



CityMAX[®]

INNOVATION AND EFFICIENCY
FOR URBAN SPACES



PATENTED DESIGN
REGISTERED EUROPEAN DESIGN

 CityMAX[®]



INTELLIGENT & DIGITAL STREETLIGHTING LUMINAIRE



Innovation and efficiency for urban spaces.

CityMax is a concept that delivers a versatile urban lighting system with a modern, innovative design, for a variety of city applications.



CityMax guarantees excellent levels of illumination for different types of lighting applications. With its flexible design it offers an extensive range of lumen packages and varied mounting options that are an ideal solution for city projects that encompass streets, avenues, squares and roads.

Its circular design revolves around LED modules that make the urban landscape a comfortable and pleasant space at night, whilst ensuring a discrete, elegant look in the day.

Maintenance

Tool-less access into the luminaire during installation.

Optics/light source

- Available with a variety of optical packages.
- Lumen packages ranging from 2,000 to 15,000 lumens.
- Colour temperature of 4000°K and 3000°K.
- Future proof: Design ready for upgrading.

TM66 CEAM-Make Rating

- Preliminary Rating: 2.3 (Definite/substantial progress to circularity).

Approvals

- CE
- IP66 light engines (EN 60529)
- IP66 gear compartment (EN 60529)
- Ta -40 °C to +50 °C
- IK10 (EN 62262)



Typical Luminaire Performance

Configuration	Delivered Lumens	Power Consumption	Driver Current	Projected Life of LED Module (L70B50 @Tq 25°C)*
SCL.L024	c.2000	19W	675mA	100,000 hrs
SCL.L034	c.3000	25W	469mA	100,000 hrs
SCL.L044	c.4000	36W	675mA	100,000 hrs
SCL.L054	c.5000	43W	403mA	100,000 hrs
SCL.L064	c.6000	52W	492mA	100,000 hrs
SCL.L074	c.7000	62W	591mA	100,000 hrs
SCL.L094	c.9000	82W	788mA	100,000 hrs
SCL.L124	c.12000	104W	628mA	100,000 hrs
SCL.L154	c.15000	139W	830mA	100,000 hrs

Note: Data is correct at time of print.

* For other life metric data in line with IEC PAS62722-2-1 and 62717 contact your Holophane Representative for details.

Technical specifications



Enclosure - IP66

In accordance with EN 60529, IP66 luminaire enclosure has been achieved. A series of bespoke clips and seals designed for the luminaire ensure that the IP66 seal is maintained.

Impact rating - IK10

In accordance with EN 62262, IK10 impact protection rating as been achieved. Maximum protection to ensure the projected life of the luminaire is maintained. The IK10 rating is achieved via the 4mm thick tempered glass lens.

Control

Using programmable gear, DALI and 1-10V protocol, the lighting is managed in a more efficient manner, minimising consumption and maximising performance.

Available as part of an Integrated wireless controls system.



Electrical class

Available in CI and CII.



Brackets

With a variety of mounting options CityMax can be used in different city spaces: squares, streets, avenues, urban centres and even secondary roads.

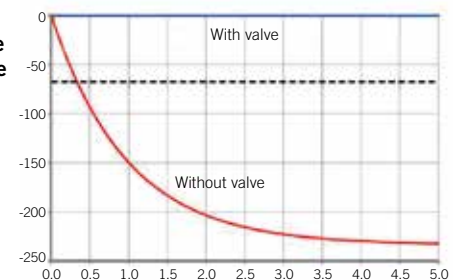
Pressure equalisation valve



Each module has a pressure equalisation valve that offsets interior/exterior pressure. The integration of the valve extends the projected life of the seals and interior

parts by reducing the pressure placed on them and prevents moisture from entering which can lead to condensation.

Change in pressure inside the module due to a significant change in temperature



Overvoltage protector

CityMAX includes an overvoltage protection system, that protects the electronic parts of the luminaire against overvoltages of up to 10KV/KA.



3000K or warmer must be selected for IDA dark sky certification.



