

PRODUCTS CATALOGUE
2018



PROMOTED BY:



SS SOLAR &
ELECTRIC

SMART & CONNECTED
SOLAR STREETLIGHTS

HIGH QUALITY SOLAR STREET LIGHTS, SMART AND RELIABLE.



Since 2011, Sunna Design is committed to become a world leader in solar street lighting. Our innovations, our research programs and the quality of our offers have made possible the installation of over 12,000 solar streetlights around the world.

Sunna Design is the only company in the solar street lighting industry to have invested so much in making its products reliable, with a lifetime of up to 12 years without requiring any maintenance. We have also focused in making our products easy to install and easy to check remotely, thanks to their connectivity.

Reliability for a solar streetlight does not mean the same thing depending on its location. That's why we have chosen very high-quality Nickel metal hydride batteries that are able to resist high temperatures (up to 70°C) and very low temperatures (below -40°C). Our technological know-how has led us to build strong partnerships with worldwide companies such as Schneider Electric and Thorn Lighting.

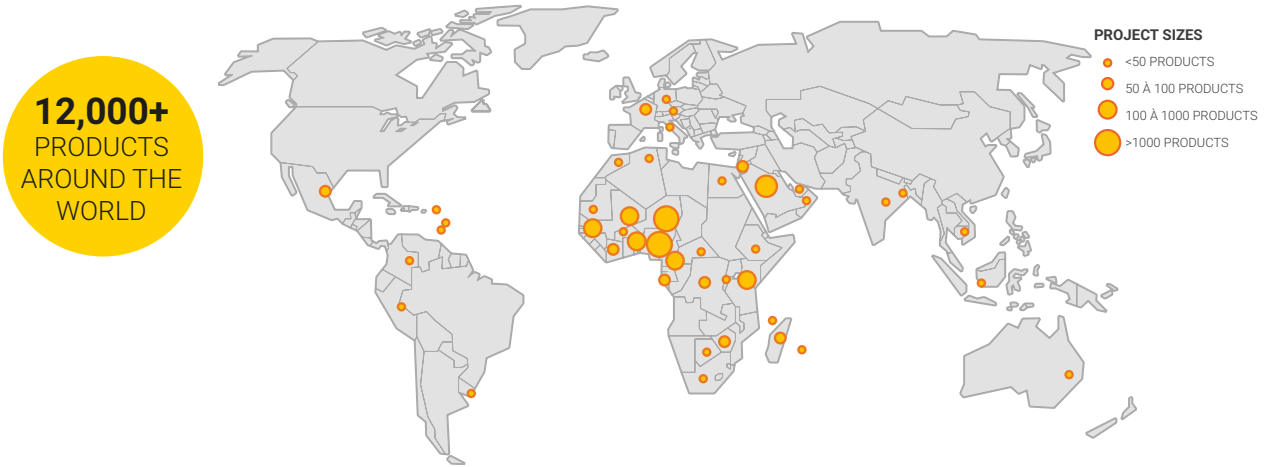
Our main difference? Innovation. We are constantly on the move, trying to improve our quality, our production processes, our sales methods, our products and our connected services. We know that offering high quality and reliable products is a necessity for achieving our goals: bringing light to those who need it in remote areas and being part of tomorrow's smart cities, forever more connected and greener.

AN AWARDED COMPANY:



AN INTERNATIONAL COMPANY

With more than **12,000** solar streetlights installed around the world, Sunna Design is a leading international company. Over the years and thanks to successful projects, we have built strong partnerships with local agents and contractors. Thanks to our joint efforts we have been able to promote Sunna Design worldwide.



RELIABILITY AND QUALITY

At Sunna Design, we offer the most efficient and durable solar streetlighting technology. We know that lighting is a matter of security, that's why reliability and quality are key factors in our designs.

In 2016, Sunna Design inaugurated its Factory 4.0. This innovative production line, located in our headquarters, simplifies product assembly and increases production capacity. Adding high technology to our production process led us to increase our volume capacity as well as our quality control level.

Thanks to the modularity of these assembly lines, their connectivity and their low energy consumption, we are able to transfer part of the assembly process to abroad. Being a leader in our industry means daily improvement of our products quality and traceability.



Watch our video to find out more about our factory



INTERESTED IN WORKING WITH US?

contact us and become a partner!



BECOME A CONTRACTOR

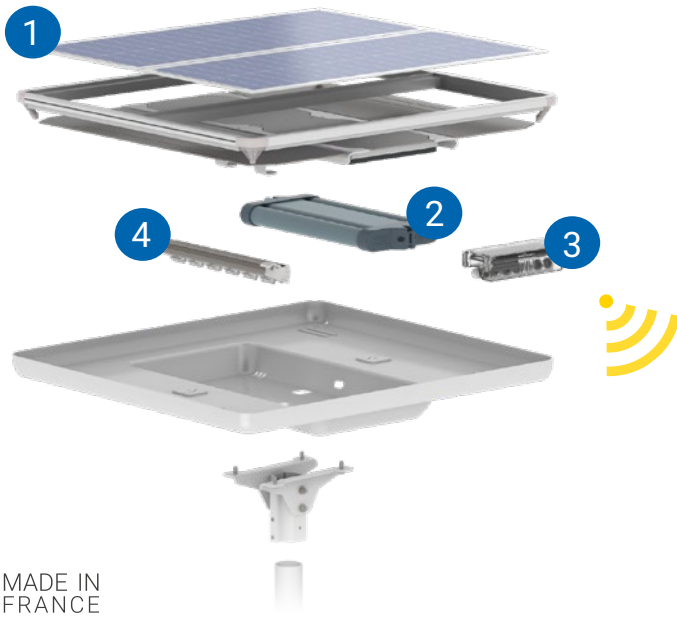
Increase your revenue by partnering with a pioneering leader in the growing solar lighting industry. Enjoy more business, more income, and more opportunities.



