

Solar lighting

Outdoor LED luminaires

All-in-one & Add-on solar solutions

Solar info boxes

Customized solutions

Cylindrical photovoltaics

sustainable outdoor lighting

solar - hybrid - grid



The future of lighting. Today.

Product Catalogue 2020

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Welcome to the future of
environmentally friendly outdoor lighting!
Welcome to **hei**!

hei antares
solar light poles

Nad Al Sheba 3,
Dubai, UAE

global warming



There is clear evidence we are in a climate crisis, and this can no longer be ignored. The rise in global temperature and related natural catastrophes caused by human activity should be an unassailable warning, that in order to survive, humanity must change.

There is a grave need to find and utilise sustainable solutions for the planet's ever-growing energy requirements. At **hei**, our vision is an ecological, economical and socially sustainable outdoor lighting solution, with minimal environmental footprint. ■

hei since 2001

■ For consumers to switch to such sustainable products, we must demonstrate that the advantages of our products and services surpass that of traditional outdoor lighting solutions in all aspects. Specifically, in cost, design quality and technological excellence. Since 2001 we have been doing our part in fighting the climate crisis. By exploring and developing the most advanced technologies and maintaining the highest design and manufacturing standards, **hei** has brought sustainability in outdoor lighting to worldwide locations.

Welcome to the future of lighting!
Welcome to hei!


Dr. Dieter Hornbachner
Managing director and founder

Sustainable energy consulting

2008 Vienna Future Prize
2008 Austrian State Prize Energy Technology
2006 Austrian State Prize Consulting
2006 R.I.O Award
2005 Energy Globe Austria

Sustainable outdoor lighting

2001

Founder
Dr. Dieter Hornbachner
researches for European Space Agency

hei power tube

unprecedented approach to sustainable outdoor lighting

2008

hei champ
solar light poles

2010

hei mira
solar light poles

2009 Austrian State Prize

2010 Design Plus Award at light+building

2011 Best Austrian Young Enterprise - Eco-technologies

2011 **Bicycle pathway**
Doha, Qatar



2014 **hei champ** on display at Austrian Museum of Applied Arts - Contemporary Art

2014

hei antares
solar light poles

2018

hei columba
solar light columns

2016 **Ghayathi highway**
Abu Dhabi, UAE



2017 **Al Bayt stadium**
Al Khor, Qatar



2018 Innovative Product Award at Urban Design & Landscaping Expo - The Big 5 Dubai

2019

hei lukida
solar light columns

2019 **Nad Al Shiba 3**
Dubai, UAE



2020

THE FUTURE OF LIGHTING IS NOW! ➤

unique all-in-one and add-on solar lighting solutions

hei libertas
solar energy tubes

hei auriga
solar light tubes

hei atlas
solar info boxes



hei Solar Light Poles

WITH VERTICALLY INTEGRATED CYLINDRICAL PHOTOVOLTAICS

Go solar. Go for beauty. Take the tube. hei solar light poles with aesthetic, cylindrically shaped hei power tubes instead of traditional flat PV panels. Worldwide patented technology for bending high-efficiency crystalline silicon solar cells. Excellent solar yield due to **omnidirectional sunlight collection**. Reduced soiling and low maintenance due to vertical integration. Paramount reliability due to perfect glass tube encapsulation of solar cells without open photovoltaic module edges.

hei Solar Light Poles with patented hei Power Tube, when aesthetics and reliability matter.

High-efficiency silicon solar cells

High-efficiency silicon solar cells guarantee **maximum solar energy yield** at minimum power tube size.

Borosilicate glass tube

Perfect encapsulation of solar cells. No open PV module edges. No humidity entry. **Withstands even the harshest climates.**

Backsheet

Black backsheet encapsulant (standard) or optional various colours for **customized module design**.

Backlighting

Optional LED backlighting to upgrade the tube to a **decorative eyecatcher**.

Less maintenance

Less soiling. Less cleaning. **Less maintenance costs** due to reduced dirt accumulation.

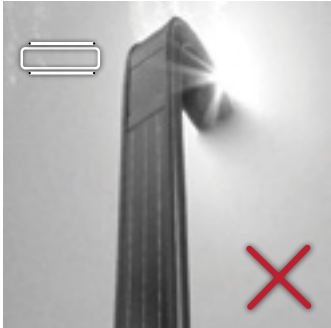
Plug & play technology

Plug & play component design for **easy and fast installation**.

Vertical PV integration: clear advantages for hei Power Tubes

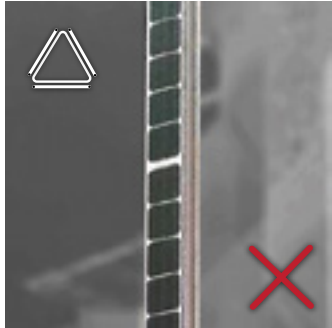
PV strips opposite:

Solar yield depends on pole orientation. Less reliable due to long open edges of PV strips.



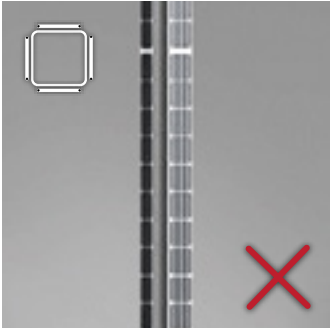
Triangular pole:

Bulky pole. Bad static pole properties. Less reliable due to long open edges of PV strips.



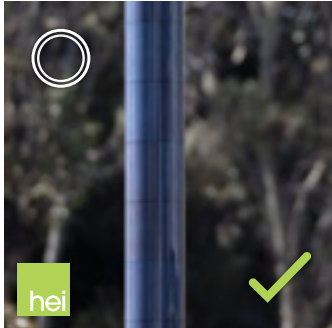
Square pole:

Bulky pole. Bad static pole properties. Less reliable due to long open edges of PV strips.



hei Power Tube:

Omnidirectional sunlight collection. Perfect solar cell encapsulation. Perfect static pole properties.



Solar powered. Environmental-friendly.



Highly efficient LED technology.



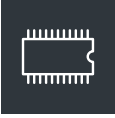
No cabling. No electricity grid required.



Superb light distribution. Increased pole distance.



No trenching.



Smart lighting control. Self-learning. Reliable.



Minimal installation costs. No electricity costs.



Remote lighting control.



Power Tube. Omnidirectional sunlight collection.



No PV panel. Slim design. Low wind load.



Less maintenance. No sand, snow or dust accumulation. No soiling.



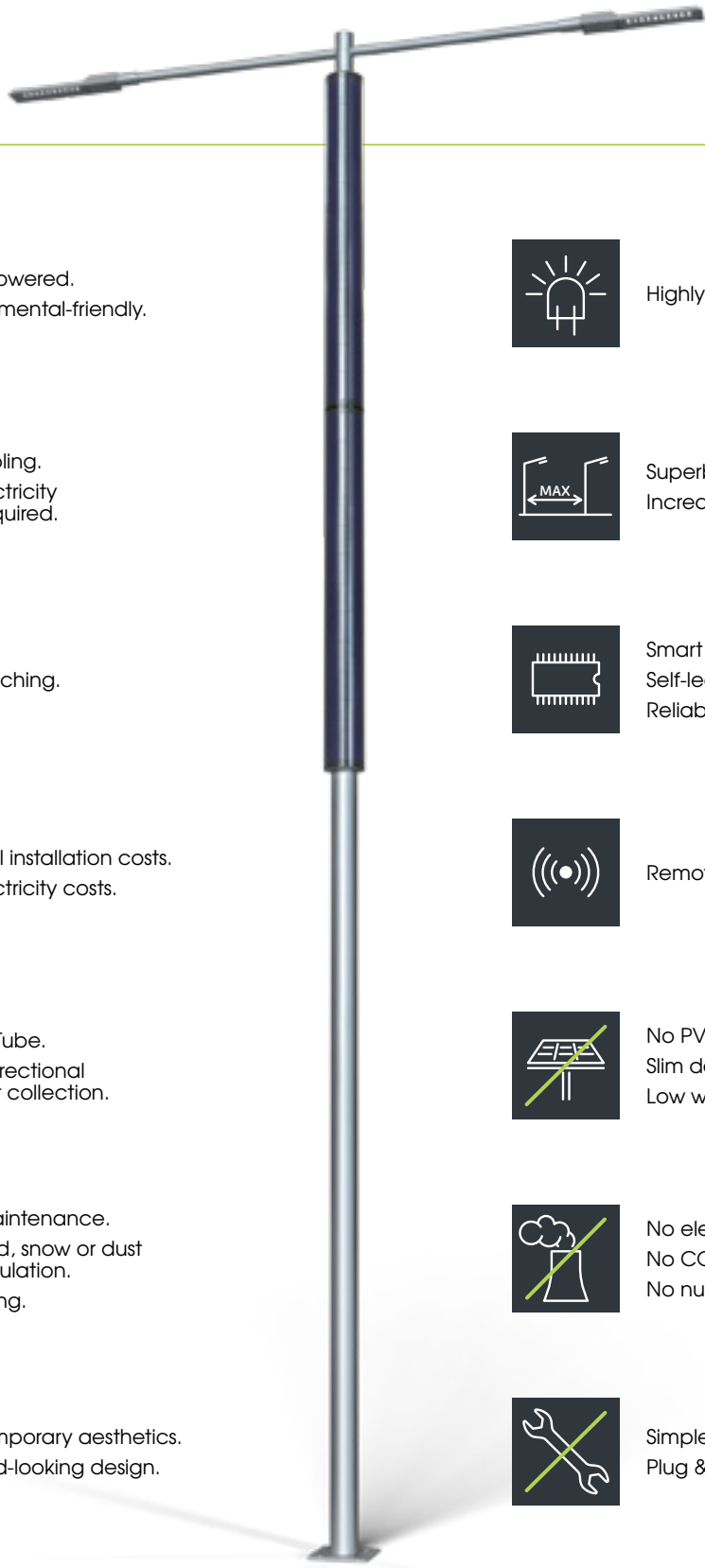
No electricity consumption. No CO₂ emissions. No nuclear risks.



Contemporary aesthetics. Forward-looking design.



Simple installation. Plug & play.



Usual life of conventional flat solar panels ...



