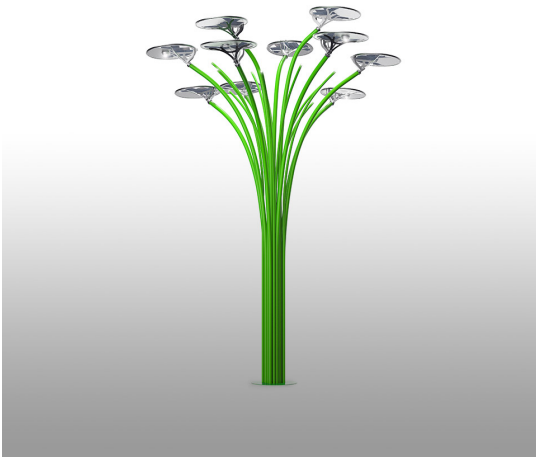
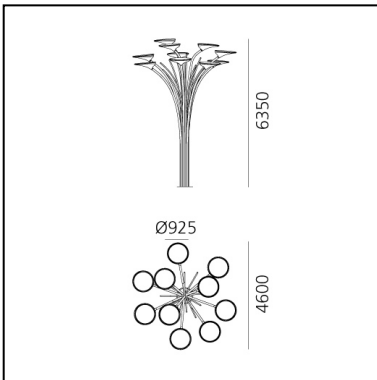


Solar Tree 2nd generation - 10 Heads

Ross Lovegrove



IP65   Dimmerable: 



LUMINAIRE

- Watt: **116W + 15W**
- Delivered lumens output: **8800lm (tot.)**
- CCT: **3000K**
- CRI: **80**

Notes

10 heads with solar panels (4 with COB LED).
10 LED "stems", batteries.
Plinth dimensioning to be defined in the project phase.
Wind resistance to be calculated in relation to the installation site.

DESCRIPTION

Solar Tree 2nd Generation develops and opens up to IoT interaction, to create new scenarios and introduce new and unexpected perspectives for future smart cities. Solar Tree is conceived as a lighting appliance combining the LED-based lighting technique with the solar photovoltaic technology in a very peculiar and innovative design. The project is aimed, on one hand, at minimizing the environmental impact of the product's use (deriving, in particular, from reduced consumption of energy obtained from fossil fuels), while ensuring that the appliance can provide service continuity and, therefore, the expected luminous performance, without being vulnerable to random weather agents or suffer design imbalance (number of panels, accumulator size) calculated for winter months. Such imbalance implies significant dimensions, weights, and costs and would not ensure continuous operation in off-average weather conditions.

The same logical principles implemented in the automotive sector on electric cars, with hybrid versions taking the lead over pure electric battery-based ones for a number of reasons, such as costs, performance, and state of the art of certain technologies, were used to develop the Solar Tree project by Artemide. With its mixed accumulator/solar and network configuration, it provides the best possible energy saving and functionality combination.

Solar Tree was designed for operation in the HYBRID configuration: in addition to the batteries, generally of the appropriate capacity to contain energy for autonomous operation for up to 7-10 days (with an energy-saving operation cycle, better specified below) with full charge, connection with the mains is provided for energy supply to the appliances (via an appropriate DC power unit connected with the mains) when the batteries are depleted. This is to ensure full service availability even in case of persistent bad weather and/or reduced sun irradiation or 100% use of the luminous performance of the appliance, or anyway when the energy balance is negative.

At dusk (recognized by determination of the dawn and sunset time entered into the calculation routine of the management programme or otherwise), the LED sources are turned on until dawn according to the pre-set duty-cycle.

In "HYBRID" appliances, the system draws energy from the batteries until these fall to the lower charge limit, then switches automatically to the mains.

For appliances based on this configuration, if mains connections coincided with the desired switching time of the public lighting appliances to which the Solar Tree functionally refers, appropriate settings would ensure that the voltage available upon powering is interpreted as a start signal for the Solar Tree and vice versa in case of disconnection from the mains.

PRODUCT CODE: AU00409

FEATURES

- Article Code: **AU00409**
- Colour: **Green**
- Installation: **FloorPole**
- Series: **Architectural Outdoor**
- design by: **Ross Lovegrove**

DIMENSIONS

- Length: **cm 460**
- Height: **cm 635**