SE
Side entry
mounting

SE1: 34/42 mm
SE2: 49/60 mm

PT
Post top
mounting

PT1: 76 mm
PT2: 60 mm

CP
Central post
mounting

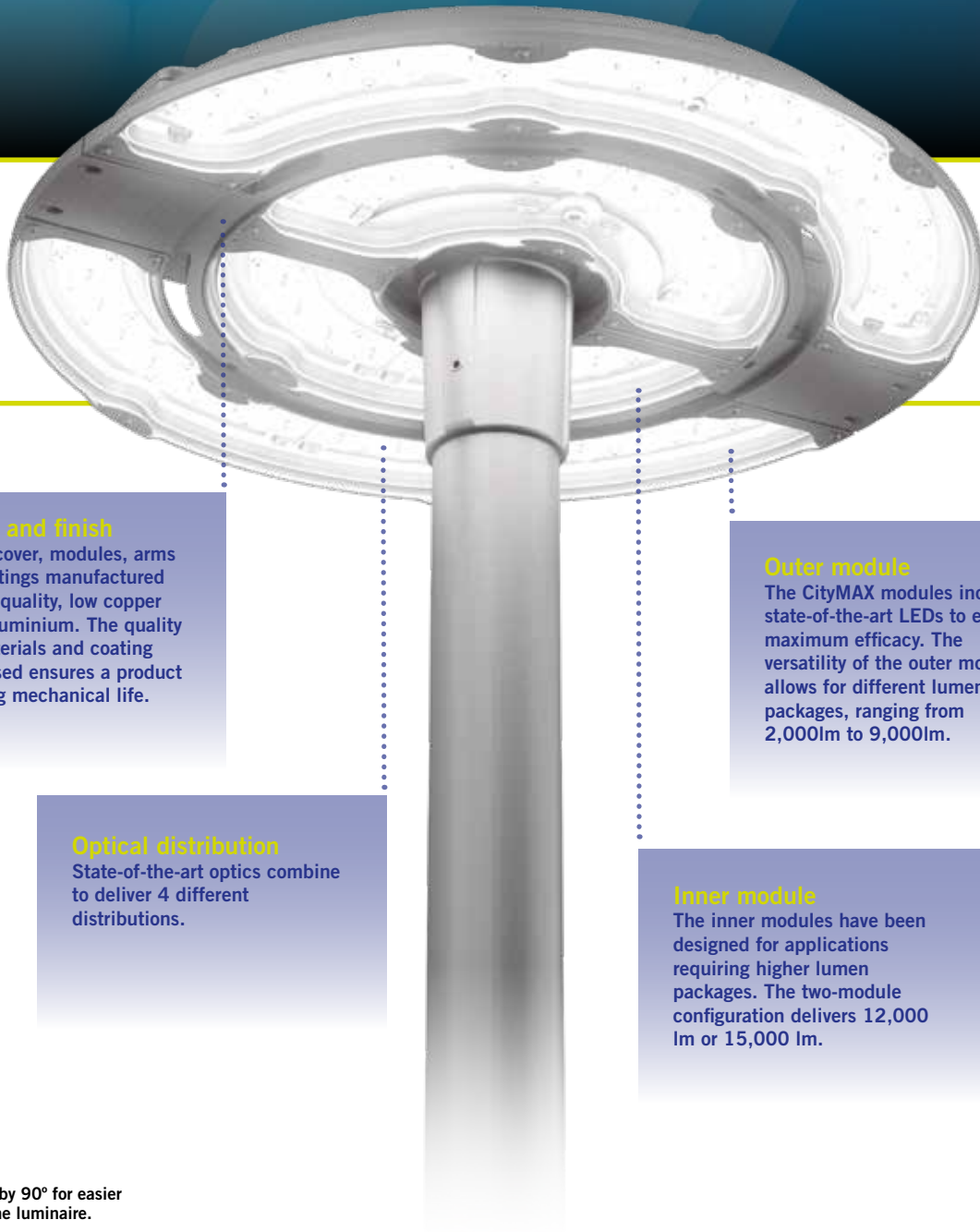
CP1: 76 mm
CP2: 60 mm

VB
Cradle
mounting

VB1: 76 mm
VB2: 60 mm

CB
Curved
mounting

CB1: 76 mm
CB2: 60 mm



Material and finish

Housing, cover, modules, arms and mountings manufactured from high quality, low copper content aluminium. The quality of the materials and coating process used ensures a product with a long mechanical life.

