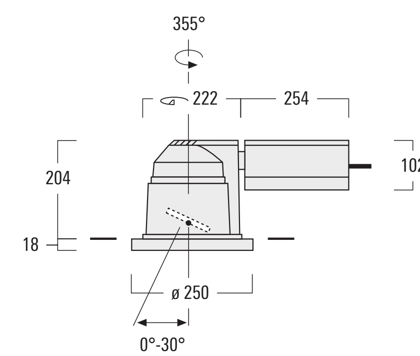
- **Mounting, page 124**
- **Optical, page 125**

White City. London (UK). Lighting design: Speirs + Major.




[B] **[M]** **[EE]** **[EES]**

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

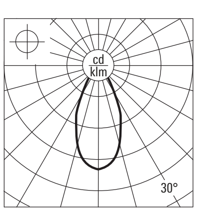


[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC240-GB	12 LED 18W/500 mA	**134-1344**	2217	**134-1345**	2217	920	25°/25°

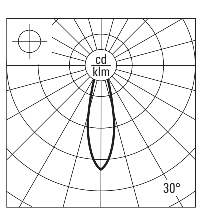
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC240-GB	12 LED 18W/500 mA	**134-1253**	2217	**134-1254**	2217	2196	16°/16°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC240-GB	12 LED 18W/500 mA	**134-1347**	2217	**134-1348**	2217	7191	7°/7°

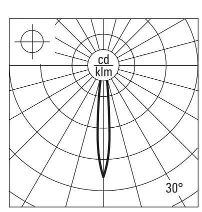
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC240-GB	12 LED 18W/500 mA	**134-1256**	2217	**134-1257**	2217	20389	5°/5°



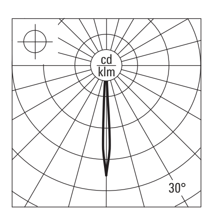
[B]



[M]



[EE]



[EES]

DOC200 SERIES – FIXED OPTICS

Downlight. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries.

Pre-installation blockout is recommended for mounting in cast concrete ceilings, available on request.

Light source:
LED 12-48 W, 3000 K and 4000 K

Available distributions:
[B] [M] [EE] [EES]

For additional types of light distribution:
[BD], refer to www.we-ef.com

Accessories:
- **Mounting, page 124**
- **Optical, page 125**

IOS®

LED

Metro station Breslauer Platz. Köln (D). Architect: Architekturbüro Bueder + Wenzel Architekten. Lighting design: Licht Kunst Licht.


[B]


[M]


[EE]


[EES]

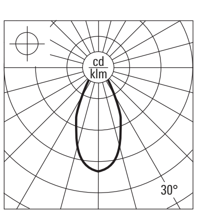
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC210	6 LED 12W/700 mA	**134-1625**	1476	**134-1626**	1476	934	25°/25°
DOC220	12 LED 24W/700 mA	**134-1332**	2951	**134-1333**	2951	920	25°/25°
DOC240	24 LED 48W/700 mA	**134-1396**	5903	**134-1397**	5903	934	25°/25°

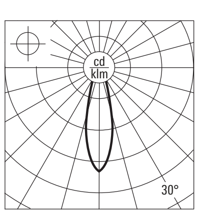
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC210	6 LED 12W/700 mA	**134-1627**	1476	**134-1628**	1476	2196	16°/16°
DOC220	12 LED 24W/700 mA	**134-1210**	2951	**134-1212**	2951	2196	16°/16°
DOC240	24 LED 48W/700 mA	**134-1398**	5903	**134-1399**	5903	2196	16°/16°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC210	6 LED 12W/700 mA	**134-1631**	1476	**134-1632**	1476	7207	7°/7°
DOC220	12 LED 24W/700 mA	**134-1335**	2951	**134-1336**	2951	7191	7°/7°
DOC240	24 LED 48W/700 mA	**134-1400**	5903	**134-1401**	5903	7207	7°/7°

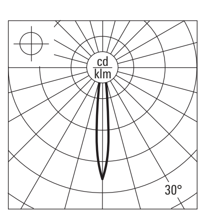
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DOC210	6 LED 12W/700 mA	**134-1633**	1476	**134-1634**	1476	22108	5°/5°
DOC220	12 LED 24W/700 mA	**134-1211**	2951	**134-1213**	2951	20398	5°/5°
DOC240	24 LED 48W/700 mA	**134-1402**	5903	**134-1403**	5903	22108	5°/5°



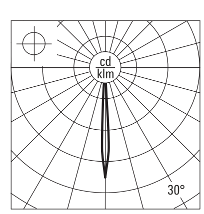
[B]



[M]

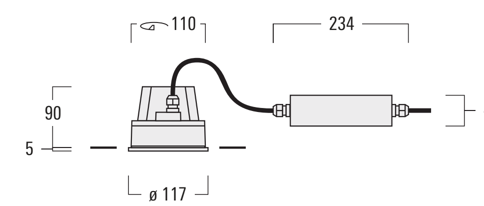


[EE]

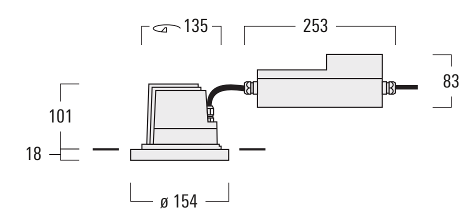


[EES]

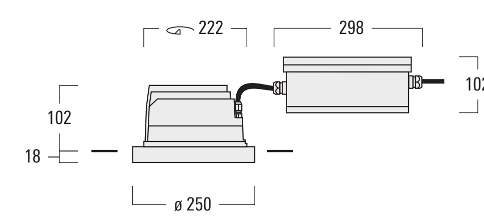
DOC210



DOC220



DOC240



DAC200 SERIES – GIMBAL

Downlight. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket.

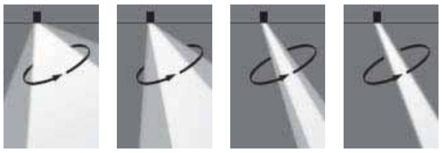
Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 30° tiltable and 355° rotatable. Two cable entries.

Light source:
LED 18 W, 3000 K and 4000 K

Available distributions:
[B] [M] [EE] [EES]

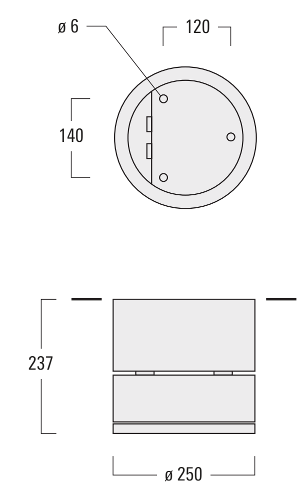
Accessories:
- **Optical, page 125**

Metro station Heumarkt. Köln (D). Planning: Lightdesign Ingenieurgesellschaft Prof. Dr. Ing Heinrich Kramer.



[B] [M] [EE] [EES]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

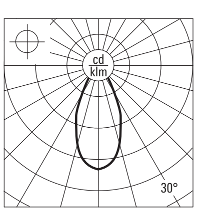


[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC240-GB	12 LED 18W/500 mA	**134-1596**	2217	**134-1597**	2217	920	25°/25°

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC240-GB	12 LED 18W/500 mA	**134-1598**	2217	**134-1599**	2217	2196	16°/16°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC240-GB	12 LED 18W/500 mA	**134-1602**	2217	**134-1603**	2217	7191	7°/7°

[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC240-GB	12 LED 18W/500 mA	**134-1605**	2217	**134-1606**	2217	20389	5°/5°



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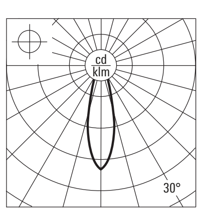

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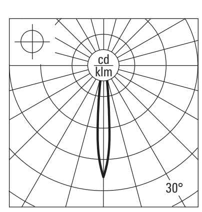

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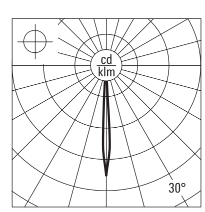


[EES]

DAC200 SERIES – FIXED OPTICS

Downlight. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries.

Light source:
LED 24-48 W, 3000 K and 4000 K

Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 125**

McCarran Airport. Las Vegas (USA). Lighting design: Horton Lees Brogdon.


[B]


[M]


[EE]


[EES]

IOS® Innovative Optical System:

[B] Symmetric distribution, wide beam

[M] Symmetric distribution, medium beam

[EE] Symmetric distribution, very narrow beam

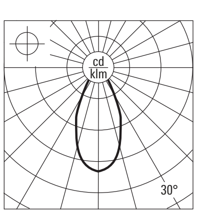
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC220	12 LED 24W/700 mA	**134-1424**	2951	**134-1428**	2951	920	25°/25°
DAC240	24 LED 48W/700 mA	**134-1432**	5903	**134-1436**	5903	934	25°/25°

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC220	12 LED 24W/700 mA	**134-1425**	2951	**134-1429**	2951	2196	16°/16°
DAC240	24 LED 48W/700 mA	**134-1433**	5903	**134-1437**	5903	2196	16°/16°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC220	12 LED 24W/700 mA	**134-1426**	2951	**134-1430**	2951	7191	7°/7°
DAC240	24 LED 48W/700 mA	**134-1434**	5903	**134-1438**	5903	7207	7°/7°

[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
DAC220	12 LED 24W/700 mA	**134-1427**	2951	**134-1431**	2951	20398	5°/5°
DAC240	24 LED 48W/700 mA	**134-1435**	5903	**134-1439**	5903	22108	5°/5°



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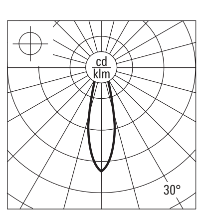

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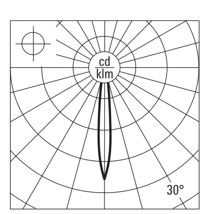

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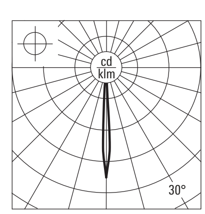
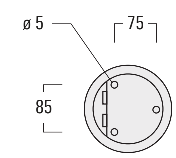
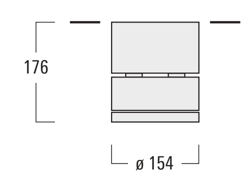
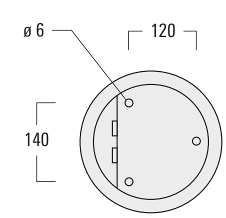


[EES]

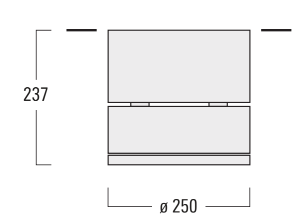


DAC220





DAC240



SBI100 SERIES

[Factory-sealed] Surface mounted downlight. IP66. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. PMMA lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

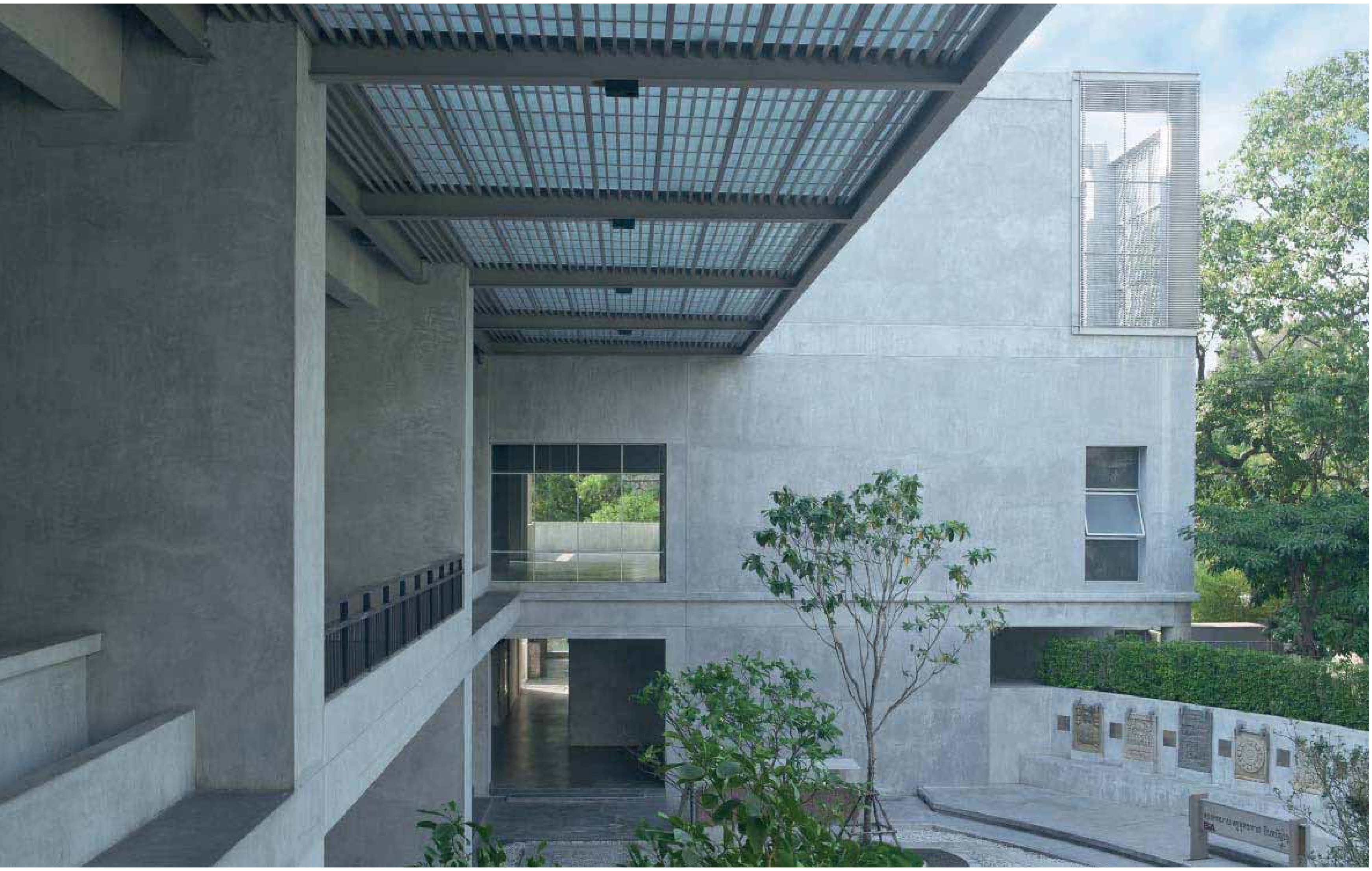
Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface available on request.

Colour filters available on request.

Light source:
LED 12-36 W, 3000 K and 4000 K
(2700 K on request)

Available distributions:
[B] [M] [EE]

For additional type of light distribution:
[EES] refer to www.we-ef.com



[B]

[M]

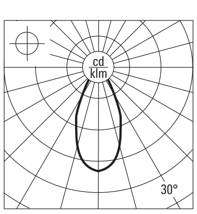
[EE]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
SBI120	6 LED 12W/700 mA	**138-8996**	1476	**138-8998**	1476	954	25°/25°
SBI120	6 LED 18W/1050 mA	**138-6000**	2340	**138-6003**	2700	1180	25°/25°
SBI130	12 LED 24W/700 mA	**138-8992**	2951	**138-8994**	2951	991	25°/25°
SBI130	12 LED 36W/1050 mA	**138-6006**	4680	**138-6009**	5400	1180	25°/25°

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
SBI120	6 LED 12W/700 mA	**138-9002**	1476	**138-9005**	1476	2626	14°/14°
SBI120	6 LED 18W/1050 mA	**138-6001**	2340	**138-6004**	2700	2040	20°/20°
SBI130	12 LED 24W/700 mA	**138-9010**	2951	**138-9013**	2951	2646	14°/14°
SBI130	12 LED 36W/1050 mA	**138-6007**	4680	**138-6010**	5400	2040	20°/20°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
SBI120	6 LED 12W/700 mA	**138-9003**	1476	**138-9006**	1476	8451	6°/6°
SBI120	6 LED 18W/1050 mA	**138-6002**	2340	**138-6005**	2700	6190	9°/9°
SBI130	12 LED 24W/700 mA	**138-9011**	2951	**138-9014**	2951	9244	6°/6°
SBI130	12 LED 36W/1050 mA	**138-6008**	4680	**138-6011**	5400	6190	9°/9°



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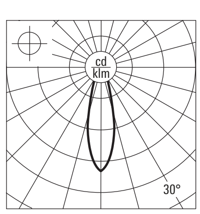
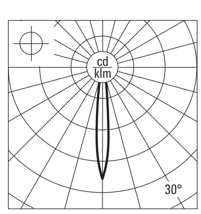
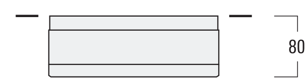


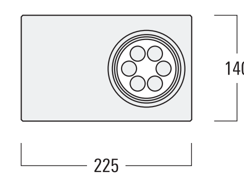
[M]

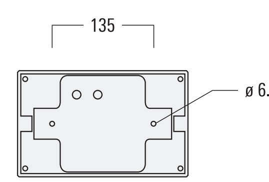


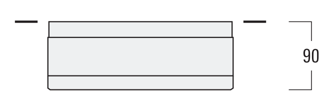
[EE]



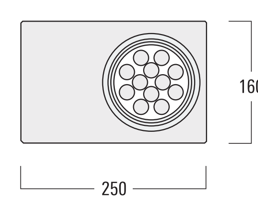
SBI120

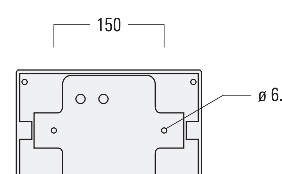






SBI130





Accessories:
Dimming interface

1-10 V	For SBI120/130	**430-0011**
DALI	For SBI120/130	**430-0013**

SBI400 SERIES

Surface mounted high bay luminaire. IP54. IK07. Marine-grade, aluminium alloy body. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket. Anodised aluminium reflector. One cable entry.

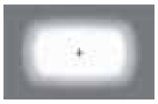
Integral HPF control gear in thermally-shielded compartment. LPF versions available on request.

Light source:
HIT 70-400 W

Available distributions:
[M] [A60]

Accessories:
- **Mounting, page 124**

Caulfield Grammar School Sports Hall. Melbourne (AUS).



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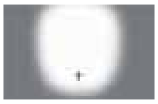
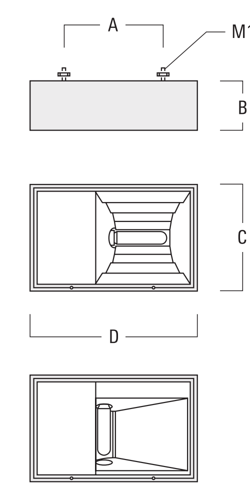


[A60]

IOS® Innovative Optical System:
[M] Bi-symmetric distribution, medium beam
[A60] Asymmetric 'forward throw' distribution

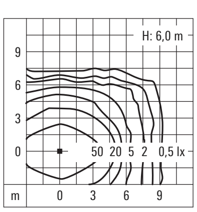


[M]

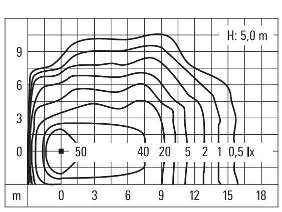
[A60]

[M]			lm	Gear	Factor*
SBI440	HIT-CE 70W/E27	**138-9356**	7000	[HPF]	1.00
SBI440	HIT-CE 150W/E40	**138-9362**	14500	[HPF]	2.07
SBI460	HIT-CE 250W/E40	**138-9529**	26000	[HPF]	3.71
SBI460	HIT 400W/E40	**138-9532**	35000	[HPF]	5.00

[A60]			lm	Gear	Factor*
SBI440	HIT-CE 70W/E27	**138-9332**	7000	[HPF]	1.00
SBI440	HIT-CE 70W/E27	**138-7001**	7000	[ECG]	1.00
SBI440	HIT-CE 150W/E40	**138-9335**	14500	[HPF]	2.07
SBI440	HIT-CE 150W/E40	**138-7005**	14500	[ECG]	2.07
SBI460	HIT-CE 250W/E40	**138-9450**	26000	[HPF]	3.71
SBI460	HIT 400W/E40	**138-9453**	35000	[HPF]	5.00



[M]



[A60]

Product Dimensions:

SBI series	A	B	C	D
SBI440	375	160	315	500
SBI460	375	185	390	620

* Multiplier for isolux values.

MOUNTING ACCESSORIES

Installation blockouts – For DOR100 series

			A	B	C
BCR120-I	for DOR120	**135-9000**	310	300	117
BCR130-I	for DOR130	**135-9050**	325	285	147
BCR140-I	for DOR140	**135-9115**	385	315	167

Installation blockouts – For DOC200 series

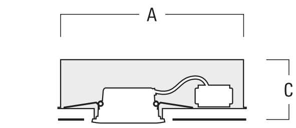
Frame proud of surface			A	B	C
BDO21-I	for DOC210	**134-1639**	383	200	160
BDO22-I	for DOC220	**134-0797**	383	200	209
BDO24-I	for DOC240	**134-0798**	570	305	285

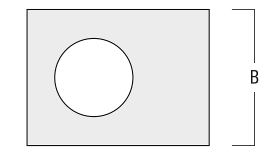
Installation blockouts – For DOC200 series

Frame flush with surface			A	B	C
BDO21-II	for DOC210	**134-1640**	383	200	178
BDO22-II	for DOC220	**134-1161**	383	200	227
BDO24-II	for DOC240	**134-1162**	573	305	303

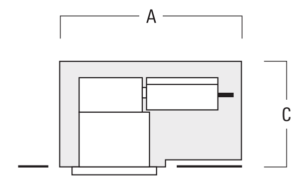
Ceiling bracket	– For SBI400 series		kg
MB20 (2x)	for SBI440/460	**138-9066**	0.4

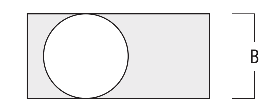
Stirrup – For SBI400 series			kg
MS20	for SBI440/460	**138-9067**	0.9



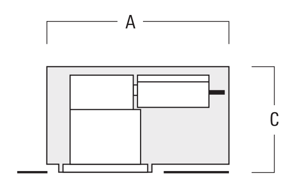


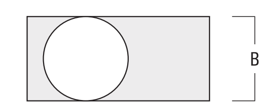
BCR



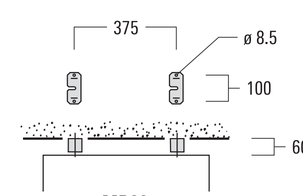


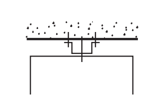
BDO-I



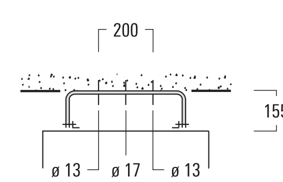


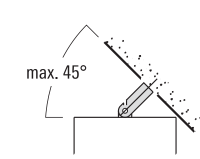
BDO-II





MB20





MS20

OPTICAL ACCESSORIES – DOC200/DAC200 SERIES

Internal Accessories

One internal optical accessory. For example: flood or spread lens. Factory installed.

Flood lens – Gimbal.

IO-360	for DOC240 DAC240	**134-1442**

Linear spread lens – Gimbal.

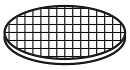
IO-180	for DOC240 DAC240	**185-2632**

Flood lens – Fixed optics.

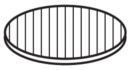
IO-360	for DOC220 DAC220	**134-1440**
IO-360	for DOC240 DAC240	**134-1441**

Linear spread lens – Fixed optics.

IO-180	for DOC220 DAC220	**134-1381**
IO-180	for DOC240 DAC240	**134-1382**



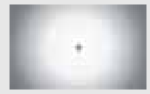
IO-360



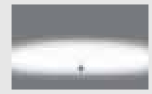
IO-180

BOLLARDS AND PATHWAY LUMINAIRES

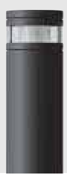
KTX200/KTY200-AP SERIES – LED
Page 128-129
[C60] Controlled symmetric distribution
[S70] Pathway lighting distribution



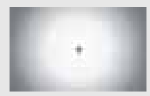
[C60]



[S70]



ZFY200-AP SERIES – LED
Page 130-131
[C60] Controlled symmetric distribution



[C60]

NTY100 SERIES – LED
Page 132-133
[A60] Asymmetric 'forward throw' distribution

[A60]

QSI200 SERIES – LED
Page 134-135
'Forward throw' distribution

GTX200/GTY200-AP SERIES – LED
Page 136-137
360° Symmetric distribution, shielded

GRX200/GRY200-AP SERIES – LED
Page 138-139
360° Symmetric distribution, shielded

XRX300/XRY300-AP/XRZ300 SERIES – LED
Page 140-141
360° Symmetric distribution, diffused

RRX300/RRY300-AP/RRZ300 SERIES – LED
Page 142-143
360° Symmetric distribution, shielded

KTX200/KTY200-AP SERIES

[Factory-sealed] Border light and bollard. IP66. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Two-sided light output versions for 360° symmetric distribution.

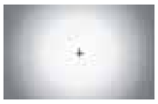
One-sided light output versions ideal for pathway lighting applications. Luminaire spacing up to 6-8 m.

Planted root available on request.

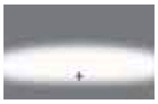
Light source:
LED 9-26 W, 3000 K and 4000 K

Available distributions:
[C60] [S70]

Accessories:
- **Mounting, page 144**



[C60]

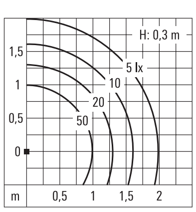


[S70]

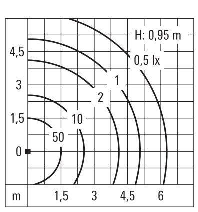
IOS® Innovative Optical System:
[C60] Controlled symmetric distribution
[S70] Pathway lighting distribution

[C60] Two-sided		3000 K	lm	Factor*	4000 K	lm	Factor*
KTX234	6 LED 18W/1050 mA	**114-9071**	2340	0.87	**114-9072**	2700	1.00
KTX234	6 LED 26W/1400 mA	**114-9073**	2993	1.11	**114-9074**	3453	1.28
KTY234-AP	6 LED 18W/1050 mA	**114-9091**	2340	0.87	**114-9092**	2700	1.00
KTY234-AP	6 LED 26W/1400 mA	**114-9093**	2993	1.11	**114-9094**	3453	1.28

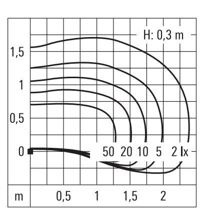
[S70] One-sided		3000 K	lm	Factor*	4000 K	lm	Factor*
KTX234	3 LED 9W/1050 mA	**114-9065**	1170	0.87	**114-9066**	1350	1.00
KTX234	3 LED 13W/1400 mA	**114-9067**	1496	1.11	**114-9068**	1727	1.28
KTY234-AP	3 LED 9W/1050 mA	**114-9085**	1170	0.87	**114-9086**	1350	1.00
KTY234-AP	3 LED 13W/1400 mA	**114-9087**	1496	1.11	**114-9088**	1727	1.28



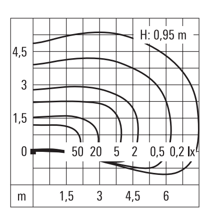
[C60] – KTX234



[C60] – KTY234-AP



[S70] – KTX234

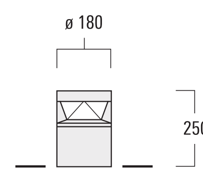


[S70] – KTY234-AP

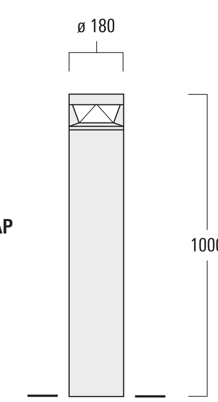
Accessories:
Dimming interface

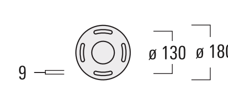
1-10 V	for KTX234/KTY234-AP	**430-0011**
DALI	for KTX234/KTY234-AP	**430-0013**

KTX234



KTY234-AP





* Multiplier for isolux values.

ZFY200-AP SERIES

[Factory sealed] Bollard. IP66. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

Planted root available on request.

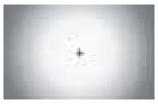
Light source:
LED 17 W, 3000 K and 4000 K

Available distribution:
[C60]

Accessories:
- **Mounting, page 144**

IOS

LED

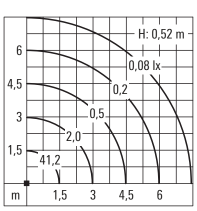


[C60]

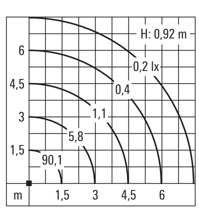
IOS® Innovative Optical System:
[C60] Controlled symmetric distribution

[C60] H = 600 mm		3000 K	lm	Factor*	4000 K	lm	Factor*
ZFY230-AP	LED FT 17W/500 mA	**117-0201**	2800	1.00	**117-0202**	2915	1.04

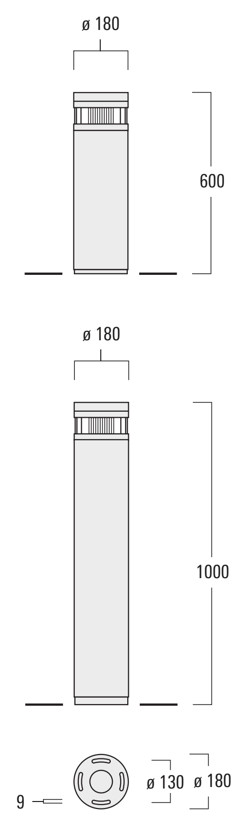
[C60] H = 1000 mm		3000 K	lm	Factor*	4000 K	lm	Factor*
ZFY230-AP	LED FT 17W/500 mA	**117-0199**	2800	1.00	**117-0200**	2915	1.04



[C60] H = 600 mm



[C60] H = 1000 mm



Accessories:

Dimming interface

1-10 V	for ZFY230-AP	**430-0011**
DALI	for ZFY230-AP	**430-0013**

* Multiplier for isolux values.

NTY100 SERIES

[Factory-sealed] Bollard. IP65. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL9004, grey aluminium RAL9007 or white RAL9016. Prismatic polycarbonate lens. Silicone rubber gaskets. Luminaire is factory sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control.

Post with service door and fused cable connecting box.

Planted root available on request.

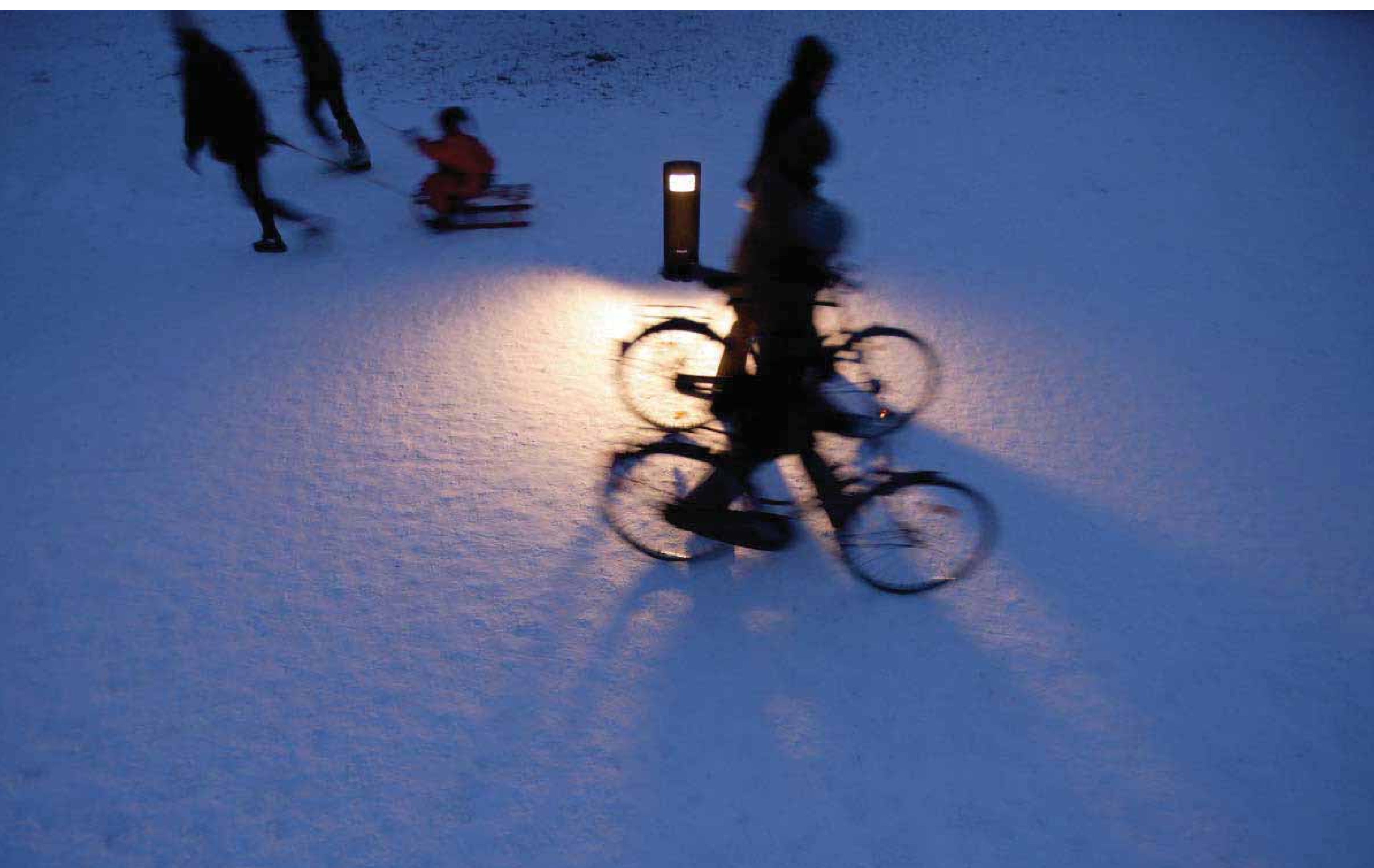
Light source:
LED 12-36 W, 3000 K and 4000 K

Available distribution:
[A60]

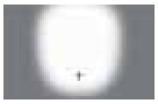
Accessories:
- **Mounting, page 144**

IOS

LED



Hamburg (D).

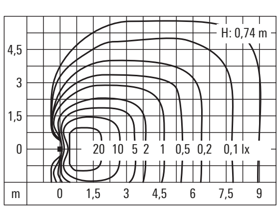


[A60]

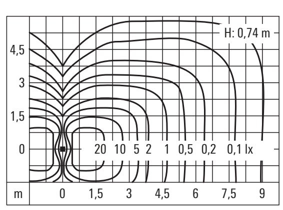
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution

[A60] One-sided		3000 K	lm	Factor*	4000 K	lm	Factor*
NTY184	6 LED 12W/700 mA	**112-0303**	1476	1.00	**112-0304**	1476	1.00
NTY184	6 LED 18W/1050 mA	**112-0299**	2340	1.59	**112-0300**	2700	1.83

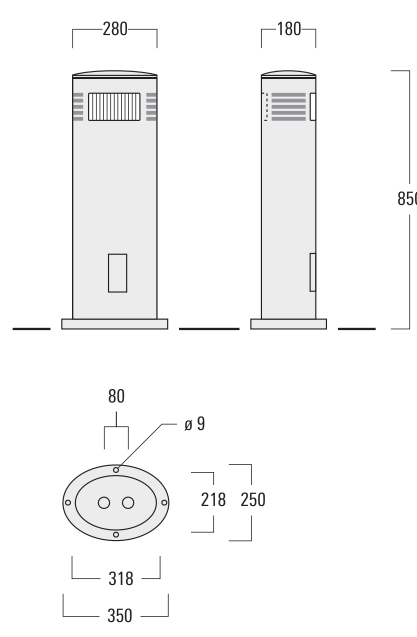
[A60] Two-sided		3000 K	lm	Factor*	4000 K	lm	Factor*
NTY184	2 x 6 LED 24W/700 mA	**112-0305**	2 x 1476	1.00	**112-0306**	2 x 1476	1.00
NTY184	2 x 6 LED 36W/1050 mA	**112-0301**	2 x 2340	1.59	**112-0302**	2 x 2700	1.83



[A60] One-sided



[A60] Two-sided



* Multiplier for isolux values.

QSI200 SERIES

Bollard. IP66. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gaskets.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface available on request.

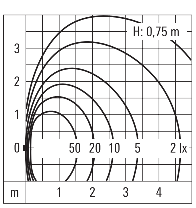
Planted root available on request.

Light source:
LED 12 W, 3000 K and 4000 K

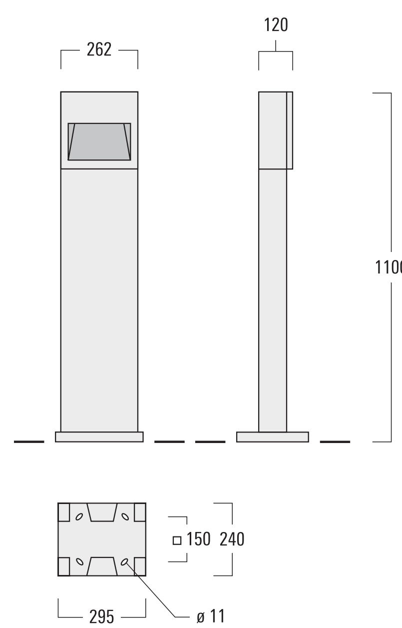
Available distribution:
'Forward throw'

Accessories:
- **Mounting, page 144**

'Forward throw'		3000 K	lm	Factor*	4000 K	lm	Factor*
QSI254	LED 12W/500 mA	**197-9044**	1420	0.95	**197-9045**	1500	1.00



'Forward throw'



Accessories:

Dimming interface

1-10 V	for QSI254	**430-0011**
DALI	for QSI254	**430-0013**

* Multiplier for isolux values.

GTX200/GTY200-AP SERIES

Border light and bollard. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate (GTX224/GTY224-AP) or PMMA (GTY234-AP) lens. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

GTX200 series: IP55.

GTY200-AP series: IP66.

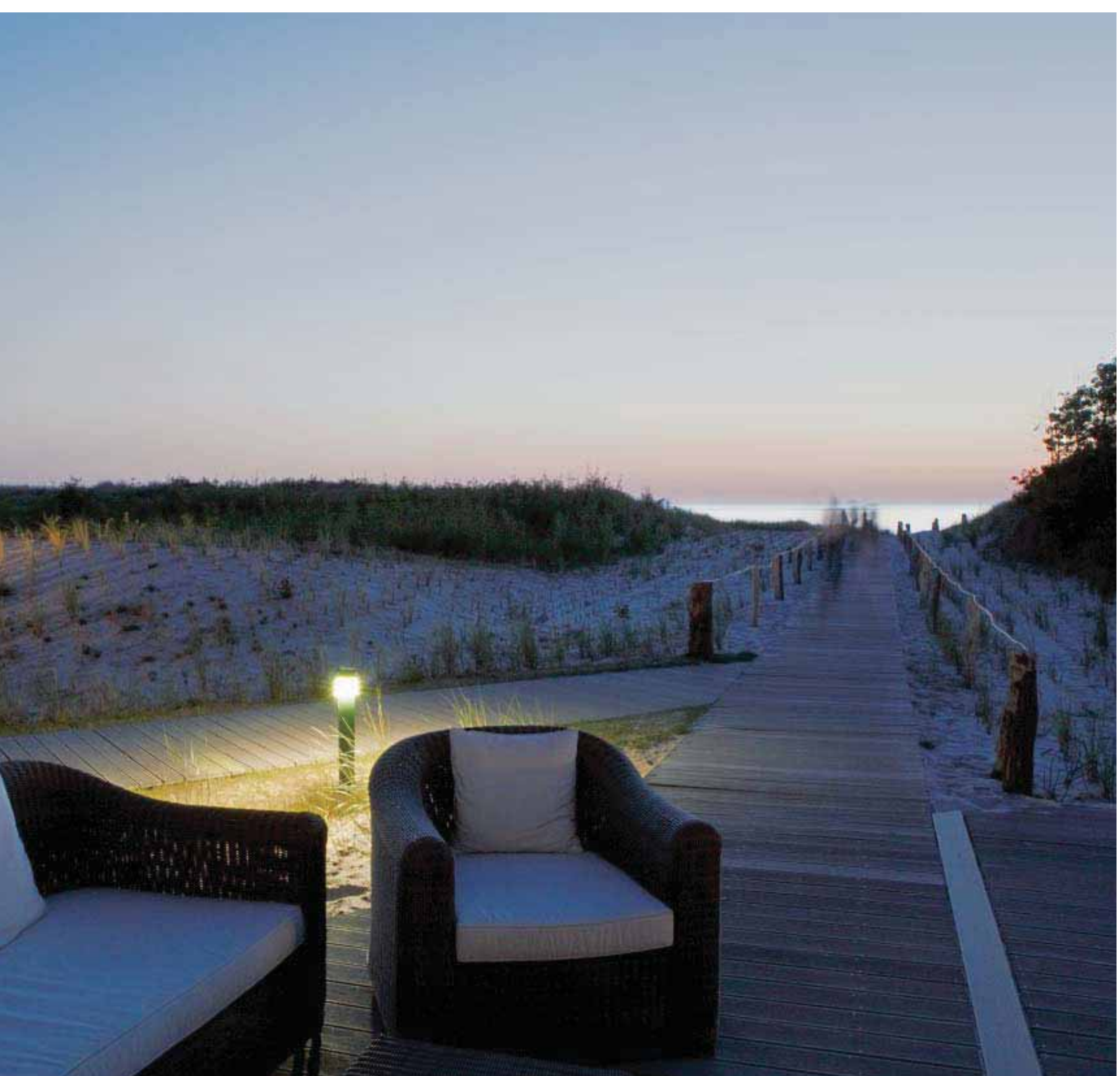
Ground spike and planted root, available on request.

Light source:
LED 8-12 W, 3000 K and 4000 K

Available distribution:
360° Symmetric, shielded

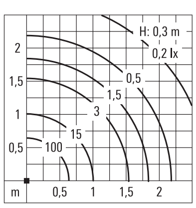
Accessories:

- **Mounting, page 144**

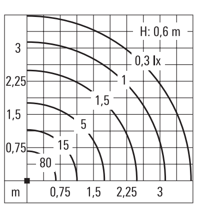


Seaside hotel Dünenmeer. Ostseebad Dierhagen (D).

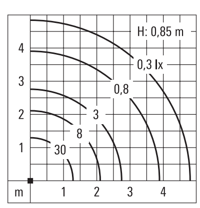
360° Shielded		3000 K	lm	Factor*	4000 K	lm	Factor*
GTX224	LED 8W/350 mA	**114-9051**	1020	0.95	**114-9052**	1080	1.0
GTY224-AP	LED 8W/350 mA	**114-9165**	1020	0.95	**114-9166**	1080	1.0
GTY234-AP	LED 12W/500 mA	**115-9086**	1420	0.95	**115-9087**	1500	1.0



GTX224

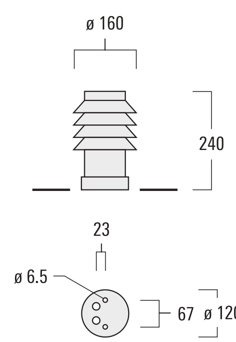


GTY224-AP

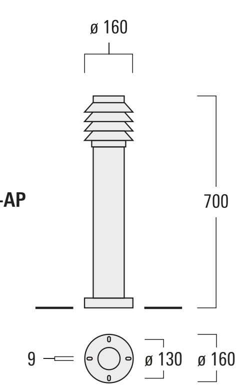


GTY234-AP

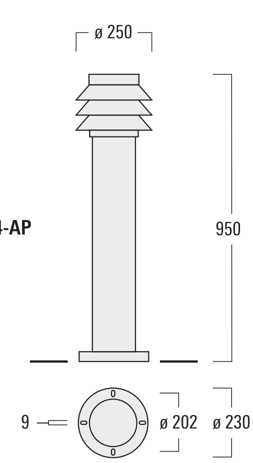
GTX224



GTY224-AP



GTY234-AP



Accessories:

Dimming interface

1-10 V	for GTY234-AP	**430-0011**
DALI	for GTY234-AP	**430-0013**

* Multiplier for isolux values.

GRX200/GRY200-AP SERIES

Border light and bollard. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate (GRX224/GRY224-AP) or PMMA (GRY234-AP) lens. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

GRX200 series: IP55.

GRY200-AP series: IP66.

Ground spike and planted root, available on request.

Light source:
LED 8-12 W, 3000 K and 4000 K

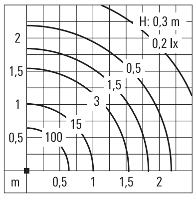
Available distribution:
360° Symmetric, shielded

Accessories:
- **Mounting, page 144**

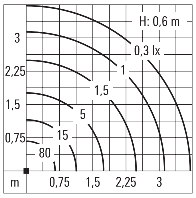
LED

River Park. Chachoengsao (TH).

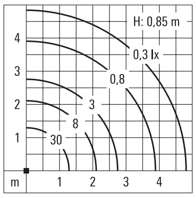
360° Shielded		3000 K	lm	Factor*	4000 K	lm	Factor*
GRX224	LED 8W/350 mA	**114-9055**	1020	0.95	**114-9056**	1080	1.0
GRY224-AP	LED 8W/350 mA	**114-9169**	1020	0.95	**114-9170**	1080	1.0
GRY234-AP	LED 12W/500 mA	**115-9092**	1420	0.95	**115-9093**	1500	1.0



GRX224



GRY224-AP



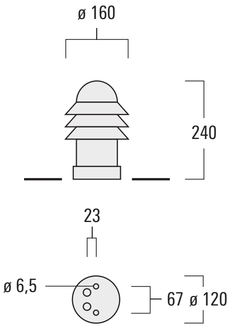
GRY234-AP

Accessories:

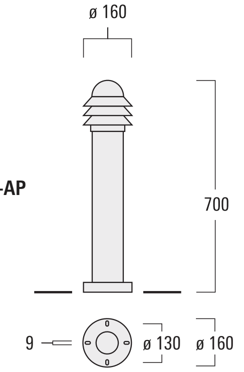
Dimming interface

1-10 V	for GRY234-AP	**430-0011**
DALI	for GRY234-AP	**430-0013**

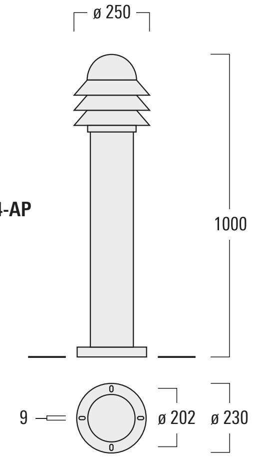
GRX224



GRY224-AP



GRY234-AP



* Multiplier for isolux values.

XRX300/XRY300-AP/XRZ300 SERIES

Beacon luminaire and bollard. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate (XRX324/XRY324-AP/XRZ324) or borosilicate glass (XRX334/XRY334-AP/XRZ334) prismatic lens. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface (where applicable) on request.

XRX300 series: IP55.

XRY300-AP series: IP66.

XRZ300 series: IP55. Impregnated hardwood post.*

Planted root for bollards, available on request.

Light source:
LED 8-12 W, 3000 K and 4000 K

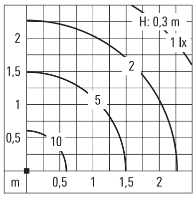
Available distribution:
360° Symmetric, diffused

Accessories:
- **Mounting, page 144**

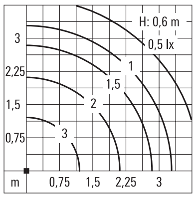
LED

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

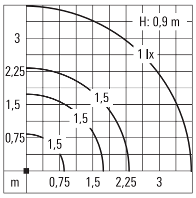
360° Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*
XRX324	LED 8W/350 mA	**115-9687**	1020	0.68	**115-9688**	1080	0.72
XRX334	LED 12W/500 mA	**114-9624**	1420	0.95	**114-9625**	1500	1.0
XRY324-AP	LED 8W/350 mA	**115-9214**	1020	0.95	**115-9215**	1080	1.0
XRY334-AP	LED 12W/500 mA	**114-9612**	1420	0.95	**114-9613**	1500	1.0
XRZ324	LED 8W/350 mA	**115-9618**	1020	---	**115-9619**	1080	---
XRZ334	LED 12W/500 mA	**114-9631**	1420	---	**114-9632**	1500	---



XRX324/334

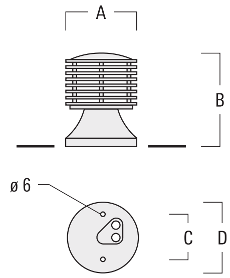


XRY324-AP

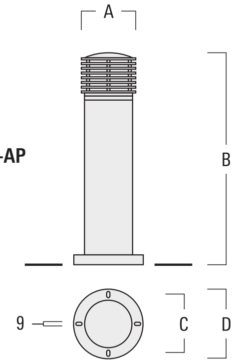


XRY334-AP

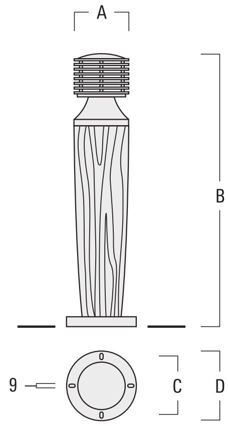
XRX300



XRY300-AP



XRZ300



Accessories:

Dimming interface

1-10 V	for XRX334 XRY324/334-AP XRZ334	**430-0011**
DALI	for XRX334 XRY324/334-AP XRZ334	**430-0013**

Product Dimensions:

XRX/XRY/XRZ series	A	B	C	D
XRX324	ø 180	240	ø 100	ø 180
XRX334	ø 270	360	ø 180	ø 270
XRY324-AP	ø 180	700	ø 202	ø 230
XRY334-AP	ø 270	1000	ø 286	ø 320
XRZ324	ø 180	900	ø 202	ø 230
XRZ334	ø 270	1100	ø 286	ø 320

* Multiplier for isolux values.

RRX300/RRY300-AP/RRZ300 SERIES

Beacon luminaire and bollard. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate (RRX324/RRY324-AP/RRZ324) or borosilicate glass (RRX334/RRY334-AP/RRZ334) prismatic lens. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. 1-10 V analogue dimming or DALI interface (where applicable) on request.

RRX300 series: IP55.

RRY300-AP series: IP66.

RRZ300 series: IP55. Impregnated hardwood post.*

Planted root for bollards, available on request.

Light source:
LED 12 W, 3000 K and 4000 K

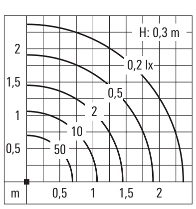
Available distribution:
360° Symmetric, shielded

Accessories:
- **Mounting, page 144**

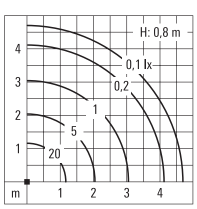
LED

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

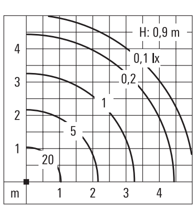
360° Shielded		3000 K	lm	Factor*	4000 K	lm	Factor*
RRX324	LED 12W/500 mA	**115-9664**	1420	0.95	**115-9665**	1500	1.0
RRX334	LED 12W/500 mA	**114-9211**	1420	0.95	**114-9212**	1500	1.0
RRY324-AP	LED 12W/500 mA	**115-9675**	1420	0.95	**115-9676**	1500	1.0
RRY334-AP	LED 12W/500 mA	**114-9222**	1420	0.95	**114-9223**	1500	1.0
RRZ324	LED 12W/500 mA	**115-9648**	1420	---	**115-9649**	1500	---
RRZ334	LED 12W/500 mA	**114-9216**	1420	---	**114-9217**	1500	---



RRX324/334



RRY324-AP



RRY334-AP

Accessories:

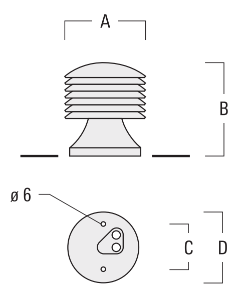
Dimming interface

1-10 V	for RRX334 RRY324/334-AP RRZ334	**430-0011**
DALI	for RRX334 RRY324/334-AP RRZ334	**430-0013**

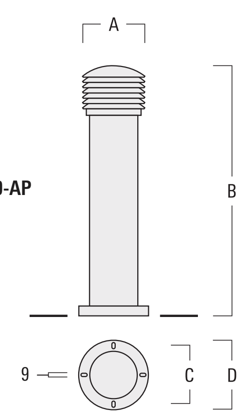
Product Dimensions:

RRX/RRY/RRZ series	A	B	C	D
RRX324	ø 205	240	ø 100	ø 180
RRX334	ø 320	375	ø 180	ø 270
RRY324-AP	ø 205	900	ø 202	ø 230
RRY334-AP	ø 320	1000	ø 286	ø 320
RRZ324	ø 205	900	ø 202	ø 230
RRZ334	ø 320	1100	ø 286	ø 320

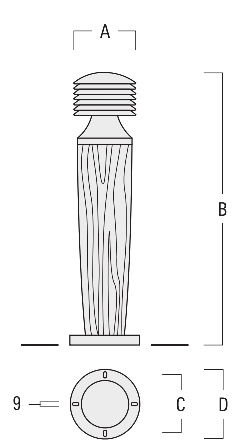
RRX300



RRY300-AP



RRZ300



* Multiplier for isolux values.

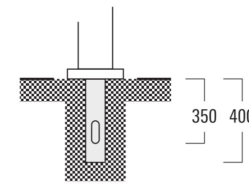
MOUNTING ACCESSORIES

Accessories:

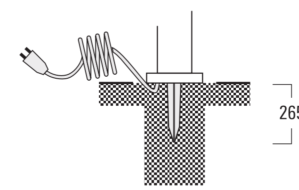
Planted root – Galvanised steel.			kg
ESV4	for KTX234/KTY234-AP	**300-0461**	4.4
ESV4	for ZFY230-AP	**300-0461**	4.4
ESV4	for NTY184	**112-0022**	8.3
ESV4	for QSI254	**300-0459**	6.3
ESV4	for GRY224-AP/GTY224-AP	**300-0461**	4.4
ESV4	for GRY234-AP/GTY234-AP	**300-0464**	6.0
ESV4	for XRY324-AP/XRZ324/RRY324-AP/RRZ324	**300-0464**	6.0
ESV4	for XRY334-AP/XRZ334/RRY334-AP/RRZ334	**300-0586**	7.2

Ground spike – Stainless steel (including 5 m of flexible cable and plug).			kg
EF1	for GTX224/GRX224	**114-9151**	1.0

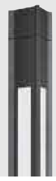
ESV4



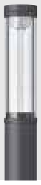
EF1



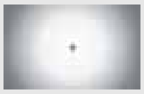
LIGHT COLUMNS



LTP400 SERIES – LED
Page 148-149
Diffused distribution



LTM400-AP SERIES – LED
Page 150-151
[C60] Controlled symmetric distribution



[C60]

LTC400-AP SERIES – HIE
Page 152-153
Shielded light source

LCI400 SERIES – HIT
Page 154-155
Indirect distribution

LGI400 SERIES – HIT
Page 156-157
Indirect distribution

LTP400 SERIES

Trilight column. IP44. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Prismatic polycarbonate lenses. Silicone rubber gaskets.

Integral EC electronic converter. CAD-optimized lens for superior illumination and glare control.

Service door with fused cable connecting box.

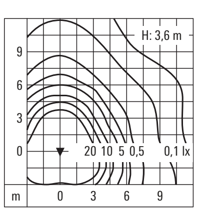
Planted root available on request.

Light source:
LED 37 W, 3000 K and 4000 K
(for HIT, refer to www.we-ef.com)

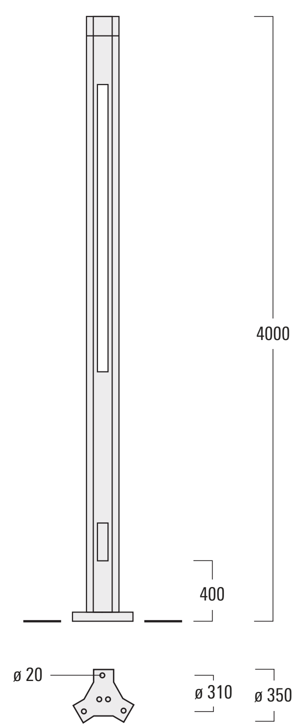
Available distribution:
Diffused

Eli and Edythe Broad Art Museum. Michigan State University, East Lansing (USA). Lighting design: ARUP, Peter Basso Associates.

Diffused		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
LTP444	LED FT 37W/1050 mA	**116-0207**	5720	1.00	**116-0205**	5890	1.03	32.6

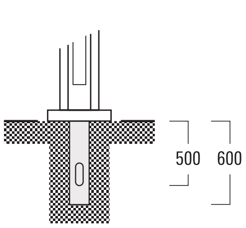


Diffused



Accessories:

Planted root – Galvanised steel.			kg
ESD6	for LTP444	**300-0456**	11.4



ESD6

* Multiplier for isolux values.

LTM400-AP SERIES

Light column. IP55. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. CAD-optimised lens for superior illumination and glare control.

Service door with fused cable connecting box.

Planted root available on request.

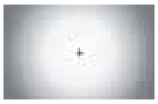
Light source:
LED 17-24 W, 3000 K and 4000 K
(for HIE, refer to www.we-ef.com)

Available distribution:
[C60]

IOS

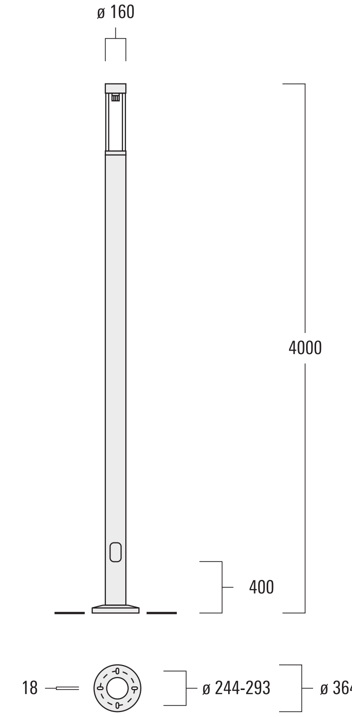
LED

Heiligendamm Pier. Heiligendamm (D). Lighting design: Institut für Gebäude + Energie + Licht Planung, Prof. Dr. Ing. Thomas Röhmhild.

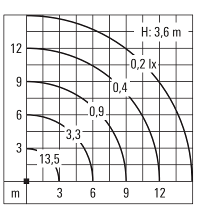


[C60]

IOS® Innovative Optical System:
[C60] Controlled symmetric distribution



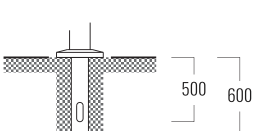
[C60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
LTM440-AP	LED FT 17W/500 mA	**115-9446**	2800	1.00	**115-9447**	2915	1.04	25
LTM440-AP	LED FT 24W/700 mA	**115-9448**	3795	1.36	**115-9449**	3940	1.41	25



[C60]

Accessories:

Planted root – Galvanised steel.			kg
ESV6	for LTM440-AP	**300-0457**	18.0



ESV6

* Multiplier for isolux values.

LTC400-AP SERIES

Light column. IP55. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets. Anodised aluminium reflector. Incorporates an indirect reflector made from anodised aluminium for light control and shielding.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request.

Service door with fused cable connecting box.

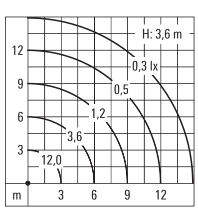
Planted root available on request.

Light source:
HIE 70 W

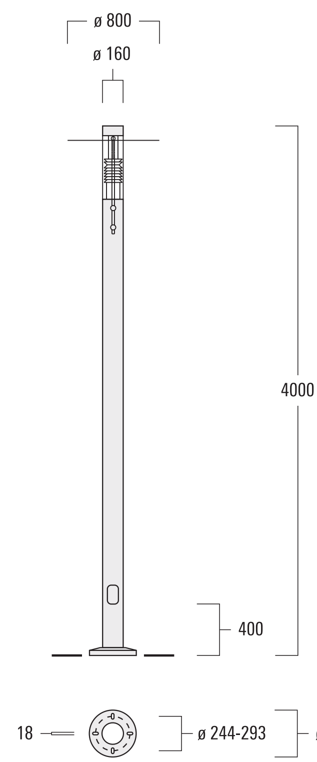
Available distribution:
Shielded

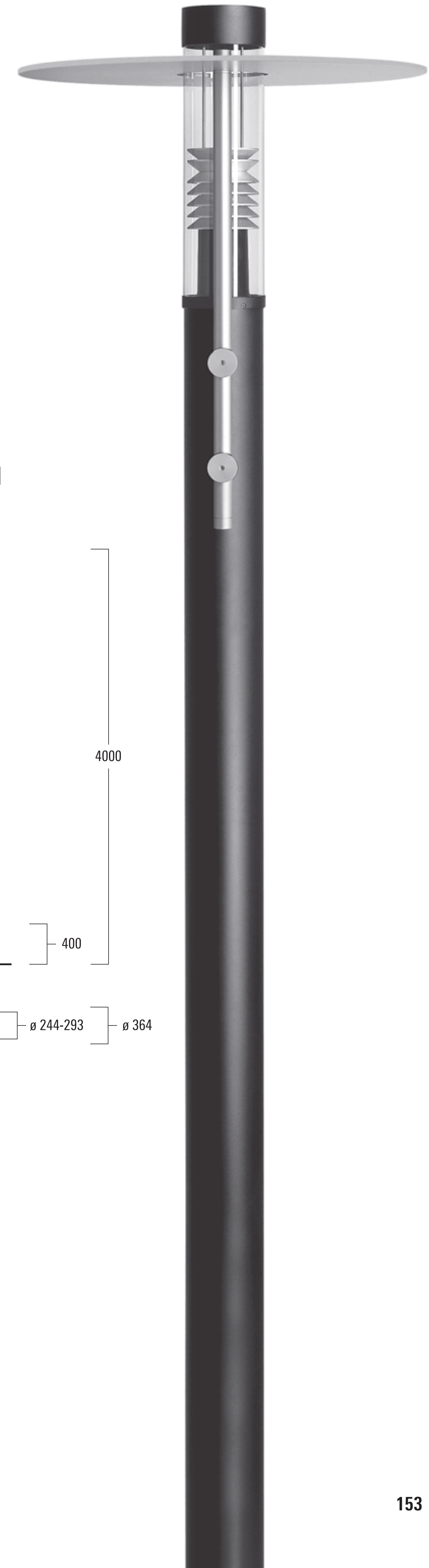
England Quarter. Brighton (UK). Architect: David Huskinson Associates.

Shielded			lm	Gear	kg
LTC440-AP	HIE-CE 70W/E27	**115-0677**	6700	[HPF]	27.0
LTC440-AP	HIE-CE 70W/E27	**115-9474**	6700	[ECG]	25.7



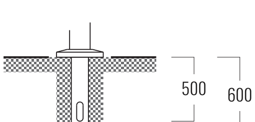
Shielded





Accessories:

Planted root – Galvanised steel.			kg
ESV6	for LTC440-AP	**300-0457**	18.0



ESV6

LCI400 SERIES

Light column. IP66. IK08. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gaskets. Anodised aluminium reflector. Indirect reflector made from anodised aluminium, adjustable from 10° to 30° above horizontal.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request.

Service door with fused cable connecting box.

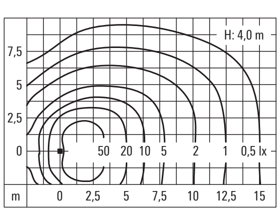
Planted root available on request.

Light source:
HIT 70-150 W

Available distribution:
Indirect

Bahnhofstrasse. Duderstadt (D).

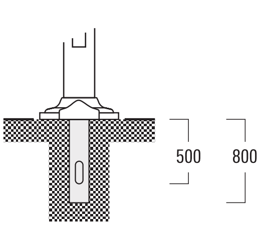
Indirect			lm	Gear	Factor*	kg
LCI440	HIT-CE 70W/G12	**118-0044**	7300	[HPF]	1.00	37.9
LCI440	HIT-CE 70W/G12	**118-0045**	7300	[ECG]	1.00	36.0
LCI440	HIT-CE 150W/G12	**118-0047**	15000	[HPF]	2.05	39.1
LCI440	HIT-CE 150W/G12	**118-0048**	15000	[ECG]	2.05	37.2



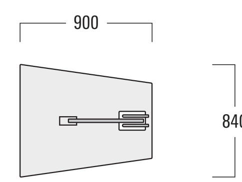
Indirect

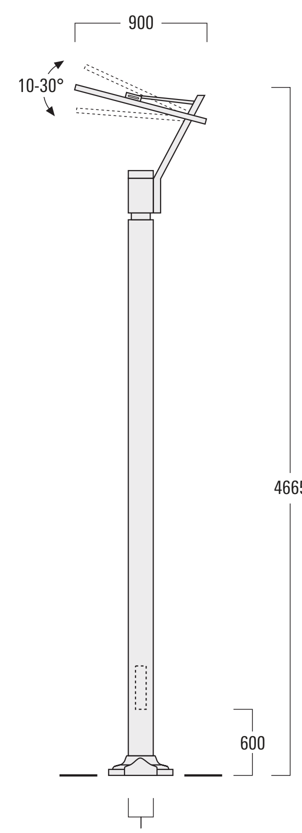
Accessories:

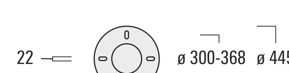
Planted root – Galvanised steel.			kg
ESV8	for LCI440	**300-0949**	24.3



ESV8







* Multiplier for isolux values.

LGI400 SERIES

Light column. IP66. IK10. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gaskets. Anodised aluminium reflector. Twin indirect reflectors made from anodised aluminium, adjustable by ± 7.5°.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request.

Service door with fused cable connecting box.

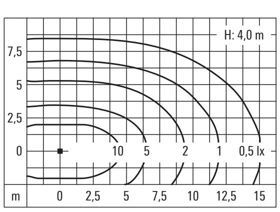
Planted root available on request.

Light source:
HIT 70-150 W

Available distribution:
Indirect

Moora Park Foreshore. Brisbane (AUS). Landscape architect & lighting design: Neil Ariel, Brisbane City Council Design.

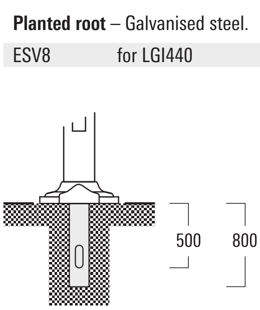
Indirect			lm	Gear	Factor*	kg
LGI440	HIT-CE 70W/G12	**118-0074**	7300	[HPF]	1.00	30.4
LGI440	HIT-CE 70W/G12	**118-0079**	7300	[ECG]	1.00	28.5
LGI440	HIT-CE 150W/G12	**118-0076**	15000	[HPF]	2.05	31.6
LGI440	HIT-CE 150W/G12	**118-0078**	15000	[ECG]	2.05	29.7



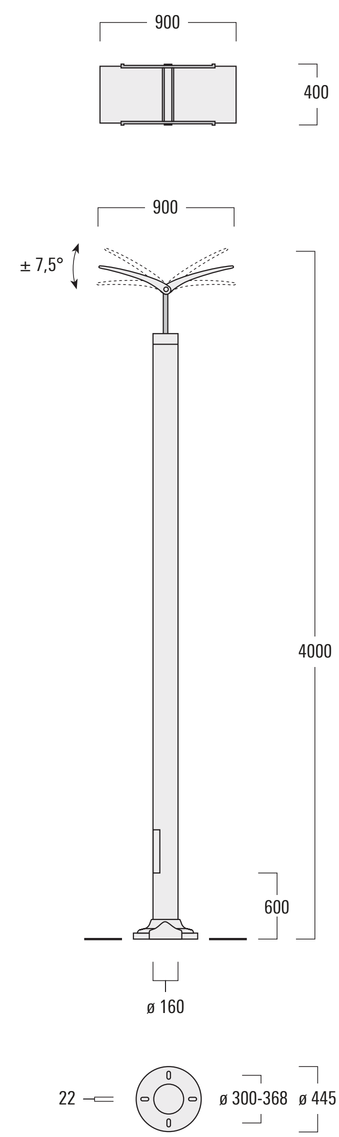
Indirect

Accessories:

Planted root – Galvanised steel.			kg
ESV8	for LGI440	**300-0949**	24.3



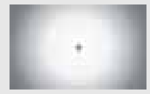
ESV8



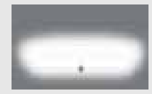
* Multiplier for isolux values.

STREET AND AREA LIGHTING

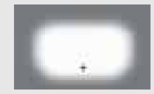
ZFT400 SERIES – LED
Page 162-163
[C60] Controlled symmetric distribution
[S65] Streetlighting distribution
[R65] Rectangular 'forward throw' distribution



[C60]

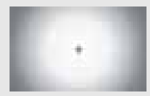


[S65]



[R65]

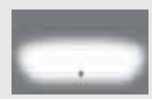
ZA600 SERIES – LED
Page 164-165
[C60] Controlled symmetric distribution



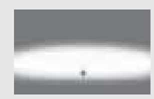
[C60]

RMT300 SERIES – LED
Page 166-169
[P65] Pesdestrian/bicycle lane distribution
[S65] [S70] Streetlighting distribution

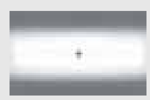
[P65] One-sided



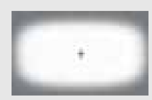
[S65] One-sided



[S70] One-sided



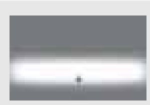
[P65] Two sided



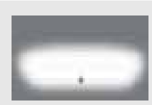
[S65] Two sided

[S70] Two sided

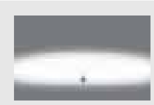
RMM300 SERIES – LED
Page 170-173
[P65] Pesdestrian/bicycle lane distribution
[S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution



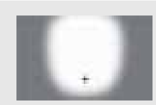
[P65]



[S65]

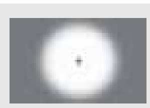


[S70]

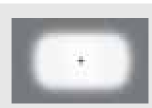


[A60]

CFT500 SERIES – LED
Page 174-175
[C50] Symmetric distribution, medium
[R] Rectangular distribution

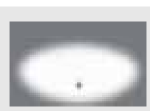


[C50]

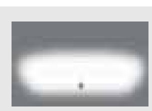


[R]

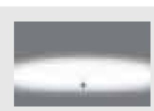
RMC300 SERIES – LED
Page 176-179
[S60] [S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



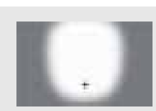
[S60]



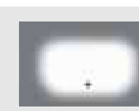
[S65]



[S70]



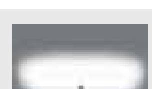
[A60]



[R65]

RFL500 SERIES – LED
Page 180-185
[S60] [S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

[S60]



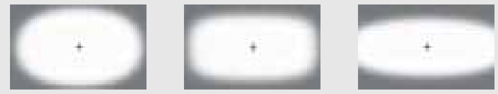
[S65]

[S70]

[A60]

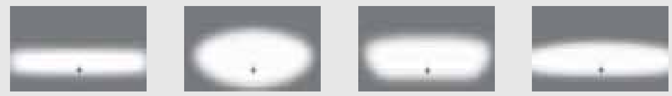
[R65]

RFS500 SERIES – LED
Page 186-187
[S60] [S65] [S70] Streetlighting distribution

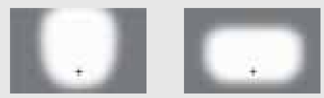


[S60] [S65] [S70]

VFL500 SERIES – LED
Page 188-191
[P65] Pesdestrian/bicycle lane distribution
[S60] [S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

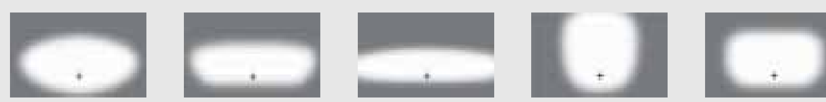


[P65] [S60] [S65] [S70]



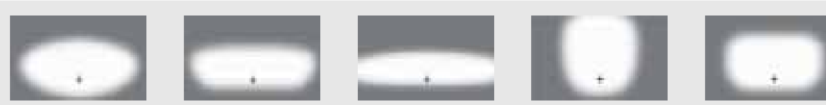
[A60] [R65]

VFL500-SE SERIES – LED
Page 192-195
[S60] [S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



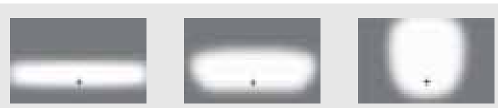
[S60] [S65] [S70] [A60] [R65]

PFL500 SERIES – LED
Page 196-199
[S60] [S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



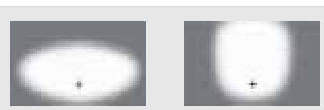
[S60] [S65] [S70] [A60] [R65]

PFL200 SERIES – LED
Page 200-201
[P65] Pesdestrian/bicycle lane distribution
[S65] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution



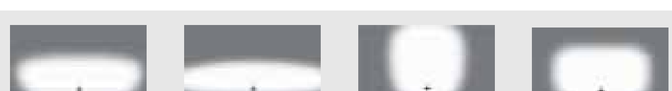
[P65] [S65] [A60]

PFL200 SERIES – HIT
Page 202-205
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution



[S60] [A60]

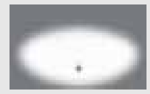
FLA400 #5 SERIES – LED
Page 206-209
[S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



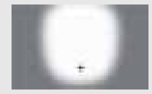
[S65] [S70] [A60] [R65]

STREET AND AREA LIGHTING

FLA400 #5 SERIES – HIT
Page 210-211
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

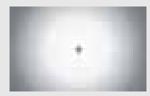


[S60]



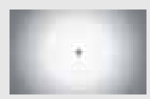
[A60]

ALP500 SERIES – LED
Page 212-213
[C60] Controlled symmetric distribution



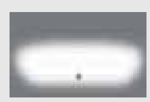
[C60]

AOP500 SERIES – LED
Page 214-215
[C60] Controlled symmetric distribution

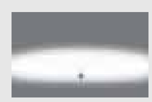


[C60]

ASP500 SERIES – LED
Page 216-217
[S65] [S70] Streetlighting distribution
[R65] Rectangular 'forward throw' distribution



[S65]

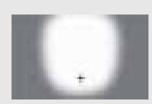


[S70]

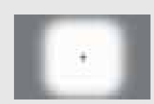
[R65]

RBM600 SERIES – HIT
Page 220-221
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[Q] Square distribution

[S60]

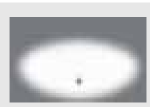


[A60]

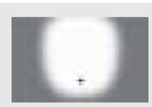


[Q]

RBL600 SERIES – HIT
Page 222-225
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

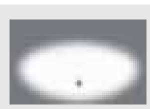


[S60]

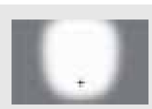


[A60]

SBL400 SERIES – HIT
Page 226-227
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution



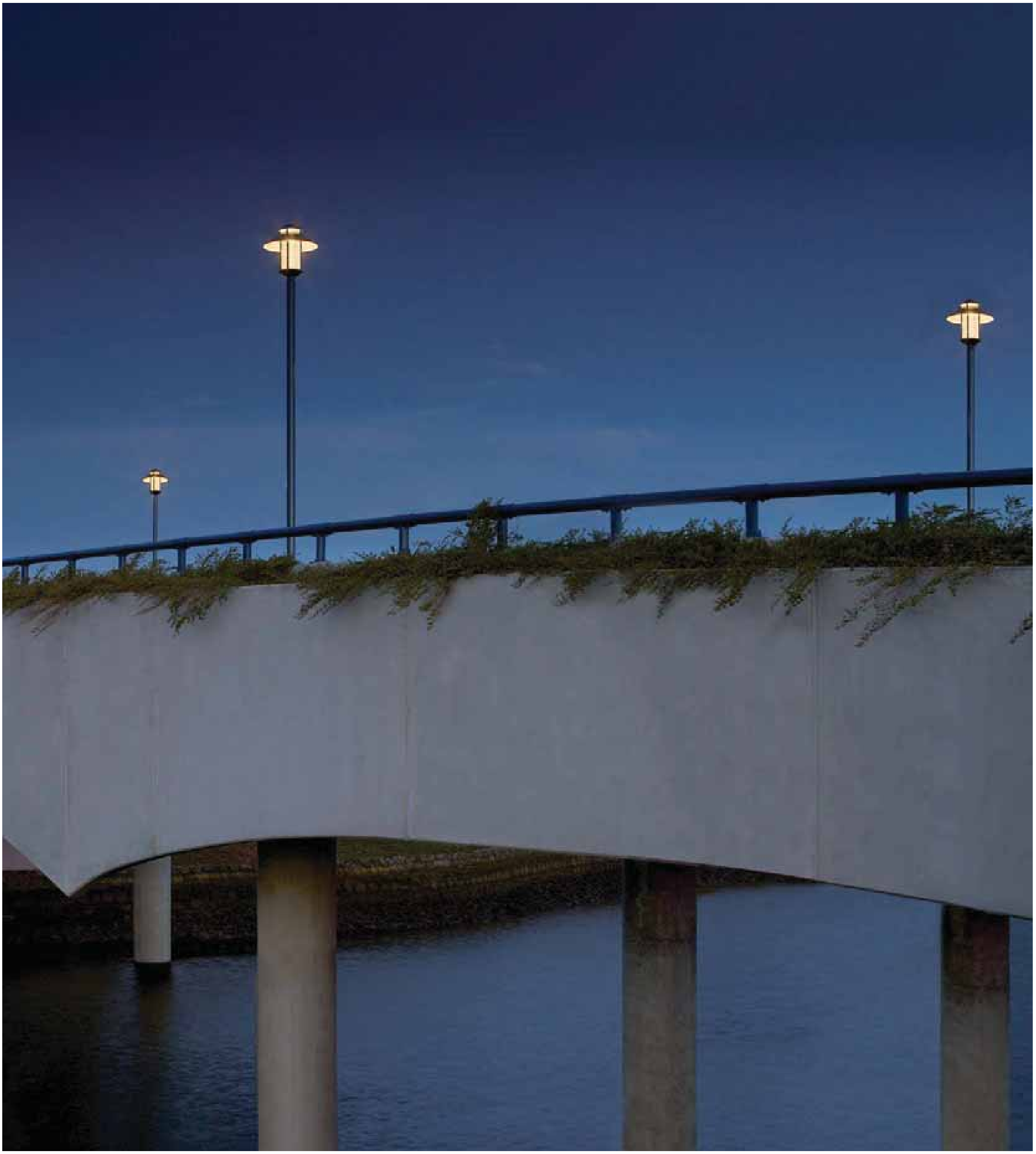
[S60]



[A60]

WE-EF CONTROL

WE-EF CONTROL AND SURGE PROTECTION
Page 228-231
- Energy-saving solutions
- SP10 enhanced surge protection



ZFT400 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK09. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection include PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. PMMA lens. Silicone rubber gaskets. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised optics for superior illumination and glare control.

