

SLDPRO 60

60W SOLAR STREET LIGHT



TECHNICAL SPECIFICATIONS & COMPONENTS

The SLDPRO series combine premium components, quality construction methods and a unique design to offer superior, intelligent solar street lighting. The engineered balance of a LiFePO4 Battery, MPPT controller, grade A solar panel and premium Phillips LED's ensure a **powerful and reliable solar street light solution**.

LED POWER	60 WATTS
LUMINOUS FLUX	9 000 LUMENS
LIGHTING	
Efficiency	150 LUMENS / WATTS
Chips	PHILIPS LUXEON
LED Lifetime	OVER 50000 HOURS LM80
Lighting Angle	120 DEGREE
Light Height	FROM 6 TO 8 METERS
STORAGE	
Technology	LITHIUM IRON PHOSPHATE LIFEPO4 - 26650
Capacity	72 AH 12.8 VOLTS
Autonomy	OVER 24 HOURS AT FULL CHARGE - 4 RAINY DAYS BACK UP
Charging time	6-7 HOURS
Lifespan	OVER 4000 CYCLES @ 80% DOD OVER 10 YEARS LIFETIME
Working Temp.	-10°C TO >70 °C - (OPTIONAL -40°C TO >70 °C)
ENERGY	
Solar panel	195 WATTS /18V
Cells type	MONOCRYSTALLINE PANEL GRADE A
Certificates	IEC 61215 ; IEC 61730 I AND II ; IEC 60904
ELECTRONIC	
Controller	MPPT SMART CONTROLLER (REMOTE MONITORING OPTIONAL)
Sensor	MICROWAVE 360 DEGREE MOTION SENSOR C
Cabling	WATERPROOF CONNECTOR, PLUG AND PLAY
Protection	OVER LOAD/CURRENT/TEMP°/VOLTAGE/CHARGE/DISCHARGE
Certificates	EN 55015 ; EN 61000
MECHANICAL	
EPA (m2/ ft2)	0,660 / 7,1
Wind Load Rate	180KM/H
Pole Mounting Ø	89 MM
DIMENSIONS	
Unit size L x W x H	1560 x 725 x 150
Carton size	1610 x 770 x 195
Net weight	27,3 KG
Gross weight	30,7 KG
QTY per container	90 / 190 / 223
20" / 40" / 40"HQ	

Solar Lighting Designs (SLD) offers a 5 Year warranty for faulty workmanship or component failure not influenced by external means. This warranty covers all components when installed and operated according to SLD instructions. PV Panels - 20 year performance warranty Controller & Batteries : 5 years

BATTERY LITHIUM LIFEPO4

The SLDPRO Series is equipped with a premium Lithium Iron Phosphate (LiFePo4) battery. This equipment has proven to be the best energy storage technology for solar applications.

With a cycle life of over 4000 Cycles @ 80% DOD, the battery will exceed a **10 year lifetime**.

EASY MAINTENANCE & ANTI THEFT SCREWS



Simple and direct access to the battery casing for maintenance. **Tamper proof fixings** are available on request.

ELECTRONIC PROTECTION BATTERY MANAGEMENT SYSTEM (BMS)



An electronic algorithm protects the battery from operating outside its safe perimeters, constantly monitoring its state, calculating and reporting the data and/or controlling the battery environment to ensure balance and long life.

The BMS offers **MULTI PROTECTION** :

- OVER/UNDER LOAD
- OVER/UNDER CURRENT
- OVER/UNDER VOLTAGE
- OVER CHARGE & DISCHARGE
- TEMPERATURE MANAGEMENT

* EXTREME TEMPERATURE DOWN TO - 40 °C.



Standard Lithium LiFePo4 batteries have a working temperature range from -10°C TO >70 °C. SLD offers as optional a newly developed LiFePo4 battery with working range of -40 °C. to >70 °C for use in extreme conditions

5 YEARS WARRANTY



Warranty for faulty workmanship or component failure not influenced by external means

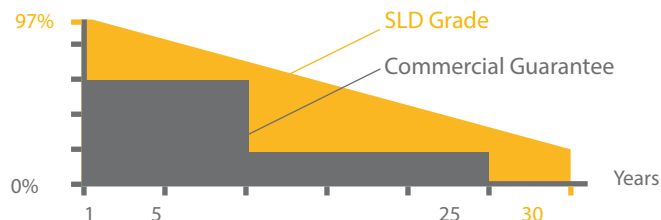
SOLAR PANEL 125 WATTS

Carefully selected Grade A high efficiency monocrystalline solar panels solar cells with up to 19.4% efficiency. 5 busbars cells for a better collected current capability. Corrosion resistant, modern design anodised aluminium alloy frame.

