

PARK AND URBAN

LIGHTING



Lena Lighting production halls in Środa Wielkopolska

# MADE IN POLAND

We are a lighting manufacturer present on the market for 36 years, thanks to which luminaires and systems lighting, we know everything: we design them, we comprehensively test and produce. We connect. practice with modernity.

## **Advanced production facilities**

Our modern infrastructure provides a high level of flexibility and operational efficiency.

## Lighting market leader

Every year, we produce millions of luminaires, strengthening our position in the country and in the world.

## Innovative design

We use the latest advances in technology to create modern and energy-efficient solutions.

## Cooperation with global leaders

We cooperate with leading manufacturers of electrotechnical components, which allows us to implement unique solutions.

## **Energy saving and luminous quality**

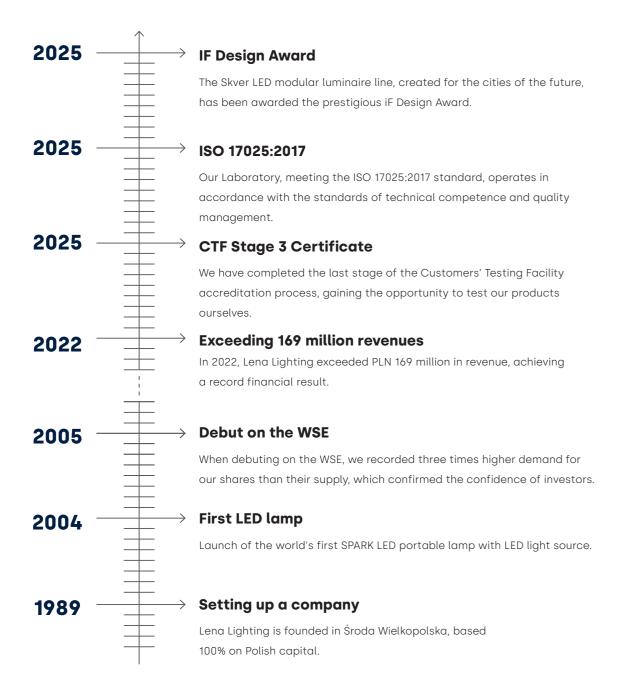
Our technologies reduce energy consumption while improving light parameters.

## Continuous improvement of technology

We are constantly developing our know-how by implementing the latest LED technologies and lighting control systems.

## COMPANY HISTORY

Our lighting is the result of decades of experience in design and production. Our brand is made up of people full of passion. The company's mission is to create innovative lamps and lighting control systems that inspire to change towards sustainable development.





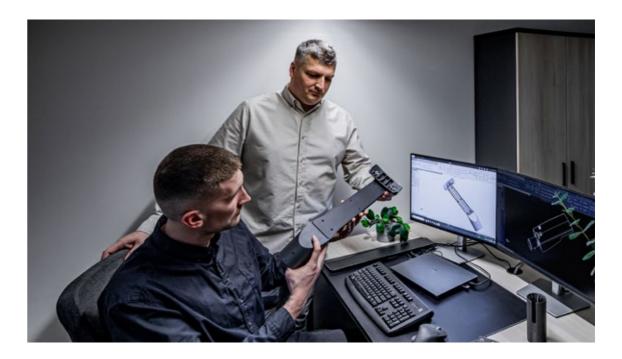
## Passion and professionalism

Our company was born out of a fascination with light. Over the years, we have gained the knowledge and competences thanks to which we can design and manufacture even the most complex lighting systems.



## Inspiration and design

We make sure that our products stand out not only with the best parameters, but also with a unique design. We believe that the space that surrounds us has a real impact on how we feel. With this in mind, we create our products.





## Innovation and development

We offer technologically advanced solutions. We are constantly investing in the development of our research center and state-of-the-art production lines. We are developing dynamically with the progress of technology.



## Sustainable development

We have placed environmental management at the heart of our business, implementing a system that minimizes any negative impact on the environment. We hold BIO Certificate ISO 14001

# CERTIFIED LIGHTING

The quality of our products is not only a confirmation of our competence as a leading Polish lighting manufacturer. It is also a matter of our pro-ecological approach.

Features such as reliability, durability, service life or good product design are extremely important in the context of sustainable production and environmental protection. It is the high quality of lighting that Lena Lighting is one of the main factors that allowed us to acquire a group of regular customers all over the world.

