



The future of lighting.  
Today.



## hei SOLAR LIGHT POLE

# hei mira 4000 P100-160

### DATA SHEET

**Self-sufficient and maintenance-free solar light pole with award winning, protected design, ideal for outdoor residential and municipal lighting.**

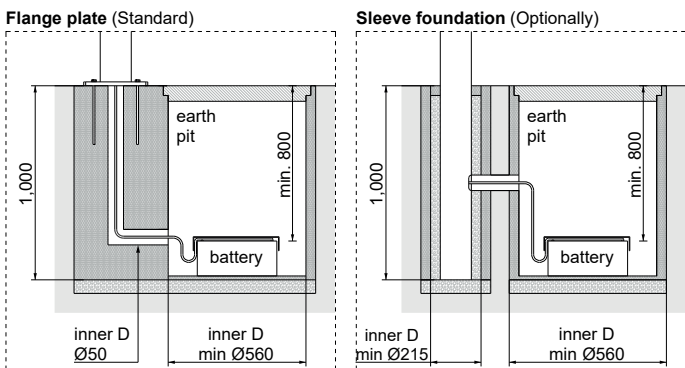
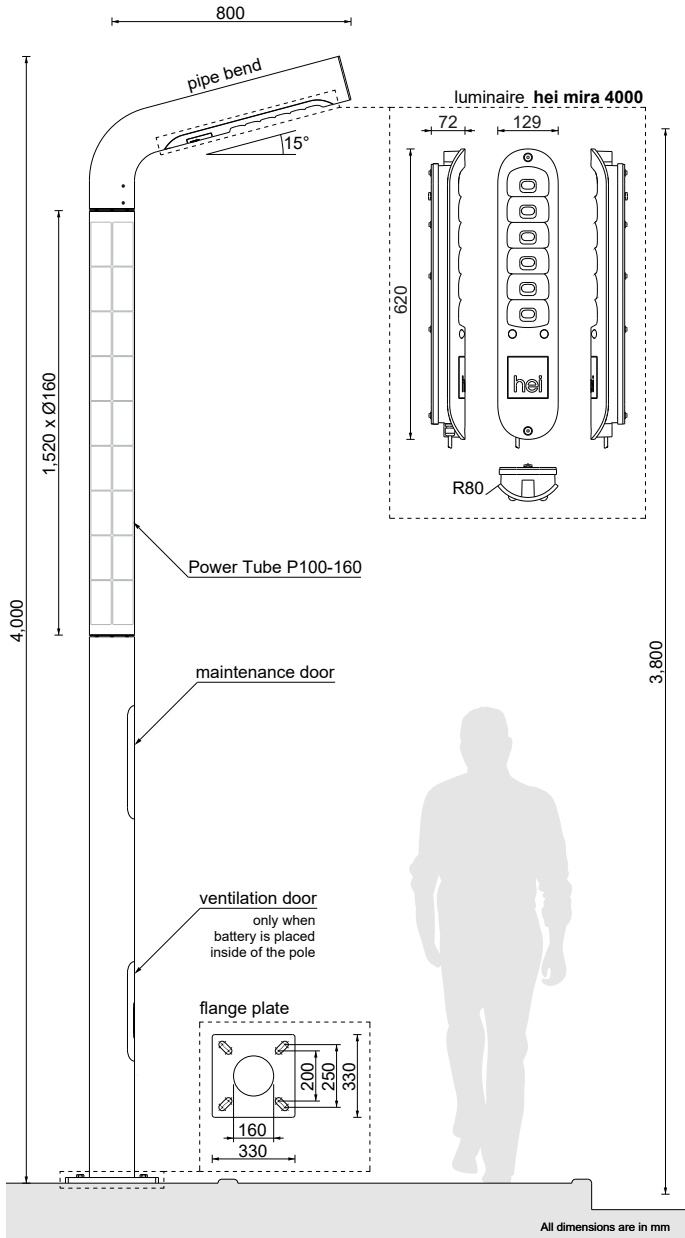
Light source	<b>6 high-efficiency LEDs</b>
Solar Operating Power (SOP)	<b>20 Watt</b>
Max. luminous flux @ SOP	<b>3,200 lm</b>
Luminaire efficacy	<b>160 lm/W</b>
Nominal power of solar cells	<b>134 Wp</b>
System Power Ratio (SPR)	<b>5</b>
Autonomy	<b>up to 3 nights (33h)</b>
Pole height	<b>4.0 / 5.0 / 6.0 m</b>
Light spot height	<b>3.78 / 4.78 / 5.78 m</b>

