



Lighting and intelligent  
**infrastructure management  
systems**

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100%

# Made in Poland

We are a lighting manufacturer with 35 years of presence on the market, which is why we know everything about luminaires and lighting systems: we design, comprehensively test and manufacture them. We combine practice with modernity.

We have technologically advanced manufacturing facilities at our command, which guarantees a high level of flexibility and operational efficiency. We produce over 4 million luminaires annually, and each product leaving the Lena Lighting production line strengthens our position in the market of luminaires in the country and in the world – every day.

When designing new luminaires, we take advantage of the latest achievements in technology. For years, we have cooperated with leading international manufacturers of electrotechnical components, who, in addition to providing us with their solutions, also implement individual projects of our Engineers at the Research and Development Department of Lena Lighting S.A., allowing for a significant reduction in energy consumption, while improving the quality of lighting. We are constantly enhancing our know-how using the latest global solutions in LED technology and lighting control.

35+

**years of experience**



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## Modern LED production line

Środa Wielkopolska

An aerial photograph of a circular mosaic well. In the center, a modern street luminaire is installed, featuring three black, rectangular light fixtures extending outwards from a central point. The well is surrounded by a circular border of light-colored mosaic tiles, and the surrounding ground is dark asphalt.

# Reach your destination safely and at all times

**Street and park and urban luminaires, as well as intelligent control systems manufactured by the Polish manufacturer Lena Lighting, are innovative solutions that will help you upgrade infrastructure more effectively than ever before!**

Energy efficiency, reducing carbon footprint, increasing safety and reliability, creating a more pleasant urban living space – intelligent LED technology has many stories to write. We help with that every day!

Discover our solutions and make your best investment with Lena Lighting!

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#### **Our luminaires are characterised by:**

- Excellent quality at a competitive price
- Design developed by our own R&D department
- Polish production and branded components
- Luminous efficiency up to 193 lm/W
- Power range from 8 to 330 W
- Luminous flux range from 900 to 42275 lm
- Very high IP66 ingress protection
- SP10kV protection as standard
- IK07-IK09 impact resistance
- Comprehensive range of professional urban luminaires
- ULOR = 0.0%
- Environment-friendly production process
- Up to 10 years warranty as standard

# Attention to every detail

Even when undertaking the most daring infrastructure projects worldwide, we never forget about the smallest details. It is precisely these that make our proposed solutions hit the mark and consistently improve the quality of life for all urban infrastructure users.

Starting with the selection of luminaires and intelligent management systems, through solution modification, lighting calculations, and additional services, to support throughout the entire investment lifecycle – we are ready to assist you in realising bold visions that will prepare our cities for future challenges!



## — Lighting design

Our customers can take advantage of our experts' professional advice at any time during the implementation of the investment. We will support you in choosing the lighting concept and the products. We will make visualisations and comprehensive lighting projects using the latest computer software. We make calculations of profitability and energy efficiency of lighting.

Engineers working in our design office will prepare a project that meets all standards and guarantees comfort of use. The client receives free-of-charge consultancy and project documentation, which guarantee high quality and compliance with standards.

## — Product modifications

LED technology is developing at a rapid pace. Thanks to our know-how, R&D expertise, and advanced manufacturing capabilities, we are able to customise our products to the specific needs and demands of our partners. We can also design and manufacture customised solutions tailored to the specific demands of each project. We recognise that our customers seek personalised solutions, which is why we are equipped to adapt our products to different types of investments.

## — IoT systems

We provide tailored solutions that perfectly match the distinct characteristics of your city or town. Our portfolio includes intelligent urban lighting control systems that leverage a variety of communication technologies, designed for optimal functionality and billing to help you achieve your goals most effectively. Contact us and find out how we can work together to prepare your city or town for future challenges.

## — Services

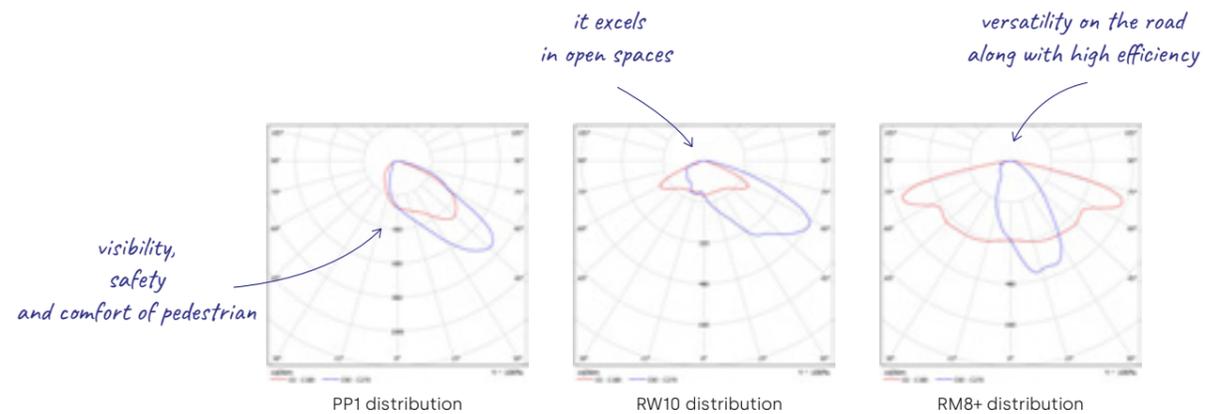
Everything you need to create your best lighting investment!

- LaaS
- ESCO
- Selection and configuration of IoT solutions
- Energy audit
- 3D designs

# Everything begins with light!

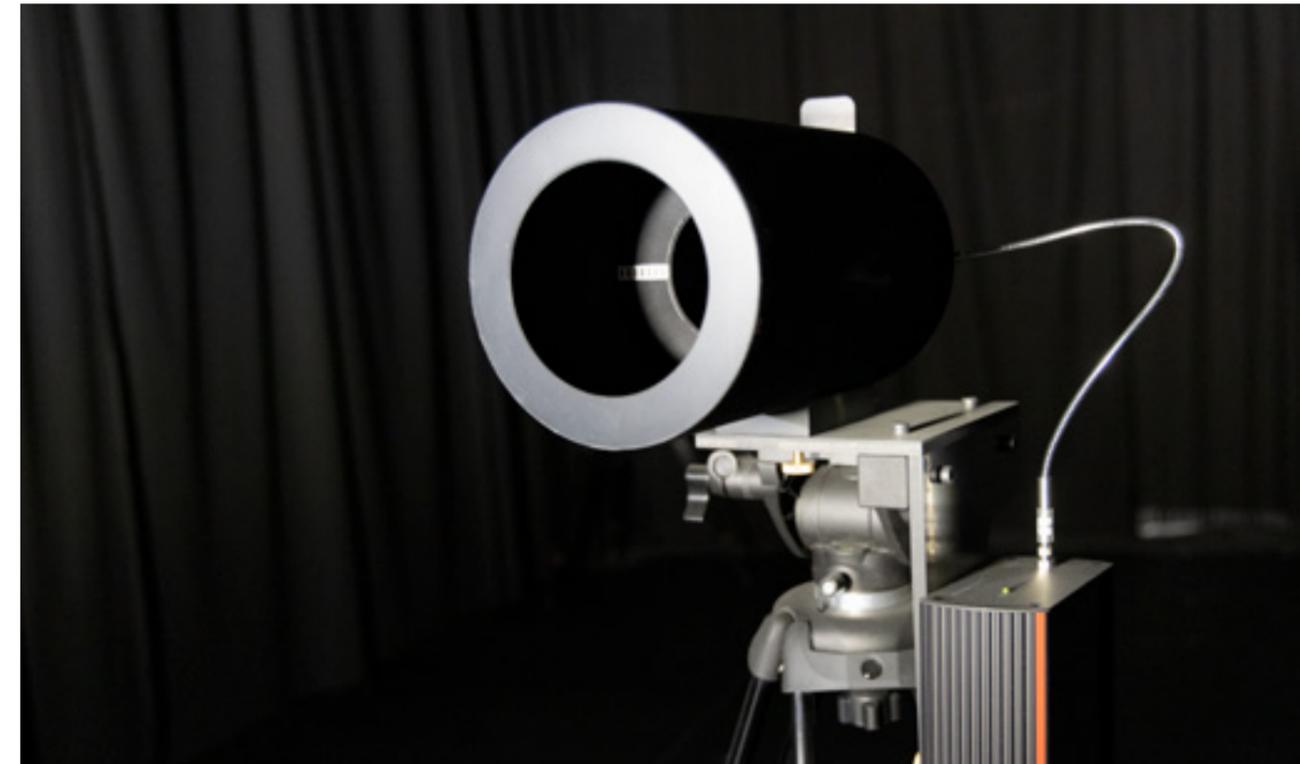
## — Only the best lighting solutions to optimise every project

Every day, Lena's designers create lighting scenarios using solutions that not only meet lighting standards with a primary focus on minimising total installed power but also enhance the comfort of all road users. Our meticulously designed and expertly executed LED module, premium-grade components, such as lenses and diodes, along with our designers' years of experience, make lighting provided by Lena Lighting a real game-changer!