BECOME AN AGENT

Sunna Design's Certified Agent training program provides you with the knowledge, support, and experience you'll need to enter the growing world of solar outdoor lighting.

AN INNOVATIVE TECHNOLOGY



6
YEARS
WARRANTY

SMART LIGHTING MANAGEMENT
365 NIGHTS / YEAR



REMOTE MONITORING AND
COMMUNICATION



PLUG AND
PLAY



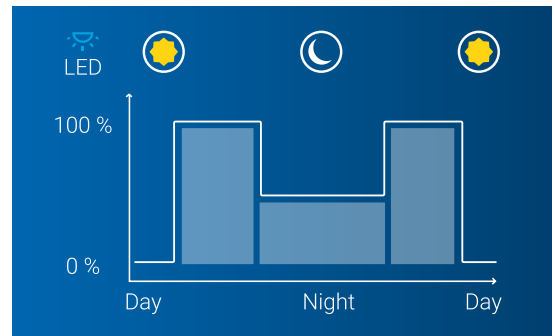
LONG LIFE
DESIGN







 **MADE IN
FRANCE**

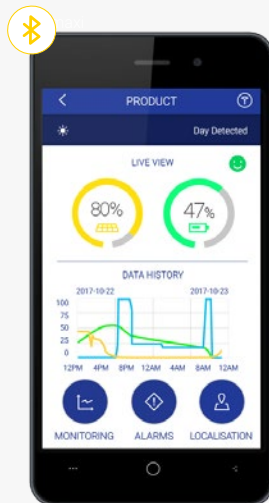
- 1** **EMBEDDED SOLAR PANELS**
Solar panels transform solar energy into electrical energy during the day. They are embedded in our products making them theft proof. An anti-dust and self cleaning coating protects them against dust accumulation.
- 2** **AN INNOVATIVE NIMH BATTERY**
The battery stores the electric energy produced during the day and powers the LED module at night.
- 3** **A SMART ELECTRONIC BOARD: THE SUNNACORE**
Our battery management system (BMS) has a patented algorithm to manage very finely energy and to preserve the battery during its 12 years life time. Our BMS is also equipped with an incorporated Bluetooth fonction.
- 4** **HIGH POWER LED MODULE**
Sunna LED modules are particularly powerful with the best Lumen/Watt ratio on the market: 164 lm/W.

- 5** **A SMART LIGHTING PROFILE**
The Sunnacore powers the LED modules using a smart lighting profile to avoid blackouts during the night. Nights are divided into 3 phases during which lighting level will depend on charge level.
Thanks to a dynamic and smart energy consumption, our products will work all year long and in any weather condition.



SUNNAPP': A CONNECTED TOOL

-  INSTALLATION AND COMMISSIONING SUPPORT
-  LIGHTING PROFILES MANAGEMENT
-  DATA LOG AND PERFORMANCES MONITORING
-  REGISTRATION AND MAPPING OF INSTALLED DEVICES

