



## **LIGHTING ASSESSMENT**

FOR THE DEMOLITION OF EXISTING SALES BUILDING AND ERECTION OF NEW SALES BUILDING, INSTALLATION OF 3 NEW JET WASH BAYS, ELECTRICAL VEHICLE CHARGING BAYS WITH ASSOCIATED INFRASTRUCTURE, DE-LINK OF EXISTING FORECOURT CANOPY, AND ASSOCIATED FORECOURT WORKS

MFG Salendine Service Station, New Hey Road, Huddersfield. HD3 3UZ

### **New Exterior Lighting (Please refer to drawings reference DM188.1 and DM188.2).**

The new lighting relates to the 6no Ev Charging Bays, 3no Jet-wash bays (2no within clad frame buildings) an electrical Substation compound and associated Forecourt works to include lighting to the front of the shop and at the entrance and exit crossovers.

The new lighting is indicated (B1, B2, B3,C, D and E), The existing lighting under the canopy (A) is to be retained.

A product description for each new luminaire type is included within the key. All exterior lighting is specified with an LED beam control system enabling sharp cut off and control of beam direction (below 70 degrees), avoiding glare, trespass and night sky pollution.

Lighting Product datasheets are included for reference.

### **Impact on neighbouring property by the new scheme and compliance.**

LPA Condition 12. Before the installation of external artificial lighting commences a lighting scheme shall be submitted to and approved in writing by the Local Planning Authority. The scheme should include the following information:

- a) The proposed hours of operation of the lighting
- b) The location and specification of all of the luminaires
- c) The proposed design level of maintained average horizontal illuminance for the areas that needs to be illuminated.
- d) The measures that will be taken to minimise or eliminate glare and stray light arising from the use of the lighting that is caused beyond the boundary of the site
- e) The methods of switching and controlling the lighting so that it is only operated at the permitted times and at times when it is required.

No external artificial lighting shall be used unless the lighting has been installed and operated in accordance with the approved scheme.



The hours of operation of the site will be 24 hours with an automated lighting control system to switch the lighting during required periods only.

Illuminance contours for all the illuminated areas are shown on drawing DM188.1. Particular attention has been given to the proximity of residential property to eliminate any light trespass and glare.

Where appropriate, a reduction of floodlight column mounting heights and masking/shrouds fitted to the rear of floodlight lanterns has been implemented.

An illuminance value chart in Lux (see drawing DM188.2) demonstrates the control of illuminance across the site and at boundary locations.

Existing and proposed boundary treatment to adjacent property along with the benefit of good lighting design with new LED technology will provide a high degree of control to restrict any boundary spillage of light and eliminate nuisance to neighbouring residents and any adjacent wildlife habitats.

Graham White (Senior Designer) GWLC

18/12/23



Mast (Telecommunication)

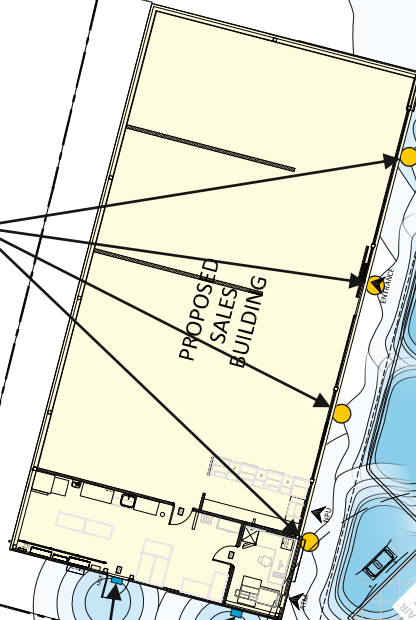
A 640 NEW HEY ROAD

D

B3

A

B3



Exit Crossover

Canopy Outline

Canopy Outline (De-link)

Canopy Outline

Entrance Crossover

PROPOSED SALES BUILDING

C

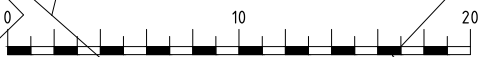
B1

E

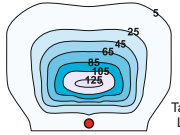
B1

B2

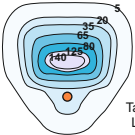
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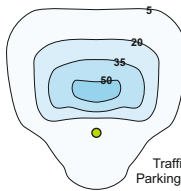
SCALE - METRES



Task Area Lighting



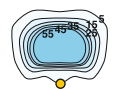
Task Area Lighting



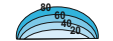
Traffic and Parking Lighting



Bulkhead Floodlight



Bulkhead Floodlight



8 x Jet wash bay lighting

A. 12 x 16762 Luci02-A-MB02-50LED  
Note-To be set at 60% output

B1. 6 x Bever 16884 40LED 70w 4mh fitted with masking plates

B2. 1 x Bever 16882 25LED 50w 3mh

B3. 2 x Bever 16882 25LED 50w 5mh

C. 2 x Philips FWC LED BWC120 LED 2.4mh

D. 4 x Bever CubiQ 19452 3mh

The lighting information provided on this drawing is for planning purposes only. The specified product manufacturer must be contacted for a comprehensive design and limited warranty information prior to product procurement. Emergency and Escape Lighting (not shown) is to be installed and compliant with BS5266-1 and The Regulatory Reform (Fire Safety) Order 2005 respectively.

