

# Professional lighting solutions for STREET LIGHTING







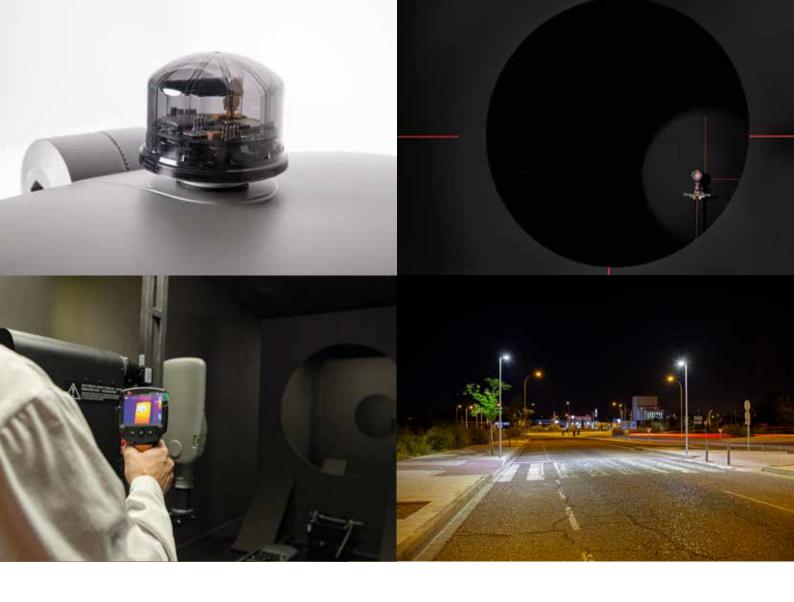
Prilux has more than 35 years of experience in the lighting industry.

Focused on R&D&I, we help businesses, organisations and end users to light their spaces with reliable, innovative and bespoke technology.

We aim to provide the industry with intelligent lighting solutions for all areas using control and dimming systems. That is why we develop our own technology that optimises energy management, improves consumption, comfort and generates significant economic savings in a sustainable way.

Customisation, flexibility, efficiency and sustainability are the values that drive us to design and manufacture luminaires and technology for our customers. That makes us more than a manufacturer.

We want to be your lighting partner and work with you at every stage of your projects, from design to installation, to create the best experience for users and owners.









Efficiency



Sustainability



Customisation



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# The great challenge of lighting

Today, cities consume electricity in a way that can have **negative environmental effects**. Appropriate use of resources can significantly reduce electricity consumption with benefits for the environment and biodiversity.













Cities account for 67% of global energy consumption

Cities generate 70% of greenhouse gas emissions.

By the middle of the twenty-first century, up to 65% of the population is expected to live in cities.



#### The city of the future

Technology is developing exponentially, **improving people's lives**. Technology is in every corner of the world, creating smart cities.

One of the basic pillars of Smart Cities is connected lighting that combines intelligence with efficiency in the same lighting network prioritising objectives such as **cost reduction**, **environmental protection and quality of life for all.** 







Safeguard the environment



Quality of life

# Lighting for every space

In a **smart city**, each space has the **lighting specific to its demands**.

Good lighting provides **tangible benefits** for everyone who uses the city:



Road and public safety



Energy savings of up to 80%



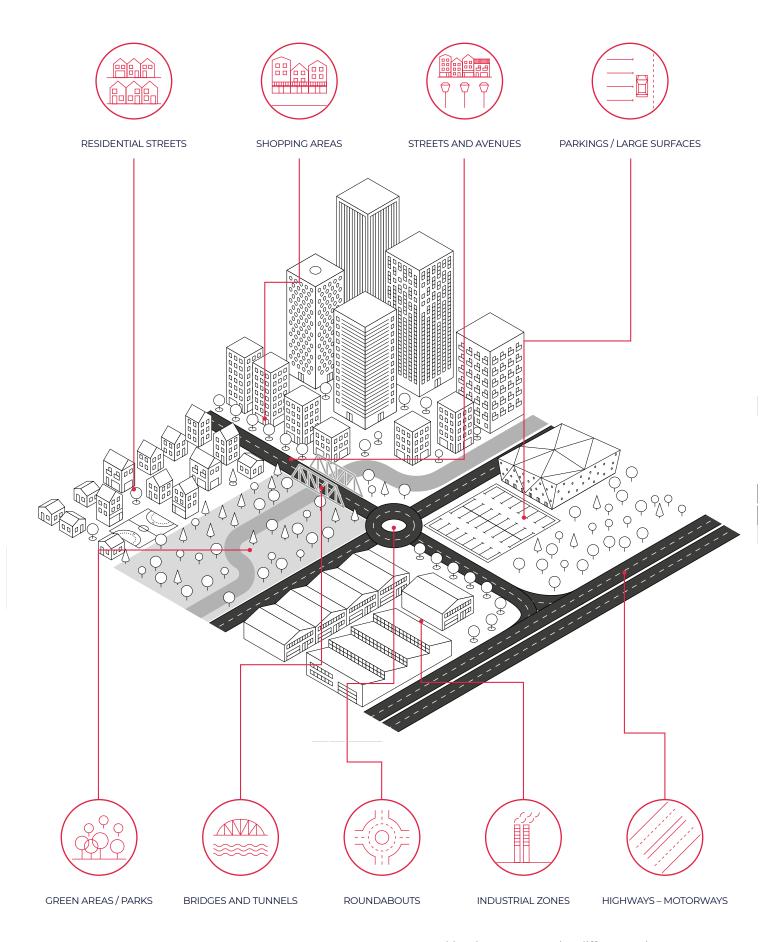
Sustainability and environmental protection



Ease of installation and maintenance



Lower operating costs



Taking into account the different urban areas that make up a city, if we **develop a project** according to the needs of each space, we will generate **intelligent environments,** adaptable and that can be developed in the future.