Waterproof Plug and Play connector.

OUR PV PERFORMANCE GUARANTEE

Guarantee module performance



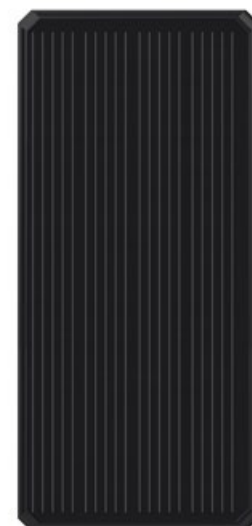
OVER
10
YEARS
LIFE SPAN



ALUMINUM WATERPROOF CASING & NATURAL AIRFLOW

Our batteries are contained in an aluminium waterproof casing for a **perfect heat dissipation**.

The unique mounting of the battery case provides natural airflow keeping the battery at ambient temperature.



GRADE **A**
Solar cells

LUMINAIRE HOUSING & LEDS

60 WATTS - 9000 LUMENS - 3000 TO 6500 K

High pressure die-cast low-copper aluminium housing. Protection class (IP66). Solar Lighting Designs uses a high quality Polyester Powder Coating from AKZO NOBEL providing excellent dirt and humidity resistance as well as ultra violet resistance for color retention.

Our luminaire is equipped with PHILIPS LUXEON High efficiency Chips offering 150 lumens per watt efficacy.

The luminaire housing is designed to dissipate heat and is constructed with quality lens seals for optimal lighting and life span.

► LIGHT SOURCE	3030	LED QTY (PCS)	48	LENS (PCS)	4	CRI >	70
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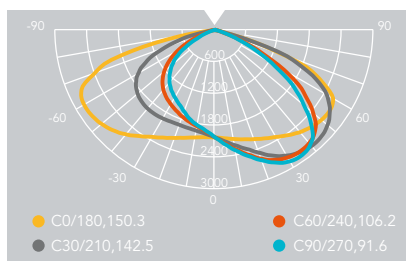


LED LIGHTING
PHILIPS LUXEON

THREE STANDARD OPTIC OPTIONS AVAILABLE ON REQUEST:

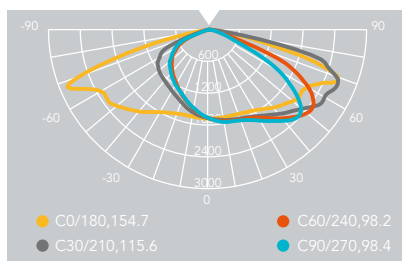
TYPE II-S

AVERAGE BEAM ANGLE (50%) : 102.5 DEG



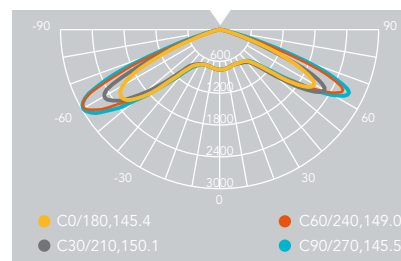
TYPE III-M

AVERAGE BEAM ANGLE (50%) : 116.7 DEG



TYPE V

AVERAGE BEAM ANGLE (50%) : 147.5 DEG



Type selected : ☐ 1 ☐ 2 ☐ 3

*Additional optics available

CONTROLLER SMART MPPT

The SLDPRO series is equipped with high quality MPPT Controller using a technologically advanced semiconductor.

FEATURES

HIGH TRANSFER EFFICIENCY
Charging efficiency up to 98%

MINIMAL STAND-BY POWER CONSUMPTION
Current consumption $\leq 10\text{mA}$

INTELLIGENT BATTERY MANAGEMENT 3 Phase charging :
MPPT Charge / Constant Voltage / Floating Voltage.