The ZFT series features a comprehensive set of accessories for a wide range of applications. For example: a wireless radio control node, a concealed photocell, etc. For more details, refer to www.we-ef.com.

Light source:
LED 9-54 W, 3000 K and 4000 K

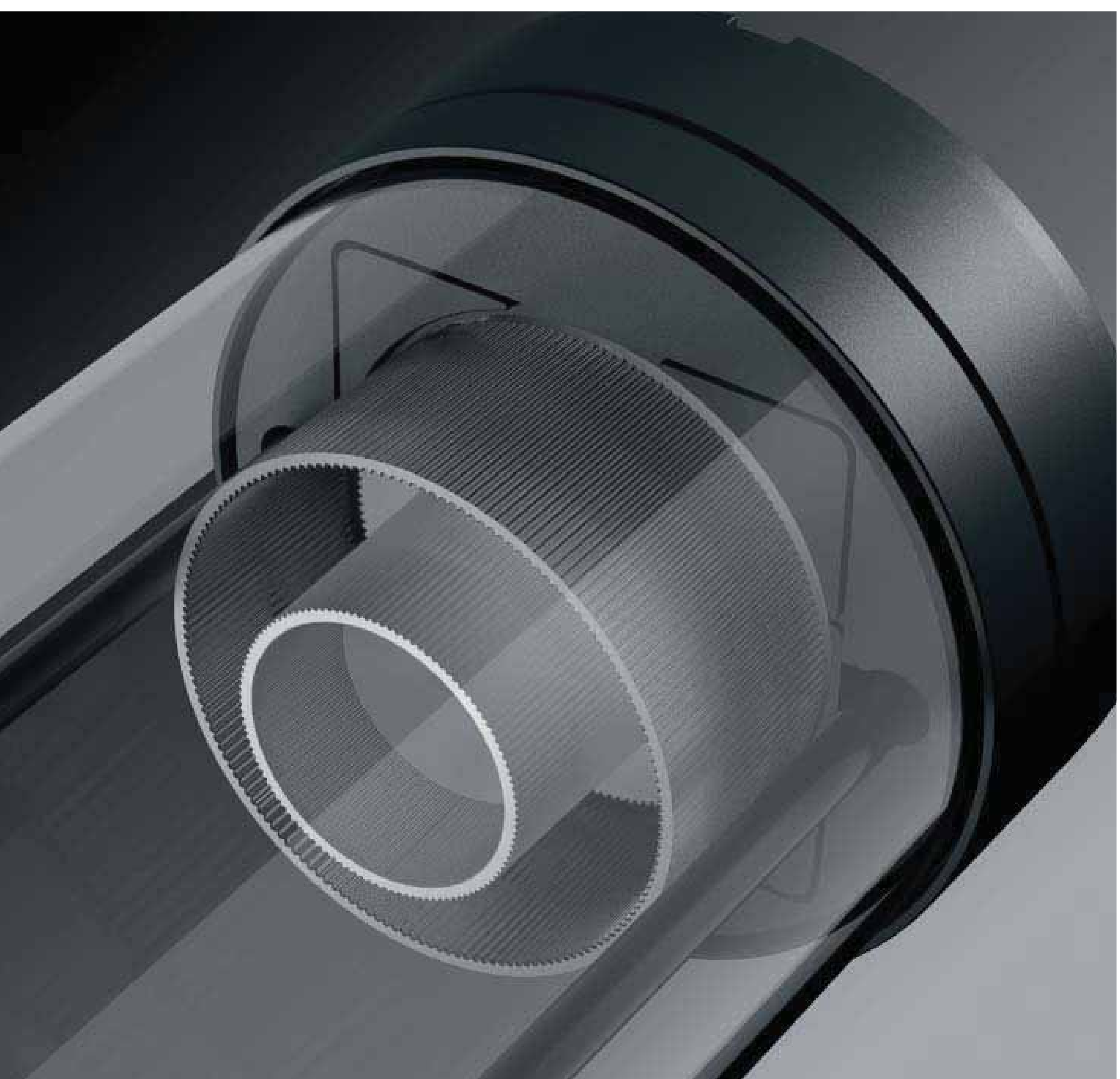
Available distributions:
[C60] [S65] [R65]

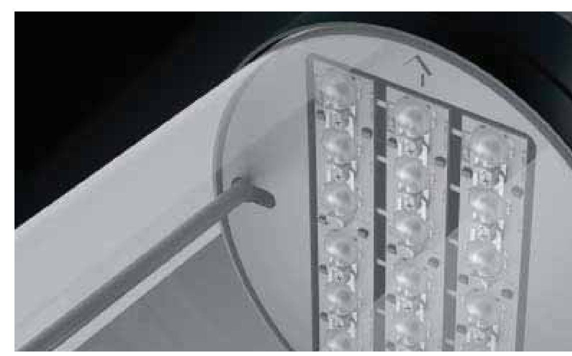
Accessories:
- **Mounting, page 218**
- **Poles, page 322-331**

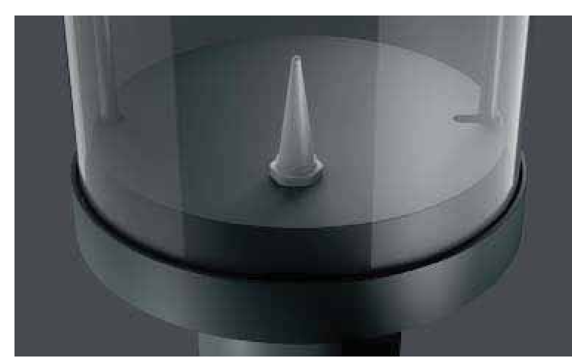
WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

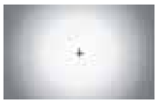
IOS®

LED

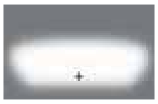




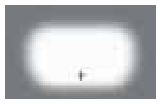




[C60]



[S65]



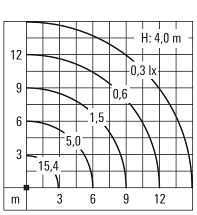
[R65]

IOS® Innovative Optical System:
[C60] Controlled symmetric distribution
[S65] Streetlighting distribution
[R65] Rectangular 'forward throw' distribution

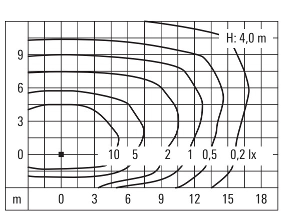
[C60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
ZFT440	LED-FT 12W/350 mA	**115-1341**	1860	0.47	**115-1342**	1915	0.49	5.5
ZFT440	LED-FT 24W700mA	**115-1243**	3795	0.96	**115-1244**	3940	1.00	5.5
ZFT470	LED-FT 24W/700 mA	**115-1353**	3795	0.96	**115-1354**	3940	1.00	7.2
ZFT470	LED-FT 37W/1050 mA	**115-1355**	5720	1.45	**115-1356**	5890	1.49	7.2

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
ZFT444	9 LED 9W/350 mA	**115-1369**	1211	0.55	**115-1370**	1211	0.55	5.6
ZFT444	9 LED 18W/700 mA	**115-1371**	2213	1.00	**115-1372**	2213	1.00	5.6
ZFT474	18 LED 36W/700 mA	**115-1359**	4427	2.00	**115-1360**	4427	2.00	7.3
ZFT474	18 LED 54W/1050 mA	**115-1314**	7020	3.17	**115-1315**	8100	3.66	7.3

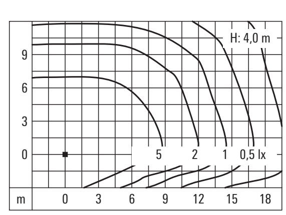
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
ZFT444	9 LED 9W/350 mA	**115-1365**	1211	0.55	**115-1366**	1211	0.55	5.6
ZFT444	9 LED 18W/700 mA	**115-1367**	2213	1.00	**115-1368**	2213	1.00	5.6
ZFT474	18 LED 36W/700 mA	**115-1357**	4427	2.00	**115-1358**	4427	2.00	7.3
ZFT474	18 LED 54W/1050 mA	**115-1312**	7020	3.17	**115-1313**	8100	3.66	7.3



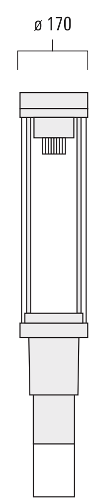
[C60]



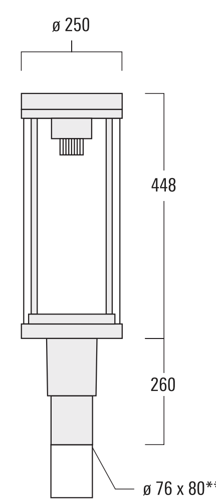
[S65]



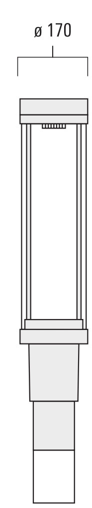
[R65]



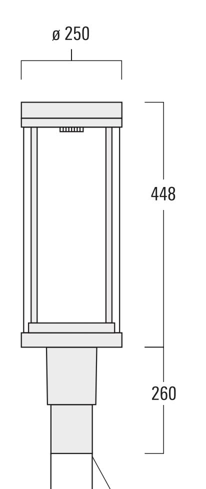
ZFT440



ZFT470



ZFT444



ZFT474

* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

ZA600 SERIES

[Factory-sealed] Pole mounted luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets. Luminaire is factory-sealed and does not need to be opened during installation.

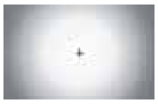
Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control.

Light source:
LED 17-24 W, 3000 K and 4000 K
(for HIE, refer to www.we-ef.com)

Available distribution:
[C60]

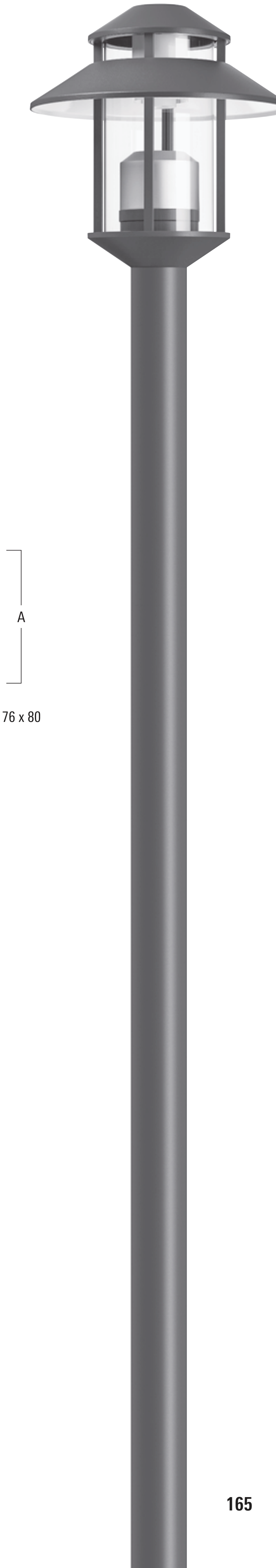
Accessories:
- **Mounting, page 218**
- **Poles, page 322-331**

Egestorf (D).

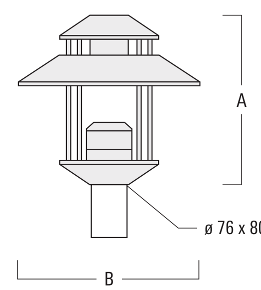


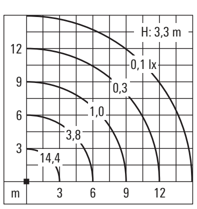
[C60]

IOS® Innovative Optical System:
[C60] Controlled symmetric distribution



[C60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
ZA630	LED FT 17W/500 mA	**159-0298**	2800	0.96	**159-0299**	2915	1.00	7.7
ZA630	LED FT 24W/700 mA	**159-0306**	3795	1.30	**159-0307**	3940	1.35	7.7
ZA640	LED FT 17W/500 mA	**159-0302**	2800	0.96	**159-0303**	2915	1.00	9.1
ZA640	LED FT 24W/700 mA	**159-0308**	3795	1.30	**159-0309**	3940	1.35	9.1





[C60]

Product Dimensions:

ZA series	A	B
ZA630	470	ø 460
ZA640	550	ø 580

* Multiplier for isolux values.

RMT300 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK09. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for pathway and streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

The two-sided light output versions are available with one or two circuits. Two circuits allow separate switching.

Light source:
LED 12-104 W, 3000 K and 4000 K

Available distributions:
[P65] [S65] [S70]

For additional types of light distribution:
[R65], refer to www.we-ef.com.

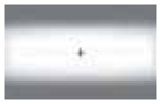
Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

IOS

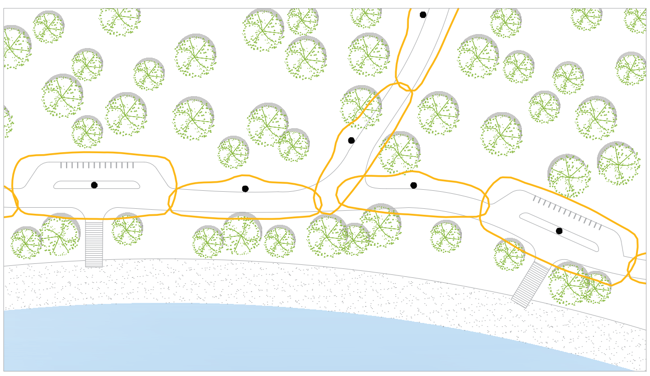
LED

[P65] One-sided

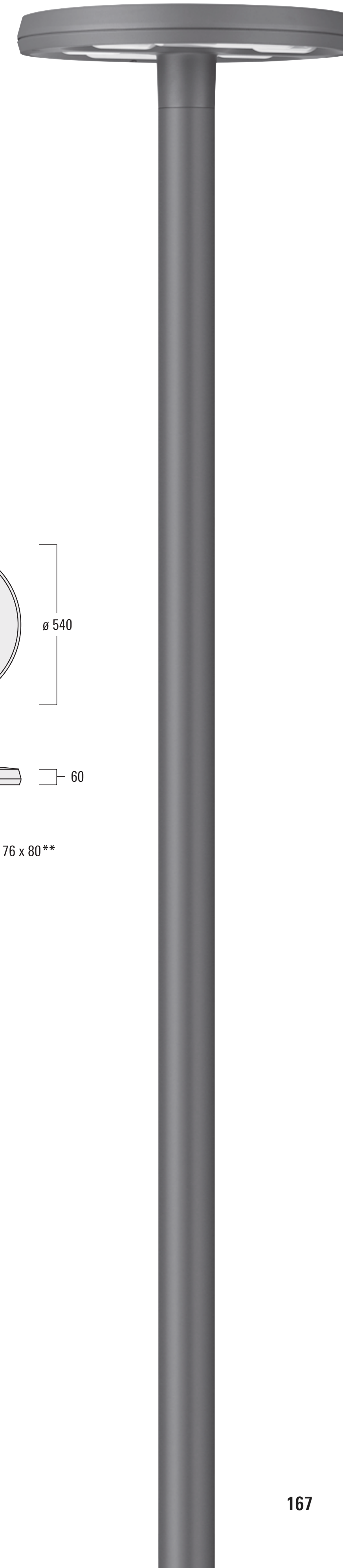


[P65] Two-sided

IOS® Innovative Optical System:
[P65] Pedestrian/bicycle lane distribution



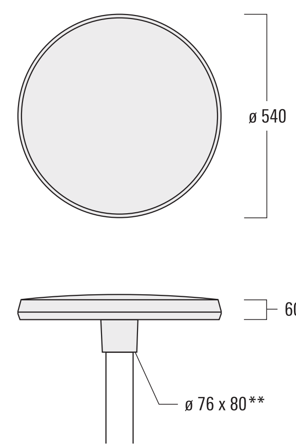
[P65] Pedestrian/bicycle lane distribution for nature reserve.

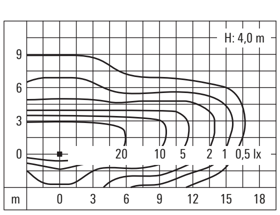


[P65] One-sided		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	12 LED 12W/350 mA	**105-7008**	1614	0.55	**105-7024**	1614	0.55	8.0
RMT320	12 LED 24W/700 mA	**105-7009**	2951	1.00	**105-7025**	2951	1.00	8.0
RMT320	12 LED 36W/1050 mA	**105-7016**	4680	1.59	**105-7032**	5400	1.83	8.0
RMT320	12 LED 52W/1400 mA	**105-7017**	5986	2.03	**105-7033**	6907	2.34	8.0

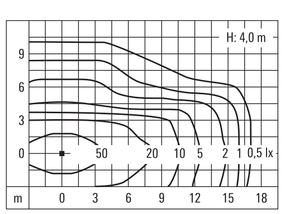
[P65] Two-sided – One circuit		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	24 LED 24W/350 mA	**105-7012**	3228	1.00	**105-7028**	3228	1.00	8.0
RMT320	24 LED 48W/700 mA	**105-7013**	5903	1.83	**105-7029**	5903	1.83	8.0
RMT320	24 LED 72W/1050 mA	**105-7018**	9360	2.90	**105-7034**	10800	3.35	8.0
RMT320	24 LED 104W/1400 mA	**105-7019**	11971	3.71	**105-7035**	13813	4.28	8.0

[P65] Two-sided – Two circuits		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	2 x 12 LED 24W/350 mA	**105-7014**	3228	1.00	**105-7030**	3228	1.00	8.0
RMT320	2 x 12 LED 48W/700 mA	**105-7015**	5903	1.83	**105-7031**	5903	1.83	8.0
RMT320	2 x 12 LED 72W/1050 mA	**105-7020**	9360	2.90	**105-7036**	10800	3.35	8.0



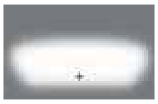


[P65] One-sided

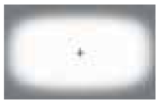


[P65] Two-sided

* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

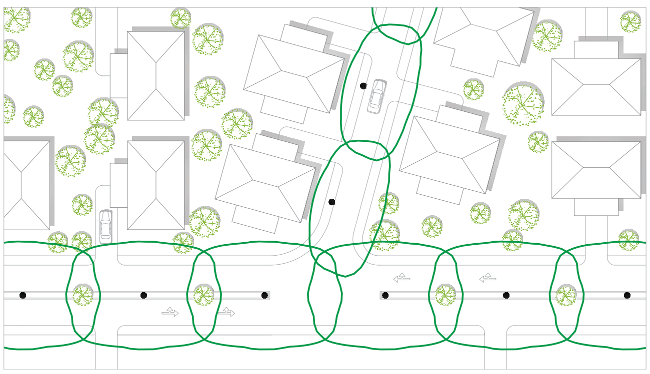


[S65] One-sided

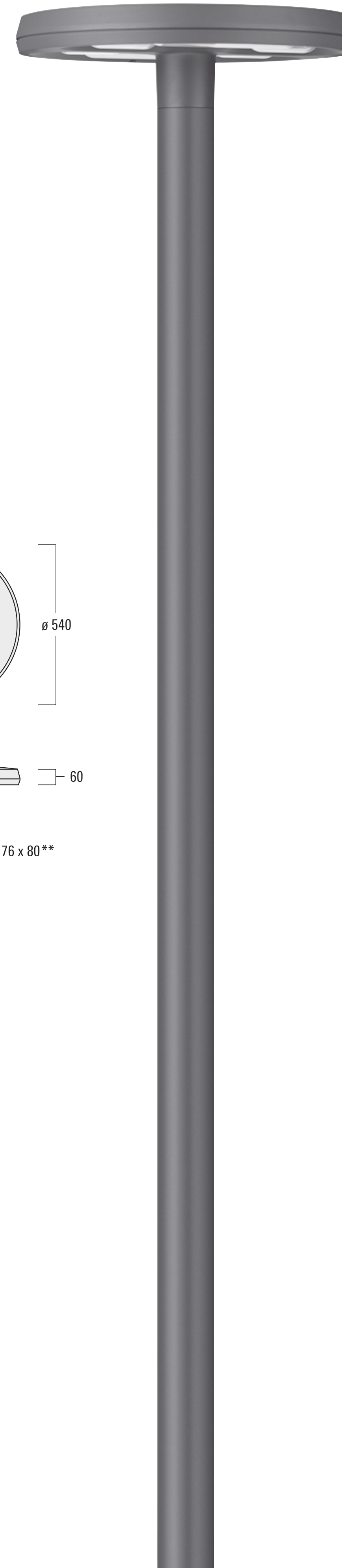


[S65] Two-sided

IOS® Innovative Optical System:
[S65] Streetlighting distribution



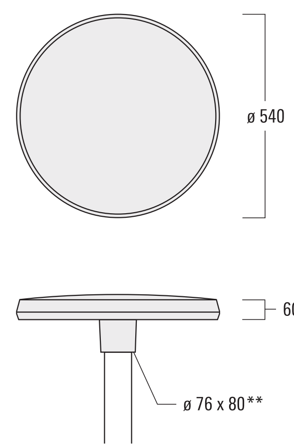
[S65] Streetlighting distribution for residential areas.

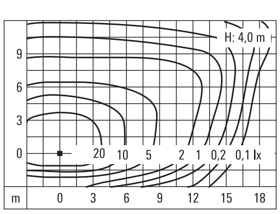


[S65] One-sided		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	12 LED 12W/350 mA	**105-9872**	1614	0.55	**105-9882**	1614	0.55	8.0
RMT320	12 LED 24W/700 mA	**105-9873**	2951	1.00	**105-9883**	2951	1.00	8.0
RMT320	12 LED 36W/1050 mA	**105-9930**	4680	1.59	**105-9936**	5400	1.83	8.0
RMT320	12 LED 52W/1400 mA	**105-9931**	5986	2.03	**105-9937**	6907	2.34	8.0

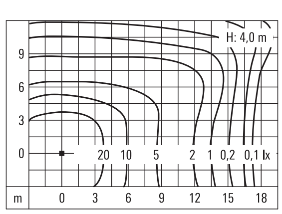
[S65] Two-sided – One circuit		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	24 LED 24W/350 mA	**105-9876**	3228	1.00	**105-9886**	3228	1.00	8.0
RMT320	24 LED 48W/700 mA	**105-9877**	5903	1.83	**105-9887**	5903	1.83	8.0
RMT320	24 LED 72W/1050 mA	**105-9932**	9360	2.90	**105-9938**	10800	3.35	8.0
RMT320	24 LED 104W/1400 mA	**105-9933**	11971	3.71	**105-9939**	13813	4.28	8.0

[S65] Two-sided – Two circuits		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	2 x 12 LED 24W/350 mA	**105-9878**	3228	1.00	**105-9888**	3228	1.00	8.0
RMT320	2 x 12 LED 48W/700 mA	**105-9879**	5903	1.83	**105-9889**	5903	1.83	8.0
RMT320	2 x 12 LED 72W/1050 mA	**105-9934**	9360	2.90	**105-9940**	10800	3.35	8.0



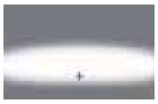


[S65] One-sided

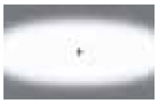


[S65] Two-sided

* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

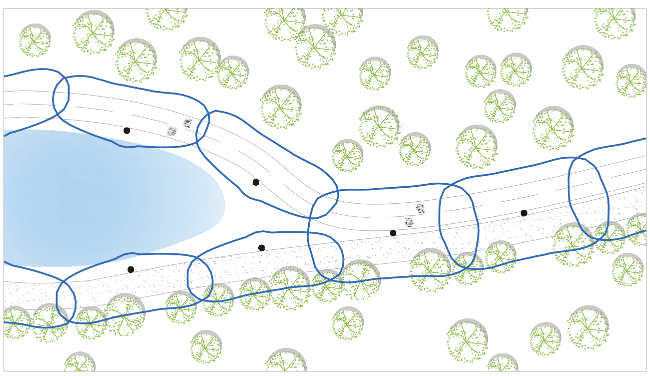


[S70] One-sided

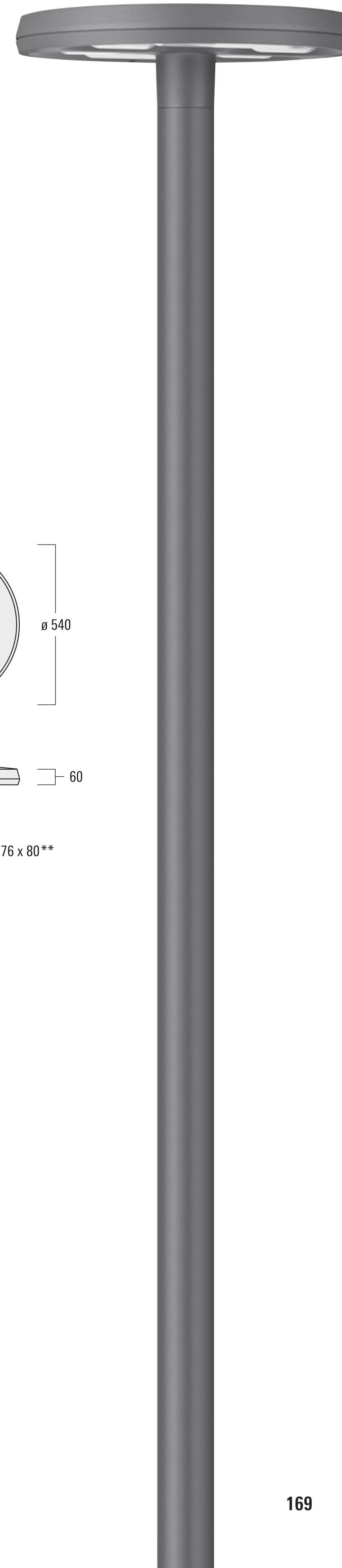


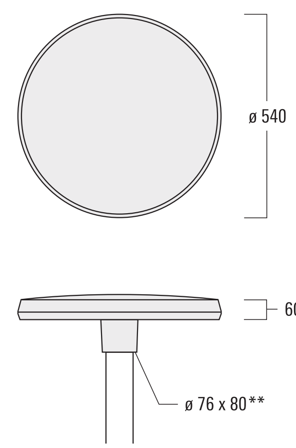
[S70] Two-sided

IOS® Innovative Optical System:
[S70] Streetlighting distribution



[S70] Streetlighting distribution for public parks.

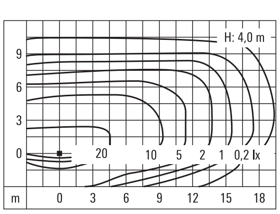




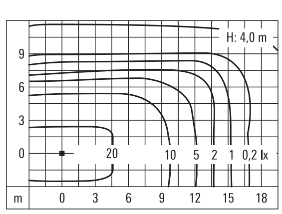
[S70] One-sided		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	12 LED 12W/350 mA	**105-9892**	1614	0.55	**105-9902**	1614	0.55	8.0
RMT320	12 LED 24W/700 mA	**105-9893**	2951	1.00	**105-9903**	2951	1.00	8.0
RMT320	12 LED 36W/1050 mA	**105-9942**	4680	1.59	**105-7000**	5400	1.83	8.0
RMT320	12 LED 52W/1400 mA	**105-9943**	5986	2.03	**105-7001**	6907	2.34	8.0

[S70] Two-sided – One circuit		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	24 LED 24W/350 mA	**105-9896**	3228	1.00	**105-9906**	3228	1.00	8.0
RMT320	24 LED 48W/700 mA	**105-9897**	5903	1.83	**105-9907**	5903	1.83	8.0
RMT320	24 LED 72W/1050 mA	**105-9944**	9360	2.90	**105-7002**	10800	3.35	8.0
RMT320	24 LED 104W/1400 mA	**105-9945**	11971	3.71	**105-7003**	13813	4.28	8.0

[S70] Two-sided – Two circuits		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMT320	2 x 12 LED 24W/350 mA	**105-9898**	3228	1.00	**105-9908**	3228	1.00	8.0
RMT320	2 x 12 LED 48W/700 mA	**105-9899**	5903	1.83	**105-9909**	5903	1.83	8.0
RMT320	2 x 12 LED 72W/1050 mA	**105-9946**	9360	2.90	**105-7004**	10800	3.35	8.0



[S70] One-sided



[S70] Two-sided

* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

RMM300 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK09. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for pathway and streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 24-104 W, 3000 K and 4000 K

Available distributions:
[P65] [S65] [S70] [A60]

Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

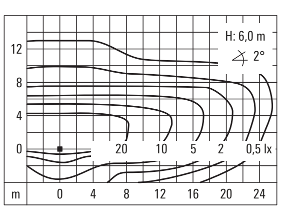
IOS.

LED

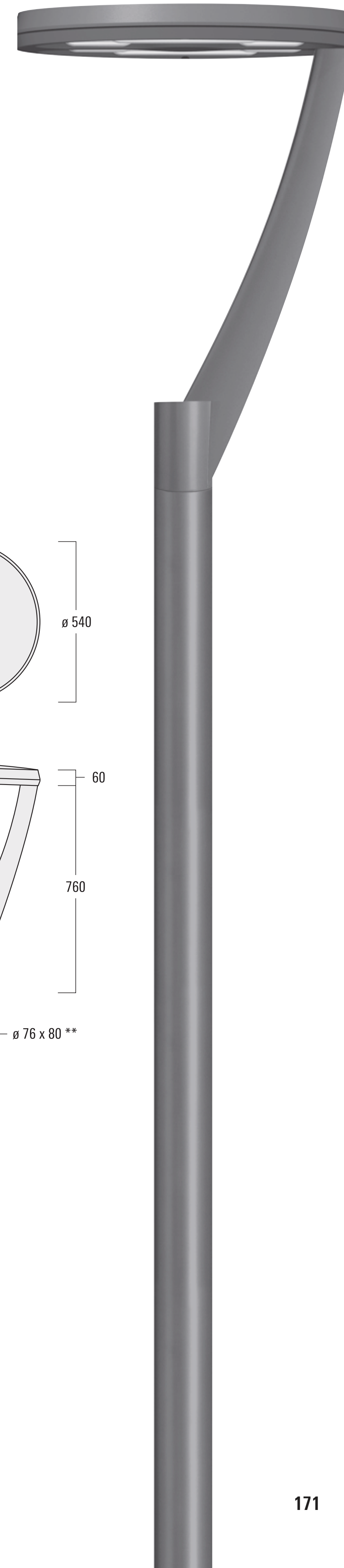
[P65]

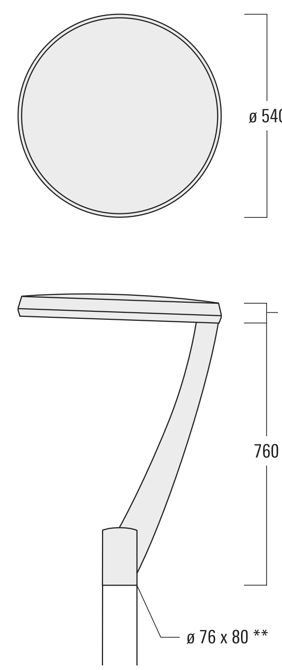
IOS® Innovative Optical System:
[P65] Pedestrian/bicycle lane distribution

[P65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMM320	24 LED 24W/350 mA	**105-9975**	3228	0.55	**105-9979**	3228	0.55	10.0
RMM320	24 LED 48W/700 mA	**105-9976**	5903	1.00	**105-9980**	5903	1.00	10.0
RMM320	24 LED 72W/1050 mA	**105-9977**	9360	1.59	**105-9981**	10800	1.83	10.0
RMM320	24 LED 104W/1400 mA	**105-9978**	11971	2.03	**105-9982**	13813	2.34	10.0

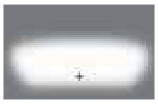


[P65]

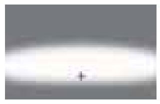




* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

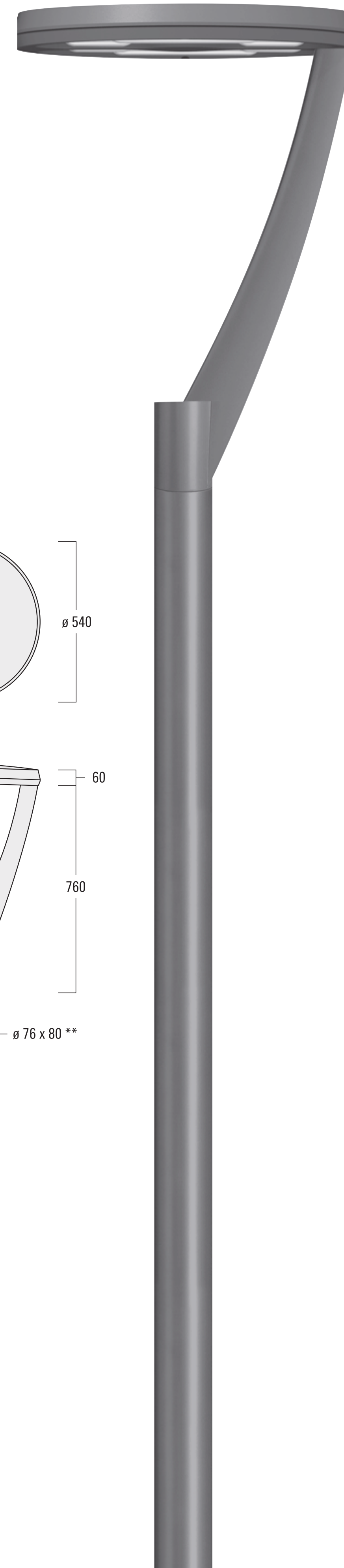


[S65]



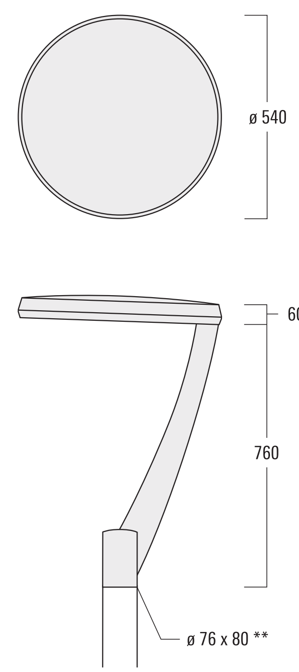
[S70]

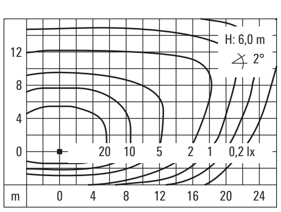
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution



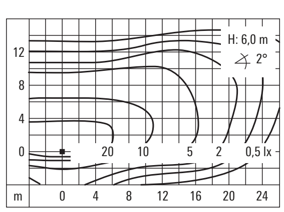
[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMM320	24 LED 24W/350 mA	**105-9950**	3228	0.55	**105-9952**	3228	0.55	10.0
RMM320	24 LED 48W/700 mA	**105-9951**	5903	1.00	**105-9953**	5903	1.00	10.0
RMM320	24 LED 72W/1050 mA	**105-9965**	9360	1.59	**105-9969**	10800	1.83	10.0
RMM320	24 LED 104W/1400 mA	**105-9966**	11971	2.03	**105-9970**	13813	2.34	10.0

[S70]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMM320	24 LED 24W/350 mA	**105-9954**	3228	0.55	**105-9956**	3228	0.55	10.0
RMM320	24 LED 48W/700 mA	**105-9955**	5903	1.00	**105-9957**	5903	1.00	10.0
RMM320	24 LED 72W/1050 mA	**105-9971**	9360	1.59	**105-9973**	10800	1.83	10.0
RMM320	24 LED 104W/1400 mA	**105-9972**	11971	2.03	**105-9974**	13813	2.34	10.0



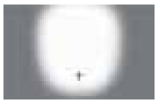


[S65]



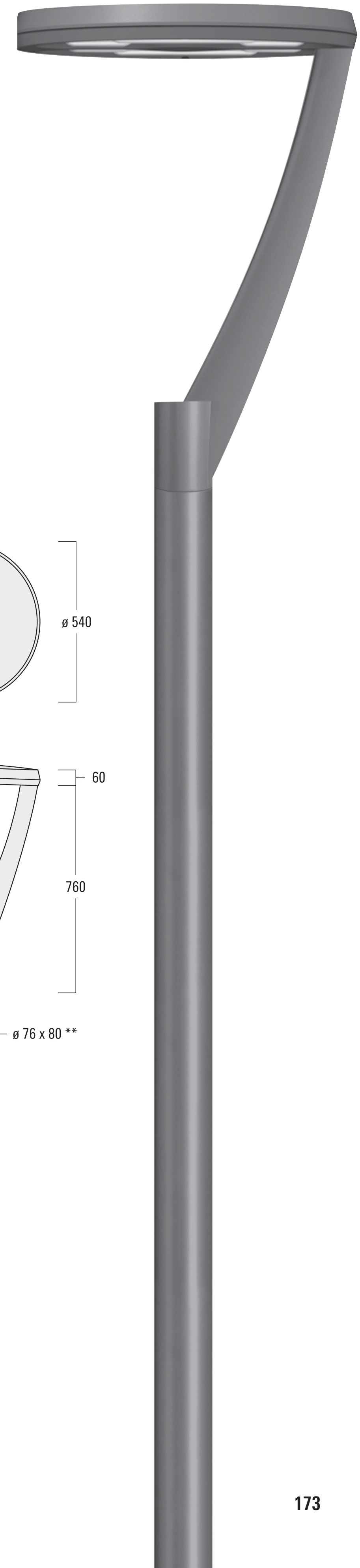
[S70]

* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

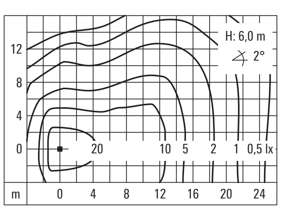


[A60]

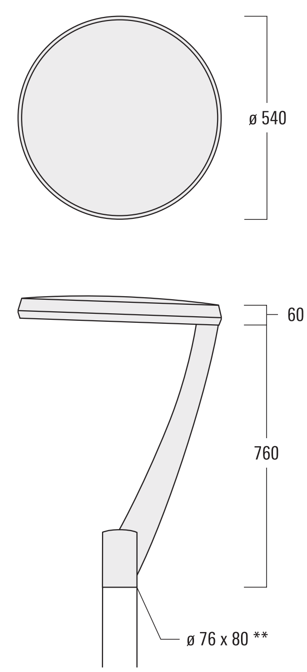
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution



[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMM320	24 LED 24W/350 mA	**105-9958**	3228	0.55	**105-9960**	3228	0.55	10.0
RMM320	24 LED 48W/700 mA	**105-9959**	5903	1.00	**105-9961**	5903	1.00	10.0
RMM320	24 LED 72W/1050 mA	**105-9983**	9360	1.59	**105-9985**	10800	1.83	10.0
RMM320	24 LED 104W/1400 mA	**105-9984**	11971	2.03	**105-9986**	13813	2.34	10.0



[A60]



* Multiplier for isolux values.
** Optional fixing dimensions ø 60 x 80 mm, on request.

CFT500 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

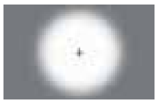
Light source:
LED 24-108 W, 3000 K and 4000 K

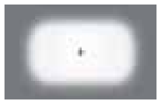
Available distributions:
[C50] [R]

Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

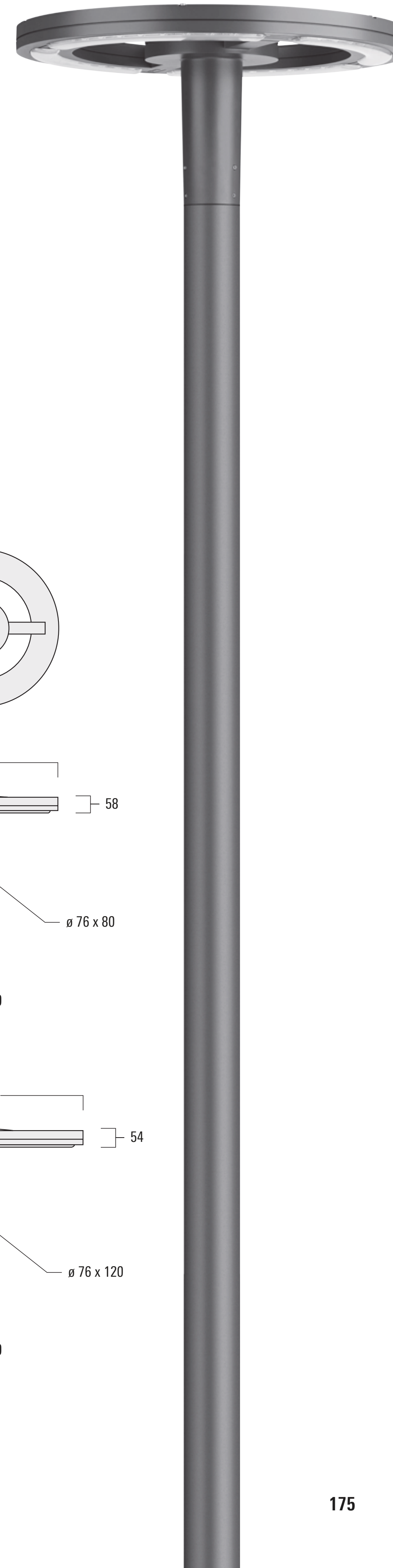
WE-EF LEUCHTEN Head Office. Bispingen (D). Architect: Braunholz Architekten. Lighting design: Ulrike Brandi Licht.





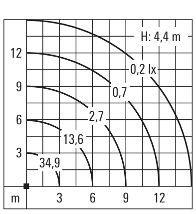
[C50] **[R]**

IOS® Innovative Optical System:
[C50] Symmetric distribution, medium
[R] Rectangular distribution

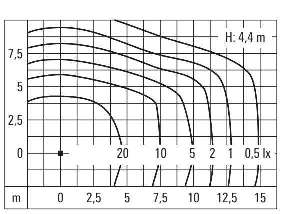


[C50]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
CFT530	24 LED 24W/350 mA	**105-0092**	3228	0.67	**105-0093**	3228	0.67	9.8
CFT540	36 LED 36W/350 mA	**105-0076**	4842	1.00	**105-0077**	4842	1.00	13.3
CFT540	36 LED 72W/700 mA	**105-0078**	8854	1.83	**105-0079**	8854	1.83	13.3
CFT540	36 LED 108W/1050 mA	**105-0080**	14040	2.90	**105-0081**	16200	3.35	13.3

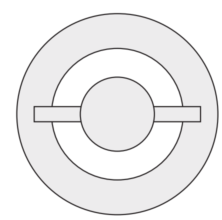
[R]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
CFT530	24 LED 24W/350 mA	**105-0094**	3228	0.67	**105-0095**	3228	0.67	9.8
CFT540	36 LED 36W/350 mA	**105-0082**	4842	1.00	**105-0083**	4842	1.00	13.3
CFT540	36 LED 72W/700 mA	**105-0084**	8854	1.83	**105-0085**	8854	1.83	13.3
CFT540	36 LED 108W/1050 mA	**105-0086**	14040	2.90	**105-0087**	16200	3.35	13.3

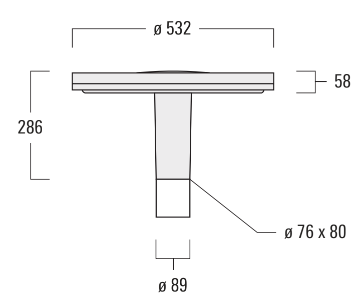


[C50]

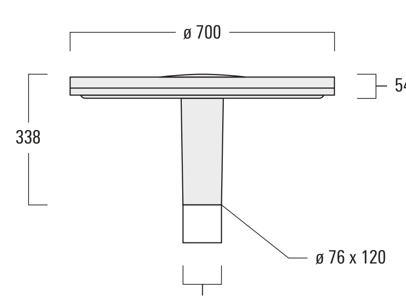


[R]





CFT530



CFT540

* Multiplier for isolux values.

RMC300 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

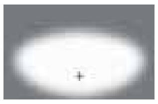
Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

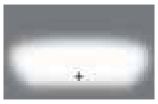
Light source:
LED 18-78 W, 3000 K and 4000 K

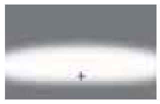
Available distributions:
[S60] [S65] [S70] [A60] [R65]

Accessories:
- **Mounting, page 179**
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

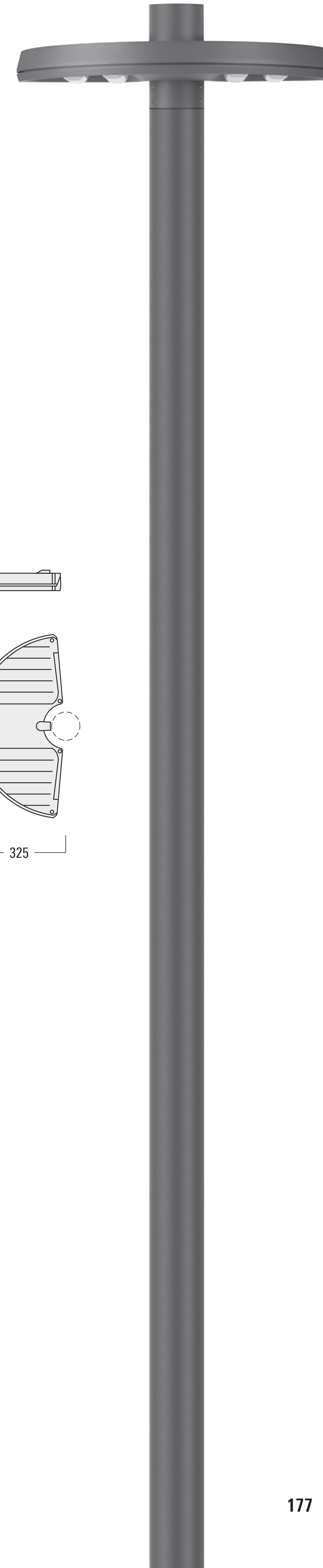






[S60] **[S65]** **[S70]**

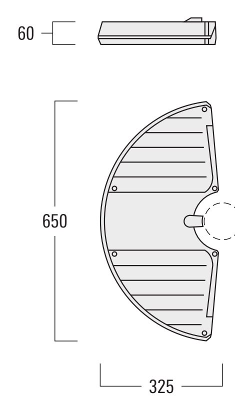
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[S65] Streetlighting distribution
[S70] Streetlighting distribution

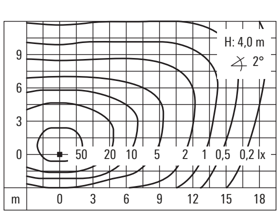


[S60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMC320	18 LED 18W/350 mA	**105-9771**	2421	0.55	**105-9775**	2421	0.55	7.5
RMC320	18 LED 36W/700 mA	**105-9772**	4427	1.00	**105-9776**	4427	1.00	7.5
RMC320	18 LED 54W/1050 mA	**105-9773**	7020	1.59	**105-9777**	8100	1.83	7.5
RMC320	18 LED 78W/1400 mA	**105-9774**	8979	2.03	**105-9778**	10360	2.34	7.5

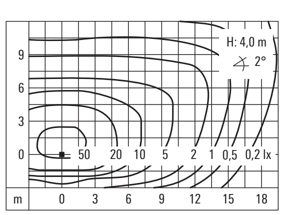
[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMC320	18 LED 18W/350 mA	**105-9786**	2421	0.55	**105-9790**	2421	0.55	7.5
RMC320	18 LED 36W/700 mA	**105-9787**	4427	1.00	**105-9791**	4427	1.00	7.5
RMC320	18 LED 54W/1050 mA	**105-9788**	7020	1.59	**105-9792**	8100	1.83	7.5
RMC320	18 LED 78W/1400 mA	**105-9789**	8979	2.03	**105-9793**	10360	2.34	7.5

[S70]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMC320	18 LED 18W/350 mA	**105-9801**	2421	0.55	**105-9805**	2421	0.55	7.5
RMC320	18 LED 36W/700 mA	**105-9802**	4427	1.00	**105-9806**	4427	1.00	7.5
RMC320	18 LED 54W/1050 mA	**105-9803**	7020	1.59	**105-9807**	8100	1.83	7.5
RMC320	18 LED 78W/1400 mA	**105-9804**	8979	2.03	**105-9812**	10360	2.34	7.5

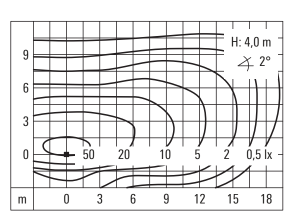




[S60]

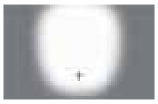


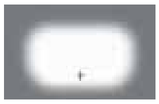
[S65]



[S70]

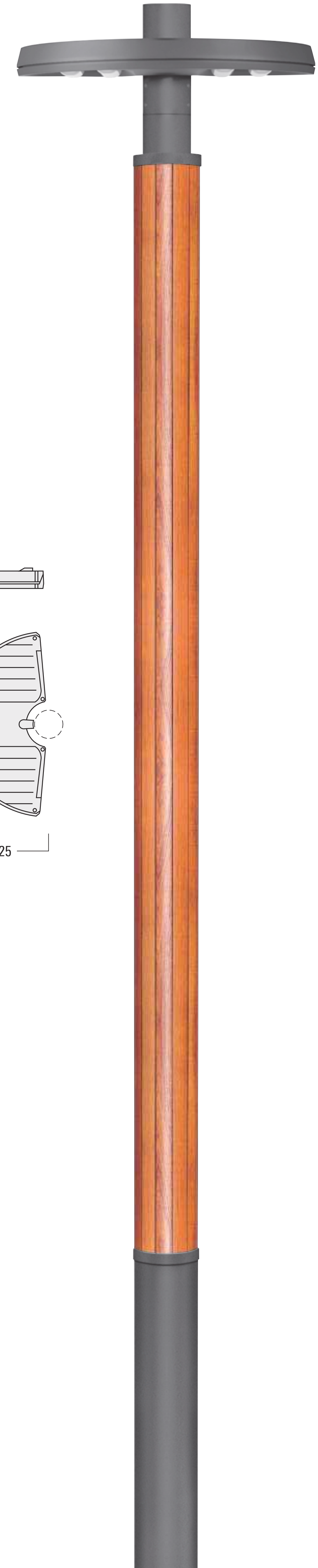
* Multiplier for isolux values.

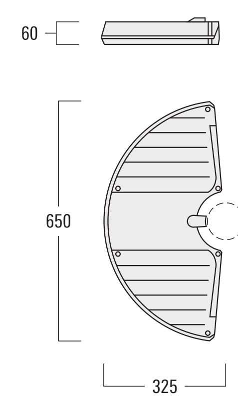




[A60] **[R65]**

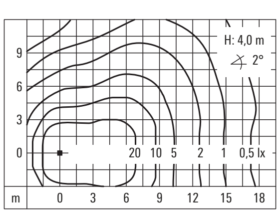
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



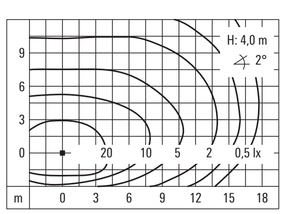


[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMC320	18 LED 18W/350 mA	**105-9816**	2421	0.55	**105-9820**	2421	0.55	7.5
RMC320	18 LED 36W/700 mA	**105-9817**	4427	1.00	**105-9821**	4427	1.00	7.5
RMC320	18 LED 54W/1050 mA	**105-9818**	7020	1.59	**105-9822**	8100	1.83	7.5
RMC320	18 LED 78W/1400 mA	**105-9819**	8979	2.03	**105-9823**	10360	2.34	7.5

[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
RMC320	18 LED 18W/350 mA	**105-9831**	2421	0.55	**105-9835**	2421	0.55	7.5
RMC320	18 LED 36W/700 mA	**105-9832**	4427	1.00	**105-9836**	4427	1.00	7.5
RMC320	18 LED 54W/1050 mA	**105-9833**	7020	1.59	**105-9837**	8100	1.83	7.5
RMC320	18 LED 78W/1400 mA	**105-9834**	8979	2.03	**105-9838**	10360	2.34	7.5



[A60]



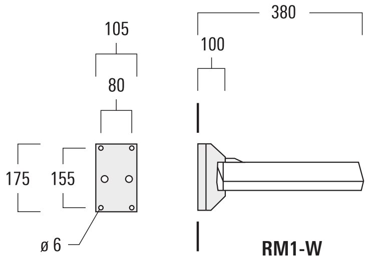
[R65]

* Multiplier for isolux values.

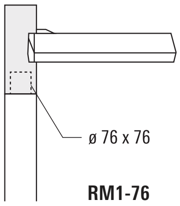
MOUNTING ACCESSORIES – RMC300 SERIES

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire. Factory fitted for fast and easy on-site installation.

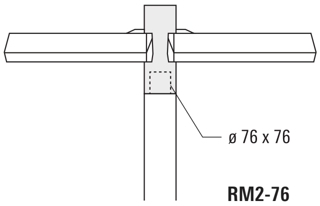
Wall bracket			kg
RM1-W	for RMC320	**105-9846**	1.3
Single bracket			kg
RM1-76*	for RMC320	**105-9847**	1.0
RM1-76**	for RMC320	**105-9849**	1.2
Double bracket			kg
RM2-76*	for RMC320	**105-9848**	1.0
RM2-76**	for RMC320	**105-9850**	1.3
Short bracket – Galvanised steel. For lateral mounting on a pole.			kg
RM1-S	for RMC320	**105-9845**	0.6



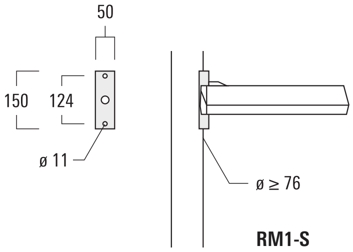
RM1-W



RM1-76



RM2-76



RM1-S

* For mounting on AMW-C series wooden poles, page 324.
** For mounting on AMF-C series steel poles, page 326.

RFL500 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Non-reflecting safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

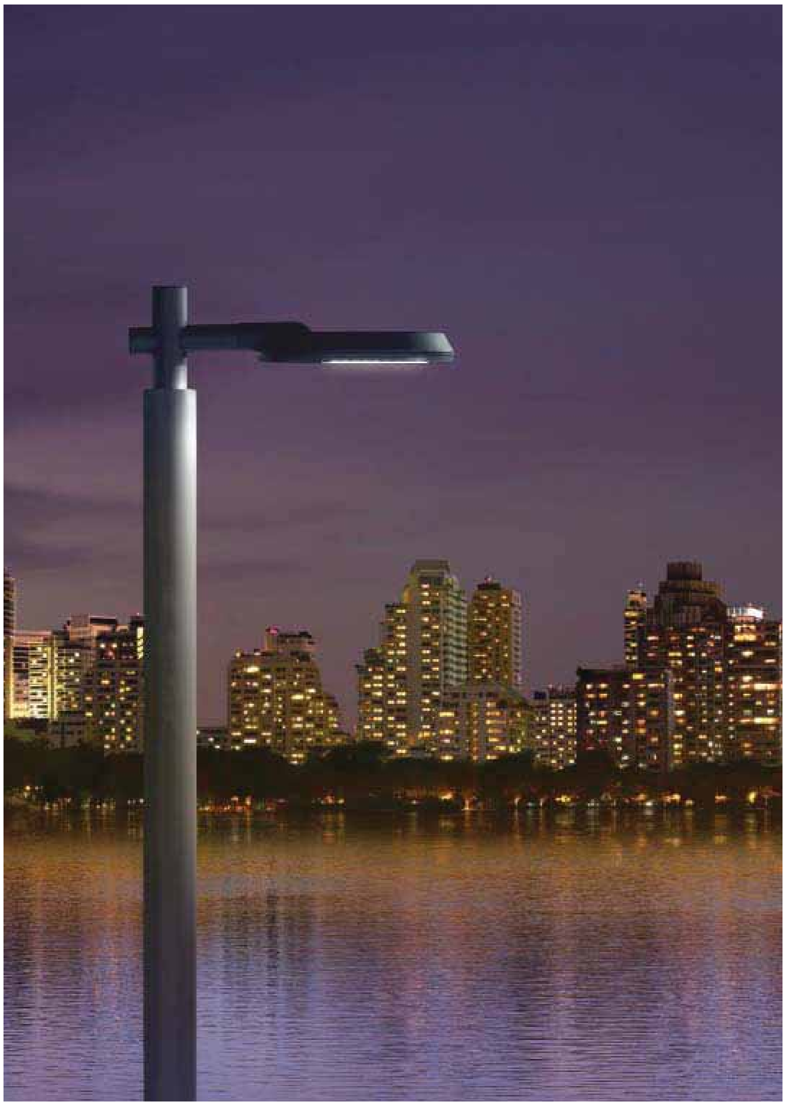
Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 12-96 W, 3000 K and 4000 K
(for HIT, refer to www.we-ef.com)

Available distributions:
[S60] [S65] [S70] [A60] [R65]

Accessories:
- **Mounting, page 185**
- **Poles, page 322-331**

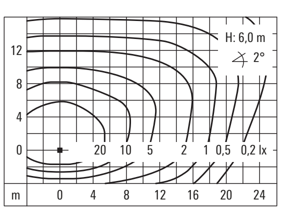
WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**



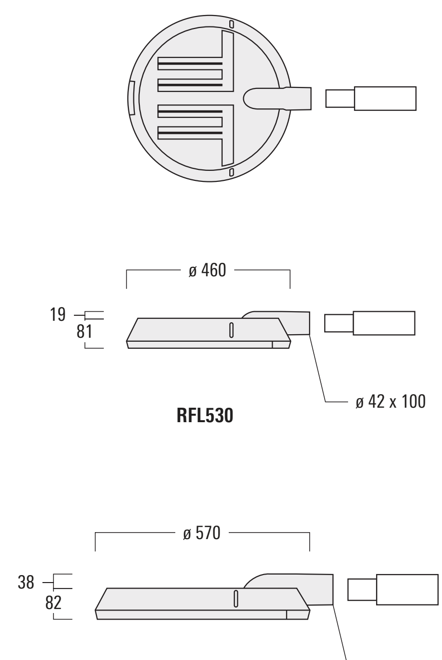
[S60]

IOS® Innovative Optical System:
[S60] Streetlighting distribution

[S60]		3000 K	lm	4000 K	lm	Factor*	kg
RFL530	12 LED 12W/350 mA	**111-0447**	1614	**111-0406**	1614	0.27	9.3
RFL530	12 LED 24W/700 mA	**111-0192**	2951	**111-0337**	2951	0.50	9.3
RFL530	24 LED 24W/350 mA	**111-0449**	3228	**111-0407**	3228	0.55	9.3
RFL530	24 LED 48W/700 mA	**111-0193**	5903	**111-0339**	5903	1.00	9.3
RFL540	36 LED 36W/350 mA	**111-0475**	4842	**111-0420**	4842	0.82	15.0
RFL540	36 LED 72W/700 mA	**111-0190**	8854	**111-0341**	8854	1.50	15.0
RFL540	48 LED 48W/350 mA	**111-0477**	6456	**111-0421**	6456	1.09	15.0
RFL540	48 LED 96W/700 mA	**111-0188**	11805	**111-0343**	11805	2.00	15.0



[S60]



RFL530

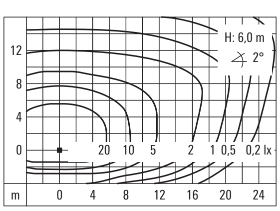
RFL540

* Multiplier for isolux values.

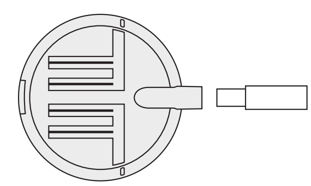
[S65]

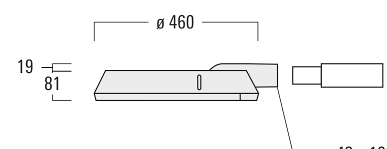
IOS® Innovative Optical System:
[S65] Streetlighting distribution

[S65]		3000 K	lm	4000 K	lm	Factor*	kg
RFL530	12 LED 12W/350 mA	**111-0459**	1614	**111-0408**	1614	0.27	9.3
RFL530	12 LED 24W/700 mA	**111-0461**	2951	**111-0409**	2951	0.50	9.3
RFL530	24 LED 24W/350 mA	**111-0463**	3228	**111-0410**	3228	0.55	9.3
RFL530	24 LED 48W/700 mA	**111-0465**	5903	**111-0411**	5903	1.00	9.3
RFL540	36 LED 36W/350 mA	**111-0479**	4842	**111-0422**	4842	0.82	15.0
RFL540	36 LED 72W/700 mA	**111-0481**	8854	**111-0423**	8854	1.50	15.0
RFL540	48 LED 48W/350 mA	**111-0483**	6456	**111-0424**	6456	1.09	15.5
RFL540	48 LED 96W/700 mA	**111-0485**	11805	**111-0425**	11805	2.00	15.0

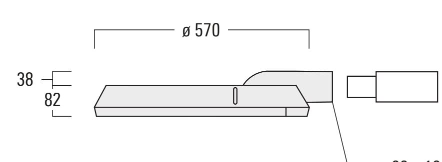


[S65]



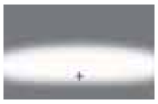


RFL530



RFL540

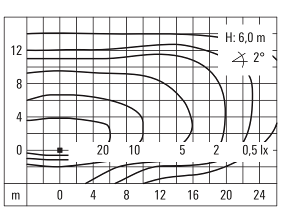
* Multiplier for isolux values.



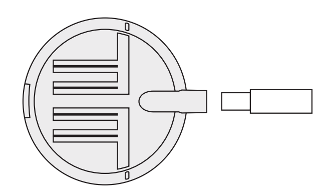
[S70]

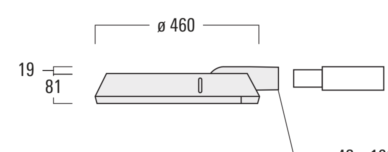
IOS® Innovative Optical System:
[S70] Streetlighting distribution

[S70]		3000 K	lm	4000 K	lm	Factor*	kg
RFL530	12 LED 12W/350 mA	**111-0451**	1614	**111-0412**	1614	0.27	9.3
RFL530	12 LED 24W/700 mA	**111-0230**	2951	**111-0345**	2951	0.50	9.3
RFL530	24 LED 24W/350 mA	**111-0453**	3228	**111-0413**	3228	0.55	9.3
RFL530	24 LED 48W/700 mA	**111-0234**	5903	**111-0347**	5903	1.00	9.3
RFL540	36 LED 36W/350 mA	**111-0487**	4842	**111-0426**	4842	0.82	15.0
RFL540	36 LED 72W/700 mA	**111-0228**	8854	**111-0349**	8854	1.50	15.0
RFL540	48 LED 48W/350 mA	**111-0489**	6456	**111-0427**	6456	1.09	15.0
RFL540	48 LED 96W/700 mA	**111-0218**	11805	**111-0351**	11805	2.00	15.0

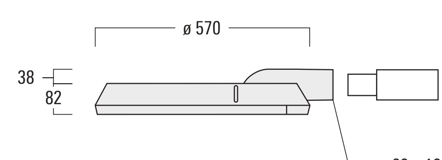


[S70]



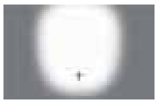


RFL530

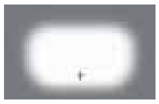


RFL540

* Multiplier for isolux values.



[A60]

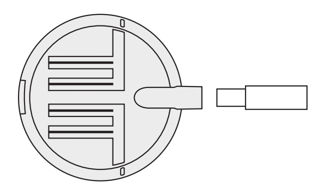


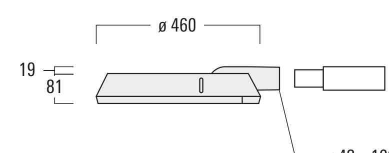
[R65]

IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

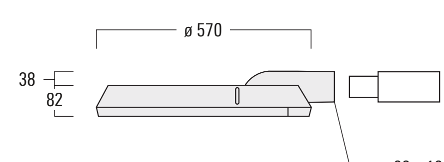
[A60]		3000 K	lm	4000 K	lm	Factor*	kg
RFL530	12 LED 12W/350 mA	**111-0455**	1614	**111-0414**	1614	0.27	9.3
RFL530	12 LED 24W/700 mA	**111-0275**	2951	**111-0353**	2951	0.50	9.3
RFL530	24 LED 24W/350 mA	**111-0457**	3228	**111-0415**	3228	0.55	9.3
RFL530	24 LED 48W/700 mA	**111-0277**	5903	**111-0355**	5903	1.00	9.3
RFL540	36 LED 36W/350 mA	**111-0491**	4842	**111-0428**	4842	0.82	15.0
RFL540	36 LED 72W/700 mA	**111-0283**	8854	**111-0357**	8854	1.50	15.0
RFL540	48 LED 48W/350 mA	**111-0493**	6456	**111-0429**	6456	1.09	15.0
RFL540	48 LED 96W/700 mA	**111-0285**	11805	**111-0359**	11805	2.00	15.0

[R65]		3000 K	lm	4000 K	lm	Factor*	kg
RFL530	12 LED 12W/350 mA	**111-0467**	1614	**111-0416**	1614	0.27	9.3
RFL530	12 LED 24W/700 mA	**111-0469**	2951	**111-0417**	2951	0.50	9.3
RFL530	24 LED 24W/350 mA	**111-0471**	3228	**111-0418**	3228	0.55	9.3
RFL530	24 LED 48W/700 mA	**111-0473**	5903	**111-0419**	5903	1.00	9.3
RFL540	36 LED 36W/350 mA	**111-0495**	4842	**111-0430**	4842	0.82	15.0
RFL540	36 LED 72W/700 mA	**111-0497**	8854	**111-0431**	8854	1.50	15.0
RFL540	48 LED 48W/350 mA	**111-0499**	6456	**111-0432**	6456	1.09	15.0
RFL540	48 LED 96W/700 mA	**111-0501**	11805	**111-0433**	11805	2.00	15.0

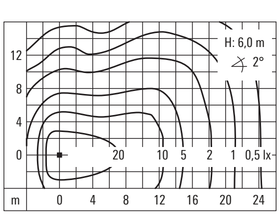




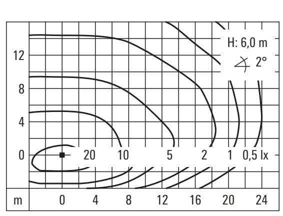
RFL530



RFL540



[A60]



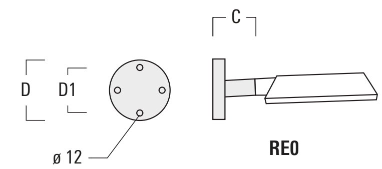
[R65]

* Multiplier for isolux values.

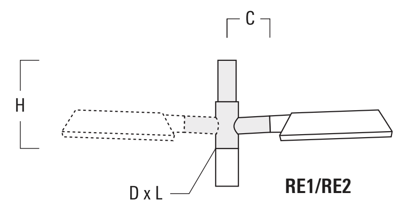
MOUNTING ACCESSORIES – RFL500 SERIES

All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

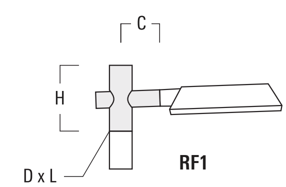
Wall bracket			D/D1		C	kg
RE0-530	for RFL530	**111-0052**	230/195		120	2.5
RE0-540	for RFL540	**111-0084**	230/195		140	3.4
Pole bracket			D x L	H	C	kg
RE1-530	for RFL530	**111-0040**	ø 76 x 80	400	180	3.2
RE2-530	for RFL530	**111-0041**	ø 76 x 80	400	180	3.6
RE1-540	for RFL540	**111-0042**	ø 76 x 130	550	200	4.6
RE2-540	for RFL540	**111-0043**	ø 76 x 130	550	200	5.3
RF1-530	for RFL530	**111-0044**	ø 76 x 80	275	190	2.3
RF2-530	for RFL530	**111-0045**	ø 76 x 80	275	190	3.0
RF1-540	for RFL540	**111-0046**	ø 76 x 130	300	200	2.6
RF2-540	for RFL540	**111-0047**	ø 76 x 130	300	200	3.3
Wall and pole bracket				H		kg
RI-530	for RFL530	**111-0178**		96		1.5
RI-540	for RFL540	**111-0179**		110		1.5



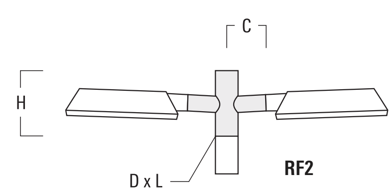
RE0



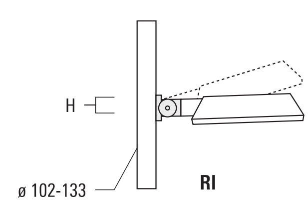
RE1/RE2



RF1



RF2



RI

RFS500 SERIES

[Factory-sealed] Catenary mounted luminaire. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Non-reflecting safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Catenary stay wire inclination angle: Maximum 10°.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 12-96 W, 3000 K and 4000 K

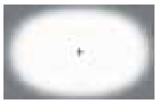
Available distributions:
[S60] [S65] [S70]

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

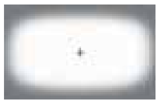
IOS®

LED

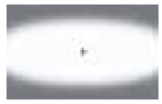
Gare TGV. Belfort-Montbeliad (F).