# Good urban lighting Key factors

#### **Energy savings:**

Lower energy consumption thanks to the newest technology.



#### Safety:

Public safety and security are key to creating safe environments.



# 360° Solutions

### We are with you from start to finish

# After-sales service 360° Customised proposal Start-up and configuration

The success of our projects is the result of working closely with our customers to provide customised, effective and sustainable solutions that meets the requirements of the installation and the use that will be made of it.

The first step is an exhaustive lighting review that considers the characteristics and technical requirements of the area to be lit, the activities carried on there and the financial requirements of property owners.

We then conduct a comprehensive technical audit and provide consultancy leading up to the

engineering project to ensure, an optimum lighting outcome in terms of light levels, glare, vertical and horizontal uniformity.

To guarantee a quality result, we provide technical assistance during installation and commissioning, and final adjustment.

After-sales support is essential to keep an installation performing to its best and achieving the results expected by our customers.



## Remote management: Intelligent lighting control



#### Managing lighting in cities has never been easier.

**UNIO** is a remote management platform developed by Prilux that provides a unique experience by **combining smart technology** and savings in a single installation.

Its open protocol allows it to **be integrated with third-party solutions** at in terms of software and hardware.

The platform allows you to upload and create inventories for more efficient and secure management of public lighting infrastructures.

Unio works by collecting real-time remote data from luminaires to support the **scheduling of** maintenance tasks and to identify anomalies in electricity consumption and faults.



Control and reduction of energy consumption



Improved lighting quality and efficiency



Compatible with thirdparty solutions



Easy and flexible remote system



Reduction of operational costs



Real-time decision making



Seasonal adaptation of urban traffic



Simple and intuitive interface



#### **Functionalities**









Monitoring and control

Alert management

Data analysis

Creation and management of lighting inventories









Astronomical clock

Environmental view dashboard

Safety methods

Profile programming





Remote firmware updates (OTA)

Maintenance support module



# CORA MANAGER: Intelligent lighting management

**CORA Manager** is the Prilux control system that when used with compatible luminaires and the UNIO platform provides **smart street lighting management** in a **cost-effective**, **flexible** and **sustainable way**.

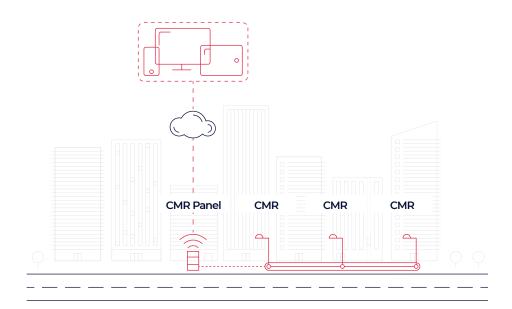




#### Cora Manager CMR

(in electrical control panel)

Lighting management via the electrical control panel to control groups of light fittings connected to the control centre via the power supply line (CMR) with no additional wiring.

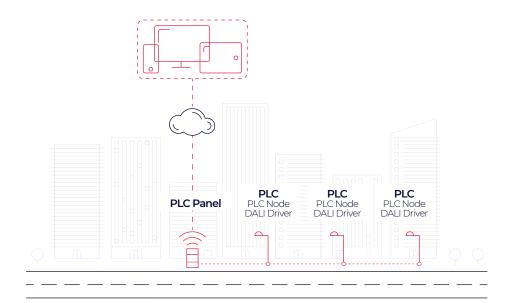




#### Cora Manager PLC

(in electrical control panel and luminaires)

Point-to-point lighting management on the UNIO platform via bidirectional PLC (Power Line Communications).

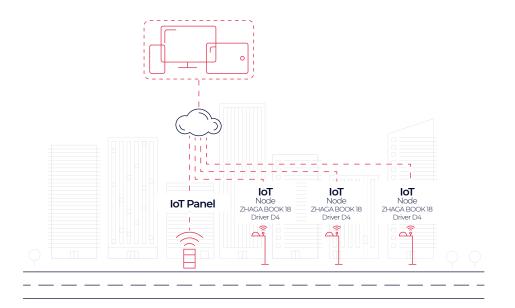




#### Cora Manager IoT

(in luminaires)

Remote point-to-point lighting management through the mobile phone network with Zhaga Book 18 IoT nodes that send and receive data from the UNIO platform over 2G/4G/NB-IoT.



# Safety at night on pedestrian crossing

Good lighting on zebra crossings is essential to the safety of pedestrians and drivers.

With appropriate management of lighting infrastructure, **visibility can be added** to poorly lit or badly signed areas to **prevent accidents and increase safety.** 

#### Safelight, safe lighting for the public

A lighting solution for pedestrian crossings that captures drivers' attention by illuminating pedestrians and pavement access areas without glare.



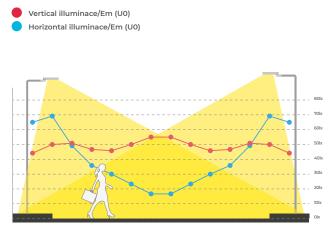
#### Safelight

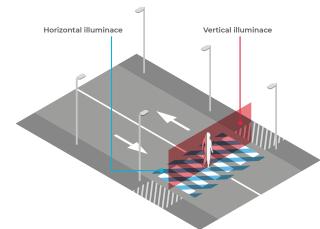
Luminaires with special symmetrical optics that light pedestrians in the vertical plane and reduce glare for drivers



#### Sensor Safelight

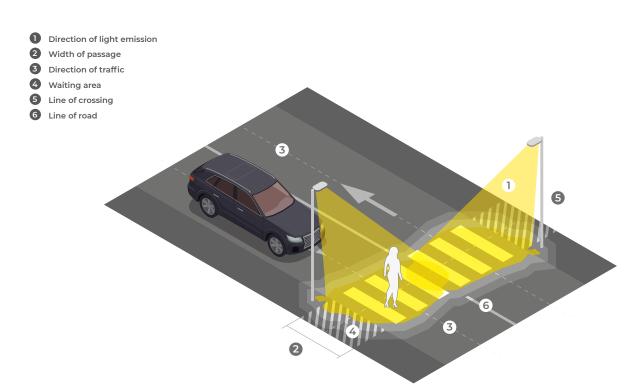
The light fitting includes a presence sensor facing the pavement that causes the light to reduce to a brightness level of 50% when no-one is there, increasing to 100% when it detects users.