TITLE: Proposed lighting layout - SALENDINE S.S

FILE REF: DM188.1

CLIENT: MBH/MFG

THE GRAHAM WHITELIGHTING CONSULTANCY  
20 Ribston Road, Farnham, Surrey. GU9 7GR  
Mobile: 07778 523667 | e-mail: enquiries@gwlc.co.uk  
www.gwlc.co.uk

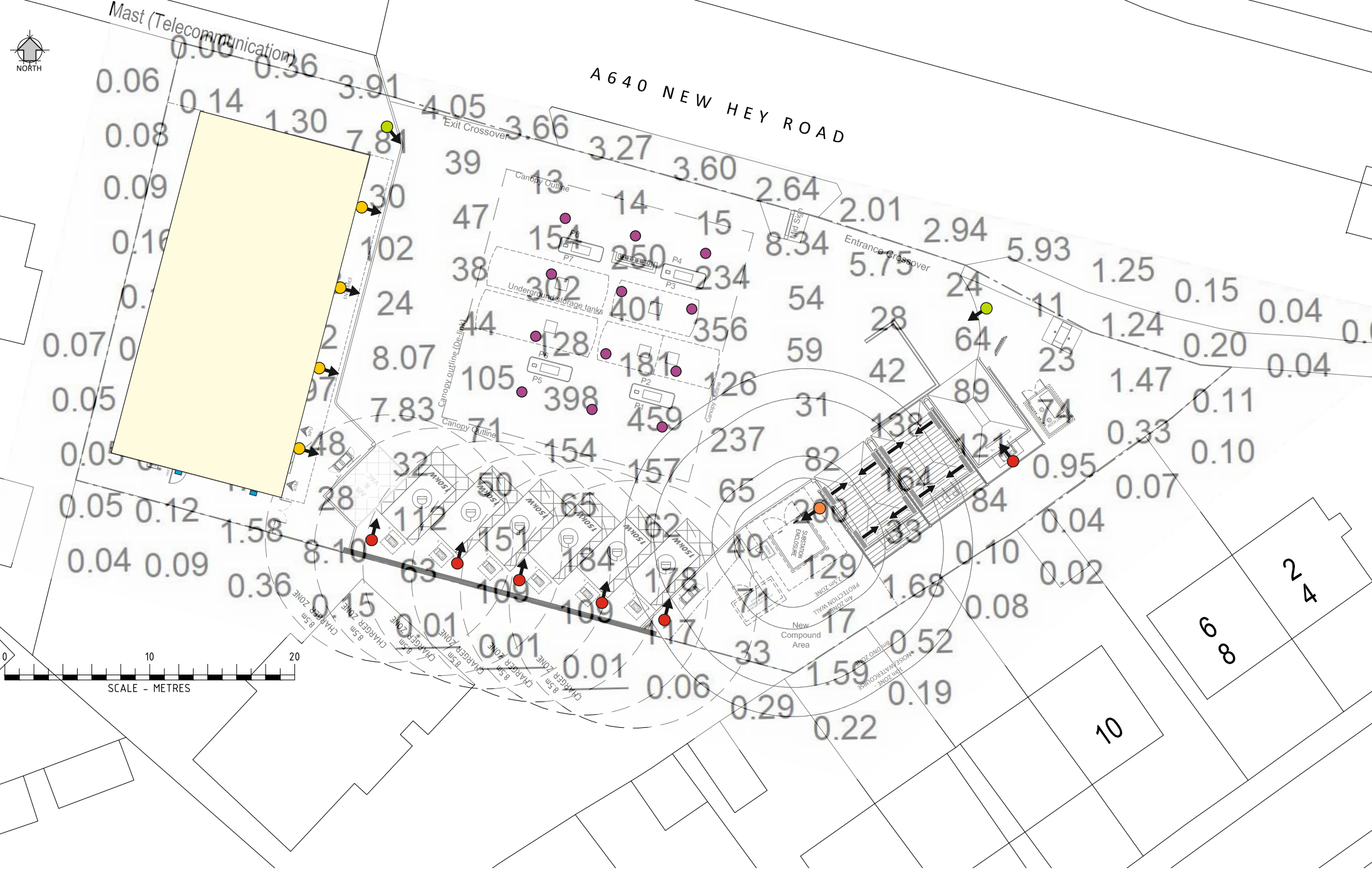
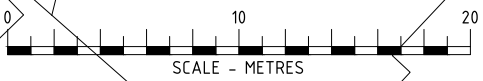


Lighting Solutions that Care for the Environment



Mast (Telecommunication)

A 640 NEW HEY ROAD



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TITLE: Proposed lighting layout Value Chart - SALENDINE S.S

FILE REF: DM188.2

CLIENT: MBH/MFG

THE GRAHAM WHITELIGHTING CONSULTANCY  
20 Ribston Road, Farnham, Surrey. GU9 7GR  
Mobile: 07778 523667 | e-mail: enquiries@gwlc.co.uk  
www.gwlc.co.uk






Lighting Solutions that Care for the Environment



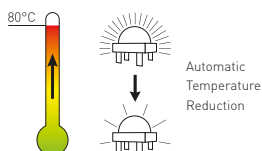
## Luci Series EOS<sup>2</sup>


### Benefits

- + Flexible luminaire. Select the number of LED's and optic for an ideal lighting solution.
- + Easy Installation. Click & Lock surface mounting plate.
- + Intelligent output control using integrated Motion and Daylight sensor.
- + Self-controlled operating conditions:
  - Luminaire Intelligent Protection System (LIPS). 
  - Active Overheat Protection (AOP). 
  - Light Normalizer – No Lumen drop during lifetime.
- + Integrated EOS technology: 
  - Plug-and-play self-organizing wireless network.
  - Encrypted communication.
  - Advised maximum spacing for network: 25 meter.
- + Intuitive control and analysis with the EOS Manager app:
  - User authentication and data encryption.
  - Visual representation of your EOS network.
  - Extensive configuration, information, and usage statistics.
  - Share sensor information between EOS devices.
- + Protected against dust and water intrusions, IP67

