# THORN

### **Outdoor Lighting**

### Lighting people

Thorn Lighting part of the Zumtobel Group, is a globally trusted supplier of both outdoor and indoor lighting solutions. Our 'smart' and sustainable lighting solutions create comfortable, fulfilling environments for people to live and work in more than 100 countries around the world.

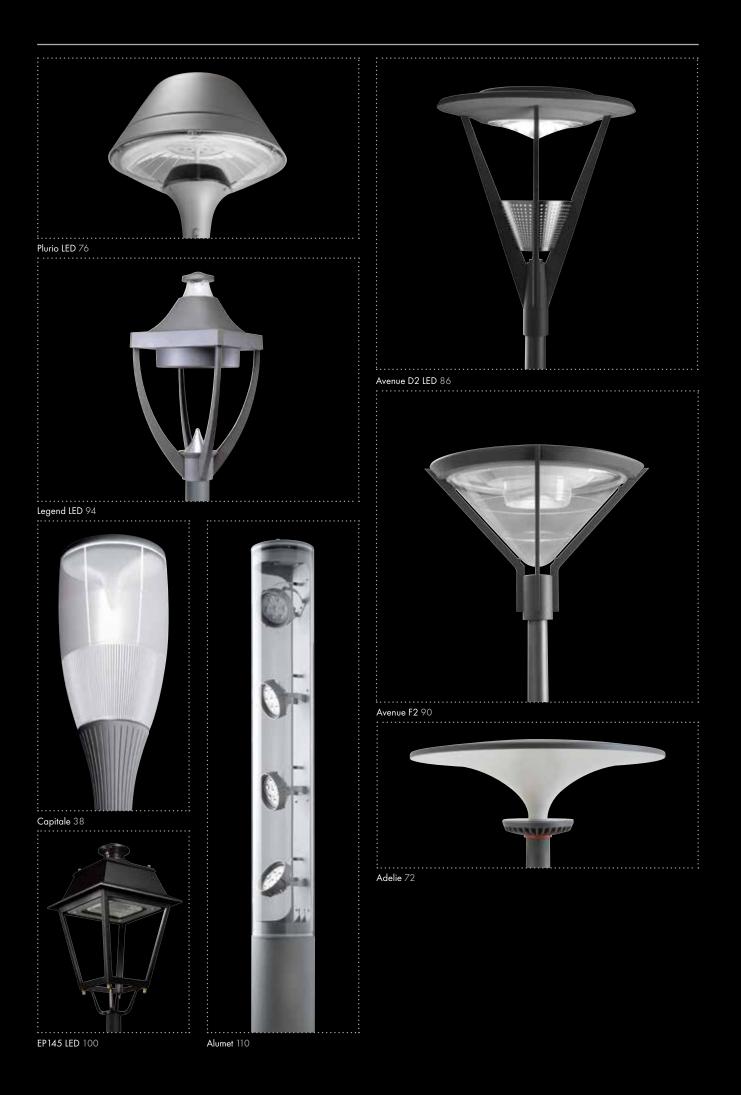
From roads to cityscapes, sports facilities to buildings and their surrounds, we have built a strong reputation for reliability, functionality and technically advanced design.

Our mission is to provide products and services which make it easier for customers to specify, install and maintain good quality, energy efficient lighting.











**Tea** 148

D-CO LED Bollard 154

Adelie Bollard 152





THORN | Suncyl | 05 |



#### Stand-alone renewable energy solutions for LED lighting

If you are looking for stand-alone or renewable energy lighting solutions, our hybrid solar and wind turbine Suncyl poles provide the necessary energy with no connection to the electricity grid.

Unlike conventional solutions with unsightly inclined solar panels, Suncyl poles are covered 360° with cells. Combined with Thorn LED luminaires, they offer highly attractive and effective solutions that blend smoothly into the landscape.

In addition, Suncyl poles can be centrally controlled with a GSM module. You can therefore monitor the dimming level and duration in order to maximise energy savings.

#### Suncyl is the most attractive solar pole solution on the market, allowing effortless integration with the environment

A maintenance-free wind turbine pole provides even more efficiency, particularly in winter.

Proven technology with more than 300 poles installed across three continents (Europe, Asia, Middle East) since 2009

Choice of three solutions:

- Solar
- Wind turbine
- Solar and wind turbine (hybrid)

Customisation is possible up to a height of 12 metres

Suncyl poles are compatible with all of Thorn's key LED luminaires

#### Solar pole

Aluminium pole with flange

Covered 360° with panels fitted with poly-cristalline cells to convert daylight into electricity, stored in concealed batteries

The same technology as conventional solar panels

Cells wrapped in a high strength (IK08) polycarbonate cover, which is self-cleaning when raining

Treated to aid cleaning in case of vandalism

100% recyclable

#### Vertical wind turbine

Minimum wind speed: 3.5 m/s

Solves the problem of electricity generation during the winter

No aerodynamic noise

Only compatible with laterally mounted LED lanterns

## **Urban lighting**

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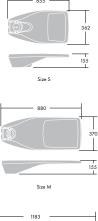


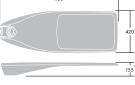
Ultra modern functional lanterns offering high performance, efficiency and lighting control for highways up to Class 1

- Optical compartment: 12 to 180 LEDs (17 to 415W)
- Colour temperature: 4000K
   Luminaire efficiency: 95 lm/W max, 35000 lm max
- Thorn R-PEC optical system offering up to eleven light distribution options depending on project (motorways, intersections, major and secondary roads, city streets, IVS for pedestrian crossings)

#### Materials and finish

Body, canopies and spigot: die-cast aluminium, powder coated light grey finish (close to RAL 9006). Other RAL on request Glass: 4mm thick toughened flat extra white tempered glass Retaining screws: stainless steel Screws: Ecolubric® treated





Size L

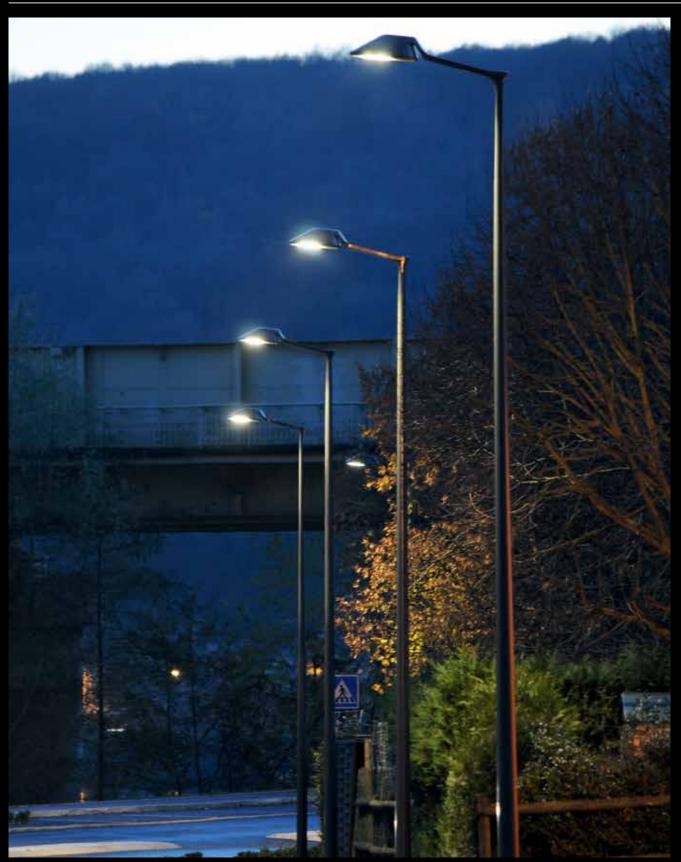








THORN | clan o | 15 |



Clan C Orival (27), France



THORN | Clan | 17 |

▲ Clan O Saint-René (22), France

#### **Clan** www.thornlighting.com/CLNC | www.thornlighting.com/CLNO



### 4-6m



- 26 possible combinations (brackets/luminaires)
- Street, asymmetric or IVS (for pedestrian crossing), optics provide visual coherence for many applications
- Comprehensive urban lighting solution coordinated with Plurio, Alumet, Mica and E/Fact luminaires, ideal for street lighting projects
- State-of-the-art LED versions with asymmetric street optic

#### Materials and finish

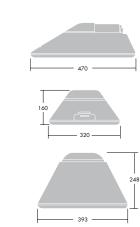
Lanterns

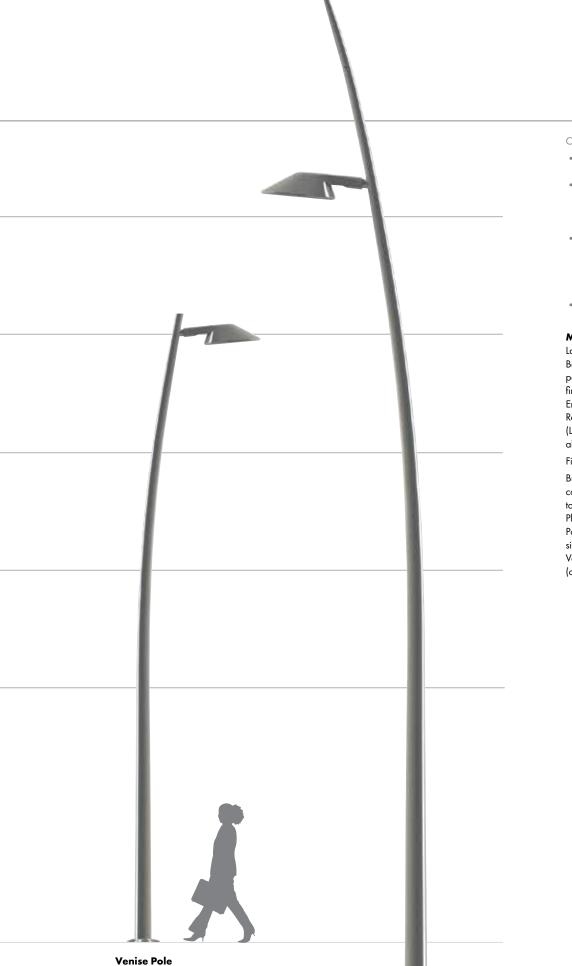
Body: die-cast aluminium (LM6), powder coated sandy silver grey finish (close to RAL 9006). Enclose: toughened flat glass Reflectors and optical compartments (LED version): high reflective anodised aluminium

Fixing screws and clip: stainless steel

Brackets: die-cast aluminium, powder coated sandy silver grey finish (close to (RAL 9006)

Please ask for any other RAL finish Poles: galvanised steel, texturised silver grey finish (Conica, Design, Venise poles) or anthracite grey (conical poles)





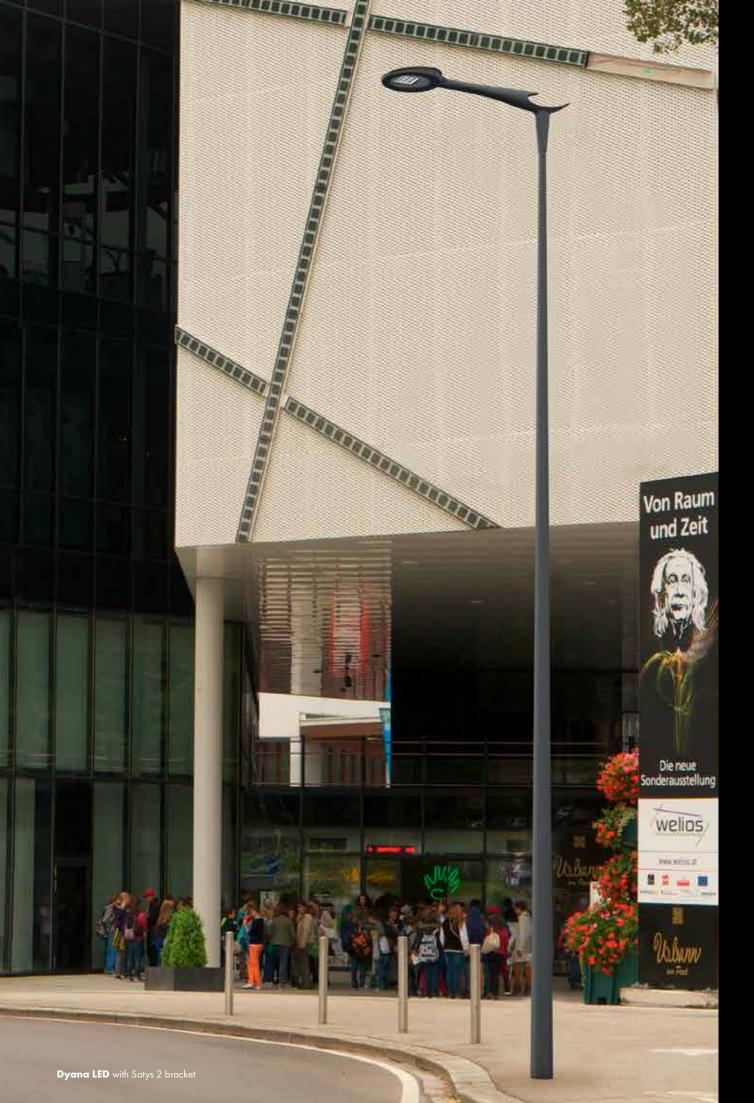


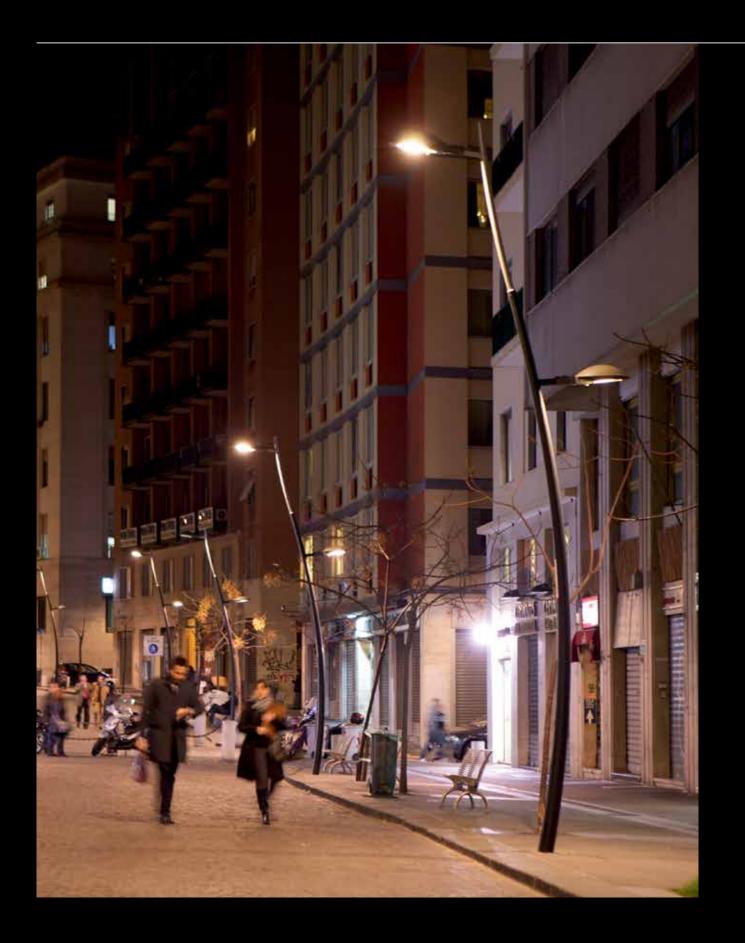
**Conical poles** 



THORN | Clan | 21 |









▲ Dyana LED with Satys 2 bracket





### **Dyana on Satys 2 poles and brackets** www.thornlighting.com/DYNL



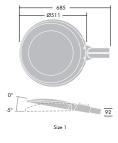
### Size 1 : 4-7m Size 2 : 6-10m

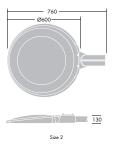


- Available in two sizes with a wide range of wattages (up to 168W)
- Highly efficient Thorn R-PEC optics provide light distributions for wide highways and narrow roads
- Autonomous power reduction system as standard for controlling energy consumption
- Post-top or side mounting
- New range of SATYS 2 coordinated brackets and poles blend perfectly into the urban environment

#### **Materials and finish**

Body and canopies: die-cast aluminium, powder coated anthracite grey finish (close to 9007) Enclosure: 5mm thick toughened flat glass Seal: silicone or ethylene-propylene (EPDM)





### Decostreet

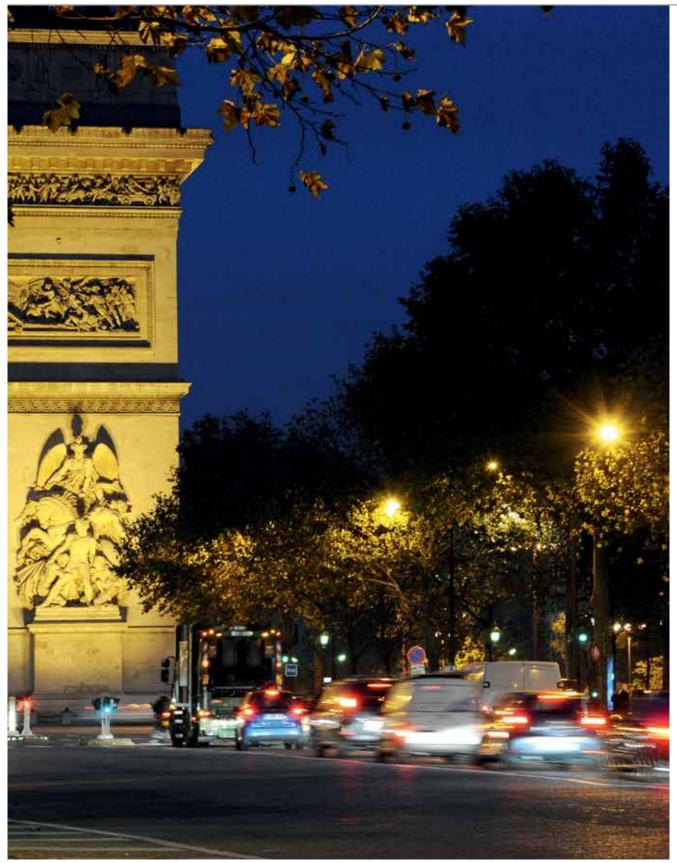




www.thornlighting.com/DECS

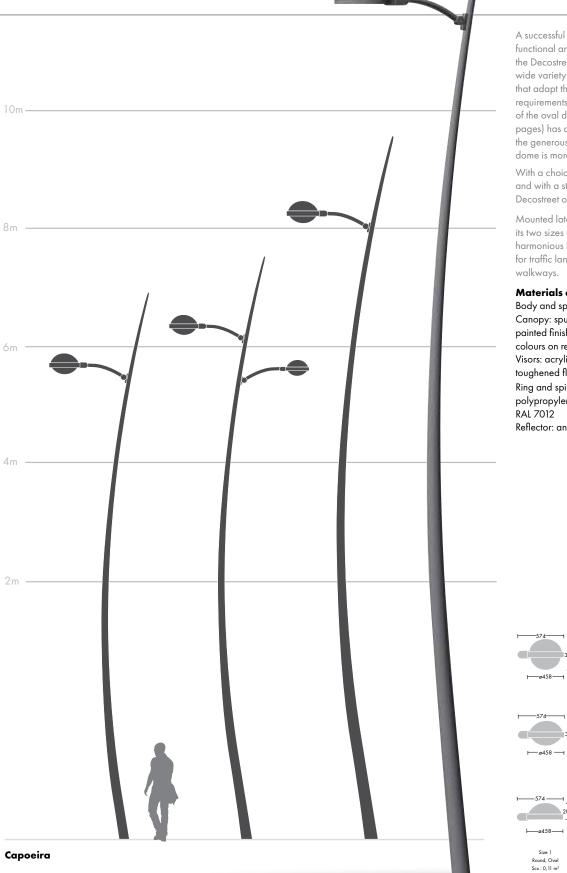


THORN | Decostreet | 31 |



Avenue de la Grande Armée, Paris, France

#### 4-8m



A successful combination of functional and decorative features, the Decostreet range offers a wide variety of attractive designs that adapt themselves to your requirements. The simple shape of the oval dome (shown on these pages) has a modern appeal while the generous capacity of the round dome is more traditional.