#### Anatomy of a pedestrian crossing



# Lighting adapted to people: Wellbeing in the city

Whether natural or artificial, light can have direct effects on people and biodiversity.

A lighting control that maintains the proper levels of intensity and temperature favors people's health, performance and comfort. It also reduces light pollution in cities.



#### **WAS** outdoor

WAS Outdoor allows lighting to be adapted to the pace of life in modern towns and cities.

WAS is a solution that allows rational use of lighting, to have a better balance with the natural cycle of light. This way the normal biorhythms of the environment and living beings are not disrupted.

WAS luminaires can change their light intensity and temperature to adapt to the needs, spaces and rhythm of the city.



Comfort and wellbeing for the community



Energy efficiency and savings



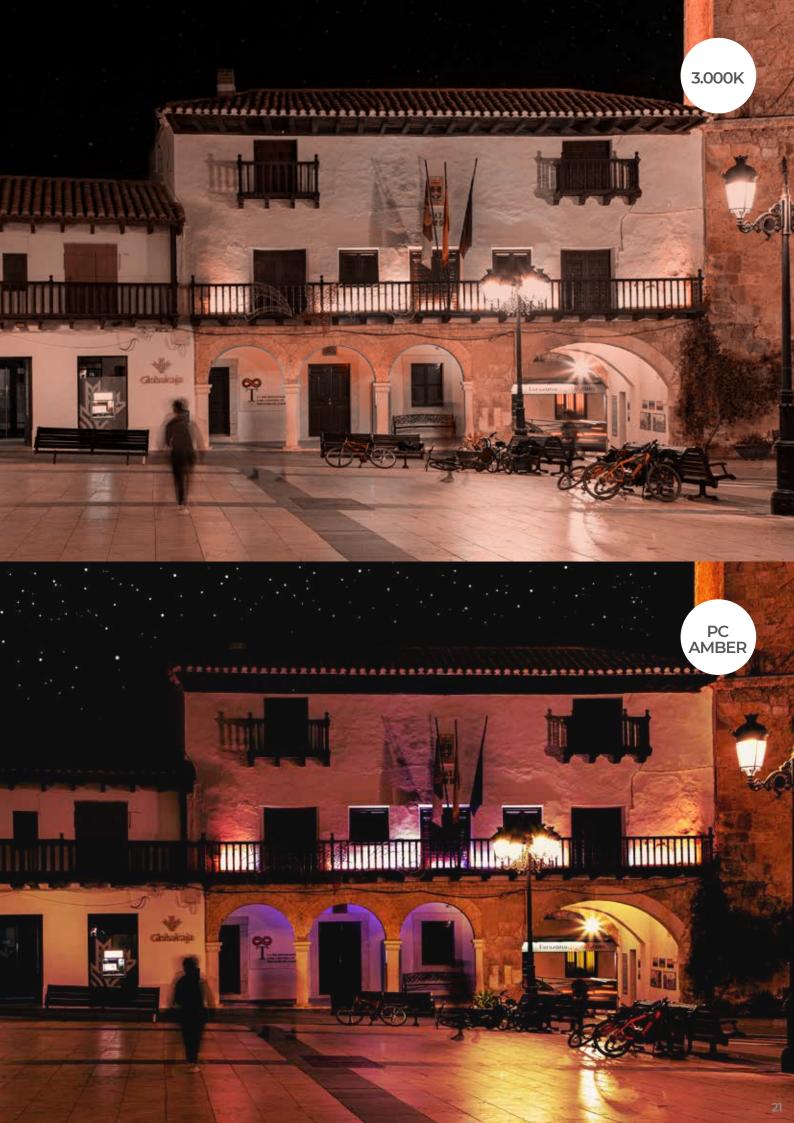
Reduced light pollution



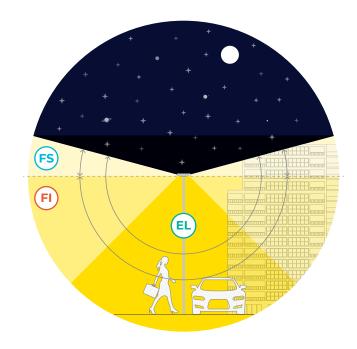
More attractive to visitors in the evening



Nature protection



## Ecofriendly lighting: Let's protect the sky and biodiversity









Over recent years, excessive and incorrect use of artificial lighting at night has become a **serious environmental problem. Light pollution** is affecting the ecosystem, altering **biodiversity** and affecting the possibility of stargazing.

The most efficient luminaires control the spectrum and intensity of light emitted to the upper hemisphere, and reduce the wasted energy. These luminaires offer a dynamic adaptation to the environment over time, zone control and variable scenarios.



Reduced light pollution



Greater savings



Safeguarding the environment

#### Ecofriendly solutions

Prilux offers solutions that minimise environmental impact by manufacturing flat glass luminaires with zero flux emission to the upper hemisphere (FUH = 0). The luminaires regulate the electromagnetic spectrum to limit blue light and reduce light scatter to space for an unobstructed view of the night sky. This is possible thanks to:



The reduction of the colour temperature <3,000K to make possible a PCA LED (1.890K).