### Features

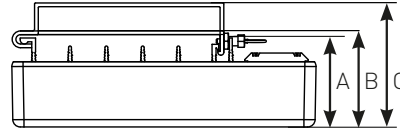
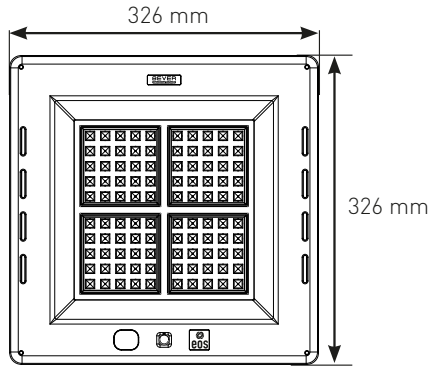
Number of LED's	40 / 50 / 80
Lumen Output	Up to 19.617 lm
Input Power	Up to 180 W
Efficacy	Up to 127 lm/W
Colour Temperature (CCT)	4000K / 5700K
Colour Rendering Index (CRI)	83+ / 73+
Rated Life	100.000+ Hours*
Daylight Sensor (DLS)	Integrated
Motion Sensor (PIR)	Integrated. Range: 7 meter**
Housing	PC-ABS white, Anodized Aluminium
Optic	PMMA
Mounting Options	Surface, Recessed
Dimensions	326 x 326 x 98 mm
Operating Temperature	-30 °C to +60 °C***
Connection cable	1500 mm EPR extra flexibility (-40 °C + 90 °C), UV resistant
Voltage	90 - 305 VAC @ 47 - 63 Hz 127 - 431 VDC
Rated Input Current	120 V - 1.25 A 305 V - 0.54 A
Power Factor	0.97 typical
IEC Safety Class	I
Weight	7.2 kg
AC Harmonics	Less than 10% THD compliant to EN55015



- \* L80/B10 at 25 °C constant ambient temperature, constant full power.
- \*\* Detected temperature difference 8 °C @ 1 m/s
- \*\*\* Active Overheat Protection above 80 °C at PCB 



## Dimensions



- A recessed\* = 98 mm
- B surface mounted = 103 mm (low profile)
- C surface mounted = 133 mm (standard profile)

\* Optional recessed brackets available.

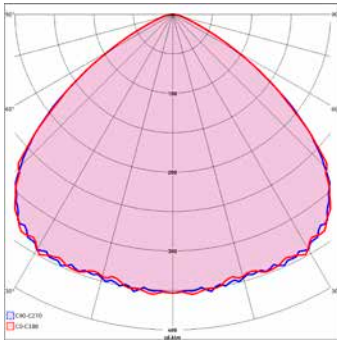
## Ordering information

Article number	Nomenclature	Number of LED's	Optic	Default Power	Default Lumen	Max. Power	Max. Lumen	Max. Efficacy	CCT	CRI
<b>Luci Series EOS 40 LED</b>										
16759	Luci02-S-MB01-40LED-N0-93W (EOS <sup>2</sup> , 5700K)	40		75W	8645 lm	93W	10382 lm	127 lm/W	5700K	73+
<b>Luci Series EOS 50 LED</b>										
16764	Luci02-S-MB01-50LED-N0-125W (EOS <sup>2</sup> , 4000K)	50		100W	11155 lm	125W	13300 lm	117 lm/W	4000K	83+
16760	Luci02-S-MB01-50LED-N0-125W (EOS <sup>2</sup> , 5700K)	50		100W	11552 lm	125W	13626 lm	125 lm/W	5700K	73+
16868	Luci02-A-MB02-50LED-N0-125W (EOS <sup>2</sup> , 4000K)	50		100W	11279 lm	125W	13309 lm	116 lm/W	4000K	83+
16762	Luci02-A-MB02-50LED-N0-125W (EOS <sup>2</sup> , 5700K)	50		100W	11691 lm	125W	13790 lm	123 lm/W	5700K	73+
<b>Luci Series EOS 80 LED</b>										
16765	Luci02-S-MB01-80LED-N0-180W (EOS <sup>2</sup> , 4000K)	80		145W	15636 lm	180W	18790 lm	120 lm/W	4000K	83+
16761	Luci02-S-MB01-80LED-N0-180W (EOS <sup>2</sup> , 5700K)	80		145W	16358 lm	180W	19496 lm	127 lm/W	5700K	73+
16766	Luci02-A-MB02-80LED-N0-180W (EOS <sup>2</sup> , 4000K)	80		145W	16074 lm	180W	19240 lm	119 lm/W	4000K	83+
16763	Luci02-A-MB02-80LED-N0-180W (EOS <sup>2</sup> , 5700K)	80		145W	16341 lm	180W	19617 lm	121 lm/W	5700K	73+

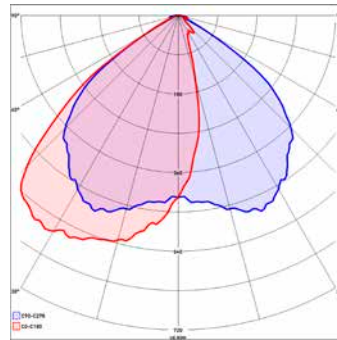
➤ Asymmetrical

➤ Symmetrical

## Optic



Symmetrical



Asymmetrical

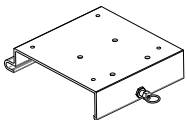
## Accessories

### Surface Mounted

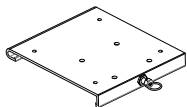
- 13135 High Mounting plate for Surface mounting
- 12996 Low Mounting plate for Surface mounting

### Recessed Mounted

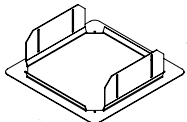
- 13406 Recessed frame for new canopies and retrofit of Philips Mini 300 (hole 360x360 mm)
- 11726 Recessed frame for retrofit of Philips MPF (hole 470x470 mm)
- 13742 Recessed frame for retrofit of Cube (hole 380x380 mm)
- 13746 Recessed frame for retrofit (hole 600x600 mm)
- 13738 Recessed frame for retrofit of Parkersell Canolux (hole 560x410 mm)