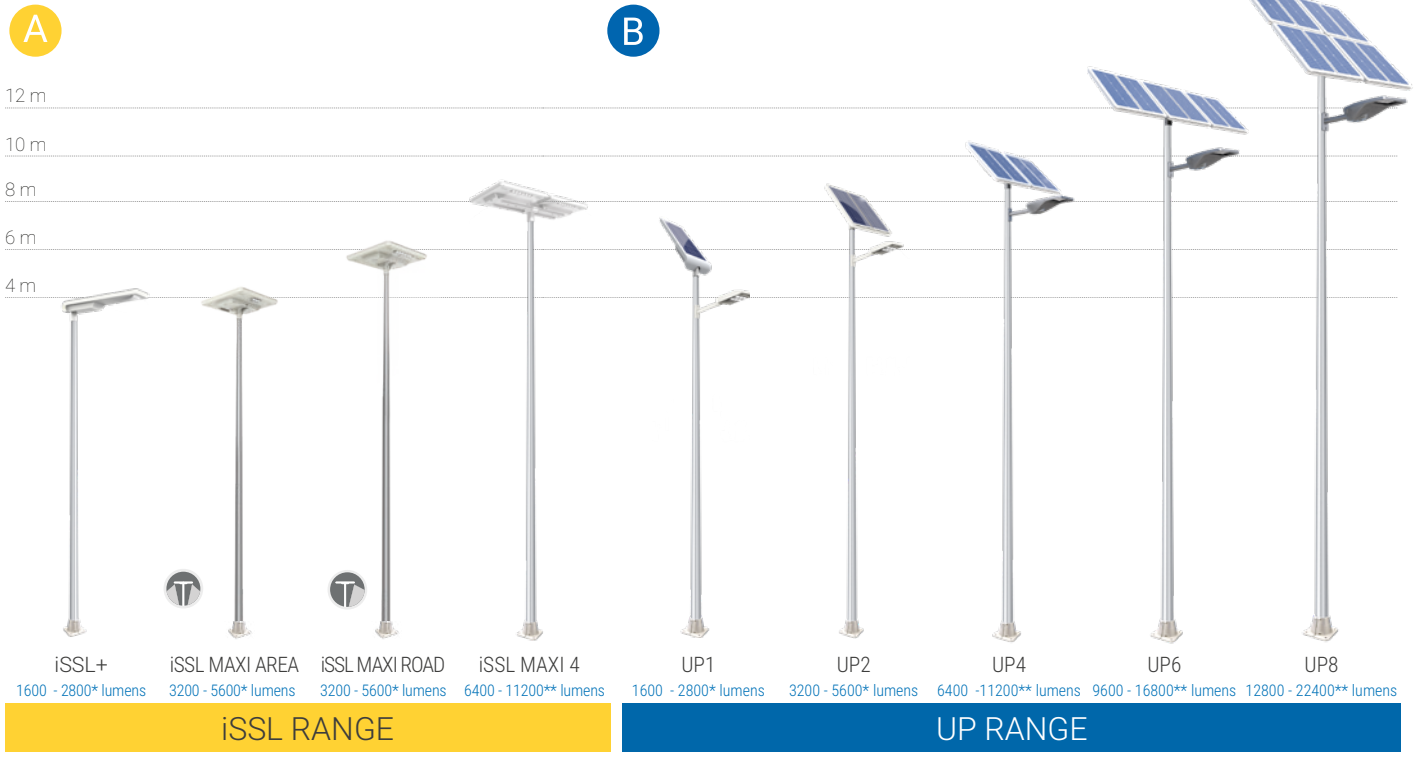


SUNNA CLOUD: REMOTE MANAGEMENT

This web management platform gives an overview of products localization and collected data via the Sunnapp'.



OUR PRODUCTS



- | | | | | | | | | |
|---|--|---|-----------------------------|---|---|-----------------------------|-------------------------|-------------------------|
| iSSL RANGE | | | | UP RANGE | | | | |
| | | | | | | | | |
| PATHWAYS,
BICYCLE LANES,
PARKING LOTS | AREA LIGHTING,
PARKING LOTS,
SQUARES | LOCAL ROADS,
PARKING LOTS,
INDUSTRIAL SITES | MAIN ROADS,
PARKING LOTS | PATHWAYS,
BICYCLE LANES,
PARKING LOTS | LOCAL ROADS,
PARKING LOTS,
INDUSTRIAL SITES | MAIN ROADS,
PARKING LOTS | MAIN ROADS,
FREEWAYS | MAIN ROADS,
HIGHWAYS |

* Available with motion sensor
 ** These products will be defined according to project specifications

WHERE TO USE OUR PRODUCTS

A **iSSL PRODUCT RANGE**
 Our iSSL range, with its horizontal solar panels, has been designed for intertropical countries where orienting solar panels is not necessary.

B **UP PRODUCT RANGE**
 Our UP range has been created for temperate areas where the inclination and the orientation of solar panels allow available solar energy to be optimized.



Horizontal panels enable easy installation with no specific orientation.

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	1,600 to 2,800* lumens
	Consumption	10 W to 25* W
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	50 Wp
	Electrical characteristics (per panel)	VOC : 22,89 V / VMPP : 18,54 V / ISC : 2,85A / IMPP : 2,7A / 36 cells
	Dimensions (per panel)	1000 x 350 mm
	Lifespan	25 years
	Inclination	Horizontal
	Structure	Frameless
Certificates	IEC 61215; IEC 61730 I and II	
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	12V
	Capacity	120 Wh
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	12V
	Max. PV open circuit voltage	22,5V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,08 m2
	Fixation	Top mounting Ø60 mm
	Weight (without pole)	13 kg
	Options	Motion sensor Anti-theft screws
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

* Available with motion sensor

REFERENCES

Product reference	Description
SD4100 000 000	iSSL+
SD4100 100 000	iSSL+ - motion sensor

We offer a complete range of poles compliant to EN40 standard. Please contact our sales team for more information.

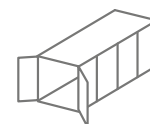
PACKING INFORMATION*



1 product = 1 box
16 kg
290x1100x440 mm



1 pallet = 8 products
157kg
800x1200x1030 mm



1 container = 176 products
2,5 tons
20 feet

*without poles. Number of products in container depends on forwarder.

