HOLOPHANE®

CityMax®

Innovation and efficiency for urban spaces

MADE IN BRITAIN®

Registered European design / Patented 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.

LUX AWARDS 2017 WINNER

Optics/light source

- Available with a variety of optical packages.
- Lumen packages ranging from 2,000 to 20,000 lumens.
- Colour temperature of 4000°K, 3000°K and 2700°K. Also available in amber.
- Future proof: Design ready for upgrading and fully controls ready via ZD4i.

TM66 CEAM-Make Rating

TM66 CIRCULARITY 2.7 012-0091 LIA CIBSE

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.LA02X	c.2000	17W	612mA	100,000 hrs
SCL.LA02X.HE	c.2000	16W	302mA	100,000 hrs
SCL.LA03X	c.3000	27W	990mA	100,000 hrs
SCL.LA03X.HE	c.3000	23W	452mA	100,000 hrs
SCL.LA04X	c.4000	33W	609mA	100,000 hrs
SCL.LA04X.HE	c.4000	31W	602mA	100,000 hrs
SCL.LA05X.HE	c.5000	39W	762mA	100,000 hrs
SCL.LA06X	c.6000	54W	985mA	100,000 hrs
SCL.LA06X.HE	c.6000	47W	909mA	100,000 hrs
SCL.LA07X	c.7000	56W	548mA	100,000 hrs
SCL.LA09X	c.9000	75W	727mA	100,000 hrs
SCL.LA10X	c.10,000	85W	821mA	100,000 hrs
SCL.LA12X	c.12,000	108W	1023mA	100,000 hrs
SCL.LA14X	c.14,000	111W	683mA	100,000 hrs
SCL.LA16X	c.16,000	131W	797mA	100,000 hrs
SCL.LA18X	c.18,000	153W	921mA	100,000 hrs
SCL.LA20X	c.20,000	176W	1050mA	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.

MADE IN BRITAIN · IDA DARK SKY APPROVED · energyefficient · LED · UKCA

Technical specifications

CityMAX®

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.

CONTRO LUX air

Electrical class

Available in CI and CII.

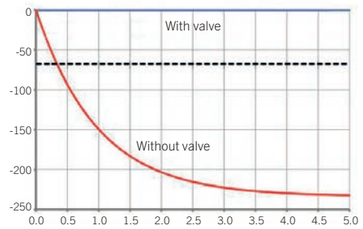
Brackets

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.

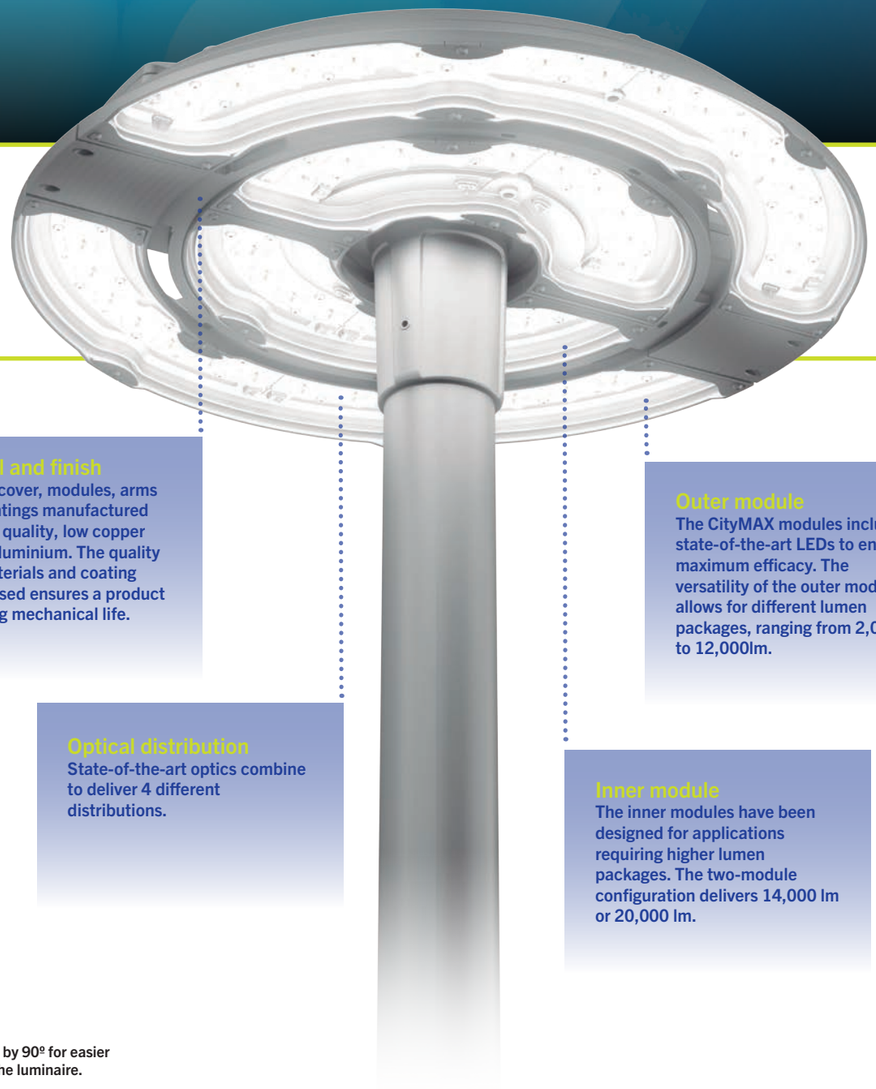
Change in pressure inside the module due to a significant change in temperature