[S60]



[S65]



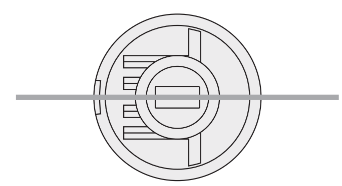
[S70]

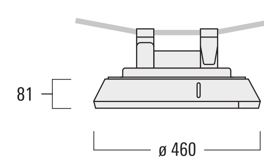
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[S65] Streetlighting distribution
[S70] Streetlighting distribution

[S60]		3000 K	lm	4000 K	lm	Factor*	kg
RFS530	12 LED 12W/350 mA	**111-0706**	1614	**111-0707**	1614	0.27	11.6
RFS530	12 LED 24W/700 mA	**111-0718**	2951	**111-0719**	2951	0.50	11.6
RFS530	24 LED 24W/350 mA	**111-0708**	3228	**111-0709**	3228	0.55	11.9
RFS530	24 LED 48W/700 mA	**111-0720**	5903	**111-0697**	5903	1.00	11.9
RFS540	36 LED 72W/700 mA	**111-0692**	8854	**111-0623**	8854	1.50	14.7
RFS540	48 LED 48W/350 mA	**111-0517**	6456	**111-0441**	6456	1.09	15.0
RFS540	48 LED 96W/700 mA	**111-0695**	11805	**111-0403**	11805	2.00	15.0

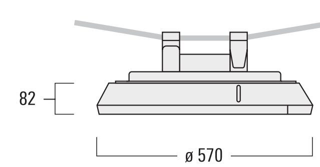
[S65]		3000 K	lm	4000 K	lm	Factor*	kg
RFS530	12 LED 12W/350 mA	**111-0710**	1614	**111-0711**	1614	0.27	11.6
RFS530	12 LED 24W/700 mA	**111-0721**	2951	**111-0722**	2951	0.50	11.6
RFS530	24 LED 24W/350 mA	**111-0712**	3228	**111-0713**	3228	0.55	11.9
RFS530	24 LED 48W/700 mA	**111-0723**	5903	**111-0724**	5903	1.00	11.9
RFS540	36 LED 72W/700 mA	**111-0701**	8854	**111-0702**	8854	1.50	14.7
RFS540	48 LED 48W/350 mA	**111-0641**	6456	**111-0443**	6456	1.09	15.0
RFS540	48 LED 96W/700 mA	**111-0703**	11805	**111-0704**	11805	2.00	15.0

[S70]		3000 K	lm	4000 K	lm	Factor*	kg
RFS530	12 LED 12W/350 mA	**111-0714**	1614	**111-0715**	1614	0.27	11.6
RFS530	12 LED 24W/700 mA	**111-0725**	2951	**111-0726**	2951	0.50	11.6
RFS530	24 LED 24W/350 mA	**111-0716**	3228	**111-0717**	3228	0.55	11.9
RFS530	24 LED 48W/700 mA	**111-0727**	5903	**111-0728**	5903	1.00	11.9
RFS540	36 LED 72W/700 mA	**111-0705**	8854	**111-0402**	8854	1.50	14.7
RFS540	48 LED 48W/350 mA	**111-0525**	6456	**111-0629**	6456	1.09	15.0
RFS540	48 LED 96W/700 mA	**111-0576**	11805	**111-0593**	11805	2.00	15.0

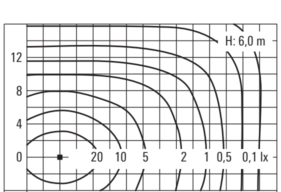




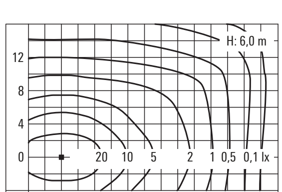
RFS530



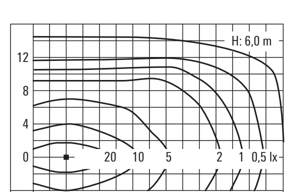
RFS540



[S60]



[S65]



[S70]

* Multiplier for isolux values.

VFL500 SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimized OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 12-84 W, 3000 K and 4000 K

Available distributions:
[P65] [S60] [S65] [S70] [A60] [R65]

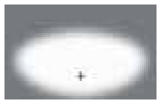
Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

IOS

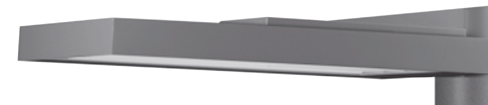
LED

BMW Hauptstadtrepräsentanz am Messedamm. Berlin (D). Architect: Lanz Architekten.



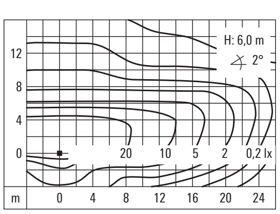
[P65] [S60]

IOS® Innovative Optical System:
[P65] Pedestrian/bicycle lane distribution
[S60] Streetlighting distribution

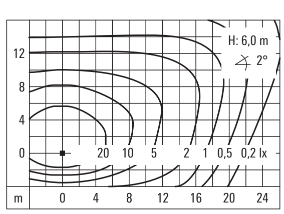


[P65]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1500**	1614	**108-1501**	1614	0.55	4.7
VFL520	12 LED 24W/700 mA	**108-1502**	2951	**108-1503**	2951	1.00	4.7

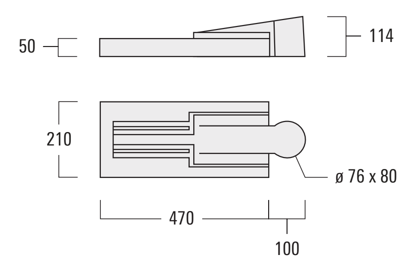
[S60]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1480**	1614	**108-1481**	1614	0.27	4.7
VFL520	12 LED 24W/700 mA	**108-1482**	2951	**108-1483**	2951	0.50	4.7
VFL530	24 LED 24W/350 mA	**108-1153**	3228	**108-1154**	3228	0.55	6.6
VFL530	24 LED 48W/700 mA	**108-1168**	5903	**108-1169**	5903	1.00	6.6
VFL540	36 LED 36W/350 mA	**108-0846**	4842	**108-0877**	4842	0.82	8.2
VFL540	36 LED 72W/700 mA	**108-0908**	8854	**108-0907**	8854	1.50	8.2
VFL540	42 LED 42W/350 mA	**108-0850**	5649	**108-0879**	5649	0.96	8.2
VFL540	42 LED 84W/700 mA	**108-0914**	10329	**108-0913**	10329	1.75	8.2



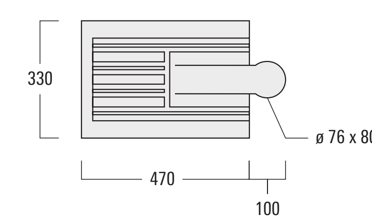
[P65]



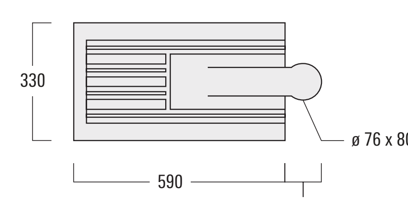
[S60]



VFL520



VFL530

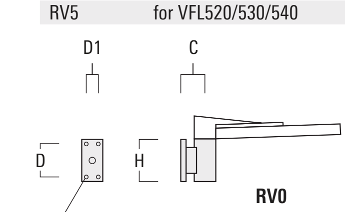


VFL540

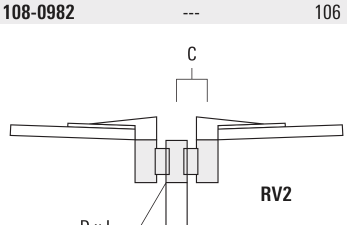
Accessories:

Wall bracket			D	D1	H	C	kg
RV0	for VFL520/530/540	**108-0979**	160	60	200	108	2.0

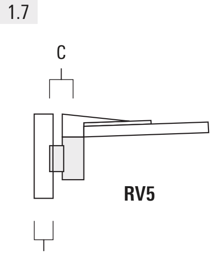
Pole bracket			D x L	C	kg
RV2-76	for VFL520/530/540	**108-0980**	ø 76 x 100	147	4.8
RV2-60	for VFL520/530/540	**108-0981**	ø 60 x 100	147	4.8
RV5	for VFL520/530/540	**108-0982**	---	106	1.7



RV0

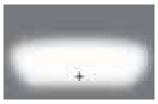


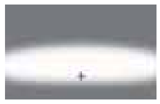
RV2



RV5

* Multiplier for isolux values.



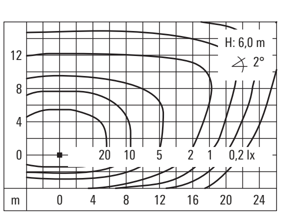


[S65] **[S70]**

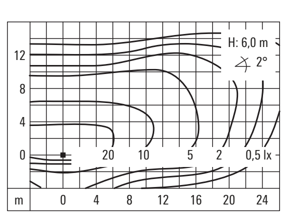
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution

[S65]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1484**	1614	**108-1485**	1614	0.27	4.7
VFL520	12 LED 24W/700 mA	**108-1486**	2951	**108-1487**	2951	0.50	4.7
VFL530	24 LED 24W/350 mA	**108-1162**	3228	**108-1163**	3228	0.55	6.6
VFL530	24 LED 48W/700 mA	**108-1177**	5903	**108-1178**	5903	1.00	6.6
VFL540	36 LED 36W/350 mA	**108-1085**	4842	**108-0969**	4842	0.82	8.2
VFL540	36 LED 72W/700 mA	**108-1087**	8854	**108-0970**	8854	1.50	8.2
VFL540	42 LED 42W/350 mA	**108-1089**	5649	**108-0971**	5649	0.96	8.2
VFL540	42 LED 84W/700 mA	**108-1091**	10329	**108-0972**	10329	1.75	8.2

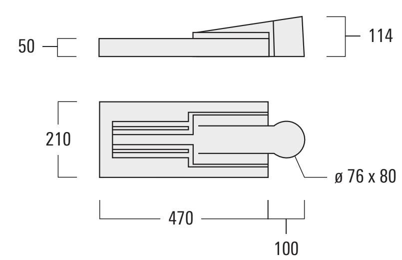
[S70]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1488**	1614	**108-1489**	1614	0.27	4.7
VFL520	12 LED 24W/700 mA	**108-1490**	2951	**108-1491**	2951	0.50	4.7
VFL530	24 LED 24W/350 mA	**108-1156**	3228	**108-1157**	3228	0.55	6.6
VFL530	24 LED 48W/700 mA	**108-1171**	5903	**108-1172**	5903	1.00	6.6
VFL540	36 LED 36W/350 mA	**108-0858**	4842	**108-0883**	4842	0.82	8.2
VFL540	36 LED 72W/700 mA	**108-0911**	8854	**108-0910**	8854	1.50	8.2
VFL540	42 LED 42W/350 mA	**108-0862**	5649	**108-0885**	5649	0.96	8.2
VFL540	42 LED 84W/700 mA	**108-0917**	10329	**108-0916**	10329	1.75	8.2



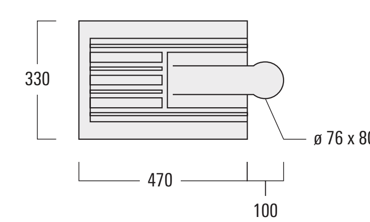
[S65]



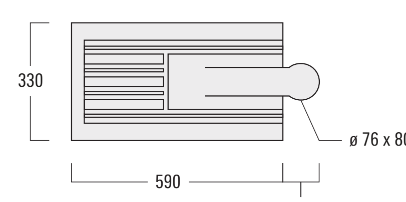
[S70]



VFL520

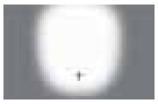


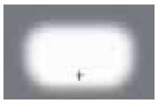
VFL530



VFL540

* Multiplier for isolux values.



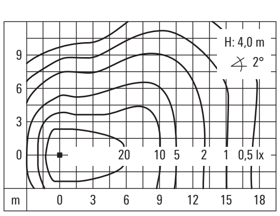


[A60] [R65]

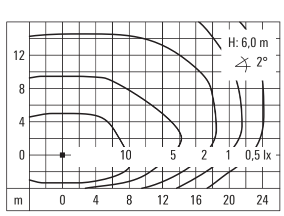
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

[A60]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1496**	1614	**108-1497**	1614	0.27	4.7
VFL520	12 LED 24W/700 mA	**108-1498**	2951	**108-1499**	2951	0.50	4.7
VFL530	24 LED 24W/350 mA	**108-1159**	3228	**108-1160**	3228	0.55	6.6
VFL530	24 LED 48W/700 mA	**108-1174**	5903	**108-1175**	5903	1.00	6.6
VFL540	36 LED 36W/350 mA	**108-1061**	4842	**108-0929**	4842	0.82	8.2
VFL540	36 LED 72W/700 mA	**108-1063**	8854	**108-0941**	8854	1.50	8.2
VFL540	42 LED 42W/350 mA	**108-1065**	5649	**108-0932**	5649	0.96	8.2
VFL540	42 LED 84W/700 mA	**108-1067**	10329	**108-0944**	10329	1.75	8.2

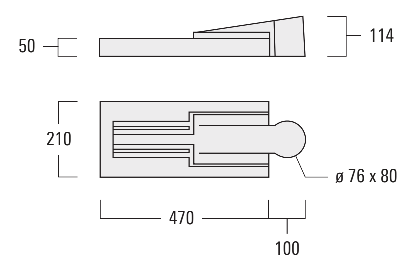
[R65]		3000 K	lm	4000 K	lm	Factor*	kg
VFL520	12 LED 12W/350 mA	**108-1492**	1614	**108-1493**	1614	0.27	4.7
VFL520	12 LED 24W/700 mA	**108-1494**	2951	**108-1495**	2951	0.50	4.7
VFL530	24 LED 24W/350 mA	**108-1165**	3228	**108-1166**	3228	0.55	6.6
VFL530	24 LED 48W/700 mA	**108-1180**	5903	**108-1181**	5903	1.00	6.6
VFL540	36 LED 36W/350 mA	**108-1073**	4842	**108-0975**	4842	0.82	8.2
VFL540	36 LED 72W/700 mA	**108-1075**	8854	**108-0976**	8854	1.50	8.2
VFL540	42 LED 42W/350 mA	**108-1077**	5649	**108-0977**	5649	0.96	8.2
VFL540	42 LED 84W/700 mA	**108-1079**	10329	**108-0978**	10329	1.75	8.2



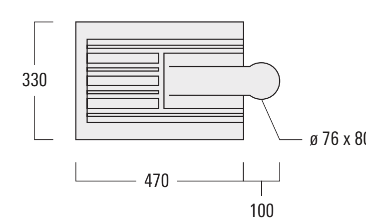
[A60]



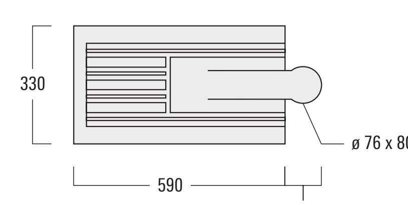
[R65]



VFL520



VFL530



VFL540

* Multiplier for isolux values.

VFL500-SE SERIES

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 12-96 W, 3000 K and 4000 K

Available distributions:
[S60] [S65] [S70] [A60] [R65]

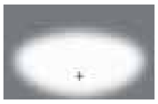
Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

IOS.

LED

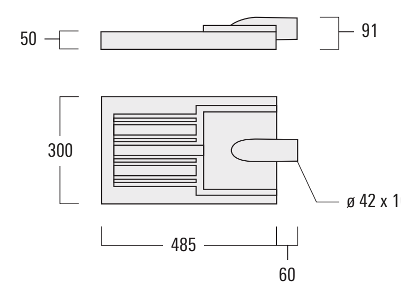
Hauptplatz. Landsberg am Lech (D). Landscape architect: Lohrer Hochrein Landschaftsarchitekten und Stadtplaner. Lighting design: Day & Light Lichtplanung.



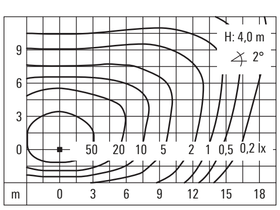
[S60]

IOS® Innovative Optical System:
[S60] Streetlighting distribution

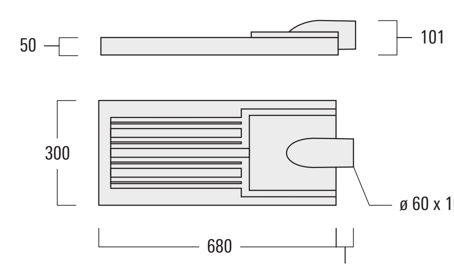
[S60]		3000 K	lm	4000 K	lm	Factor*	kg
VFL530-SE	12 LED 12W/350 mA	**108-1317**	1614	**108-1318**	1614	0.27	5.6
VFL530-SE	12 LED 24W/700 mA	**108-1297**	2951	**108-1298**	2951	0.50	5.6
VFL530-SE	24 LED 24W/350 mA	**108-1307**	3228	**108-1308**	3228	0.55	5.8
VFL530-SE	24 LED 48W/700 mA	**108-1287**	5903	**108-1288**	5903	1.00	5.8
VFL540-SE	36 LED 36W/350 mA	**108-1267**	4842	**108-1268**	4842	0.82	8.2
VFL540-SE	36 LED 72W/700 mA	**108-1247**	8854	**108-1248**	8854	1.50	8.2
VFL540-SE	48 LED 48W/350 mA	**108-1277**	6456	**108-1278**	6456	1.09	8.2
VFL540-SE	48 LED 96W/700 mA	**108-1257**	11805	**108-1258**	11805	2.00	8.2



VFL530-SE



[S60]

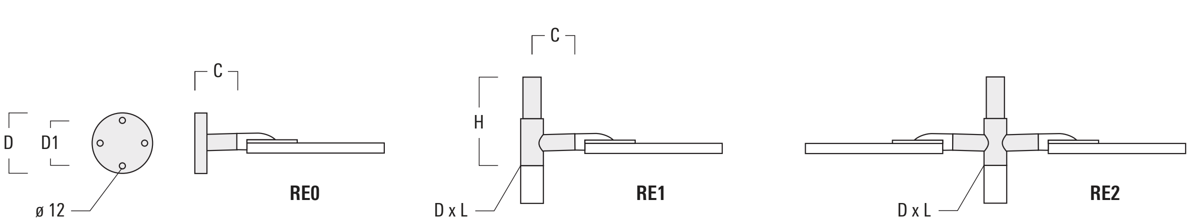


VFL540-SE

Accessories:

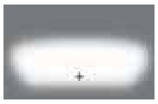
Wall bracket			D/D1	C	kg
RE0-530	for VFL530-SE	**111-0052**	230/195	120	2.5
RE0-540	for VFL540-SE	**111-0084**	230/195	140	3.4

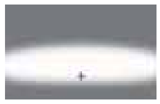
Pole bracket			D x L	H	C	kg
RE1-530	for VFL530-SE	**111-0040**	ø 76 x 80	400	180	3.2
RE2-530	for VFL530-SE	**111-0041**	ø 76 x 80	400	180	3.6
RE1-540	for VFL540-SE	**111-0042**	ø 76 x 130	550	200	4.6
RE2-540	for VFL540-SE	**111-0043**	ø 76 x 130	550	200	5.3



RE0 **RE1** **RE2**

* Multiplier for isolux values.



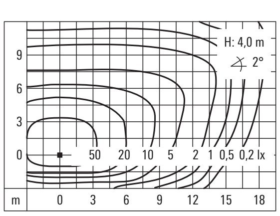


[S65] **[S70]**

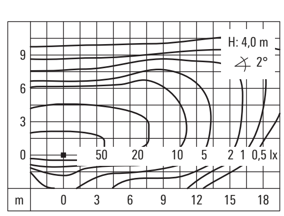
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution

[S65]		3000 K	lm	4000 K	lm	Factor*	kg
VFL530-SE	12 LED 12W/350 mA	**108-1323**	1614	**108-1324**	1614	0.27	5.6
VFL530-SE	12 LED 24W/700 mA	**108-1303**	2951	**108-1304**	2951	0.50	5.6
VFL530-SE	24 LED 24W/350 mA	**108-1313**	3228	**108-1314**	3228	0.55	5.8
VFL530-SE	24 LED 48W/700 mA	**108-1293**	5903	**108-1294**	5903	1.00	5.8
VFL540-SE	36 LED 36W/350 mA	**108-1273**	4842	**108-1274**	4842	0.82	8.2
VFL540-SE	36 LED 72W/700 mA	**108-1253**	8854	**108-1254**	8854	1.50	8.2
VFL540-SE	48 LED 48W/350 mA	**108-1283**	6456	**108-1284**	6456	1.09	8.2
VFL540-SE	48 LED 96W/700 mA	**108-1263**	11805	**108-1264**	11805	2.00	8.2

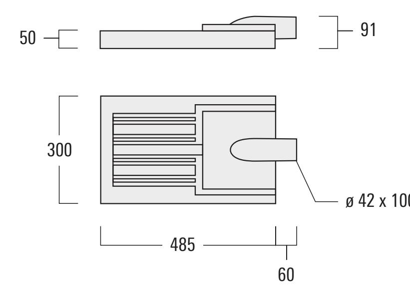
[S70]		3000 K	lm	4000 K	lm	Factor*	kg
VFL530-SE	12 LED 12W/350 mA	**108-1319**	1614	**108-1320**	1614	0.27	5.6
VFL530-SE	12 LED 24W/700 mA	**108-1299**	2951	**108-1300**	2951	0.50	5.6
VFL530-SE	24 LED 24W/350 mA	**108-1309**	3228	**108-1310**	3228	0.55	5.8
VFL530-SE	24 LED 48W/700 mA	**108-1289**	5903	**108-1290**	5903	1.00	5.8
VFL540-SE	36 LED 36W/350 mA	**108-1269**	4842	**108-1270**	4842	0.82	8.2
VFL540-SE	36 LED 72W/700 mA	**108-1249**	8854	**108-1250**	8854	1.50	8.2
VFL540-SE	48 LED 48W/350 mA	**108-1279**	6456	**108-1280**	6456	1.09	8.2
VFL540-SE	48 LED 96W/700 mA	**108-1259**	11805	**108-1260**	11805	2.00	8.2



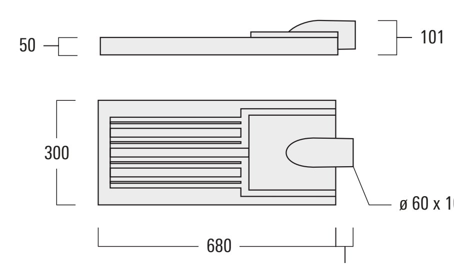
[S65]



[S70]

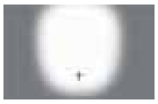
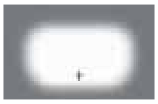


VFL530-SE



VFL540-SE

* Multiplier for isolux values.

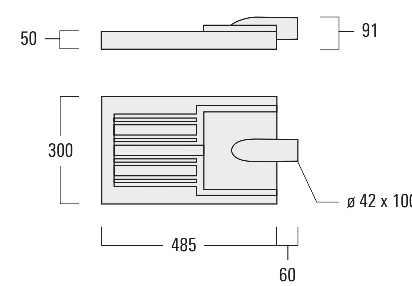



[A60] **[R65]**

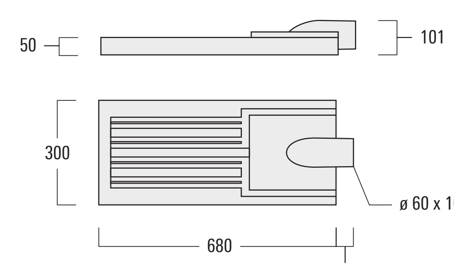
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

[A60]		3000 K	lm	4000 K	lm	Factor*	kg
VFL530-SE	12 LED 12W/350 mA	**108-1321**	1614	**108-1322**	1614	0.27	5.6
VFL530-SE	12 LED 24W/700 mA	**108-1301**	2951	**108-1302**	2951	0.50	5.6
VFL530-SE	24 LED 24W/350 mA	**108-1311**	3228	**108-1312**	3228	0.55	5.8
VFL530-SE	24 LED 48W/700 mA	**108-1291**	5903	**108-1292**	5903	1.00	5.8
VFL540-SE	36 LED 36W/350 mA	**108-1271**	4842	**108-1272**	4842	0.82	8.2
VFL540-SE	36 LED 72W/700 mA	**108-1251**	8854	**108-1252**	8854	1.50	8.2
VFL540-SE	48 LED 48W/350 mA	**108-1281**	6456	**108-1282**	6456	1.09	8.2
VFL540-SE	48 LED 96W/700 mA	**108-1261**	11805	**108-1262**	11805	2.00	8.2

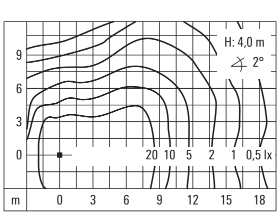
[R65]		3000 K	lm	4000 K	lm	Factor*	kg
VFL530-SE	12 LED 12W/350 mA	**108-1325**	1614	**108-1326**	1614	0.27	5.6
VFL530-SE	12 LED 24W/700 mA	**108-1305**	2951	**108-1306**	2951	0.50	5.6
VFL530-SE	24 LED 24W/350 mA	**108-1315**	3228	**108-1316**	3228	0.55	5.8
VFL530-SE	24 LED 48W/700 mA	**108-1295**	5903	**108-1296**	5903	1.00	5.8
VFL540-SE	36 LED 36W/350 mA	**108-1275**	4842	**108-1276**	4842	0.82	8.2
VFL540-SE	36 LED 72W/700 mA	**108-1255**	8854	**108-1256**	8854	1.50	8.2
VFL540-SE	48 LED 48W/350 mA	**108-1285**	6456	**108-1286**	6456	1.09	8.2
VFL540-SE	48 LED 96W/700 mA	**108-1265**	11805	**108-1266**	11805	2.00	8.2

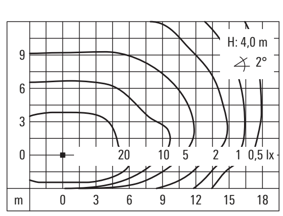


VFL530-SE



VFL540-SE





[A60] **[R65]**

* Multiplier for isolux values.

PFL500 SERIES – LED

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

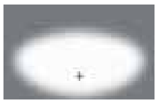
Light source:
LED 48-144 W, 3000 K and 4000 K

Available distributions:
[S60] [S65] [S70] [A60] [R65]

Accessories:
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

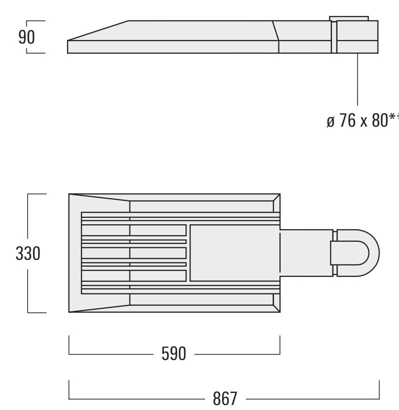
Endeavour Park Down. Queensland (AUS). Lighting design: Moreton Council.

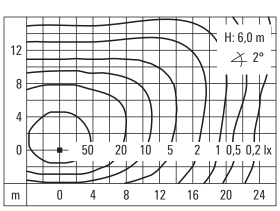


[S60]

IOS® Innovative Optical System:
[S60] Streetlighting distribution

[S60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL540	24 LED 48W/700 mA	**108-0985**	5903	0.55	**108-0949**	5903	0.55	13.0
PFL540	24 LED 72W/1050 mA	**108-0987**	9360	0.87	**108-0952**	10800	1.00	13.0
PFL540	36 LED 72W/700 mA	**108-0993**	8854	0.82	**108-0950**	8854	0.82	14.0
PFL540	36 LED 108W/1050 mA	**108-0989**	14040	1.30	**108-0953**	16200	1.50	14.0
PFL540	48 LED 96W/700 mA	**108-0995**	11805	1.09	**108-0951**	11805	1.09	15.0
PFL540	48 LED 144W/1050 mA	**108-0991**	18720	1.73	**108-0954**	21600	2.00	15.0



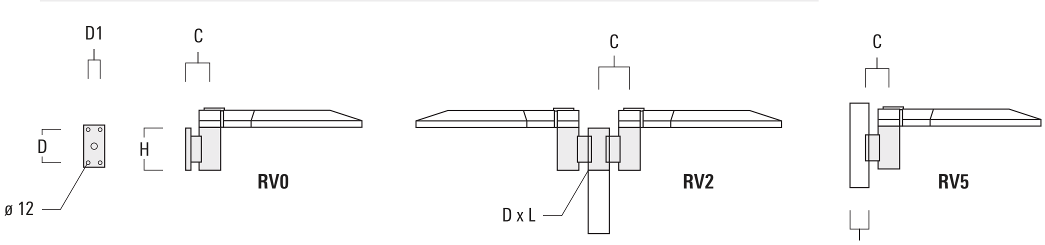


[S60]

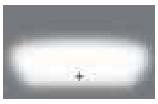
Accessories:

Wall bracket			D	D1	H	C	kg
RV0	for PFL540	**108-0979**	160	60	200	108	2.0

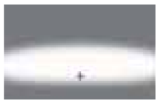
Pole bracket			D x L	C	kg
RV2-76	for PFL540	**108-0980**	ø 76 x 100	147	4.8
RV2-60	for PFL540	**108-0981**	ø 60 x 100	147	4.8
RV5	for PFL540	**108-0982**	---	106	1.7



* Multiplier for isolux values.
** Optional side-entry version for ø 60 x 80 mm spigot, on request.



[S65]

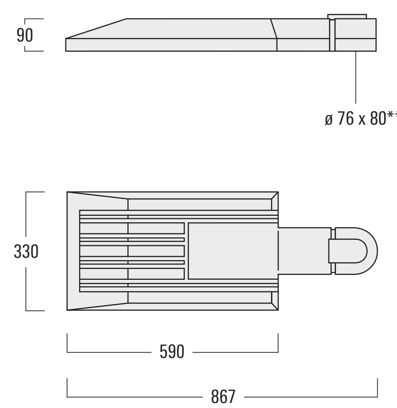


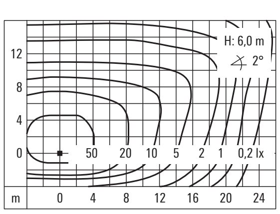
[S70]

IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution

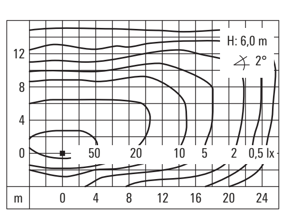
[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL540	24 LED 48W/700 mA	**108-1009**	5903	0.55	**108-0828**	5903	0.55	13.0
PFL540	24 LED 72W/1050 mA	**108-1011**	9360	0.87	**108-0829**	10800	1.00	13.0
PFL540	36 LED 72W/700 mA	**108-1043**	8854	0.82	**108-0830**	8854	0.82	14.0
PFL540	36 LED 108W/1050 mA	**108-1013**	14040	1.30	**108-0831**	16200	1.50	14.0
PFL540	48 LED 96W/700 mA	**108-1015**	11805	1.09	**108-0832**	11805	1.09	15.0
PFL540	48 LED 144W/1050 mA	**108-1017**	18720	1.73	**108-0833**	21600	2.00	15.0

[S70]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL540	24 LED 48W/700 mA	**108-0997**	5903	0.55	**108-0824**	5903	0.55	13.0
PFL540	24 LED 72W/1050 mA	**108-0999**	9360	0.87	**108-0825**	10800	1.00	13.0
PFL540	36 LED 72W/700 mA	**108-1001**	8854	0.82	**108-0823**	8854	0.82	14.0
PFL540	36 LED 108W/1050 mA	**108-1003**	14040	1.30	**108-0826**	16200	1.50	14.0
PFL540	48 LED 96W/700 mA	**108-1005**	11805	1.09	**108-0822**	11805	1.09	15.0
PFL540	48 LED 144W/1050 mA	**108-1007**	18720	1.73	**108-0827**	21600	2.00	15.0



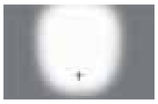


[S65]

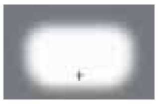


[S70]

* Multiplier for isolux values.
** Optional side-entry version for ø 60 x 80 mm spigot, on request.



[A60]

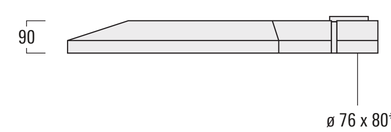


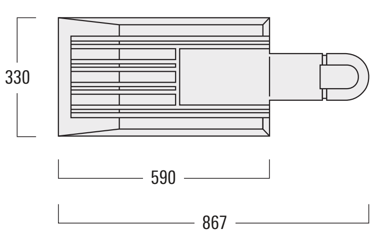
[R65]

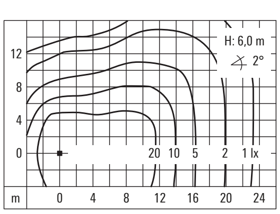
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL540	24 LED 48W/700 mA	**108-1019**	5903	0.55	**108-0961**	5903	0.55	13.0
PFL540	24 LED 72W/1050 mA	**108-1021**	9360	0.87	**108-0964**	10800	1.00	13.0
PFL540	36 LED 72W/700 mA	**108-1023**	8854	0.82	**108-0962**	8854	0.82	14.0
PFL540	36 LED 108W/1050 mA	**108-1025**	14040	1.30	**108-0965**	16200	1.50	14.0
PFL540	48 LED 96W/700 mA	**108-1027**	11805	1.09	**108-0963**	11805	1.09	15.0
PFL540	48 LED 144W/1050 mA	**108-1029**	18720	1.73	**108-0966**	21600	2.00	15.0

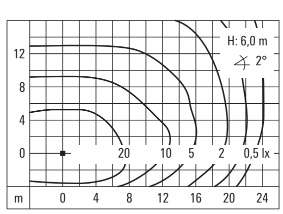
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL540	24 LED 48W/700 mA	**108-1031**	5903	0.55	**108-0955**	5903	0.55	13.0
PFL540	24 LED 72W/1050 mA	**108-1033**	9360	0.87	**108-0958**	10800	1.00	13.0
PFL540	36 LED 72W/700 mA	**108-1035**	8854	0.82	**108-0956**	8854	0.82	14.0
PFL540	36 LED 108W/1050 mA	**108-1037**	14040	1.30	**108-0959**	16200	1.50	14.0
PFL540	48 LED 96W/700 mA	**108-1039**	11805	1.09	**108-0957**	11805	1.09	15.0
PFL540	48 LED 144W/1050 mA	**108-1041**	18720	1.73	**108-0960**	21600	2.00	15.0







[A60]



[R65]

* Multiplier for isolux values.
** Optional side-entry version for ø 60 x 80 mm spigot, on request.

PFL200 SERIES – LED

Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

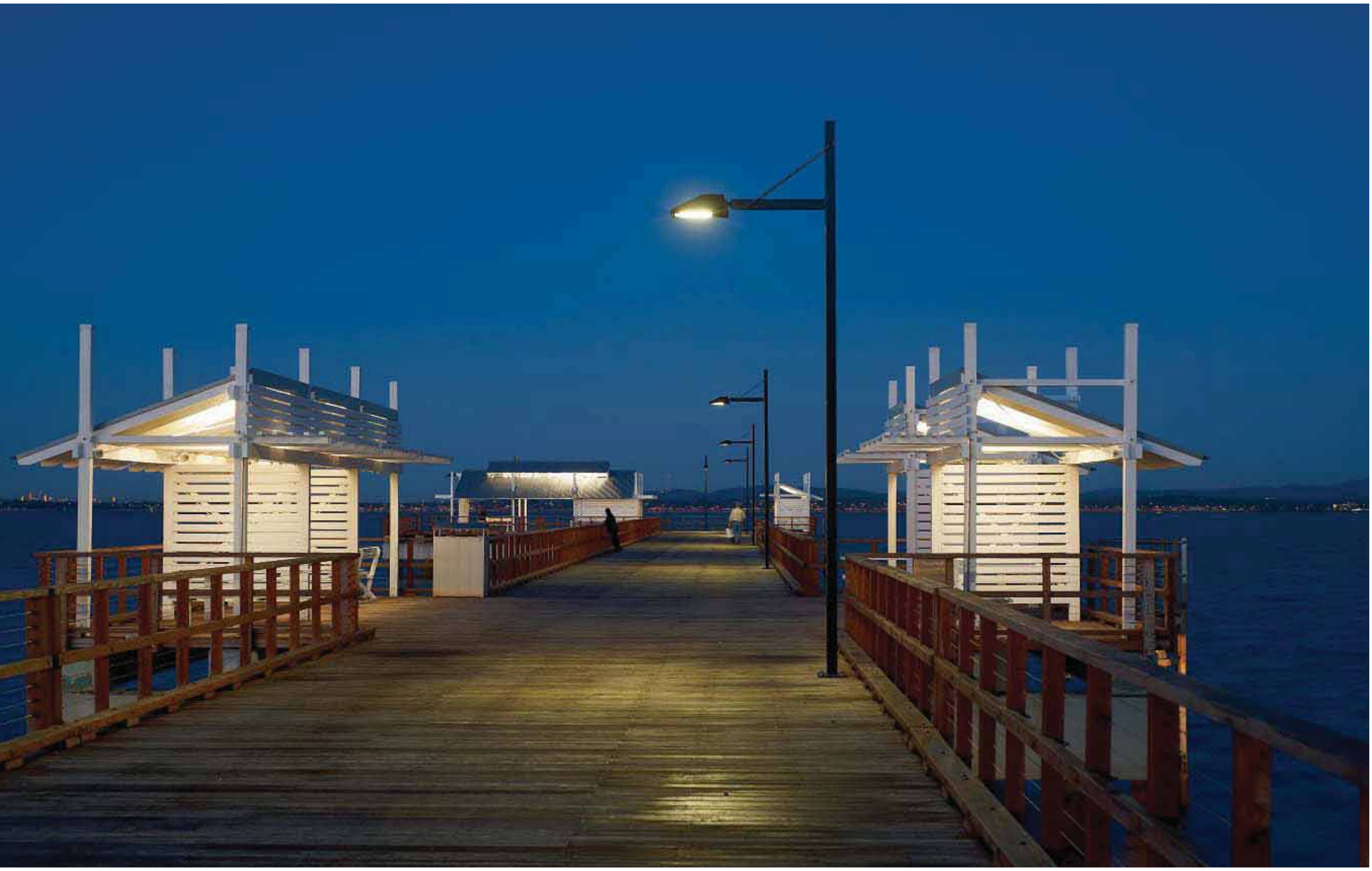
Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

Light source:
LED 18-72 W, 3000 K and 4000 K

Available distributions:
[P65] [S65] [A60]

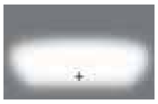
Accessories:
- **Mounting, page 204-205**
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

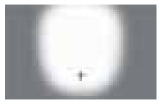


Woody Point Jetty. Queensland (AUS).

[P65]



[S65]



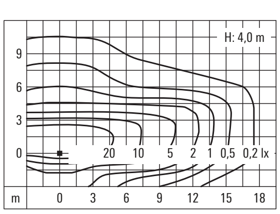
[A60]

IOS® Innovative Optical System:
[P65] Pedestrian/bicycle lane distribution
[S65] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

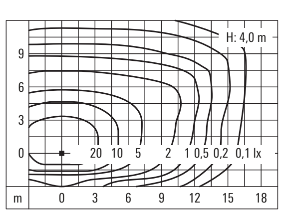
[P65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL230	18 LED 18W/350 mA	**108-1787**	2421	1.00	**108-1788**	2421	1.00	10.0
PFL230	18 LED 36W/700 mA	**108-1729**	4427	1.83	**108-1730**	4427	1.83	10.0

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL230	18 LED 18W/350 mA	**108-1781**	2421	1.00	**108-1782**	2421	1.00	10.0
PFL230	18 LED 36W/700 mA	**108-1723**	4427	1.83	**108-1724**	4427	1.83	10.0
PFL240	24 LED 48W/700 mA	**108-1677**	5903	2.44	**108-1678**	5903	2.44	13.5
PFL240	24 LED 72W/1050 mA	**108-1635**	9360	3.87	**108-1641**	10800	4.46	13.5

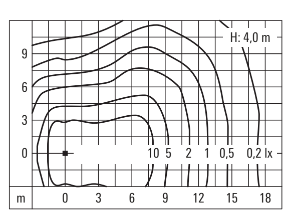
[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
PFL230	18 LED 18W/350 mA	**108-1785**	2421	1.00	**108-1786**	2421	1.00	10.0
PFL230	18 LED 36W/700 mA	**108-1727**	4427	1.83	**108-1728**	4427	1.83	10.0
PFL240	24 LED 48W/700 mA	**108-1681**	5903	2.44	**108-1682**	5903	2.44	13.5
PFL240	24 LED 72W/1050 mA	**108-1638**	9360	3.87	**108-1643**	10800	4.46	13.5



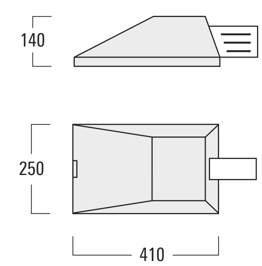
[P65]



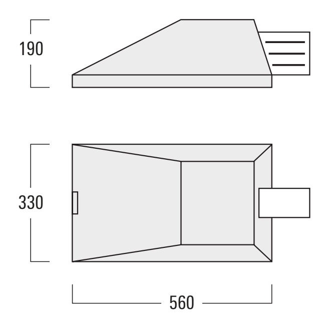
[S65]



[A60]



PFL230



PFL240

* Multiplier for isolux values.

PFL200 SERIES – HIT

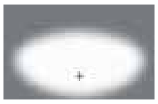
Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Anodised aluminium reflector.

Integral HPF or ECG control gear. LPF versions available on request. 'No tool' maintenance features simplify opening the luminaire for lamp replacement.

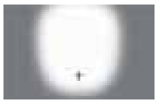
Light source:
HIT 20-400 W

Available distributions:
[S60] [A60]

Accessories:
- **Mounting, page 204-205**
- **Poles, page 322-331**



[S60]

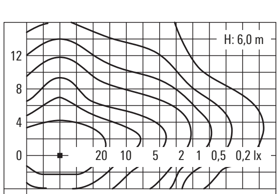


[A60]

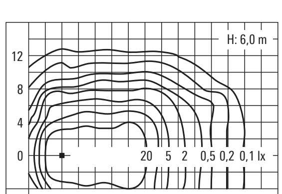
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

[S60]			lm	Gear	Factor*	kg
PFL230	HIT-CE 20W/G12	**108-0749**	1650	[ECG]	0.24	5.8
PFL230	HIT-CE 35W/G12	**108-0422**	3600	[ECG]	0.51	5.8
PFL230	HIT-CE 70W/G12	**108-0423**	7300	[ECG]	1.04	5.8
PFL240	HIT-CE 70W/E27	**108-0009**	7000	[HPF]	1.00	10.0
PFL240	HIT-CE 70W/E27	**108-0196**	7000	[ECG]	1.00	8.1
PFL240	HIT-CE 150W/E40	**108-0010**	14500	[HPF]	2.07	11.2
PFL240	HIT-CE 150W/E40	**108-0016**	14500	[ECG]	2.07	9.3
PFL260	HIT-CE 250W/E40	**108-0024**	26000	[HPF]	3.71	16.0
PFL260	HIT 400W/E40	**108-0026**	35000	[HPF]	5.00	17.6

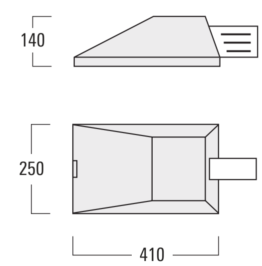
[A60]			lm	Gear	Factor*	kg
PFL230	HIT-CE 20W/G12	**108-0752**	1650	[ECG]	0.24	5.8
PFL230	HIT-CE 35W/G12	**108-0425**	3600	[ECG]	0.53	5.8
PFL230	HIT-CE 70W/G12	**108-0426**	7300	[ECG]	1.07	5.8
PFL240	HIT-DE-CE 70W/RX7s	**108-0095**	6800	[HPF]	1.00	10.0
PFL240	HIT-DE-CE 70W/RX7s	**108-0194**	6800	[ECG]	1.00	8.1
PFL240	HIT-DE-CE 150W/RX7s	**108-0096**	14500	[HPF]	2.13	11.2
PFL240	HIT-DE-CE 150W/RX7s	**108-0131**	14500	[ECG]	2.13	9.3
PFL260	HIT-DE 250W/Fc2	**108-0048**	20000	[HPF]	2.94	16.0
PFL260	HIT-DE 400W/Fc2	**108-0050**	37000	[HPF]	5.44	17.6



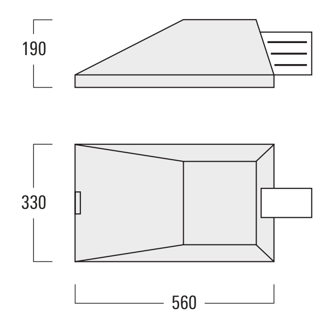
[S60]



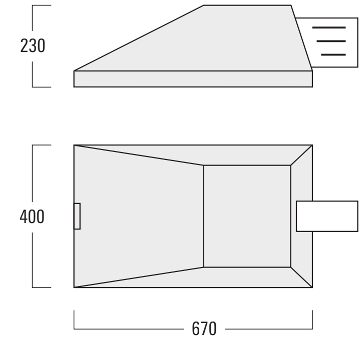
[A60]



PFL230



PFL240



PFL260

* Multiplier for isolux values.

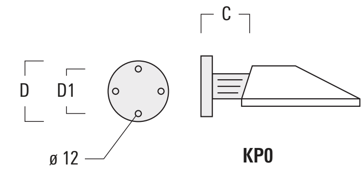
MOUNTING ACCESSORIES – PFL200 SERIES

All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

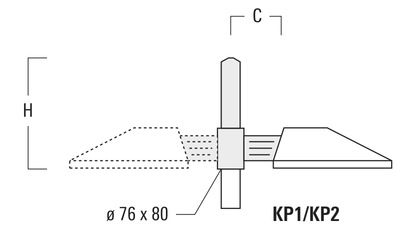
Wall bracket			D/D1	C	kg
KP0-230	for PFL230	**108-0433**	180/140	175	1.5
KP0-240	for PFL240	**108-0103**	230/195	175	3.7
KP0-260	for PFL260	**108-0056**	275/235	210	4.0

Pole bracket			H	C	kg
KP1-230	for PFL230	**108-0434**	525	175	3.9
KP2-230	for PFL230	**108-0435**	525	175	5.3
KP1-240	for PFL240	**108-0104**	575	175	5.1
KP2-240	for PFL240	**108-0105**	575	175	6.0
KP1-260	for PFL260	**108-0044**	675	210	7.2
KP2-260	for PFL260	**108-0045**	675	210	8.4

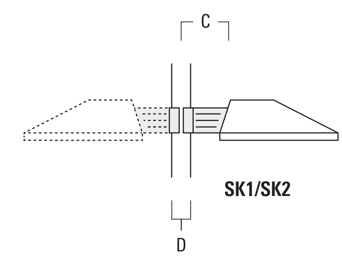
Pole clamp			D	C	kg
SK1-230	for PFL230	**108-0474**	ø 76-89	175	2.1
SK1-230	for PFL230	**108-0475**	ø 102-114	175	2.4
SK2-230	for PFL230	**108-0476**	ø 76-89	175	2.9
SK2-230	for PFL230	**108-0477**	ø 102-114	175	3.2
SK1-240	for PFL240	**108-0788**	ø 76-89	175	2.1
SK1-240	for PFL240	**108-0789**	ø 114-133	175	3.8
SK2-240	for PFL240	**108-0790**	ø 76-89	175	3.9
SK2-240	for PFL240	**108-0791**	ø 114-133	175	4.7
SK1-260	for PFL260	**108-0792**	ø 76-89	210	3.6
SK1-260	for PFL260	**108-0794**	ø 114-133	210	4.4
SK2-260	for PFL260	**108-0795**	ø 76-89	210	4.8
SK2-260	for PFL260	**108-0797**	ø 114-133	210	5.6



KP0



KP1/KP2



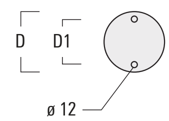
SK1/SK2

All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

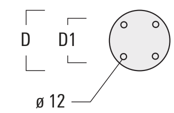
Wall bracket			D/D1	α	C	kg
KI0-230	for PFL230	**108-0430**	180/148	±30°	210	3.6
KI0-240/260	for PFL240/260	**108-0493**	180/140	±30°	210	5.7

Pole bracket			H	α	C	kg
KI1-230	for PFL230	**108-0431**	475	±30°	210	5.5
KI2-230	for PFL230	**108-0432**	475	±30°	210	7.2
KI1-240	for PFL240	**108-0491**	525	+ 30°/-15°	210	7.2
KI2-240	for PFL240	**108-0492**	525	+ 30°/-15°	210	10.0
KI1-260	for PFL260	**108-0494**	625	±30°	210	9.0
KI2-260	for PFL260	**108-0495**	625	±30°	210	11.9

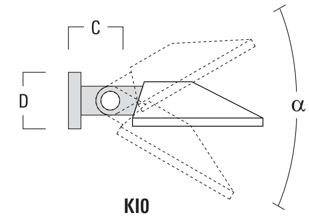
Pole clamp			D	α	C	kg
SI1-230	for PFL230	**108-0478**	ø 76-89	±30°	210	2.9
SI1-230	for PFL230	**108-0479**	ø 102-114	±30°	210	3.5
SI2-230	for PFL230	**108-0480**	ø 76-89	±30°	210	4.1
SI2-230	for PFL230	**108-0481**	ø 102-114	±30°	210	4.7
SI1-240/260	for PFL240/260	**108-0482**	ø 76-89	+ 30°/-15°	210	4.7
SI1-240/260	for PFL240/260	**108-0483**	ø 114-133	+ 30°/-15°	210	5.4
SI2-240/260	for PFL240/260	**108-0484**	ø 76-89	+ 30°/-15°	210	7.6
SI2-240/260	for PFL240/260	**108-0485**	ø 114-133	+ 30°/-15°	210	8.3



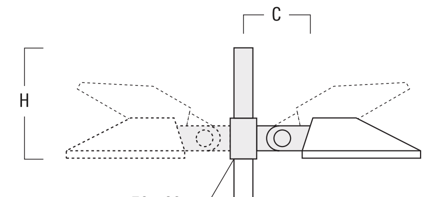
PFL240
PFL260



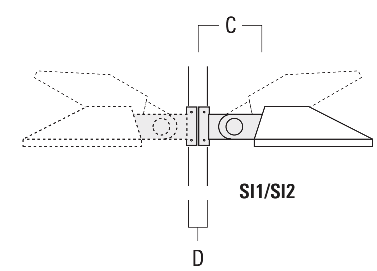
PFL230



KI0



KI1/KI2



SI1/SI2

FLA400 #5 SERIES – LED

[Factory-sealed] Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Maximum spacing for streetlighting applications depends on wattage and light distribution: 5.5 to 9 times the mounting height.

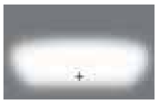
Light source:
LED 36-108 W, 3000 K and 4000 K

Available distributions:
[S65] [S70] [A60] [R65]

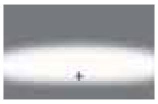
For additional types of light distribution:
[P65] [S60], refer to www.we-ef.com

Accessories:
- **Mounting, page 209**
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

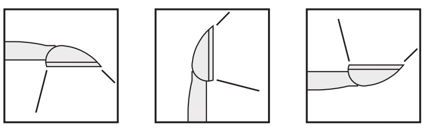


[S65]



[S70]

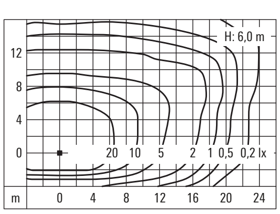
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution



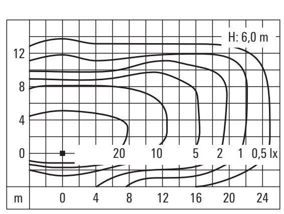
Suitable for downlighting, facade and uplighting applications.

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA441 #5	18 LED 36W/700 mA	**108-7743**	4427	0.55	**108-7744**	4427	0.55	9.5
FLA441 #5	18 LED 54W/1050 mA	**108-7753**	7020	1.00	**108-7754**	8100	1.00	9.5
FLA461 #5	36 LED 72W/700 mA	**108-7764**	8854	1.09	**108-7765**	8854	1.09	26.0
FLA461 #5	36 LED 108W/1050 mA	**108-7774**	14040	1.73	**108-7775**	16200	2.00	26.0

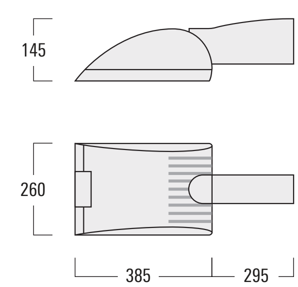
[S70]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA441 #5	18 LED 36W/700 mA	**108-7745**	4427	0.55	**108-7746**	4427	0.55	9.5
FLA441 #5	18 LED 54W/1050 mA	**108-7755**	7020	1.00	**108-7756**	8100	1.00	9.5
FLA461 #5	36 LED 72W/700 mA	**108-7766**	8854	1.09	**108-7767**	8854	1.09	26.0
FLA461 #5	36 LED 108W/1050 mA	**108-7776**	14040	1.73	**108-7777**	16200	2.00	26.0



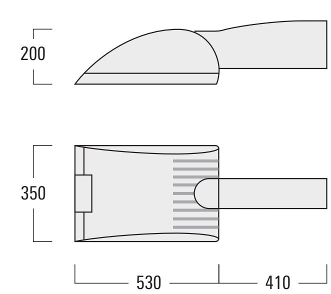
[S65]



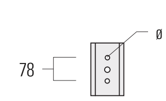
[S70]



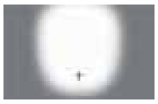
FLA441 #5



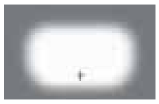
FLA461 #5



* Multiplier for isolux values.

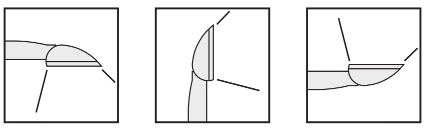


[A60]



[R65]

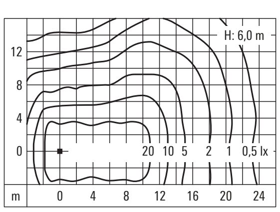
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



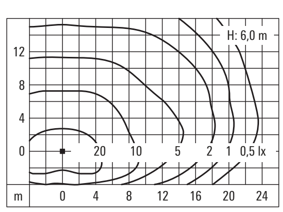
Suitable for downlighting, facade and uplighting applications.

[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA441 #5	18 LED 36W/700 mA	**108-7749**	4427	0.55	**108-7750**	4427	0.55	9.5
FLA441 #5	18 LED 54W/1050 mA	**108-7759**	7020	1.00	**108-7760**	8100	1.00	9.5
FLA461 #5	36 LED 72W/700 mA	**108-7770**	8854	1.09	**108-7771**	8854	1.09	26.0
FLA461 #5	36 LED 108W/1050 mA	**108-7780**	14040	1.73	**108-7781**	16200	2.00	26.0

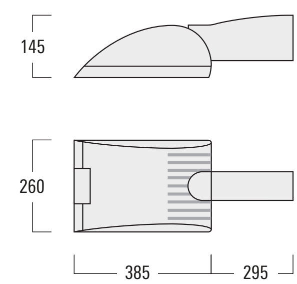
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA441 #5	18 LED 36W/700 mA	**108-7747**	4427	0.55	**108-7748**	4427	0.55	9.5
FLA441 #5	18 LED 54W/1050 mA	**108-7757**	7020	1.00	**108-7758**	8100	1.00	9.5
FLA461 #5	36 LED 72W/700 mA	**108-7768**	8854	1.09	**108-7769**	8854	1.09	26.0
FLA461 #5	36 LED 108W/1050 mA	**108-7778**	14040	1.73	**108-7779**	16200	2.00	26.0



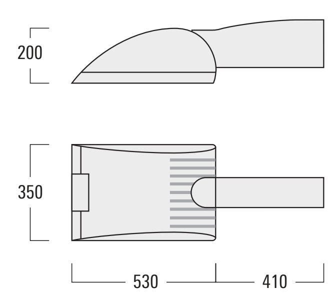
[A60]



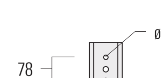
[R65]



FLA441 #5



FLA461 #5



* Multiplier for isolux values.

MOUNTING ACCESSORIES – FLA400 #5 SERIES

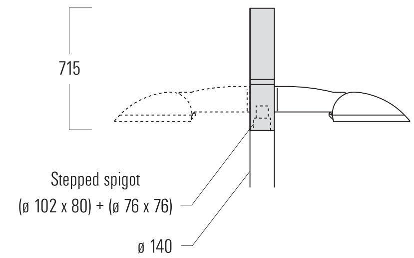
All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire. Aluminium/wood versions use impregnated hardwood.*

Single column fitter			kg
EB1-102	for FLA441/461 #5	**310-9134**	10.7

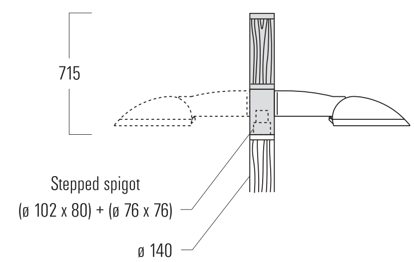
Double column fitter			kg
EB2-102	for FLA441/461 #5	**310-9135**	10.7

Single column fitter – Aluminium/wood.			kg
EB1-102	for FLA441/461 #5	**310-9136**	10.8

Double column fitter – Aluminium/wood.			kg
EB2-102	for FLA441/461 #5	**310-9137**	10.8



EB1/EB2



EB1/EB2
(aluminium/wood)

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

FLA400 #5 SERIES – HIT

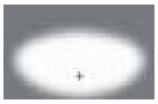
Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Anodised aluminium reflector.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request. 'No tool' maintenance features simplify opening the luminaire for lamp replacement.

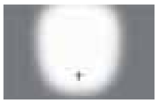
Light source:
HIT 70-400 W

Available distributions:
[S60] [A60]

Accessories:
- **Mounting, page 209**
- **Optical, refer to www.we-ef.com**
- **Poles, page 322-331**

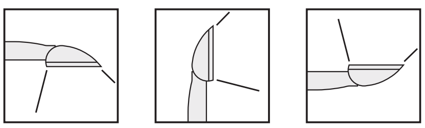


[S60]



[A60]

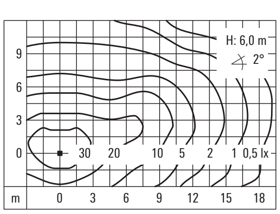
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution



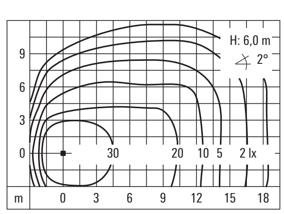
Suitable for downlighting, facade and uplighting applications.

[S60]			lm	Gear	Factor*	kg
FLA441 #5	HIT-CE 70W/G12	**108-9214**	7300	[HPF]	1.00	9.8
FLA441 #5	HIT-CE 70W/G12	**108-9216**	7300	[ECG]	1.00	8.2
FLA441 #5	HIT-CE 150W/G12	**108-9219**	15000	[HPF]	2.05	11.0
FLA441 #5	HIT-CE 150W/G12	**108-9221**	15000	[ECG]	2.05	9.4
FLA461 #5	HIT-CE 250W/E40	**108-9707**	26000	[HPF]	3.56	28.1
FLA461 #5	HIT 400W/E40**	**108-9757**	35000	[HPF]	4.79	29.7

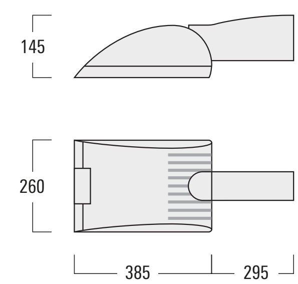
[A60]			lm	Gear	Factor*	kg
FLA441 #5	HIT-CE 70W/G12	**108-9289**	7300	[HPF]	1.00	9.8
FLA441 #5	HIT-CE 70W/G12	**108-9290**	7300	[ECG]	1.00	8.2
FLA441 #5	HIT-CE 150W/G12	**108-9296**	15000	[HPF]	2.05	11.0
FLA441 #5	HIT-CE 150W/G12	**108-9297**	15000	[ECG]	2.05	9.4
FLA461 #5	HIT-DE 250W/Fc2	**108-9718**	20000	[HPF]	3.56	28.1
FLA461 #5	HIT-DE 400W/Fc2	**108-9768**	37000	[HPF]	4.79	29.7



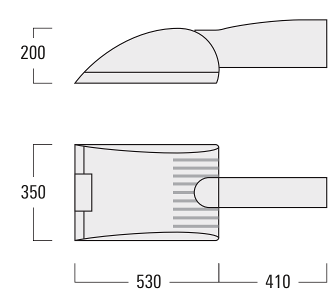
[S60]



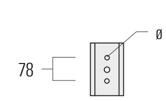
[A60]



FLA441 #5



FLA461 #5



* Multiplier for isolux values.
** Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.

ALP500 SERIES

Pendant luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets.

Integral EC electronic converter. CAD-optimised optics for superior illumination and glare control.

Brackets to be ordered separately.

Light source:
LED 17-24 W, 3000 K and 4000 K
(for HIE, refer to www.we-ef.com)

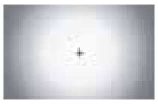
Available distributions:
[C60]

Accessories:
- **Mounting, page 218-219**
- **Poles, page 322-331**

IOS.

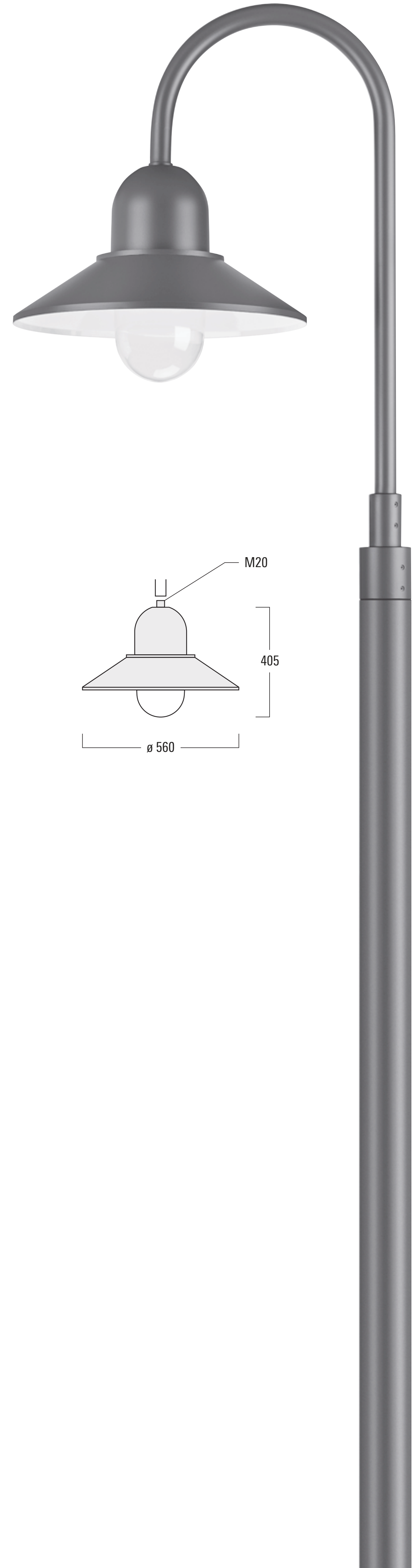
LED

Campus. Berlin (D).

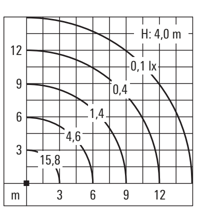


[C60]

IOS® Innovative Optical System:
[C60] Controlled symmetric distribution



[C60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
ALP534	LED FT 17W/500 mA	**127-1217**	2800	0.96	**127-1218**	2915	1.00	6.1
ALP534	LED FT 24W/700 mA	**127-1219**	3795	1.30	**127-1220**	3940	1.35	6.1



[C60]

* Multiplier for isolux values.

AOP500 SERIES

Pendant luminaire. IP55. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Polycarbonate lens. Silicone rubber gaskets.

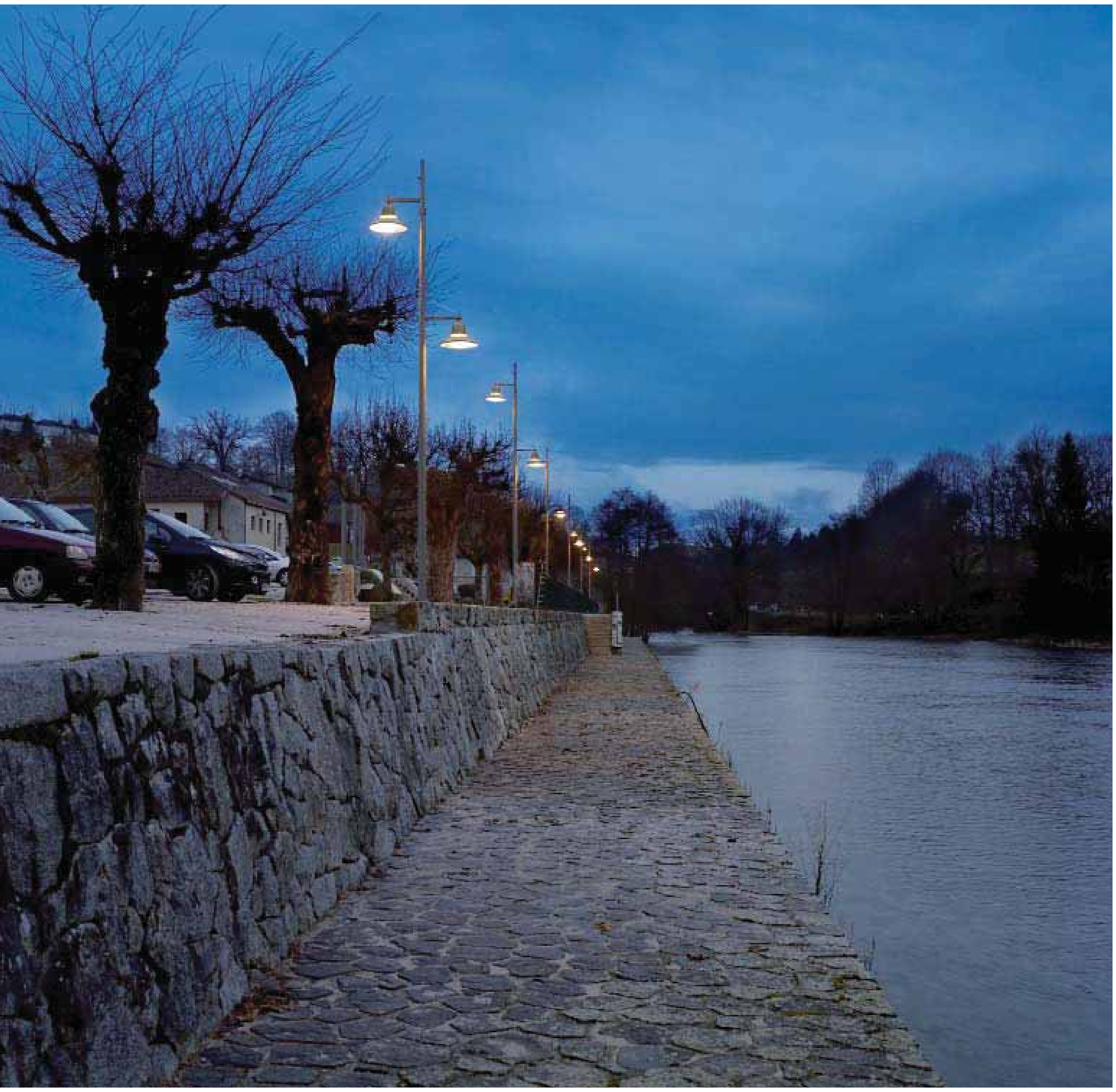
Integral EC electronic converter. CAD-optimised optics for superior illumination and glare control.

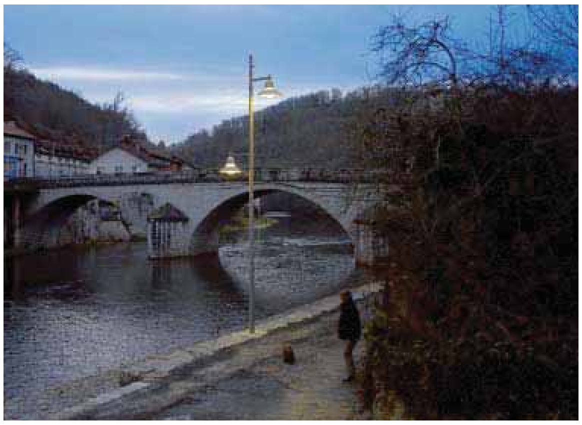
Brackets to be ordered separately.

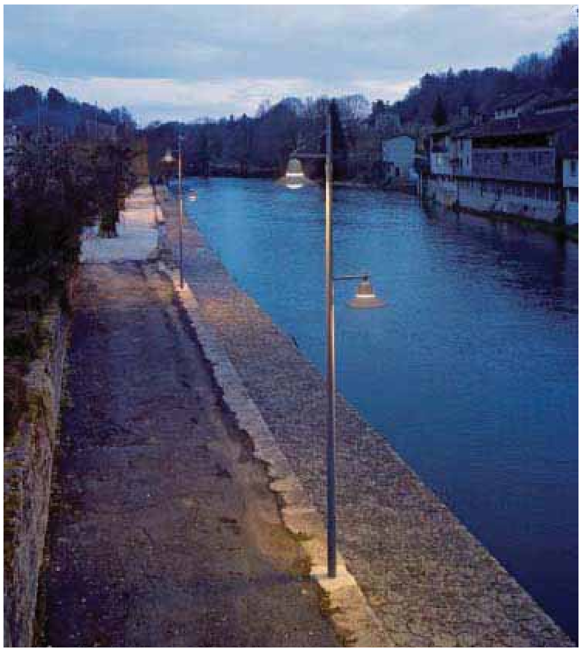
Light source:
LED 17-24 W, 3000 K and 4000 K
(for HIE, refer to www.we-ef.com)

Available distributions:
[C60]

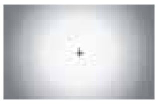
Accessories:
- **Mounting, page 218-219**
- **Poles, page 322-331**







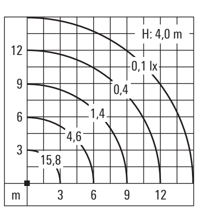
Place du Foiraille. Laroquebrou (F). Lighting design: Semel 15.



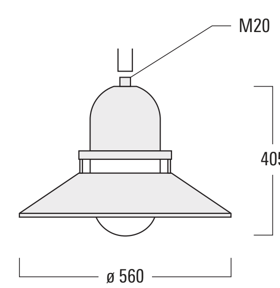
[C60]

IOS® Innovative Optical System:
[C60] Controlled symmetric distribution

[C60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
AOP534	LED FT 17W/500 mA	**127-1260**	2800	0.96	**127-1261**	2915	1.00	7.6
AOP534	LED FT 24W/700 mA	**127-1262**	3795	1.30	**127-1263**	3940	1.35	7.6



[C60]



* Multiplier for isolux values.

ASP500 SERIES

[Factory-sealed] Pendant luminaire. IP66. IK10. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gaskets. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

Brackets to be ordered separately. Bracket/luminaire adaptor complies with AS/NZS1158.6.

Light source:
LED 24-72 W, 3000 K and 4000 K

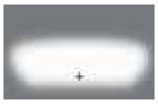
Available distributions:
[S65] [S70] [R65]

For additional types of light distribution:
[P65] [S60] [A60], refer to www.we-ef.com

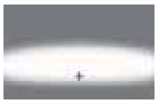
Accessories:
- **Mounting, page 218-219**
- **Poles, page 322-331**

WE-EF Control and Surge Protection:
- **Energy-saving options, page 228-231**
- **Enhanced surge protection, page 228**

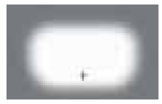
Wanaka (NZ).



[S65]

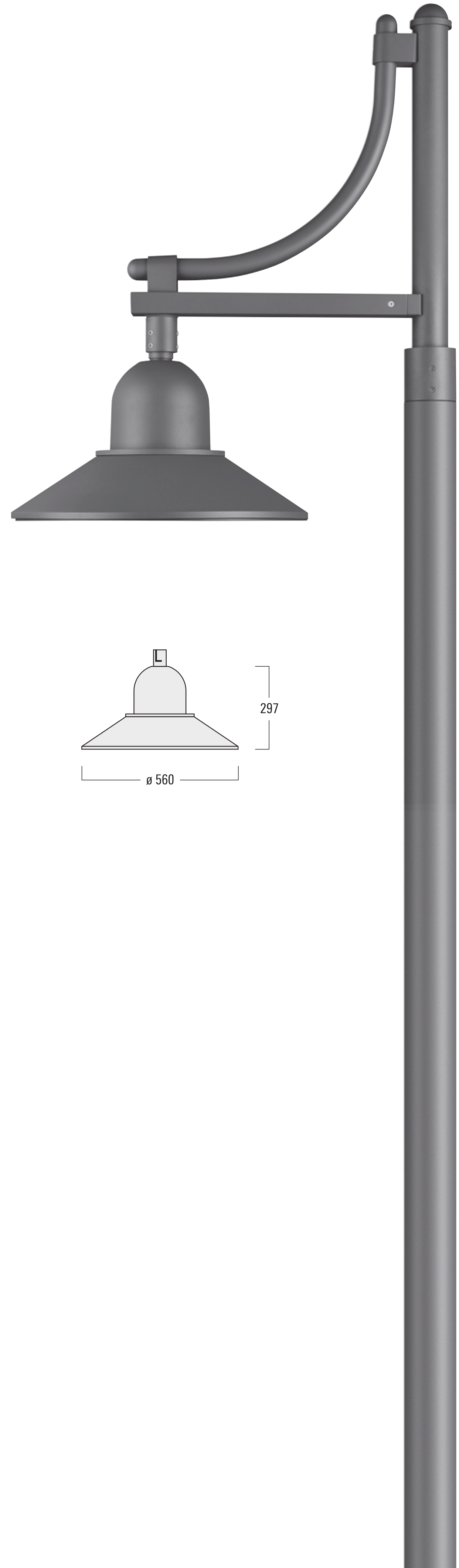


[S70]



[R65]

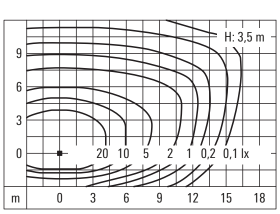
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution
[R65] Rectangular 'forward throw' distribution



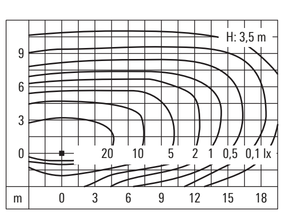
[S65]		3000 K	lm	4000 K	lm	Factor*	kg
ASP530	12 LED 24W/700 mA	**127-8314**	2951	**127-8313**	2951	1.00	12.0
ASP530	24 LED 48W/700 mA	**127-8316**	5903	**127-8315**	5903	2.00	12.0
ASP530	36 LED 72W/700 mA	**127-8318**	8854	**127-8317**	8854	3.00	12.0

[S70]		3000 K	lm	4000 K	lm	Factor*	kg
ASP530	12 LED 24W/700 mA	**127-8302**	2951	**127-8301**	2951	1.00	12.0
ASP530	24 LED 48W/700 mA	**127-8304**	5903	**127-8303**	5903	2.00	12.0
ASP530	36 LED 72W/700 mA	**127-8306**	8854	**127-8305**	8854	3.00	12.0

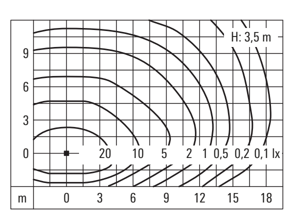
[R65]		3000 K	lm	4000 K	lm	Factor*	kg
ASP530	12 LED 24W/700 mA	**127-8320**	2951	**127-8319**	2951	1.00	12.0
ASP530	24 LED 48W/700 mA	**127-8322**	5903	**127-8321**	5903	2.00	12.0
ASP530	36 LED 72W/700 mA	**127-8324**	8854	**127-8323**	8854	3.00	12.0



[S65]



[S70]



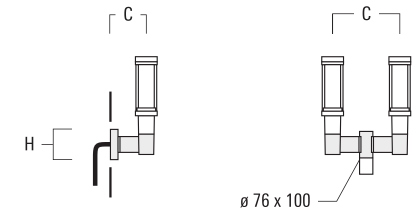
[R65]

* Multiplier for isolux values.