iSSL Maxi Area

All-in-One solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

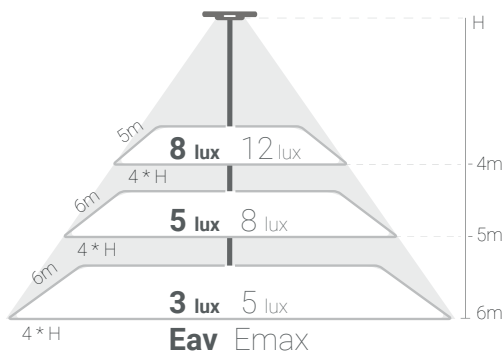
APPLICATIONS



AREA LIGHTING,
PARKING LOTS,
SQUARES

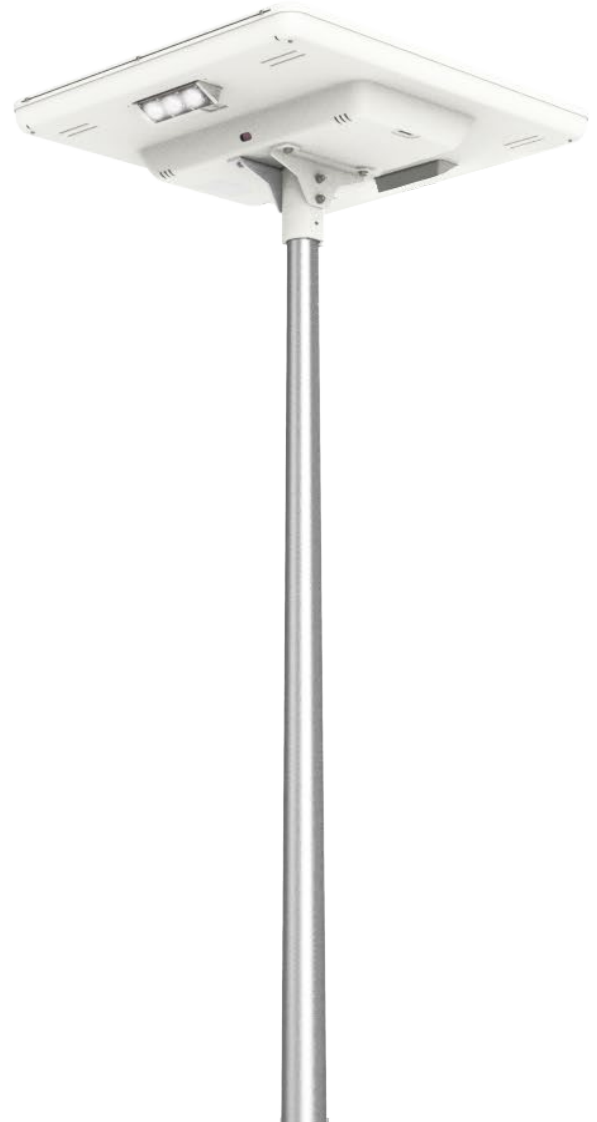
LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 1,600 to 2,800* lumens on each side

* Available with motion sensor



MAYOTTE/ Parking lot
photo credits - Sunna Design

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	1,600 to 2,800* lumens on each side
	Consumption	20 W to 50* W
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	80 Wp (2x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,04 V / VMPP : 18,72 V / ISC : 2,34A / IMPP : 2,14A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	Horizontal
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	240 Wh
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,09 m2
	Fixation	Top mounting Ø60 mm
	Weight (without pole)	19 kg
	Options	Motion sensor Anti-theft screws
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

* Available with motion sensor

REFERENCES

Product reference	Description
SD4220 000 000	iSSLmaxi - Area
SD4220 100 000	iSSLmaxi - Area - motion sensor

We offer a complete range of poles compliant to EN40 standard. Please contact our sales team for more information.

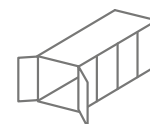
PACKING INFORMATION*



1 product = 1 box
23,5 kg
800x905x200 mm



1 pallet = 6 products
164 kg
800x1200x1050 mm



1 container = 132 products
3,4 tons
20 feet

*without poles. Number of products in container depends on forwarder.

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	3,200 to 5,600* lumens
	Consumption	20 W to 50* W
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	80 Wp (2x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,04 V / VMPP : 18,72 V / ISC : 2,34A / IMPP : 2,14A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	Horizontal
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	240 Wh
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,09 m2
	Fixation	Top mounting Ø60 mm
	Weight (without pole)	19 kg
	Options	Motion sensor Anti-theft screws
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

* Available with motion sensor

REFERENCES

Product reference	Description
SD4200 000 000	iSSL maxi - ROAD
SD4200 100 000	iSSL maxi - ROAD – motion sensor

We offer a complete range of poles compliant to EN40 standard. Please contact our sales team for more information.

PACKING INFORMATION*



1 product = 1 box
23,5 kg
800x905x200 mm



1 pallet = 6 products
164 kg
800x1200x1050 mm



1 container = 132 products
3,4 tons
20 feet

*without poles. Number of products in container depends on forwarder.

iSSL Maxi 4

All-in-One solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

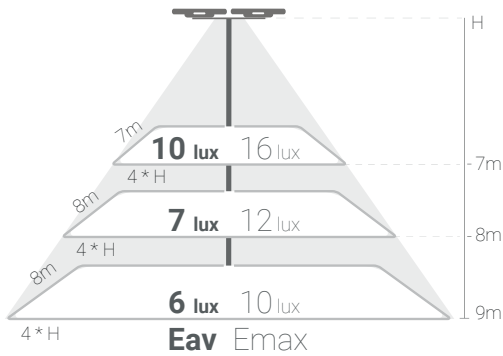
APPLICATIONS



MAIN ROADS,
PARKING LOTS

LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 6,400 - 11,200* lumens

* Only available if specified in advance.



PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	6,400 to 11,200* lumens
	Consumption	40 W to 80* W
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	160 Wp (4x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,04 V / VMPP : 18,72 V / ISC : 2,34A / IMPP : 2,14A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	Horizontal
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	480 Wh (2x240 Wh)
	Operating temperature range	-40° C to +70° C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,20 m2
	Fixation	Top mounting Ø76 mm
	Weight (without pole)	42 kg
	Options	Anti-theft screws
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

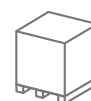
*Only available if specified in advance.