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.



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 12,000lm.

Inner module
The inner modules have been designed for applications requiring higher lumen packages. The two-module configuration delivers 14,000 lm or 20,000 lm.

Cover hinges by 90º 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 -10º to 10º tilting on side entry and post top variants.

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

FUTURE PROOF

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

CityMAX®

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.

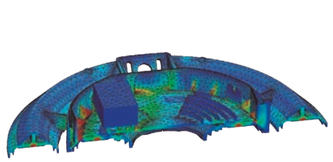
Thermal management

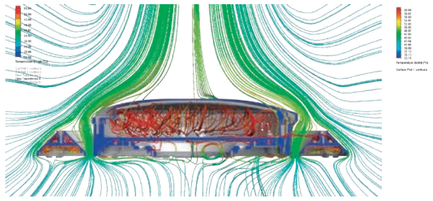
CityMax utilises all three heat transfer principles of conduction, convection and radiation.

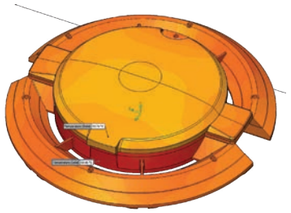
Conduction
From the LEDS and driver onto the LED module and gear housing respectively.

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.



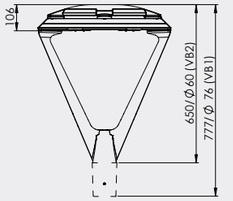




Measurements

Dimensions in mm

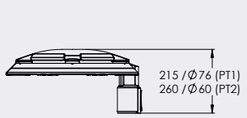
VB mounting

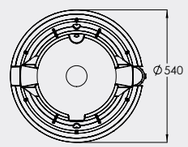


Windage m^2

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

PT mounting



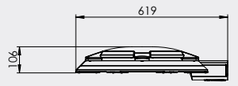


Weight kg

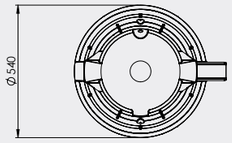
VB1 up to LA12X	13.50
VB1 LA14X & LA20X	16.00
VB2 up to LA12X	12.50
VB2 LA14X to LA20X	15.00
SE2/PT2 up to LA12X	10.00
SE2/PT2 LA14X to LA20X	12.60
CP2 up to LA12X	10.16
CP2 LA14X to LA20X	12.70
CB1 up to LA12X	13.90
CB1 LA14X to LA20X	16.40
CB2 up to LA12X	12.90
CB2 LA14X to LA20X	15.40

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

SE mounting

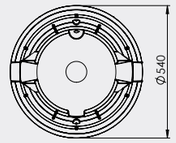


Same total length for versions
SE1 (Ø 34/42) and SE2 (Ø 49/60)