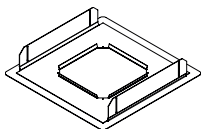
13135 Luci Series + High Mounting Plate = 133 mm high



12996 Luci Series + Low Mounting Plate = 103 mm high



13406 Philips Mini 300 (hole 360x360 mm)



11726 Philips MPF (hole 470x470 mm)

13742 Cube (hole 380x380 mm)

13746 Retrofit (hole 600x600 mm)

13738 Parkersell Canolux (hole 560x410 mm)

## Compliances Luci Series EOS

IEC 60598-1

IEC 60598-2-1

IEC 60598-2-2

IEC 62471:2008

EMC directive 2004/108/EC:

- EN 55015:2006 +A1:2007, +A2:2009

- EN 61000-3-2:2006 +A1:2009, +A2:2009

- EN 61000-3-3:2008

- EN 61547:2009

o EN 61000-4-2:2009

o EN 61000-4-3:2006 +A1:2008, +A2:2010

o EN 61000-4-4:2004, +A1:2010

o EN 61000-4-5:2006

o EN 61000-4-6:2009

o EN 61000-4-11:2004

Luminaires - Part 1: General requirements and tests

Luminaires - Part 2-1: Particular requirements - Fixed general purpose luminaires

Luminaires - Part 2-2: Particular requirements - Recessed luminaires

Photobiological safety of lamps and lamp systems

Limits and methods of measurement of radio disturbance of electrical lighting and similar equipment

Harmonic current emissions

Limitation of voltage fluctuations

Equipment for general lighting purposes. EMC immunity requirements. From which:

Electrostatic discharge (ESD) immunity

Radiated EM field immunity

Electrical fast transient (EFT) immunity

Surge transient immunity

Conducted Radio-frequency disturbance immunity

Immunity to voltage dips and short interrupts.



### SKU: 16884

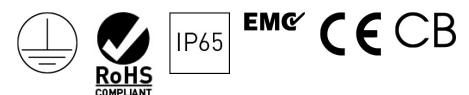
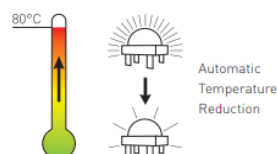
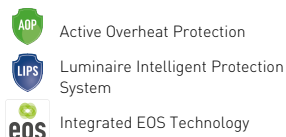
Ambiente. A-Symm. Wide Beam. 40LED - NO. 70W default. 5700K. CRI73+. EOS.

### Features

Productgroup	Ambiente
Power supply	Integrated
Input voltage	90 - 305 Vac   127 - 431 VDC
Frequency	47 - 63 Hz
Input Power (default)	70 Watt
Maximum allowed power (EU directive 2019/2020)	77 Watt
Lumen output (up to)	8122 lm
Efficacy (default)	115 lm/W
Colour temperature (CCT)	5700 K
Colour rendering index (CRI)	73+
Colour consistency	5 Macadam Ellipses
Upward light ratio (ULR)	< 1%
LED-count	40
Optic	PMMA
Beam optics	Wide area
Housing	Diecast aluminium / tempered safety glass
Mounting	Suits straight and angled poles
Pole diameter	48 - 60 mm
Dimensions	644 x 303 x 132 mm
Adjustable angle	-5° to +10°, bended or straight poles
EOS wireless technology	Yes
Motion sensor (PIR)	Available
Ingress protection	IP65
Mechanical impact resistance	IK08
Max SCx	0.0432 m <sup>2</sup>
IEC safety class	I
Power factor	0.96 typical
AC harmonics	Less than 10% THD compliant to EN55015
Inrush current	65 A 1.2 ms
B-16A fuse	10 pcs
C-16A fuse	14 pcs
Operating temperature	-40°C to +60°C
Rated life (L80B10)	100,000+ hours
Weight	7.20 kg

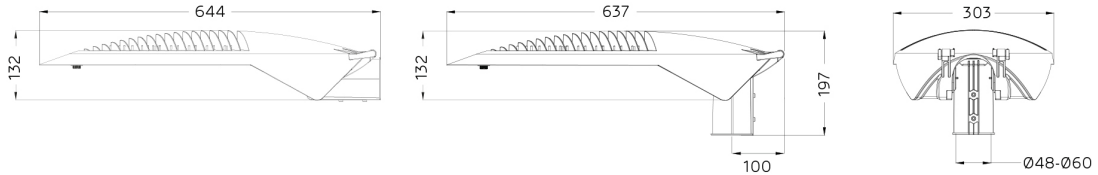
### Benefits

- + Increases visibility and comfort
- + Most advanced LED-technology
- + High efficient design: up to 114 lm/W luminaire efficacy
- + Outdoor ambient resistant -40°C to +60°C
- + Integrated die cast aluminium housing ensures good thermal management maximizing life and LED performance
- + Protected on against moisture, power dips or surges
- + Same model for straight or bended poles, easy finetuning of angle
- + Easy to install by one person
- + Attractive design
- + Mounting height: max. 18 meter
- + Night-time dimming. Configurable dusk till dawn dimming schedule
- + Self-controlled operating conditions:
  - Luminaire Intelligent Protection System (LIPS)
  - Active Overheat Protection (AOP)
  - Light Normalizer - No Lumen drop during lifetime
- + Integrated EOS technology:
  - Plug-and-play self-organizing wireless network
  - Encrypted communication
  - Advised maximum spacing for network: 30 meter
- + Intuitive control and analysis with the EOS Manager app:
  - User authentication and data encryption
  - Visual representation of your EOS network
  - Extensive configuration, information, and usage statistics
  - Share sensor information between EOS devices