Adding an amber filter on the LED to limit the emission of blue wavelengths.

#### **Certified solutions**

Prilux certified solutions minimise environmental impact by meeting the stringent requirements of the Instituto Astrofísico de Canarias (IAC) and national and international night sky protection standards.







PRILUX: Company committed since May 2021 to SLOWLIGHT



# Sensors and sequences: The lighting you need, when you need it.

As technology develops it makes it increasingly meaningful to talk about sustainability in connection with urban lighting.

One of the key drivers of energy efficiency is **automation**. Prilux has options that can **adapt a luminaire's power** and switching according to meet the **conditions**. As well as **programmable** 

**drivers** that facilitate flow **regulation sequences** in function of time and/or to schedule.



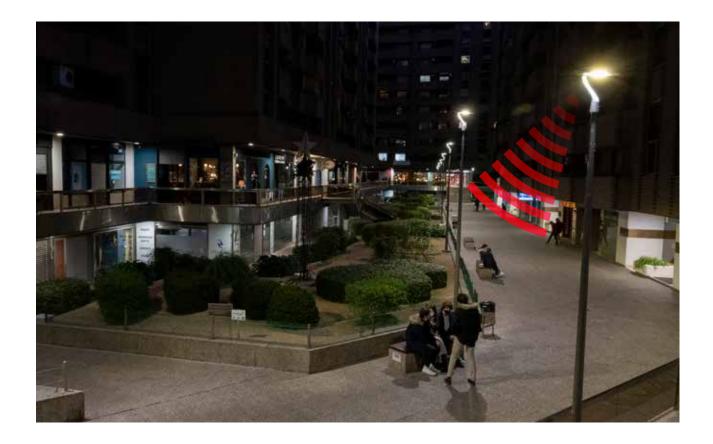




Safety



Customisation

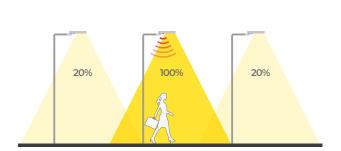


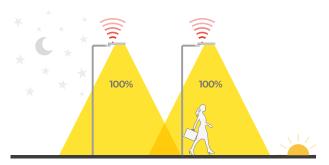
#### Presence sensors

A presence sensor keeps a luminaire at minimum output to **minimise consumption** when there are no pedestrians for **greater energy savings and efficiency**. When the sensor detects movement, the luminaire increases the light emitted to provide good safe lighting for the person or people that have been detected.

#### **Brightness sensors**

A brightness sensor enables the brightness of a luminaire to be regulated as natural light decreases. That means that lighting is switched on at the right time, avoiding waste and unsafe dark environments.



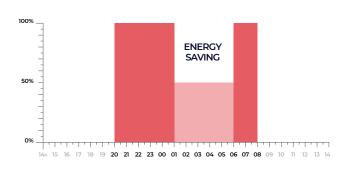


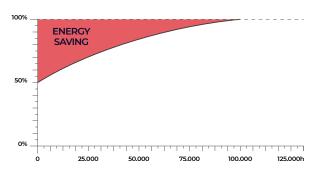
#### Regulating sequences

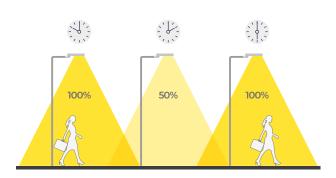
The driver can be programmed with **dimming** sequences for the amount of light emitted by a luminaire's. That allows different ambiences to be created in function of conditions and the needs of the setting and optimises electricity consumption to the maximum.

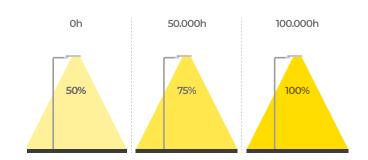
#### Constant light output CLO

CLO (Constant Light Output) provides the ability to maintain a constant light output over the lifetime of a luminaire. This avoids unnecessary light when the luminaire is new and balances the decreased light efficiency of LEDs over time.





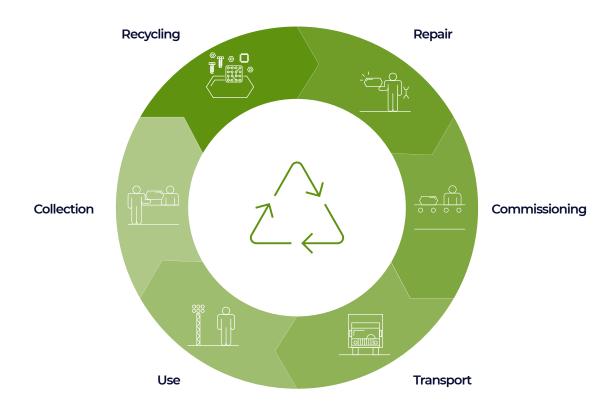




# Circular economy: The drive to sustainability

For many years, the lighting industry has led the way on **energy saving** and the **circular economy.** 

Aluminium, the main material used to manufacture products with recycled raw materials, is itself recyclable. The industry also provides products that can readily be repaired which, finally, have long useful lives.



#### Prilux on the path to the circular economy

Prilux is engaged in a process of **continuous** adaptation of its luminaires to comply with the **Ecodesign** Directive, ensuring that its products are **repairable**. This is possible because we manufacture many components in-house and can therefore be respond flexibly to requests for **spare** parts.

Prilux has the purpose of expanding the replaceable components of all families of street and floodlight luminaires, to continue taking steps towards an economy circular, adapting to the European Ecodesign Regulation (SLR) 2019/2020





Luminaires for professional street lighting solutions



# Arisa























#### Specific lighting for each urban space

A beautifully designed luminaire to light any urban space. Thanks to the range of fixtures and light patterns available, Arisa can be used in any situation.





