

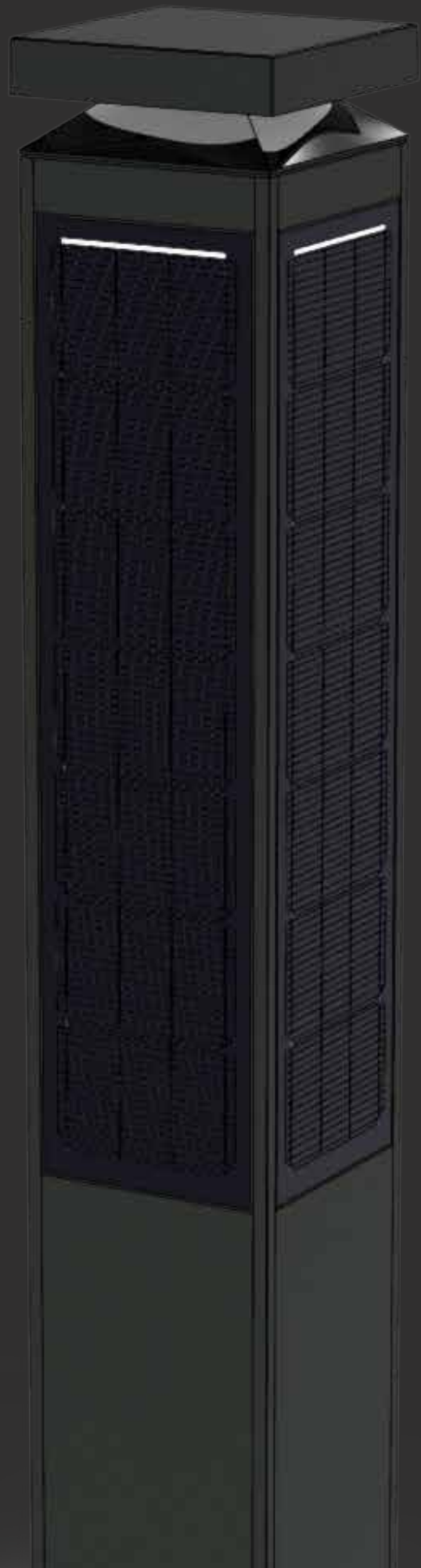
DATA SHEET:

Sunniva Bollard®

The Sunniva Bollard® is our new solar bollard designed for urban centres, parks and residential areas. The solar panels are elegantly designed into the surface and create essential forms, pure and linear.

FEATURES:

- » Stand alone solar powered LED bollard
- » Light in areas where cabling is not available or feasible
- » No cabling and excavation cost
- » Safe navigation in remote areas
- » Renewable outdoor lighting
- » Solar cells generate power during the day
- » Power is consumed during the night to light up the luminaries
- » Integration of sensor
- » CO2 neutral
- » Possible to integrate a variety of sensor based technology
- » Supports Control Management System
- » Controllable via mobile app or eb-platform
- » Possible to integrate a variety of technology



LUMINARIES

Material	Top in cast aluminum, bollard in galvanized steel
Coating	Graphite Grey: SW302G (close to RAL 9007)
	Silver Grey: MW3000
	Corten Brown: Mars 2525, YX355F
Screen	Clear polycarbonate with UV-resistant acrylate on both sides
Mounting	Rooted or flanged base
Connection	Max 3 cables, 5x16 mm ²
Classification	IP66, class II
Impact resistance	IK10
Weight	7,5kg

LED AND DRIVER DATA

Operational life	Min 100.000 hours at a max 25° C, L80B10
Total consumption	9 or 12 W (350 or 500mA)
Color temperature	2700, 3000 or 4000 Kelvin
Color rendering	Min 90 Ra
Color accuracy	3 steps SDCM
Output ratio	57%
Luminous power	2700 Kelvin, 500 – 2200lm
	3000 Kelvin, 550 – 2300lm
	4000 Kelvin, 600 – 2350lm
Driver	LED driver, 0 to 500mA
Operational life	Min 50.000 hours

BATTERY

Based on a Nickel-Metal-Hydride environmental friendly battery (No Cadmium, Mercury or Lead).

Operating temperature range	-30° C to 77° C
Life cycle	4000
Sizes	3.6V, 43Wh and 3.6V, 86Wh

CONTROLLER

Handled charge during daytime	Up to 10W
Used to light up the LED at nighttime	Up to 6W

BOLLARD® BATTERY

The Sunniva Bollard® battery solution is based on a Nickel-Metal-Hydride environmental friendly battery (No Cadmium, Mercury or Lead).