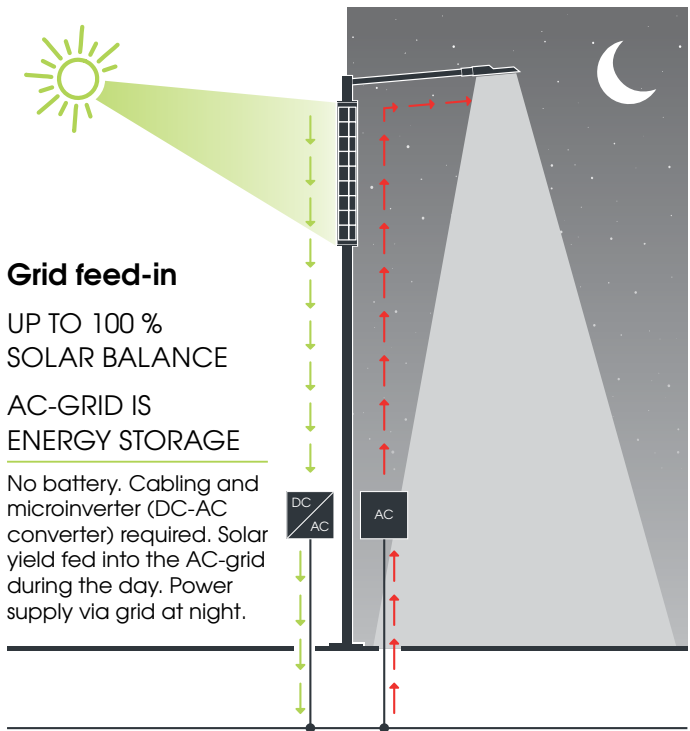
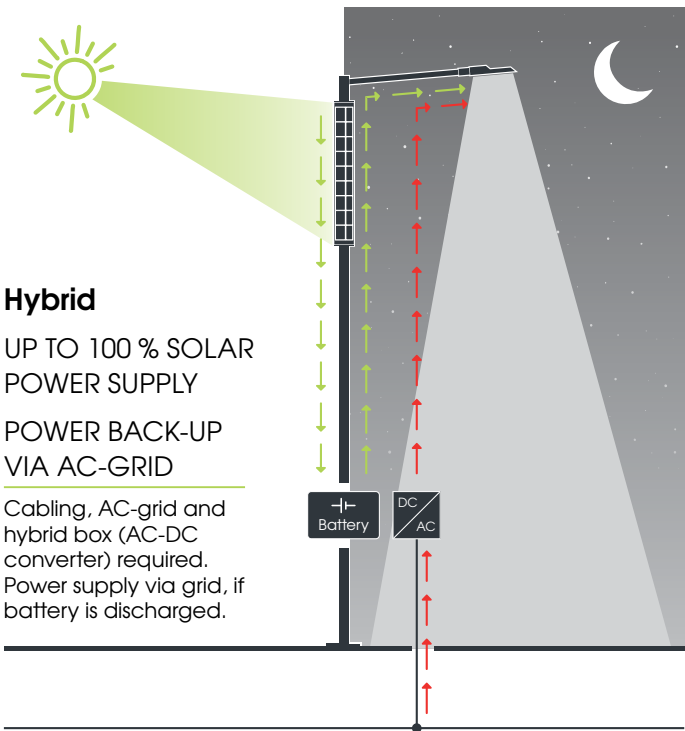
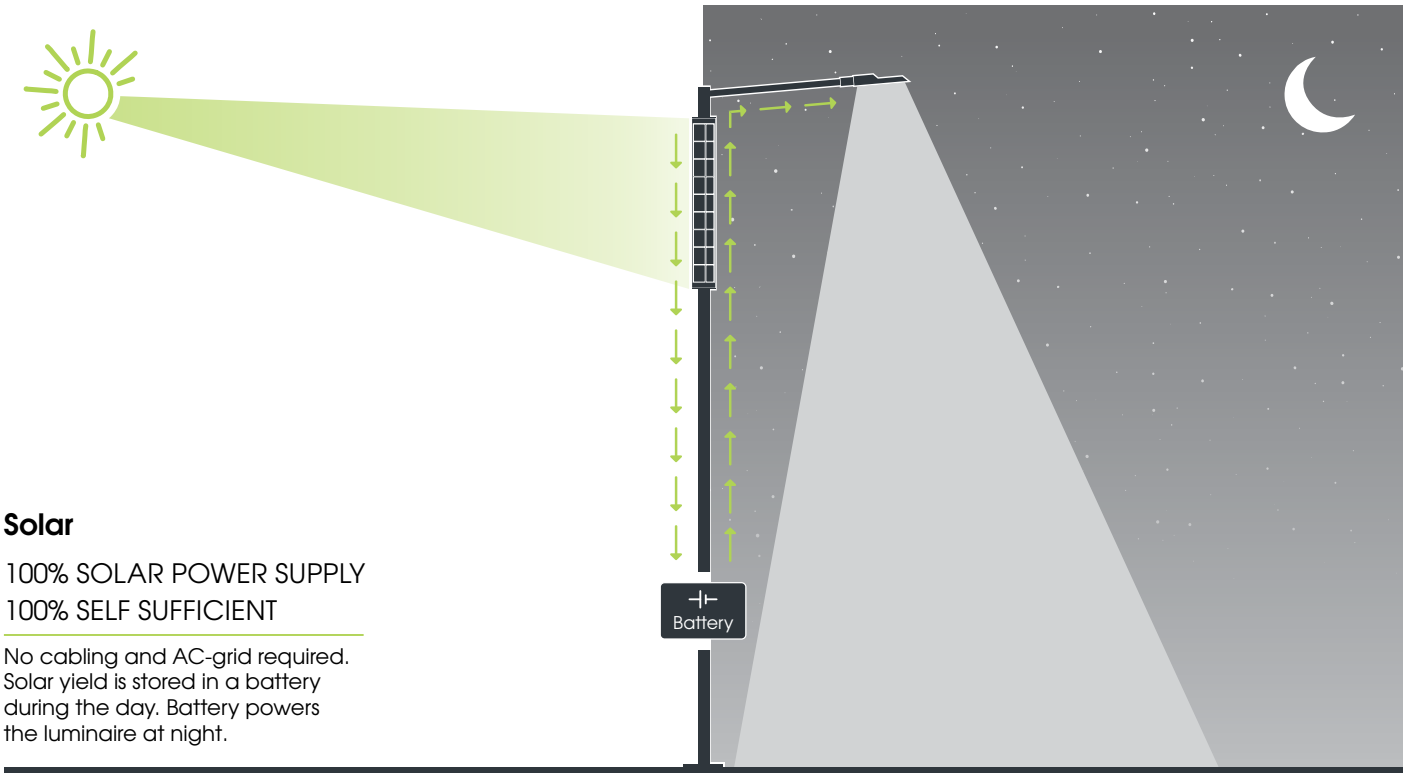
technology
OF hei SOLAR LIGHT POLES



POWER SUPPLY OPTIONS

Solar. Hybrid. Grid. Full solar or partial solar supply.
hei offers three different types of power supply for **hei** solar light poles to meet all kind of demand and local climate conditions.

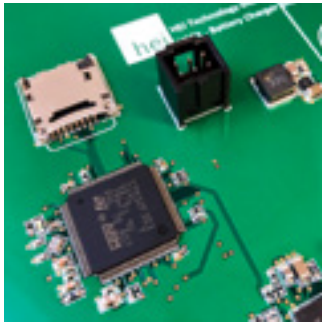
- **Full solar supply** for sunny regions
- **Hybrid supply** for regions with reduced solar yield in winter.
- **Grid feed-in** for locations with limited solar yield or if batteries should be avoided.



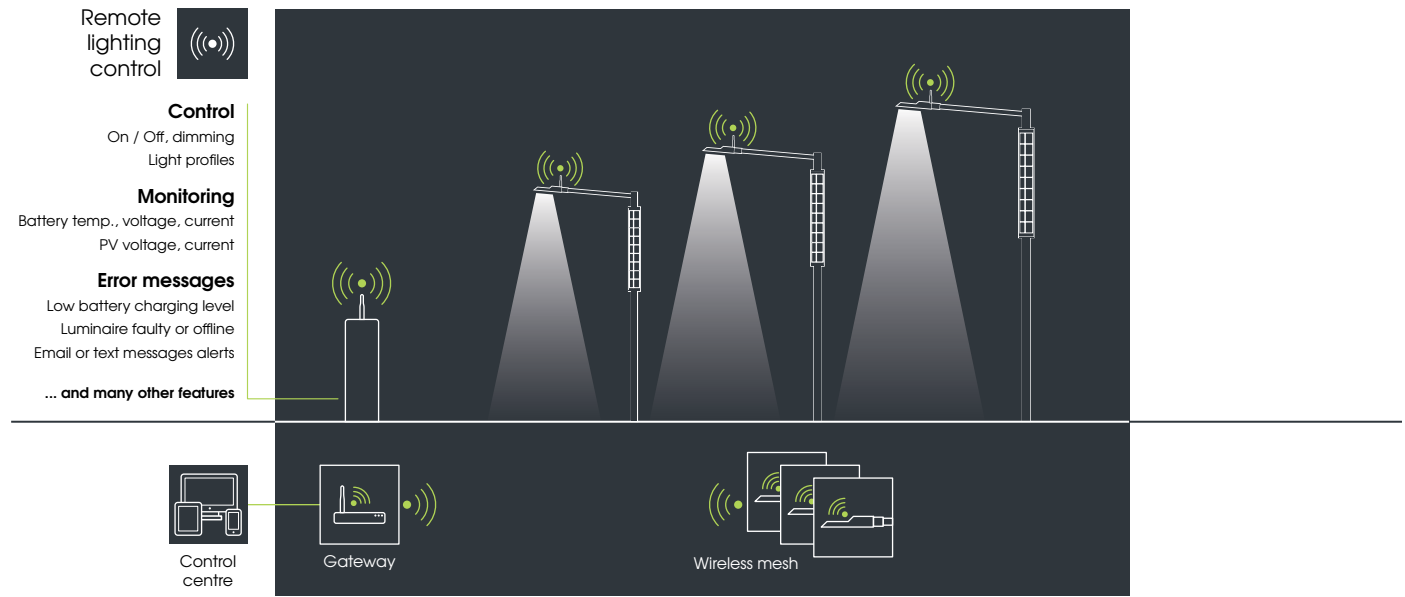
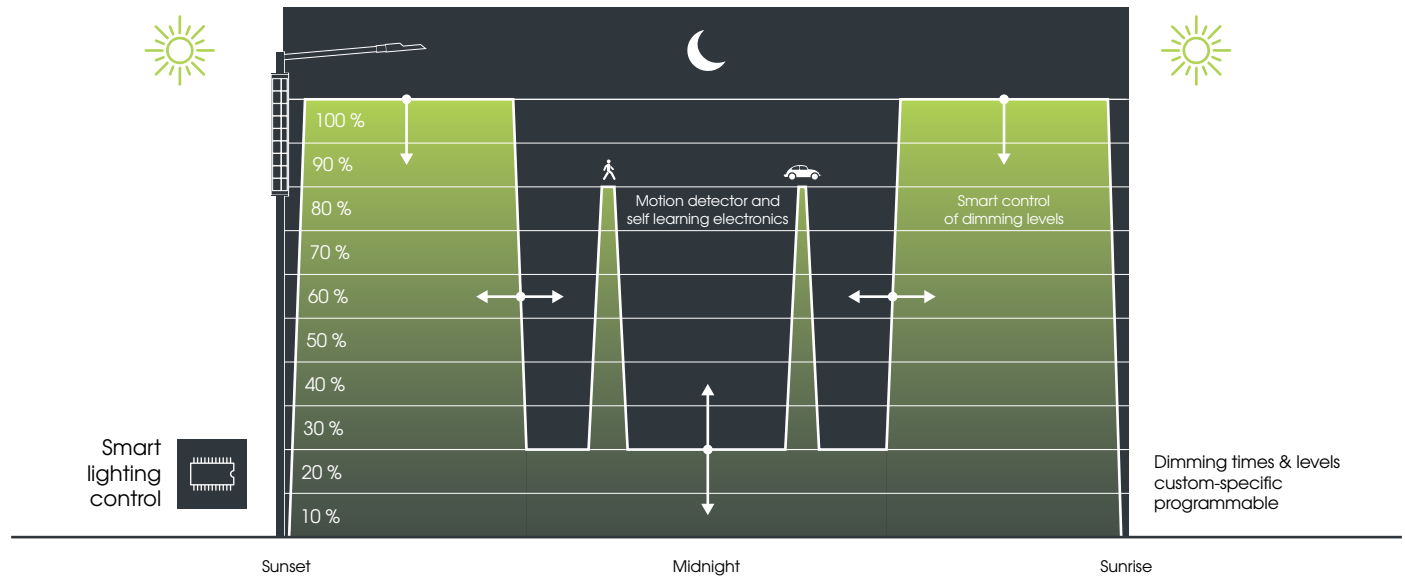
smart & solar

SMART LIGHTING CONTROL AND REMOTE LIGHTING CONTROL

Smart **hei** solar light poles are equipped with “intelligence” to optimize their daily operation. A microprocessor and a smart, self-learning software algorithm control photovoltaics, battery and luminaire. The result: a highly reliable lighting system with excellent performance and careful battery management for long-life time. Every single **hei** solar light pole is a self-sustaining, self-controlled system. Lighting levels are dimmed automatically in case of reduced solar yield. Programmable, individual lighting levels and times provide a wide range of flexibility. On demand, solar poles can be equipped with communication modules for remote control and monitoring of **hei** solar poles.