Our competence:



































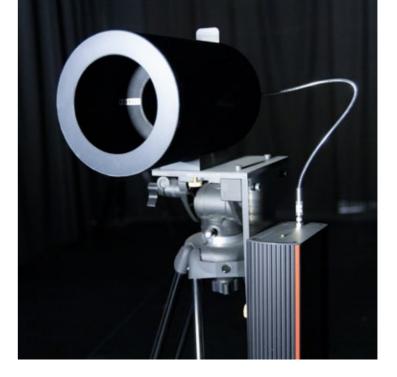


Our Awards

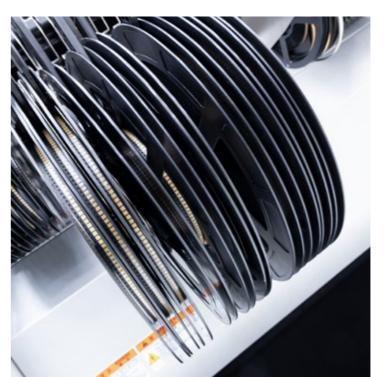








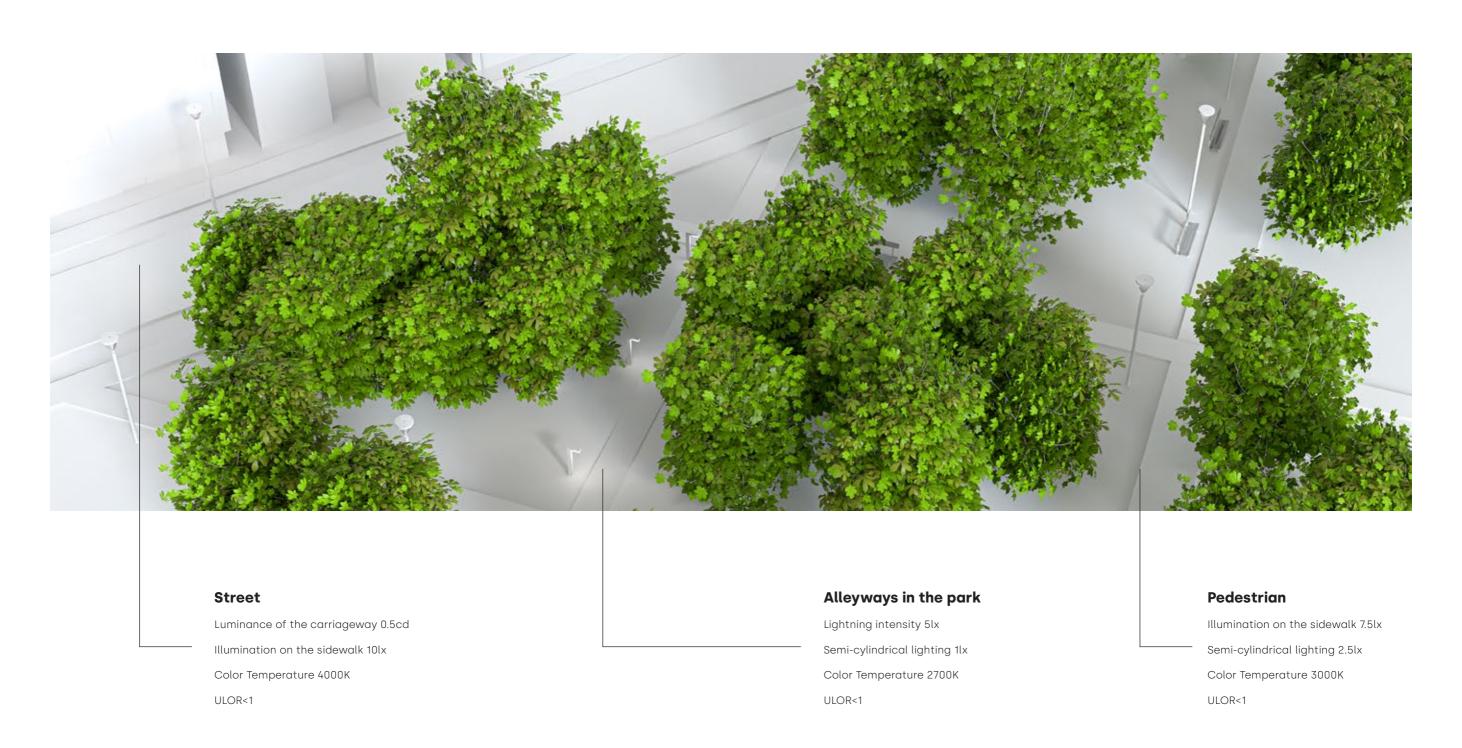






# APPLICATION AREAS

The diversity of urban space presents us with a challenge. In our offer you will find products and services dedicated to all urban application areas.