#### **Technologies**





Protective device with three protective spheres Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.





#### Arisa Top 1



Single-arm model, decorative styling. Simple lines that bring harmony and elegance to spaces. Particularly suitable for use in squares, boulevards, parks, landscaped areas, promenades, open spaces in sports complexes...

#### Arisa Top 2



Two-arm model, decorative styling. Simple lines that bring harmony and elegance to spaces. Particularly suitable for use in squares, boulevards, parks, landscaped areas, promenades, open spaces in sports complexes...

The arms are fitted with a channel, to keep the power cable hidden from view.

#### Arisa Top 4



Four-arm model with decorative styling. Simple lines that bring harmony and elegance to spaces. Particularly suitable for use in squares, boulevards, parks, landscaped areas, promenades, open spaces in sports complexes...

The arms are fitted with a channel, to keep the power cable hidden from view.

#### **Arisa Road**



Flexible luminaire that can be mounted horizontally and at an angle with its two positions at  $0^{\circ}$  and  $90^{\circ}$  which makes it

extraordinarily versatile.

Designed for use on streets, avenues, squares, open spaces...

#### **Arisa Catenary**



Model for installation on steel catenary, so that it can be aligned with the street and cast all its light on the surface. It allows spaces to have a very clean aesthetic of the spaces because its installation eliminates the need to have posts or poles.

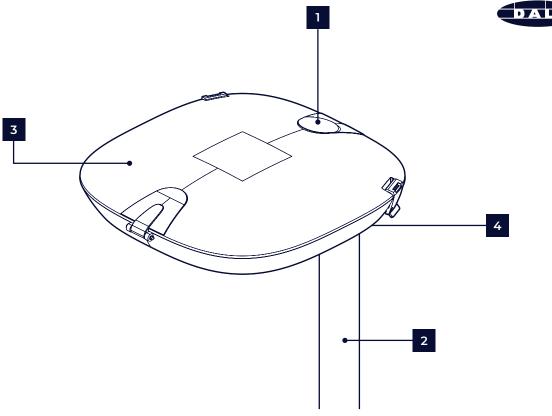
Luminaire suitable for installation in pedestrianised streets, boulevards, historic areas...

## Arisa











#### Suitable for remote management

ARISA is ready to work with CORA MANAGER and can incorporate ZHAGA BOOK 18 connectors or NEMA 7.



#### Standard diameters

As standard ARISA is designed for installation on fixtures, poles or columns with diameters of 60 or 76mm in TOP1, TOP2, TOP4 models



#### Design

Simple design that is very light, without neglecting mechanical resistance.



#### Pressure valve

ARISA luminaires are equipped with a pressure equalising valve that keeps the inner and outer pressures even and prevents condensation.



#### Solutions

	Cora Manager CMR	Cora Manager PLC	Cora Manager IoT	Safelight	Sensor Safelight	WAS	Sensors
Arisa Top 1	<b>~</b>	<b>~</b>	<b>~</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	<b>/</b>
Arisa Top 2	<b>~</b>	<b>~</b>	<b>~</b>			<b>✓</b>	<b>/</b>
Arisa Top 4	<b>~</b>	<b>~</b>	<b>~</b>			<b>✓</b>	
Arisa Road	<b>~</b>	<b>~</b>	<b>~</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	<b>/</b>
Arisa Catenary	<b>/</b>	<b>~</b>	<b>/</b>			<b>✓</b>	<b>/</b>

## Avatar











Difusser Glass IK08

On request

















#### A range of sizes and powers adapted to any need

A luminaire available in different sizes and powers to adapt to lighting scheme, from residential areas to motorways.



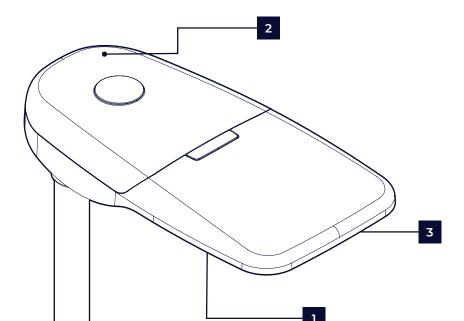


#### **Technologies**





Protective device with three protective spheres Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.













Wide range of luminous fluxes

Pressure valve

Adapted shades

#### Solutions

	Cora Manager CMR	Cora Manager PLC	Cora Manager IoT	Safelight	Sensor Safelight	WAS	Sensors
Avatar	<b>~</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
Avatar L	<b>/</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>		<b>/</b>
Avatar XL	<b>~</b>	<b>~</b>	<b>/</b>	<b>~</b>	<b>~</b>		<b>/</b>

# Veria















#### Style and beauty in a light

Outstanding qualities of visual comfort and energy efficiency for streets, bike paths, parks, playgrounds, roads, motorways and bridges.





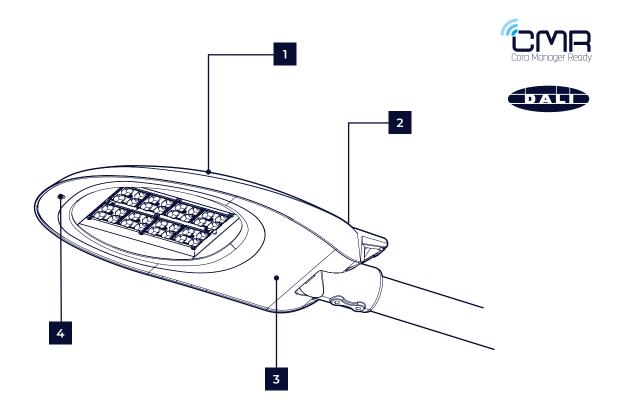
#### **Technologies**





Protective device with three protective spheres

Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.