- Microprocessor controlled
- Self-learning algorithm
- Smart control of dimming levels
- Careful battery/charging management
- MPP-tracking for maximized solar yield
- Various lighting levels and times programmable for highest flexibility
- Motion sensor (optional)



hei SMART POLE APPLICATIONS

Would you like more than just environmentally friendly street lights? You are very welcome! Various equipments can be integrated to transform a humble light pole into a multifunctional, solar powered, smart city furniture. A solar powered weather station? No problem! A solar powered Wi-Fi hotspot? Sure! Traffic signs, cameras, loudspeakers, communication and sensor modules, etc. can be added and powered by the sun.

	IP camera		Remote lighting control
	Surveillance camera		Wi-Fi hotspot
	Wind meter, sensors		LED lighting
	Traffic signs		Loudspeakers
	Mobile phone charging station		Backlit info boxes



hei smart & solar poles with pole-integrated compartments for cameras and Wi-Fi.

Discover the future of lighting. Today.

Numerous product families for different lighting, aesthetical and technical requirements make **hei** solar light poles the right choice for almost all kind of outdoor lighting applications.



NEW PRODUCT

GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei auriga all-in-one solar light tubes	0 kWh / 0.0 tons CO ₂
Standard cabled LED	6,400 kWh / 3.2 tons CO ₂
HPS light (250W)	32,900 kWh / 16.5 tons CO ₂

Specific CO₂ emissions: 0.5 kg per kWh

auriga
ALL-IN-ONE SOLAR LIGHT TUBES

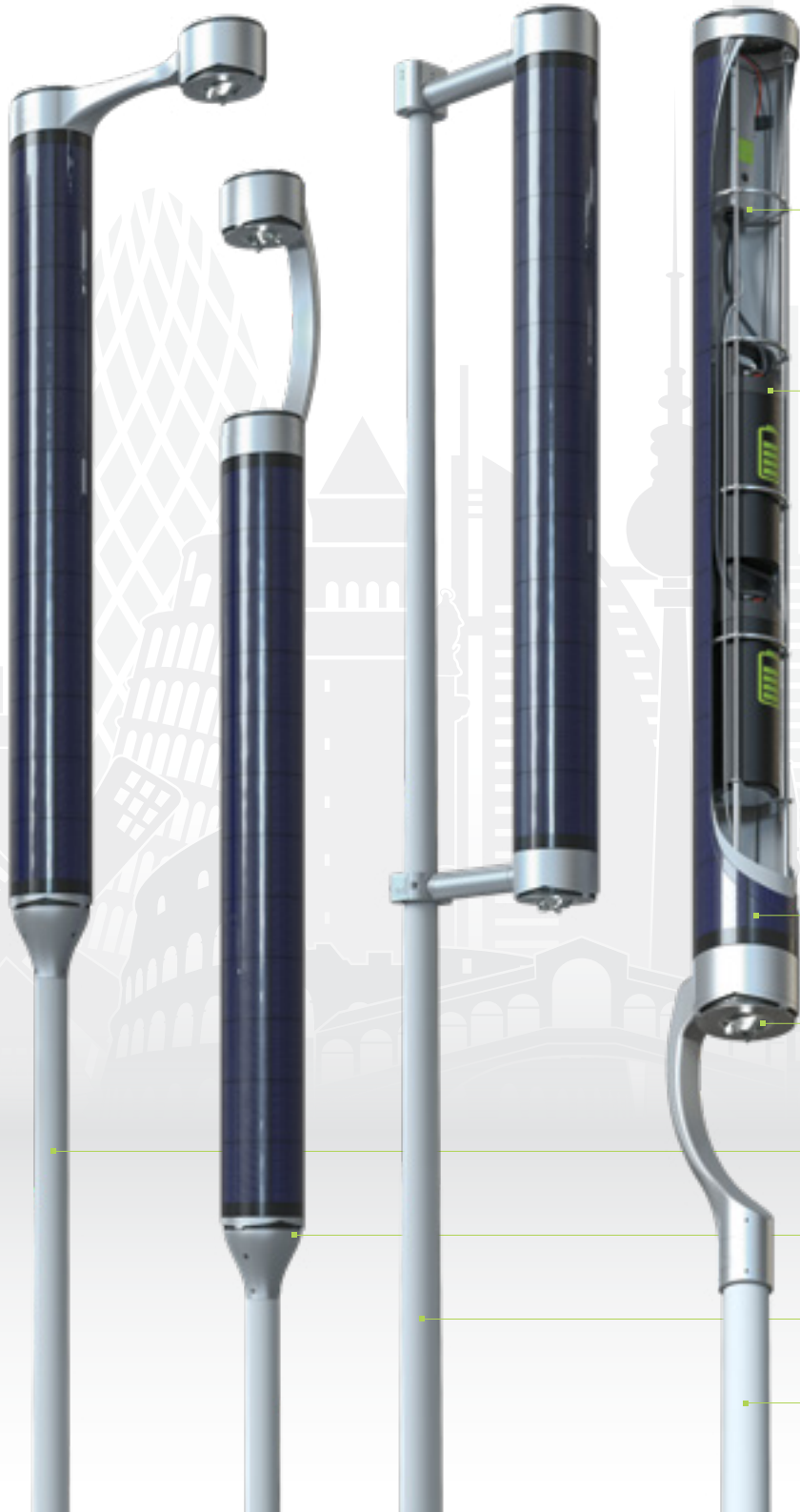
All **hei auriga** all-in-one solar light tubes share the same advanced luminaire technology. Arranged in four different configurations, a variety of design choices are available to perfectly fit the aesthetics of your project.

Compatibility with the majority of standard pole geometries, diameters and heights ensures that **hei auriga** can tackle virtually any lighting requirements, perfectly illuminating everything from walkways to highways.

Light source	1 high-eff. COB LED unit
SOP Solar operating power	20 or 40 Watt
Max. luminous flux @ SOP	3,300 or 6,250 lm
SPR System power ratio	5 or 10



For more information scan QR & download "New product spotlight 2020" brochure.



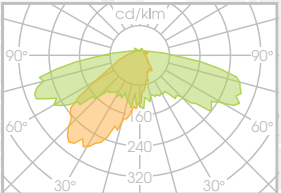
hei CONTROL ELECTRONICS

NiMH BATTERIES
heat-resistant, long life

hei POWER TUBE
cylindrical photovoltaics

HIGH-EFFICIENCY COB LED

glass lens for optimized light distribution



- auriga 8000 next P200 - 215
- auriga 8000 dot P200 - 215
- auriga 8000 side P200 - 215
- auriga 8000 step P200 - 215

NEW PRODUCT

libertas
ADD-ON SOLAR ENERGY TUBES

All **hei libertas** add-on solar power tubes share a common technology of vertical cylindrical photovoltaics, which house batteries and smart control electronics to provide energy to the luminaire for the whole night. The entire system is simply attached to a pole with a fixation mechanism, that can adapt to the majority of standard pole geometries, diameters and heights.

Modularity of the system and compatibility with highly efficient **hei** luminaires, ensure that **hei libertas** can bring sustainability and reliability to almost any existing or new lighting installation.

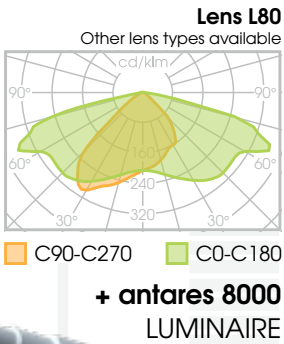
Technology	Silicon solar cells
Number of PV cells	4 strings x 12 pcs / string
Nominal power of PV cells	238 Watt peak



For more information scan QR & download "New product spotlight 2020" brochure.

GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO ₂ emissions of one light pole per 30 years:	
hei libertas add-on solar energy tubes	0 kWh / 0.0 tons CO₂
Standard cabled LED	6,400 kWh / 3.2 tons CO₂
HPS light (250W)	32,900 kWh / 16.5 tons CO₂
Specific CO ₂ emissions: 0.5 kg per kWh	



MOUNTING CLAMP
simple installation, fits most poles

hei CONTROL ELECTRONICS

NiMH BATTERIES
heat-resistant, long life

hei POWER TUBE
cylindrical photovoltaics

libertas P200 - 215

libertas P400 - 215

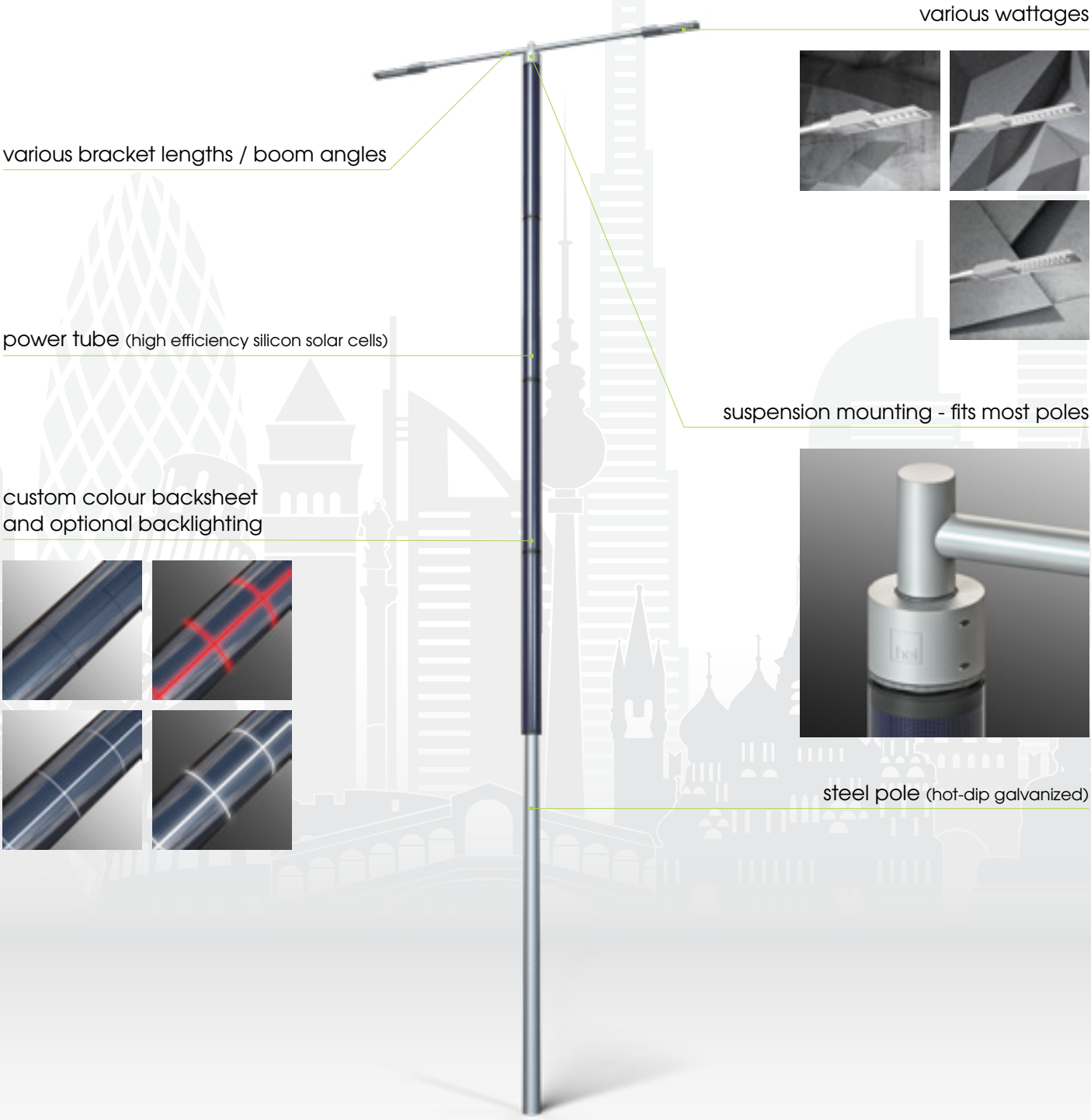
antares

SOLAR LIGHT POLES

NEW DESIGN

Outstanding performance at minimum costs. The **hei antares** family consists of 10 different versions of self-sustaining and maintenance-free solar light poles, covering almost all kind of outdoor lighting applications such as pathways, secondary roads and highways. Antares is available as single and double arm light pole with pole heights ranging from 4 m up to 14 m.

