

*brilliance in lighting*

# photinus

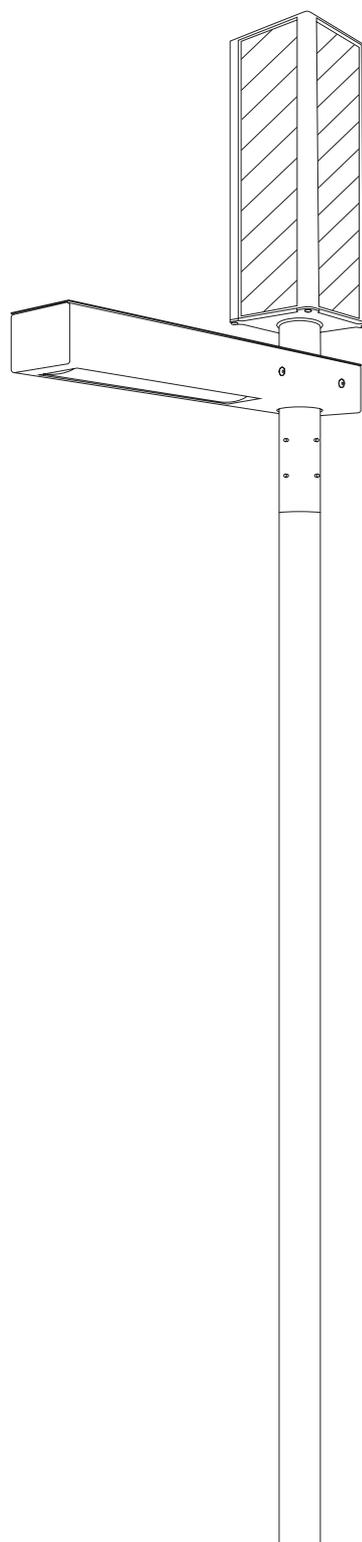
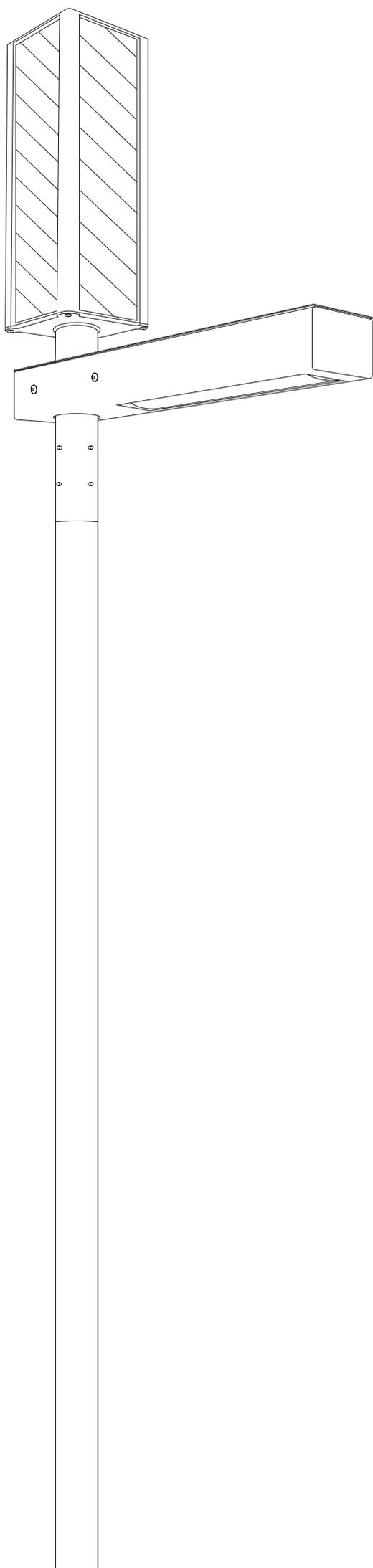
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## DATA SHEET V1 | 2014

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### aron smart

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# 1

## **aron smart**

### **SELF-SUFFICIENT SOLAR LED STREET LAMP WITH SECURE SUPPLY**

#### **USE**

Alongside the aron grande, the aron smart is also available to ensure a secure supply even in critical weather regions. The aron smart 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 smart 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. The aron smart 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.