## **ECOLOGY**

### **EPD**

Park and urban luminaires of our production have a Product Environmental Declaration (EPD), confirming their compliance with the principles of sustainable development. This document details the environmental impact of luminaires throughout their life cycle – from production to disposal. It is available on the Eco Portal at: https://eco-portal.eco-platform.org/

For our customers, it is a guarantee of transparency, quality and ecological responsibility. EPD luminaires support the implementation of projects in accordance with environmental standards. By choosing products from EPD, customers actively contribute to creating a more welcoming urban space.

## **Dark Sky Certificate**

Our certified Dark Sky luminaires reduce light pollution while protecting the natural night environment. They direct light only where it is needed – on sidewalks, alleys and streets – without emissions upwards or towards the windows of residents and animals. This solution increases comfort and safety, while maintaining a dark, friendly sky. Dark Sky luminaires promote energy savings and coefficient, supporting the idea of sustainable development and creating greener and more harmonious cities.

### HCL

We design our lighting in accordance with the Human Centric Lighting concept, focused on individual human needs. Thanks to the light, it supports the daily sense of balance, matching the color and intensity to the time of day – cool light in the morning stimulates and increases concentration, warmer in the afternoon promotes calmness. HCL solutions harmonize with natural lighting and help minimize the effects of shorter, darker days.

### **Backshields**

The housings can be freely modified with several special canopies and backshields, changing the light distribution and eliminating uncontrolLED lighting large areas. This is done expressly, by quickly clicking accessory.















A number of modern solutions, significantly expanding the possibilities of park and urban luminaires. These luminaires can be modified with the help of a dozen or so canopies changing the light distribution and design. The modular design makes daily service and maintenance easier than ever!





# Tool-free access to attachments

To access the electrical and optical components, simply unscrew two screws without using any tools and open the housing cover.



# Omnidirectional and lenticular variants

The Skver LED luminaire can be equipped with both omnidirectional lighting modules and targeted sensors equipped with lenses.



## **Knife disconnect switch**

Knife disconnector used in some
versions cuts the power supply to the luminaire
when the lid is opened. Thanks to this, the person making the modification is fully protected.