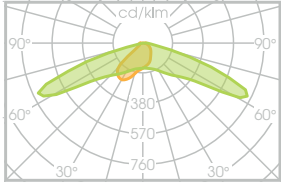
Light source	6 - 2x 20 high eff. LED units
SOP Solar operating power	20 - 2x 80 Watt
Max. luminous flux @ SOP	3,350 - 2x 13,050 lm
Pole height	4.0 - 14.0 m
Light spot height	4.1 - 14.1 m
SPR System power ratio	5 - 10



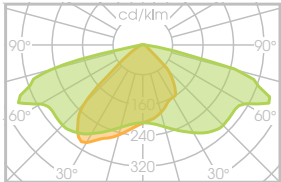
GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei antares off-grid solar light poles	0 kWh / 0.0 tons CO ₂
Standard cabled LED	3,700 kWh / 1.9 tons CO ₂ - 14,700 kWh / 7.4 tons CO ₂
HPS light (100W - 400W)	13,100 kWh / 6.6 tons CO ₂ - 52,600 kWh / 26.3 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	



antares 4000 - Lens L70
Other lens types available



antares 8000 & 16000 - Lens L80
Other lens types available



antares 4000
P100 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,350 lm
Pole height	4.0 / 5.0 / 6.0 m
Light spot height	4.1 / 5.1 / 6.1 m
SPR System power ratio	5

antares 4000
P200 - 215

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,350 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	5.1 / 6.1 / 8.1 m
SPR System power ratio	10

antares 4000 twin
P200 - 215

Light source	2x 6 high eff. LED units
SOP Solar Operating Power	2x 20 W
Max. luminous flux @ SOP	2x 3,350 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	5.1 / 6.1 / 8.1 m
SPR System power ratio	5

antares 8000
P200 - 215

Light source	10 high eff. LED units
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	8.1 / 10.1 / 12.1 m
SPR System power ratio	5

antares 8000 twin
P400 - 215

Light source	2x 10 high eff. LED units
SOP Solar Operating Power	2x 40 W
Max. luminous flux @ SOP	2x 6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	8.1 / 10.1 / 12.1 m
SPR System power ratio	5

antares 8000
P400 - 215

Light source	10 high eff. LED units
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	8.1 / 10.1 / 12.1 m
SPR System power ratio	10

antares 8000 twin
P800 - 215

Light source	2x 10 high eff. LED units
SOP Solar Operating Power	2x 40 W
Max. luminous flux @ SOP	2x 6,700 lm
Pole height	10.0 / 12.0 m
Light spot height	10.1 / 12.1 m
SPR System power ratio	10



antares 16000
P400 - 215

Light source	20 high eff. LED units
SOP Solar Operating Power	80 W
Max. luminous flux @ SOP	13,050 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	10.1 / 12.1 / 14.1 m
SPR System power ratio	5

antares 16000
P800 - 215

Light source	20 high eff. LED units
SOP Solar Operating Power	80 W
Max. luminous flux @ SOP	13,050 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	10.1 / 12.1 / 14.1 m
SPR System power ratio	10

antares 16000 twin
P800 - 215

Light source	2x 20 high eff. LED units
SOP Solar Operating Power	2x 80 W
Max. luminous flux @ SOP	2x 13,050 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	10.1 / 12.1 / 14.1 m
SPR System power ratio	5

antares LUMINAIRES

Maximum energy saving due to paramount efficacy. **hei antares** luminaires are a family of extraordinary efficient outdoor LED fixtures with outstanding efficacy and excellent light distribution. The right choice for environmental-friendly street lighting, minimum energy demand and maximum cost saving.

All luminaires provide an **efficacy of 160 lm/W or more** and are available for AC, DC and solar power supply.

Light source	6-20 high eff. LED units
Max. LED power	76 - 252 Watt
SOP Solar operating power	20 - 80 Watt
Max. luminous flux @ SOP	3,350 - 13,050 lm
Power supply	AC, DC, solar

antares 4000

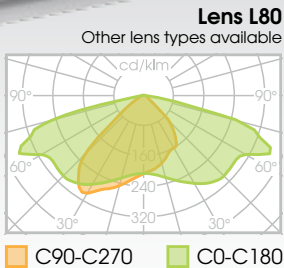
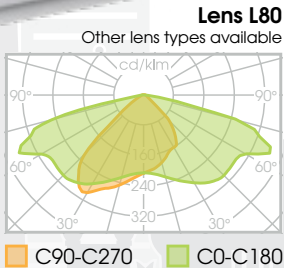
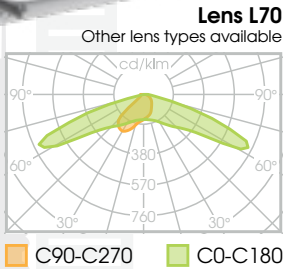
Light source	6 high eff. LED units
Max. LED power	76 W
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,350 lm

antares 8000

Light source	10 high eff. LED units
Max. LED power	126 W
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm

antares 16000

Light source	20 high eff. LED units
Max. LED power	252 W
SOP Solar Operating Power	80 W
Max. luminous flux @ SOP	13,050 lm



atlas

SOLAR INFO BOXES

Street lighting for free.
hei solar info boxes, sunny and commercially highly profitable solutions, available also in combination with solar street light poles. Self-sustaining solar power supply for minimum initial installation costs, avoiding expensive grid connection. A product family which enables **new financing models** for both advertising companies as well as municipalities: refinancing the light poles by renting out the info boxes as advertising space.

Light source	10 - 2x 20 high eff. LED units
SOP Solar operating power	40 - 2x 80 Watt
Max. luminous flux @ SOP	6,450 - 2x 13,000 lm
Pole / Stand height	2.2 - 14.0 m
Light spot height	8.1 - 14.1 m
Info box LED power	20 Watt
Info box luminous flux	3,050 lm
Info box luminous efficacy	153 lm/W
SPR System power ratio	5 - 10



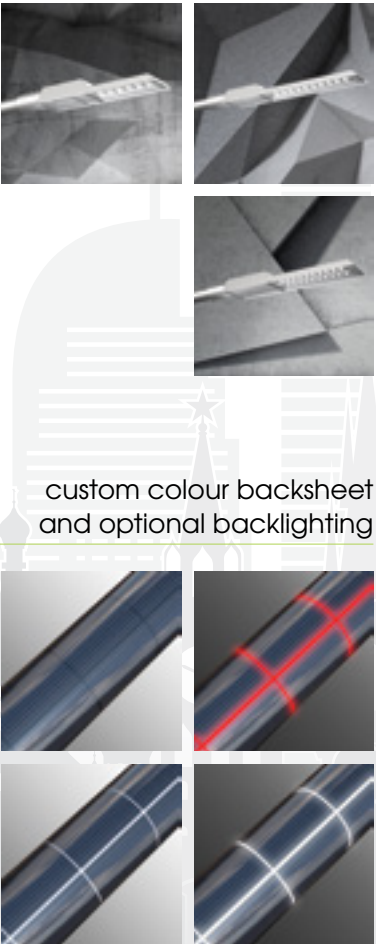
various bracket lengths / boom angles

various wattages

power tube (high efficiency silicon solar cells)

LED backlit info boxes

- Standard box size:
H142 x W102 x D9 cm
other sizes on request
- Max. luminance:
250 cd/m²

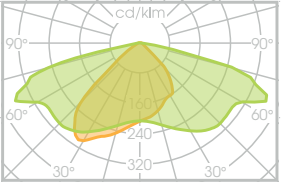


custom colour backsheet and optional backlighting

steel pole (hot-dip galvanized)

GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO ₂ emissions of one light pole per 30 years:	
hei atlas off-grid solar info boxes with hei antares luminaires	0 kWh / 0.0 tons CO ₂
Standard cabled LED	7,400 kWh / 3.7 tons CO ₂ - 14,700 kWh / 7.4 tons CO ₂
HPS light (200W - 400W)	26,300 kWh / 13.2 tons CO ₂ - 52,600 kWh / 26.3 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	



Lens L80
Other lens types available

C90-C270 C0-C180



atlas solar info stand
P400-215 IB2000

Stand height	2.2 m
SPR System power ratio	10

atlas solar info pole
P200-215 IB2000

Pole height	6.0 m
SPR System power ratio	5

atlas solar info pole
P400-215 IB2000

Pole height	8.0 m
SPR System power ratio	10

atlas solar info pole
P400-215 IB2000 with
LUMINAIRE antares 8000

Light source	10 high eff. LED units
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	8.1 / 10.1 / 12.1 m
SPR System power ratio	5

atlas solar info pole
P600-215 IB2000 with
LUMINAIRE antares 8000 twin

Light source	2x 10 high eff. LED units
SOP Solar Operating Power	2x 40 W
Max. luminous flux @ SOP	2x 6,700 lm
Pole height	10.0 / 12.0 m
Light spot height	10.1 / 12.1 m
SPR System power ratio	5



atlas solar info pole

P600-215 IB2000 with
LUMINAIRE antares 16000

atlas solar info pole

P1000-215 IB2000 with
LUMINAIRE antares 16000 twin

Light source	20 high eff. LED units
SOP Solar Operating Power	80 W
Max. Max. luminous flux @ SOP	13,050 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	10.1 / 12.1 / 14.1 m
SPR System power ratio	5

Light source	2x 20 high eff. LED units
SOP Solar Operating Power	2x 80 W
Max. Max. luminous flux @ SOP	2x 13,050 lm
Pole height	14.0 m
Light spot height	14.1 m
SPR System power ratio	5



GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei champ off-grid solar light poles	0 kWh / 0.0 tons CO ₂
Standard cabled LED	4,400 kWh / 2.2 tons CO ₂ - 7,400 kWh / 3.7 tons CO ₂
HPS light (120W - 200W)	15,800 kWh / 7.9 tons CO ₂ - 26,300 kWh / 13.2 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	

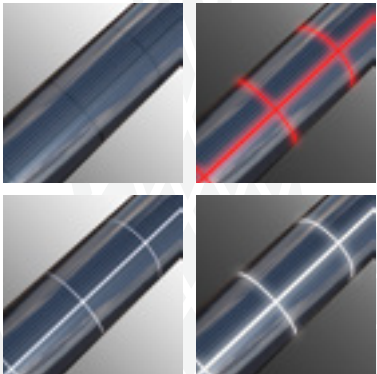
champ
SOLAR LIGHT POLES

hei champ, our pioneer of integrated outdoor solar lights with outstanding design. A decorative, award-winning solar light pole for professional architectural outdoor lighting applications such as squares, promenades and boulevards. **100 percent self-sustaining.** First solar light pole worldwide with integrated cylindrical photovoltaic element.

Winner of the Austrian state award for excellent industrial design.