### STANDARDS AND COMPLIANCES

ISO	<b>ISO 9001-2015</b>
Illumination	<b>According to EN 13201, IESNA RP-8-00</b>
Light pole	<b>EN 40</b>
IP Rating (Luminaire)	<b>IP66</b>
Power tube impact protection rating	<b>IK06</b>
Photovoltaics	<b>EN 61215 (adapted)</b>
Temperature range	<b>-40 °C to +50 °C (battery in earth pit)</b>
CE	<b>✓</b>
RoHS	<b>✓</b>

### GLOBAL WARMING MITIGATION - ENERGY AND CO<sub>2</sub> SAVINGS

Electrical energy and CO <sub>2</sub> emission savings of one solar light pole in 30 years compared to:	
Standard cabled LED	<b>3,700 kWh / 1.9 tons CO<sub>2</sub></b>
HPS light (100W)	<b>13,100 kWh / 6.6 tons CO<sub>2</sub></b>
Specific CO <sub>2</sub> emissions: 0.5 kg CO <sub>2</sub> per kWh	



## LUMINAIRE

Solar Operating Power (SOP)	<b>20 Watt</b>
Max. Luminous flux @ SOP	<b>3,200 lm</b>
Luminaire efficacy	<b>160 lm/W</b>
Correlated Colour Temperature (CCT)	<b>5,000 K (cool white)</b> 3,000 K (warm white) - optionally 4,000 K (neutral white) - optionally
Colour rendering index (CRI)	<b>≥ 70</b>
Life time of LEDs (L70/B10)	<b>&gt; 90,000 hours</b>
Material (housing)	<b>Aluminium</b>
Finishing (housing)	<b>Powder-coated RAL 9006 (white aluminium)</b> other RAL colours - optionally
Weight	<b>5 kg</b>

## POLE, PIPE BEND

Wind class acc. EN 40	<b>45 m/s</b>
Pole height	<b>4.0 / 5.0 / 6.0 m</b>
Light spot height	<b>3.78 / 4.78 / 5.78 m</b>
Pole diameter	<b>160 / 160 / 160 mm</b>
Pole weight	<b>62 / 77 / 92 kg</b>
Boom angle	<b>15°</b>
Pipe bend length	<b>850 mm</b>
Pipe bend weight	<b>14 kg</b>
Foundation	<b>Flange plate</b> Sleeve foundation - optionally
Material	<b>Steel</b>
Finishing	<b>Hot-dip galvanized Paint-coated RAL 9006 (white aluminium)</b> Powder-coating, other RAL colours - optionally
Corrosion class	<b>C4</b>
Other pole heights optionally.	

## POWER TUBE P100-160

No. Of Power Tubes	<b>1</b>
Technology	<b>Silicon solar cells</b>
Number of solar cells (array)	<b>27 pcs (3 strings x 9 pcs / string)</b>
Nominal power of solar cells	<b>134 Wp</b>
Dimensions (mm)	<b>L1,520 x Ø160 mm</b>
Weight	<b>7 kg</b>

## POWER CONTROL

Programmable microcontroller	<b>✓</b>
Controller location	<b>Pole</b>
Dynamic light profile	<b>Customer-specific</b>
Motion detector	<b>Optionally</b>
Hybrid power supply (AC back-up)	<b>Optionally</b>

