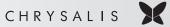
Collection Techno Collection Déco Collection Tempo Collectio Rétro Collectic Lyro Collection Lolito Collection Vanity Bouquets Floralys Collection Objets lumière

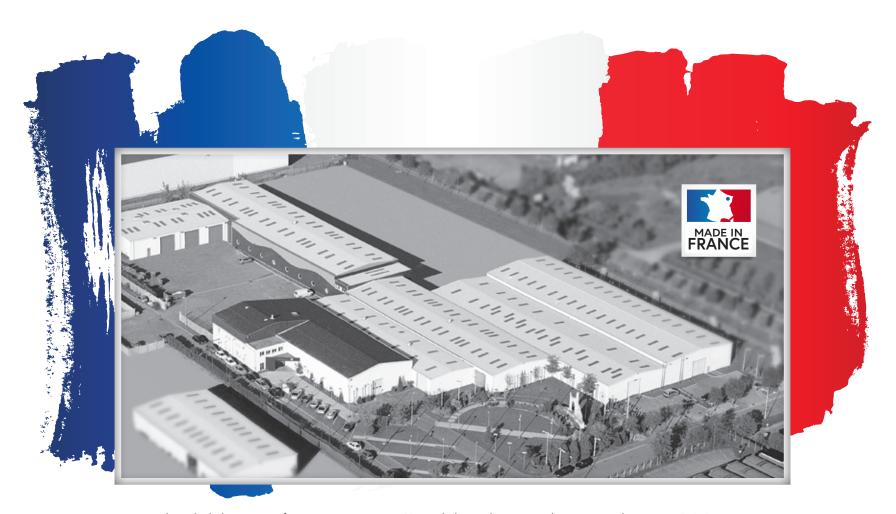
Collection \_um'en Mouv

#### LOLITA









Chrysalis lighting: manufacturing in France at 168 rue de la Fonderie, Zone de Pompey Industries, 54670 Custines

Collections

Inheriting the know-how and assets of 3e International, the CHRYSALIS teams are passionate and focused on problems concerning public lighting to create diverse atmospheres in cities, transforming lights into a material like any other.

CHRYSALIS has made the choice of manufacturing in France. Based on this commitment, we are reinventing public lighting at the Custines site, in our 9000 m<sup>2</sup> premises entirely focused on the future.

For our new range of LOLITA lights, we have adopted an approach where design is the main focus and have prioritised a development process that is sustainable and economical.

The LED technology used in LOLITA is the on the cutting edge of innovation, and also a major tool for made-to-order solutions along with standard ones.

Our inspiration grew ever more as we discovered that the LOLITA concept facilitated implementing creative concepts.

CHRYSALIS welcomes you to its world and hopes that this new catalogue will offer you a great overview of our expertise.

Adrien MARCHAL

# The concept

### The most complete LED solution that allows different indentities and multiple functions.

#### AN ENGINEERING MARVEL IN YOUR HAND:

Chrysalis' ambition when developing its LOLITA program was to design an ultra-compact LED "light", inspired and built for the future.

This simple concept led us to conceive of the LOLITA as stand-alone and independent of any installation and functioning constraints.

We moved everything which was not necessary for the correct functioning of LOLITA to a CHRY-SABOX box to house the drivers at the base of the pole. This choice allowed us to create a complete break at the level of heat exchanges between the LED and driver and also avoided the need to use a flying scaffold in case of intervention by operators when carrying out maintenance operations on the installations.

Everything is pre-wired in the plant.

Now, the optical unit itself has become the entire light.

The decor is integrated in the bodyworks.

To ensure a service life of the L80B10 of 100 000 hours (20 years), LOLITA uses an electronis protection sequence designed at two levels:

- Each optical unit has an integrated electrostatic protection (ESP) in order to eliminate its static discharge caused by warm or cold air currents, and to ensure thermal protection (P82), which shall send a command to the driver to lower the current to 10% in case of overheating,
- As regards the connection to the network, we have chosen to install in the junction boxes, a GMOV type variance to avoid a current overload through the neutral conductor and also an additional lighting arrester of 10 KB to the surge suppressor present in the driver.

Lolita also has a low luminance "V" and a high opacity silkscreen printing which, when combined, contribute to a major reduction of the discomfort zone owing to glare.

All the PCB used are directly supported against the body of the light, and thus benefit from a wide surface area for cooling through air contact.

#### PUSHED INTEGRATION:

LOLITA has become the key component in our lighting fixtures. This is a rather fantastical range, and certainly quirky compared to the products available on the market. The relevance of this design may also bring about changes in current fashions and especially redesign the architectural balance of a lambda light pole. Through a combination of ideas, the unencumbered bodyworks of Lolita and its variety of mounting systems are a good tool for light designers to design future products together.



## Lolita

optical units to meet the requirements of all modern lighting applications.

THE LOLITA RANGE IS DIVIDED INTO 2 SEPA-RATE GROUPS:

**3 LOLITA compact optical units**, fitted with 4 to 32 LEDs (high power), are intended for lighting of side alleys, bollards, and also accentuation.

These 3 lights are also suitable for tertiary use (shopping malls, private spaces, etc.) and can also be fitted with coloured LEDs (red, green, or blue).

**5 LOLITA luminaires** (3 rectangular and 2 round) fitted with 2 to 4 PCBs, which are the core of the entire LOLITA collection.

> Complete features given on page 318.



#### LOLITA round -LOLITA rectangular-2 PCB 3 PCB 4 PCB 2 PCB 4 PCB 48 or 192 LEDs 64 or 256 LEDs 32 or 128 LEDs 32 or 128 LEDs 64 or 256 LEDs Injected 10 KV Tamper-IK 08 Driver Delivered aluminium lightning proof IP 66 at the base of Varistor pre-wired IK10 optical unit body the pole arrester Medium Up to **Thermal** High power Colour rendering Service life Electro-static Class II 100000 hours 19800 LM LED power LED protection protection index > 70

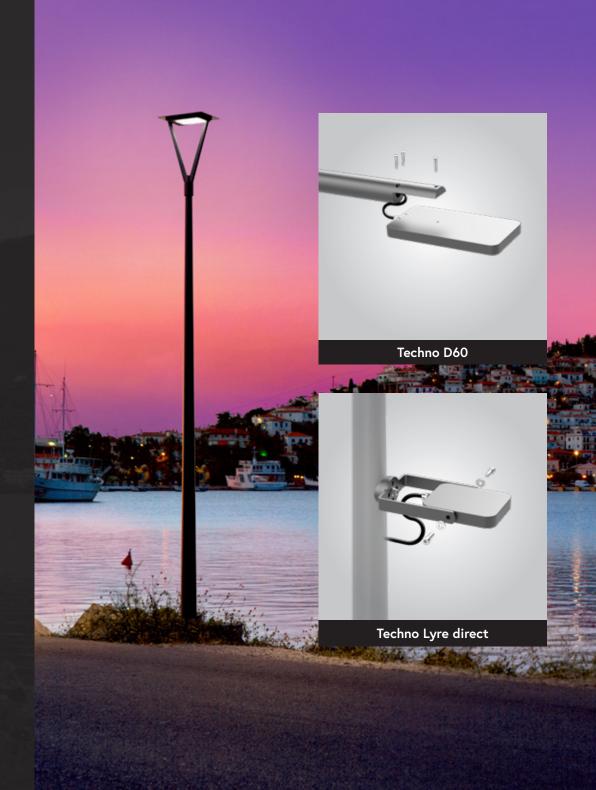
# Mouting

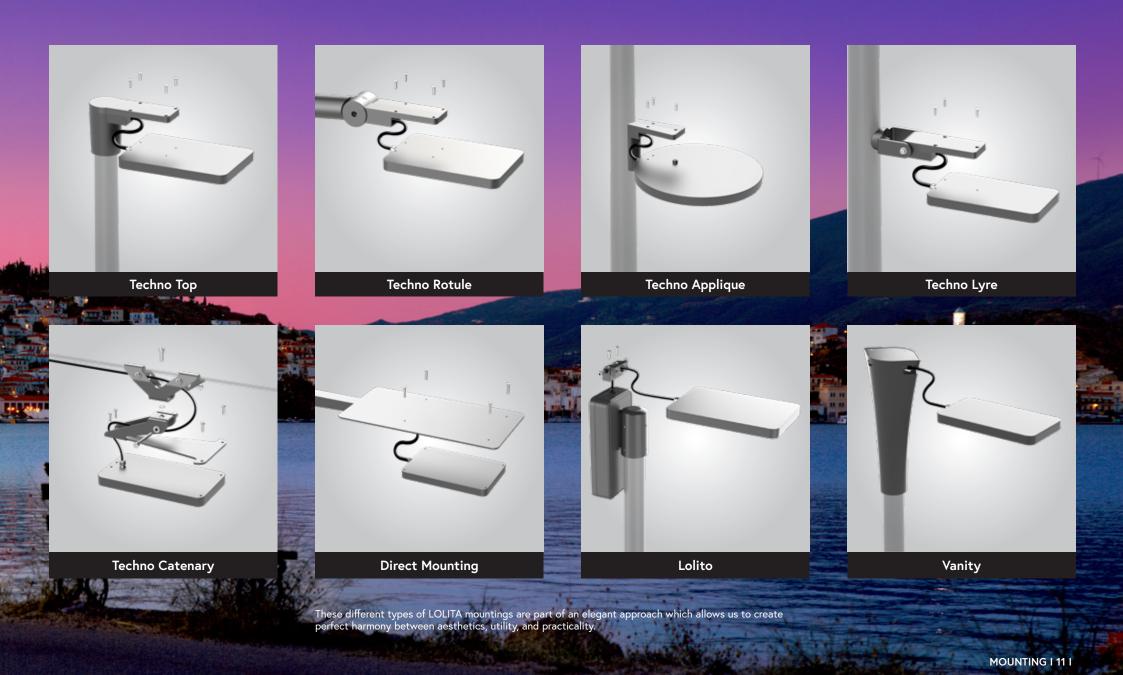
10 mounting systems

In order to increase the synergy between one LOLITA light and another, we have provided ten different mounting systems for the lights.

This is a part of our tool box to create made-toorder solutions with the standard:

- TECHNO D60 to fix the light on a bracket cap such that its connection disappears from view.
- TECHNO TOP at the pole top.
- TECHNO Rotule that allows mounting with the possibility of inclining the light.
- TECHNO Applique pole mounting or on a façade.
- TECHNO Lyre and Lyre direct that allows on-site adjustments and at the azimuth of the light.
- TECHNO CATENARY
- **DIRECT MOUTING** on the LOLITA bodyworks on request.
- LOLITO & VANITY including each of the LED drivers and its electronic protection.





All the mountings which are used in the Techno collection are at the core of an ultra multi-purpose solution which elevates LOLITA to the best of the best.

The Déco collection has staunchly urban designs, with assured and effective geometry. Multiple bodyworks, varied forms, various roadways and residential sets. LOLITA has changed its appearance and is available in 5 new shapes, under the lines Camélia, Bouton d'Or, Primevère, Bleuet and Edelweiss. At the core of its 7 new lights of a neo-classic focused design. Here, LOLITA has truly revived stylish and classic lighting. 7 low-height sets mounted on a lyre. Serene and sophisticated ambience lighting, or simple pointto-point replacement of obsolete light bulbs.





















Vanity

**Floralys** 

Objets lumière

Unique all-in-one functional lighting, combines connection equipment and facilities in an IP66 case.

Vanity is the essence of design and versatility. It can be fitted with Lolita lights directly or on a bracket and can house the LED driver and its electronic protections. Create your own floral, lighting, or decorative composition while enjoying the benefits of Lolita optical units.

A wide range of proximity-based lighting equipment, including bollards, projectors, and furniture.

Lum'en Mouv brings movement to light! A patented concept which imitates the vacillation of flames, from flickering candles to the intense crackling of a chimney.













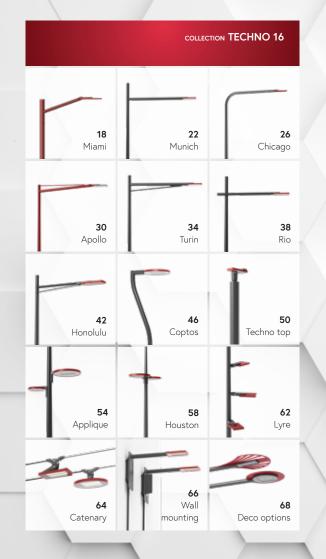


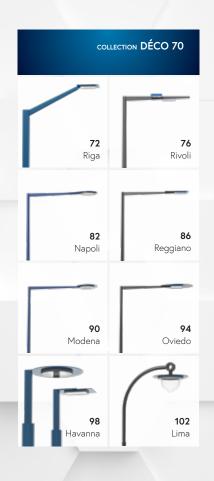






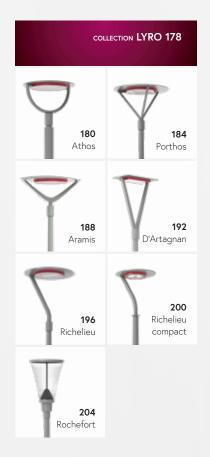
#### Summary

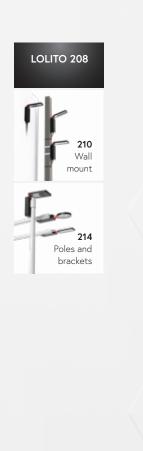


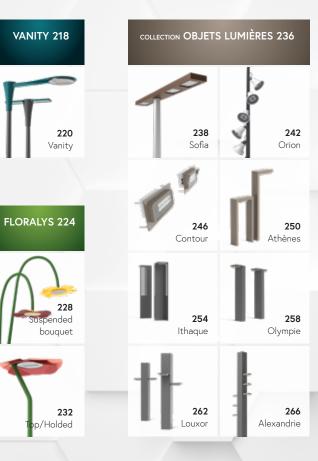


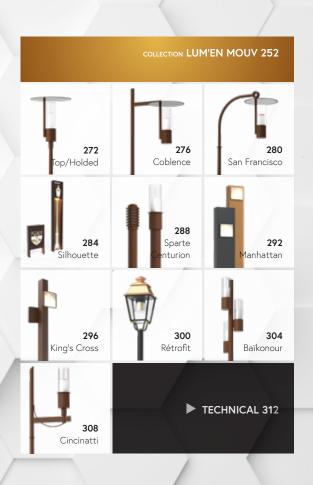


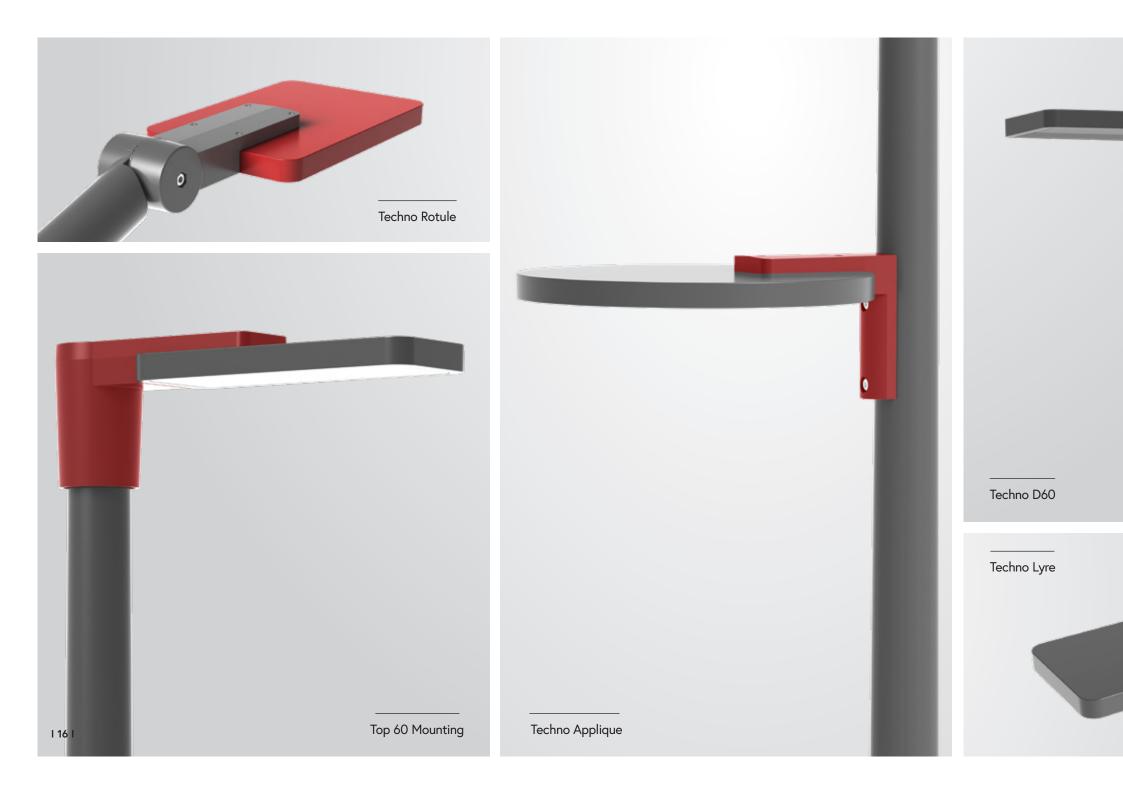
















# Techno collection

A large category of lighting sets dedicated to LOLITA, the Techno collection is a gold mine of solutions for each and every case, even the most challenging ones, in the field of public lighting. The various Techno mounting parts, which are compatible with LOLITA in all situations and also with varied and innovative categories, are used in this collection.

Soft or angular shapes, short or tall heights, multiple outreaches, Techno is a toolbox overflowing with modern and versatile solutions.

Optional decorative bodyworks are also available for certain ranges of this collection.

From Miami to Rio, discover a category that combines architectural styles.



### Miami

#### Description

7 m

6 m

5m

4 m

Extruded aluminium pole top. 1000 and 1500mm outreaches. Single and double light sets, two staggered lights and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita









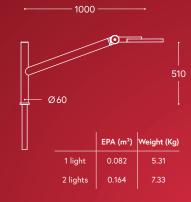


ectangular rectangular
3 PCB 4 PCB





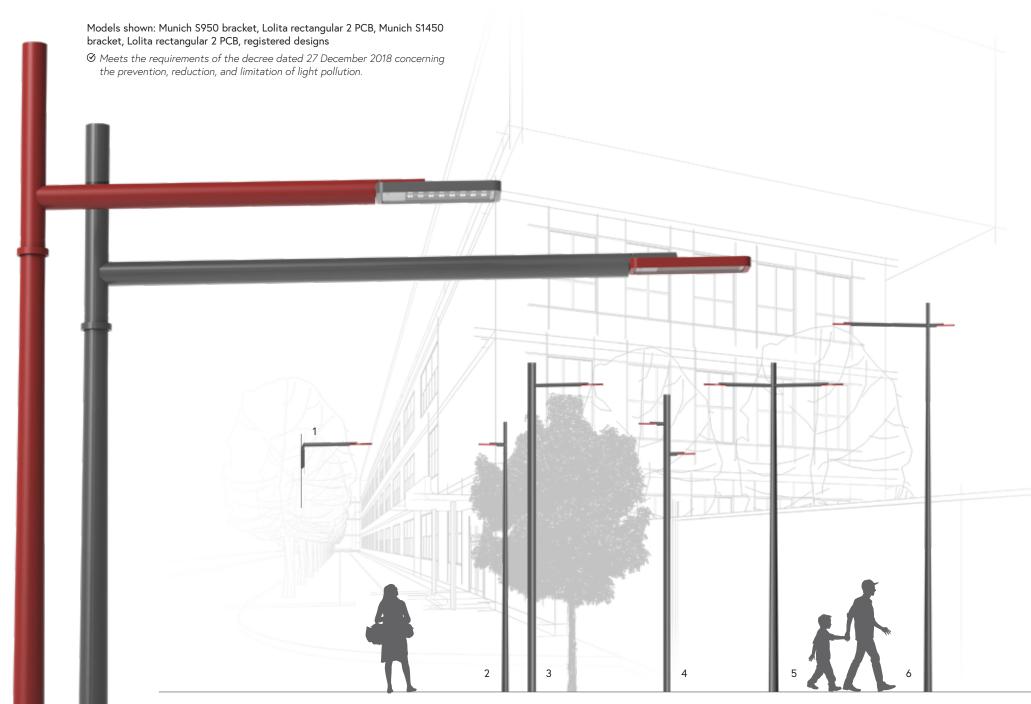
#### **Features**











### Munich

#### Description

Extruded aluminium pole top. 300, 950 and 1450mm outreaches. Single and double light sets, two staggered lights, asymmetrical bracket, and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm and Ø140mm on request. Standard or tailor-made déco option on request (p. 68). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita







rectangula

3 PCB

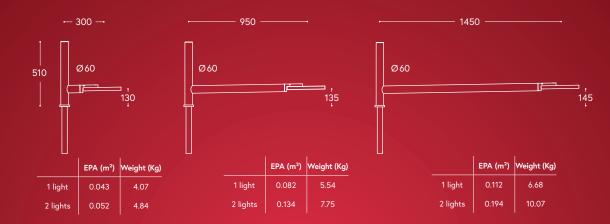


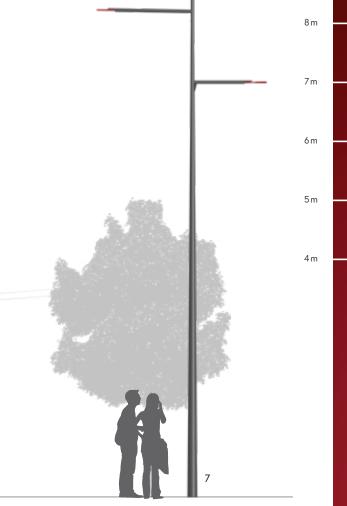
rectangular 4 PCB



4 PCB

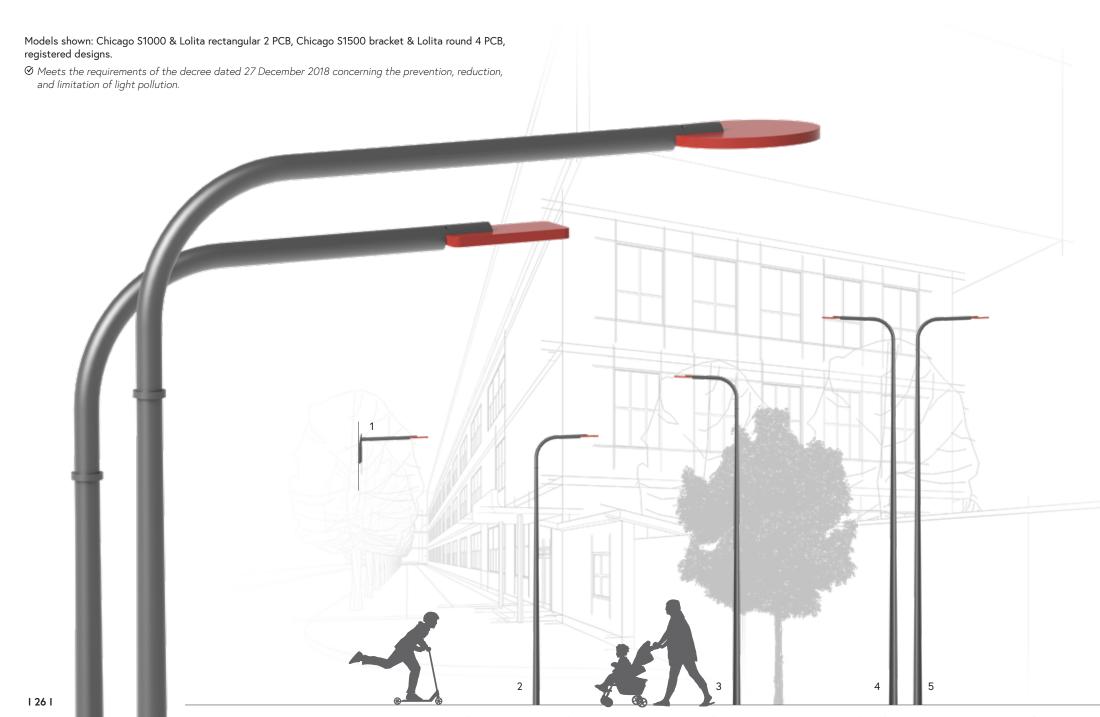
#### **Features**











# Chicago

#### Description

8 m

7 m

6 m

5m

4 m

top Ø60 8m • **7** - Chicago S1500, cp top Ø60 6 m S950, cp top Ø60 8m

Extruded aluminium pole top. 900, 1050 and 1450mm outreaches. Single and light sets and wall mounting with integrated equipment. Compatible pole top Ø 60-62mm. Standard or tailor-made déco option on request (p. 68). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



rectangular 2 PCB



rectangular

4 PCB

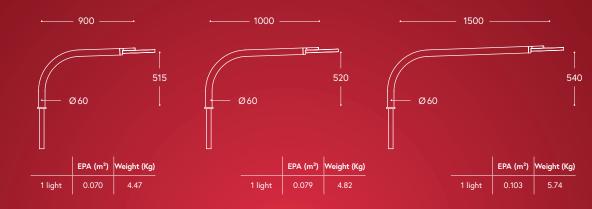
rectangular 3 PCB



round

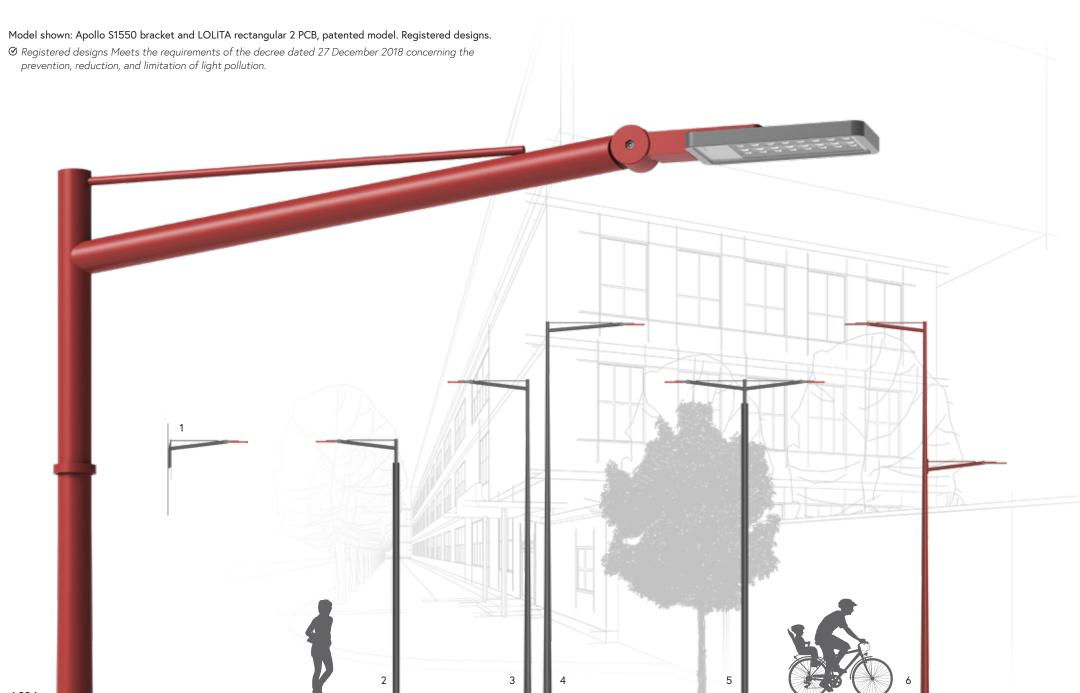
4 PCB

#### **Features**









# Apollo

#### Description

Extruded aluminium pole top. 1250 and 1550mm outreaches. Single and double light sets, staggered bracket, pole mounting and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo

#### Compatible with Lolita







rectangula 3 PCB





rectangular 4 PCB



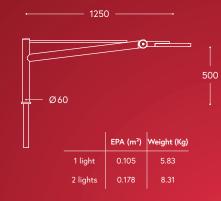
2 PCB

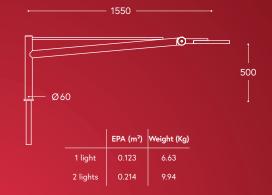


#### 4 PCB

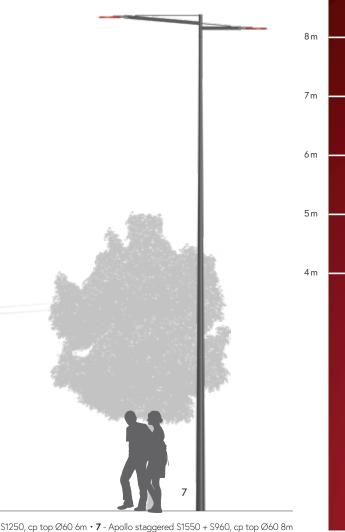
#### **Features**

Nobel colours.



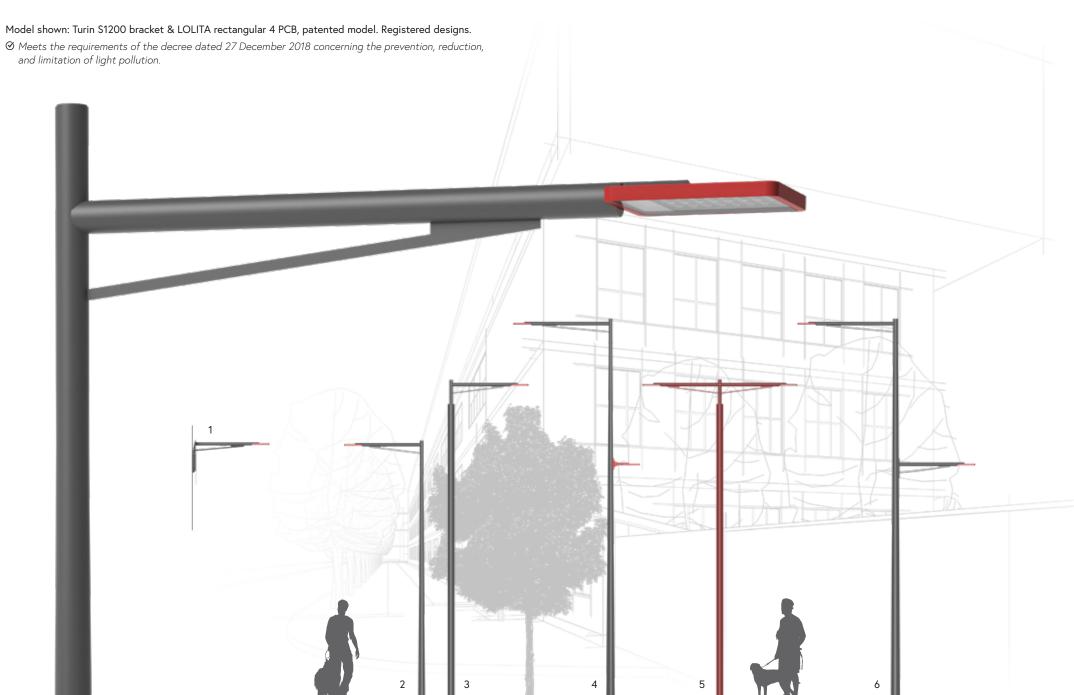


APOLLO I 31 I









### Turin

#### Description

8 m

7 m

6 m

5m

4 m

Extruded aluminium pole top. 1200 and 1450mm outreaches. Single and double light sets, staggered bracket, pole mounting and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Standard or tailor-made déco option on request (p. 68). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



1 PCB







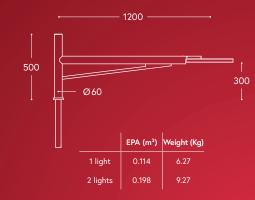
3 PCB

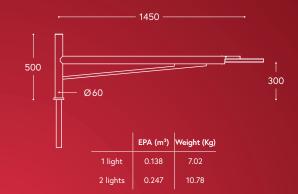
4 PCB

2 PCB

4 PCB

#### **Features**



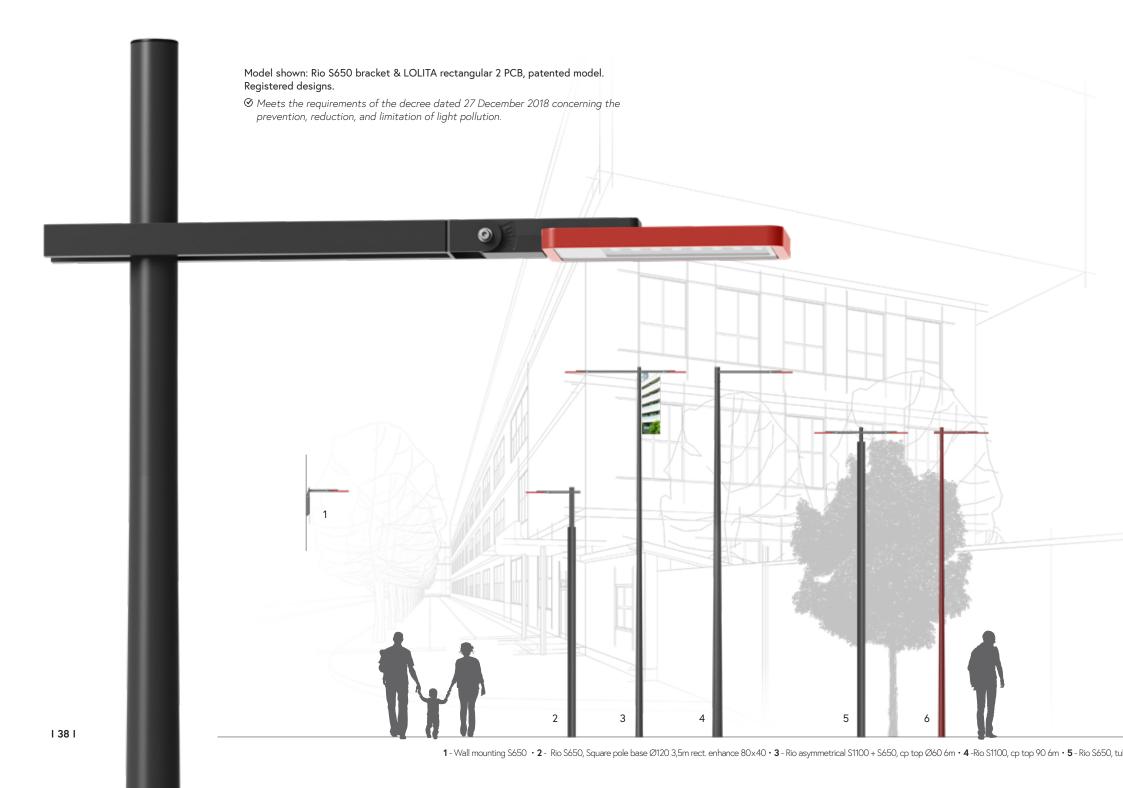


nting S1200, cp top Ø90 6m • **7** - Turin staggered S1450 + S800, cp top Ø60 8m

**TURIN I 35 I** 







## Rio

#### Description

8 m

7 m

6 m

5m

4 m

Extruded aluminium pole top. 1200 and 1450mm outreaches. Single and double light sets, staggered bracket, pole mounting and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita











3 PCB

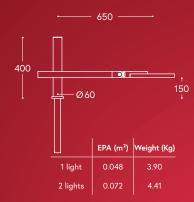
rectangular 4 PCB

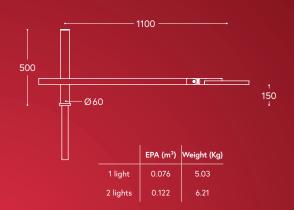


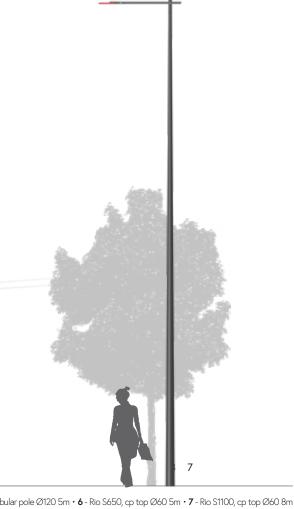


round 4 PCB

#### **Features**



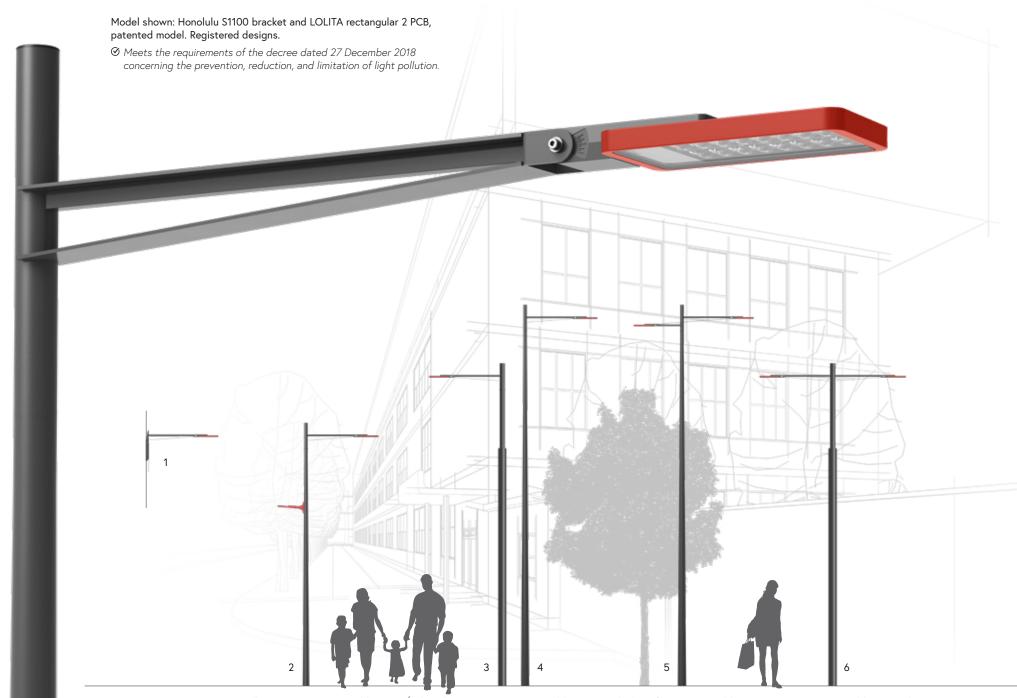




**RIO I 39 I** 







## Honolulu

7 m

8 m

6 m

5m

4 m

#### Description

Extruded aluminium pole top. 1100 and 1500mm outreaches. Single and double light sets, staggered bracket, pole mounting and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm and Ø89-90mm.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



1 PCB



3 PCB



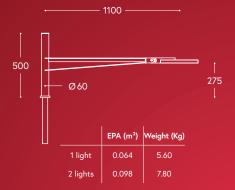


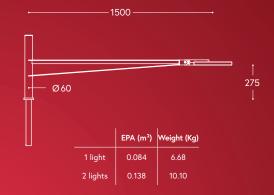
4 PCB

2 PCB

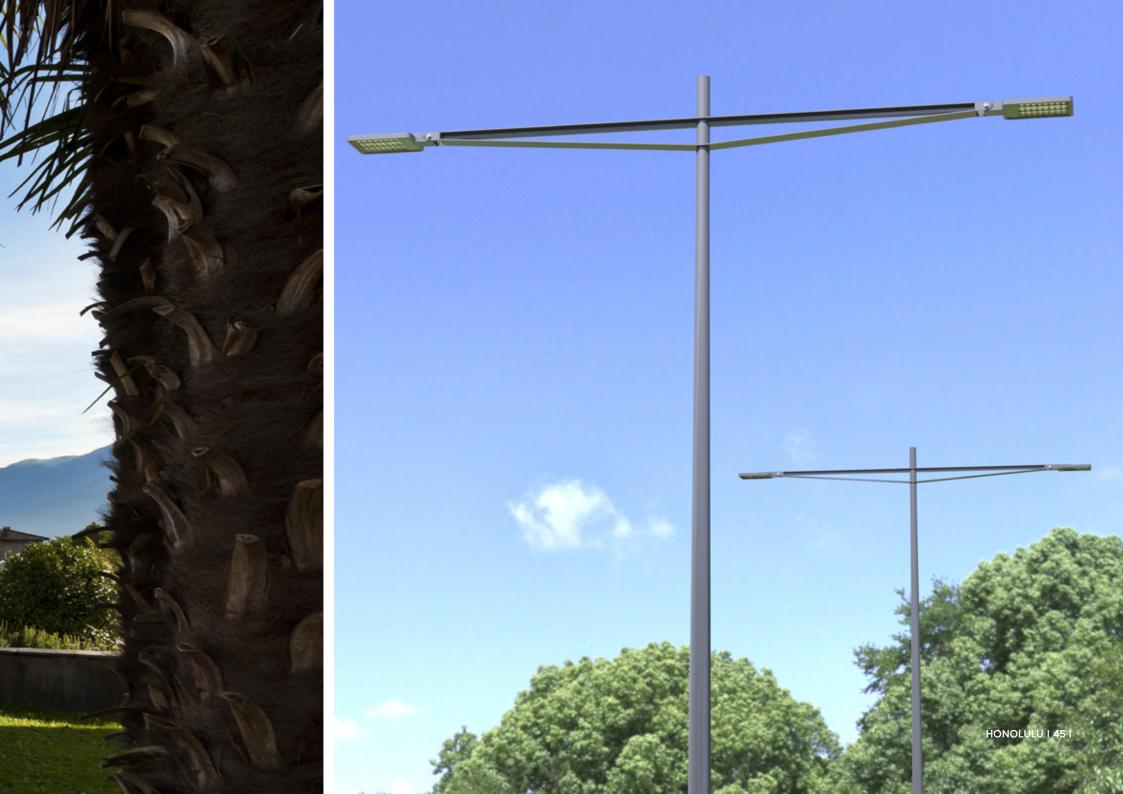


#### **Features**











# Coptos

#### Description

8 m

7 m

6 m

5m

4 m

Compatible with LOLITA Round and Rectangular.

