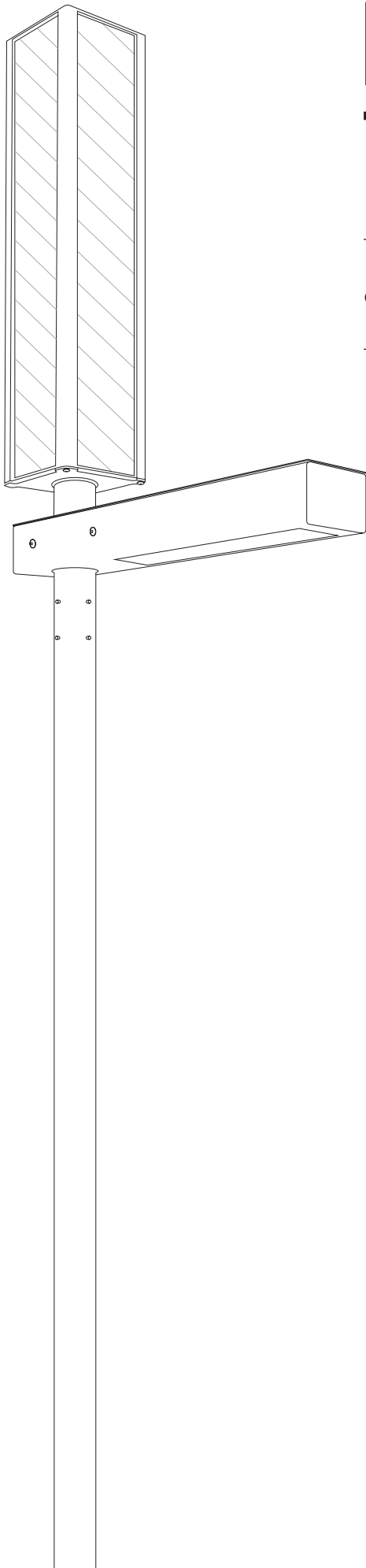


brilliance in lighting

photinus

DATASHEET V.1 | 2017

aron



1

aron

SELF-SUFFICIENT SOLAR LED STREET LAMP WITH SECURE SUPPLY

USE

The aron is available to ensure a secure supply even in critical weather regions. The aron solar light is a solar-powered LED street lamp for car parks with two light sources which are used where there is no electricity supply or where it would not be economically feasible to implement one. The aron can be used anywhere where a secure supply and excellent light quality is of paramount importance even in dim conditions. Due to the cubic aluminium construction with 4 photinus high performance photovoltaic modules, sufficient energy can be generated in a targeted manner via the diffuse light component especially in regions with poor weather (snow, fog, etc.). 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.

FUNCTION

The integrated battery is loaded via 4 photinus high performance photovoltaic modules and when dusk comes this energy is used to efficiently operate the LED array.