With a choice of oval or round bowl and with a straight or conical ring, Decostreet offers great choice.

Mounted laterally or suspended, its two sizes allow the creation of harmonious lighting combinations for traffic lanes and pedestrian

#### **Materials and finish**

Body and spigot: die-cast aluminium Canopy: spun aluminium, grey painted finish RAL 7001, other RAL colours on request Visors: acrylic, polycarbonate or toughened flat glass Ring and spigot cover: polypropylene material coloured Reflector: anodised aluminium







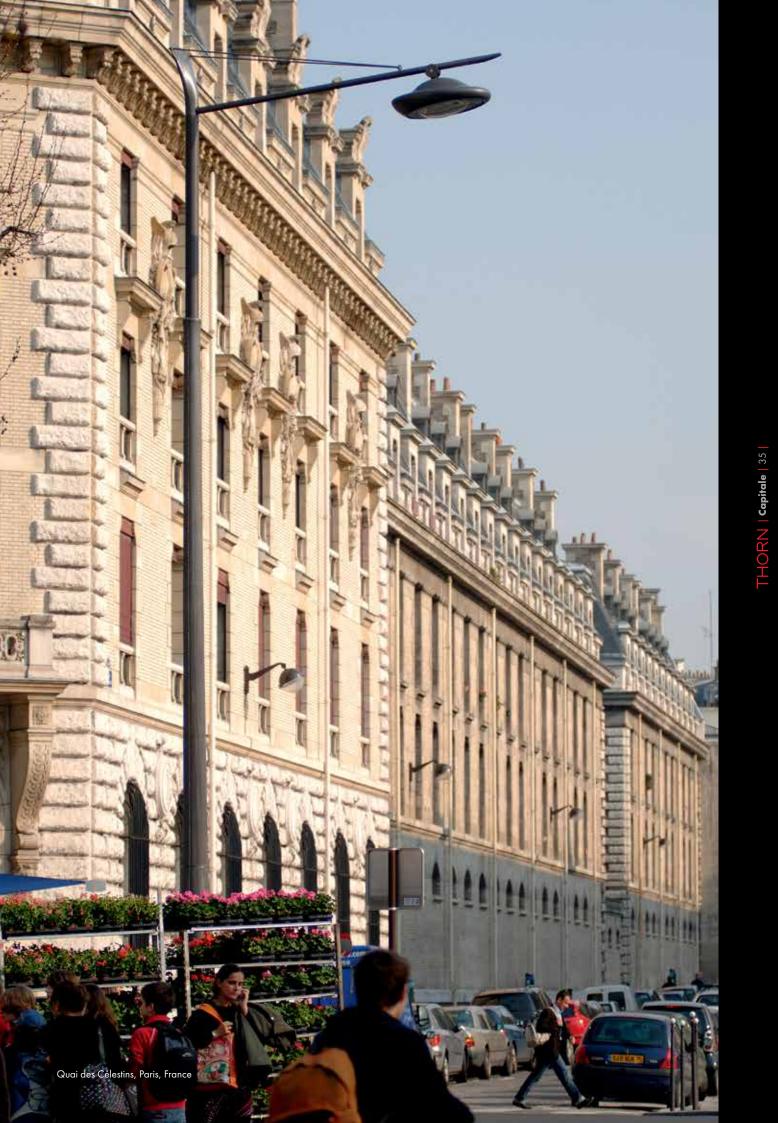




Size 2 Round, Oval Scx : 0, 14 m²





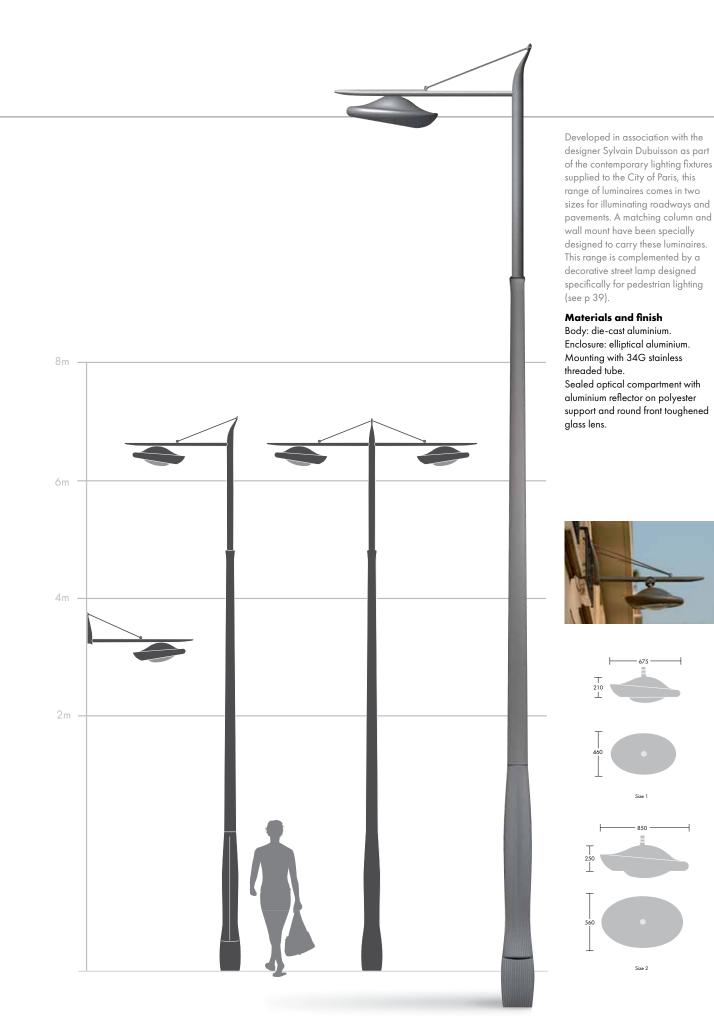


## Capitale



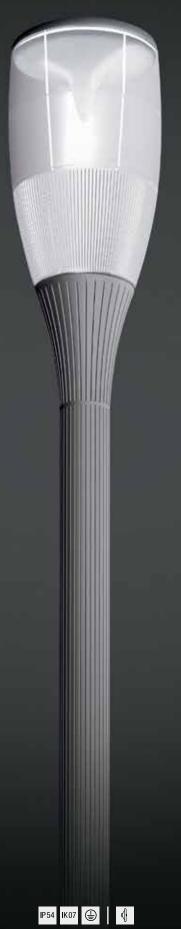
▲ Quai des Célestins, Paris, France

#### 4-8m



THORN | capitale | 37 |

# Capitale



www.thornlighting.com

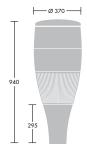
#### 4m





Developed in association with the designer Sylvain Dubuisson as part of the contemporary lighting fixtures supplied to the City of Paris, this range of decorative luminaires is intended for lighting pedestrian precincts, pavements, squares and forecourts. Its characteristic slender fluid design is matched by its imposing glass and die-cast construction. The ribbed base masks the light source and diffuses a glare-free light, while the interior cone ensures a consistent spread of light towards the ground. An asymmetric version reduces the amount of light diffused to the façades. This range is also available for wall mounting, and harmoniously complements the street luminaire specifically designed for traffic lanes (see page 37).

Materials and finish Base and canopy: die-cast aluminium Reflector: aluminium Diffuser: clear/ribbed glass







www.thornlighting.com



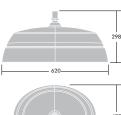
Decorative hanging lantern of neoclassical design that blends smoothly into its environment

- Available as LED version (up to 113W) or for discharge lamps (up to 150W)
- High performance street optic
- Version with cut-off for avoiding obtrusive light
- Dedicated wall bracket with access hatch to terminal block for an attractive and harmonious lighting system

**Materials and finish** 

Body and sleeve: die-cast aluminium, powder coated anthracite grey finish (close to RAL 9007) Covers: 4mm thick toughened flat glass Clip: stainless steel spring Seal: silicone Retaining screws: stainless steel









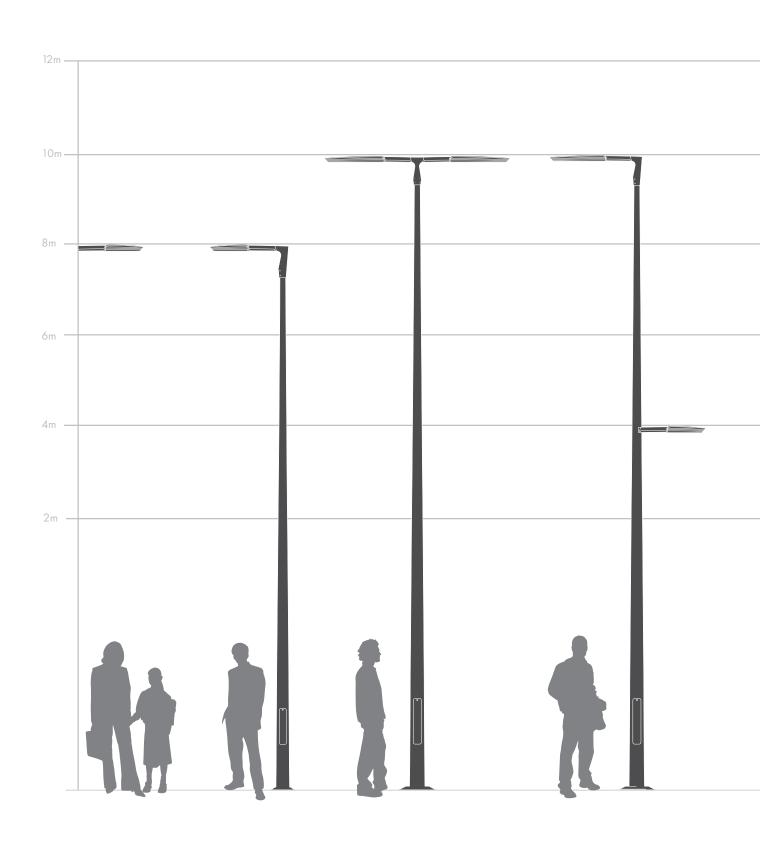
THORN | Styled | 43 |



▲ Clinique Saint-Jean Languedoc, Toulouse, France



 Clinique Saint-Jean Languedoc, Toulouse, France



### 4-10m



Range of functional lanterns combining innovative design and LED technology for comfortable and effective lighting of major and secondary roads.

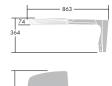
- The EQFlux system offers up to 15 different light distributions covering all applications
- Versions with autonomous power reduction as standard maximise energy savings depending on requirements
- Built-in heat dissipator and flat glass cover for easy cleaningRange of coordinated brackets for a
- harmonious package

#### Materials and finish

Body and brackets: die-cast aluminium, powder coated texturised light and grey finish (close to RAL 9006) Enclosure: toughened flat glass, selfcleaning treatment on request

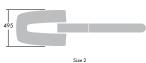












THORN | Styled | 47 |

## **Olsys Street**

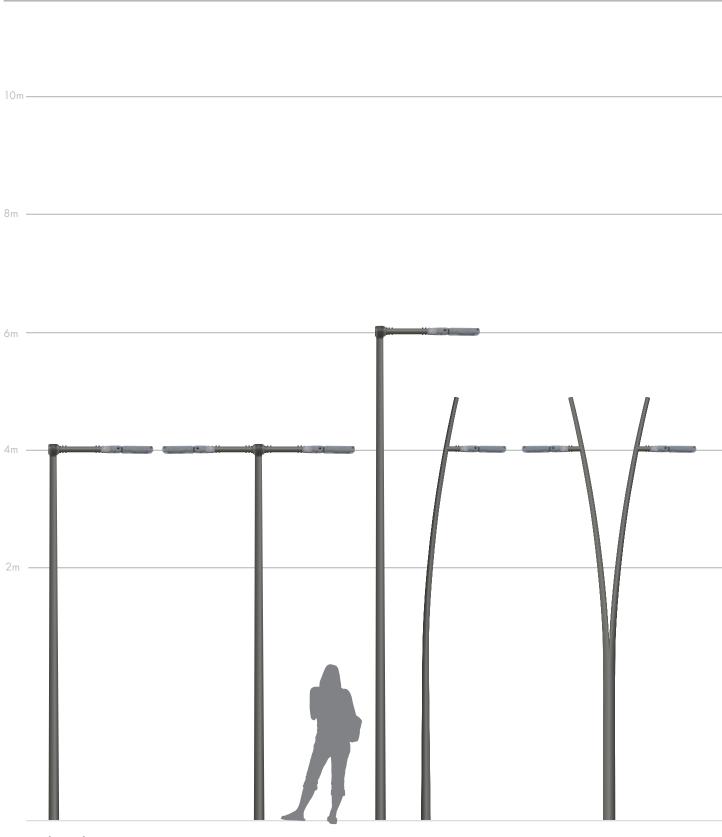




www.thornlighting.com/OSYR

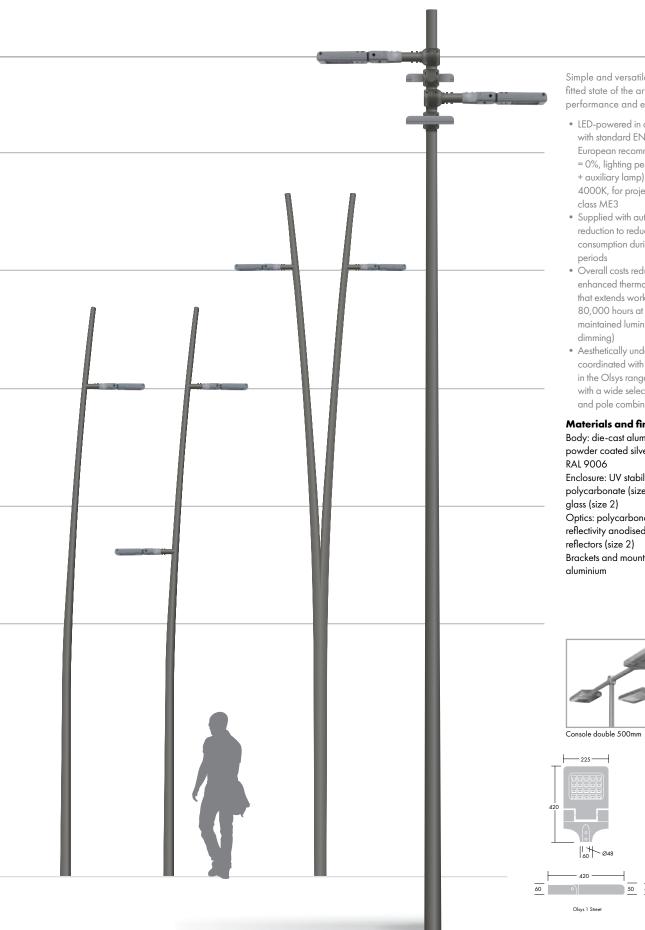


THORN | Olsys Street | 49 |



Olsys poles

### Size 1 : 4m Size 2 : 6-8m



Simple and versatile urban lantern fitted state of the art LEDs for high performance and efficiency

- LED-powered in compliance with standard EN13201 and European recommendations: ULOR = 0%, lighting performance (source + auxiliary lamp) 70 lm/W at 4000K, for projects up to lighting
- Supplied with autonomous power reduction to reduce energy consumption during off-peak
- Overall costs reduced by an enhanced thermal control system that extends working life up to 80,000 hours at 25° with 70% maintained luminous output (without
- Aesthetically understated design coordinated with other luminaires in the Olsys range and available with a wide selection of brackets and pole combinations

#### **Materials and finish**

Body: die-cast aluminium (AS9U) powder coated silver grey finish Enclosure: UV stabilised clear

polycarbonate (size 1) or toughened

Optics: polycarbonate (size 1), high reflectivity anodised aluminium minireflectors (size 2) Brackets and mounting accessories:



337 160 655 50 60 76 Olsys 2 Street

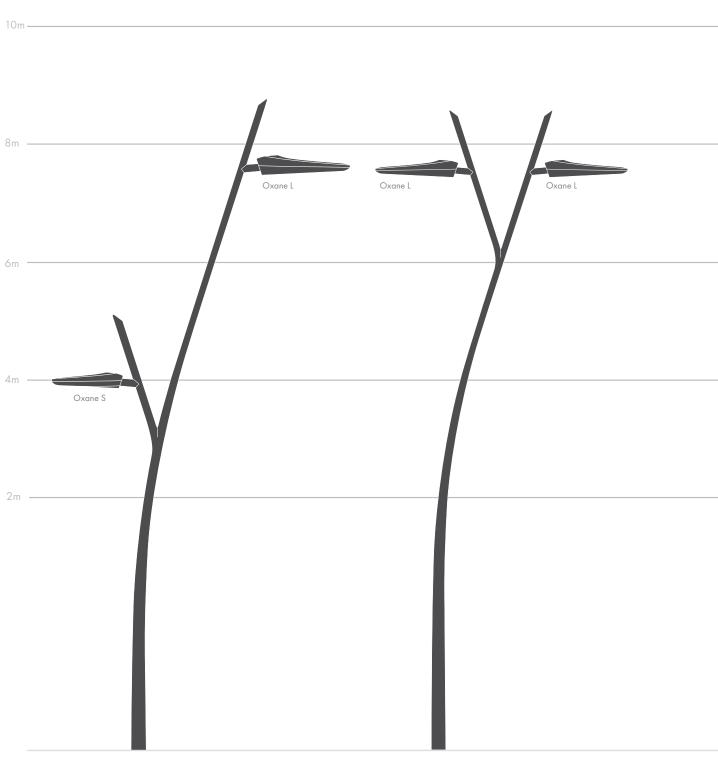




Oxane on Zoria 2 poles and brackets



## **Oxane on Zoria 2 poles and brackets** www.thornlighting.com/OXAN





### Oxane S : 4-8m Oxane L : 7-10m

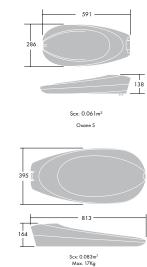
Range of street lanterns providing best in class LED technology with advanced performance up to lighting class ME1

- Available in two sizes with a wide range of power options (up to 169W)
- High efficiency Thorn R-PEC optics provide light distributions for wide highways and narrow roads
- Autonomous power reduction system as standard for controlling energy consumption
- Self-cleaning shape for reduced maintenance
- Quick opening from above and tool-free detachable control gear
- Possibility of coordination with Oracle type conventional functional lanterns

#### Materials and finish

Oxane L

Body and spigot: die-cast aluminium, powder coated texturised light grey (close to RAL 9006) Cover: toughened flat glass Cover screws and clip: stainless steel



Max. 17Kg Oxane L





THORN | Krystal | 59 |



Range with Satys 2 brackets

Needle-point poles

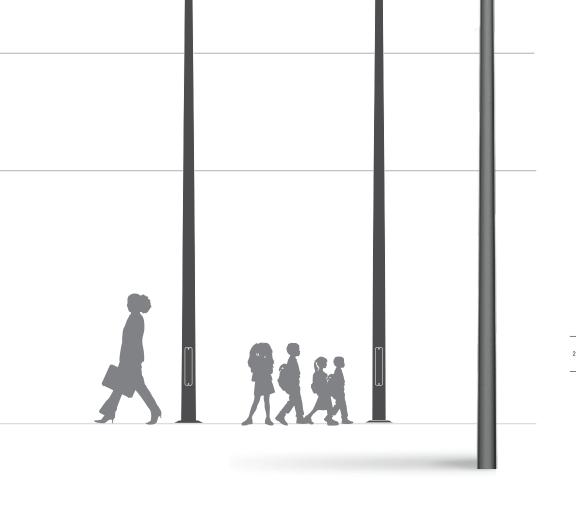
High performance distinctively designed lantern for minor and major roads

- Available with LED (up to 84W or for discharge lamps (up to 150W)
- High performance street optic
- Autonomous power reduction system as standard
- SATYS 2 coordinated brackets and poles for an attractive harmonious package

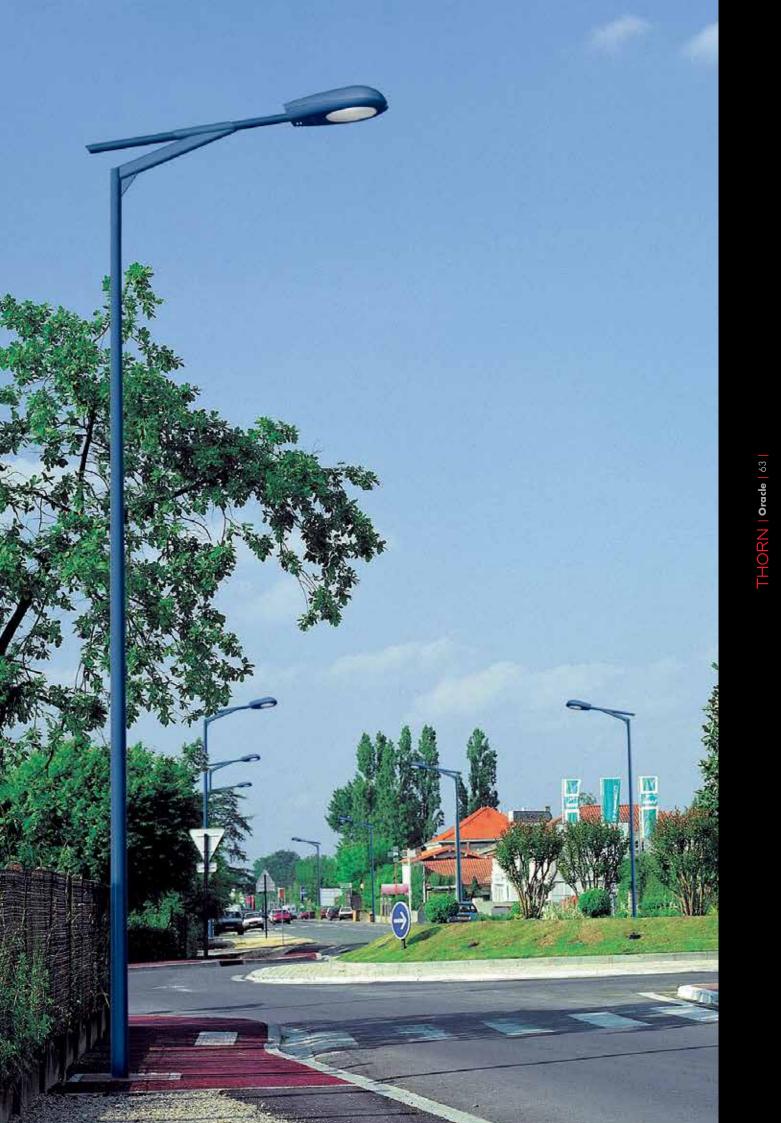
#### Materials and finish

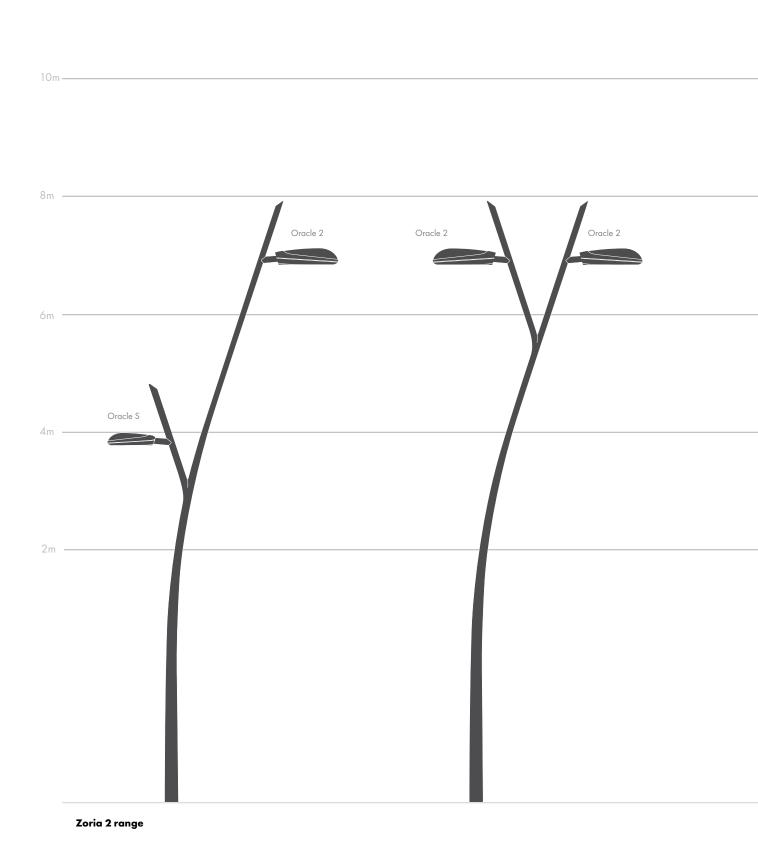
Body and clip: die-cast aluminium powder coated texturised silver grey (close to RAL 9006) Enclosure: toughened flat glass Seal: silicone Retaining screws: stainless steel

729









### 5-10m

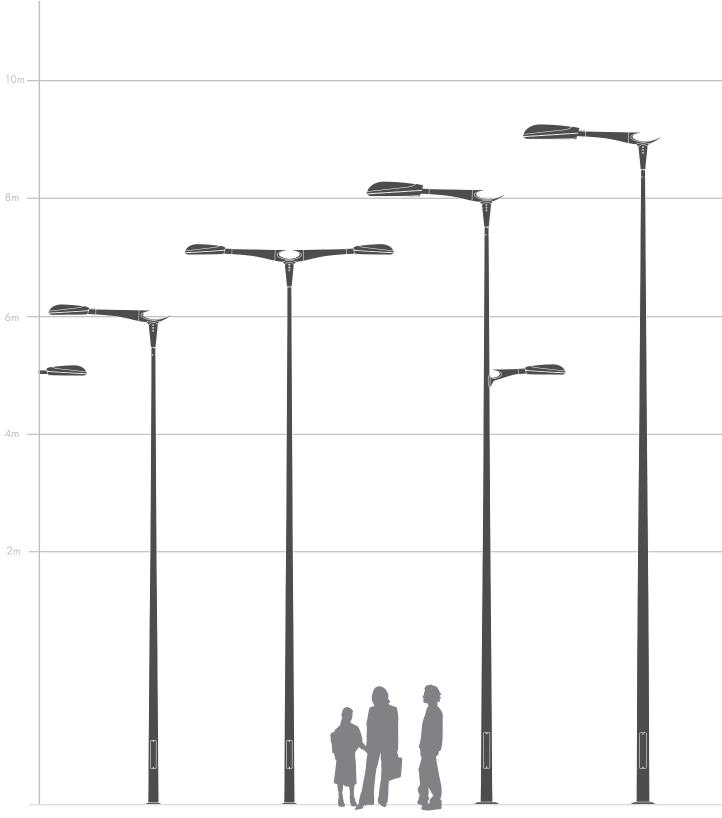
Biomorph lighting fixtures, 100% steel, arched and bevelled conical shape, for overall dynamic coherence with Oxane.

Upper shaft with simple mounting height adjustment, bevelled, S235

Mounting heights: 5 to 8 metres. Polyester powder coating.

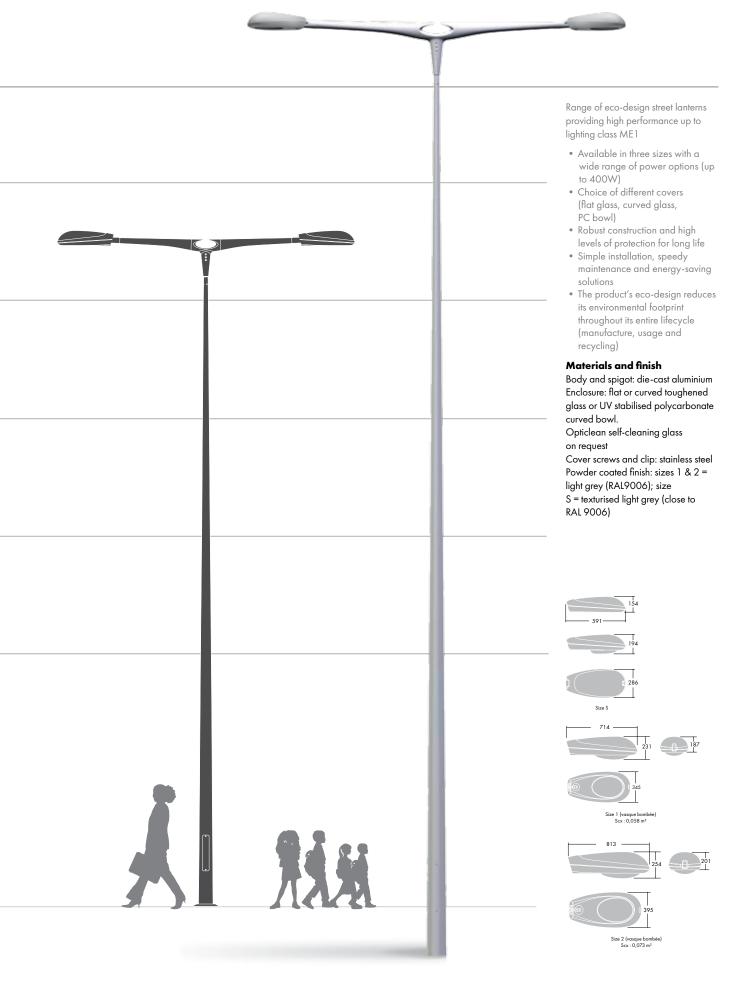


## Oracle on Satys 2 brackets www.thornlighting.com/ORCL



**Collection with Satys 2 brackets** 

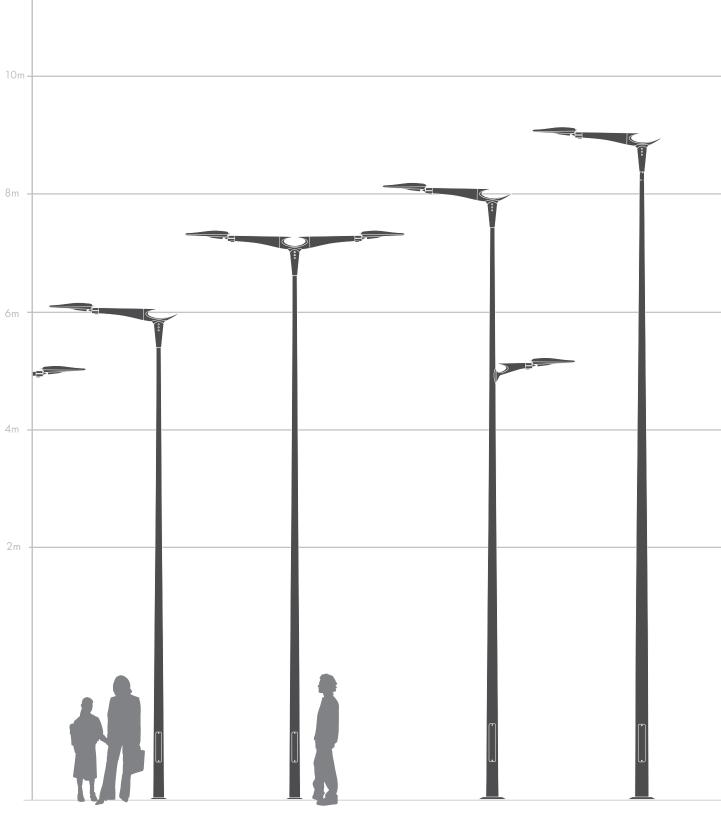
### 5-10m





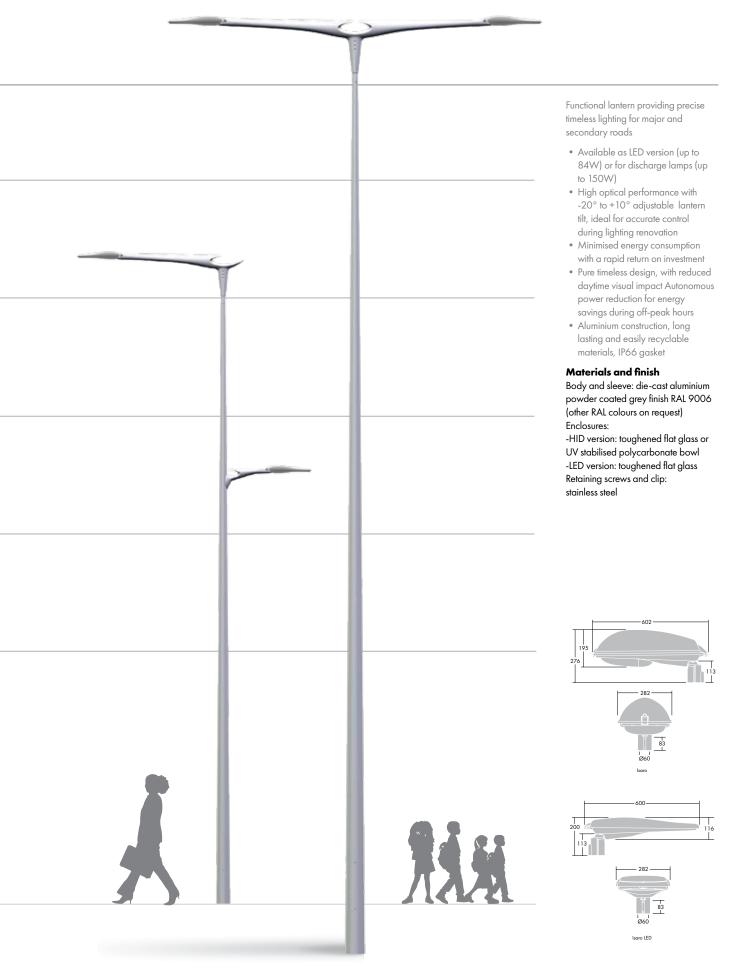


Isaro on Satys 2 brackets www.thornlighting.com/ISRO | www.thornlighting.com/ISRL



Range with Satys 2 brackets

### 4-10m





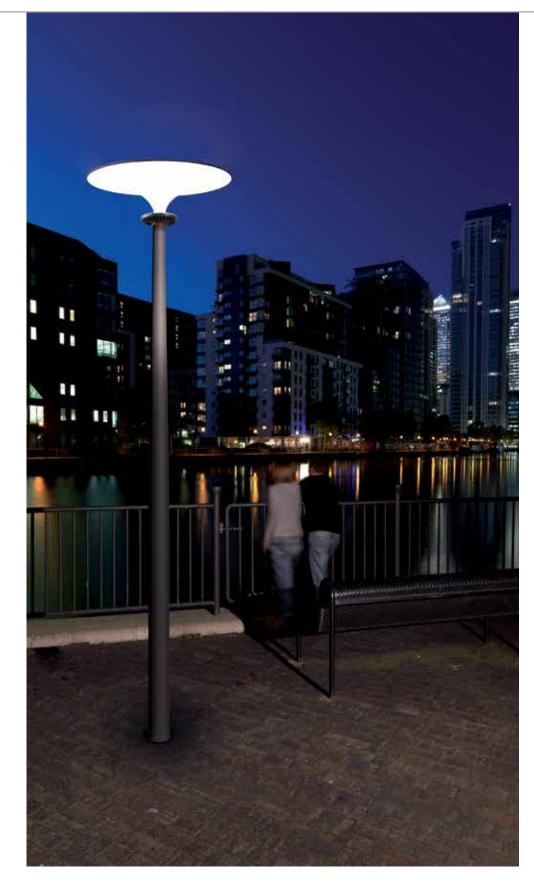


THORN | Adelie | 73 |

#### Adelie www.thornlighting.com/ADLE



Square Verdun, Bijou Plage, ► Cannes, France

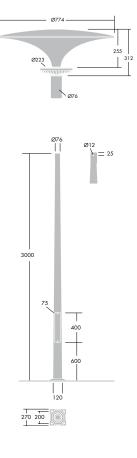


LED architectural luminaire for indirect lighting creating a comfortable and welcoming environment for parks, roads and building surrounds.