#### **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.

#### **OPTIONS**

As well as the standard anthracite colour, the aron smart can also be ordered in other RAL colours on large projects (>50 units) for an additional charge.

# 2

## TECHNICAL DATA

### PHOTOVOLTAIC ENERGY COLUMN

<b>Modules</b>	monocrystalline silicon cells with exceptional efficiency specially processed by photonus
<b>Efficiency</b>	22.5%
<b>Max. performance of the energy column Pmpp</b>	84W (4 modules) — modules are also charged up in cloudy conditions
<b>Battery</b>	12V 17Ah (SLA)
<b>Operating temperature</b>	-10°C to +40°C
<b>Battery life</b>	approx. 5 – 6 years (depending on ambient temperature)
<b>Dimensions of the energy column</b>	237 mm x 237 mm x 715 mm
<b>Protection class</b>	IP65

### DIMENSIONS

<b>Total height from ground level</b>	5,115 mm
<b>Height of light from ground level</b>	4,200 mm
<b>Total length of pole</b>	4,900 mm
<b>Length of pole in the ground assembled</b>	750 mm
<b>Pole materials</b>	galvanised and powder-coated steel

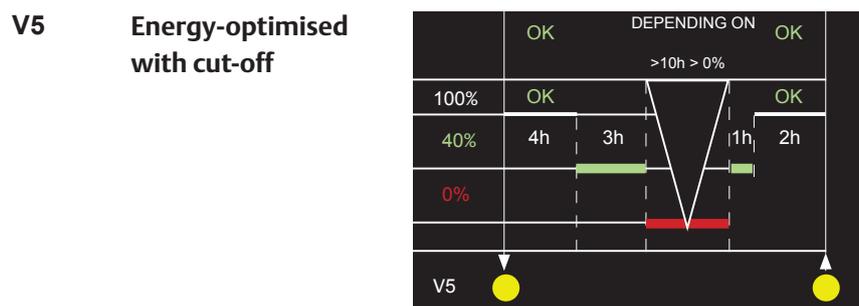
**LIGHTS**

<b>Max. luminous flux</b>	1600lm (Bregenz site, 47 degrees latitude: 600lm)
<b>Luminance at ground level</b>	see page 10
<b>Max. back-up time</b>	68 h
<b>Colour temperature</b>	5,300 K (4,300 K on request)
<b>Optics   Light distribution</b>	S - Optik, Q
<b>Life of LED</b>	>50,000 h
<b>Other</b>	insect neutral light
<b>Pivoting light arm</b>	factory setting at 2° inclination (infinitely variable 2° — 9°)

**ENERGY AND TIME MANAGE-**

**Standard factory setting V5**

<b>V1</b>	<b>Dimming</b>	<b>50%</b>	midnight - 5am
<b>V2</b>	<b>Switching off</b>	<b>0%</b>	midnight - 5am
<b>V3</b>	<b>Continuous lighting</b>	<b>100%</b>	lights up all night



**DIMENSIONS AND WEIGHTS FOR SINGLE DISPATCH**

**Luminaire head in box**

**Dimension** 850 mm x 500 mm x 250 mm

**Weight:** 5.5 kg

**Energy column**

**Dimension** 950 mm x 300 mm x 340 mm

**Weight:** 18 kg

**Pole**

**Length** 5,000 mm

**Diameter** 110 mm

**Weight:** 30 kg

**DIMENSIONS AND WEIGHTS  
FOR SHIPMENT OF PALLETS**

**All specifications are based on 6 lights**

**Pallet** 1 one-way pallet

**Max. number of lights** 6

**Pallet size  
(with 6 lights)** 1000 mm x 1000 mm x 1200 mm

**Weight** 149 kg

**Poles** 6 units

**Length** 5000 mm

**Diameter** 660 mm

**Total weight of poles** 180 kg

MAINTENANCE CYCLES | WARRANTY

<b>Battery change recommended</b>	after 6 years
<b>LED change recommended</b>	after 12 years
<b>Material warranty</b>	2 years (incl. battery)
<b>PV module warranty (The warranty period is deemed to start on the date of manufacture)</b>	2 years with 100% product guarantee 5 year warranty at 90% minimum out- put 10 year warranty at 80% minimum output