Extruded aluminium pole top with Techno D60 light attachment interface. Single outreach 90mm. Single light sets, compatible pole top Ø60-62mm, Ø90mm and Ø120mm on request. Standard or tailor-made déco option on request (p. 68). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



1 PCB

rectangular 2 PCB





rectangular 4 PCB

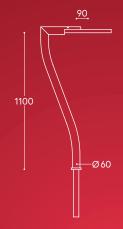




rectangula

3 PCB

#### **Features**



	EPA (m²)	Weight (Kg)
1 light	0.082	3.76



0, tubular pole 120 5m · 5 - Coptos S90, classic déco part, cp top 90 5m

COPTOS I 47 I







# Top

#### Description

8 m

7 m

6 m

Stylish mounting made of cast aluminium for conical poles Ø60-62mm, or poles Ø89-90mm with smooth spigot of length 100mm or 125mm to obtain a raised effect. Penetration 100mm, tightening on the pole using 4 screws. The optical unit can be fixed in the axis of its support at 90°. Standard or tailor-made déco option on request (p. 68).

#### Compatible with Lolita









rectangular 3 PCB

rectangular
4 PCB





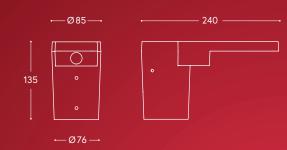


compact round
32 LEDs

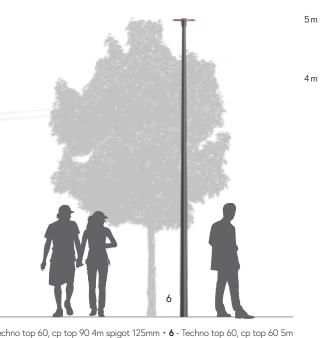
round
2 PCB

round 4 PCB

#### **Features**



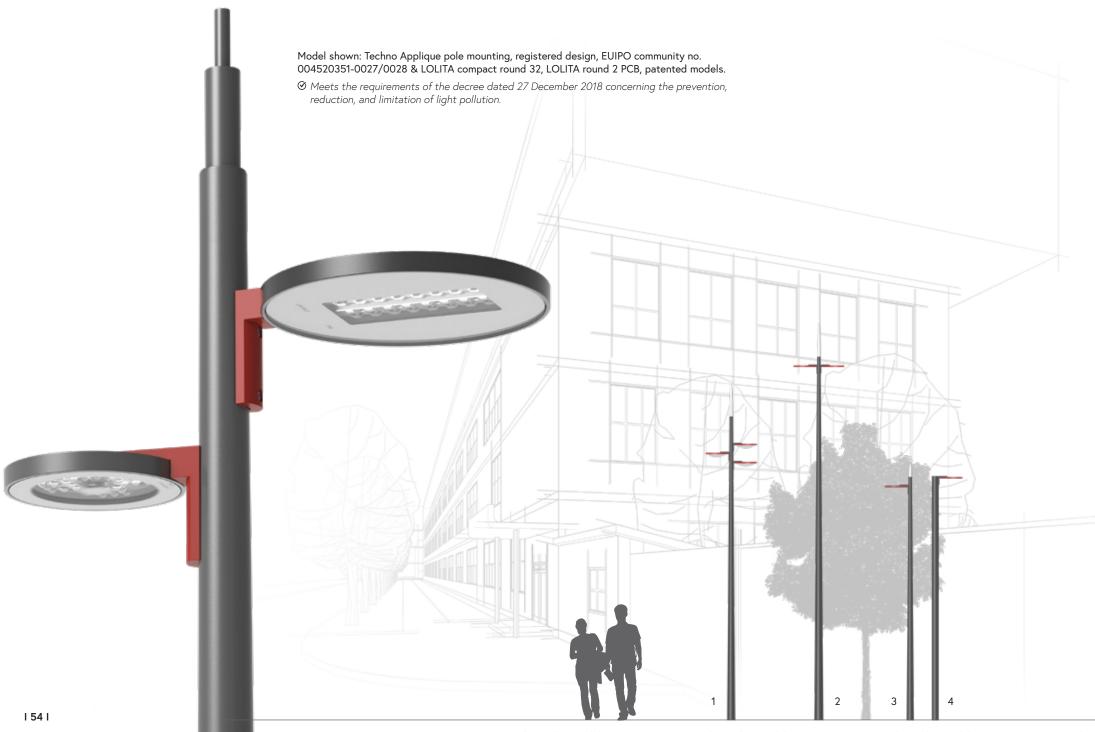
	EPA (m²)	Weight (Kg
Top 60	0.116	1.41



TECHNO TOP I 51 I







# Applique

#### Description

8 m

7 m

6 m

5m

4 m

Cast aluminium mounting for conical or tubular poles, 2-point interaxial 84mm mounting. Easily allows creating a main light point as a secondary light. Suitable for all the formats of LOLITA.

#### Compatible with Lolita







3 PCB





rectangula 4 PCB

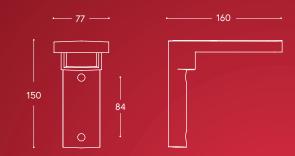


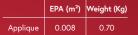
compact round



round 4 PCB

#### **Features**

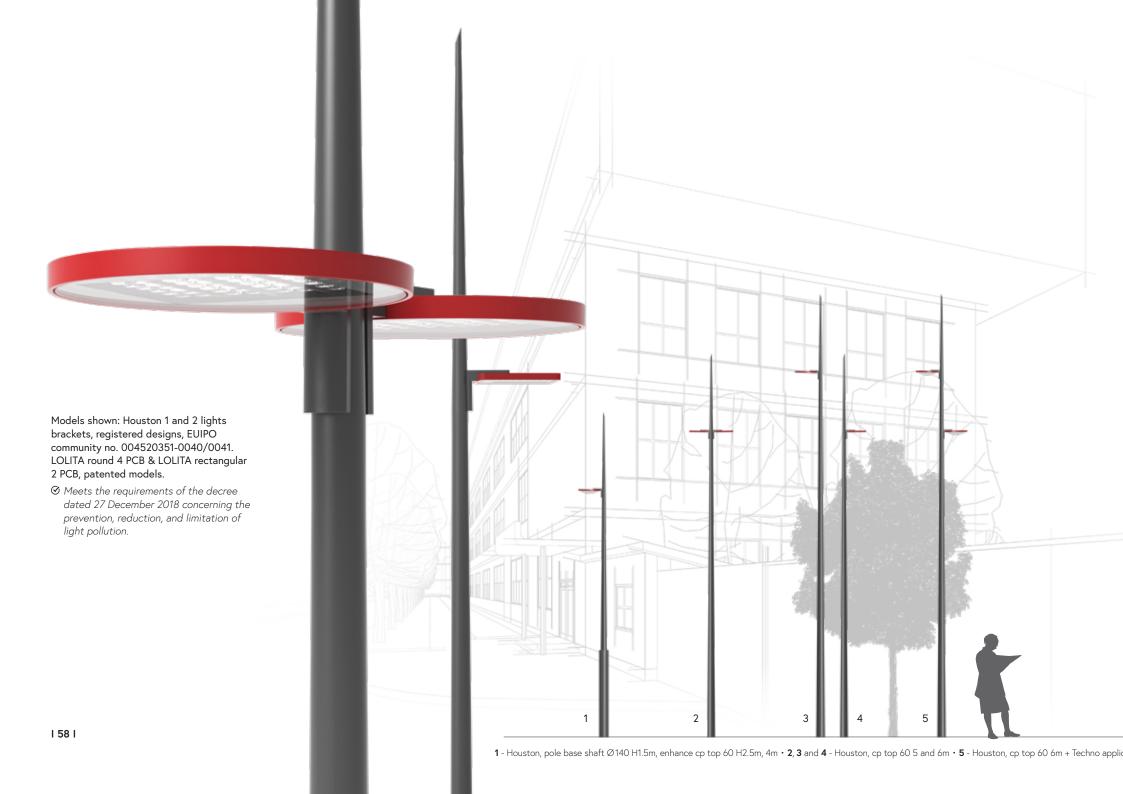




Applique tubular pole Ø 120 4m • **5** - Techno Applique, bevelled cap, cp top 60 8m







## Houston

8 m

7m

6m

5 m

4 m

#### Description

Pole top made of cast aluminium. Single outreach 210mm. Single and double light sets. Compatible pole top Ø60-62mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita









re

rectangular 2 PCB

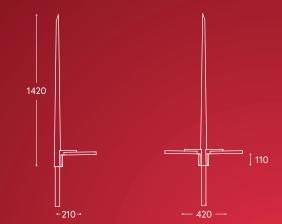
rectangula 3 PCB

4 PCB

round 2 PCB



**Features** 



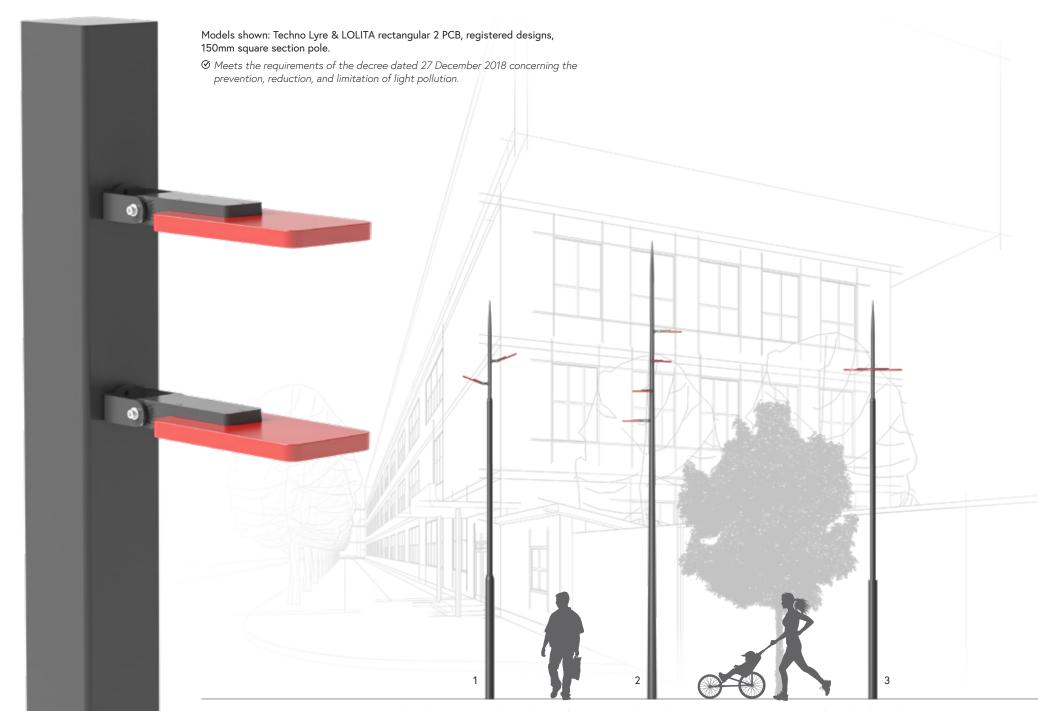
	EPA (m²)	Weight (Kg)
1 light	0.063	6.65
2 lights	0.070	7.35

que • **6** - Houston, pole base shaft Ø140 H1.5m, enhance cp top 60 H3.5m, 5m

**HOUSTON I 59 I** 







# Lyre / Lyre direct

8 m

7 m

6 m

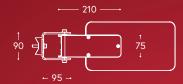
5 m

 $4\,\text{m}$ 

#### Techno Lyre

Cast aluminium mounting, on a wall or on a rectangular pole (1 point), on conical pole using a satellite adapter. Freely rotating in steps of 5°, visual and mechanical guide included on the cast aluminium.





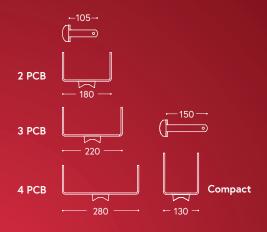


EPA (m²)	Weight (Kg
0.020 m <sup>2</sup>	1.32 Kg

#### Techno Lyre direct

Aluminium mounting, light prepared for a direct mounting on lyre, wall mounting or on a rectangular pole (1 point), on a conical pole using a satellite adapter.









# Catenary suspension

#### Description

Aluminium suspended mounting attachment 4-point light mounting. Rotating on 2 axes. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita

rectangular

2 PCB







4 PCB

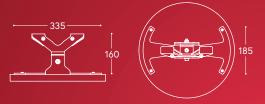
rectangular 3 PCB





#### **Features**





EPA (m²)	Weight (Kg)
0.015 m <sup>2</sup>	1.28 Kg





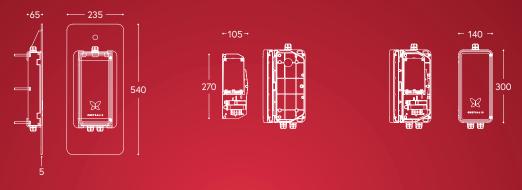
# Wall mounting

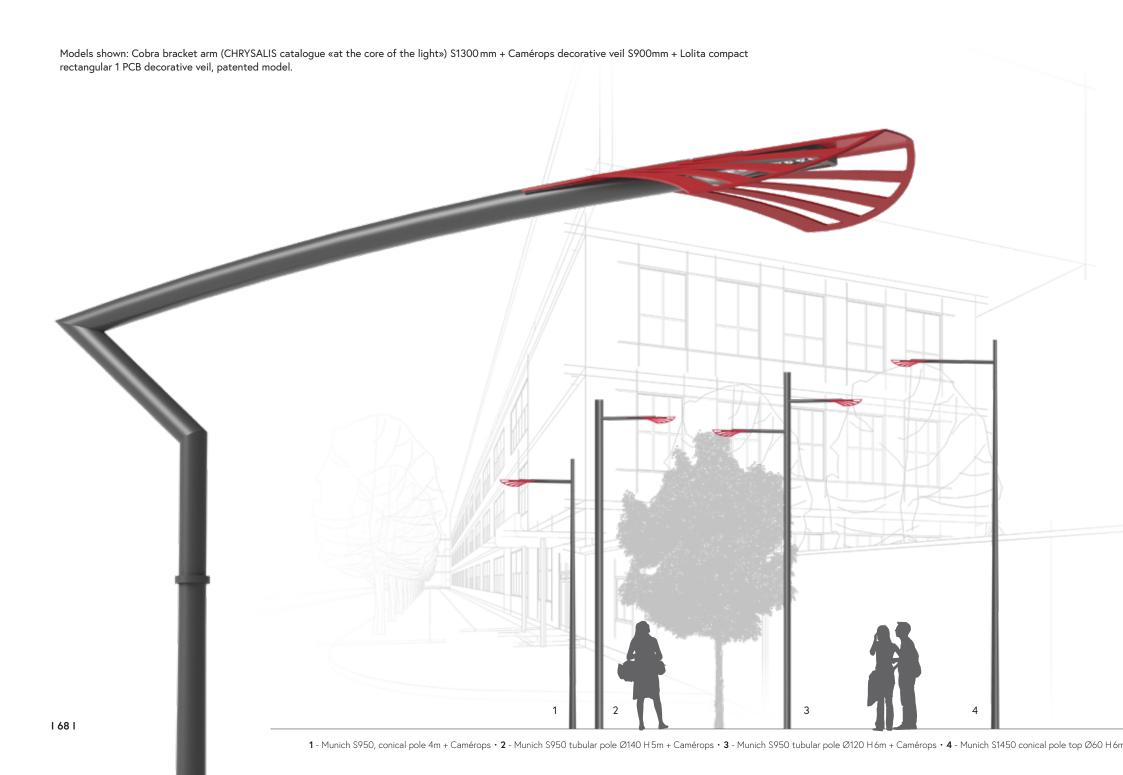
#### Description

Universal wall mounting consisting of an aluminium interface sheet, a LOLITO IP66 case fitted with a complete control gear, compatible with all the brackets of the LOLITA COLLECTION 2019. 3-point wall mounting using the case (outside the IP66 zone) and the interface. Aluminium bracket, choice of welding on the upper part. Simplified maintenance from the front, the case opens using 2 quarter turn captive screws.



#### **Features**





#### Optical units

# Deco options

7m 6 m 5m 4 m



#### Description

The LOLITA optical units mounted using Techno D60 or Techno Top mounting attachments may have an option of additional decorative bodywork, inspired from simple or detailed geometric shapes made-to-order by our design department.

These attachments are attached directly on the body of the optical units using 4 M5 screws, and allow customising your ideal lighting solution to your heart's content. They also increase the service life of the fitted LEDs by increasing the available cooling surface.

#### Compatible with Lolita



1 PCB 2 PCB



3 PCB



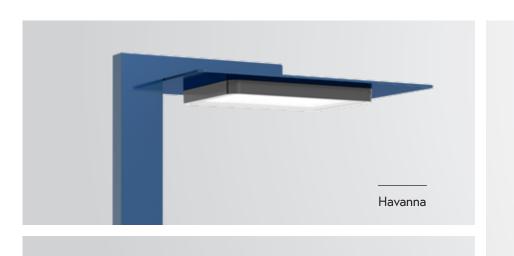
4 PCB

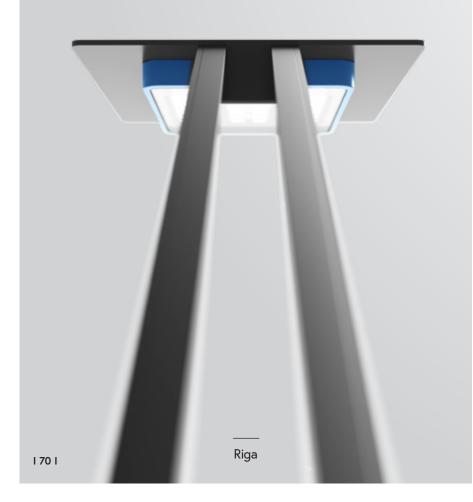


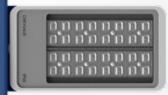
32 LEDs



4 PCB







Lima



Rivoli

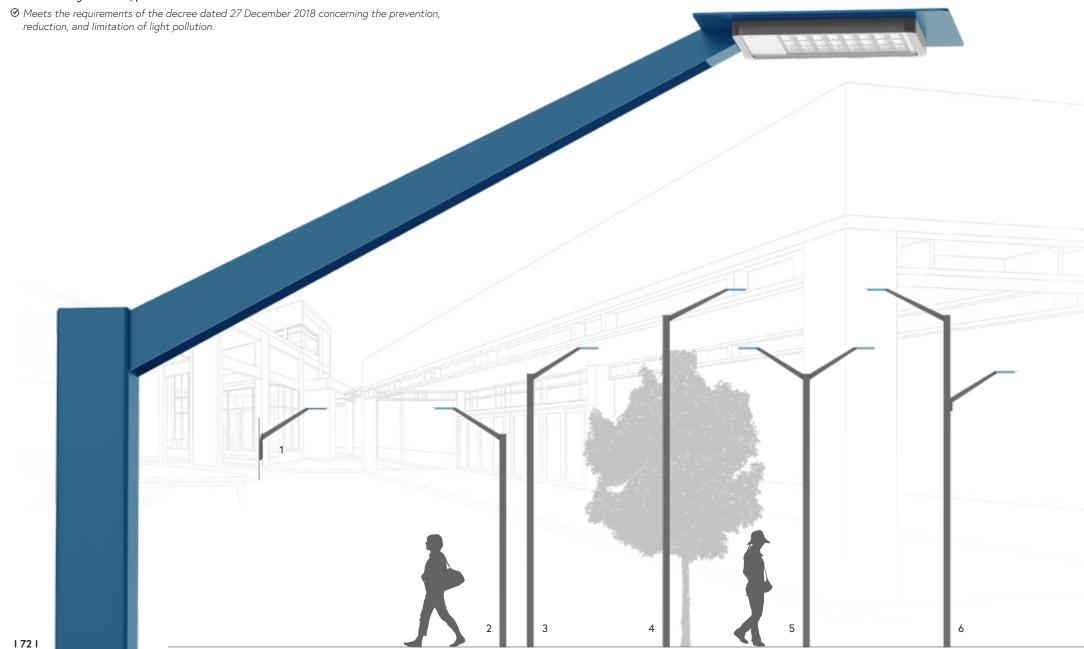


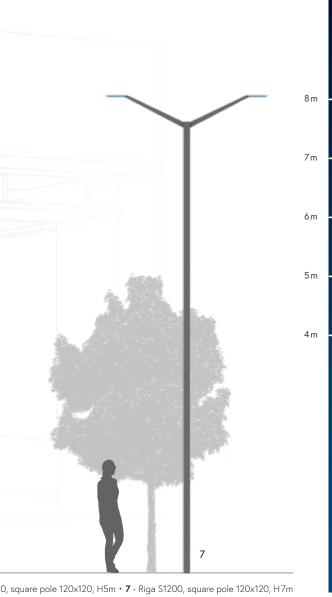
# Napoli

### Déco collection

The Déco collection has staunchly urban designs, with assured and effective geometry. Multiple bodyworks, diverse and various shapes, short or long, etc. Create your road solutions from sets with long outreaches, and brighten up the surrounding spaces using the Havanna Rectangular or Round. Déco is a unique category of sets, which redefines the manner of designing a lighting pole.

Model shown: bracket Riga S1200, registered design, EUIPO community no. 003703321-0001. LOLITA rectangular 4 PCB, patented model.





## Riga

## Description

Bracket for square poles 120 x 120 mm. 1000 and 1200 mm outreaches. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita







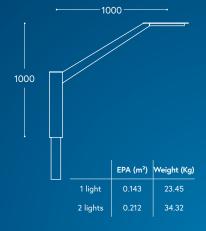


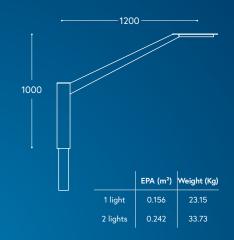


r r

ectangula 4 PCB

## **Features**





**RIGA I 73 I** 

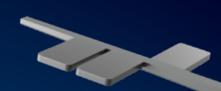




Model shown: bracket Rivoli L1000, registered design. EUIPO community no. 004520351-0004/0005/0006/0007/0008/0009. LOLITA rectangular 2 PCB and 3 PCB, patented models.



## Rivoli



7 m

6 m

5m

4 m

## Description

Pole top made of cast aluminium. Lengths 1000 and 1500mm. Rivoli allows a parallel or perpendicular installation as regards the road. Single, double, and triple light sets. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita

2 PCB

compact round

32 LEDs





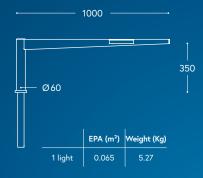


2 PCB

rectangular 4 PCB

4 PCB

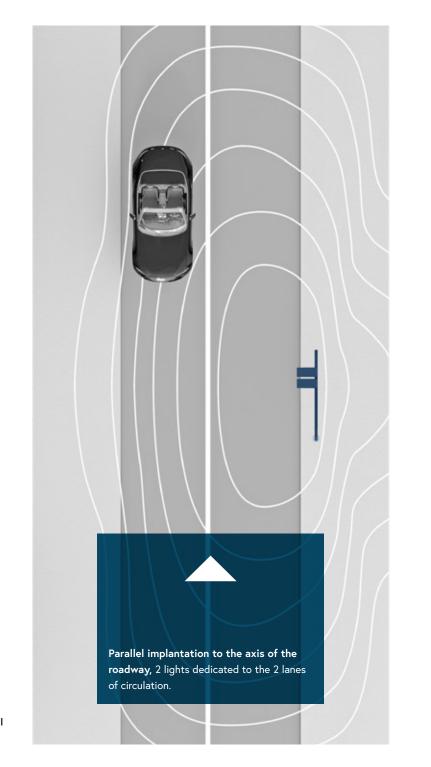
### **Features**

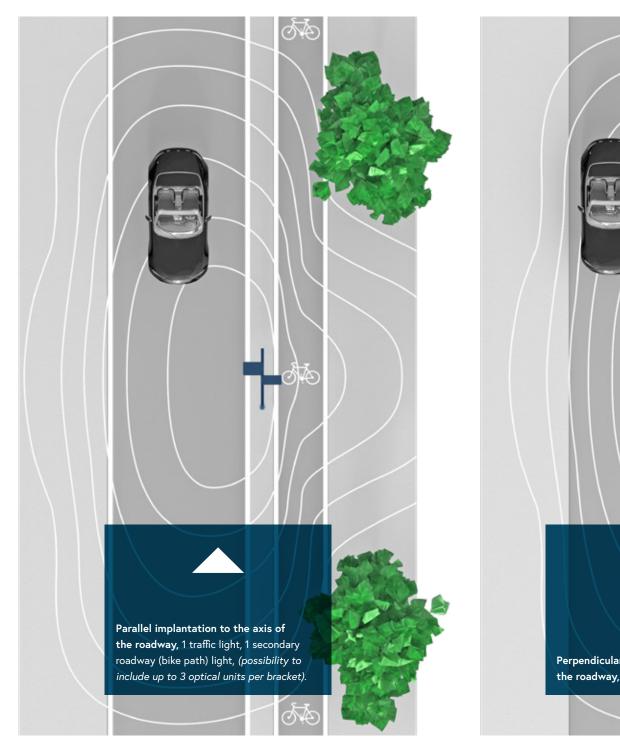


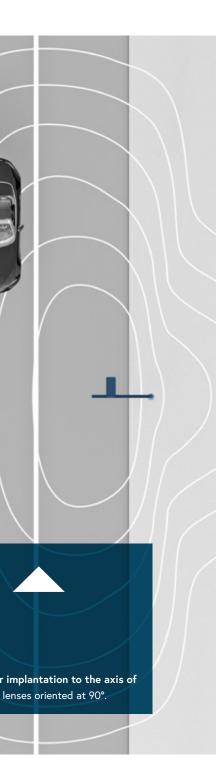


RIVOLI I 77 I

ht L1000, tubular pole Ø 120 4m • **5** - Rivoli 3 lights L1500, cp top 60 8m



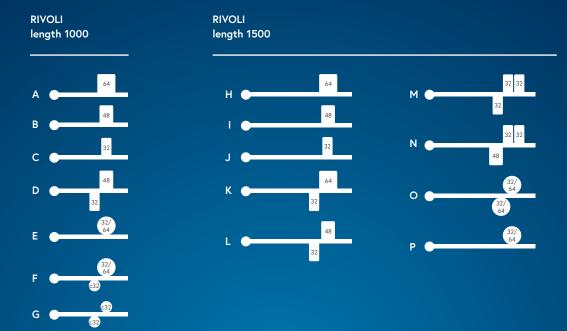




## Rivoli

Rivoli is not bound by traditional installation constraints, and allows installing decorative, high-performance, and innovative road lights with its movable lights. Rivoli can also be used for pedestrian lighting with a dedicated light point integrated directly in the bracket.

Here are the possible configurations with their number of LEDs (high power):

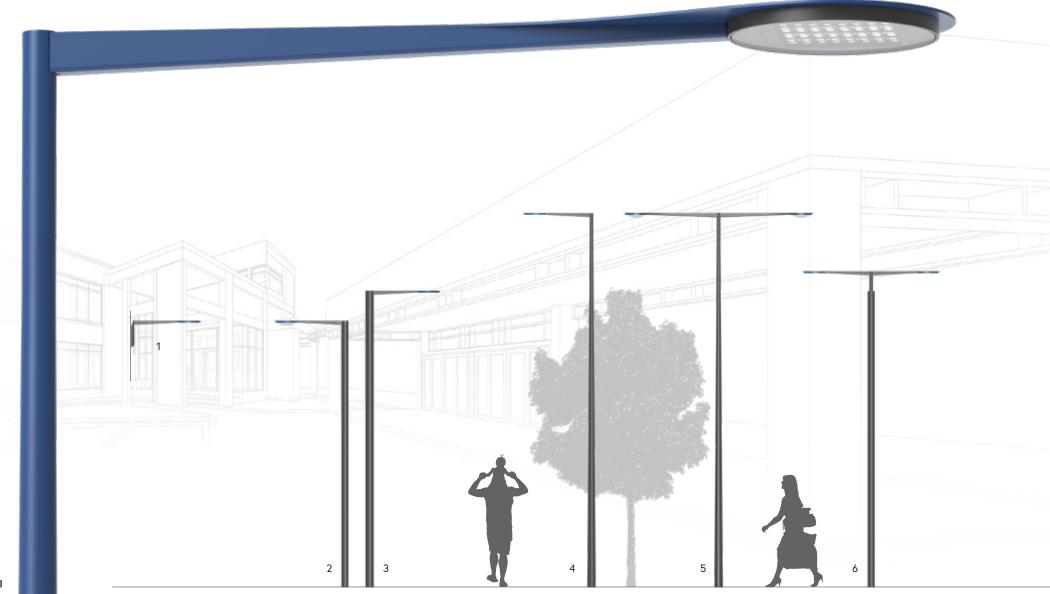






Model shown: bracket Napoli S1400, registered design, EUIPO community no. 003703321-0003. LOLITA round 4 PCB, patented model.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



## Napoli

## Description

7 m

6 m

5m

4 m

Pole top made of cast aluminium. 950 and 1400mm outreaches. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita

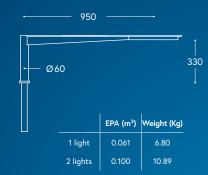


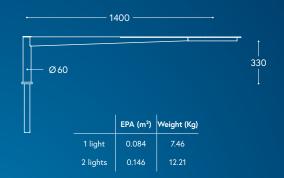


round 2 PCB

round 4 PCB

### **Features**





7 - Napoli S1400 + banner and integrated secondary lights, cp top 60 8m

NAPOLI I 83 I





Model shown: bracket Reggiano S1350, registered design, EUIPO community no. 004520351-0002. LOLITA 4 PCB, patented model.

 Ø Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



## Reggiano

### Description

7 m

Pole top made of cast aluminium. 950 and 1350mm outreaches. Single and double light sets, two staggered lights and wall mounting. Antenna optional. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita







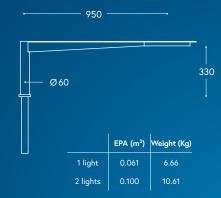
3 PCB

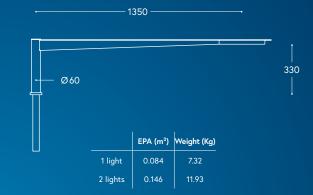




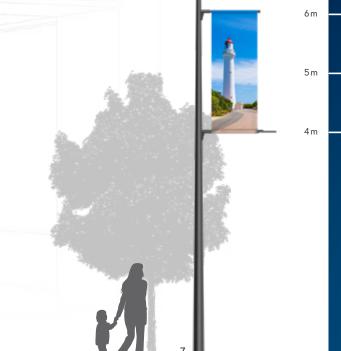
ectangula 4 PCB

### **Features**





**REGGIANO I 87 I** 



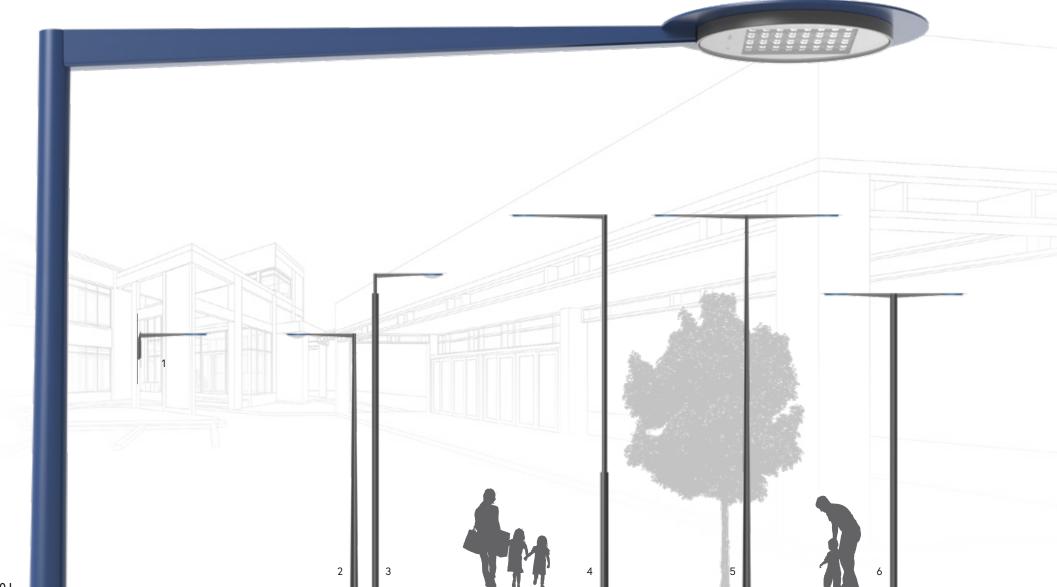
· 7 - Reggiano S1350 + integrated banner and D60 secondary lights, cp top 608m





Model shown: bracket Modena S1400, registered design, EUIPO community no. 004520351-0003. LOLITA round 4 PCB, patented model.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



## Modena

## Description

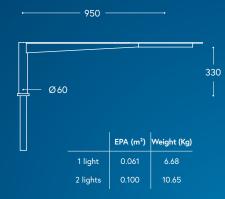
Pole top made of cast aluminium. 950 and 1400mm outreaches. Single and double light sets, two staggered lights and wall mounting. Antenna optional. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita



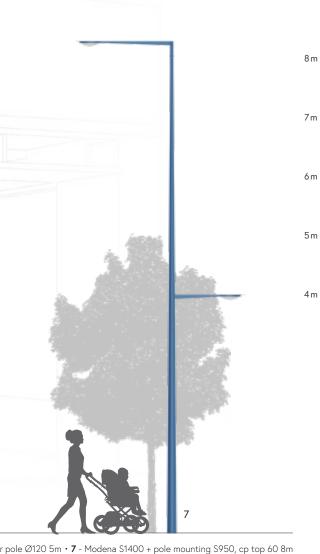


**Features** 





**MODENA I 91 I** 

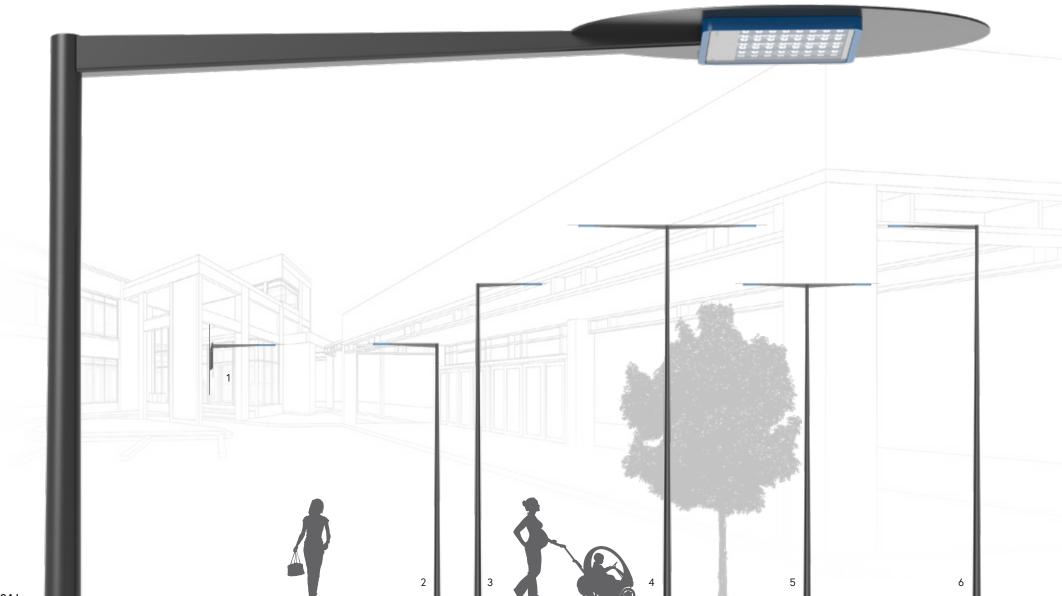








Model shown: bracket Oviedo S1400, registered design, EUIPO community no. 186004520351-0001. LOLITA 4 PCB, patented model.