MOUNTING ACCESSORIES – ZFT400/ZA600/ALP500/AOP500/ASP500 SERIES

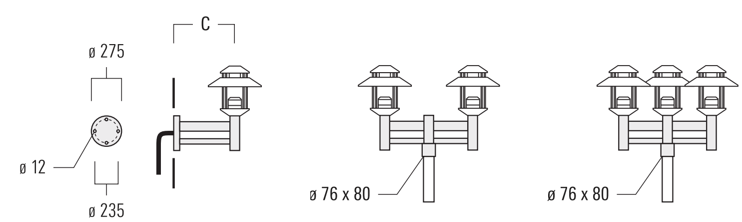
All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Wall bracket			H	C	kg
RZ0-400	for ZFT400	**115-1324**	231	277	3.5
Pole bracket				C	kg
RZ2-400	for ZFT400	**115-1323**		516	4.9



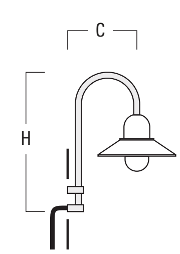
RZ0 **RZ2**

Wall bracket			C	kg
AZ0-300	for ZA630	**155-0269**	300	3.6
AZ0-400	for ZA640	**155-0266**	400	4.0
Pole bracket			C	kg
AZ20-300	for ZA630	**155-0550**	300	6.2
AZ30-300	for ZA630	**155-0551**	300	8.6
AZ20-400	for ZA640	**155-0304**	400	7.0
AZ30-400	for ZA640	**155-0306**	400	9.8

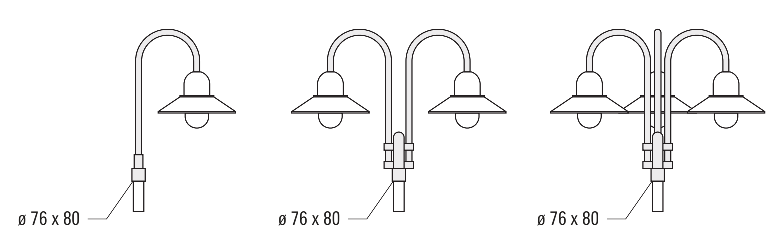


AZ0 **AZ20** **AZ30**

Wall bracket			H	C	kg
BA0-420	for ALP530 AOP530	**300-0152**	1000	460	2.0
BA0-420*	for ASP530	**300-9162**	1000	460	2.0
Pole bracket			H	C	kg
BA1-420	for ALP530 AOP530	**300-0099**	1000	420	4.0
BA2-420	for ALP530 AOP530	**300-0104**	1000	500	8.0
BA3-420	for ALP530 AOP530	**300-0109**	1000	500	10.0
BA1-420*	for ASP530	**300-9163**	1000	420	4.0
BA2-420*	for ASP530	**300-9164**	1000	500	8.0
BA3-420*	for ASP530	**300-9165**	1000	500	10.0



BA0



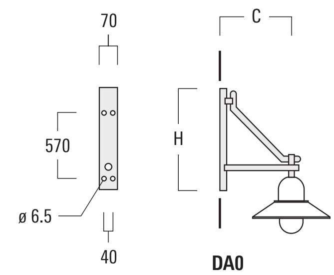
BA1 **BA2** **BA3**

* Bracket/luminaire adaptor complies with AS/NZS1158.6.

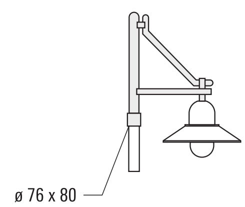
All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Wall bracket			H	C	kg
DA0-500	for ALP530 AOP530	**300-0146**	650	510	5.7
DA0-500*	for ASP530	**300-9150**	650	510	5.7

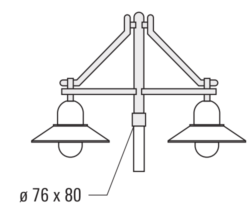
Pole bracket			H	C	kg
DA1-500	for ALP530 AOP530	**300-0138**	700	510	5.7
DA2-500	for ALP530 AOP530	**300-0141**	700	510	8.3
DA3-500	for ALP530 AOP530	**300-0144**	700	510	10.9
DA1-500*	for ASP530	**300-9151**	700	510	5.7
DA2-500*	for ASP530	**300-9152**	700	510	8.3
DA3-500*	for ASP530	**300-9153**	700	510	10.9



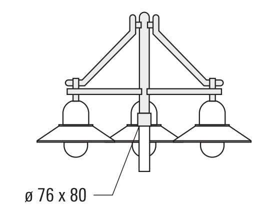
DA0



DA1



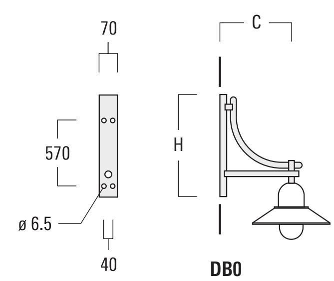
DA2



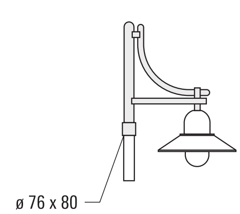
DA3

Wall bracket			H	C	kg
DB0-500	for ALP530 AOP530	**300-0169**	650	510	5.5
DB0-500*	for ASP530	**300-9154**	650	510	5.5

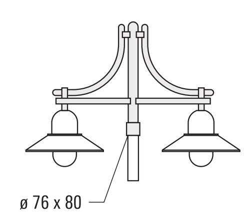
Pole bracket			H	C	kg
DB1-500	for ALP530 AOP530	**300-0190**	700	510	5.5
DB2-500	for ALP530 AOP530	**300-0191**	700	510	7.9
DB3-500	for ALP530 AOP530	**300-0192**	700	510	10.3
DB1-500*	for ASP530	**300-9155**	700	510	5.5
DB2-500*	for ASP530	**300-9156**	700	510	7.9
DB3-500*	for ASP530	**300-9157**	700	510	10.3



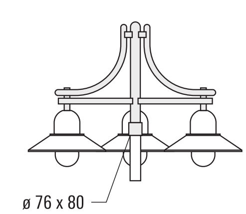
DB0



DB1



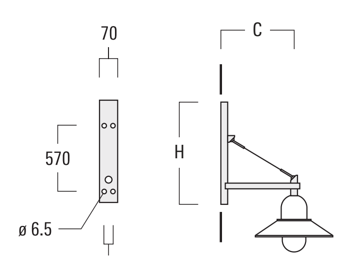
DB2



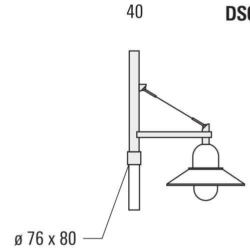
DB3

Wall bracket			H	C	kg
DS0-500	for ALP530 AOP530	**300-0064**	650	510	2.5
DS0-500*	for ASP530	**300-9158**	650	510	2.5

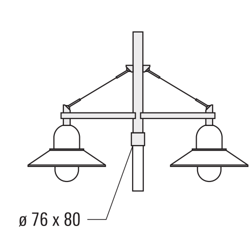
Pole bracket			H	C	kg
DS1-500	for ALP530 AOP530	**300-0063**	725	510	3.9
DS2-500	for ALP530 AOP530	**300-0066**	725	510	5.3
DS3-500	for ALP530 AOP530	**300-0069**	725	510	6.7
DS1-500*	for ASP530	**300-9159**	725	510	3.9
DS2-500*	for ASP530	**300-9160**	725	510	5.3
DS3-500*	for ASP530	**300-9161**	725	510	6.7



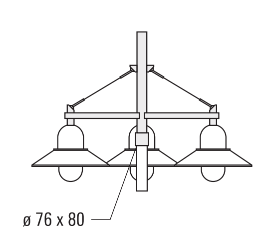
DS0



DS1



DS2



DS3

* Bracket/luminaire adaptor complies with AS/NZS1158.6.

RBM600 SERIES

Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gaskets. Anodised aluminium reflector.

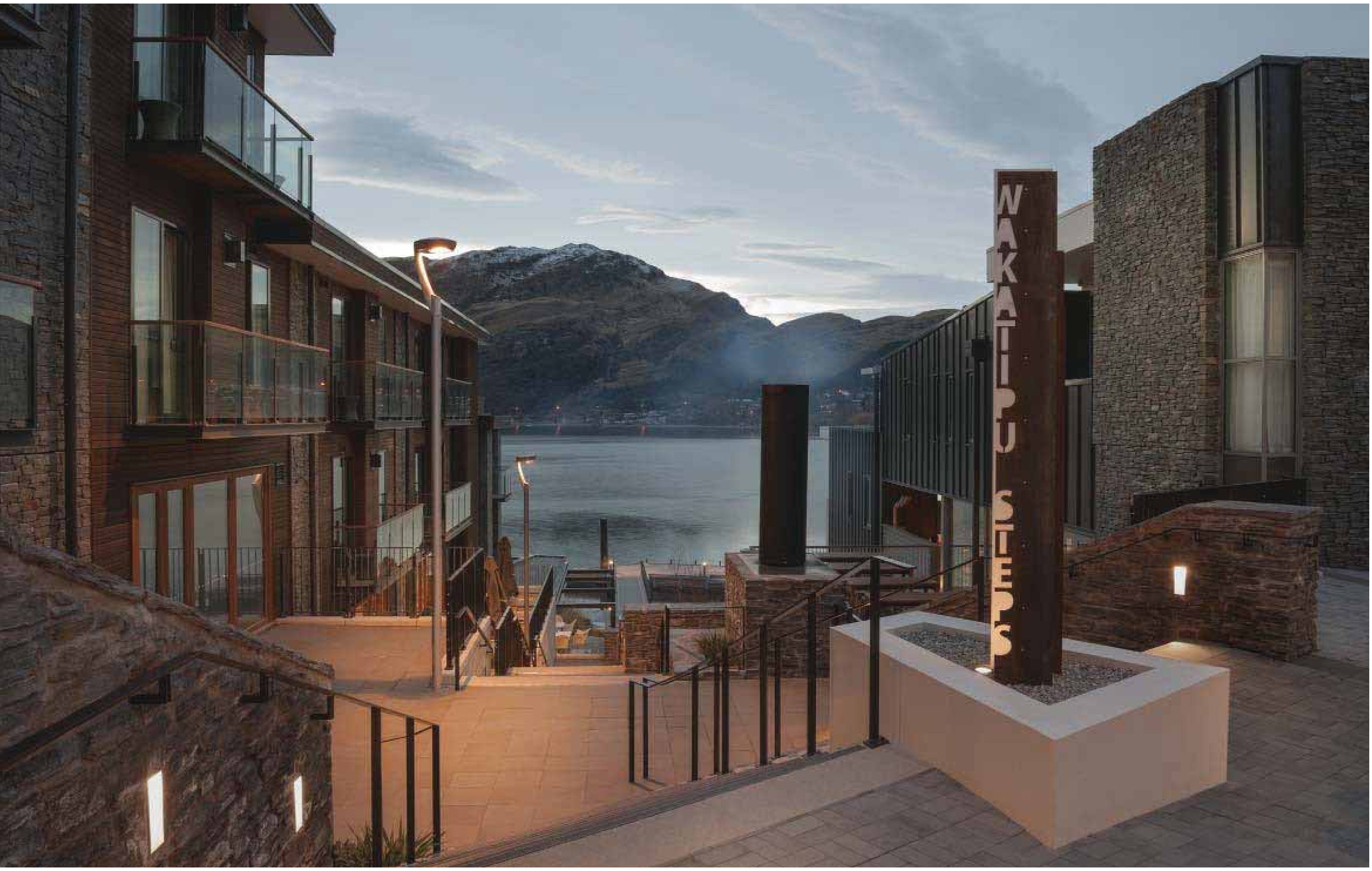
Integral HPF or ECG control gear. LPF versions available on request. 'No tool' maintenance features simplify opening the luminaire as well as replacing lamp and control gear module.

Light source:
HIT 70-400 W

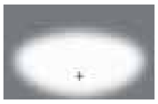
Available distributions:
[S60] [A60] [Q]

Accessories:

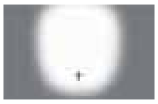
- **Optical, refer to www.we-ef.com**
- **Poles, page 322-331**



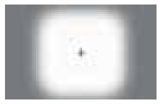
Kawarau Falls. Queenstown (NZ). Lighting design: Richard Bracebridge, Light Works Limited.



[S60]

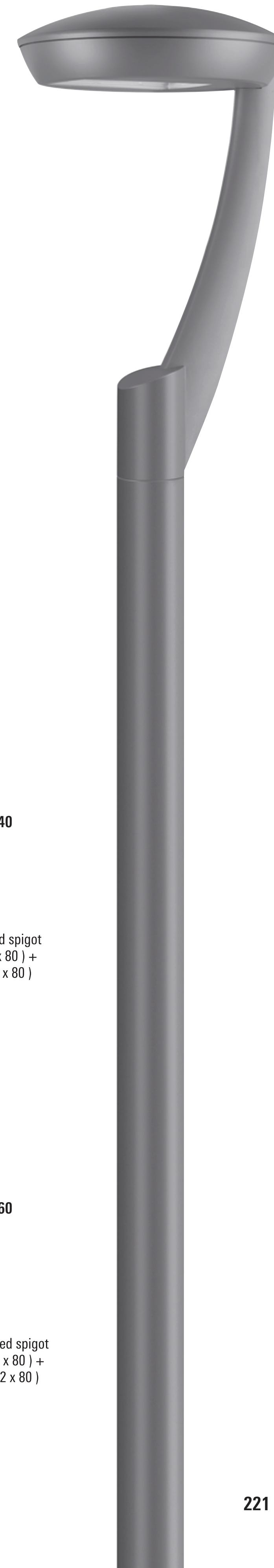


[A60]



[Q]

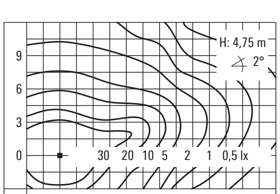
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[Q] Square distribution



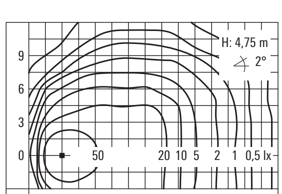
[S60]			lm	Gear	Factor*	kg
RBM640	HIT-CE 70W/G12	**105-9096**	7300	[HPF]	1.00	19.5
RBM640	HIT-CE 70W/G12	**105-9100**	7300	[ECG]	1.00	17.6
RBM640	HIT-CE 150W/G12	**105-9114**	15000	[HPF]	2.05	20.7
RBM640	HIT-CE 150W/G12	**105-9118**	15000	[ECG]	2.05	18.8
RBM660	HIT-CE 250W/E40	**105-9413**	26000	[HPF]	3.56	26.0
RBM660	HIT 400W/E40**	**105-9423**	35000	[HPF]	4.79	28.0

[A60]			lm	Gear	Factor*	kg
RBM640	HIT-CE 70W/G12	**105-9204**	7300	[HPF]	1.00	19.5
RBM640	HIT-CE 70W/G12	**105-9208**	7300	[ECG]	1.00	17.6
RBM640	HIT-CE 150W/G12	**105-9222**	15000	[HPF]	2.05	20.7
RBM640	HIT-CE 150W/G12	**105-9226**	15000	[ECG]	2.05	18.8
RBM660	HIT-CE 250W/E40	**105-9511**	26000	[HPF]	3.56	26.0
RBM660	HIT 400W/E40**	**105-9521**	35000	[HPF]	4.79	28.0

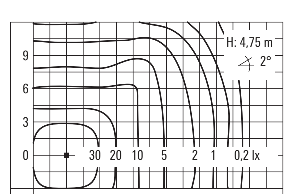
[Q]			lm	Gear	Factor*	kg
RBM640	HIT-CE 70W/G12	**105-9304**	7300	[HPF]	1.00	19.5
RBM640	HIT-CE 70W/G12	**105-9308**	7300	[ECG]	1.00	17.6
RBM640	HIT-CE 150W/G12	**105-9322**	15000	[HPF]	2.05	20.7
RBM640	HIT-CE 150W/G12	**105-9326**	15000	[ECG]	2.05	18.8



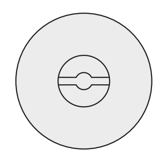
[S60]

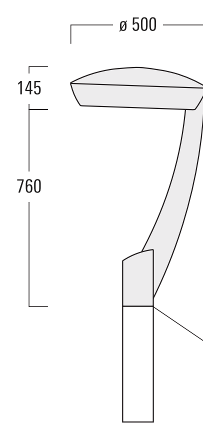


[A60]



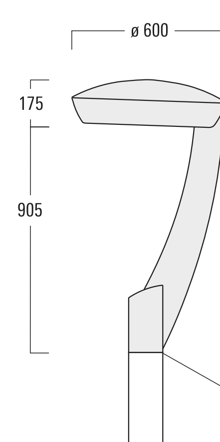
[Q]





RBM640

stepped spigot
(ø 76 x 80) +
(ø 102 x 80)



RBM660

stepped spigot
(ø 76 x 80) +
(ø 102 x 80)

* Multiplier for isolux values.
** Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.

RBL600 SERIES

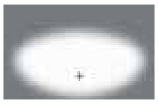
Pole mounted luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone rubber gaskets. Anodised aluminium reflector.

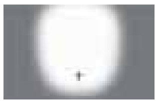
Integral HPF or ECG control gear. LPF versions available on request. 'No tool' maintenance features simplify opening the luminaire as well as replacing lamp and control gear module.

Light source:
HIT 70-400 W

Available distributions:
[S60] [A60]

Accessories:
- **Mounting, page 224-225**
- **Optical, refer to www.we-ef.com**
- **Poles, page 322-331**



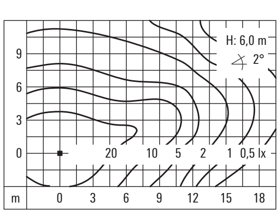


[S60] **[A60]**

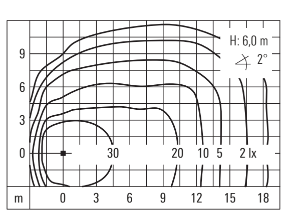
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

[S60]			lm	Gear	Factor*	kg
RBL640	HIT-CE 70W/G12	**106-9616**	7300	[HPF]	1.00	13.2
RBL640	HIT-CE 70W/G12	**106-9620**	7300	[ECG]	1.00	11.3
RBL640	HIT-CE 150W/G12	**106-9634**	15000	[HPF]	2.05	14.4
RBL640	HIT-CE 150W/G12	**106-9638**	15000	[ECG]	2.05	12.5
RBL660	HIT-CE 250W/E40	**106-6096**	26000	[HPF]	3.56	19.9
RBL660	HIT 400W/E40**	**106-6106**	35000	[HPF]	4.79	21.5

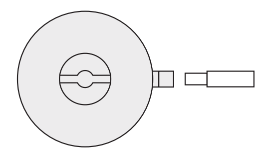
[A60]			lm	Gear	Factor*	kg
RBL640	HIT-CE 70W/G12	**106-9724**	7300	[HPF]	1.00	13.2
RBL640	HIT-CE 70W/G12	**106-9728**	7300	[ECG]	1.00	11.3
RBL640	HIT-CE 150W/G12	**106-9742**	15000	[HPF]	2.05	14.4
RBL640	HIT-CE 150W/G12	**106-9746**	15000	[ECG]	2.05	12.5
RBL660	HIT-CE 250W/E40	**106-6219**	26000	[HPF]	3.56	19.9
RBL660	HIT 400W/E40**	**106-6229**	35000	[HPF]	4.79	21.5

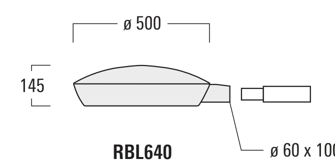


[S60]

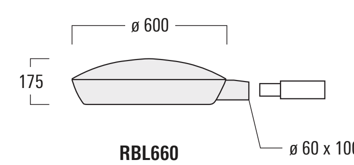


[A60]





RBL640



RBL660

* Multiplier for isolux values.
** Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.

MOUNTING ACCESSORIES – RBL600 SERIES

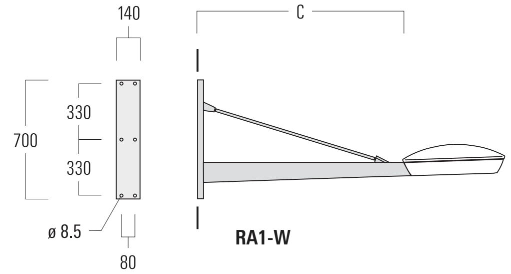
All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire. Aluminium/wood versions use impregnated hardwood.*

Wall bracket			C	kg
RA1-W	for RBL640	**106-9507**	1000	6.8
RA1-W	for RBL660	**106-7960**	1250	7.5

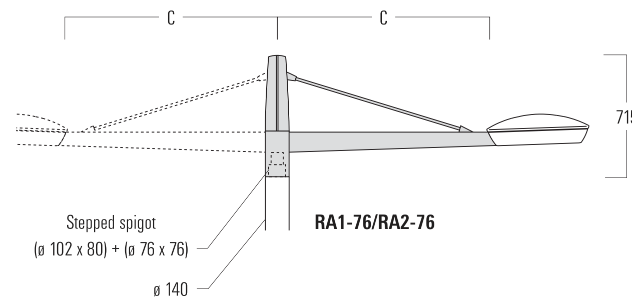
Single bracket			C	kg
RA1-76	for RBL640	**106-9501**	1000	12.4
RA1-76	for RBL660	**106-9511**	1300	13.1

Double bracket			C	kg
RA2-76	for RBL640	**106-9502**	1000	16.7
RA2-76	for RBL660	**106-9512**	1300	18.2

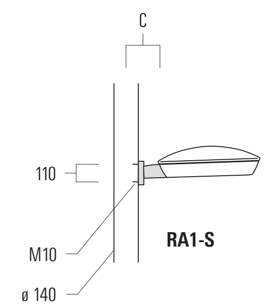
Short bracket			C	kg
RA1-S	for RBL640/660	**106-7959**	175	1.1



RA1-W



RA1-76/RA2-76



RA1-S

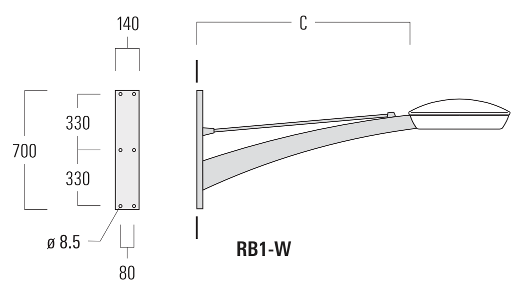
Wall bracket			C	kg
RB1-W	for RBL640	**106-9508**	1000	8.3
RB1-W	for RBL660	**106-7965**	1250	9.7

Single bracket			C	kg
RB1-102	for RBL640	**106-9503**	1000	13.7
RB1-102	for RBL660	**106-9513**	1300	15.1

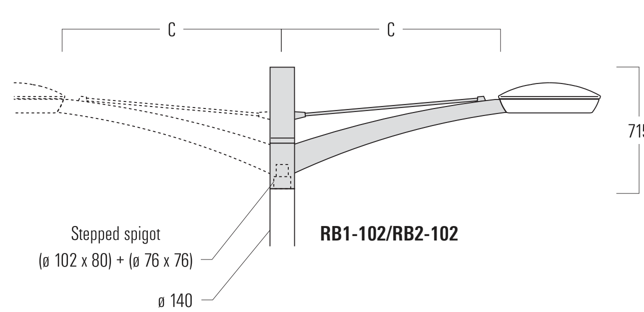
Double bracket			C	kg
RB2-102	for RBL640	**106-9504**	1000	19.1
RB2-102	for RBL660	**106-9514**	1300	21.8

Single bracket – Aluminium/wood.			C	kg
RB1-102	for RBL640	**106-9505**	1000	13.7
RB1-102	for RBL660	**106-9515**	1300	15.1

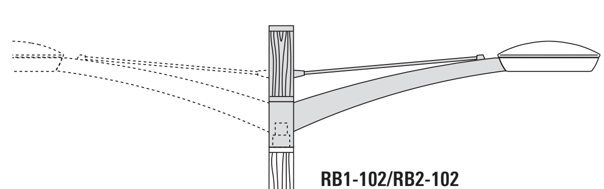
Double bracket – Aluminium/wood.			C	kg
RB2-102	for RBL640	**106-9506**	1000	19.1
RB2-102	for RBL660	**106-9516**	1300	21.8



RB1-W



RB1-102/RB2-102


RB1-102/RB2-102
(aluminium/wood)

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

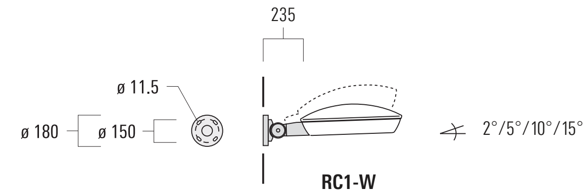
All mounting accessories are made from marine-grade aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Wall bracket			kg
RC1-W	for RBL640/660	**106-7971**	3.1

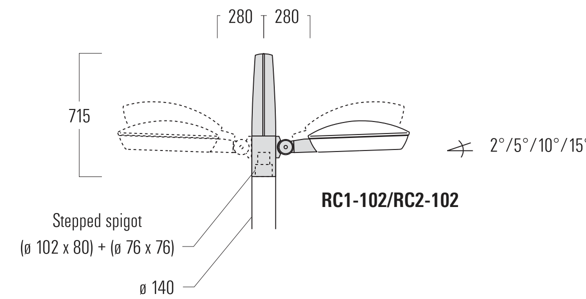
Single bracket			kg
RC1-102	for RBL640/660	**106-7975**	9.3

Double bracket			kg
RC2-102	for RBL640/660	**106-7976**	10.8

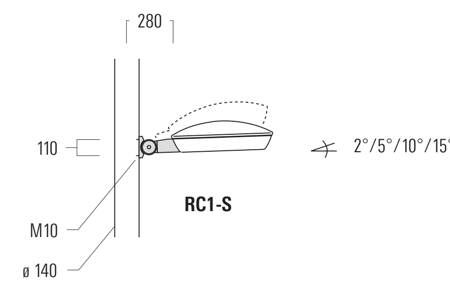
Short bracket			kg
RC1-S	for RBL640/660	**106-7972**	1.5



RC1-W



RC1-102/RC2-102



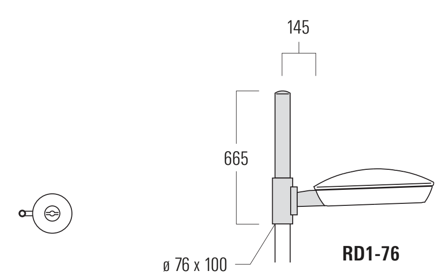
RC1-S

Single bracket			kg
RD1-76	for RBL640/660	**106-7979**	4.6

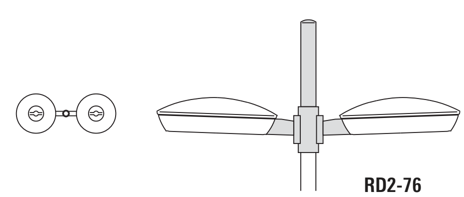
Double bracket			kg
RD2-76	for RBL640/660	**106-7980**	5.8

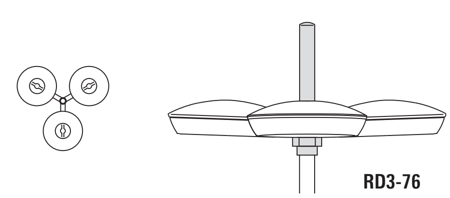
Triple bracket			kg
RD3-76	for RBL640/660	**106-7981**	6.8

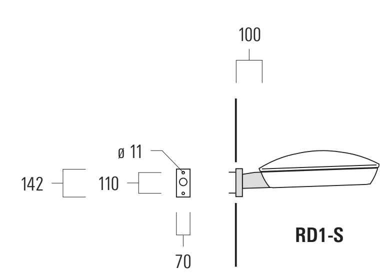
Short bracket			kg
RD1-S	for RBL640/660	**106-7978**	1.1



RD1-76


RD2-76


RD3-76



RD1-S

SBL400 SERIES

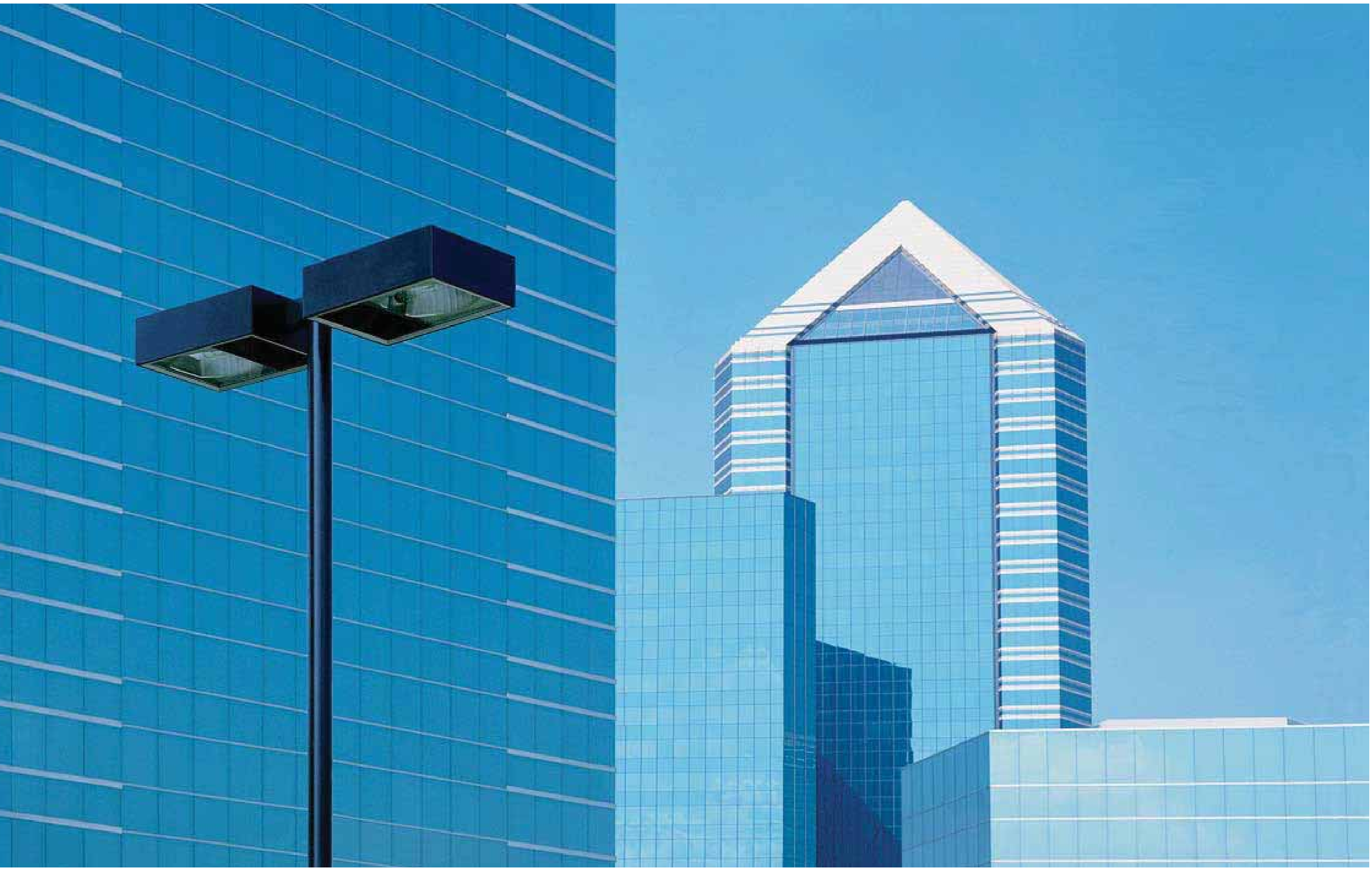
Pole mounted luminaire. IP54. IK07. Marine-grade aluminium alloy body. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket. Anodised aluminium reflector.

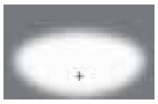
Integral HPF control gear in thermally-separated compartment. LPF versions available on request.

Light source:
HIT 70-400 W

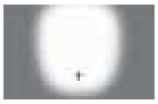
Available distributions:
[S60] [A60]

Accessories:
- **Optical, refer to www.we-ef.com**
- **Poles, page 322-331**





[S60]

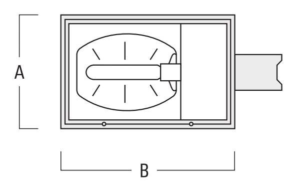


[A60]

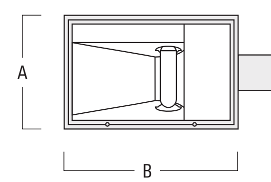
IOS® Innovative Optical System:
[S60] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution

[S60]			lm	Gear	Factor*	kg
SBL440	HIT-CE 70W/E27	**138-9131**	7000	[HPF]	1.00	8.9
SBL440	HIT-CE 150W/E40	**138-9140**	14500	[HPF]	2.07	11.8
SBL460	HIT-CE 250W/E40	**138-9261**	26000	[HPF]	3.71	13.9
SBL460	HIT 400W/E40	**138-9264**	35000	[HPF]	5.00	16.1

[A60]			lm	Gear	Factor*	kg
SBL440	HIT-CE 70W/E27	**138-9165**	7000	[HPF]	1.00	8.9
SBL440	HIT-CE 70W/E27	**138-9182**	7000	[ECG]	1.00	7.8
SBL440	HIT-CE 150W/E40	**138-9168**	14500	[HPF]	2.07	11.8
SBL440	HIT-CE 150W/E40	**138-9186**	14500	[ECG]	2.07	9.8
SBL460	HIT-CE 250W/E40	**138-9279**	26000	[HPF]	3.71	14.5
SBL460	HIT 400W/E40	**138-9282**	35000	[HPF]	5.00	17.2



[S60]



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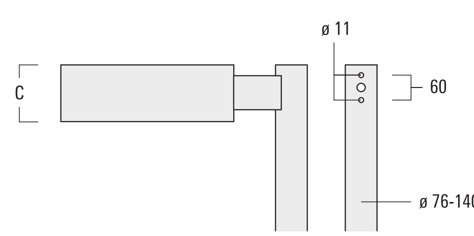

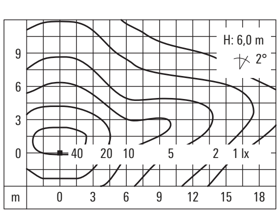

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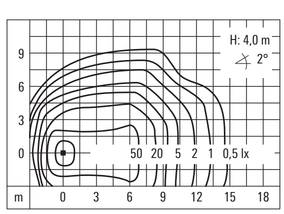


[A60]

Product Dimensions:

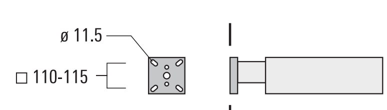
SBL series	A	B	C
SBL440	315	500	160
SBL460	390	620	185

Mounting Accessories:

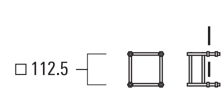
Wall bracket			kg
WS1	for SBL440/460	**138-9065**	1.0

Wall embedment bracket – For in-concrete anchorage. Made from galvanised steel.			kg
WEB	for WS1 wall bracket	**138-9064**	0.8

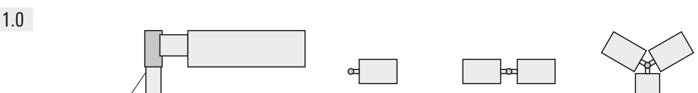
Mounting fitter			kg
KS1-76	for SBL440/460	**138-9200**	0.8
KS2-76	for SBL440/460	**138-9201**	0.9
KS3-76	for SBL440/460	**138-9202**	1.0



WS1



WEB



KS1-76 **KS2-76** **KS3-76**

* Multiplier for isolux values.

WE-EF CONTROL AND SURGE PROTECTION

LED lighting installations may be operated in a highly economic and environmentally-friendly manner when the LEDs are dimmed on a time- or activity-controlled basis. Dimming lowers power consumption, improves lm/W efficacy and increases LED service life.

WE-EF Control

The four WE-EF Control versions featured here offer professional solutions to a multitude of applications, enabling the operator to minimise cost of ownership while maximising environmental credentials. Contact WE-EF or your local WE-EF representative for an individual solution designed to meet your demands.

Surge Protection

WE-EF street and area lighting luminaires are fitted with electronic converters featuring high voltage surge protection of either 6, 8 or 10 kV – in all cases exceeding the requirements of EN61000-4-5. For luminaires rated at less than 10 kV, when installed in high-risk areas, the optional SP10 (10/10 kV) surge protection accessory is recommended.*

For comprehensive protection of a luminaire installation against lightning and electrical surges, it is essential to also cover mains supply and data input lines at the distribution board level, by using respective primary (Type 1) and secondary (Type 2) surge arrestors in compliance with EN61643-11/IEC61643-1.

WE-EF Control	
Basic	**430-0001**
Motion	**430-0010**
Advanced	**430-0002**
Dynamic	**430-0003**

Enhanced surge protection	
SP10 (10/10 kV)	**105-9860**

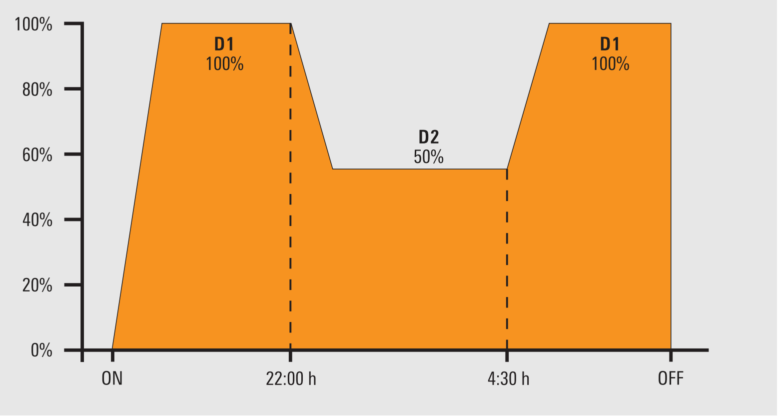
* In Australia and New Zealand SP10 (10/10 kV) surge protection is a standard feature.

Basic

By activating an integral electronic control switch, both power consumption and luminous flux are reduced to a pre-programmed level. Factory programmed setting: Power consumption is reduced to 45 per cent, luminous flux to 50 per cent. Other settings available on request. Requires dedicated control line (in addition to standard mains supply lines).

Motion

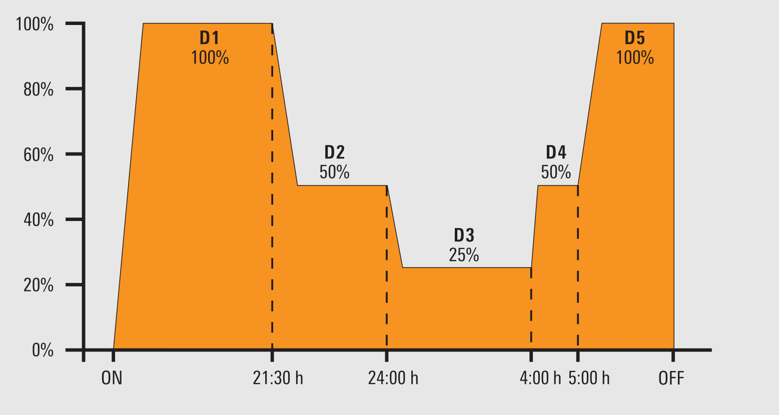
Triggered by a movement sensor, an integral, pre-programmed electronic controller raises the luminaire's power and light output to 100 per cent. After five minutes of non-movement, power consumption is reduced to 45 per cent, luminous flux to 50 per cent. Other settings on request. Requires movement sensor in external housing – mounted on pole or separate structure – as well as dedicated control line (in addition to standard mains supply lines).



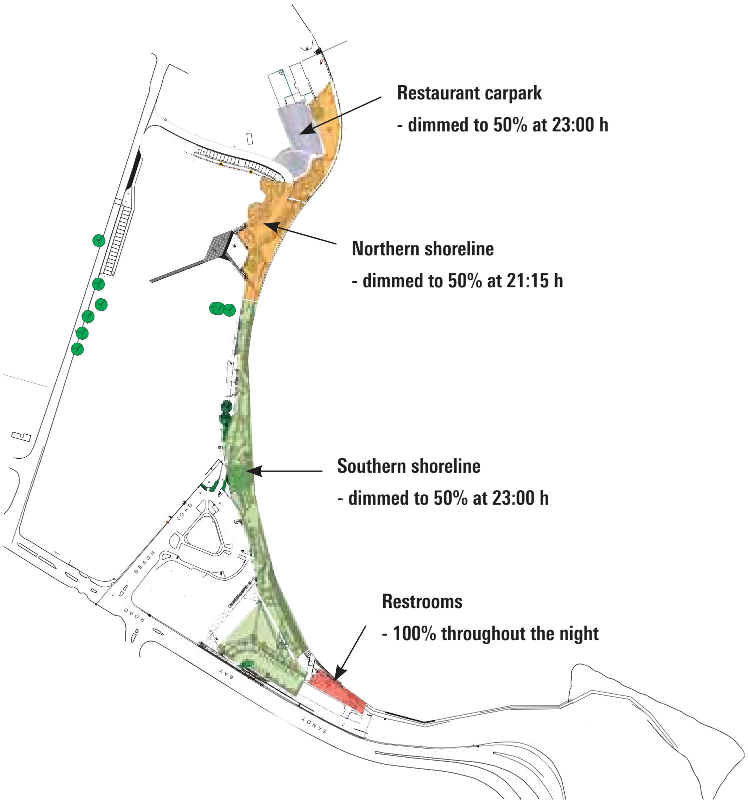
WE-EF Control Basic. This system has been designed to operate during the time between 'on' and 'off' as defined by the user (for example, employing a time clock or a photocell). 50 per cent dimming (D2) during low volume traffic hours is activated/de-activated via a dedicated control line.

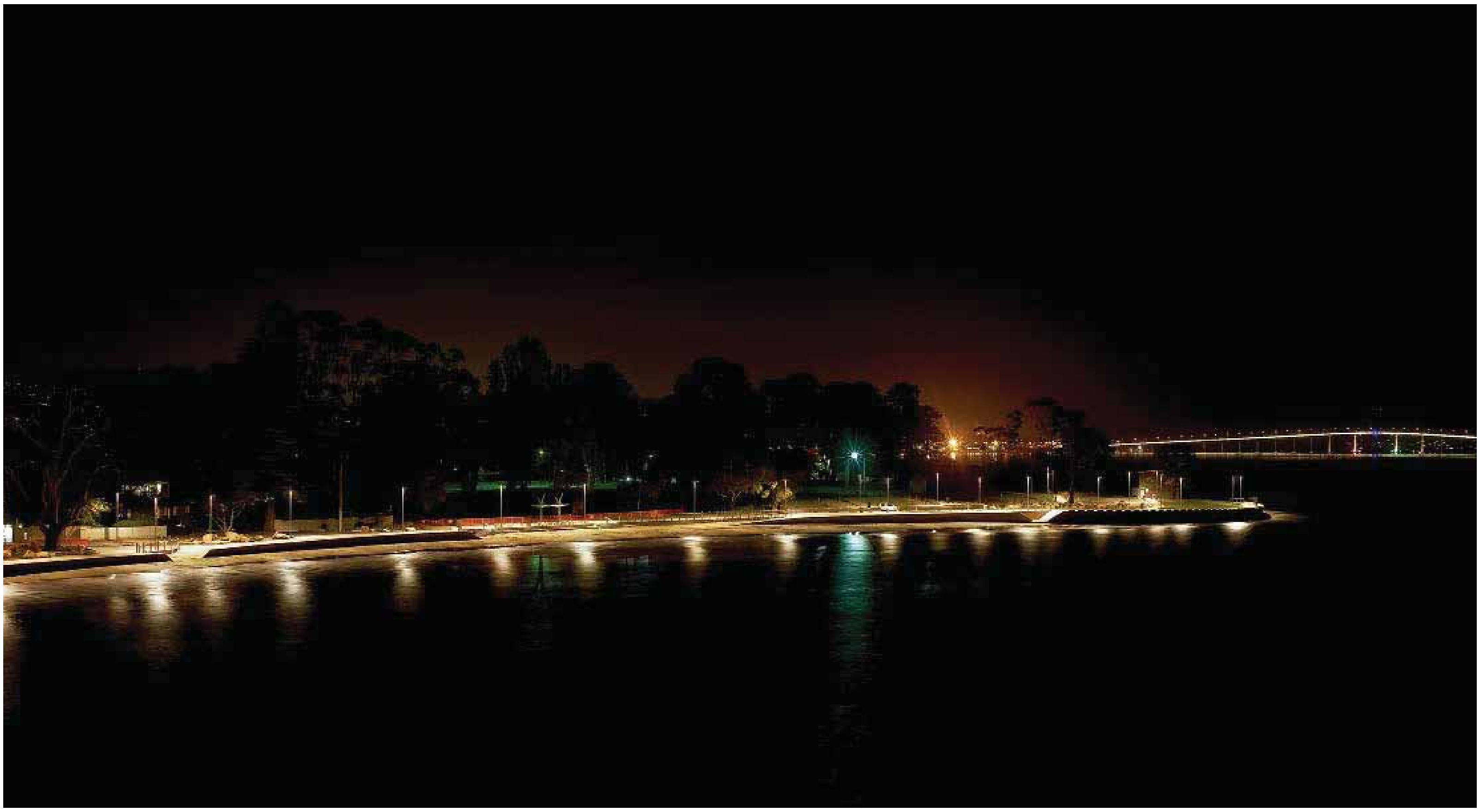
Advanced

An integral, pre-programmed electronic controller activates a maximum of five different dimming levels covering five consecutive periods. Factory programmed settings: As per agreement. Luminaires are operated in stand-alone mode and can be individually reprogrammed on site by means of an optional, hand-held programmer. No dedicated control line required.



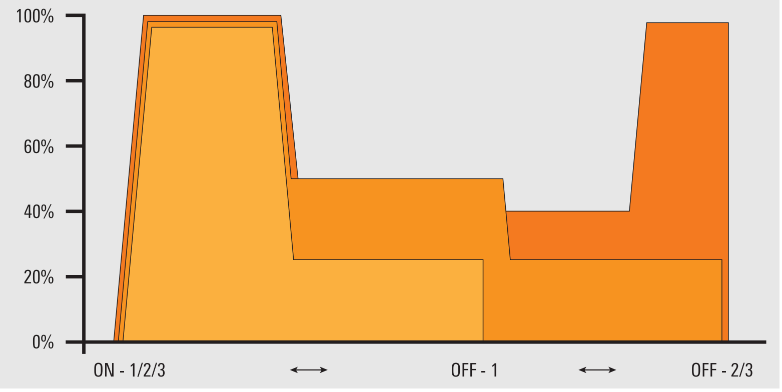
WE-EF Control Advanced. This system has been designed to operate during the time between 'on' and 'off' as defined by the user (for example, employing a time clock or a photocell). Up to five different dimming levels (D1-D5) can be individually programmed, for a maximum of five consecutive periods.



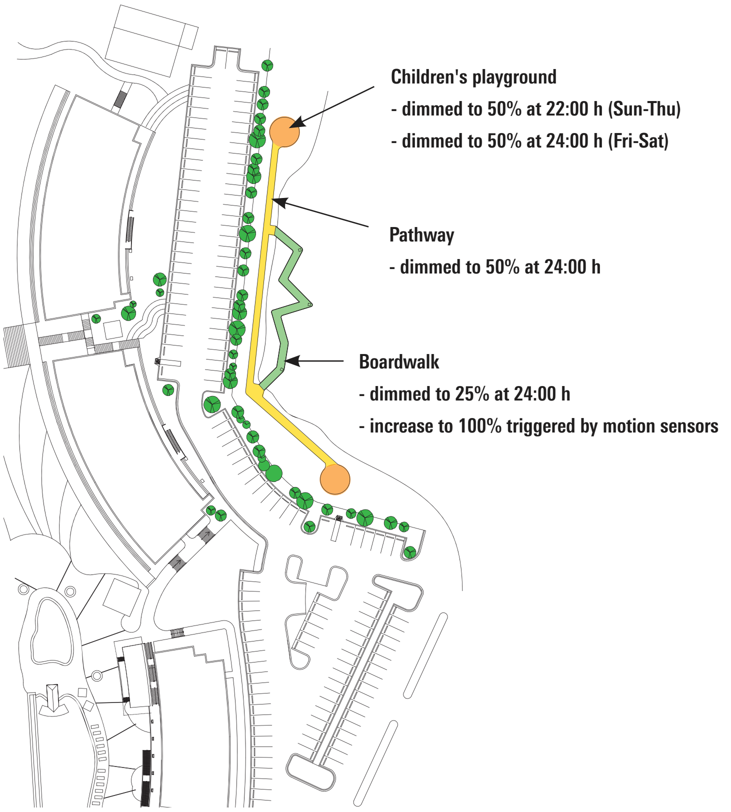


Dynamic

Intelligent lighting control and monitoring system. Bi-directional communication between luminaires and central data controller. Individual and groups of luminaires can both be programmed for routine and special event operations as well as automatic adjustment to external factors such as ambient illuminance. Features automatic failure alerts as well as monitoring of operational data such as voltage, current, power factor, power consumption, operating hours, temperature, etc. No dedicated control line required.

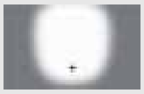


WE-EF Control Dynamic. This system has been designed for the flexible management of both simple and complex lighting installations. It allows for independent programming of both individual and multiple luminaires, on a routine or special event basis, as well as remote management through operational data feedback, alerts etc.

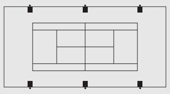


TENNIS COURT LIGHTING

Tennis Court Lighting System – LED
VFL540-SE
Page 234-235
[A60] Asymmetric 'forward throw' distribution

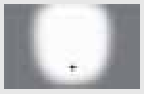


[A60]

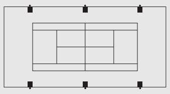


Tennis Court Lighting System – LED Layouts
Page 236-237
- Single court system
- Multiple court system

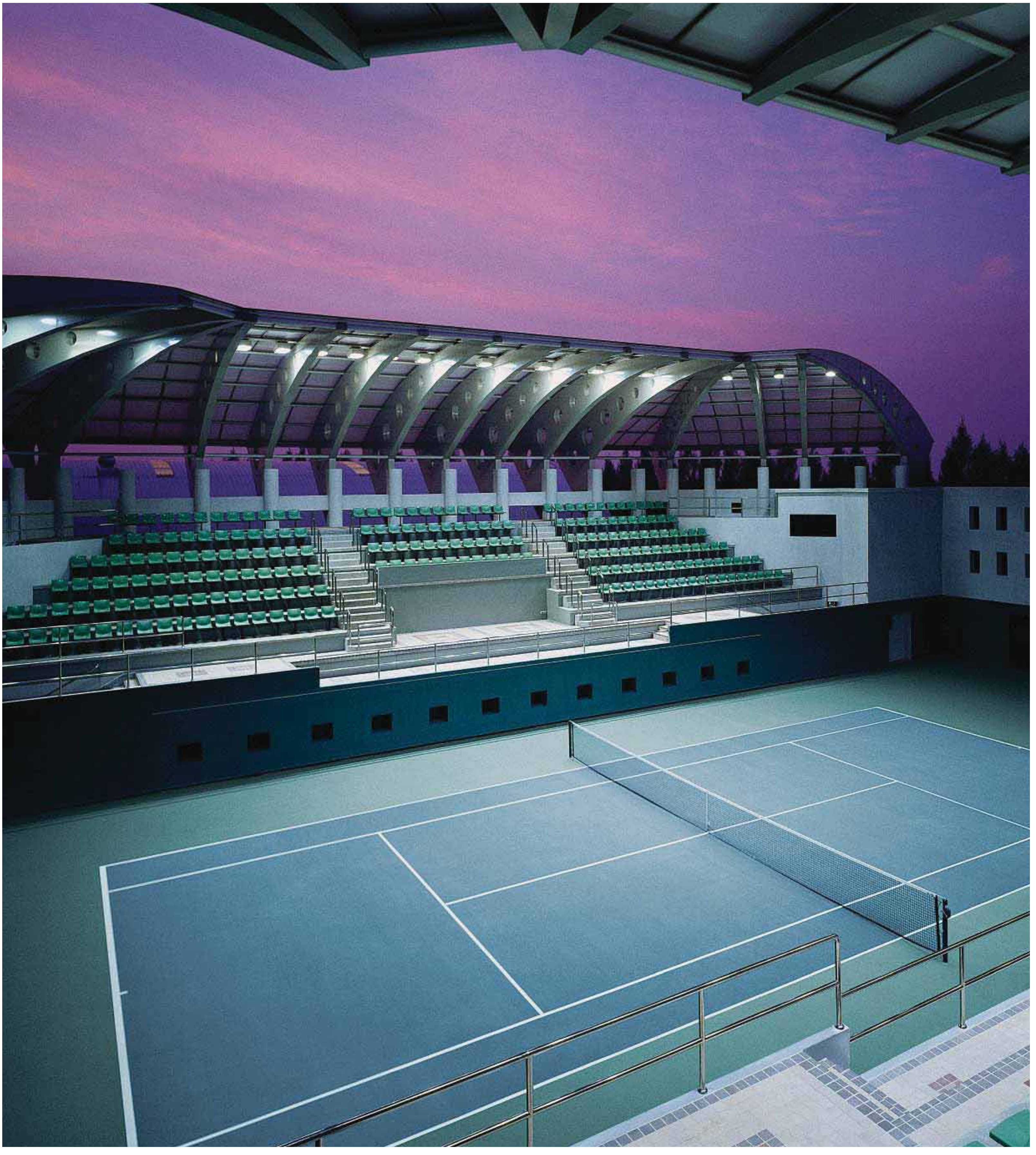
Tennis Court Lighting System – HIT
SBL480
Page 238-239
[A60] Asymmetric 'forward throw' distribution



[A60]



Tennis Court Lighting System – HIT Layouts
Page 240-241
- Single court system
- Multiple court system



TENNIS COURT LIGHTING SYSTEM – LED

[Factory-sealed] VFL540-SE luminaire. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in green RAL 6005, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. RFC™ Reflection Free Contour main lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control. Remote EC electronic converter, IP66.

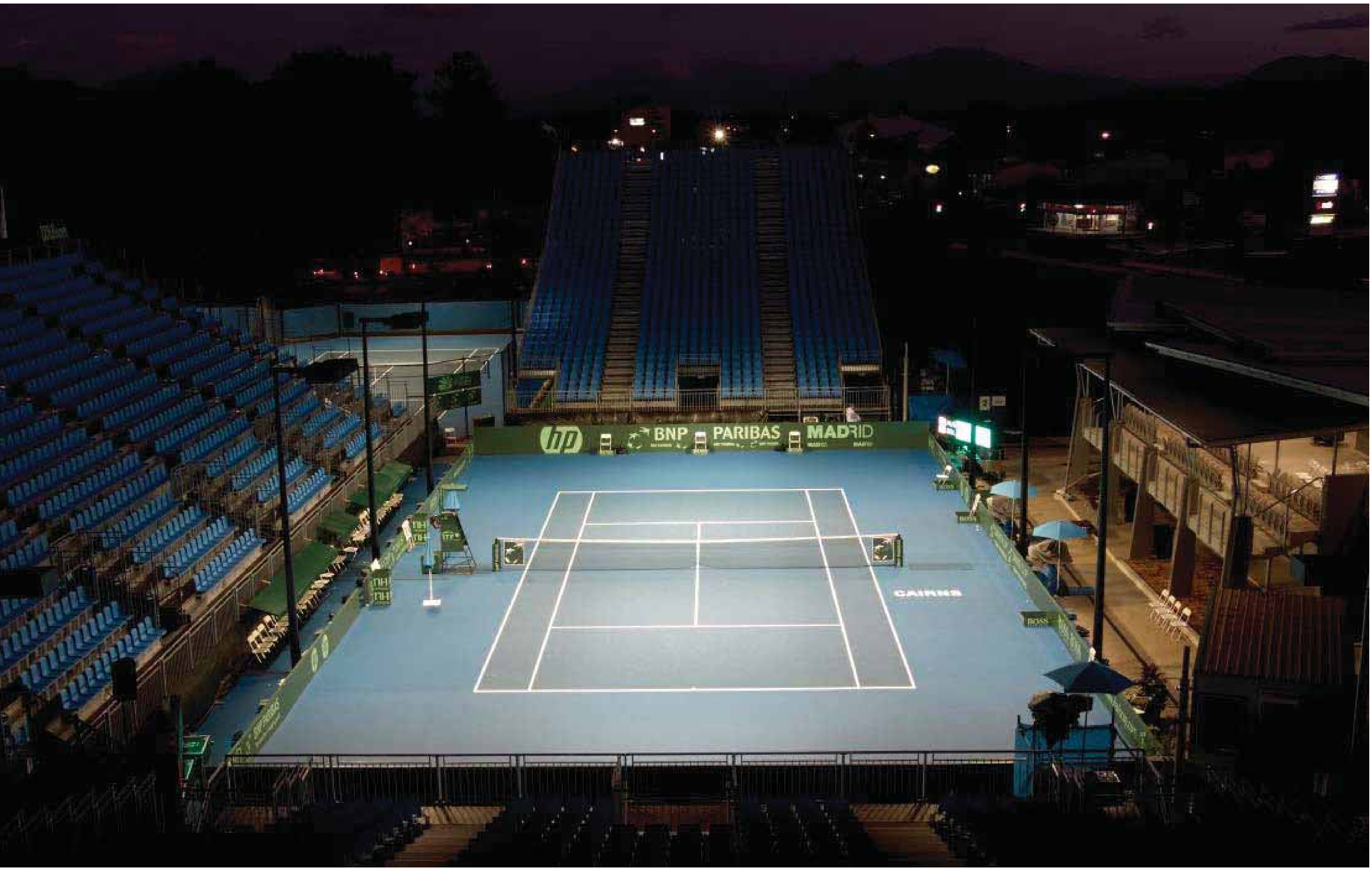
TM-C 80 poles. Tubular steel, constant section, hot dipped galvanised. Powdercoat finish to match luminaire. Surface mounting flange plate. Service door including PCS hardware.

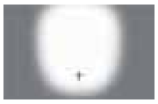
Three examples of the most popular tennis court lighting situations are shown on the following pages. For more details or other layouts, including larger tennis stadiums where lighting conditions have to satisfy colour TV requirements, please contact your local WE-EF representative.

Light source:
LED 207 W, 4000 K

Available distribution:
[A60]

Features and benefits:
- **8 m mounting height**
- **Excellent glare restriction**
- **High illuminance**
- **Outstanding uniformity**
- **Minimum light spillage**

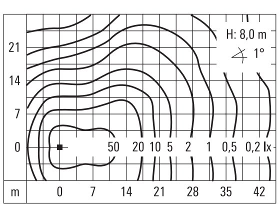




[A60]

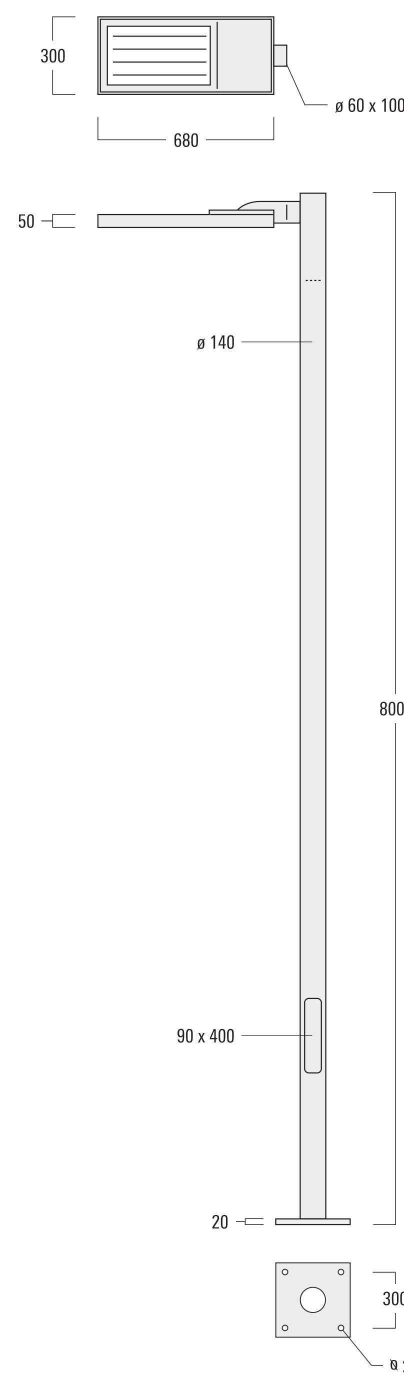
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution

[A60]		4000 K	lm	kg
VFL540-SE	48 LED 207W/1400 mA	**108-9075**	27626	8.2



[A60]

TM-C 80 poles			kg
for 1 x 2 VFL540-SE	**270-9210**	TM-C 80 140 – 2VFL	180.0
for 2 x 2 VFL540-SE (180°)	**270-9211**	TM-C 80 140 – 4VFL.B	185.0
for 2 x 2 VFL540-SE (100°)	**270-9212**	TM-C 80 140 – 4VFL.L	185.0

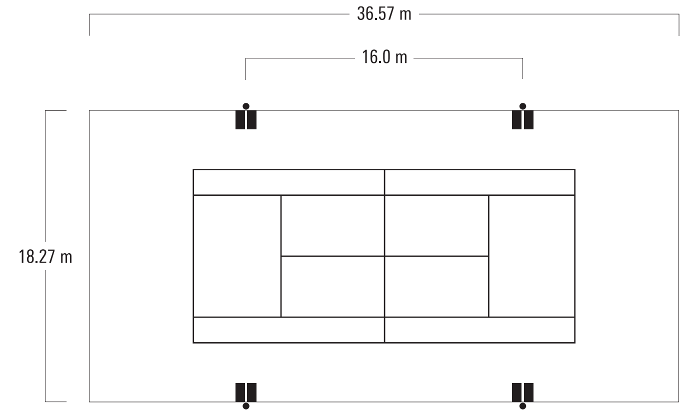


SINGLE COURT SYSTEMS – LED

Recreational

- Four poles
- 8 m mounting height

An economic solution suitable for recreational and residential developments, such as condominiums and resorts etc. Excellent illuminance and uniformity values in both, the principal (PPA) and the total (TPA) playing areas.



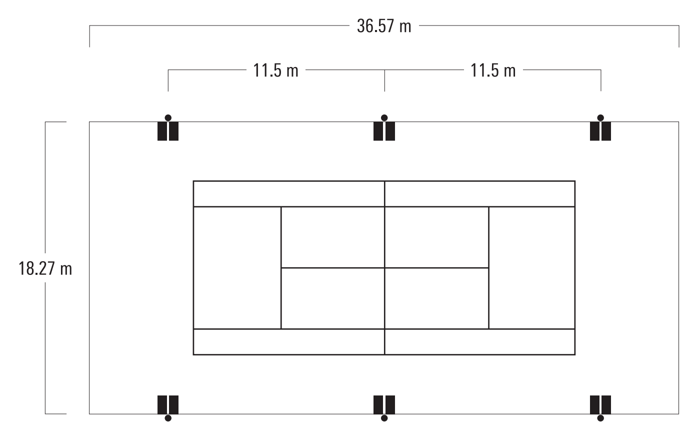
Statistics*	PPA	TPA
Eave	265 lx	230 lx
Emax	327 lx	327 lx
Emin	204 lx	102 lx
U_1	0.77	0.45
U_2	0.62	0.31

Equipment list		Quantity
108-9075	VFL540-SE [A60] tennis court luminaire	8
270-9210	TM-C 80 140 – 2VFL pole	4

Club Competition

- Six poles
- 8 m mounting height

The perfect system for top class club competition and commercial tournaments. Outstanding performance in the playing volume and throughout the area of play.



Statistics*	PPA	TPA
Eave	354 lx	324 lx
Emax	407 lx	407 lx
Emin	292 lx	205 lx
U_1	0.82	0.63
U_2	0.72	0.50

Equipment list		Quantity
108-9075	VFL540-SE [A60] tennis court luminaire	12
270-9210	TM-C 80 140 – 2VFL pole	6

* The principal playing area (PPA) is defined as the lined area, measuring 10.97 m x 23.77 m. The total playing area (TPA) covers the larger area of action and typically measures 18.27 m x 36.57 m. For both the PPA and the TPA, respective calculation grids as defined by Australian Standard AS2560.2.1-2003 have been applied. Illuminance values and uniformity ratios have been calculated at 1.0 m above ground level. A maintenance factor of 0.9 has been applied.

MULTIPLE COURT SYSTEM – LED

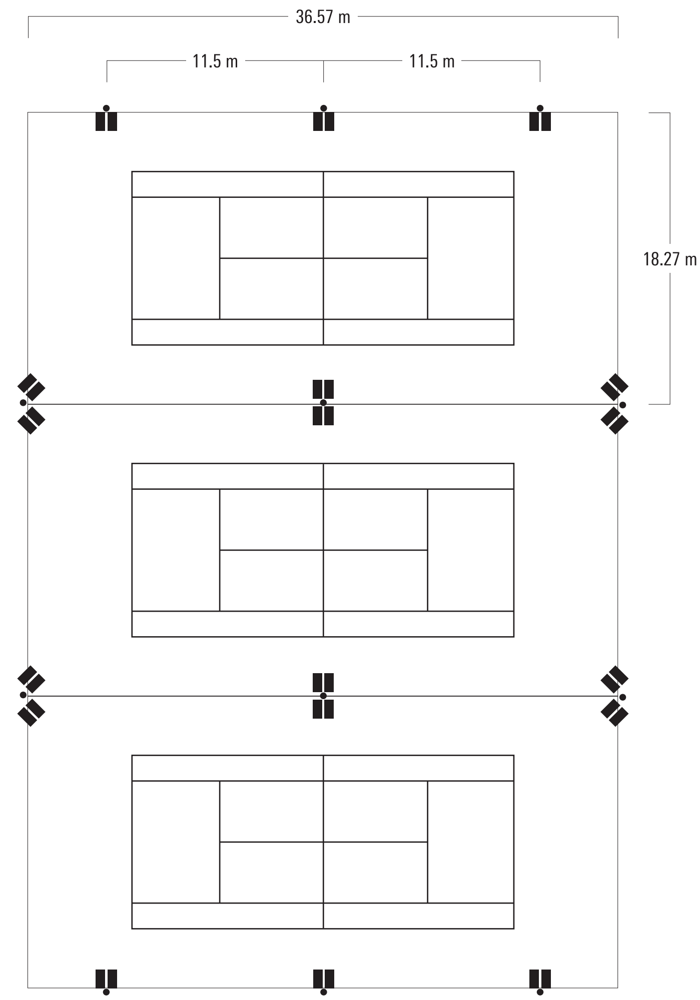
Club Competition

- Twelve poles
- 8 m mounting height

The multi-court system provides competition quality play for clubs as well as hotels, resorts, etc. The pole positions ensure safety for players. Courts can be switched individually, thereby allowing energy efficient and cost saving operation.

Statistics*	Outer PPA	Outer TPA	Inner PPA	Inner TPA
Eave	358 lx	338 lx	366 lx	354 lx
Emax	447 lx	456 lx	443 lx	443 lx
Emin	264 lx	196 lx	319 lx	287 lx
U_1	0.74	0.58	0.87	0.81
U_2	0.59	0.43	0.72	0.65

Equipment list		Quantity
108-9075	VFL540-SE [A60] tennis court luminaire	36
270-9210	TM-C 80 140 – 2VFL pole	6
270-9211	TM-C 80 140 – 4VFL.B pole	2
270-9212	TM-C 80 140 – 4VFL.L pole	4



* The principal playing area (PPA) is defined as the lined area, measuring 10.97 m x 23.77 m. The total playing area (TPA) covers the larger area of action and typically measures 18.27 m x 36.57 m. For both the PPA and the TPA, respective calculation grids as defined by Australian Standard AS2560.2.1-2003 have been applied. Illuminance values and uniformity ratios have been calculated at 1.0 m above ground level. A maintenance factor of 0.9 has been applied.

TENNIS COURT LIGHTING SYSTEM – HIT

SBL480 luminaire. IP54. IK07. Marine-grade aluminium alloy body. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in green RAL 6005, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gasket. Anodised aluminium reflector.

Integral HPF control gear in thermally-shielded compartment. LPF versions available on request.

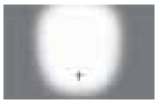
TM-C 80 poles. Tubular steel, constant section, hot dipped galvanised. Powdercoat finish to match luminaire. Surface mounting flange plate. Service door including PCS hardware.

Three examples of the most popular tennis court lighting situations are shown on the following pages. For more details or other layouts, including larger tennis stadiums where lighting conditions have to satisfy colour TV requirements, please contact your local WE-EF representative.

Light source:
HIT 1000 W

Available distribution:
[A60]

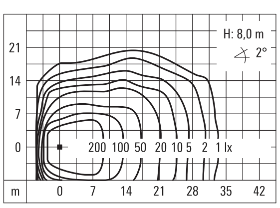
Features and benefits:
- **8 m mounting height**
- **Excellent glare restriction**
- **High illuminance**
- **Outstanding uniformity**
- **Minimum light spillage**



[A60]

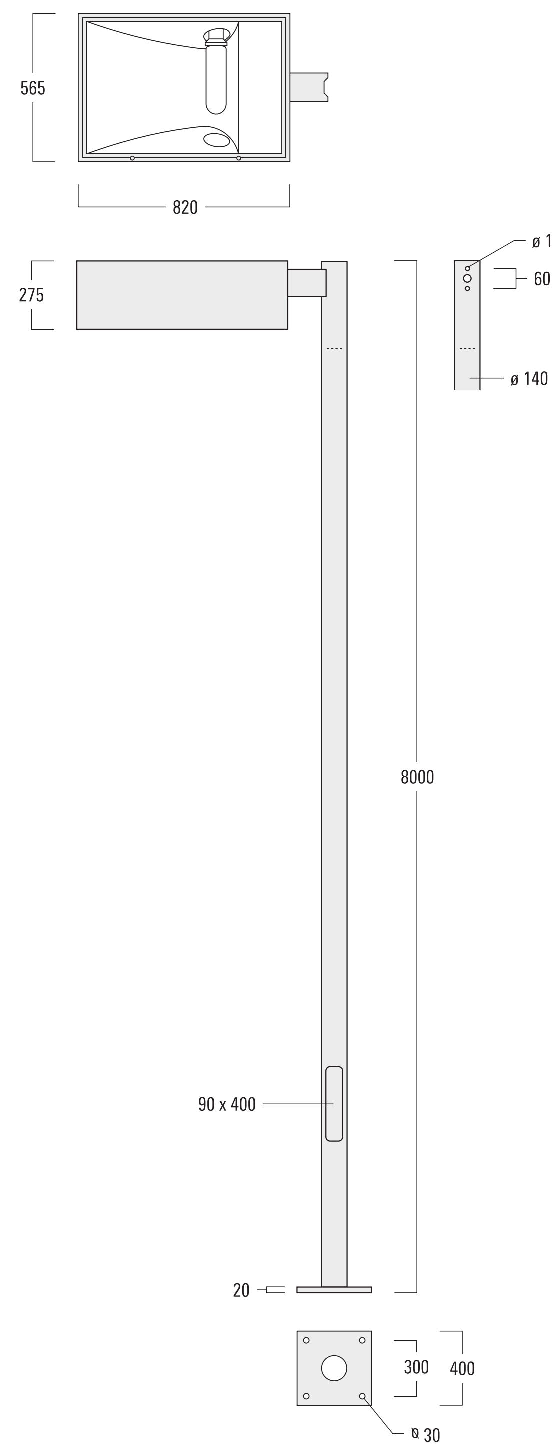
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution

[A60]			lm	Gear	kg
SBL480	HRI-T 1000W/N/Sc/E40*	**138-9302**	100000	[HPF]	33.0



[A60]

TM-C 80 poles			kg
for 1 x SBL480	**270-9200**	TM-C 80 140.1	175.0
for 2 x SBL480 (180°)	**270-9201**	TM-C 80 140.2B	175.0
for 2 x SBL480 (90°)	**270-9202**	TM-C 80 140.2L	180.0



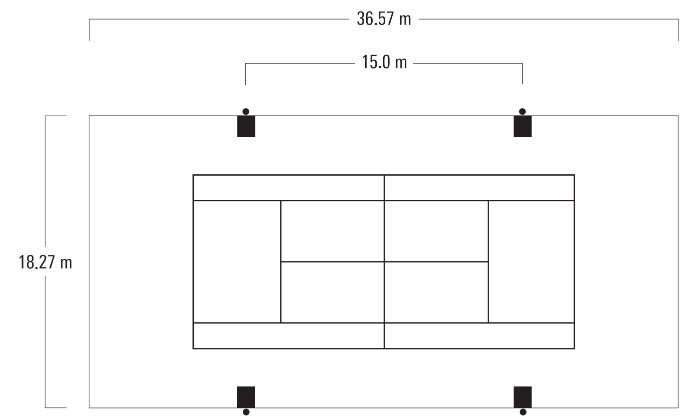
* Radium.

SINGLE COURT SYSTEMS – HIT

Recreational

- Four poles
- 8 m mounting height

An economic solution suitable for recreational and residential developments, such as condominiums and resorts etc. Excellent illuminance and uniformity values in both, the principal (PPA) and the total (TPA) playing areas.