REFERENCES

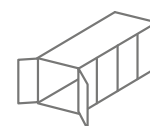
Product reference	Description
SD4260 000 000	iSSLmaxi 4

We offer a complete range of poles compliant to EN40 standard. Please contact our sales team for more information.

PACKING INFORMATION*



1 pallet = 3 products
177 kg
800x1200x1170 mm



1 container = 59 products
3,4 tons
20 feet

*without poles. Number of products in container depends on forwarder.

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	1,600 to 2,800* lumens
	Consumption	10 W to 25 W*
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	50 Wp
	Electrical characteristics (per panel)	VOC : 22,89 V / VMPP : 18,54 V / ISC : 2,85A / IMPP : 2,7A / 36 cells
	Dimensions (per panel)	1000 x 350 mm
	Lifespan	25 years
	Inclination	25°, 50°
	Structure	Frameless
Certificates	IEC 61215; IEC 61730 I and II	
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	12V
	Capacity	120 Wh
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	12V
	Max. PV open circuit voltage	22,5V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1	
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,40 m2
	Fixation	Solar engine: Top mounting Ø60 mm ; Luminaire: horizontal bracket
	Weight (without pole)	17 kg
	Options	Motion sensor Anti-theft screws Anti birds spikes
Smart Ligting options	Smart Lighting and Detection Remote monitoring	

* Available with motion sensor

REFERENCES

Product reference	Description
SD4140 000 000	UP1
SD4140 100 000	UP1 - motion sensor

We offer a complete range of poles compliant to EN40 standard. Please contact our sales team for more information.

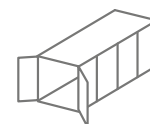
PACKING INFORMATION*



1 product = 2 boxes
19 kg
280x1100x432 mm



1 pallet = 8 products
177 kg
800x1200x1466 mm



1 container = 96 products
2,5 tons
20 feet

*without poles. Number of products in container depends on forwarder.

UP2

Ultra performance solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

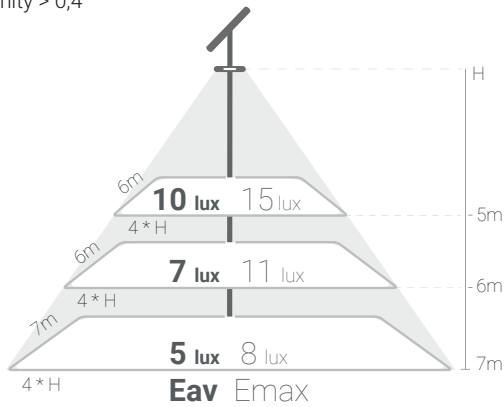
APPLICATIONS



LOCAL ROADS,
PARKING LOTS,
INDUSTRIAL SITES

LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 3,200 to 5,600* lumens

* Available with motion sensor



FRANCE/ Parking lot in commercial area
photo credits - G. Fauveau

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	3,200 to 5,600* lumens
	Consumption	20 W to 50* W
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	80 Wp (2x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,4 V / VMPP : 18,72 V / ISC : 2,34 A / IMPP : 2,14 A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	10°, 20°, 30°, 40°, 50°
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	240 Wh
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1	
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	0,62 m2
	Fixation	Solar engine: Top mounting Ø60 mm ; Luminaire: horizontal bracket
	Weight (without pole)	23 Kg
	Options	Motion sensor Anti-theft screws Anti birds spikes
	Smart Ligting options	Smart Lighting and Detection Remote monitoring

* Available with motion sensor

REFERENCES

Product reference	Description
SD4240 000 000	UP2
SD4240 100 000	UP2 - motion sensor

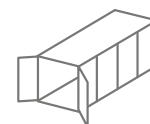
PACKING INFORMATION*



1 product = 1 box
26 kg
800x905x200 mm



1 pallet = 6 products
180 kg
800x1200x1050 mm



1 container = 132 products
1,9 tons
20 feet

*without poles. Number of products in container depends on forwarder.

UP4

Ultra performance solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

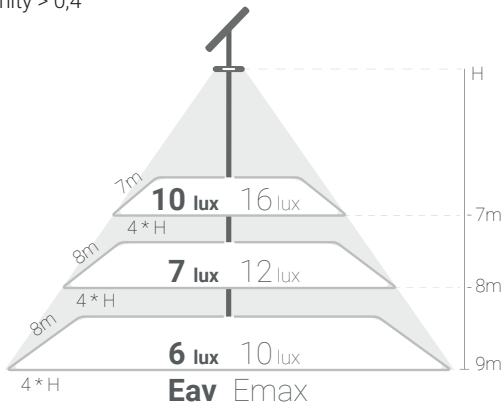
APPLICATIONS



MAIN ROADS,
PARKING LOTS

LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 6,400 to 11,200* lumens

* Only available if specified in advance.