Light source	6- 10 high eff. LED units
SOP Solar operating power	24 - 40 Watt
Max. luminous flux @ SOP	3,800 - 6,950 lm
Pole height	6.05 m
Light spot height	4.0 m
SPR System power ratio	5 - 8

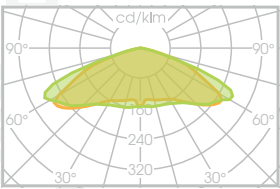
custom colour backsheet
and optional backlighting



various pole finishes (painted or powder coated)

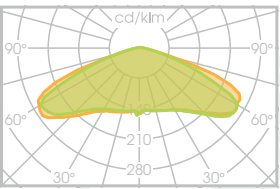
6m
power tube (high efficiency silicon solar cells)

Champ 4000 - Lens L45
Other lens types available



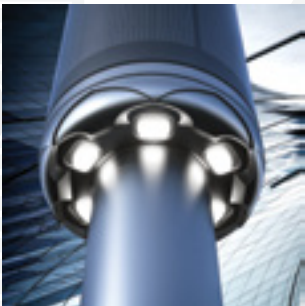
C90-C270 C0-C180

Champ 8000 - Lens L45
Other lens types available



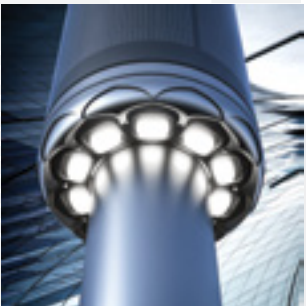
C90-C270 C0-C180

luminaire (circular light distribution)



champ 4000
P200 - 215

Light source	6 high eff. LED units
Solar Operating power	24 W
Max. luminous flux @ SOP	3,800 lm
Pole height	6.05 m
Light spot height	4.00 m
SPR System power ratio	8



champ 8000
P200 - 215

Light source	10 high eff. LED units
Solar Operating power	40 W
Max. luminous flux @ SOP	6,950 lm
Pole height	6.05 m
Light spot height	4.00 m
SPR System power ratio	5

conical steel pole (hot-dip galvanized)

battery inside pole (optional)

earth-pit installation for very hot
and very cold climates recommended



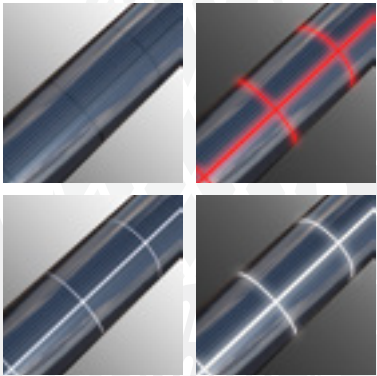
mira

SOLAR LIGHT POLES

hei mira is a family of **decorative, self-sustaining and maintenance-free** solar light poles for outdoor lighting applications such as residential streets, bicycle tracks or parking sites. **Award-winning, protected design.** Full solar power supply, no grid-connection required. **mira** solar light poles are available in various heights and luminaire wattages.

Light source	6-2x 20 high eff. LED units
SOP Solar operating power	20 - 2x 80 Watt
Max. luminous flux @ SOP	3,300 - 2x 13,200 lm
Pole height	4.0 - 14.0 m
Light spot height	3.8 - 13.7 m
SPR System power ratio	5 - 10

custom colour backsheet
and optional backlighting

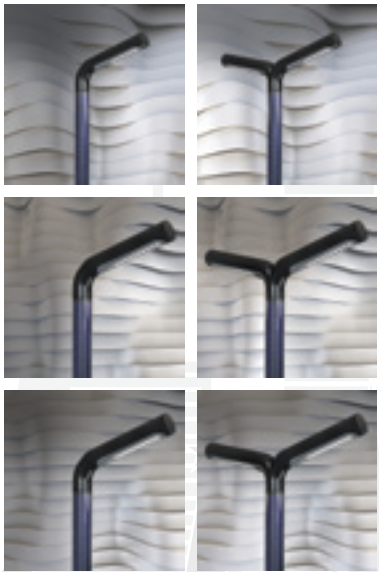


steel pole (hot-dip galvanized)

battery inside pole (optional)

earth-pit installation for very hot
and very cold climates recommended

luminaire (lengthwise light distribution)



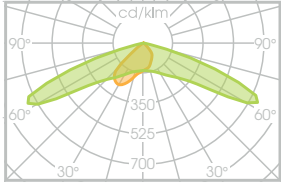
power tube (high efficiency silicon solar cells)

various pole finishes (painted or powder coated)

GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei mira off-grid solar light poles	0 kWh / 0.0 tons CO ₂
Standard cabled LED	3,700 kWh / 1.9 tons CO ₂ - 14,700 kWh / 7.4 tons CO ₂
HPS light (100W - 400W)	13,100 kWh / 6.6 tons CO ₂ - 52,600 kWh / 26.3 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	



Lens C70
Other lens types available

C90-C270 C0-C180



mira 4000
P100 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,300 lm
Pole height	4.0 / 5.0 / 6.0 m
Light spot height	3.8 / 4.8 / 5.8 m
SPR System power ratio	5

mira 4000
P200 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,300 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	4.8 / 5.8 / 7.8 m
SPR System power ratio	10

mira 4000 twin
P200 - 160

Light source	2x 6 high eff. LED units
SOP Solar Operating Power	2x 20 W
Max. luminous flux @ SOP	2x 3,300 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	4.8 / 5.8 / 7.8 m
SPR System power ratio	5

mira 8000
P200 - 215

Light source	10 high eff. LED units
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.7 / 9.7 / 11.7 m
SPR System power ratio	5

mira 8000
P400 - 215

Light source	10 high eff. LED units
SOP Solar Operating Power	40 W
Max. luminous flux @ SOP	6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.7 / 9.7 / 11.7 m
SPR System power ratio	10

mira 8000 twin
P400 - 215

Light source	2x 10 high eff. LED units
SOP Solar Operating Power	2x 40 W
Max. luminous flux @ SOP	2x 6,700 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.7 / 9.7 / 11.7 m
SPR System power ratio	5

mira 8000 twin
P800 - 215

Light source	2x 10 high eff. LED units
SOP Solar Operating Power	2x 40 W
Max. luminous flux @ SOP	2x 6,700 lm
Pole height	10.0 / 12.0 m
Light spot height	9.7 / 11.7 m
SPR System power ratio	10



mira 16000
P400 - 215

Light source	20 high eff. LED units
SOP Solar Operating Power	80 W
Max. luminous flux @ SOP	13,200 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	9.7 / 11.7 / 13.7 m
SPR System power ratio	5

mira 16000
P800 - 215

Light source	20 high eff. LED units
SOP Solar Operating Power	80 W
Max. luminous flux @ SOP	13,200 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	9.7 / 11.7 / 13.7 m
SPR System power ratio	10

mira 16000 twin
P800 - 215

Light source	2x 20 high eff. LED units
SOP Solar Operating Power	2x 80 W
Max. luminous flux @ SOP	2x 13,200 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	9.7 / 11.7 / 13.7 m
SPR System power ratio	5

lukida

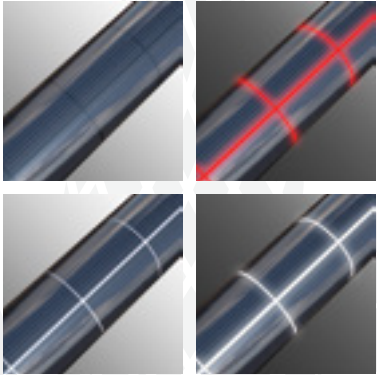
SOLAR LIGHT COLUMNS

hei lukida, a family of **aesthetic columns** with integrated photovoltaics and luminaire for decorative outdoor lighting applications, **when design matters**. Available in various heights, diameters and wattages. For public and private lighting applications such as gardens, parks, boulevards, and secondary roads.

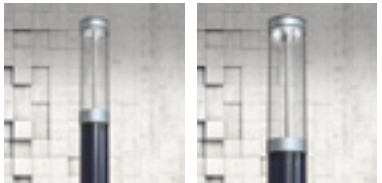
Winner of the Innovative Product Award at Urban Design & Landscaping Expo 2018 as part of BIG 5 Dubai.

Light source	6-8 high eff. LED units
SOP Solar operating power	20 - 35 Watt
Max. luminous flux @ SOP	3,150 - 5,350 lm
Pole height	4.0 - 12.0 m
Light spot height	3.9 - 11.9 m
SPR System power ratio	5 - 11

custom colour backsheet
and optional backlighting



luminaire (lengthwise or circular light distribution)



power tube (high efficiency silicon solar cells)

steel pole (hot-dip galvanized)

various pole finishes (painted or powder coated)

battery inside pole (optional)

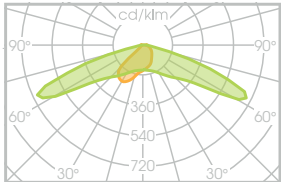
*earth-pit installation for very hot
and very cold climates recommended*



GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

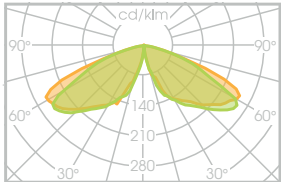
Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei lukida off-grid solar light columns	0 kWh / 0.0 tons CO ₂
Standard cabled LED	3,700 kWh / 1.9 tons CO ₂ - 6,400 kWh / 3.2 tons CO ₂
HPS light (100W - 400W)	13,100 kWh / 6.6 tons CO ₂ - 23,000 kWh / 11.5 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	



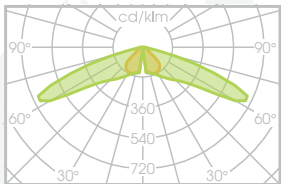
Single - Lens L70
Other lens types available

C90-C270 C0-C180



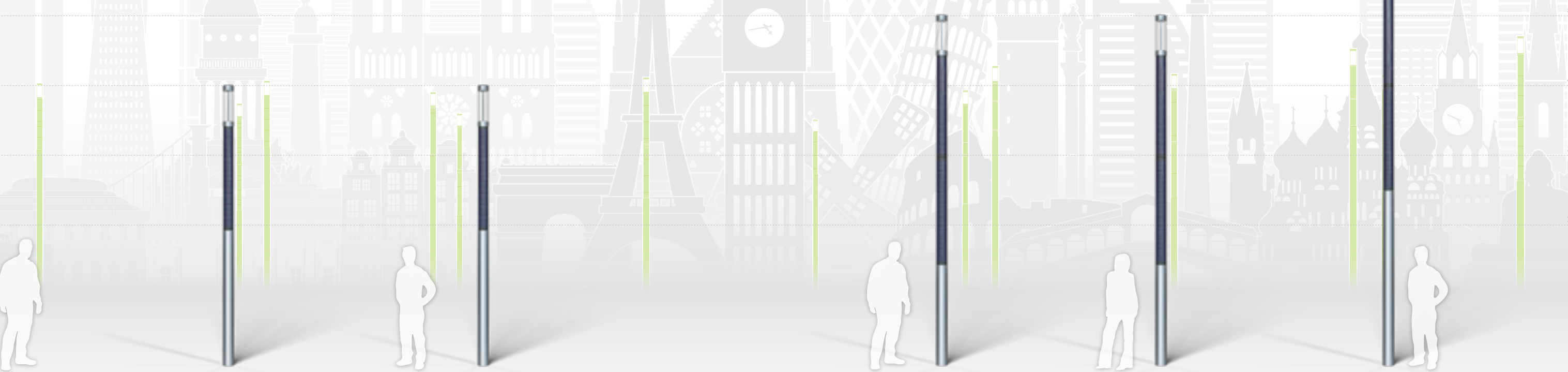
Circular - Lens L45
Other lens types available

C90-C270 C0-C180



Twin - Lens L70
Other lens types available

C90-C270 C0-C180



lukida 4000
P100 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,150 lm
Pole height	4.0 / 5.0 / 6.0 m
Light spot height	3.9 / 4.9 / 6.4 m
SPR System power ratio	5

lukida 4000 circular
P100 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,200 lm
Pole height	4.0 / 5.0 / 6.0 m
Light spot height	3.9 / 4.9 / 6.4 m
SPR System power ratio	5

lukida 4000
P200 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,150 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	4.9 / 5.9 / 7.9 m
SPR System power ratio	10

lukida 4000 circular
P200 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	3,200 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	4.9 / 5.9 / 7.9 m
SPR System power ratio	10

lukida 4000 twin
P200 - 160

Light source	6 high eff. LED units
SOP Solar Operating Power	20 W
Max. luminous flux @ SOP	2x 1,550 lm
Pole height	5.0 / 6.0 / 8.0 m
Light spot height	4.9 / 5.9 / 7.9 m
SPR System power ratio	10



lukida 8000
P200 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	5,350 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	6

lukida 8000 circular
P200 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	5,400 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	6

lukida 8000 twin
P200 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	2x 2,650 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	6

lukida 8000
P400 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	5,350 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	11

lukida 8000 circular
P400 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	5,400 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	11

lukida 8000 twin
P400 - 215

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	2x 2,650 lm
Pole height	8.0 / 10.0 / 12.0 m
Light spot height	7.9 / 9.9 / 11.9 m
SPR System power ratio	11

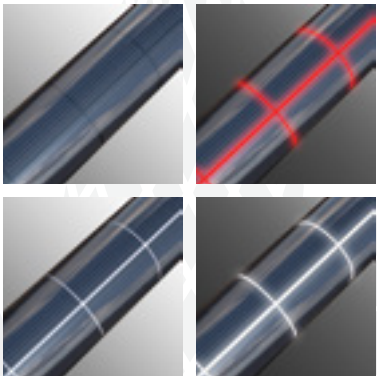
columba

SOLAR LIGHT COLUMNS

hei columba. Fusion of solar and light. High end solar light column with unique luminaire shell-design for architectural lighting applications with the **highest design expectations**. Available in various heights and wattages for parking sites, secondary and main roads, etc. Full solar power supply, no grid required.