## BATTERY

Technology	<b>VRLA, cycle type</b>	
Location	<b>earth pit</b>	<b>inside pole</b>
Capacity	<b>55 Ah / 12 V</b>	<b>5 x 13 Ah / 12 V</b>
Dimensions (mm)	<b>L229 x W138 x H210</b>	<b>5 x L151 x W98 x H95</b>
Weight	<b>18 kg</b>	<b>21 kg</b>

## SYSTEM

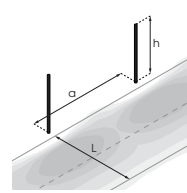
System Power Ratio (SPR)	<b>5</b>	
Location	<b>earth pit</b>	<b>inside pole</b>
Autonomy	<b>3 nights (33h)</b>	<b>3 nights (39 h)</b>
Total weight	<b>86 / 101 / 116 kg (excl. battery)</b>	

**PHOTOMETRIC DATA**

**LIGHT DISTRIBUTION OVERVIEW**

Light distribution	Lens	Typical application	FWHM
Long (standard)	C70	ME3-ME6, S1-S6	145° x 60°
Extra Wide	C45	Parking areas, squares	150° x 50°
Wide	C80	ME1-ME4, S1-S2	155° x 80°

**STREET LIGHTING (LONG C70 - STANDARD)**



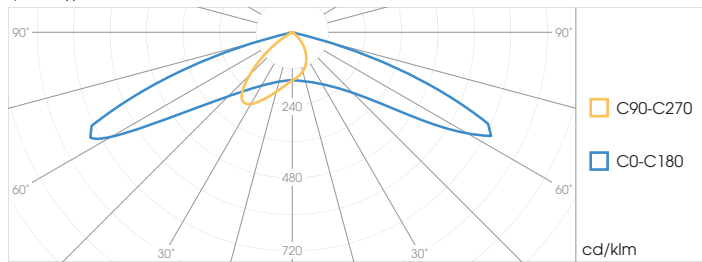
Max. road width (L)	Max. pole distance (a)	Pole height (h)
5 m	25 m	4 m
5 m	30 m	5 m
6 m	36 m	6 m

Luminance 0.4 cd/m<sup>2</sup>, uniformity ≥ 0.4, maintenance factor 0.8, Ta = 25°C

**LONG C70 - STANDARD**

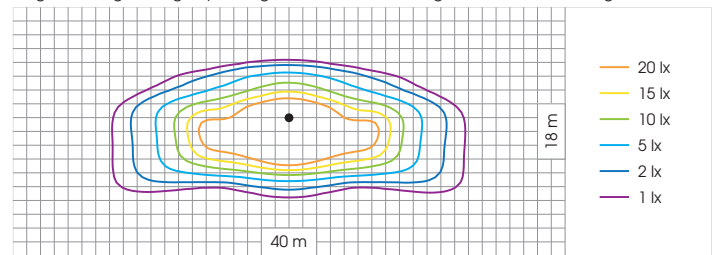
**LIGHT DISTRIBUTION CURVE**

η (lens type C70) = 93%



**ISOLUX DIAGRAM**

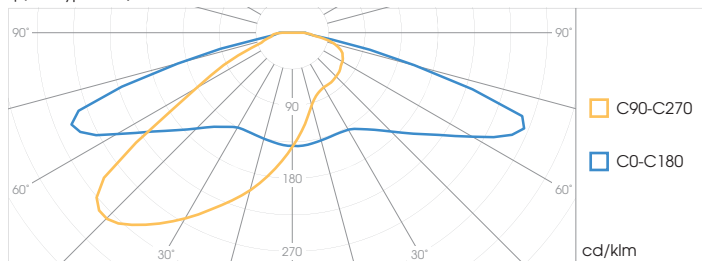
lengthwise aligned - light spot height: 3.78 m, bracket length: 850 mm, boom angle: 15°



**EXTRA WIDE C45 - OPTIONALLY**

**LIGHT DISTRIBUTION CURVE**

η (lens type C45) = 93%



**WIDE C80 - OPTIONALLY**

**LIGHT DISTRIBUTION CURVE**

η (lens type C80) = 93%