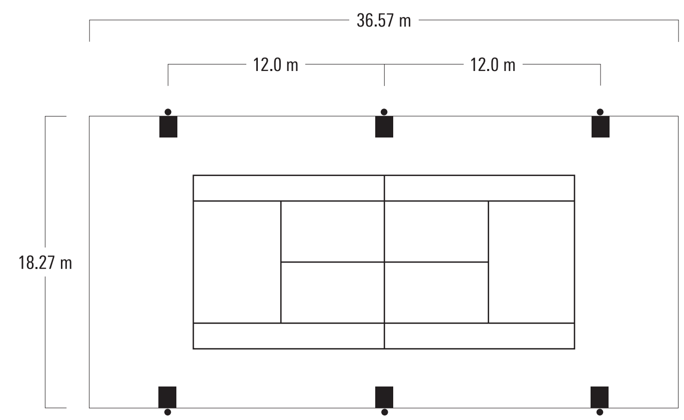
Statistics*	PPA	TPA
Eave	333 lx	280 lx
Emax	419 lx	419 lx
Emin	216 lx	80 lx
U_1	0.65	0.29
U_2	0.52	0.19

Equipment list		Quantity
138-9302	SBL480 [A60] tennis court luminaire	4
270-9200	TM-C 80 140.1 pole	4
TE8706	HRI-T 1000W/N/Sc/E40** high output metal halide lamp	4

Club Competition

- Six poles
- 8 m mounting height

The perfect system for top class club competition and commercial tournaments. Outstanding performance in the playing volume and throughout the area of play.



Statistics*	PPA	TPA
Eave	417 lx	394 lx
Emax	467 lx	467 lx
Emin	335 lx	274 lx
U_1	0.80	0.70
U_2	0.72	0.59

Equipment list		Quantity
138-9302	SBL480 [A60] tennis court luminaire	6
270-9200	TM-C 80 140.1 pole	6
TE8706	HRI-T 1000W/N/Sc/E40** high output metal halide lamp	6

* The principal playing area (PPA) is defined as the lined area, measuring 10.97 m x 23.77 m. The total playing area (TPA) covers the larger area of action and typically measures 18.27 m x 36.57 m. For both the PPA and the TPA, respective calculation grids as defined by Australian Standard AS2560.2.1-2003 have been applied. Illuminance values and uniformity ratios have been calculated at 1.0 m above ground level. A maintenance factor of 0.8 has been applied.

** Radium.

MULTIPLE COURT SYSTEM – HIT

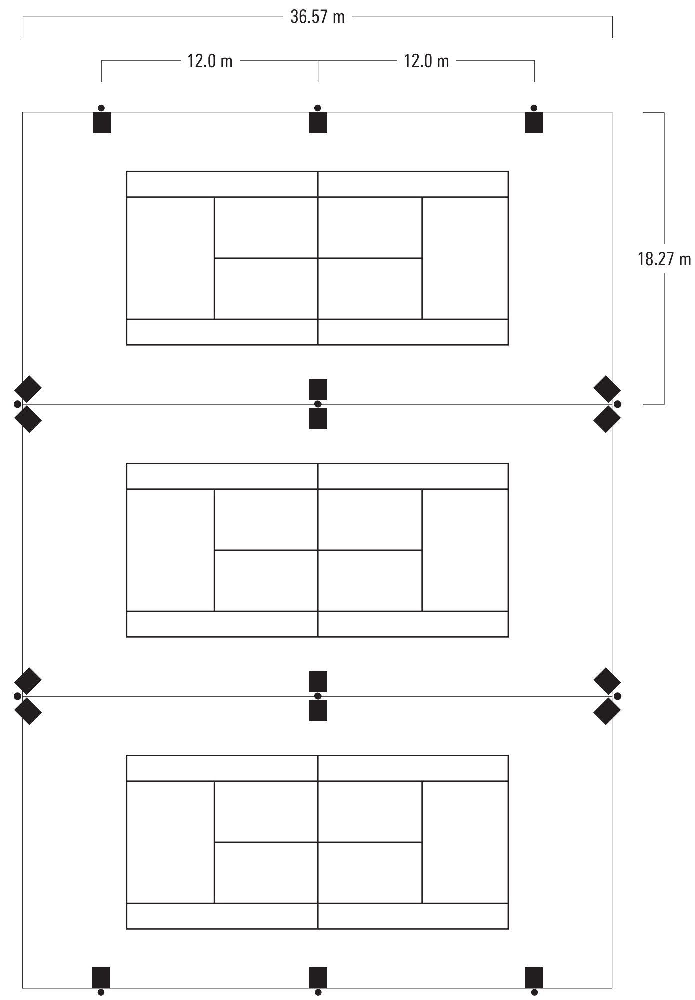
Club Competition

- Twelve poles
- 8 m mounting height

The multi-court system provides competition quality play for clubs as well as hotels, resorts, etc. The pole positions ensure safety for players. Courts can be switched individually, thereby allowing energy efficient and cost saving operation.

Statistics*	Outer PPA	Outer TPA	Inner PPA	Inner TPA
Eave	388 lx	379 lx	362 lx	367 lx
Emax	470 lx	519 lx	455 lx	509 lx
Emin	286 lx	252 lx	259 lx	259 lx
U_1	0.74	0.66	0.71	0.70
U_2	0.61	0.49	0.57	0.51

Equipment list		Quantity
138-9302	SBL480 [A60] tennis court luminaire	18
270-9200	TM-C 80 140.1 pole	6
270-9201	TM-C 80 140.2B pole	2
270-9202	TM-C 80 140.2L pole	4
TE8706	HRI-T 1000W/N/Sc/E40** high output metal halide lamp	18

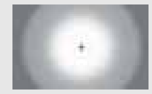


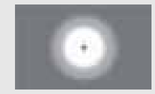
* The principal playing area (PPA) is defined as the lined area, measuring 10.97 m x 23.77 m. The total playing area (TPA) covers the larger area of action and typically measures 18.27 m x 36.57 m. For both the PPA and the TPA, respective calculation grids as defined by Australian Standard AS2560.2.1-2003 have been applied. Illuminance values and uniformity ratios have been calculated at 1.0 m above ground level. A maintenance factor of 0.8 has been applied.

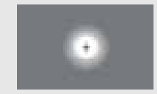
** Radium.

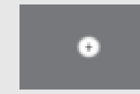
RAIL66 SYSTEM

FLD100 SERIES – LED
Page 244-247
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'


[B]

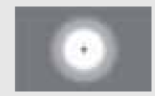

[M]

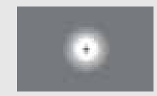

[EE]

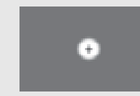

[EES]

FLC100 SERIES – LED
Page 248-251
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'


[B]

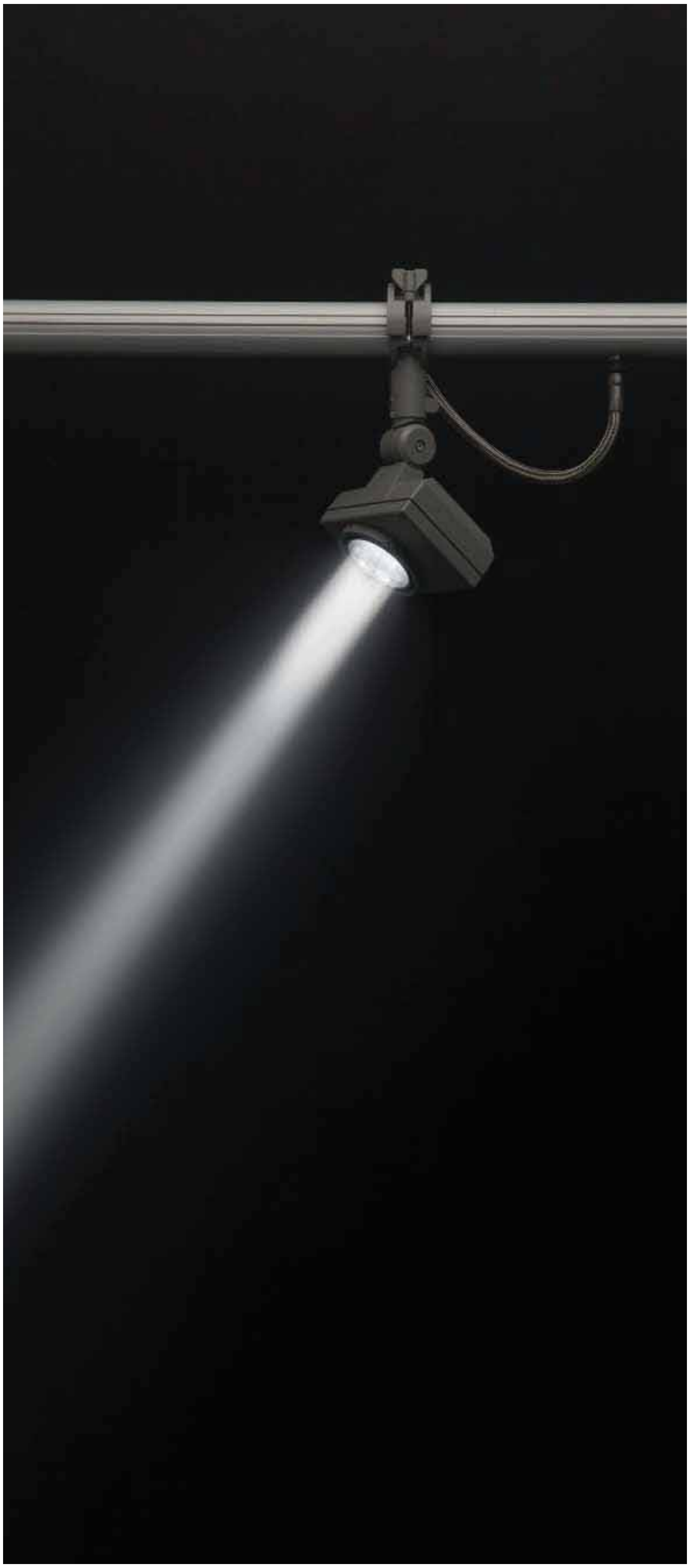
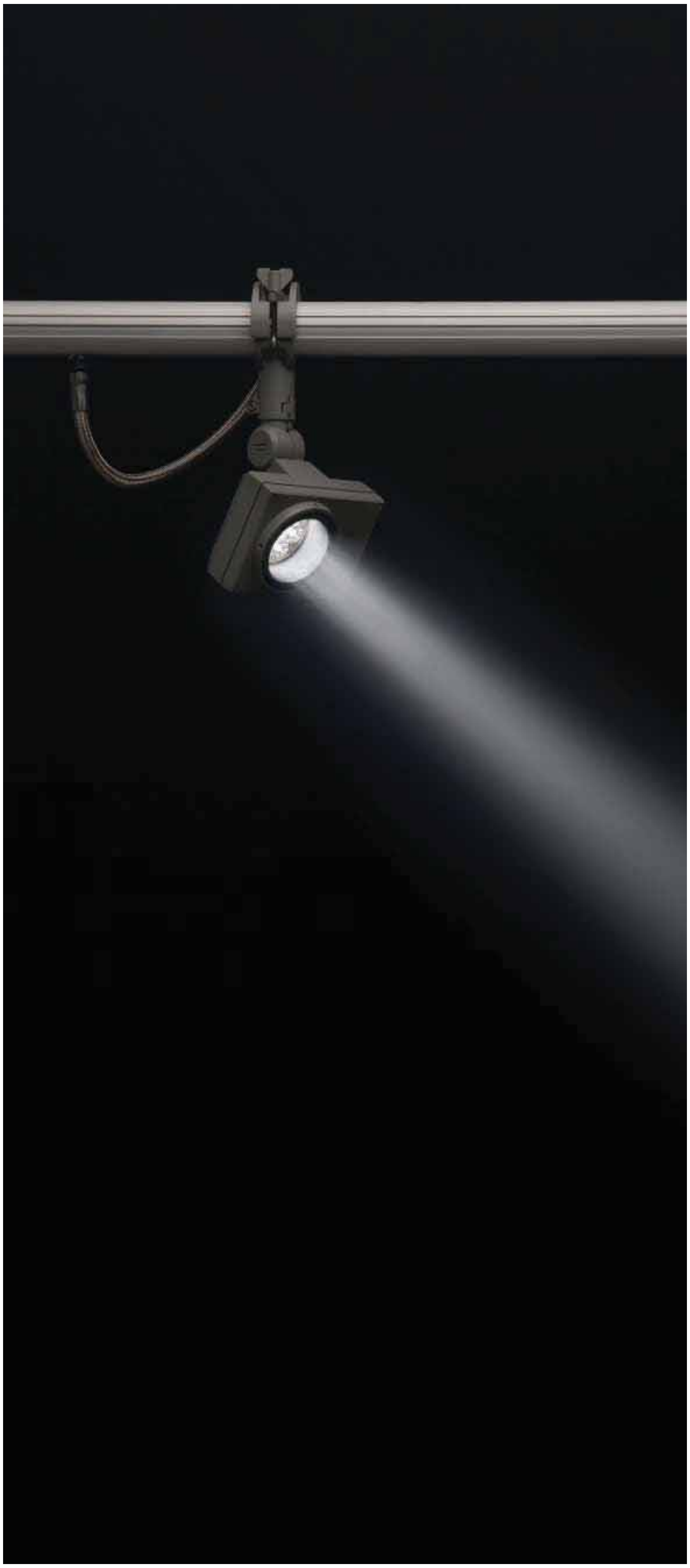

[M]


[EE]


[EES]

RAIL 66

RAIL66
Mounting system, page 252-255

FLD100 SERIES

[Factory-sealed] RAIL66 projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-shielded compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

RAIL66 versions for mounting on the RAIL66 system, including 0.4 m of flexible cable enclosed in a stainless conduit, and in-line connector.

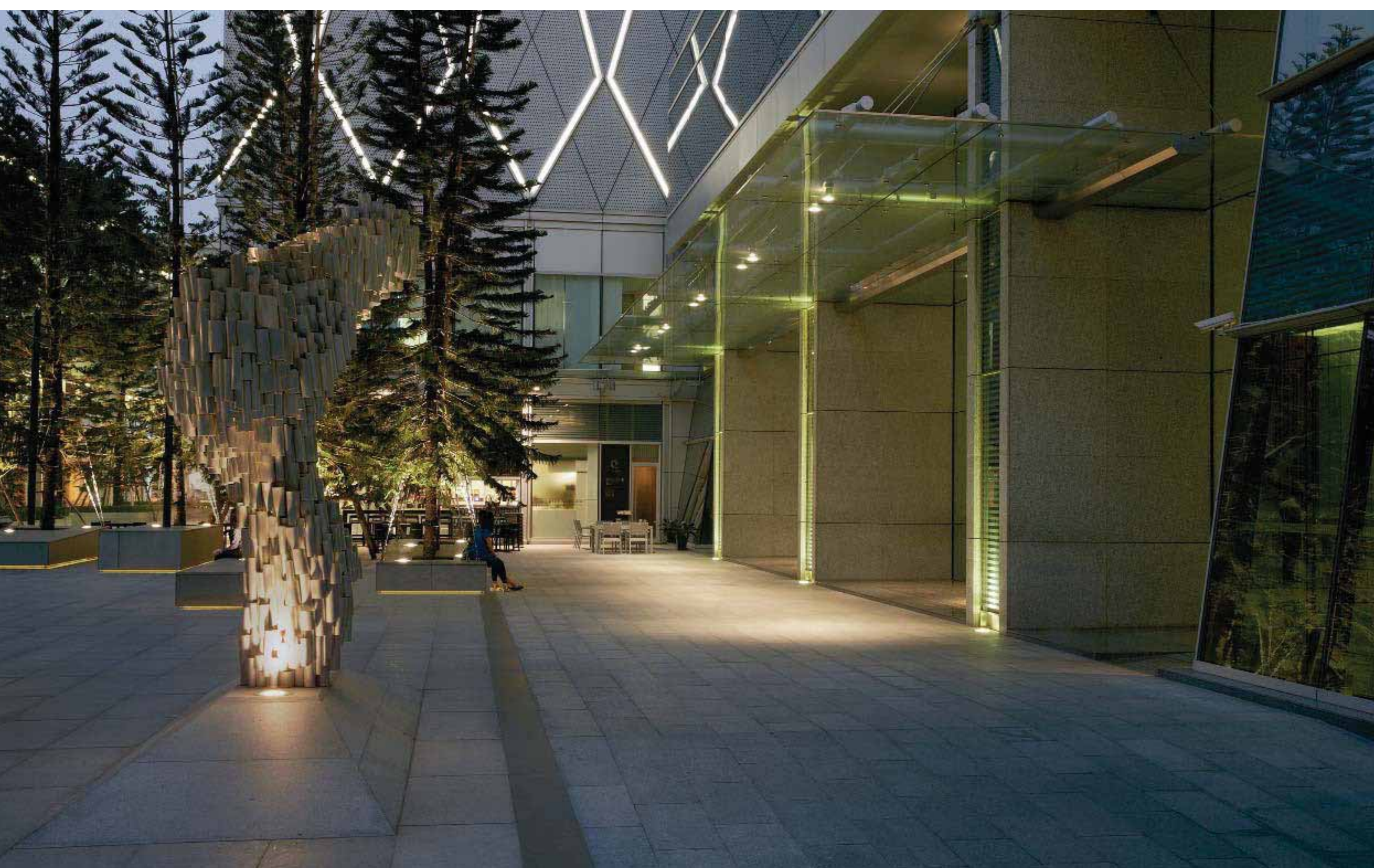
Space frame versions for mounting on ø 48-60 mm pipes or space frames, including terminal box.

Light source:
LED 6-24 W, 3000 K and 4000 K
(2700 K on request)

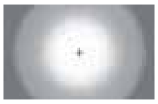
Available distributions:
[B] [M] [EE] [EES]

Accessories:

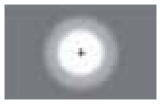
- **RAIL66 mounting system, page 252-255**
- **Optical, page 247**



Park Venture. Bangkok (TH). Architect: Palmer & Turner. Lighting design: Vision Design Studio.

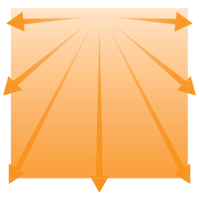


[B]

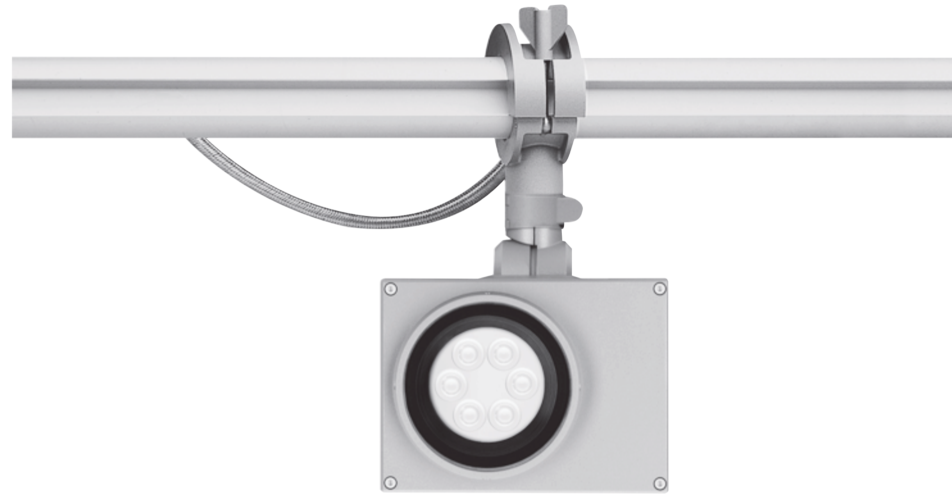


[M]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam



IO-20 wallwash lens.
See page 247 for details.

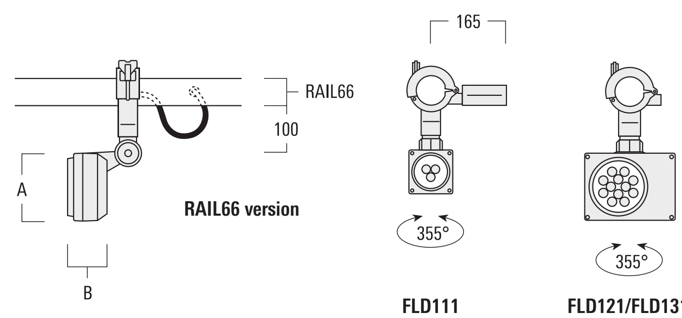


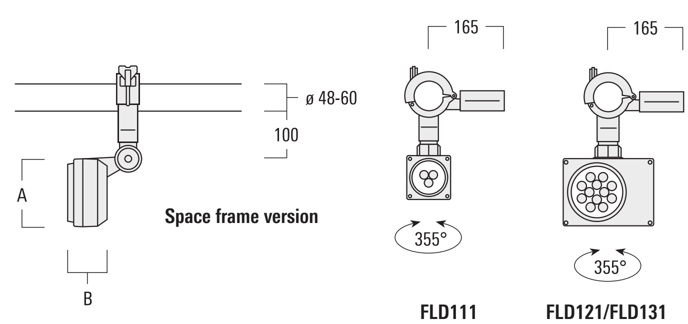
[B] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD121 #6	6 LED 12W/700 mA	**145-9511**	1476	**145-9512**	1476	986	23°/23°
FLD131 #6	12 LED 24W/700 mA	**145-9608**	2951	**145-9610**	2951	986	23°/23°

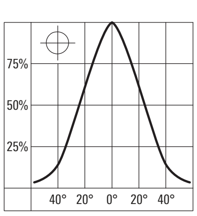
[B] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD121 #7	6 LED 12W/700 mA	**145-9520**	1476	**145-9521**	1476	986	23°/23°
FLD131 #7	12 LED 24W/700 mA	**145-9612**	2951	**145-9614**	2951	986	23°/23°

[M] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9809**	738	**145-9813**	738	1633	21°/21°
FLD121 #6	6 LED 12W/700 mA	**145-9509**	1476	**145-9510**	1476	2261	17°/17°
FLD131 #6	12 LED 24W/700 mA	**145-9556**	2951	**145-9559**	2951	2261	17°/17°

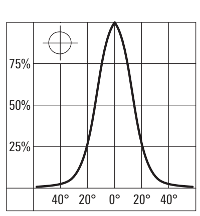
[M] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9818**	738	**145-9822**	738	1633	21°/21°
FLD121 #7	6 LED 12W/700 mA	**145-9518**	1476	**145-9519**	1476	2261	17°/17°
FLD131 #7	12 LED 24W/700 mA	**145-9563**	2951	**145-9566**	2951	2261	17°/17°







[B]



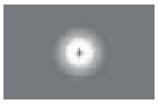
[M]

Accessories:

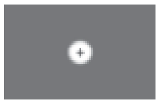
Dimming interface		
1-10 V	for FLD111/121/131	**430-0011**
DALI	for FLD111/121/131	**430-0013**

Product Dimensions:

FLD series	A	B
FLD111	95 x 95	55
FLD121	130 x 175	75
FLD131	156 x 200	80



[EE]

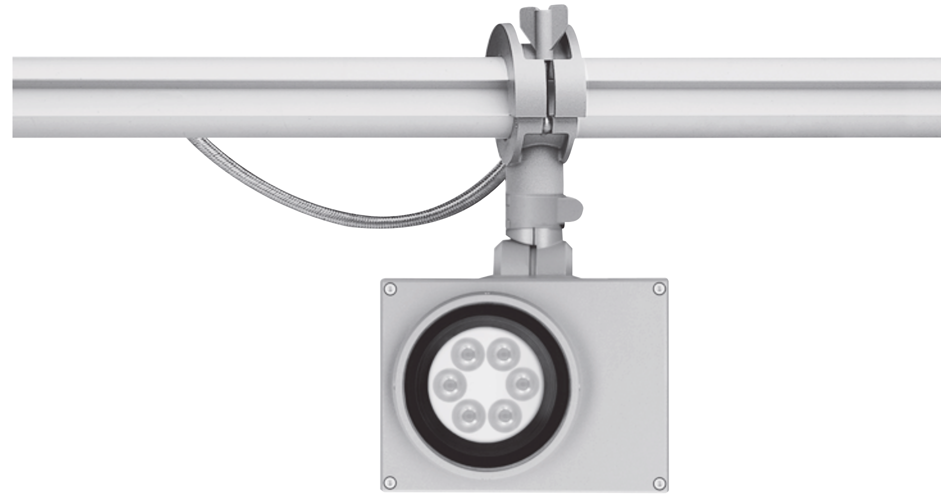


[EES]

IOS® Innovative Optical System:

[EE] Symmetric distribution, very narrow beam

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

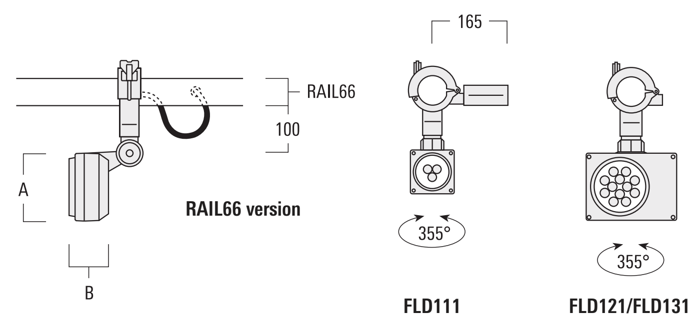


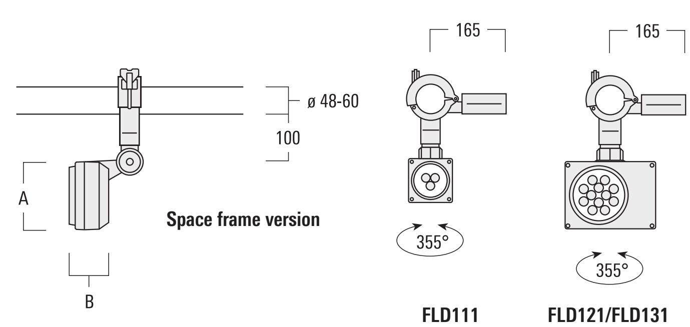
[EE] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9810**	738	**145-9814**	738	7530	7°/7°
FLD121 #6	6 LED 12W/700 mA	**145-9513**	1476	**145-9514**	1476	7524	7°/7°
FLD131 #6	12 LED 24W/700 mA	**145-9557**	2951	**145-9560**	2951	7524	7°/7°

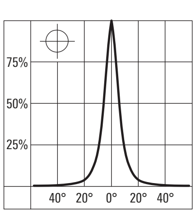
[EE] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9819**	738	**145-9823**	738	7530	7°/7°
FLD121 #7	6 LED 12W/700 mA	**145-9522**	1476	**145-9523**	1476	7524	7°/7°
FLD131 #7	12 LED 24W/700 mA	**145-9564**	2951	**145-9567**	2951	7524	7°/7°

[EES] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9811**	738	**145-9815**	738	16462	5°/5°
FLD121 #6	6 LED 12W/700 mA	**145-9515**	1476	**145-9516**	1476	19392	5°/5°
FLD131 #6	12 LED 24W/700 mA	**145-9609**	2951	**145-9611**	2951	19392	5°/5°

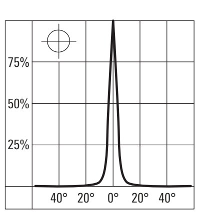
[EES] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #7	3 LED 6W/700 mA	**145-9820**	738	**145-9824**	738	16462	5°/5°
FLD121 #7	6 LED 12W/700 mA	**145-9524**	1476	**145-9525**	1476	19392	5°/5°
FLD131 #7	12 LED 24W/700 mA	**145-9613**	2951	**145-9615**	2951	19392	5°/5°







[EE]



[EES]

Accessories:

Dimming interface		
1-10 V	for FLD111/121/131	**430-0011**
DALI	for FLD111/121/131	**430-0013**

Product Dimensions:

FLD series	A	B
FLD111	95 x 95	55
FLD121	130 x 175	75
FLD131	156 x 200	80

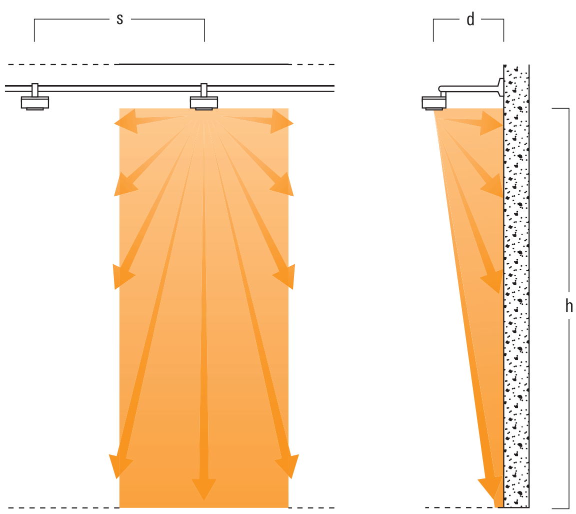
OPTICAL ACCESSORIES – FLD100 SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLD111	**145-9846**
IO-20	for FLD121	**145-9479**
IO-20	for FLD131	**145-9577**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. Factory-installed.

Colour filter

IF	for FLD111	**on request**
IF	for FLD121	**on request**
IF	for FLD131	**on request**

External Accessories

A maximum of two external optical accessories. For example: flood or spread lens; shield; or snoot. If a flood or spread lens is used as a 'stand alone' accessory, an optical adaptor is required, to be ordered separately.

Flood lens

EO-360	for FLD111	**145-9834**
EO-360	for FLD121	**145-9534**
EO-360	for FLD131	**145-9574**

Linear spread lens

EO-180	for FLD111	**145-9833**
EO-180	for FLD121	**145-9533**
EO-180	for FLD131	**145-9573**

Optical adaptor

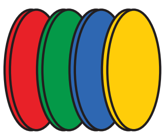
EA	for FLD111	**145-9830**
EA	for FLD121	**145-9530**
EA	for FLD131	**145-9570**

Glare shield

ES	for FLD111	**145-9831**
ES	for FLD121	**145-9531**
ES	for FLD131	**145-9571**

Snoot – Recommended for downward aiming only.

ET	for FLD111	**145-9832**
ET	for FLD121	**145-9532**
ET	for FLD131	**145-9572**



IF

EO-360 **EO-180** **EA** **ES** **ET**

FLC100 SERIES

[Factory-sealed] RAIL66 projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface available on request.

RAIL66 versions for mounting on the RAIL66 system, including 0.4 m of flexible cable enclosed in a stainless conduit, and in-line connector.

Space frame versions for mounting on ø 48-60 mm pipes or space frames, including terminal box.

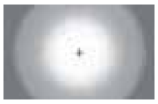
RGBW for FLC131 and FLC141 space frame versions, available on request.

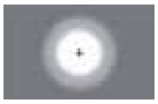
Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)
(for HIT, refer to www.we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

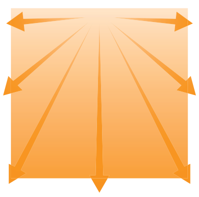
Accessories:
- **RAIL66 mounting system, page 252-255**
- **Optical, page 251**

Gardens by the Bay. Marina Bay (SG). Lighting design: Lighting Planners Associates (LPA).

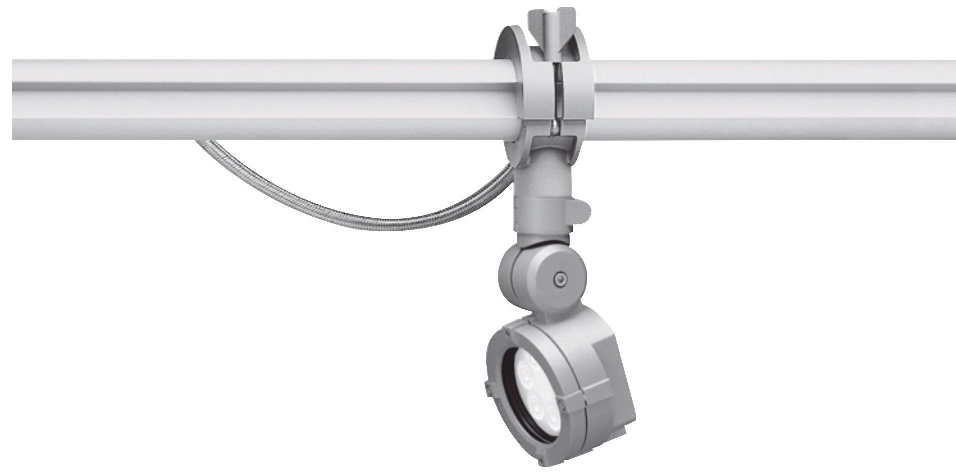

[B]


[M]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam



IO-20 wallwash lens.
See page 251 for details.

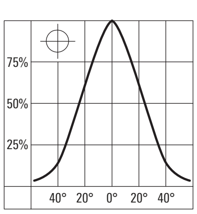


[B] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-0088**	1476	**145-0089**	1476	934	25°/25°
FLC131 #7	12 LED 24W/700 mA	**146-0530**	2951	**146-0531**	2951	920	25°/25°
FLC141 #7	24 LED 48W/700 mA	**146-7070**	5903	**146-7071**	5903	934	25°/25°

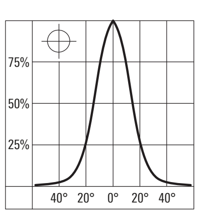
[B] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-9749**	1476	**145-9755**	1476	934	25°/25°
FLC131 #7	12 LED 24W/700 mA	**146-7014**	2951	**146-7020**	2951	920	25°/25°
FLC141 #7	24 LED 48W/700 mA	**146-7092**	5903	**146-7097**	5903	934	25°/25°

[M] – RAIL66 version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-0043**	1476	**145-0044**	1476	2196	16°/16°
FLC131 #7	12 LED 24W/700 mA	**146-0411**	2951	**146-0412**	2951	2196	16°/16°
FLC141 #7	24 LED 48W/700 mA	**146-7058**	5903	**146-7059**	5903	2196	16°/16°

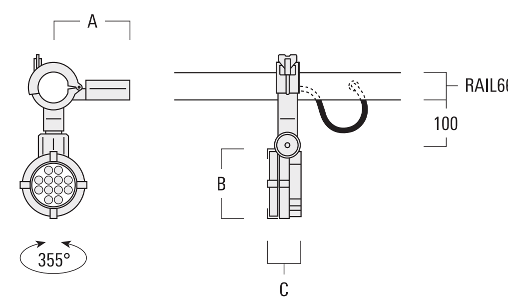
[M] – Space frame version.		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-9750**	1476	**145-9756**	1476	2196	16°/16°
FLC131 #7	12 LED 24W/700 mA	**146-7015**	2951	**146-7021**	2951	2196	16°/16°
FLC141 #7	24 LED 48W/700 mA	**146-7093**	5903	**146-7098**	5903	2196	16°/16°



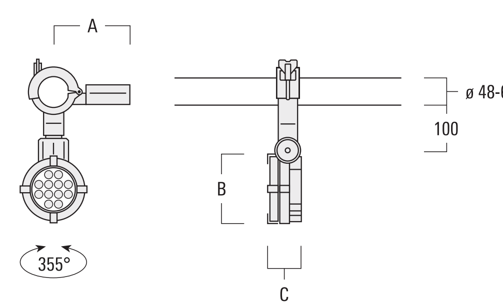
[B]



[M]



RAIL66 version



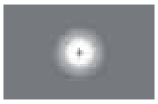
Space frame version

Accessories:

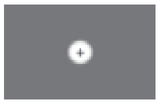
Dimming interface		
1-10 V	for FLC121/131/141	**430-0011**
DALI	for FLC121/131/141	**430-0013**

Product Dimensions:

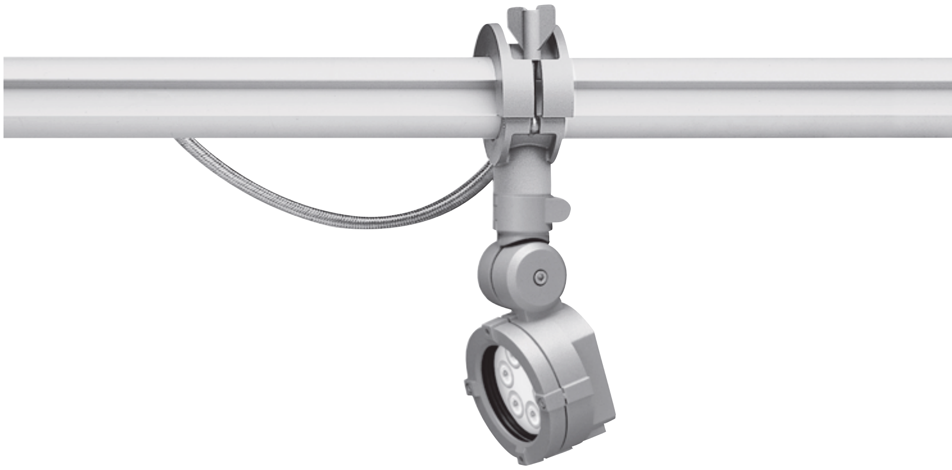
FLC series	A	B	C
FLC121	165	105	60
FLC131	190	145	70
FLC141	190	180	80



[EE]



[EES]



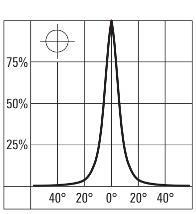
IOS® Innovative Optical System:
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

[EE] – RAIL66 version		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-0091**	1476	**145-0092**	1476	7207	7°/7°
FLC131 #7	12 LED 24W/700 mA	**146-0533**	2951	**146-0534**	2951	7191	7°/7°
FLC141 #7	24 LED 48W/700 mA	**146-7072**	5903	**146-7073**	5903	7207	7°/7°

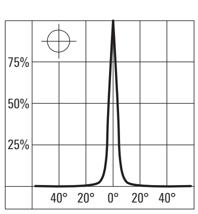
[EE] – Space frame version		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-9751**	1476	**145-9757**	1476	7207	7°/7°
FLC131 #7	12 LED 24W/700 mA	**146-7016**	2951	**146-7022**	2951	7191	7°/7°
FLC141 #7	24 LED 48W/700 mA	**146-7094**	5903	**146-7099**	5903	7207	7°/7°

[EES] – RAIL66 version		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-0046**	1476	**145-0047**	1476	22108	5°/5°
FLC131 #7	12 LED 24W/700 mA	**146-0414**	2951	**146-0415**	2951	20389	5°/5°
FLC141 #7	24 LED 48W/700 mA	**146-7060**	5903	**146-7061**	5903	22108	5°/5°

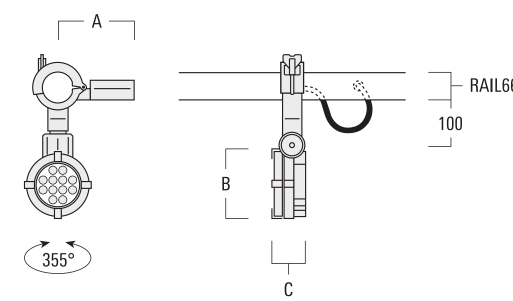
[EES] – Space frame version		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #7	6 LED 12W/700 mA	**145-9752**	1476	**145-9758**	1476	22108	5°/5°
FLC131 #7	12 LED 24W/700 mA	**146-7017**	2951	**146-7023**	2951	20389	5°/5°
FLC141 #7	24 LED 48W/700 mA	**146-7095**	5903	**146-7100**	5903	22108	5°/5°



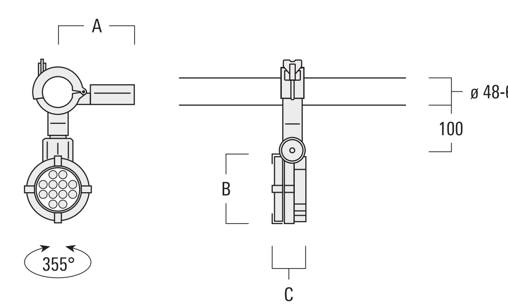
[EE]



[EES]



RAIL66 version



Space frame version

Accessories:

Dimming interface		
1-10 V	for FLC121/131/141	**430-0011**
DALI	for FLC121/131/141	**430-0013**

Product Dimensions:

FLC series	A	B	C
FLC121	165	105	60
FLC131	190	145	70
FLC141	190	180	80

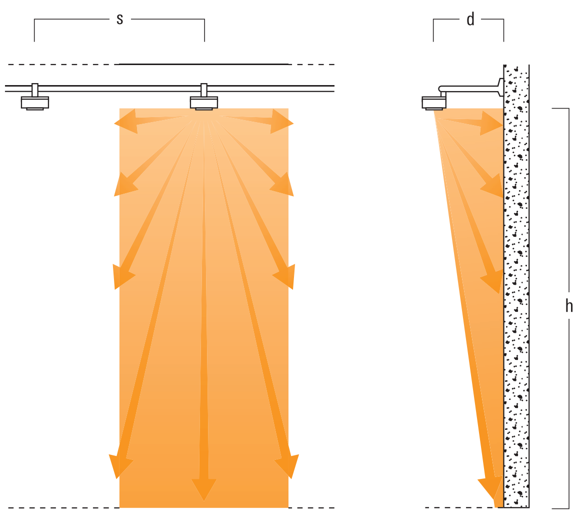
OPTICAL ACCESSORIES – FLC100 SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLC121	**145-0145**
IO-20	for FLC131	**146-0645**
IO-20	for FLC141	**146-0646**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. For example: colour filter; flood or spread lens. Factory-installed.

Colour filter

IF	for FLC121	**on request**
IF	for FLC131	**on request**
IF	for FLC141	**on request**

Flood lens

IO-360	for FLC121	**145-9390**
IO-360	for FLC131	**146-0419**
IO-360	for FLC141	**146-9950**

Linear spread lens

IO-180	for FLC121	**145-0050**
IO-180	for FLC131	**146-0418**
IO-180	for FLC141	**146-0439**

External Accessories

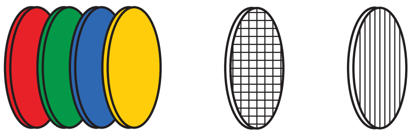
One external optical accessory. For example: shield or snoot.

Glare shield

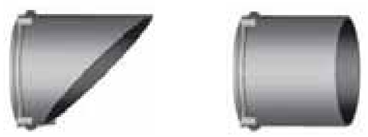
ES	for FLC121	**145-9192**
ES	for FLC131	**146-0156**
ES	for FLC141	**146-0229**

Snoot – Recommended for downward aiming only.

ET	for FLC121	**145-0030**
ET	for FLC131	**146-0397**
ET	for FLC141	**146-0398**



IF **IO-360** **IO-180**



ES **ET**

RAIL66 MOUNTING SYSTEM – UNIVERSAL

RAIL 66

For RAIL66 projectors and floodlights. RAIL66 UNIVERSAL for installation in any desired orientation; on walls, under roof and ceiling structures.

IP66. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Silicone rubber gaskets. Anodised rail extrusion, featuring countersunk IP rated compact mains outlets and internal wiring. Concealed termination chamber. Two flat surface mounting brackets.

Standard RAIL66 is equipped with single circuit/3-core internal wiring (phase/neutral/earth). For 1-10 V or DALI, RAIL66 features single circuit/5-core internal wiring (phase/neutral/earth plus two control lines).

Flat surface fitters or column fitters, available on request.

Gardens by the Bay. Marina Bay (SG). Lighting design: Lighting Planners Associates (LPA).

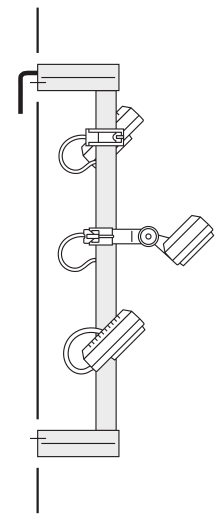
RAIL66 UNIVERSAL	Standard	1-10 V/DALI	L1	L2	kg
for 2 projectors	**310-9200**	**310-9300**	1150	1045	5.9
for 3 projectors	**310-9202**	**310-9301**	1150	1045	5.9
for 3 projectors	**310-9210**	**310-9302**	1650	1545	7.2
for 4 projectors	**310-9212**	**310-9303**	1650	1545	7.2
for 4 projectors	**310-9220**	**310-9304**	2150	2045	8.5
for 6 projectors	**310-9222**	**310-9305**	2150	2045	8.5

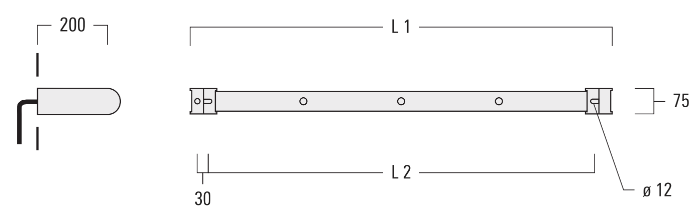
Flat surface fitters (pair)		L	kg
for RAIL66 UNIVERSAL	**310-9290**	1070/1570/2070	1.7

The optional flat surface fitters (pair) provide enhanced mounting surface coverage and facilitate concealing of a recessed junction box.

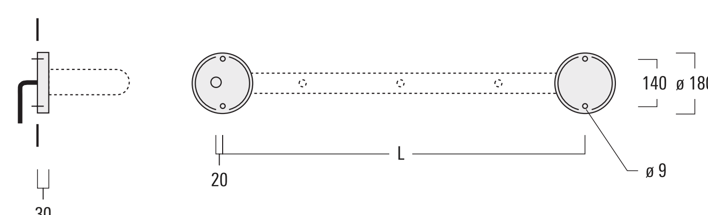
Column fitters (pair)		L	kg
for RAIL66 UNIVERSAL	**310-9294**	1115/1615/2115	0.9

The optional column fitters (pair) allow installation to pipe structures and columns of (minimum) 100 mm diameter.

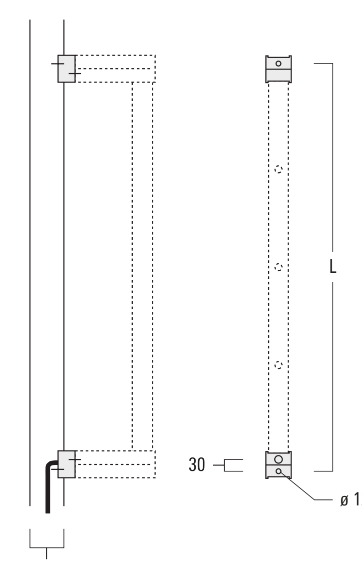




RAIL66 UNIVERSAL



Flat surface fitters (pair)



Column fitters (pair)

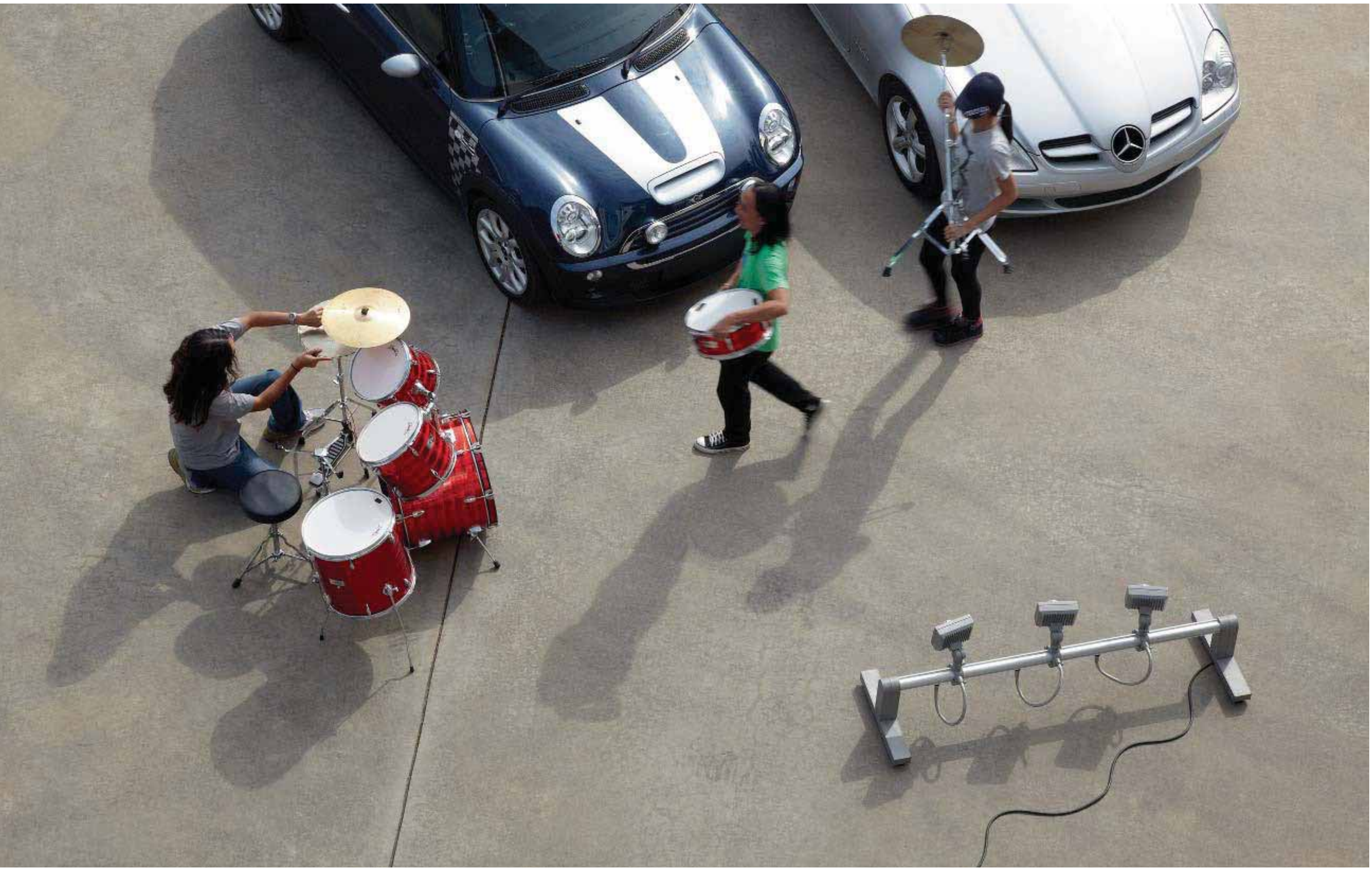
RAIL66 MOUNTING SYSTEM – CANTILEVER AND MOBILE

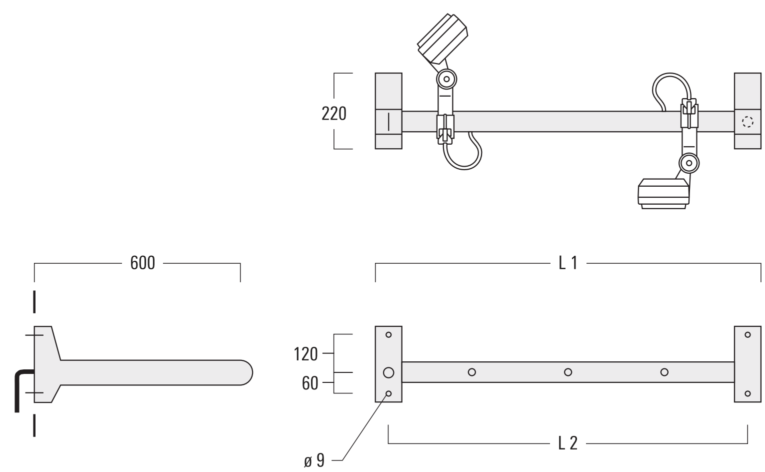
For RAIL66 projectors and floodlights. RAIL66 CANTILEVER for horizontal wall mounting. Particularly suitable for facade lighting applications.

RAIL66 MOBILE. Suitable for mobile installations at showrooms, exhibitions and outdoor events.

IP66. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Silicone rubber gaskets. Anodised rail extrusion, featuring countersunk IP rated compact mains outlets and internal wiring. Concealed termination chamber.

Standard RAIL66 is equipped with single circuit/3-core internal wiring (phase/neutral/earth). For 1-10 V or DALI, RAIL66 features single circuit/5-core internal wiring (phase/neutral/earth plus two control lines).



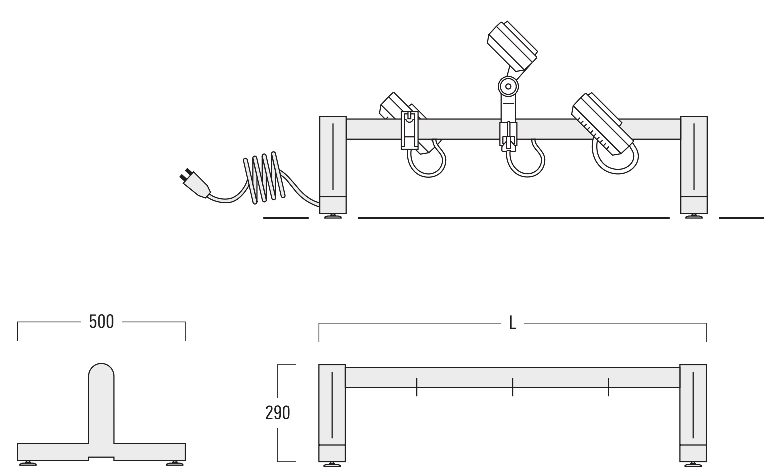


RAIL66 CANTILEVER

RAIL66 CANTILEVER	Standard	1-10 V/DALI	L1	L2	kg
for 2 projectors	**310-9230**	**310-9233**	1150	1070	12.0
for 3 projectors	**310-9232**	**310-9234**	1150	1070	12.0
for 3 projectors	**310-9240**	**310-9243**	1650	1570	13.3
for 4 projectors	**310-9242**	**310-9244**	1650	1570	13.3
for 4 projectors	**310-9250**	**310-9255**	2150	2070	14.6
for 6 projectors	**310-9252**	**310-9256**	2150	2070	14.6

RAIL66 MOBILE	Standard	L	kg
for 2 projectors	**310-9260**	1150	9.3
for 3 projectors	**310-9264**	1150	9.3
for 3 projectors	**310-9270**	1650	10.6
for 4 projectors	**310-9274**	1650	10.6
for 4 projectors	**310-9280**	2150	11.9
for 6 projectors	**310-9284**	2150	11.9

Includes 3 m of flexible cable and plug.

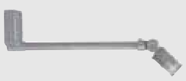


RAIL66 MOBILE

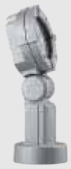
PROJECTORS

FLD100 #4 SERIES – LED
Page 258-261
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

FLD100 SERIES – LED
Page 262-267
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

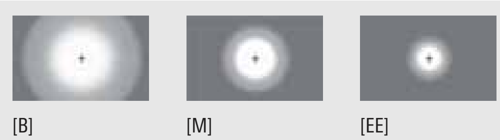


FLC100 #4 SERIES – LED
Page 268-271
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



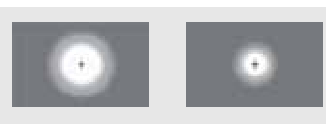
FLC100 SERIES – LED
Page 272-277
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

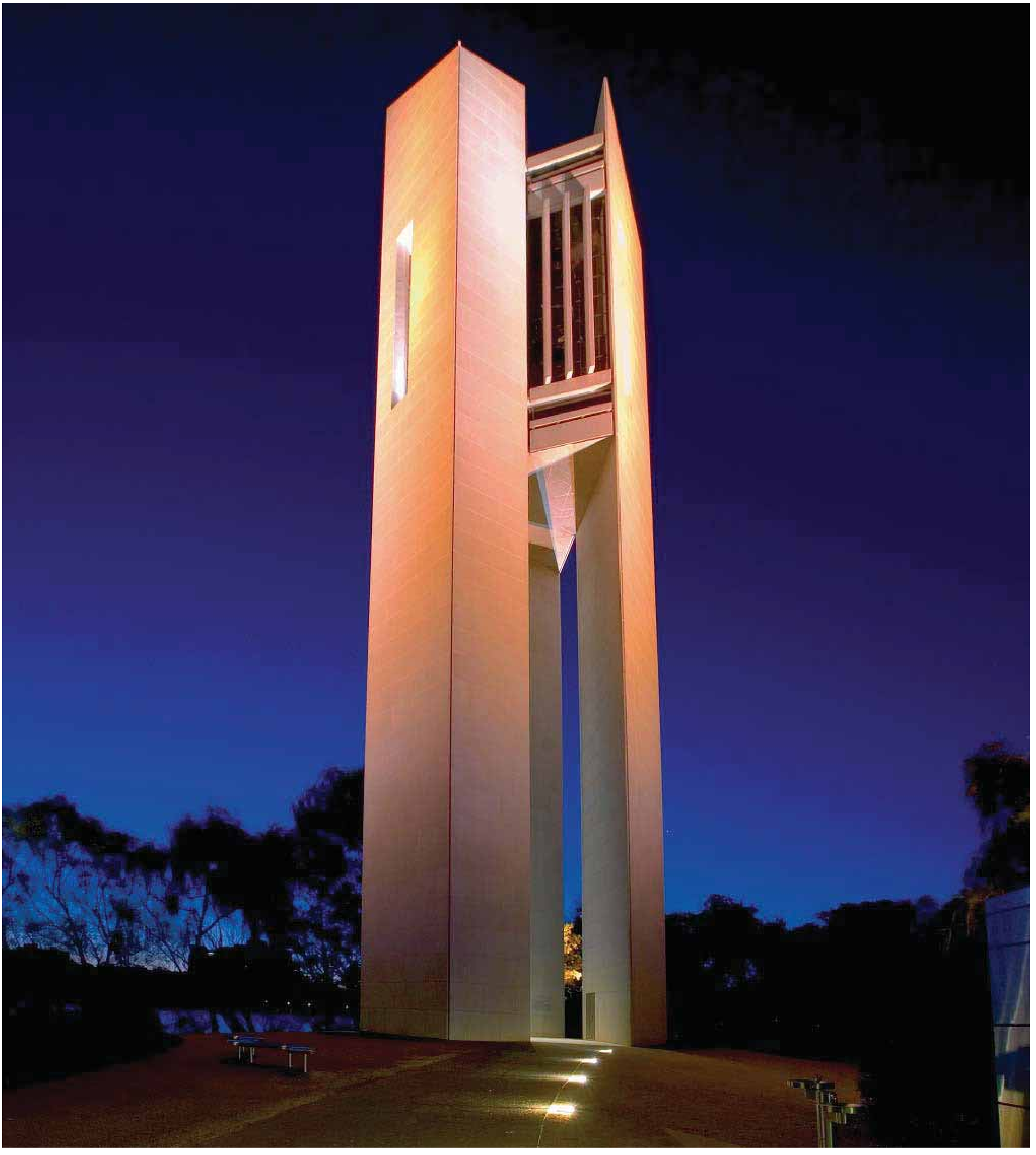
FLC100 SERIES – HIT
Page 278-281
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam



FLC200 SERIES – LED
Page 282-285
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

FLC200 SERIES – HIT
Page 286-291
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam





FLD100 #4 SERIES

[Factory-sealed] Bracket mounted projector. IP55. IK07. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

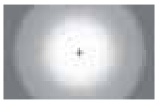
Knuckle permits 350° horizontal and 180° vertical aiming of optics.

Light source:
LED 6-24 W, 3000 K and 4000 K

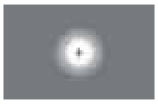
Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Optical, page 261**

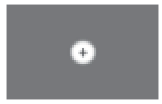
IOS® LED



[B]



[EE]



[EES]

IOS® Innovative Optical System:

[B] Symmetric distribution, wide beam

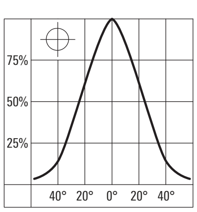
[EE] Symmetric distribution, very narrow beam

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

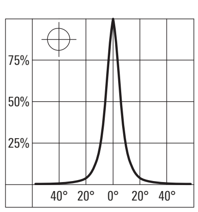
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD121 #4	6 LED 12W/700 mA	**145-9586**	1476	**145-9587**	1476	986	23°/23°
FLD131 #4	12 LED 24W/700 mA	**145-9618**	2951	**145-9623**	2951	986	23°/23°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #4	3 LED 6W/700 mA	**145-9801**	738	**145-9805**	738	7530	7°/7°
FLD121 #4	6 LED 12W/700 mA	**145-9582**	1476	**145-9585**	1476	7524	7°/7°
FLD131 #4	12 LED 24W/700 mA	**145-9620**	2951	**145-9625**	2951	7524	7°/7°

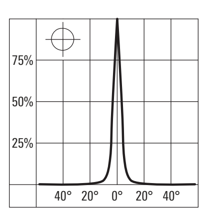
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #4	3 LED 6W/700 mA	**145-9802**	738	**145-9806**	738	16462	5°/5°
FLD121 #4	6 LED 12W/700 mA	**145-9588**	1476	**145-9589**	1476	19392	5°/5°
FLD131 #4	12 LED 24W/700 mA	**145-9621**	2951	**145-9626**	2951	19392	5°/5°



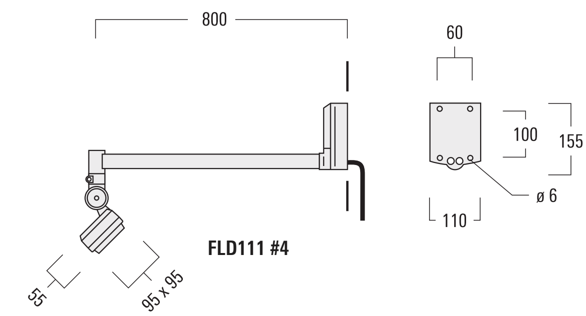
[B]



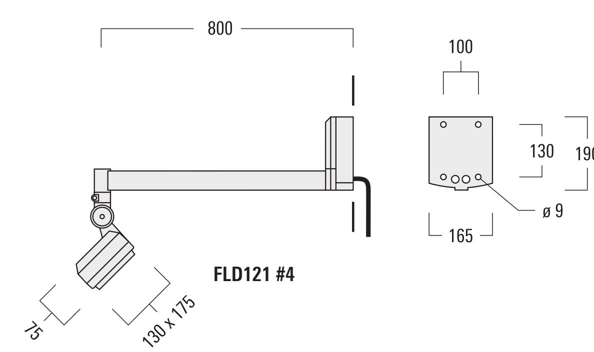
[EE]



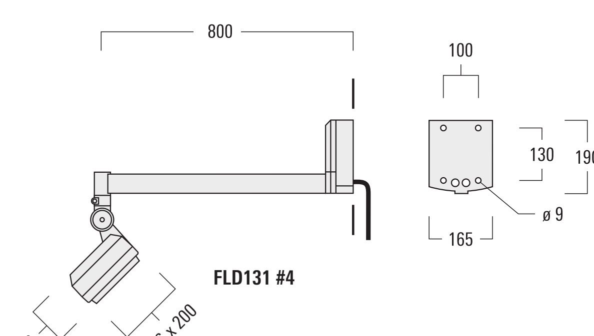
[EES]



FLD111 #4



FLD121 #4

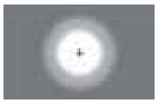


FLD131 #4

Accessories:

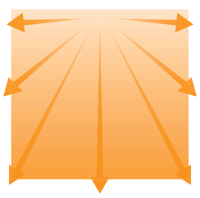
Dimming interface

1-10 V	for FLD111/121/131	**430-0011**
DALI	for FLD121/131	**430-0013**



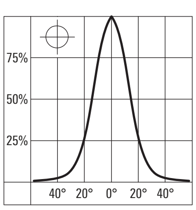
[M]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

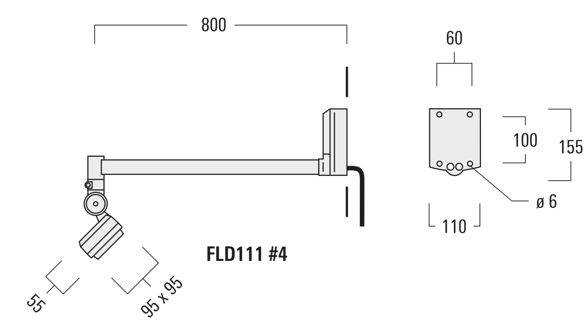


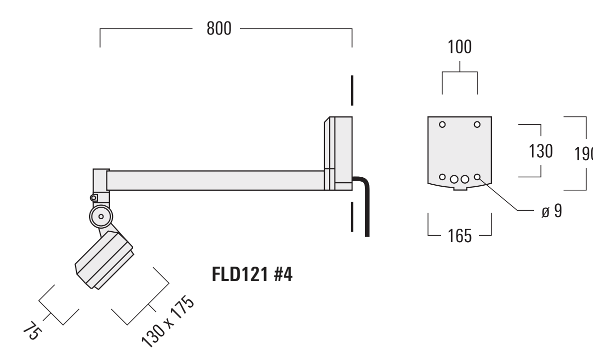
IO-20 wallwash lens.
See page 261 for details.

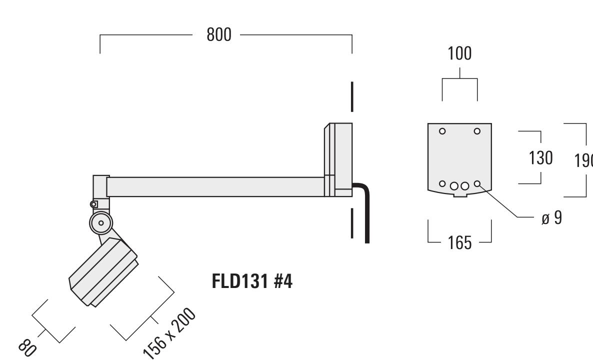
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #4	3 LED 6W/700 mA	**145-9800**	738	**145-9804**	738	1633	21°/21°
FLD121 #4	6 LED 12W/700 mA	**145-9581**	1476	**145-9584**	1476	2261	17°/17°
FLD131 #4	12 LED 24W/700 mA	**145-9619**	2951	**145-9624**	2951	2261	17°/17°



[M]







Accessories:
Dimming interface

1-10 V	for FLD111/121/131	**430-0011**
DALI	for FLD121/131	**430-0013**

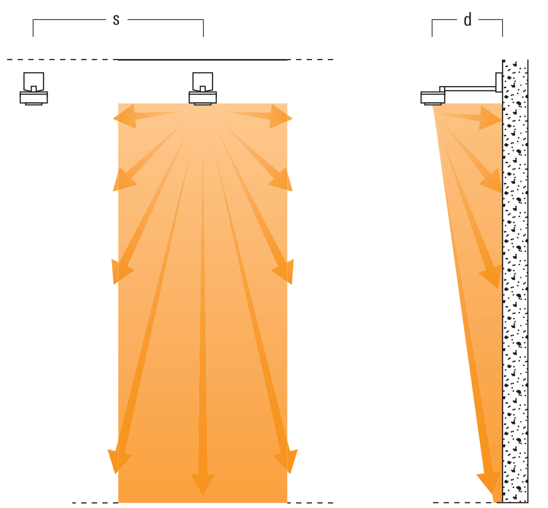
OPTICAL ACCESSORIES – FLD100 #4 SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLD111	**145-9846**
IO-20	for FLD121	**145-9479**
IO-20	for FLD131	**145-9577**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. Factory-installed.

Colour filter

IF	for FLD111	**on request**
IF	for FLD121	**on request**
IF	for FLD131	**on request**

External Accessories

A maximum of two external optical accessories. For example: flood or spread lens; shield; or snoot. If a flood or spread lens is used as a 'stand alone' accessory, an optical adaptor is required, to be ordered separately.

Flood lens

EO-360	for FLD111	**145-9834**
EO-360	for FLD121	**145-9534**
EO-360	for FLD131	**145-9574**

Linear spread lens – Lens can be adjusted on-site.

EO-180	for FLD111	**145-9833**
EO-180	for FLD121	**145-9533**
EO-180	for FLD131	**145-9573**

Optical adaptor

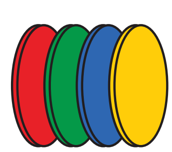
EA	for FLD111	**145-9830**
EA	for FLD121	**145-9530**
EA	for FLD131	**145-9570**

Glare shield

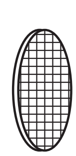
ES	for FLD111	**145-9831**
ES	for FLD121	**145-9531**
ES	for FLD131	**145-9571**

Snoot – Recommended for downward aiming only.

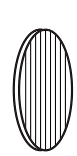
ET	for FLD111	**145-9832**
ET	for FLD121	**145-9532**
ET	for FLD131	**145-9572**



IF



EO-360



EO-180

EA

ES

ET

FLD100 SERIES

[Factory-sealed] Projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-shielded compartment – with the exception of FLD111 #1, remote IP66 converter is included in supply. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

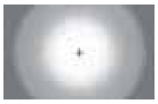
Version #1: Slipfitter suitable for mounting accessories, including 1.5 m of flexible PVC-free cable and IP68 in-line connector.

Version #2, #3: Surface mounting terminal box.

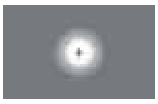
Light source:
LED 6-24 W, 3000 K and 4000 K (2700 K on request)

Available distributions:
[B] [M] [EE] [EES]

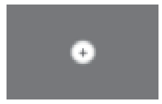
Accessories:
- **Mounting, page 266**
- **Optical, page 265**



[B]

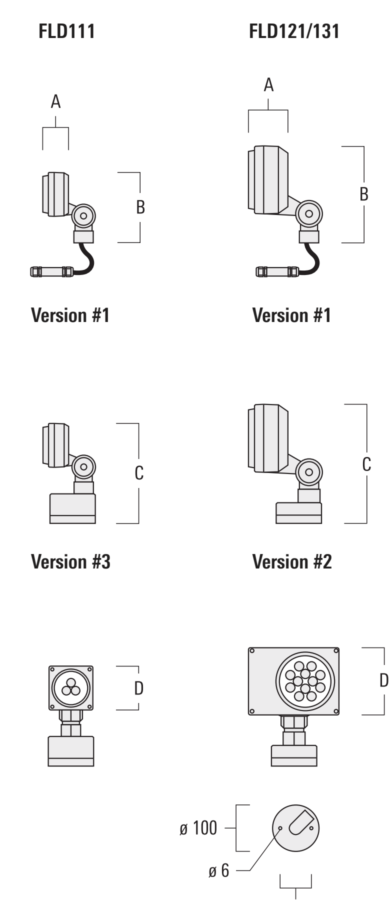


[EE]



[EES]

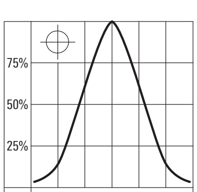
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



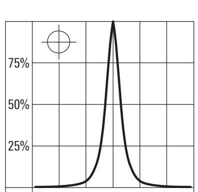
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD121 #1	6 LED 12W/700 mA	**145-9493**	1476	**145-9494**	1476	986	23°/23°
FLD121 #2	6 LED 12W/700 mA	**145-9502**	1476	**145-9503**	1476	986	23°/23°
FLD131 #1	12 LED 24W/700 mA	**145-9600**	2951	**145-9602**	2951	986	23°/23°
FLD131 #2	12 LED 24W/700 mA	**145-9604**	2951	**145-9606**	2951	986	23°/23°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #1	3 LED 6W/700 mA	**145-9783**	738	**145-9787**	738	7530	7°/7°
FLD111 #3	3 LED 6W/700 mA	**145-9792**	738	**145-9796**	738	7530	7°/7°
FLD121 #1	6 LED 12W/700 mA	**145-9495**	1476	**145-9496**	1476	7524	7°/7°
FLD121 #2	6 LED 12W/700 mA	**145-9504**	1476	**145-9505**	1476	7524	7°/7°
FLD131 #1	12 LED 24W/700 mA	**145-9543**	2951	**145-9546**	2951	7524	7°/7°
FLD131 #2	12 LED 24W/700 mA	**145-9550**	2951	**145-9553**	2951	7524	7°/7°

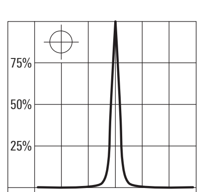
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #1	3 LED 6W/700 mA	**145-9784**	738	**145-9788**	738	16462	5°/5°
FLD111 #3	3 LED 6W/700 mA	**145-9793**	738	**145-9797**	738	16462	5°/5°
FLD121 #1	6 LED 12W/700 mA	**145-9497**	1476	**145-9498**	1476	19392	5°/5°
FLD121 #2	6 LED 12W/700 mA	**145-9506**	1476	**145-9507**	1476	19392	5°/5°
FLD131 #1	12 LED 24W/700 mA	**145-9601**	2951	**145-9603**	2951	19392	5°/5°
FLD131 #2	12 LED 24W/700 mA	**145-9605**	2951	**145-9607**	2951	19392	5°/5°



[B]



[EE]



[EES]

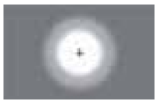
Accessories:

Dimming interface		
1-10 V	for FLD111/121/131 #1	**430-0011**
1-10 V	for FLD121/131 #2	**430-0011**
DALI	for FLD111/121/131 #1	**430-0013**
DALI	for FLD121/131 #2	**430-0013**

Product Dimensions:

FLD series	A	B	C	D
FLD111	55	155	220	95 x 95
FLD121	75	190	235*	130 x 175
FLD131	80	210	260*	156 x 200

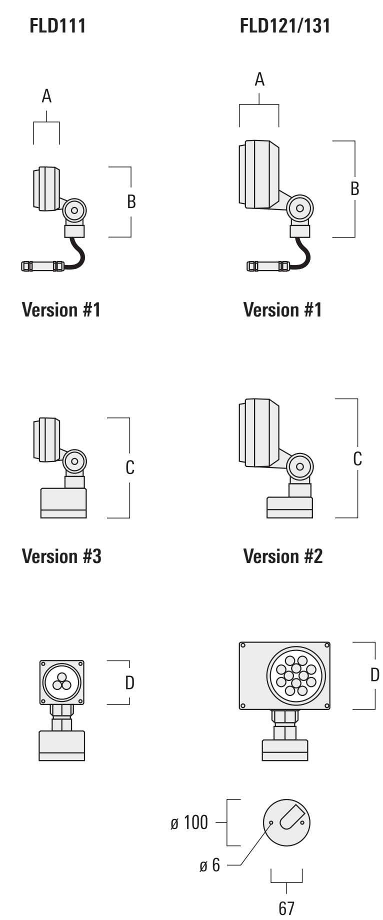
* When fitted with optional dimming interface, C = 250 mm (FLD121), C = 275 mm (FLD131).



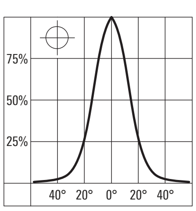
[M]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

IO-20 wallwash lens.
See page 265 for details.



