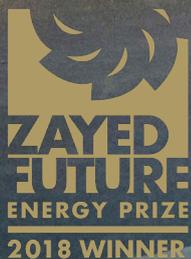


iSSL AUSTRALIAN  
RANGE 2019



SMART & CONNECTED  
SOLAR STREETLIGHTS

**GERARD**  
LIGHTING

**SYLVANIA**

## HIGH QUALITY SOLAR STREET LIGHTS, SMART AND RELIABLE.



Since 2011, Sunna Design has been committed to becoming a world leader in solar street lighting. Our innovations, research programs and the quality of our offer have resulted in the installation of over 12,000 solar streetlights globally since we commenced production in 2013.

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

The effective operation of solar streetlighting can differ depending on the location of the installation. It is for this reason that we have chosen high-quality Nickel metal hydride batteries to power our units. Unlike other battery technologies, these batteries are able to resist both high operating temperatures (over 70°C) and very low temperatures (below -40°C).

Our technological know-how has led us to build strong partnerships with worldwide companies.

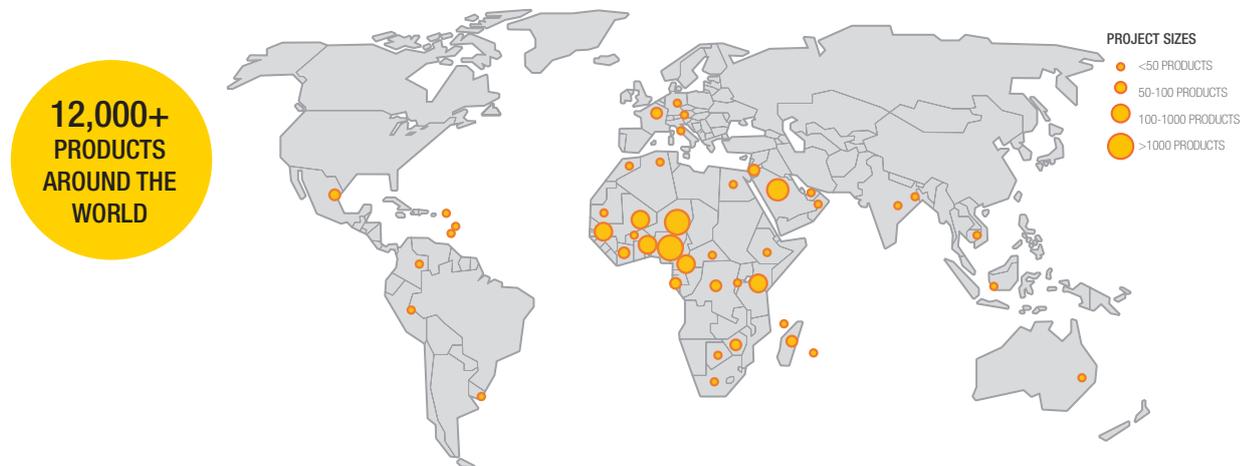
Our main difference? Innovation. We are constantly on the move, trying to improve our quality, our production processes, our sales methods, our products and our connected services. We know that offering high quality and reliable products is a necessity for achieving our goal: bringing light to those 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 over the 5 continents.



## RELIABILITY AND QUALITY

At Sunna Design we offer the most efficient technology on the market but we also have the most durable solar streetlighting technology. We know that lighting is a matter of security and 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 technological prowess to our production process led us to increase our volume capacity as well as our quality control.