# No pollution effect and play.

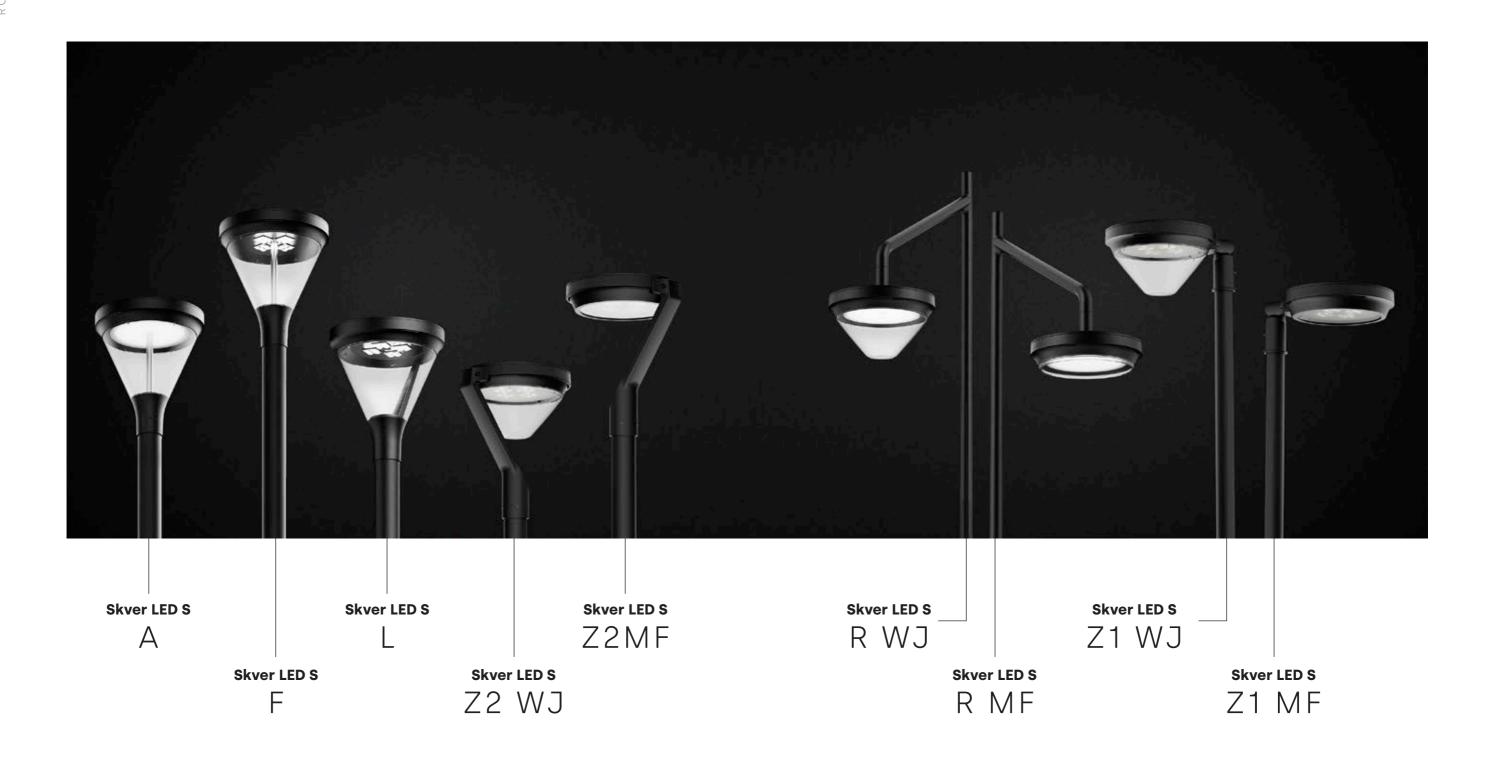
Skver luminaires, whose ULOR = 0 or

ULOR < 1 coefficient was created in the spirit

of the Nature Centric Lighting concept, with

a view to the ecology and safety of both humans and animals.

# AVAILABLE VERSIONS



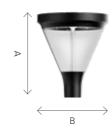




rated power (W)	16 - 54
luminous flux [lm]	2100 - 7400
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	427/360/360

66 10 1<sup>IK</sup> 145

- Universal park light distribution with all-round lighting
- Increased CRI80 color rendering index
- Simple installation on poles fi 48-76, 1.5 m cable as standard





# Skver LED S (F)

rated power (W)	8 - 54
luminous flux [lm]	1125 - 7400
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	427/360/360

6 10 159

- Omni-directional and targeted distributions to match lighting to a variety of spaces
- Available CRI70 and elevated
   CRI80 versions
- Tool-free access to the attachment chamber significantly facilitating operation and service







# Skver LED S (L)

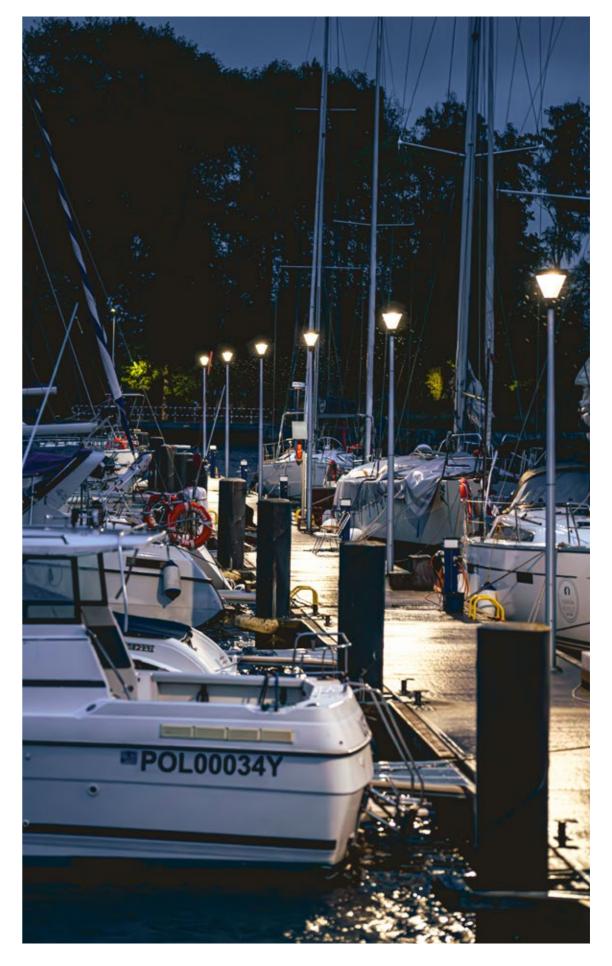
rated power [W]	14 - 54
luminous flux [lm]	2150 - 7650
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	427/360/360