It offers a wide operating temperature range -30° C to 77° C with a typical life cycle on 4000 cycles.

For the Sunniva Bollard® it comes in two sizes, 3.6V-43Wh and 3.6V-86Wh.

Pending on location and environment the solution will be designed accordingly.

SUNNIVA BOLLARD® CONTROLLER

The controller in the Sunniva Bollard® is the intelligent heart of the solution. The controller maximizes the energy available from the solar panel and uses the energy to charge a battery.

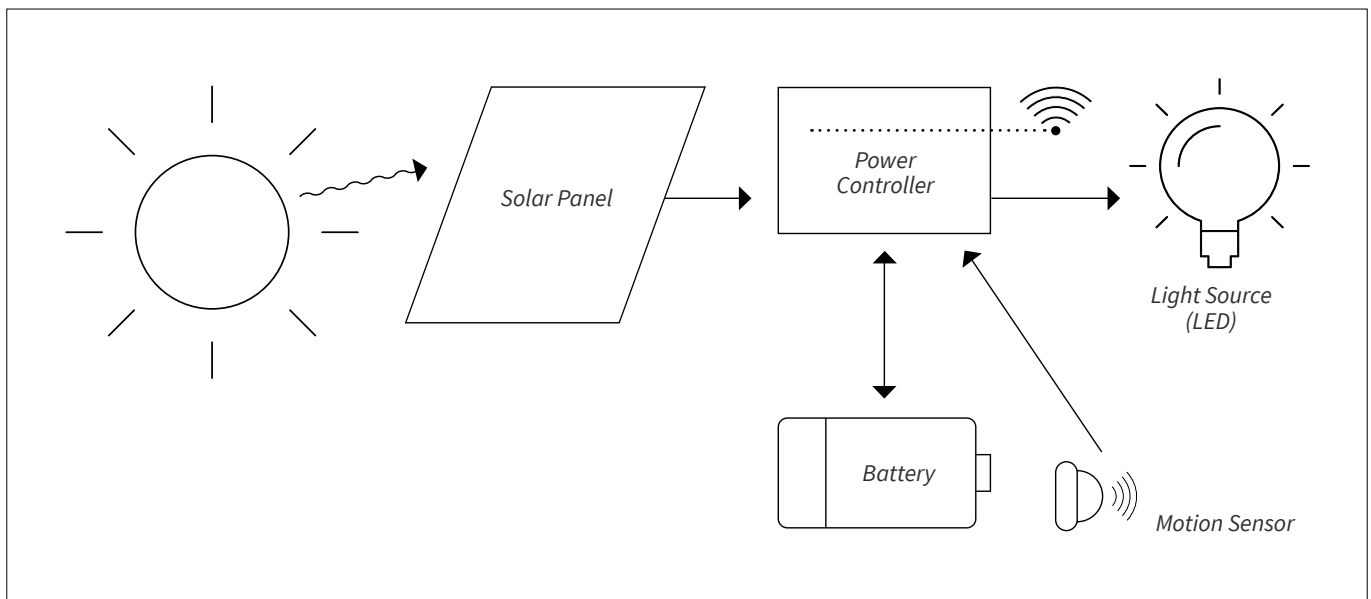
During the daytime the controller monitors the charged energy and handles the charge up to 10W. When it gets dark the unit has counted the charged energy from the whole day.

This energy is then used to light after sunset controlling the LED with up to 12W. Depending on what time of year and location.

SOLAR PANEL 44WP MONOCRYSTALLINE

44Wp panels including mono crystalline solar cells 5,16 Wp with anti-reaction coating that converts the maximum of light into energy.

The structured glass surface reduces re-action, resists wind and snow weather conditions.



Please recycle to local guidelines



Inspired by Nature, **Powered by Sun**

Suncil® is a Danish based cleantech company, delivering smart city solar solutions for street lighting and infrastructure.

The company is born out of the notion that humanity has a responsibility to deliver a greener, safer and smarter world to our children's generation in order to secure a sustainable world.

We believe there is no time for sitting around, waiting for climate change to go away.

We need to take matters into our own hands and act now. This is the reason why we are working towards solving UN's 17 Sustainable World Goals as an integrated part of our business model.

Climate change cannot be solved solely by a single company. Governments, institutions and businesses need to work together, so our children can grow up in a brighter world.

Together, we create the future of tomorrow.

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