Light source	8 - 4x 8 high eff. LED units
SOP Solar operating power	35 - 4x 35 Watt
Max. luminous flux @ SOP	5,700 - 4x 5,700 lm
Pole height	6.0 - 14.0 m
Light spot height	5.7 - 13.7 m
SPR System power ratio	5

custom colour backsheet and optional backlighting



luminaire (lengthwise light distribution)



power tube (high efficiency silicon solar cells)

steel pole (hot-dip galvanized)

various pole finishes (painted or powder coated)

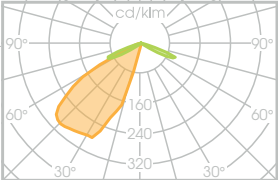
battery inside pole (optional)

earth-pit installation for very hot and very cold climates recommended

GLOBAL WARMING MITIGATION - ENERGY AND CO₂ SAVINGS

Electrical energy consumption and CO₂ emissions of one light pole per 30 years:

hei columba off-grid solar light columns	0 kWh / 0.0 tons CO ₂
Standard cabled LED	6,400 kWh / 3.2 tons CO ₂
HPS light (100W - 100W)	23,000 kWh / 11.5 tons CO ₂
Specific CO ₂ emissions: 0.5 kg per kWh	



Lens 1L45 - 1L70
Other lens types available

C90-C270 C0-C180

columba 6000
P180 - 270

Light source	8 high eff. LED units
SOP Solar Operating Power	35 W
Max. luminous flux @ SOP	4,150 lm
Pole height	6.0 / 8.0 m
Light spot height	5.7 / 7.7 m
SPR System power ratio	5

columba 6000 twin
P360 - 270

Light source	2x 8 high eff. LED units
SOP Solar Operating Power	2x 35 W
Max. luminous flux @ SOP	2x 4,150 lm
Pole height	6.0 / 8.0 m
Light spot height	5.7 / 7.7 m
SPR System power ratio	5

columba 12000
P360 - 270

Light source	2x 8 high eff. LED units
SOP Solar Operating Power	2x 35 W
Max. luminous flux @ SOP	2x 4,150 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	9.7 / 11.7 / 13.7 m
SPR System power ratio	5

columba 12000 twin
P720 - 270

Light source	4x 8 high eff. LED units
SOP Solar Operating Power	4x 35 W
Max. luminous flux @ SOP	4x 4,150 lm
Pole height	10.0 / 12.0 / 14.0 m
Light spot height	9.7 / 11.7 / 13.7 m
SPR System power ratio	5

reference projects

Since the foundation of the company in 2001, **hei** has evolved into a global leader in providing highly efficient solar lighting products for virtually any kind of outdoor lighting applications. From illuminating the smallest parking lot to providing light to huge public squares, we have introduced efficient and environmental-friendly solar lighting to the world. Our ambitious design approach can only be fulfilled with products with the utmost efficiency, long life-expectancy, minimal maintenance requirements and the lowest possible operating costs. These are the reasons why our customers all over the world opt for our products.

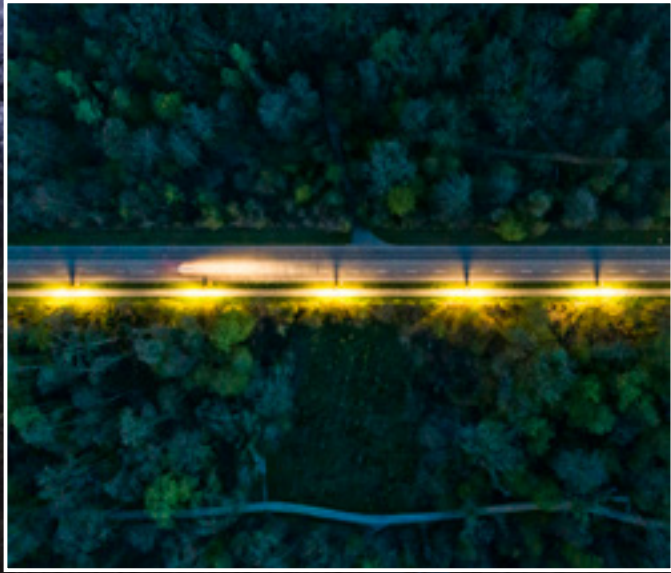
Nad Al Sheba 3,
Dubai, UAE



Palm Jumeirah
West beach,
Dubai, UAE

Research Technology and Innovation Park,
American University,
Sharjah, UAE

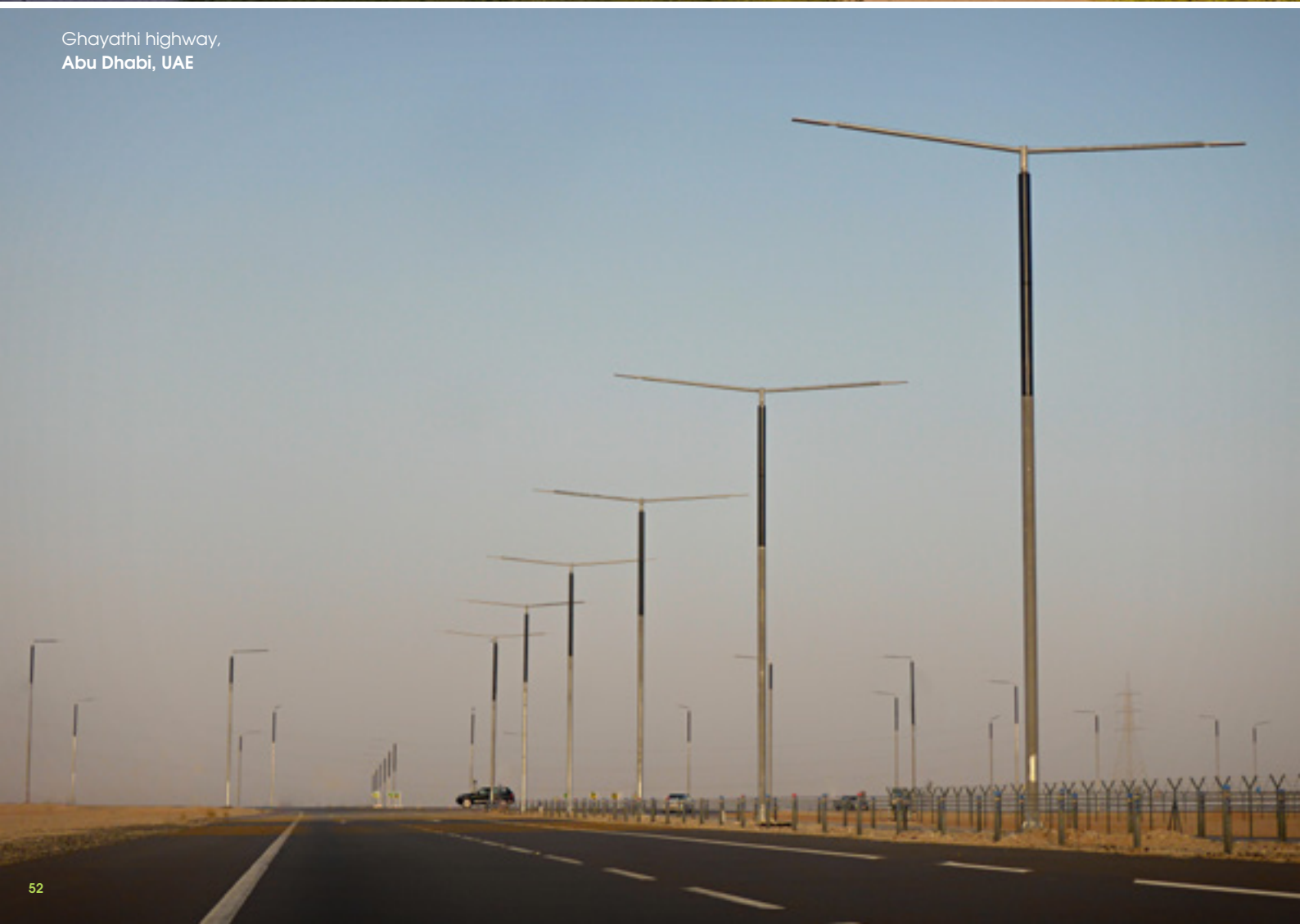




Schweizerhalle,
Basel, Switzerland



Oceans Garden,
Kobe City, Japan



Ghayathi highway,
Abu Dhabi, UAE



Al Amal Hospital,
Dubai, UAE



Pathway,
Philadelphia, USA



Matznerpark,
Vienna, Austria

Royal Abby of Santa Maria de Poblet,
UNESCO World Heritage Site,
Catalonia, Spain