### Lena Lighting LED modules are distinguished by:

- High efficiency
- Extended lifespan
- Optimisation of total installed power
- Maintenance of luminous flux values over time
- Flexible configuration
- Handling even the most challenging road situations



We are a leading manufacturer of innovative lighting solutions, renowned for their exceptional technical parameters and practical advantages. Our products blend modern design with functionality, while delivering outstanding lighting performance. Moreover, our products boast multiple international certifications that conform to the industry's most stringent criteria.

Our company is deeply committed to maintaining continuous customer satisfaction and delivering the highest quality products and services. Therefore, our specialists continuously monitor and adhere to quality system procedures.

### In the process of developing lighting projects, we ensure:

- Compliance with current legal regulations
- Compliance with applicable industry standards
- Compliance with recommendations of the International Commission on Illumination (CIE) and its National Committees
- An environment-friendly production process



Our company is fully prepared to meet the most rigorous requirements and deliver lighting solutions that exceed all standards and expectations.

# Lena C5+

## Considering a modernisation a seaside resort?

The demanding coastal and industrial conditions put every material to the test. Those that are not prepared will not sustain operation for long.

The Tiara 2 LED luminaire not only complies with standards but also represents a powerful response to the requirements posed by harsh industrial and marine conditions (C5). Our luminaire illuminates the surroundings and effectively combats the challenges of an unfriendly work environment.

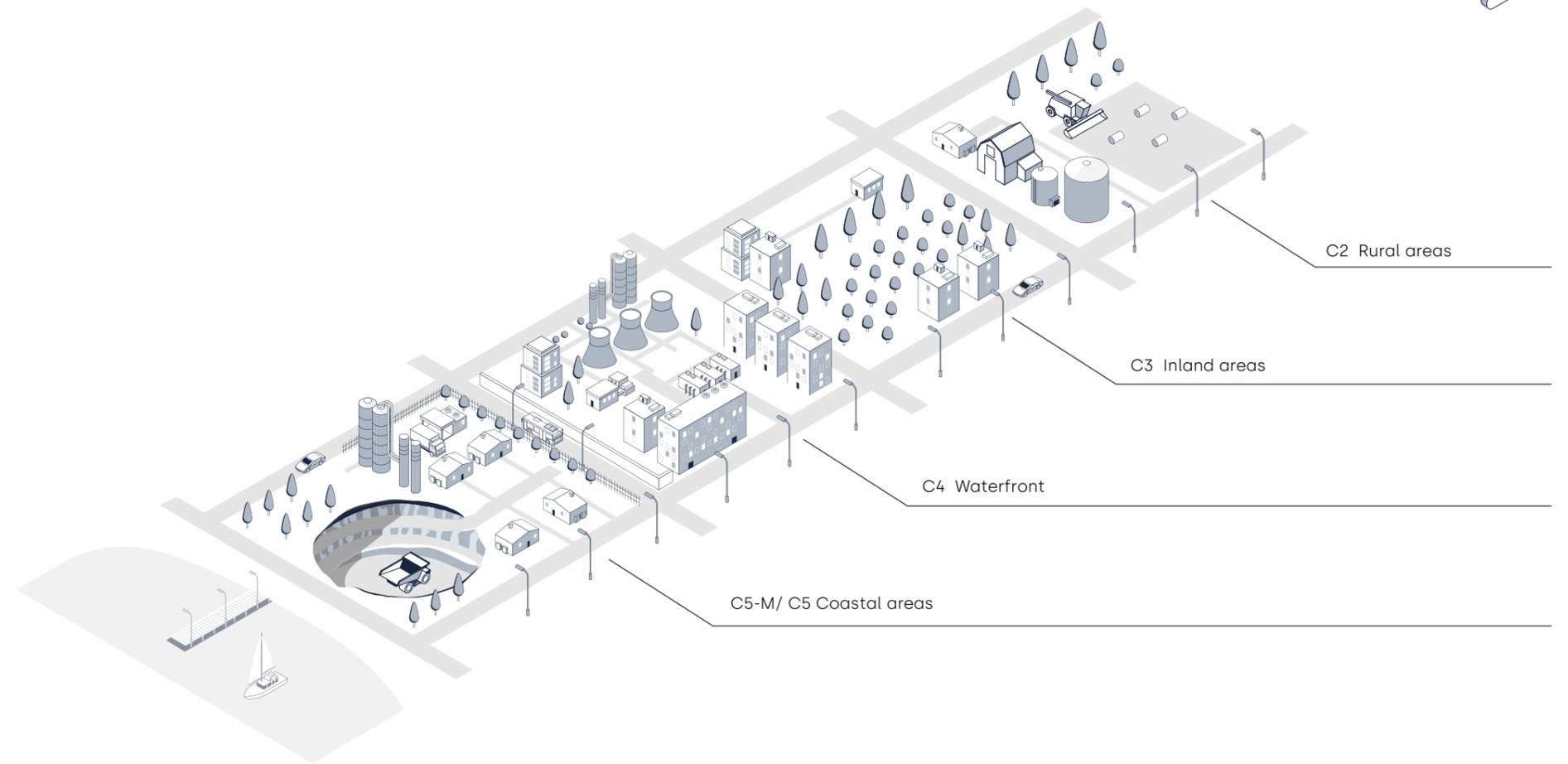
The Tiara 2 LED has undergone rigorous testing for 1500 hours in accordance with international standards, simulating demanding environmental conditions.

The results allow us to anticipate possible component deterioration in real-world conditions – which is crucial for warranty period determination.

Based on the conducted research, we can confidently declare that our luminaires with Lena C5+ housings are suitable for installation in hostile working environment.

Option C5M is available on request as a standard modification. Thanks to it, our lighting can handle even the most challenging conditions, offering both light and reliability.

Factors influencing corrosion



**Aluminium  
with copper  
content < 0.1%**

Subjected to 1500  
hours of rigorous  
environmental testing

# Backshield

— Innovative solution that eliminates the problem of glare from street luminaires shining directly into windows.

New accessories for Skver LED have been designed to enhance residents' quality of life, focusing on limiting light distribution in the rear, right-hand side, and left-hand side directions.

#### **Which direction of light distribution limitation to choose?**

If you're not sure, get in touch with us and we will help you find a solution. Backshield by Lena ensures a well-lit night without unwanted glare from street luminaires. For us, it's not just about effectiveness, but also the everyday encounters with urban lighting.