#### Materials and finish

Canopy: spun aluminium, powder coated sandy grey 900 (close to RAL7043) Lens: PMMA acrylic Reflector: aluminium powder coated white with Teflon® coating Dedicated column: aluminium conical painted sandy grey 900 Control gear plate: aluminium)

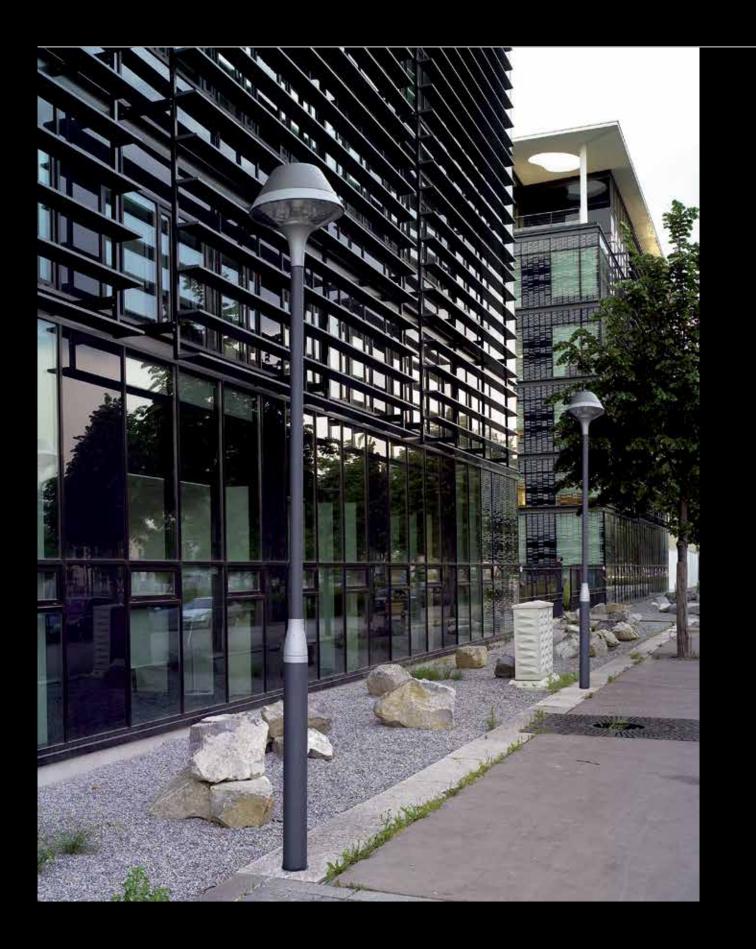






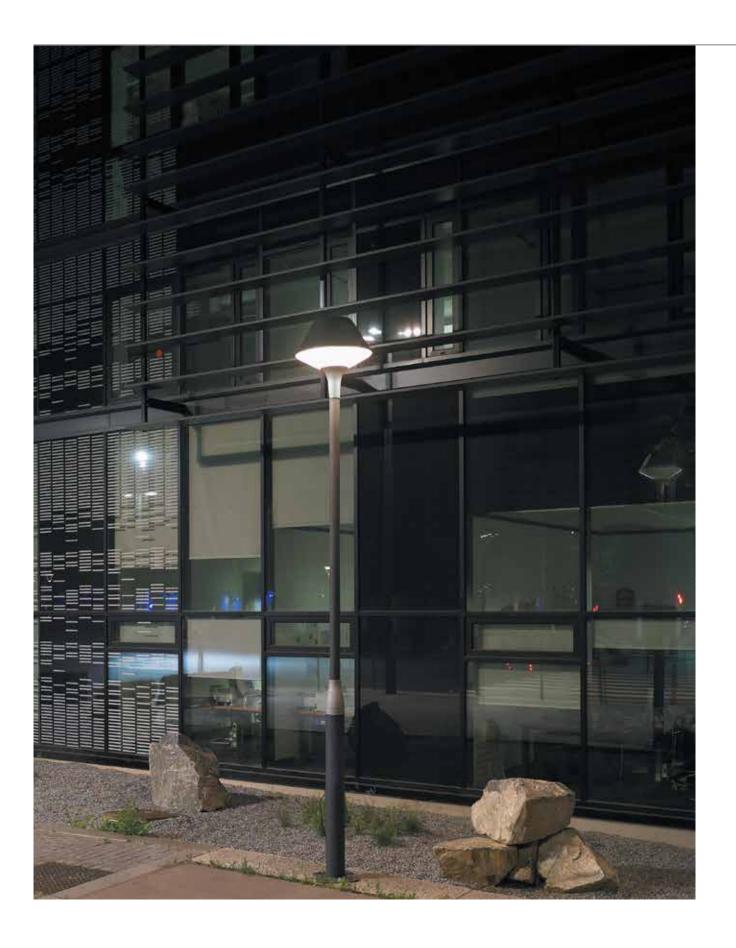
www.thornlighting.com/PLRL







🔺 Acigné (35), France



# 3,5m

Range of decorative lanterns combining sustainability and comfort in residential and urban areas

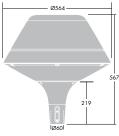
- A simple user-friendly design Plurio offers two different styles of canopy with a choice of optics and accessories.
- The 'Original' version also offers a two-tone finish for greater effect.
- The selected shapes, combined with Plurio's innovative and high performance optical system, create a sense of space and a feeling of safety and well-being.
- The choice of light source, whether diffusing a white light or one that is slightly warmer, can create different environments to suit the landscapes to be illuminated.
- The lantern's eco-design guarantees a reduction in obtrusive light, energy consumption and CO2 emissions
- Range of dedicated columns Complete range of columns and poles for harmonious integration.

#### **Materials and finish**

Aluminium canopy and base, powder coated silver grey finish (close to RAL 9006) or silver grey and dark grey (close to RAL 7043) in the two-tone version.

Bowl: UV stabilised clear polycarbonate with anti-glare prisms Reflector: high reflectivity white ABS (HID version) Mirrors (street version): high reflectivity anodised aluminium

Fixing screws: stainless steel







# **Christian IV**





THORN | Christian IV | 83 |

**Christian IV** www.thornlighting.com/CHIV



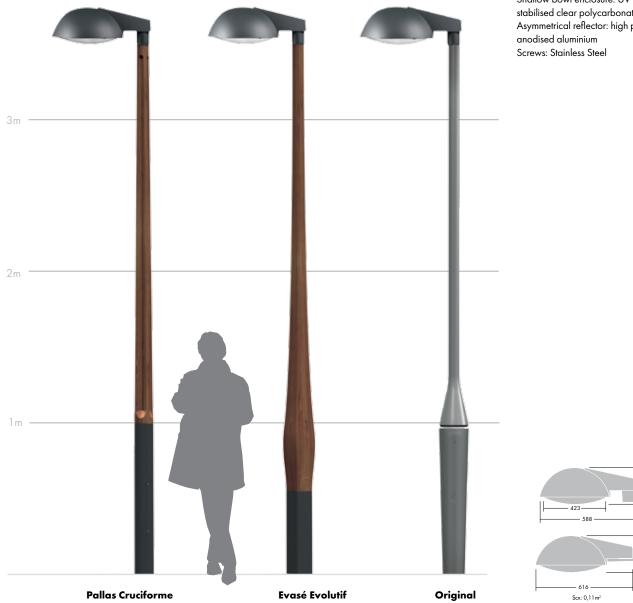
# 3,5m

A highly efficient lantern combining design, performance and strength for residential streets and pedestrian walkways

- LED optic with 32W/2500lm wattage, providing a comfortable white light (4200K)
- Improved asymmetric reflector for efficient lighting to reduce obtrusive light
  Glare limitation

#### **Materials and finish**

Body: die-cast aluminium, powder coated anthracite grey finish (close to RAL 7024). Other RAL colours on request Shallow bowl enclosure: UV stabilised clear polycarbonate Asymmetrical reflector: high purity anodised aluminium Screws: Stainless Steel



4m

220

220

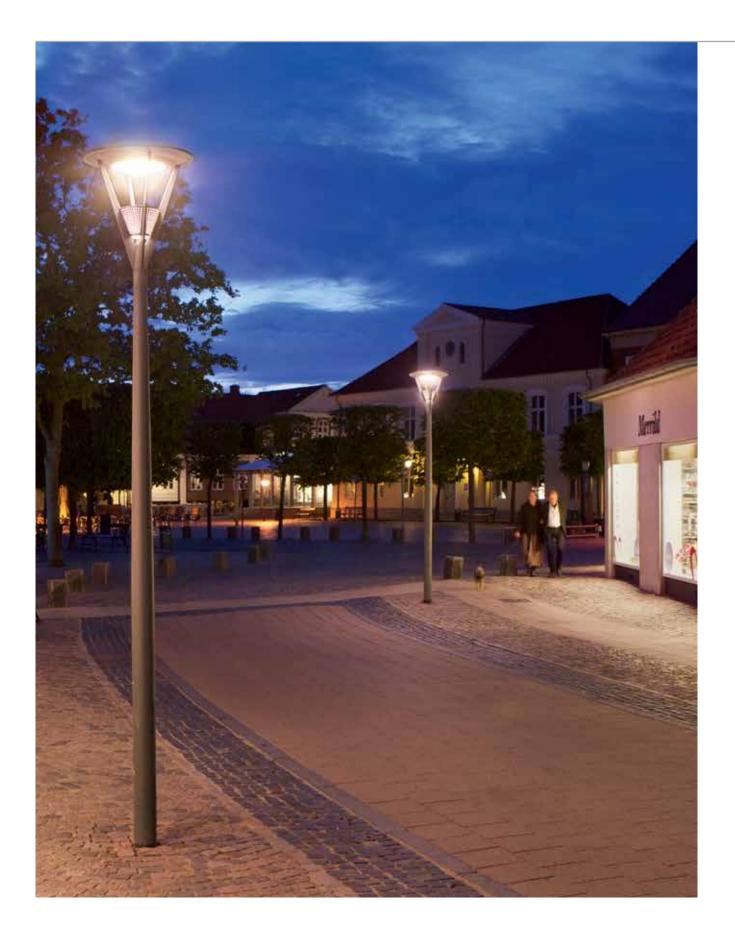
## Avenue D2 LED







Avenue D2 LED www.thornlighting.com/AVD2



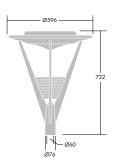


Stylish, efficient and anti-glare post-top lantern offers unique and extremely comfortable lighting

- Choice of two light distributions: street or symmetrical
- Reduced operating costs with 100,000-hour lifetime in dual power mode (at 25°C with 70% maintained luminous output)
- Complete family with coordinated poles, bollards and wall mounts

#### Materials and finish

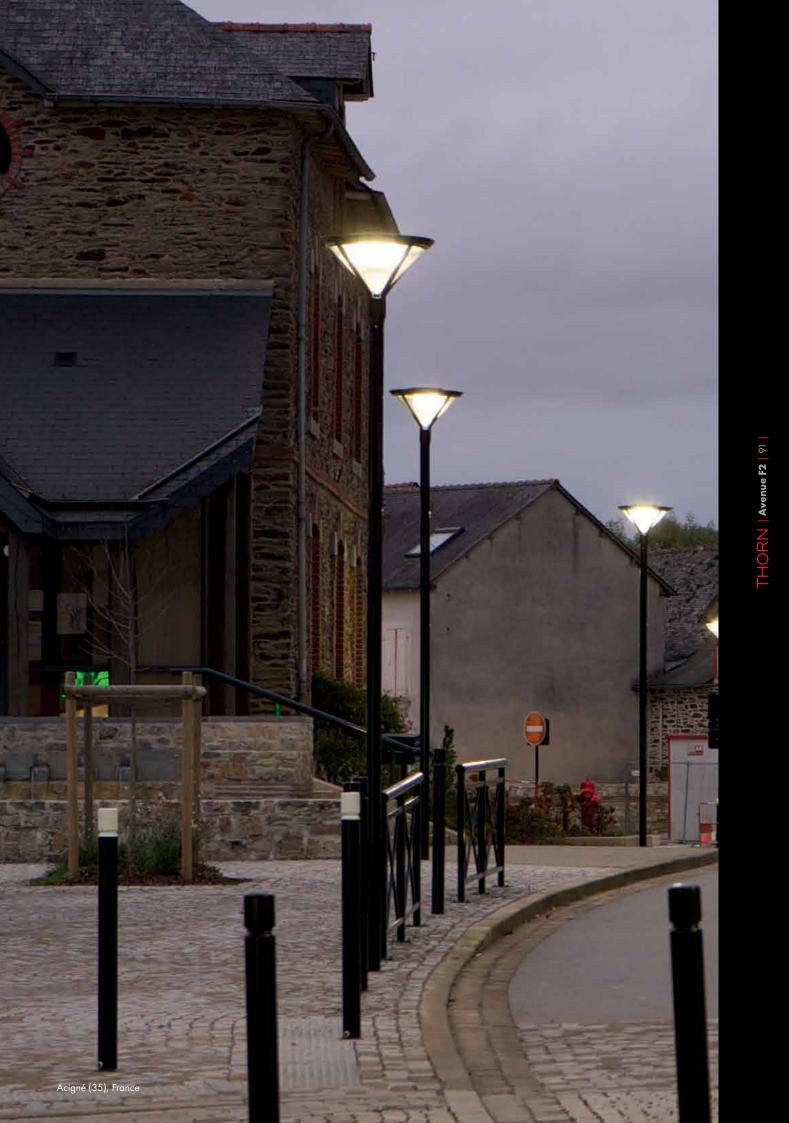
Body: die-cast aluminium. Canopy: spun aluminium. Finish: powder coated anthracite grey (close to RAL 7043). Finial: copper colour metallised polycarbonate or stainless steel, covered with special varnish to prevent ageing and preserve the original bright appearance. Diffuser: UV stabilised clear polycarbonate with anti-glare prisms. Reflector and mirrors (street lighting): high reflective anodised aluminium. Retaining screws: stainless steel



### Avenue F2



www.thornlighting.com/AVFL





▲ Conseil Général de Chartres (28), France

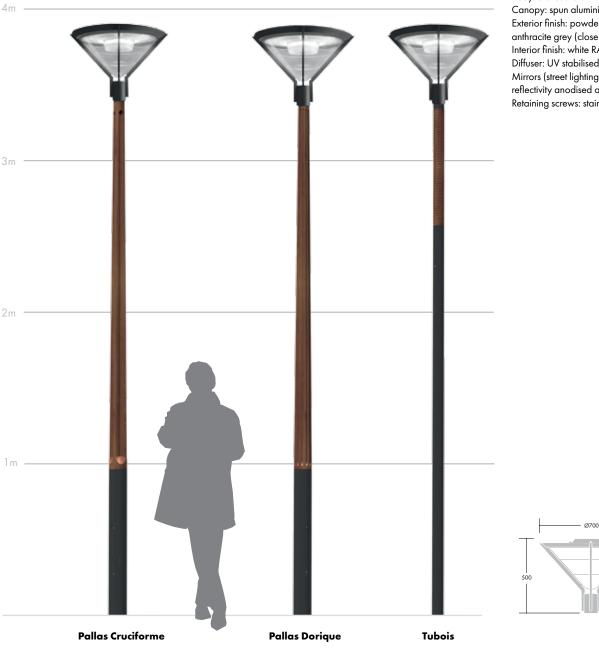
# 3,5m

Post top lantern with prismatic crown for reduced glare and distinctive appearance