INTELLIGENT LED DRIVER auto detecting of dusk and dawn for automatic operation, allows for custom lighting programs.

ANTI BLACK OUT: Load adjust according to battery capacity assuring all night long lighting in any weather conditions.

BATTERY & SYSTEM PROTECTION :

- OVER / UNDER LOAD
- OVER / UNDER CURRENT
- OVER / UNDER VOLTAGE
- OVER CHARGE & DISCHARGE



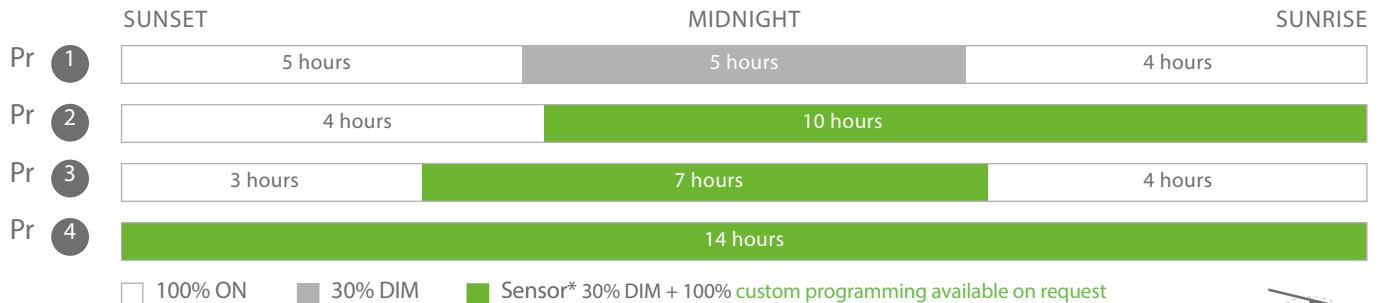
REMOTE CONTROL MONITORING

- Confirm the state of the battery
- Check charging history
- Modify operational modes
- Issue diagnostic report

OPERATIONAL MODES

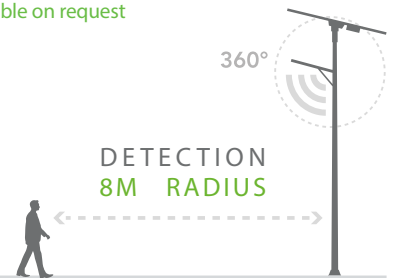
THE PHOTOSENSOR AUTOMATICALLY SWITCHES THE FITTING ON AT DUSK AND OFF AT DAWN.

Solar lighting designs provides 4 standard pre-programmed lighting profiles as detailed below.



MICROWAVE MOTION SENSOR*





360° coverage, invisible and integrated to the luminaire housing.
8 meters radius.



+ OPTIONAL

REMOTE MONITORING SLD BRIDGE

As part of our continuous effort for to offer the most innovative products the SLD team are proud to have developed a system for wireless remote monitoring and control of our solar streetlights. SLD Bridge uses low frequency LORA or ZIGBEE technology to monitor and control, in real time, individual or groups of solar streetlights.

-  2G/3G/4G Internet
-  SECURE connection
-  Long range communication 3 km FROM DTU
-  Low consumption < 1W