## Oviedo

## Description

Pole top made of cast aluminium. 950 and 1400mm outreaches. Single and double light sets, two staggered lights and wall mounting. Antenna optional. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita



1 PCB





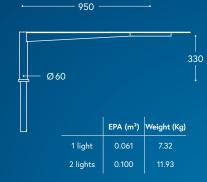


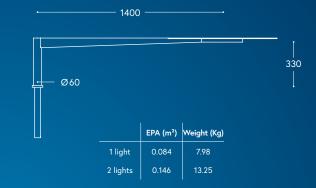
3 PCB



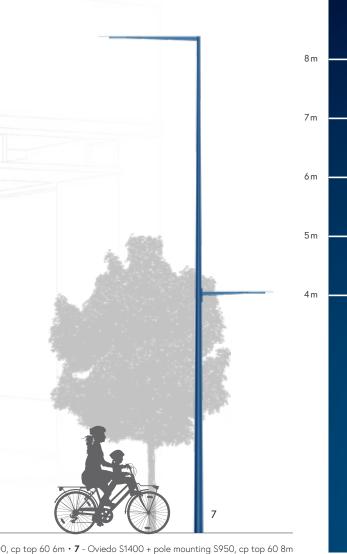
rectangula 4 PCB

### **Features**





OVIEDO I 95 I







Models shown: Havanna sets, registered designs, EUIPO community no. 004520351-0010/0011. LOLITA round 4 PCB and rectangular 3 PCB, patented models.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



5 m

4 m 50

4 m

3 m 50

Déco set

## Havanna

## Description

Set with tubular base shafts and rectangular section enhances.

3 fixed heights (3.5, 4 and 4.5m), higher heights being studied. 300mm (rectangular) and 350mm (round) outreaches. Single light sets. Polyester coating finish, RAL or Futura Akzo Nobel colours.

## Compatible with Lolita



1 PCB









4 PCB

2 PCB

3 PCB

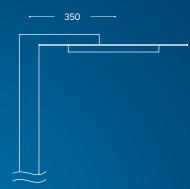
2 PCB

4 PCB

### **Features**

### Havanna rectangular

### Havanna round



ht 6m • **5** - Havanna round, H light 4m • **6** - Havanna round, H light 4m50

HAVANNA I 99 I







## Lima

Description

7 m

6 m

5m

4 m

Aluminium Ø50mm pole top.

750 and 1150mm outreaches. Single light sets. Compatible pole top Ø60-62mm and 90mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

Compatible with Lolita

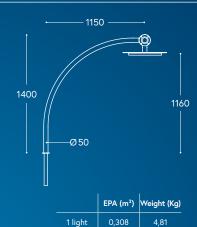


round

round 4 PCB

**Features** 

750 1200 1000 1000 EPA (m²) Weight (Kg) 1 light 0,287 4,07



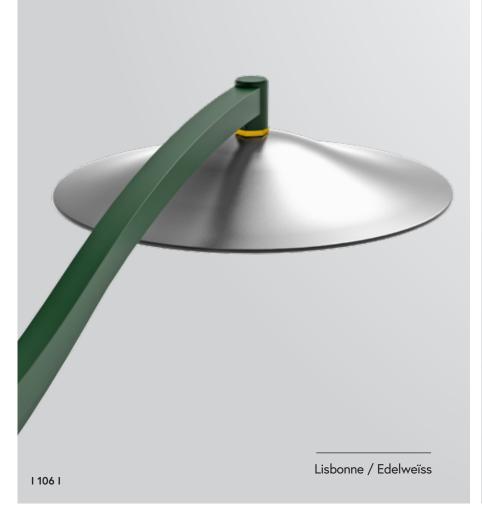
50, cp top 60 5m • **5** - Lima S1150, fixed reducer RF 96 CLA, cp top 90 7m

LIMA I 103 I

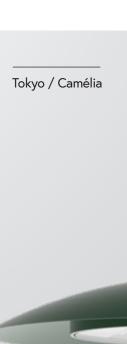






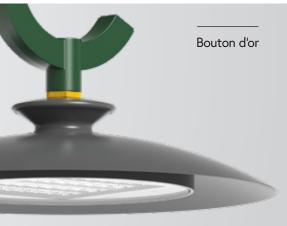












# Tempo collection

The Tempo collection presents a new vision of LOLITA. Fitted with bodyworks with varied inspirations, LOLITA has changed its appearance and is available in 5 new shapes, under the lines Camélia, Bouton d'Or, Primevère, Bleuet and Edelweiss.

Tempo has been able to adapt to a historical center by reinterpreting shapes from the past, like a pedestrian track on the outskirts of public or private zones or even a two-way boulevard.

From town-centres to beaches, the diversity of the Tempo collection shows that with LOLITA, everyone will find... a shoe that fits.

## Tempo

7 lights with distinct personalities

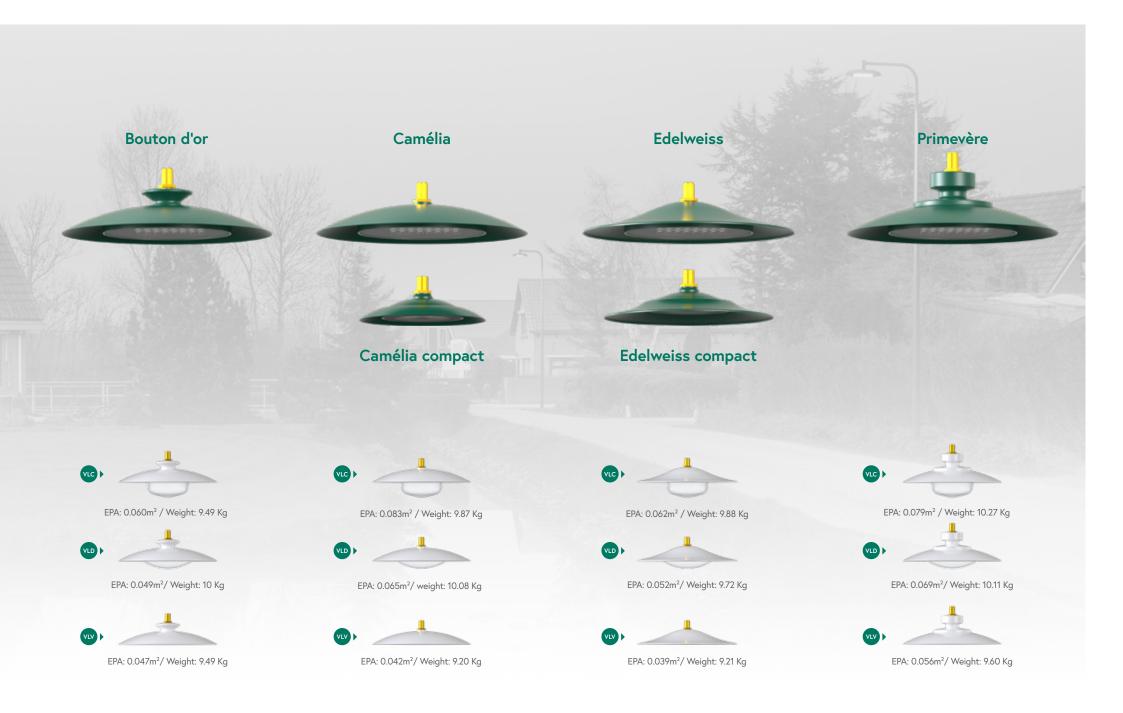
The Tempo collection of lights effectively provides made-to-order solutions with the high standard which is the focus of Chrysalis.

Each of these 7 different compositions, with their own personalities, integrates a round LOLITA, fitted with 2 to 4 latest generation PCB, and can accommodate Lolita, Short (VLC), Half (VLD) and Glass (VLV) bowls.

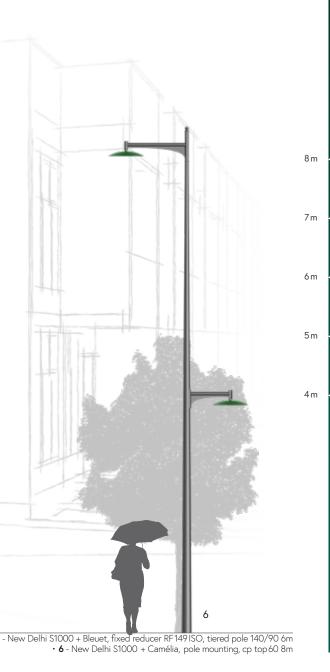
Modern and clear lines, or deliberately classic with decorative mouldings, Tempo lights shall be perfect companions for your lighting installations.

Each Tempo light is compatible with each of the Tempo brackets shown in the following pages.









### New Delhi

#### Description

Extruded aluminium pole top.

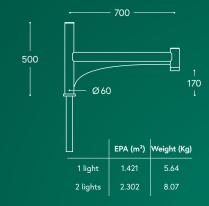
700 and 1000mm outreaches. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

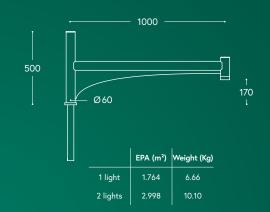
#### Compatible with TEMPO lights





#### **Features**





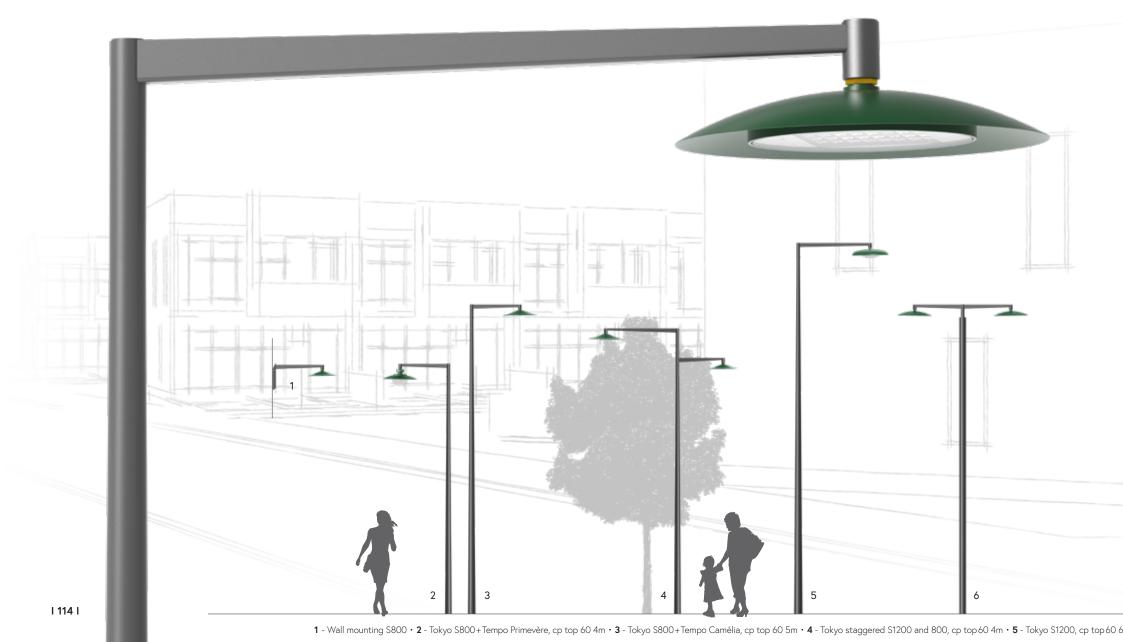
NEW DELHI I 111 I

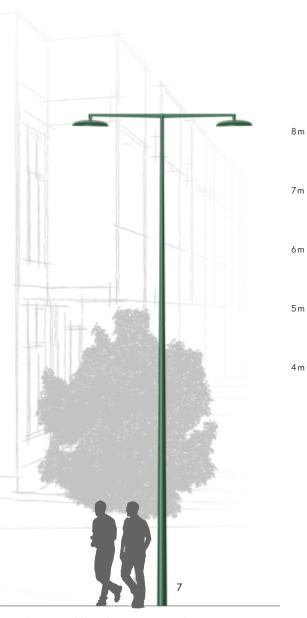




Model shown: Bracket Tokyo S1200, registered design, Tempo Camélia light, registered design, EUIPO community no. 004520351-0047.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.





## Tokyo

#### Description

Pole top made of cast aluminium.

Single and double light sets, staggered bracket, pole mounting and wall mounting.

Compatible pole top Ø60-62mm and Ø89-90mm, Ø120mm on request.

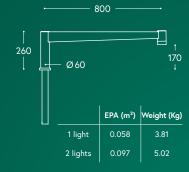
Polyester coating finish, RAL or Futura Akzo Nobel colours.

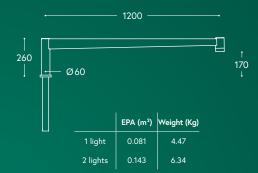
#### Compatible with TEMPO light





#### **Features**

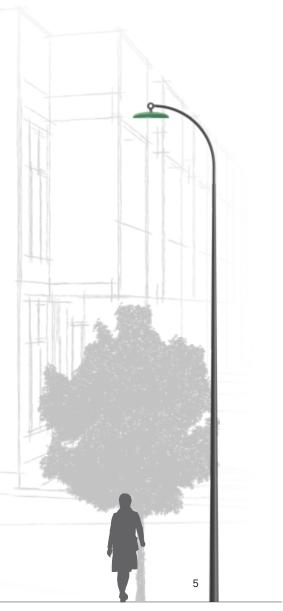












## Oslo

#### Description

8 m

7 m

6 m

5m

4 m

Extruded aluminium Ø50mm pole top. 650 and 1000mm outreaches. Ring kit optional. Single kits and asymmetrical bracket. Compatible pole top Ø60-62mm and Ø89-90mm

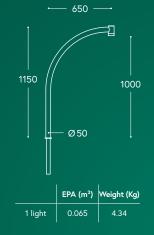
Polyester coating finish, RAL or Futura Akzo Nobel colours.

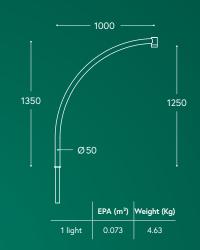
#### Compatible with TEMPO lights





#### **Features**





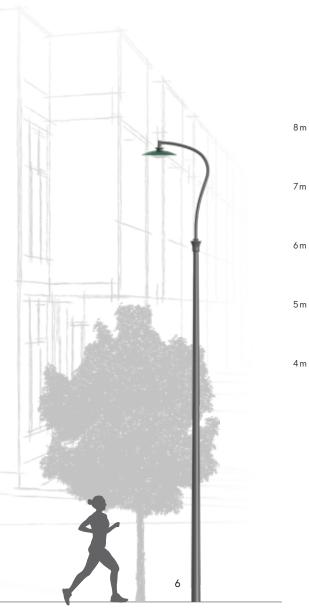
OSLO | 119 |

**4** - Oslo S650 + Bleuet, cp top60 4m • **5** - Oslo S1000 + Bleuet, cp top60 7m









## Copenhague

#### Description

Extruded aluminium  $\varnothing$ 50mm pole top. 130 and 600mm outreaches. Single light sets. Compatible pole top  $\varnothing$ 60-62mm and  $\varnothing$ 89-90mm.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

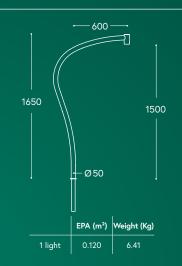
#### Compatible with TEMPO lights





#### **Features**





**COPENHAGUE I 123 I** 

m • 6 - Copenhague S600+Bouton d'or, reducer RF 96 CLA, cp top 90 6m



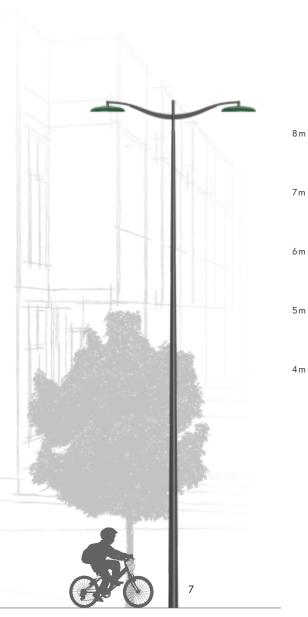


Model shown: bracket Lisbonne S1100, registered design, Tempo Edelweiss light, registered design, EUIPO community no. 004520351-0050.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



1 - Wall mounting S800 · 2 - Lisbonne S800+Camélia, cp top 60 3m · 3 - Lisbonne S800+Primevère, cp top 60 4m · 4 - Lisbonne S800+Camélia, tubular pole Ø120 3.5m · 5 - Lisbonne S800+Edelweiss, reducer RF149 M0



### Lisbonne

#### Description

Extruded aluminium  $\emptyset$  50mm pole top. 800 and 1100mm outreaches. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top  $\emptyset$  60-62mm and  $\emptyset$  89-90mm,  $\emptyset$  120mm on request.

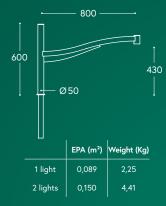
Polyester coating finish, RAL or Futura Akzo Nobel colours.

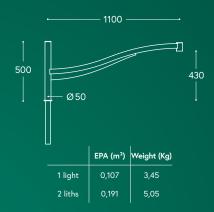
#### Compatible with TEMPO lights





#### **Features**





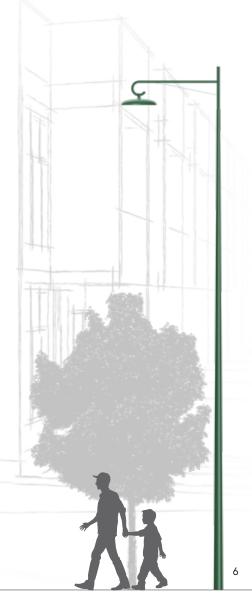
LISBONNE I 127 I

DD, tiered pole 140/90 5m • **6,7** - Lisbonne S1100+Bleuet, cp top 60 6 and 8m





Models shown: bracket Casablanca S1300, registered design, EUIPO community no. 004520351-0048. Tempo Bouton d'or light, registered design, EUIPO community no. 004520352-0046. Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



### Casablanca

Description

7 m

6 m

5m

4 m

Extruded aluminium Ø 50mm pole top. 800 and 1300mm outreaches.

Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top  $\emptyset$ 60-62mm and  $\emptyset$ 89-90mm,  $\emptyset$ 120mm on request. Polyester coating finish, RAL or Futura Akzo

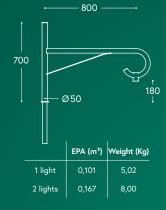
Compatible with TEMPO lights

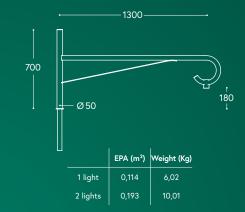




#### **Features**

Nobel colours.





CASABLANCA I 131 I

ducer RF 96 CLA, cp top 90 6m • 6 - Casablanca S1300+Bleuet, cp top 60 8m









### Alicante

#### Description

7 m

6 m

5m

4 m

Extruded aluminium Ø50mm pole top. 1000 and 1300mm outreaches. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm and Ø89-90mm.

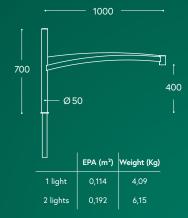
Polyester coating finish, RAL or Futura Akzo Nobel colours.

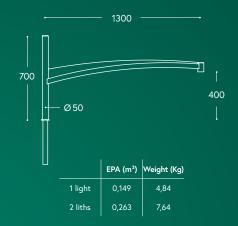
#### Compatible with TEMPO lights





#### **Features**





**ALICANTE I 135 I** 

+Primevère, cp top 60 4m · **6,7** - Alicante S1300+Bleuet, cp top 60 6 and 8m





Model shown: Bracket Galway S1000, registered design, EUIPO community no. 004520351-0051. Tempo Bleuet light, registered design, EUIPO community no. 004520351-0045.

Meets the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.





## Galway

#### Description

8 m

7 m

6 m

5m

4 m

Extruded aluminium  $\emptyset$  50mm pole top. 1000 and 1300mm outreaches.

Single and light sets and wall mounting with integrated equipment

Compatible pole top  $\emptyset$  60-62mm.

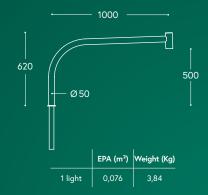
Polyester coating finish, RAL or Futura Akzo Nobel colours.

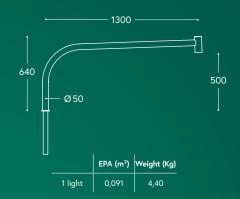
#### Compatible with TEMPO lights





#### **Features**





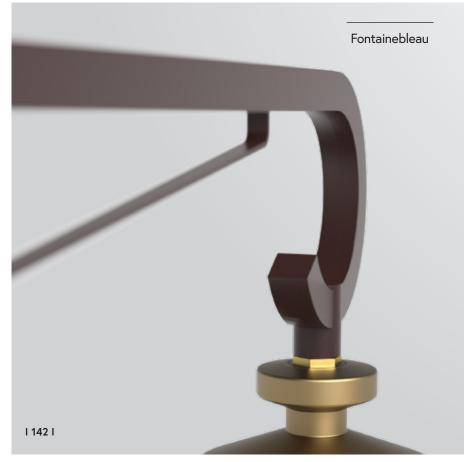
GALWAY I 139 I

149 ISO, tiered pole 140/90 6m • **6** - Galway S1300+Bleuet, cp top 60 8m



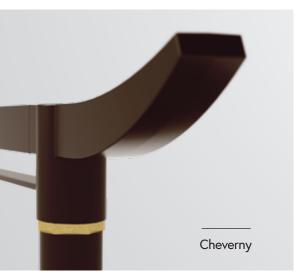








Cléopâtre





# Rétro collection

The Rétro bracket collection is a new advantageous option for you to renovate the lighting solutions in your spaces filled with history. The timeless and neo-classical shapes which are used in each of these sets are accompanied by a new category of lights of the same name.

Here, LOLITA is at the core of 7 new RÉTRO lights, which are worthy of the evocative names of Charlemagne, Medicis, Clovis, Henri IV, Cléopâtre, Marc-Antoine and Eugénie.

The Rétro collection offers 7 brackets, which brilliantly revisit the classics of the genre, and ensure LED lighting without compromise for your public spaces.

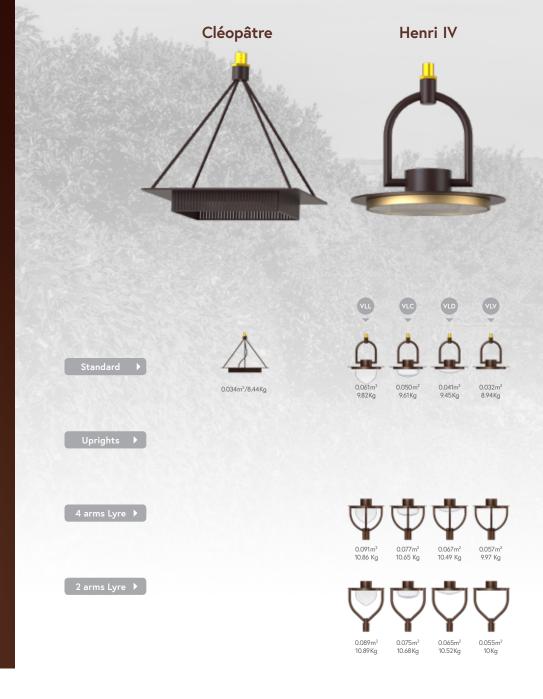
## Rétro

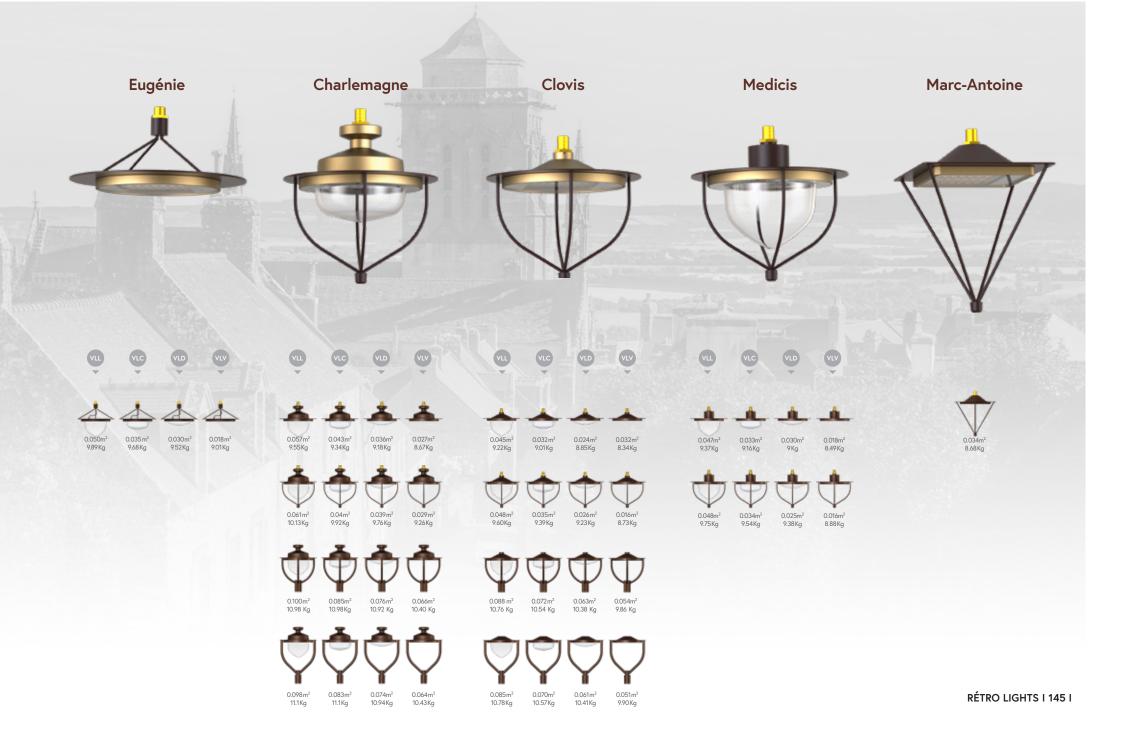
7 stylish classic lights

The purpose of Chrysalis was to allow customers to imagine their ideal light by providing made-to-order items which are all inter-compatible, and this idea is clearly expressed with the new range of Rétro lights, which are directly available with LOLITA.

At the core of 7 new versions with a neo-classical design focus, LOLITA has been a true revival of stylish and classical lighting.

Each Rétro light is compatible with each of the Rétro brackets shown in the following pages.







### Amboise

8 m

7m

6 m

5m

4 m

#### Description

Extruded aluminium  $\varnothing$ 50mm pole top and cast aluminium  $\varnothing$ 50mm pole top. 800mm outreach. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top  $\varnothing$ 60-62mm,  $\varnothing$ 76mm, or  $\varnothing$ 90mm on request.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights









Eugénie

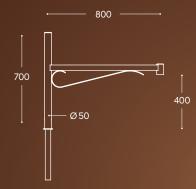
énie Charlema

Cléopâtre

Henri IV

Marc Antoine

#### **Features**



	EPA (m²)	Weight (Kg)
1 light	0.077	3.66
2 lights	0.117	5.10



00+Marc-Antoine, reducer RF96 CLA, classic base, tiered pole 140/90 6m

AMBOISE I 147 I







## Azay

8 m

7 m

6 m

5 m

 $4\,\text{m}$ 

#### Description

Extruded aluminium pole top.

700mm outreach.

Single light sets.

Compatible pole top Ø60-62mm, Ø90mm on request.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible RÉTRO lights



Eugénie





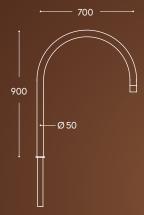


Cléopâtre

Henri IV

Marc Antoine

#### **Features**



	EPA (m²)	Weight (Kg)
1 light	0.070	3.40

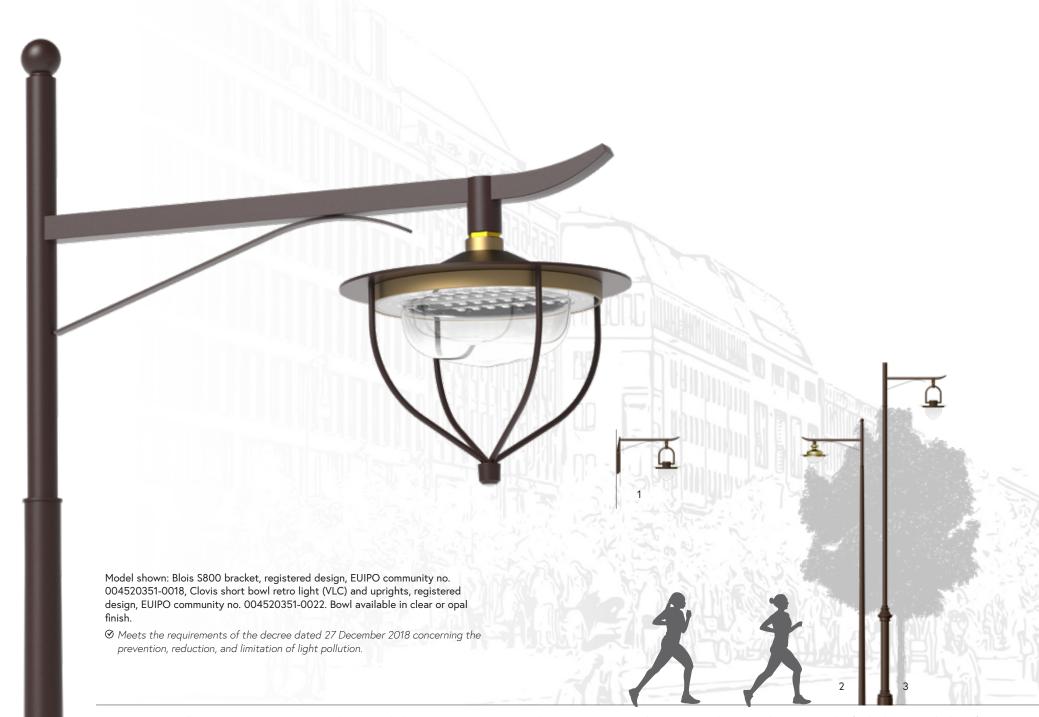


lemagne VLL, reducer RF149 ISO and classic base, tiered pole 140/90 6m

**AZAY I 151 I** 







### Blois

8 m

7 m

6 m

5 m

 $4\,\text{m}$ 

#### Description

Extruded aluminium Ø50mm pole top and cast aluminium Ø50mm pole top. 800mm outreach. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm, Ø76mm, Ø90mm or Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights







Eugénie

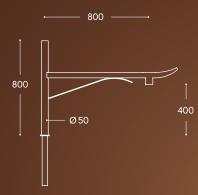
Charlemagne

Cléopâtre

Henri IV

Marc Antoine

#### **Features**

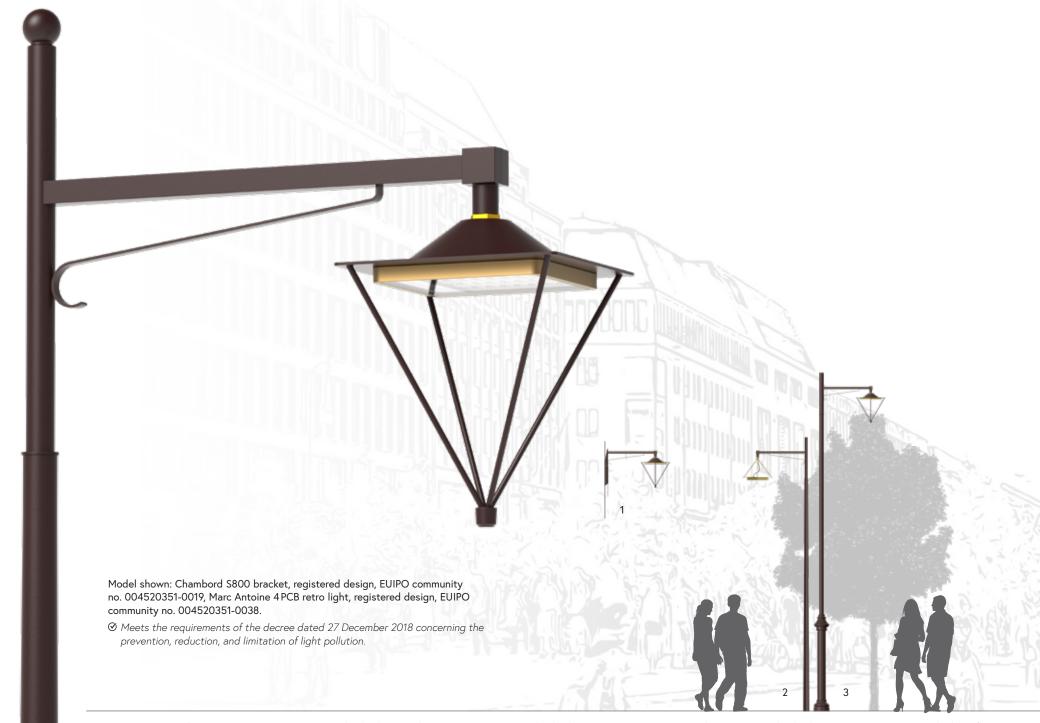


	EPA (m²)	Weight (Kg)
1 light	0.088	3.09
2 lights	0.136	4.64









### Chambord

7 m

6 m

5m

4 m

#### Description

Aluminium Ø50mm pole top and cast aluminium Ø50mm pole top. 800mm outreach. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm, Ø76mm, Ø 90mm or Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights







Charlemagne



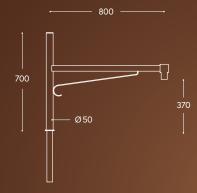
Cléopâtre



Henri IV

Antoine

**Features** 

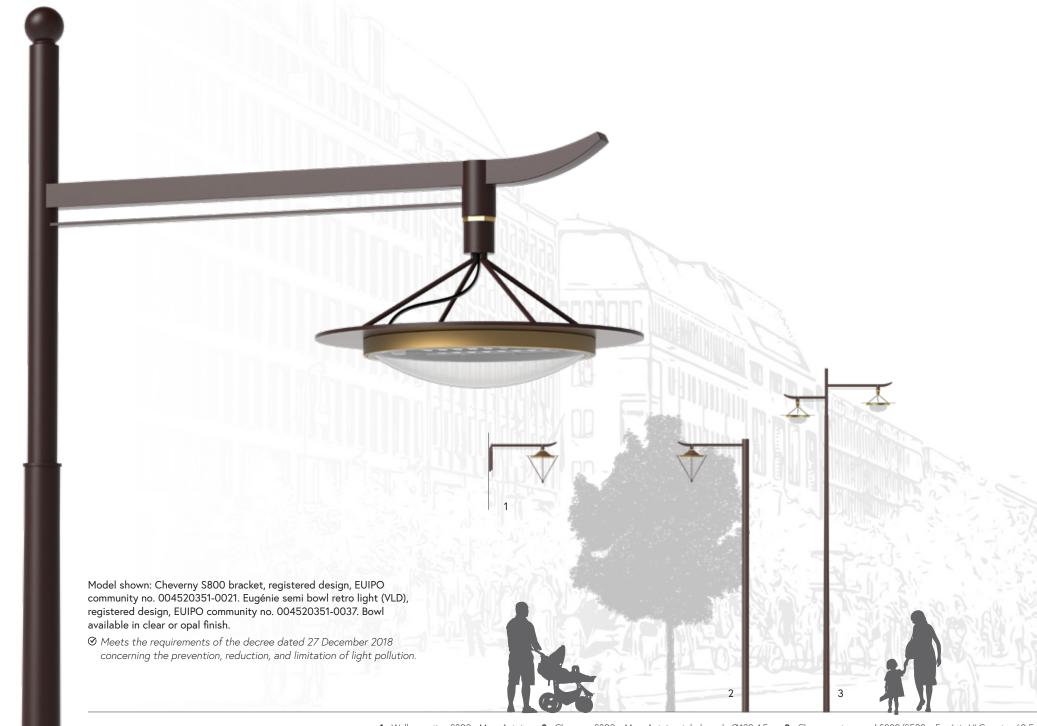


	EPA (m²)	Weight (Kg)
1 light	0.079	2.50
2 lights	0.122	3.09









## Cheverny

7 m

6 m

5m

4 m

#### Description

Extruded aluminium Ø50mm pole top and cast aluminium Ø50mm pole top. 800mm outreach. Single and double light sets, staggered bracket, pole mounting and wall mounting with incorporated equipment. Compatible pole top Ø60-62mm, Ø76mm, Ø90mm and Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights







Cléopâtre

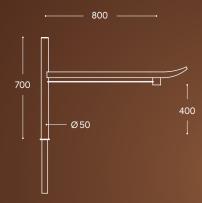




Henri IV

Antoine

#### **Features**



	EPA (m²)	Weight (Kg)
1 light	0.083	2.88
2 lights	0.130	4.54

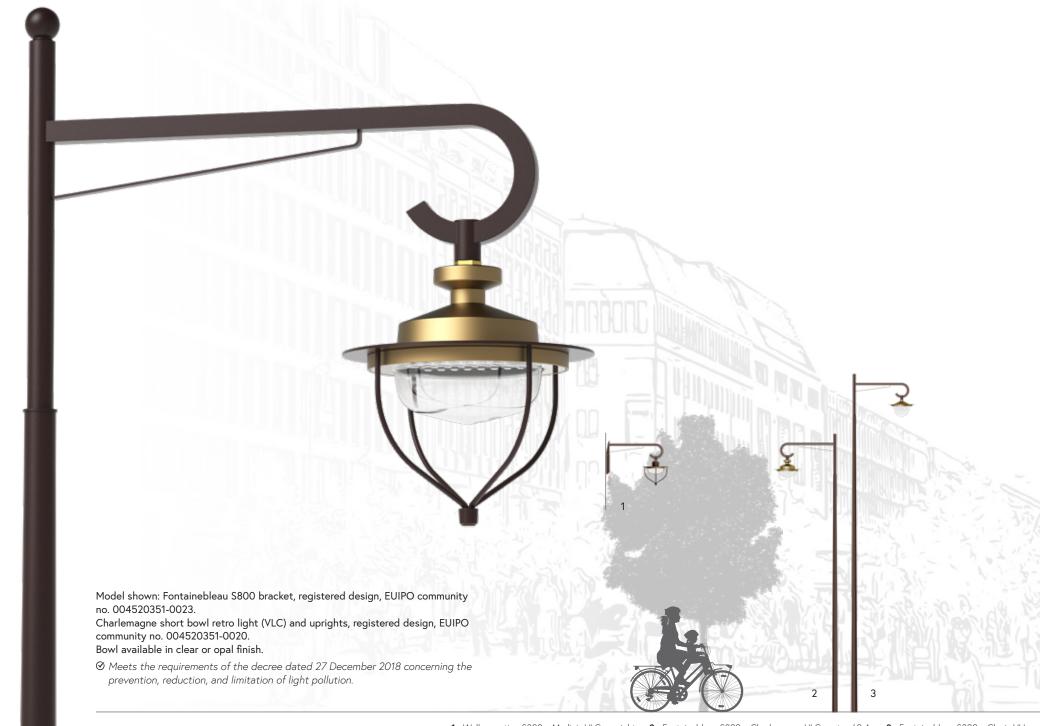


n • 4 - Cheverny S800 + Clovis VLL, fixed reduction, tiered pole 140/90 6m

**CHEVERNY I 163 I** 







### Fontainebleau

7 m

6 m

5m

4 m

#### Description

Extruded aluminium Ø50mm pole top and cast aluminium Ø50mm pole top. 800mm outreach. Single and double light sets, two staggered lights and wall mounting with integrated equipment. Compatible pole top Ø60-62mm, Ø76mm, Ø90mm or Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights









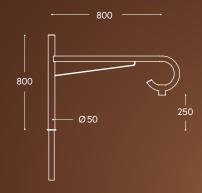
Cléopâtre



Henri IV

Antoine

#### **Features**



	EPA (m²)	Weight (Kg)
1 light	0.098	5.19
2 lights	0.157	8.06



top 60 5m · 4 - Fontainebleau S800 + Clovis VLC + uprights, cp top 60 6m

**FONTAINEBLEAU I 167 I** 







## Villandry

7 m

6 m

5 m

4 m

#### Description

Extruded aluminium Ø50mm pole top.