- Available as LED version (up to 40W) or for discharge lamps (up to 100W)
- Choice of two light distributions: street or symmetrical
- Power reduction as standard to optimise energy consumption
- Complete family with wall-mounted version and matching poles

#### **Materials and finish**

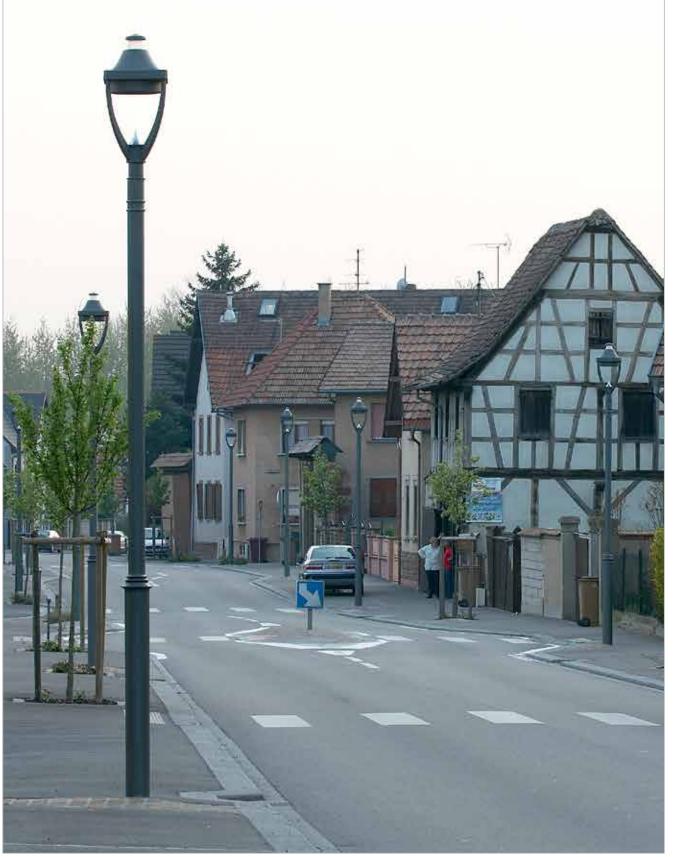
Body: die-cast aluminium LM6 Canopy: spun aluminium Exterior finish: powder coated anthracite grey (close to RAL 7043) Interior finish: white RAL 9016 Diffuser: UV stabilised clear PC Mirrors (street lighting): high reflectivity anodised aluminium Retaining screws: stainless steel







THORN | Legend | 95 |



▲ Schwindratzheim (67), France

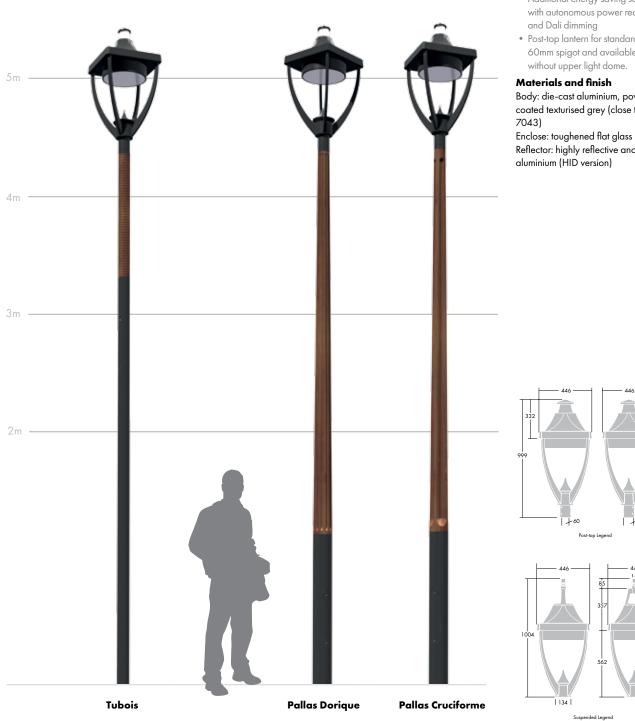
### 4-6m

Classic post-top or suspended lantern with high performance optic

- Attractive cohesive design with four bracket arms in post-top and suspended versions
- Compatible with conventional and ultra modern light sources (LED and CosmoWhite)
- Additional energy saving solutions with autonomous power reduction
- Post-top lantern for standard Ø 60mm spigot and available with or without upper light dome.

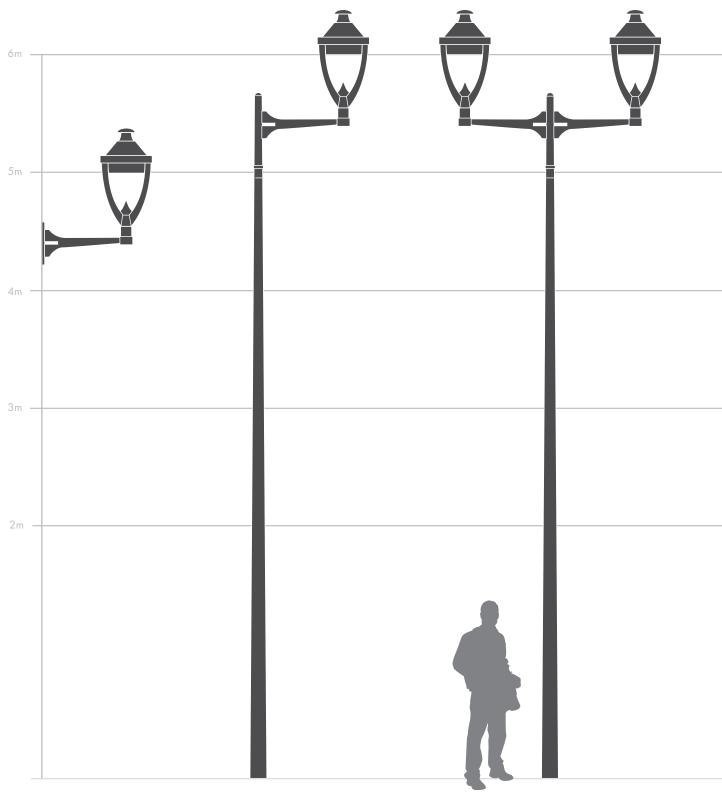
Body: die-cast aluminium, powder coated texturised grey (close to RAL

Reflector: highly reflective anodised aluminium (HID version)



6m

### **Legend** www.thornlighting.com/LGNC

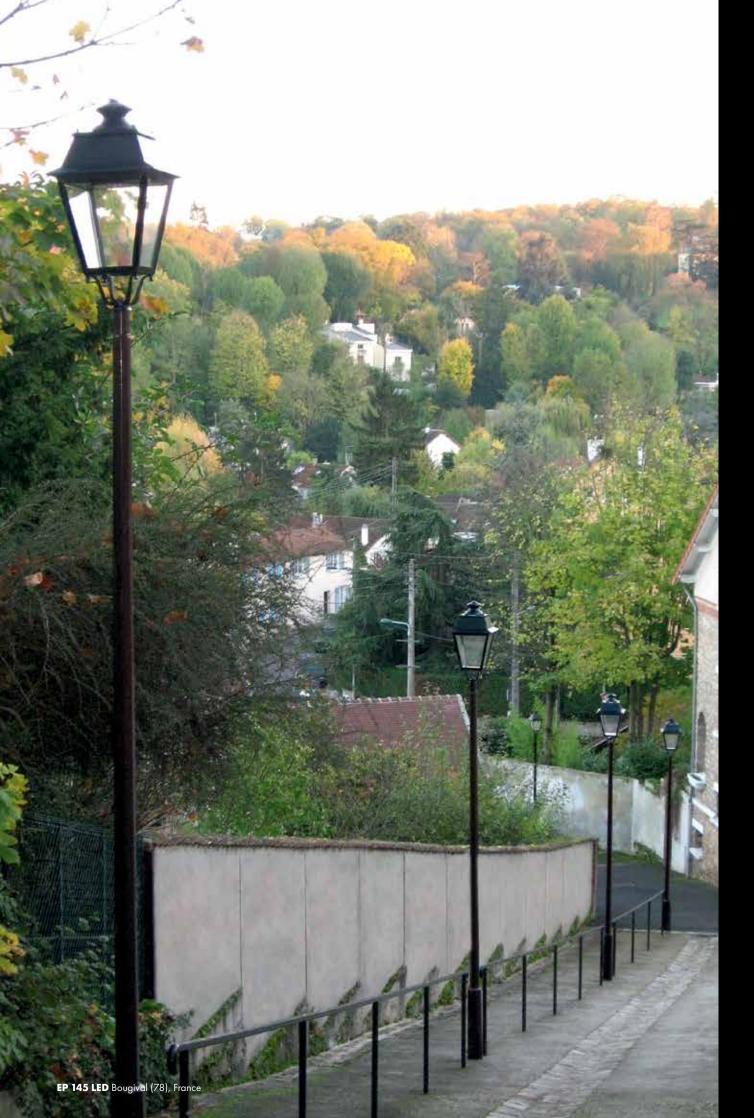


Eiffel

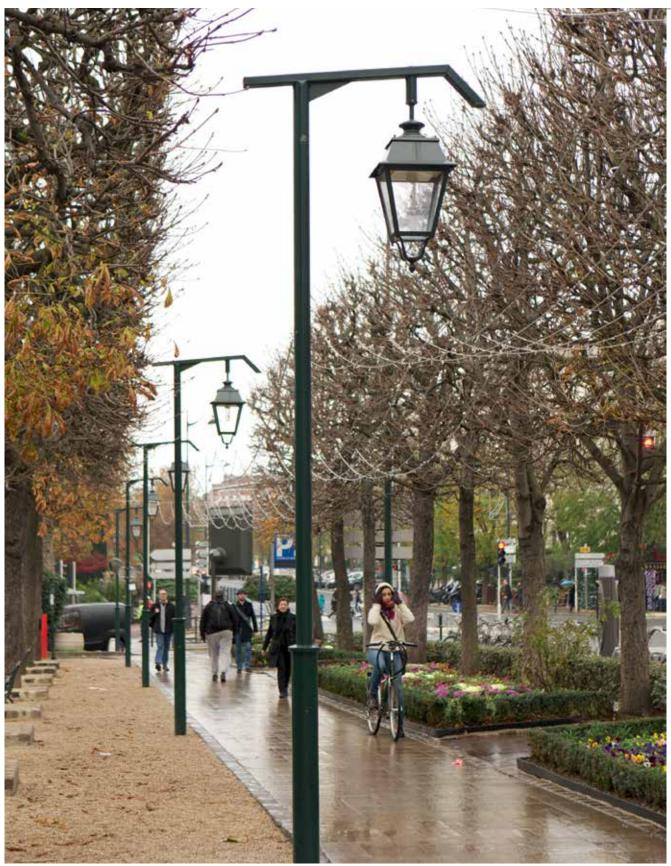
4-6m







THORN | EP 145 | 101 |



▲ EP 145 sur mât Saint-Mandé, Place Charles Digeon, Saint-Mandé (94), France

# 3,5m



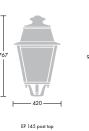
- Conventional lantern in black or real copper finish, with matching poles, arms and brackets for blending perfectly into the environment
- Compatible with LED light sources and discharge lamps
- Version with effective and efficient street optic that reduces glare and avoids obtrusive light.
- LED extended lifetime reduces operating costs and avoids the need for conventional lamp replacement
- Simple quick post-top or suspended installation to meet various urban and residential applications.

THORN | EP 145 | 103 |

#### **Materials and finish**

Lantern body: stainless steel, black (RAL 9005) or copper finish specially treated against corrosion Canopy: GRP/Polyester – black (RAL 9005) or copper finish Seal: EPDM

LED version: 5mm thick toughened glass HID version: clear bowl or acrylic water droplet effect bowl





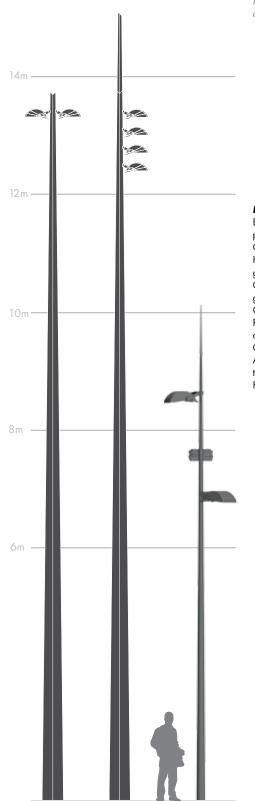


# Areaflood









## 10-14m

Multi-purpose floodlights offering high quality optical control and performance

- Two floodlight sizes with a wide range of power options (up to 600W)
- Optical system with built-in visor for accurate flux control and reduced obtrusive light (0 cd at 90°)
- Autonomous power reduction and optional hot restrike system
- Many optical accessories (colour filters, louvre, wire guard) and installation accessories (top mounting bracket, decorative stirrup)
- Also compatible with indoor applications

#### **Materials and finish**

Body: die-cast aluminium AS 12, powder coated anthracite grey finish Gasket: Silicone

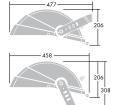
Hinges: PA 6.6 20% filled with glass fibre

Gear housing: PA 6.6 30% filled with glass fibre

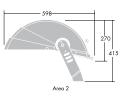
Gear housing cover: polypropylene Reflector: highly reflective pre-anodised aluminium

Cover: 5mm thick toughened flat glass Accessories: metal frame, similar finish to body

Filters: self-tinted coloured glass







# **Olsys Area**







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12 m ———		• 1 • / • / • /
10m		- ( s l Ols larg
8m ———		Boc pov RAL Cov pol flat Op higl min Rete
6m		
		330

10-14m

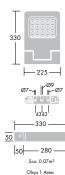
Robust, versatile and efficient LED floodlights for lighting large outdoor and indoor spaces

- Wide range with two sizes, four wattages and two colour temperatures. Three mounting options with a -90° to +90° adjustable tilt
- Overall costs reduced by an advanced thermal control system, for an extended life up to 80,000 hours at 25° with 70% maintained luminous output
- Tough weatherproof die-cast aluminium IP66/IK08 with 10kV overvoltage protection
- Minimalist luminaires, poles and brackets coordinated with other luminaires in the Olsys range to blend into the environment Olsys Area2 peut également être utilisé à l'intérieur de grands halls.
- Complete illumination system solution with Olsys Street and Olsys Illum, covering lighting of facades, car parks and service lanes.

Olsys Area2 can also be used inside large halls.

### Materials and finish

Body: die-cast aluminium (AS9U) powder coated silver grey (close to RAL 9006) Covers: UV stabilised clear polycarbonate (size 1) or tempered flat glass (size 2) Optics: polycarbonate (size 1) or highly reflective anodised aluminium mini-reflectors (size 2) Retaining screws: stainless steel



Scx: 0.17m<sup>2</sup> Olsys 2 Area

# Illumination



# Alumet







THORN | Alumet | 111



Alumet Stage



Alumet Control Indirect Acigné (35), France

### 3-4m



that provide a comfortable night time ambience and attractive urban furniture during the day. Pure, clean lines give a discreet presence in the landscape. Equipped with conventional or LED light sources, Alumet Stage's opal or transparent top diffuses a soft white glare-free light, creates vertical illumination for pedestrian safety and provides possibilities for creating lighting effects. Alumet Classic: safety and visual guidance switches on instantaneously with T16 fluorescent lamps. CRI>90. Alumet Control Indirect: low upward light (ULOR <3%) to prevent obtrusive light. A set of Fresnel rings directs the light output downwards. Decorative effect.

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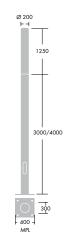
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Alumet Control Direct: performance and efficiency (ULOR <2%) plus 180° slotted cut-off to reduce light spill.

