Artemide

PRODUCT DATA SHEET

Solar Tree

DESIGN BY:

Ross Lovegrove
2007

MATERIALS:

Aluminium

DESCRIPTION:

Solar Tree is a light fixture combining an innovative design with the technical performances of LED lighting systems using solar energy supplied from a photovoltaic system. This project aims to combine the reduced environmental impact, especially deriving from a low absorption of fossil fuel-based energy, with the need to ensure constant operation and expected light performances. The operation of this light fixture is not influenced by weather randomness and project changes due to winter periods (e.g. number of panels, accumulator dimensioning). These project changes concerning dimensions and weights would imply higher costs, and the fixture would not, nevertheless, ensure continuous working. In fact, hybrid versions are increasingly used in leading sectors.For this reason Artemide has developed the Solar Tree project which, with a mixed configuration of accumulators / solar energy and mains power supply, can combine Energy-saving and functionality at the best. Structure consisting of curved steel poles of different diameters and heights, with a maximum total height of about 5,5m over road level. This system consisting of 10 “stems of grass” with 40mm Ø. 1 LED approximately about 1 W protected by a diffuser screen in PETG and 10 poles with 76mm Ø supporting the heads. The poles are painted with outdoor epoxy paint in a light green colour shading into white. The 10 heads, housing the photovoltaic cells in their upper part, are supported by poles with a diameter of 76mm; 20 power LEDs, which can be supplied with power up to 500mA and have a white neutral colour temperature, are housed in the lower part of 4 of them, on an aluminium dissipator. They are provided with a screen in plastic material which ensures protection against water and dusts. The base is made of hot-galvanised steel plate to be fixed to the ground. Otherwise it is possible to use a base, always in galvanised steel, with reinforced concrete parts forming a circular bench. In this case the base can rest on the ground without the need of further fixing systems.The connection/wiring parts, the control and recharge boards and the batteries are contained in several watertight boxes, provided with male and female connectors with IP Rating IP65 or higher, placed at the foot of the base or inside the concrete bench, according to the technical specifications of the Solar Tree version supplied.Benches in white painted concrete, with second coat of anti-graffiti paint.

SELECT

LED

White/Green

PRODUCT CODE

T080600 +
T080400

Light emission

IP65 vano ottico/44 vano batteria

TECHNICAL DATA SHEET

FEATURES

Product name:	Solar Tree
Article Code:	T080600 + T080400
Colour:	White/Green
Material:	Aluminium
Series:	Outdoor
Environment:	Outdoor
Area contract:	Outdoor Urban

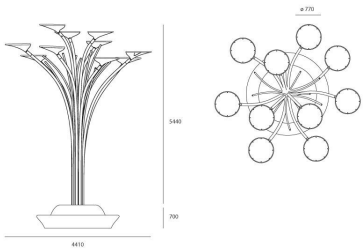
OPTICS

Emission:	Direct

DIMENSIONS

Height:	inch 241.7
Diameter:	inch 173.6
Impact Resistance:	IK10
Glow Wire Test:	960 °