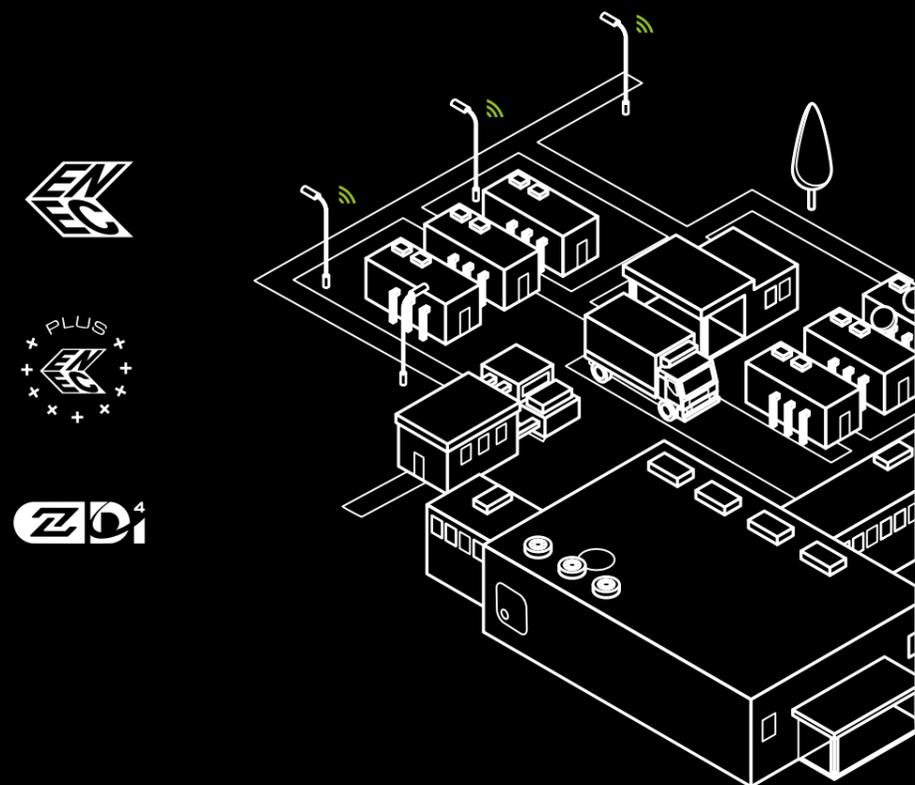


Road lighting in Środa Wielkopolska

# Light

that allows you to effectively upgrade infrastructure

We meet all the requirements of the "Rozświetlamy Polskę" ("Light Up Poland") programme, but that's just the beginning. Thanks to our modular range of intelligent infrastructure management systems, we offer a control system perfectly tailored to your needs. Our dedicated team of experts will select lighting solutions ensuring maximum savings.



Visit our website:

[www.lenlighting.pl/rozswietlamy-polske](http://www.lenlighting.pl/rozswietlamy-polske),

Find out more and get in touch with us.

We guarantee a prompt response and reliable support.



**,ROZ  
SWIE  
TLA  
MY  
POLSKĘ**



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Road  
and street  
**lighting**





**Tiara 2 LED XS**



**Tiara 2 LED S**



**Tiara 2 LED M**



**Tiara LED PRO**



**Strado LED M**



**Strado LED S**



**Astra LED**



**Astra LED S**

## Tiara 2 LED family

# The new level of luminous efficiency and the highest energy efficiency class A

The Tiara 2 LED line is undergoing revolutionary changes. In our offer, you can now find luminaires offering impressive luminous efficiency of up to 193 lm/W, ensuring even better illumination of any area, including those difficult to access.

By achieving higher luminous flux with the same power output and optimised light distributions, our luminaires will deliver greater efficiency without increasing electricity consumption. This modification ensures that the enhanced luminaires achieve the highest energy efficiency rating, class A.

The latest Tiara 2 LED models are designed to integrate seamlessly with the CLUE lighting management system and include a DALI interface, allowing for customised light intensity and colour temperature adjustments throughout the day and night. This enables substantial additional energy savings and reduction in CO<sub>2</sub> emissions.

Luminous efficiency up to  
**193 lm/W**



Energy  
efficiency  
class



## — Tiara 2 LED family

The latest and most versatile products in our offer of road luminaires.

up to  
193 lm/W

IP66

IK09



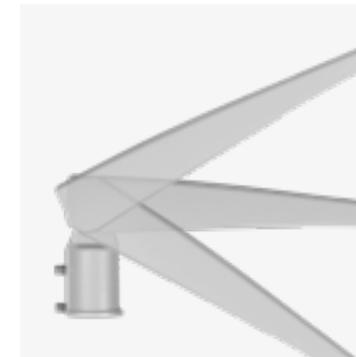
**TIARA 2 LED is the most versatile product in the Lena Lighting's range of road luminaires.**

These luminaires can be used on motorways, expressways and express roads, as well as on national, municipal, local and residential roads. With various optics available they can also be used to illuminate pedestrian crossings, pavements and bicycle paths.



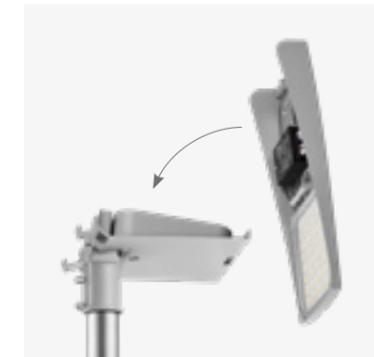
#### Available options:

- Mounting bracket with a diameter of 76 mm
- NEMA ANSI C136.41 and ZHAGA D4i connectors
- Dusk sensor, motion sensor (RCR), remote control available
- Capability to program a 5-step autonomous power reduction
- Luminaires available in I and II class of protection
- Functions for maintaining constant luminous flux values over time with CLO available
- Protection against accidental overheating of the NTC luminaire
- Anti-condensation vapour filter
- Coating in any colour from the RAL palette
- A safety knife switch that disconnects voltage in the event of accidental opening of the luminaire
- Permanent, anti-vandal protection of the luminaire incorporating screws or a seal available as option
- The luminaire can come with a quick-connect cable
- Additional SP10kV protection separate from the luminaire's power supply



#### Tilt adjustment

The mounting bracket is attached to the housing with two screws, by loosening these screws we can adjust the tilt of the luminaire from  $-30^\circ$  to  $+30^\circ$ .



#### Fast, innovative mounting

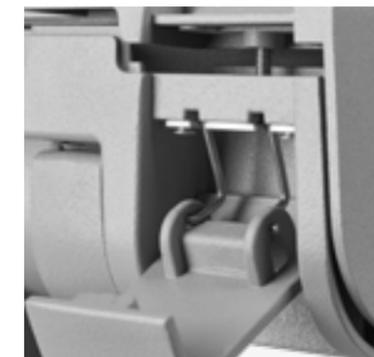
Easy maintenance with tool-free access to the interior of the Tiara luminaire.



#### More efficient LED light sources

Applying newer

and more efficient LED light sources translates directly into higher energy efficiency of the luminaire.



#### Robust body

Tiara 2 LED luminaires are made from the highest quality materials. They are reliable and resistant to extreme weather conditions.



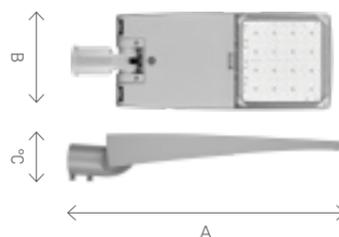
## Tiara 2 LED M

up to 193 lm/W IP66 IK09

Rated power [W]:	8 - 175	Body colour:	grey
Luminous flux [lm]:	900 - 22925	Diffuser material:	tempered glass
Mounting method:	to the pole -30°+30° on the bracket -30°+30°	Types of optics:	transparent lens
Body material:	high-pressure aluminium powder coated	Dimensions A/B/C [mm]:	597/265/105

### Distinguishing features:

- Tool-free and quick access to the electrical equipment compartment
- Compatible with the modern ClueCITY control system (additional NEMA and ZHAGA connectors)
- Protection against overheating of the luminaire's LED NTC module.
- Easy and quick disassembly of the optical-electrical parts
- LED lifespan L90B10 100 000h
- Permanent, anti-vandal protection of the luminaire incorporating screws or a seal available as option



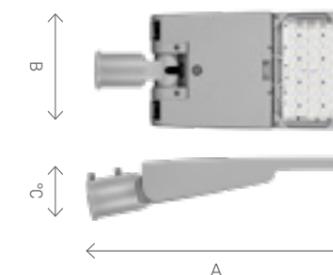
## Tiara 2 LED S

up to 193 lm/W IP66 IK09

Rated power [W]:	8 - 109	Body colour:	grey
Luminous flux [lm]:	900 - 13200	Diffuser material:	tempered glass
Mounting method:	to the pole -30°+30° on the bracket -30°+30°	Types of optics:	transparent lens
Body material:	high-pressure aluminium powder coated	Dimensions A/B/C [mm]:	424/251/105