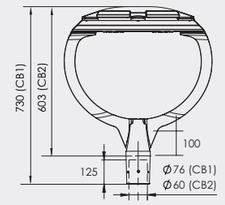


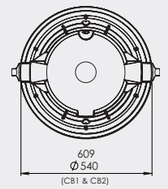
CP mounting

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



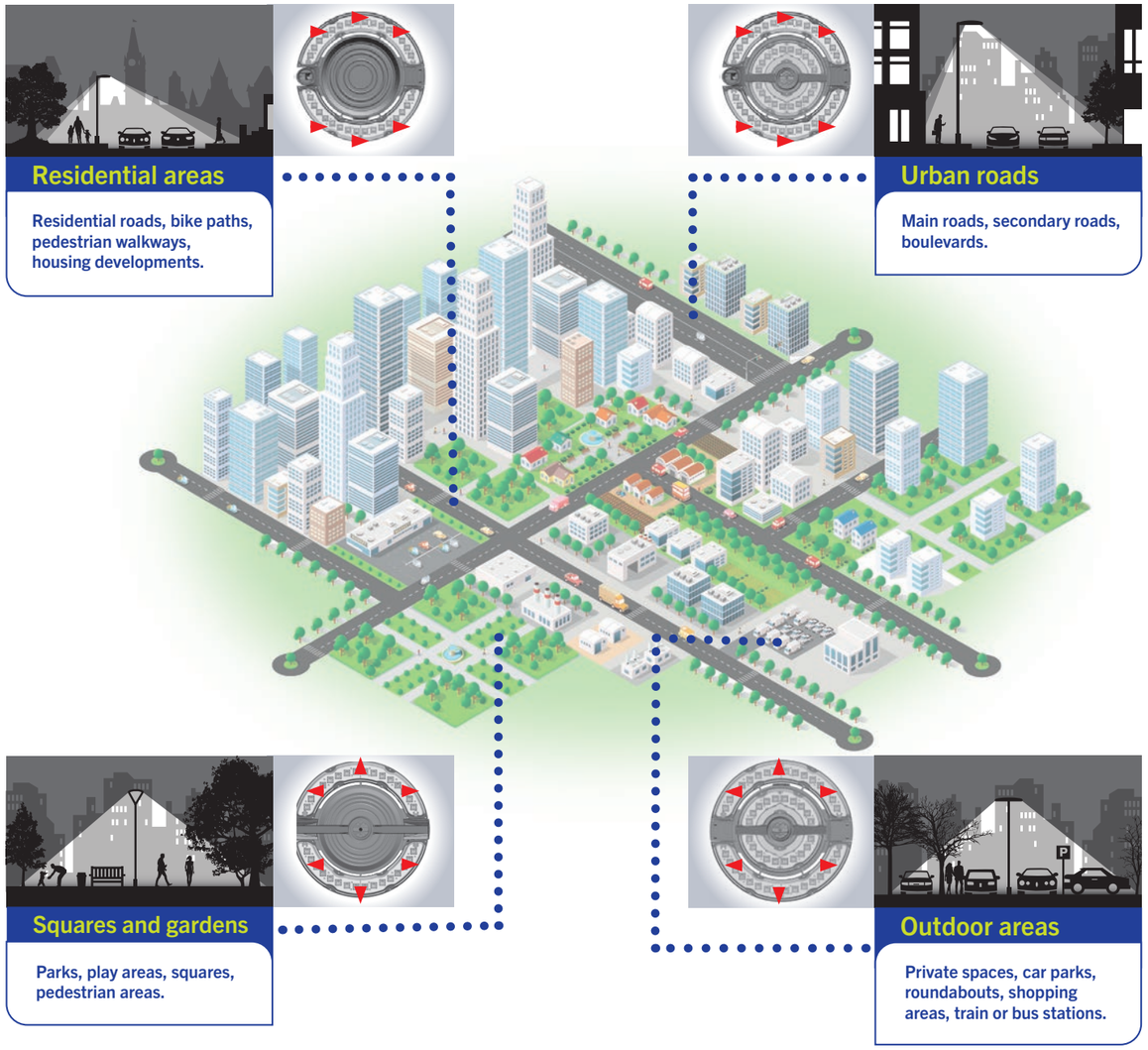
CB mounting





Applications

A luminaire for the entire city



Controls

Compatible with Controlux Air

CityMAX®

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

CONTROLUX air

Wireless Controller

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 with option codes .CA or .CAP

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).

