Enviro Energy Solutions Ltd

Your Gateway to the Sun

SOLAR STREET LIGHTS

EA1SL Series

...BECAUSE WITH ENVIROENERGY SOLUTIONS THE SUN SHINES FOR EVERYONE...

Version 010618

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EA1SL Series SOLAR STREET LIGHTS WITH BUILT-IN MINI WiFi CAMERA

ENVIROENERGY SOLUTIONS is proud to present its new 2019 All in One Solar Street Lights series that revolutionize the idea of All in One solar street lighting: the **EA1SL series**.

The **innovation of the EA1SL series Solar Street Lights** is that it integrates Very High Output LED Chips, up to 200Lm per watt with smaller but more efficient solar cells and a revolutionary Mini HD WiFi Camera. All the advantages and economy of a Solar LED Street Light in combination with a powerful integrated HD camera for traffic surveillance transmitted by WiFi directly to any computer screen or telephone.

This unique product from **ENVIROENERGY SOLUTIONS** offers the highest efficiency and adaptability. Easy, Quick and Simple to install a High efficiency LED street light and a High Definition WiFi street camera All in One Go, All in One product. No more trenches, cabling or bulky and heavy installation, reducing installation time, costs and maintenance.

With a capacity from **20w to 120w**, delivering up to 210lm/w, the new **EA1SL series** is the best solution for the street lighting project of any city and municipality, for every street or Highway.

A. EA1SL SERIES COMPONENTS AND TECHNICAL SPECIFICATIONS

1. General Characteristics

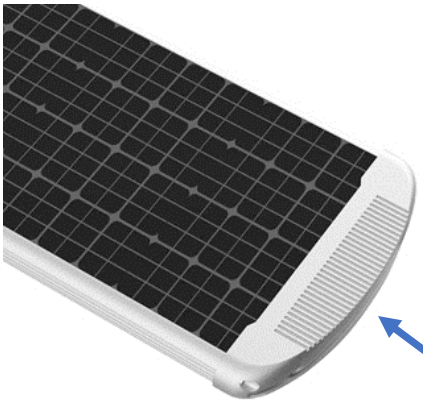
- Deep Cycle Li-ion Battery
- High efficiency Monocrystalline solar panel
- 3030 Bridgelux High efficiency LED chip - Life time ≥ 50.000 hours
- Up to 210Lm/w
- Beam Angle of 140x70 degrees
- Input Voltage: 18VDC
- Output Voltage: 24VDC
- Power Factor: 0.95
- Solar charging time of only 7-9 hours with good weather conditions
- Lighting time: up to 4-5 night depending on use
- Lighting mode: Adjustable: light Control + PIR motion sensor + Remote Control
- Sensor duration: 30sec. (adjustable)
- Working temperature: -25°C to +65°C
- Working humidity: 10% to 97%
- Storage temperature: 0°C to +6°C
- Waterproof class: IP65
- Material: Die Cast Aluminium

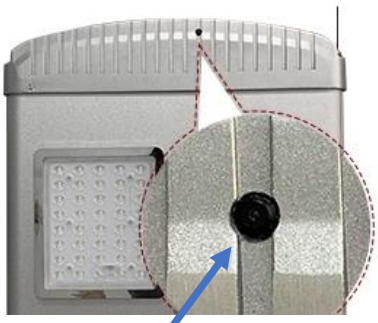
2. Technical Specifications

EA1SL Technical Specifications							
Model	**30w**	**40w**	**50w**	**60w**	**80w**	**100w**	**120w**
Li-Ion Battery	12.8V/27Ah	12.8V/28Ah	12.8V/36Ah	12.8V/42Ah	12.8V/57Ah	12.8V/63Ah	12.8V/72Ah
High Efficiency Mono Module	18V / 50W	18V / 65W	18V / 70W	18V / 80W	18V / 100W	18V / 130W	18V / 140W
Number of LED's	80	80	160	160	160	240	240

