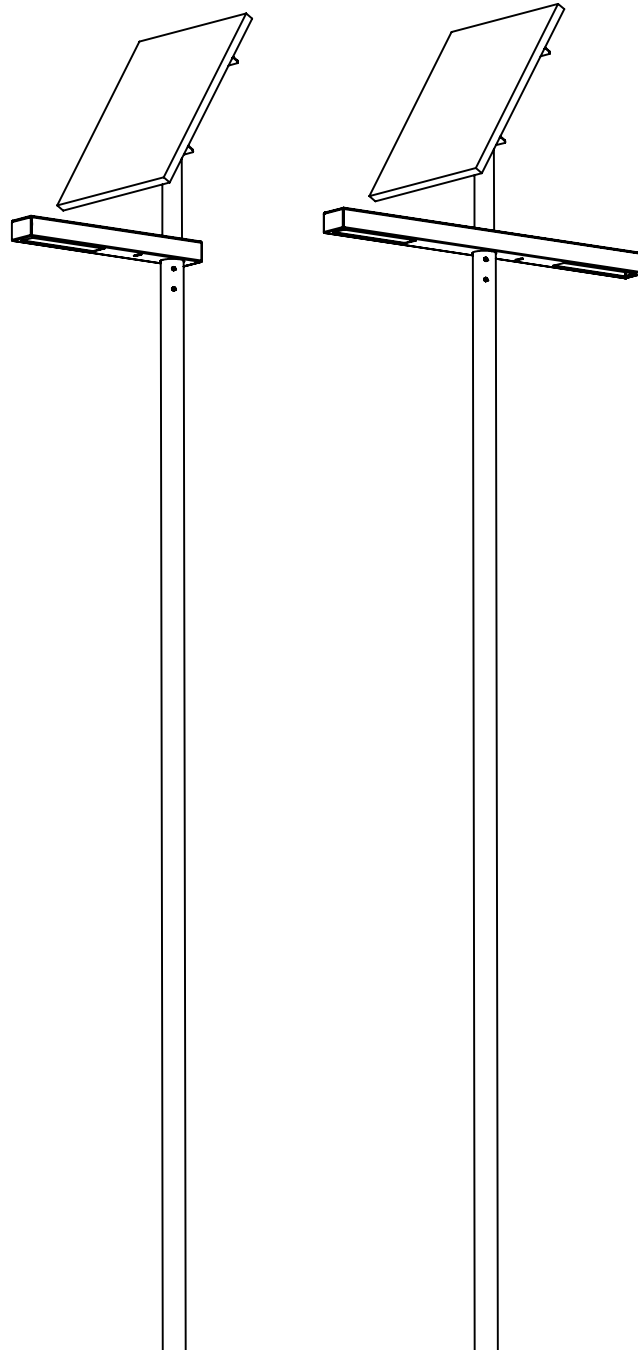


brilliance in solar lighting

photinus

DATA SHEET V1 | 2019

protos100 | protos100 duo



1

protos100

SELF-SUFFICIENT SOLAR LED STREET LAMP

USAGE

It is „functional with appealing design“ and it is called protos. It is a self-sustaining, exterior solar LED lamp with various technical options. The energy supply is based on an efficient mono-crystalline photovoltaic module, the inclination of which can be adjusted. Intelligent controls with independent day- and night-time recognition enables different time programs. Given the short assembling and disassembling times, protos is excellently suitable as street lighting or for temporary usage wherever cordless lighting is required, such as construction sites, parking lots, access roads, outdoor events or company premises.

The high-efficiency LEDs and advanced optical components ensure impressive light distribution. Protos meets the country-specific light-technical requirements of DIN 13201 for residential streets with low traffic, cycle paths and footpaths, parking lots and company premises.

FUNCTION

The integrated battery is charged during daytime by the efficient photovoltaic solar module. At nightfall, the LED light module is automatically activated.

The light output of a solar lamp is defined by the incident solar irradiation at the respective location, which is why the quality of the individual components and their optimum interaction play a decisive role.

The LiFePo4 battery used in protos is shored in the ground together with the post so that an optimum, constant temperature is achieved. The long service life of the battery and efficient theft protection are the results.