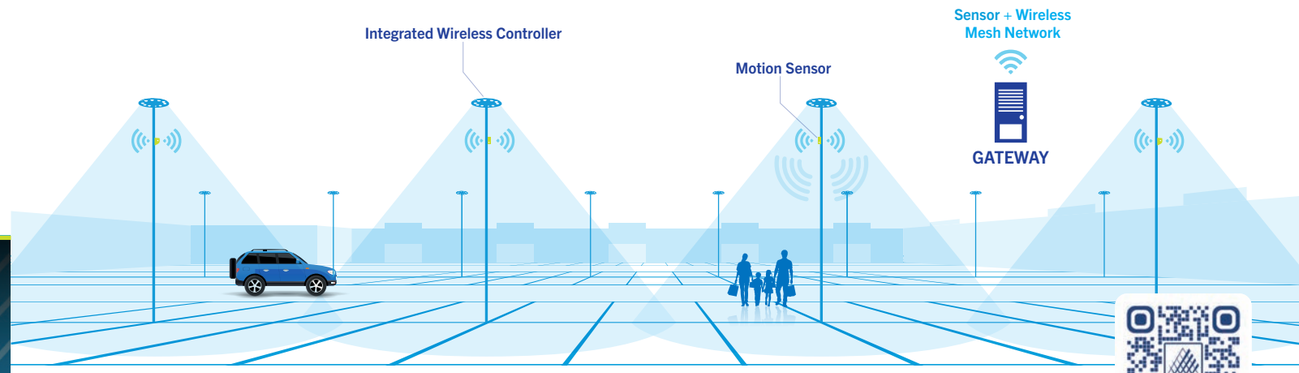
Gateway

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.



For more information about ControluxAir scan the QR code or visit **www.holophane.co.uk/controlux-air**