1P | 1K | lm/W | 159

- Omni-directional and targeted broadcasts adapted to illuminate parks, streets and urban spaces
- Available CRI70 and elevated
   CRI80 versions
- Tool-free service plate compliant with ZhagaBook13/15 standard for faster service







Skver LED lighting in the port



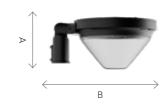


# Skver LED S (Z1 WJ)

rated power (W)	8 - 54
luminous flux [lm]	1075 - 7650
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	461/360/216

66 10 1K 1m/W

- Urban luminaire design giving the space a modern and aesthetic character
- Architectural quality of workmanship for durability and attractive appearance
- Tool-free service plate in ZhagaBook13/15 standard for easy service





# Skver LED S (Z1 MF)

rated power (W)	8 - 54
luminous flux [lm]	975 - 7025
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	461/360/188

6 10 156

- Round luminaire with an urban design, distinguished by its elegant form and total ULR = 0
- Architectural quality of workmanship allowing for aesthetic integration into the space
- Adjustable mounting bracket for installation on poles and booms fi 48-76





24





# Skver LED S (Z2 WJ)

rated power (W)	8 - 54
luminous flux [lm]	1075 - 7650
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	386/360/476

66 10 1 170

- Distinctive urban luminaire design
- Architectural workmanship for reliability and a sleek look
- Tool-free service plate compliant with the ZhagaBook13/15 standard facilitating technical work



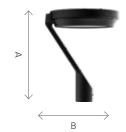


# Skver LED S (Z2 MF)

rated power [W]	8 - 54	
luminous flux [lm]	975 - 7025	
mounting method	post	
body material	Aluminium (powder coated)	
body color:		
shade material	PC	
type of lampshade	PMMA lens	_
dimensions [mm]	386/360/476	
		_

6 10 156

- Modern urban luminaire design,ULR = 0
- Architectural workmanship for durability and high product aesthetics
- Tool-free service plate compliant with ZhagaBook13/15 standard for faster service





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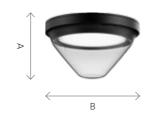


# Skver LED S (R WJ)

13 - 54
1700 - 7650
suspended
Aluminium (powder coated)
PC
PMMA lens
316/363/363

10 163

- Architectural workmanship for an aesthetic look in urban space
- Omni-directional and targeted distributions offering versatility in applications
- Tool-free service plate in ZhagaBook13/15 standard facilitating service work



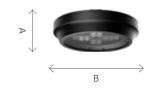


# Skver LED S (R MF)

rated power [W]	19 - 50
luminous flux [lm]	2250 - 6700
mounting method	suspended
body material	Aluminium (powder coated)
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	427/360
	·

10 138

- Architectural workmanship, ULR = 0
- Omni-directional and targeted distributions to match the lighting effect to the installation site
- Tool-free service plate in ZhagaBook13/15 standard facilitating service work





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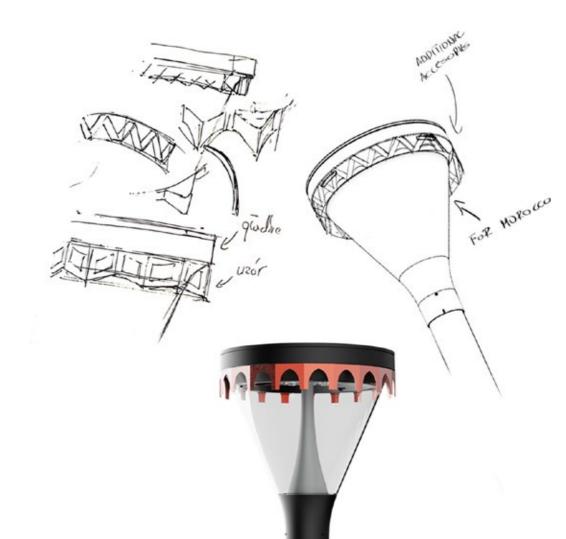
# BESPOKE VARIANTS





Skver road luminaires in the Bespoke version are synonymous with an individual approach and the highest quality. In the catalogue, we present many ready-made variants that make it easier to choose the perfect solution. For customers looking for unique solutions, we have also prepared the Bespoke offer, allowing you to fully adjust the luminaire to the needs of the project.