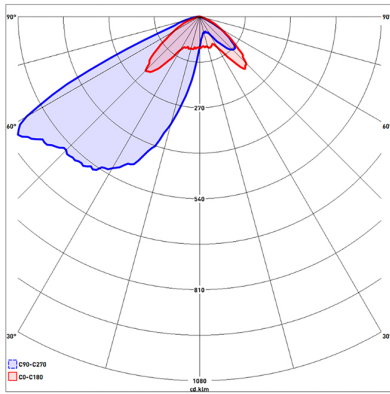


Bever\_SPEC\_Ambiente EOS2 Area\_01-02-22

### Dimensions



### Optic



### Ordering information

Name	SKU	Optic	Power	Lumen	Efficacy	CCT	CRI	Weight
<b>Ambiente EOS2 Area 25 LED</b>								
Ambiente 25LED 50W 3000K PIR	19381	Wide area	50 W	5527 lm	110 lm/W	3000 K	73+	7.20 kg
Ambiente 25LED 50W 4000K	16881	Wide area	50 W	5128 lm	102 lm/W	4000 K	83+	7.20 kg
Ambiente 25LED 50W 4000K PIR	19284	Wide area	50 W	5128 lm	102 lm/W	4000 K	83+	7.20 kg
Ambiente 25LED 50W 5700K	16882	Wide area	50 W	5527 lm	110 lm/W	5700 K	73+	7.20 kg
Ambiente 25LED 50W 5700K PIR	19380	Wide area	50 W	5527 lm	110 lm/W	5700 K	73+	7.20 kg
<b>Ambiente EOS2 Area 40 LED</b>								
Ambiente 40LED 70W 3000K	18609	Wide area	70 W	8122 lm	115 lm/W	3000 K	73+	7.20 kg
Ambiente 40LED 70W 3000K PIR	19379	Wide area	70 W	7558 lm	107 lm/W	3000 K	73+	7.20 kg
Ambiente 40LED 70W 4000K	16883	Wide area	70 W	7558 lm	107 lm/W	4000 K	83+	7.20 kg
Ambiente 40LED 70W 4000K PIR	19378	Wide area	70 W	7558 lm	107 lm/W	4000 K	83+	7.20 kg
Ambiente 40LED 70W 5700K	16884	Wide area	70 W	8122 lm	115 lm/W	5700 K	73+	7.20 kg
Ambiente 40LED 70W 5700K PIR	18626	Wide area	70 W	8122 lm	115 lm/W	5700 K	73+	7.20 kg

**Accessoires**



60 - 76 adapter

15354 Ambiente. Pole adapter 76=>60mm. Galvanised steel.



19376 Ambiente. Wall bracket. 110mm arm 0° angle. Steel (galvanized)

### Compliances

IEC 60598-1

IEC 60598-2-3 +A1:2011

IEC 62471:2008

IEC 60068-2-52

EN 50102

EN 55015: 2013

EN 61000-3-2: 2014

EN 61000-3-3: 2013

Luminaires - Part 1: General requirements

Luminaires - Part 2-3: Particular requirements – Luminaires for road and street lighting

Photobiological safety of lamps and lamp systems

Environmental tests - Salt mist

Degree of protection by enclosures for electrical equipment against external mechanical impacts (IK Code)

Emission - Electrical lighting and similar equipment

Limits for harmonic currents emissions

Limitation of voltage fluctuations and flicker



### SKU: 16882

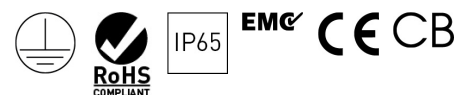
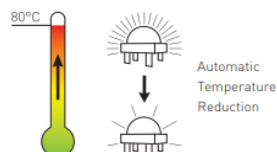
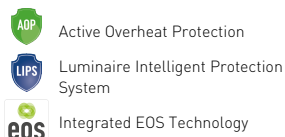
Ambiente. A-Symm. Wide Beam. 25LED - N0. 50W default. 5700K. CRI73+. EOS.

### Features

Productgroup	Ambiente
Power supply	Integrated
Input voltage	90 - 305 Vac   127 - 431 VDC
Frequency	47 - 63 Hz
Input Power (default)	50 Watt
Maximum allowed power (EU directive 2019/2020)	53 Watt
Lumen output (up to)	5527 lm
Efficacy (default)	110 lm/W
Colour temperature (CCT)	5700 K
Colour rendering index (CRI)	73+
Colour consistency	5 Macadam Ellipses
Upward light ratio (ULR)	< 1%
LED-count	25
Optic	PMMA
Beam optics	Wide area
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Ingress protection	IP65
Mechanical impact resistance	IK08
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AC harmonics	Less than 10% THD compliant to EN55015
Inrush current	65 A 1.2 ms
B-16A fuse	10 pcs
C-16A fuse	14 pcs
Operating temperature	-40°C to +60°C
Rated life (L80B10)	100,000+ hours
Weight	7.20 kg

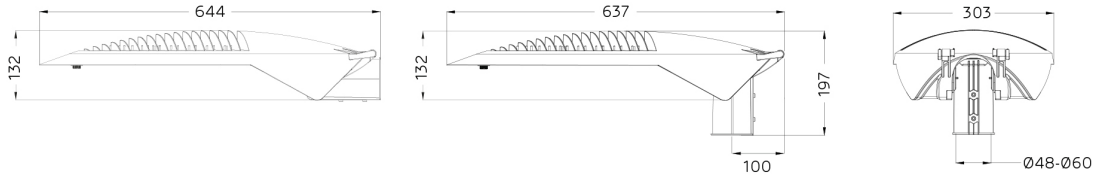
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- + Attractive design
- + Mounting height: max. 18 meter
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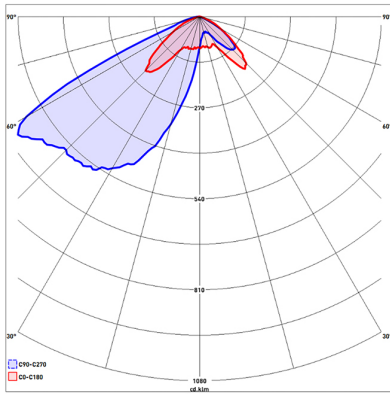