2

TECHNICAL DATE

SOLAR MODULE

Solar modul	monocrystalline silicon cells
Module performance	100 W
Module dimensions	1200 mm x 540 mm x 35 mm
Open Circuit Voltage (VOC)	22.20V±0.5
Short Circuit Current (ISC)	5.89A±0.2
Maximum Power Voltage (Vmp)	18.00V±0.5
Maximum Power Current (Imp)	5.56A±0.2

BATTERY (IN THE POLE)

Battery	LiFePO4 / 461 Wh (12,8 V 36Ah)
Operating temperature	-20°C to +60°C
Battery life	up to 10 years
Protection class	IPX8

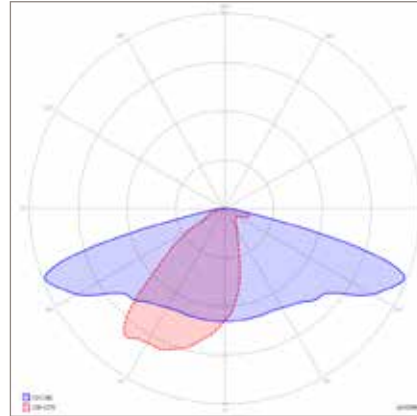
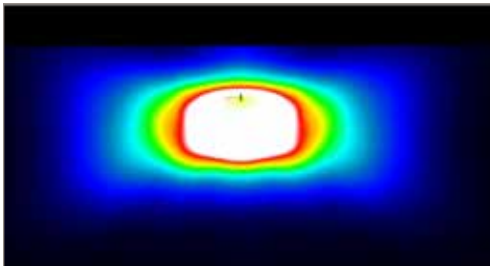
LIGHTS

Max. luminous flux	Depending on the location where the light is staying. <u>Location: Luminous flux / autonomy time normal mode / smart mode</u> 52. degrees lat. (Amsterdam): 8 W, 1380 lm / V5 / 8 days / 12 days 47. degrees lat. (Munich): 9 W, 1400 lm / V5 / 6 days / 9 days 40. degrees lat. (Madrid): 22 W, 3790 lm / V5 / 3 days / 5 days
Efficiency	172/600mAh
LED module / max. watts	100 W
Colour temperature	4000 K
Life of LED	> 100 000 h
Protection-class	IP 67

OPTICS

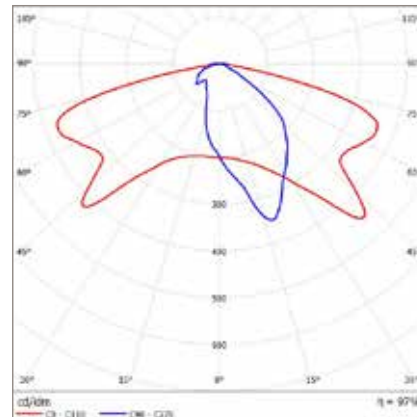
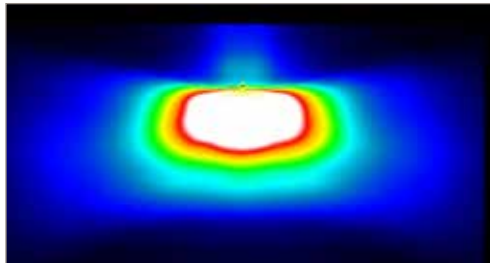
photinus OPTIC

Standard optic with optimum compromise between illumination width and illumination depth



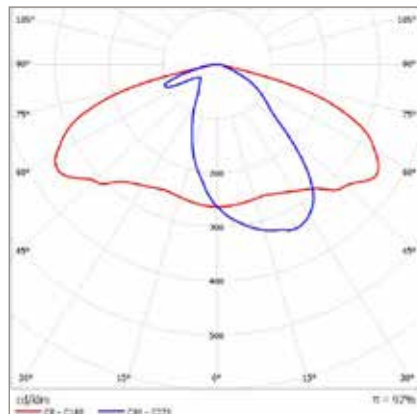
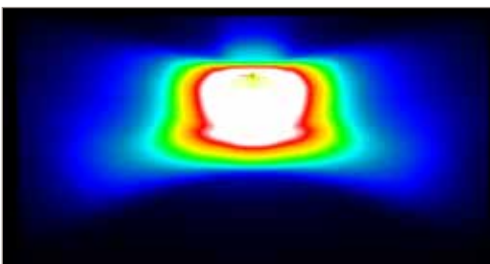
SCL OPTIC

optimal for streets with a width from 2m to 4m (cicle paths, walkways and small streets)