Each project is created in close cooperation with the customer, fully taking into account their expectations and the specificity of the place where the luminaires will be used.





SKVER Backshield RAL9005



**435522**SKVER Hood example 1
RAL9005



**421518**SKVER Hood ULR example 2
RAL9005



**449017**Drilling Jig



804427 SKVER R adapter male thread M20x40 (stroke 2.5)



804328 SKVER R male adaptor thread ¾ in x 40 (gas)



804434 SKVER R male thread adapter 1 inch x40 (gas)



SKVER R female adaptor thread ¾ in x 40 (gas)



**804441**SKVER R 1 inch x40 female thread adapter (gas)



**804571**SKVER external adapter fi48



SKVER external adapter fi60

804588

# ACCESSORIES TRAPPINGS

## SKVER S L 7100lm 840 RM7 IP66 II cl. DALI ZG B 0 (50W)

1 Model

Skver LED S

2 Version

A Inseparable version

F Detachable version

L Removable version with knife switch

R Suspended version

Z1 Inseparable version "7"

Z2 Detachable version with knife switch "7"

3 Luminous flux [lm]

Value in [lm] in steps of 5

4 CRI

722 724 727 730 735 740 750 757 822 824 827 830 835 **840** 850 857 857

5 Optics

AS-asymmetrical, R-road, P pedestrian crossings, RP - parking, RMW - for **wet surfaces**, N - narrow, M - medium wide, W - wide, L - left, P - right, 0-99 optic numbering, HE - high efficiency + LED type II

6 IP

7 Protection class

cl.

8 Control

1DIM Dim

DALI

**9** Connector / Sensor

NEMA

ZG ZHAGA

RCR

10 Colour

b) black

GREY

In White RALxxxx

11 Accessories

0 No Aperture

1 with Aperture No. 1 2 with Aperture # 2 3 with Aperture # 3

12 Power

gross

in steps of 1W





# CASE STUDY

## Darłowo

Number of luminaires:	734
types of luminaires:	SKVER F, L and R, TIARA 2 LED S
value of investment:	PLN 873,838
Primary power:	54,7 kW
Power after modernization:	17,45 kW
ROI	< 3,6 years
reduction CO <sub>2</sub> 10 years	1046 tonnes

68% of savings

163k PLN savings/year







# PREMIERES COMING SOON

SKVER LED PRO – a new, improved version of the valued SKVER street luminaire. The new model is a response to the growing requirements in terms of efficiency, durability

SKVER LED PRO offers more power, higher luminous efficiency and a modern design optimized for operation in demanding outdoor conditions. The applied optical and electronic solutions provide excellent lighting parameters with even lower energy consumption.

It is a proposition for investors looking for reliable, efficient and future-oriented lighting of streets, parking lots and public spaces. SKVER LED PRO – the next step towards a smart, energy-efficient city.















Constelia LED is an elegant park-urban luminaire that combines classic design with modern technology. Thanks to its multi-variant design solutions, it fits perfectly into a variety of urban spaces, offering the flexibility to adapt to any architecture.





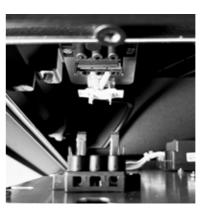
## **NEMA/Zhaga connector**

LED luminaire equipped with a connector

NEMA/Zhaga enables simple integration

with automation systems and intelligent

Lighting control design.



## **Knife disconnect switch**

The use of a knife disconnector in the LED luminaire guarantees safe and quick disconnection of the power supply for maintenance or service.



## 4 colour temperatures

2200K

2700K

3000K

4000K



## 3 types of lampshade

frosted

milky white

transparent



# **Constelia LED**

rated power [W]	8 - 76
luminous flux [lm]	975 - 10650
mounting method	post
body material	Aluminium (powder coated)
body color:	
shade material	toughened glass
type of lampshade	transparent
dimensions [mm]	425/425/827

1P 1K 1m/W 150

- Built-in knife disconnector for easy and safe operation
- Quick module replacement without disassembly and soldering
- Heavy Duty Enclosure IP66, IK09,
   Powder Coated
- Options: DALI, ZHAGA, CLO, SP10kV, RAL