Family of stylish lighting columns

### Materials and finish

Opal diffuser : impact resistant acrylic Top cover : die-cast aluminium Column : extruded aluminium Decorative cut-off : aluminium Top/Column/Lampshield : powder coated sandy grey 150 finish (close to RAL 9006). Other RAL colours on request



Alumet Stage Place de la République, Rennes (35), France

# **Contrast 2 LED**









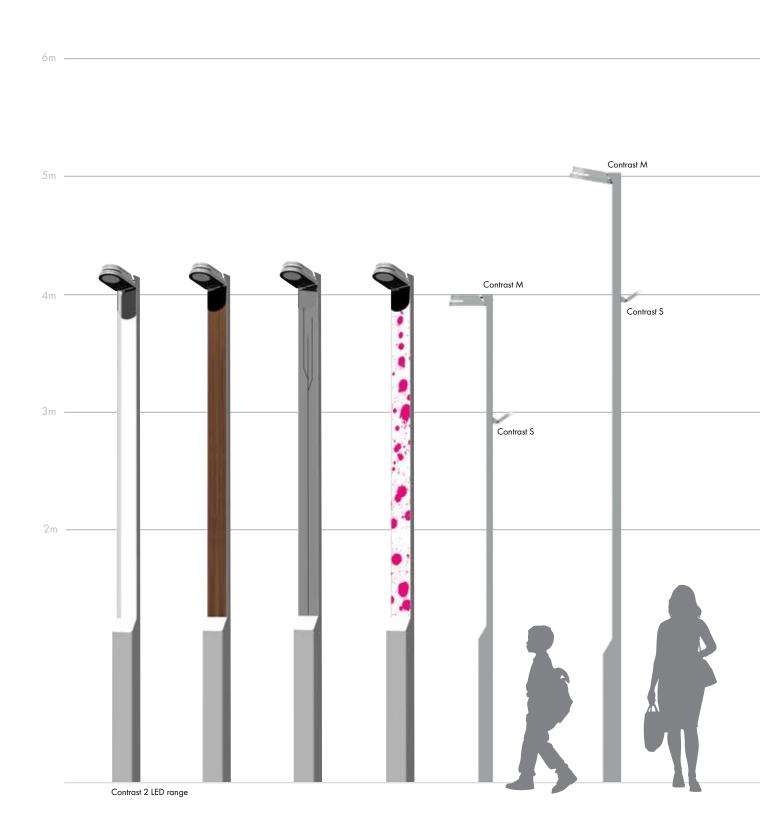
A Bridge d'Avignon (84), France, (Lighting design and photo: Noctabene)



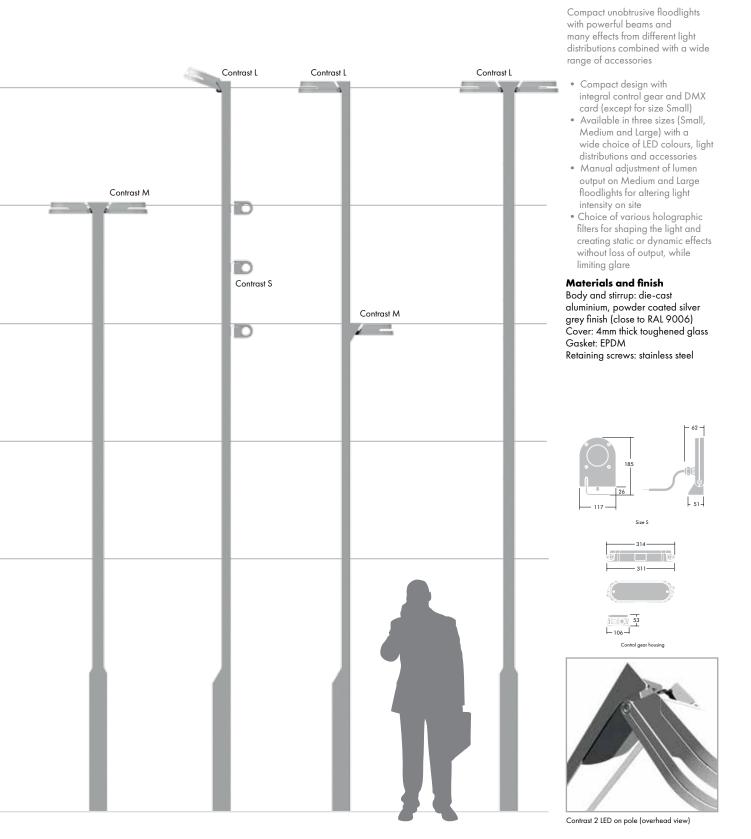
Ceramics Museum, Sèvres (92), France, (Lighting design and photo: Concepto)



Contrast 2 LED range

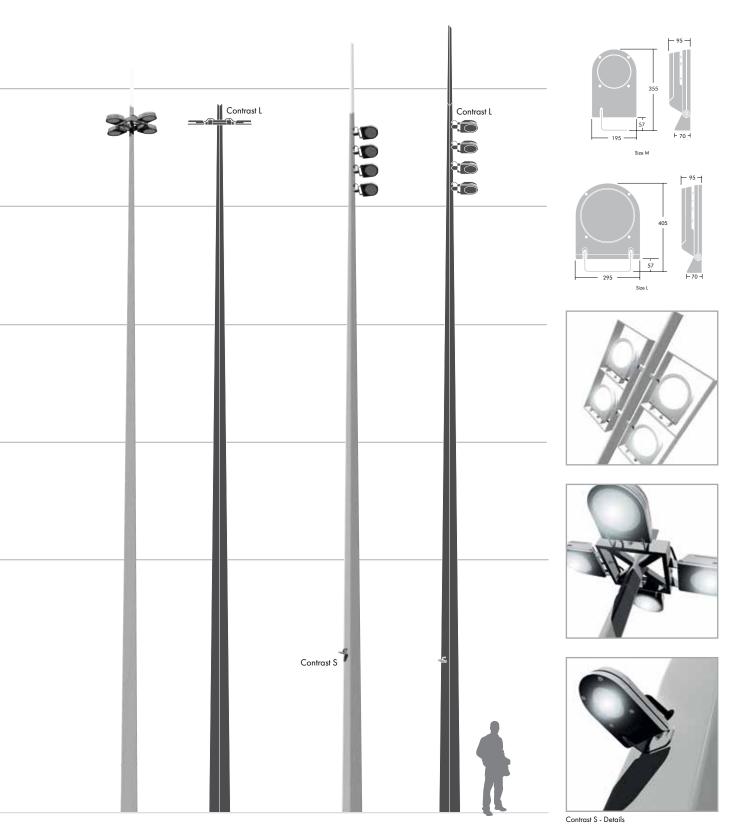


### 4-6m





### 10-14m







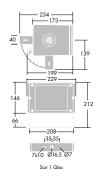
www.thornlighting.com/QBAL | www.thornlighting.com/QBLD

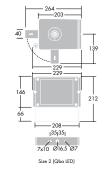


Qba's characteristic cube shape, with compact and simple lines make it unobtrusive when installed on-site, its mounting bracket being concealed by its sides. Qba is the ideal LED solution for illuminating close to façades and enhancing monuments and architectural details. Monochromatic or RGB full color versions, combined with the possibility of DMX connection, can bring about multiple lighting effects. The light beam can be sculpted and modified by a wide selection of accessories to add colours and lighting effects to projects.

#### **Materials and finish**

Body: die-cast aluminium, grey powder coated close to RAL 9007. Other RAL colours on request. Body screws: stainless steel. Front lenses: 4mm toughened glass. Accessory frame: die-cast painted aluminium. Attachment retaining screws: nickel plated brass.





# **Olsys Illumination**





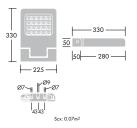


Discreet, durable and efficient LED floodlight for creating decorative lighting effects

- No accessories required for the decorative lighting effects
- 90°/+90° tilt ensures you can place light exactly where you want it
- Exceptionally low cost of ownership with an optimised heat management system to provide a lifetime up to 80,000 hours (L70, 25°)
- Extremely durable full die-cast aluminium and IP66/IK08 rated package, complete with 10Kv surge protection

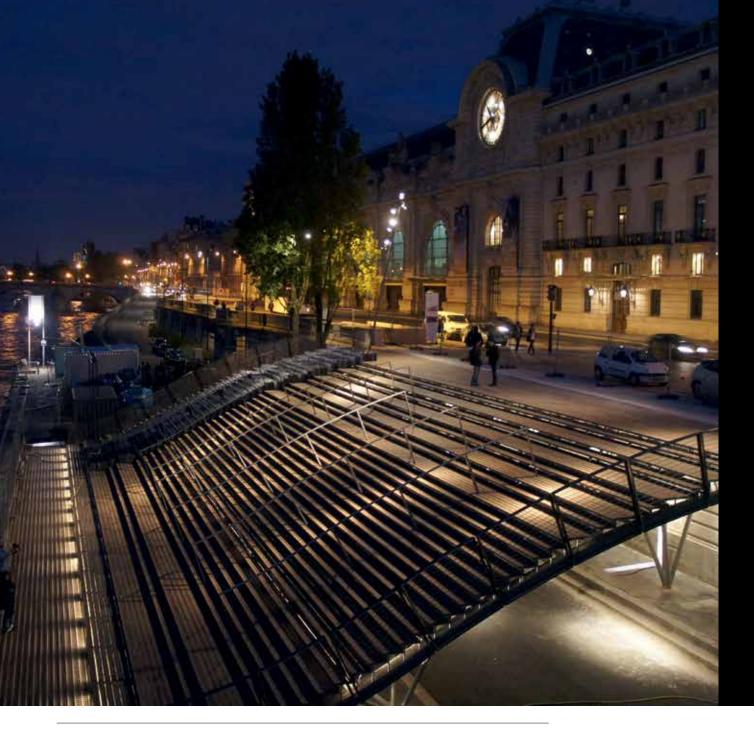
### Materials and finish

Body: die-cast aluminium (AS9U) powder coated silver grey (close to RAL 9006) Cover: UV stabilised clear polycarbonate (size 1) Optic: polycarbonate Retaining screws: stainless steel





www.thornlighting.com/SATN



Concealed linear batten for highly effective façade illumination.

- Unobtrusive minimal cross-section
- Choice of light distributions, LED
- colours and batten lengthsJuxtaposed installation for a uniform light beam
- Supplied pre-wired with built-in driver for simple quick installation

### Materials and finish

Body: painted anodised aluminium End caps: grey plastic Cover: UV stabilised PC Power supply cable: H05 RNF Gasket: EPDM Stirrup: stainless steel 304L Other RAL colours, LED colours and special lengths on request. Upper shaft with simple mounting height adjustment, bevelled.

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[	NAMES OF A DESCRIPTION OF A	INTERNAL INTERNAL	 
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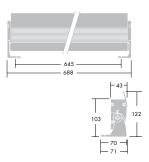


Discreet wall washer with visor for low glare illumination

- Discreet styling for easy integration with various architectures
- Pre-wired range for easy and quick installation
- Supplied complete with visor to avoid glare

### Materials and finish

Body: anodised extruded aluminium, aluminium grey finish (close to RAL 9007) End caps: anodised die-cast aluminium, grey finish Stirrup: anodised die-cast aluminium, grey finish Cover: toughened glass H05RN-F 2 x 1 mm<sup>2</sup> 0.35m long IN/OUT cable



# E/Fact Slim

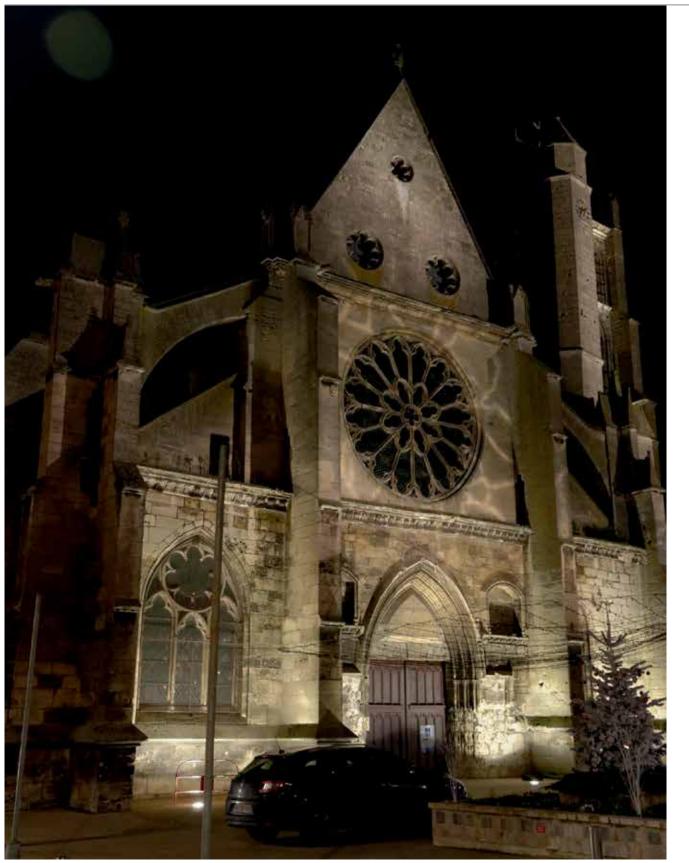




www.thornlighting.com/EFCT



THORN | E/Fact | 131 |



Eglise de Chambly, France (60)



A series of square or circular recessed walk-over luminaires compliant with EN60598-2-13: limited surface temperatures

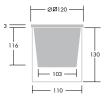
- Designed in accordance with the new contact temperature norm: <100°C for conventional versions and <40°C for LED versions.
- Sealed to IP67 with die-cast aluminium body. Wide choice of sizes, frames, mounting depths, light sources and control technologies to suit application
- Tilting angle adjustment for semi-frosted glass versions (except asymmetrical light distribution (A/S) and E/Fact1 18W TC-T)
- Integral power supplies, except E/Fact 0 20W QR-CBC which needs an external 12Vac and E/Fact 1 RGB

### Materials and finish

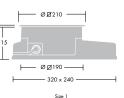
Bodies: die-cast aluminium, ENAB44100 (copper free) with powdered paint finish for high corrosion resistance Frame: stainless steel AISI 316L (3mm thick) treated against corrosion or painted aluminium Retaining screws: stainless steel Front glass: toughened semi-frosted or frosted sodic glass. Gasket: anti-ageing silicon Recessing box: polypropylene Cable: H07RN-F, 1m for size 00 and 0.5m for E/Fact Slim size 1, 2 and 3.

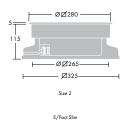
Holographic films: non-yellowing polycarbonate. Low temperature version.

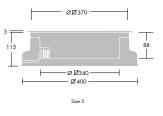
▲ Ile Monsieur – Saint Cloud, France (92)



E/Fact LED



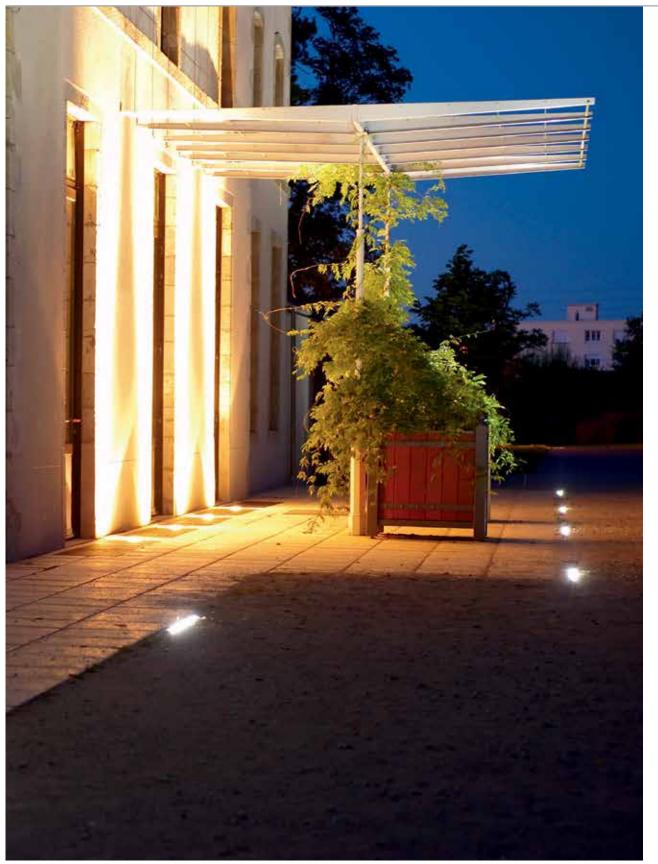








THORN | Mica | 135 |



▲ Château des Longues Allées Park, Montauban, France (82)



▲ Hotel Dieu, Belleville, France

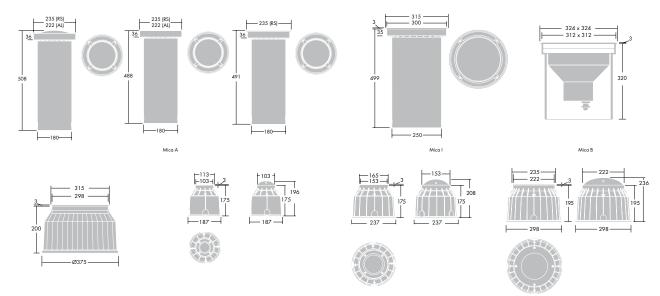
Illumination is easy with the Mica range of recessed walkover luminaires. Particularly robust, Mica will bear the weight of vehicles. Its four versions with increasing sizes and power guarantee the right product for the application, whatever the required lighting effect, including route guidance, accent lighting, illuminating foliage, statues, structures and building facades. With such a variety of light sources, optics, accessories and finishes, it's easy to find a suitable solution with Mica.

### Materials and finish

Bodies: die-cast aluminium, ENAB44100 (copper free) with powdered paint finish for high corrosion resistance. Frame: stainless steel AISI 316L (3mm thick) treated against corrosion or painted aluminium. Retaining screws: stainless steel Front glass: toughened semi-frosted, clear or frosted sodic glass. Gasket: anti-ageing silicon. Recessing box: polypropylene. Cable: H07RN-F 0.5m long for Mica Slim and Mica A versions and 0.8m long for Mica I and Mica B. Holographic films: non-yellowing polycarbonate.

Low temperature version. 🍝

Mica Slim AT



Mica Slim I

Mica Slim SST

Mica Slim ST





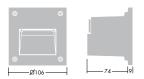
Complete range of modular wallmounted luminaires providing a wide selection for all types of pedestrian walkways

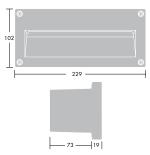
- The modular design offers an wide range of lighting possibilities
- With a compact body for easy integration with the pre-ordered recessed housing box
- Square or rectangular shape with a choice of four frames suitable for every environment

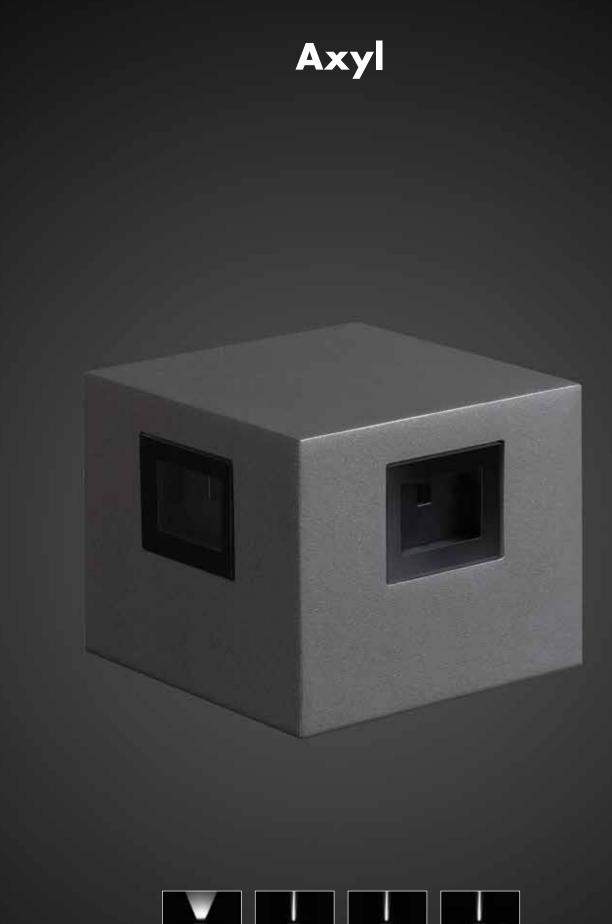
### **Materials and finish**

Body: die-cast aluminium EN AB 47100 powder coated anthracite grey finish (close to RAL 7043) Cover: toughened glass, 6mm thick for square version and 8mm thick for

rectangular version Recessed housing: polypropylene with 40% talc added and polystyrene cores Gasket: Dutral Retaining screws: stainless steel











www.thornlighting.com/AXYL



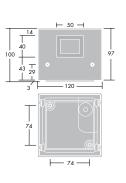
Compact wall-mounted floodlights create impressive lighting effects on façades

- High performance LEDs provide good spacing with outstanding lighting effects
- Choice of four lighting effects
- Floodlights with all components in the same housingCompact cube-shaped housing
- blends into its environment

#### **Materials and finish**

Body: die-cast aluminium Sandy anthracite grey finish EN AB 47100

Cover: 4mm thick toughened glass Mounting support: polycarbonate Gasket: silicone Retaining screws: stainless steel





www.thornlighting.com/CESA

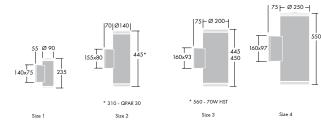


Cesar is a wall-mounted floodlight for illuminating façades with lighting that is both decorative and functional. Its simple vertical cylinder shape blends with the upwards and/or downwards light beams projected onto the façade. The wide choice of light sources and accessories ensures high quality lighting designs with narrow or diffused, symmetrical or asymmetrical effects, and colours (if required). The range is complemented by LED versions with their additional benefits: narrow coloured beam with low energy consumption and long life.