Bever\_SPEC\_Ambiente EOS2 Area\_01-02-22

### Dimensions



### Optic



### Ordering information

Name	SKU	Optic	Power	Lumen	Efficacy	CCT	CRI	Weight
<b>Ambiente EOS2 Area 25 LED</b>								
Ambiente 25LED 50W 3000K PIR	19381	Wide area	50 W	5527 lm	110 lm/W	3000 K	73+	7.20 kg
Ambiente 25LED 50W 4000K	16881	Wide area	50 W	5128 lm	102 lm/W	4000 K	83+	7.20 kg
Ambiente 25LED 50W 4000K PIR	19284	Wide area	50 W	5128 lm	102 lm/W	4000 K	83+	7.20 kg
Ambiente 25LED 50W 5700K	16882	Wide area	50 W	5527 lm	110 lm/W	5700 K	73+	7.20 kg
Ambiente 25LED 50W 5700K PIR	19380	Wide area	50 W	5527 lm	110 lm/W	5700 K	73+	7.20 kg
<b>Ambiente EOS2 Area 40 LED</b>								
Ambiente 40LED 70W 3000K	18609	Wide area	70 W	8122 lm	115 lm/W	3000 K	73+	7.20 kg
Ambiente 40LED 70W 3000K PIR	19379	Wide area	70 W	7558 lm	107 lm/W	3000 K	73+	7.20 kg
Ambiente 40LED 70W 4000K	16883	Wide area	70 W	7558 lm	107 lm/W	4000 K	83+	7.20 kg
Ambiente 40LED 70W 4000K PIR	19378	Wide area	70 W	7558 lm	107 lm/W	4000 K	83+	7.20 kg
Ambiente 40LED 70W 5700K	16884	Wide area	70 W	8122 lm	115 lm/W	5700 K	73+	7.20 kg
Ambiente 40LED 70W 5700K PIR	18626	Wide area	70 W	8122 lm	115 lm/W	5700 K	73+	7.20 kg

**Accessoires**



60 - 76 adapter

15354 Ambiente. Pole adapter 76=>60mm. Galvanised steel.



19376 Ambiente. Wall bracket. 110mm arm 0° angle. Steel (galvanized)

### Compliances

IEC 60598-1

IEC 60598-2-3 +A1:2011

IEC 62471:2008

IEC 60068-2-52

EN 50102

EN 55015: 2013

EN 61000-3-2: 2014

EN 61000-3-3: 2013

Luminaires - Part 1: General requirements

Luminaires - Part 2-3: Particular requirements – Luminaires for road and street lighting

Photobiological safety of lamps and lamp systems

Environmental tests - Salt mist

Degree of protection by enclosures for electrical equipment against external mechanical impacts (IK Code)

Emission - Electrical lighting and similar equipment

Limits for harmonic currents emissions

Limitation of voltage fluctuations and flicker



# FWC LED

## BWC120 LED18-/830 PSU II WH

SECURITY LED 120 - LED module 1800 lm - Power supply unit

Only texts for Benelux market available

### Product data

General Information	
Number of light sources	1 pc
Lamp family code	LED18 [ LED module 1800 lm]
Beam angle of light source	120 °
Light source color	830 warm white
Cap-Base	- [-]
Light source replaceable	No
Number of gear units	1 unit
Driver/power unit/transformer	Power supply unit
Driver included	Yes
Optic type	-
Optical cover/lens type	Opal bowl/cover
Luminaire light beam spread	180°
Connection	Screw connection block 3-pole
Cable	-
Protection class IEC	Safety class II
Glow-wire test	Temperature 650 °C, duration 5 s
Flammability mark	For mounting on normally flammable surfaces
CE mark	CE mark
ENEC mark	ENEC mark
Warranty period	5 years
Optic type outdoor	-

Photocell	-
Remarks	* At extreme ambient temperatures the luminaire might automatically dim down to protect components
Constant light output	No
Number of products on MCB of 16 A type B	50
EU RoHS compliant	Yes
Light source engine type	LED
Serviceability class	Class C, luminaire without serviceable parts, not serviceable
Product family code	BWC120 [ SECURITY LED 120]

### Light Technical

Upward light output ratio	0.08
Standard tilt angle posttop	0°
Standard tilt angle side entry	0°

### Operating and Electrical

Input Voltage	220 to 240 V
Input Frequency	50 to 60 Hz
Inrush current	5 A
Inrush time	0.05 ms

## FWC LED

Power Factor (Min)	0.95
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### Controls and Dimming

Dimmable	No
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### Mechanical and Housing

Housing Material	Acrylonitrile styrene acrylate
Reflector material	-
Optic material	-
Optical cover/lens material	Polycarbonate
Fixation material	Polyamide
Mounting device	Wall-mounting bracket
Optical cover/lens shape	Curved
Optical cover/lens finish	Opal
Overall length	282 mm
Overall width	178 mm
Overall height	134 mm
Effective projected area	0.06 m <sup>2</sup>
Color	White
Dimensions (Height x Width x Depth)	134 x 178 x 282 mm (5.3 x 7 x 11.1 in)

### Approval and Application

Ingress protection code	IP54 [ Dust accumulation-protected, splash-proof]
Mech. impact protection code	IK08 [ 5 J vandal-protected]
Surge Protection (Common/Differential)	Philips standard surge protection level

### Initial Performance (IEC Compliant)

Initial luminous flux (system flux)	1336 lm
Luminous flux tolerance	+/-10%
Initial LED luminaire efficacy	95 lm/W
Init. Corr. Color Temperature	3000 K
Init. Color Rendering Index	80
Initial chromaticity	(0.43, 0.40) SDCM <3
Initial input power	14 W
Power consumption tolerance	+/-10%