(subject to technical modifications)



# 3

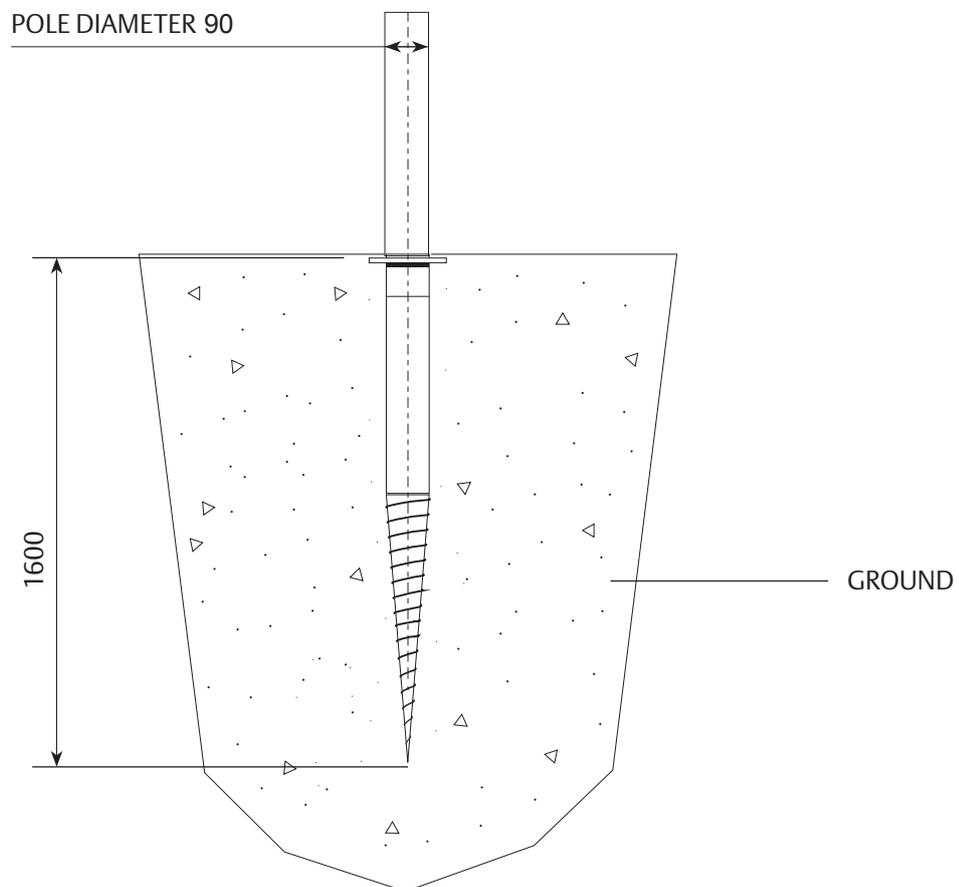
## OPTIONS FOR ASSEMBLY

### OPTION 1

**KRINNER ground screw**

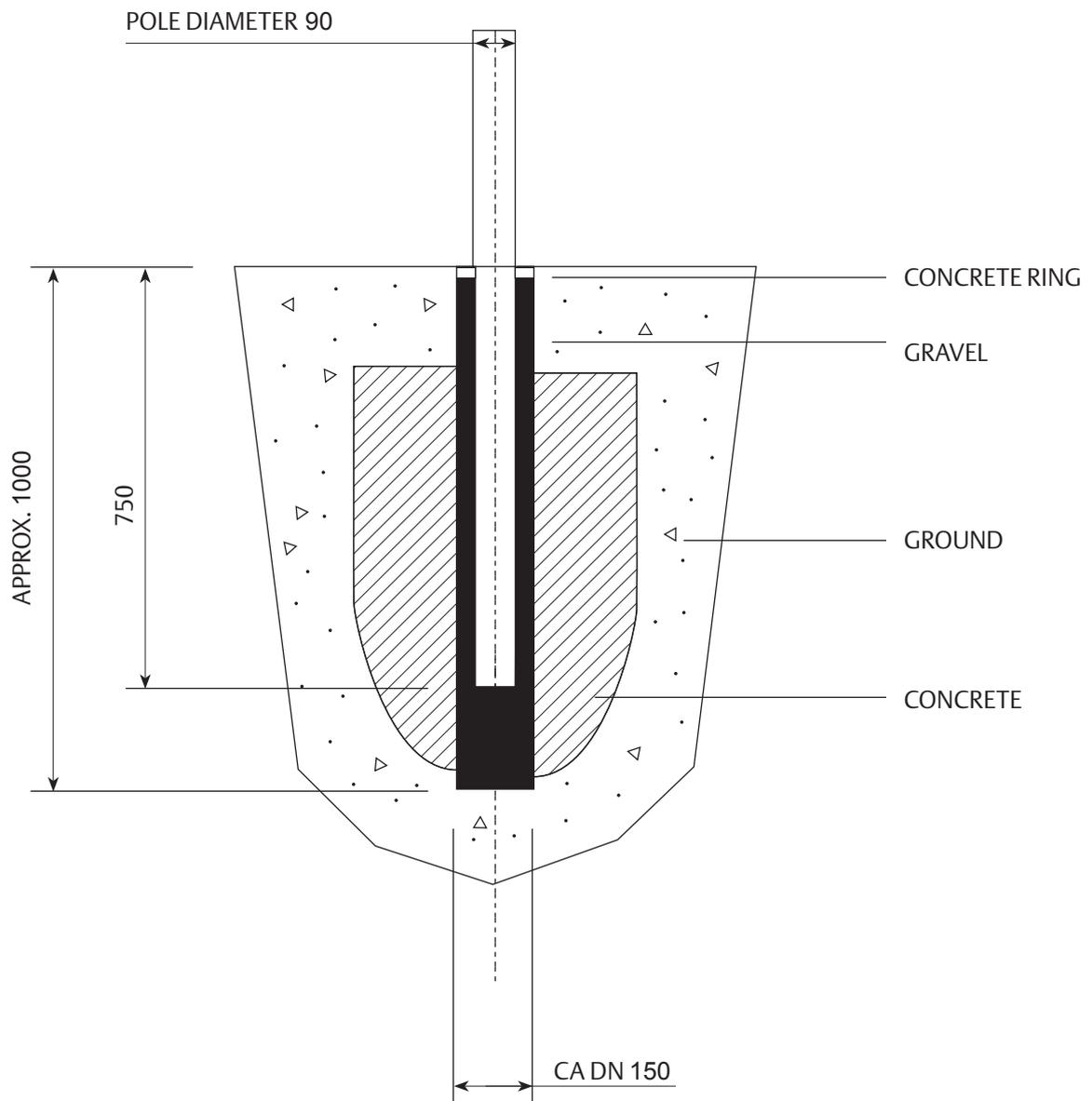
Art. 26160: KSF E140x1600-E76-100