DIMENSIONS



COLOUR

LAMPS INCLUDED

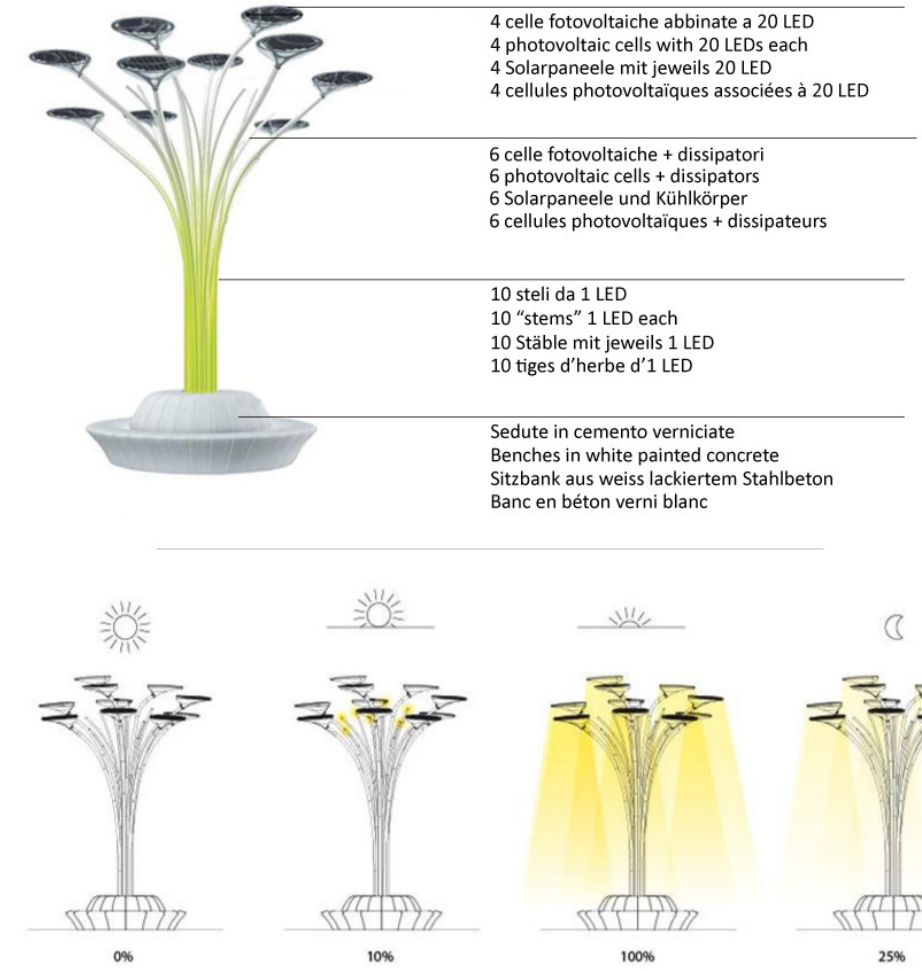
Category:	LED
Number:	4
Watt:	23W
Color temperature (K):	4300K
Class:	A

Category:	LED
Number:	1 x 10
Watt:	10W
Wattage (Single):	1W
Color temperature (K):	6000K
Class:	A

LUMINAIR

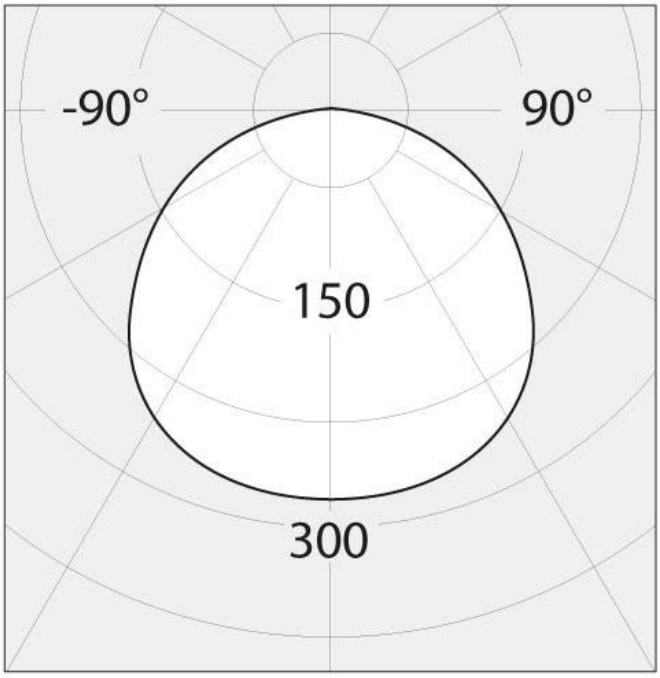
Watt:	92W+10W
Voltage:	220V-240V
Luminous Flux (lm):	7728lm
CCT:	4300+6000K