### Distinguishing features:

- Tool-free and quick access to the electrical equipment compartment
- Compatible with the modern ClueCITY control system (additional NEMA and ZHAGA connectors)
- Protection against overheating of the luminaire's LED NTC module.
- Easy and quick disassembly of the optical-electrical component without the need to demount the luminaire from the pole.
- LED lifespan L90B10 100,000h
- Permanent, anti-vandal protection of the luminaire incorporating screws or a seal available as option



# Optimised **design**

TIARA 2 LED XS features an optimised design and compact size, enabling more efficient lighting of common road scenarios – resulting in reduced CAPEX and OPEX. The combination of high efficiency, optimal urban lighting distributions, and proven technical

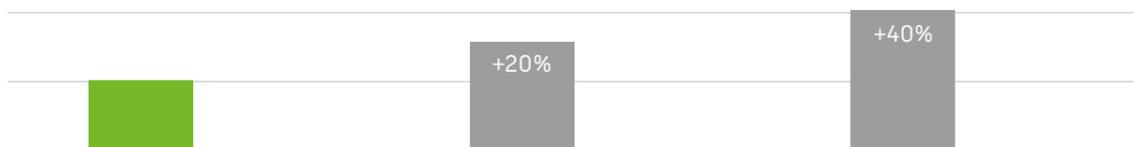
solutions packaged in an optimal housing results in decreased total costs for infrastructure upgrades and a substantial reduction in carbon footprint. It pays off!



## Tiara 2 LED XS



luminaire sizes



materials needed for production

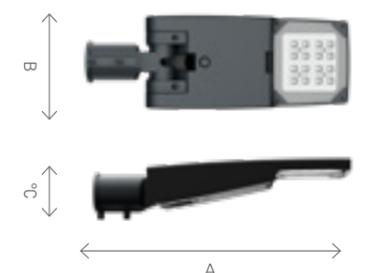
## Tiara 2 LED XS

up to 158 lm/W IP66 IK09

Rated power [W]:	8 - 55	Body colour:	grey
Luminous flux [lm]:	1250 - 7500	Diffuser material:	tempered glass
Mounting method:	on a pole -30 to +120 on a bracket -120 to +30	Types of optics:	transparent lens
Body material:	high-pressure aluminium powder coated	Dimensions A/B/C [mm]:	424/186/105

### Distinguishing features:

- Tool-free and quick access to the electrical equipment compartment
- Compatible with the modern ClueCITY control system (additional NEMA and ZHAGA connectors)
- Protection against overheating of the luminaire's LED NTC module.
- Easy and quick disassembly of the optical-electrical component without the need to demount the luminaire from the pole.
- LED lifespan L90B10 100,000h
- Permanent, anti-vandal protection of the luminaire incorporating screws or a seal available as option





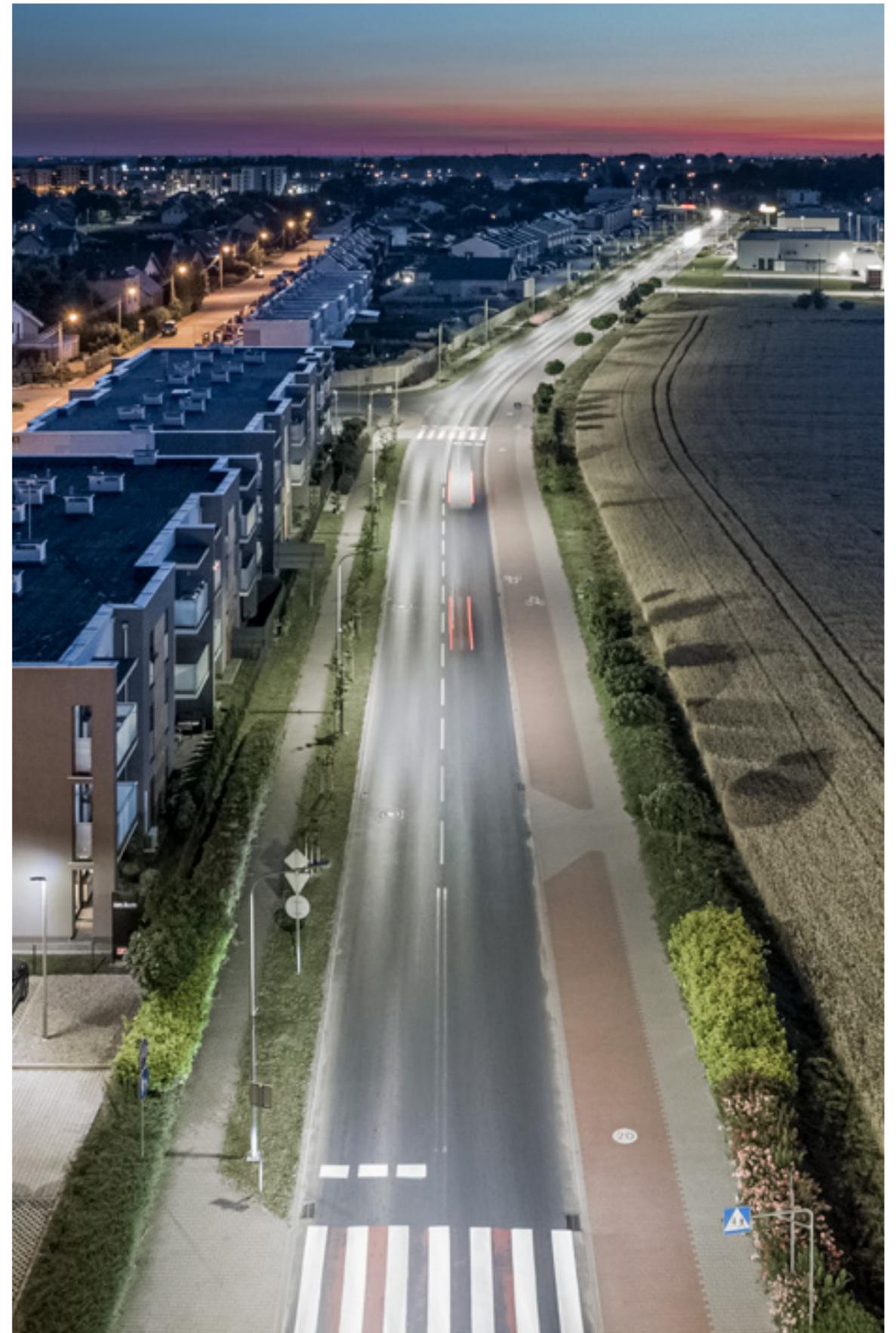
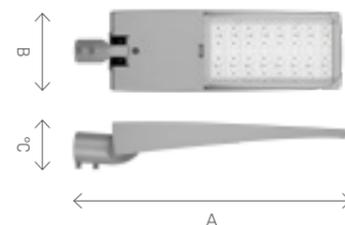
## Tiara LED Pro

max. 169 lm/W IP66 IK09  

Rated power [W]:	8 - 330	Body colour:	grey
Luminous flux [lm]:	900 - 42275	Diffuser material:	glass, tempered glass
Mounting method:	Side to bracket or top to pole	Types of optics:	transparent lens
Body material:	high-pressure aluminium powder coated	Dimensions A/B/C [mm]:	870/262/122

### Distinguishing features:

- The luminaire is ENEC, ENEC+, CE and Zhaga (Zd4i) certified
- Very wide range of light distributions
- Very high luminous efficiency
- Tool-free and quick access to the electrical equipment compartment
- Compatible with the modern ClueCITY control system (additional NEMA and ZHAGA connectors)
- Long LED lifetime – 100,000 h L90B10