### Solutions



## Versa























#### Every urban space needs particular lighting.

Versa's more than 16 photometric distribution options allow it to meet the requirements of any lighting projects for streets, roads, motorways, bike paths, parks, children's playgrounds, bridges and lanes.



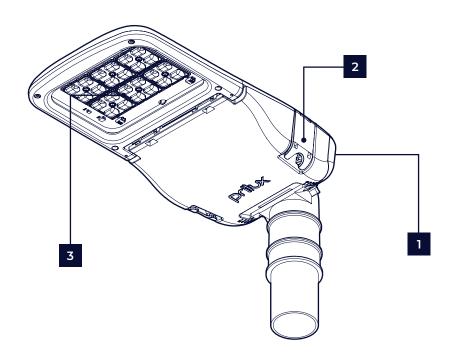


#### **Technologies**





Protective device with three protective spheres Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.















Pressure valve

Maintenance with minimal tools

Service Life

#### Solutions



<sup>\*</sup> On request option. Without sensor option

### Ircana















MADE IN SPAIN Design by PRILUX







#### Tradition and elegance with the highest quality LED technology Ircana perfectly combines energy

efficiency with the style of a traditional light fitting, with one goal in mind: to enhance classic city spaces with the best lighting performance.





#### **Solutions**



Cora Manager CMR



\*Includes Optical Group with testing under ENAC

## Gaudium

























#### Harmony in street lighting

Gaudium takes the latest innovations in LED technology and high visual comfort and integrates them into traditional architecture





#### **Solutions**



Cora Manager CMR



₩AS





### Netta







(12-24 Led) (32 Led) GO/IP67 GO/IP66

















#### **Classical ambient lighting**

Perfect combination of traditional design and cutting-edge technology in a state-of-the-art LED light.





#### **Solutions**



Cora Manager CMR

\*Includes Optical Group with testing under ENAC and \*ENEC certification, CB, N

## Sfera





















#### Perfect harmony, balance and symmetry

With no faces, edges or corners, Sfera gives street lighting its own unique personality. Classical style adapted to modern technical requirements



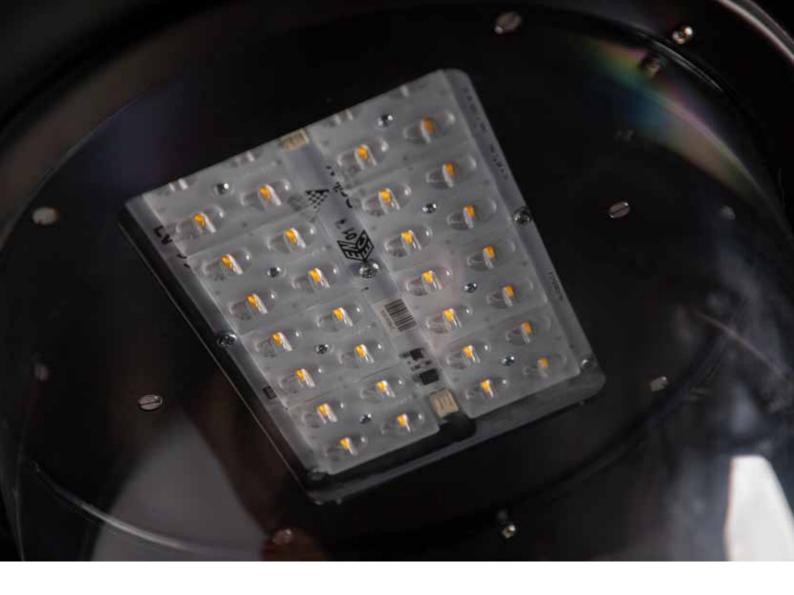


#### **Solutions**



Cora Manager CMR

<sup>\*</sup>Includes Optical Group with testing under ENAC and \*ENEC certification, CB, N



## Livia









L90B10> 200.000h









MADE IN SPAIN Design by PRILUX

#### Visual comfort in urban and residential environments

Livia provides maximum optical comfort and safety for people in streets, squares, parks, playgrounds, transport hubs and bike paths.





\*Includes Optical Group with testing under ENAC and \*ENEC certification, CB, N

#### Solutions



Cora Manager CMR

## Nantes























#### Elegant minimalist design in a compact projector.

Nantes has a simple design with pure angles with excellent mechanical strength. The Nantes range by Prilux can illuminate monuments, façades, areas and perimeters at industrial buildings, sports facilities and outdoor car parks with the highest quality and efficiency.





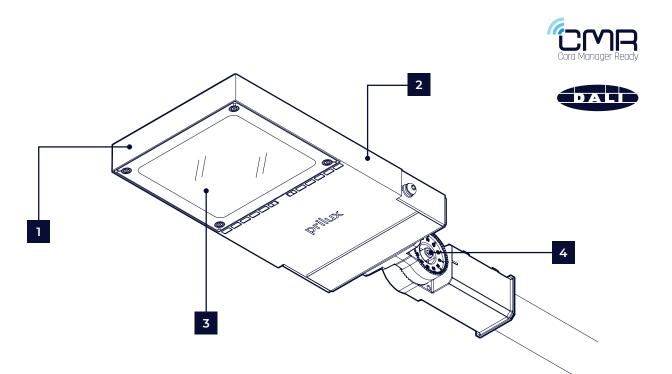
\* Certification of the Instituto Astrofísico de Canarias (IAC) in Nantes models with PC Ambar filter.