NEW LANTERN
AVAILABLE Q1 2018



FRANCE/ Parking lot in shopping area
photo credits - G. Fauveau

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	6,400 to 11,200* lumens
	Consumption	40 W to 80 W*
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	160 Wp (4x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,4 V / VMPP : 18,72 V / ISC : 2,34 A / IMPP : 2,14 A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	10°, 20°, 30°, 40°, 50°
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	480 Wh (2x240 Wh)
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1	
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	1,3 m2
	Fixation	Solar engine: Top mounting Ø76 mm ; Luminaire: horizontal bracket
	Weight (without pole)	42 kg
	Options	Motion sensor Anti-theft screws Anti birds spikes
	Smart Ligting options	Smart Lighting and Detection Remote monitoring

*Only available if specified in advance.

REFERENCES

Product reference	Description
SD4280 000 000	UP4

We offer a complete range of poles compliant to EN40 standard.
Please contact our sales team for more information.

UP6

Ultra performance solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

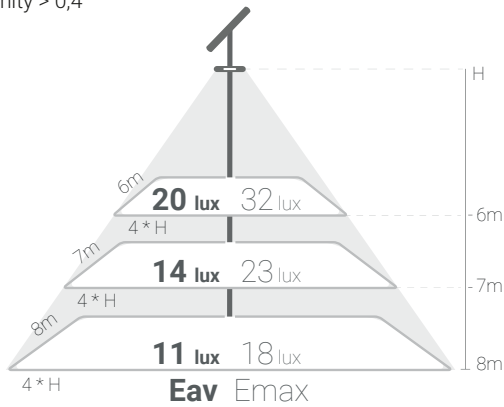
APPLICATIONS



MAIN ROADS,
FREE WAYS

LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 9,600 to 16,800* lumens

* Only available if specified in advance.



NEW PRODUCT
AVAILABLE Q3 2018



PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	9,600 to 16,800* lumens
	Consumption	60 W to 120 W*
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3000 K and 4000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	240 Wp (6x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,4 V / VMPP : 18,72 V / ISC : 2,34 A / IMPP : 2,14 A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	10°, 20°, 30°, 40°, 50°
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	720 Wh (3x240 Wh)
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1	
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	1,85 m2
	Options	Anti-theft screws Anti birds spikes
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

*Only available if specified in advance.

REFERENCES

Product reference	Description
SD4400 000 000	UP6

We offer a complete range of poles compliant to EN40 standard.
Please contact our sales team for more information.

UP8

Ultra performance solar streetlight

6
YEARS
WARRANTY

IP65 IK07(PV) IK08 CE

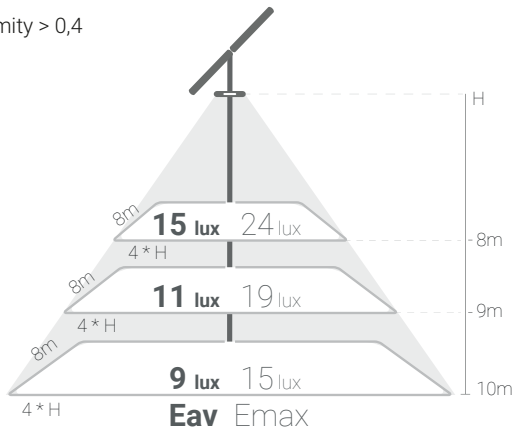
APPLICATIONS



MAIN ROADS,
HIGHWAYS

LIGHTING PERFORMANCES

Uniformity > 0,4



Luminous flux 12,800 to 22,400* lumens

* Only available if specified in advance.



NEW PRODUCT
AVAILABLE Q3 2018



HIGHWAY
photo credits - Pexels

PRODUCT FEATURES

LIGHTING	LED module	High efficiency LED light engine - Multichip Technology (IP 67)
	Luminous flux	12,800 to 22,400* lumens
	Consumption	80 W to 160 W*
	Lighting efficiency	Up to 164 lm/W
	Color temperature options	5,700 K (3,000 K and 4,000 K available on request)
	Lifespan	50,000 hours certified by IESNA LM-80 TM-21
	Certificates	EN 13032-1; EN 13032-2; EN 13201; EN 60598-1; EN 62471
SOLAR PANEL	Technology	Photovoltaic module (Monocrystalline silicon)
	Power	320 Wp (8x40 Wp)
	Electrical characteristics (per panel)	VOC : 23,4 V / VMPP : 18,72 V / ISC : 2,34 A / IMPP : 2,14 A / 36 cells
	Dimensions (per panel)	776 x 350 mm
	Lifespan	25 years
	Inclination	10°, 20°, 30°, 40°, 50°
	Structure	Frameless
	Certificates	IEC 61215; IEC 61730 I and II
BATTERY	Battery technology	NiMH battery, maintenance free, very high temperature resistance
	Voltage	24V
	Capacity	960 Wh (4x240 Wh)
	Operating temperature range	-40°C to +70°C
	Lifespan	12 years
	Certificates	EN 62133
ELECTRONICS	Technology	SunnaCore®
	Communication	Bluetooth
	Input voltage	24V
	Max. PV open circuit voltage	45V
	Max. charge/discharge current	5A
	Wiring	Marine-grade wiring used for all applications
	Electrical protection	Electronic fuse
	Lifespan	12 years
	Water resistance	IP65 with sealed plugs
	Operating temperature range	-20°C to +70°C
	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
GENERAL	Material	ABS PMMA casing (100% recycled) and aluminum
	SCx	2,42 m2
	Options	Anti-theft screws Anti birds spikes
	Smart Lighting options	Smart Lighting and Detection Remote monitoring

*Only available if specified in advance.