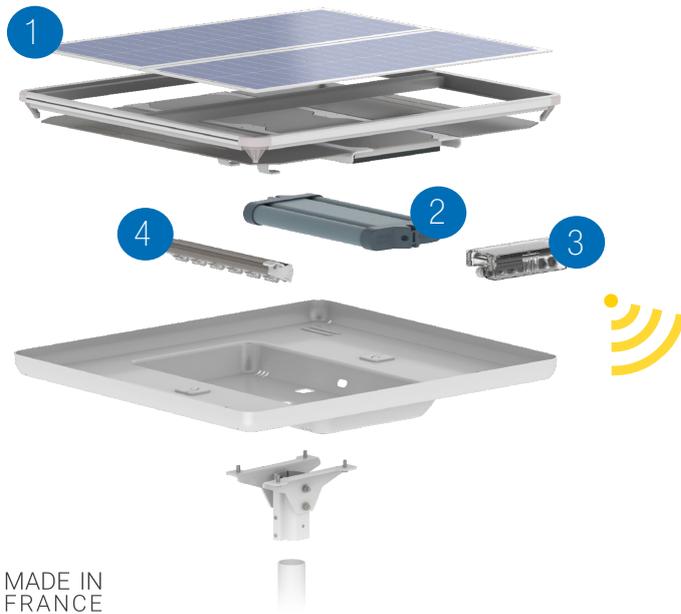
Thanks to the modularity of these assembly lines, their connectivity and their low energy consumption, we are able to transfer part of the assembly process to target countries. Being a leader of our industry means daily improvement of our products quality and traceability.



Watch our video to know more about our factory



## AN INNOVATIVE TECHNOLOGY



MADE IN FRANCE

**6**  
YEARS  
WARRANTY

SMART LIGHTING MANAGEMENT  
365 NIGHTS / YEAR



REMOTE MONITORING AND  
COMMUNICATION



PLUG AND PLAY



LONG LIFE  
DESIGN



- 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

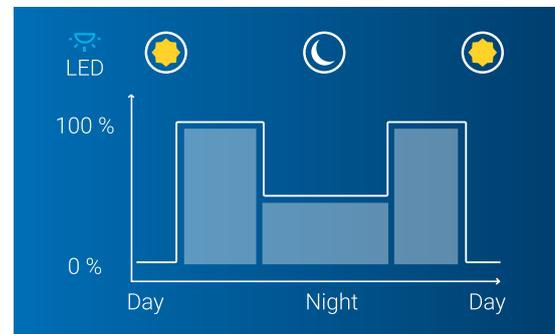
Our battery management system (BMS) has a patented algorithm to manage very finely energy and to preserve the battery during its 12 years life time. Our BMS includes Bluetooth connectivity.
- 4** HIGH POWER LED MODULE

Sunna LED modules are particularly powerful with a lumen/watt ratio of 164 lm/W.

- 5** A SMART LIGHTING PROFILE

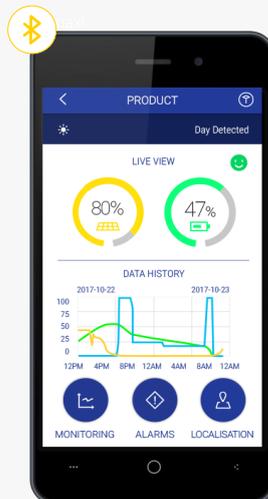
The Sunnacore powers the LED modules using a smart lighting profile to avoid blackouts during the night. Nights are divided into 3 phases during which lighting level will depend on charge level.

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 PROFILE MANAGEMENT
- DATA LOG AND PERFORMANCE MONITORING
- REGISTRATION AND MAPPING OF INSTALLED DEVICES



### SUNNA CLOUD: REMOTE MANAGEMENT

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



SUNNA DESIGN iSSL RANGE FOR AUSTRALIA



# iSSL RANGE FOR AUSTRALIA

## iSSL+

All in one solar light

**6**  
YEARS  
WARRANTY

IP65

IK07(PV)