#### **Materials and finish**

Body and frame: die-cast aluminium EN AN4700 and extruded ENAW 6060 housing (copper free) with high corrosion resistance and powdered painted close to RAL 9007 with corrosion resistance. Other RAL colours available on request.

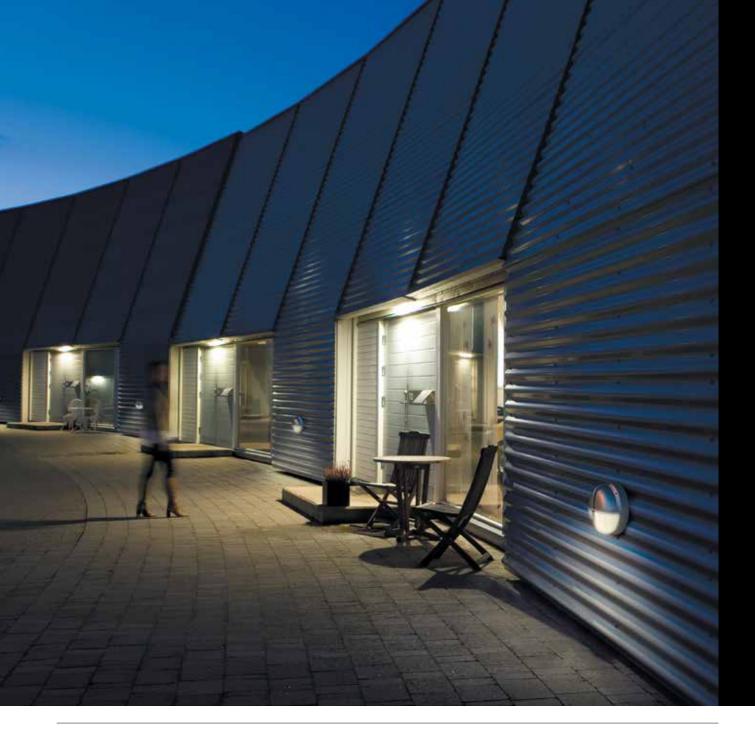
Reflector: pure aluminium. Front glass: toughened glass, thickness 6mm - size 1, 8mm - sizes 2 and 3, 12mm - size 4. Retaining screws: stainless steel Gasket: silicone Holographic films: non-yellowing polycarbonate







www.thornlighting.com/EYKL

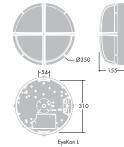


Vandal-proof IP65 bulkhead

- Aluminium construction, sealed to IP65
- Designed to spread light sideways, allowing wider spacing without leaving dark areas
- Bezel, cross, visor and halo visor decorative features
- Highly efficient LED version (up to 1500lm) available with built in detection system and optional corridor mode

### Materials and finish

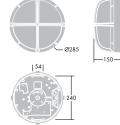
Housing and decorative feature (cross, bezel and visor): die-cast aluminium Diffuser: opal or clear polycarbonate Reflector: aluminium Gaskets: extruded silicone rubber



120

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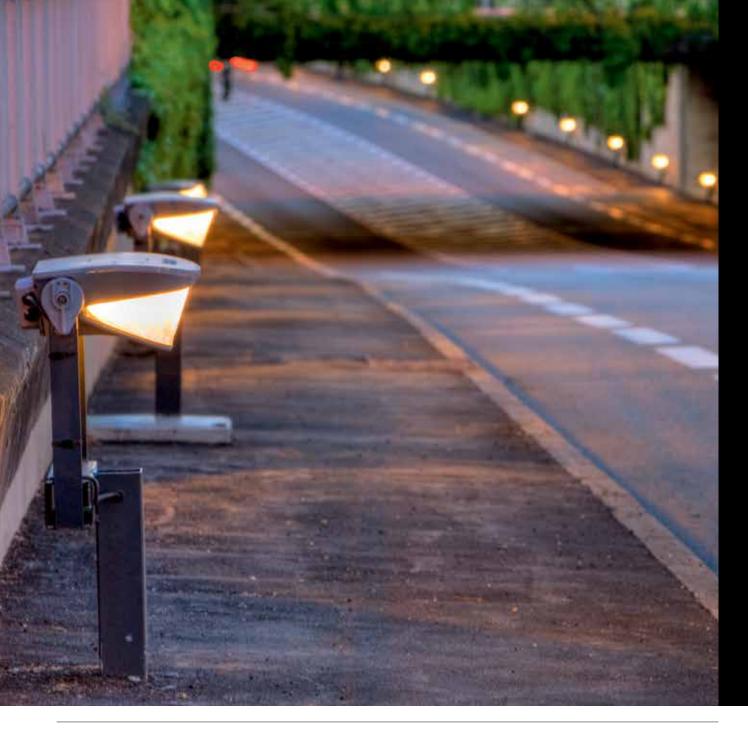
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EyeKon S



www.thornlighting.com/ORUS

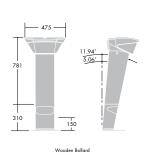


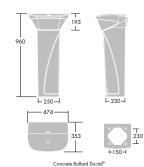
A new way to design a lighting installation! Orus is an innovative low-mounted (0.90m) shallow beam street luminaire. With Orus it's now possible to design a road free of lighting poles where direct light provides effective, efficient and comfortable lighting with minimal energy consumption and simplified installation and maintenance operations. Orus meets the requirements of projects where conventional lighting installations (with pole, bracket and lantern) are unsuitable, including in urban environments. Includes wood or Ductal concrete bollard options.

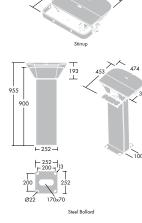
#### **Materials and finish**

Body: die-cast aluminium Bollard: 3mm steel powder coated grey (RAL 9006) or concrete, texturised dark grey Enclosure: UV stabilised polycarbonate protected against graffiti and with extra scratch resistant treatment Reflector: pure aluminium with high reflectance coating

Tamper-proof screws and bolts: stainless steel Gaskets: silicon Stirrup: die-cast aluminium







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THORN | orus | 147 |

Rangueil, Toulouse, France





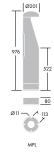


Stylish and sturdy bollard enhances urban spaces

- Contemporary design which blends into the environment
- Robust reliable construction, IK10 impact resistance and vandal resistant
- Efficient and durable LEDs requiring little maintenance
- Efficient asymmetric light distribution compatible with the interministerial decree governing disabled access (PMR) and ULOR
   = 0% to limit obtrusive light.

Materials and finish

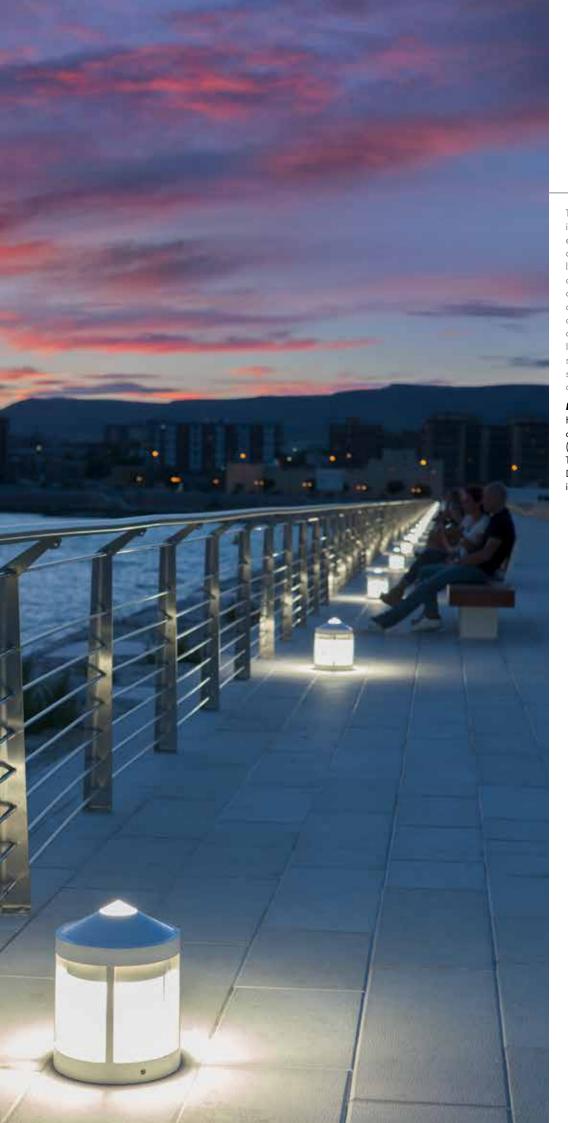
Body and bezel: stainless steel, electo-plated zinc Diffuser: clear 5mm polycarbonate plate Body and bezel colours: black (RAL 9005)



# Promenade



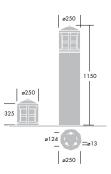




This bollard's simple pure lines imply strength and harmony. The enhanced, uniform and glare-free distribution of this functional white lighting contributes to pedestrians' comfort. LED versions offer customisation possibilities in terms of colours, reliability and reduced operating costs. Promenade LED offers bollard or parapet versions. It provides an effective security solution for areas where direct switch-on with 100% of luminous output is required.

### Materials and finish

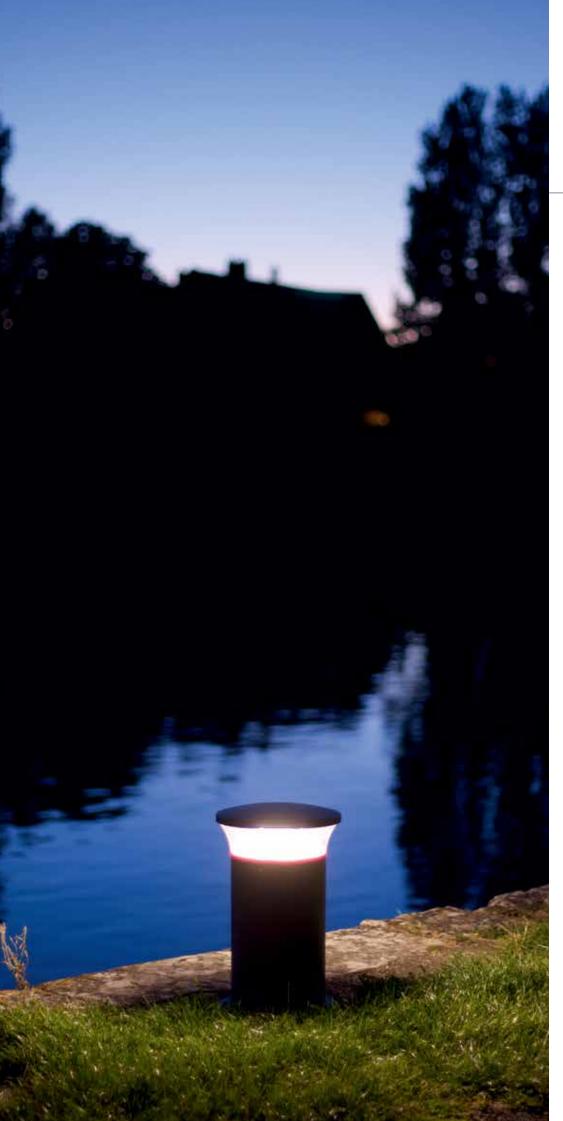
Head and body: powder coated die-cast aluminium LM6, anthracite (close to RAL 7024) Top cone: opal polycarbonate Diffuser: clear polycarbonate with internal sand blasted anti-glare band



# **Adelie Bollard**







Elegant vandal resistant bollard with high performance optic offering a comfortable light and energy saving solutions

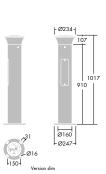
- Best in class LED optic provides a comfortable, low glare direct and indirect light with asymmetric or symmetric distribution, sympathetic to users with a lower viewing angle
- Durable and vandal resistant (IK10 40 joules for the slim version)
- Bi power dimming and presence detection options reduce energy consumption
- Available in two sizes slim and wide – with the wide version also suitable for use as street furniture
- Optional decorative RGB colour band
- Complements the distinctive Adelie post top lantern
- Slender slim size with light distribution compatible with the interministerial decree governing disabled access (PMR)

### **Materials and finish**

Column and base: aluminium (EN AW 6060) Canopy: die-cast aluminum (EN AC 47100) Diffuser: clear anti UV Polycarbonate Reflector: white Polycarbonate Gear Box: Polypropylene Canopy and Column colour: powder coated dark grey (close to 7043)

> → Ø333 → 127 ↓ 414 54 80 ↓ Ø250 ↓ ↓ Ø250 ↓



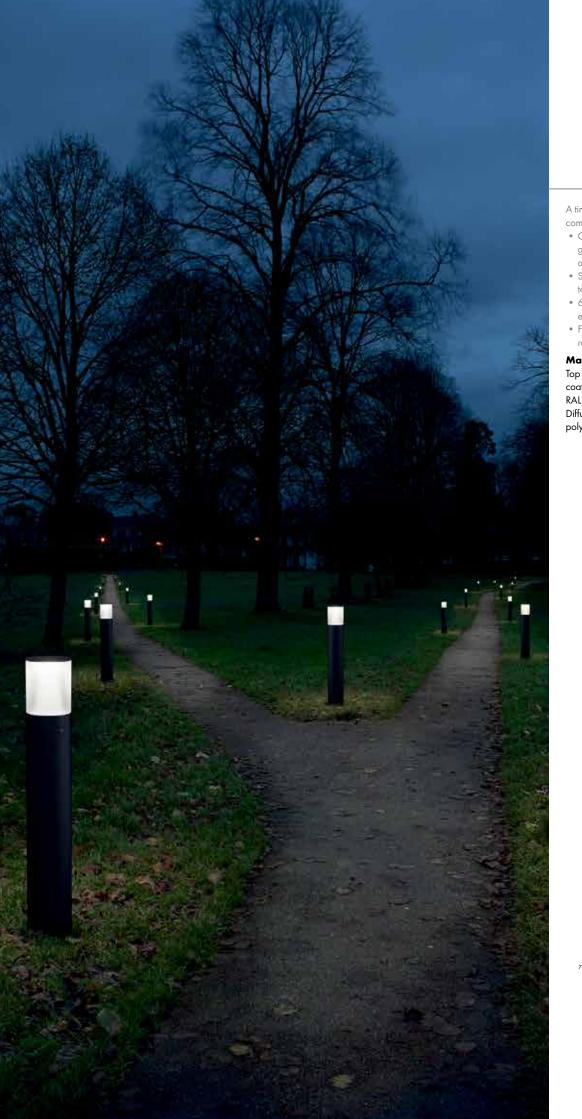


THORN | Adelie Bollard | 153 |

# **D-CO LED Bollard**





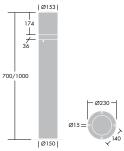


A timeless bollard offering comfortable visual guidance

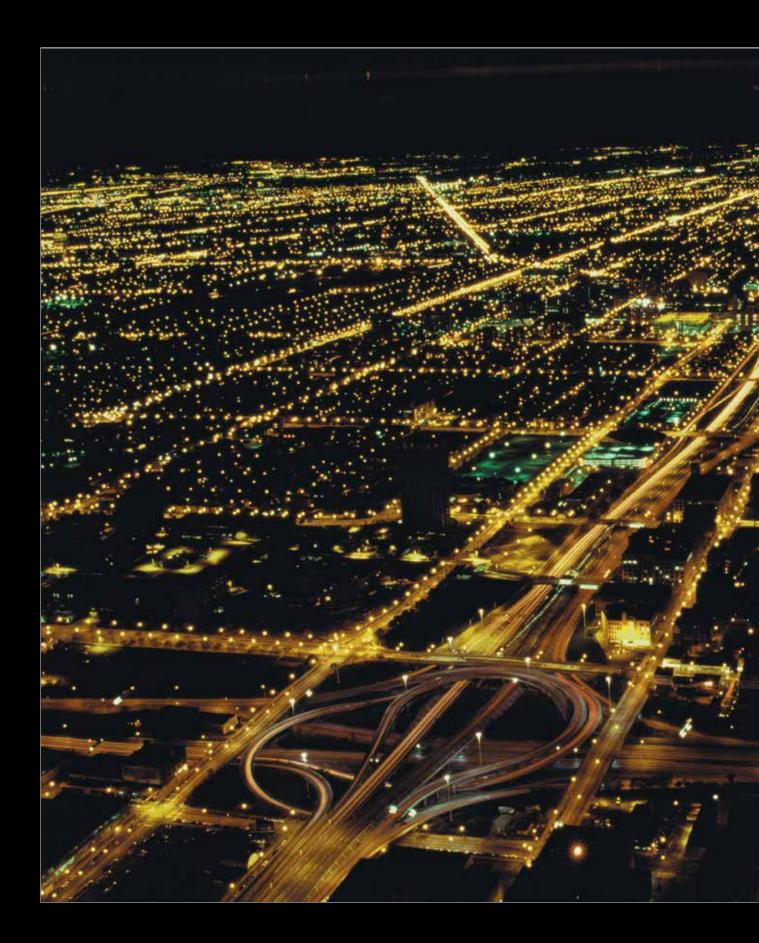
- Comfortable white light with no glare provided by a semi-opal anti-UV PC diffuser
- Suitable for any application thanks to high specs and two heights
- 60,000 hour lifetime (L80, 25°) ensures low maintenance costs
- Flange mounting, compatible with root spikes