Road lighting in Środa Wielkopolska



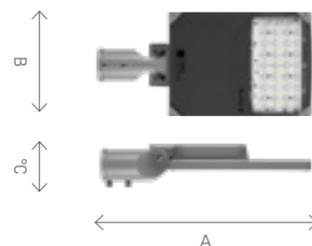
## Strado LED S

up to 165 lm/W IP66 IK09

Rated power [W]:	8 - 109	Body colour:	grey
Luminous flux [lm]:	900 - 13200	Diffuser material:	tempered glass
Mounting method:	on a pole, on a bracket	Diffuser type:	transparent
Body material:	powder-coated aluminium	Dimensions A/B/C/ø [mm]:	385/265/60

### Distinguishing features:

- It features cutting-edge LED panels and components sourced from reputable manufacturers
- It incorporates multi-lens arrays crafted from PMMA material
- Fully programmable with DALI driver
- Functions for maintaining constant luminous flux values over time with CLO available
- Capability to program a 5-step autonomous power reduction
- Protection against LED module overheating – NTC
- Quick connector available as standard
- Adjustable bracket within the range of -20° +20°



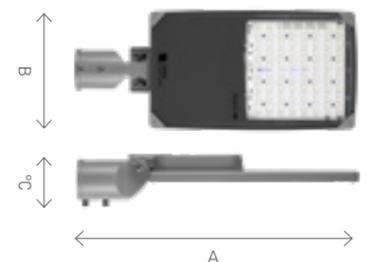
## Strado LED M

up to 165 lm/W IP66 IK09

Rated power [W]:	8 - 157	Body colour:	grey
Luminous flux [lm]:	900 - 20125	Diffuser material:	tempered glass
Mounting method:	on a pole, on a bracket	Diffuser type:	transparent
Body material:	powder-coated aluminium	Dimensions A/B/C/ø [mm]:	505/265/60

### Distinguishing features:

- It features cutting-edge LED panels and components sourced from reputable manufacturers
- It incorporates multi-lens arrays crafted from PMMA material
- Fully programmable with DALI driver
- Functions for maintaining constant luminous flux values over time with CLO available
- Capability to program a 5-step autonomous power reduction
- Protection against LED module overheating – NTC



## Astra LED family

**Excellent parameters  
for illuminating municipal  
and access roads.**

up to  
151 lm/W IP66 IK08



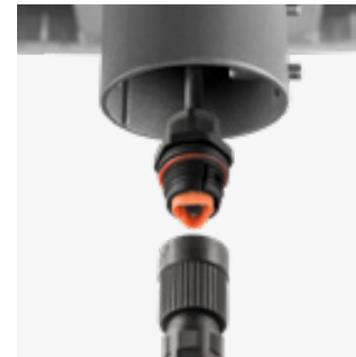
**ASTRA LED is a cutting-edge road luminaire featuring a state-of-the-art, energy-efficient integrated LED lighting module. Thanks to the use of a sealed quick connector and the pre-attached power cable, it ensures a speedy installation process.**

Recommended for use in open areas to illuminate: streets, local roads, bicycle paths, alleys, pavements, parking lots and squares.



#### AVAILABLE OPTIONS:

- RCR motion sensor
- Mounting bracket with a diameter of 76 mm
- The 12-24V version is specifically tailored for power sourcing from photovoltaic panels, wind turbines or alternative sources producing an output voltage of 12-24V DC.



#### Quick installation

The use of a sealed quick connector and a power cable connected to the luminaire makes the assembly more efficient.



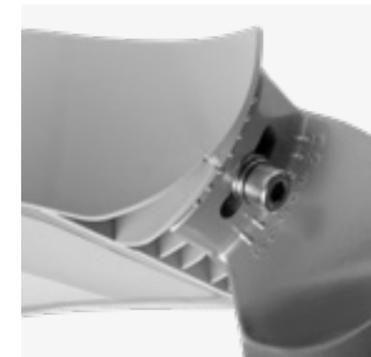
#### Self-cleaning body

Self-cleaning, uniform body made of glass fibre-reinforced polypropylene (GF-PP), providing protection against UV radiation.



#### Lenticular arrays

The luminaire features directional lens arrays made of polycarbonate (PC).



#### Simple tilt adjustment

bracket allows the luminaire to be set at an angle of: -5° to +15° (mounted on a top, on a pole), -15° to +5° (on a side, on a bracket).



## Astra LED

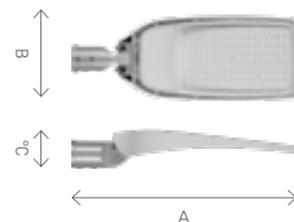
Basic version and VD budget version with sequential power supply available

up to 151 lm/W IP66 IK08

Rated power [W]:	17 - 104	Body colour:	grey
Luminous flux [lm]:	2100 - 12800	Diffuser material:	PC
Mounting method:	Side to bracket or top to pole	Types of optics:	transparent lens
Body material:	PP+FG	Dimensions A/B/C/ø [mm]:	640/233/113/60 (76)

### Distinguishing features:

- Compact dimensions and low weight
- SP10kV surge protection
- H07RN-F cable, 0.7 m long
- The use of a sealed IP66 quick connector enables quick and easy installation
- Self-cleaning body made of glass fibre-reinforced polypropylene (FG)



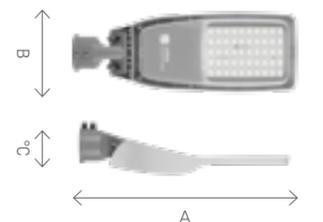
## Astra LED S

max. 140 lm/W IP66 IK08

Rated power [W]:	12 - 34	Body colour:	grey
Luminous flux [lm]:	1700 - 5300	Diffuser material:	PC
Mounting method:	Side to bracket or top to pole	Types of optics:	transparent lens
Body material:	PP+15% GF	Dimensions A/B/C [mm]:	500/175/75

### Distinguishing features:

- Self-cleaning body made of polypropylene
- Integrated handle, adjustable in 5-degree increments, enables adjustment in the range of: -5° to +15° (top, on a pole), -5° to +15° (side, on a bracket).
- H07RN-F cable, 0.7 m long





## Astra LED ALU

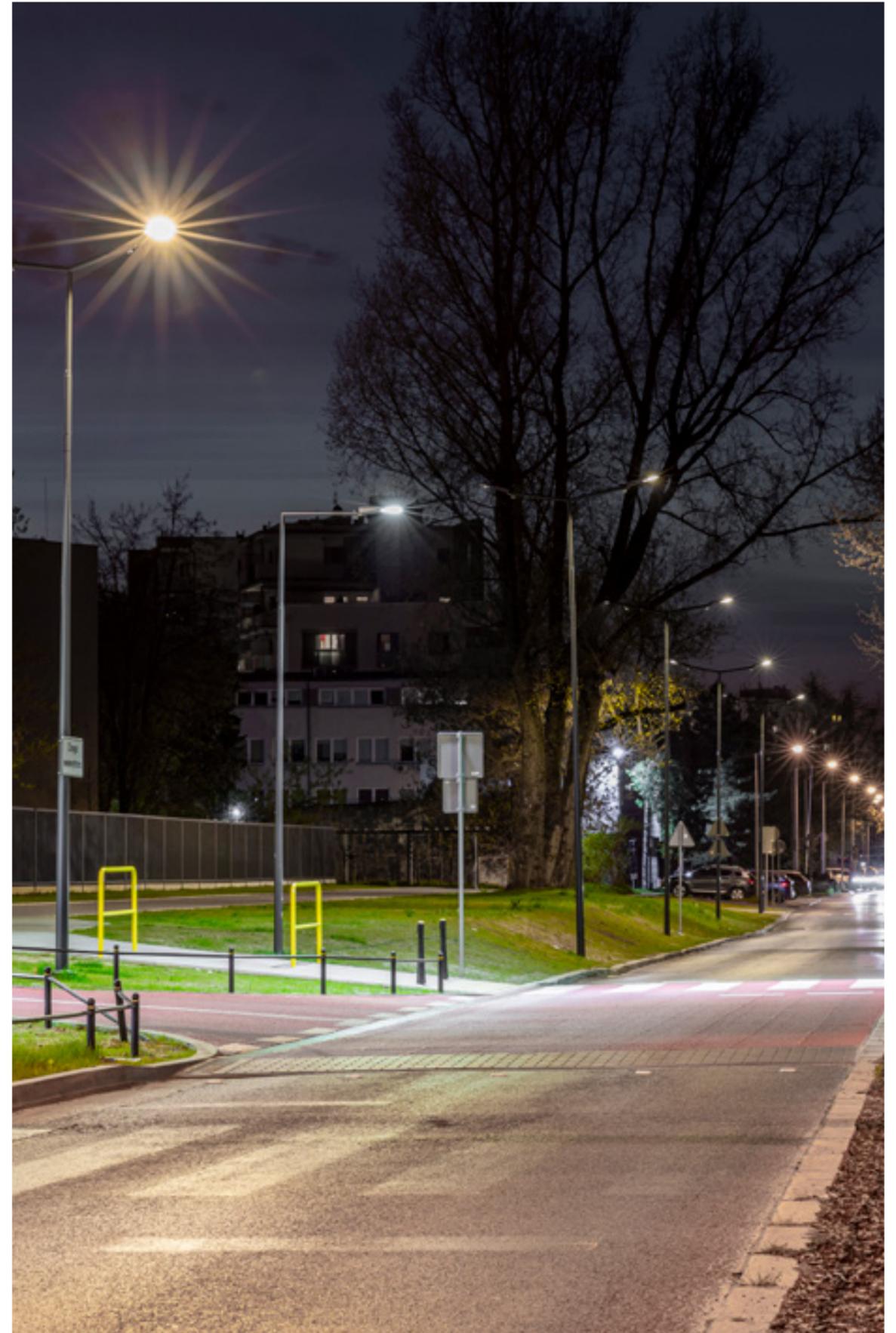
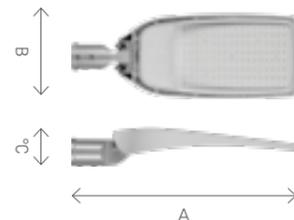
up to 151 lm/W IP66 IK08  