Installation



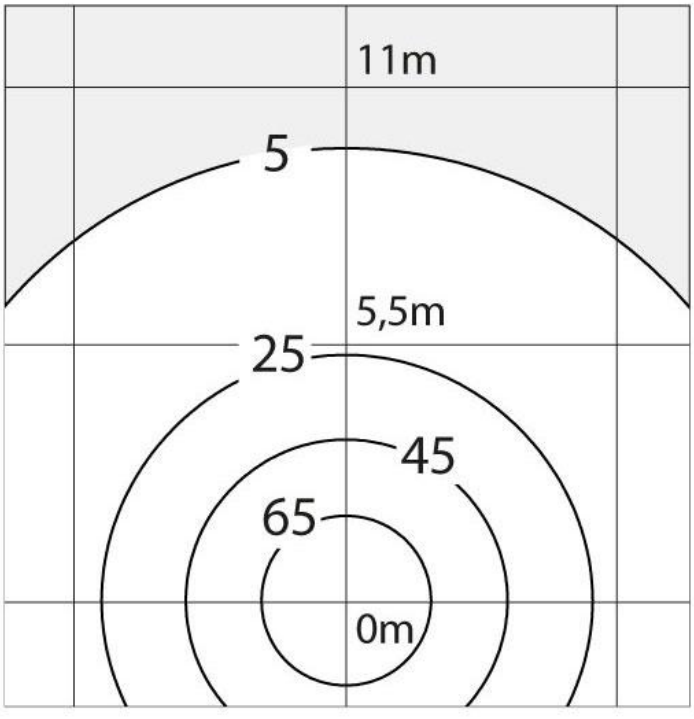
DIAGRAMS

Polar curve



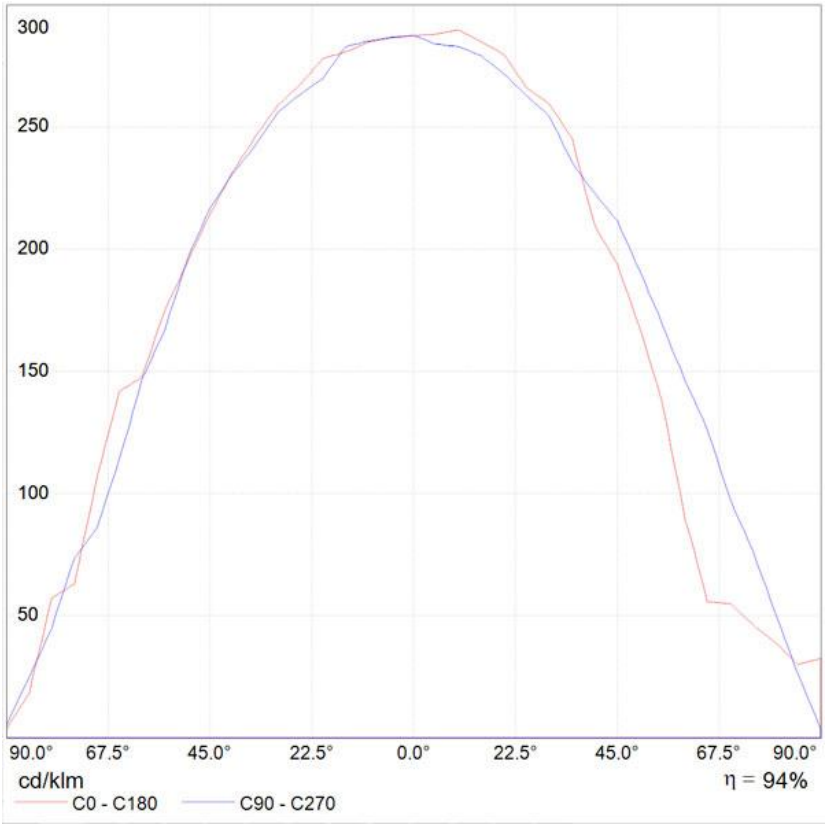
Cd/klm

Isolux



Lux

Cartesian diagram


300
250
200
150
100
50
90.0°
67.5°
45.0°
22.5°
0.0°
22.5°
45.0°
67.5°
90.0°
cd/klm
η = 94%
C0 - C180
C90 - C270