

brilliance in solar lighting

photinus

DATASHEET V1 | 2017

merkur150



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merkur150

SELF-SUFFICIENT SOLAR LED STREET LAMP

APPLICATION

The merkur150 stands out for its exceptional, cubic and modern design and guarantees a secure supply in all different climate zones. The merkur150 solar light is a solar powered LED street lamp, which is used in regions without electrical infrastructure or in which it would not be economically feasible to implement one. The luminaire is especially used in areas that demand a secure supply and excellent light quality even in dim conditions.

The merkur150 is able to generate sufficient energy via the diffuse light component in regions with poor weather (snow, fog, etc.) due to the cubic aluminium construction with 4 photonus high performance photovoltaic modules. The vertically arranged modules prevent snow from accumulating on it in winter. A sophisticated energy management system guarantees secure functionality over several nights even in poor weather conditions. The merkur150 is best suited for residential streets, side streets, cycle routes and footpaths as well as car parks etc. in accordance with DIN EN13201 due to its light output.

OPERATION

The integrated battery is loaded via 4 photonus high performance photovoltaic modules and powers efficiently the LED array during the night.

OPTIONS

Anthracite is our standard colour for the merkur150. Nevertheless, the luminaire can be ordered in all RAL colours for large projects and at an additional charge.

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TECHNICAL DATA

SOLAR MODULES

Solar modules	Monocrystalline silicon cells with exceptional efficiency specially processed by photonus.
Efficiency	21.5 %
Max. performance of the energy column P_{mp}	150 Wp / 4 solar modules, they are also charged up in cloudy conditions

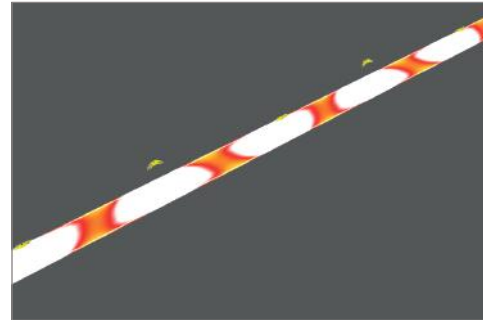
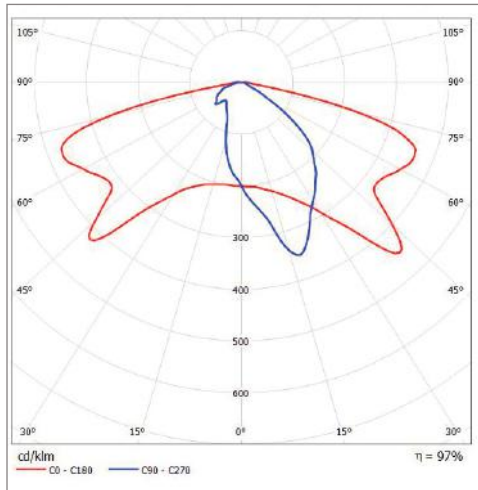
BATTERY (IN THE POLE)

Battery	LiFePO ₄ 12,8 V 36Ah (460Wh)
Operating temperature	- 20°C bis + 60°C
Life of battery	approx. 10 years
Protection class	IPX8

LIGHTS

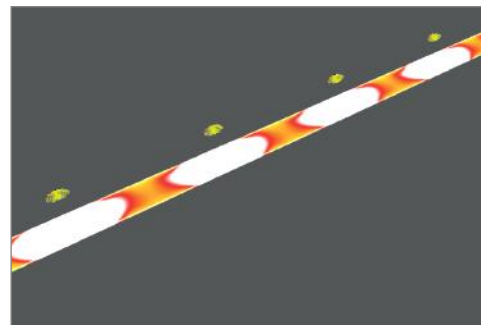
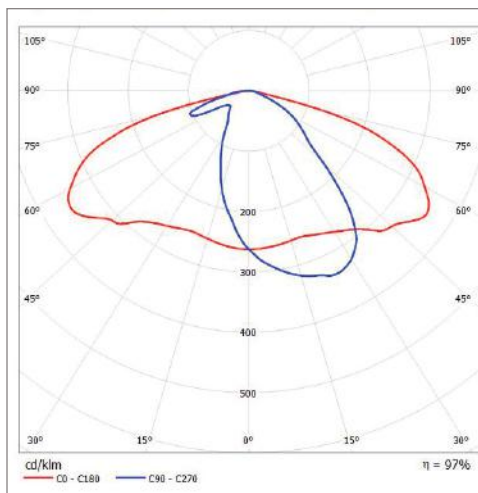
Max. luminous flux	8000 lm (Bregenz site / 47 degrees latitude / 1400 lm / V5)
Max. Efficiency	200 lm/W
LED module / max. watts	100 W
Max. back-up time	18 days (Bregenz site, 47 degrees latitude: 7 days) „Intelligent plus Modus“ 18 days (Bregenz site: 12 days)
Colour temperature	4000 K
Life of LED	> 100 000 h
Protection class	IP67