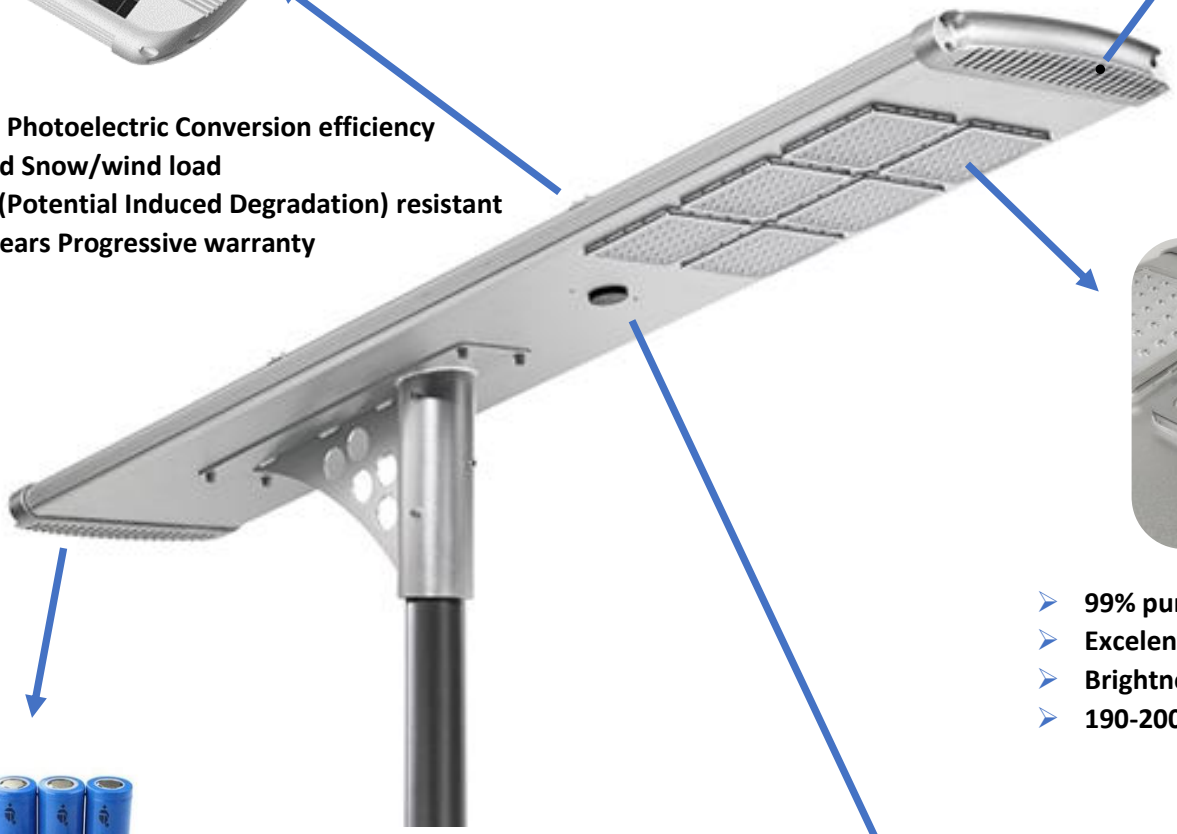
EA1SL Weight and Dimensions				
Model	**Picture**	**Installation Height (meters)**	**Lamp Size (mm)**	**Weight (kg)**
EA1SL 30		4 to 6	820 x 385 x180	Lamp: 12.5
EA1SL 40		4 to 7	960 x 385 x180	Lamp: 13.6
EA1SL 50		5 to 7	1190 x 385 x180	Lamp: 16.7
EA1SL 60		5 to 8	1190 x 385 x180	Lamp: 17
EA1SL 80		6 to 9	Lamp: 1630 x 385 x 55 Bracket: 585 x 125 x 320	Lamp: 20 Bracket: 2.9
EA1SL 100		7 to 10	Lamp: 1950 x 385 x 55 Bracket: 585 x 125 x 320	Lamp: 24.5 Bracket: 2.9
EA1SL 120		7 to 10	Lamp: 1950 x 385 x 55 Bracket: 585 x 125 x 320	Lamp: 25.5 Bracket: 2.9

B. EA1SL SERIES COMPONENTS





- HD Mini WiFi Camera (optional)
- High Resolution
- 90° view angle
- Easy operation with WiFi connection

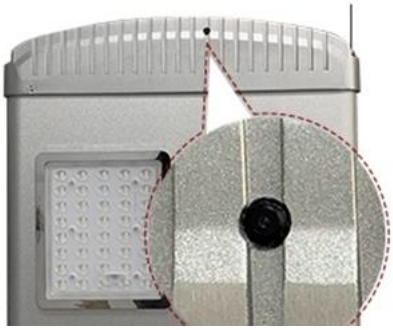


- 19% Photoelectric Conversion efficiency
- Good Snow/wind load
- PID (Potential Induced Degradation) resistant
- 25 years Progressive warranty

- 99% purity wire
- Excelent colour Consistency
- Brightness decay as low as 3%
- 190-200Lm