Mona Vale,
Sydney, Australia

Luce Galatasi,
Athens, Greece



Al Noof Kindergarten,
Sharjah, UAE



Waterfront City,
Beirut, Lebanon



Viale Stazione,
Bellinzona, Switzerland



Bicycle pathway to Hamad International Airport (HIA),
Doha, Qatar



Al Qarain School,
Sharjah, UAE



Wasit Jogging Track
Sharjah, UAE



Roadway,
Therdbo, Australia



Energybase,
Vienna, Austria



School for girls,
Ras Al Khaimah, UAE



Katara Cultural Village,
Doha, Qatar



Government district,
Tamar, Hong Kong

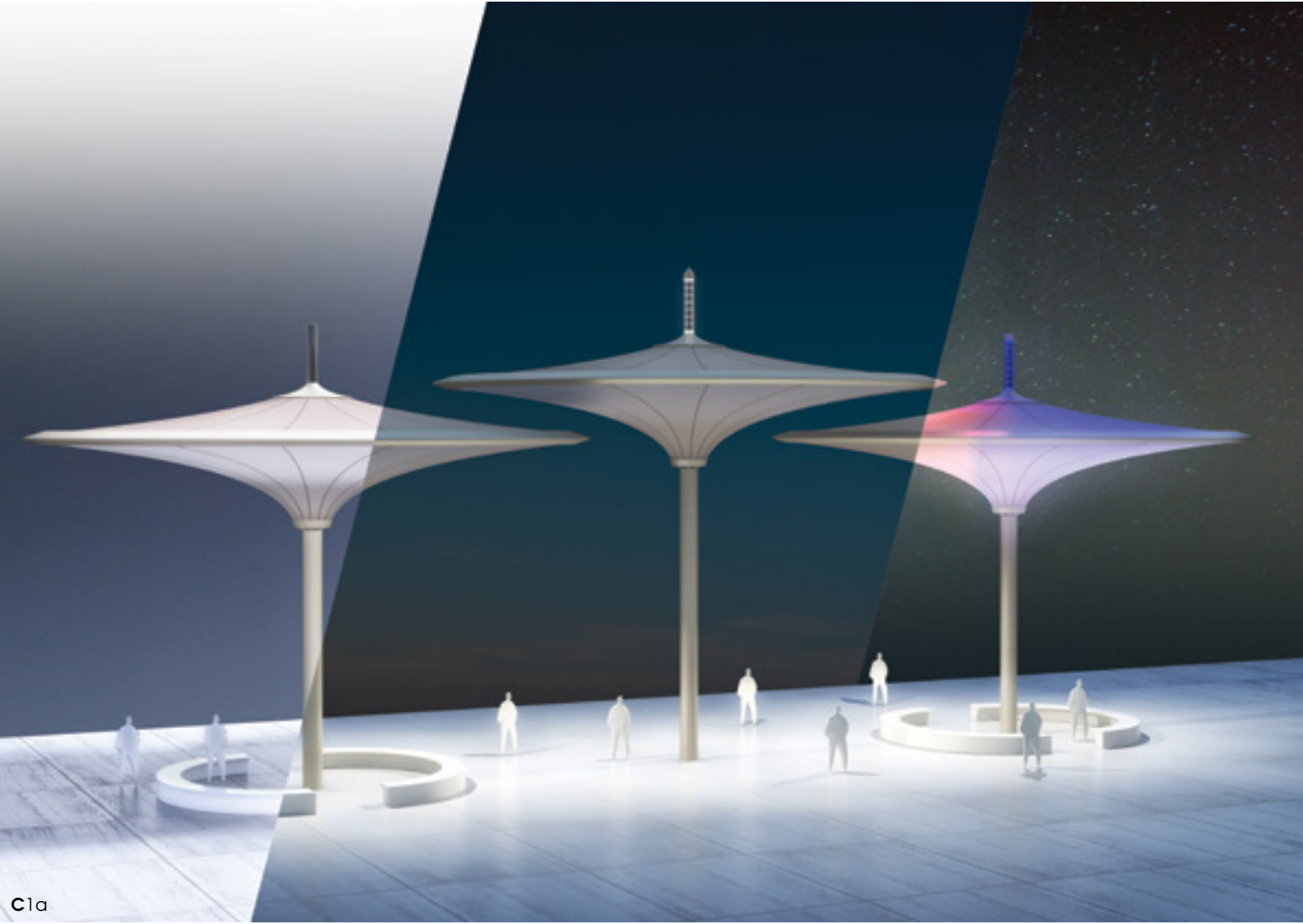
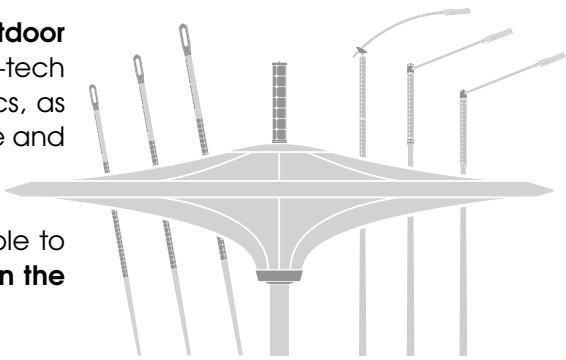


Public space,
Troinex, Switzerland

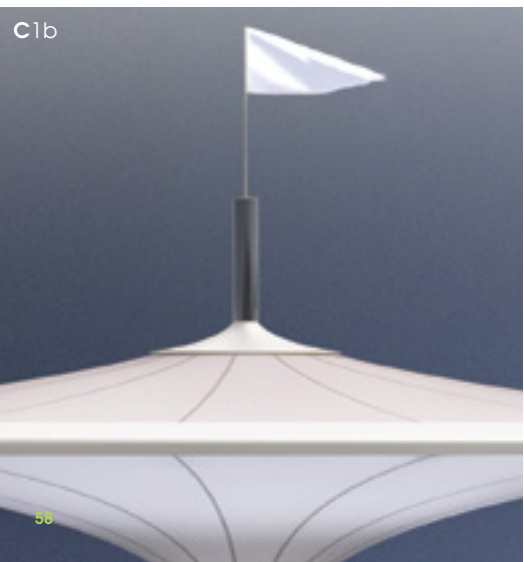
customization

hei is your experienced partner for **customized and project-specific outdoor lighting solutions**. hei designs, engineers and manufactures all high-tech components of a (solar) light pole on its own - luminaire, photovoltaics, as well as electronics hardware and software. This gives hei the experience and know-how for almost unlimited product customization.

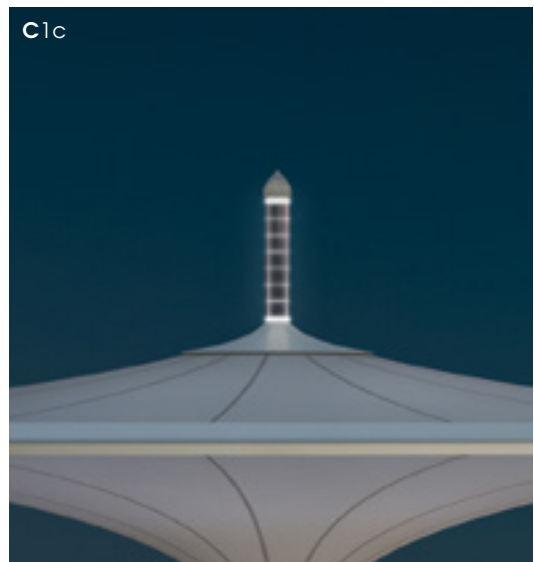
If you do not have a specific design in mind, our designers are capable to come up with a site-specific solar lighting design that will **fit perfectly in the environment**.



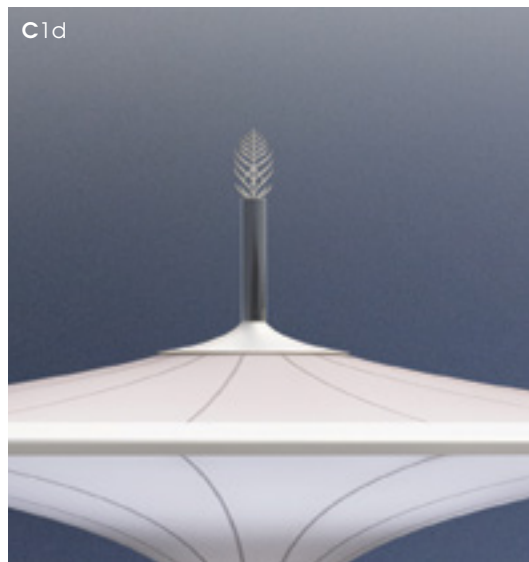
C1a



56



C1c



C1d



C2a



C2c

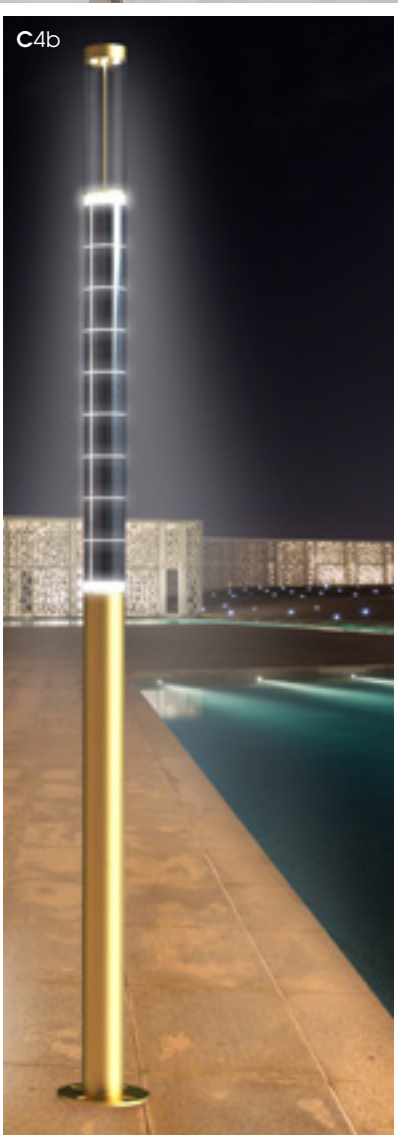
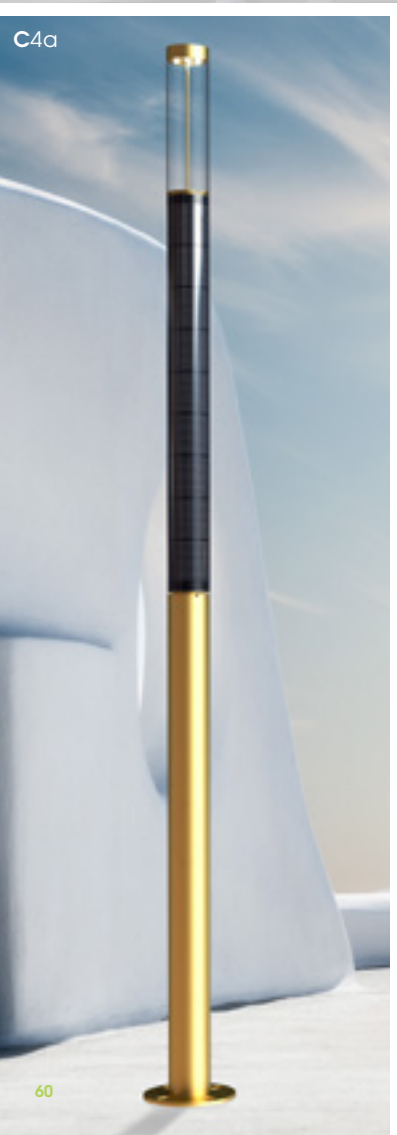