750mm outreach.

Single light sets.

Compatible pole top Ø 60-62mm.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with RÉTRO lights









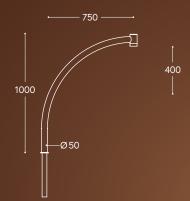
Eugénie





Marc Antoine

#### **Features**



	EPA (m²)	Weight (Kg)	
1 light	0.073	3.60	

Cléopâtre









#### Rétro sets

## Lyres 2 & 4 arms

#### Description

- Pre-assembled 2A Lyre dedicated for Charlemagne, Henri IV and Clovis lights, press-fitted on the pole top  $\emptyset$ 60-62mm and locked using 6 counter blocking screws.
- Pre-assembled 4A Lyre, press-fitted on the pole top Ø60-62 and Ø76mm.

#### Compatible with RÉTRO lights

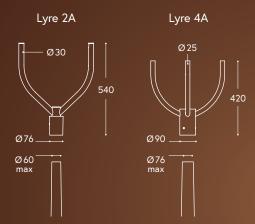






Henri IV

#### **Features**



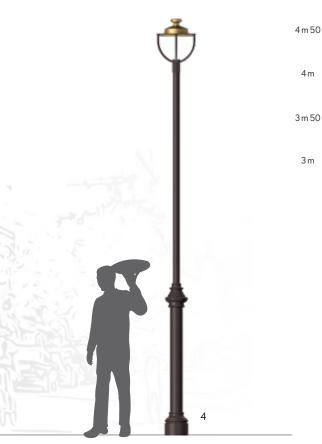
Long Bowl (VLL)



Short Bowl (VLC)



Half Bowl (VLD)



ed pole 140/90 4m, spigot 125mm • **4** - Charlemagne lyre 4A, pole Saxo 4m

LYRES 2 AND 4 ARMS I 175 I









# Lyro collection

The Lyro range shown here consists of lighting lyre type sets.

7 solutions compatible with LOLITA at reasonably elevated heights, similar to public lighting poles, and creating lively, serene, and friendly ambiance lighting. Direct mounting on adapted deco parts, LOLITA boasts of a finesse and discretion which shall ensure that your lighting fixtures become privileged partners in your users' daily lives.



## Athos

Description

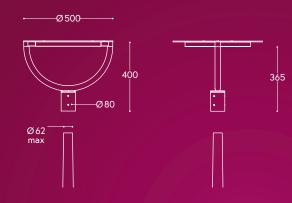
Extruded aluminium pole top. Compatible pole top Ø60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m50. Colour LEDs available (red, yellow, green or blue). Polyester coating finish, RAL or Futura Akzo Nobel colours.

Compatible with Lolita

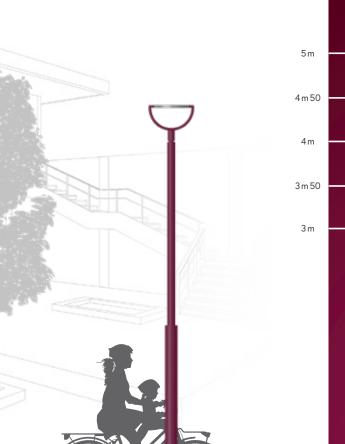




**Features** 



	EPA (m²)	Weight (Kg)
Athos	0,048	9,30



pole Ø120 3.5m • **4** - Lyro Athos, tiered pole Ø140/90 4m, spigot 125mm







## Porthos

#### Description

5 m

4m50

4 m

3 m 50

Extruded aluminium pole top. Compatible pole top Ø60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m50. Colour LEDs available (red, yellow, green or blue). Polyester coating finish, RAL or Futura Akzo Nobel colours.

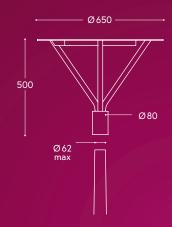
#### Compatible with Lolita





round 4 PCB

#### **Features**



	EPA (m²)	Weight (Kg)
Porthos	0.056	11 10



125mm · **3** - Lyro Porthos, cp top 60 4m · **4** - Lyro Porthos, cp top 60 4m

PORTHOS I 185 I







### Aramis

#### Description

5 m

4m50

4 m

3 m 50

Pole top made of cast aluminium.

Compatible pole top  $\emptyset$  60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m50. Colour LEDs available (red, yellow, green or blue).

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita

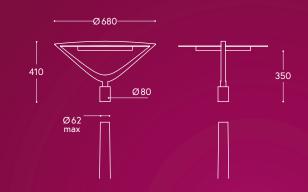




round **4 PCB** 

3

#### **Features**



	EPA (m²)	Weight (Kg)
Aramis	0.071	11.96

3m







## D'Artagnan

5 m - 4 m 50 -

4 m

3 m 50

3 m

#### **Description**

Pole top made of cast aluminium. Compatible pole top Ø60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m50. Colour LEDs available (red, yellow, green or blue). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



rectangular
2 PCB

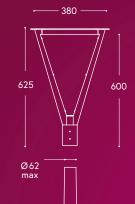






ectangula 4 PCB

#### **Features**







D'ARTAGNAN I 193 I

• **3** - Lyro D'Artagnan, cp top 60 3.5m • **4** - Lyro D'Artagnan, cp top 60 4m







## Richelieu

#### Description

5m

Extruded aluminium pole tops. Compatible pole top Ø60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m50. Colour LEDs available (red, yellow, green or blue).

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



1 PCB





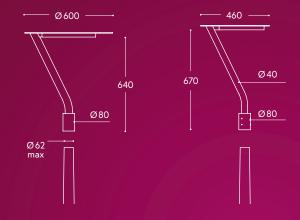
rectangula 3 PCB

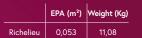
rectangular 4 PCB

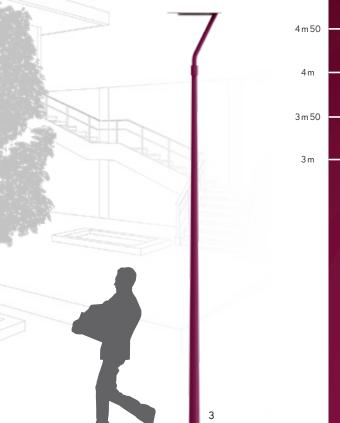


4 PCB

#### **Features**













## Richelieu compact

5m

4 m 50

4 m

3 m 50

3 m

#### **Description**

Extruded aluminium pole tops.

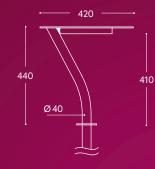
Compatible pole top Ø60-62mm, fit using 6 screws. Recommended installation heights of 3m50 to 4m, colour LEDs available (red, yellow, green or blue). Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita



compact round 32 LEDs

#### **Features**



EPA (m²)	Weight (Kg)	
0.053 m <sup>2</sup>	2.88 Kg	









## Rochefort

5m 4 m 50 4 m 3 m 50 3 m

#### Description

LED equipment integrated. IK10 polycarbonate injected quarter turn screws. Cast aluminium optical unit. Asymmetrical or circular distribution. Recommended installation heights of 3m50 to 4m50. Warm white or neutral white. Mounting on Ø60 monobloc pedestal made of cast aluminium. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Compatible with Lolita





round 2 PCB

round 4 PCB

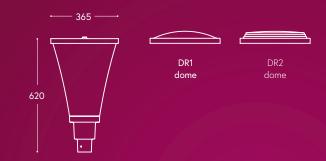




16 LEDs

48 LEDs

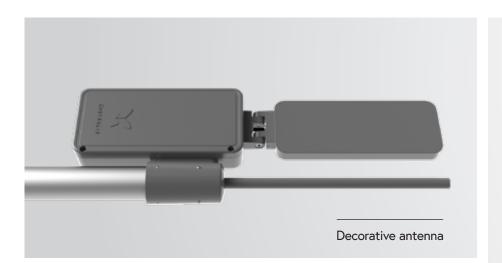
#### **Features**



	EPA (m²)	Weight (Kg)
Rochefort	0.120m <sup>2</sup>	10.8 Kg
Rochefort DR1	0.136m²	11.38 Kg
Rochefort DR2	0.140m²	11.45 Kg

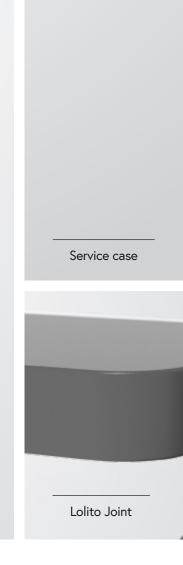




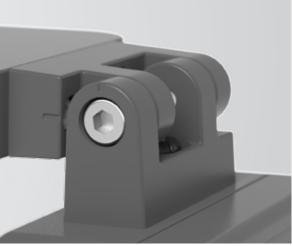












# Lolito

Lolito is a unique functional concept intended to meet all the requirements of modern lighting solutions, based on a dedicated all-in-one set for Lolita optical units

The central piece of Lolito consists of an injected cast aluminium IP66 case which shall simultaneously:

- incorporate the driver and its protection if necessary,
- incorporate the elements of connection to the network,

- mount an adjustable joint which allows adding and inclining a Lolita optical unit as required,
- mount a press fitting part which allows positioning Lolito on a bracket cap or console of diameter 42 to 60mm or on a pole top up to 62mm with or without decorative accessories,
- mount Lolito directly on a facade or on a concrete or wooden pole using straps,
- allow the integration of remoteoperation systems.



I 210 I

patented model.

patented model.

Lolito set

### Wall mount

#### Description

5m

4 m 50

4 m

3 m 50

3 m

All-in-one set including an IP66 case, rotating Lolita optical unit and mounting kit for concrete pole (210mm inter-axial bolt or strap) or 3-point wall mounting. Driver integrated.

Options that may be integrated in the case are given in detail on p.329-331.

#### Compatible with Lolita



1 PCB



3 PCB



rectangula **4 PCB** 



mpact round
32 LEDs

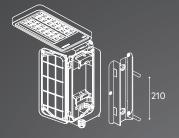
round

2 PCB

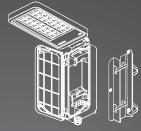
round

round 4 PCB

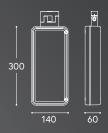
#### **Features**



Through-bolt kit (for standardised drilling operations through concrete poles and conical wooden poles)



Strap kit (for standardised concrete poles and conical wooden poles)



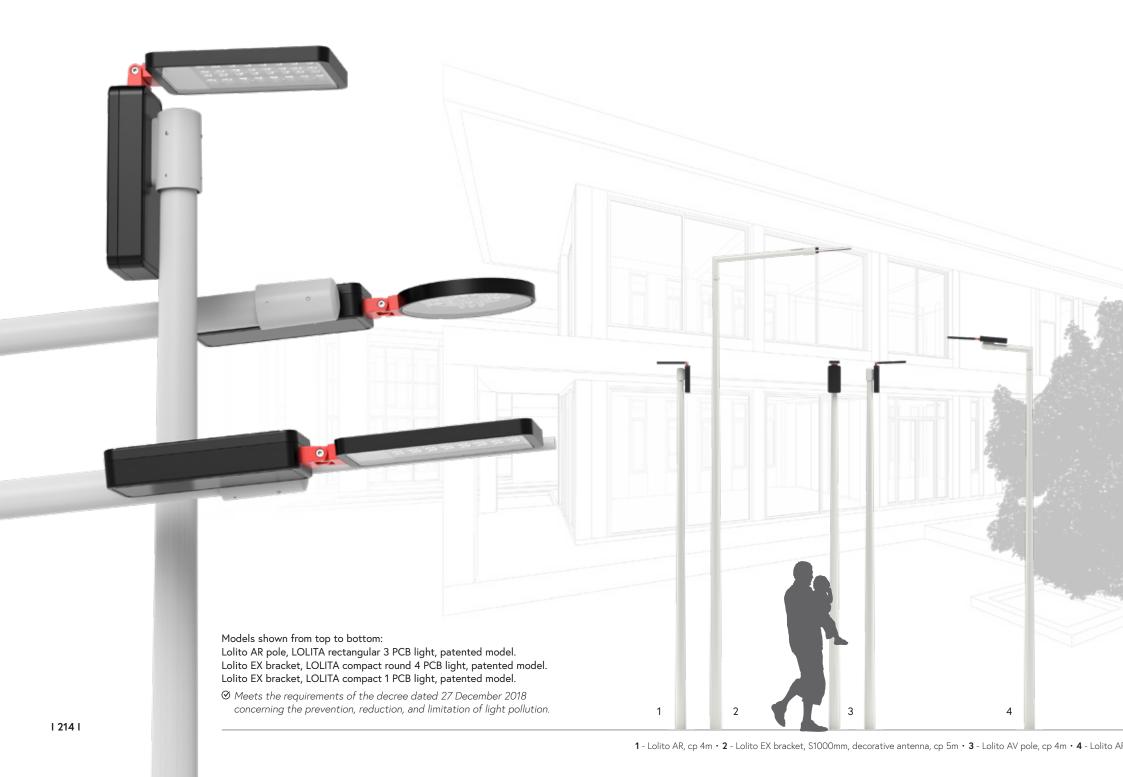
IP66 service case

olito pole mounting, 210mm inter-axial through-bolts, concrete pole 5.5m

**LOLITO WALL MOUNT I 211 I** 







Lolito EX / AV / AR set

## Poles and Brackets

#### Description

5 m

4 m

All-in-one set including an IP66 case, cast aluminium rotating Lolita optical unit and adapter sleeve. Mounting on brackets and pole up to Ø62mm. Driver integrated, decorative antenna optional (depending on the Lolita/ EX/AV combination only). Possibility of integration with a remote-control antenna.

#### Compatible with Lolita



rectangular 2 PCB

3 PCB



4 PCB

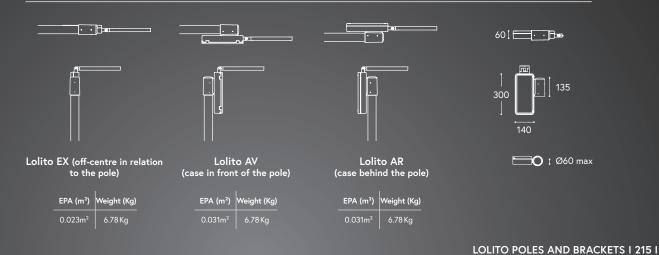


32 LEDs

2 PCB

4 PCB

#### **Features**

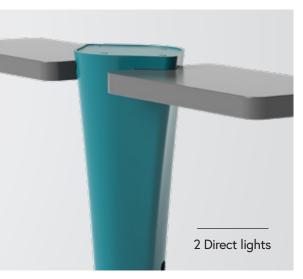


R bracket, S500mm, pole cp 4m · **5** - Lolito EX, decorative antenna, cp 4m









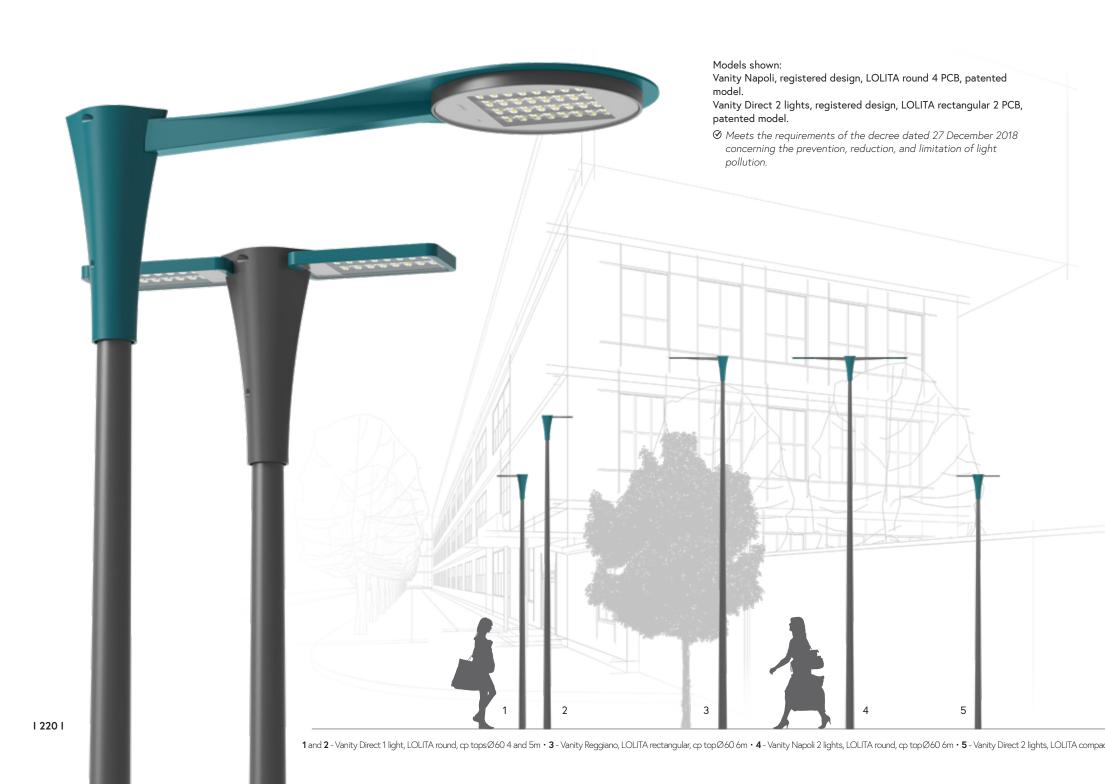


# Vanity collection

Vanity, on the crossroads between versatility and design. An all-in-one solution consisting of 2 cast aluminium half-shells, ready-to-mount, Vanity combines the function of a classic bracket and the electrical capabilities of the most modern equipment.

Vanity combines compatibility with all LOLITA optical units, with direct mounting, and the possibility of adding a bracket while protecting the driver and its lightning arrester.

An exclusive approach by CHRYSALIS, which shows its true value in low as well as high installations.



### Collection

## Vanity

Description

8 m

7 m

6 m

5m

4 m

Cast aluminium stylish mounting, compatible pole top Ø60-62mm, penetration 100mm, LED driver integrated. Tightened on the pole using 6 screws. Accommodates the Direct version of LOLITA optical units (mounting using 2 CHC M6 screws) and brackets of the Déco Napoli, Reggiano, Modena, Oviedo collections (mounting using 2 CHC M8 screws). Access to the driver from the upper canopy (4 FHC screws). Single and double light sets. Polyester coating finish, RAL or Futura Akzo Nobel colours.

Compatible with Lolita



1 PCB



rectangular 3 PCB

4 PCB

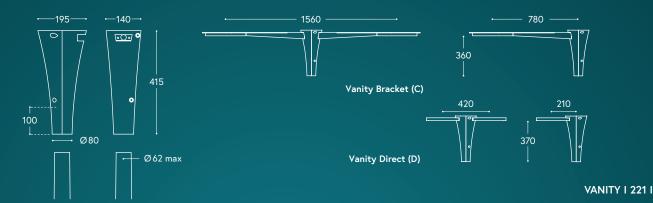


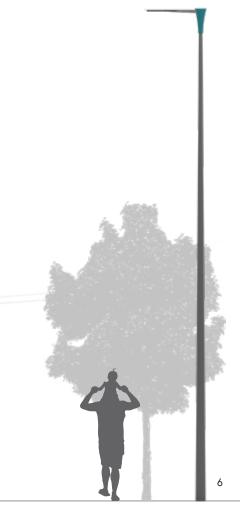
compact round 32 LEDs

2 PCB

4 PCB

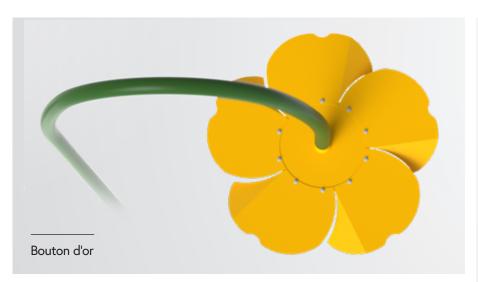
**Features** 





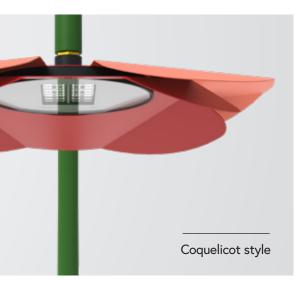


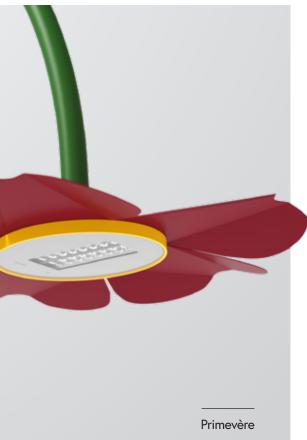












# Floralys Bouquets

The latest CHRYSALIS collection is none other than a bouquet of solutions that are as innovative as they are refreshing. Create a stem vase, enhance a place or the outskirts of a particular place, all these possibilities are finally possible with FLORALYS.

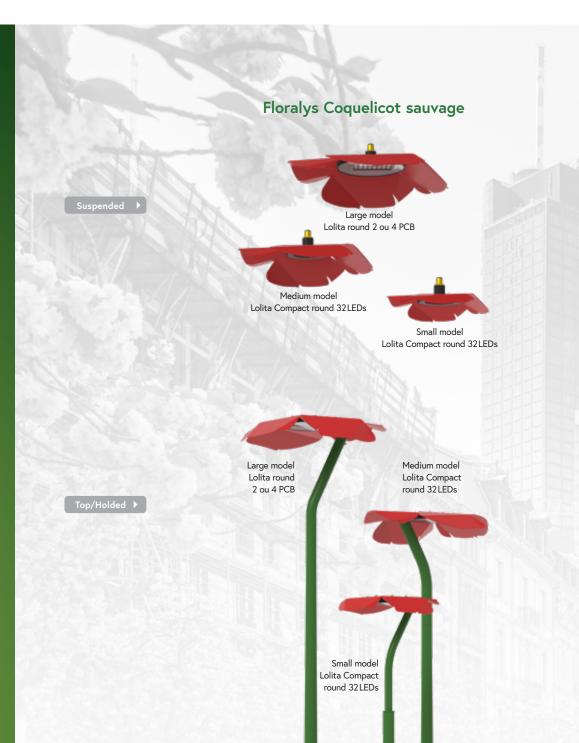
Create your own floral composition, choose from among the 4 corollas on offer and available with Lolita round 2 or 4 PCB, and also the Lolita compact round 32 LEDs. Combine inclined, curved, or straight masts for unique creations inspired from nature, which instil a feeling of being in a reverie.

## Floralys

fresh design
with natural fragrances

CHRYSALIS presents FLORALYS lights: discover 4 new ways to master space and embellish the environment in a more fun and natural manner.

Floralys Bouton d'or, Floralys Coquelicot style or sauvage, Floralys Primevère, many new original possibilities in 3 sizes and in suspended or top/holded versions, focused on the ground for effective lighting using the onboard LOLITA optical units, or even turned upwards, and fitted with a flow recuperator for indirect lighting of the corolla.



### Floralys Coquelicot style



Large model Lolita round 2 ou 4 PCB



Medium model Lolita Compact round 32LEDs



Small model Lolita Compact round 32LEDs

### Floralys Bouton d'or



Large model Lolita round 2 ou 4 PCB



Medium model Lolita Compact round 32 LEDs



Small model Lolita Compact round 32LEDs

### Floralys Primevère



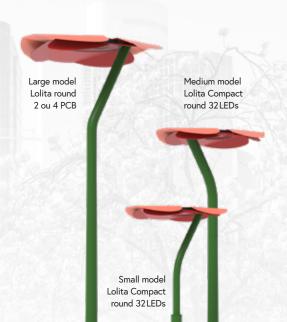
Large model Lolita round 2 ou 4 PCB

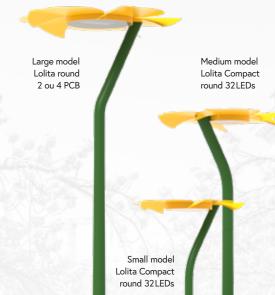


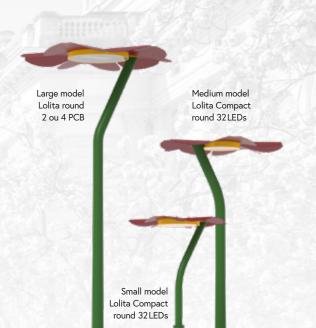
Medium model Lolita Compact round 32LEDs



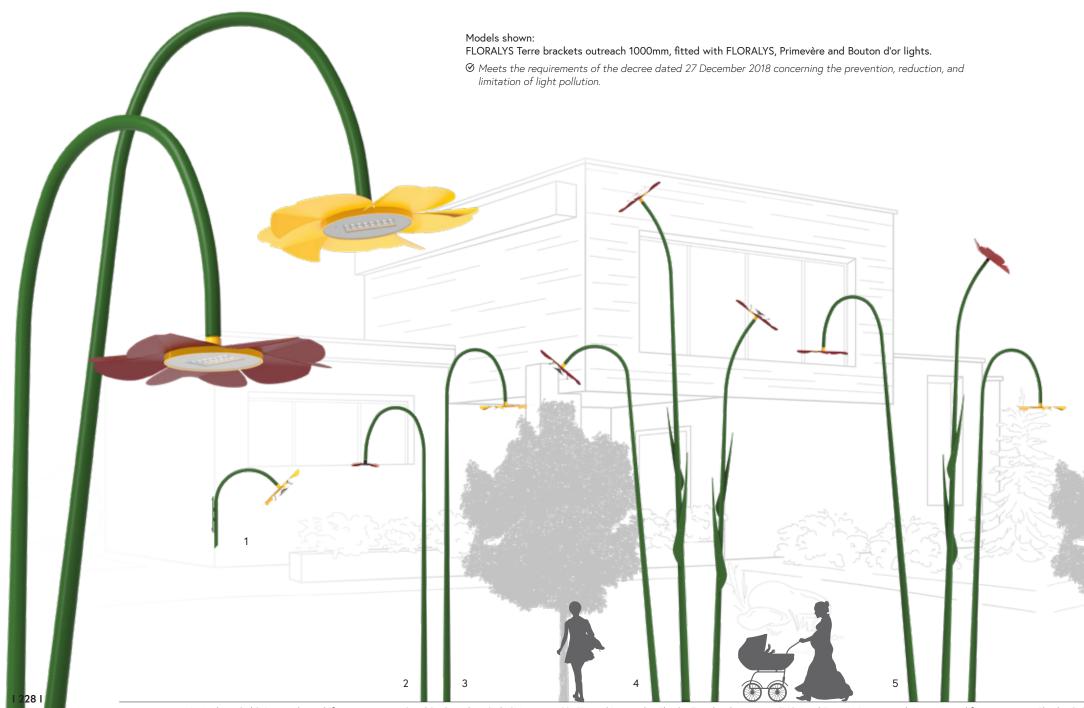
Small model Lolita Compact round 32 LEDs







FLORALYS LIGHTS I 227 I



1 - Applique Ciel 2, Bouton d'or with flow recuperator • 2 and 3 - Coquelicot Style SM compact 32 LEDs and Bouton d'or, Floralys Terre bracket, cp tops Ø 60 4 and 5m • 4 - Bouquet with Primevère and flow recuperator, Floralys Ciel 5 - Cluster with Bouton d'or on Floralys Terre bracket, Coquelicot sauvage on Floralys Ciel 1 bracket, and Primevère on FLORALYS Terre bracket, cp tops Ø 60 5 and 6m inclined 2 and 5°, foliage optional • 6 - C

Floralys bouquets

## Suspended

### Description

7 m

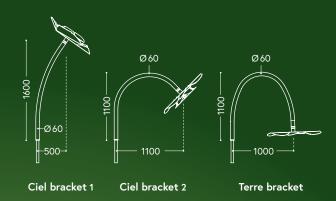
6 m

5m

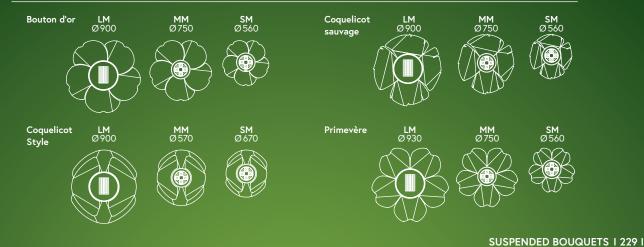
4 m

Extruded aluminium Ø60mm pole tops, 500 and 1100mm outreaches (Ciel 1 and 2) and 1000mm (Terre). Wall mounting and single light sets, recommended for straight and inclined conical poles (2, 5 or 10°). Folded foliage optional. Ciel version with aluminium flow recuperator, RAL 9010 finish for a raking flow return in the petals. Compatible pole top Ø60-62mm. Polyester coating finish, shades depend on the model.

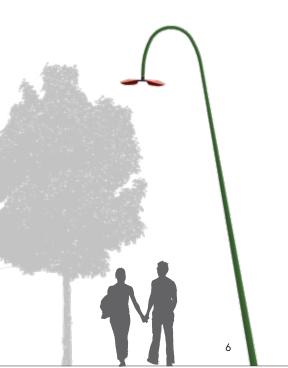
#### **Features**



### Compatible with FLORALYS lights

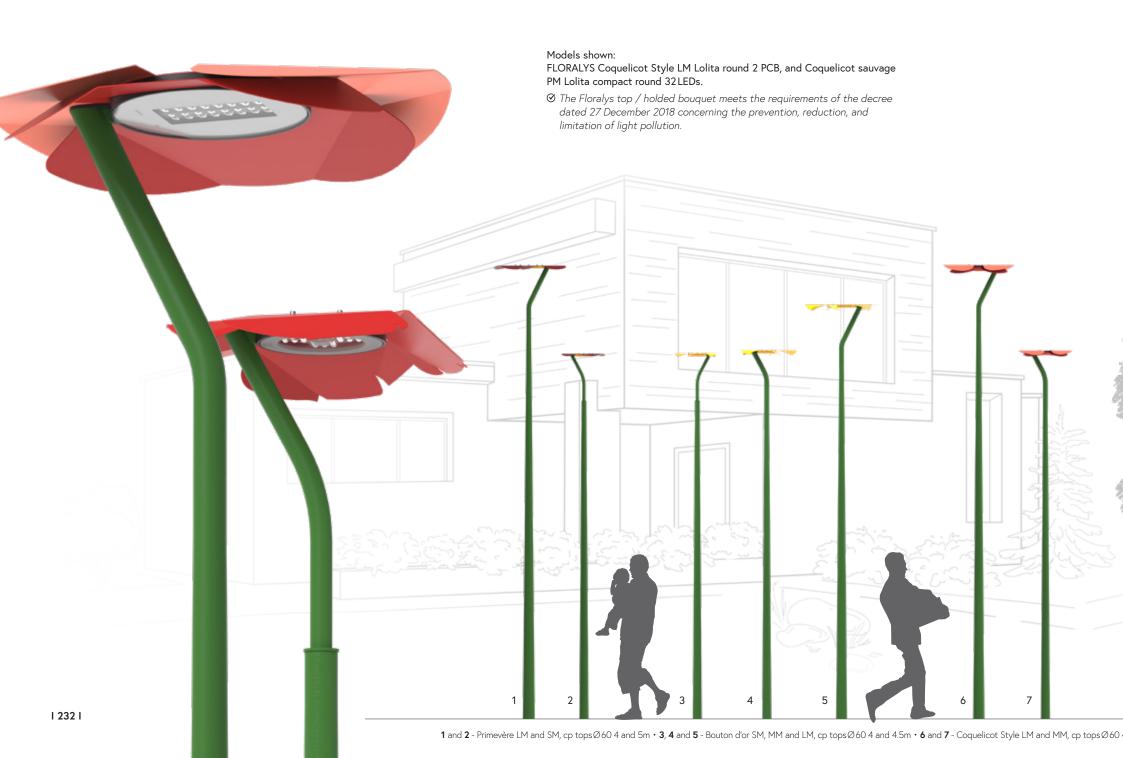


l 1 and 2 brackets, cp tops∅60 5 and 6m inclined 2 and 5°, foliage optional Coquelicot Style on Floralys Terre bracket, cp top∅60 5m inclined 10°









Floralys bouquets

## Top / Holded

### Description

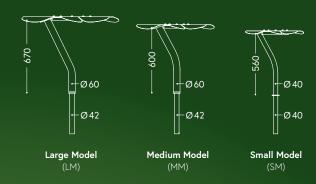
6 m

5 m

4 m

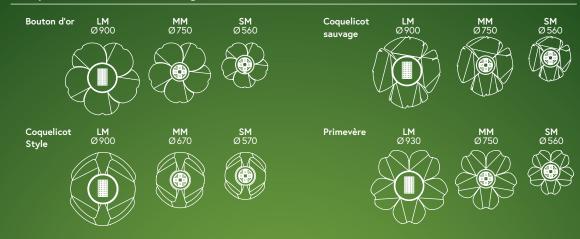
Extruded aluminium Ø40mm and Ø60 pole tops. Single light sets, compatible pole top Ø60-62mm. Large model (LM), Medium model (MM) and Small model (SM) versions. Each version is fitted with a corolla of a suitable size, with a choice between Bouton d'or, Coquelicot sauvage or style, and Primevère. Polyester coating finish, shades depend on the model.