2

TECHNICAL DATA

SOLARTOWER

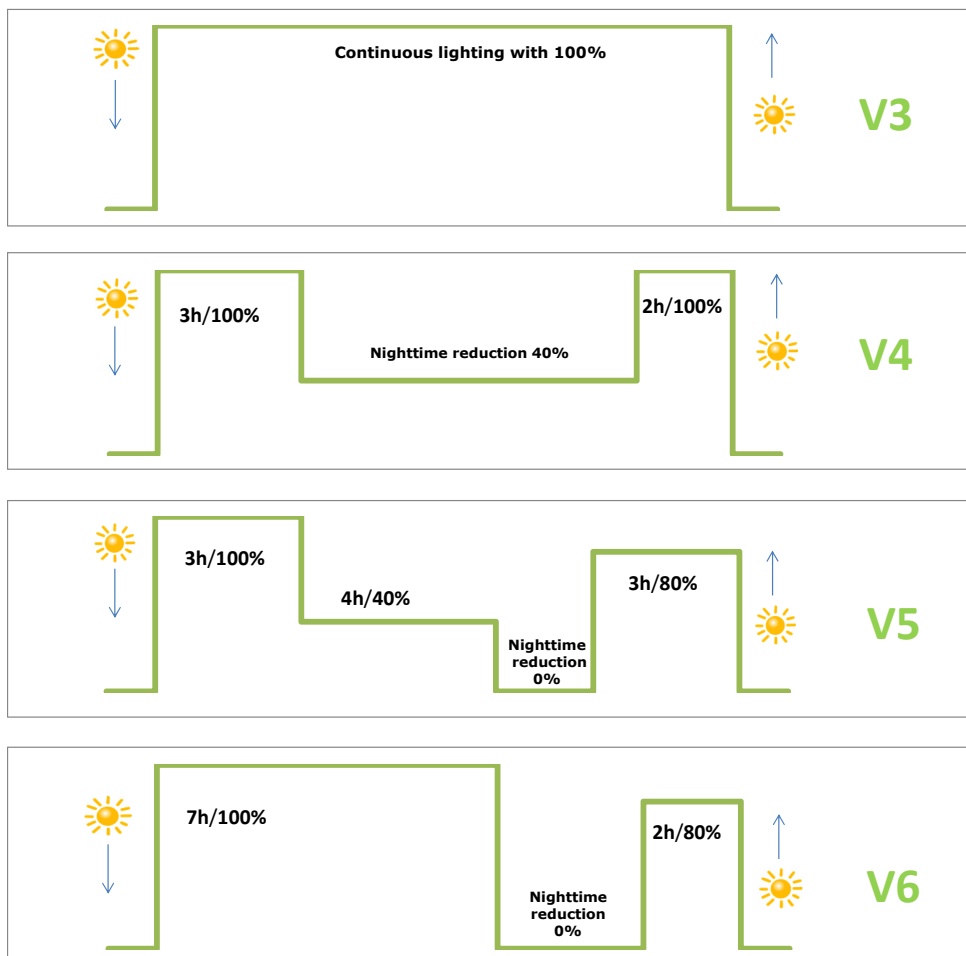
Solar modules	monocrystalline silicon cells with exceptional efficiency specially processed by photinus
Efficiency	22,5%
Max. performance of the energy column Pmpp	160Wp / 4 solar modules — modules are also charged up in cloudy conditions.
Dimensions of the Solartower	237 mm x 237 mm x 1160 mm
Battery	LiFePO ₄ / 12V 40Ah
Operating temperature	Charge and discharge temperature - 45°C to + 85°C at -45°C capacity over 80%
Battery life	Cycle stability 7 to 10 years

LIGHTS

Max. luminous flux	8000lm (Bregenz site, 47 degrees latitude:1200lm)
Efficiency	up to max. 200lm/W
LED module / max. watts	88W
Luminance at ground level	see page 10
Max. back-up time	18 days (Bregenz site, 47 degrees latitude: 7 days) „Intelligent plus Modus“ 25 days (Bregenz site: 18 days)
Colour temperature	4000 K (standard)
Optics Light distribution	situational
Life of LED	> 80000 h
Protection class	IP65
Pivoting light arm	factory set to 2° inclination (infinitely variable 2° - 9°)
Others	insect neutral light

ENERGY AND TIME MANAGEMENT

Standard factory setting V5



DIMENSIONS

Total height from ground level	5570 mm
Height of light from ground level	4200 mm to 4400 mm
Total length of pole	5200 mm
Length of pole in the ground assembled	800 mm to 1000 mm
Pole materials	galvanised and powder-coated steel „Sparkling iron effect dark“

DIMENSIONS AND WEIGHTS FOR SINGLE DISPATCH

Luminaire head in box	850 mm x 500 mm x 250 mm
Weight	6 kg
Solartower in box	1200 mm x 250 mm x 250 mm
Weight	21 kg
Pole	5200 mm x 110 mm x 110 mm
Weight	32 kg