Optical distribution

State-of-the-art optics combine to deliver 4 different distributions.

Outer module

The CityMAX modules include state-of-the-art LEDs to ensure maximum efficacy. The versatility of the outer module allows for different lumen packages, ranging from 2,000lm to 9,000lm.

Inner module

The inner modules have been designed for applications requiring higher lumen packages. The two-module configuration delivers 12,000 lm or 15,000 lm.

Cover hinges by 90° for easier access into the luminaire.



Maintenance

Convenient luminaire access from the top, without the need for tools. The modules are separate from the driver, which encourages heat dissipation by way of convection and conduction.

Tilt Options

The design of CityMAX allows on site -10° to 10° tilting on side entry and post top variants.



ROOF
•FUTURE
ROOM

Future-proof design

The CityMax design means that its modules can be upgraded in line with future technology for maximum energy efficiency.

Thermal management

Excellent heat dissipation,
longer complete life

The LED module system covers a large contact surface that conducts heat away from the critical electronic components which is then dissipated throughout the housing. The channel between the modules and the

gear compartment generates a constant flow of air that passes through the luminaire. This process of convection ensures the luminaire is running as cool as possible resulting in a long system life.

Thermal management

CityMax utilises all three heat transfer principles of conduction, convection and radiation.



Conduction

From the LEDs and driver onto the LED module and gear housing respectively.



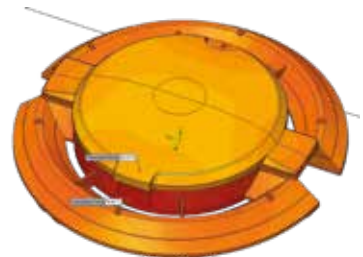
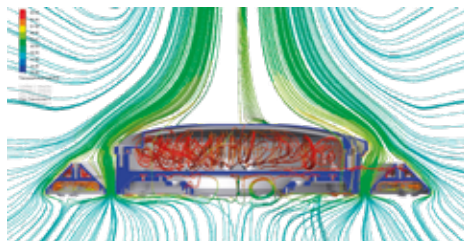
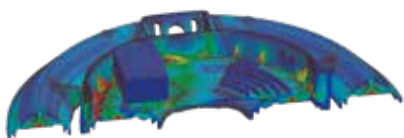
Convection

The air channel between the LED module and gear housing.



Radiation

Heat energy from the driver and LED is emitted from the casting in all directions.



Measurements

Windage m²

VB2	0.1027
VB1	0.1139
SE2	0.0545
SE1	0.0519
PT2	0.0545
PT1	0.0598
CP2	0.0524
CP1	0.0540
CB1	0.1203
CB2	0.1082

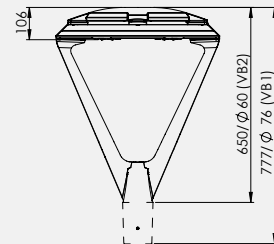
Weight kg

VB1 up to L094	13.50
VB1 L124 & L154	16.00
VB2 up to L094	12.50
VB2 L124 & L154	15.00
SE2/PT2 up to L094	10.00
SE2/PT2 L124 & L154	12.60
CP2 up to L094	10.16
CP2 L124 & L154	12.70
CB1 up to L094	13.90
CB1 L124 & L154	16.40
CB2 up to L094	12.90
CB2 L124 & L154	15.40

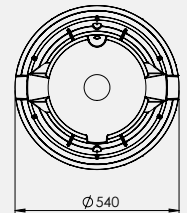
NOTE: Given the constant upgrading of technology and LEDs, the values, data or measurements may change without prior notice.