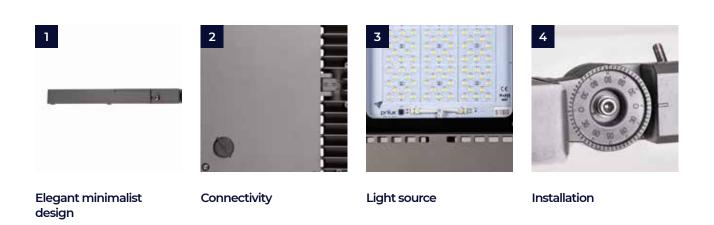
#### **Technologies**





Protective device with three protective spheres Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.





#### Solutions



## Universal Optical Group



















#### An adaptable optical unit for traditional lanterns

The universal light fitting allows villatype street lights to be adapted to take LEDs. It is suitable for urban and industrial areas, roads, motorways, public transport stations, cycle paths, streets, squares and parks.





#### **Technologies**





Protective device with three protective spheres Control of luminaire operating temperature: via NTC starting at 70 W (85°C) or via internal thermal control in drivers, depending on model.

### Optical Group

#### 12LEDs

#### 24LEDs

#### 32LEDs













### IP66 Optical Group

#### 12LEDs

#### 24LEDs

#### **32LEDs**







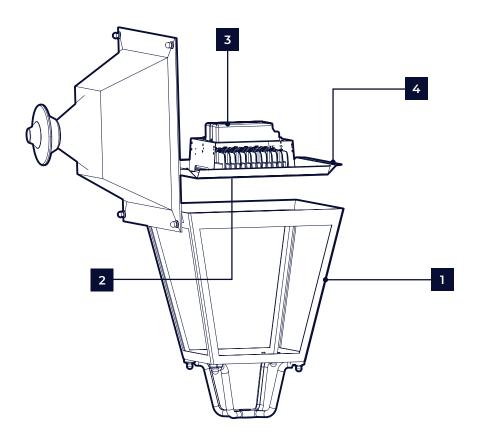






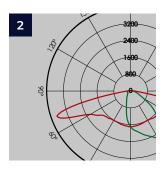








Universality



Photometry options to suit every need



Simplicity in every installation



Resistance



### Solutions

	Cora Manager CMR	Cora Manager PLC	Cora Manager IoT	Safelight	Sensor Safelight	WAS	Sensors
12LEDs	<b>/</b>	<b>/</b>	<b>✓.</b>				
24LEDs	<b>/</b>	<b>✓</b>	<b>✓.</b>				
32LEDs	<b>✓</b>	<b>✓</b>	<b>✓.</b>				
12LEDs/IP66	<b>/</b>	<b>~</b>	<b>√</b> .				
24LEDs/IP66	<b>~</b>	<b>~</b>	<b>✓.</b>				
32LEDs/IP66	<b>/</b>	<b>~</b>	<b>✓.</b>				

<sup>\*</sup> Limited functionality, please consult us.

## Comparison Lighting for two-way residential street

Lighting scheme for a standard two-way street of width 7 metres according to "Supplementary Technical Instruction EA-02 Lighting levels" of the SPANISH MINISTRY OF INDUSTRY, ENERGY AND TOURISM.

The scheme is for infrastructure categorised as Class D: "suburban residential street with pavements along the highway." The chosen lighting solution used **AVATAR 24 LED 36 W 730** luminaires and achieves the ideal values for Class S2 lighting.





## Comparison: Lighting for two-way residential street

#### Comparison

#### Data

0,15€
12
30
12
4,320





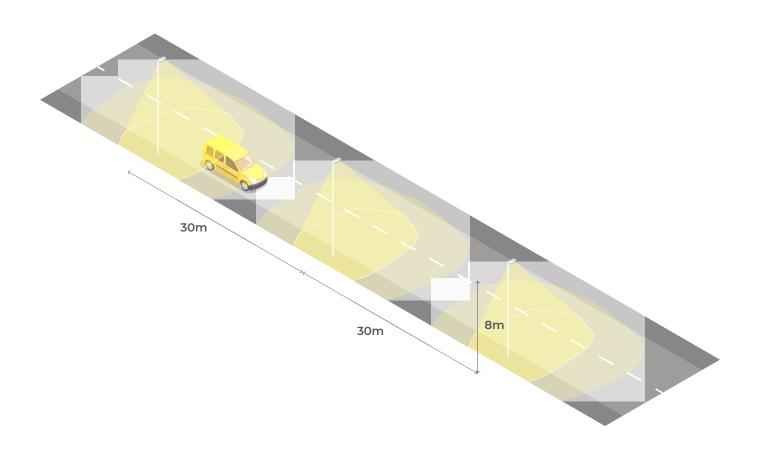


	Discharge	LED	LED + Dimming (34%)**
ENERGY CONSUMPTION / UD (W)	120	37	24.4
kW/month (UD)	43.2	13.3	8.77
MONTHLY CONSUMPTION / UD (€)	6.48	2.00	1.32
ANNUAL CONSUMPTION / UD (€)	77.76	23.98	15.82
ANNUAL MAINTENANCE / UD (€)	3.78*	-	-
SAVING	-	69.2%	80.0%
EMISSIONS CO <sub>2</sub> /UD (kg/year)	202	62	40.9
AMORTIZATION (Years)	-	2.08	1.37
AVERAGE ILLUMINANCE	11.44lx	10.49lx	10.49lx / 6.29lx / 4.19lx / 10.49lx***
MINIMUM ILLUMINANCE	5.81lx	5.31lx	5.31lx / 3.18lx / 2.12lx / 5.31lx
UNIFORMITY	0.51	0.51	0.51

<sup>\*</sup> Average annual maintenance cost including: labour, lamp replacement and equipment for replacement to be installed

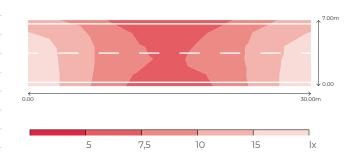
<sup>\*\*</sup> Regulatory sequence: 4 hours at 100% + 2 hours at 60% + 6 hours at 40% + 4 hours at 100% (Estimated for winter months)