### **Features**



TOP/HOLDED FLORALYS BOUQUETS I 233 I

### Compatible with FLORALYS lights











Sofia

I 236 I

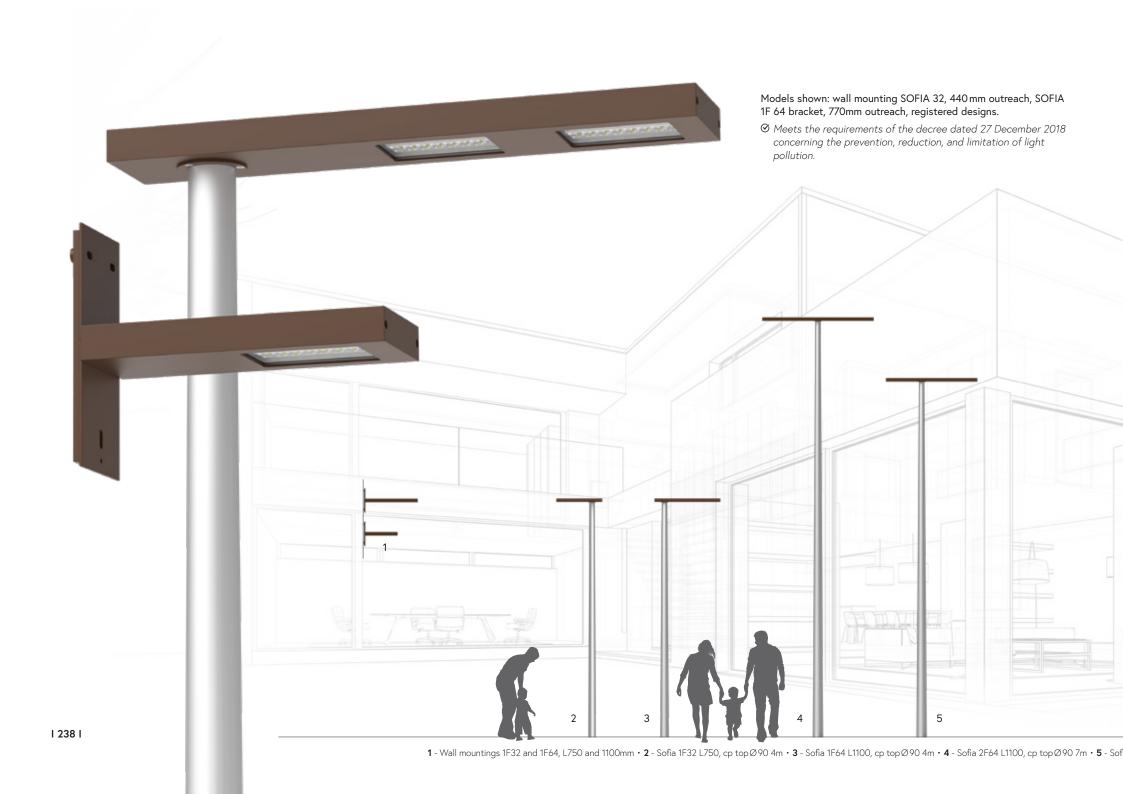


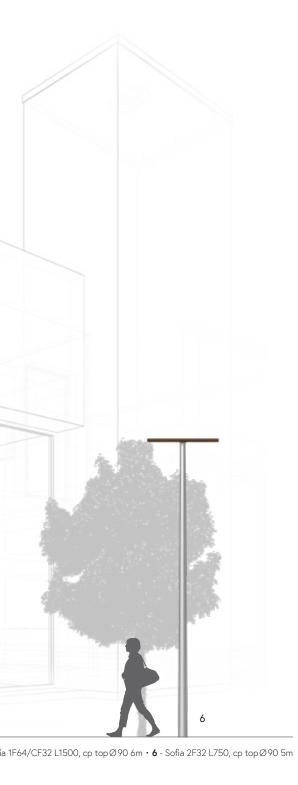


# Objets lumière collection

Today, estates need layouts that are ever more customised, capable of highlighting the identity of the places where they are located.

Chrysalis would like to invite you to discover a wide range of proximity lighting equipment that provides distinctive lighting.





Objets lumière

### Sofia

Description

7 m

6 m

5m

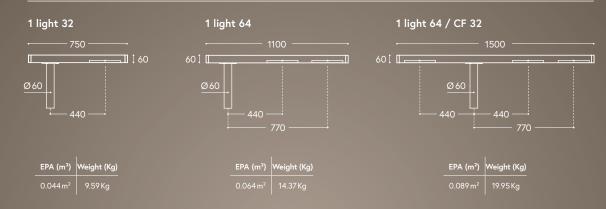
4 m

Extruded aluminium pole tops including Lolita optical units and LED driver. Lengths 750, 1100 and 1500mm. Single, double and rear bracket light sets, pole mounting and wall mounting. Compatible pole top Ø89-90mm, Ø120mm on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

Compatible with Lolita

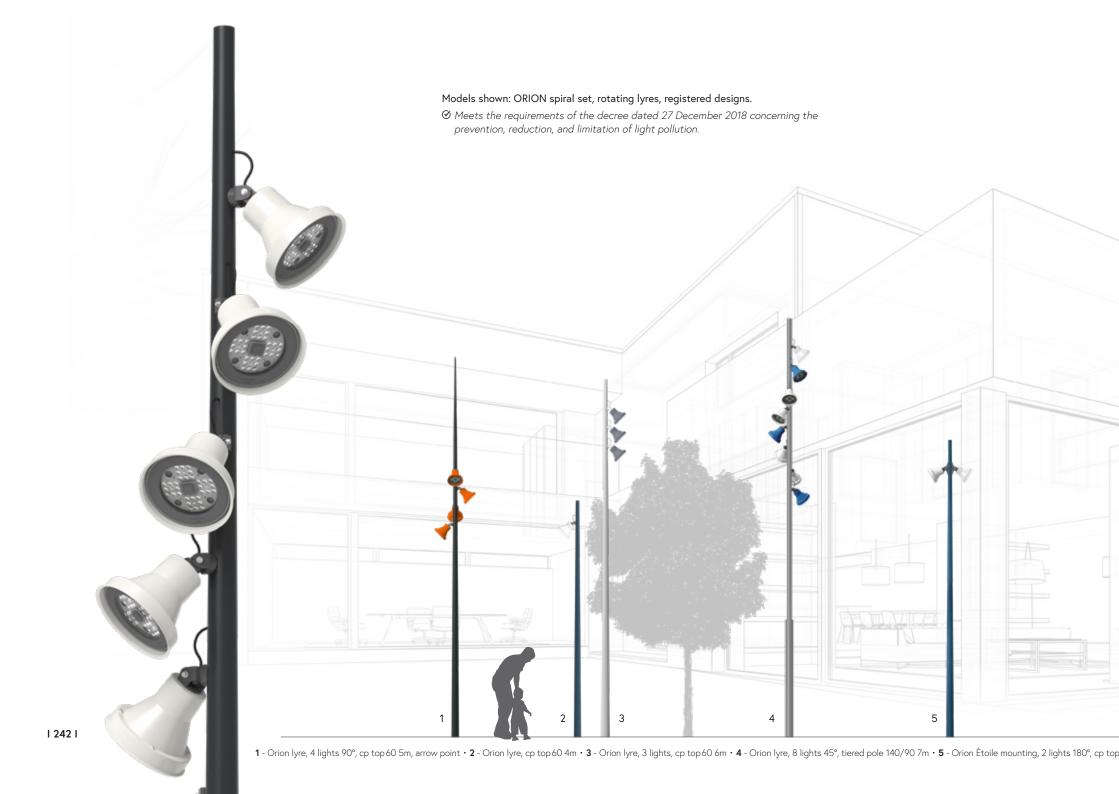


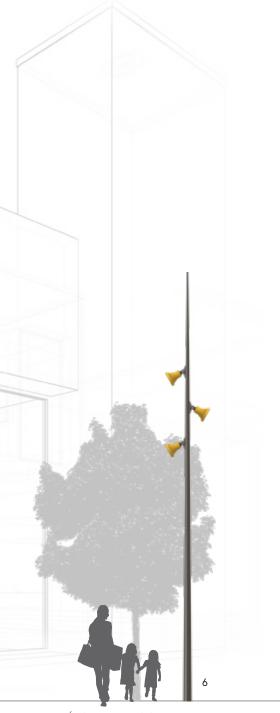
**Features** 











Objets lumières

## ORION Projector

Description

7 m

6 m

5m

4 m

Rotating urban projector light with integrated LED. Fitted with Lolita compact round 32 LEDs. 2 types of mounting available: lyre or Étoile. Polyester coating finish, RAL or Futura Akzo Nobel colours.

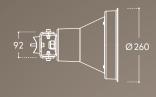
Compatible with Lolita

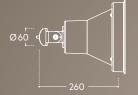


compact rour 32 LEDs

#### **Features**

Rorating lyre mounting

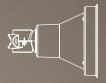


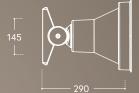


EPA (m²) Weight (Kg)

0.039 m² 3.77 Kg

Étoile mounting





ORION PROJECTOR I 243 I









Objets lumière

### Lolita Contour

### Description

All-in-one sets for integration in blocks, facades, edges, etc. LOLITA in a controlled raking light. LED equipment and integrated serial protection in a sealed cabinet fixed on the back of the set, IP66, mounted on a deco part which allows housing Lolita in a niche of planned dimensions to obtain a flush position or on an outreach as regards civil engineering. Available with or without an anti-glare hood (except round model). Set mounted on a post with separated control gear.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

### Compatible with Lolita



compact roui **32 LEDs** 



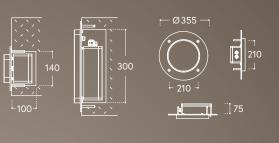
rectangula

### **Features**

### on a post (separated control gear)

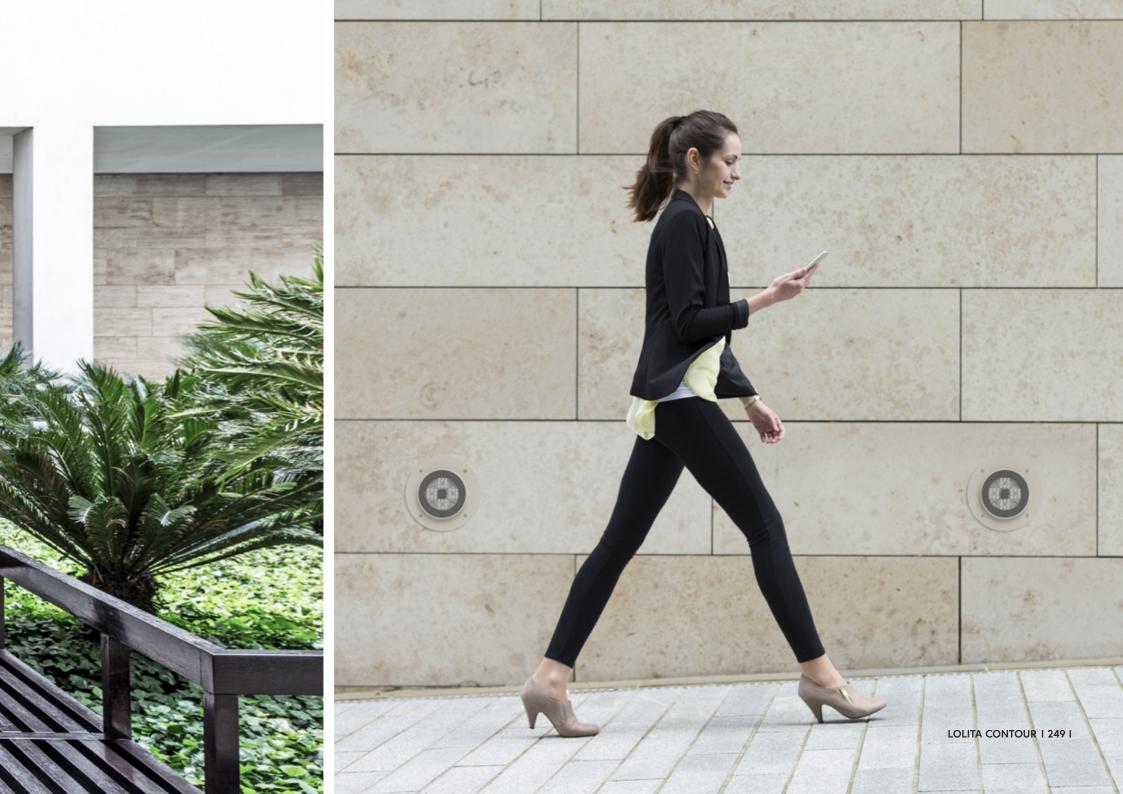


### embedded (integrated control gear)



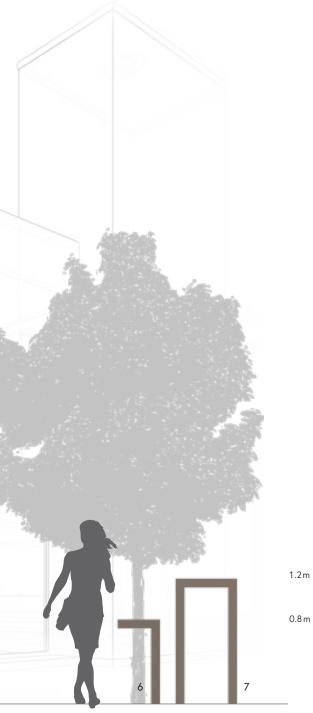






Models shown: Athènes 4 LEDs arch, L400mm x H800mm, Athènes 1.20m 16 LEDs bollard, registered designs.





Objets lumière

### Athènes Furniture

### Description

Steel section urban furniture with rectangular section of 50 x 150mm. Lower lighting ensured using Lolita compact 4LEDs or 1PCB, driver integrated. Access through the door in the side.

Bollards, archs and barriers available in 2 heights: 800 and 1200mm, with or without lighting. Other dimensions being studied. Polyester coating finish, RAL or Futura Akzo Nobel colours.

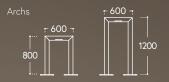
### Compatible with Lolita

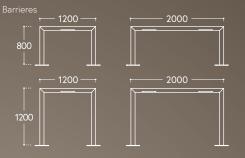


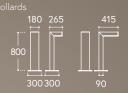
4 LEDs

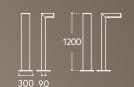


### **Features**







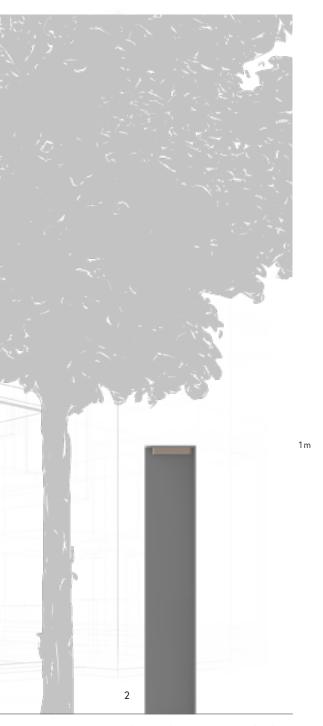


0.8 m









# Ithaque bollard

### Description

Rectangular section bollard  $90 \times 180$ mm. Decorative panel with cuts creating a play of shadows and light on the ground, and transparent body.

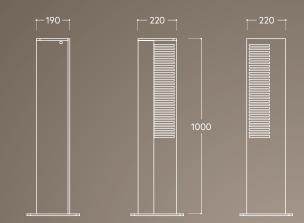
Access to the driver through the door.
Polyester coating finish, RAL or Futura Akzo
Nobel colours.

# Compatible with Lolita



compact 4 LEDs

#### **Features**





ITHAQUE I 255 I









# Olympie bollard

## Description

Rectangular section bollards 100 x 200mm. Available in 1 or 2 optical units, in symmetrical distributions.

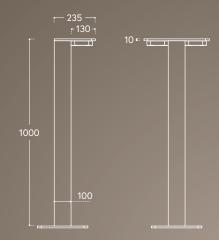
Access to the driver through the door.
Polyester coating finish, RAL or Futura Akzo
Nobel colours.

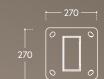
# Compatible with Lolita



compact 4 LEDs

#### **Features**



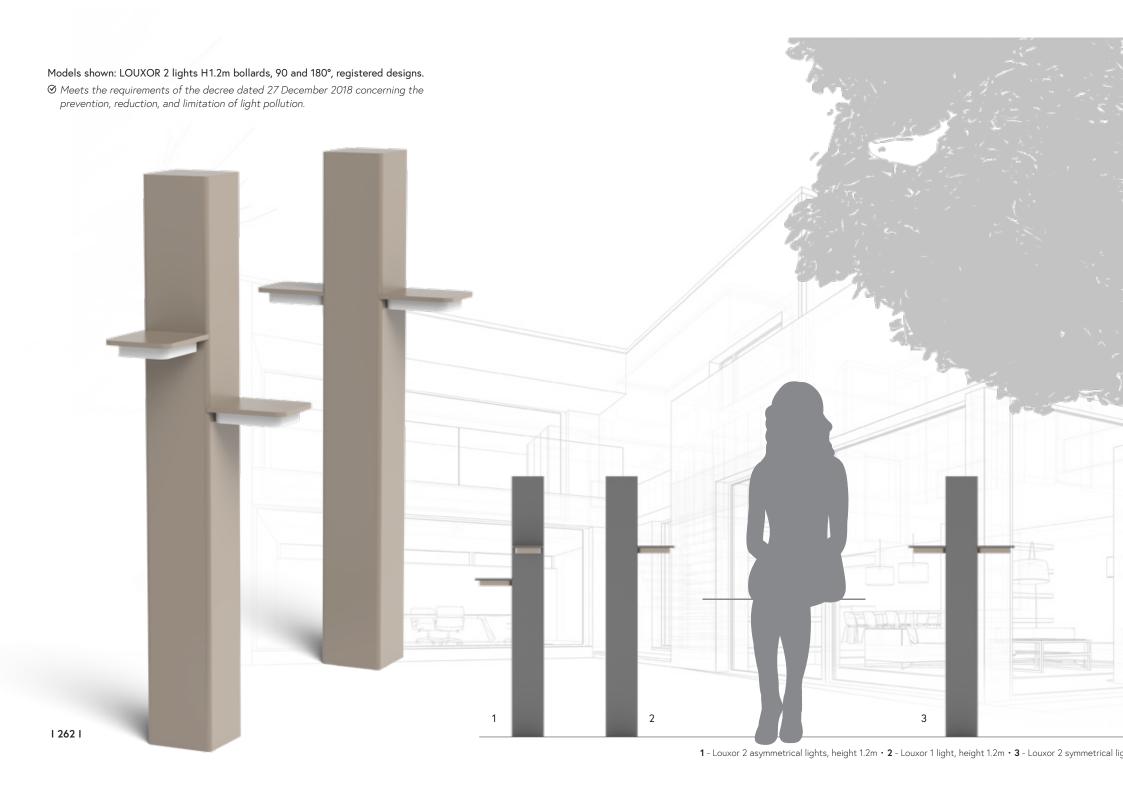


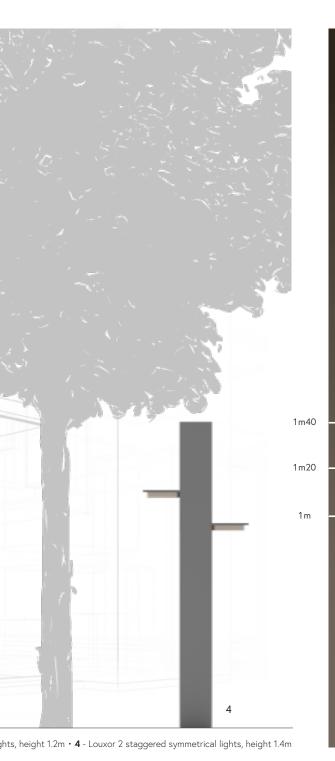


OLYMPIE I 259 I









# Louxor bollard

# Description

Square section bollard 150 x 150mm.

Available in 1 or 2 optical units, symmetrical or asymmetrical distribution.

3 heights available: 1000, 1200 or 1400mm.

Access to the driver through the door.

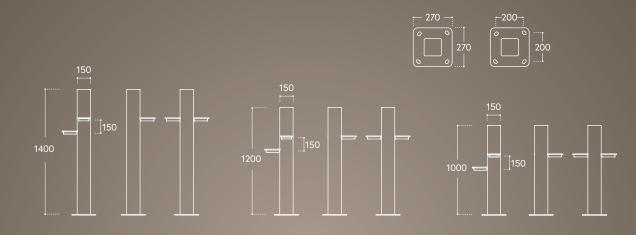
Polyester coating finish, RAL or Futura Akzo Nobel colours.

# Compatible with Lolita



compact
4 LEDs

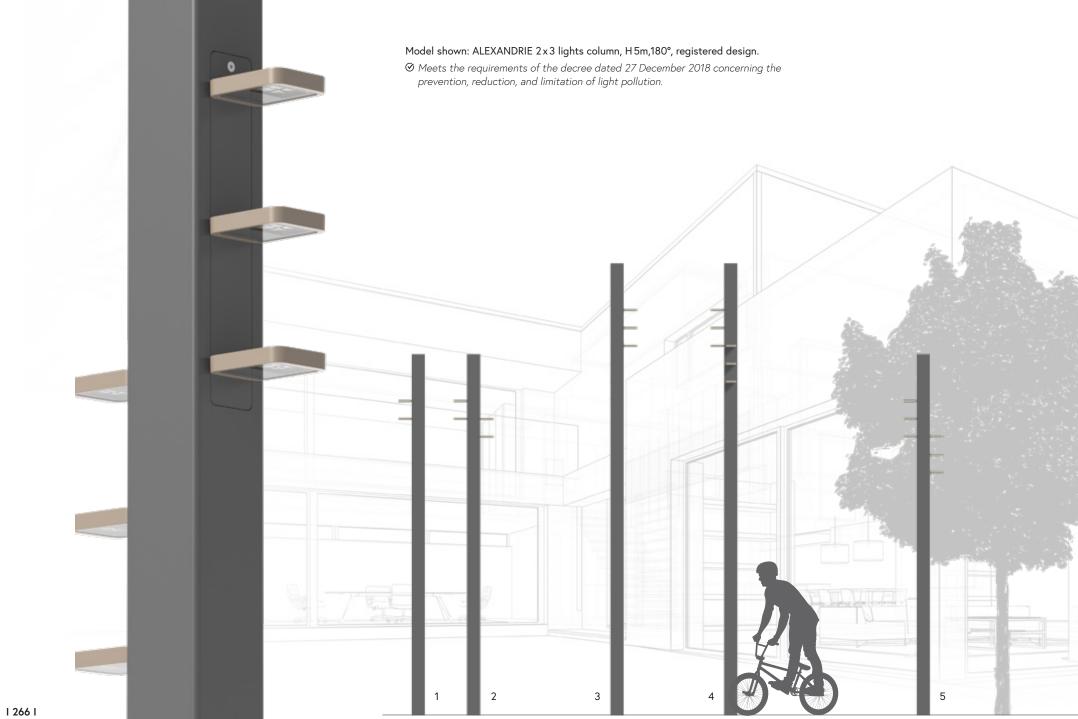
#### **Features**

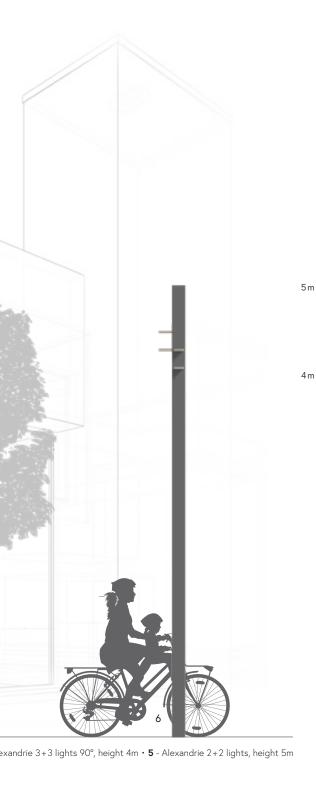


**LOUXOR | 263 |** 









# Alexandrie column

## Description

Square section column 150 x 150mm.

Available in 2, 3, 4 or 6 optical units, distributions at 90 or 180°, height 4 or 5m.

Access to driver through the door.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

# Compatible with Lolita



compact

compac

#### Features







**ALEXANDRIE I 267 I** 

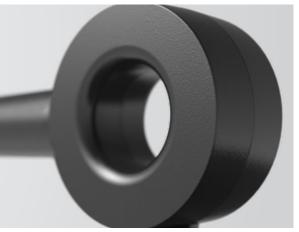














# Lum'en Mouv

# collection

Lum'en Mouv brings movement to light. It's no small thing!

The idea is to create a lumino-technical effect which evokes the burning of a solid, liquid, or gaseous body through a vacillating flame which was how man started using light.

Thanks to an extremely sophisticated LED light lens, Lum'en Mouv can reproduce the dynamic image of a fire of various types, like a candle for example.

As for the artistic aspect, Lum'en Mouv is the fuel to accelerate the

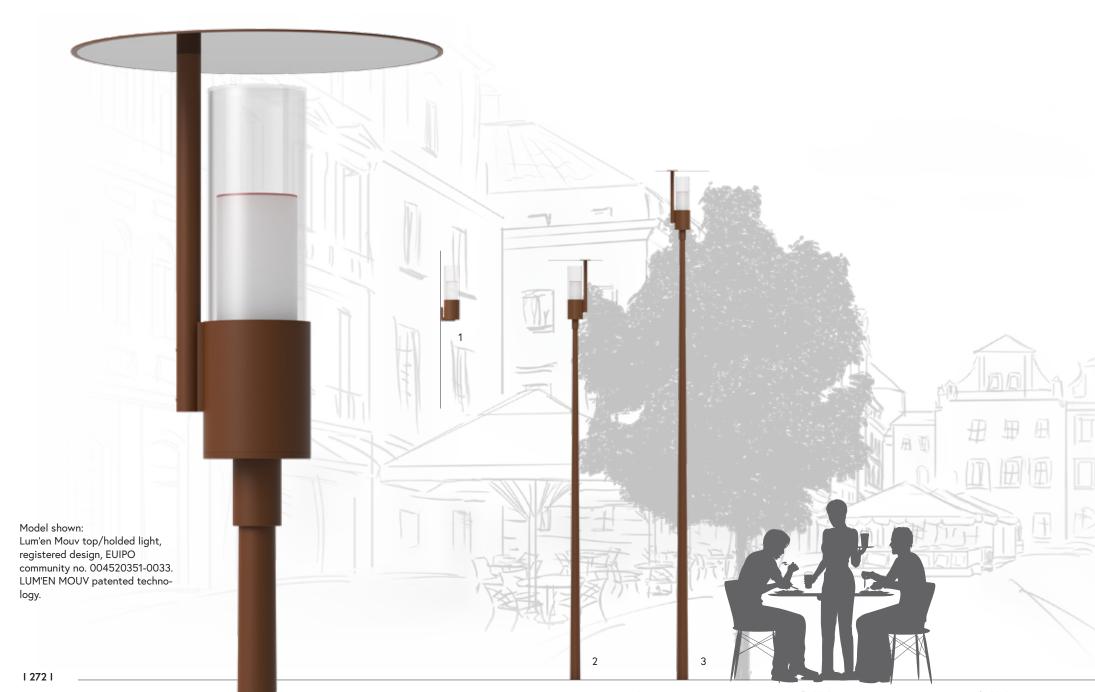
process of creating a light that mimics the movement of natural burning. This phenomenon imparts a historical feeling to this type of light.

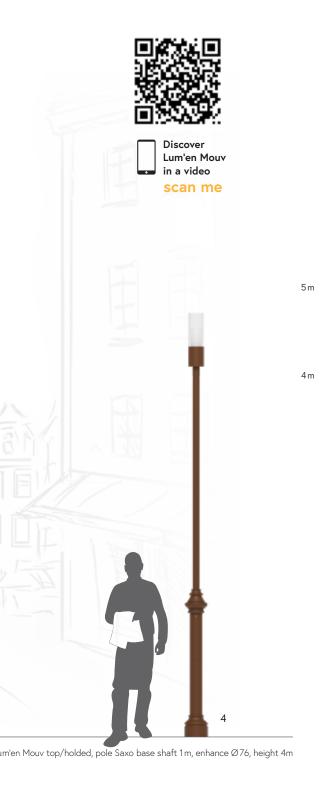
This art involves balancing today with the lighting that is controlled perfectly using electricity, but has lost its fun aspect by creating immobile fields of light.



Discover Lum'en Mouv in a video

scan me



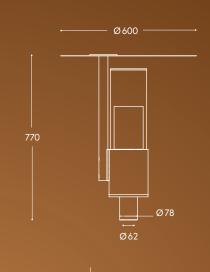


# Top / Holded Lum'en Mouv

### Description

Exclusive light that brings movement to light, mimicking the vacillations of a flame. Several programs available in the series. Possibility of alternating in fixed lighting position. Stainless steel flow recuperator for an increased flame effect on request. Compatible pole top  $\emptyset$  60-62mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**



 Top/Holded Lum'en Mouv

 EPA (m²)
 0,107 m²

 Weight (Kg)
 7.95 Kg

TOP/HOLDED LUM'EN MOUV I 273 I









# Coblence

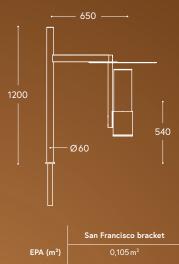
Description

5 m

4 m

Extruded aluminium pole top. 600mm outreach. Single and double light sets. Stainless steel flow recuperator for an increased flame effect on request. Compatible pole top Ø60-62mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**











# San Francisco

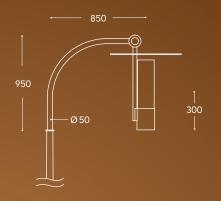
Description

5 m

4 m

Extruded aluminium  $\varnothing$  50mm pole top, 850mm outreach. Single light sets. Stainless steel flow recuperator for an increased flame effect on request. Compatible pole top  $\varnothing$  60-62mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**

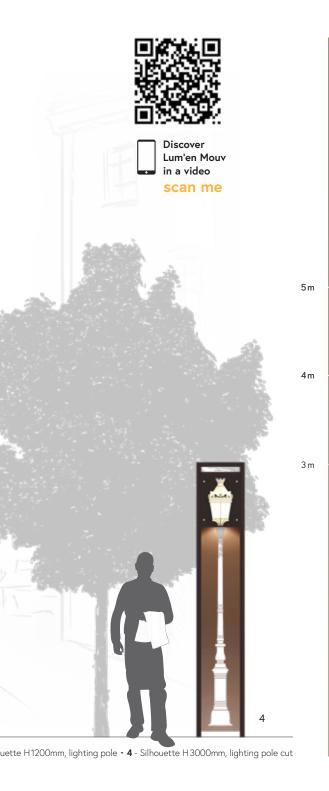


SAN FRANCISCO I 281 I









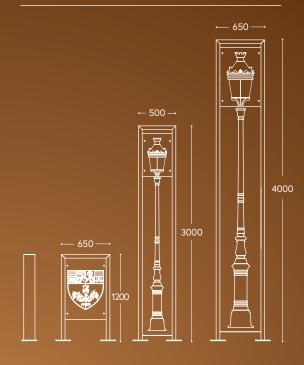
# Silhouette

### Description

Light totems with a powder coated galvanised steel frame integrating a flat Lum'en Mouv. Laser cutting customisation. The cut design shows an opalised Plexiglass plate protecting the optical unit. Both surfaces can be customised for a bidirectional effect. Vertical lighting system with a dedicated Lolita for the base. Standard heights 1200mm, 3000 or 4000mm. Polyester coating finish, RAL or Futura Akzo Nobel colours.

This example highlights the re-creation of a traditional lantern and allows creating a stylish lighting pole which appears to be in a hollow because of the absence of light.

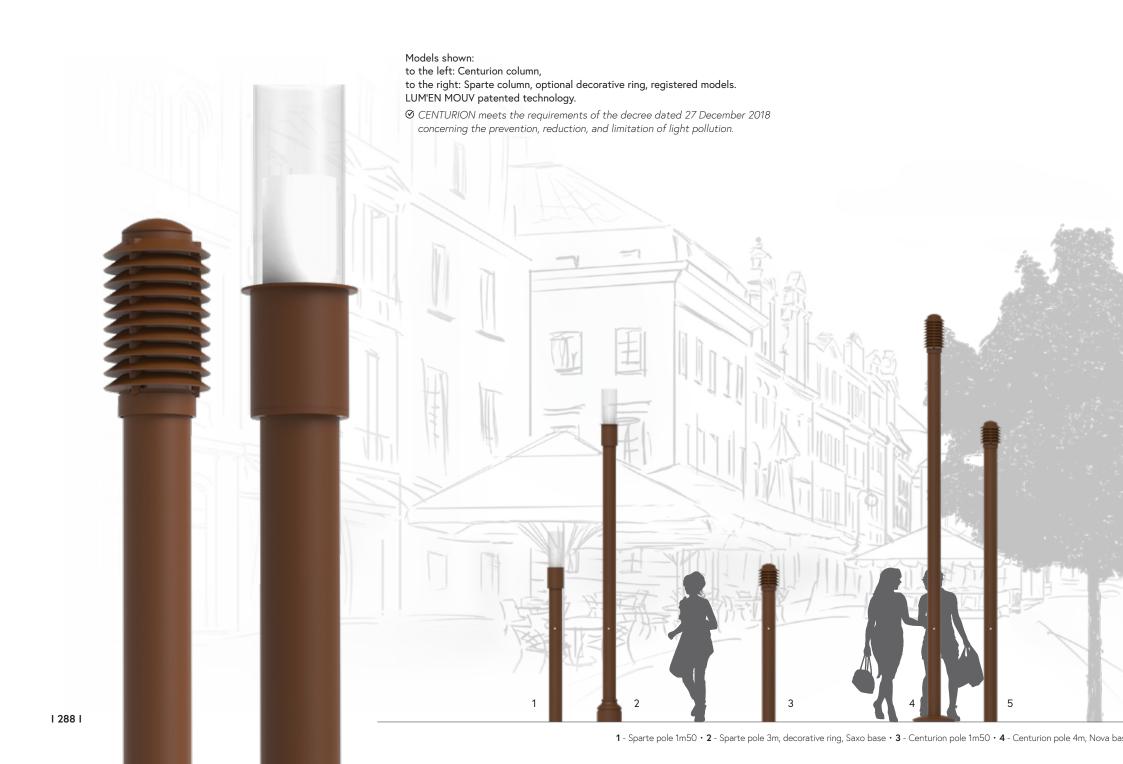
#### **Features**



SILHOUETTE I 285 I







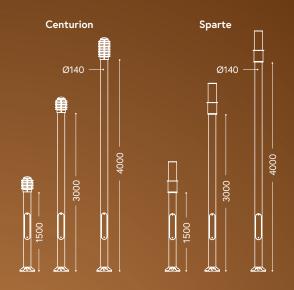


## Sparte & Centurion

#### Description

Extruded aluminium bollards and columns with an integrated Lum'en Mouv module. Pillars of Ø140mm of height 1500, 3000 or 4000mm, other heights on request. Access to the equipment through using door. Sparte or Centurion versions. Nova or Saxo bases optional and decorative Sparte ring on request. Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**



1.5 m

5 m

4 m

3 m









3 m 50

3 m

2m50

Light in movement

### Manhattan

#### **Description**

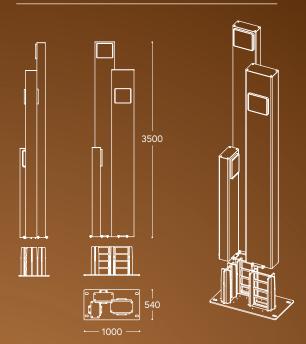
High or low sets of 2 to 3 connected profiles of different dimensions ( $150 \times 300$ mm,  $200 \times 400$ mm, and  $150 \times 350$ mm), assembled on the ground using a single frame.

Free compositions; heights and positions of the profiles may vary. Installation of Lum'en Mouv lights at variable heights - front/back possible. Variable number of lights. Lum'en Mouv functions reproducing the movement of flames according to 8 selectable programs. Possibility of alternating in fixed lighting position.

You can design your piece to your heart's content.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**

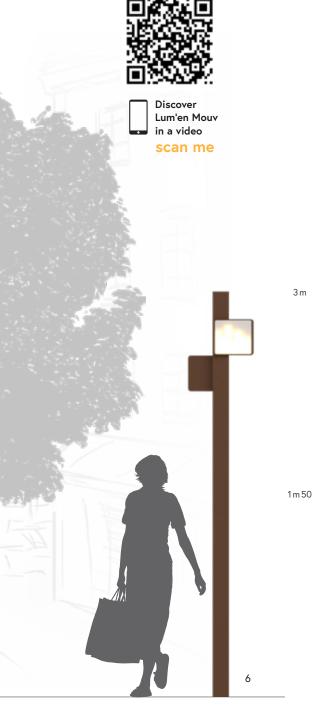


MANHATTAN I 293 I









## King's Cross

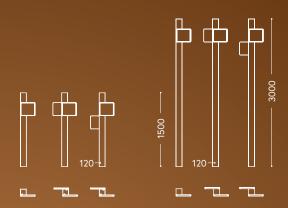
#### Description

Decorative set fitted with flat Lum'en Mouv (1 or 2). Allows projecting a flame effect in 2 distinct directions. Square section steel pole Ø120mm. 2 standard heights available: 1500mm and 3000mm. Other dimensions on request.