REFERENCES

Product reference	Description
SD4440 000 000	UP8

We offer a complete range of poles compliant to EN40 standard.
Please contact our sales team for more informations.

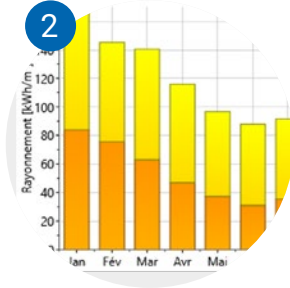
LIGHTING DESIGN AND PROJECT MANAGEMENT

Sunna Design has an in-house lighting design and technical team which will assist you to choose the right products for your project. To be close to your need and answer customer's requirements, our approach revolves around :



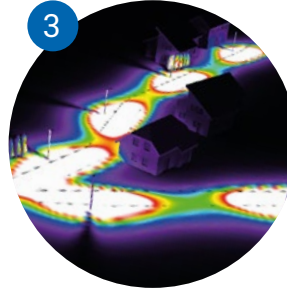
LISTENING TO YOUR NEEDS

- Lead assessment
- Invitation to tender requirements



SOLAR RADIATION ANALYSIS

- Calculation of solar energy production potential depending on location and environment
- Calculation of blackout probability and lighting service efficiency



LIGHTING DESIGN

- Compliance with road safety requirements and standards
- Lighting level and uniformity
- Selection of the lighting profile



RECOMMANDATIONS AND OFFERS

- Project layout
- Budget optimisation
- Remote or on site project monitoring

LIGHTING SIMULATIONS

CIE 140 / EN 13201 standard provides recommended illumination levels for outdoor lighting. We summarize some of these recommendations below based on lighting simulation using product at nominal power. It is important to note that these values are recommendations, not standards.



iSSL+ / UP1 / iSSL Maxi AREA

Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*			Type of way
							P	C	M	
3	12	12x5	12	22	3	0,25	P7 to P2	C5 to C4	M6 to M5	Pathways Parking lots Bicycle path Area Lighting
4	16	16x5	8	12	4	0,5	P7 to P3	C5	M6	
5	20	20x6	5	8	3	0,6	P7 to P4	-	-	
6	24	24x6	3	5	2	0,6	P7 to P5	-	-	

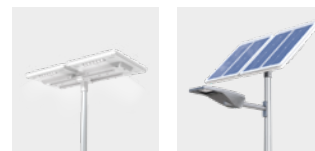
* Lighting class according CIE 140 / EN 13201 standard. Lighting simulations are made at nominal power.

iSSL Maxi ROAD / UP2



Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*			Type of way
							P	C	M	
4	16	16 x 5	15	24	8	0,5	P7 to P1	C5 to C3	M6 to M4	Local roads Parking Lots Industrial sites
5	20	20 x 6	10	15	5	0,5	P7 to P2	C5 to C4	M6 to M5	
6	24	24 x 6	7	11	4	0,6	P7 to P4	-	M6	
7	28	28 x 7	5	8	3	0,6	P7 to P4	-	-	
8	32	32 x 7	4	8	1	0,25	P7 to P6	-	-	

* Lighting class according CIE 140 / EN 13201 standard. Lighting simulations are made at nominal power.



iSSL Maxi 4 / UP4

Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*			Type of way
							P	C	M	
5	20	20 x 6	20	30	11	0,5	P7 to P1	C5 to C2	M6 to M3	Main Roads Parking Lots
6	24	24 x 6	15	22	8	0,5	P7 to P1	C5 to C3	M6 to M5	
7	28	28 x 7	10	16	6	0,6	P7 to P2	C5 to C4	M6 to M5	
8	32	32 x 8	7	12	4	0,5	P7 to P4	-	M6	
9	36	36 x 8	6	10	3	0,5	P7 to P4	-	M6	
10	40	40 x 8	4	7	2	0,5	P7 to P5	-	-	

* Lighting class according CIE 140 / EN 13201 standard. Lighting simulations are made at nominal power.



UP6

Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*		Type of way
							C	M	
6	24	24 x 6	20	32	12	0,6	C5 to C2	M6 to M3	Main Roads Freeways Collector road Link road
7	28	28 x 7	14	23	9	0,6	C5 to C3	M6 to M5	
8	32	32 x 8	11	18	6	0,5	C5 to C4	M6 to M5	
9	36	36 x 8	8	14	5	0,6	-	M6	
10	40	40 x 8	7	12	4	0,6	-	M6	

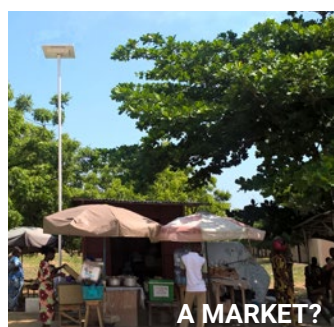
* Lighting class according CIE 140 / EN 13201 standard. Lighting simulations are made at nominal power.



UP8

Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*		Type of way
							C	M	
7	28	28 x 7	20	31	11	0,6	C5 to C2	M6 to M3	Main Roads Highways Collector road Link road
8	32	32 x 8	15	24	8	0,5	C5 to C3	M6 to M5	
9	36	36 x 8	11	19	7	0,6	C5 to C4	M6 to M5	
10	40	40 x 8	9	15	6	0,6	-	M6	
11	44	44 x 8	7	12	4	0,6	-	M6	
12	48	48 x 8	6	9	4	0,6	-	M6	

* Lighting class according CIE 140 / EN 13201 standard. Lighting simulations are made at nominal power.