Rated power [W]:	17 - 125
Luminous flux [lm]:	2100 - 15500
Mounting method:	Side to bracket or top to pole
Body material:	Powder-coated aluminium

Body colour:	grey
Diffuser material:	PC
Types of optics:	transparent lens
Dimensions A/B/C/ø [mm]:	640/233/113/60 (76)

### Distinguishing features:

- Compact dimensions and low weight
- SP10kV surge protection
- H07RN-F cable, 0.7 m long
- The use of a sealed IP66 quick connector enables quick and easy installation
- Self-cleaning body made of aluminium



Application of Astra LED ALU luminaires

Park  
and urban  
**lighting**





Emotions start with **light!**

# Skver LED family

## Innovative approach to lighting design

up to 152 lm/W IP66 IK10



Replaceable lighting modules



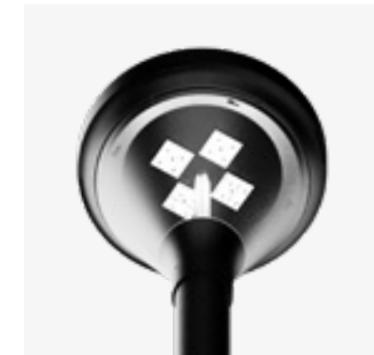
The innovative line of Skver LED park and urban lighting luminaires revolutionises the approach to outdoor lighting. Excellent parameters, elimination of light pollution, unique modular construction and creative design make it the perfect luminaire for the most demanding urban spaces.

Here, the designers have applied a range of modern solutions, which significantly enhance the capabilities of park and urban luminaires. These luminaires can be customised using a variety of light distribution hoods and designs. With its modular design, daily servicing and maintenance have never been easier!



### Tool-free access to electrical accessories

Accessing electrical and optical components simply requires unscrewing two screws and opening the luminaire cover without any tools.



### Omnidirectional and lenticular versions

The Skver LED luminaire can be equipped with both omnidirectional lighting modules and directional matrices fitted with lenses.



### Knife switch

In certain versions, a knife switch is used to disconnect power to a specific luminaire upon opening its cover. This ensures that the person making modifications is fully protected.



### No effect of light pollution

Skver luminaires, with ULOR < 1, are inspired by the Nature Centric Lighting concept, focusing on the ecology and safety of both people and animals.



# Quality confirmed by certifications

The Skver LED luminaires were developed in full compliance with Zhaga Book 13, 15, and 18, which set standards for the positioning and installation of the power supply, LEDs, and Zhaga connectors, making it easier to replace these components in the future. This significantly extends the product's lifespan, ensuring that the city benefits from this standardised modularity.

**Confidence that the future development of urban infrastructure is limitless!**

The Skver range includes C5+ models, which are not only resistant to harsh weather conditions but also to corrosion. Therefore, they can be successfully installed in locations such as promenades, bridges, or piers – anywhere there is direct contact with bodies of water with various degrees of salinity.

## — Luminaire modularity

The modular Skver luminaire allows users to customise its configuration according to their needs and preferences. They can add or remove modules depending on actual lighting requirements. But there is much more! The added modules will define the ultimate appearance of the luminaire, which can be uniquely tailored to each individual location. Modularity has a significant impact on both the aesthetics of the luminaire itself and the surrounding environment.

Modularity also translates to better economy and savings. As lighting demands change with technological advancements or changes in land use, administrators can simply add or replace individual modules instead of replacing the entire luminaires.

The ecological aspect remains crucial as well. The ability to replace and upgrade modules makes modular luminaires more environmentally friendly by reducing the need to discard the entire products when only one module is damaged or needs replacement.



Lena C5+





# SKVER<sub>LED</sub>

up to 152 lm/W IP66 IK10  

Rated power [W]:	19 - 50
Luminous flux [lm]:	2850 - 7100
Mounting method:	pole mounted
Body material:	Powder-coated aluminium

Body colour:	black
Diffuser material:	PC
Types of optics:	lens with PMMA
Dimensions A/B/C [mm]:	427/360

**Distinguishing features:**

- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- No light pollution effect



Skver LED lighting in urban spaces



Skver LED lighting in a city park



## SKVER<sub>LED</sub>

up to  
152 lm/W IP66 IK10

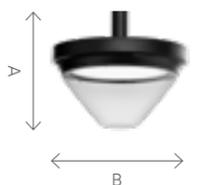


Rated power [W]:	19 - 50
Luminous flux [lm]:	2850 - 7100
Mounting method:	suspended
Body material:	Powder-coated aluminium

Body colour:	black
Diffuser material:	PC
Types of optics:	lens with PMMA
Dimensions A/B/C [mm]:	360/360

### Distinguishing features:

- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- No light pollution effect



Skver LED family

# Versions Bespoke

The Skver park and urban luminaires combine high light efficiency and unprecedented functionality with innovative, modular design. This feature allows for easy and quick implementation of structural and visual changes in the luminaire. With all this available, together we will design and manufacture your own SKVER LED urban park luminaire!

It's easier than you think! Your customised SKVER LED luminaire will be created using one of our specially designed accessories or entirely from scratch – just for your city! Tailored to individual lighting needs, unique identification, and urban elegance bringing out the true beauty of urban spaces – SKVER LED will allow you to stand out from the crowd, based on the best and tailored lighting solutions!



Example 2



Example 3



Example 4



Example 2



Example 3



Example 4



Example 5



Example 6



Your unique design!



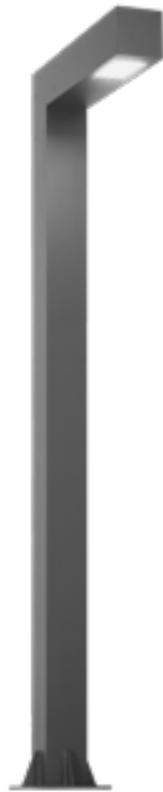
Example 5



Example 6



Your unique design!