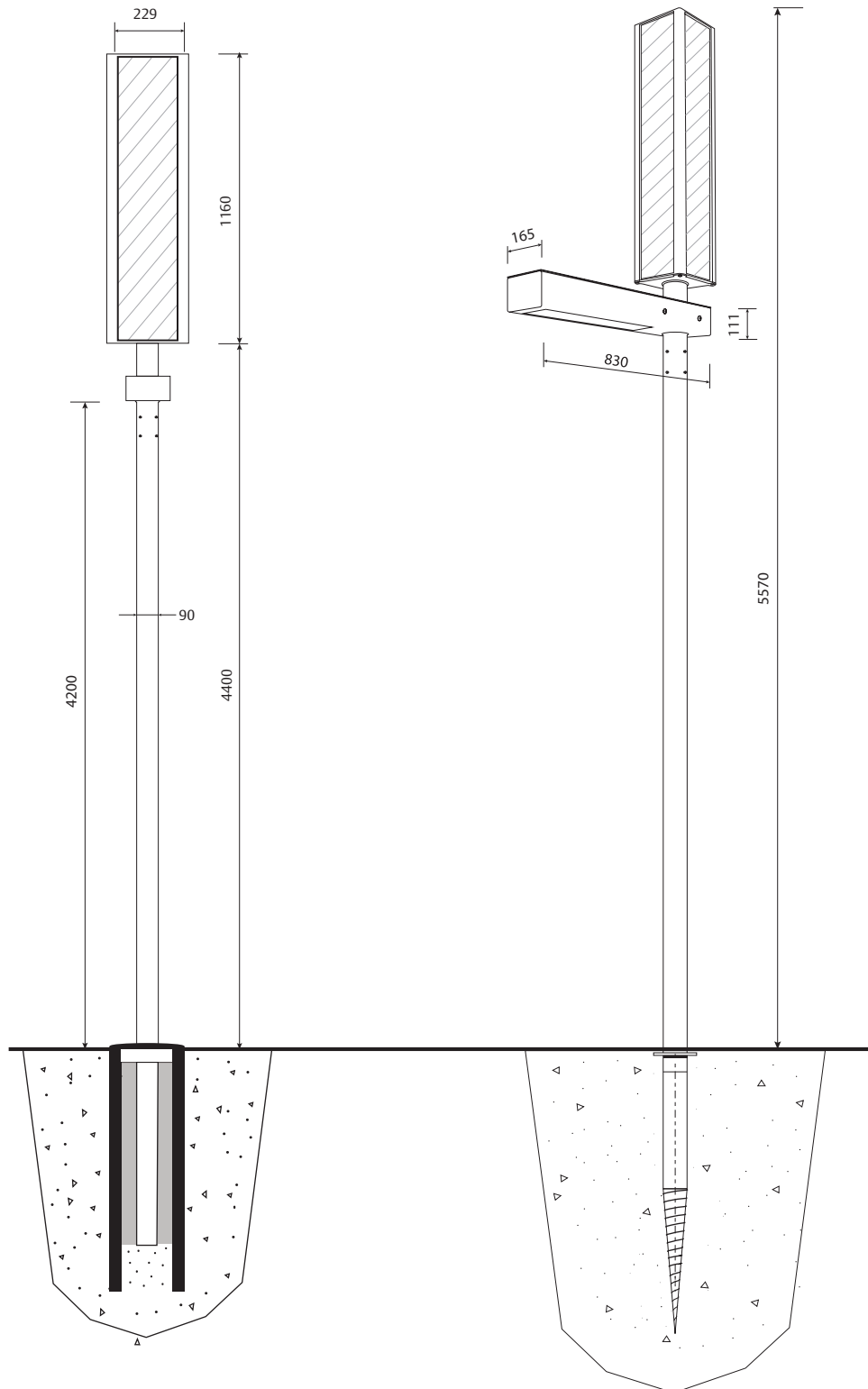
DIMENSIONS AND WEIGHTS FOR SHIPMENT OF PALLETS

Pallet	1 Euro palett
Max. number of lights	6
Pallet size (with 6 lights)	1200mm x 800mm x 1500mm
Weight	162 kg
Poles	6 pieces (size see above)
Total weight of masts	192 kg

MAINTENANCE CYCLES | WARRANTY

Battery change recommended	after 8 years
LED change recommended	after 12 years
Material warranty	2 years (incl. battery)
PV module warranty (The warranty period is deemed to start on the date of manufacture)	2 years with 100% product guarantee 5 year warranty at 90% minimum output 10 year warranty at 80% minimum output
	(technical changes reserved)