Art. 26813: Eccentric disk set - E90

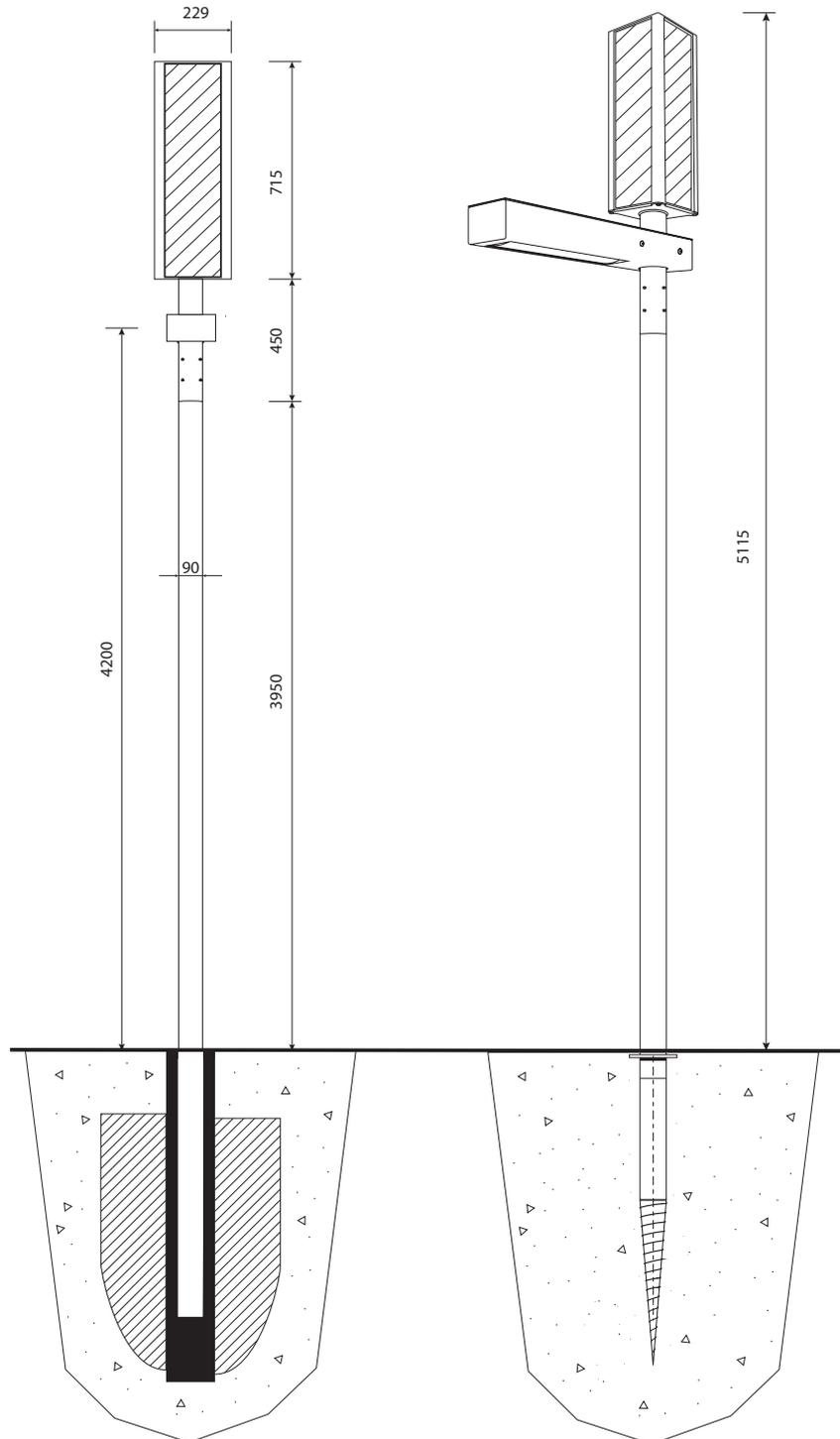


OPTION 2

PIPE FOUNDATION

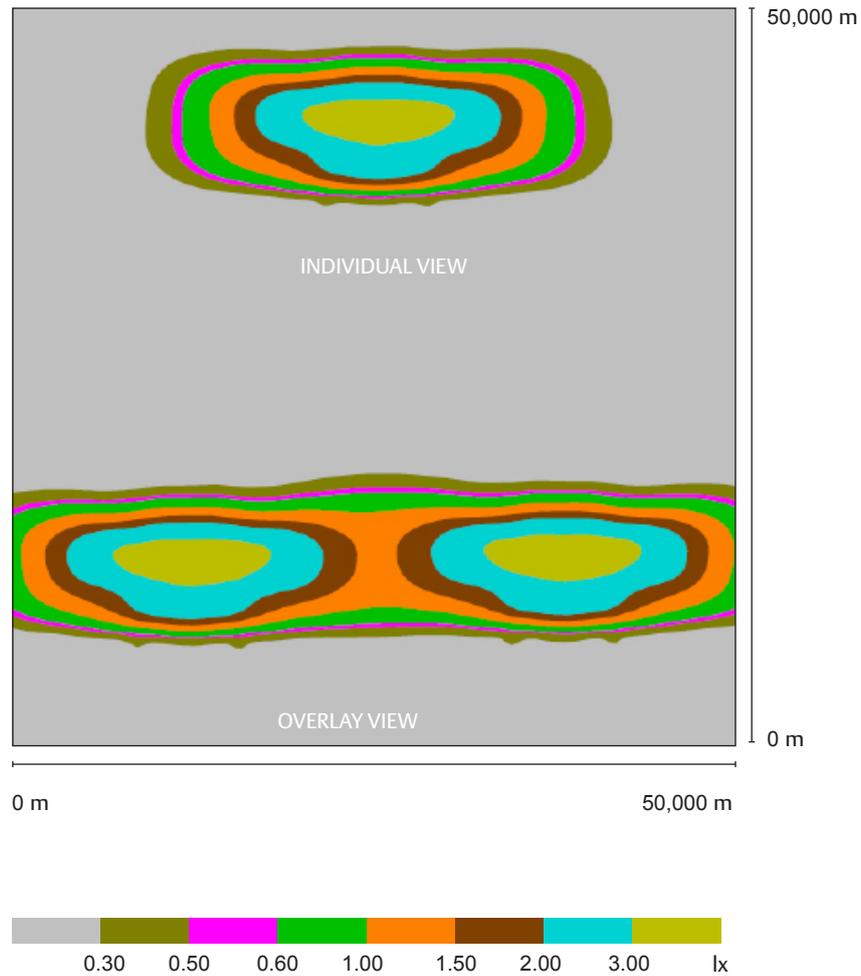


**DIMENSIONS**



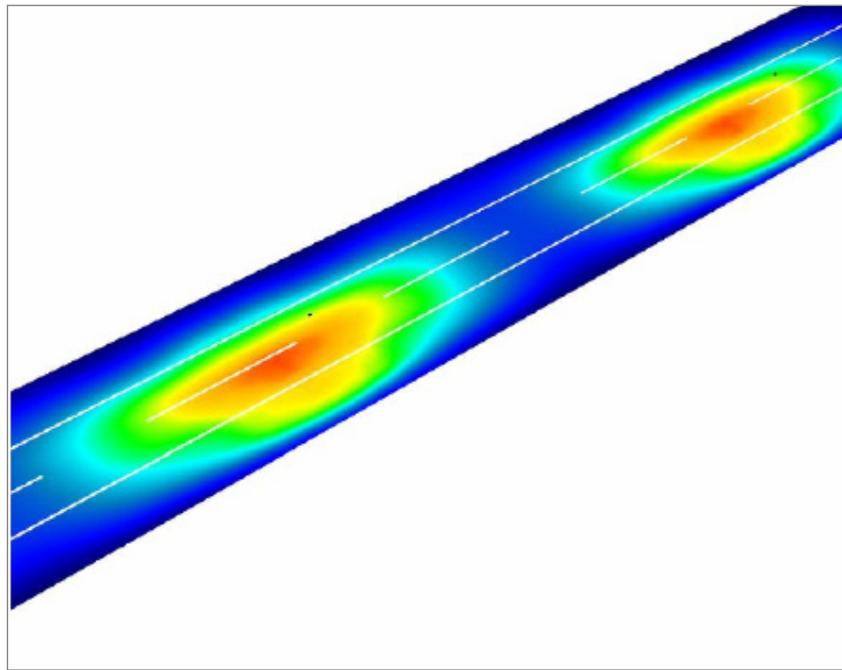
DIALUX LIGHT DISTRIBUTION CURVE (LDC)

USING AN EXAMPLE OF A DISTANCE BETWEEN POLES OF 25M,  
600LM (BREGENZ SITE)



**EXAMPLE OF LIGHTING PLANNING**

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



	$E_{av}$ [lx]	$E_{min}$ [lx]
<b>Calculated value</b>	2.22	0.96
<b>Value required to fulfil S6 lighting class</b>	>2.00	>0.60
	<b>OK</b>	<b>OK</b>



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