## Altezzo L 150

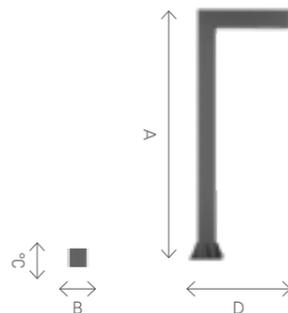
110° light beam angle versions available

up to 122 lm/W IP65 IK09 

<b>Rated power [W]:</b>	32 - 82	<b>Body colour:</b>	graphite
<b>Luminous flux [lm]:</b>	3600 - 10700	<b>Diffuser material:</b>	PC
<b>Mounting method:</b>	on a foundation	<b>Types of optics:</b>	transparent lens
<b>Body material:</b>	aluminium	<b>Dimensions A/B/C [mm]:</b>	2500, 3000, 3500, 4000, 5000/150/150/800

### Distinguishing features:

- A wide range of power, luminous flux and light distribution
- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- Versions with two, three, and four lighting modules, mounted on different sections of the pole – at the same or varying heights – are available



## Altezzo L 100

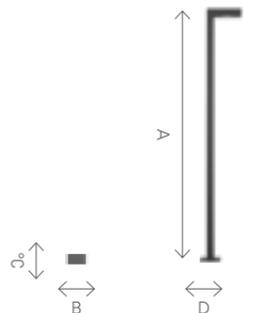
110° light beam angle versions available

up to 117 lm/W IP65 IK09 

<b>Rated power [W]:</b>	6 - 12	<b>Body colour:</b>	graphite
<b>Luminous flux [lm]:</b>	650 - 1400	<b>Diffuser material:</b>	PC
<b>Mounting method:</b>	on a foundation	<b>Types of optics:</b>	transparent lens
<b>Body material:</b>	aluminium	<b>Dimensions A/B/C [mm]:</b>	600, 900, 1200, 1500/100/40/200

### Distinguishing features:

- A wide range of luminous flux and light distribution
- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- Versions with two, three, and four lighting modules, mounted on different sections of the pole – at the same or varying heights – are available





Altezzo L 100 K lighting on the building's façade



## Altezzo L 100 K

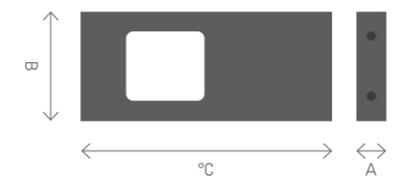
up to  
130 lm/W IP65 IK08

Rated power [W]:	5
Luminous flux [lm]:	600 - 650
Mounting method:	on building's façade
Body material:	aluminium

Body colour:	graphite
Diffuser material:	PC
Types of optics:	lens with PMMA
Dimensions A/B/C [mm]:	40/100/250

### Distinguishing features:

- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- No light pollution effect





## Altezzo L 150 K

up to 130 lm/W IP65 IK08 

Rated power [W]: 40

Luminous flux [lm]: 4600 - 5200

Mounting method: on building's façade

Body material: aluminium

Body colour: graphite

Diffuser material: PC

Types of optics: lens with PMMA

Dimensions A/B/C [mm]: 40/100/250

### Distinguishing features:

- The luminaires are designed to work in very low and high temperatures from -30°C to +50°C and in difficult weather conditions
- No light pollution effect



Altezzo L 150 K lighting on the building's façade



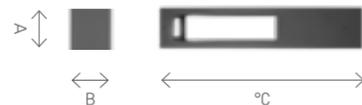
## Altezzo A 150

up to 109 lm/W IP65 IK09 

<b>Rated power [W]:</b>	10 - 42	<b>Body colour:</b>	graphite
<b>Luminous flux [lm]:</b>	1100 - 4000	<b>Diffuser material:</b>	PC
<b>Mounting method:</b>	on a foundation	<b>Types of optics:</b>	transparent lens
<b>Body material:</b>	aluminium	<b>Dimensions A/B/C [mm]:</b>	150/150/600, 150/150/900, 150/150/1200, 150/150/1500, 150/150/2000, 150/150/2500, 150/150/3000

### Distinguishing features:

- They can operate in very low and high temperatures
- The lighting module consists of highly durable LEDs with a robust polycarbonate screen
- They are suitable for parks and gardens to illuminate small architecture



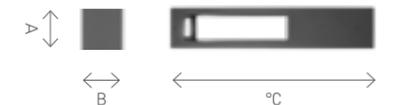
## Altezzo A 120

up to 96 lm/W IP65 IK08 

<b>Rated power [W]:</b>	8 - 13	<b>Body colour:</b>	graphite
<b>Luminous flux [lm]:</b>	850 - 1200	<b>Diffuser material:</b>	PC
<b>Mounting method:</b>	on a foundation	<b>Types of optics:</b>	transparent lens
<b>Body material:</b>	aluminium	<b>Dimensions A/B/C [mm]:</b>	120/120/600, 120/120/900, 120/120/1200, 120/120/1500

### Distinguishing features:

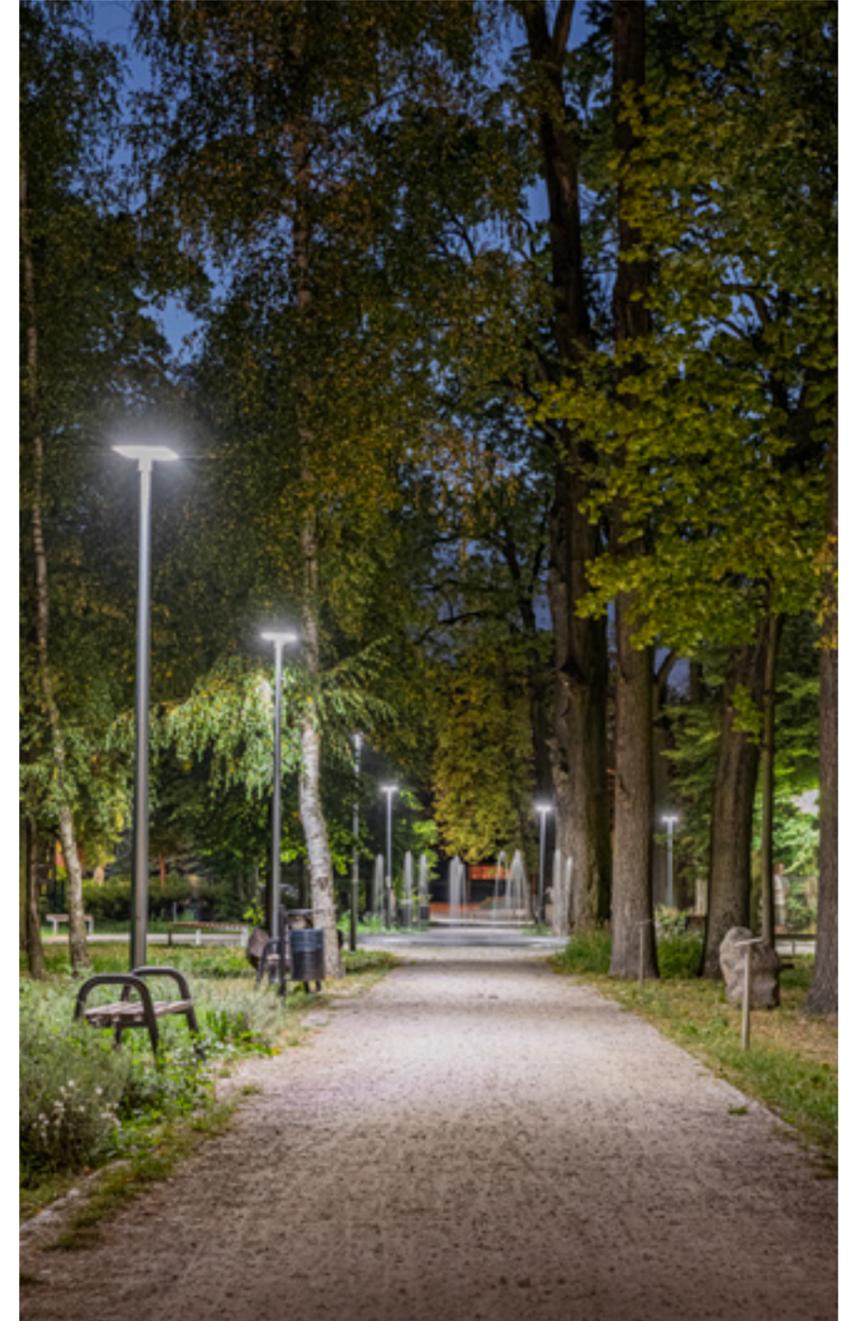
- They can operate in very low and high temperatures
- The lighting module consists of highly durable LEDs with a robust polycarbonate screen
- They are suitable for parks and gardens to illuminate small architecture