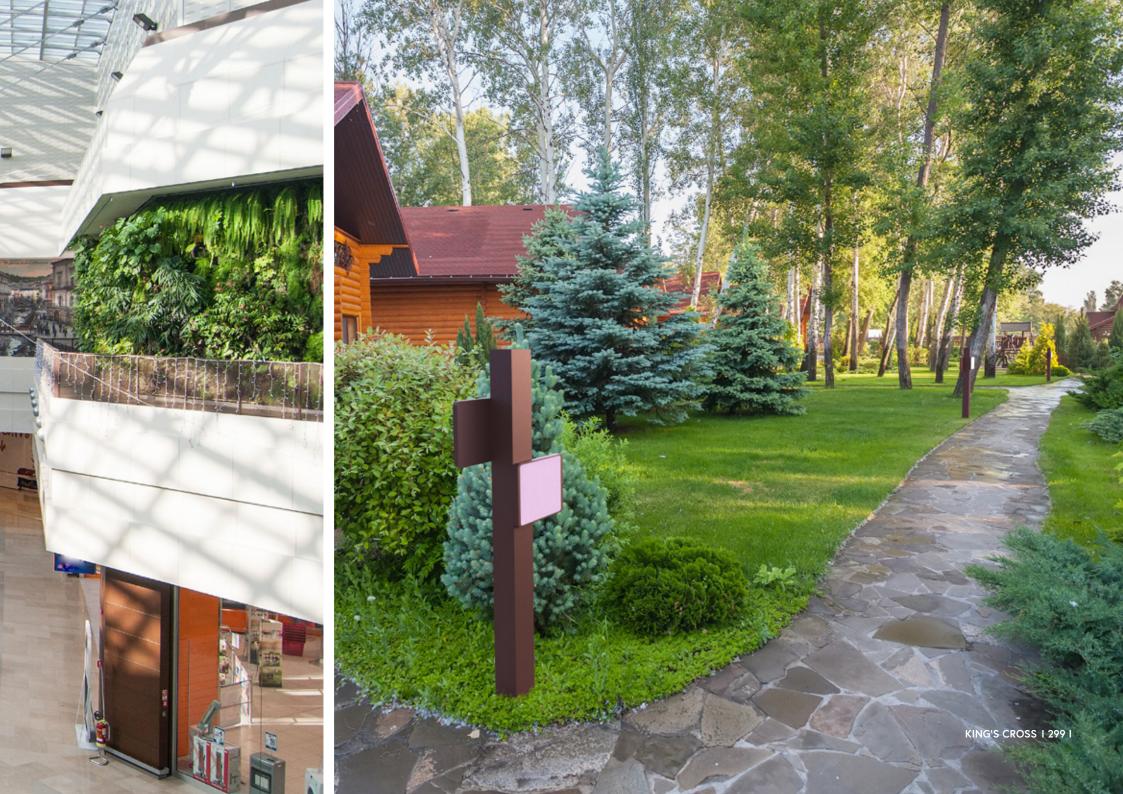
Lum'en Mouv functions reproducing the movement of flames according to 8 selectable programs. Possibility of alternating in fixed lighting position.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**











### Rétrofit



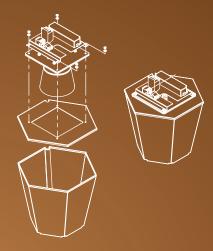
Discover Lum'en Mouv in a video

#### Description

Enjoy the adaptability of Lum'en Mouv without replacing your installation of stylish lanterns. After studying your existing equipment, CHRYSALIS offers you a madeto-order upgrade from your discharge lamps to the patented Lum'en Mouv technology, which has 8 types of integrated flame reproduction modes. Possibility of alternating in fixed lighting position. CHRYSALIS offers a Belleville lamp which is normally delivered fitted with the Lum'en Mouv technology.



#### Principle



5

5m

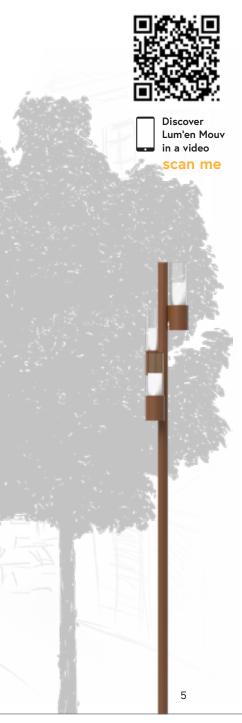
4 m

3 m









## Baïkonour

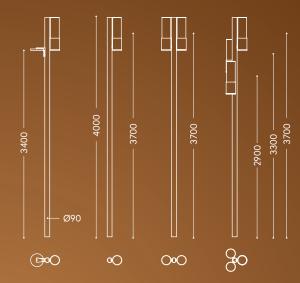
 $4\,m$ 

#### Description

Light set fitted with 1 to 3 Lum'en Mouv mounted on a tubular aluminium pole Ø90mm. Single, double, triple light sets, with or without Lolita compact round 32 for a more targeted and permanent lighting. Allows enjoying the flame effect according to 8 selectable programs. Possibility of alternating in fixed lighting position. Other dimensions on request.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### **Features**



BAÏKONOUR I 305 I









## Cincinatti

#### Description

5 m

4 m

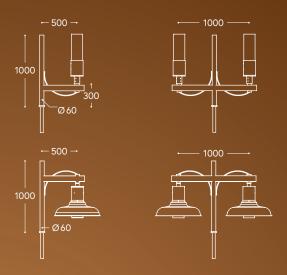
3 m

Aluminium pole top Ø60mm.

500mm outreach. Single and double light sets, top/holded (P) or suspended (S). Compatible pole top Ø60-62mm, Ø76mm, or Ø90mm on request.

Polyester coating finish, RAL or Futura Akzo Nobel colours.

#### Features



	Suspended		Top/Holded		
	1 light	2 lights		1 light	2 lights
EPA (m²)	0.123 m <sup>2</sup>	0.182 m <sup>2</sup>		0.123 m <sup>2</sup>	0.182 m²
Weight (Kg)	4.13 Kg	5.91 Kg		4.13 Kg	5.91 Kg

CINCINATTI I 309 I

nolded, cp top Ø 60 3m • **5** - Cincinatti S, LEM Normandie, cp top Ø 60 4m









# Technical

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THE LOLITA OPTICAL UNITS	p. 318
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- Mounting systems	p. 322
• TEMPO LIGHTS	p. 324
• RÉTRO LIGHTS	p. 326
• LOLITO	p. 328
• VANITY	р. 332
• FLORALYS LIGHTS	p. 334
Lighting and comfort	p. 336
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- Protection sequence	р. 346
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• FLOW TABLE	p. 348
COMBINATIONS TABLE	р. 352
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Mounting the poles	р. 358
Surface treatment	p. 359
Environmental approach	p. 362
Standards and certifications	n 363



# Technologies and advantages of CHRYSALIS LEDs

CHRYSALIS has developed its tailor-made LED solution based on 6 major criteria:

- Optimisation of heat exchanges
- · Optimisation of outward flows
- Choice of colour temperatures
- · Choice of optics
- Functionalities of the drivers
- Comfort
- Additional services

CHRYSALIS has decided to limit the current of the LEDs depending on the number of PCB in order to optimise their service life, limit their heating, and thus reduce their flow over time.

In order to optimise the outward flow of the light, Chrysalis has provided the option of adjusting the number of LED modules depending on the size of the light and calibrate the current of the LEDs between 350 mA (1 W/LED) and 1A (3 W/LED).

### ▼ OPTIMISATION OF OUTWARD FLOW

350 mA	1W/LED
530 mA	1.5 W/LED
700 mA	2W/LED
1A	3W/LED

#### ▼ SERVICE LIFE OF THE LEDs (B10)

for maintaining a flow between 100% and 80% (L80)

350 mA	higher than 100 000 h			
530 mA	higher than 65 000 h			
700 mA	higher than 60 000 h			
1A	higher than 42 000 h			

(The service life of B10 is given for 10% of the disused LEDs)

#### **▼** MAINTENANCE OF THE FLOW

The reduction of the flow of an LED light is very slow when heat dispersion is optimal. The LEDs have a service life longer than 100 000 hours (20 years) which is at least 5 times longer than discharge lamps.

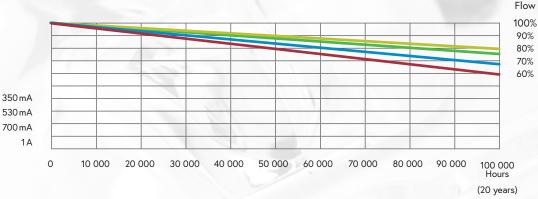
However, the service life of the LEDs shortens quickly when the current is increased. It is thus recommended to choose a suitable current depending on the intended use of the light.

As a comparison, with LOLITA, after 100 000 hours:

- If the LEDs are powered at 350 mA, they retain at least 80% of their flow.
- If the LEDs are powered at 1mA, they retain at least 60% of their flow.

This data is valid for a night-time temperature not exceeding 25°C. In this case, the temperature of the LEDs shall be lower than 85°C and the maximum service life shall be preserved if the chosen current is lower than:

- 1A for 4 to 16 high power LEDs
- 700 mA for 32 high power LEDs
- 600 mA for 48 high power LEDs
- 530 mA for 64 high power LEDs



#### LED

Compact LED, emitting area of 1.5 mm<sup>2</sup> that allows using small sized optics

#### COLOUR TEMPERATURES

Warm whites (2700 and 3000°K) and neutral white (4000°K), other white colours available on request

#### POWER PER LED

350 mA: 1W / 530 mA: 1.5 W 700 mA: 2W / 1A: 3W

#### **COLOUR RENDERING INDEX**

IRC colour rendering index higher than 70

#### COOLING

PCB

Aluminium PCB of thickness 1.5 mm

for perfect heat dispersion

Mass of the light calibrated to absorb temperature variations.

#### **LENSES**

High purity Plexiglass optics for an optical yield higher than 92%

#### **MAXIMUM EFFECTIVENESS**

at 350 mA:

> 120 lm/W (neutral white), > 115 lm/W (warm white)

at 530 mA:

> 110 lm/W (neutral white), > 105 lm/W (warm white)

at 700 mA:

> 100 lm/W (neutral white), > 95 lm/W (warm white)

at 1A:

> 95 lm/W (neutral white), > 90 lm/W (warm white)

#### **▼ LIGHT DEPRECIATION**

At the end of 100000 hours of functioning of the LEDs which are still functioning have theoretically retained 80% of their rated flow (at 350 mA), while a discharge lamp has already lost 20% of its flow at the end of 10000 to 20000 hours.

#### ▼ OPTICAL YIELD

Light distribution through refraction using optics in the form of high purity Plexiglass lens allows the LEDs to have a highly effective yield of 92%. As a comparison, a discharge lamp - reflector combination does not allow achieving a yield higher than 75%.

As regards identical lighting on roads, we thus need to consume less energy in case of a light with LED optics: this results in the energy savings.

#### ▼ LUMINOUS EFFICACY

The luminous efficacy of an LED system is expressed in lm/W is higher than that of traditional discharge lamps, which allows using lower powers for equal flows.

#### ▼ CHOICE OF LENS

The uniformity of the lighting depends on the light distribution. It is clear that the precision of the refraction effects achieved using LED lens is of a superior quality than the light distribution from reflectors used in discharge lamps. Using LED lens thus not only improves photometric performance levels in terms of yield, but also the levels and uniformities of the lighting.

#### **▼** BEHAVIOUR OF THE LEDS

The LEDs are lit to their maximum flow instantly, even in case the outside temperature is extremely low. In case it is switched off, it restarts instantly.

#### **▼** CONTROLLING THE LEDS

There are several technical solutions to install smart control options for the LEDs, which allow offering several services, which are explained in detail on page 342.

#### ▼ SECURITY SEQUENCE -

True 2-level protection loop (connection to the network and optical units), the CHRYSALIS protection sequence combines the all the best protection elements for the security of your installation (p. 346).

### Lum'en Mouv





scan me

#### **▼** PRINCIPLE

LUM'EN MOUV is based on a unique patented cluster of 8 PCB LEDs that allow faithfully reproducing the natural vacillation of a flame.

Without limiting itself to a decorative effect, LUM'EN MOUV achieves the required lighting level in the field of public lighting.

LUM'EN MOUV has a series of 8 pre-programmed animations, of which 3 reproduce wood fires (chimney, brazier, hearth), 3 others reproduc a flame (candle, lanterns, tallow candle), and 2 others imitating soft lights. 1 fixed lighting position which eliminates the vacillation phenomenon is included in every case.

On request, it is possible to create any type of personalised scenario.

The programs are chosen using a switch which can be adjusted on-site or in the factory.

There are 3 different power factors for each of the scenarios, designed for the perfect lumino-technical effect.

However, the higher the power factor, the more the vacillation saturates for the lighting.

In factor 1 consumption is 60 W, in factor 2: 80 W, and in factor 3: 100 W.

#### **▼ PROGRAMS**



The flow and power vary by more or less 20% over the course of a program.

#### Programs 1 and 2:

Candle - Lantern:

"calm" intensity: "low" power



#### Programs 5 and 7:

Crucible - Torch:

"normal" intensity: "medium" power

#### Programs 3/4/6 and 8:

Chimney - Brazier - Hearth - Tallow candle:

"high" intensity: "high" power

#### **▼** APPLICATIONS

Since LUM'EN MOUV operates at an average power of 50 W when functioning (in its successive light on-light off cycles) out of a total capacity of 100 W, and is perfectly suitable for pedestrian zones and historical centres. Recommended installation height: 3 to 6m.

#### ▼ MATERIALS AND FINISH

The LUM'EN MOUV body is made of cast aluminium. The sand blasted methacrylate optical unit diffuser is fitted with a red filter to highlight the colour temperature.

The bowl which accommodates the diffuser and the LED cluster are made of methacrylate. The San Francisco interface is made of cast aluminium. LUM'EN MOUV may be optionally fitted with an additional flow recuperator made of anodised aluminium, for an increased flame effect. Polyester coating finish, choice of RAL or Futura Akzo Nobel colours.

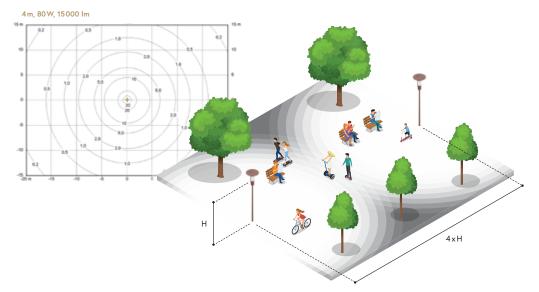
## **▼** DIMENSIONS -Ø600-Top/Holded 860 San Francisco 730 Coblence Ø160

400

Simplified

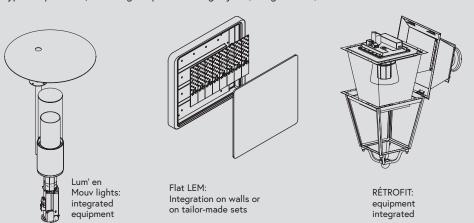
700

#### **▼ PHOTOMETRIC DISTRIBUTION**



#### **▼** POSSIBILITIES

The Lum'en Mouv technology is now available in 3 formats: column (Lum'en Mouv lights), flat (Manhattan, King's Cross) or RÉTROFIT. These very different formats allow improved integration in various types of products, including lamps of existing styles (being studied).



#### **▼** FEATURES

	Lum'en Mouv
Colour temperature	warm white 2700°K (WW)
Colour rendering index	IRC > 70
Outward flow	5 000-20 000 lm (4000 K)
Power (system)	60 to 100 W
Effectiveness (system)	average of 70 lm/W
Service life (L80B10)	50 000 hours
Optics	Sand blasted or structured LUM'EN MOUV diffuser
Materials	Bowl: methacrylate Body: cast aluminium
Operating temperature	-20°C < Ta < 35°C
Class	Class II
Colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours
Waterproofing	IP66
Resistance	IK 08 (methacrylate)
Protection	10 KV lightning arrester and surge arrester (standard), varistor

# LOLITA optical units



















Driver at the base of the pole

**Thermical** 

protection

Lighting arrester 10 KV

Electrostatic protection

Varistor

Tamperproof sealed optic

Class II

High power LEDs IP66

IK 08 or IK 10

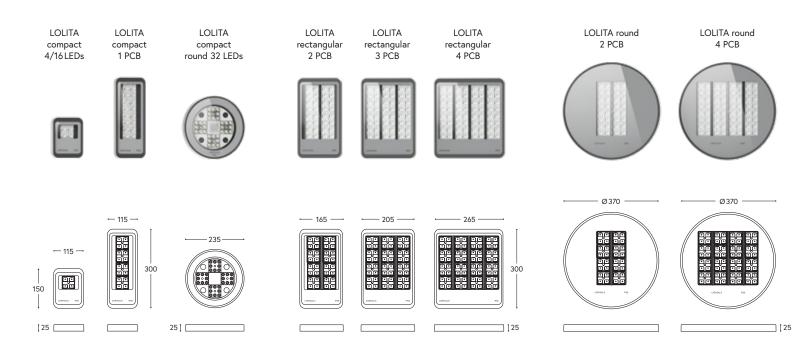
Medium power LEDs

IRC > 70

Body cast aluminium Pre-wired delivered

Service life 100 000 h Up to 19 800 lm

#### **▼** DIMENSIONS



#### **▼ INSTALLATION AND MAINTENANCE**

LOLITA is delivered sealed, pre-wired, and assembled on its mounting support. There is no maintenance requirement for the internal parts of the optical unit. The equipment is movable to the base to simplify maintenance problems without using a flying scaffold.

Each LOLITA optical unit integrates the following elements of the protection sequence: a systematic P82 thermal sensor that lowers the flow to 10% in case of overheating, and an ESP which is a protection system against electro-static discharges.

#### **▼** COMPONENTS

Plexiglass optical lens, V-shaped device for glare reduction, monobloc body, brass wire gland, aluminium PCB, pressed flat glass bowl IK08, or polycarbonate IK10, high opacity screen printing, HO7 RN-F flexible wire.

#### **▼** MATERIALS AND FINISHES

Injected cast aluminium monobloc body, polyester coating finish, choice of RAL or Futura Akzo Nobel colours.

Flat glass LOLITA bowl, thermally toughened (VLV-IK08), polycarbonate (VLP-IK10) or methacrylate (VLL, VLC and VLD-IK06).

### Generals features

						_
Medium power LEDs	Compact 16 LEDs	Compact 64 LEDs	Compact round 128 LEDs	2 PCB 128 LEDs	3 PCB 192 LEDs	4 PCB 256 LEDs
Colour temperature	Neutral white 4000 K (NW), warm white 3000 K (WW)	Neutral white 4000 K (NW), warm white 3000 K (WW)	Neutral white 4000 K (NW), warm white 3000 K (WW)	Neutral white 4000 K (NW), warm white 3000 K (WW)	Neutral white 4000 K (NW), warm white 3000 K (WW)	Neutral white 4000 K (NW), warm white 3000 K (WW)
Colour rendering index	IRC > 70					
LEDs flow	4000 k: from 740 to 1230 lm 3000 k: from 680 to 1135 lm	4000 k: from 2960 to 4950 lm 3000 k: from 2730 to 4570 lm	4000 k: from 5920 to 9900 lm 3000 k: from 5460 to 9135 lm	4000 k: from 5920 to 9900 lm 3000 k: from 5460 to 9135 lm	4000 k: from 8875 to 14850 lm 3000 k: from 8190 to 13710 lm	4000 k: from 11035 to 18940 lm (19800)* 3000 k: from 10920 to 18080 lm (18880)*
Outward flow	4000 k: from 630 to 1045 lm 3000 k: from 578 to 965 lm	4000 k: from 2516 to 4208 lm 3000 k: from 2320 to 3885 lm	4000 k: from 5032 to 8415 lm 3000 k: from 4641 to 7765 lm	4000 k: from 5032 to 8415 lm 3000 k: from 4641 to 7765 lm	4000 k: from 7545 to 12622 lm 3000 k: from 6962 to 11654 lm	4000 k: from 9380 to 16100 lm (16830)* 3000 k: from 9282 to 15368 lm (16030)*
Power (system)	from 6 to 9 W	from 18 to 36 W	from 35 to 70 W	from 35 to 70 W	from 52 to 100 W	from 70 to 115 W (130 W)*
Effectiveness (system)	up to 120 lm/W	up to 140 lm/W	up to 144 lm/W	up to 144 lm/W	up to 145 lm/W	up to 135 lm/W
Service life (L80B10)	74 000 hours (350 mA) 50 000 hours (530 mA)	74 000 hours (350 mA) 50 000 hours (530 mA)	74 000 hours (350 mA) 50 000 hours (530 mA)	74 000 hours (350 mA) 50 000 hours (530 mA)	74 000 hours (350 mA) 50 000 hours (530 mA)	74 000 hours (350 mA) 50 000 hours (530 mA)
Optics	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)
Materials	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbonate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium
Operating temperature	-20°C < Ta < 35°C					
Current	350, 450, 530, 600, 700 mA	350, 450, 530, 600, 700 mA*				
Class	Class II					
Colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours
Waterproofness	IP66	IP66	IP66	IP66	IP66	IP66
Resistance	IK 08 (glass), IK10 (polycarbonate)					
Protection	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor
EPA / Weight	0.004 m <sup>2</sup> / 1.17 Kg	0.008 m <sup>2</sup> / 1.75 Kg	0.007 m <sup>2</sup> / 2.6 Kg	Rectangular: 0.008 m²/2.5 Kg Round: 0.009 m²/5.6 Kg	0.008 m <sup>2</sup> / 3.7 Kg	Rectangular: 0.008 m²/5 Kg Round: 0.009 m²/5.6 Kg

High power LEDs	Compact 4 LEDs	Compact 16 LEDs	Compact round 32 LEDs	2 PCB 32 LEDs	3 PCB 48 LEDs	4 PCB 64 LEDs
Colour temperature	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)	Neutral white 4000 K (NW), warm white 3000 K, 2700 K, 2400 K (WW)
Colour rendering index	IRC > 70	IRC > 70	IRC > 70	IRC > 70	IRC > 70	IRC > 70
LEDs flow	4000 k: from 650 to 1500 lm 3000 k: from 610 to 1430 lm 2700 k: from 520 to 1200 lm 2400 k: from 415 to 960 lm	4000 k: from 2600 to 6000 lm 3000 k: from 2450 to 5730 lm 2700 k: from 2080 to 4800 lm 2400 k: from 1665 to 3840 lm	4000 k: from 5200 to 8700 lm 3000 k: from 4900 to 8200 lm 2700 k: from 4160 to 6960 lm 2400 k: from 3330 to 5570 lm	4000 k: from 5200 to 8700 lm 3000 k: from 4900 to 8200 lm 2700 k: from 4160 to 6960 lm 2400 k: from 3330 to 5570 lm	4000 k: from 7800 to 11450 lm (13050)* 3000 k: from 7350 to 11000 lm (12300)* 2700 k: from 6240 to 9160 lm (10440)* 2400 k: from 4990 to 7330 lm (8355)*	4000 k: from 10400 to 14800 lm (15880)* 3000 k: from 9800 to 14000 lm (15200)* 2700 k: from 8320 to 11840 lm (12580)* 2400 k: from 6655 to 9520 lm (10520)*
Outward flow	4000 k: from 550 to 1275 lm 3000 k: from 520 to 1220 lm 2700 k: from 440 to 1020 lm 2400 k: from 352 to 816 lm	4000 k: from 2210 to 5100 lm 3000 k: from 2083 to 4871 lm 2700 k: from 1768 to 4080 lm 2400 k: from 1415 to 3265 lm	4000 k: from 4420 to 7395 lm 3000 k: from 4165 to 6970 lm 2700 k: from 3536 to 5916 lm 2400 k: from 2830 to 4735 lm	4000 k: from 4420 to 7395 lm 3000 k: from 4165 to 6970 lm 2700 k: from 3536 to 5916 lm 2400 k: from 2830 to 4735 lm	4000 k: from 6630 to 9733 lm (11200)* 3000 k: from 6248 to 9350 lm (10455)* 2700 k: from 5304 to 7786 lm (8875)* 2400 k: from 4242 to 6230 lm (7100)*	4000 k: from 8840 to 12580 lm (13500)* 3000 k: from 8330 to 11900 lm (12920)* 2700 k: from 7072 to 10064 lm (10780)* 2400 k: from 5656 to 8092 lm (8940)*
Power (system)	from 6 to 13 W	from 18 to 51 W	from 35 to 70 W	from 35 to 70 W	from 52 to 85W (100W)*	from 70 to 105W (118W)*
Effectiveness (system)	up to 105 lm/W	up to 123 lm/W	up to 126 lm/W	up to 126 lm/W	up to 127 lm/W	up to 126 lm/W
Service life (L80B10)	100 000 hours (350 mA) 76 000 hours (530 mA)	100 000 hours (350 mA) 76 000 hours (530 mA)	100 000 hours (350 mA) 76 000 hours (530 mA)	100 000 hours (350 mA) 76 000 hours (530 mA)	100 000 hours (350 mA) 76 000 hours (530 mA)	100 000 hours (350 mA) 76 000 hours (530 mA)
Optics	R (roadway) - SU (semi-urban) - U (urban) - I (intensive) - E (extensive) - ZT/ZG/ ZD (pedestrians) - S (symmetrical) - P (square) - PCY (cycle tracks)	R (roadway) - SU (semi-urban) - U (urban) - I (intensive) - E (extensive) - ZT/ZG/ ZD (pedestrians) - S (symmetrical) - P (square) - PCY (cycle tracks)	R (roadway) - SU (semi-urban) U (urban) - I (intensive) E (extensive) - S (symmertical)	R (roadway) - SU (semi-urban) - U (urban) - I (intensive) - E (extensive) - ZT/ZG/ ZD (pedestrians) - S (symmetrical) - P (square) - PCY (cycle tracks)	R (roadway) - SU (semi-urban) - U (urban) - I (intensive) - E (extensive) - ZT/ZG/ ZD (pedestrians) - S (symmetrical) - P (square) - PCY (cycle tracks)	R (roadway) - SU (semi-urban) - U (urban) - I (intensive) - E (extensive) - ZT/ZG/ ZD (pedestrians) - S (symmetrical) - P (square) - PCY (cycle tracks)
Materials	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium	Bowl: pressed glass or polycarbo- nate / Body: injected aluminium
Operating temperature	-20°C < Ta < 35°C	-20°C < Ta < 35°C	-20°C < Ta < 35°C	-20°C < Ta < 35°C	-20°C < Ta < 35°C	-20°C < Ta < 35°C
Current	350, 450, 530, 600, 700, 800, 900 mA, 1A	350, 450, 530, 600, 700, 800, 900 mA, 1A	350, 450, 530, 600, 700 mA	350, 450, 530, 600, 700 mA	350, 450, 530, 600, 700 mA*	350, 450, 530, 600 mA*
Class	Class II	Class II	Class II	Class II	Class II	Class II
Colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours	Powder coated polyester body, choice of RAL or Futura Akzo Nobel colours
Waterproofness	IP66	IP66	IP66	IP66	IP66	IP66
Resistance	IK 08 (glass), IK10 (polycarbonate)	IK 08 (glass), IK10 (polycarbonate)	IK 08 (glass), IK10 (polycarbonate)	IK 08 (glass), IK10 (polycarbonate)	IK 08 (glass), IK10 (polycarbonate)	IK 08 (glass), IK10 (polycarbonate)
Protection	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor	lightning arresters and surge arres- ter 10 KV (standard), electro-static protection, thermal protection, varistor
EPA / Weight	0.004 m <sup>2</sup> / 1.17 Kg	0.008 m <sup>2</sup> / 1.75 Kg	0.007 m <sup>2</sup> / 2.6 Kg	Rectangular: 0.008 m²/2.5 Kg Round: 0.009 m²/5.6 Kg	0.008 m <sup>2</sup> / 3.7 Kg	Rectangular: 0.008 m²/5 Kg Round: 0.009 m²/5.6 Kg



### Mounting systems

#### **▼** TECHNO MOUNTINGS

The Techno mountings sets form a major part of the Lolita brackets-optical units sets. They allow an infinite number of combinations, and encourage a disciplined and qualitative approach.

#### **TECHNO ROTULE**



Compatible with all Lolita lights. Mounting at the end of the tube  $\emptyset$ 60mm, on the light using M5 screws. Orientation using a M8 screw and a nut, can be changed in steps of 5°.

#### **TECHNO TOP 60**



Compatible with all Lolita lights. 4-point mounting on Top 60-62. Inclination fixed at 0°.

#### **TECHNO LYRE & LYRE DIRECT**



Compatible with all Lolita lights. Mounting on a wall or on a 1-point direct rectangular pole, on conical pole using a satellite adapter. Mounting on the light using M5 screws. Orientation in steps of 5°.

#### TECHNO SUSPENDED CATENARY



The Techno catenary, which can be freely rotated on 2 axes, allows overcoming all restrictions of installation on the ground.

#### **TECHNO APPLIQUE**



Compatible with all Lolita lights. 2-point wall mounting, on a pole using M6 screws, on the light using M5 screws. Inclination fixed at 0°.

#### **TECHNO D60**



Compatible with all Lolita models. Mounting at the end of the tube Ø60mm. Mounting on the light using M5 screws. Inclination using the bracket. Welded mounting on an aluminium bracket and screwed on a steel bracket, Ø60 thickness 3mm.

#### **▼** STANDARD MOUNTINGS

These mountings are the most direct ones used for installing the Déco collection, as well as the TEMPO and RÉTRO lights.

#### **DIRECT MOUNTING**



Compatible with all Lolita lights. Mounting of the light on the bracket or a dedicated support without an intermediate interface part, using M5 screws. Number and layout variable depending on the type of lights and support.

#### **TOP MOUNTING 34 PDG**



Light pre-fitted with a brass sleeve  $\emptyset$ 34pdg (1"G) for a top mounting.

#### **▼** AS A SECONDARY LIGHT

All the TECHNO mounting parts may be used as secondary lights to light a pedestrian track, a pavement, or a path.

Techno Applique + Lolita optical unit

Techno Lyre direct + AS adapter + Lolita optical unit

> Techno Lyre + AS adapter + Lolita optical unit

Étoile mounting + Techno Rotule + Lolita optical unit

Étoile mounting + Techno D60 + Lolita optical unit

Multi-Function support + Techno D60 + Lolita optical unit

#### **▼** WALL MOUNTING

The wall mounting of the LOLITA collections share the technical case with the IP66 zone of LOLITO. The driver and electrical components are accessed from the front surface, after rotating the 2 captive screws a quarter turn. 3-point mounting from the interior of the case (outside the IP66 zone) and the interface.

All the brackets of the LOLITA 2019 collections are available as wall mounting, only the dimensions of the front surface which houses the service case change.



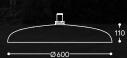
### Tempo lights





#### **▼** DIMENSIONS

Bleuet



Bouton d'or



Primevère



Camélia & Camélia compact





Edelweiss & Edelweiss compact





#### ▼ INSTALLATION AND MAINTENANCE

The Tempo lights are delivered pre-wired. There is no maintenance requirement for the internal parts of the optical unit. The equipment is movable to the base of the pole for better ease of intervention.

The Tempo lights can only be mounted on pole tops (S). The light is pre-fitted with a brass sleeve  $\emptyset$ 34 pdg (1"G). The final position of the lens is blocked by the counter-nut.

#### **▼** MATERIALS AND FINISHES

Upper canopy made of repulsed aluminium.

Circular brace made of cast aluminium.

LOLITA monobloc optical unit made of injected cast aluminium.

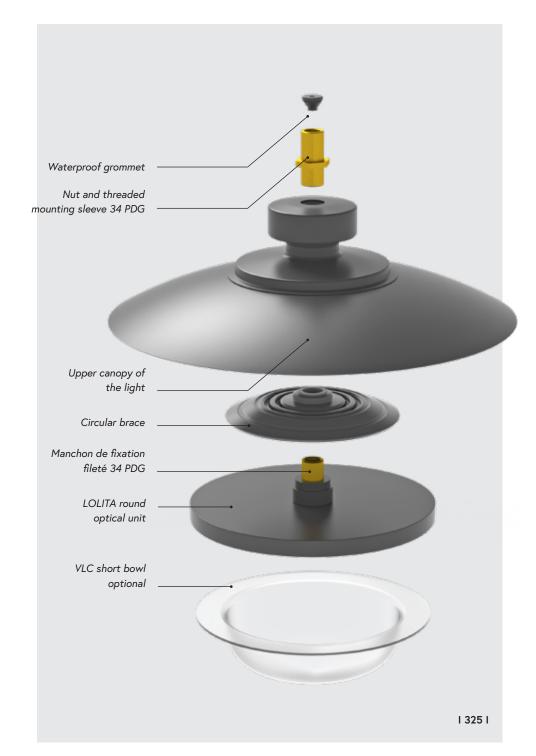
Polyester coating finish, choice of RAL or Futura Akzo Nobel colours.

Flat glass LOLITA bowl, thermally toughened (VLV-IK08), polycarbonate (VLP-IK10) or methacrylate (VLL, VLC and VLD-IK06).

#### **▼** ACCESSORIES

Short bowls VLC and Half bowl VLD made of methacrylate, clear or opal finish.

Short bowl (VLC)	Half bowl (VLD)
Ø355	→ Ø355 →
1000	55





#### **▼ INSTALLATION AND MAINTENANCE**

The Rétro lights are delivered pre-wired. There is no maintenance requirement for the internal parts of the optical unit. The equipment is movable to the base of the pole for better ease of intervention.

The Rétro lights are distributed between suspended mounting (s) and top/holded on a dedicated lyre (P).

- Rétro suspended (S): light pre-fitted with a brass sleeve Ø34 pdg (1"G) for top mounting (mounting Ø27 pdg optional). The final position of the lens is blocked by the counter-nut.
- Rétro top/holded (P): light pre-assembled on a dedicated lyre, mounted using press fitting on a pole Ø60-62 mm and blocked using 6 counter blocking screws, only available for Rétro lights with a round optical unit, excluding Médicis and Eugénie.

#### ▼ MATERIALS AND FINISH

The body of LOLITA is monobloc and made of injected cast aluminium.

The Rétro functional disks are made of aluminium sheet. The Rétro dome are made of repulsed aluminium.

The decorative uprights and top/holded lyres are made of aluminium profile.

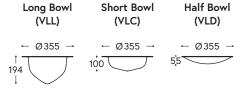
Polyester coating finish, choice of RAL or Futura Akzo Nobel colours.

Pressed flat glass LOLITA bowl, thermally toughened (VLV-IK 08), or polycarbonate (VLP-IK 10).

LOLITA long bowls (VLL), short bowls (VLC) and half bowls (VLD) made of methacrylate, clear or opal finish.

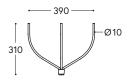
#### **▼** ACCESSORIES

Long bowls (VLL), short bowls (VLC) and half bowls (VLD) made of methacrylate, clear or opal finish.



Decorative uprights, for suspended RÉTRO lights with round optical unit (excluding Eugénie and Henri IV).

#### Decorative uprights



Top/holded lyres with 2 or 4 arms, for RÉTRO lights with round optical unit (excluding Médicis and Eugénie).



## Lolito



The LOLITO sets are distributed between the spigot mountings (AV/AR/EX) and mounting (wall or pole). They both require limited and simplified maintenance simply by opening the canopy which is locked using 2 quarter turn captive screws.

#### • LOLITO CONCRETE, WOOD, CONICAL OR TUBULAR POLES:

Service case fixed using 3 screws to an aluminium sheet, fitted with 4 pass-throughs for suspension using straps and 2 holes for standard mounting using rods, fixing centres 210mm.

#### • LOLITO AV/AR/EX:

Light pre-fitted with a moulded aluminium mounting spigot for pole or bracket Ø42, 49 or 60mm. The mounting spigot is fitted with a wire gland to ensure the passage of the power wire and its waterproofing.

Tightening the mounting spigot using 6 HC M6 x 8 screws. Connection to the base terminal blocks after the wire is passed through the wire gland included in the mounting spigot. The maintenance is carried out from the bottom for the AV version, and from the top for the AR and EX versions.

#### LOLITO WALL MOUNTING:

Direct mounting on the wall support at 3 points through the box. 3 oblong holes outside the IP66 zone of the service case that allows fine-tuning the vertical adjustments during the tightening.

After mounting of the Lolito set, the Lolita optical unit can be freely rotated via the 2 adjustment screws included at each end of the joint.

#### **▼** MATERIALS AND FINISHES

The service case, its canopy, and the dedicated joint of the optical unit are made of cast aluminium.

The interface plates for concrete poles are made of galvanised steel sheets.

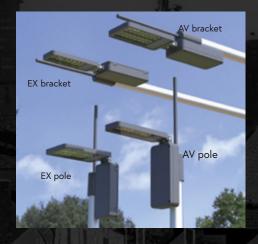
Polyester coating finish, choice of RAL or Futura Akzo Nobel colours.





#### **▼** ACCESSORIES

Depending on the combinations, LOLITO can also be fitted with a decorative antenna. The Lolita optical units can be optionally fitted with additional bodyworks, which are available in standard or tailor-made shapes.