Controls

Compatible with Controlux Air

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%

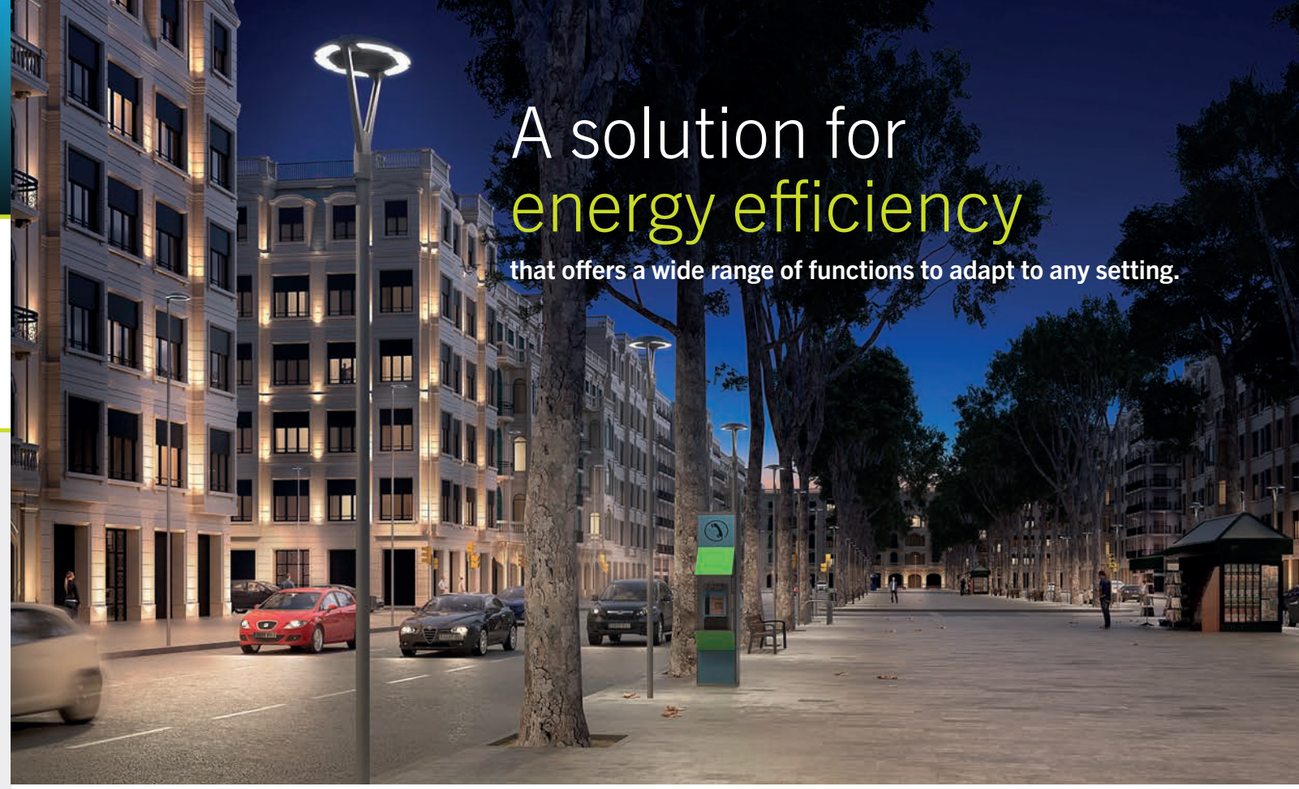
40% - 80%

- 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%

20% - 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.

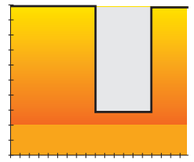
Autonomous luminaire control

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 of vehicles are detected and reducing it when no movement is sensed in the area.

Example: LRT56

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



Control by light source groups

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.

ZD4i. The Zhaga-D4i ecosystem of lighting products enables smart, future-proof LED luminaires with IoT connectivity.

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)
.LA02X	2000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA03X	3000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA04X	4000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA05X	5000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI*
.LA06X	6000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA07X	7000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA09X	9000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA10X	10000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA12X	12000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA14X	14000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA16X	16000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA18X	18000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI
.LA20X	20000lm LED module with 4000K, 3000K or 2700K colour temperature, 70CRI

Replace 'X' with:
2 for 2700K
3 for 3000K
4 for 4000K
A for Amber

Code	**Distribution** (required)
.ST1	Symmetric long distribution
.ST2	Symmetric wide distribution
.ST3	Symmetric distribution
.AS1	Long & narrow distribution
.AS2	Asymmetric distribution
.AS3	Asymmetric distribution
.FW	Forward throw 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

[1] Not available with ST1 and ST2

[2] Not available with LRD

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.

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	**Light Engine**
.HE	High Efficiency (available with lumen options: LA02X, LA03X, LA04X, LA05X, LA06X)

Code	**Photocell** (option)
.TZ01	Complete with 4-Pin Zhaga Socket - 'Top' (suitable photocell/node available from Holophane or supplied by others) with weather proof locking top
.TZ02	Complete with 4-Pin Zhaga Socket - 'Bottom' (suitable photocell/node available from Holophane or supplied by others) with weather proof locking top.
.TZ03	Complete with 4-Pin Zhaga Socket – 'Top' & 'Bottom' (suitable photocell/node available from Holophane or supplied by others) with weather proof locking top
.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
.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without locking top
.T7T	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top

Code	**Dimming Outputs** (option)
.LRD	DALI enabled
.LRT*******	Dimming as per customer requirements
.LRT56	Pre-set to dim to 50% between 12am to 6am
.LRT66	Pre-set to dim to 60% between 12am to 6am
.LRT76	Pre-set to dim to 70% between 12am to 6am

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	**Controls**
.PH1	PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG (purchased separately)
.PH2	Groupable PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG.G (purchased separately)
.CA	Wireless lighting node (top socket) for use with Holophane Controlux Air System. (Includes subscription package for two years)
.CAP	Wireless lighting node (top socket) & PIR (bottom socket) for use with Holophane Controlux Air System. (Includes subscription package for two years). Suitable up to 12m

Code	**Cable Entry**
.E4 to .E14	4 metres of 1.5mm² to 14 metres of 1.5mm²
.E42 to .E142	4 metres of 2.5mm², 14 metres of 2.5mm²

Code	**Electrical Class**
.CII	Class II

Code	**Protection**
.C-PROTEC	Overvoltage protection

Code	**Inputs** (required)
.W016	16W to
.W176	176W

LA02X & LA03X
8 LED
(2 x 4 LED modules)

LA04X & LA06X
16 LED
(2 x 8 LED modules)

LA02X.HE, LA03X.HE, LA04X.HE, LA05X.HE, LA06X.HE, LA07X, LA09X, LA10X & LA12X
32 LED
(2 x 16 LED modules)