[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLD111 #1	3 LED 6W/700 mA	**145-9782**	738	**145-9786**	738	1633	21°/21°
FLD111 #3	3 LED 6W/700 mA	**145-9791**	738	**145-9795**	738	1633	21°/21°
FLD121 #1	6 LED 12W/700 mA	**145-9491**	1476	**145-9492**	1476	2261	17°/17°
FLD121 #2	6 LED 12W/700 mA	**145-9500**	1476	**145-9501**	1476	2261	17°/17°
FLD131 #1	12 LED 24W/700 mA	**145-9542**	2951	**145-9545**	2951	2261	17°/17°
FLD131 #2	12 LED 24W/700 mA	**145-9549**	2951	**145-9552**	2951	2261	17°/17°



[M]

Accessories:

Dimming interface		
1-10 V	for FLD111/121/131 #1	**430-0011**
1-10 V	for FLD121/131 #2	**430-0011**
DALI	for FLD111/121/131 #1	**430-0013**
DALI	for FLD121/131 #2	**430-0013**

Product Dimensions:

FLD series	A	B	C	D
FLD111	55	155	220	95 x 95
FLD121	75	190	235*	130 x 175
FLD131	80	210	260*	156 x 200

* When fitted with optional dimming interface, C = 250 mm (FLD121), C = 275 mm (FLD131).

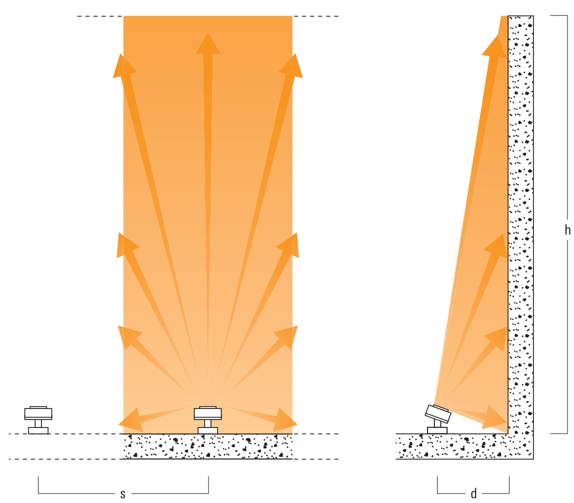
OPTICAL ACCESSORIES – FLD100 #1/#2/#3 SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLD111	**145-9846**
IO-20	for FLD121	**145-9479**
IO-20	for FLD131	**145-9577**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. Factory-installed.

Colour filter

IF	for FLD111	**on request**
IF	for FLD121	**on request**
IF	for FLD131	**on request**

External Accessories

A maximum of two external optical accessories. For example: flood or spread lens; shield; or snoot. If a flood or spread lens is used as a 'stand alone' accessory, an optical adaptor is required, to be ordered separately.

Flood lens

EO-360	for FLD111	**145-9834**
EO-360	for FLD121	**145-9534**
EO-360	for FLD131	**145-9574**

Linear spread lens – Lens can be adjusted on-site.

EO-180	for FLD111	**145-9833**
EO-180	for FLD121	**145-9533**
EO-180	for FLD131	**145-9573**

Optical adaptor

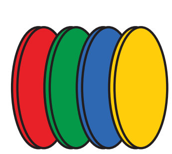
EA	for FLD111	**145-9830**
EA	for FLD121	**145-9530**
EA	for FLD131	**145-9570**

Glare shield

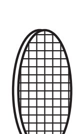
ES	for FLD111	**145-9831**
ES	for FLD121	**145-9531**
ES	for FLD131	**145-9571**

Snoot – Recommended for downward aiming only.

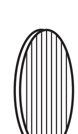
ET	for FLD111	**145-9832**
ET	for FLD121	**145-9532**
ET	for FLD131	**145-9572**



IF



EO-360



EO-180

EA

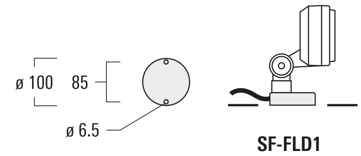
ES

ET

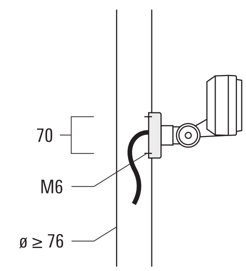
MOUNTING ACCESSORIES – FLD100 #1/#2/#3 SERIES

All FLD100 mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

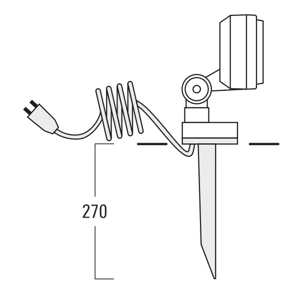
Flat surface fitter			kg
SF-FLD1	for FLD111*/121/131 #1	**145-9535**	0.2
Column fitter			kg
CF-FLD1	for FLD111*/121/131 #1	**145-9536**	0.2
Ground spike – Stainless steel (including 5 m of flexible cable and plug).			kg
EF1	for FLD111 #3 FLD121/131 #2	**145-9196**	0.4
Short post – Matching planted root to be ordered separately.			kg
EM1	for FLD111 #3 FLD121/131 #2	**145-9200**	1.1
Planted root – Galvanised steel.			kg
ESV4	for short post	**300-0461**	4.4



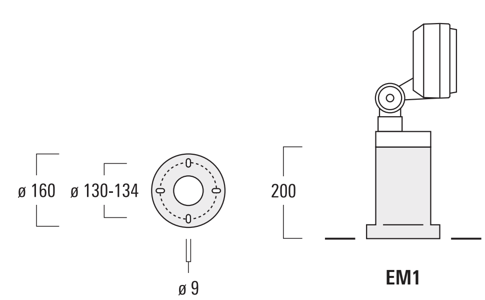
SF-FLD1



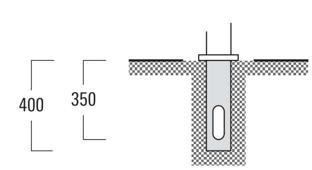
CF-FLD1



EF1



EM1



ESV4

* Remote converter (IP66).

FLC100 #4 SERIES

[Factory-sealed] Bracket mounted projector. IP55. IK07. Marine-grade, all-aluminium construction. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control. Two cable entries. 1-10 V analogue dimming or DALI interface (where applicable) available on request.

Knuckle permits 350° horizontal and 180° vertical aiming of optics.

RGBW for FLC131 and FLC141, available on request.

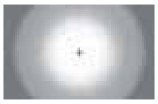
Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)
(for HIT 20-150 W, refer to www.we-ef.com)

Available distributions:
[B] [M] [EE] [EES]

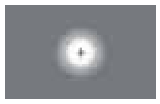
Accessories:
- **Optical, page 271**

IOS

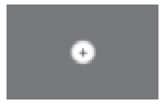
LED



[B]

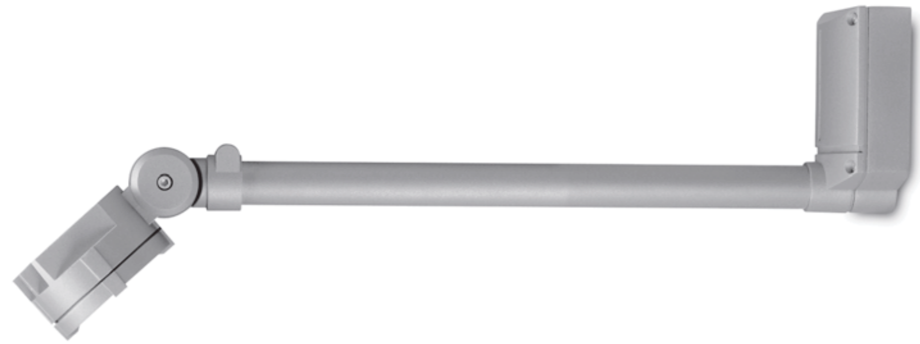


[EE]



[EES]

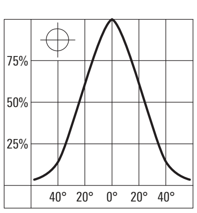
IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'



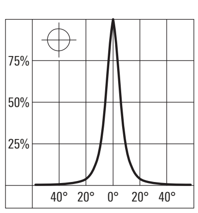
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #4	6 LED 12W/700 mA	**145-0070**	1476	**145-0071**	1476	934	25°/25°
FLC131 #4	12 LED 24W/700 mA	**146-0512**	2951	**146-0513**	2951	920	25°/25°
FLC141 #4	24 LED 48W/700 mA	**146-7066**	5903	**146-7067**	5903	934	25°/25°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #4	6 LED 12W/700 mA	**145-0073**	1476	**145-0074**	1476	7207	7°/7°
FLC131 #4	12 LED 24W/700 mA	**146-0515**	2951	**146-0516**	2951	7191	7°/7°
FLC141 #4	24 LED 48W/700 mA	**146-7068**	5903	**146-7069**	5903	7207	7°/7°

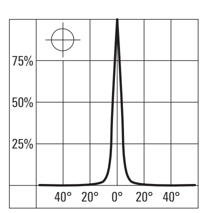
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #4	6 LED 12W/700 mA	**145-0040**	1476	**145-0041**	1476	22108	5°/5°
FLC131 #4	12 LED 24W/700 mA	**146-0408**	2951	**146-0409**	2951	20389	5°/5°
FLC141 #4	24 LED 48W/700 mA	**146-7056**	5903	**146-7057**	5903	22108	5°/5°



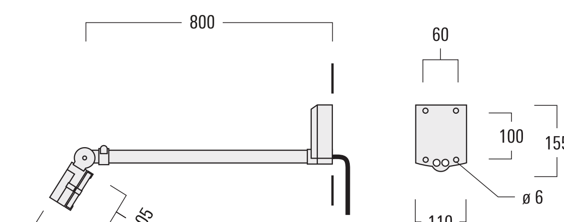
[B]



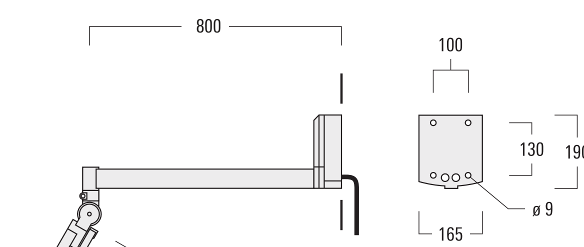
[EE]



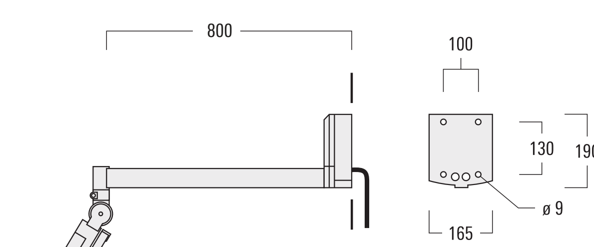
[EES]



FLC121 #4



FLC131 #4

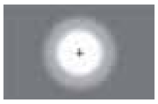


FLC141 #4

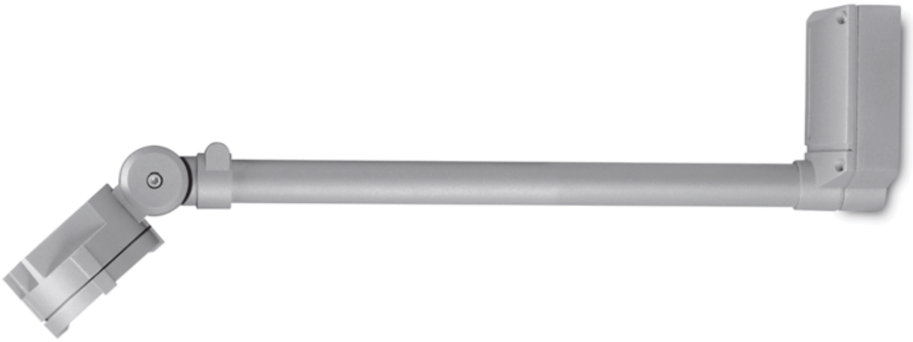
Accessories:

Dimming interface

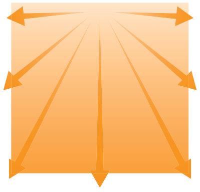
1-10 V	for FLC121/131/141	**430-0011**
DALI	for FLC131/141	**430-0013**



[M]

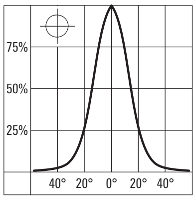


IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

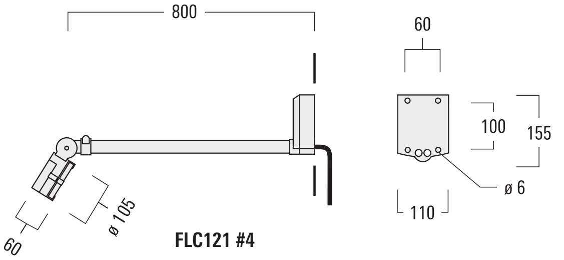


IO-20 wallwash lens.
See page 271 for details.

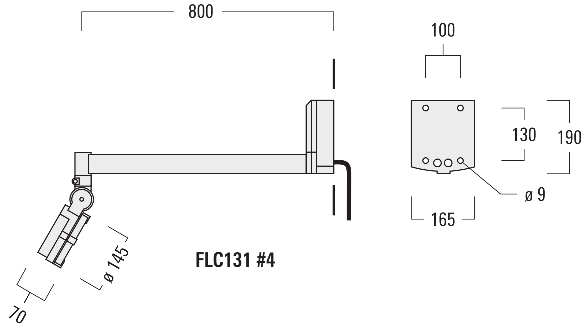
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #4	6 LED 12W/700 mA	**145-0037**	1476	**145-0038**	1476	2196	16°/16°
FLC131 #4	12 LED 24W/700 mA	**146-0405**	2951	**146-0406**	2951	2196	16°/16°
FLC141 #4	24 LED 48W/700 mA	**146-7054**	5903	**146-7055**	5903	2196	16°/16°



[M]



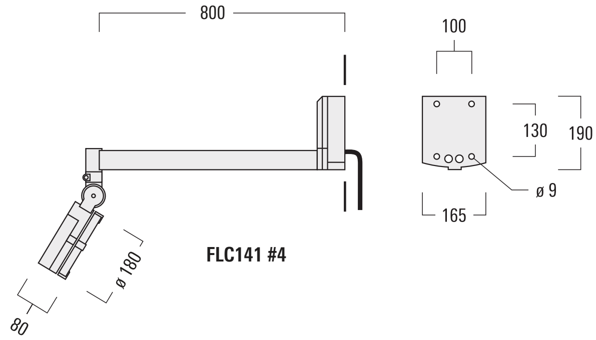
FLC121 #4



FLC131 #4

Accessories:
Dimming interface

1-10 V	for FLC121/131/141	**430-0011**
DALI	for FLC131/141	**430-0013**



FLC141 #4

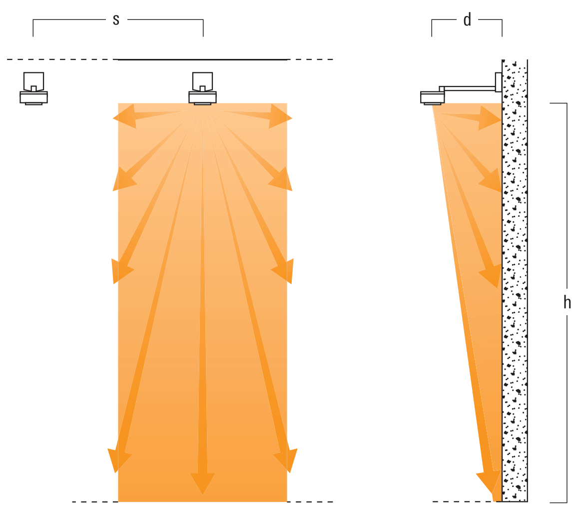
OPTICAL ACCESSORIES – FLC100 #4 SERIES

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLC121	**145-0145**
IO-20	for FLC131	**146-0645**
IO-20	for FLC141	**146-0646**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. For example: colour filter; flood or spread lens. Factory-installed.

Colour filter

IF	for FLC121	**on request**
IF	for FLC131	**on request**
IF	for FLC141	**on request**

Flood lens

IO-360	for FLC121	**145-9390**
IO-360	for FLC131	**146-0419**
IO-360	for FLC141	**146-9950**

Linear spread lens

IO-180	for FLC121	**145-0050**
IO-180	for FLC131	**146-0418**
IO-180	for FLC141	**146-0439**

External Accessories

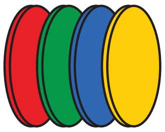
One external optical accessory. For example: shield or snoot.

Glare shield

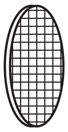
ES	for FLC121	**145-9192**
ES	for FLC131	**146-0156**
ES	for FLC141	**146-0229**

Snoot – Recommended for downward aiming only.

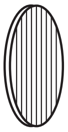
ET	for FLC121	**145-0030**
ET	for FLC131	**146-0397**
ET	for FLC141	**146-0398**



IF



IO-360



IO-180

ES

ET

FLC100 SERIES – LED

[Factory-sealed] Projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Luminaire is factory-sealed and does not need to be opened during installation.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control.

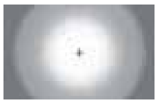
RGBW for FLC131 and FLC141, available on request.

Light source:
LED 12-48 W, 3000 K and 4000 K
(2700 K and RGBW on request)

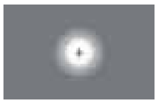
Available distributions:
[B] [M] [EE] [EES]

Accessories:
- **Mounting, page 276**
- **Optical, page 275**

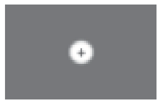
Sydney Opera House. Sydney (AUS). Architect: Utzon Architects in collaboration with Johnson Pilton Walker. Lighting design: Steenson Varming.



[B]



[EE]



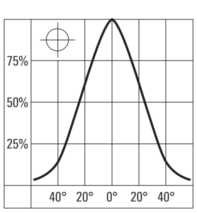
[EES]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[EE] Symmetric distribution, very narrow beam
[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

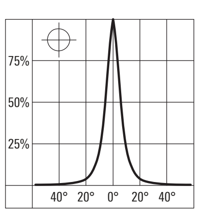
[B]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #2	6 LED 12W/700 mA	**145-0052**	1476	**145-0053**	1476	934	25°/25°
FLC131 #2	12 LED 24W/700 mA	**146-0494**	2951	**146-0495**	2951	920	25°/25°
FLC141 #3	24 LED 48W/700 mA	**146-7062**	5903	**146-7063**	5903	934	25°/25°

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #2	6 LED 12W/700 mA	**145-0055**	1476	**145-0056**	1476	7207	7°/7°
FLC131 #2	12 LED 24W/700 mA	**146-0497**	2951	**146-0498**	2951	7191	7°/7°
FLC141 #3	24 LED 48W/700 mA	**146-7064**	5903	**146-7065**	5903	7207	7°/7°

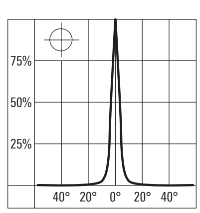
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #2	6 LED 12W/700 mA	**145-0034**	1476	**145-0035**	1476	22108	5°/5°
FLC131 #2	12 LED 24W/700 mA	**146-0402**	2951	**146-0403**	2951	20389	5°/5°
FLC141 #3	24 LED 48W/700 mA	**146-7052**	5903	**146-7053**	5903	22108	5°/5°



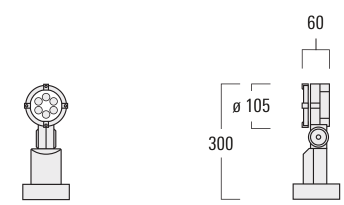
[B]



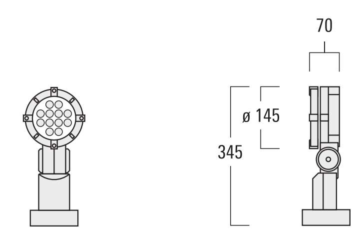
[EE]



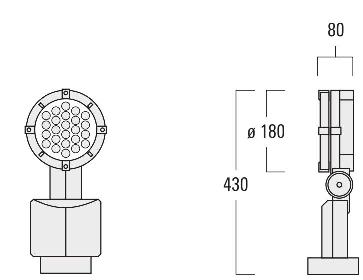
[EES]



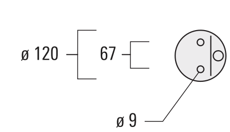
FLC121 #2

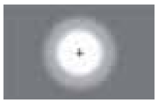


FLC131 #2



FLC141 #3



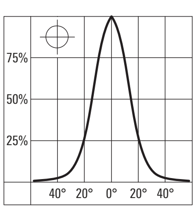


[M]

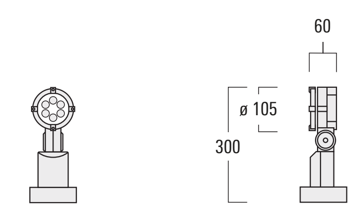
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

IO-20 wallwash lens.
See page 275 for details.

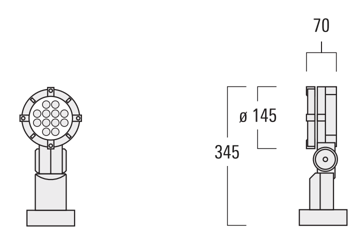
[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC121 #2	6 LED 12W/700 mA	**145-0031**	1476	**145-0032**	1476	2196	16°/16°
FLC131 #2	12 LED 24W/700 mA	**146-0399**	2951	**146-0400**	2951	2196	16°/16°
FLC141 #3	24 LED 48W/700 mA	**146-7050**	5903	**146-7051**	5903	2196	16°/16°



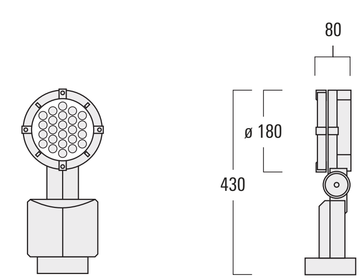
[M]



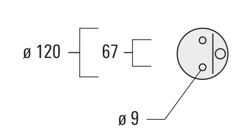
FLC121 #2



FLC131 #2



FLC141 #3



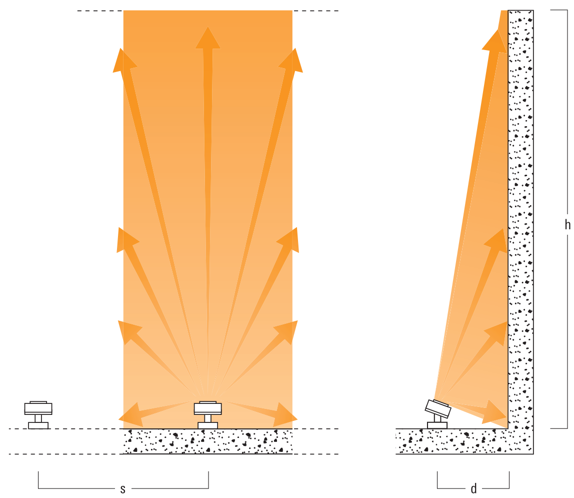
OPTICAL ACCESSORIES – FLC100 #2/#3 SERIES – LED

IO-20 LED Wallwash Lens

Outstanding uniformity and broad corner-to-corner coverage are the hallmarks of this internally mounted accessory.

Wallwash lens – For symmetric [M] versions.

IO-20	for FLC121	**145-0145**
IO-20	for FLC131	**146-0645**
IO-20	for FLC141	**146-0646**



Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at 0.125 x h away from the target surface and spaced up to 1.75 x d apart:

h = height of wall/target surface
d = 0.125 x h = distance from the wall/target surface
s = 1.75 x d = spacing between luminaires

The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained.

Internal Accessories

One internal optical accessory. For example: colour filter; flood or spread lens. Factory-installed.

Colour filter

IF	for FLC121	**on request**
IF	for FLC131	**on request**
IF	for FLC141	**on request**

Flood lens

IO-360	for FLC121	**145-9390**
IO-360	for FLC131	**146-0419**
IO-360	for FLC141	**146-9950**

Linear spread lens

IO-180	for FLC121	**145-0050**
IO-180	for FLC131	**146-0418**
IO-180	for FLC141	**146-0439**

External Accessories

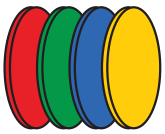
One external optical accessory. For example: shield or snoot.

Glare shield

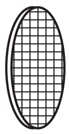
ES	for FLC121	**145-9192**
ES	for FLC131	**146-0156**
ES	for FLC141	**146-0229**

Snoot – Recommended for downward aiming only.

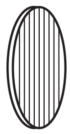
ET	for FLC121	**145-0030**
ET	for FLC131	**146-0397**
ET	for FLC141	**146-0398**



IF



IO-360



IO-180

ES

ET

MOUNTING ACCESSORIES – FLC100 #2/#3 SERIES – LED

All FLC100 mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

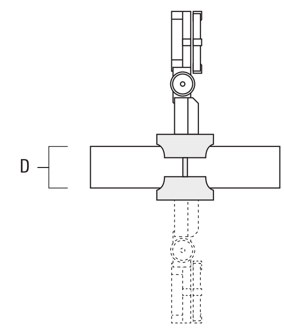
Pipe clamp			D	kg
SP1	for 1 x FLC121/131/141	**146-0245**	ø 38-60	1.1
SP1	for 1 x FLC121/131/141	**146-0246**	ø 76-89	1.0
SP2	for 2 x FLC121/131/141	**146-0247**	ø 38-60	1.2
SP2	for 2 x FLC121/131/141	**146-0248**	ø 76-89	1.1

Junction box			kg
JB1	for FLC121/131/141	**310-9000**	1.1

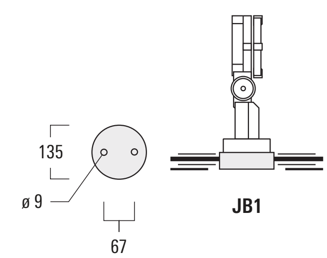
Ground spike – Stainless steel. 5 m of flexible cable and plug.			kg
EF1	for FLC121/131/141	**146-0251**	0.4

Short post – Matching planted root to be ordered separately.			kg
EM1	for FLC121/131/141	**146-0253**	1.7

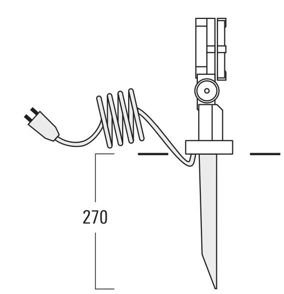
Planted root – Galvanised steel.			kg
ESV4	for short post	**300-0461**	4.4



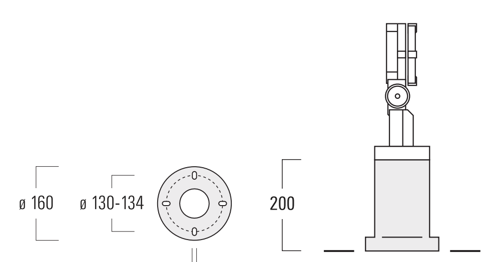
SP1/SP2



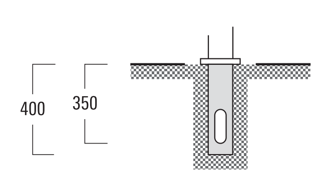
JB1



EF1



EM1



ESV4

Hume Weir Waterfront. Albury (AUS). Lighting design: J3 Design.

FLC100 SERIES – HIT

Projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens. Silicone CCG® Controlled Compression Gasket. Anodised aluminium reflector.

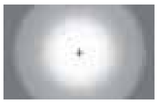
Integral EC electronic converter in thermally-separated compartment.

Light source:
HIT 20-150 W

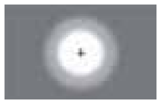
Available distributions:
[B] [M] [EE]

Accessories:
- **Mounting, page 280**
- **Optical, page 281**

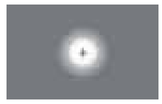
Kauffman Center for the Performing Arts. Kansas City (USA). Architect: Safdie Architects with BNIM. Lighting design: Lam Partners and Derek Porter Studio.



[B]



[M]



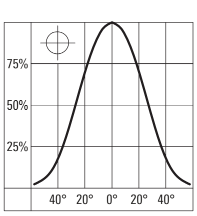
[EE]

IOS® Innovative Optical System:
[B] Symmetric distribution, wide beam
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

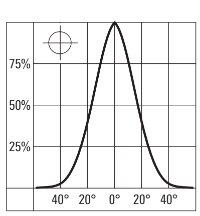
[B]			lm	Gear	cd/klm	C_0C_{180}
FLC121 #3	HIT-TC-CE 20W/GU6.5	**145-9329**	1800	[ECG]	504	30°/30°
FLC121 #3	HIT-TC-CE 35W/GU6.5	**145-9331**	3800	[ECG]	478	30°/30°
FLC131 #3	HIT-CE 70W/G12	**146-9790**	7300	[ECG]	756	28°/28°
FLC141 #3	HIT-CE 150W/G12	**146-9815**	15000	[ECG]	576	30°/30°

[M]			lm	Gear	cd/klm	C_0C_{180}
FLC121 #3	HIT-TC-CE 20W/GU6.5	**145-9321**	1800	[ECG]	1810	15°/15°
FLC121 #3	HIT-TC-CE 35W/GU6.5	**145-9323**	3800	[ECG]	1771	15°/15°
FLC131 #3	HIT-CE 70W/G12	**146-0117**	7300	[ECG]	1296	17°/17°
FLC141 #3	HIT-CE 150W/G12	**146-0184**	15000	[ECG]	1361	18°/18°

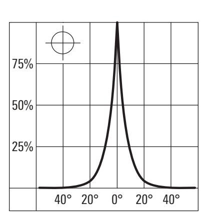
[EE]			lm	Gear	cd/klm	C_0C_{180}
FLC121 #3	HIT-TC-CE 20W/GU6.5	**145-9325**	1800	[ECG]	10995	5°/5°
FLC121 #3	HIT-TC-CE 35W/GU6.5	**145-9327**	3800	[ECG]	8581	5°/5°
FLC131 #3	HIT-CE 70W/G12	**146-0133**	7300	[ECG]	7479	4°/4°
FLC141 #3	HIT-CE 150W/G12	**146-0200**	15000	[ECG]	7146	4°/4°



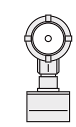
[B]



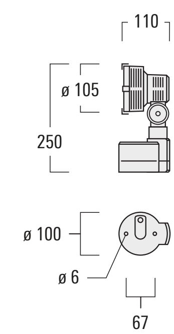
[M]

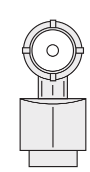


[EE]

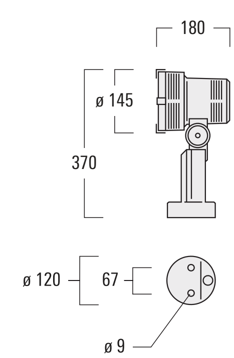


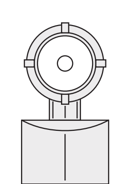
FLC121 #3



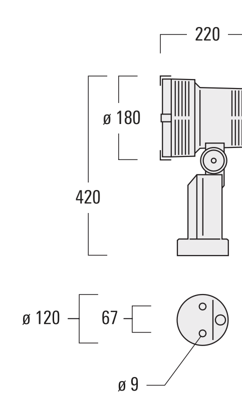


FLC131 #3





FLC141 #3



MOUNTING ACCESSORIES – FLC100 #3 SERIES – HIT

All FLC100 mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

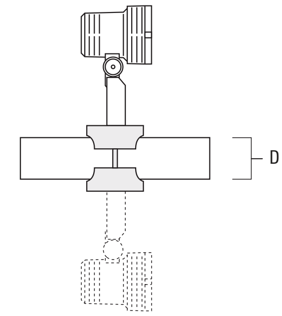
Pipe clamp			D	kg
SP1	for 1 x FLC131/141	**146-0245**	ø 38-60	1.1
SP1	for 1 x FLC131/141	**146-0246**	ø 76-89	1.0
SP2	for 2 x FLC131/141	**146-0247**	ø 38-60	1.2
SP2	for 2 x FLC131/141	**146-0248**	ø 76-89	1.1

Junction box			kg
JB1	for FLC131/141	**310-9000**	1.1

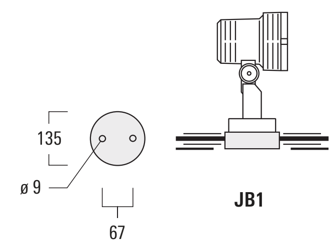
Ground spike – Stainless steel (including 5 m of flexible cable and plug).			kg
EF1	for FLC121	**145-9196**	0.4
EF1	for FLC131/141	**146-0251**	0.4

Short post – Matching planted root to be ordered separately.			kg
EM1	for FLC121	**145-9200**	1.1
EM1	for FLC131/141	**146-0253**	1.7

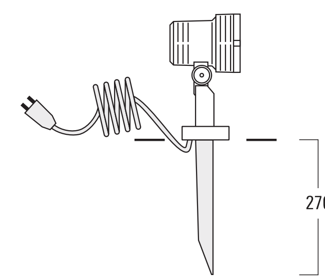
Planted root – Galvanised steel.			kg
ESV4	for short post	**300-0461**	4.4



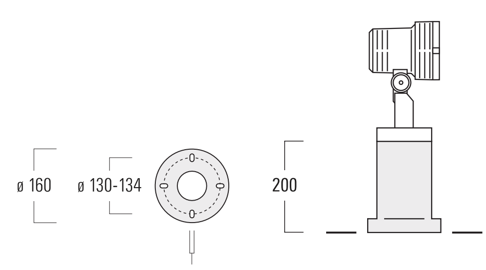
SP1/SP2



JB1



EF1



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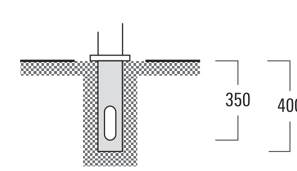


ESV4

OPTICAL ACCESSORIES – FLC100 SERIES – HIT

Internal Accessories

FLC100 series: A maximum of two internal optical accessories. For example: shield; colour filter; flood or spread lens. Factory-installed.

Source shield – For symmetric [EE] versions.

IQ	for FLC121	**145-9170**
IQ	for FLC131	**146-0263**
IQ	for FLC141	**146-0264**

Colour filter		Red	Green	Blue	Yellow
IF	for FLC121	**145-9176**	**145-9178**	**145-9180**	**145-9182**
IF	for FLC131	**146-0262**	**146-0260**	**146-0259**	**146-0261**
IF	for FLC141	**185-0331**	**185-0329**	**185-0328**	**185-0330**

Flood lens

IO-360	for FLC121	**145-9174**
IO-360	for FLC131	**146-0258**
IO-360	for FLC141	**185-0337**

Linear spread lens

IO-180	for FLC121	**145-9172**
IO-180	for FLC131	**146-0257**
IO-180	for FLC141	**185-0336**

External Accessories

FLC100 series: One external optical accessory. For example: wire guard; shield; or snoot.

Wire guard

EG	for FLC121	**145-9190**
EG	for FLC131	**146-0158**
EG	for FLC141	**146-0231**

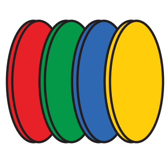
Glare shield

ES	for FLC121	**145-9192**
ES	for FLC131	**146-0156**
ES	for FLC141	**146-0229**

Snoot – Recommended for downward aiming only.

ET	for FLC121	**145-9194**
ET	for FLC131	**146-0157**
ET	for FLC141	**146-0230**

IQ



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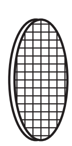
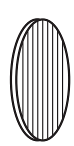
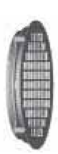


IO-360

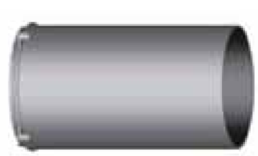


IO-180



EG

ES



ET

FLC200 SERIES – LED

Projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone rubber gaskets.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. CAD-optimised optics for superior illumination and glare control.

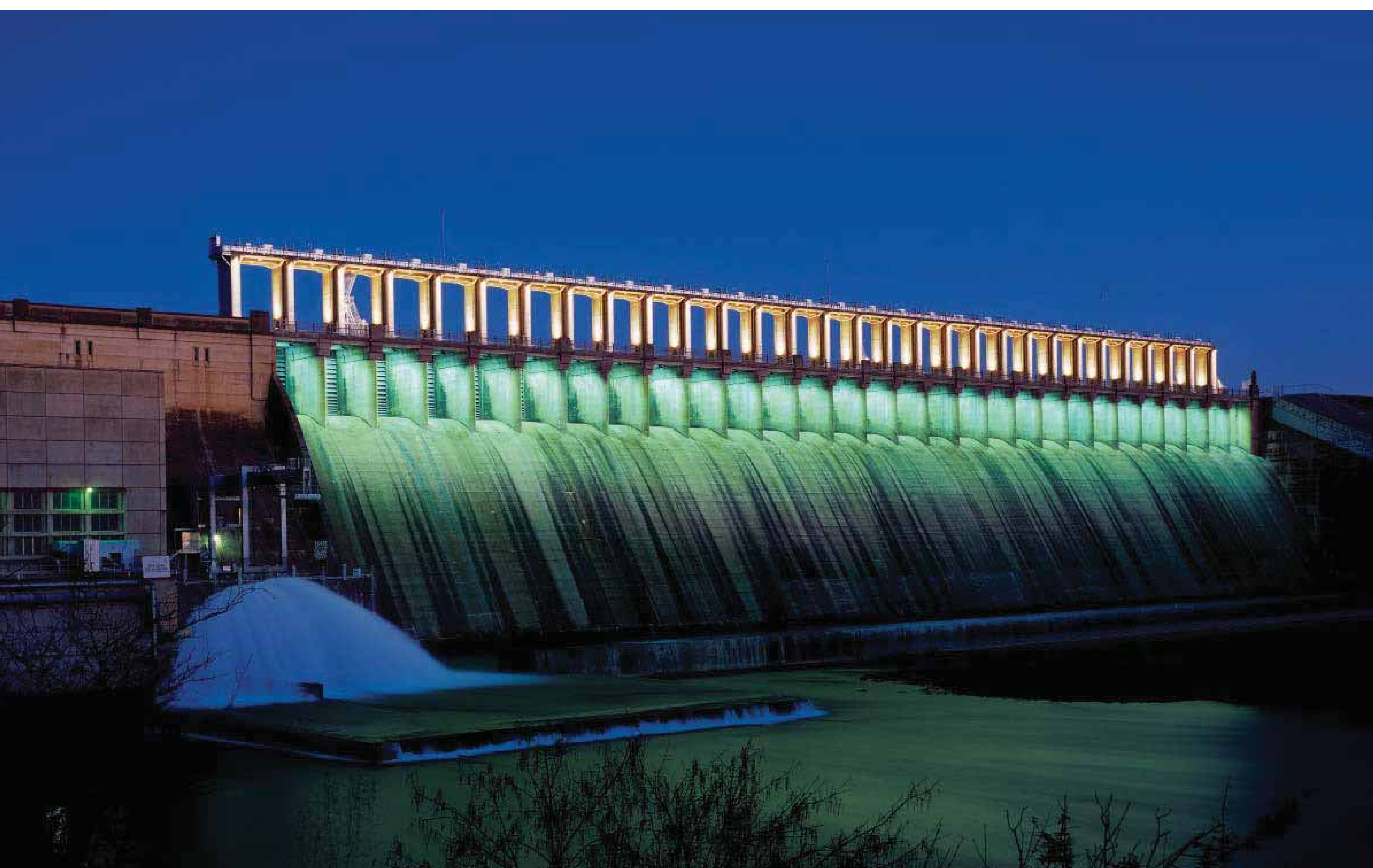
RGBW for FLC260, available on request.

Light source:
LED 24-155 W, 3000 K and 4000 K
(RGBW on request)

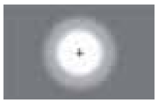
Available distributions:
[M] [EE] [EES]

Accessories:

- **Mounting, page 290**
- **Optical, refer to www.we-ef.com**
- **1-10 V Dimming, DALI or DMX interface, refer to www.we-ef.com**



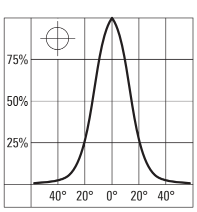
Hume Weir Waterfront. Albury (AUS). Lighting design: J3 Design.



[M]

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam

[M]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC220	12 LED 24W/700 mA	**139-1830**	3257	**139-1831**	3758	2829	15°/15°
FLC220	12 LED 36W/1050 mA	**139-1836**	4680	**139-1837**	5400	2829	15°/15°
FLC240	24 LED 48W/700 mA	**139-1812**	6515	**139-1813**	7517	2829	15°/15°
FLC240	24 LED 72W/1050 mA	**139-1818**	9360	**139-1819**	10800	2829	15°/15°
FLC240	24 LED 104W/1400 mA	**139-1824**	11971	**139-1825**	13813	2829	15°/15°
FLC260	36 LED 72W/700 mA	**139-1806**	9772	**139-1807**	11275	2829	15°/15°
FLC260	36 LED 108W/1050 mA	**139-1791**	14040	**139-1792**	16200	2829	15°/15°
FLC260	36 LED 155W/1400 mA	**139-1797**	17957	**139-1798**	20720	2829	15°/15°



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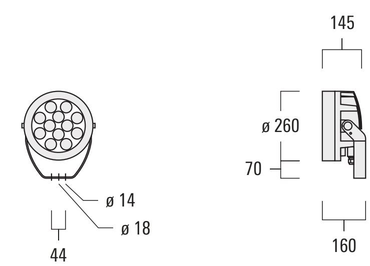
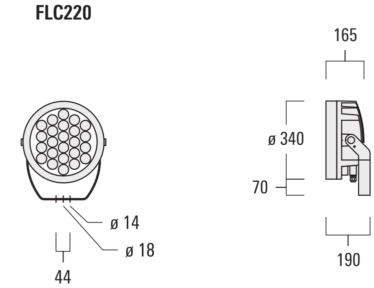
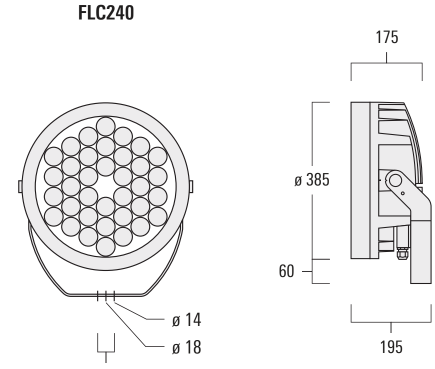


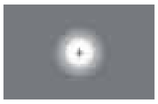
FLC220



FLC240



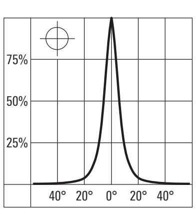
FLC260



[EE]

IOS® Innovative Optical System:
[EE] Symmetric distribution, very narrow beam

[EE]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC220	12 LED 24W/700 mA	**139-1832**	3257	**139-1833**	3758	10951	7°/7°
FLC220	12 LED 36W/1050 mA	**139-1838**	4680	**139-1839**	5400	10951	7°/7°
FLC240	24 LED 48W/700 mA	**139-1814**	6515	**139-1815**	7517	10951	7°/7°
FLC240	24 LED 72W/1050 mA	**139-1820**	9360	**139-1821**	10800	10951	7°/7°
FLC240	24 LED 104W/1400 mA	**139-1826**	11971	**139-1827**	13813	10951	7°/7°
FLC260	36 LED 72W/700 mA	**139-1808**	9772	**139-1809**	11275	10951	7°/7°
FLC260	36 LED 108W/1050 mA	**139-1793**	14040	**139-1794**	16200	10951	7°/7°
FLC260	36 LED 155W/1400 mA	**139-1799**	17957	**139-1800**	20720	10951	7°/7°



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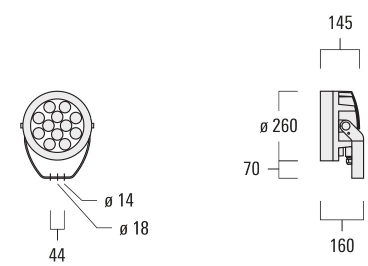
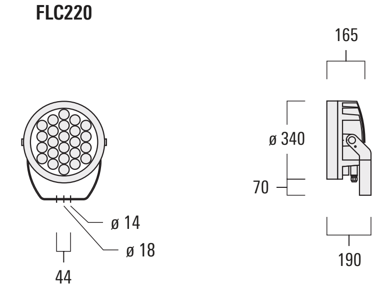
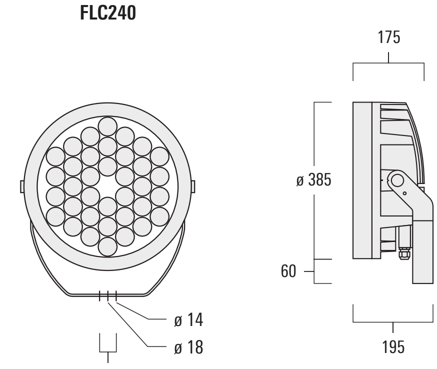


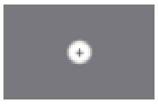
FLC220



FLC240



FLC260

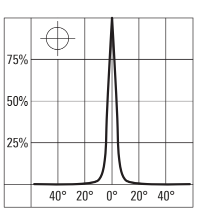


[EES]

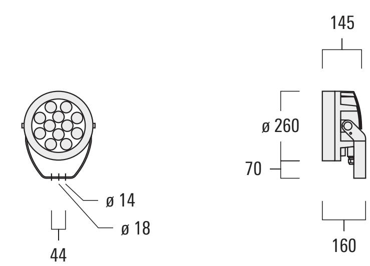
IOS® Innovative Optical System:

[EES] Symmetric distribution, very narrow beam, 'sharp cut-off'

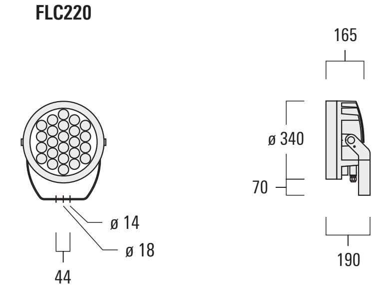
[EES]		3000 K	lm	4000 K	lm	cd/klm	C_0C_{180}
FLC220	12 LED 24W/700 mA	**139-1834**	3257	**139-1835**	3758	27474	4°/4°
FLC220	12 LED 36W/1050 mA	**139-1840**	4680	**139-1841**	5400	27474	4°/4°
FLC240	24 LED 48W/700 mA	**139-1816**	6515	**139-1817**	7517	27474	4°/4°
FLC240	24 LED 72W/1050 mA	**139-1822**	9360	**139-1823**	10800	27474	4°/4°
FLC240	24 LED 104W/1400 mA	**139-1828**	11971	**139-1829**	13813	27474	4°/4°
FLC260	36 LED 72W/700 mA	**139-1810**	9772	**139-1811**	11275	27474	4°/4°
FLC260	36 LED 108W/1050 mA	**139-1795**	14040	**139-1796**	16200	27474	4°/4°
FLC260	36 LED 155W/1400 mA	**139-1801**	17957	**139-1802**	20720	27474	4°/4°



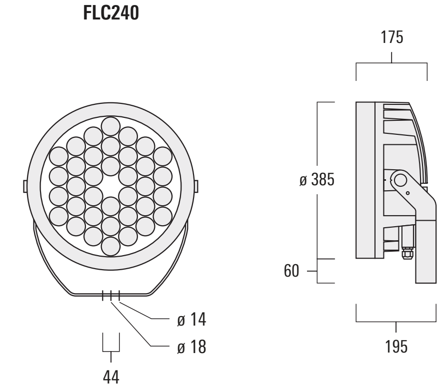
[EES]



FLC220



FLC240



FLC260

FLC200 SERIES – HIT

Projector. IP66. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens (up to 400 W) or high temperature ceramic glass with wire mesh (1000-2000 W), hinged. Silicone rubber gasket. Anodised aluminium reflector.

Up to 400 W: Integral HPF or ECG control gear in thermally-shielded compartment. LPF versions available on request.

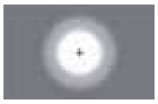
1000 W and 2000 W: Remote gear versions with integral ignitor. Control gear to be ordered separately.

Light source:
HIT 20-2000 W
(for HST, refer to www.we-ef.com)

Available distributions:
[M] [EE]

Accessories:
- **Mounting, page 290**
- **Optical, page 291**

The Auckland Sky Tower. Auckland (NZ). Architect: Craig Craig Moller Architects.



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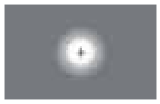
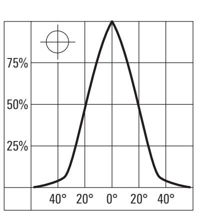


[EE]

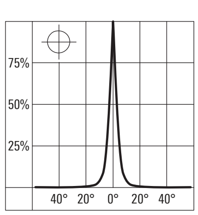
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[M]			lm	Gear	cd/klm	C_0C_{180}
FLC230	HIT-TC-CE 20W/PGJ5	**139-1196**	1650	[ECG]	1685	16°/16°
FLC230	HIT-TC-CE 35W/PGJ5	**139-1198**	3000	[ECG]	1496	17°/17°
FLC240	HIT-CE 70W/G12	**139-0659**	7300	[HPF]	1643	20°/20°
FLC240	HIT-CE 70W/G12	**139-1200**	7300	[ECG]	1643	20°/20°
FLC240	HIT-CE 150W/G12	**139-0662**	15000	[HPF]	1280	23°/23°

[EE]			lm	Gear	cd/klm	C_0C_{180}
FLC230	HIT-TC-CE 20W/PGJ5	**139-1197**	1650	[ECG]	29856	3°/3°
FLC230	HIT-TC-CE 35W/PGJ5	**139-1199**	3000	[ECG]	18240	4°/4°
FLC240	HIT-CE 70W/G12	**139-0671**	7300	[HPF]	29929	3°/3°
FLC240	HIT-CE 70W/G12	**139-1201**	7300	[ECG]	29929	3°/3°
FLC240	HIT-CE 150W/G12	**139-0674**	15000	[HPF]	18752	4°/4°

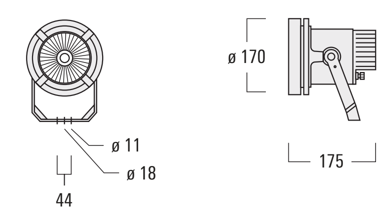


[M]

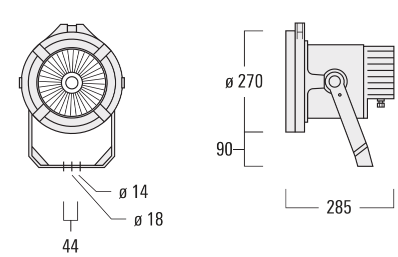


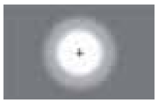
[EE]

FLC230

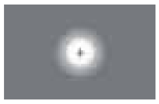


FLC240





[M]

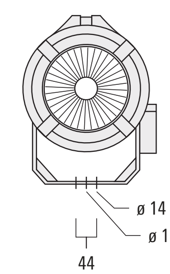


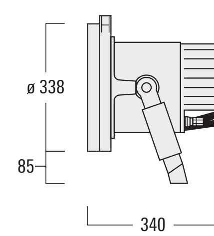
[EE]

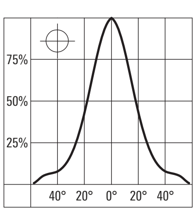
IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$
FLC250	HIT-CE 250W/E40	**139-9207**	26000	[HPF]	1475	18°/18°	18°/18°
FLC250	HIT-DE 250W/Fc2	**139-0680**	20000	[HPF]	1757	17°/24°	14°/14°
FLC250	HIT-DE 400W/Fc2	**139-0682**	37000	[HPF]	1444	20°/20°	17°/17°

[EE]			lm	Gear	cd/klm	C_0C_{180}
FLC250	HIT-CE 250W/E40	**139-9222**	26000	[HPF]	15652	5°/5°
FLC250	HIT-DE 250W/Fc2	**139-0690**	20000	[HPF]	17463	3°/3°
FLC250	HIT-DE 400W/Fc2	**139-0692**	37000	[HPF]	12843	3°/3°







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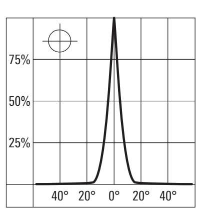
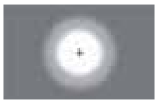
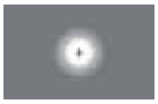


[EE]



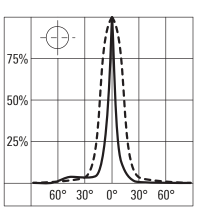


[M] **[EE]**

IOS® Innovative Optical System:
[M] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$
FLC280	HIT-SA-DE 1000W/Cable	**139-1204**	90000	[IGN]*	4653	4°/4°	13°/13°
FLC280	HIT-SA-DE 2000W/Cable	**139-1205**	200000	[IGN]*	4163	5°/5°	11°/11°

[EE]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$
FLC280	HIT-SA-DE 1000W/Cable	**139-1206**	90000	[IGN]*	10782	4°/4°	6°/6°
FLC280	HIT-SA-DE 2000W/Cable	**139-1207**	200000	[IGN]*	9696	4°/4°	6°/6°



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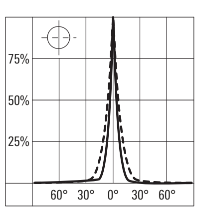

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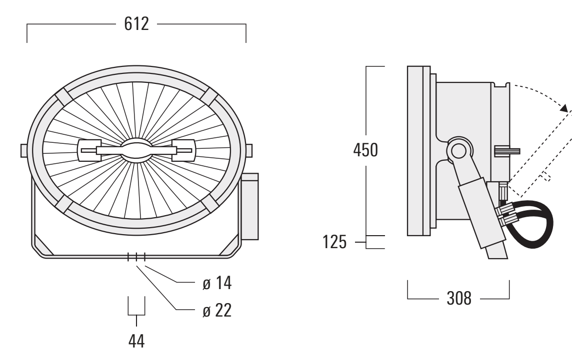
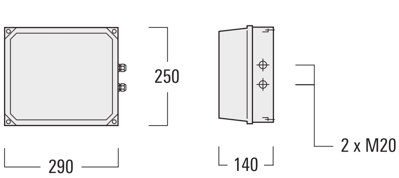


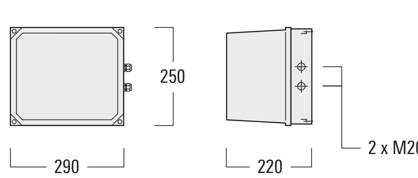
FLC280
Remote gear version*

Accessories:

DK – Control gear box.				kg
DK5	for HI 1000W	**400-0121** [HPF]	~ 230 V/8.90-9.70 A	13.0
DK5A	for HI 2000W	**400-9005** [HPF]	~ 400 V/9.60-11.60 A	22.0



DK5



DK5A

* Remote gear version features integral, superimposed pulse ignitor.

MOUNTING ACCESSORIES – FLC200 SERIES – LED/HIT

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

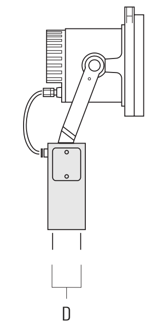
Spigot cap			D	kg
KF1	for FLC220/230/240/250/260	**310-9120**	ø 60 x 100	1.4
KF1	for FLC220/230/240/250/260	**310-9121**	ø 76 x 100	2.2
KF1	for FLC280	**310-9122**	ø 60 x 100	1.5
KF1	for FLC280	**310-9123**	ø 76 x 100	2.2

Pole clamp			D	kg
TS1	for 1 x FLC230	**147-0371**	ø 76-89	1.4
TS1	for 1 x FLC230	**147-0372**	ø 102-114	1.6
TS2	for 2 x FLC230	**147-0373**	ø 76-89	1.4
TS2	for 2 x FLC230	**147-0374**	ø 102-114	1.6
TS1	for 1 x FLC220/240/250/260	**147-0543**	ø 76-89	1.4
TS1	for 1 x FLC220/240/250/260	**147-0643**	ø 114-140	1.7
TS2	for 2 x FLC220/240/250/260	**147-0545**	ø 76-89	1.4
TS2	for 2 x FLC220/240/250/260	**147-0674**	ø 114-140	1.7
TS1	for 1 x FLC280	**147-0547**	ø 76-89	1.5
TS1	for 1 x FLC280	**147-0646**	ø 114-140	1.8
TS2	for 2 x FLC280	**147-0549**	ø 76-89	1.5
TS2	for 2 x FLC280	**147-0675**	ø 114-140	1.8

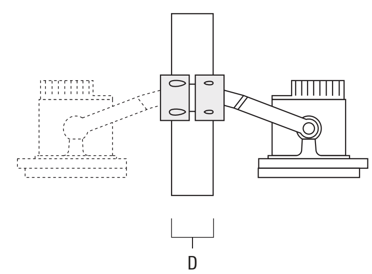
Junction box			kg
JB1	for FLC220/230/240/250/260	**310-9001**	1.3
JB1	for FLC280	**310-9003**	1.4

Short post – Matching planted root to be ordered separately.			kg
EM1	for FLC220/230/240/250/260	**270-9038**	2.1
EM1	for FLC280	**270-9039**	2.1

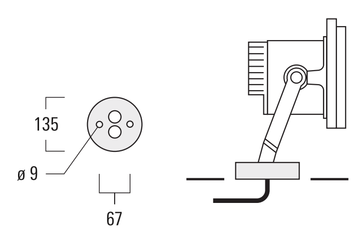
Planted root – Galvanised steel.			kg
ESV4	for short post	**300-0461**	4.4



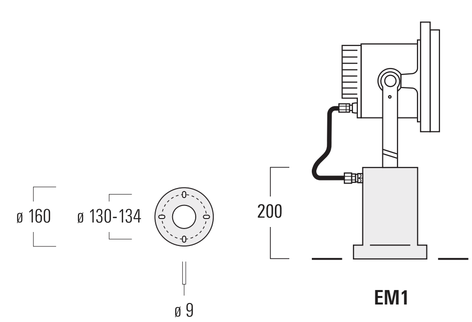
KF1



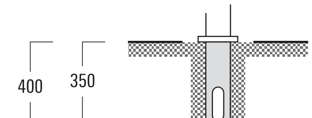
TS1/TS2



JB1



EM1



ESV4

OPTICAL ACCESSORIES – FLC200 SERIES – HIT

Internal Accessories

FLC230: A maximum of two internal optical accessories. For example: source shield; colour filter; plus flood or spread lens. Factory-installed.

FLC240/250: A maximum of two internal optical accessories. For example: circular louvre; source shield; colour filter; plus flood or spread lens. Factory-installed.

FLC280: One internal optical accessory: louvre. Factory-installed.

Circular Louvre

IR	for FLC240	**139-0726**
IR	for FLC250	**139-0715**
IR	for FLC280	**139-1228**

Source shield – For symmetric [EE] versions.

IQ	for FLC230	**139-1219**
IQ	for FLC240	**139-0714**
IQ	for FLC250	**139-9198***

Colour filter

IF	for FLC230	**on request**
IF	for FLC240	**on request**
IF	for FLC250	**on request**

Flood lens

IO-360	for FLC230	**139-1115**
IO-360	for FLC240	**139-0861**
IO-360	for FLC250	**139-0862**

Linear spread lens

IO-180	for FLC230	**139-1114**
IO-180	for FLC240	**139-0863**
IO-180	for FLC250	**139-0864**

External Accessories

FLC240/250: One external optical accessory. For example: wire guard; shield; or snoot.

FLC280: One external optical accessory. For example: colour filter; flood or spread lens; wire guard; shield; or snoot. Optical adaptor EA (where applicable) to be ordered separately.

External optical adaptor

EA	for FLC280	**139-1233**

Colour filter

EF	for FLC280	**on request**

Flood lens

EO-360	for FLC280	**139-1227****

Linear spread lens

EO-180	for FLC280	**139-1226****

Wire guard

EG	for FLC230	**139-1222**
EG	for FLC240	**139-0707**
EG	for FLC250	**139-0708**
EG	for FLC280	**139-1229**

Glare shield

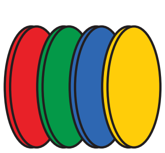
ES	for FLC230	**139-1221**
ES	for FLC240	**139-0709**
ES	for FLC250	**139-0710**
ES	for FLC280	**139-1230**

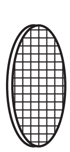
Snoot – Recommended for downward aiming only.

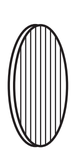
ET	for FLC230	**139-1223**
ET	for FLC240	**139-0711**
ET	for FLC250	**139-0712**
ET	for FLC280	**139-1231**


IR

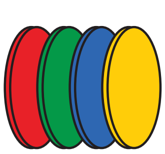

IQ

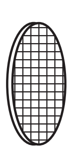

IF

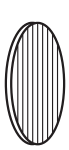

IO-360


IO-180


EA


EF


EO-360


EO-180


EG

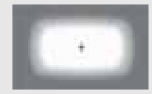

ES


ET

* Accessory suitable for projectors with single-ended HID lamps only.
** Accessory requires optical adaptor EA, to be ordered separately.

FLOODLIGHTS

FLB400 #5 SERIES – HIT
Page 294-299
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam
[E10] 10° Asymmetric distribution, narrow beam
[A] 45° Asymmetric distribution, wide beam
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam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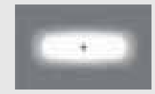
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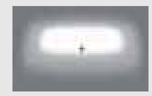
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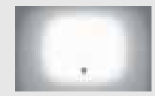
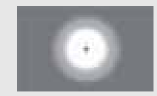

[A]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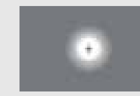
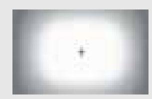
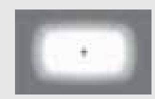
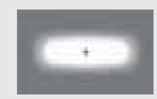
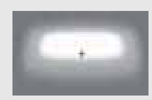

[EE]

FLB400 SERIES – HIT
Page 300-311
[B] Bi-symmetric distribution, wide beam
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam
[E10] 10° Asymmetric distribution, narrow beam
[A] 45° Asymmetric distribution, wide beam
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam


[B]


[M]


[E]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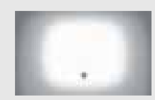
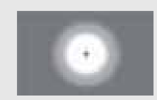
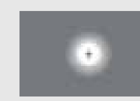
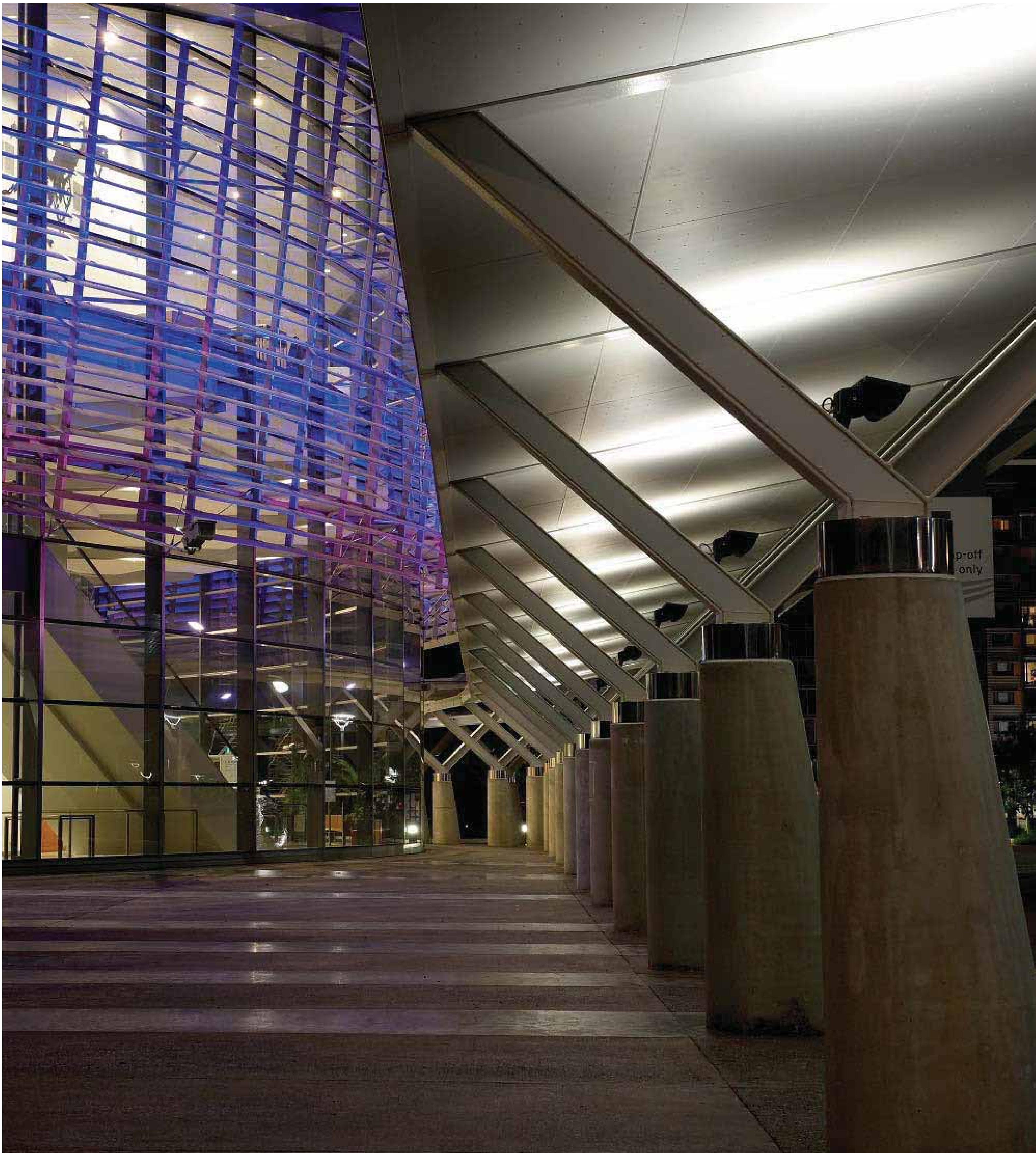

[A]


[MS]


[EE]



FLB400 #5 SERIES

Bracket mounted floodlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in Classic Silver, black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Anodised aluminium reflector.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request.

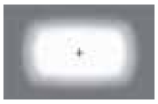
Light source:
HIT 70-400 W
(for HIT 1000 W and HST 70-1000 W, refer to www.we-ef.com)

Available distributions:
[M] [E] [E10] [A] [MS] [EE]

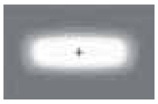
For additional type of light distribution:
[B], refer to www.we-ef.com

Accessories:
- **Mounting, page 298**
- **Optical, page 299**

Winspear Opera House. Texas (USA). Architect: Foster + Partners. Lighting design: Claude Engle.

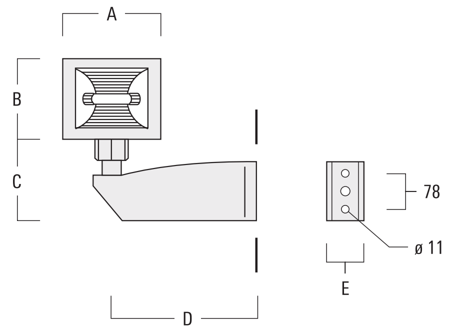


[M]



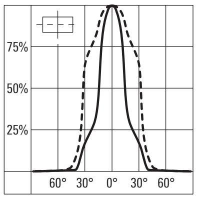
[E]

IOS® Innovative Optical System:
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam

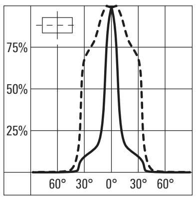


[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9652**	6800	[HPF]	1011	15°/15°	32°/32°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9653**	6800	[ECG]	1011	15°/15°	32°/32°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-7652**	7300	[HPF]	1011	15°/15°	32°/32°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-7653**	7300	[ECG]	1011	15°/15°	32°/32°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9656**	14500	[HPF]	926	16°/16°	32°/32°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9657**	14500	[ECG]	926	16°/16°	32°/32°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-7656**	15000	[HPF]	926	16°/16°	32°/32°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-7657**	15000	[ECG]	926	16°/16°	32°/32°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-9936**	20000	[HPF]	786	27°/10°	37°/37°	20.9
FLB461 #5	HIT-CE 250W/E40	**161-9930**	26000	[HPF]	786	27°/10°	37°/37°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-9939**	37000	[HPF]	781	15°/23°	37°/37°	23.5
FLB461 #5	HIT 400W/E40*	**161-9933**	35000	[HPF]	781	15°/23°	37°/37°	23.5

[E]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9668**	6800	[HPF]	1716	7°/7°	33°/33°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9669**	6800	[ECG]	1716	7°/7°	33°/33°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-7668**	7300	[HPF]	1716	7°/7°	33°/33°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-7669**	7300	[ECG]	1716	7°/7°	33°/33°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9672**	14500	[HPF]	1426	9°/9°	33°/33°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9673**	14500	[ECG]	1426	9°/9°	33°/33°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-7672**	15000	[HPF]	1426	9°/9°	33°/33°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-7673**	15000	[ECG]	1426	9°/9°	33°/33°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-9963**	20000	[HPF]	1168	5°/7°	37°/37°	20.9
FLB461 #5	HIT-CE 250W/E40	**161-9957**	26000	[HPF]	1168	5°/7°	37°/37°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-9966**	37000	[HPF]	1132	6°/7°	36°/36°	23.5
FLB461 #5	HIT 400W/E40*	**161-9960**	35000	[HPF]	1132	6°/7°	36°/36°	23.5



[M]

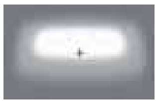


[E]

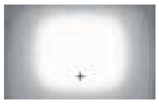
Product Dimensions:

FLB400 series	A	B	C	D	E
FLB441 #5	215	175	175	315	80
FLB461 #5	420	300	250	450	120

* Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.



[E10]



[A]

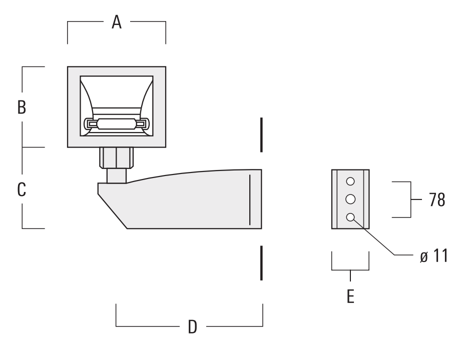
IOS® Innovative Optical System:

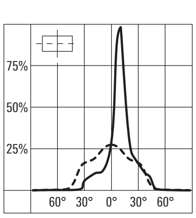
[E10] 10° Asymmetric distribution, narrow beam

[A] 45° Asymmetric distribution, wide beam

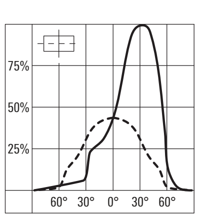
[E10]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9684**	6800	[HPF]	1645	8°/6°	34°/34°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9685**	6800	[ECG]	1645	8°/6°	34°/34°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-7684**	7300	[HPF]	1645	8°/6°	34°/34°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-7685**	7300	[ECG]	1645	8°/6°	34°/34°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9688**	14500	[HPF]	1128	8°/12°	34°/34°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9689**	14500	[ECG]	1128	8°/12°	34°/34°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-7688**	15000	[HPF]	1128	8°/12°	34°/34°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-7689**	15000	[ECG]	1128	8°/12°	34°/34°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-9984**	20000	[HPF]	1801	7°/6°	44°/44°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-9987**	37000	[HPF]	1591	7°/7°	44°/44°	23.5

[A]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9753**	6800	[HPF]	478	30°/22°	38°/38°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-9754**	6800	[ECG]	478	30°/22°	38°/38°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-6179**	7300	[HPF]	478	30°/22°	38°/38°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-6182**	7300	[ECG]	478	30°/22°	38°/38°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9757**	14500	[HPF]	442	25°/26°	40°/40°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-9758**	14500	[ECG]	442	25°/26°	40°/40°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-6192**	15000	[HPF]	442	25°/26°	40°/40°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-6195**	15000	[ECG]	442	25°/26°	40°/40°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-7797**	20000	[HPF]	381	37°/31°	52°/52°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-7800**	37000	[HPF]	392	35°/33°	47°/47°	23.5





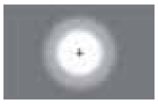
[E10]



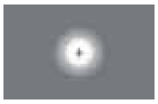
[A]

Product Dimensions:

FLB400 series	A	B	C	D	E
FLB441 #5	215	175	175	315	80
FLB461 #5	420	300	250	450	120

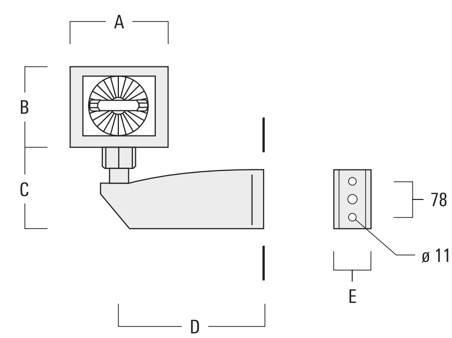


[MS]



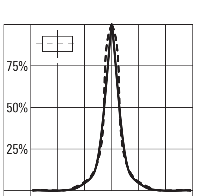
[EE]

IOS® Innovative Optical System:
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

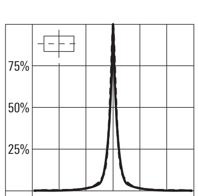


[MS]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-6203**	6800	[HPF]	3947	8°/8°	8°/8°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-6205**	6800	[ECG]	3947	8°/8°	8°/8°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-6218**	7300	[HPF]	3947	8°/8°	8°/8°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-6220**	7300	[ECG]	3947	8°/8°	8°/8°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-6208**	14500	[HPF]	3345	8°/8°	8°/8°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-6210**	14500	[ECG]	3345	8°/8°	8°/8°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-6228**	15000	[HPF]	3345	8°/8°	8°/8°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-6230**	15000	[ECG]	3345	8°/8°	8°/8°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-7872**	20000	[HPF]	1776	17°/17°	14°/14°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-7765**	37000	[HPF]	1294	20°/20°	20°/20°	23.5

[EE]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-6239**	6800	[HPF]	11342	3°/3°	4°/4°	7.9
FLB441 #5	HIT-DE-CE 70W/RX7s	**161-6241**	6800	[ECG]	11342	3°/3°	4°/4°	6.5
FLB441 #5	HIT-CE 70W/G12	**161-6254**	7300	[HPF]	11342	3°/3°	4°/4°	7.9
FLB441 #5	HIT-CE 70W/G12	**161-6256**	7300	[ECG]	11342	3°/3°	4°/4°	6.5
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-6244**	14500	[HPF]	6158	4°/4°	6°/6°	9.1
FLB441 #5	HIT-DE-CE 150W/RX7s	**161-6246**	14500	[ECG]	6158	4°/4°	6°/6°	6.7
FLB441 #5	HIT-CE 150W/G12	**161-6264**	15000	[HPF]	6158	4°/4°	6°/6°	9.1
FLB441 #5	HIT-CE 150W/G12	**161-6266**	15000	[ECG]	6158	4°/4°	6°/6°	6.7
FLB461 #5	HIT-DE 250W/Fc2	**161-7777**	20000	[HPF]	23112	3°/3°	3°/3°	20.9
FLB461 #5	HIT-DE 400W/Fc2	**161-7780**	37000	[HPF]	8338	4°/4°	6°/6°	23.5



[MS]



[EE]

Product Dimensions:					
FLB400 series	A	B	C	D	E
FLB441 #5	215	175	175	315	80
FLB461 #5	420	300	250	450	120

MOUNTING ACCESSORIES – FLB400 #5 SERIES

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire. Aluminium/wood versions use impregnated hardwood.*

Universal mounting flange			D1	D2	kg
UMF20	for FLB441 #5	**310-9110**	150	180	0.9
UMF30	for FLB461 #5	**310-9109**	200	250	1.5

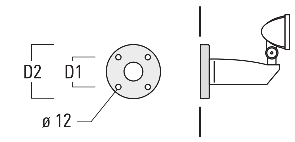
Facilitates installation to flat vertical and horizontal surfaces.