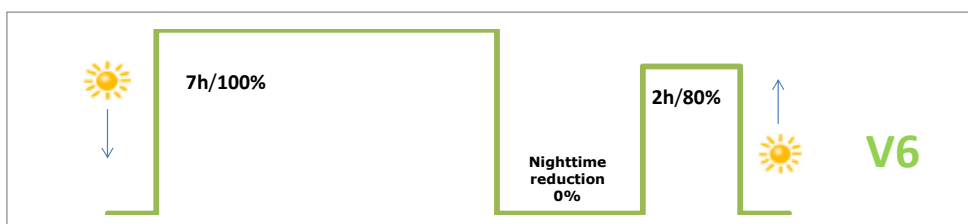
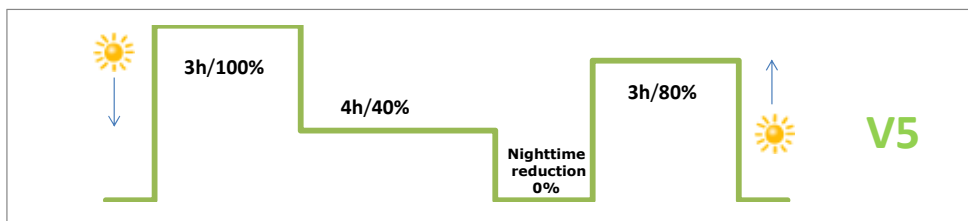
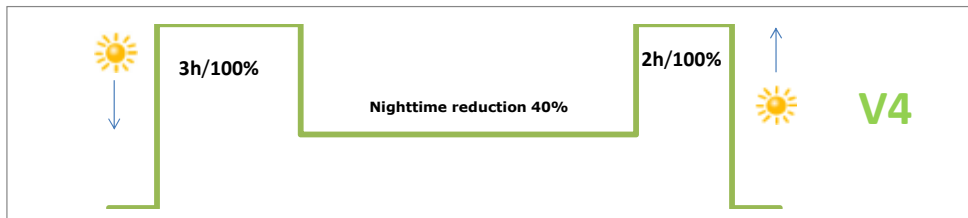
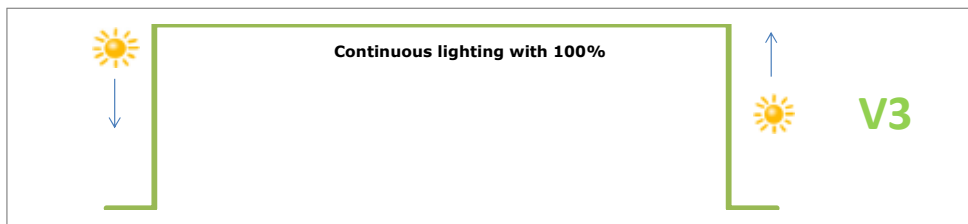
DWC OPTIC

optimal for streets with a widht from 4m to 7m (Residential roads, secondary roads and main roads, depending on location)