Constelia LED, Darłowo





Constelia LED R, Darłowo



## Constelia LED R

rated power [W]	8 - 76
luminous flux [lm]	975 - 10650
mounting method	suspended
body material	Aluminium (powder coated)
body color:	
shade material	toughened glass
type of lampshade	transparent
dimensions [mm]	425/425/765

lm/W 66 09 150

- Stylized and durable LED park--urban luminaire
- Quick module replacement without disassembly and soldering
- Rugged housing IP66, IK09, powder coating
- Options: DALI, ZHAGA, CLO, SP10kV, RAL



# SOLUTIONS TRAINING



Altezzo and Mitra LED luminaires provide a new dimension of functionality and visual layer of the environment. Additional mounting elements and modern control systems increase the flexibility of their applications. Such solutions emphasize the modern character of the lamps, while increasing the comfort of use and energy efficiency of the infrastructure.

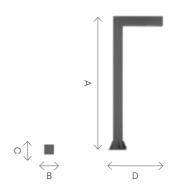


## Altezzo L100 / L150

rated power [W]	6 - 82
luminous flux [lm]	650 - 10700
mounting method	on the foundation
body material	aluminum
body color:	•
shade material	PC
type of lampshade	transparent lens
dimensions [mm]	600, 900, 1200, 1500/100/40/200, 2500, 3000, 3500, 4000, 5000/150/150/800

55 09 122

- Customized height from low post luminaires to 6 m poles
- Beam angle 110°
- Various streams and broadcasts
- Operating at -30°C to +50°C and harsh environments



# **CUSTOM**

The design of Altezzo L provides for the possibility of customizing the lamp in accordance with the guidelines of the designer or architect. The lamp element comprising the light module may be directed parallel to the illuminated plane or at an angle.

In addition, the profile itself may fork, which increases the possibilities of arrangement.

Thanks to the option of customizing the height – from low post luminaires to 6 m poles

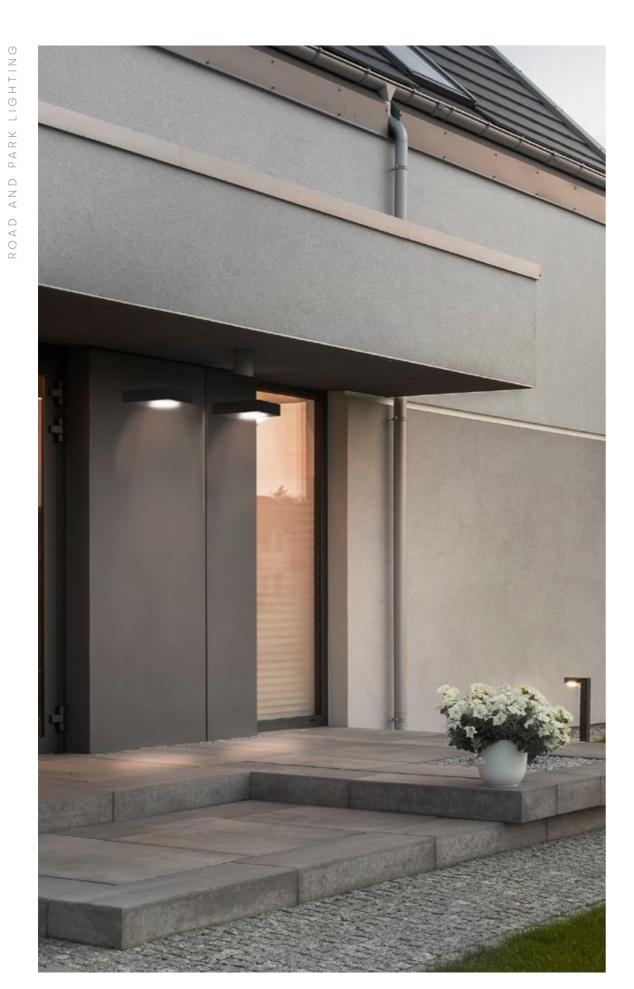
– the solution works in many types of space. As a result, as many as four elements with
a light module can be mounted on one post, one on each plane, at the same or different
heights.