Communication technology

GLOBAL MANAGEMENT

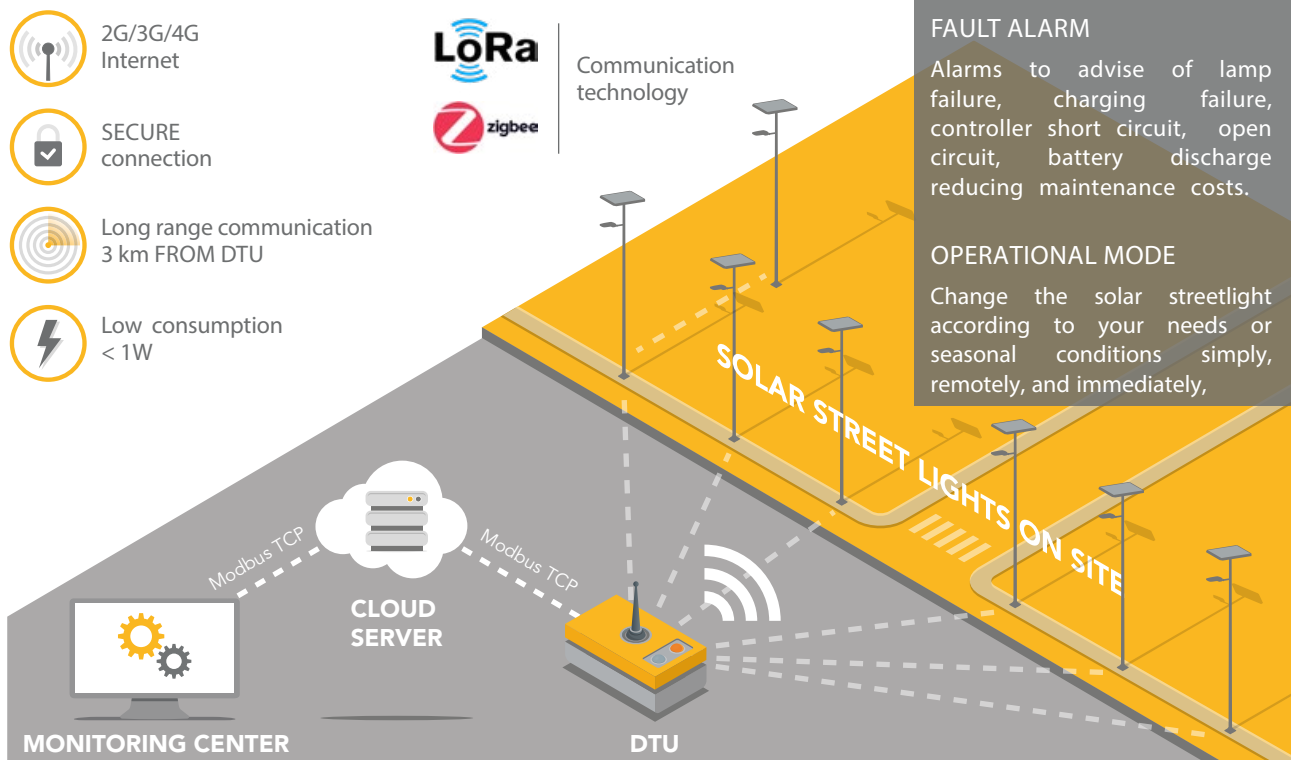
Run diagnosis and control remotely from a monitoring centre providing real time data on all connected solar streetlights from one screen.

FAULT ALARM

Alarms to advise of lamp failure, charging failure, controller short circuit, open circuit, battery discharge reducing maintenance costs.

OPERATIONAL MODE

Change the solar streetlight according to your needs or seasonal conditions simply, remotely, and immediately,