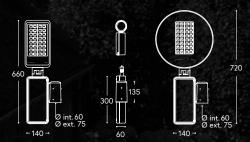




#### LOLITO/DÉCO ANTENNA compatibility table

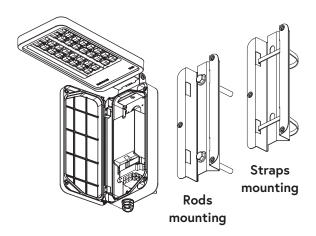
	compact 1 PCB	compact 32 LEDs	rectangular 2 PCB	rectangular 3 PCB	rectangular 4 PCB	round 2 PCB	round 4 PCB
AV pole	8	$\otimes$	8	8	8	$\otimes$	8
AR pole	-	=	-	-	=	=	-
EX pole	8	-	Ø	-	-	-	-
THE REAL PROPERTY.		2 181					
AV bracket	$\otimes$	8	$\otimes$	$\otimes$	$ $ $\otimes$	$\otimes$	$\otimes$
AR bracket	-	=	-	-	=	=	-
EX bracket	8	-	Ø	-	-	-	-

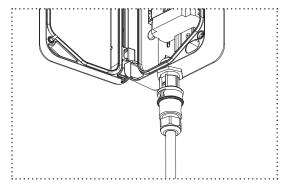
#### **▼** DIMENSIONS





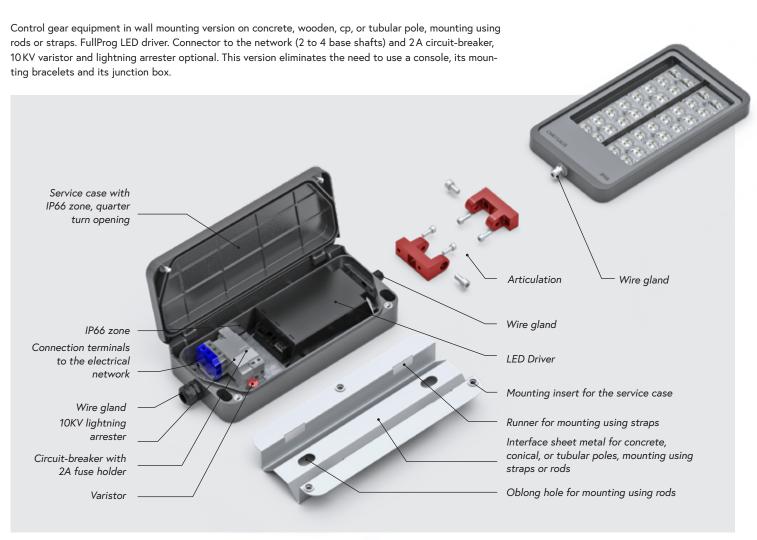
## On concrete, wood, Conical or tubular poles



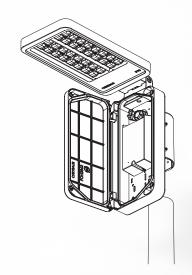


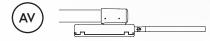
#### Quick-release connector optional

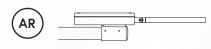
- WIELAND RST20i2 male base reference 96.022.5053.1 attached to the service case
- WIELAND RST20i2 female connector reference 96.021.4053.1 which can be unclipped using a tool (flat screwdriver of width 3.5mm)
- 2 pole sector wire Phase + neutral conductor of a maximum section of 4mm<sup>2</sup>

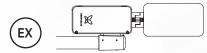


## On the top and end of the bracket





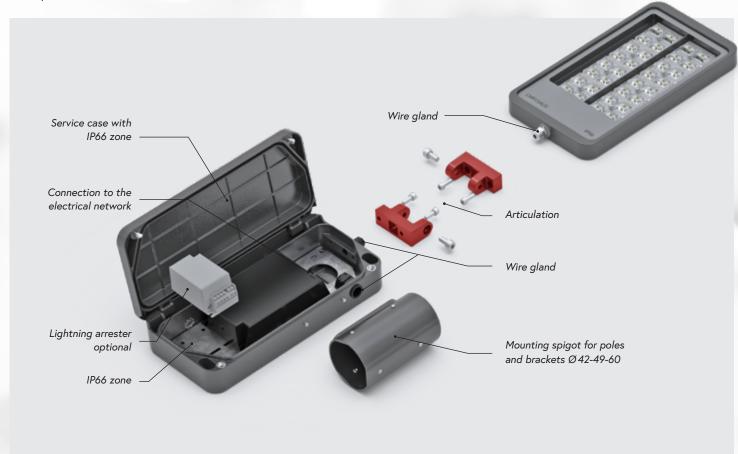




#### SmartCity optional

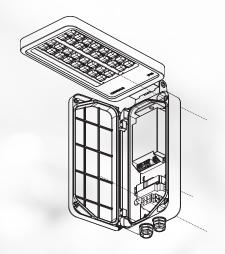
The Lolito EX bracket and AR bracket solutions are capable of accommodating important communication and geo-location accessories of the CityTouch range.

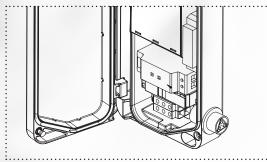
Dedicated control gear equipment for mounting using the sleeve intended for pole tops or bracket cap. Mounting and adjustment of the mounting spigot using 6 screws. Xtreme SPD lightning arresters optional. Can be optionally fitted with a quick release connector, or an illuminated plug with 30 mA protection.





## Wall mounting





#### Optional illumination kit

- WIELAND RST20i3 female base reference 96.031.5053.1
- With a WIELAND closing cap and holding wire reference 99.414.6205.2
- Protection of the optics and tinsel using a 30 mA DDA protection system reference IDIL10

Specific control gear equipment intended for direct wall mounting. No interface part, mounting on the support after opening using 3 points outside the IP66 zone. 2 wire glands for input and output of the electrical network. Xtreme SPD lightning arresters optional.



## Vanity ▼ DIMENSIONS Vanity Bracket (C) 1560 <u>• ) • </u> 780 415 100 Ø80 Vanity Direct (D) Ø62 max I 332 I



#### **▼ INSTALLATION AND MAINTENANCE -**

Vanity is delivered pre-wired. There is no maintenance requirement for the internal parts of the optical unit. The equipment is movable in the cast aluminium Vanity body in an IP66 zone.

Vanity is compatible with 2 types of equipment: 1 or 2 direct mounting optical units (D), and 1 or 2 brackets (C) of the collection Déco (Napoli, Reggiano, Modena, Oviedo). 2 gaskets which ensure perfect protection of the onboard equipment.

- Vanity Direct (D): pre-machined optical unit for lateral mounting, anchored in the carrier halfshell. Access to the driver after unlocking the upper canopy. Mounting at the pole top Ø60-62 using counter blocking screws, penetration 100mm.
- Vanity Bracket (C): pre-machined bracket for lateral mounting, anchored in the carrier half-shell
  (2 CHC M8 screws). Access to the driver after unlocking the upper canopy. Mounting at the pole top Ø 60-62 using counter blocking screws, penetration 100mm.

#### **▼** MATERIALS AND FINISH —

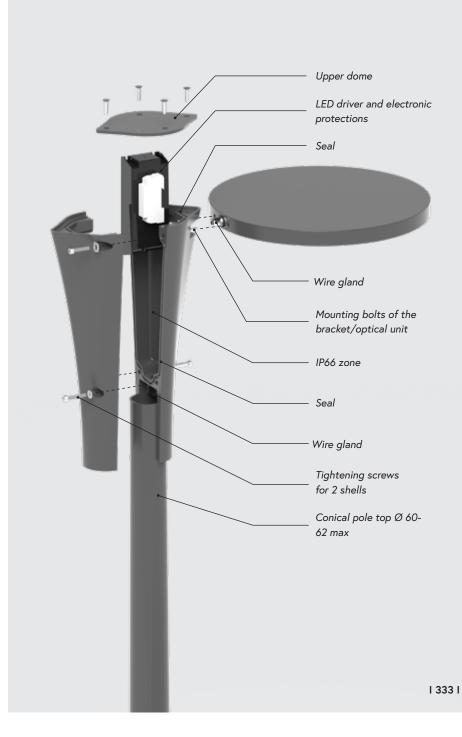
The IP66 upper closing dome and the 2 IP66 Vanity half-shells are made of cast aluminium.

The body of LOLITA is monobloc and made of injected cast aluminium.

The brackets of the Déco collection are made of cast aluminium.

Polyester coating finish, choice of RAL or Futura Akzo Nobel colours.

Pressed flat glass LOLITA bowl, thermally toughened (VLV-IK 08), or polycarbonate (VLP-IK 10).



## Floralys lights





#### **▼** DIMENSIONS

#### **BOUTON D'OR**





**LM** Lolita round 2 or 4 PCB

MM Lolita compact round 32 LEDs



Lolita compact round 32 LEDs

#### **COQUELICOT STYLE**



Ø900 --- -- -- Ø0



LM Lolita round 2 or 4 PCB



MM Lolita compact round 32 LEDs



−Ø570 −



SM Lolita compact round 32 LEDs

#### **COQUELICOT SAUVAGE**





LM Lolita round 2 or 4 PCB



MM Lolita compact round 32 LEDs



SM Lolita compact round 32 LEDs

#### PRIMEVÈRE





LM Lolita round 2 or 4 PCB



MM Lolita compact round 32 LEDs



-- Ø 560 --



SM Lolita compact round 32 LEDs

#### **▼ INSTALLATION AND MAINTENANCE -**

The FLORALYS lights are delivered mounted and pre-wired. There is no maintenance requirement for the internal parts of the optical unit. The equipment is movable to the base of the pole for better ease of intervention. The addition of an interface sheet and a set of aluminium petals increasing the mass of the light, Floralys offers an increased service life of LEDs, thanks to an increased cooling surface area. Petals and interface sheets are mounted in integrated aluminium studs on the body of the LOLITA optical unit.

The FLORALYS lights are distributed between suspended mounting (s) and top/holded on a dedicated lyre (P).

- Floralys suspended (S): light pre-fitted with a brass sleeve Ø34pdg (1"G) for top mounting (mounting Ø27pdg optional). The final position of the lens is blocked by the counter-nut.
- Floralys top/holded (P): light pre-assembled on a dedicated lyre on an interface sheet using 4 FHC screws, mounted using a tenon on a pole Ø60-62mm and blocked using 6 counter blocking screws.

#### **▼** MATERIALS AND FINISH

The body of LOLITA is monobloc and made of injected cast aluminium.

The interface sheet metal and the petals that constitute the corolla are made of aluminium sheet. The Rétro dome are made of repulsed aluminium.

The optional flow recuperator is made of repulsed aluminium.

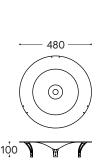
The mounting lugs of the flow recuperator are made of stainless steel.

Polyester coating finish, RAL shades depend on the model.

Pressed flat glass LOLITA bowl, thermally toughened (VLV-IK 08), or polycarbonate (VLP-IK 10).

#### **▼** ACCESSORIES

Flow recuperator



2000 ou 1500 ou 1200 du 400 -315-

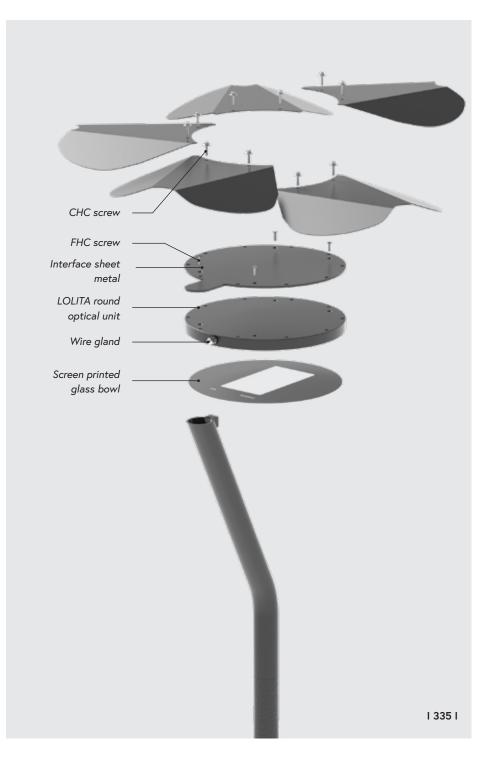
Pole foliage

The suspended versions (S) may be accompanied by a flow recuperator that allows retro-lighting in order to enhance the petals for lumino-technical decoration.

The straight or inclined conical poles also have an option of one or several folded aluminium leaves, fixed using a satellite adapter. 3 heights available.

#### **▼** FINISHES TABLE —

	Primevère	Bouton d'or	Coquelicot Style	Coquelicot Sauvage
foliage pole and bracket	RAL 6002	RAL 6002	RAL 6002	RAL 6002
Optical unit	RAL 1021	RAL 1021	RAL 9011	RAL 9011
Petals	RAL 3004	RAL 1021	RAL 3001	RAL 3001
External Petals	-	-	RAL 3002	-

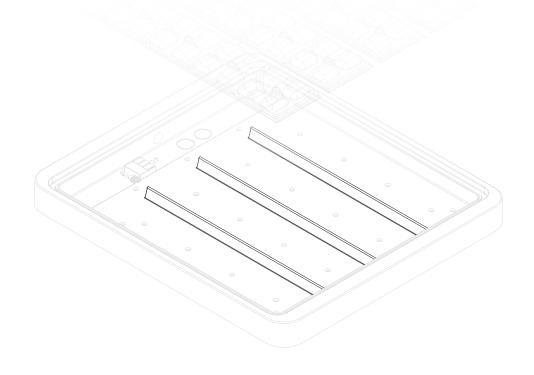


# Lighting and comfort

#### **▼** ANTI-GLARE

LOLITA has the place of honour among leading technologies and integrates a plethora of tricks intended to improve the ease of use for users.

The "Vs" integrated in LOLITA as well as the position of the high opacity screen printing contribute to a major reduction of the discomfort zones caused by glare. These aluminium "Vs" are directly integrated in the cast aluminium. Combined with the screen printing which is located as close as possible to the LED, the glare is strongly reduced without affecting the performance of the optics.











# Optics and photometry

#### ▼ CHOICE OF COLOURS

3 shades of white LEDs are available:

- Neutral white (NW): the colour temperature is  $4000^{\circ} \text{K}$ .
- Warm white (WW): the colour temperature is 3000°K.
- Ultra warm white (WW): the colour temperature is 2700°K or 2400°K

The 3000°K warm white is offered as standard. It is generally used for road lighting solutions. The 2700°K or 2400°K ultra-warm white is generally reserved for ambiance lighting and pedestrian lighting.

In pedestrian zones, blue, green, yellow, or red LEDs can be installed to differentiate between pedestrian lighting and road lighting, which improves the guidance phenomenon.

#### **▼** IMPORTANT NOTE

All the LED lens can be combined through juxtaposition, which allows optimising the light distribution, regardless of the installation.

A specific lighting study shall allow determining the best optics for each project.

#### **▼** CHOICE OF LENSES

The light distribution may be optimised thanks to 3 road optics (R, SU, U) which can be combined among themselves, 3 pedestrian optics (ZG, ZT and ZD), 2 "projector" optics (I and E), and 3 optics for specific applications (S, P and PCY).

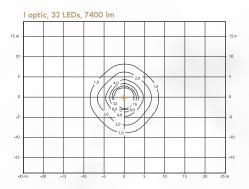
This allows us to adapt to all lighting situations. The lighting projects designed on a special software allow obtaining exceptional uniformities while ensuring compliance with the EN 13201 standard.

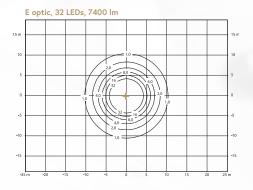
#### **▼** PHOTOMETRY

The intensity curves are measured for a light at 0°. All the photometric curves are available on request.

The lighting curves are measured for a light with its neutral white LEDs powered by a 530 mA current. The light is installed at a height of 6 m.

#### ▼ ARCHITECTURAL OPTICS FOR ILLUMINATION

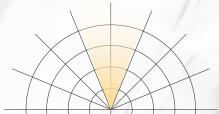




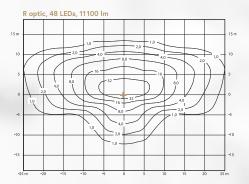
The symmetrical narrow beam lens I (14° opening), for regular and targeted lighting on the horizontal or vertical planes.



The symmetrical wide beam **lens E** (40° opening), recommended for soft and regular light on the horizontal or vertical planes.

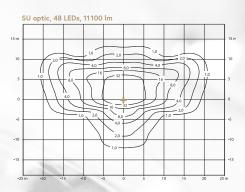


#### **▼** OPTICS FOR HIGHWAYS

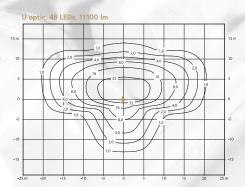


The "R" roadways optic allows spacing up to 4.5xh (light height), for a mounting height equal to the width of the pavement: W=h.

This optic is perfectly suited for road lighting (Highway, fast lanes, national roads, departmental roads, town crossings, industrial zones, business zones, etc.)



The "SU" semi-urban optic allows lighting even the widest roads with a mounting height lower than the width of the road. The recommended spacing is 4xh for a road width of 1.2xh. This optic is suitable for lighting of alleys, avenues, roads in the town-centre, shopping streets, etc.

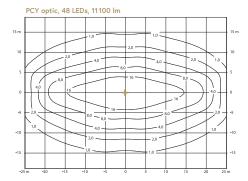


The "U" urban optic allows lighting even the widest avenues. It is suitable for lighting Boulevards, squares, parkings, roundabouts, pedestrian zones, etc. The recommended spacing is 3.5 xh for a road width equal to 1.5 xh. This optic allows reducing the mounting height.



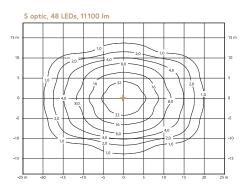
#### **▼** OPTICS FOR SPECIFIC APPLICATIONS

(P and PCY optics only available for high power LEDs)



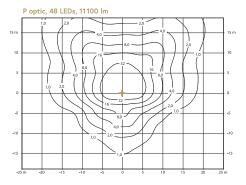
The "PCY" optics for Cycling tracks allow spacing up to  $6\times H$  (mounting height), for a recommended mounting height of  $4\,m$ .

This optic provides perfect lighting for the dimensions of a cycling track (up to 3m wide).



The "S" Symmetrical optics allow spacing up to 3xH (mounting height), for a recommended mounting height of 4 to 6m.

This optic is ideal in case of pedestrian lighting on overhead lines.



The "P" Square optics allow spacing up to 3xH (mounting height), for a recommended mounting height of 6 to 8m.

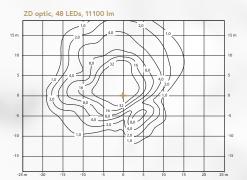
The lighting width is equal to  $2 \times H$  (H = mounting height).

This optic is particularly suitable for lighting squares, parkings, etc.

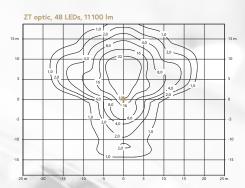


#### **▼ PEDESTRIAN CROSSING OPTICS**

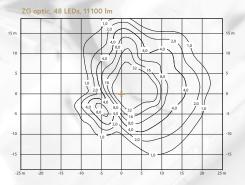
(Only available for high power LEDs) -



The "ZD" optic for optimised asymmetrical light distribution for a pole located on the right of a pedestrian crossing.



The "ZT" optic for optimised symmetrical light distribution for a pole located in the centre of a pedestrian crossing.



The "ZG" optic for optimised asymmetrical light distribution for a pole located on the left of a pedestrian crossing.



# Driver, gradation and energy savings

#### **▼ ENERGY SAVINGS; STANDARD SOLUTIONS**

#### • Reduction associated with the mains voltage (DV):

The reduction of the LED flows follows the drop in the supply voltage of the network. The reduction occurs as per this table:

Network voltage	Flow
220-240 V	100%
200 V	80%
180 V	60%
160 V	40%

The voltage must be regulated from the technical cabinets located at the beginning of the line. The lowering of the voltage is triggered by an external clock.

This solution does not require an additional wire (a phase conductor and a neutral conductor are sufficient).

#### • Lowering using a command line (CL):

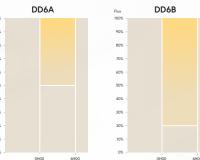
Using an external clock, a 230V signal is sent to lower the minimum power on the entire line. The flow reduction programmed in the factory is 50%. This allows achieving energy savings by adjusting the time using the external clock located in a cabinet.

This solution requires a 3-conductor wire: 2 for the sector (phase and neutral conductor) and a 3rd used for controlling the lowering at 230 V.

#### • Self-guided point-to-point lowering (DD):

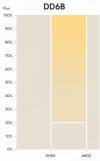
This solution is regulated in the factory, and allows lowering the light at night-time, at the same time when the traffic flow is lowered. The point-to-point self-quided lowering does not require an additional wire (a phase conductor and a neutral conductor are sufficient).

#### 4 lowering programs are available:



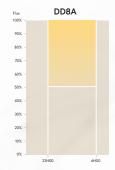
Before midnight: source flow at 100% Between midniaht and 6h: flow lowered by 50%

From 6h: flow at 100%

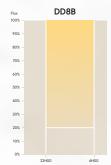


Before midnight: source flow at 100% Between midnight and 6h: flow lowered by 80%

From 6h: flow at 100%



Before 22h: source flow at 100% Between 22h and 6h: flow lowered by 50% From 6h: flow at 100%



Before 22h: source flow at 100% Between 22h and 6h: flow lowered by 80% From 6h: flow at 100%

#### Energy savings achieved in KW/H:

DD6A	25%
DD6B	40%
DD8A	30%
DD8B	50%

The LED drivers chosen by Chrysalis to power the Lolita solutions are Xitanium FullProg Philips 300 mA/1A Drivers.

These resin-bonded class II smart drivers are available with lighting management solutions, which are programmed on our premises.

#### Operational limits:

The Philips FullProg drivers are intended to function on an alternating current voltage between 210 V and 250 V. The network frequency must be between 50 and 60 Hz.

#### · Choice of current for the LEDs:

The operating current of the LEDs must be defined when placing the order. It must correspond to the value chosen during the lighting study or failing this, it can be chosen from among the values indicated in the flows table (p. 358-351).

#### · Constant flows of the LED (FC):

To compensate for the lowering of the LED flows over time, this program allows retaining an identical light flow for the entire service life of the LEDs. The initial current of the LEDs is 350 mA. It is gradually increased up to 530 mA in stages of 10 mA every year, for 20 years. At the time of installation, this solution does not require an additional wire (a phase conductor and a neutral conductor are sufficient).



#### ▼ ENERGY SAVINGS; SOLUTIONS DELIVERED OPTIONAL



#### Tailor-made point-to-point self-guided lowering:

In order to meet all lowering requirements of at the most 5 stages can be programmed in the factory.

#### Example of tailor-made lowering:



Before 20 h: source flow at 100% 20 h - 22 h: lowering of the flow by 50% 22 h - 06 h: lowering of the flow by 80% 06 h - 07 h: lowering of the flow by 50% After 07 h: source flow at 100%



### Switching on or off through a presence sensor (CEL):

For pedestrian spaces, the detection allows switching on a light when a pedestrian passes from near the sensor.

Chrysalis offers a discreet infrared cell to be integrated at a height of 2m on each light to be managed.

Infrared detection allows switching on a light for an adjustable duration between 1 and 15 minutes (adjustable in the factory by default: 5 mn).

The adjustment of the duration can be adjusted on-site using a remote control.

This solution does not require an additional wire (a phase conductor and a neutral conductor are sufficient).



#### DALI: remote control of all lights:

This is the most suitable solution for remotely controlling the urban lights is via the technical services of the city.

The DALI communication protocol allows:

- reprogramming any light upon request
- detecting breakdowns
- adjusting the brightness of each light
- checking and controlling energy savings in real time.



#### On-site adjustment:

When the factory adjustment is not suitable: To facilitate the installation of LOLITA sets, the various programs must be perfectly defined at the time of the order, which allows carrying out all adjustments in the factory.

On-site adjustments are possible only if the DALI option is activated in a factory.

Therefore, the installation technician shall be able to re-program the drivers as desired using a DALI interface.



#### CHRYSALIS SmartCity:

To smartly manage its public lighting system and allow each city to choose its most suitable solution depending on its constraints, CHRYSALIS has studied a tailor-made management system which is the most innovative one in the market.

## **CHRYSABOX**

#### **▼** THE CONCEPT

The chrysabox system consists of 3 junction boxes at the base of the pole which are inter-connectable and compatible with all the modern electrical requirements.

These sets are delivered pre-assembled (A+B or A+C) and pre-wired.

The assembly ruler of the various boxes allows adjusting the final position of the boxes in relation to the opening of the door, as well as mounting on a DIN rail.

#### CBX-A box: LED Driver



CBX-B and C box: connection to the network



#### **▼** THE BOXES

#### A • CBX-A IP66 / IK08 / Class II box

The box A on the upper parts accommodates and protects the Philips Xitanium FullProg LED driver of a power between 40 and 150 W 0.3-1A to power 1 or several lights.

The driver is originally fitted with a 10 KV surge suppressor.

#### **B • CBX-B** IP44 / IK08 box



The box B integrates all the connectors necessary for secure wiring:

- serial: 416 mm² double base shafts, a lowered neutral-phase circuit-breaker with 2A fuse.
- optional: a 10 KV/10 KA lightning arrester mounted on a rail with a ground truss.

Ø min at the base of the pole 116mm.

#### C • CBX-C IP44 / IK08 box

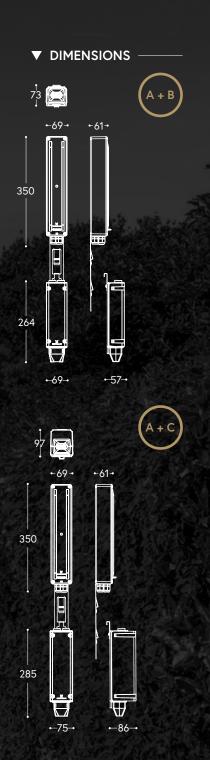


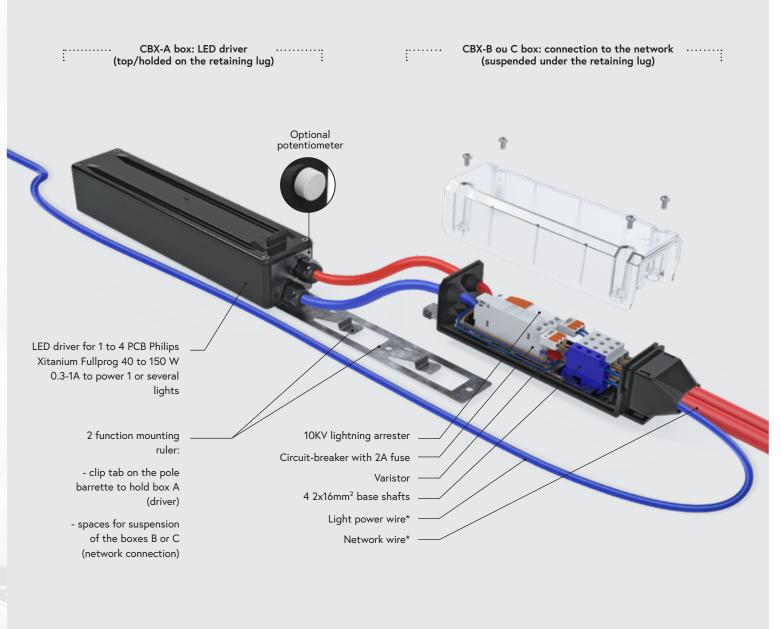
The box C has the same versatility as the box B but also ensures protection through a circuit breaker for the decorative lights:

- serial: 416 mm<sup>2</sup> double base shafts, a lowered neutral-phase circuit-breaker with 2A fuse.
- optional: a 10 KV/10 KA lightning arrester mounted on a rail with a ground truss and a 6 A differential circuit breaker for the lights.

Ø min at the base of the pole 140 mm.

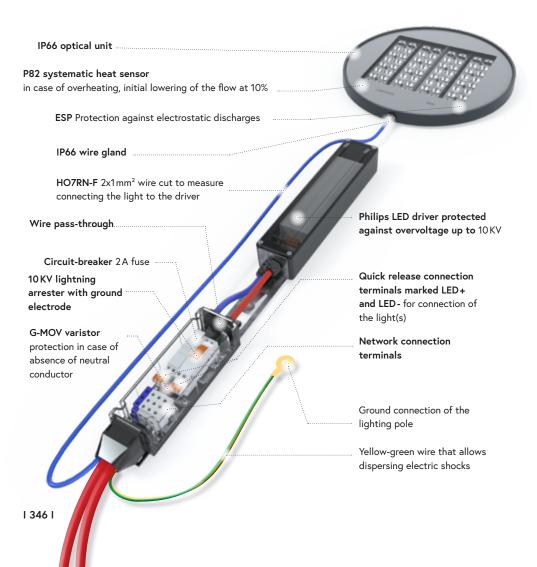






# Protection sequence

#### **▼** SECURITY ELEMENTS



#### Connection to the optical unit(s)

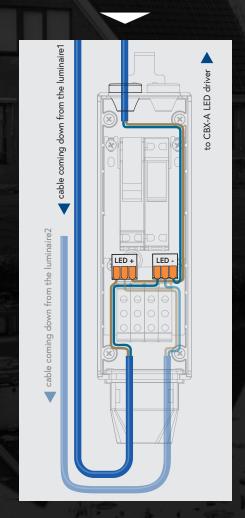
The junction boxes of the network are fitted with quick release connection terminals marked LED+ and LED- and connected to the driver in the factory.

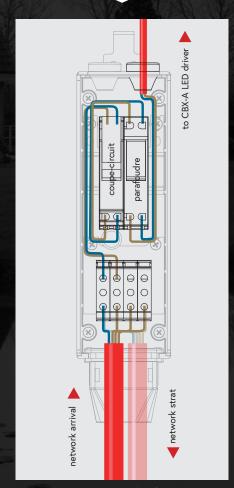
Connect the wires or LOLITA\* lights to the base shafts marked LED+ and LED-.

#### Connection to the electrical network

The junction boxes of the network are pre-wired in the factory to the box A (driver).

Connect the network\* to the Copak base shafts.



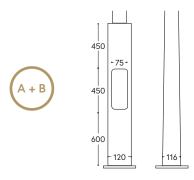


\*Electrical connexion on installers fee



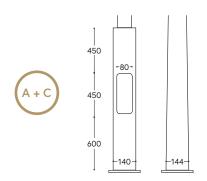
# Installation at the base of the pole

#### ▼ PRE-REQUISITES FOR THE INSTALLATION -



#### MINIMUM BASE DIAMETER FOR A + B

- Steel conical Ø116 Top 60/62
- Alu tubular Ø120, Min. base shaft height 1m50



#### MINIMUM BASE DIAMETER FOR A + C

- Steel conical Ø144 Top 60/62
- Alu tubular Ø140, Min. base shaft height 1m50

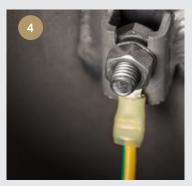
#### ▼ INSTALLATION AT THE BASE OF THE POLE



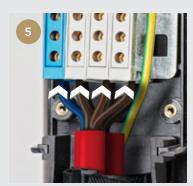
Install the light in its final position, taking care to lower its power wire up to the door service.



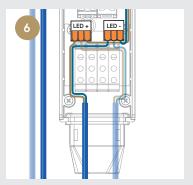
Install and hang the CBX-A box on the pole barrette.



Connect the yellow/green wire of the lightning arrester to the ground truss.



Open the junction box (CBX-B, C, or other) outside the pole and connect the wire to the network using the connection terminals provided for this purpose.



Connect the LOLITA lights to the WAGO connection terminals given inside the box, marked with the **LED**-and **LED**+ labels.



Close the junction box and suspend it from the control gear integrated with the CBX-A box.

## Flow table Medium power LED

#### ▼ 1 EQUIPMENT PER LOLITA -

No. 1	N. alas of	LED	7.1		Outward flo	ow of the light		T. I. I	LED M	ax flow	D:
Number of modules	Number of LED	LED Current	Total power consumed	Neutral White 4000 K	Yield 4000 K	Warm White 3000 K	Yield 3000 K	Total average yield	Neutral White 4000 K	Warm White 3000 K	Driver Philips
		350 mA	6 W	630 lm	105 lm/W	578 lm	96 lm/W	85 %	740 lm	680 lm	
1 PCB		450 mA	7 W	765 lm	109 lm/W	693 lm	99 lm/W	85 %	900 lm	815 lm	40W
IPCB	16 LEDs	530 mA	7.5 W	897 lm	120 lm/W	829 lm	110 lm/W	85 %	1055 lm	975 lm	0.3-1.0A
		600 mA	8 W	956 lm	120 lm/W	900 lm	112 lm/W	85 %	1125 lm	1060 lm	SNLDAE
		700 mA	9 W	1045 lm	116 lm/W	965 lm	107 lm/W	85 %	1230 lm	1135 lm	
1 PCB		350 mA	18 W	2516 lm	140 lm/W	2320 lm	129 lm/W	85 %	2960 lm	2730 lm	75W
	, ,	450 mA	23 W	3047 lm	132 lm/W	2792 lm	121 lm/W	85 %	3585 lm	3285 lm	
ТРСВ	64 LEDs	530 mA	27 W	3579 lm	132 lm/W	3315 lm	121 lm/W	85 %	4210 lm	3900 lm	0.3 - 1.0A
	LLD3	600 mA	31 W	3842 lm	124 lm/W	3600 lm	116 lm/W	85 %	4520 lm	4235 lm	LDAE
-		700 mA	36 W	4208 lm	117 lm/W	3885 lm	108 lm/W	85 %	4950 lm	4570 lm	
		350 mA	35 W	5032 lm	144 lm/W	4641 lm	133 lm/W	85 %	5920 lm	5460 lm	
2 PCB		450 mA	45 W	6095 lm	135 lm/W	5585 lm	124 lm/W	85 %	7170 lm	6570 lm	
	128 LEDs	530 mA	55 W	7157 lm	130 lm/W	6630 lm	121 lm/W	85 %	8420 lm	7800 lm	75 W
	2255	600 mA	62 W	7693 lm	124 lm/W	7208 lm	116 lm/W	85 %	9050 lm	8480 lm	0.3 - 1.0 A SNLDAE
		700 mA	70 W	8415 lm	120 lm/W	7765 lm	111 lm/W	85 %	9900 lm	9135 lm	
		350 mA	52 W	7545 lm	145 lm/W	6962 lm	134 lm/W	85 %	8875 lm	8190 lm	
3 PCB	400	450 mA	68 W	9159 lm	135 lm/W	8381 lm	123 lm/W	85 %	10755 lm	9860 lm	
	192 LEDs	530 mA	80 W	10735 lm	134 lm/W	9945 lm	123 lm/W	85 %	12630 lm	11700 lm	
	LLD3	600 mA	85 W	11075 lm	130 lm/W	10417 lm	122 lm/W	85 %	13030 lm	12255 lm	
		700 mA	100 W	12622 lm	126 lm/W	11654 lm	116 lm/W	85 %	14850 lm	13710 lm	150 W
4 DCD		350 mA	70 W	9380 lm	134 lm/W	9282 lm	133 lm/W	85 %	11035 lm	10920 lm	0.3 - 1.0 A
4 PCB	05/	450 mA	90 W	12189 lm	135 lm/W	11173 lm	124 lm/W	85 %	14340 lm	13145 lm	SNLDAE
	256 LEDs	530 mA	105 W	14314 lm	135 lm/W	13260 lm	126 lm/W	85 %	16840 lm	15600 lm	
1000	LLD3	600 mA	118 W	16100 lm	134 lm/W	15368 lm	125 lm/W	85 %	18940 lm	18080 lm	
		700 mA*	130 W	16830 lm	129 lm/W	16030 lm	123 lm/W	85 %	19800 lm	18880 lm	



## Medium power LED

#### ▼ POWER EQUIVALENCES AND SERVICE LIFE L80B10

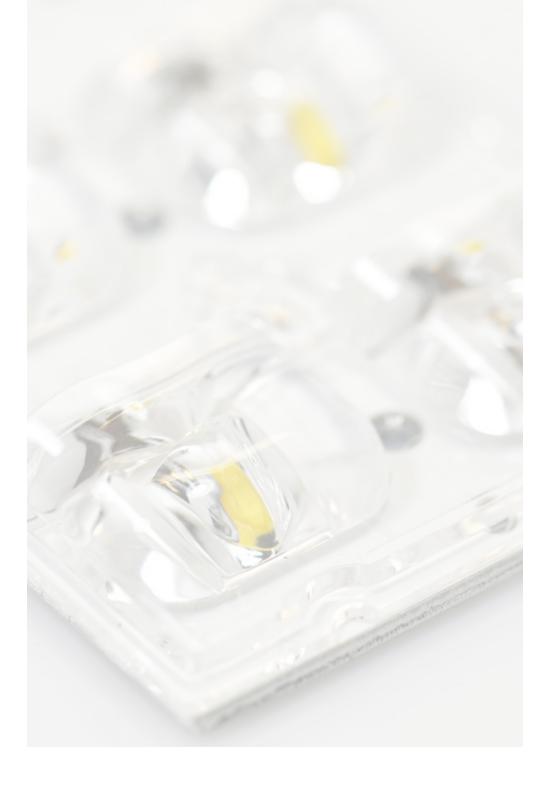
Number of modules	Number of LED	LED Current	Total power consumed	Power equ. (replacement SHP/IM)	Service life without decorative veil	Service life with decorative veil
		350 mA	6 W	-	74 000 h	74 000 h
1 PCB		450 mA	7 W	20 W	59 000 h	59 000 h
TPCB	16 LEDs	530 mA	7.5 W	20 W	50 000 h	50 000 h
		600 mA	8 W	20 W	45 000 h	45 000 h
		700 mA	9 W	20 W	39 000 h	39 000 h
		350 mA	18 W	50/45W	74 000 h	74 000 h
1 PCB		450 mA	23 W	50/60W	59 000 h	59 000 h
ТРСВ	64 LEDs	530 mA	27 W	70/60W	50 000 h	50 000 h
	LEDS	600 mA	31 W	70/60W	45 000 h	45 000 h
		700 mA	36 W	70/60W	39 000 h	39 000 h
		350 mA	35 W	70/60W	74 000 h	74 000 h
2 PCB		450 mA	45 W	70/60W	59 000 h	59 000 h
	128 LEDs	530 mA	55 W	100/90W	50 000 h	50 000 h
	LLD3	600 mA	62 W	100/90W	45 000 h	45 000 h
		700 mA	70 W	100/90W	39 000 h	39 000 h
		350 mA	52 W	100/90W	74 000 h	85 000 h
3 PCB	400	450 mA	68 W	150/140W	59 000 h	68 000 h
	192 LEDs	530 mA	80 W	150/140W	50 000 h	57 000 h
	LLD3	600 mA	85 W	150/140W	45 000 h	52 000 h
		700 mA	100 W	150/140W	39 000 h	45 000 h
4 DCD		350 mA	70 W	150/140 W	74 000 h	85 000 h
4 PCB	256	450 mA	90 W	150/140 W	59 000 h	68 000 h
	LEDs	530 mA	105 W	150/140 W	50 000 h	57 000 h
		600 mA	115 W	150/140 W	45 000 h	52 000 h
		700 mA*	130 W	150/140 W	39 000 h	45 000 h

<sup>\*</sup>Version only available for RIGA, REGGIANO, HAVANNA, NAPOLI, MODENA, LIMA, OVIEDO, RÉTRO, LYRO, FLORALYS systems and all the models fitted with a decorative veil.