ENERGY AND TIME MANAGEMENT

Standard factory settings V5



DIMENSIONS

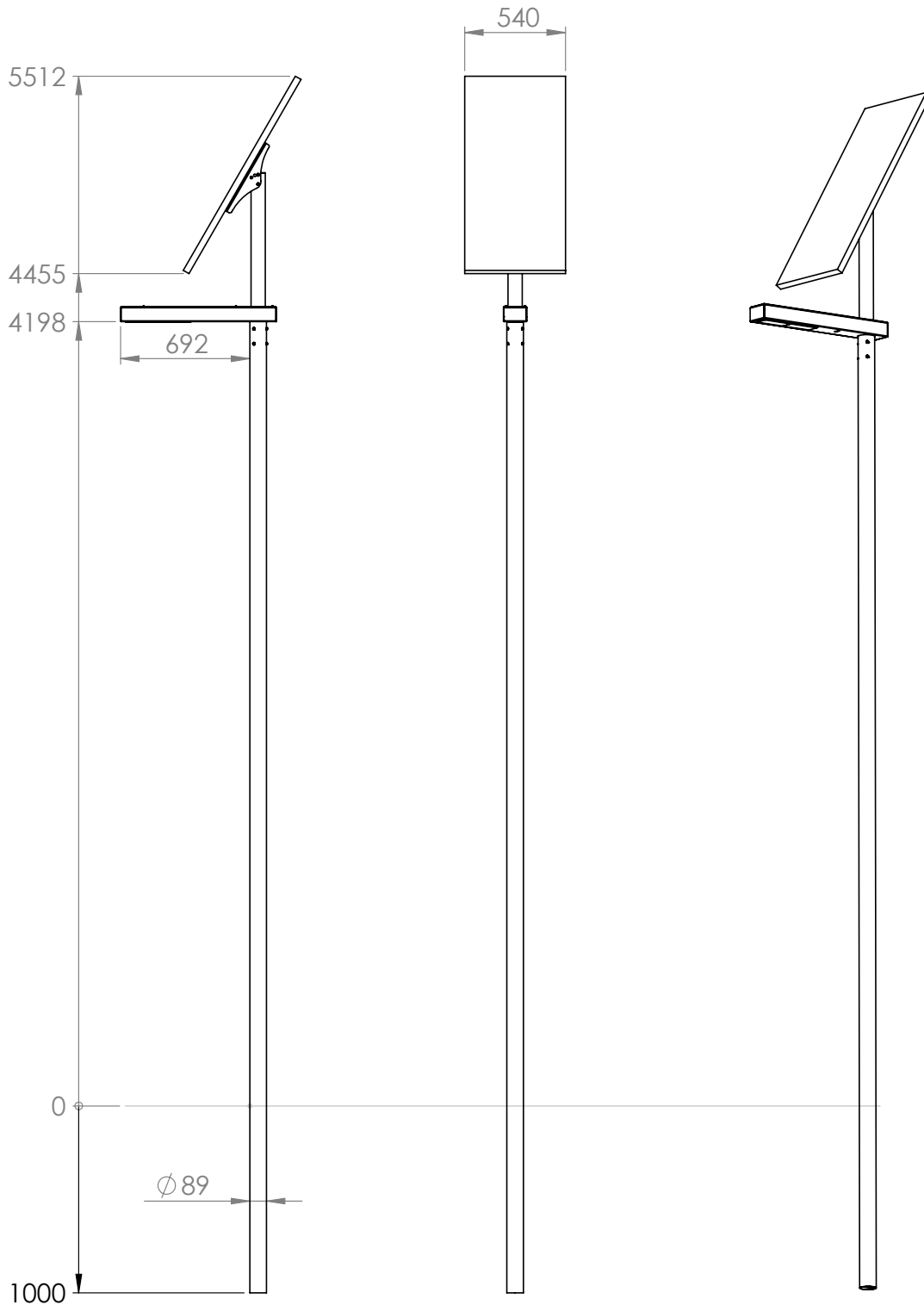
Total height from ground level	depending on the position of the solar module approximately 5512 mm at 62°
Height of light from ground level	4200 mm
Total length of the pole	5512 mm
Weight	35kg
Lenght of the pole in the ground	1000 mm
Material pole	galvanized and powder-coated steel „Sparkling iron effect dark“
Solar module dimensions	1200 mm x 540 mm x 35 mm
Weight	8 kg
Light housing dimensions	834 mm x 125 mm x 80 mm
Weight	3,2 kg
Wind load	Wind load zone 4, mit 30m/s (110km/h) (Lloyds CLAME 2016)

MATERIALS

Pole	galvanised and powder-coated steel „Sparkling iron effect dark“
Metal parts	powder-coated aluminium „Sparkling iron effect dark“

(tchnical changes reserved)

DIMENSIONS PROTOS 100 / PROTOS 100 DUO



3

ASSEMBLY

OPTION 1 - PIPE FOUNDATION