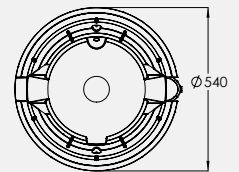
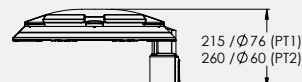
VB mounting



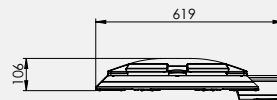
Dimensions in mm



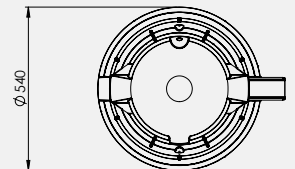
PT mounting



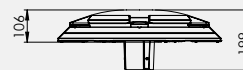
SE mounting



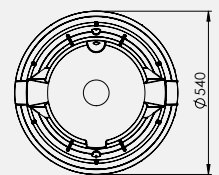
Same total length for versions SE1 (Ø 34/42) and SE2 (Ø 49/60)



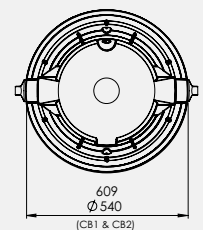
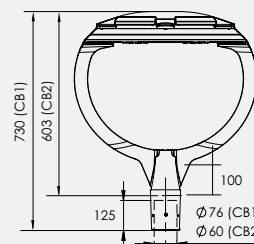
CP mounting



Same total height for versions CP1 (Ø 76) and CP2 (Ø 60)

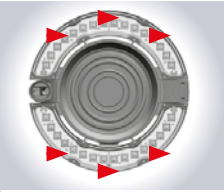


CB mounting



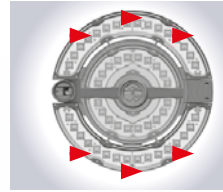
Applications

A luminaire for the entire city



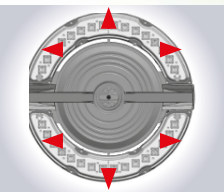
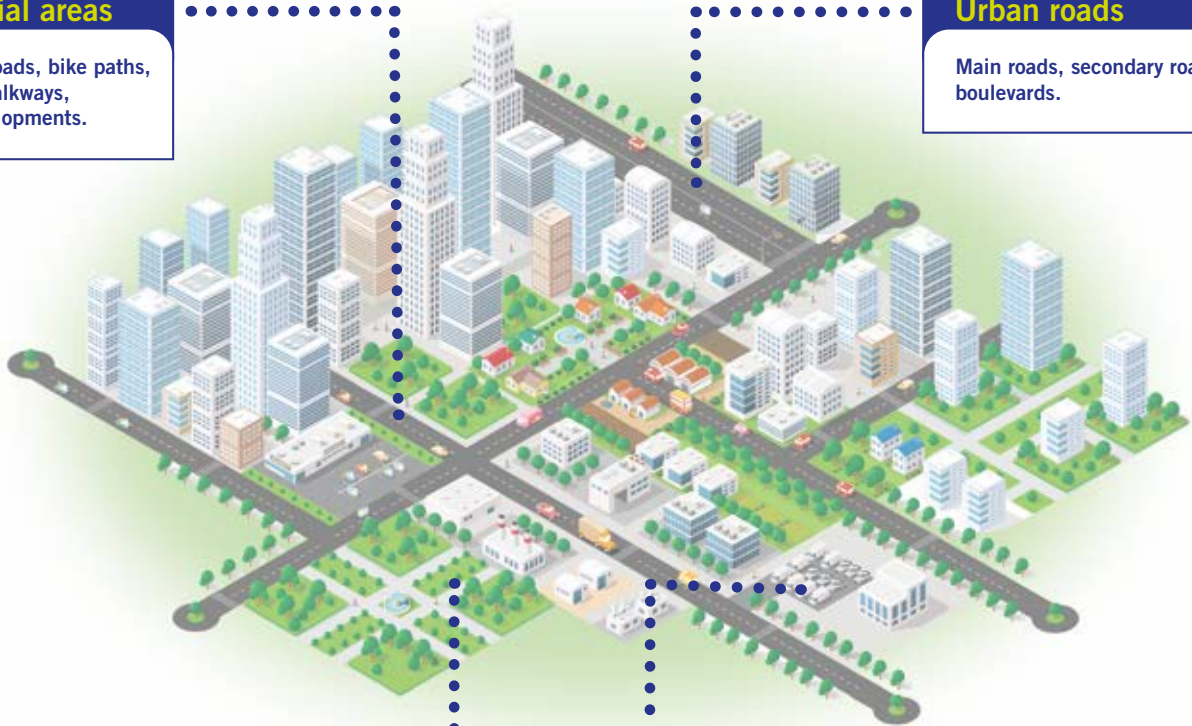
Residential areas

Residential roads, bike paths, pedestrian walkways, housing developments.