C2d



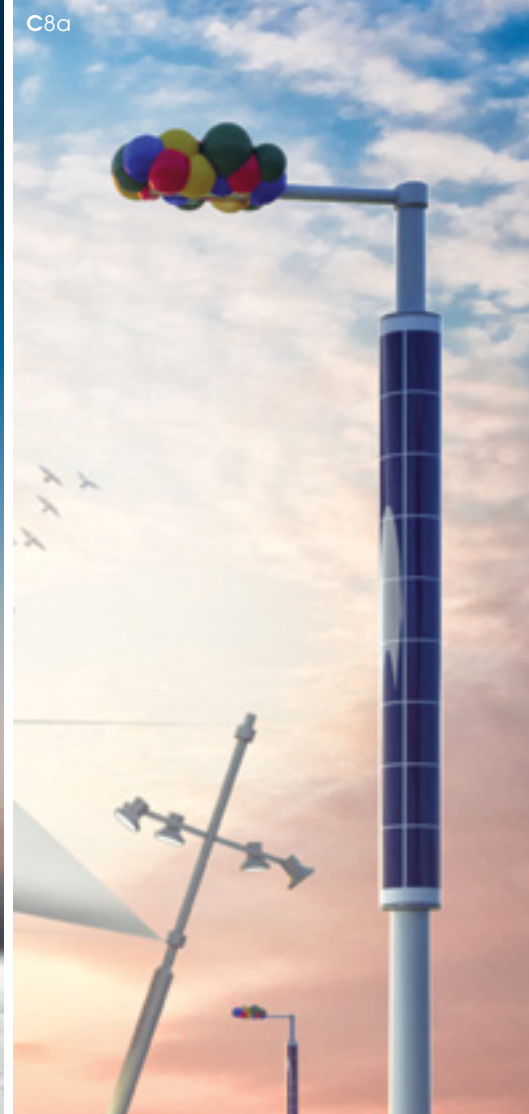
C2e

C2b

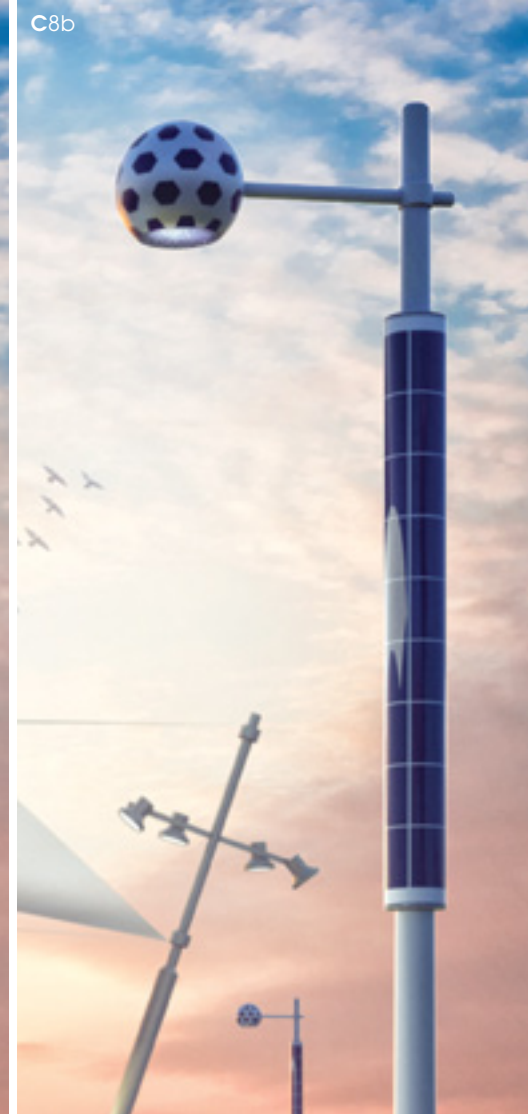




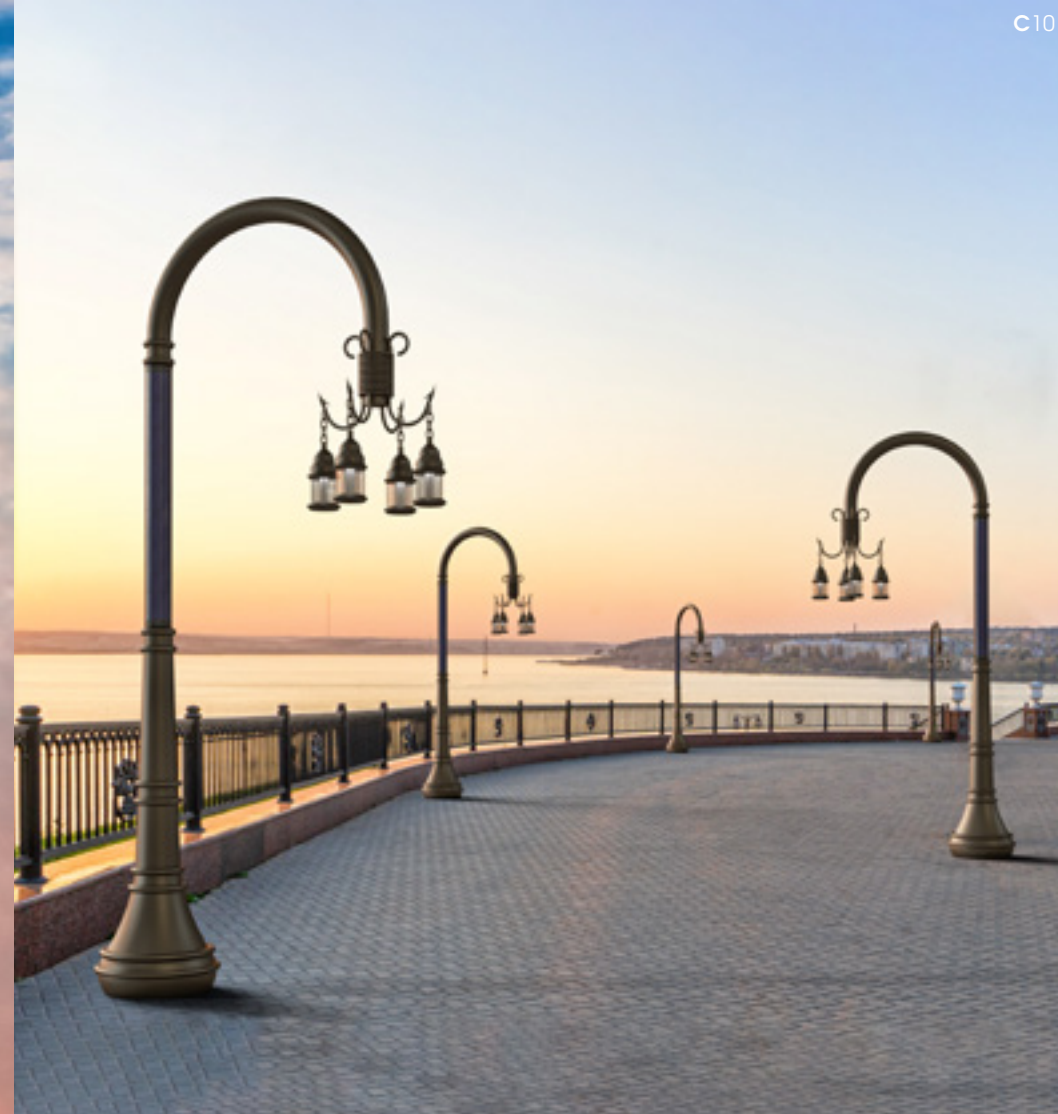
C7



C9c



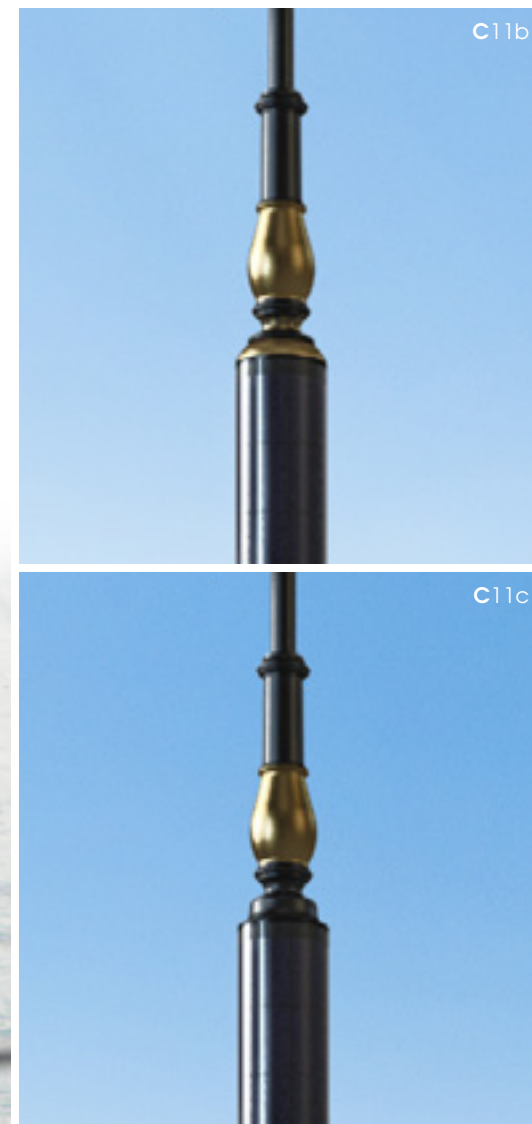
C9d



C11d



C11b



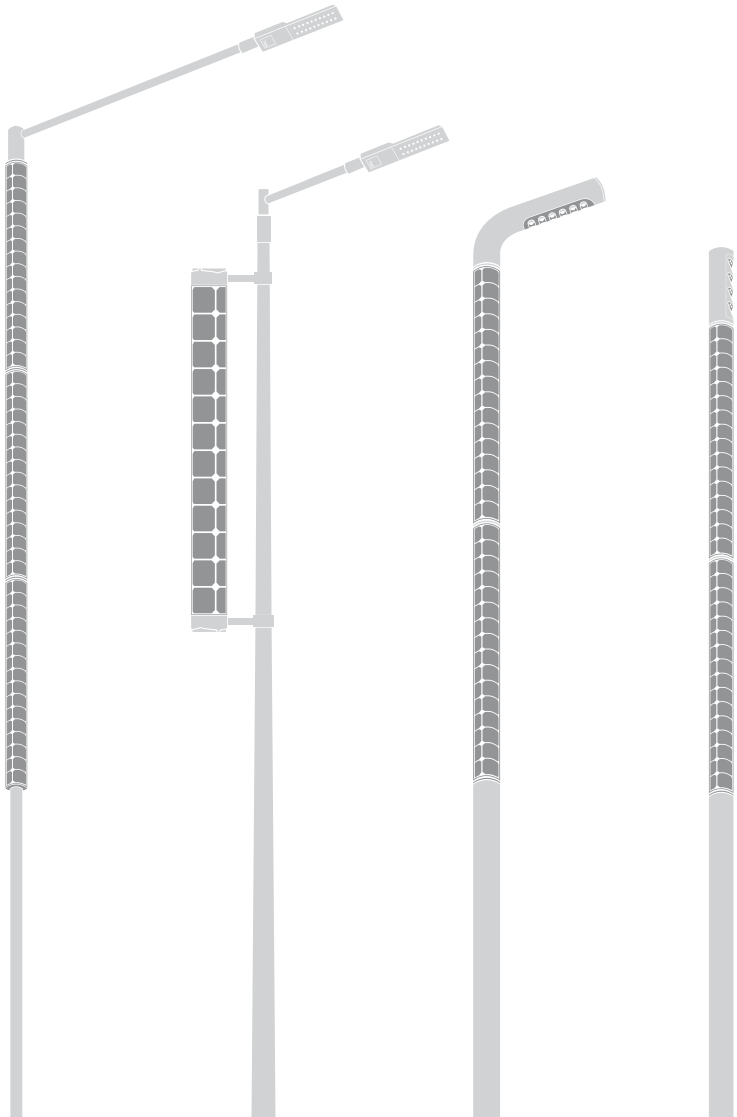
C11c



hei is your partner
even in the most extreme conditions.



C12
Mona Vale,
Sydney, Australia



- Nad Al Sheba 3, Dubai, UAE**
Blaž Grudnik Tominc / Dr. Dieter Hornbachner
- Palm Jumeirah, Duai, UAE**
Dr. Dieter Hornbachner
- American University, Sharjah, UAE**
Blaž Grudnik Tominc
- Basel, Sweitzerhalle**
Foscograph
- Ghayathi Highway, Abu Dhabi, UAE**
Hawk Energy / HEI Technology International GmbH
- Kobe city, Japan**
GBP / Studio Moritake
- Al Amal Hospital, Dubai, U.A.E.**
BMTC / Azi Raza
- Philadelphia, USA**
HEI Technology International GmbH
- Matznerpark, Vienna, Austria**
Zankilla
- Catalonia, Spain**
HEI Technology International GmbH
- Al Noof Kindergarten, Sharjah, UAE**
BMTC / Azi Raza
- Beirut, Lebanon**
HEI Technology International GmbH
- Mova Vale, Sydney, Australia**
Philip Gray / www.philipgray.com
- Athens, Greece**
HEI Technology International GmbH
- Bellinzona, Switzerland**
Savenergy / Daniel Fosco
- Bycycle pathway, Doha, Qatar**
Lumatron / Geoff Sharp
- Al Qarain School, Sharjah, UAE**
BMTC / Azi Raza
- Wasit Jogging Track, Sharjah, UAE**
HEI Technology International GmbH
- School for girls, Ras Al Khaimah, UAE**
BMTC / Azi Raza
- Katara Cultural Village, Doha, Qatar**
Lumatron / Geoff Sharp
- Thredbo, Australia**
Zachary R. Simpson
- Energybase, Vienna, Austria**
HEI Technology International GmbH
- Tamar, Hong Kong**
Flora Lighting / Leo Lee
- Troinex, Switzerland**
DTI Energies / Frederic Bonna
- Mona Vale Storm, Sydney, Australia**
Radius / Glenn Nicholls / AP/ picturedesk.com

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product catalogue
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