## Flow table High power LED

#### ▼ 1 EQUIPMENT PER LOLITA -

							Outward flo	w of the light				Total		LED M	ax flow		
Number of modules	Number of LED	LED Current	Total power consumed	Neutral White 4000 K	Yield 4000 K	Warm White 3000 K	Yield 3000 K	Warm White 2700 K	Yield 2700 K	Warm White 2400 K	Yield 2400 K	average yield	Neutral White 4000 K	Warm White 3000 K	Warm White 2700 K	2400 K	Driver Philips
		350 mA	6 W	550 lm	92 lm/W	520 lm	87 lm/W	440 lm	73 lm/W	352 lm	59 lm/W	85 %	650 lm	610 lm	520 lm	415 lm	•••••••••••••••••••••••••••••••••••••••
		450 mA	7 W	670 lm	96 lm/W	620 lm	89 lm/W	535 lm	76 lm/W	425 lm	61 lm/W	85 %	790 lm	730 lm	630 lm	500 lm	
1 PCB		530 mA	7.5 W	785 lm	105 lm/W	744 lm	99 lm/W	630 lm	84 lm/W	505 lm	67 lm/W	85 %	925 lm	875 lm	740 lm	595 lm	
	4 LEDs	600 mA	8 W	840 lm	105 lm/W	810 lm	99 lm/W	675 lm	84 lm/W	535 lm	67 lm/W	85 %	990 lm	950 lm	790 lm	630 lm	40W 0.3-1.0A
492	4 LEDS	700 mA	9 W	920 lm	102 lm/W	865 lm	97 lm/W	740 lm	82 lm/W	590 lm	65 lm/W	85 %	1080 lm	1020 lm	870 lm	695 lm	SNLDAE
		800 mA	10 W	1035 lm	100 lm/W	975 lm	97 lm/W	835 lm	82 lm/W	667 lm	65 lm/W	85 %	1220 lm	1180 lm	980 lm	785 lm	OTTED/TE
		900 mA	11.5 W	1175 lm	100 lm/W	1095 lm	95 lm/W	935 lm	81 lm/W	748 lm	65 lm/W	85 %	1380 lm	1290 lm	1100 lm	880 lm	
		1 A	13 W	1275 lm	98 lm/W	1220 lm	94 lm/W	1020 lm	78 lm/W	816 lm	63 lm/W	85 %	1500 lm	1430 lm	1200 lm	960 lm	
		350 mA	18 W	2210 lm	123 lm/W	2083 lm	116 lm/W	1768 lm	98 lm/W	1415 lm	79 lm/W	85 %	2600 lm	2450 lm	2080 lm	1665 lm	
		450 mA	23 W	2678 lm	116 lm/W	2508 lm	109 lm/W	2142 lm	93 lm/W	1712 lm	74 lm/W	85 %	3150 lm	2950 lm	2520 lm	2015 lm	
	16 LEDs	530 mA	27 W	3145 lm	116 lm/W	2975 lm	109 lm/W	2516 lm	93 lm/W	2023 lm	74 lm/W	85 %	3700 lm	3500 lm	2960 lm	2380 lm	75.47
1 PCB		600 mA	31 W	3375 lm	109 lm/W	3230 lm	104 lm/W	2695 lm	87 lm/W	2235 lm	72 lm/W	85 %	3970 lm	3800 lm	3170 lm	2630 lm	75W 0.3 - 1.0A
40		700 mA	36 W	3698 lm	103 lm/W	3485 lm	97 lm/W	2958 lm	82 lm/W	2367 lm	66 lm/W	85 %	4350 lm	4100 lm	3480 lm	2785 lm	LDAE
40000		800 mA	41 W	4165 lm	102 lm/W	3910 lm	95 lm/W	3332 lm	81 lm/W	2665 lm	65 lm/W	85 %	4900 lm	4600 lm	3920 lm	3135 lm	
		900 mA	46 W	4675 lm	102 lm/W	4395 lm	95 lm/W	3740 lm	81 lm/W	2992 lm	65 lm/W	85 %	5500 lm	5170 lm	4400 lm	3520 lm	
		1 A	51 W	5100 lm	100 lm/W	4871 lm	95 lm/W	4080 lm	80 lm/W	3265 lm	64 lm/W	85 %	6000 lm	5730 lm	4800 lm	3840 lm	
a100700 (a.		350 mA	35 W	4420 lm	126 lm/W	4165 lm	119 lm/W	3536 lm	101 lm/W	2830 lm	81 lm/W	85 %	5200 lm	4900 lm	4160 lm	3330 lm	
(1.00 m)	32	450 mA	45 W	5355 lm	119 lm/W	5015 lm	111 lm/W	4284 lm	95 lm/W	3425 lm	76 lm/W	85 %	6300 lm	5900 lm	5040 lm	4030 lm	75 W
2 PCB	LEDs	530 mA	55 W	6290 lm	114 lm/W	5950 lm	108 lm/W	5032 lm	91 lm/W	4046 lm	74 lm/W	85 %	7400 lm	7000 lm	5920 lm	4760 lm	0.3 - 1.0 A
48800		600 mA	62 W	6758 lm	109 lm/W	6469 lm	104 lm/W	5406 lm	87 lm/W	4326 lm	70 lm/W	85 %	7950 lm	7610 lm	6360 lm	5090 lm	SNLDAE
100		700 mA	70 W	7395 lm	106 lm/W	6970 lm	100 lm/W	5916 lm	85 lm/W	4735 lm	68 lm/W	85 %	8700 lm	8200 lm	6960 lm	5570 lm	
3 PCB		350 mA	52 W	6630 lm	127 lm/W	6248 lm	120 lm/W	5304 lm	102 lm/W	4242 lm	82 lm/W	85 %	7800 lm	7350 lm	6240 lm	4990 lm	
3100	48	450 mA	68 W	8033 lm	118 lm/W	7523 lm	111 lm/W	6426 lm	95 lm/W	5142 lm	76 lm/W	85 %	9450 lm	8850 lm	7560 lm	6050 lm	
4500	LEDs	530 mA	80 W	9435 lm	118 lm/W	8925 lm	111 lm/W	7548 lm	94 lm/W	6069 lm	76 lm/W	85 %	11100 lm	10500 lm	8880 lm	7140 lm	
All the		600 mA	85 W	9733 lm	115 lm/W	9350 lm	110 lm/W	7786 lm	92 lm/W	6230 lm	73 lm/W	85 %	11450 lm	11000 lm	9160 lm	7330 lm	150\4/
		700 mA*	100 W	11200 lm	111 lm/W	10455 lm	105 lm/W	8875 lm	89 lm/W	7100 lm	71 lm/W	85 %	13050 lm	12300 lm	10440 lm	8355 lm	150 W 0.3 - 1.0 A
4 PCB		350 mA	70 W	8840 lm	126 lm/W	8330 lm	119 lm/W	7072 lm	101 lm/W	5656 lm	81 lm/W	85 %	10400 lm	9800 lm	8320 lm	6655 lm	SNLDAE
	64	450 mA	90 W	10710 lm	119 lm/W	10030 lm	111 lm/W	8568 lm	95 lm/W	6855 lm	76 lm/W	85 %	12600 lm	11800 lm	10080 lm	8065 lm	
	LEDs	530 mA	105 W	12580 lm	119 lm/W	11900 lm	111 lm/W	10064 lm	95 lm/W	8092 lm	76 lm/W	85 %	14800 lm	14000 lm	11840 lm	9520 lm	
		600 mA*	118 W	13500 lm	114 lm/W	12920 lm	109 lm/W	10780 lm	91 lm/W	8940 lm	75 lm/W	85 %	15880 lm	15200 lm	12680 lm	10520 lm	



## High power LED

#### ▼ POWER EQUIVALENCES AND SERVICE LIFE L80B10

Number of modules	Number of LED	LED Current	Total power consumed	Power equ. (replacement SHP/IM)	Service life without decorative veil	Service life with decorative veil
		350 mA	6 W	-	100 000 h	100 000 h
		450 mA	7 W	-	85 000 h	85 000 h
		530 mA	7.5 W	-	76 000 h	76 000 h
1 PCB	4 LEDs	600 mA	8 W	-	68 000 h	68 000 h
-02-	4 LEDS	700 mA	9 W	-	60 000 h	60 000 h
		800 mA	10 W	20 W	54 000 h	54 000 h
		900 mA	11.5 W	20 W	48 000 h	48 000 h
		1 A	13 W	20 W	42 000 h	42 000 h
		350 mA	18 W	25 W	100 000 h	112 000 h
		450 mA	23 W	25 W	85 000 h	95 000 h
		530 mA	27 W	35 W	76 000 h	85 000 h
1 PCB	16	600 mA	31 W	35 W	68 000 h	76 000 h
40000	LEDs	700 mA	36 W	50 / 45 W	60 000 h	67 000 h
100		800 mA	41 W	50 / 45 W	54 000 h	60 000 h
		900 mA	46 W	50 / 60 W	48 000 h	54 000 h
		1 A	51 W	70 / 60 W	42 000 h	47 000 h
a100000(a.		350 mA	35 W	50 / 45 W	100 000 h	100 000 h
T. 18	20	450 mA	45 W	50 / 60 W	85 000 h	85 000 h
2 PCB	32 LEDs	530 mA	55 W	70 / 60 W	76 000 h	76 000 h
4600	LLD3	600 mA	62 W	70 / 60 W	68 000 h	68 000 h
-000		700 mA	70 W	70 / 60 W	60 000 h	60 000 h
3 PCB		350 mA	52 W	70 / 60 W	100 000 h	112 000 h
3 PCB	40	450 mA	68 W	70 / 60 W	85 000 h	95 000 h
45600	48 LEDs	530 mA	80 W	100 / 90 W	76 000 h	85 000 h
48.00	LLD3	600 mA	85 W	100 / 90 W	68 000 h	76 000 h
		700 mA*	100 W	150/140 W	60 000 h	66 000 h
4 PCB		350 mA	70 W	100 / 90 W	100 000 h	112 000 h
, d(ft)	64	450 mA	90 W	100 / 90 W	85 000 h	95 000 h
4000000	LEDs	530 mA	105 W	150/140 W	76 000 h	85 000 h
		600 mA*	118 W	150/140 W	68 000 h	75 000 h

 $<sup>\</sup>star$  Version only available for RIGA, REGGIANO, HAVANNA, NAPOLI, MODENA, LIMA, OVIEDO, RÉTRO, LYRO, FLORALYS systems and all the models fitted with a decorative veil.

# Combinations table Lolita/Driver

#### ▼ 2 LOLITA / 1 DRIVER -

(Identical LE	(Identical LED current and program)											
Number o	f modules	Number of LEDs per LOLITA	LED Current	Total power of 2 LOLITA	Driver PHILIPS	LOLITA wiring						
♦ • ♦	<b>2x</b> 1 PCB	4 LEDs	350 mA 450 mA 530 mA	12 W 14 W 15 W	40W 0.3-1.0A SNLDAE	SERIES						
4000	<b>2x</b> 1 PCB	16 LEDs	350 mA 450 mA 530 mA	36 W 46 W 54 W	75W 0.3-1.0A SNLDAE	SERIES						
<b>**</b>	<b>2x</b> 2 PCB	32 LEDs	350 mA 450 mA 530 mA	70 W 90 W 110 W	150W 0.3-1.0A SNLDAE	SERIES						
<b>◆</b> + <b>◆</b>	<b>2x</b> 3 PCB	48 LEDs	350 mA 450 mA	104 W 136 W	150W 0.3-1.0A SNLDAE	PARALLEL						
+-	<b>2x</b> 4 PCB	64 LEDs	350 mA	140 W	150W 0.3-1.0A SNLDAE	PARALLEL						
	1 PCB + 2 PCB	16 + 32 LEDs	350 mA 450 mA 530 mA	55 W 70 W 85 W	150W 0.3-1.0A SNLDAE	SERIES						
<del>-</del>	1 PCB + 3 PCB	16 + 48 LEDs	350 mA 450 mA 530 mA	70 W 90 W 110 W	150W 0.3-1.0A SNLDAE	SERIES						
<b>**</b>	1 PCB + 1 PCB	16 + 4 LEDs	350 mA 450 mA 530 mA	22 W 28 W 33 W	75W 0.3-1.0A SNLDAE	SERIES						

Other combinations on request

Equipment: 1 CHRYSABOX A with driver + 1 junction box B or C

#### ▼ 3 LOLITA / 1 DRIVER -

(Identical LED current and program)											
Number o	f modules	Number of LEDs per LOLITA	LED Current	Total power of 2 LOLITA	Driver PHILIPS	LOLITA wiring					
	<b>3x</b> 1 PCB	4 LEDs	350 mA	15 W		SERIES					
<b>⊘</b> ∎ <b>⊘</b> ⊨ <b>⊘</b>			450 mA	20 W	40W 0.3-1.0A SNLDAE						
			530 mA	25 W	SINEDAL						
		16 LEDs	350 mA	56 W							
4000 4000 4000	<b>3x</b> 1 PCB		450 mA	70 W	150W 0.3-1.0A	SERIES					
, , ,			530 mA	82 W	SNLDAE						
			250 4	70.14							
	1 PCB + 2 PCB	16 + 16 + 32	350 mA	70 W	150W 0.3-1.0A						
4000 + 4000 + 4000 P		16 + 16 + 32 LEDs	450 mA	90 W	SNLDAE	SERIES					
		2203	530 mA	110 W	5.12B/12						

#### ▼ 4 LOLITA / 1 DRIVER —

(Identical LED current and program)										
Number of modules		Number of LEDs per LOLITA	LED Current	Total power of 2 LOLITA	Driver PHILIPS	LOLITA wiring				
A A	<b>4x</b> 1 PCB	4 LEDs	350 mA	24 W		SERIES				
49-1-49-			450 mA	28 W	40W 0.3-1.0A SNLDAE					
*** ± ***			530 mA	30 W	SINEDAL					
			250 4	70 \\						
4000 4000			350 mA	72 W	150W 0.3-1.0A					
4000	<b>4x</b> 1 PCB	16 LEDs	450 mA	92 W	SNLDAE	SERIES				
			530 mA	108 W	ONLOAL					



#### ▼ 5 LOLITA / 1 DRIVER

(Identical LED current and program)						
Number o	f modules	Number of LEDs per LOLITA	LED Current	Total power of 2 LOLITA	Driver PHILIPS	LOLITA wiring
do do do			350 mA	27 W		
49 ± 49	<b>5x</b> 1 PCB	4 LEDs	450 mA	34 W	75W 0.3-1.0A SNLDAE	SERIES
			530 mA	40 W		

Other combinations on request

Equipment: 1 CHRYSABOX A with driver + 1 junction box B or C

#### ▼ 6 LOLITA / 1 DRIVER -

(Identical LED current and program)						
Number o	f modules	Number of LEDs per LOLITA	LED Current	Total power of 2 LOLITA	Driver PHILIPS	Cablage LOLITA
do do do			350 mA	30 W		
<b>4</b> + <b>4</b> + <b>4</b>	<b>6x</b> 1 PCB	4 LEDs	450 mA	40 W	75W 0.3-1.0A - SNLDAE	SERIES
			530 mA	50 W		

Other combinations on request

Equipment: 1 CHRYSABOX A with driver + 1 junction box B or C

#### ▼ MAXIMUM NUMBER OF DRIVERS PER CIRCUIT BREAKER PLACED IN THE CABINET —

Circuit-breaker type B Calibrated:	40-75-100-110W / 45 A Qté	150 W / 53 A Qté
10 A	6 drivers	4 drivers
13 A	8 drivers	6 drivers
16 A	10 drivers	8 drivers
20 A	12 drivers	10 drivers
25 A	15 drivers	12 drivers

Circuit breaker type C Calibrated:	40-75-100-110W / 45 A Qté	150 W / 53 A Qté
10 A	10 drivers	8 drivers
13 A	13 drivers	10 drivers
16 A	17 drivers	13 drivers
20 A	20 drivers	16 drivers
25 A	26 drivers	20 drivers

The break-in current is associated with the driver used: to know the maximum number of LOLITA, please refer to the tables given.

#### Example:

a 150 W driver can power 2 LOLITA 32 LEDs; With a 10 A type B circuit breaker, it is possible to power 4 150 W drivers and thus 8 LOLITA 32 LEDs.

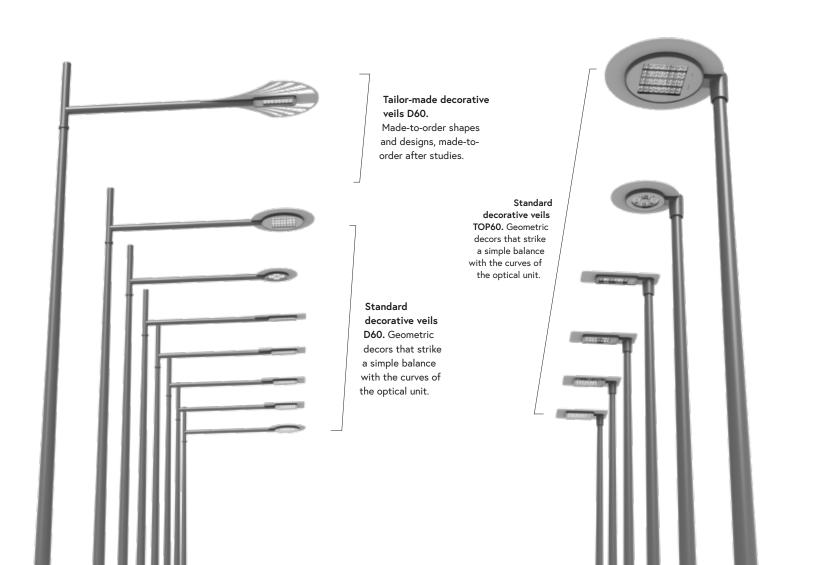


## Options & accessories

#### **▼** DECORATIVE VEILS FOR LOLITA OPTICAL UNITS

The LOLITA optical units mounted using Techno D60 or Techno Top mounting attachments may have an option of additional decorative bodywork, inspired from simple or detailed geometric shapes made-to-order by our design department.

These attachments are attached directly on the body of the optical units using 4 M5 screws and allow customising your ideal lighting solution to your heart's content.





## **Options**& accessories

#### **▼ POLES AND BRACKETS ACCESSORIES**

#### SMF multi-function support

Moulded aluminium part intended for installing various accessories on a public lighting pole: secondary light, flag holder, floral support, power outlet and decorative lighting element.



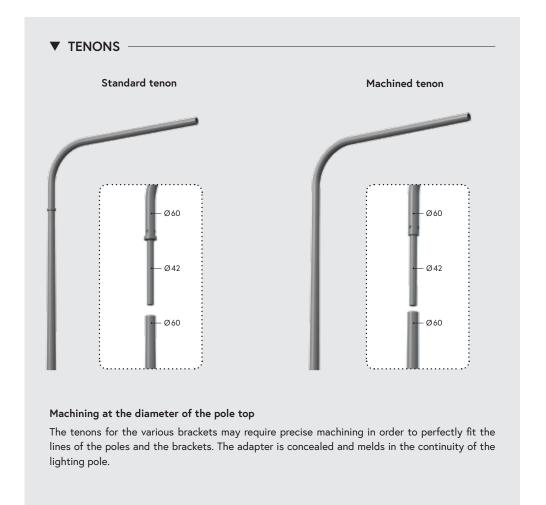
moulded aluminium set consisting of 2 identical parts assembled at  $180^{\circ}$  using 4 M5 screws. Allows wires to be passed through. May be integrated after studies in the manufacturing of brackets  $\varnothing 50$  or  $\varnothing 60$ .







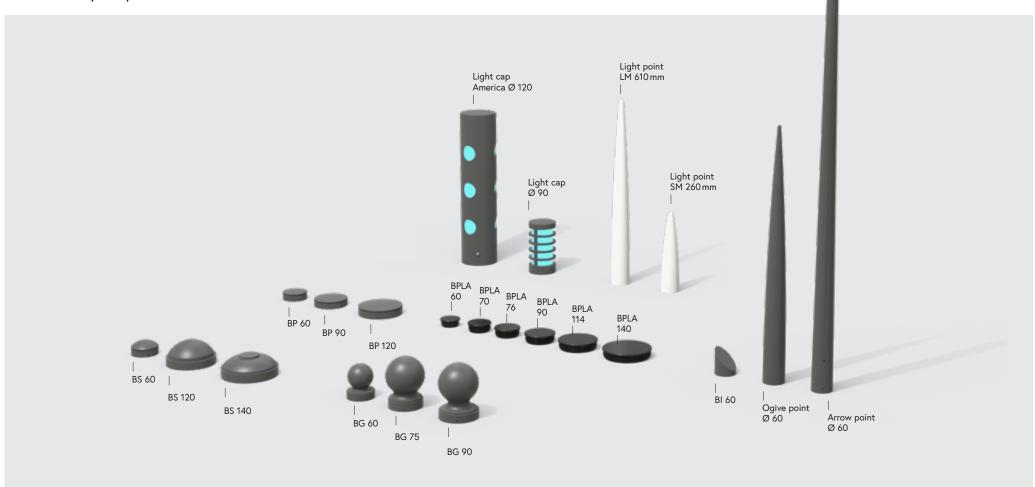






# Options & accessories

▼ STANDARD, FLAT, PLASTIC CAPS AND LIGHTING ACCESSORIES





## Options & accessories

#### **▼** POLES, DECO PARTS, AND BASES

#### Bases

Moulded aluminium bases for aluminium base plate, consisting of 2 parts tightened around the pole.

#### Classic base

Moulded aluminium base for aluminium base plate. This base is suitable for poles Ø139 and 168mm made of steel and Ø140mm made of aluminium. It is assembled with 2 CHC M8 screws and 2 HC M6 adjustment screws.

#### Nova base

Moulded aluminium base for aluminium base plate. This base is suitable for tubes Ø90, 100, 120, and 140mm. To use this base, the anchor rods must not exceed the block by more than 50mm. It is assembled using 2 FHC M6 screws.





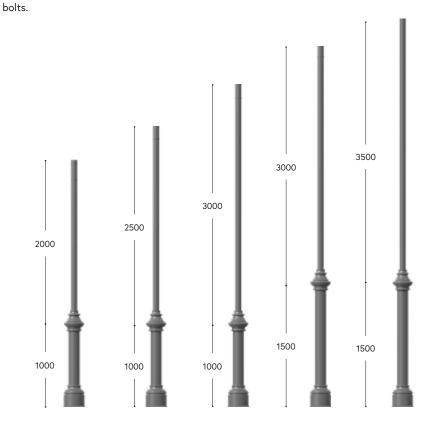
#### Deco parts for stepped poles

The deco parts for aluminium stepped poles are made of moulded aluminium. They cover a welded fixed reducer, and offer the possibility of differentiating between the colours of the base shaft and the enhance.



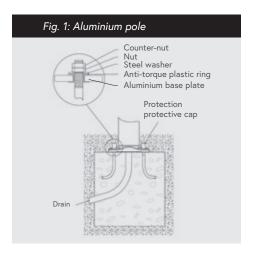
#### SAXO stepped poles

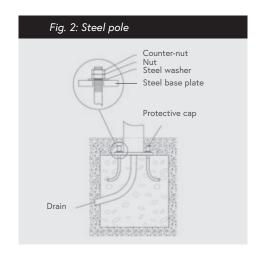
Stylish galvanised steel pole Ø139/76mm available in 5 heights: 3, 3.5, 4, 4.5 and 5m. Mounting of the light on pole top using a threaded spigot Ø27(3/4"G) or smooth spigot Ø60 x 70mm. Mounting of the bracket using press fitting Ø42 or 49mm, 2 rows of 4 inserts at 90° (STHC M8 screws). Mounting on the ground using a base plate with  $200 \times 200$ mm fixing centres, 4 JT16/M14 x 300 anchor

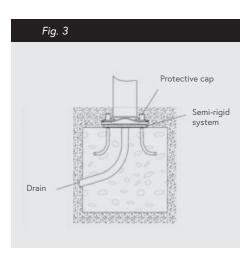


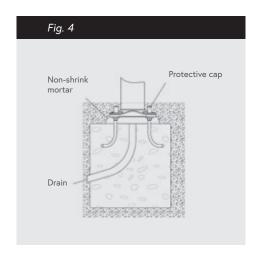


# Mounting the poles









#### - Steel and aluminium poles

The failure to observe instructions and recommendations for the mounting may result in a risk of injury to persons and/or material damage.

#### - Calculation of the resistance of the poles

The poles are designed to resist a given and known load, considering the constraints related to a geographical area and a site. Any addition of accessories (streamer, tinsel, banner, planter, road sign, etc.) must be verified beforehand with our design office. All the poles are delivered with anchor bolts which are assessed for a given installation and load. The dimensions of the blocks fall under the responsibility of the project owners. The dimensions given by our design office are given for information purposes and need to be validated by a firm specialising in civil engineering.

#### - Mounting of the poles

For all types of mounting, it is imperative to provide a drain opening outside the concrete, to drain the condensed water from the pole. When aluminium poles are used with steel anchor bolts, anti-torque washers are provided and must be mandatorily used. Cover the heads of the bolts and nuts using a protective cap filled with grease to protect them from oxidation and ensure the annual maintenance of the poles (tightening). It is recommended to not cover the base plate of the pole. In case of a ground section, the protection of the base of the pole and the base plate must be ensured using a chemical and electric insulating material coating, for example a bituminous coating (refer to "Surface treatment" p. 361).

#### · Recommended mounting

Install the poles on a base plate directly on the foundation (solid concrete) which must be smooth, flat, and horizontal (fig. 1 and 2).

#### · Mounting using a semi-rigid system

It is possible to use a semi-rigid device between the base plate and the solid concrete to ensure the verticality of the support as well as the correct seating of the base plate (fig. 3).

#### · Mounting using nuts

The staggered mounting using nuts is allowed only if the free space under the base plate is filled using non-shrinking filling mortar (fig. 4).

#### - Preparation of the poles

For using on seashores, we recommend paint suitable for highly saline environments.

#### - Bituminous protection

Anti-corrosion protection applied at the base of the pole and on the base plate at a standard height of 300mm, optional (refer to "Surface treatment" p. 361).

#### - Storage of the poles

The poles must not be directly stored on the ground or near a powdered products storage area. In case of long-term storage, ventilation must be provided, and steel straps must be removed.

#### - Maintenance of the poles

For the annual maintenance, the recommendations of the Lighting Union recommendations determine the application of the guarantee.

- Verifying the mounting of the brackets, lights, and accessories
- Verifying the presence of screws and bolts and correct tightening
- Verifying the press fitting of the bracket and light
- Cleaning the surface of the pole using soap water for aluminium or galvanised steel poles and use a polishing product for powder-coated poles
- Checking the signs or corrosion or cracking of the poles to intervene at the earliest.

#### - Passive security (impact class)

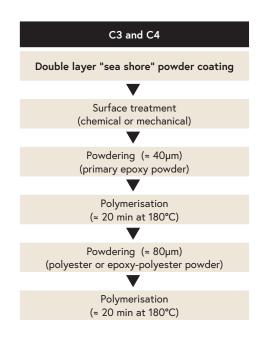
The Chrysalis poles are of the class 0 (EN 40). Once a pole is damaged, its mechanical strength is in doubt. It is important to remove and ensure the security of the pole.

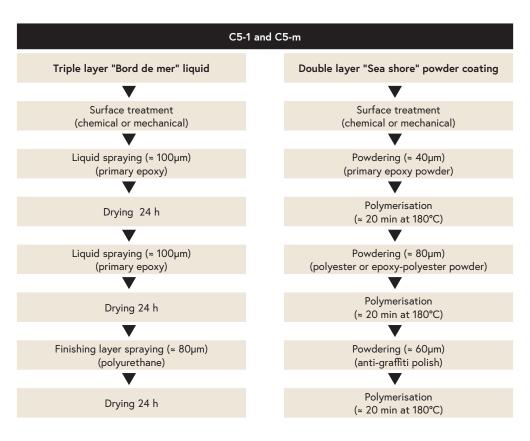
# Surface treatment

#### ▼ RECOMMENDATIONS AND REMINDER OF THE ATMOSPHERIC CORROSIVENESS CATEGORIES

In most cases, the powder coating (single layer on anti-corrosion protection) is part of protection methods which are suitable for "standard" environments. In the most extreme cases, where the environment is more corrosive (for example, seashore) it is recommended to use a two-layer powder coating process, or even apply triple-coat paint

# STANDARD: C1 and C2 Single-layer powder coating Surface treatment (chemical or mechanical) Powdering (\*\* 80µm) (polyester or epoxy-polyester powder) Polymerisation (\*\* 20 min at 180°C)

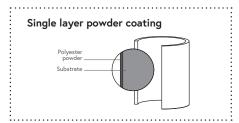


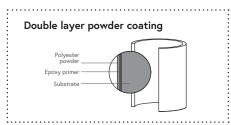




## Surface treatment Single / double layer

#### ▼ EXTRACT FROM THE STANDARD NF EN ISO 12944-2





# Categories of corrosiveness C1 very low C2 low C3 medium C4 high

#### External

Atmospheres with low pollution levels. Especially rural zones.

Urban and industrial atmospheres, moderate sulphur dioxide pollution. Low salinity coastal zones.

Industrial and coastal zones with moderate salinity.

Sea shore, more than 3 km from the coast.

#### Internal

Heated buildings with clean atmosphere. For example: offices, stores, schools, hotels.

Non-heated buildings where there is a possibility of condensation.

For example: warehouses or sports rooms.

Manufacturing cells with high levels of humidity and a certain amount of air pollution.

For example: food industry, laundry, breweries, dairies.

Chemical plants, swimming-pools, coastal naval sites. For example: cleaning using jets, laboratories, slaughterhouses.

#### **▼ SINGLE LAYER OR DOUBLE LAYER**

The powder coating process consists of using a nozzle to spray bond-based powder paint (epoxy, polyester, polyurethane, acrylic, or polyamide), electrostatically charged and thermosetting. Firing in an oven polymerises the coating into a resistant film and imparts all its characteristics of hardness, flexibility, colour, gloss, and performance over time. But only powder coating (single layer) does not include anti-corrosion protection, only a double layer treatment offers anti-corrosion protection thanks to the application of an epoxy resin coating as the primary layer.

#### Aesthetics

Powder paint allows uniform and regular deposition on metal parts. The appearances of the surface available allow planning for an aesthetic dimension, by playing with finishes and material effects.

#### • Finish

The standard finish is glossy, with the possibility of a matte or textured finish.

#### Durability

Thanks to their excellent performance and resistance to bad weather, polyester powder paints are particularly suitable for exterior materials.

#### • Mechanical characteristics

The mechanical characteristics of the powder paints are higher than those of liquid paints.

#### • Scratch resistance

Powder paints offer excellent general characteristics of resistance against friction and scratches.

#### Guarantee

The guarantee for powder coating is of 2 years, and it is a performance guarantee called "good performance guarantee". The standard NF T 36-001 thus defines the performance guarantee: "A coating using a paint product is considered to have good performance when there is no

blistering, cracking, flaking, unsticking, more than 5% of the reference element".

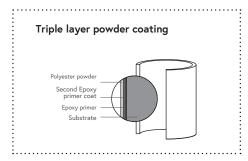
#### • Environmental quality

The thermosetting powder paints neither contain solvents, nor any toxic compounds, nor lead-based pigments. The application techniques for powder paint result in low levels of material loss. Powder coated steel and aluminium perfectly meet the sustainable development criteria insofar as they are indefinitely recyclable.



### Surface treatment Triple layer

### ▼ EXTRACT FROM THE STANDARD NF EN ISO 12944-2



### Categories of corrosiveness

C5-1 very high (industry)

C5-M very high (seashore)

### External

Industrial zones with high humidity and aggressive atmosphere.

Sea shore less than 3 km from the coast or highly saline environment.

### Internal

Buildings or zones with permanent condensation and high levels of pollution. For example: steam, closed swimming-pools, chemical plants.

### **▼** TRIPLE LAYER PAINTING PROCESS

When the environment is particularly aggressive, like along the coast, Chrysalis recommends the application of the triple layer procedure. Several paint categories are used depending on the desired properties such as:

- Epoxy, for corrosion resistance
- Polyurethane, for the appearance (taut) and the resistance to Ultraviolet rays

The "Sea shore" triple layer application procedure is done by successively applying 2 epoxy primer sub-layers (from 180 to 220  $\mu$ m) and a polyurethane finishing layer (between 50 and 80  $\mu$ m).

It must be noted that, without steaming, it is necessary to let each layer dry for at least 24h at  $20^{\circ}$  C.

### Characteristics

### • Technical restrictions

Except for standard reference documents (RAL, BS, MUNCEL, AFNOR), there is no equivalence between the powder colour and liquid colour ranges. However, it is possible to request the suppliers to carry out counter-typing, and this feasibility is subject to validation on a case-bycase basis.

### Advantages

The main advantage is in the combination of products which are cohesive and the intrinsic characteristics of the final mixture.

### Maintenance

The procedure has the advantage of excellent ease of maintenance. The on-site maintenance for modifications is done using products similar to the original process, which are thus compatible.

### • Recommendations

This process is recommended in the "sea front" installations (less than 3 km from the sea) and in zones with high humidity and aggressive atmosphere (refer to the categories of corrosiveness).

### • Guarantee

The triple layer procedure guarantee is of 2 years, and it is a performance guarantee called "good performance guarantee". The standard NF T 36-001 thus defines the performance guarantee: "A coating using a paint product is considered to have good performance when there is no blistering, cracking, flaking, unsticking, more than 5% of the reference element".

### **▼** BITUMINOUS PROTECTION

This is a bitumen-based coating of the type Blaxon which, once it dries, creates a chemically and electrically insulating layer. This coating offers anti-corrosion protection, which protects the base of the pole from the corrosive effects of the water.

The bituminous protection is applied manually to the base of the pole (pole with a base plate or a ground section pole), inside and outside.

- For poles with base plates, the protection is applied at a height of 300mm as standard.
- For ground section poles, the part of the pole that shall be underground is generally protected.

This operation is carried out after the pole is painted or, if the pole is unfinished, directly on the galvanised steel or brushed aluminium pole.



# **Environmental** approach



CHRYSALIS products are designed and manufactured to meet the requirements of the RoHS directives, concerning the limitations of using certain hazardous substances in electrical and electronic equipment.



The recycling of the electrical equipment allows preserving natural resources and avoid any risk of pollution. To this end, CHRYSALIS fulfils its obligations concerning the end-of-life of the lights and electrical equipment which it puts on the market by financing the recycling subsidiary of Récylum dedicated for DEEE Pro which takes them over free of charge (more information on www.recylum.com).



The Lolita optical units are rigorously compliant with the requirements of the decree dated 27 December 2018 concerning the prevention, reduction, and limitation of light pollution.



The lighting products and their associated supports given in this catalogue were entirely designed and manufactured in France.



## Standards and certifications





Chrysalis is certified EN 40 for its manufacturing of steel and aluminium poles by the CTICM since 9 July 2018.

The Chrysalis products are compliant with the standards in force and particularly:

- EN 60598 for the lights,
- EN 62262 for impact resistance of the electrically protective enclosures (IK),
- EN 60529 for degrees of protection of the electrically protective enclosure (IP),
- EN 55015 and EN 61000 for electromagnetic compatibility.



CHRYSALIS is certified ISO 9001 since 21 April 2017.



The creation of CHRYSALIS is co-financed by the European Union with the European Regional Development Fund.

### Notes




### Notes




### LOLITA COLLECTIONS

The description of the devices, as well as the sizes, weights, dimensions, and photometric characteristics mentioned in this catalogue are given for information purposes and do not constitute a commitment by our company which reserves the right to make, without notice, any modifications which it considers necessary.

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Drafted by: Adrien Marchal, Robert Marchal, Arnaud Willaume.

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