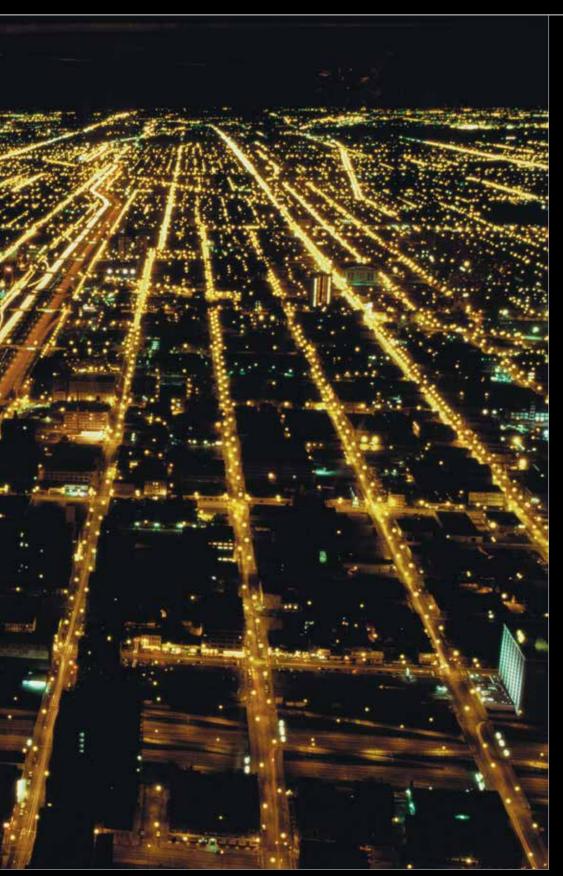
#### Materials and finish

Top and body: aluminium, powder coated anthracite grey finish (close to RAL 7043) Diffuser: UV stabilised semi-opal polycarbonate



# Lighting control





Switching off the lights saves energy! Of course switching off the lights would be effective in saving energy, but safety would be compromised. Did you know?

 Power reduction and presence detection,

**satisfy safety guidelines** and regulatory requirements while bringing **energy savings**.

LED technology has major advantages: Instantaneous switch-on with 100% available light. LED gives a reassuring light.

Its **colour rendering** is vastly superior to that of conventional lamps and enhances the **attractiveness of urban areas**.

Centralised solutions: managing the lighting of a street, district or town; monitoring energy consumption and programming maintenance visits, thanks to data fed back to a central control point.

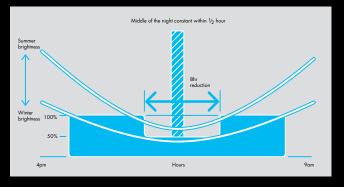
# **Power reduction**

As the first stage in lighting management, reducing the power of lanterns brings a 20 to 40% energy saving.





50% light reduction, integral clock with automatic adjustment



# **Presence detection**

The versatility of LED technology and the use of presence detection now makes it possible to manage public lighting in accordance with traffic frequency.

We offer two operating modes : ON/OFF switching or change from stand-by to full power. With different detection modes, infrared or high frequency, our solutions meet all your requirements.





Legend LED on detection sleeve

Presence detected :

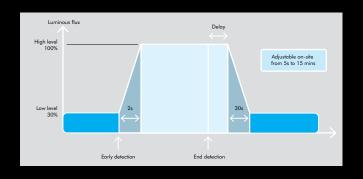


### Change from stand-by to full power

Presence undetected :

luminaire is on stand-by

As the preferred solution, this mode maintains a permanent minimum level of illuminance and brings a feeling of safety. When presence is detected, the level of illuminance changes instantaneously to its maximum for safe movement.

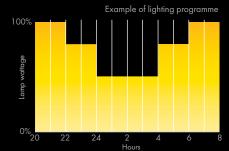


# Centralised lighting control systems



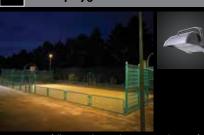


Dimming according to traffic conditions

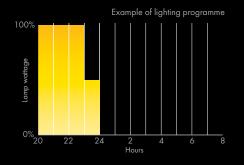


Performance table	
Energy savings	* * * *
Maintenance cost savings	* * * *
Comfort and safety	* * * *

### 2 Public playground



Operating on full power during playtime can also signify that closing time is approaching

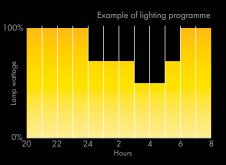


Performance table	
Energy savings	* * *
Maintenance cost savings	* *
Comfort and safety	* * *

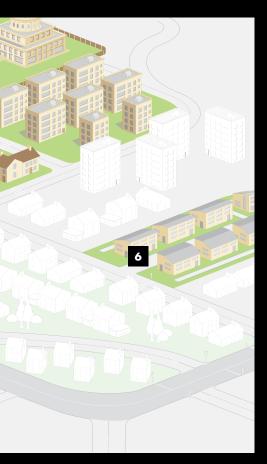
#### **3** Town centre/pedestrian precinct



Dimming while maintaining an adequate level of lighting intensity and ensuring comfort and safety



Performance table	
Energy savings	* * *
Maintenance cost savings	* * * *
Comfort and safety	* * * *



Thorn offers comprehensive remote management solutions for the monitoring and supervision of lighting installations.

Whether it's for public or private lighting installations or illuminations, you will always find the solution that meets your needs.

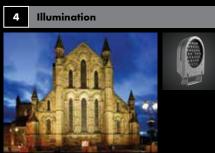




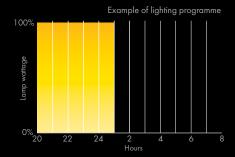
Example of an installation controlled by powerline



Example of installation managed by Radio-Fréquence



Extremely versatile system for easily adapting operating hours according to events

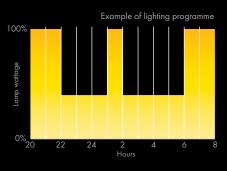


Performance table	
Energy savings	* * *
Maintenance cost savings	* *
Comfort and safety	**

### 5 Docks/industrial areas



Possibility to link luminance levels with delivery schedules. It is also possible to regain control at any time.

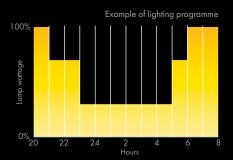


Performance table	
Energy savings	* * * *
Maintenance cost savings	* *
Comfort and safety	* * *





The system accompanies the workers at peak times and helps keep the area safe at night



Performance table	
Energy savings	* * * *
Maintenance cost savings	* * *
Comfort and safety	* * * *

# Dynamic architectural lighting

From creating visual interest in urban spaces to electronically playing with light colours, lighting is always inventing new theatrical effects

To create and transmit emotions with electronic controls, the colour mixture is monitored for dosage and duration.

LEDs are the preferred light source for dynamic lighting. RGB LEDs enable the colour mixture to be produced at the very source of the light.

DMX helps create and control programmable lighting sequences according to the calendar

Thorn offers a comprehensive range of systems (Sensa, etc) suitable for all sizes of projects. The various linking systems: wired connection, radio, Internet etc., can be used to adapt communications to the project's configuration.

Technical support is available throughout the project (from design to commissioning). Please contact your local sales team for more information.



Headquarters of Bouygues Immobilier, Issy les Moulineaux, France (92) ( photos : Laurent Zylberman - Graphix Images)





▼ Ceramics Museum, Sèvres, France (92), (Lighting design: Concepto)



▲ Evry-Courcouronnes Station, France (91), (Lighting design and photos Agence Luminocité)

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#### **Design and Production**

**Global Marketing Communications** 

### **Artwork and Pre-press**

Juice Creative www.juicecreative.co.uk

#### **Photographers**

Ad'hoc Alain-Marc Oberlé Areanow Studio Piero Baguzzi Fabio Baraldi Stefano Battaglia Xavier Boymond Christophe Canadell (Noctabene) Jean-Marc Charles Pierre Crouzet Matteo Dovesi Patrick Dumas Jean-Pierre Duplan Giancarlo Faccin Chris Gasgoigne Joss Guest Maurizio Imperato Jean Lacombe imarken/Jens Larsen Francesco Mattia Philippe Merie François Migeon (8'18") Roger Narboni Alain-Marc Oberlé Pascual Photographie Nicole Paul Michael Nissen Petersen Pascal Plessis Stig Rune **Richard Seymour** Studio 1+1 Hubert Taillard Vincent Thiesson Laurent Zylberman

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#### **Thorn Lighting Main Offices**

Australia Thorn Lighting Pty Limited 43 Newton Road, Wetherill Park, NSW 2164 Tel: (02) 8786 6000 Fax: (02) 9612 2700 infoaustralia@zumtobelgroup.com www.thornlighting.com.au

#### Austria

Zumtobel Licht GmbH Donau-City-Straße 1, 1220 Wien Tel: (43) 1 202 66 11 Fax: (43) 1 202 66 11 82712 office.at@zumtobelgroup.com www.thornlighting.at

#### Benelux

Rijksweg 47 A Industriezone Puurs Nr. 442 BE- 2870 Puurs, Belgium Tel: (32) 3 860 93 93 Fax: (32) 3 886 25 00 info.be@zumtobelgroup.com info.nl@zumtobelgroup.com info.lu@zumtobelgroup.com

#### Central Asia, Africa, Turkey

Thorn Europhone S.A 156 Boulevard Haussmann 156 Boulevard Haussmann 75379 Paris Cedex 08, France Tel: (33) 1 49 53 62 62 Fax: (33) 1 49 53 62 40 thorn.promotion@zumtobelgroup.com www.thornlighting.fr www.thornlighting.com

#### Ching

Thorn Lighting (Guangzhou) Limited No. 12 Lianyun Road, Eastern Section, GETDO Guangzhou 510530 P.R. China Tel: (86) 20 2232 6000 Fax: (86) 20 3228 1777 cn.sales@zumtobelgroup.com

#### Croatia

Dravska 17, HR- 42000 Varazdin (385) 42 290 471 (385) 42 290 474 (385) 42 290 474 Tel: officehr@zumtobelgroup.com www.thornlighting.com.hr

**Czech Republic** Thorn Lighting CS spol. s r.o., Pekařská 621/7, 155 00 Praha 5 Tel: (420) 224 315 252 Fax: (420) 233 326 313 thora cz<sup>20</sup>urathelegroup com thorn.cz@zumtobelgroup.com www.thornlighting.cz

#### Denmark

 
 Denmark

 Thorn Lighting A/S

 Stamholmen 155, 5. sal, 2650 Hvidovre,

 Tel:
 (45) 76 96 36 00

 Fax:
 (45) 76 96 36 01

 thornifo.dk@zuntobelgroup.com

 was the saliability dk
 www.thornlighting.dk

#### France

Thorn Europhane SA 156 Boulevard Haussmann, 75379 Paris Cedex 08, France Tel: (33) 1 49 53 6262 thorn.promotion@zumtobelgroup www.thornlighting.fr

Germany Thorn Licht GmbH Achtzehnmorgenweg 2-4, 61250 Usingen Tel: (49) 6081 1026 500 office.de@zumtobelgroup.com www.thornlighting.de office

#### Hong Kong, Taiwan

www.thornlighting.tw

Thorn Lighting (Hong Kong) Limited Unit 4301, Level 43, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Chung, N.T., Hong Kong Tel: (852) 2578 4303 (852) 2887 0247 info.hk@zumtobelgroup.com www.thornlighting.hk

India Thorn Lighting India Pvt. Ltd. Unit No. 404, Western Edge-I 4th Floor, Located at CTS 163A/165 W.E Highway, Borivali (E) Mumbai - 400 066 Tel: (91) 22 40481900 Fax: (91) 22 40481900 international\_sales@zumtobelgroup.com www.thornlighting.in

#### Ireland

Thorn Lighting (Ireland) Limited Century House, Harolds Cross Road, Dublin 6W Tel: (353) 1 4922 877 Fax: (353) 1 4922 724 dublinsales@zumtobelgroup.com www.thornlighting.co.uk

Italy Thorn Lighting S.r.I Via G Di Vittorio, 2, Cadriano di Granarolo, Bologna 40057, Italy Tel: (39) 051 763391 Fax: (39) 051 763088 info@zumtobelgroup.it wave thoraliottion it www.thornlighting.it

#### Kingdom of Saudi Arabia

Thorn Lighting Ltd Jeddah 21411, Madina Road, Sulaiman Building Tel: (966) 2 653 3077 Fax: (966) 2 653 3153 marketing.mena@zumtobelgroup.com www.thornlighting.ae

#### Korea

1506, Union Centre BLDG, 837-11, Yeoksam-dong, Kangnam-gu, Seoul Tel: (82) 2 565 8823~4 Fax: (82) 2 565 8827 info.kr@zumtobelgroup.com www.thornlighting.kr

#### New Zealand

Thorn Lighting (NZ) Ltd 399 Rosebank Road, Avondale Auckland 1026, PO Box 71134, Rosebank, Auckland 1348 Tel: (64) 9 828 7155 Fox: (64) 9 828 7591 NZakth.info@zumtobelgroup.com

Thorn Lighting Ltd. Al Shoala Building, Office 301, Block E, Airport Road, P.O.Box 22672, Deira, bobby.sudhir@zumtobelgroup.com www.thornlighting.ae

**Norway** Thorn Lighting AS Strømsveien 344, 1081 Oslo Tel: (47) 22 82 07 00 Fax: (47) 22 82 07 01 info.no@zumtobelgroup.com www.thornlighting.no

#### Poland

ZG Lighting Polska Sp. z o.o., Ul. Gazowa 26A, Wrocław 50-513 Tel: (48) 71 7833 740 Fax: (48) 71 3366 029 thorn.pl@zumtobelgroup.com www.thornlighting.pl

#### Qatar

Thorn Lighting c/o Arabian Link Trading Cleopatra Building, Office No. 8, First Floor P.O.Box 6026, Doha, State of Qatar Tel: (974) 4432 1445 Fax: (974) 4432 1445 dakshata.sathye@zumtobelgroup.com www.thornlighting.ae

#### Russia

Thorn Lighting Skakovaya str., h. 17, bl. 2, office 2110 125040, Moscow 125040, Moscow Tel: (7) 495 981 35 41 Fax: (7) 495 981 35 42 office.moscow@zumtobelgroup.com www.thornlighting.ru

#### Singapore

Thorn Lighting (Singapore) Pte Ltd 5 Kaki Bukit Crescent, 04-02 Koyotech Building, 416238 Singapore Tel: (65) 6844 5800 Fax: (65) 6745 7707 info.sg@zumtobelgroup.com

#### Slovenia Thorn Lighting

Dunajska cesta 159, Ljubljana, SI- 1000 Tel: (386) 31 388 965 Fax: (386) 1 56 09 865 office.si@zumtobelgroup.com www.thornlighting.si

## Spain, Mediterranean and Latin America

ZG Lighting Southern Europe and Latam S.L C/ Inocencio Fernandez, 81, 28035 Madrid Tel: (34) 91 659 30 76 Fax: (34) 91 653 03 74 luxmate@zumtobelgroup.com www.thornlighting.com

Sweden Thorn Lighting AB Industrigatan, Box 305, SE-261 23 Landskrona Tel: (46) 418 520 00 Fax: (46) 418 265 74 thorninfo.se@zumtobelgroup.com www.thornlighting.se

### Switzerland Zumtobel Licht AG

Thurgauerstrasse 39, 8050 Zürich Tel: (41) 44 305 35 35 Fax: (41) 44 305 35 36 info@zumtobel.ch

#### United Arab Emirates - Abu Dhabi

Thorn Lighting Ltd Abu Dhabi Obeid Khaleefa Al Jaber Building Office No. 01, Florr '0' (zero) Behind National Bank of Abu Dhabi, Tel: (971) 2 634 4144 Fax: (971) 2 634 4116 salesthorngulf@zumtobelgroup.com www.thornlighting.ae

#### United Arab Emirates - Dubai

United Arab Emirates - Dubai Thorn Lighting Ltd Dubai Al Shoala Building, Office 301, Block E, Airport road, P.O. Box 22672, Deira, Dubai, UAE Tel: (971) 4 294 8938 Fox: (971) 4 294 8838 salesthorngulf@zumtobelgroup.com www.thornlighting.ae

#### United Kingdom

Thorn Lighting Itd Durhamgate, Spennymoor, County Durham, DL16 6HL Tel: (44) 1388 42 00 42 Fax: (44) 1388 42 01 56 brochures.uk@zumtobelgroup.com www.thornlighting.co.uk

### www.thornlighting.com

www.thornlighting.co.nz

Palestine, Lebanon, Iran, Yemen

# Middle East - Bahrain, Kuwait, Jordan,

Dubai, UAE Tel: (971) 4 294 0181 Fax: (971) 4 294 8838

Fax: (968) 2470 8502 bobby.sudhir@zumtobelgroup.com www.thornlighting.ae