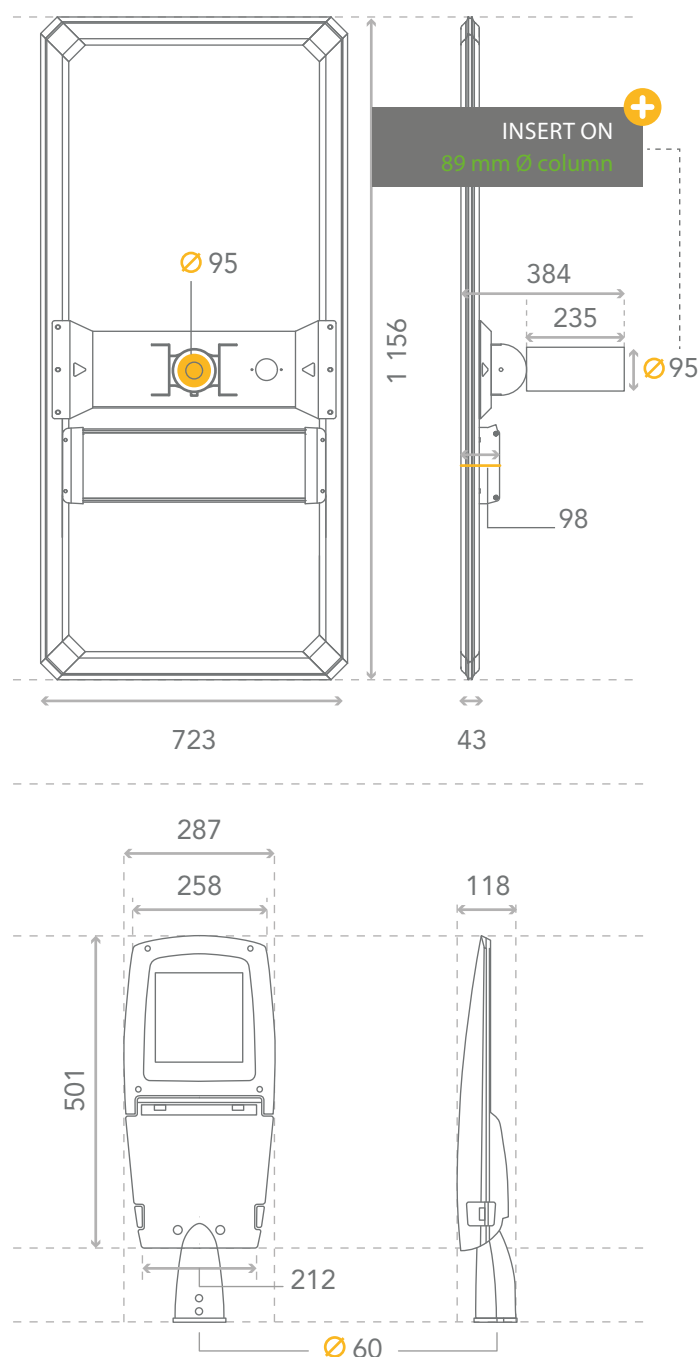
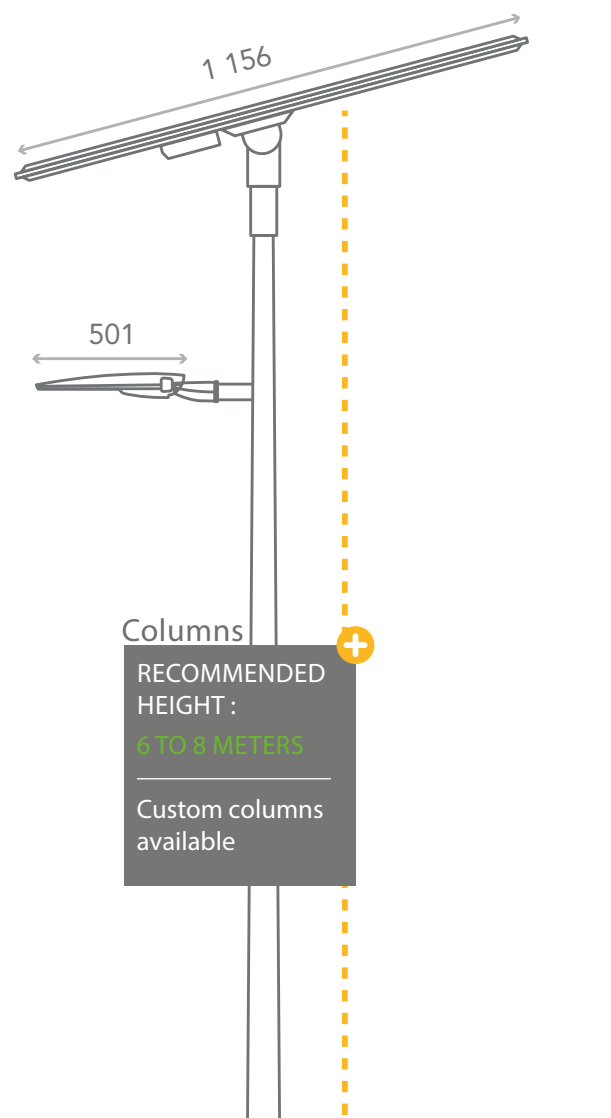
EASY INSTALLATION ORIENTATE & SELECT THE SOLAR PANEL ANGLE

The SLDPRO series is supplied with a **well-designed and manufactured adjustable support bracket** that is easily installed to the lighting column.

The bracket allows for 360° rotation of the panel and an arc through 60° for optimal azimuth selection in your geographical location ensuring maximum photovoltaic conversion.



SOLAR PANEL & LUMINAIRE DIMENSIONS



*All dimensions are in millimeters.