### Application Conditions

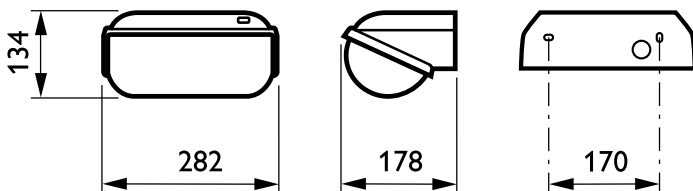
Ambient temperature range	-40 to +50 °C
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### Product Data

Full product code	871829185193699
Order product name	BWC120 LED18-/830 PSU II WH
EAN/UPC - Product	8718291851936
Order code	910500454102
Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	4
Material Nr. (12NC)	910500454102
Net Weight (Piece)	0.850 kg



### Dimensional drawing



FWC110/120 LED BWC110/120





**Benefits**

- + Modular lighting system.
- + Easy Installation with Plug & Play IP67 rated connectors.
- + Intelligent output level programming.
- + Self-controlled operating conditions:
  - Luminaire Intelligent Protection System (LIPS).
  - Active Overheat Protection (AOP).
  - Light Normalizer - No Lumen drop during lifetime.
- + Integrated EOS technology:
  - Plug-and-play self-organizing wireless network.
  - Encrypted communication.
  - Advised maximum spacing for network: 25 meter.
- + Intuitive control and analysis with the EOS Manager app:
  - User authentication and data encryption.
  - Visual representation of your EOS network.
  - Extensive configuration, information, and usage statistics.
  - Share sensor information between EOS devices.
- + Protected against dust and water intrusions.

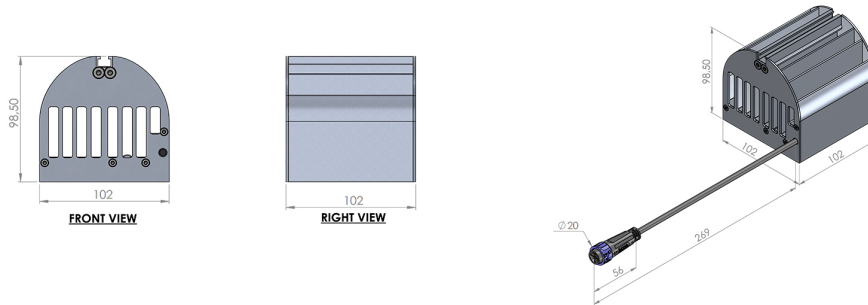
**SKU: 19452**

CubiQ led module. A-symm. 20W default. 13LED. Medium Beam. 5700K. CRI73. EOS

**Features**

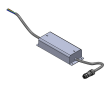
Power supply	Need to be ordered separately
Input voltage	48 Vdc
Input power (max)	25 Watt
Input power (default)	20 Watt
Lumen output (up to)	2890 lm
Efficacy (default)	119 lm/W
Colour temperature (CCT)	5700 Kelvin
Colour rendering index (CRI)	73+
LED-count	13
Beam optics	A-Symmetrical
Housing	Aluminium
Optics	PMMA
Dimensions	102 x 102 x 99 mm
EOS wireless technology	Yes
Motion sensor (PIR)	Optional
Mounting	Recessed and surface mounted
Connection cable	269 mm including plug & play connector
IEC safety class	IK04
Ingress protection	IP67
Operating temperature	-30 °C to +60 °C**
Rated life (L80B10)	>100.000 hours
Weight	0.82 kg

### Dimensions



### Ordering information

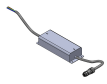
Name	SKU	Beam optic	Default power	Lumen (up-to)	Default efficacy	CCT	CRI	Weight
<b>CubiQ Modular 13 LED</b>								
CubiQ. 20W default. 13LED. 4000K A-Symm.	19451	A-Symm.	20 W	2898 lm	119 lm/W	4000 K	83+	0.82 kg
CubiQ. 20W default. 13LED. 4000K Symm.	19448	Symm.	20 W	2970 lm	122 lm/W	4000 K	83+	0.82 kg
CubiQ. 20W default. 13LED. 5700K A-Symm.	19452	A-Symm.	20 W	2890 lm	119 lm/W	5700 K	73+	0.82 kg
CubiQ. 20W default. 13LED. 5700K Symm.	19449	Symm.	20 W	2730 lm	111 lm/W	5700 K	73+	0.82 kg
<b>CubiQ Modular 25 LED</b>								
CubiQ. 60W default. 25 LED. Blue Symm.	19713	Symm.	60 W	- lm	- lm/W	Red, 3000K	-	0.82 kg
CubiQ. 60W default. 25 LED. Green Symm.	19516	Symm.	60 W	- lm	- lm/W	Red, 3000K	-	0.82 kg
CubiQ. 60W default. 25 LED. Red Symm.	19710	Symm.	60 W	- lm	- lm/W	Red, 3000K	-	0.82 kg
CubiQ. 60W default. 25LED. 3000K A-symm.	19387	A-Symm.	60 W	8189 lm	115 lm/W	3000 K	73+	0.82 kg
CubiQ. 60W default. 25LED. 3000K Symm.	19408	Symm.	60 W	8290 lm	116 lm/W	3000 K	73+	0.82 kg
CubiQ. 60W default. 25LED. 4000K A-symm.	19386	A-Symm.	60 W	7378 lm	101 lm/W	4000 K	83+	0.82 kg
CubiQ. 60W default. 25LED. 4000K Symm.	19384	Symm.	60 W	7544 lm	105 lm/W	4000 K	83+	0.82 kg
CubiQ. 60W default. 25LED. 5700K A-symm.	19385	A-Symm.	60 W	8189 lm	115 lm/W	5700 K	73+	0.82 kg
CubiQ. 60W default. 25LED. 5700K Symm.	19370	Symm.	60 W	8290 lm	116 lm/W	5700 K	73+	0.82 kg