DIMENSIONS



3

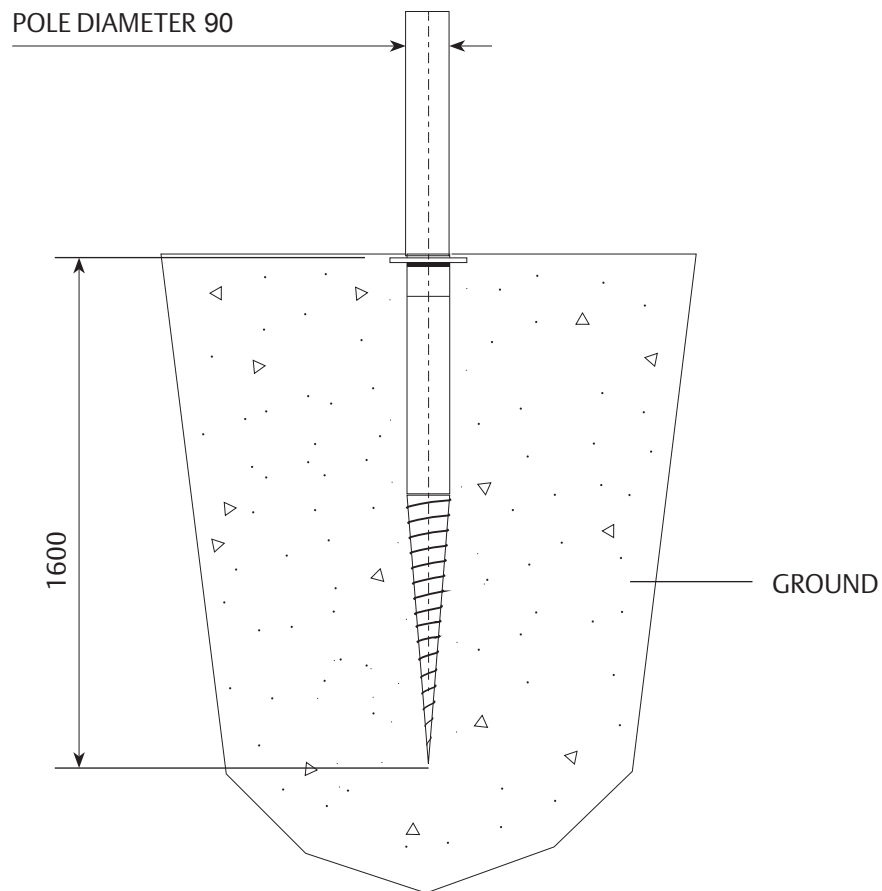
OPTIONS FOR ASSEMBLY

OPTION 1 - GROUND SCREW

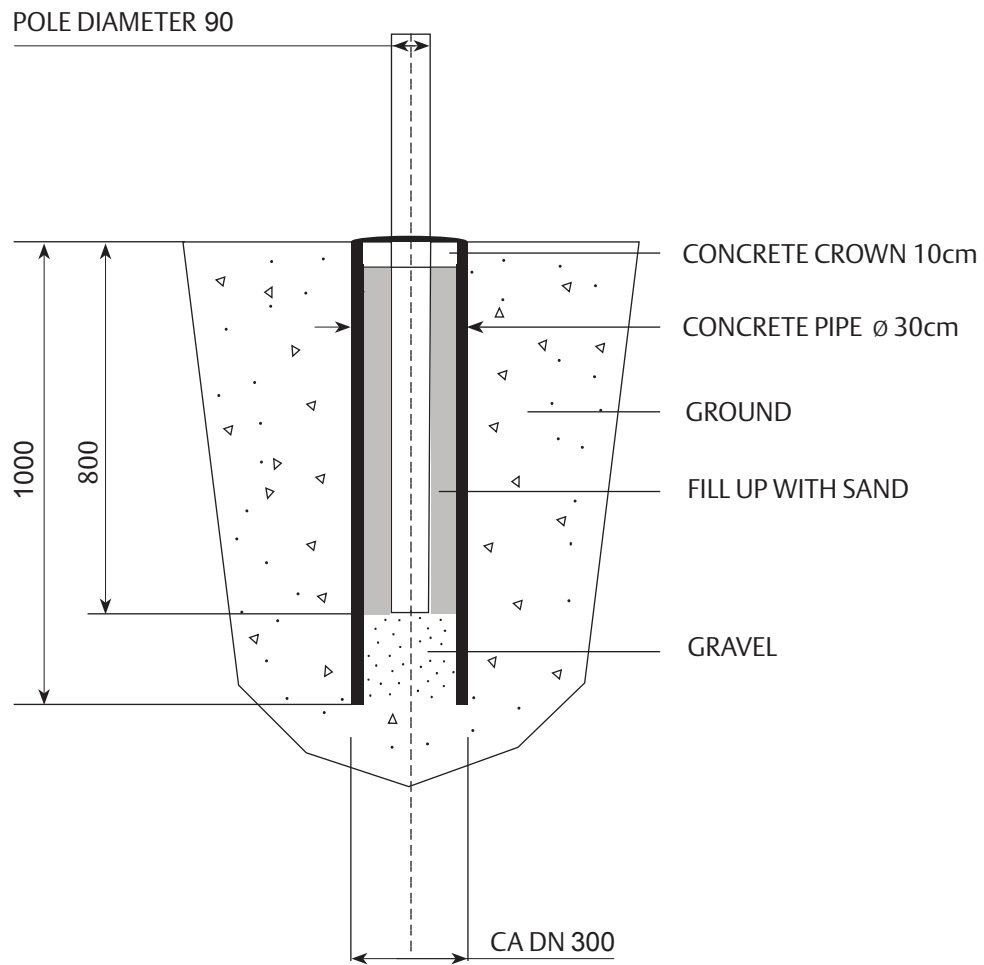
KRINNER GROUND SCREW

Art. 26160: KSF E140x1600-E76-100

