



**Polaris MODEL**

**ALL IN ONE**

## **SOLAR STREET LIGHT**



High Efficiency Mono  
Solar Panel



High Efficacy Lighting



Adjustable Mounting  
Angle

**RMS**

Smart Lighting Control  
Through Remote Monitoring



# ALL IN ONE

**Polaris MODEL**



**ELECSSL** is India's No 1 Solar Lighting company and pioneer in integrated type All in One Solar Street Light, started in 2010, ELECSSL has etched its name in solar industry as one of the most promising company in India.

## Product Description

All in One Solar street light is a new age and compact lighting solution integrating Solar panels, LED light, Lithium based battery and a PIR motion sensor. This light incorporates proprietary Elecssl LED driver technology which combines world class battery charging technology with high efficiency microprocessor based electronics. All in One Solar street light uses a PIR motion sensor to adjust the LED light brightness intelligently. On detecting any movement around the light, the LED glows at full brightness. If no movement is detected for more than 1 minute, the brightness is reduced to one-third. This intelligent brightness control coupled with maintenance free Lithium based battery technology provides longer backup time and better battery life. Due to its compact size, this light can be easily mounted on pole top by anyone. The light has automatic dusk to dawn operation and needs negligible maintenance once installed. The All in One Solar street light uses high quality material and is designed for Indian environments.

## Core Features



### MONO CRYSTALLINE SOLAR PANEL

High efficiency mono solar panel certified by MNRE.



### BEST QUALITY LED WITH LENSES

Superior Quality LED lenses BAT WING for maximum area coverage. Luminous efficacy upto 150 lm/w.



### UNIQUE CONTROLLER BOX

Modular design, convenient to maintain and change. Easy to service without opening the complete street light.



### ULTRA LONG LIFE LiFePO4 BATTERY

The eco-friendly LiFePO4 battery improves the charge and discharge cycle over 2000 times and has a life span of upto 5



### STRONG QUALITY ALUMINIUM FRAME STRUCTURE

Excellent heat dissipation, light weight and high strength. End caps makes the product aesthetically safe and better.



### MOVABLE LED FIXTURE

Adjustable LED Fixture help the customer to set the direction of the street light according to the location of the sun and the angle of lighting application.



### PIR MOTION SENSOR

Inbuilt PIR motion sensor for automatic dimming and brightness of light.



### REMOTE MONITORING SYSTEM

RMS based health monitoring system ensures centralized supervision of operation mode, failure warnings and support the total maintenance.



### ADJUSTABLE MOUNTING BRACKET

Adjustable mounting bracket which helps to change the direction of Solar Panel as per the site condition.



### BLUETOOTH REMOTE CONTROL

Bluetooth Remote Control which enables to manage ON/OFF, dimming and health check of system.