**Power supply**

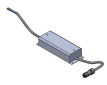
19439 Powersupply 50W - driver for 2pcs CubiQ led Module - 13LED



18536 Powersupply 75W - driver for 1pcs CubiQ led Module - 25LED



19509 Powersupply 225W - driver for 3pcs CubiQ led Module - 25LED



19510 Powersupply 375W - driver for 5pcs CubiQ led Module - 25LED

**Accessoires**

18388 CubiQ Connection Cable 1 meter (max. 2A)



18387 CubiQ Connection Cable 5 meter (max. 2A)



18386 CubiQ Connection Cable 7.5 meter (max. 2A)



18385 CubiQ Connection Cable 10 meter (max. 2A)



19565 Power Distribution Cable 0,5 meter (max. 10A)



19564 Power Distribution Cable 5 meter (max. 10A)



19563 Power Distribution Cable 10 meter (max. 10A)



19505 Power Distribution Cable 25 meter (max. 10A)



19614 CubiQ Power Distribution T-Splitter



18625 CubiQ Standard mounting bracket for wall and ceiling



18543 CubiQ Motion Sensor, Range 15m

**Accessoires**

18527 Cubiq coverplate. Outside dim 330x230. With PIR hole. White



19429 Cubiq coverplate. Outside dim 330x230. Without PIR hole. White

19233 Cubiq coverplate. Outside dim 420x420mm. With PIR hole. White



19739 Cubiq coverplate. Outside dim Diamer 250mm. Without PIR hole. White

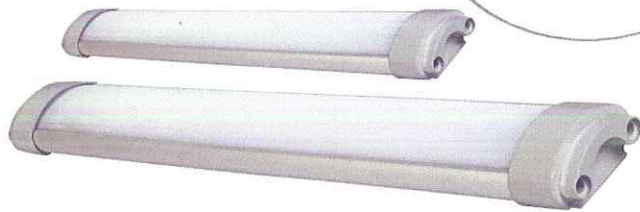
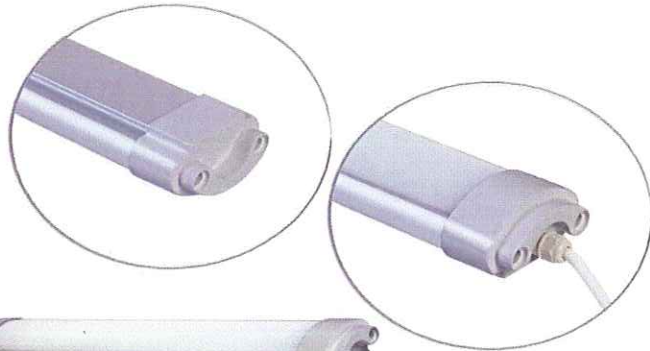
19287 Cubiq coverplate. Outside dim Diamer 250mm. Without PIR hole. DarkGrey RAL 7016

19980 Cubiq coverplate. Outside dim 326x326. Without PIR hole. White

19981 Cubiq coverplate Inlay. Outside dim 326x326. fits in mini300frame. No PIR Ral 9003.

## PANTALLA ESTANCA LED D IP65 · Multiusos (exterior o interior)

Parkings, almacenes, fábricas, maquinaria, ascensores, oficinas, cocinas, jardines y terrazas, etc.



**IP65**  
**IK08** **120°**



### Especificaciones técnicas

Referencia	W	Equivalente	Temperatura de color	Dimensiones	Lúmenes nominales	Flujo luminoso	PVP*
PED10W/865 PED10W/840	10W	1x18W (600mm)	6500K-4000K	600x80x36mm	1100 Lm 1100 Lm	950 Lm 950 Lm	
PED18W60/865 PED18W60/840	18W	2x18W (600mm)	6500K-4000K	600x80x36mm	1980 Lm 1980 Lm	1834 Lm 1834 Lm	
PED18W120/865 PED18W120/840	18W	1x36W (1200mm)	6500K-4000K	1200x80x36mm	1980 Lm 1980 Lm	1834 Lm 1834 Lm	
<b>PED36W/865</b> <b>PED36W/840</b>	<b>36W</b>	<b>2x36W</b> <b>(1200mm)</b>	<b>6500K-4000K</b>	<b>1200x80x36mm</b>	<b>3960 Lm</b> <b>3960 Lm</b>	<b>3808 Lm</b> <b>3808 Lm</b>	
PED22W/865 PED22W/840	22W	1x58W (1500mm)	6500K-4000K	1500x80x36mm	2420 Lm 2420 Lm	2100 Lm 2100 Lm	
PED45W/865 PED45W/840	45W	2x58W (1500mm)	6500K-4000K	1500x80x36mm	4950 Lm 4950 Lm	4528 Lm 4528 Lm	
<b>Radar Apagado al 20%</b>							
PEDR10W/865 PEDR10W/840	10W Radar	1x18W (600mm)	6500K-4000K	600x80x36mm	1100 Lm 1100 Lm	950 Lm 950 Lm	
PEDR18W60/865 PEDR18W60/840	18W Radar	2x18W (600mm)	6500K-4000K	600x80x36mm	1980 Lm 1980 Lm	1834 Lm 1834 Lm	
PEDR36W/865 PEDR36W/840	36W Radar	2x36W (1200mm)	6500K-4000K	1200x80x36mm	3960 Lm 3960 Lm	3808 Lm 3808 Lm	
PEDR45W/865 PEDR45W/840	45W Radar	2x58W (1500mm)	6500K-4000K	1500x80x36mm	4950 Lm 4950 Lm	4528 Lm 4528 Lm	



\*Impuestos no incluidos. Tensión: 85-265V (50-60 Hz) PF>0,9. CRI>80.

Disponible desde Julio 2016

Instalación rápida en superficie o colgada

**ledsmax** MI-LED



**ESADECREAPOLIS**  
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