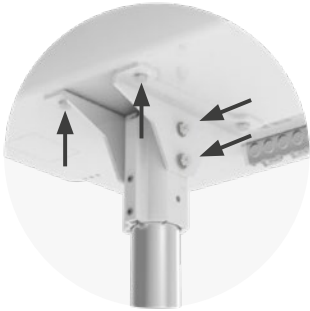
...OR A ROAD YOU WANT TO LIGHT UP?

IF YOU HAVE A PROJECT, CONTACT US

OUR TEAM IS HERE TO HELP YOU!

ANTI-THEFT SCREWS

To minimize vandalism, you can add to your order:



Screws with anti-theft pattern



Self-breaking lock nuts

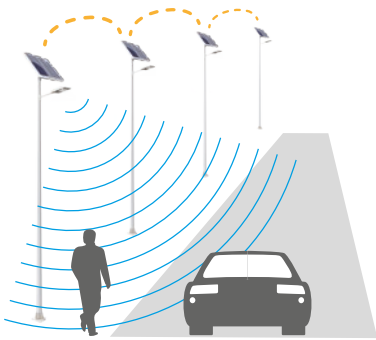
ANTI-BIRD SPIKES



Birds can interfere with your product. If they stand on the edge of the solar panels, they will shade part of the solar cells and minimize the electricity production. Birds alluvial deposits will also alterate solar production.

To prevent any loss in production or malfunction, we offer optional bird spikes for all of our UP range products.

SMART LIGHTING AND DETECTION

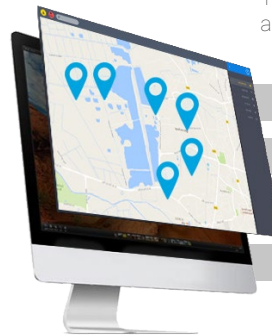


We offer an embedded motion sensor for several of our products. This motion sensor uses infrared technology to detect pedestrian or car. If something is detected, the lighting intensity will increase.

We have also developed a «smart lighting solution» which is a smart communicating add-on that will allow street lights to increase lighting level before it detects the moving object.

REMOTE MONITORING

This add-on is connected to the product and to the SunnaCloud platform.



PROJECTS DATABASE

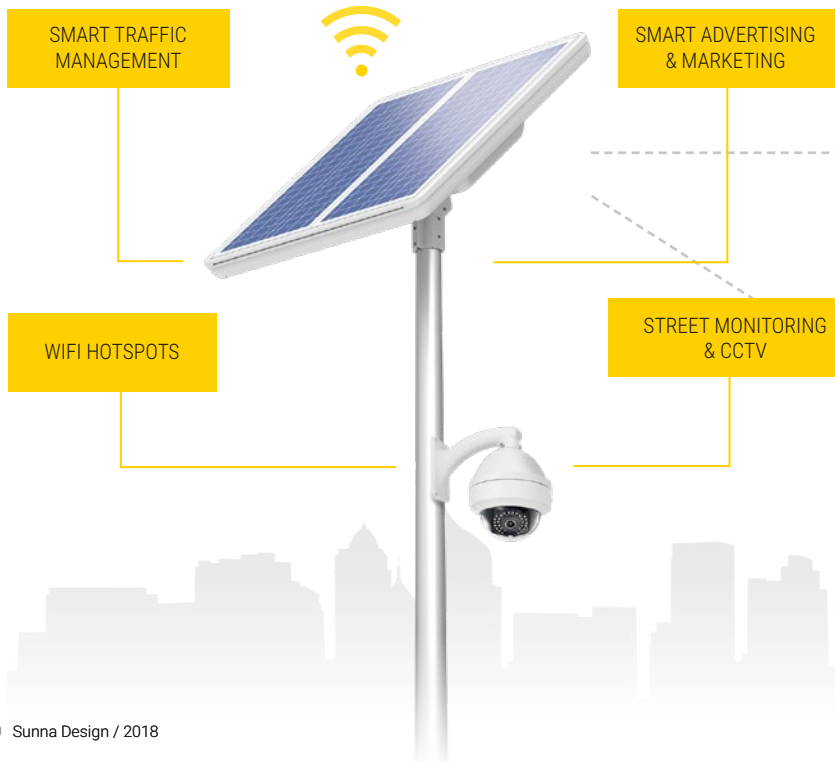
REMOTE MANAGEMENT

REMOTE MONITORING

TRACKING OF INCIDENTS

SMART CITY ADD-ONS

Our solar streetlights can power many smart city applications, Sunna Design offers the first public lighting solution which allows you not only to save money on electricity but can generate earnings too.



- 1 SOLAR STREETLIGHTS ISOLATED AREA
- 2 WIFI HOTSPOT SHOPPING AREAS
- 3 CCTV CAMERAS INDUSTRIAL AREAS
- 4 ADVERTISING PANELS CITY





OMAN / Parking Lots



FRANCE / Parking lot in shopping area



NIGERIA / Secondary road



NIGER / Main roads



CAMEROON / Gaz station

Brightening Life



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