Art. 26813: Eccentric disk set - E90

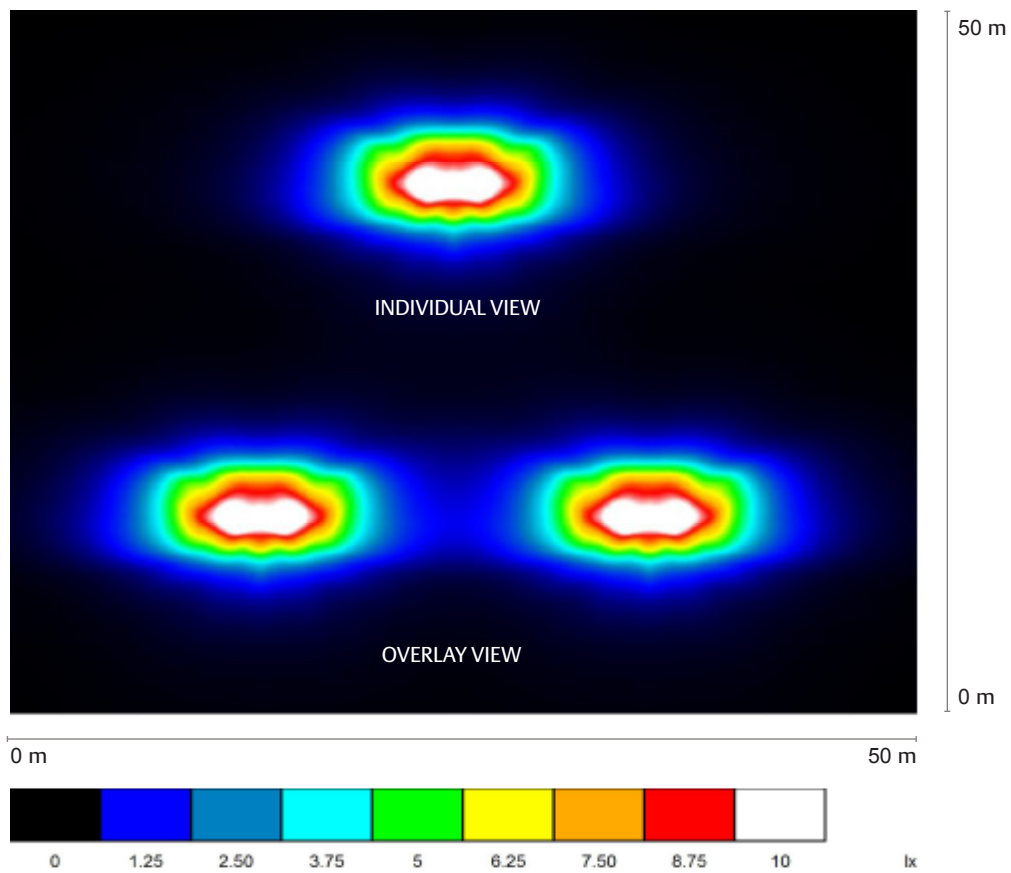


OPTION 2 - PIPE FOUNDATION



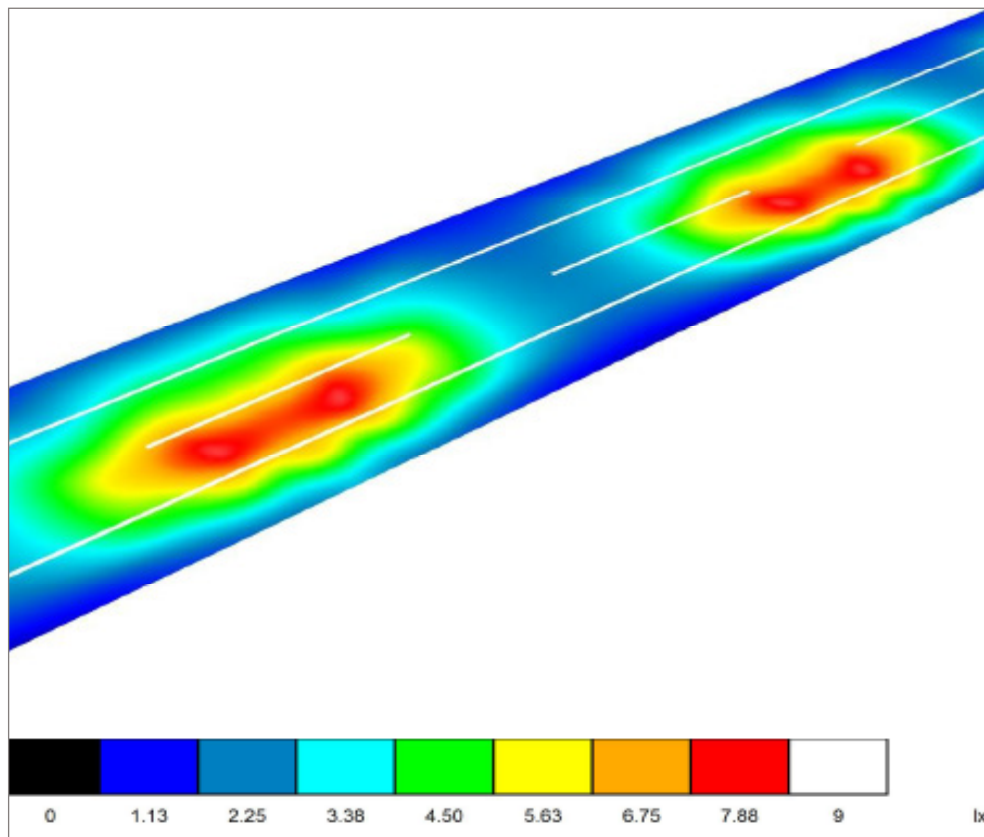
DIALUX LIGHT DISTRIBUTION CURVE (LDC)

EXAMPLE: POLES DISTANCE 25M, LUMINOUS CURRENT 3000LM



LIGHTING PLANNING

EXAMPLE OF LIGHTING PLANNING:
ROAD 5M IN WIDTH, 30M SPACING BETWEEN LIGHTS



	E_{av} [lx]	E_{min} [lx]
Calculated value	4,30	2,16
Value required to fulfil lighting class S6	>2,00	>0,60
	OK	OK