LA14X, LA16X, LA18X & LA20X
52 LED
(2 x 16 LED modules & 2 x 10 LED modules)

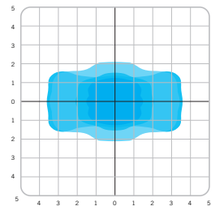
SCL	.L023	.ST1	.CP1	.C9	.C	.HE	.T1	.LRD	.CL7[2]	.PH1	.E4	.CII	.C-PROTEC	.W016

Example

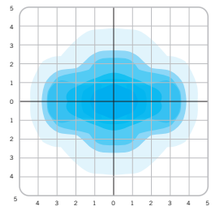
* Only available with .HE. Options PH1, PH2 must be configured with TZ02 or TZ03. Option CAP must be configured with TZ03. Option CA must be configured with TZ01.

Distributions

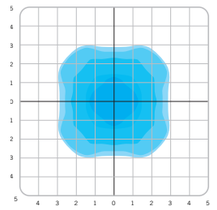
CityMAX®



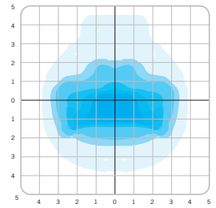
Symmetric Long (.ST1)



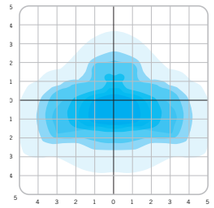
Symmetric Long (.ST2)



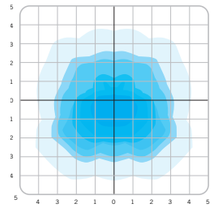
Symmetric Long (.ST3)



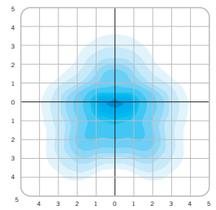
Long & Narrow (.AS1)



Asymmetric (.AS2)



Asymmetric (.AS3)



Forward Throw (.FW)

SUSTAINABILITY
ENVIRONMENTAL

EarthLIGHT

AN ECO DESIGN THAT IS SUSTAINABLE WITHIN.

Our products are just one part of our sustainability efforts, with the 4 pillars of our eco-design which constantly push us to create the most sustainable products that reduce our own environmental impact.

Pillar One
Sustainable
we make more with less

How are we doing it?

- To make use of recycled materials where we can
- Reducing unnecessary materials, weight and component count
- Only using components that can be used in other luminaries
- Reduce labour time and energy usage during the manufacturing process

Pillar Two
Scalable
we tailor the product for application

We offer:

- Products that are scalable to accommodate new features
- Form-factor sizing for each application to help reduce material waste
- Flexible mounting options

For information on our EarthLIGHT initiative please scan the QR code

Pillar Three
Serviceable
we ensure product longevity

All of our products are:

- Upgradable
- Simple in design
- Ensure easy access to internal components
- Spares are easily available to enable customer servicing and repair

Pillar Four
Separable
we are committed to global sustainability

Our products are:

- Environmentally friendly
- Recyclable
- Easy to disassemble, making materials used easy to separate

CIRCULAR ECONOMY TM66

Holophane's ambitious sustainable efforts have set us on a path to obtaining several accreditations with the Lighting Industry Association and Chartered Institute of Building Services Engineers' TM66 which allow us to rate our products and follow a method to design out waste

The traditional resource sonsumption model is linear, where raw material is collected to make products, then often thrown away once they have served their purpose.

Chartered Institute of Building Services Engineers (CIBSE) TM66 allows us to rate our products and follow a method to design out waste, maximise value and improve maintenance so that our luminaires can be repaired, recycled and re-used.

Following the TM66 CEAM assessment a score between 0.0 and 4.0 is generated for each luminaire. Our goal is to ensure all our luminaires achieve excellent circularity (2.5 to 4.0)

TM66 2.7 CIRCULARITY
012-0091 LIA CIBSE

2.5 to 4.0	Excellent circularity
1.5 to 2.5	Definite/substantial progress to circularity
0.5 to 1.5	Some circular economy functionality
0 to 0.5	Very poor circular economy performance

CityMax®

A versatile luminaire

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

Speak to the Holophane experts today

Get in touch to discover how, together, we can ensure your lighting space works for you and the planet.

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