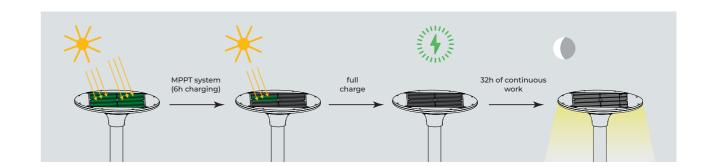




# Smart energy management system

The SUNLO-integrated monocrystalline panel is distinguished by its high efficiency and durability, thanks to the use of cells with a single, continuous crystalline structure that provide better energy conversion than polycrystalline panels.

In addition, thanks to built-in MPPT (Maximum Power Point Tracking), the panel always operates at the optimal power point, maximizing solar energy harvesting regardless of changing lighting conditions. Smart power management allows for faster and more efficient battery charging, which translates into 32 hours of luminaire operation with 4-6 hours of charging.



The MPPT system in the solar luminaire acts as a smart energy manager that maximizes the use of the available power of the solar panel, even when part of it is shaded. At first, the entire panel is exposed to the sun and operates at full capacity, providing energy to charge the batteries.

However, when part of the panel is shaded, the MPPT recognizes the drop in power and adjusts the operating point, to make maximum use of the energy from the sunlit portions of the panel. This allows the battery to charge faster and more efficiently, even in less favorable lighting conditions.

The stored energy powers the luminaire, which provides efficient and long-lasting illumination after dark. In this way, the MPPT system allows optimal use of solar energy, significantly increasing the efficiency of the solar luminaire.



#### SOLAR LUMINAIRE





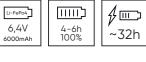














#### Key features:

- Long working time up to 32h
- Short charging time of 4-6h
- Integrated class A monocrystalline solar panel
- MPPT intelligent power management
- Two operating modes: 50% and 100% power
- Color temperature adjustment: 3000/4000K
- Milky PC diffuser (UGR<22)
- IP65 protection class, V0 fire resistance

Power [W]:

Photovoltaic power [W]:

LiFePO4 battery: 6000mAh, 6,4V, 38,4Wh

Luminous flux [lm]: 2200

Beam angle [°]:

Color temperature [K]:





Lifetime [h]: L70B50 - 35.000

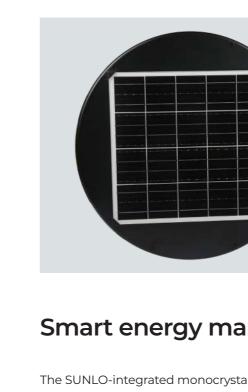
Housing:

ABS+PC diffuser, anti-UV

#### Best application:

- Walking paths and alleys
- Parking lots and driveways
- Gardens and private properties
- Recreational areas
- Resort facilities
- Squares and estate squares











#### Additional features

SUNLO luminaire is not only a modern, energy-efficient solar lighting, but also a set of practical features that increase the comfort of use and flexibility of applications.

Thanks to solutions such as the choice of operation mode or light color temperature, you can easily adapt the luminaire to individual needs and environmental conditions.



## Two operating modes



The SUNLO luminaire allows you to easily change the operating mode using a button located inside the unit. You can choose full light output from dusk to dawn (100%), or economical mode (50%), which allows you to extend the luminaire's operating time with reduced energy consumption. The mode selection should be made before installation.



#### Color temperature adjustment



In addition, the button allows you to adjust the color temperature of the light between 3000K and 4000K. To switch into temperature change mode, hold the button on the fixture for 3 seconds. Then, using the same button, you will set a warm or neutral light color even before installation, matching the lighting to the character of the environment and your preferences.

## **Light distribution**

SUNLO luminaire is designed for even, panoramic lighting of outdoor spaces. The design in the form of a semicircular dome and a milky diffuser emits light in a full 360° angle - without shadows or dead zones.

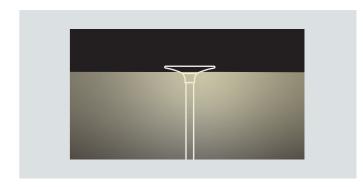
Large illumination area - through its 360° illumination angle and 2200lm flux, the SUNLO luminaire provides effective illumination of large spaces - up to  $120\ m^2$ . This means that one luminaire evenly illuminates an alley or square without the need for densely spaced poles..

Milky diffuser - The use of a milky diffuser allows for soft, diffused light that does not blind users and creates a welcoming atmosphere in public spaces.



Luminous flux [lm]

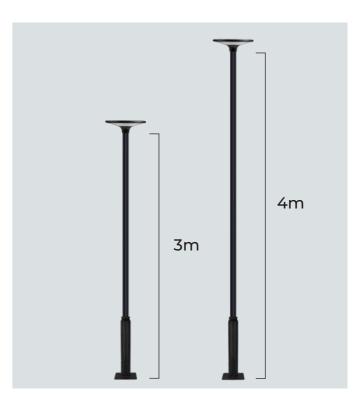
Beam angle:



#### Installation

SUNLO luminaire has been adapted for mounting on standard 50-60 mm diameter poles, which ensures wide compatibility with the most common solutions in outdoor infrastructure.

The recommended mounting height of the SUNLO luminaire is 3-4 meters, which ensures optimal light distribution and comfort in the usable space. Combined with the LED line black split pole, creates a coherent, aesthetic whole ready for quick installation.









# LED line

#### **WE CO-CREATE**







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