## TECHNICAL SPECIFICATIONS

ALL IN ONE

Solar Street Light

Polaris MODEL



9-15W AIO



18W AIO

	9W LED	12W LED	15W LED	18W LED	20W LED
<b>PHYSICAL PARAMETERS</b>					
Power of PV module (W)	40Wp	40Wp	40Wp	50Wp	60Wp
Lithium Battery Capacity (1 Day )	Li-ion 11.1V/11AH Li-FePO4 12.8V/10AH	Li-ion 11.1V/13AH Li-FePO4 12.8V/12AH	Li-ion 11.1V/15AH Li-FePO4 12.8V/15AH	Li-ion 11.1V/19.8AH Li-FePO4 12.8V/18AH	Li-ion 11.1V/24.2AH Li-FePO4 12.8V/20AH
Lithium Battery Capacity ( 2Days )	Li-ion 11.1V/15.4AH Li-FePO4 12.8V/12AH	Li-ion 11.1V/19.8AH Li-FePO4 12.8V/18AH	Li-ion 11.1V/23.4AH Li-FePO4 12.8V/20AH	Li-ion 11.1V/28.6AH Li-FePO4 12.8V/24AH	Li-ion 11.1V/33AH Li-FePO4 12.8V/30AH
PIR Sensor	Provided	Provided	Provided	Provided	Provided
Dimensions of Product (mm)	775(L) x 340(W) x 55 (H)	775(L) x 340(W) x 55 (H)	775(L) x 340(W) x 55 (H)	920 (L) x 340 (W) x 55 (H)	1060 (L) x 340 (W) x 55 (H)
<b>DRIVER PARAMETERS</b>					
Charge Controller Type	PWM/MPPT	PWM/MPPT	PWM/MPPT	PWM/MPPT	PWM/MPPT
LED Driver Efficiency	>90%	>90%	>90%	>90%	>90%
LED Light Operating voltage range	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V
<b>LIGHT PARAMETERS</b>					
Light Output (W)	9	12	15	18	20
Color Temperature	5500K-6500K	5500K-6500K	5500K-6500K	5500K-6500K	5500K-6500K
Typical Luminous Flux (Lm), Model -A	900	1200	1500	1800	2000
Typical Luminous Flux (Lm), Model -B	1080	1440	1800	2160	2400
Typical Luminous Flux (Lm), Model -C	1350	1800	2250	2700	3000
<b>PACKING PARAMETERS</b>					
Dimension of Packing Box	980(L) X 400(W) X 150(H)	(L) X 400(W) X 150(H)	980(L) X 400(W) X 150(H)	1125(L) X 400(W) X 150(H)	1265(L) X 400(W) X 150(H)
Gross Weight of Product (Kg)	12.6kg	13.4kg	14.5kg	16.8kg	20.8kg
Net Weight of Products (Kg)	9kg	10kg	12kg	13.5kg	15kg
<b>MOUNTING RECOMMENDATIONS</b>					
Top of Pole or Tendon OD (mm)	70mm-76mm	70mm-76mm	70mm-76mm	70mm-76mm	70mm-76mm
Recommended Installation Height (M)	5M	5M	5M	5M-6M	5M-6M
Recommended Installation Distance(M)	10m-15m	10m-15m	10m-15m	15m-20m	15m-20m
<b>PROTECTION PROVIDED</b>					
All In One Operation					
<b>OPERATIONS</b>					
All In One Operation					

- \* Always install AIO light with Solar Panel facing south direction.
- \* Battery should be charged-discharged once in every 15 days.
- \* Clean the Solar Panel frequently



25W LED	30W LED	40W LED	50W LED	60W LED	80W LED
75Wp	75Wp	100Wp	120Wp	150Wp	150Wp
Li-ion 11.1V/26AH Li-FePO4 12.8V/24AH	Li-ion 11.1V/26AH Li-FePO4 12.8V/30AH	Li-ion 11.1V/44.2AH Li-FePO4 12.8V/36AH	Li-ion 11.1V/52AH Li-FePO4 12.8V/48AH	Li-ion 11.1V/63.8AH Li-FePO4 12.8V/54AH	Li-ion 11.1V/63.8AH Li-FePO4 12.8V/54AH
Li-ion 11.1V/39AH Li-FePO4 12.8V/36AH	Li-ion 11.1V/48.5AH Li-FePO4 12.8V/42AH	Li-ion 11.1V/63.8AH Li-FePO4 12.8V/54AH	Li-ion 11.1V/63.8AH Li-FePO4 12.8V/54AH	Li-ion 11.1V/85.8AH Li-FePO4 12.8V/72AH	Li-ion 11.1V/96.2AH Li-FePO4 12.8V/81AH
Provided	Provided	Provided	Provided	Provided	Provided
1280 (L) x 340 (W) x 55 (H)	1280 (L) x 340 (W) x 55 (H)	1350 (L) x 560 (W) x 43 (H)	1350 (L) x 560 (W) x 43 (H)	1710 (L) x 560 (W) x 43 (H)	1710 (L) x 560 (W) x 43 (H)
PWM/MPPT	PWM/MPPT	PWM/MPPT	PWM/MPPT	PWM/MPPT	PWM/MPPT
>90%	>90%	>90%	>90%	>90%	>90%
Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V	Li-ion 9.6V-12.6V Li-Fepo4 11.1V-14.4V
25	30	40	50	60	80
5500K-6500K	5500K-6500K	5500K-6500K	5500K-6500K	5500K-6500K	5500K-6500K
2500	3000	4000	5000	6000	8000
3000	3600	4800	6000	7200	9600
3750	4500	6000	7500	9000	12000
1485(L) X 400(W) X 150(H)	1485(L) X 400(W) X 150(H)	1545(L) X 650(W) X 150(H)	1545(L) X 650(W) X 150(H)	1905(L) X 650(W) X 150(H)	1940(L) X 620(W) X 150(H)
23kg	25kg	28kg	30kg	34.3kg	40.1kg
19kg	22kg	25kg	27.5kg	32kg	37.5kg
70mm-76mm	70mm-76mm	70mm-76mm	70mm-76mm	70mm-76mm	70mm-76mm
6M	6M	6M-8M	6M-8M	6M-8M	6M-8M
20m-30m	20m-30m	30m-40m	30m-40m	30m-40m	30m-40m