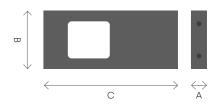


# Altezzo L100K / L150K

rated power [W]	5 - 40
luminous flux [lm]	600 - 5200
mounting method	on the facade
body material	aluminum
body color:	
shade material	PC
type of lampshade	PMMA lens
dimensions [mm]	40/100/250

IP • <b>F</b>	NK OO	lm/W
55	08	130

- The lamps 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



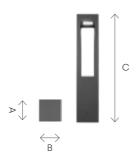


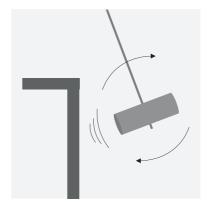
# Altezzo A120 / A150

rated power [W]	8 - 42
luminous flux [lm]	850 - 4000
mounting method	on the foundation
body material	aluminum
body color:	
shade material	PC
type of lampshade	transparent lens
dimensions [mm]	120/120/600, 900, 1200, 1500 150/150/600, 900, 1200, 1500, 2000, 2500, 3000

1P 1K 1m/W 109

- They can work in very low and high temperatures
- The light module consists
   of high durability LEDs with a
   durable polycarbonate screen
- They will work well in parks and gardens for illuminating small architecture





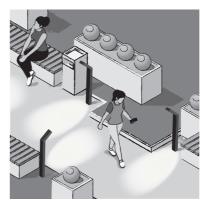
# Damage resistance mechanical

The profile of Altezzo lamps is durable on impacts IK09 / IK08.



## Different angles of light

The lamp element comprising the light module may be directed parallel to the illuminated plane or at an angle.



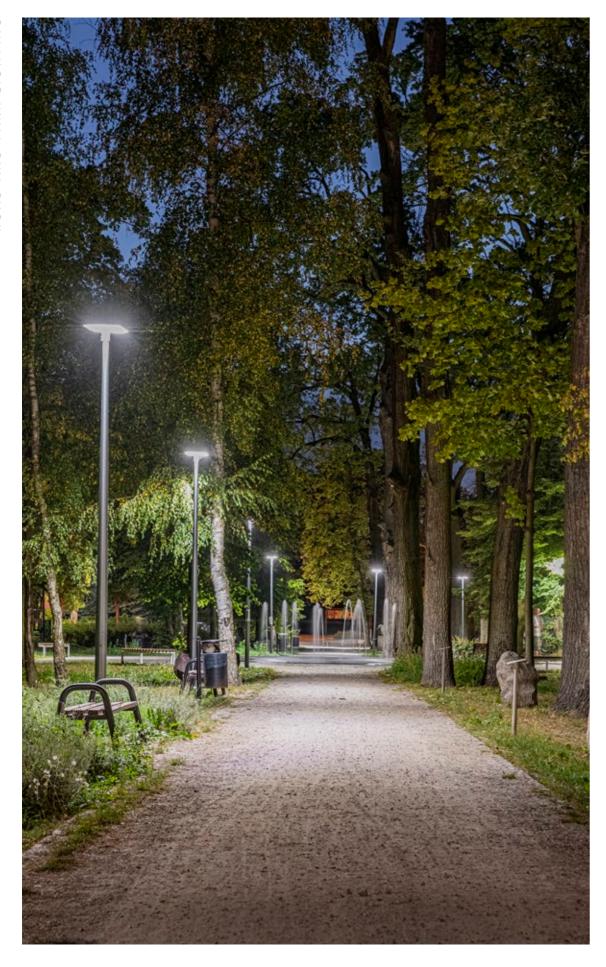
## Altezzo low lamps

They will perfectly fit into the garden infrastructure and park. They will precisely illuminate the path and selected elements of small architecture, without causing the effect of light pollution.



## Durability

The light module consists of LEDs with a durability of up to 196,000 h.



Mitra LED luminaires in the park

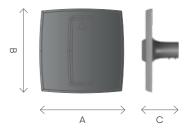


# Mitra LED

rated power [W]	13 - 62
luminous flux [lm]	1550 - 7250
mounting method	gable to pole
body material	PP + FG
body color:	
shade material	PC
type of lampshade	transparent lens
dimensions [mm]	398/398/175

6 07 132

- Two types of shade iridescent and transparent
- Over Voltage Protection
- Cable H07RN-F 0.6m
- Smooth, dirt-resistant surface
- The use of a tight IP66 quick connector allows for instant assembly





# IT REALLY MATTERS

We produce in accordance with the highest environmental standards.



Awareness of how important environmental behaviors are for us and future generations motivates us to put maximum effort to both offer the highest quality, energy-efficient products, as well as to ensure that the entire process and technology of their production does 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 overriding objective of this system is to create conditions for the functioning of the enterprise in order to minimize the negative impact on the natural environment. We have already succeeded, but we continue and will continue to invest in technology and knowledge, one of the goals of which is to care for the environment.

Lena Lighting S.A.

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