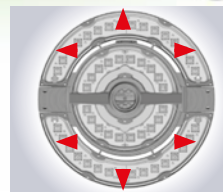
Urban roads

Main roads, secondary roads, boulevards.



Squares and gardens

Parks, play areas, squares, pedestrian areas.



Outdoor areas

Private spaces, car parks, roundabouts, shopping areas, train or bus stations.

A versatile luminaire



CityMax has a wide range of optical packages which have been developed for a variety of urban environments.



CityMAX®

Controls

Compatible with Controlux Air

Controlux Air helps cities transform their existing infrastructure into a wireless platform. With Controlux Air, you have full remote configuration of your site with an intuitive user interface which is map based and delivers accurate/update reporting.



Integrated Wireless Controller

Integral wireless communication, lighting control and external sensor interface.

External antenna allowing communication with 'Motion Sensor' and 'Wireless Gateway'.

Creates a wireless mesh type network when used with the 'Wireless Gateway'.

Available as a standard option with code .TSK



Motion Sensor

Motion sensor and wireless communication triggering 1 to 10 luminaires (with Integral Wireless Controller) upon detection (user configurable).

Wireless communication with 'Gateway'.

Detects pedestrians, cyclists and cars range (range: 2.5 -75 mph)

Range: up to 15m on each side, 9m front and 3m behind at a mounting height of 5m (max).



Gateway

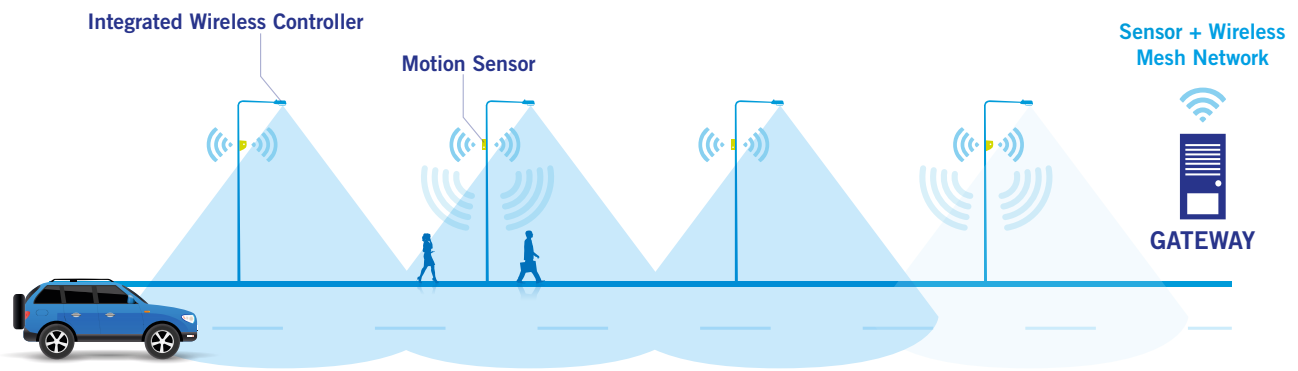
Wireless network and server communication (via SIM Card).

Suitable for pole, wall or inside cabinet mounting.

One Gateway required for up to 200 devices (Motion Sensors or Integrated Light Controllers)

with a range of up to 1km open field range.

Links all devices to web-based Customer Interface for remote management of luminaires and devices.



Intuitive user interface

Gain in-depth insights into every single aspect of your lighting system. Smart analytics and simple charts will help you make the right decision about your lighting infrastructure.



Automatic failure reports

Lighting-related system faults are identified, and automatic failure reports are sent in real-time. This results in optimized maintenance, better planning, reduced costs and extended luminaire life.



Power metering

Dedicated hardware provides precise energy metering, which is converted into detailed energy usage and savings reports.



Accurate real-time data

Generation of analytics per an individual light point or their groups. Available data includes: notifications about lighting-related faults, number of triggers per light point, generated energy savings, heatmaps, and more.



Map-based visualizations

Outdoor lighting points are represented in a graphic interface on Google Maps, coordinated with GPS technology, which enables you to locate, monitor and control individual light points with ease.