OPTIC



SCL OPTIK

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



DWC OPTIK

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

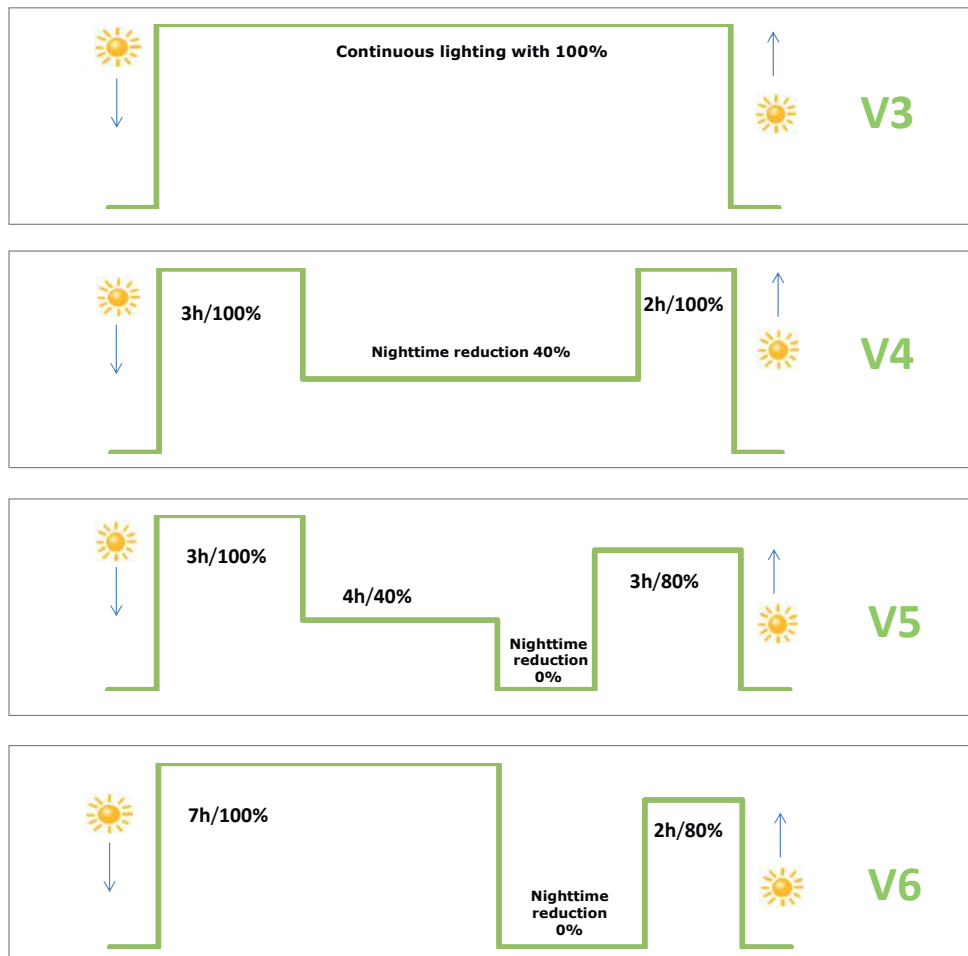


The special photinus LED luminaires combine the advantages of SCL and DWC optics to achieve optimal light distribution.

Additional optics for special applications are possible upon request.