Planted root – Galvanised steel.			A	B	kg
ESV4	for UMF20	**300-9100**	350	400	4.2
ESV6	for UMF30	**300-0824**	500	600	12.6

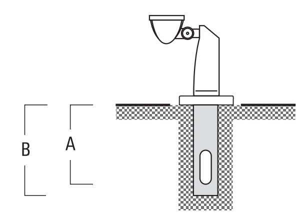
Provides inground section for universal mounting flange in landscaped areas.

Column fitter			kg
EB1-102	for 1 x FLB441/461 #5	**310-9134**	10.7
EB2-102	for 2 x FLB441/461 #5	**310-9135**	10.7

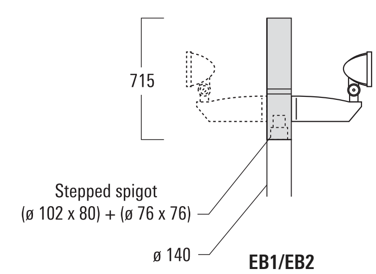
Column fitter – Aluminium/wood.			kg
EB1-102	for 1 x FLB441/461 #5	**310-9136**	10.8
EB2-102	for 2 x FLB441/461 #5	**310-9137**	10.8



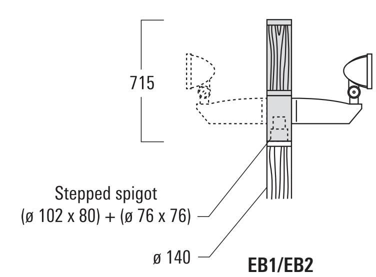
UMF



ESV



EB1/EB2



EB1/EB2
(aluminium/wood)

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

OPTICAL ACCESSORIES – FLB400 #5 SERIES

Internal Accessories

FLB441/461: A maximum of two internal optical accessories. For example: linear source shield, horizontal louvre, colour filter, plus flood or wallwash lens. Factory-installed. Optical adaptor IA (where applicable) to be ordered separately.

Optical adaptor

IA	for FLB441 #5	**161-9115**
IA	for FLB461 #5	**161-9546**

Circular source shield – For symmetric [EE] versions.

IQ	for FLB441 #5	**161-9123**
IQ	for FLB461 #5	**161-9543**

Linear source shield – For bi-symmetric [E] versions.

IQ	for FLB441 #5	**161-9117***
IQ	for FLB461 #5	**161-9555**

Horizontal louvre – For bi-symmetric [B] [M] versions.

IL	for FLB441 #5	**161-9116***
IL	for FLB461 #5	**161-9563**

Horizontal louvre – For bi-symmetric [E] versions.

IL	for FLB441 #5	**161-9113***
IL	for FLB461 #5	**161-9544**

External Accessories

FLB441/461: One external optical accessory. For example: wire guard, shield, or barn doors.

Colour filter

IF***	for FLB441 #5	**on request**
IF***	for FLB461 #5	**on request**

Flood lens – For bi-symmetric [M] [E]; asymmetric [E10]; symmetric [MS] [EE] versions.

IO-360	for FLB441 #5	**161-9127****
IO-360	for FLB461 #5	**161-9548***

Wallwash lens – For bi-symmetric [M] [E]; asymmetric [E10]; symmetric [MS] [EE] versions.

IO-180	for FLB441 #5	**161-9126****
IO-180	for FLB461 #5	**161-9547***

Wire guard

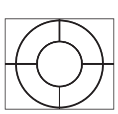
EG	for FLB441 #5	**161-9118**
EG	for FLB461 #5	**161-9556**

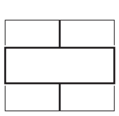
Glare shield – For bi-symmetric [B] [M] [E]; symmetric [MS] [EE] versions.

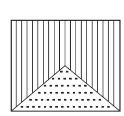
ES	for FLB441 #5	**161-9121**
ES	for FLB461 #5	**161-9558**

Barn doors

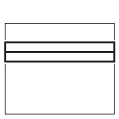
ED	for FLB441 #5	**161-9119**
ED	for FLB461 #5	**161-9557**

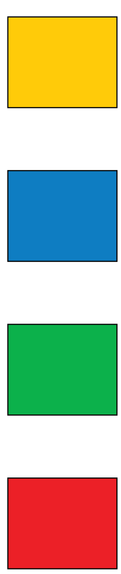

IQ

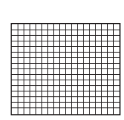

IQ

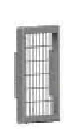

IO-180

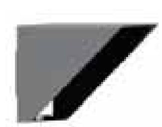

IA


IL


IF


IO-360


EG


ES


ED

* Accessory requires optical adaptor IA, to be ordered separately.
** Accessory requires optical adaptor except when used with [MS] and [EE] versions; to be ordered separately.
*** Dichroic colour filters, in combination with bi-symmetric or asymmetric reflectors, exhibit a pronounced 'rainbow effect'. Contact your local WE-EF representative for optional absorption colour filters.

FLB400 SERIES

Floodlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Anodised aluminium reflector.

Integral HPF or ECG control gear in thermally-separated compartment. LPF versions available on request.

1000 W: Optional remote gear version with integral ignitor. Control gear to be ordered separately.

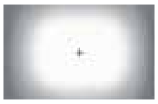
Light source:
HIT 70-1000 W
(for HST 70-1000 W, refer to www.we-ef.com)

Available distributions:
[B] [M] [E] E10] [A] [MS] [EE]

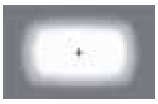
Accessories:
- **Mounting, page 310**
- **Optical, page 311**

IOS

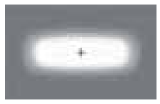
LIT Hotel. Bangkok (TH). Architects: VaSLab Architecture. Lighting design: Accent Studio.



[B]

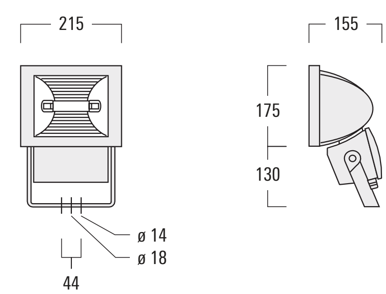


[M]



[E]

IOS® Innovative Optical System:
[B] Bi-symmetric distribution, wide beam
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam

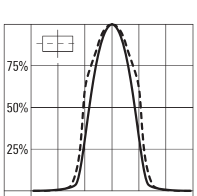


FLB440

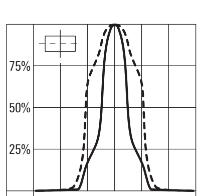
[B]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-9252**	6800	[HPF]	638	25°/25°	32°/32°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-9748**	6800	[ECG]	638	25°/25°	32°/32°	5.0
FLB440	HIT-CE 70W/G12	**161-7252**	7300	[HPF]	638	25°/25°	32°/32°	4.9
FLB440	HIT-CE 70W/G12	**161-7263**	7300	[ECG]	638	25°/25°	32°/32°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-9255**	14500	[HPF]	665	25°/25°	32°/32°	6.6
FLB440	HIT-CE 150W/G12	**161-7255**	15000	[HPF]	665	25°/25°	32°/32°	5.4

[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-9183**	6800	[HPF]	1011	15°/15°	32°/32°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-9239**	6800	[ECG]	1011	15°/15°	32°/32°	5.0
FLB440	HIT-CE 70W/G12	**161-7183**	7300	[HPF]	1011	15°/15°	32°/32°	4.9
FLB440	HIT-CE 70W/G12	**161-7192**	7300	[ECG]	1011	15°/15°	32°/32°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-9186**	14500	[HPF]	926	16°/16°	32°/32°	6.6
FLB440	HIT-CE 150W/G12	**161-7186**	15000	[HPF]	926	16°/16°	32°/32°	5.4

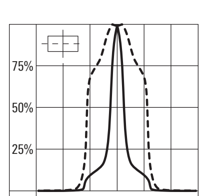
[E]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-9201**	6800	[HPF]	1716	7°/7°	33°/33°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-9243**	6800	[ECG]	1716	7°/7°	33°/33°	5.0
FLB440	HIT-CE 70W/G12	**161-7201**	7300	[HPF]	1716	7°/7°	33°/33°	4.9
FLB440	HIT-CE 70W/G12	**161-7210**	7300	[ECG]	1716	7°/7°	33°/33°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-9204**	14500	[HPF]	1426	9°/9°	33°/33°	6.6
FLB440	HIT-CE 150W/G12	**161-7204**	15000	[HPF]	1426	9°/9°	33°/33°	5.4



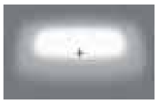
[B]

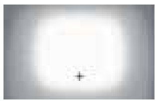


[M]



[E]



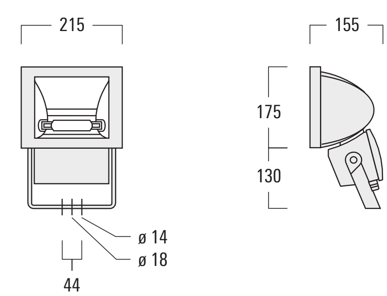


[E10] [A]

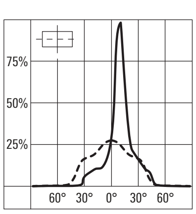
IOS® Innovative Optical System:
[E10] 10° Asymmetric distribution, narrow beam
[A] 45° Asymmetric distribution, wide beam

[E10]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-9219**	6800	[HPF]	1645	8°/6°	34°/34°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-9726**	6800	[ECG]	1645	8°/6°	34°/34°	5.0
FLB440	HIT-CE 70W/G12	**161-7219**	7300	[HPF]	1645	8°/6°	34°/34°	4.9
FLB440	HIT-CE 70W/G12	**161-7228**	7300	[ECG]	1645	8°/6°	34°/34°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-9222**	14500	[HPF]	1128	8°/12°	34°/34°	6.6
FLB440	HIT-CE 150W/G12	**161-7222**	15000	[HPF]	1128	8°/12°	34°/34°	5.4

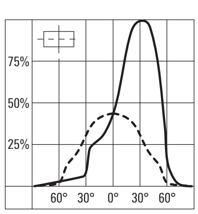
[A]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-9732**	6800	[HPF]	478	30°/21°	38°/38°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-9745**	6800	[ECG]	478	30°/21°	38°/38°	5.0
FLB440	HIT-CE 70W/G12	**161-6034**	7300	[HPF]	478	30°/21°	38°/38°	4.9
FLB440	HIT-CE 70W/G12	**161-6037**	7300	[ECG]	478	30°/21°	38°/38°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-9735**	14500	[HPF]	442	25°/26°	40°/40°	6.6
FLB440	HIT-CE 150W/G12	**161-6045**	15000	[HPF]	442	25°/26°	40°/40°	5.4



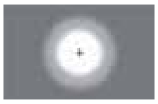
FLB440



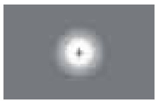
[E10]



[A]



[MS]

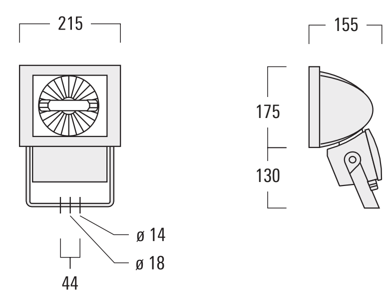


[EE]

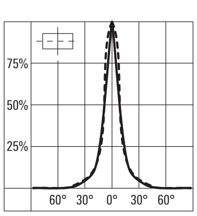
IOS® Innovative Optical System:
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[MS]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-6528**	6800	[HPF]	3947	8°/8°	8°/8°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-6531**	6800	[ECG]	3947	8°/8°	8°/8°	5.0
FLB440	HIT-CE 70W/G12	**161-6569**	7300	[HPF]	3947	8°/8°	8°/8°	4.9
FLB440	HIT-CE 70W/G12	**161-6572**	7300	[ECG]	3947	8°/8°	8°/8°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-6534**	14500	[HPF]	3345	8°/8°	8°/8°	6.6
FLB440	HIT-CE 150W/G12	**161-6579**	15000	[HPF]	3345	8°/8°	8°/8°	5.4

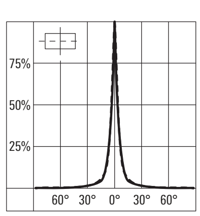
[EE]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB440	HIT-DE-CE 70W/RX7s	**161-6547**	6800	[HPF]	11342	3°/3°	4°/4°	6.1
FLB440	HIT-DE-CE 70W/RX7s	**161-6550**	6800	[ECG]	11342	3°/3°	4°/4°	5.0
FLB440	HIT-CE 70W/G12	**161-6595**	7300	[HPF]	11342	3°/3°	4°/4°	4.9
FLB440	HIT-CE 70W/G12	**161-6598**	7300	[ECG]	11342	3°/3°	4°/4°	3.8
FLB440	HIT-DE-CE 150W/RX7s	**161-6553**	14500	[HPF]	6158	4°/4°	6°/6°	6.6
FLB440	HIT-CE 150W/G12	**161-6605**	15000	[HPF]	6158	4°/4°	6°/6°	5.4



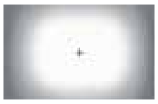
FLB440



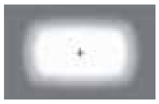
[MS]



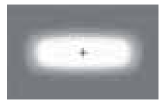
[EE]



[B]



[M]



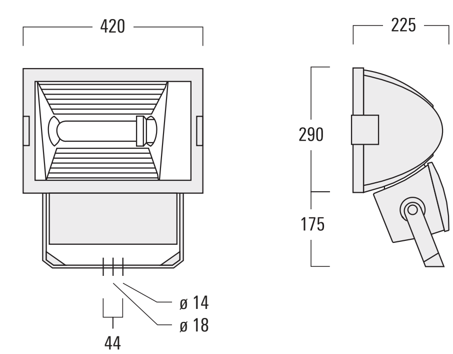
[E]

IOS® Innovative Optical System:
[B] Bi-symmetric distribution, wide beam
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam

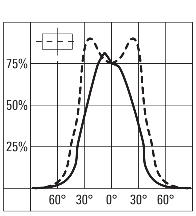
[B]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-CE 250W/E40	**161-9832**	26000	[HPF]	642	22°/35°	37°/37°	14.1
FLB460	HIT-DE 250W/Fc2	**161-9842**	20000	[HPF]	642	22°/35°	37°/37°	14.2
FLB460	HIT 400W/E40*	**161-9835**	35000	[HPF]	566	24°/39°	36°/36°	16.3
FLB460	HIT-DE 400W/Fc2	**161-9845**	37000	[HPF]	566	24°/39°	36°/36°	15.3

[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-CE 250W/E40	**161-9323**	26000	[HPF]	786	27°/10°	37°/37°	14.1
FLB460	HIT-DE 250W/Fc2	**161-9332**	20000	[HPF]	786	27°/10°	37°/37°	14.2
FLB460	HIT 400W/E40*	**161-9326**	35000	[HPF]	781	15°/23°	37°/37°	16.3
FLB460	HIT-DE 400W/Fc2	**161-9335**	37000	[HPF]	781	15°/23°	37°/37°	15.3

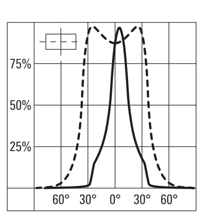
[E]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-CE 250W/E40	**161-9392**	26000	[HPF]	1168	5°/7°	37°/37°	14.1
FLB460	HIT-DE 250W/Fc2	**161-9401**	20000	[HPF]	1168	5°/7°	37°/37°	14.2
FLB460	HIT 400W/E40*	**161-9395**	35000	[HPF]	1132	6°/7°	36°/36°	16.3
FLB460	HIT-DE 400W/Fc2	**161-9404**	37000	[HPF]	1132	6°/7°	36°/36°	15.3



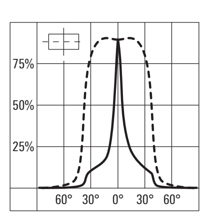
FLB460



[B]

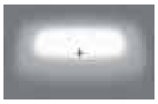


[M]

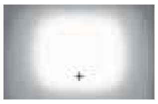


[E]

* Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.



[E10]

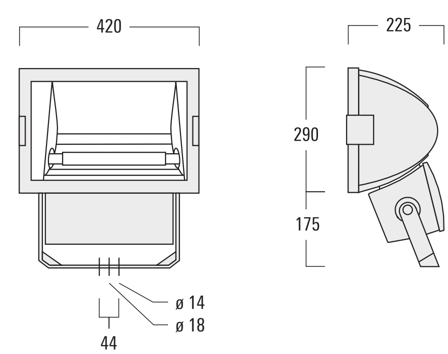


[A]

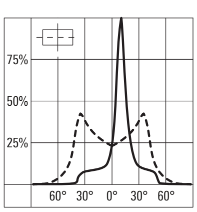
IOS® Innovative Optical System:
[E10] 10° Asymmetric distribution, narrow beam
[A] 45° Asymmetric distribution, wide beam

[E10]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-CE 250W/E40	**161-6615**	26000	[HPF]	1801	7°/6°	44°/44°	14.1
FLB460	HIT-DE 250W/Fc2	**161-9440**	20000	[HPF]	1801	7°/6°	44°/44°	14.2
FLB460	HIT 400W/E40*	**161-6618**	35000	[HPF]	1591	7°/6°	44°/44°	16.3
FLB460	HIT-DE 400W/Fc2	**161-9443**	37000	[HPF]	1591	7°/6°	44°/44°	15.3

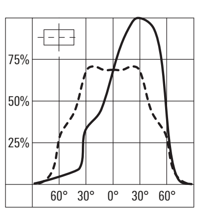
[A]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-DE 250W/Fc2	**161-9461**	20000	[HPF]	381	37°/31°	52°/52°	14.2
FLB460	HIT-DE 400W/Fc2	**161-9464**	37000	[HPF]	392	35°/33°	47°/47°	15.3



FLB460

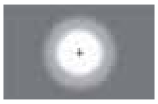


[E10]

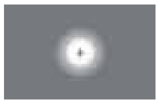


[A]

* Suitable for Osram HQI-BT 400W/D only, refer to lamp chart page 350.



[MS]

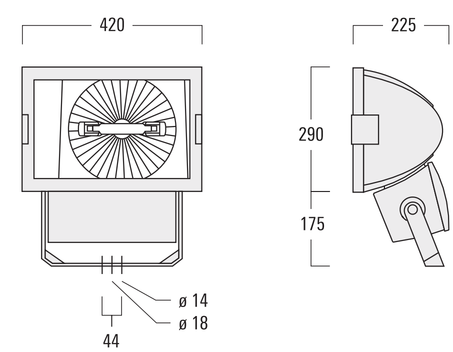


[EE]

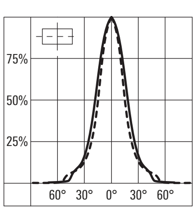
IOS® Innovative Optical System:
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[MS]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-DE 250W/Fc2	**161-9482**	20000	[HPF]	1776	17°/17°	14°/14°	14.2
FLB460	HIT-DE 400W/Fc2	**161-9485**	37000	[HPF]	1294	20°/20°	20°/20°	15.3

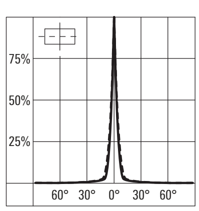
[EE]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB460	HIT-DE 250W/Fc2	**161-9502**	20000	[HPF]	23112	3°/3°	3°/3°	14.2
FLB460	HIT-DE 400W/Fc2	**161-9505**	37000	[HPF]	9250	4°/4°	5°/5°	15.3



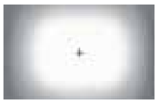
FLB460

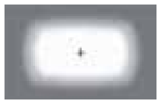


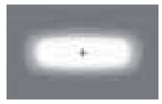
[MS]



[EE]







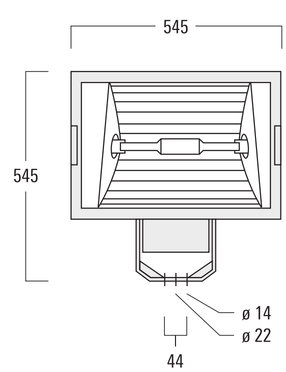
[B] [M] [E]

IOS® Innovative Optical System:
[B] Bi-symmetric distribution, wide beam
[M] Bi-symmetric distribution, medium beam
[E] Bi-symmetric distribution, narrow beam

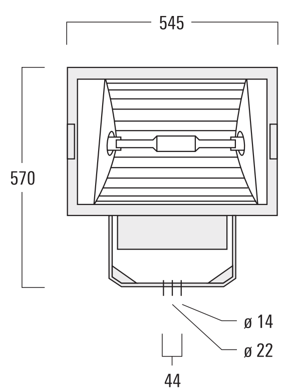
[B]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT 1000W/E40	**148-9016**	90000	[IGN]*	622	19°/20°	39°/39°	14.5
FLB480	HIT 1000W/E40	**148-9002**	90000	[HPF]	622	19°/20°	39°/39°	28.0
FLB480	HIT-LA-DE 1000W/Cable	**148-9018**	100000	[IGN]*	693	20°/18°	41°/41°	16.4
FLB480	HIT-LA-DE 1000W/Cable	**148-9005**	100000	[HPF]	693	20°/18°	41°/41°	28.0

[M]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT 1000W/E40	**148-9046**	90000	[IGN]*	777	15°/15°	39°/39°	14.5
FLB480	HIT 1000W/E40	**148-9032**	90000	[HPF]	777	15°/15°	39°/39°	28.0
FLB480	HIT-LA-DE 1000W/Cable	**148-9048**	100000	[IGN]*	842	16°/15°	40°/40°	16.4
FLB480	HIT-LA-DE 1000W/Cable	**148-9035**	100000	[HPF]	842	16°/15°	40°/40°	28.0

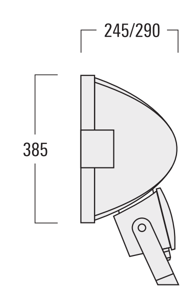
[E]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT 1000W/E40	**148-9076**	90000	[IGN]*	1667	4°/4°	40°/40°	14.5
FLB480	HIT 1000W/E40	**148-9062**	90000	[HPF]	1667	4°/4°	40°/40°	28.0
FLB480	HIT-LA-DE 1000W/Cable	**148-9078**	100000	[IGN]*	1360	6°/6°	41°/41°	16.4
FLB480	HIT-LA-DE 1000W/Cable	**148-9065**	100000	[HPF]	1360	6°/6°	41°/41°	28.0

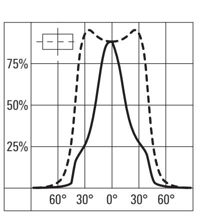


FLB480
Remote gear version*

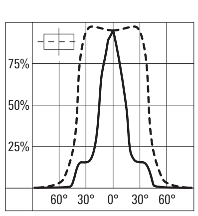


FLB480
Integral gear version

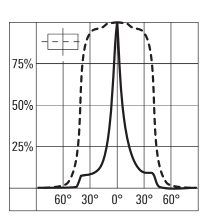




[B]



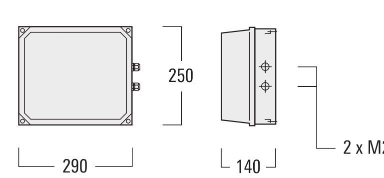
[M]



[E]

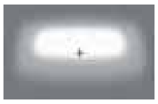
Accessories:

DK – Control gear box.				kg
DK5	for HI 1000W	**400-0121** [HPF]	~ 230 V/8.90-9.70 A	13.0

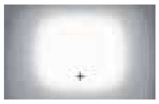


DK5

* Remote gear version features integral, superimposed pulse ignitor.



[E10]

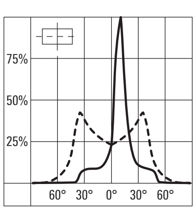


[A]

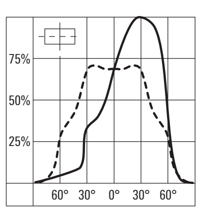
IOS® Innovative Optical System:
[E10] 10° Asymmetric distribution, narrow beam
[A] 45° Asymmetric distribution, wide beam

[E10]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT-LA-DE 1000W/Cable	**148-9096**	100000	[IGN]*	1801	7°/6°	44°/44°	16.4
FLB480	HIT-LA-DE 1000W/Cable	**148-9092**	100000	[HPF]	1801	7°/6°	44°/44°	28.0

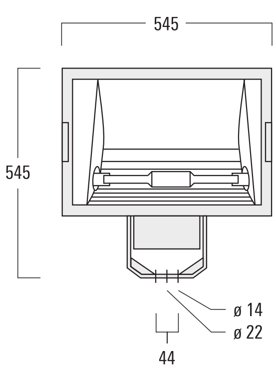
[A]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT-LA-DE 1000W/Cable	**148-9106**	100000	[IGN]*	381	37°/31°	52°/52°	16.4
FLB480	HIT-LA-DE 1000W/Cable	**148-9102**	100000	[HPF]	381	37°/31°	52°/52°	28.0



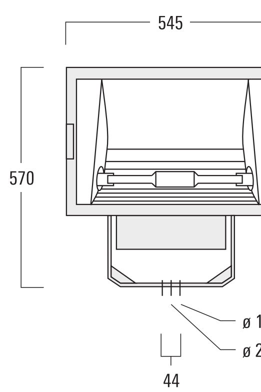
[E10]



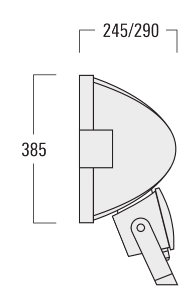
[A]



FLB480
Remote gear version*

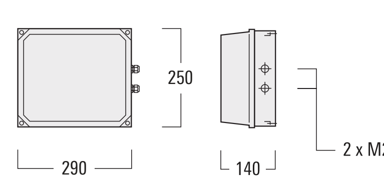


FLB480
Integral gear version



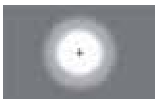
Accessories:

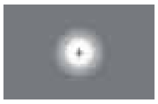
DK – Control gear box.				kg
DK5	for HI 1000W	**400-0121** [HPF]	~ 230 V/8.90-9.70 A	13.0



DK5

* Remote gear version features integral, superimposed pulse ignitor.



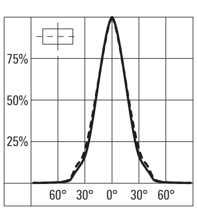


[MS] **[EE]**

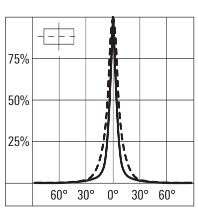
IOS® Innovative Optical System:
[MS] Symmetric distribution, medium beam
[EE] Symmetric distribution, very narrow beam

[MS]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT-SA-DE 1000W/Cable	**148-9116**	90000	[IGN]*	1348	17°/17°	17°/17°	14.5
FLB480	HIT-SA-DE 1000W/Cable	**148-9112**	90000	[HPF]	1348	17°/17°	17°/17°	28.0

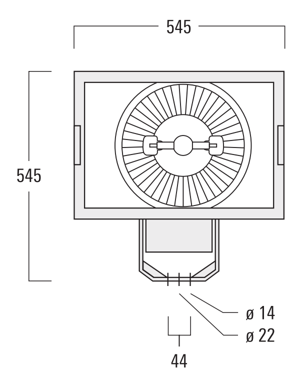
[EE]			lm	Gear	cd/klm	C_0C_{180}	$C_{90}C_{270}$	kg
FLB480	HIT-SA-DE 1000W/Cable	**148-9126**	90000	[IGN]*	8338	4°/4°	6°/6°	14.5
FLB480	HIT-SA-DE 1000W/Cable	**148-9122**	90000	[HPF]	8338	4°/4°	6°/6°	28.0



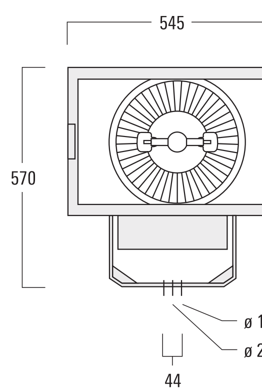
[MS]



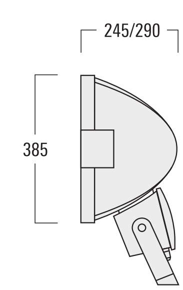
[EE]



FLB480
Remote gear version*

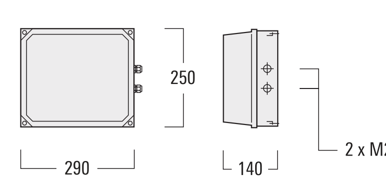


FLB480
Integral gear version



Accessories:

DK – Control gear box.				kg
DK5	for HI 1000W	**400-0121** [HPF]	~ 230 V/8.90-9.70 A	13.0



DK5

* Remote gear version features integral, superimposed pulse ignitor.

MOUNTING ACCESSORIES – FLB400 SERIES

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Spigot cap			D	kg
KF1	for FLB440/460	**310-9120**	ø 60 x 100	1.4
KF1	for FLB440/460	**310-9121**	ø 76 x 100	2.2
KF1	for FLB480	**310-9122**	ø 60 x 100	1.5
KF1	for FLB480	**310-9123**	ø 76 x 100	2.2

Pipe clamp			D	kg
SP1	for 1 x FLB440/460	**146-0241**	ø 38-60	1.3
SP1	for 1 x FLB440/460	**146-0242**	ø 76-89	1.3
SP2	for 2 x FLB440/460	**146-0243**	ø 38-60	1.6
SP2	for 2 x FLB440/460	**146-0244**	ø 76-89	1.5

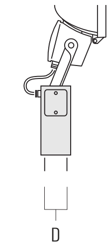
Pole clamp			D	kg
TS1	for 1 x FLB440/460	**147-0543**	ø 76-89	1.4
TS1	for 1 x FLB440/460	**147-0643**	ø 114-140	1.7
TS2	for 2 x FLB440/460	**147-0545**	ø 76-89	1.4
TS2	for 2 x FLB440/460	**147-0674**	ø 114-140	1.7
TS1	for 1 x FLB480	**147-0547**	ø 76-89	1.5
TS1	for 1 x FLB480	**147-0646**	ø 114-140	1.8
TS2	for 2 x FLB480	**147-0549**	ø 76-89	1.5
TS2	for 2 x FLB480	**147-0675**	ø 114-140	1.8

Junction box			kg
JB1	for FLB440/460	**310-9001**	1.3
JB1	for FLB480	**310-9003**	1.4

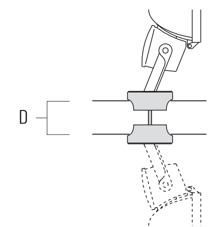
Ground spike – Stainless steel (including 5 m of flexible cable and plug).			kg
EF1	for FLB440	**310-9100**	0.7

Short post – Matching planted root to be ordered separately.			kg
EM1	for FLB440/460	**270-9038**	2.1
EM1	for FLB480	**270-9039**	2.1

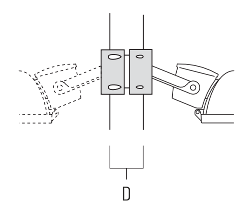
Planted root – Galvanised steel.			kg
ESV4	for short post	**300-0461**	4.4



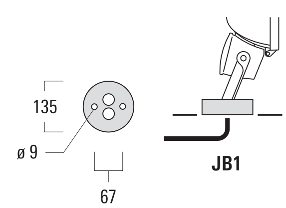
KF1



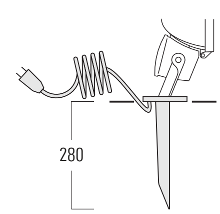
SP1/SP2



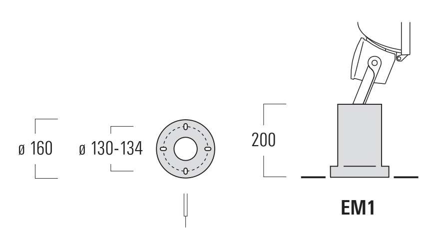
TS1/TS2



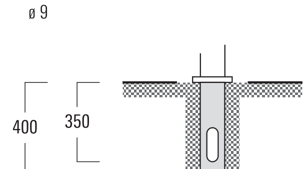
JB1



EF1



EM1



ESV4

OPTICAL ACCESSORIES – FLB400 SERIES

Internal Accessories

FLB440/460: A maximum of two internal optical accessories. For example: linear source shield, horizontal louvre, colour filter, plus flood or wallwash lens. Factory-installed. Optical adaptor IA (where applicable) to be ordered separately.

FLB480: One internal optical accessory. For example: shield or louvre. Factory-installed.

External Accessories

FLB440/460: One external optical accessory. For example: wire guard, shield or barn doors.

FLB480: A maximum of three external optical accessories. For example: colour filter, flood or wallwash lens, plus wire guard, glare shield or barn doors.

Optical adaptor

IA	for FLB440	**161-9115**
IA	for FLB460	**161-9546**

Circular source shield – For symmetric [EE] versions.

IQ	for FLB440	**161-9123**
IQ	for FLB460	**161-9543**
IQ	for FLB480	**148-9227**

Linear source shield – For bi-symmetric [E] versions.

IQ	for FLB440	**161-9117***
IQ	for FLB460	**161-9555**
IQ	for FLB480	**148-9226**

Horizontal louvre – For bi-symmetric [B] [M] versions.

IL	for FLB440	**161-9116***
IL	for FLB460	**161-9563**
IL	for FLB480	**148-9230**

Horizontal louvre – For bi-symmetric [E] versions.

IL	for FLB440	**161-9113***
IL	for FLB460	**161-9544**
IL	for FLB480	**148-9231**

Colour filter

IF***	for FLB440	**on request**
IF***	for FLB460	**on request**
EF***	for FLB480	**on request**

Flood lens – For bi-symmetric [M] [E]; asymmetric [E10]; symmetric [MS] [EE] versions.

IO-360	for FLB440	**161-9127****
IO-360	for FLB460	**161-9548***
EO-360	for FLB480	**148-9237**

Wallwash lens – For bi-symmetric [M] [E]; asymmetric [E10]; symmetric [MS] [EE] versions.

IO-180	for FLB440	**161-9126****
IO-180	for FLB460	**161-9547***
EO-180	for FLB480	**148-9236**

Wire guard

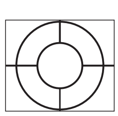
EG	for FLB440	**161-9118**
EG	for FLB460	**161-9556**
EG	for FLB480	**148-9260**

Glare shield – For bi-symmetric [B] [M] [E]; symmetric [MS] [EE] versions.

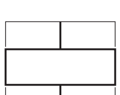
ES	for FLB440	**161-9121**
ES	for FLB460	**161-9558**
ES	for FLB480	**148-9262**

Barn doors

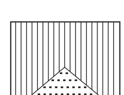
ED	for FLB440	**161-9119**
ED	for FLB460	**161-9557**
ED	for FLB480	**148-9266**



IQ

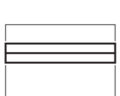


IQ

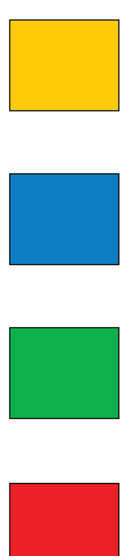


IO-180/EO-180

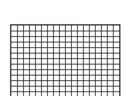
IA



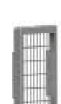
IL



IF/EF



IO-360/EO-360



EG

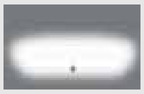
ES

ED

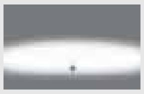
* Accessory requires optical adaptor IA, to be ordered separately.
** Accessory requires optical adaptor except when used with [MS] and [EE] versions; to be ordered separately.
*** Dichroic colour filters, in combination with bi-symmetric or asymmetric reflectors, exhibit a pronounced 'rainbow effect'. Contact your local WE-EF representative for optional absorption colour filters.

AREA FLOODLIGHTS

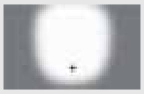
FLA400 SERIES – LED
Page 314-317
[S65] [S70] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



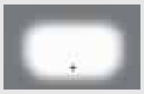
[S65]



[S70]

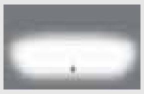


[A60]

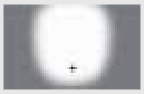


[R65]

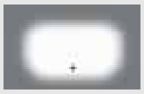
FLA700 SERIES – LED
Page 318-321
[S65] Streetlighting distribution
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



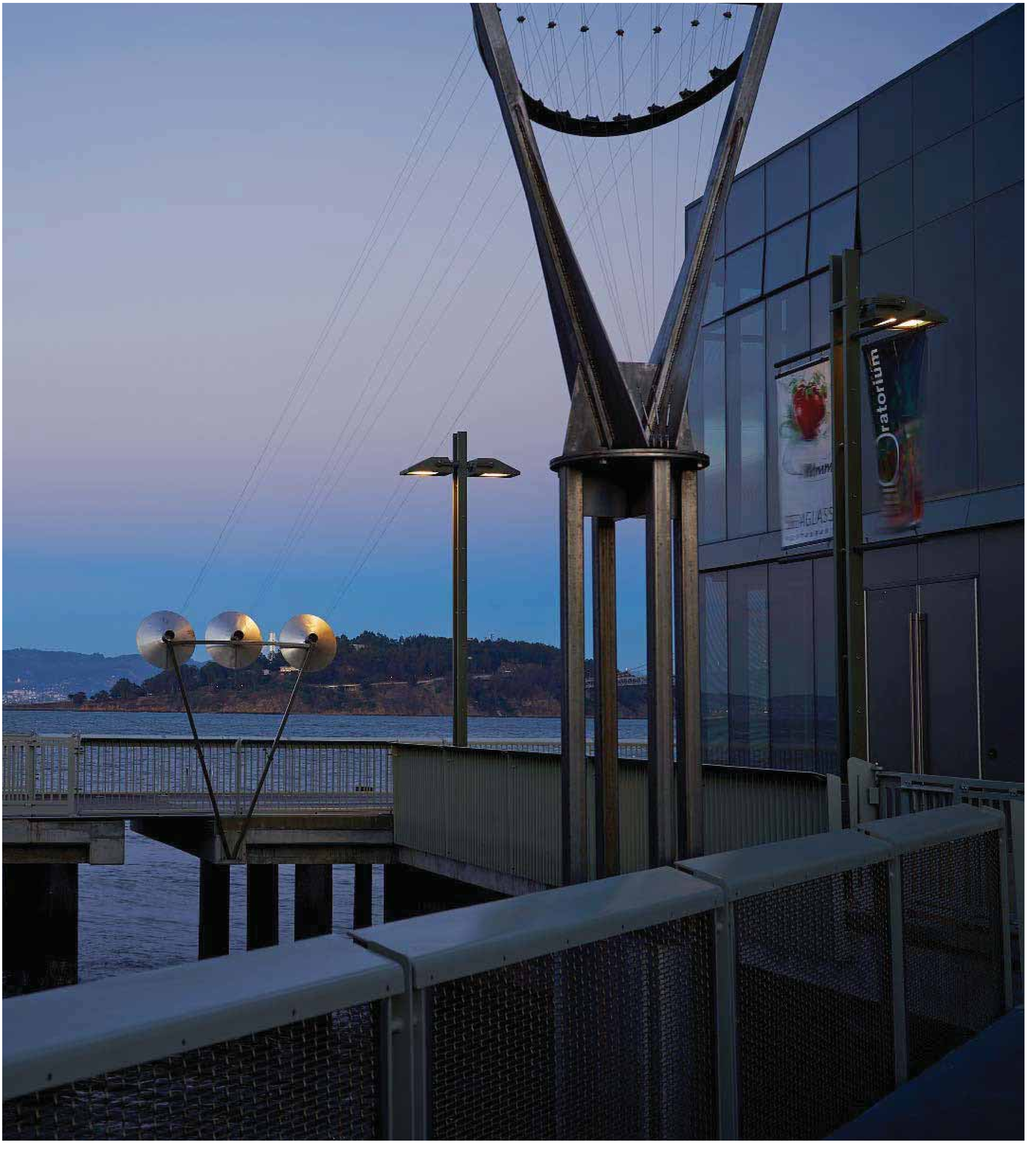
[S65]



[A60]



[R65]



FLA400 SERIES

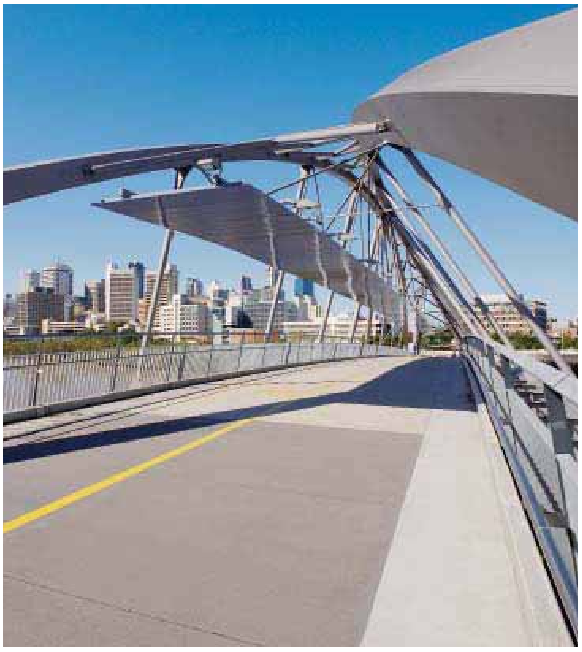
Area floodlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Protractor scale incorporating locking pin for accurate and permanent aiming.

Integral EC electronic converter in thermally-separated compartment. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

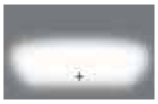
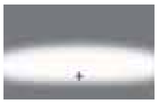
Light source:
LED 36-108 W, 3000 K and 4000 K
(for HIT, refer to www.we-ef.com).

Available distributions:
[S65] [S70] [A60] [R65]

Accessories:
- **Mounting, page 317**

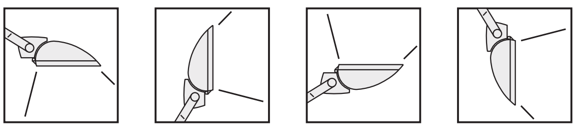


Goodwill Bridge. Brisbane (AUS). Architect: Cox Rayner Architects. Lighting design: Webbs Australia.

[S65] [S70]

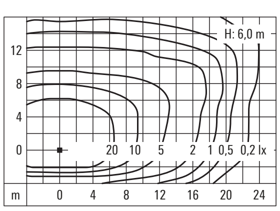
IOS® Innovative Optical System:
[S65] Streetlighting distribution
[S70] Streetlighting distribution



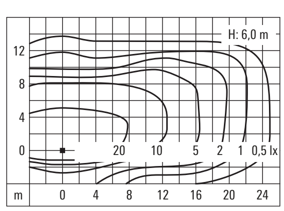
Suitable for downlighting, facade and uplighting applications.

[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA440	18 LED 36W/700 mA	**108-7701**	4427	0.55	**108-7702**	4427	0.55	9.2
FLA440	18 LED 54W/1050 mA	**108-7711**	7020	0.87	**108-7712**	8100	1.00	9.2
FLA460	36 LED 72W/700 mA	**108-7722**	8854	1.09	**108-7723**	8854	1.09	17.0
FLA460	36 LED 108W/1050 mA	**108-7732**	14040	1.73	**108-7733**	16200	2.00	17.0

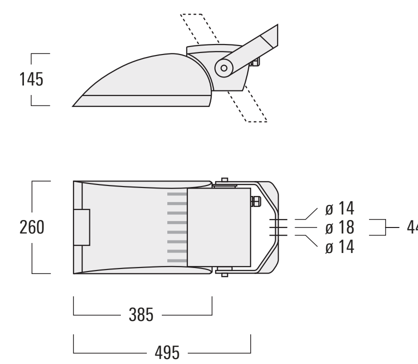
[S70]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA440	18 LED 36W/700 mA	**108-7703**	4427	0.55	**108-7704**	4427	0.55	9.2
FLA440	18 LED 54W/1050 mA	**108-7713**	7020	0.87	**108-7714**	8100	1.00	9.2
FLA460	36 LED 72W/700 mA	**108-7724**	8854	1.09	**108-7725**	8854	1.09	17.0
FLA460	36 LED 108W/1050 mA	**108-7734**	14040	1.73	**108-7735**	16200	2.00	17.0



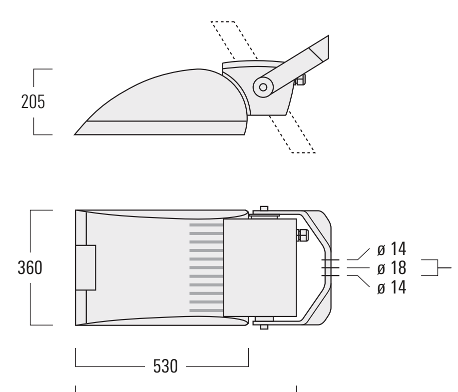
[S65]



[S70]

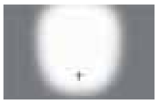


FLA440

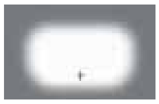


FLA460

* Multiplier for isolux values.

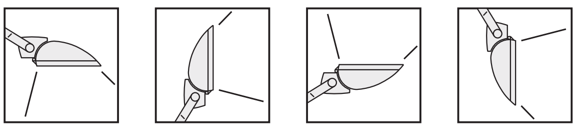


[A60]



[R65]

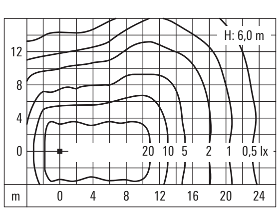
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution



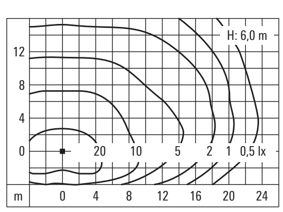
Suitable for downlighting, facade and uplighting applications.

[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA440	18 LED 36W/700 mA	**108-7707**	4427	0.55	**108-7708**	4427	0.55	9.2
FLA440	18 LED 54W/1050 mA	**108-7717**	7020	0.87	**108-7718**	8100	1.00	9.2
FLA460	36 LED 72W/700 mA	**108-7728**	8854	1.09	**108-7729**	8854	1.09	17.0
FLA460	36 LED 108W/1050 mA	**108-7738**	14040	1.73	**108-7739**	16200	2.00	17.0

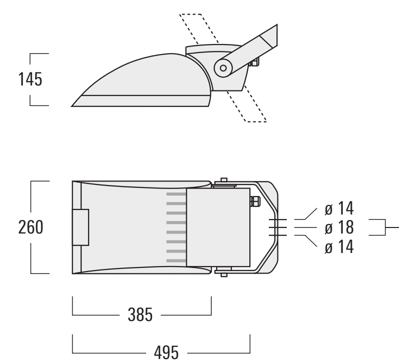
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA440	18 LED 36W/700 mA	**108-7705**	4427	0.55	**108-7706**	4427	0.55	9.2
FLA440	18 LED 54W/1050 mA	**108-7715**	7020	0.87	**108-7716**	8100	1.00	9.2
FLA460	36 LED 72W/700 mA	**108-7726**	8854	1.09	**108-7727**	8854	1.09	17.0
FLA460	36 LED 108W/1050 mA	**108-7736**	14040	1.73	**108-7737**	16200	2.00	17.0



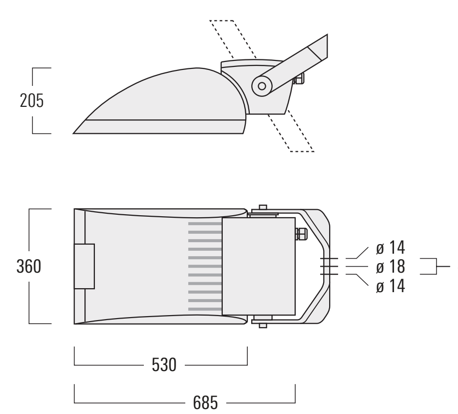
[A60]



[R65]



FLA440



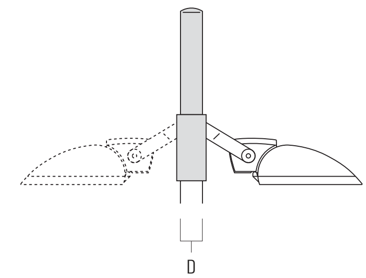
FLA460

* Multiplier for isolux values.

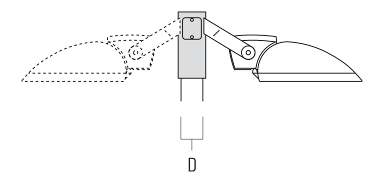
MOUNTING ACCESSORIES – FLA400 SERIES

All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

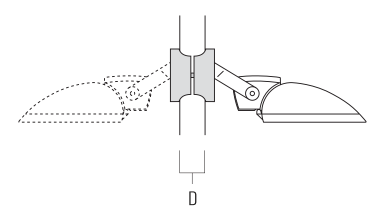
Pole bracket			D	kg
KA1	for 1 x FLA440/460	**310-9126**	ø 76 x 100	3.4
KA2	for 2 x FLA440/460	**310-9127**	ø 76 x 100	3.4
Mounting fitter			D	kg
TA1	for 1 x FLA440/460	**310-9124**	ø 76 x 100	2.1
TA2	for 2 x FLA440/460	**310-9125**	ø 76 x 100	2.2
Pipe clamp			D	kg
SP1	for 1 x FLA440/460	**146-0241**	ø 38-60	1.3
SP1	for 1 x FLA440/460	**146-0242**	ø 76-89	1.3
SP2	for 2 x FLA440/460	**146-0243**	ø 38-60	1.6
SP2	for 2 x FLA440/460	**146-0244**	ø 76-89	1.5
Pole clamp			D	kg
TS1	for 1 x FLA440/460	**147-0543**	ø 76-89	1.4
TS1	for 1 x FLA440/460	**147-0643**	ø 114-140	1.7
TS2	for 2 x FLA440/460	**147-0545**	ø 76-89	1.4
TS2	for 2 x FLA440/460	**147-0674**	ø 114-140	1.7
Junction box				kg
JB1	for FLA440/460	**310-9001**		1.3
Short post – Matching planted root to be ordered separately.				kg
EM1	for FLA440/460	**270-9038**		2.1
Planted root – Galvanised steel.				kg
ESV4	for short post	**300-0461**		4.4



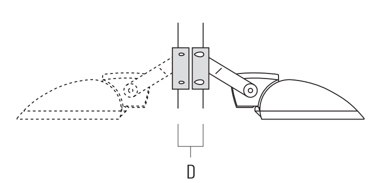
KA1/KA2



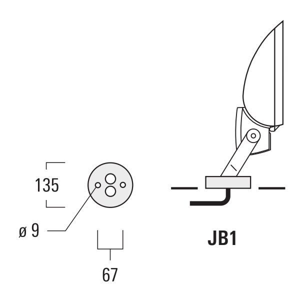
TA1/TA2



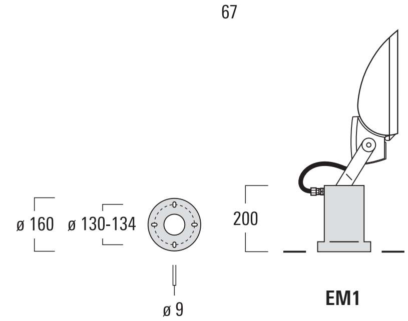
SP1/SP2



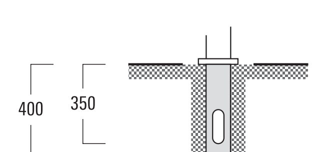
TS1/TS2



JB1



EM1



ESV4

FLA700 SERIES

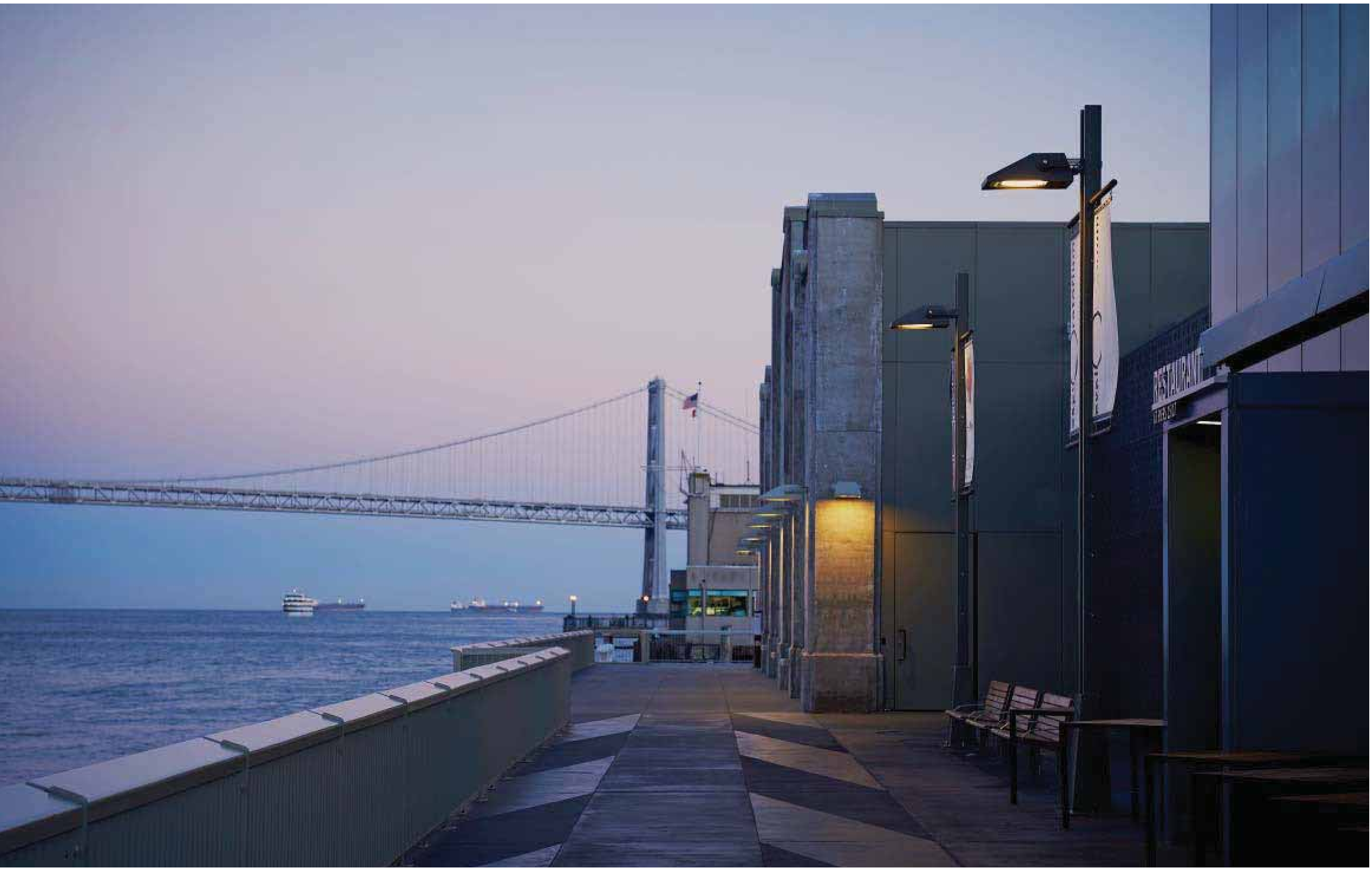
Area floodlight. IP66. IK08. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Safety glass lens, hinged. Silicone CCG® Controlled Compression Gasket. Protractor scale for accurate aiming from 0° to 15° above horizontal.

Integral EC electronic converter in thermally-shielded compartment. Advanced thermal management protects LEDs while optimising lumens output. Removable LED boards for upgrading. CAD-optimised OLC® One LED Concept optics for superior illumination and glare control.

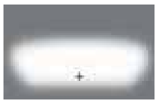
Light source:
LED 36-72 W, 3000 K and 4000K
(for HIT, refer to www.we-ef.com)

Available distributions:
[S65] [A60] [R65]

Accessories:
- **Mounting, page 321**



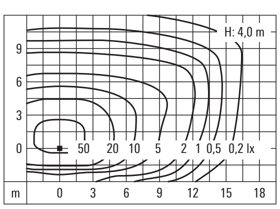
Exploratorium. San Francisco (USA). Architect: EHDD. Lighting design: David Nelsen & Associates.



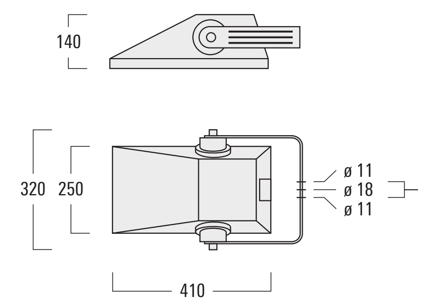
[S65]

IOS® Innovative Optical System:
[S65] Streetlighting distribution

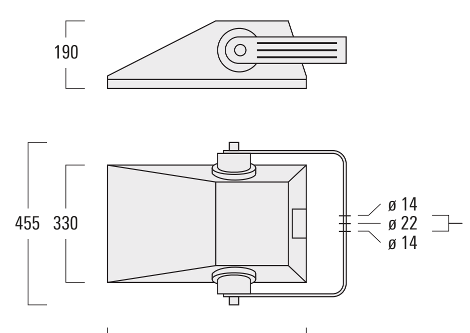
[S65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA730	18 LED 36W/700 mA	**147-0715**	4427	1.00	**147-0716**	4427	1.00	7.4
FLA730	18 LED 54W/1050 mA	**147-0691**	7020	1.59	**147-0692**	8100	1.83	7.4
FLA740	24 LED 48W/700 mA	**147-0721**	5903	1.33	**147-0722**	5903	1.33	9.6
FLA740	24 LED 72W/1050 mA	**147-0679**	9360	2.11	**147-0680**	10800	2.44	9.6



[S65]

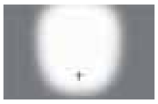


FLA730

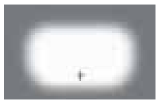


FLA740

* Multiplier for isolux values.



[A60]

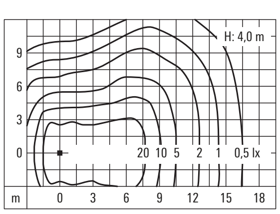


[R65]

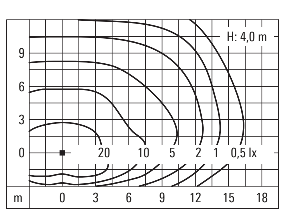
IOS® Innovative Optical System:
[A60] Asymmetric 'forward throw' distribution
[R65] Rectangular 'forward throw' distribution

[A60]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA730	18 LED 36W/700 mA	**147-0719**	4427	1.00	**147-0720**	4427	1.00	7.4
FLA730	18 LED 54W/1050 mA	**147-0695**	7020	1.59	**147-0696**	8100	1.83	7.4
FLA740	24 LED 48W/700 mA	**147-0725**	5903	1.33	**147-0726**	5903	1.33	9.6
FLA740	24 LED 72W/1050 mA	**147-0683**	9360	2.11	**147-0684**	10800	2.44	9.6

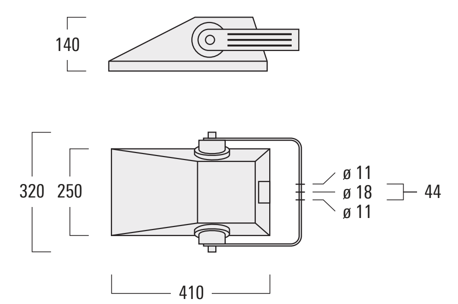
[R65]		3000 K	lm	Factor*	4000 K	lm	Factor*	kg
FLA730	18 LED 36W/700 mA	**147-0717**	4427	1.00	**147-0718**	4427	1.00	7.4
FLA730	18 LED 54W/1050 mA	**147-0693**	7020	1.59	**147-0694**	8100	1.83	7.4
FLA740	24 LED 48W/700 mA	**147-0723**	5903	1.33	**147-0724**	5903	1.33	9.6
FLA740	24 LED 72W/1050 mA	**147-0681**	9360	2.11	**147-0682**	10800	2.44	9.6



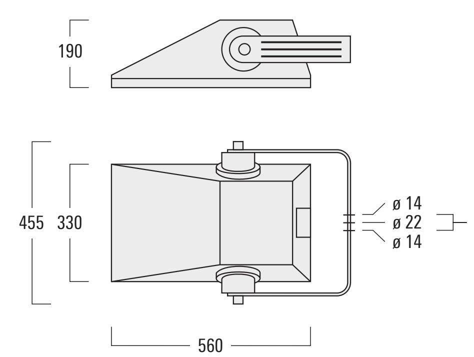
[A60]



[R65]



FLA730



FLA740

* Multiplier for isolux values.

MOUNTING ACCESSORIES – FLA700 SERIES

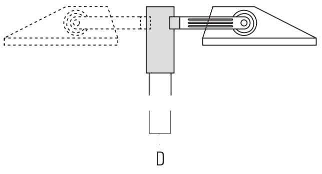
All mounting accessories are made from marine-grade aluminium alloy unless otherwise noted. 5CE superior corrosion protection including PCS hardware. Powdercoat finish to match luminaire.

Mounting fitter – Hot dipped galvanised steel.			D	kg
TA1	for 1 x FLA730	**147-0397**	ø 76 x 200	1.7
TA2	for 2 x FLA730	**147-0398**	ø 76 x 200	1.8
TA1	for 1 x FLA740	**147-0023**	ø 76 x 200	1.9
TA2	for 2 x FLA740	**147-0024**	ø 76 x 200	1.9

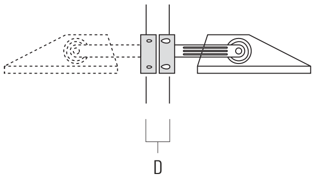
Pole clamp			D	kg
TS1	for 1 x FLA730	**147-0371**	ø 76-89	1.4
TS1	for 1 x FLA730	**147-0372**	ø 102-114	1.6
TS2	for 2 x FLA730	**147-0373**	ø 76-89	1.4
TS2	for 2 x FLA730	**147-0374**	ø 102-114	1.6
TS1	for 1 x FLA740	**147-0543**	ø 76-89	1.4
TS1	for 1 x FLA740	**147-0643**	ø 114-140	1.7
TS2	for 2 x FLA740	**147-0545**	ø 76-89	1.4
TS2	for 2 x FLA740	**147-0674**	ø 114-140	1.7

Short post – Matching planted root to be ordered separately.				kg
EM1	for FLA730	**270-9038**		2.1

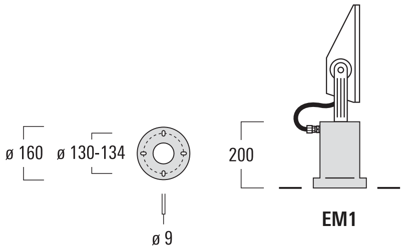
Planted root – Galvanised steel.				kg
ESV4	for short post	**300-0461**		4.4



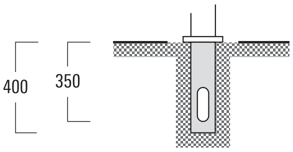
TA1/TA2



TS1/TS2

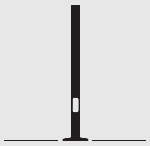


EM1

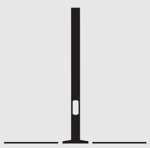


ESV4

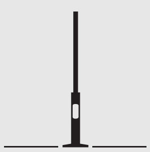
POLES



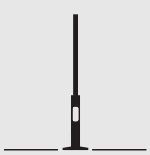
AMW – WOOD



AMF – STEEL



AML – ALUMINIUM



AM – STEEL

AMW-C

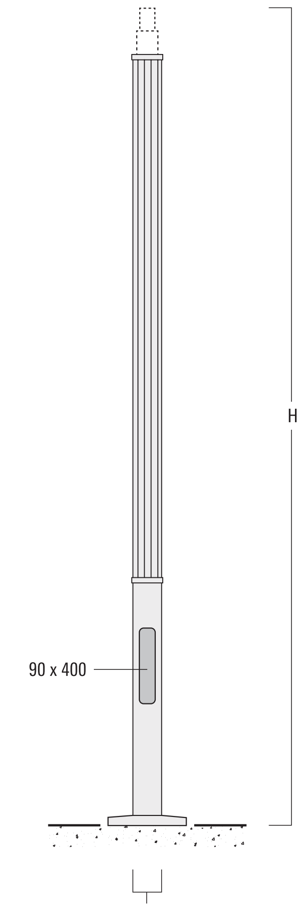
- Steel/aluminium/wood construction
- Constant section design, height 2.5 to 5.5 m
- 5CE+Primer corrosion protection
- Powdercoat finish
- Modular two piece construction

+Primer

Impregnated hardwood* top section with anodised aluminium core structure. Galvanised steel base section. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate with die-cast aluminium cover to conceal mounting hardware. Service door.

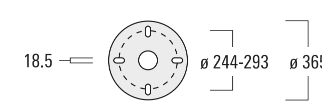
Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.

Planted root available on request.

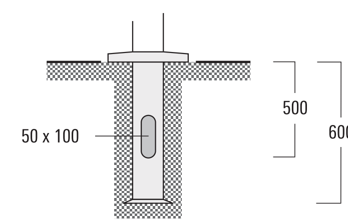


Pole – Constant section.		H	kg
270-9268	AMW-C 25 140	2500	50.0
270-9269	AMW-C 30 140	3000	55.0
270-9270	AMW-C 35 140	3500	62.0
270-9272	AMW-C 40 140	4000	67.0
270-9275	AMW-C 45 140	4500	73.0
270-9276	AMW-C 50 140	5000	79.0
270-9280	AMW-C 55 140	5500	86.0

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.



Planted root – Galvanised steel.		kg
ESV6	**300-0457**	18.0



ESV6

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

AMW-S

- Steel/aluminium/wood construction
- Stepped design, height 6.0 to 8.0 m
- 5CE+Primer corrosion protection
- Powdercoat finish
- Modular two piece construction

+Primer

Impregnated hardwood* top section with anodised aluminium core structure. Galvanised steel base section. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate with die-cast aluminium cover to conceal mounting hardware. Service door.

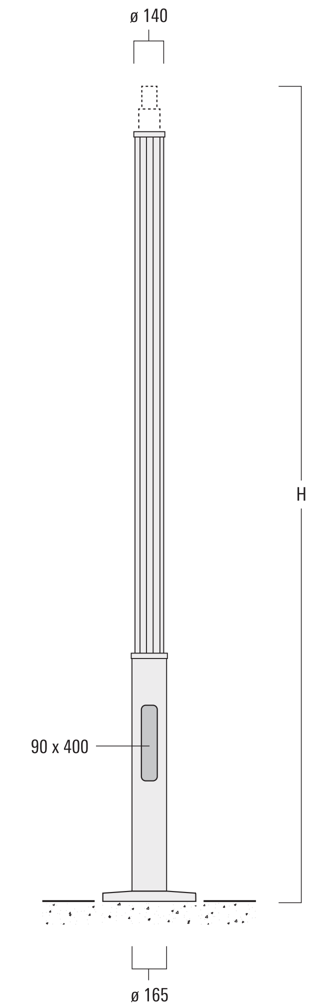
Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.

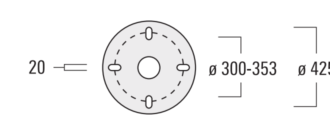
Planted root available on request.

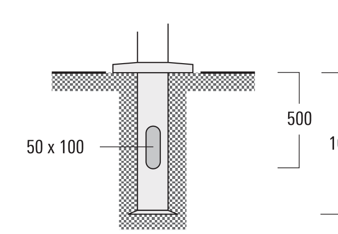
Pole – Stepped.		H	kg
270-9309	AMW-S 60 165-140	6000	129.5
270-9310	AMW-S 65 165-140	6500	135.5
270-9311	AMW-S 70 165-140	7000	157.0
270-9312	AMW-S 75 165-140	7500	163.0
270-9313	AMW-S 80 165-140	8000	168.5

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

Planted root – Galvanised steel.		kg
ESV10	**300-9108**	44.0







ESV10

* Natural wood is susceptible to colour and texture variations over time. It is recommended to use a suitable wood stain once a year for protection.

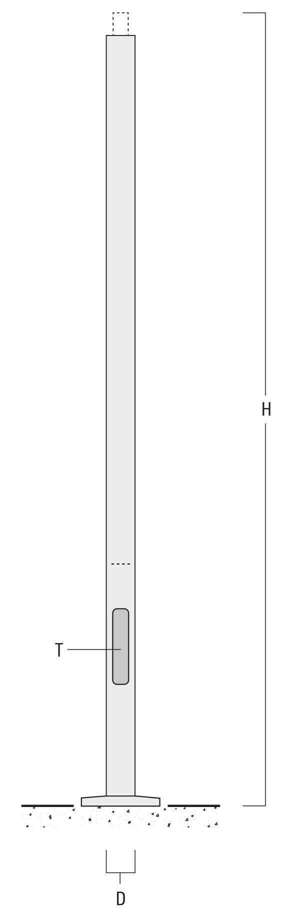
AMF-C

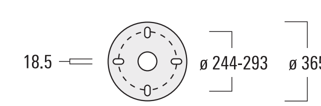
- Galvanised steel construction
- Constant section design, height 2.5 to 5.5 m
- 5CE+Primer corrosion protection
- Powdercoat finish
- Modular two piece construction for h ≥ 4.0 m

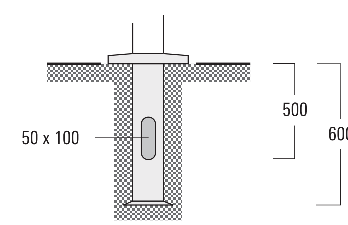
Tubular steel, constant section, hot dipped galvanised. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate with die-cast aluminium cover to conceal mounting hardware. Service door.

Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.

Planted root available on request.







ESV6

Pole – Constant section.		H	D	T	kg
270-9333	AMF-C 25 114	2500	ø 114	70 x 400	41.0
270-9334	AMF-C 30 114	3000	ø 114	70 x 400	45.0
270-9335	AMF-C 35 114	3500	ø 114	70 x 400	50.0
270-9336	AMF-C 40 114	4000	ø 114	70 x 400	58.0
270-9337	AMF-C 45 114	4500	ø 114	70 x 400	61.0
270-9338	AMF-C 50 114	5000	ø 114	70 x 400	66.0
270-9339	AMF-C 55 114	5500	ø 114	70 x 400	70.0
270-9283	AMF-C 25 140	2500	ø 140	90 x 400	57.5
270-9284	AMF-C 30 140	3000	ø 140	90 x 400	65.5
270-9285	AMF-C 35 140	3500	ø 140	90 x 400	72.5
270-9286	AMF-C 40 140	4000	ø 140	90 x 400	87.0
270-9287	AMF-C 45 140	4500	ø 140	90 x 400	94.5
270-9288	AMF-C 50 140	5000	ø 140	90 x 400	102.0
270-9289	AMF-C 55 140	5500	ø 140	90 x 400	111.5

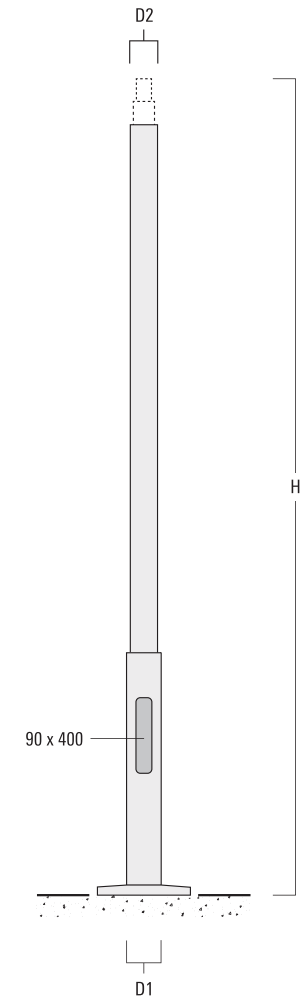
The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

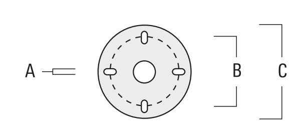
Planted root – Galvanised steel.		kg
ESV6	**300-0457**	18.0

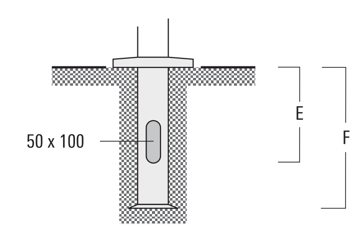
AMF-S

- Galvanised steel construction
- Stepped design, height 2.5 to 8.0 m
- 5CE+Primer corrosion protection
- Powdercoat finish
- Modular two piece construction

+Primer







ESV

Tubular steel, stepped, hot dipped galvanised. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate with die-cast aluminium cover to conceal mounting hardware. Service door.

Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.

Planted root available on request.