IK08



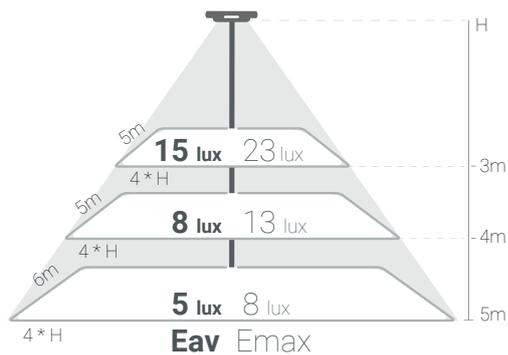
### APPLICATIONS



PATHWAYS,  
BICYCLE LANES,  
PARKING LOTS

### LIGHTING PERFORMANCES

Uniformity > 0,4

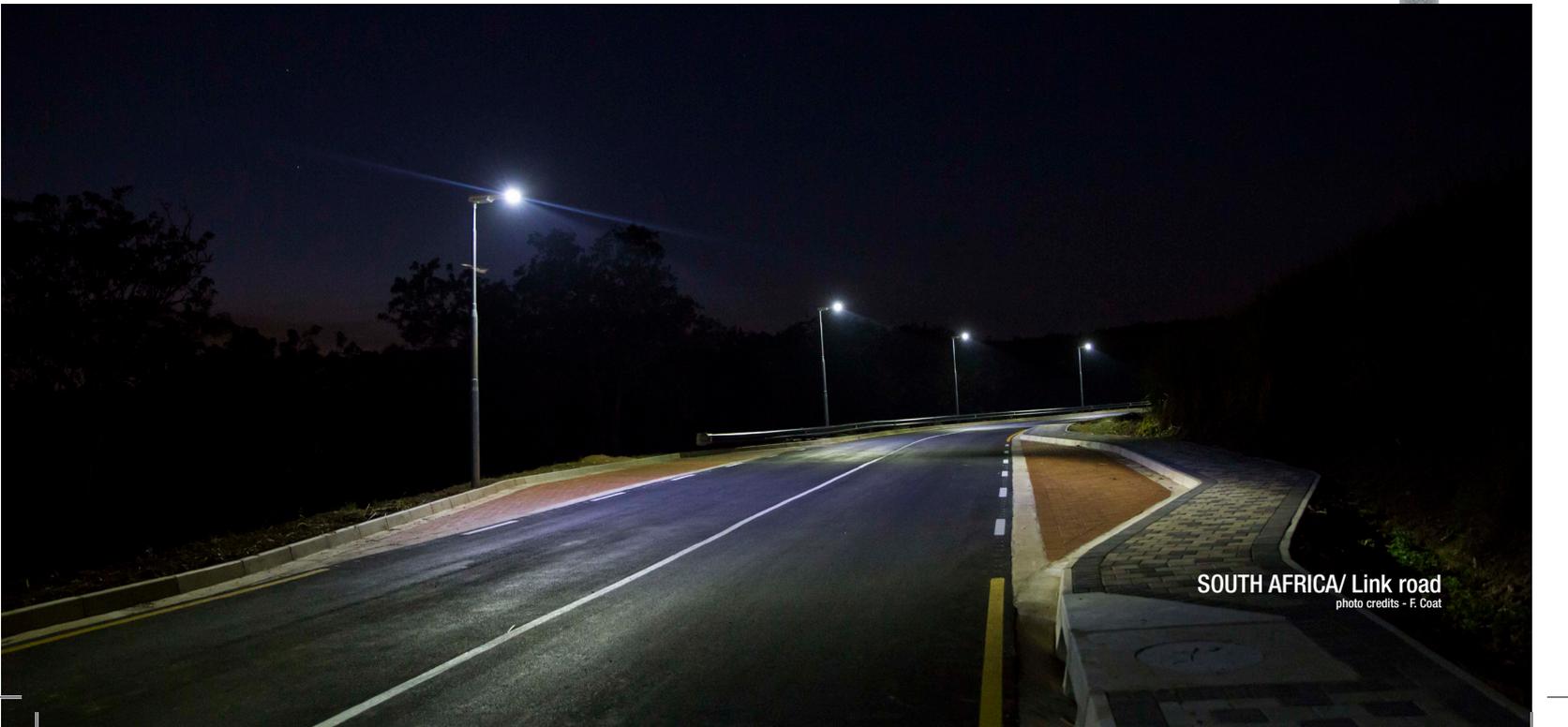


Luminous flux 1,600 to 2,800\* lumens

\* Available with motion sensor



SOUTH AFRICA/ Link road  
photo credits - F. Coat



## 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
BATTERY	Certificates	IEC 61215; IEC 61730 I and II
	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
ELECTRONICS	Certificates	EN 62133
	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
GENERAL	Certificates	CE; EN61000; EN61547; EN55015; EN62493; EN 62479 EN300328; EN 301489-1
	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 Ligting options	Smart Lighting and Detection Remote monitoring	

\* Available with motion sensor