<sup>\*\*\*</sup> Illuminance values per sequence section



#### Data/ LED project

Layout	Unilateral
Interdistance	30m
Width	7m
Area	210m²
Luminaire height	8m
Total power	37W
Power/m²	0.18W/m <sup>2</sup>
Total flux	4,975lm

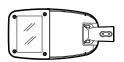


#### Illuminance

E <sub>m</sub>	10.49lx	11 - 15 - m - 11 (E /E )	0.51
Emin	5.31lx	Uniformity $U_o (E_{min}/E_m)$	0.51

#### Avatar 24LED 36W 730 VA02L0M VT

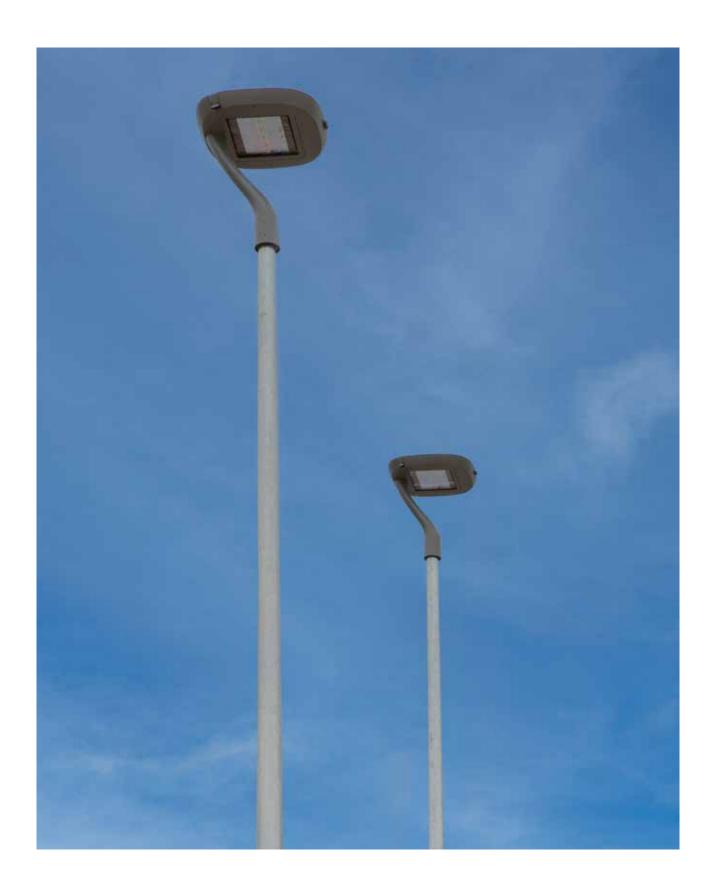
Ud	20	W <sub>T</sub>	фт
1	AVATAR 24LED 36W 730 VA02LOM VT	37W	4,975lm







**Lighting Project L'Alcora** Valencia (Spain) Luminaires installed: **Arisa Top1, Arisa Road** 

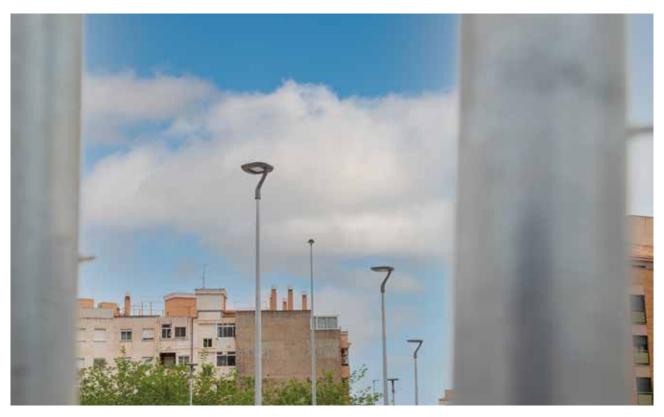






Arisa Road

Arisa Top1





# **Lighting Project, Urb. Rio Seco**Pilar de la Horada, Alicante (Spain) **Luminaires installed: Avatar, Ircana**









Avatar

Ircana





## **Lighting Project Caiño da Seara** Poio, Pontevedra (Spain) **Luminaires installed: Avatar**



Avatar





### Lighting Project Pilar de la Horadada

Alicante (Spain)

Luminaires installed: Veria, Ircana





Veria Ircana







## **Lighting Project Tarazona de la Mancha** Albacete (Spain) **Luminaires installed: Gaudium, Ircana**









Gaudium

Ircana





# **Lighting Project Archena** Murcia (Spain) **Luminaires installed: Veria**



Veria





# **Lighting Project Elda**Alicante (Spain) **Luminaires installed: Avatar**



Avatar





# **Lighting Project Ayna**Albacete (Spain) **Luminaires installed: Ircana**



Ircana





# **Lighting Project Lietor**Albacete (Spain) **Luminaires installed: Ircana**



Ircana





Lighting Project Torralba de Calatrava Ciudad Real (Spain) Luminaires installed: Arisa Top2, Arisa Top4, Arisa Road, Netta, Nantes



















Arisa Top2

Arisa Top4

Arisa Road

Netta

Nantes





# **Lighting Project Retuerta del Bullaque** Ciudad Real (Spain) Luminaires installed: **Arisa Top2, Avatar, Nantes**















Arisa Top2

Avatar

Nantes





# **Lighting Project San Esteban de Nogales** León (Spain) **Luminaires installed: Versa**







Versa







**Lighting Project Almensilla**Sevilla (Spain)
Luminaires installed: **Arisa Top1, Arisa Road, Ircana, Versa** 













Arisa Top1

Arisa Road

Ircana

Versa