— **Mitra** LED



Mitra LED luminaires in the Dębinka park





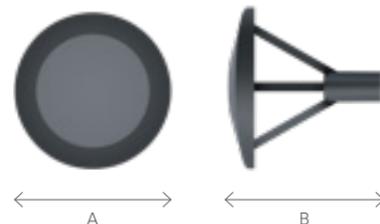
## Leo Park LED

max. 123 lm/W IP65 IK07 

Rated power [W]:	30 - 48	Body colour:	anthracite grey
Luminous flux [lm]:	3200 - 5400	Diffuser material:	PMMA
Mounting method:	top, to the pole	Types of optics:	transparent lens
Body material:	aluminium	Dimensions A/B [mm]:	ø400/430

### Distinguishing features:

- High degree of impact resistance
- Round, compact aluminium body
- Available types of light distribution: ASM1; RM2; SM1



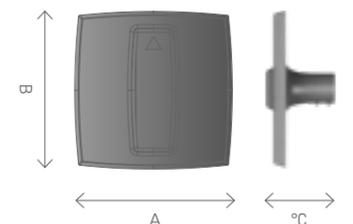
## Mitra LED

up to 132 lm/W IP66 IK07  

Rated power [W]:	13 - 62	Body colour:	grey
Luminous flux [lm]:	1550 - 7250	Diffuser material:	PC
Mounting method:	top, to the pole	Types of optics:	transparent lens
Body material:	PP + FG	Dimensions A/B/C [mm]:	398/398/175

### Distinguishing features:

- Two types of diffuser – opalescent and transparent
- Very high degree of IP66 ingress protection
- IK07 mechanical impact protection
- Surge protection (SP10kV)
- H07RN-F cable, 0.6 m long
- Smooth, dirt-resistant surface
- Quick assembly due to a tight IP66 quick connector



Complementary  
**lighting**





Lighting up the "Orlik" sports complex in Orzechowo



## Quest 2 LED

— The Resist version with thermal resistance available

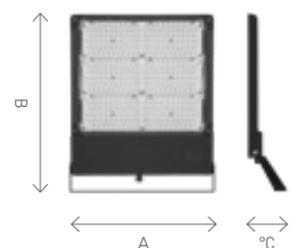
max.  
158 lm/W IP66 IK09

Rated power [W]:	27 - 243
Luminous flux [lm]:	3600 - 30900
Mounting method:	surface mounted
Body material:	powder-coated aluminium

Body colour:	anthracite grey
Diffuser material:	tempered glass
Diffuser type:	transparent
Dimensions A/B/C [mm]:	436/472/79, 437/378/79

### Distinguishing features:

- Very high ingress protection
- Durable aluminium body
- 5 types of light distribution
- Quick connector – mounting is faster and cheaper
- Very high efficiency
- Slim aluminium body without heat sink fins – not collecting dirt and easy to clean





## Factor LED

max.  
158 lm/W IP66 IK09

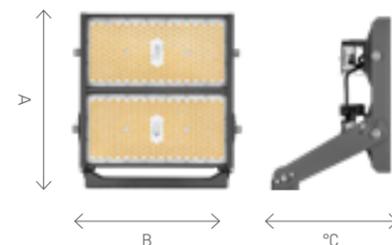


Rated power [W]:	101 - 1124
Luminous flux [lm]:	14600 - 150800
Mounting method:	on a pole, construction barriers, flat surfaces or a bracket
Body material:	powder-coated aluminium

Body colour:	anthracite grey
Diffuser material:	PC, tempered glass
Diffuser type:	lenticular arrays, transparent
Dimensions A/B/C [mm]:	191/425/217, 385/425/340, 580/425/340, 774/425/340

### Distinguishing features:

- Very high luminous efficiency
- High ingress protection (IP66) and impact resistance (IK09)
- Passive cooling system
- Capable of performing in high-temperature conditions



Lighting of the Słotwiny Arena ski slope

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# Intelligent lighting control system



# Customised Clue systems tailored to your needs

ClueCITY is a system for controlling street lighting and other IoT devices, enabling efficient management of city infrastructure. At Lena Lighting, we understand that every city is different, which is why we offer a diverse range of comprehensive IoT solutions. This enables us to consistently offer custom solutions tailored to your needs, ensuring you achieve your goals cost-effectively and assuring the technologies we select are precisely what you require!

Smart ready luminaires with ZHAGA and NEMA connectors		
<b>Clue CITY</b>	<b>Clue CITY+</b>	On Premise
		Cloud based

**Clue CITY**

- **Driver programming – virtual north**
  - There is no need to invest in additional smart devices – a properly selected DALI power supply is sufficient.
  - Option to add motion sensors
- **Power reduction control**
  - It's possible to install components inside the distribution box
  - Alternatively, modules can be fitted onto a NEMA connector
- **IoT control system**
  - Option to install control modules inside the luminaires or onto a NEMA/Zhaga connector
  - Option to add light and motion sensors
  - Optional remote control
  - Mesh structure
  - Controlled by the Lena Lighting Clue app available on iOS and Android

**Clue CITY+**

- Independent control for each individual luminaire
- Possibility to group luminaires as desired
- Advanced alert system
- Sophisticated inventory management system
- Possibility to mark luminaires requiring servicing
- Possibility to navigate to a selected service point
- It can operate either on an on-premise or a cloud-based server
- Diverse communication solutions based on protocols: LTE-m; NB-IoT; LoraWAN; Zigbee
- Open system based on TALQ 2.0 certificate



# Technology serving your city!

ClueCITY system is a Smart City solution that enables you to achieve even the most ambitious infrastructure goals. From remote control, through event management, to reports and management of the entire city infrastructure from a single dashboard. Regardless of the communication technology used, we always prioritise economic efficiency. Discover the ClueCITY system today!



Increased energy efficiency



Reduced negative impact on the environment



Reduced costs of infrastructure maintenance



Increased safety



Preparing infrastructure for future challenges



# Środa Wielkopolska in a new light

Środa Wielkopolska has shone with new, better quality light. Thanks to the investment made by the commune authorities, the ClueCITY system – consisting of over 170 modern TIARA LED road luminaires and an integrated, technologically advanced management system – has been successfully implemented.

As a result, the light is delivered in optimal amount, only when it is needed. The beneficiaries of this investment are both the commune authorities and the residents themselves. The former, thanks to

the very high energy efficiency of the installed road luminaires, additionally supported by a wireless control system, save on electricity consumption and maintenance costs. Thus, the residents can benefit from light that provides better visibility and supports the safety of road users and adjacent pavements. They can also be sure that the response time of service personnel is reduced to a minimum, as the intelligent system informs them on an ongoing basis about the need for any intervention.



## We want to develop networks of intelligent lighting



**Piotr Mieloch**  
City Mayor  
Środa Wielkopolska

"We came to the conclusion that we need to invest in modern lighting in Środa Wielkopolska. It is a hybrid set, i.e. luminaires and controls. I think that the residents will be satisfied with this investment, at least for aesthetic reasons, as it is not sodium-vapour lighting, which we have dealt with in previous years – but LED technology. Firstly, it is efficient, secondly, it gives a very nice, friendly light, and thirdly, it gives measurable savings. We have to look at it in the perspective of several or a dozen of years, and these are very measurable savings, reaching hundreds of thousands or even millions of Polish zlotys."



# It really matters

We make our products according to the highest environmental standards.



Being aware of the importance of environmental protection behaviours and future generations inspires us to put maximum effort into offering the highest quality, energy-efficient products; and to make sure that the entire process and technology of their production do not have a negative impact on the ecosystem.

Our efforts and their effectiveness have been confirmed by the ISO 14001 certificate. This means that Lena Lighting has successfully implemented an environmental management system. The overall goal of this system is to create conditions for the functioning of the enterprise in order to minimise the negative impact on the natural environment. We have already succeeded, but we are going to continue our journey and invest in technology and knowledge aimed at care for the natural environment.



Lena Lighting

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