## ORDERING CODES

Product Code	Description
SD41001XX000	iSSL+ - motion sensor

We offer a complete range of poles compliant to EN40 standard.  
Please contact your Gerard Lighting sales team member for more information.

# iSSLmaxi Area

All in one solar area light

**6**  
YEARS  
WARRANTY

IP65    IK07(PV)    IK08    CE

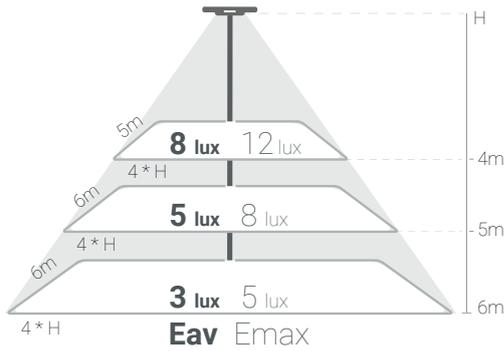
## APPLICATIONS



AREA LIGHTING,  
PARKING LOTS,  
SQUARES

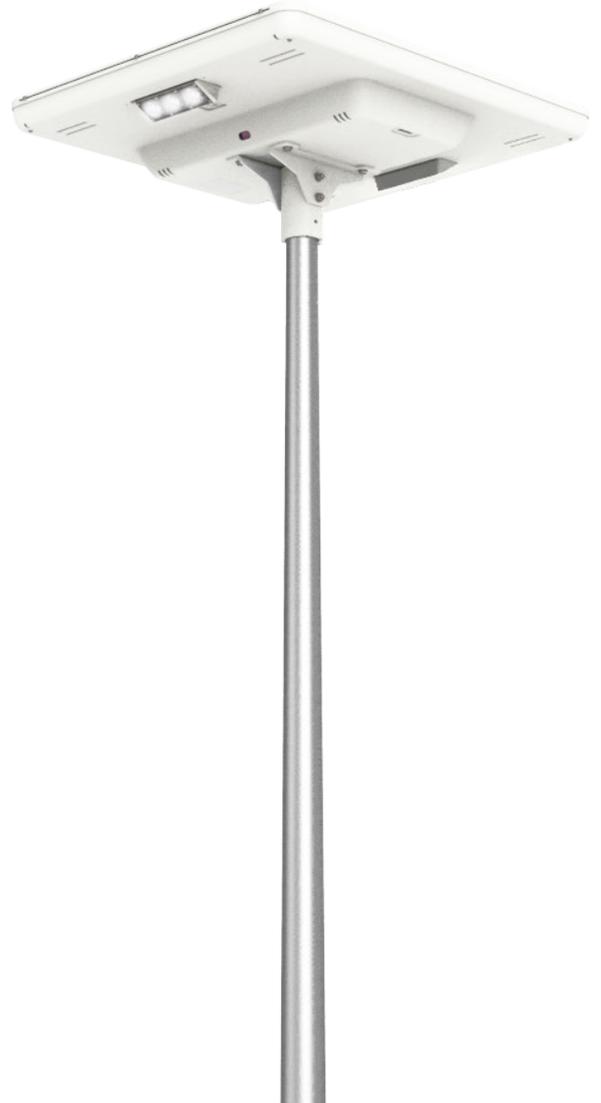
## LIGHTING PERFORMANCES

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 (2*40 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

## ORDERING CODES

Product Codes	Description
SD42201XX000	iSSLmaxi - Area
SD42601XX000	iSSLmaxi - Area – 80W

We offer a complete range of poles compliant to EN40 standard.  
Please contact your Gerard Lighting sales team member for more information.