## HYBRID ALL IN ONE SOLAR LED STREET LIGHT

This smart light comes with the features of Solar street light and hybrid charging. It is feeded by SPV and AC mains (230v). All in One Solar Street Light with provision of AC Mains 230V.

- Smart light having feature of Solar and AC street light.
- Reduced backup problem.
- Complete integrated light.
- This smart light comes with all the features of Solar street light & AC street light.
- It is feeded by SPV & AC mains(230V). It takes the solar power at priority and charges the battery. In case the battery is in low condition, then the light is automatically switched to AC mains (230V).
- It helps to glow the light during rainy / winter season.

### Core Features

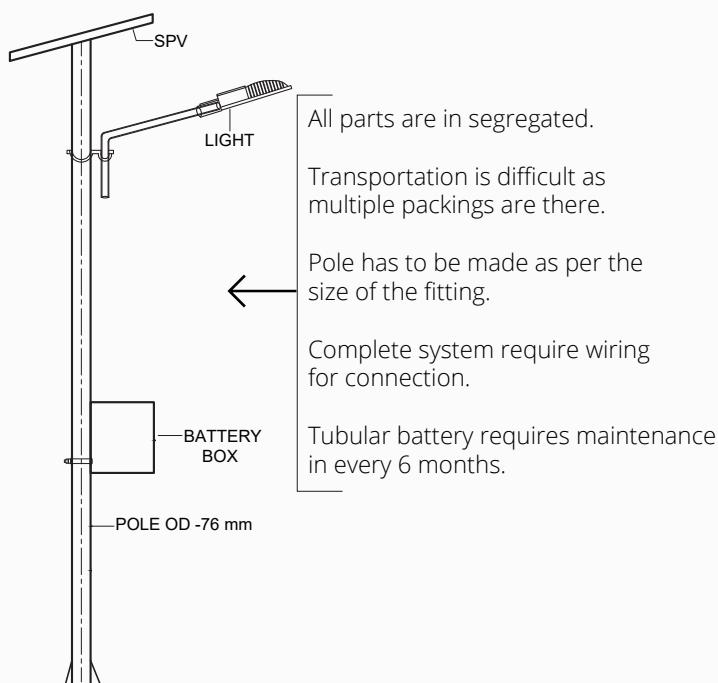
- Backup hours are increased during cloudy days. It supports the load during in case of low battery.
- It automatically detects the hybrid mode, when the battery reaches the cut-off.
- Solar and hybrid have access of electronic driver for easy maintenance.

Led Wattage	9W Led - 60W Led
Solar Panel	40W SPV - 150W SPV
Battery	12.8v/10 Ah - 12.8v/54 Ah
Wire	3 Meter cable for Grid connectivity