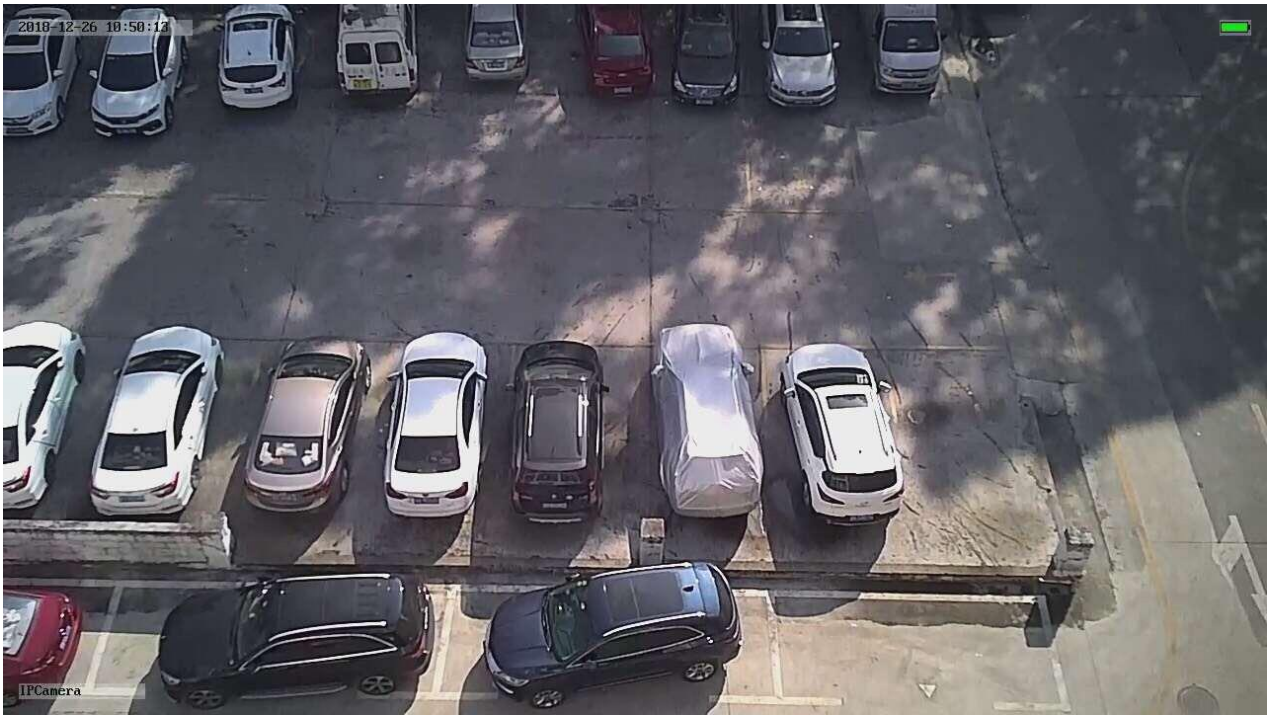
- Long Life > 2000 cycles, Deep Cycle
- No memory effect, highly efficient charge every time
- Good performance at high temperatures
- Low self-discharge rate ≤ 3% month

- PIR Sensor
- Good Snow/wind load
- PID resistant
- 25 years Progressive warranty



MINI WIFI CAMERA FEATURES:

- Hi resolution camera 1080p HDMI with 90 degree view angle
- Easy operation with WiFi connection
- Real time image from your computer or mobile phone