## 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 (2*40 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 Ligting options	Smart Lighting and Detection Remote monitoring

\* Available with motion sensor

## ORDERING CODES

Product Codes	Description
SD42001XX000	iSSL maxi - ROAD + MOT SNSR

We offer a complete range of poles compliant to EN40 standard.  
Please contact your Gerard Lighting sales team member for more information.

# PROJECT & PHOTOMETRY

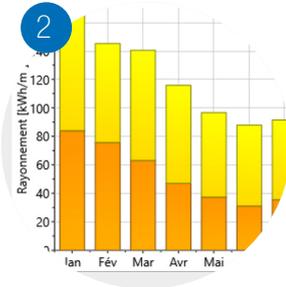
## LIGHTING DESIGN AND PROJECT MANAGEMENT

Gerard Lighting has an inhouse lighting design and technical team that will assist you to choose the right products for your project. Our approach is:



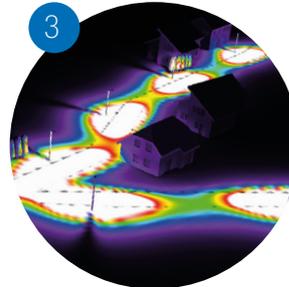
### LISTEN TO YOUR NEEDS

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



### RECOMMENDATIONS AND OFFERS

- Project layout
- Budget optimisation
- Remote or onsite project monitoring

## LIGHTING SIMULATIONS

CIE 140 / EN 13201 standard gives 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+ / 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

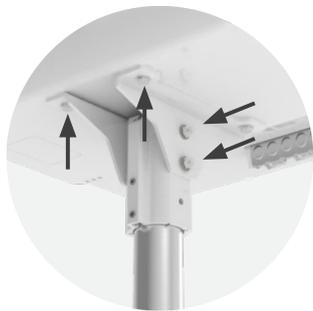
Height (m)	Spacing (m)	Surface (m2)	Eav (lux)	Emax (lux)	Emin (lux)	Uniformity / U0	Lighting class*			Type of way
							P	C	M	
4	16	16 x 5	15	24	8	0,5	P7 to P1	C5 to C3	M6 to M4	Local roads Parking Lots Industrial sites
5	20	20 x 6	10	15	5	0,5	P7 to P2	C5 to C4	M6 to M5	
6	24	24 x 6	7	11	4	0,6	P7 to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



## ANTI-THEFT SCREWS

To minimize vandalism, you can add to your order:



Screws with anti-theft pattern



Lock nuts

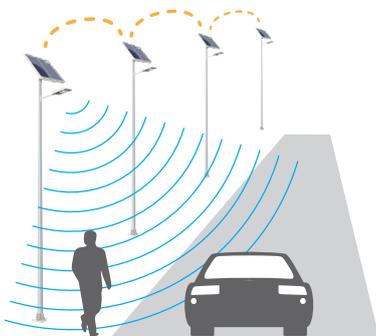
## ANTI-BIRD SPIKES



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 alter solar production.

To prevent any loss in production or malfunction, we offer optional bird spikes. Please check with your Gerard Lighting representative for specific information.

## 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 coming. If something is detected, the lighting intensity will increase.

We have also developed a smart lighting solution which is a 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









**GERARD**  
LIGHTING

NATIONAL SUPPORT OFFICE  
**1300 799 300**

[gerardlighting.com.au](http://gerardlighting.com.au)

Gerard Lighting is proud to be a distributor of Sunna Design solar streetlighting products in Australia.

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