Continuous support

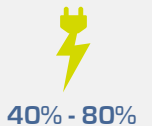
CityManager receives periodic security and feature upgrades. We do this to ensure optimum functionality and system performance.



Financial Benefits

By installing Controlux Air controls systems, you benefit financially, thanks to energy savings and reduced energy costs.

Energy savings of up to 80%



- By using dynamic lighting, it is possible to generate energy savings of 40-80%, depending on the usage environment
- In dense urban environments, the Controlux Air solution has the potential to generate energy savings of 40-50% (in this case, actual savings depend on the traffic intensity)

Maintenance costs savings up to 50%



- Automatic failure reporting
- No need for expensive visual inspections
- Extended luminaire lifetime
- Excellent preventive maintenance

A solution for energy efficiency

that offers a wide range of functions to adapt to any setting.



Autonomous luminaire control

LRT56 / LRT66 / LRT76.

With the individual control, the precise amount of light is set in the correct place and at the right time. The autonomous controls uses the driver that is built into the luminaire.

Presence sensor. The presence sensors are connected to the driver (DALI or 1-10V) to improve the efficiency of the installation by increasing the lumen level when pedestrians or vehicles are detected and reducing it when no movement is sensed in the area.

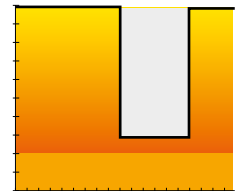
Control by light source groups

ANF (1-10V). Group control that allows for the lumen flow to be dimmed by between 1 and 100%, using an analogue signal that is sent to the control gear. It requires an additional two-wire control line.

LRD (DALI). Digital communication interface. This is a two-way control interface that allows for information to be obtained on the light source. It requires a second control line for each luminaire.

Example: LRT56

- LRT:** Pre-set to dim
5: 50% of the initial flow
6: Hours during which dimming is maintained



Controlux control systems



CONTROLUX AIR is a wireless technology that offers intelligent lighting with reductions in energy consumption of up to 80%. It optimises energy savings thanks to the individual

control of light sources. It controls, monitors and manages street lighting, reporting consumptions, operating hours or system faults.

*actual savings depend on the traffic & pedestrian intensity and usage.




Configurator


Customised solution




Code	Luminaire (required)									
SCL	CityMax Luminaire									
Code	Lamp Type (required)									
.LA023	2000lm LED module with 3000K colour temperature, 70CRI									
.LA033	3000lm LED module with 3000K colour temperature, 70CRI									
.LA043	4000lm LED module with 3000K colour temperature, 70CRI									
.LA053	5000lm LED module with 3000K colour temperature, 70CRI									
.LA063	6000lm LED module with 3000K colour temperature, 70CRI									
.LA073	7000lm LED module with 3000K colour temperature, 70CRI									
.LA093	9000lm LED module with 3000K colour temperature, 70CRI									
.LA123	12000lm LED module with 3000K colour temperature, 70CRI									
.LA024	2000lm LED module with 4000K colour temperature, 70CRI									
.LA034	3000lm LED module with 4000K colour temperature, 70CRI									
.LA044	4000lm LED module with 4000K colour temperature, 70CRI									
.LA054	5000lm LED module with 4000K colour temperature, 70CRI									
.LA064	6000lm LED module with 4000K colour temperature, 70CRI									
.LA074	7000lm LED module with 4000K colour temperature, 70CRI									
.LA094	9000lm LED module with 4000K colour temperature, 70CRI									
.LA124	12000lm LED module with 4000K colour temperature, 70CRI									
.LA154	15000lm LED module with 4000K colour temperature, 70CRI									
Code	Distribution (required)									
.ST1	Symmetric long distribution									
.ST2	Symmetric wide distribution									
.ST3	Symmetric distribution									
.AS1	Long & narrow distribution									
.AS2	Asymmetric distribution									
.AS3	Asymmetric distribution									
Code	Mounting (option)									
.PT1 ¹	Post Top 76mm									
.PT2 ¹	Post Top 60mm									
.SE1 ¹	Side Entry 34/42									
.SE2 ¹	Side Entry 49/60mm									
.CP1	Central Post 76mm									
.CP2	Central Post 60mm									
.VB1	Cradle Mount 76mm									
.VB2	Cradle Mount 60mm									
.CB1	Curved Mount 76mm									
.CB2	Curved Mount 60mm									
Code	Colour (required)									
.C1	Smooth White (RAL9016)									
.C4	Graphite (RAL7011)									
.C6	Smooth Grey (RAL7035)									
.C7	Black (RAL9005)									
.C9	Metallic Silver (RAL9006)									
Code	Paint Finish (option)									
.C	Enhanced Paint Finish									
Code	Photocell (option)									
.T1	Complete with NEMA socket. (To accept standard NEMA Photocell)									
.TSZ	Complete with miniature 70 lux factory fitted photocell. (Zodion SS12)									
.TSZA	Complete with miniature 55 lux factory fitted photocell. (Zodion SS12A)									
.TSZB	Complete with miniature 35 lux factory fitted photocell									
Code	Dimming Outputs (option)									
.LRD	DALI enabled									
.LRT*****	Dimming as per customer requirements									
Code	Control Gear (option)									
.CL7 ²	LED programmed to deliver 70% lumen flow over the life of the luminaire									
.CL8 ²	LED programmed to deliver 80% lumen flow over the life of the luminaire									
.CL9 ²	LED programmed to deliver 90% lumen flow over the life of the luminaire									
Code	Electrical Class									
.CII	Class II									
Code	Protection									
.C-PROTEC	Overvoltage protection									
Code	Wattage (required*)									
.W019 to	19W to 126W									
.W126										




