

This document is exclusive MARECO LUCE s.r.l., is strictly prohibited disclosure or reproduction, even partial, as well the use of without written consent of MARECO LUCE s.r.l. The company reserves the right to change models, dimensions and materials at any time without notice.

## PRODUCT DATA SHEET

### Deva Solar 16W

Code : 3015182S

#### PRODUCT FAMILY

Urban architectural SOLAR supplied with Deva 16W (IP55) light fitting, head pole for Ø102 mm poles complete with single adjustable solar panel 1x80Wp, fibreglass battery box including n.1 lead acid battery 12V 100Ah and an electronic circuit board managing the charge/discharge of the batteries and the on/off of the 16w Deva LED light fitting.

#### MATERIAL CHARACTERISTICS (LIGHT FITTING)

Body composed of 3 elements in die-cast aluminium EN AB 4600 highly castable and flowable to prevent the formation of air bubble and allow the filling of castings with thin walls, treated by cleaning, degreasing and brushing.

Pre-painting with bi-component epoxy primer noted for its resistance to corrosion followed by painting with matte bi-component polyurethane enamel (hydroxylated-resins based and modified for high elasticity and adhesion), formulated to achieve maximum strength and exceptional weathering resistance.

Diffuser in thick transparent PMMA (4mm)

LED heatsink in moulded anodized aluminium.

Adjustable swivel joint for inclination/rotation in die-cast aluminium.

Triangular bracket made of 2mm-thick hot dip galvanized steel (thickness 75 µm UNI EN 1461) connected to the supporting bracket through 4 screws.

Piping (Ø 18mm) for cable passage and protection, 1 mm-thickness in stainless steel AISI 304.

Connecting pole/arm made of two half-collars in cast aluminium EN AB 4600 highly castable and flowable to prevent formation of air bubble and allow the filling of castings with thin walls, treated by cleaning, degreasing and brushing.

#### LIGHTING CHARACTERISTICS

Lenses in highly transmittant PMMA with 67° beam angle.

Fixture conforms to local and international dark sky laws and.

Installation conforms with regional exceptions to the law with emission 0.49cd/Klm for 90° beam angles.

The adjustable swivel joint allows the fixture to be inclined  $\pm 30^\circ$  and rotated  $\pm 180^\circ$  at intervals of 22.5°.

Immediately on at 100% of light flux (managed by the electronic circuit board).

Lamps are in a fix position.

#### MATERIAL CHARACTERISTICS (ACCESSORIES)

Pole-top connection arm in hot dip galvanized steel, conform to DIN norms (thickness 75µm UNI EN 1461) complete with accessories to fix a fibreglass battery box a solar panel. Mounting on poles Ø102 mm or on Deva Solar System pole.

Colour: Anthracite

Silicone gaskets

A2 Stainless steel screws.

#### WIRING CHARACTERISTICS

##### SOLAR PANEL

1x80Wp silicon monocrystalline solar panel (430x670x30mm) with highly transmittant tempered glass (4mm thick) allowing optimal light permeability without affecting the mechanical strength. Hail-resistant (hail Ø25mm a 75K/h). Aluminium frame to enhance the panel resistance to wind and snow load.

Panel fixing system adjustable according to the Azimut (panel orientation angle with respect to the South) and Tilt parameter (angle from panel to horizontal plane) in order to maximize the performance of the photovoltaic system.

##### BATTERY

1 Lead acid gel AGM battery 12V 100Ah (1200Wh), with 20hrs discharge time and approx. 3800 cycles.

Dimensions: 306x168x211mm

Weight: 28.3 Kg

Temperature range: -20°C÷50°C

##### LED

16 Monochromatic LEDs CREE (1W@350mA, 138 Lm, 4000K (NW) guaranteed 50.000 hours, with 2.200 Lm light flux.

LEDs connected in 2 series or 8 each, supplied by 2 independent drivers.

In case one LED breaks:

- the damaged LED will be switched off and the remaining will stay on

- only the LED module part where the damaged LED is located will be switched off but the other half will function and will keep the fixture on.

LED modules and heat-sink connected by a thermal-conducting silicone grease and fix trough 4 screws.

#### COMPUTERIZED ELECTRONIC CIRCUIT BOARD

Computerized electronic circuit board PWM managing the on/off and charge of the battery

2 programming modes:

- NORMAL mode, with constant luminosity of LEDs regardless of the charge/discharge cycles of the battery.

- SMART mode, adjusting the luminosity of LEDs and programming the battery duration (4 or 7 nights)

In the SMART mode the ECB can adjust the luminosity of LEDs depending on the nights the fixtures needs to function and the battery available charge.

Both in the NORMAL and in the SMART mode the fitting will be on 1 minute after the sunset.

The possible running modes are:

- 8 hours

- 10 hours

- sunset to sunrise

- 4 + 2 hours

With the special 4+2 hours mode, the fitting is on at sunset for 4 hours, then in standby at 25% and then back on at 2 hours before sunrise.

The ECB saves the daily data concerning the "hours of light" and the "hours of dark" and makes statistical average calculations on the 3, 7 and 15 previous days, thus is able to manage the on/off and stand-by of the fitting. Besides this, the ECB can also increase or decrease the light flux of 1 percentage point every 3 days depending on the period's solar radiation.

Both in NORMAL and SMART mode, the system turns on the light when the battery goes below 20% of nominal charge.

All running modes can be set on each solar light fitting by a simple dip-switch included on the ECB. In the same way the user can pass from NORMAL to SMART mode, and vice versa, the ON duration, the battery remaining charge in nights, etc.

The light fitting is pre-set by the factory on SMART mode with on at sunset for 8 hours and battery charge for 4 nights.

The ECB, included into an IP54 compartment, must be placed into the battery box.

#### INSTALLATION AND ORDINARY MAINTENANCE CHARACTERISTICS

System including light fitting, head-pole complete with fixing system and solar panel, metallic battery box, arm.

Fixture for installation with Deva System, Deva Parete and Deva Testapalo

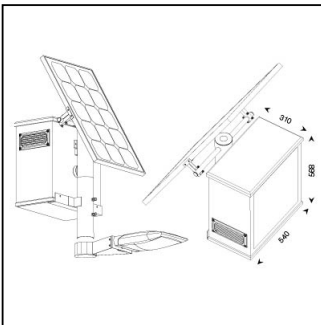
Ordinary maintenance (not necessary) by loosening n.2 screws, opening the lower cover and lowering using hinges.

#### ACCESSORIES

- Optional pre-set by factory  
Connection to main supply cod. CS160002

Details

- Conformity with CEE directives
- Class III
- Mounting on normal flammable surface
- IP 65



16W			
CE			IP65