Pole – Stepped.		H	D1	D2	A	B	C	kg
270-9290	AMF-S 25 140-76	2500	ø 140	ø 76	18.5	ø 244-293	ø 365	54.0
270-9291	AMF-S 30 140-76	3000	ø 140	ø 76	18.5	ø 244-293	ø 365	56.5
270-9292	AMF-S 35 140-76	3500	ø 140	ø 76	18.5	ø 244-293	ø 365	62.0
270-9293	AMF-S 40 140-76	4000	ø 140	ø 76	18.5	ø 244-293	ø 365	64.5
270-9294	AMF-S 45 140-76	4500	ø 140	ø 76	18.5	ø 244-293	ø 365	67.0
270-9295	AMF-S 50 140-76	5000	ø 140	ø 76	18.5	ø 244-293	ø 365	69.5
270-9296	AMF-S 55 140-76	5500	ø 140	ø 76	18.5	ø 244-293	ø 365	72.0
270-9325	AMF-S 25 140-114	2500	ø 140	ø 114	18.5	ø 244-293	ø 365	54.0
270-9326	AMF-S 30 140-114	3000	ø 140	ø 114	18.5	ø 244-293	ø 365	56.5
270-9327	AMF-S 35 140-114	3500	ø 140	ø 114	18.5	ø 244-293	ø 365	62.0
270-9328	AMF-S 40 140-114	4000	ø 140	ø 114	18.5	ø 244-293	ø 365	64.5
270-9329	AMF-S 45 140-114	4500	ø 140	ø 114	18.5	ø 244-293	ø 365	67.0
270-9330	AMF-S 50 140-114	5000	ø 140	ø 114	18.5	ø 244-293	ø 365	69.5
270-9331	AMF-S 55 140-114	5500	ø 140	ø 114	18.5	ø 244-293	ø 365	72.0
270-9320	AMF-S 60 165-114	6000	ø 165	ø 114	20.0	ø 300-353	ø 425	136.0
270-9321	AMF-S 65 165-114	6500	ø 165	ø 114	20.0	ø 300-353	ø 425	140.0
270-9322	AMF-S 70 165-114	7000	ø 165	ø 114	20.0	ø 300-353	ø 425	144.0
270-9323	AMF-S 75 165-114	7500	ø 165	ø 114	20.0	ø 300-353	ø 425	148.0
270-9324	AMF-S 80 165-114	8000	ø 165	ø 114	20.0	ø 300-353	ø 425	152.0
270-9299	AMF-S 60 165-140	6000	ø 165	ø 140	20.0	ø 300-353	ø 425	143.5
270-9300	AMF-S 65 165-140	6500	ø 165	ø 140	20.0	ø 300-353	ø 425	151.0
270-9301	AMF-S 70 165-140	7000	ø 165	ø 140	20.0	ø 300-353	ø 425	169.0
270-9302	AMF-S 75 165-140	7500	ø 165	ø 140	20.0	ø 300-353	ø 425	176.5
270-9303	AMF-S 80 165-140	8000	ø 165	ø 140	20.0	ø 300-353	ø 425	184.0

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

Planted root – Galvanised steel.		H*	D1*	E	F	kg
ESV6	**300-0457**	2500-5500	140	500	600	18.0
ESV10	**300-9108**	6000-8000	165	500	1000	44.0

* H and D1 indicate suitable column height and diameter at base.

AML-C

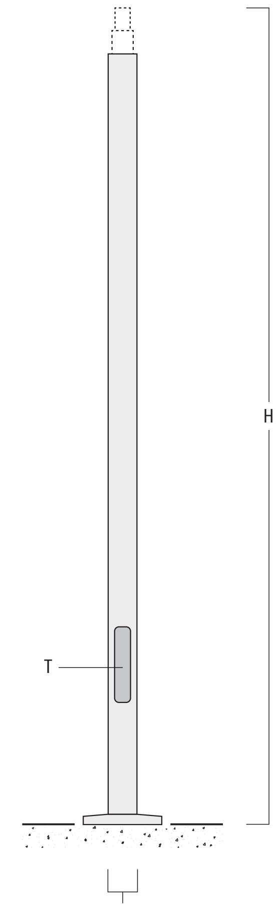
- Aluminium construction
- Constant section design, height 2.0 to 3.5 m
- 5CE+Primer corrosion protection
- Powdercoat finish

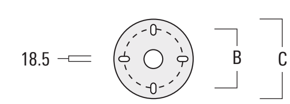
+Primer

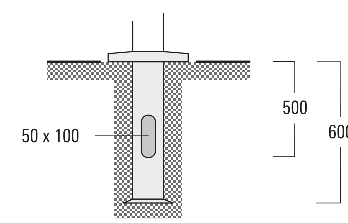
Tubular aluminium, constant section. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting die-cast aluminium base with covers to conceal mounting hardware. Service door.

Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.

Planted root available on request.







ESV6

Pole – Constant section.		H	D	T	B	C	kg
270-9041	AML-C 20 100	2000	ø 100	75 x 200	ø 177-217	ø 295	11.5
270-9042	AML-C 25 100	2500	ø 100	75 x 200	ø 177-217	ø 295	12.5
270-9044	AML-C 30 100	3000	ø 100	75 x 200	ø 177-217	ø 295	13.5
270-9040	AML-C 25 140	2500	ø 140	90 x 400	ø 244-293	ø 365	22.5
270-9043	AML-C 30 140	3000	ø 140	90 x 400	ø 244-293	ø 365	25.0
270-9045	AML-C 35 140	3500	ø 140	90 x 400	ø 244-293	ø 365	27.5

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

Planted root – Galvanised steel.		H*	D*	kg
ESV6	**300-0824**	2000-3000	100	12.6
ESV6	**300-0457**	2500-3500	140	18.0

* H and D indicate suitable column height and diameter at base.

AML-S

- Aluminium construction
- Stepped design, height 2.5 to 5.0 m
- 5CE+Primer corrosion protection
- Powdercoat finish
- Modular two piece construction

+Primer

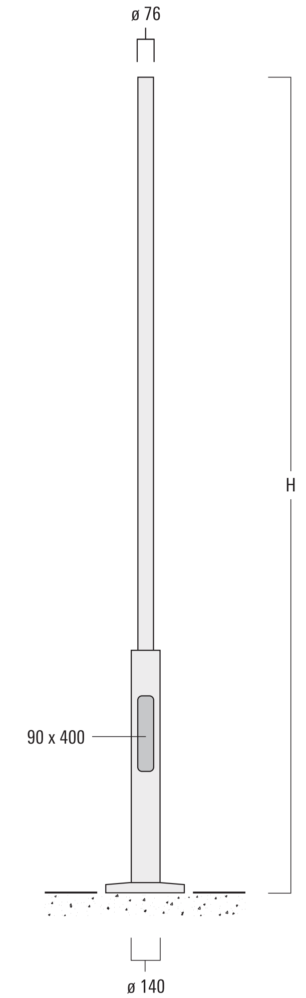
Tubular aluminium, stepped. 5CE+Primer superior corrosion protection, including PCS hardware. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting die-cast aluminium base with covers to conceal mounting hardware. Service door.

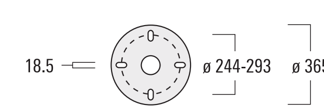
Planted root available on request.

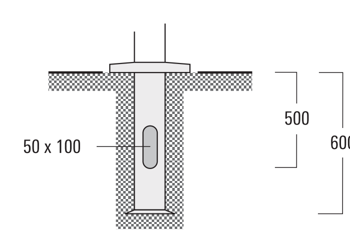
Pole – Stepped.		H	kg
270-9060	AML-S 25 140-76	2500	23.0
270-9061	AML-S 30 140-76	3000	24.5
270-9062	AML-S 35 140-76	3500	26.5
270-9063	AML-S 40 140-76	4000	28.5
270-9064	AML-S 45 140-76	4500	30.0
270-9065	AML-S 50 140-76	5000	32.0

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

Planted root – Galvanised steel.		kg
ESV6	**300-0457**	18.0







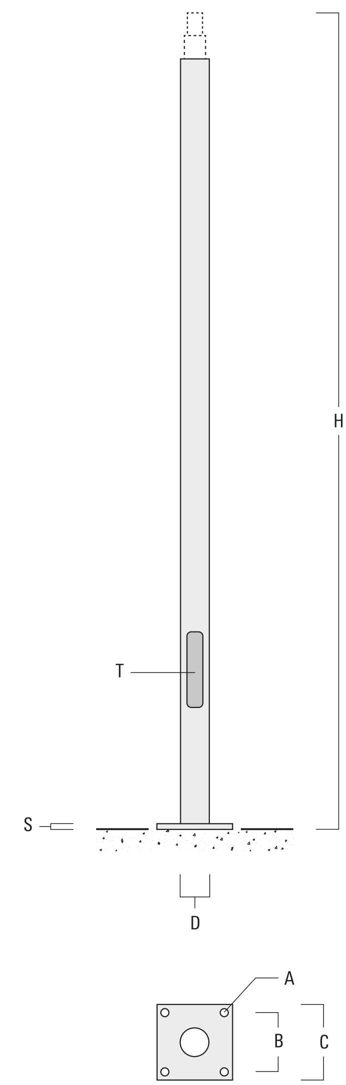
ESV6

AM-C

- Galvanised steel construction
- Constant section design, height 0.3 to 6.0 m
- Powdercoat finish

Tubular steel, constant section, hot dipped galvanised. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate. Columns with a diameter of 114 mm or greater are equipped with a service door.

Spigot dimensions may vary, dependent on type of luminaire used, and must be specified at time of ordering.



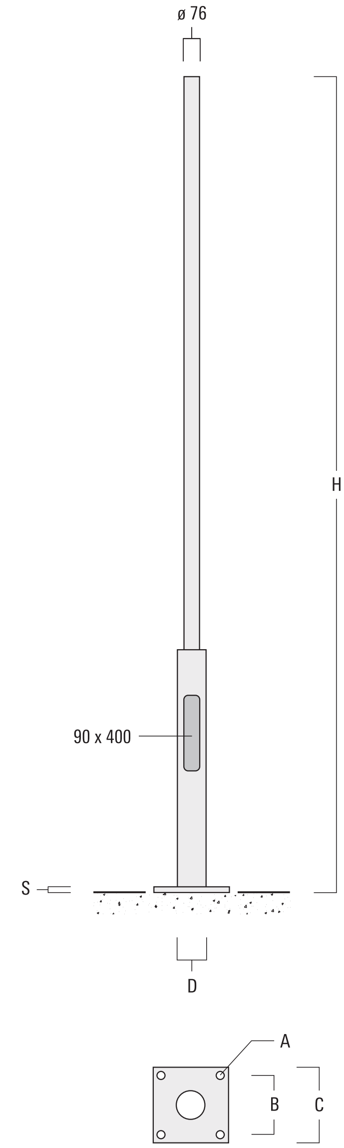
Pole – Constant section.		H	D	S	T	A	B	C	kg
270-9022	AM-C 03 76	300	ø 76	10	---	12	120	150	3.0
270-9023	AM-C 20 76	2000	ø 76	10	---	12	120	150	11.5
270-9024	AM-C 20 114	2000	ø 114	15	90 x 400	22	200	250	24.5
270-9025	AM-C 25 114	2500	ø 114	15	90 x 400	22	200	250	28.5
270-9026	AM-C 30 114	3000	ø 114	15	90 x 400	22	200	250	32.5
270-9027	AM-C 35 114	3500	ø 114	15	90 x 400	22	200	250	36.0
270-9028	AM-C 40 114	4000	ø 114	15	90 x 400	22	200	250	40.0
270-9029	AM-C 40 140	4000	ø 140	15	90 x 400	22	200	250	70.5
270-9030	AM-C 45 140	4500	ø 140	15	90 x 400	22	200	250	78.5
270-9031	AM-C 50 140	5000	ø 140	15	90 x 400	22	200	250	86.0
270-9032	AM-C 55 140	5500	ø 140	15	90 x 400	30	300	400	104.5
270-9033	AM-C 60 140	6000	ø 140	15	90 x 400	30	300	400	112.0

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

AM-S

- Galvanised steel construction
- Stepped design, height 2.5 to 10.0 m
- Powdercoat finish

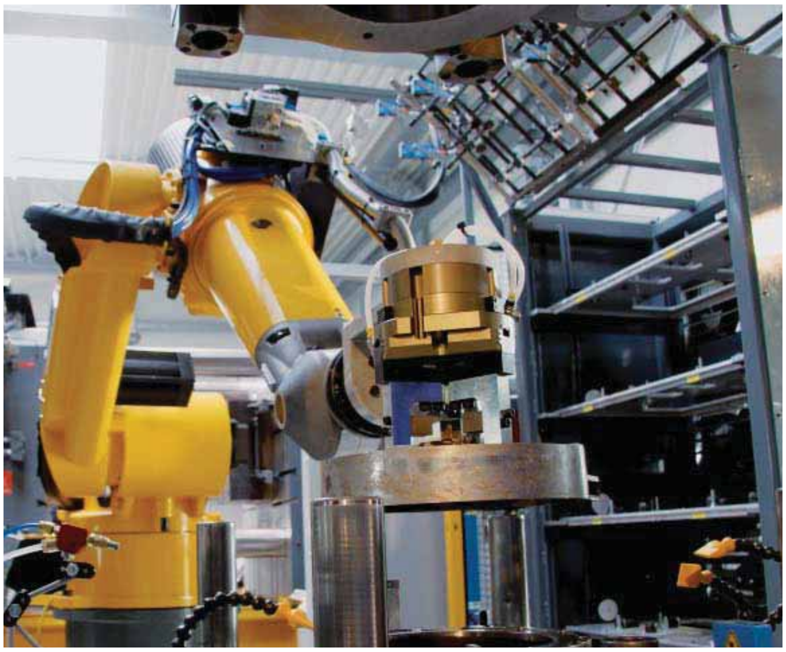
Tubular steel, stepped, hot dipped galvanised. Powdercoat finish in black RAL 9004, grey aluminium RAL 9007 or white RAL 9016. Surface mounting flange plate. Service door.



Pole – Stepped.		H	D	S	A	B	C	kg
270-9004	AM-S 25 114-76	2500	ø 114	15	22	200	250	29.0
270-9005	AM-S 30 114-76	3000	ø 114	15	22	200	250	31.0
270-9006	AM-S 35 114-76	3500	ø 114	15	22	200	250	33.5
270-9007	AM-S 40 114-76	4000	ø 114	15	22	200	250	36.5
270-9008	AM-S 45 114-76	4500	ø 114	15	22	200	250	38.5
270-9009	AM-S 50 114-76	5000	ø 114	15	22	200	250	41.0
270-9010	AM-S 60 140-76	6000	ø 140	15	30	300	400	78.0
270-9011	AM-S 70 140-76	7000	ø 140	15	30	300	400	89.0
270-9012	AM-S 80 140-76	8000	ø 140	20	30	300	400	96.5
270-9013	AM-S 90 140-76	9000	ø 140	20	30	300	400	110.5
270-9014	AM-S 100 140-76	10000	ø 140	20	30	300	400	116.0

The featured poles have been designed for safe installation and operation (in combination with WE-EF luminaires) in most common wind-load regions. For application in high wind-load regions, contact WE-EF or a certified engineer for structural calculations.

TECHNICAL INFORMATION



IOS® INNOVATIVE OPTICAL SYSTEM

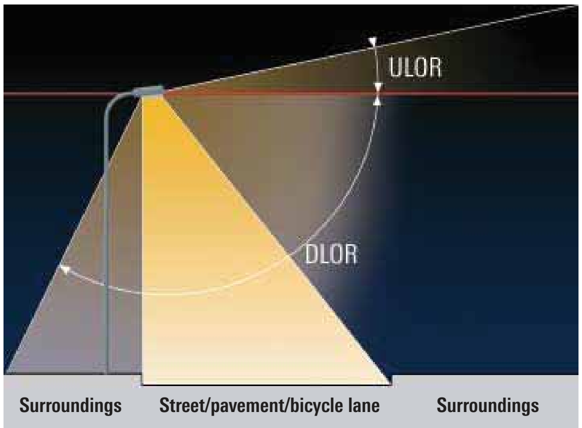
WE-EF's IOS® Innovative Optical System has been developed to satisfy two specific requirements; the first relating to the various international lighting standards that prescribe performance and focus on public amenity and safety issues; the second being the wide range of customised solutions that are typically the domain of the lighting design professional. IOS® is a complete system with a comprehensive set of solutions, including optical accessory toolkits that are purpose designed, engineered and tested.

IOS® system applies across the WE-EF range of luminaires and includes:

- In-house CAD design.
- Precision manufactured optical system.
- High photometric performance, beam efficiency and control.
- Superior glare control and visual comfort through appropriate shielding angles.
- Tooling exclusive to WE-EF.
- Optional optical accessory toolkit.

In street and area lighting applications, IOS® features full cut-off light distribution in compliance with European standard EN 13201 (Class G3/G4/G5/G6):

- Zero light emission above the 90° horizontal.
- Tightly controlled 'candela' intensities in the critical high-angle glare zone at 80°-90° (from nadir).
- Solutions to light trespass and dark skies concerns.



ULOR: The main purpose of an optical system is to direct light onto a specified target surface. Particularly in streetlighting applications, any amount of light that is emitted above the horizontal, must be considered not merely as being wasteful, but equally so as polluting the night sky. The Upward Light Output Ratio (ULOR) is a measure of how much light escapes from a luminaire into the sky. Obviously, a ULOR of zero per cent is desirable. The better the optical system, the lower the burden on our environment.

IOS® for LED (Light Emitting Diodes)

With LEDs being vastly different from traditional light sources such as metal halide, a very different approach to designing optical systems is required. The LED's tiny dimensions, its unique own light distribution pattern, as well as its highly sensitive thermal characteristics pose great challenges to any specialist involved in such an endeavour. While most optics found in the market are lens based, it is striking to see fundamentally different approaches towards the actual function and performance of such systems. For example, in street and area lighting applications, a common approach is to combine LEDs with individual, symmetric or elliptical lenses which are then selectively aimed, as a means of achieving a uniform distribution. Through this multi-spot technique, the resulting interaction and overlapping of beams delivers overall light levels and, to some extent, uniformity. WE-EF's engineers have taken the opposite approach by pioneering a radically different, multi-layer technique, the OLC® One LED Concept: All LEDs within a luminaire are fitted with identical, CAD engineered lenses, and aimed in the same direction. As a result, illumination on the target surface will uniformly increase in intensity if more LEDs are added (or, conversely, be reduced if LEDs are removed), while uniformity levels always remain fully intact.

OLC® One LED Concept

The OLC® technology presents an ideal, future proof solution for street and area lighting applications. It combines the multi-layer lighting approach with modular PCB/LED/lens engineering and thereby balances the need for safety with visual comfort and energy savings.

Main features of OLC® One LED Concept:

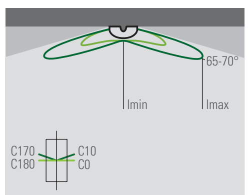
- CAD-engineered and precision manufactured lenses deliver a tightly controlled light distribution while reducing light pollution to an absolute minimum.
- In case of failure of one or several LEDs within a luminaire, light levels drop, while uniformity is retained.
- Modular PCB/LED/lens assemblies can be replaced in case of failure or for upgrading.
- The system is 'future proof' and, when upgraded to next generation LEDs, will retain its photometric integrity.

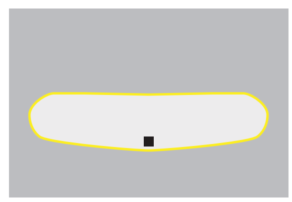
Common multi-spot approach.

WE-EF's multi-layer technique.

[P65] Lens – Main Features

- Pedestrian/bicycle lane distribution.
- Optimised for illuminance-based design work (maximum spacing). The '65' references the nominal angle of peak intensity from nadir (downward vertical).
- Zero light emission above the 90° horizontal (ILE Class E1/E0). Ideal for the lighting of pedestrian and bicycle lanes to EN DIN 13201, Class S2-S4. For a one-sided arrangement, spacing = 5 to 7 times MH.



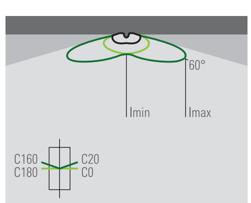


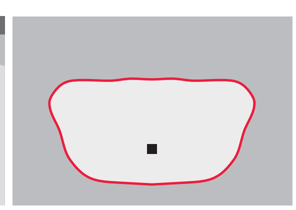
[P65] Lens for pedestrian/bicycle lane distribution.

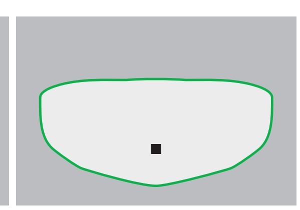
[P65]

[S60] and [S65] Lenses – Main Features

- Streetlighting distribution.
- Optimised for luminance-based design work (high visual comfort). '60' and '65' reference the nominal angle of peak intensity from nadir (downward vertical).
- Zero light emission above the 90° horizontal (ILE Class E1/E0). Ideal for luminance based streetlighting layouts to EN DIN 13201, Class ME3-ME5. For a one-sided arrangement, spacing = 5 to 5.5 times MH, longitudinal uniformity Ul ≥ 0.4, glare limitation Ti < 15 per cent.







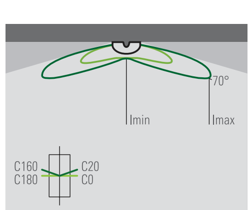
[S60] Lens for streetlighting distribution.

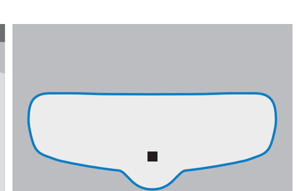
[S60]

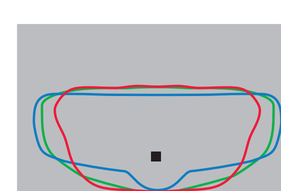
[S65]

[S70] Lens – Main Features

- Streetlighting distribution.
- Optimised for illuminance-based design work (maximum spacing). The '70' references the nominal angle of peak intensity from nadir (downward vertical).
- Zero light emission above the 90° horizontal (ILE Class E1/E0). Ideal for illuminance based streetlighting layouts to EN DIN 13201, Class S1-S6. For a one-sided arrangement, spacing = 7 to 9 times MH, overall uniformity Uo ≥ 0.2-0.4, with good visual comfort (the standard does not specify Ti values for glare limitation).







[S70] Lens for streetlighting distribution.

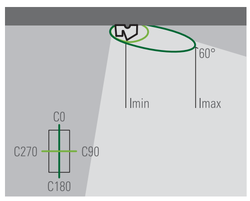
[S70]

[S60] [S65] [S70] Light distribution in comparison.

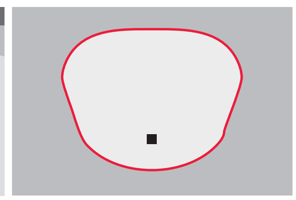
IOS® INNOVATIVE OPTICAL SYSTEM

[A60] and [R65] Lenses – Main Features

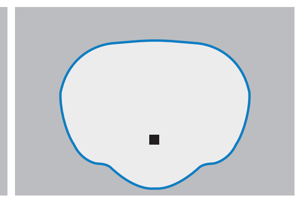
- Asymmetric 'forward throw' distribution.
- Nominal angle of peak intensity through 60°-65° from nadir (downward vertical).
- Rearward light spillage limited to an angle of 10°.
- Zero light emission above the 90° horizontal (ILE Class E1/E0). Ideal for lighting public spaces where visual comfort (glare) is of concern.

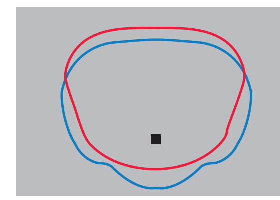
[A60] Lens for asymmetric 'forward throw' distribution.



[A60]



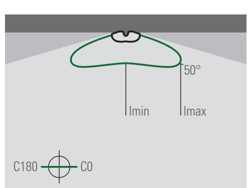
[R65]



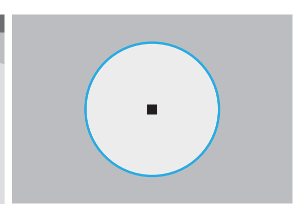
[A60] [R65] Light distribution in comparison.

[C50] and [R] Lenses – Main Features

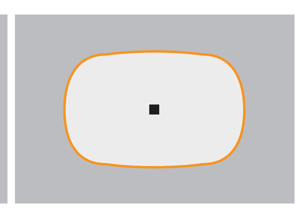
- Symmetric and rectangular distribution.
- Optimised for illuminance-based design work (maximum spacing).
- Glare control index G1 in compliance with EN DIN 13201.
- Zero light emission above the 90° horizontal (ILE Class E1/E0). Ideal for public spaces where both horizontal and vertical illuminance, as well as visual comfort (glare) are of concern.

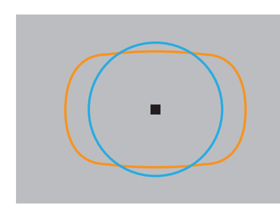
[C50] Lens for symmetric distribution.



[C50]



[R]

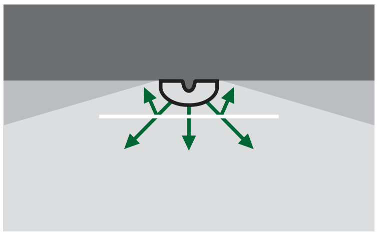


[C50] [R] Light distribution in comparison.

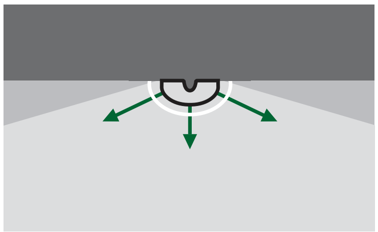
RFC™ Reflection Free Contour

The effective Light Output Ratio (LOR) of a WE-EF LED streetlighting luminaire is further improved by the use of an RFC™ main lens.

- The conventional flat glass is replaced by a UV-stabilised acrylic (PMMA) or polycarbonate (PC) main lens, featuring a contoured surface that follows the shape of the individual LED lens. The goal is to minimise the loss of light that normally occurs due to internal reflection.
- In the case of the [S60] lens, light transmission at the critical 60° (from nadir) is improved by approximately 20 per cent. With the [S70] lens, at the critical 70°, transmission is improved by approximately 30 per cent. Overall, as much as 5 per cent will be added to the Light Output Ratio (LOR) of the described luminaire types.
- In the case of the luminance-optimised [S60] lens, this results in a modest improvement in spacing of approximately 0.25 times MH. In the case of the illuminance optimised [S70] lens, a significant increase in spacing has been achieved, by up to 0.5-1.0 times MH. This adds to the economic and environmental benefits, favouring the combination of OLC® and RFC™ technologies.



Internal reflection from conventional, flat main lens.

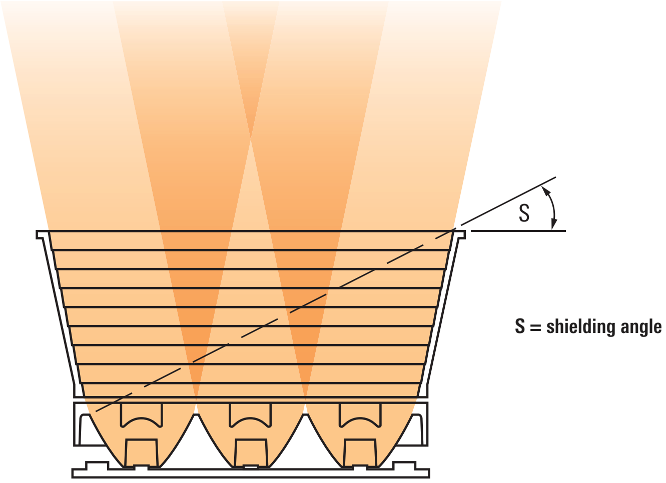


RFC™ technology delivers high light transmission.

The contour of the main lens follows the shape of the individual LED lens, thereby minimising internal reflections within the luminaire.

Control Shield

A number of LED luminaires featured in this catalogue combine symmetric beam optics with an integral control shield for enhanced glare control and high visual comfort.



LED ENGINEERING

Terminology and Definitions

Most terms and definitions used in this section are taken from 'Guidelines for Project Design Safety in LED Lighting' (Leitfaden Planungssicherheit in der LED-Beleuchtung), a document published by the German Electrical and Electronics Manufacturers' Association (ZVEI) in November 2013.

Rated Input Power P (W)

The electrical power from the mains supply, as consumed by a luminaire including its integral electrical and electronic components.

Rated Luminous Flux ϕ_v (lm)

Total radiant flux of a luminaire in its visible range; also referred to as 'initial luminous flux'.

Luminaire Efficacy η_v (lm/W)

The ratio of a luminaire's total luminous flux versus its rated input power.

Rated Ambient *Operating* Temperature T_a (°C)

The maximum ambient temperature at which a luminaire can be operated whilst maintaining all safety-relevant parameters. WE-EF luminaires are generally designed for operation at T_a = 25°C. In most cases, test data confirm higher ratings, often at 40°C or more.

Rated Ambient *Performance* Temperature T_q (°C)

The maximum ambient temperature at which a luminaire delivers, for example, the specified values for luminous flux and service life. Data published in this catalogue are based on a rated ambient performance temperature of T_q = 25°C.

Rated Service Life $L_x B_y$ (h)

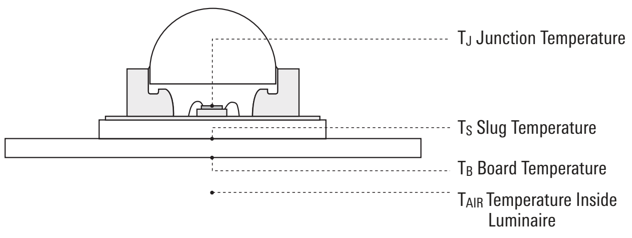
The number of hours after which, from a group of LED luminaires:

- the luminous flux has dropped to x (%).
- y (%) of luminaires in the same group have dropped below the specified luminous flux.

Example: Requirement '$L_{90}B_{10}$– 60,000 h' means that after 60,000 hours, the group of LED luminaires in question must still provide 90 per cent of the initial luminous flux, whereby 10 per cent of the luminaires are permitted to provide less than 90 per cent of the initial luminous flux.

Thermal Management

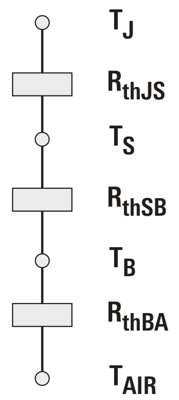
As a luminaire manufacturer, WE-EF's challenge is to create the best possible thermal conditions inside its products so that, as far as technically feasible, LEDs are able to operate under optimum conditions, without failures. This objective can only be successfully achieved through reference to product data sheets published by the LED manufacturers, which are generally based on their internal test results and mathematical calculations. Determining if LEDs are operating at their optimum inside a luminaire will, for example, affect service life and luminous flux performance. These are significantly more complex tasks than those that have to be carried out for conventional lamps, and therefore require meticulous attention.



LED – Thermal Resistance (R_{th})

During recent years, LED developments have focussed on reducing thermal resistance in LEDs, i.e. $R_{th} = R_{thJS} + R_{thSB} + R_{thBA}$ (resistance between LED chip and contact area to the heat sink). The lower the thermal resistance, the less heat the LED is exposed to, which in turn increases luminous flux while reducing ageing and, thereby, extends service life. Luminaire manufacturers are able to influence thermal resistance by:

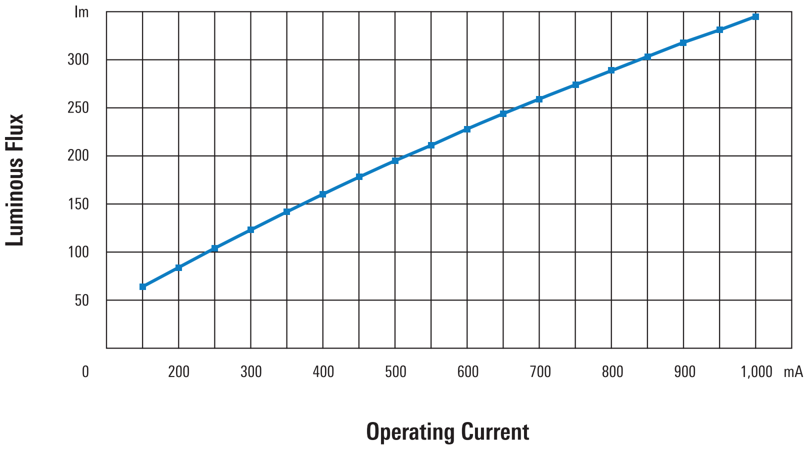
- Developing purpose designed, optimised heat sinks.
- Ensuring clean and level contact surfaces between LED circuit boards and heat sinks.
- Selecting LED circuit board materials with high thermal conductivity, e.g. aluminium, copper or ceramics.



LED – Operating Current (I_f)

LEDs may be operated at different currents. While 700, 1050 and 1,400 mA are most commonly applied now-a-days, developments are showing a clear trend towards 2,000 to 4,000 mA. The greater the operating current, the greater the luminous flux. Unfortunately, the relationship between these two parameters is a degressive one; meaning, when the current is increased, the luminous flux will increase only sub-proportionately – in other words, efficacy (lumens per watt) drops. This phenomenon becomes even more pronounced at increased junction temperatures.

At the current state of technology, it is between 350 and 1,400 mA that LEDs feature a desirable, more or less linear, relationship between operating current and luminous flux. LED manufacturers are expected to launch 2,000 to 4,000 mA rated LEDs with similar, close-to-linear performance characteristics in the foreseeable future.



LED – Service Life and Junction Temperature (T_J)

Service life data published by LED manufacturers are based on values measured over a period of at least 6,000 hours, in accordance with LM-80-08. The combination of relevant test results with mathematical models, in line with TM-21, allows conclusions to be drawn regarding LED behaviour over a considerably greater period of time - up to six times the measurement period.

Likewise, luminaire manufacturers must also subject their products to extensive series of tests, so as to allow meaningful statements to be made about system service life. (WE-EF luminaires are subjected to a minimum 10,000 hours of continuous testing.)

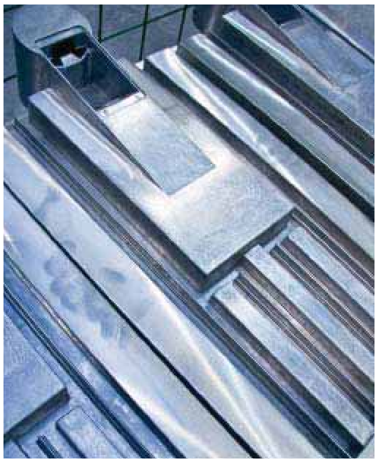
The service life information that can be derived from this process is based on various assumptions that need to be clearly documented. The following essential data must be included in relevant test reports:

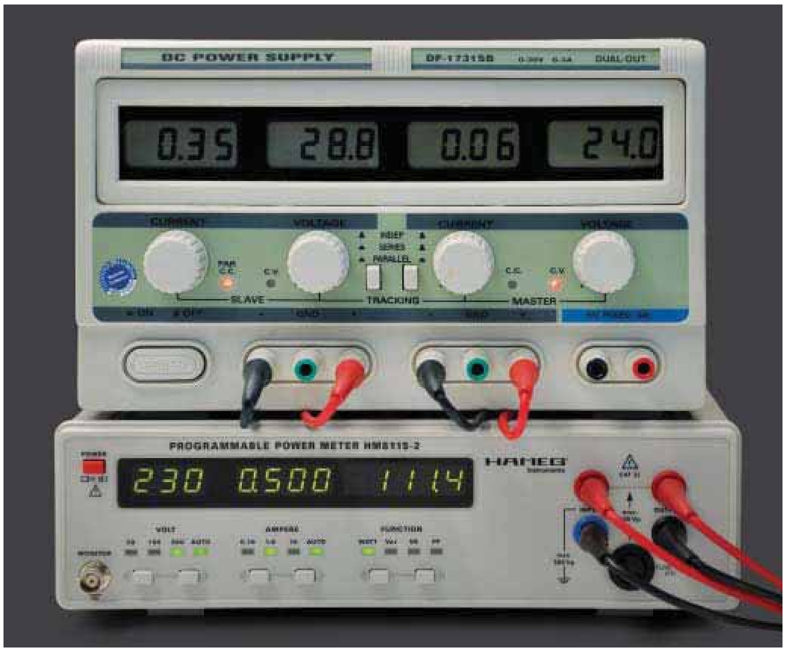
- Rated ambient performance temperature (T_q).
- LED operating current (I_f).
- Service life (L_xB_y).

Depending on operating current I_f and system performance, LED junction temperatures T_j vary from luminaire to luminaire. For luminaires featured in this catalogue, when fitted with the listed maximum number of LEDs and operated at I_f = 700 mA and T_q = 25°C, the resulting junction temperature reaches a maximum of approximately T_j = 85°C.

Should the actual on-site, mean ambient temperature for example stand at 30°C (vs. T_q = 25°C), then the junction temperature T_j will increase by the same differential (30°C to 25°C).

Like conventional lamps, LEDs age and the initial (nominal) luminous flux drops the longer an LED is in use. The lower the thermal load to which LEDs are exposed, the lower the decline in luminous flux. The diagram shown below depicts the relationship between an LED's time of operation and its luminous flux (at I_f = 700 mA and T_q = 25°C, T_j = 85°C).





Maintenance Factor for Lighting Calculations

For professional project planning, application of a realistic and product specific maintenance factor (MF) for lighting calculations is crucial. If the maintenance factor is too high, overly optimistic results will be proven wrong by actual, on-site light levels falling below those defined by safety and other relevant standards. However, if the factor is too low, great opportunities to save on investment and operational costs (total cost of ownership) will be lost.

Traditionally, while using conventional lamps, luminaire manufacturers have provided information pertaining only to the luminaire maintenance factor (LMF), typically 0.8. However, with the introduction of LEDs, this approach has changed; with the use of high-quality LED systems, a maintenance factor of 0.9 or greater is often achievable. Since the LED light source is an integral part of the luminaire, three parameters are used to calculate the MF:

MF = LLMF x LSF x LMF

MF: Maintenance Factor

LLMF: LED/Lamp Lumen Maintenance Factor

LSF: LED/Lamp Survival Factor

LMF: Luminaire Maintenance Factor

LED/Lamp Lumen Maintenance Factor (LLMF)

The LED luminous flux that can be expected after a defined operating period can be calculated by multiplying its rated value with a factor that represents ageing performance. For example: VFL540 [S70] 4000K (108-0910):

- Nominal luminous flux: 8,854 lm.
- Rated luminous flux: 8,164 lm.

For a rated ambient performance temperature of 25°C, an operating current of 700 mA and an operating period of 60,000 h, Fig.1 indicates LLMF = 0.925. The theoretical minimum luminous flux at 60,000 h is calculated as 8,164 lm x 0.925 = 7,552 lm.

T_q = 25°C				
I_f [mA]	T_j*** [°C]	TM-21 [1,000 h]	LLMF at 60,000 h	Theoretically Expected Service Life [1,000 h] L95
350*	45	>60	0.975	170
500*	55	>60	0.950	150
700*	69	>60	0.925	120
1,050**	80	>60	0.950	90
1,400**	90	>60	0.925	80

* reference LED: XP-G2
** reference LED: XP-L
*** recorded mean junction temperature (varies from luminaire to luminaire)

Fig. 1 LED/Lamp Lumen Maintenance Factor (LLMF).

LED/Lamp Survival Factor (LSF)

LED manufacturers' data sheets indicate very low failure rates, due to SIC technology employed in the production process. After 60,000 hours of operation at I_f = 700/1,050/1,400 mA, a practically negligible failure rate of approximately 750 ppm applies:

- LSF = 1

Luminaire Maintenance Factor (LMF)

Operational behavior and performance of LED luminaires differ significantly from their conventional HID counterparts. As a result, maintenance factors for WE-EF LED street and area lighting luminaries are reassessed in line with CIE154-2003, with two of the main contributing factors being (see Fig. 2):

- Minimised attraction of insects due to dramatically reduced emission of heat and UV light.
- Reduction of dust and dirt deposits on main lens due to low thermal convection.

I_f [mA]	T_j*** [°C]	LLMF	LSF	LMF (4 Years, IP6x)			MF		
				N	M	H	N	M	H
350*	45	0.975	1	0.96	0.92		0.94	0.90	
500*	55	0.950	1	0.96	0.92		0.92	0.88	
700*	69	0.925	1	0.96	0.92		0.89	0.85	
1,050**	80	0.950	1	0.96	0.92		0.92	0.88	
1,400**	90	0.925	1	0.96	0.92		0.89	0.85	

* reference LED: XP-G2
** reference LED: XP-L
*** recorded mean junction temperature (varies from luminaire to luminaire)

N = low pollution environment
M = moderate pollution environment
H = high pollution environment

Fig. 2 Recommended Maintenance Factor (MF) at 60,000 h.

Ambient Temperature – Practical Considerations

Luminous flux and mean service life data shown in this catalogue are – as required by EN 60598-1 for luminaires – based on a rated ambient performance temperature of T_q = 25°C. However, conditions at the site of use frequently vary from this standard and may therefore significantly affect the photometric qualities and service life of an installation. If the actual mean ambient temperature falls below 25°C, luminous flux and service life will improve; if temperatures exceed 25°C, they will decrease.

For a meaningful assessment of a luminaire's performance, it is recommended to take night-time temperatures of an installation's actual location as reference – to be on the safe side, the average night-time temperature of the hottest month. The table on this page details ambient temperatures (night-time) for cities in the Asia Pacific region. Comprehensive and detailed worldwide data are available at www.weatherbase.com.

Asia Pacific

Ambient temperatures (Asia Pacific region)	Night-time maximum average	Night-time minimum average	Day/night annual average
Bangkok	**26°C** APR	**21°C** JAN	**28°C**
Beijing	**22°C** JUL	**-8°C** JAN	**12°C**
Colombo	**26°C** MAY	**23°C** JAN	**27°C**
Hanoi	**26°C** JUN	**15°C** JAN	**23°C**
Ho Chi Minh City	**26°C** MAY	**22°C** JAN	**28°C**
Hong Kong	**27°C** JUL	**14°C** JAN	**23°C**
Jakarta	**23°C** SEP	**22°C** JAN	**28°C**
Kuala Lumpur	**23°C** APR	**22°C** JAN	**27°C**
Kuching	**23°C** MAY	**22°C** JAN	**27°C**
Macau	**27°C** JUL	**13°C** JAN	**22°C**
Manila	**25°C** MAY	**21°C** JAN	**27°C**
Mumbai	**26°C** MAY	**17°C** JAN	**27°C**
New Delhi	**28°C** MAY	**7°C** JAN	**25°C**
Osaka	**24°C** AUG	**1°C** JAN	**16°C**
Phnom Penh	**24°C** APR	**21°C** JAN	**27°C**
Seoul	**22°C** AUG	**-6°C** JAN	**12°C**
Shanghai	**25°C** JUL	**1°C** JAN	**16°C**
Singapore	**25°C** APR	**23°C** JAN	**27°C**
Taipei	**25°C** JUL	**12°C** JAN	**22°C**
Tokyo	**23°C** AUG	**1°C** JAN	**15°C**
Vientiane	**25°C** APR	**17°C** JAN	**26°C**
Yangon	**25°C** MAY	**18°C** JAN	**27°C**

Australia/New Zealand

Ambient temperatures (Asia Pacific region)	Night-time maximum average	Night-time minimum average	Day/night annual average
Adelaide	**15°C** JAN	**6°C** JUL	**16°C**
Auckland	**16°C** JAN	**8°C** JUL	**16°C**
Brisbane	**21°C** JAN	**9°C** JUL	**20°C**
Cairns	**23°C** JAN	**17°C** JUL	**25°C**
Canberra	**12°C** JAN	**1°C** JUL	**12°C**
Christchurch	**12°C** JAN	**1°C** JUL	**12°C**
Darwin	**25°C** JAN	**19°C** JUL	**27°C**
Hobart	**11°C** JAN	**4°C** JUL	**12°C**
Melbourne	**13°C** JAN	**5°C** JUL	**14°C**
Perth	**17°C** FEB	**7°C** JUL	**18°C**
Sydney	**18°C** JAN	**6°C** JUL	**17°C**
Wellington	**17°C** JAN	**2°C** JUL	**16°C**

PRODUCT INFORMATION

5CE Superior Corrosion Protection

Outstanding and long lasting anti-corrosion properties can only be achieved by a comprehensive, integrated approach. The result of many years of research and development, hands-on testing and practical experience, WE-EF's unique 5CE system encompasses five critical elements:

1. Substrate
2. Conversion coating
3. Powder
4. PCS hardware
5. Process control

Powder application

PCS hardware

1. Substrate

A marine-grade, low copper content aluminium alloy is used for all above ground luminaires. Typical alloy composition:

Cu	≤	0.1 %	Zn	≤	0.1 %
Mg	≤	0.1 %	Pb	≤	0.1 %
Si	=	10.0-13.5 %	Sn	≤	0.05 %
Fe	≤	1.0 %	Ti	≤	0.2 %
Mn	≤	0.5 %	Al	=	Balance
Ni	≤	0.1 %			

2. Conversion Coating

The multi-step pre-treatment and conversion coating process includes degreasing, deoxidising, etching and depending on product, non-hazardous trivalent chromium or zirconium conversion coating. Both are considered the most effective conversion coats available for aluminium substrates.

Trivalent chromium conversion coating process:

- Alkaline degreasing/mild etching.
- Clear water rinse.
- Counterflow clear water rinse.
- Deoxidising etching.
- Clear water rinse.
- Counterflow clear water rinse.
- Trivalent chromium conversion coating (540-650 mg/m^2).
- Clear water rinse.
- Counterflow demineralised water rinse.
- Hot air drying.

Zirconium conversion coating process:

- Acidic degreasing/etching.
- Clear water rinse.
- Counterflow clear water rinse.
- Demineralised water rinse.
- Zirconium (+polymer) conversion coating (3-10 mg/m^2).
- Hot air drying.

Strict controls are constantly maintained over the parameters of every step in each process, such as purity, pH, chemical concentrations, temperature, etc. This ensures the best achievable substrate penetration and uniformity of the conversion coat, thereby ensuring optimum corrosion resistance and powdercoat adhesion.

3. Powder

UV-stabilised, architectural grade polyester powder is electrostatically applied (60-100 µm) and oven cured at ~ 200°C. The grade of polyester powder used is based on saturated polyester resins. Combined with UV resistant cross-linking agents and selected pigments, it features outstanding resistance to atmospheric ageing and UV light exposure. Properly applied to a suitable metal substrate, the resulting powdercoat finish exhibits excellent outdoor durability, and complies with German GSB and European QUALICOAT standards.

4. PCS Hardware

All exposed hardware is made from austenitic stainless steel, and additionally sealed with a tough, impregnated polymer coat, which fulfils two functions:

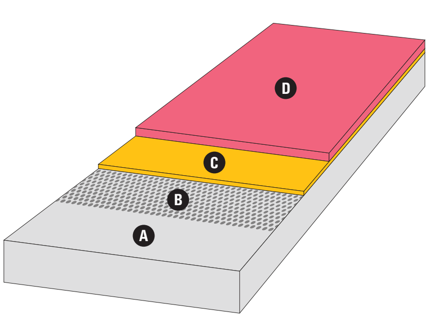
- Reduced friction between male and female thread causes tighter fit between connected parts.
- Non-metallic barrier between the two metals, aluminium and steel, prevents galvanic corrosion that otherwise occurs, when metals of dissimilar electronegativities are in contact.

5. Process Control

All materials and production steps are part of a tightly controlled process under ISO9001 quality assurance. It includes regular spectrometer analysis of aluminium alloy used, ongoing monitoring of chemicals concentration in the pre-treatment phase, quality control checks on finished parts, up to 3,000 hours salt spray exposure tests etc.

The Final Product

The final result is a quality product of excellent corrosion resistance, that can be serviced after years of operation, and features a powdercoat finish of outstanding adhesion and colour stability.



A. Marine grade aluminium alloy
B. Etched surface
C. Conversion coating
D. Architectural grade powdercoat

5CE+Primer

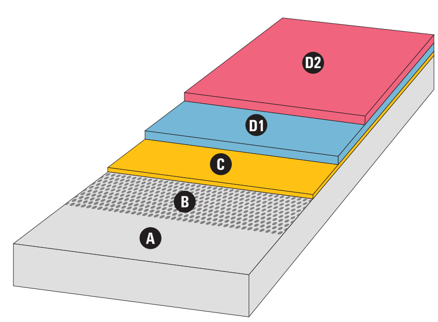
+Primer

For installations where corrosion protection over and above the 5CE system is required, 5CE+Primer introduces an additional element to the process:

1. Substrate
2. Conversion coating
   + Primer
3. Powder top coat
4. PCS hardware
5. Process control

Primer

Immediately after conversion coating, a specially formulated 'intercoat' bonding epoxy primer is electrostatically applied (80-100 µm), and initially semi-cured in a 180°C oven. Following the subsequent application of the polyester powder top coat, full curing and essential 'intercoat' bond is achieved at 200°C.



A. Metal substrate
B. Etched surface
C. Conversion coating
D1. 'Intercoat' bonding primer
D2. Architectural grade powdercoat

Added Durability

As with the 5CE system, 5CE+Primer provides for a quality product of excellent corrosion resistance that can be serviced after years of operation, and features a powdercoat finish of outstanding adhesion and colour stability. Added durability from the 'intercoat' bonding epoxy primer makes it particularly suitable for coastal and aggressive environments, and for example for pole installations in pedestrian areas.

Luminaires

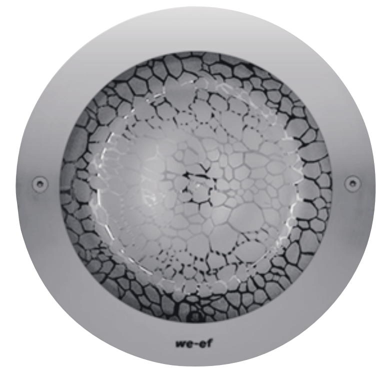
WE-EF luminaires may be custom ordered to feature the described 5CE+Primer finish.

PRODUCT INFORMATION

ASC® Anti Slip Coating for Inground Luminaires

ASC®

A translucent, tough and highly abrasion resistant ceramic material is fused into the surface of the luminaire's safety glass lens. Slip resistance, as required in pedestrian traffic and wet environments, conforms with DIN 51130 (class R10) and AS/NZS4586:1999 (class V). Corresponding tests were performed at the German BIA and the Australian CSIRO institutes. Arranged in a stochastic (irregular) pattern, the ASC® Anti Slip Coating has only moderate effect on the luminaire's light distribution and LOR (light output ratio). International patents apply.



ASC® Anti Slip Coating for inground uplight luminaires for increased safety in public areas.

Factory-sealed Luminaires

FS
FACTORY SEALED

Fully assembled in a humidity controlled environment, a factory-sealed luminaire is prewired and fitted with the specified light source (LED or HID). The luminaire does not need to be opened during installation. Mains connection is made either in a separate terminal box or externally. These features provide for fast and cost saving on-site installation, as well as the avoidance of installation errors.

Factory-sealed luminaires do not need to be opened during installation.

Lenses and Diffusers

Toughened safety glass, borosilicate glass, acrylic (PMMA) and UV-stabilised polycarbonate (PC) are used throughout the WE-EF product range. Usage is depending on product and application. Safety glass lenses used in inground luminaires are load rated up to 5 tonnes.

Gasketing

Weatherproof and non-ageing silicone rubber is used extensively in the WE-EF range. It provides excellent sealing qualities in corrosive and high temperature environments. A number of luminaires features CCG (Controlled Compression Gasket) technology, enhancing long-term, maintained, high IP ratings.

Electronic Converters

LED converters developed especially for exterior lighting applications are used. Features include constant current operation, surge protection, continuous dimming (optional), nominal lifetime ≥ 50,000 h according to TM21-IES at T_a 25°C.

As with all components, electronic converters (drivers) are engineered for reliability and longevity.

Voltage

WE-EF luminaires and electrical accessories are supplied ready for connection to a 230 V 50 Hz supply. Control gear for other voltages and frequencies is available on request.

Electrical Protection

German and European industrial standards DIN/EN 60598, VDE 0711 and DIN 40050, specify electrical protection and IP classification of luminaires. WE-EF products comply with these as well as with equivalent international standards. WE-EF luminaires conform to electrical protection class I. The compulsory earthing terminal is marked with the symbol ⏚. In the event of a fault, a correctly installed luminaire shall cause the circuit protection device to trip. Special luminaire versions with protection according to Class II ⧈ are available on request.

Ambient Temperatures

The WE-EF range of products is generally designed for operation at 25°C. In many cases, test data confirm higher ratings, at 40°C or more. For installations where excessive ambient temperatures exist, special luminaires and equipment can be supplied on request.

IP-Classification

The International Protection code (IP) classifies luminaires according to their protection against the ingress of dust, solid foreign bodies and water.

IP1X	Protection against solid objects of diameter greater than 50 mm
IP2X	Protection against finger touch and solid objects of diameter greater than 12 mm
IP3X	Protection against solid objects of diameter greater than 2.5 mm
IP4X	Protection against solid objects of diameter greater than 1.0 mm
IP5X	Complete protection against solid objects and harmful dust deposits (dust proof)
IP6X	Total protection against dust (dust-tight)

IPX1	Protection against vertically dripping water (drip proof)
IPX2	Protection against dripping water up to 15° from the vertical
IPX3	Protection against spraying water or falling rain up to 60° from the vertical (rain proof)
IPX4	Protection against splashing water from any direction (splash proof)
IPX5	Protection against water jets from any direction (jet proof)
IPX6*	Protection against heavy seas or powerful water jets (water jet tight)
IPX7*	Protection against the effects of immersion (watertight - immersible)
IPX8*	Protection against submersion (pressure watertight - submersible)

The combination of both numerals describes the IP classification of a luminaire. All WE-EF luminaires are marked accordingly, e.g. IP66 (dust and water jet tight).

* WE-EF luminaires that comply with IPX7 and/or IPX8 are always additionally tested to meet IPX6 requirements under DIN/EN 60529. This is because the test conditions and procedures for IPX7 and IPX8 differ significantly from those for IPX6 and compliance for all is not automatically assured.

Standards

WE-EF luminaires and poles are designed to conform with present DIN/EN and VDE standards. Furthermore, all luminaires manufactured for the European market bear the CE standards conformity mark. WE-EF is constantly developing and improving its products. The technical information given, including data and designs, can be subject to change without prior notice. The dimensions and weights stated are approximate values, subject to manufacturing tolerances. Special finishing, executions and constructions are available on request.

Installation

Installation instructions are provided with all WE-EF products. Suitably qualified personnel must be engaged for installation and maintenance in compliance with the latest applicable regulations and relevant legislation.

Customer Service

Supported by WE-EF expertise, authorised representatives provide planning services to consulting engineers, lighting designers and other professionals. The current status of our global distribution network as well as substantial technical and product information, such as product specifications, photometric data and DIALUX plug-in can be obtained by visiting the WE-EF website at www.we-ef.com.

IK-Classification

DIN/EN 62262 classifies the degrees of protection that luminaires provide against external mechanical impacts.

IK01	Protection against 0.14 J (joules) impact energy (equivalent to specified impact from 0.2 kg polyamide hammer)
IK02	Protection against 0.20 J (joules) impact energy (equivalent to specified impact from 0.2 kg polyamide hammer)
IK03	Protection against 0.35 J (joules) impact energy (equivalent to specified impact from 0.2 kg polyamide hammer)
IK04	Protection against 0.50 J (joules) impact energy (equivalent to specified impact from 0.2 kg polyamide hammer)
IK05	Protection against 0.70 J (joules) impact energy (equivalent to specified impact from 0.2 kg polyamide hammer)
IK06	Protection against 1 J (joules) impact energy (equivalent to specified impact from 0.5 kg polyamide hammer)
IK07	Protection against 2 J (joules) impact energy (equivalent to impact of 0.5 kg steel weight dropped from 400 mm height)
IK08	Protection against 5 J (joules) impact energy (equivalent to impact of 1.7 kg steel weight dropped from 300 mm height)
IK09	Protection against 10 J (joules) impact energy (equivalent to impact of 5.0 kg steel weight dropped from 200 mm height)
IK10	Protection against 20 J (joules) impact energy (equivalent to impact of 5.0 kg steel weight dropped from 400 mm height)

LIGHTING DATA AND PROJECT SUPPORT

Light Distribution (Fig. 1 and 2)

The three dimensional light distribution pattern of a luminaire is measured by means of a photo goniometer. Depending on their application, WE-EF luminaires feature light distributions that are either symmetric, bi-symmetric or asymmetric. Luminous intensities are measured in cd/klm, and form the basis for lighting design calculations. This catalogue features a range of different photometric diagrams, in order to enable the lighting practitioner to conduct rough calculations. Detailed and precise calculations can be made by using lighting design software.

Isolux Diagram (Fig. 3)

Illuminance, as a measure, indicates how strongly a surface is lit. The distribution of illuminance on a surface is presented by the isolux diagram. All points of identical illuminance levels are connected by a line. Variations in mounting height or aiming of a luminaire will result in an altered diagram.

Luminance Diagram (Fig. 4)

Luminaires with opal or frosted lenses are generally used for orientation. For functional and aesthetic evaluation, the level of the average luminance on the lens, as well as its uniformity, have to be taken into consideration.

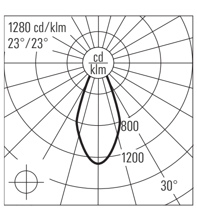


Fig. 1

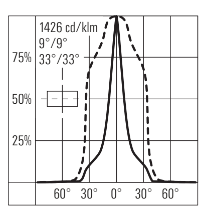


Fig. 2

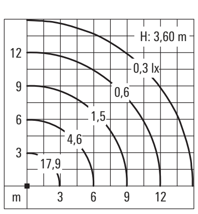


Fig. 3

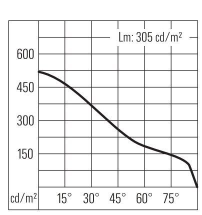
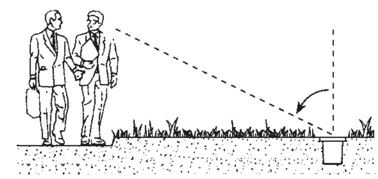


Fig. 4

Luminance diagrams shown in this catalogue present the lens' luminance as a function of the observer's viewing angle. They are based on a maintenance factor of 1.0 for new installations. The unit of measure is candelas per square metre (cd/sqm).



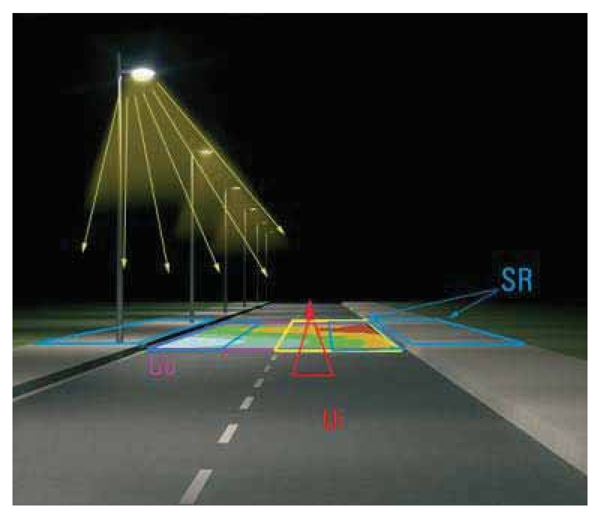
Depending on the angle of view, the human eye will perceive varying intensity levels from the same luminous surface.

Project Support

WE-EF's customer service includes lighting design and planning support for project engineers, lighting consultants and other professionals. While varying specific customer requirements and installation practices are taken into consideration, the following German/European standards are generally used as a working basis:

DIN EN 12193 Sports lighting

DIN EN 13201 Streetlighting



Streetlighting evaluation criteria:

Lm = Average luminance (cd/m^2)

Uo = Overall uniformity Lmin/Lm

Ul = Longitudinal uniformity Lmin/Lmax

Ti = Threshold increment (disability glare index)

SR = Surround ratio (ambient illuminance ratio)

Em = Average illuminance (lux)

Emin = Minimum illuminance (lux)

Sports Lighting

Recommendations (excerpt) as per DIN EN 12193

Outdoor	Class I Em (lux)	Class I Emin/Em	Class I Ra ≥	Class II Em (lux)	Class II Emin/Em	Class II Ra ≥	Class III Em (lux)	Class III Emin/Em	Class III Ra ≥
Riding - jumping & dressage, light athletics	500	0.7	60	200	0.5	60	100	0.5	20
Basketball, soccer, handball, rugby, volleyball	500	0.7	60	200	0.6	60	75	0.5	20
Golf (Driving Range)*	-	-	-	-	-	-	100	0.8	20
Hockey	500	0.7	60	200	0.7	60	200	0.7	20
Competition swimming, water polo	500	0.7	60	300	0.7	60	200	0.5	20
Tennis	500	0.7	60	300	0.7	60	200	0.6	20
Horse racing* - trotting track, race track and derby	200	0.6	60	100	0.4	60	50	0.2	20

Indoor	Class I Em (lux)	Class I Emin/Em	Class I Ra ≥	Class II Em (lux)	Class II Emin/Em	Class II Ra ≥	Class III Em (lux)	Class III Emin/Em	Class III Ra ≥
Badminton, ice-hockey, fencing*, hockey, squash, table-tennis	750	0.7	60	500	0.7	60	300	0.7	20
Basketball, handball, fist-ball, volleyball, judo	750	0.7	60	500	0.7	60	200	0.5	20
Riding - jumping & dressage, light athletics	500	0.7	60	300	0.6	60	200	0.5	20
Competition swimming, water polo	500	0.7	60	300	0.7	60	200	0.5	20
Tennis	750	0.7	60	500	0.7	60	300	0.5	20

Streetlighting

Recommendations (excerpt) as per DIN EN 13201

	Traffic volume <7000 vehicles/day						Traffic volume >7000 vehicles/day					
Roads within city limits	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR
Within built-up areas (to include vehicles parking)	ME5	0.5	0.35	0.4	15	0.5	ME4b	0.75	0.4	0.5	15	0.5
Within built-up areas (no vehicles parking)	ME4b	0.75	0.4	0.5	15	0.5	ME4b	0.75	0.4	0.5	15	0.5
No buildings (no vehicles parking)	ME3c	1.0	0.4	0.5	15	0.5	ME3c	1.0	0.4	0.5	15	0.5
Main roads	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR
At high speeds > 70 km/h	ME4a	0.75	0.4	0.6	15	0.5	ME4a	0.75	0.4	0.6	15	0.5
At moderate speeds < 70 km/h	ME4a	0.75	0.4	0.6	15	0.5	ME4a	0.75	0.4	0.6	15	0.5
Motorways							Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR
							ME4a	1.0	0.4	0.7	15	0.5
Roads outside of built-up areas	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR	Class	Lm (cd/m²)	Uo	Ul	Ti (%)	SR
	ME4a	0.75	0.4	0.6	15	0.5	ME4a	0.75	0.4	0.6	15	0.5

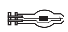
	Normal traffic volume			High traffic volume		
Country roads	Class	Em (lux)	Emin (lux)	Class	Em (lux)	Emin (lux)
Without built-up verges, cycle or foot paths	S5	3.0	0.6	S4	5.0	1.0
With built-up verges, cycle or foot paths	S4	5.0	1.0	S3	7.5	1.5

* Additional requirements for vertical illuminance apply.

LAMP CHART

This catalogue lists lamp designations in accordance with the lamp designation system of the German electrotechnical industry. The lamp chart is for comparison purposes only. It may not be complete and errors are excepted.

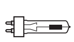
Due to market developments as well as ongoing research and development by the manufacturers, lamp availability and specifications may change. Ensure that both, availability and all technical data, are checked prior to application.



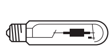
MH (Metal Halide Lamps)			OSRAM	PHILIPS	GE
HIT-TC-CE 20W/830 PGJ5	Ra > 85	3000 K	---	CDM-Tm 20W/830 PGJ5	---
HIT-TC-CE 35W/930 PGJ5	Ra > 85	3000 K	---	CDM-Tm 35W/930 PGJ5	---

HIT-TC-CE 20W/830 GU6.5	Ra > 80	3000 K	HCI-TF 20W/830 WDL PB	CDM-Tm Mini GU6.5 20W/830	CMH20/T/UVC/830/GU6.5
HIT-TC-CE 35W/930 GU6.5	Ra > 90	3000 K	HCI-TF 35W/930 WDL PB	CDM-Tm Elite Mini GU6.5 35W/930	CMH35/T/UVC/930/GU6.5
HIT-TC-CE 35W/942 GU6.5	Ra > 90	4200 K	---	---	CMH35/T/UVC/942/GU6.5

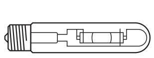
HIT-TC-CE 20W/830 G8.5	Ra > 80	3000 K	HCI-TC 20W/830 WDL PB	---	CMH20/TC/UVC/U/830/G8.5
HIT-TC-CE 35W/830 G8.5	Ra > 80	3000 K	HCI-TC 35W/830 WDL PB	CDM-TC 35W/830	CMH35/TC/UVC/U/830/G8.5
HIT-TC-CE 35W/942 G8.5	Ra > 90	4200 K	HCI-TC 35W/942 NDL PB	---	---
HIT-TC-CE 70W/830 G8.5	Ra > 80	3000 K	HCI-TC 70W/830 WDL PB	CDM-TC 70W/830	CMH70/TC/UVC/U/830/G8.5
HIT-TC-CE 70W/942 G8.5	Ra > 90	4200 K	HCI-TC 70W/942 NDL PB	---	CMH70/TC/UVC/U/942/68.5



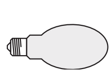
HIT-CE 20W/830 G12	Ra > 80	3000 K	---	CDM T 20W/830	---
HIT-CE 35W/830 G12	Ra > 80	3000 K	HCI-T 35W/830 WDL PB	CDM T 35W/830	CMH35/T/UVC/U/830/G12
HIT-CE 35W/942 G12	Ra > 90	4200 K	HCI-T 35W/942 NDL PB	CDM T 35W/942	CMH35/T/UVC/U/942/G12
HIT-CE 70W/830 G12	Ra > 80	3000 K	HCI-T 70W/830 WDL PB	CDM T 70W/830	CMH70/T/UVC/U/830/G12
HIT-CE 70W/942 G12	Ra > 90	4200 K	HCI-T 70W/942 NDL PB	CDM T 70W/942	CMH70/T/UVC/U/942/G12
HIT-CE 100W/830 G12	Ra > 85	3000 K	HCI-T 100W/830 WDL PB	---	---
HIT-CE 100W/942 G12	Ra > 90	4200 K	HCI-T 100W/942 NDL PB	---	---
HIT-CE 150W/830 G12	Ra > 85	3000 K	HCI-T 150W/830 WDL PB	CDM T 150W/830	CMH150/T/UVC/U/830/G12
HIT-CE 150W/942 G12	Ra > 90	4200 K	HCI-T 150W/942 NDL PB	CDM T 150W/942	CMH150/T/UVC/U/942/G12
HIT-CE 250W/830 G12	Ra > 85	3000 K	---	CDM T 250W/830	---



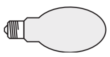
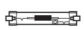
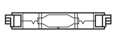
HIT-CE 70W/830 E27	Ra > 85	3000 K	HCI-TT 70W/830 WDL PB	---	CMH70/TT/U/830/E27
HIT-CE 100W/830 E40	Ra > 85	3000 K	HCI-TT 100W/830 WDL PB	CDO-TT 100W/828	---
HIT-CE 150W/830 E40	Ra > 85	3000 K	HCI-TT 150W/830 WDL PB	---	CMH150/TT/U/830/E40
HIT-CE 250W/830 E40	Ra > 85	3000 K	HCI-T 250W/830 WDL PB	---	CMH250/TT/U/830/E40
HIT-CE 250W/942 E40	Ra > 90	4200 K	HCI-T 250W/942NDL PB	---	-



HIT 250W/952 E40	Ra > 90	5200 K	HQI-T 250W/952 D	---	---
HIT 400W/635 E40	Ra > 65	3500 K	HQI-T 400W/635 N	---	---
HIT 400W/952 E40	Ra > 90	5200 K	HQI-BT 400W/952 D	---	---
HIT 1000W/973 E40	Ra > 90	7250 K	HQI-T 1000W/973 D	---	SPL1000/T/H/960/E40



HIE-CE 35W/830 E27	Ra > 85	3000 K	HCI-E/P 35W/830 WDL PB coated*	---	---
HIE-CE 35W/942 E27	Ra > 90	4200 K	HCI-E/P 35W/942 NDL PB coated*	---	---
HIE-CE 50W/830 E27	Ra > 85	3000 K	HCI-E/P 50W/830 WDL PB coated*	---	---
HIE-CE 50W/942 E27	Ra > 90	4200 K	HCI-E/P 50W/942 NDL PB coated*	---	---
HIE-CE 70W/830 E27	Ra > 85	3000 K	HCI-E/P 70W/830 WDL PB coated*	---	---
HIE-CE 70W/942 E27	Ra > 90	4200 K	HCI-E/P 70W/942 NDL PB coated*	---	---
HIE-CE 100W/830 E27	Ra > 85	3000 K	HCI-E/P 100W/830 WDL PB coated*	---	CMH100/E/U/830/E27/D
HIE-CE 100W/942 E27	Ra > 90	4200 K	HCI-E/P 100W/942 NDL PB coated*	---	---
HIE-CE 150W/930 E27	Ra > 90	3000 K	HCI-E/P 150W/930 WDL PB coated*	---	---
HIE-CE 150W/942 E27	Ra > 90	4200 K	HCI-E/P 150W/942 NDL PB coated*	---	---

	MH (Metal Halide Lamps)			OSRAM	PHILIPS	GE
	HIE-CE 250W/830 E40	Ra > 85	3000 K	HCI-E 250W/830 WDL PB coated	---	---
	HIE 400W/947 E40	Ra > 90	4700 K	HQI-E/P 400W/947 D coated	---	---
	HIE 400W/952 E40	Ra > 90	5200 K	HQI-E 400W/952 D coated	---	---
	HIT-DE-CE 70W/830 RX7s	Ra > 80	3000 K	HCI-TS 70W/830 WDL PB	CDM-TD 70W/830	CMH70/TD/UVC/830/Rx7s
	HIT-DE-CE 70W/942 RX7s	Ra > 90	4200 K	HCI-TS 70W/942 NDL PB	CDM-TD 70W/942	CMH70/TD/UVC/942/Rx7s
	HIT-DE-CE 150W/830 RX7s	Ra > 85	3000 K	HCI-TS 150W/830 WDL PB	CDM-TD 150W/830	CMH150/TD/UVC/830/Rx7s
	HIT-DE-CE 150W/942 RX7s	Ra > 95	4200 K	HCI-TS 150W/942 NDL PB	CDM-TD 150W/942	CMH150/TD/UVC/942/Rx7s
	HIT-DE 250W/830 Fc2	Ra = 80	3200K	HQI-TS 250/830 WDL	---	---
	HIT-DE 250W/842 Fc2	Ra > 85	4200 K	HQI-TS 250W/842 NDL	MHN-TD 250W/842	RC250/TD/840/Fc2
	HIT-DE 250W/951 Fc2	Ra > 90	5100 K	HQI-TS 250W/951 D	---	---
	HIT-DE 400W/842 Fc2	Ra > 85	4200 K	HQI-TS 400W/842 NDL	---	---
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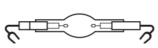
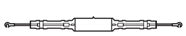
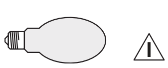
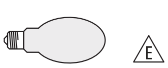
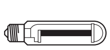
	HIT-SA-DE 1000W/959 Cable	Ra > 90	5900 K	HQI-TS 1000W/959 D S	---	---
	HIT-SA-DE 2000W/959 Cable	Ra > 90	5900 K	HQI-TS 2000W/959 D S	MHN-SB Pro 2000W/956/400V	---
	HIT-LA-DE 1000W/842 Cable	Ra > 80	4200 K	---	MHN-LA 1000W/842 230V	---
	HIT-LA-DE 1000W/956 Cable	Ra > 90	5600 K	---	MHN-LA 1000W/956 230V	---
	HIT-LA-DE 2000W/842 Cable	Ra > 80	4200 K	---	MHN-LA 2000W/842 400V	---
	HIT-LA-DE 2000W/956 Cable	Ra > 90	5600 K	---	MHN-LA 2000W/956 400V	---

	HPS (High Pressure Sodium Lamps)			OSRAM	PHILIPS	GE
	HSE-I-X4 50W/220 E27	Ra 20	2000K	NAV-E 50/I 4Y	SON 50W-I	LU50/85/D/I/27
	HSE-I-X4 70W/220 E27	Ra 20	2000K	NAV-E 70/I 4Y	SON 70W-I	LU70/90/D/I/27
	HSE-E-X4 50W/220 E27	Ra 20	2000K	NAV-E 50/E 4Y	SON 50W-E	LU50/85/XO/SBY/T/27
	HSE-E-X4 70W/220 E27	Ra 20	2000K	NAV-E 70/E 4Y	SON 70W-E	LU70/90/XO/T/27
	HSE-X4 100W/220 E40	Ra 25	2000K	NAV-E 100 SUPER 4Y	SON-PLUS 100W	---
	HSE-X4 150W/220 E40	Ra 25	2000K	NAV-E 150 SUPER 4Y	SON 150W	LU150/150/XO/T/40
	HSE-X4 250W/220 E40	Ra 25	2000K	NAV-E 250 SUPER 4Y	SON 250W	LU250/XO/T/40
	HSE-X4 400W/220 E40	Ra 25	2000K	NAV-E 400 SUPER 4Y	SON 400W	LU400/XO/T/40
	HST-X4 50W/220 E27	Ra 25	2000K	NAV-T 50 SUPER 4Y	SON-T PLUS 50W	LU50/90/XO/T/27
	HST-X4 70W/220 E27	Ra 25	2000K	NAV-T 70 SUPER 4Y	SON-T PLUS 70W	LU70/90/XO/T/27
	HST-X4 100W/220 E40	Ra 25	2000K	NAV-T 100 SUPER 4Y	SON-T PLUS 100W	LU100/100/XO/T/40
	HST-X4 150W/220 E40	Ra 20	2000K	NAV-T 150 SUPER 4Y	SON-T PLUS 150W	LU150/150/XO/T/40
	HST-X4 250W/220 E40	Ra 20	2000K	NAV-T 250 SUPER 4Y	SON-T 250W	LU250/XO/T/40
	HST-X4 400W/220 E40	Ra 20	2000K	NAV-T 400 SUPER 4Y	SON-T 400W	LU400/XO/T/40
	HST 1000W/220 E40	Ra 20	2000K	NAV-T 1000	SON-T 1000W	LU1000/110/T/40 4pk
	HST-DE-X4 70W/220 RX7s	Ra 25	2000K	NAV-TS 70 SUPER 4Y	---	---
	HST-DE-X4 150W/220 RX7s	Ra 25	2000K	NAV-TS 150 SUPER 4Y	---	---
	HST-DE 250W/220 Fc2	Ra 20	2000K	NAV-TS 250	---	LU250/TD
	HST-DE 400W/220 Fc2	Ra 20	2000K	NAV-TS 400	---	LU400/TD

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Asia Pacific Edition 2016-2018

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