LA02X
8 LED
(2 x 4 LED modules)



LA04X
16 LED
(2 x 8 LED modules)



LA05X, LA06X,
LA07X & LA09X
32 LED
(2 x 16 LED modules)



LA12X & LA15X
52 LED
(2 x 16 LED modules & 2 x 10 LED modules)

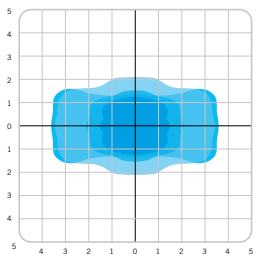
SCL	.L023	.ST1	.CP1	.C9	.C	.T1	.LRD	.CL7 ²	.CII	.C-PROTEC
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Example

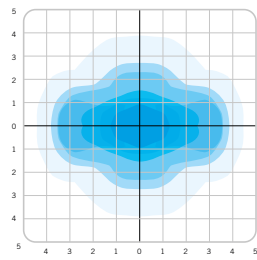


¹ Not available with ST1 and ST2
² Not available with LRD
Please contact your local Holophane representative for further details on the 3000K and amber options.
Lumen data is considered to be representative of the configuration shown, and may vary, with a tolerance on flux of +/- 7% (typical of LED manufacturers data) and luminaire power of +/- 5%.
*Wattage is determined by the lumen package selected.

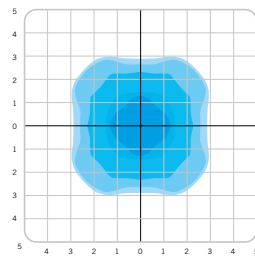
Distributions



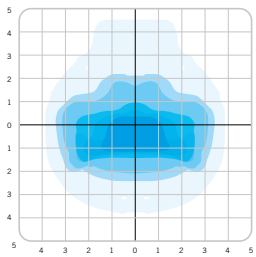
Symmetric Long (.ST1)



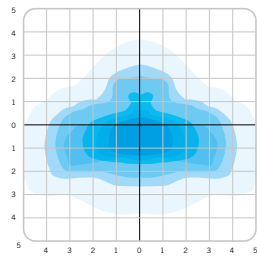
Symmetric Long (.ST2)



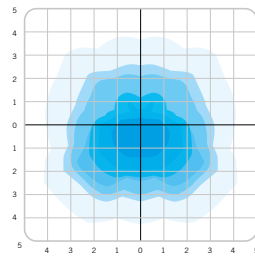
Symmetric Long (.ST3)



Long & Narrow (.AS1)



Asymmetric (.AS2)



Asymmetric (.AS3)





LED

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