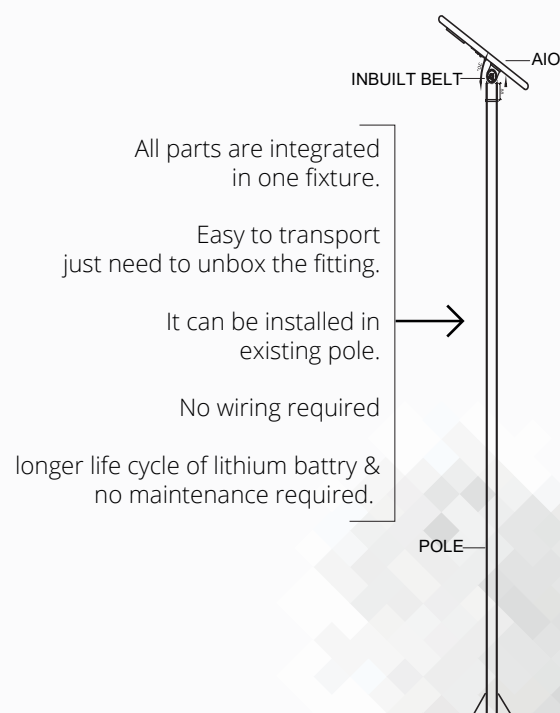


## Difference between Standalone and All in One Solar Street Light

### Standalone



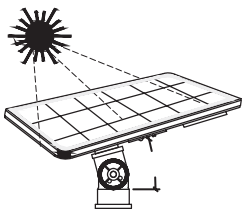
### All in One



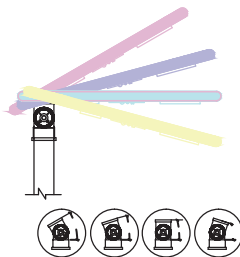


## APPLICATION

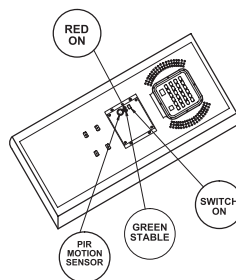
- > Factories
- > Hospital
- > Commercial Building
- > Colleges
- > Residential
- > Farm House
- > High Rise Apartment
- > Rural Lighting



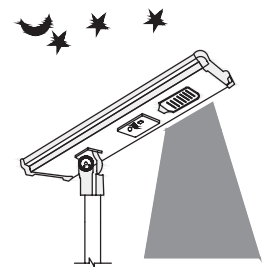
Adjust solar panel facing to sun (south) to charge the battery



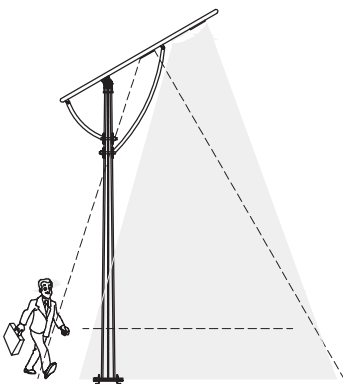
Adjust the mounting clamp according to the site



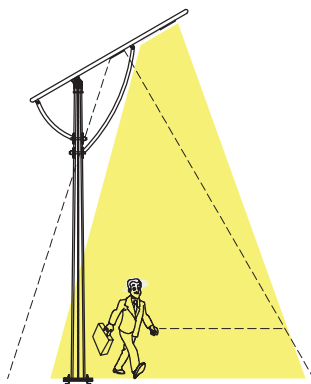
After installation switch on the product



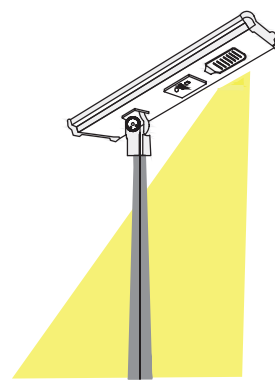
Solar panel senses the darkness and it turns ON the light automatically



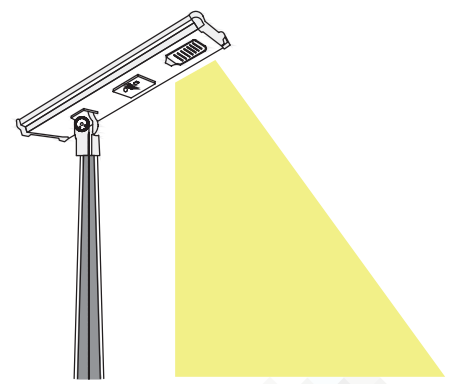
Working of motion sensor (0% to 30% Power)



Working of motion sensor (100% Power)

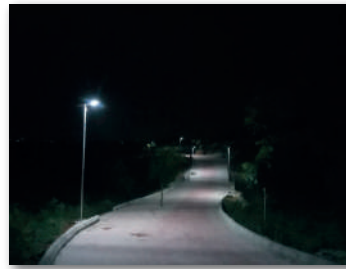
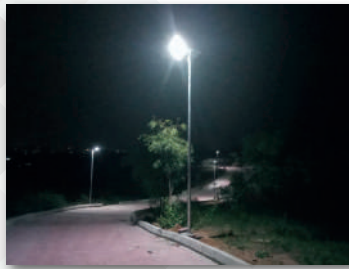


Installation both end of the road is possible with led module



PIR sensor, switch, LED indication & electronics are built in one box for easy use

## INSTALLATION IMAGES



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**Customer care**

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