ENERGY AND TIME MANAGEMENT

Standard factory setting V5



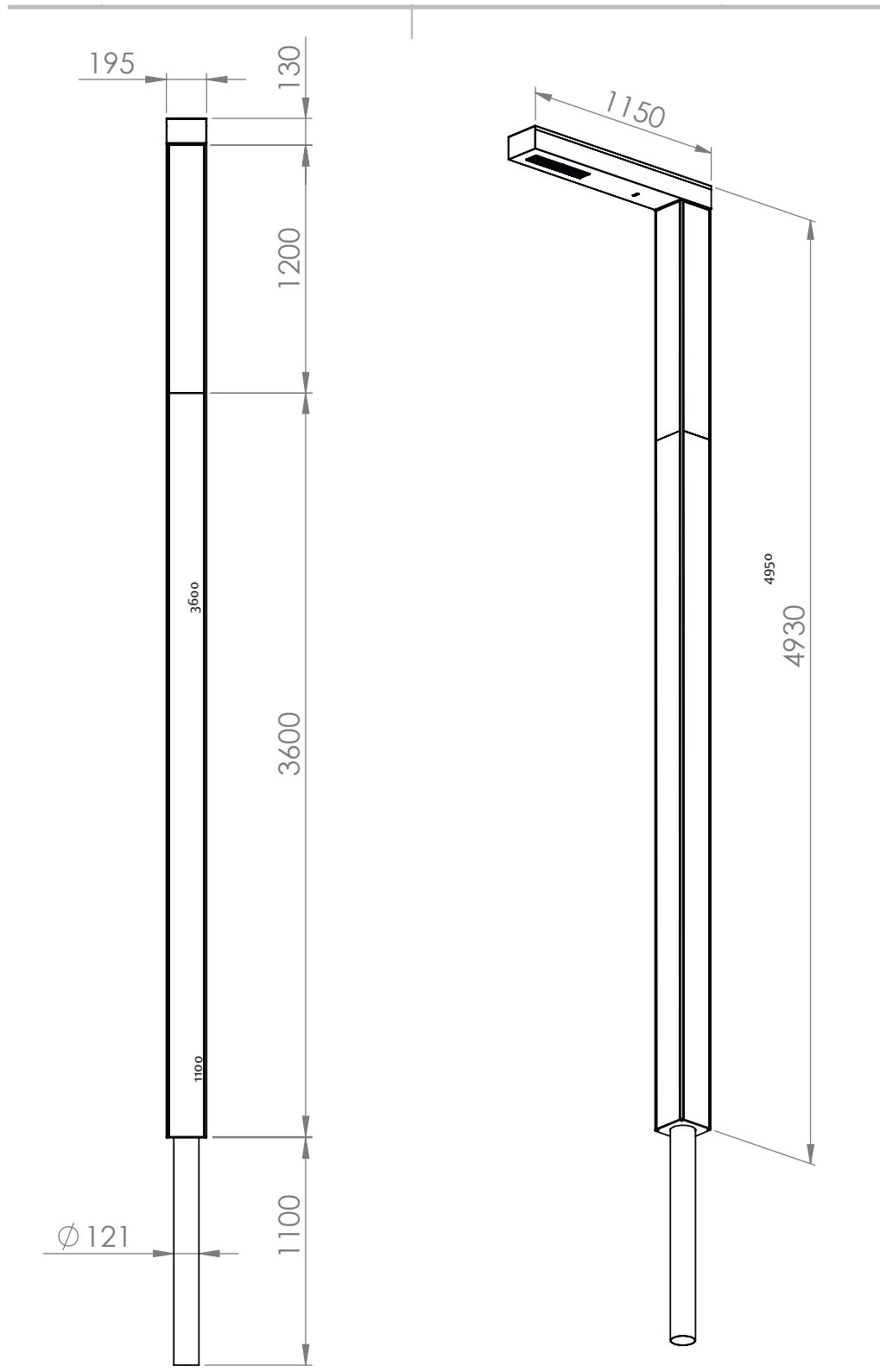
WARRANTY

Manufacturer´s warranty	2 years (incl. battery)
PV module warranty (The warranty period starts on the date of production)	2 years with 100% product guarantee 5 year warranty at 90% minimum output 10 year warranty at 80% minimum output (subject to technical modifications)

DIMENSIONS

Total height from ground level	4930 mm
Height of light from ground level	4800 mm
Height of vandalism protection	3600 mm
Height of energy column	1200 mm
Length of pole under ground	1100 mm
Total length of pole (galvanised steel)	6000 mm

DIMENSIONS MERKUR150



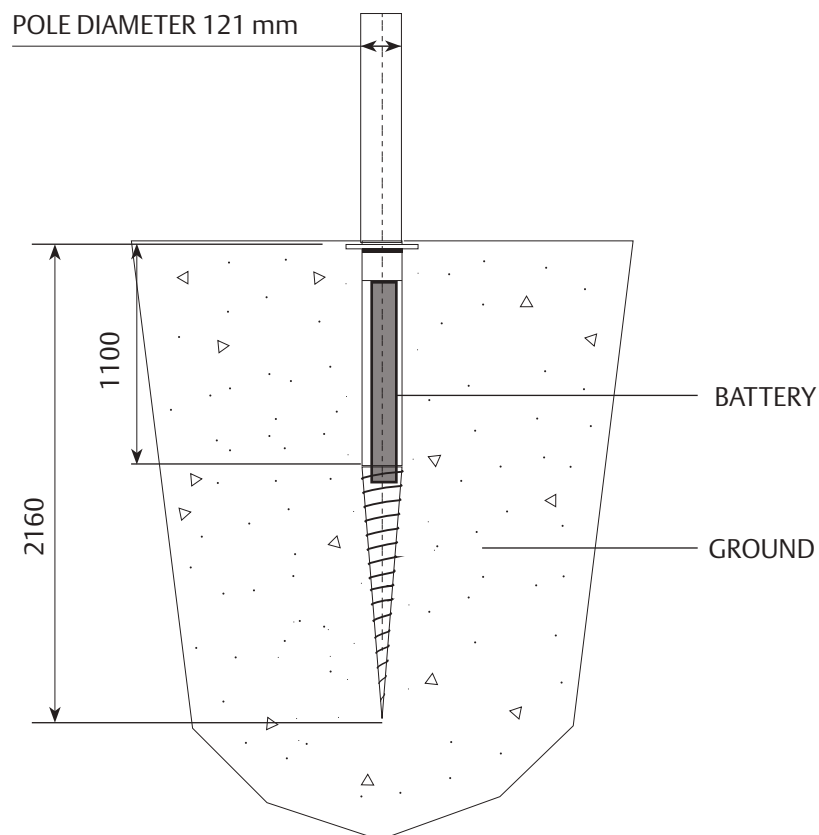
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OPTIONS FOR ASSEMBLY

OPTION 1 - KRINNER GROUND SCREW

KRINNER Ground Screw

Art. 25513: KSF E194x2100-RG140-SMU151



OPTION 2 - PIPE FOUNDATION