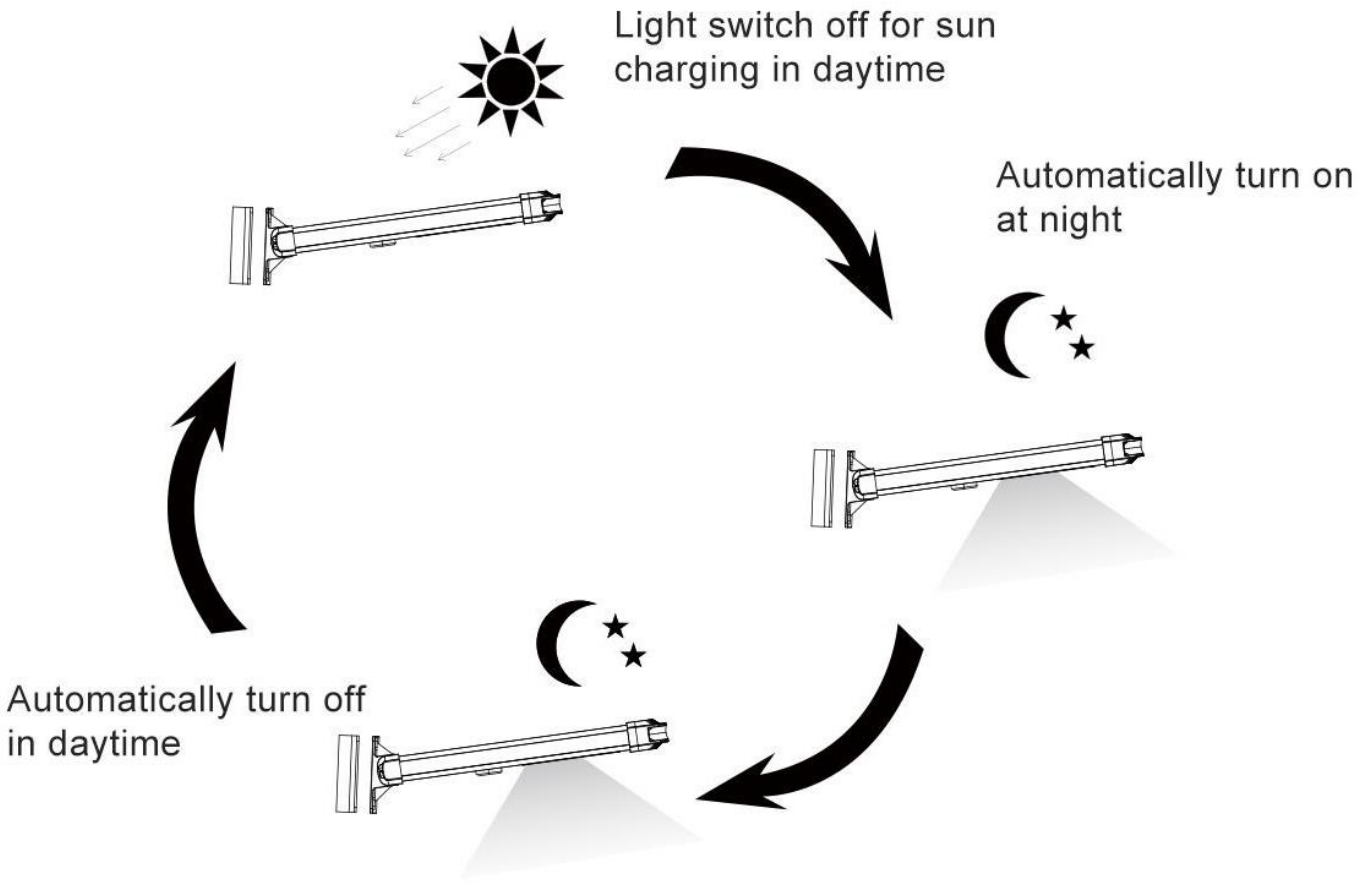
HD camera with 90 degree view angle

Real Time Image on Comupter or Mobile Phone

Remote Control Models (30W-120W)

Demo mode + 4 Different Working Modes, by light or Time, at 100% or with diming possibility for longer working hours, and/or PIR motion sensor control.

C. FUNCTIONING PRINCIPLE



D. COMPARISON BETWEEN DIFFERENT STREET LIGHTS

COMPARISON BETWEEN TRADITIONAL STREET LIGHTS AND SOLAR LED STREET LIGHTS		
	Traditional Street Lights	**Solar LED Street Lights**
Installation Time	Heavy and Time consuming	**Very Easy and Quick**
Installation Cost	Average installation cost range between $2.000 and $15.000 depending on the distance to power source	**No trenching, No cabling. Just one hole, one pole and the light is installed. Lower installation costs make the solar street light's initial investment same or lower than traditional lights**
Equipment Cost	On average $300 to $600 less initial investment	**Higher initial cost per lamp due to solar panel, and energy storage**
Running Costs	Average Electricity costs $80 to $120 per street light annually	**Free Natural Power**
Maintenance	Higher maintenance costs: • New lamp every 3000 to 5000 hours • Transmission lines power loss and maintenance costs/km/year: to $4 to $5	**Virtually maintenance Free. Light life expectancy rated 50.000 hours. No Transmission line power loss or maintenance costs**
Environmental	Average street light consumes 550kWh of fossil fuel energy per year which translates to 235kg of CO_2 emissions. Light glare, trespass and pollution.	**100% free green renewable energyfrom the Sun. Reduced glare, trespass and sky glow. No light pollution.**
Safety	Because the energy of the traditional lamp adopts AC current, during 10-year usage the armoured cables begin to age and can pose very serious safety problems	**The solar lamp adopts low voltage DC current with a max. of 24V. and can hardly pose any safety risk**
Security	Low colour rending and recognition	**Full spectrum light allows for better brightness and colour recognition**
Portability	In case of portable light towers, these rely on noisy generators that require service and attention	**Solar counterpart is quiet and maintenance free**

COMPARISON EA1SL SERIES vs OTHER ALL IN ONE SOLAR STREET LIGHTS		
	Other All-in-One Lights	**ESL1 Series**
Number of Pieces	1	**1**
Street Light Body	Multiple piece assembly	**Die Cast Aluminium Body**
Lighting and Sensor Angle	Generally, up to 120°	**140°**
Quick and easy Installation	Yes	**Yes**
Flexible Storage capacity	No	**Optional**
LED Chip	Cheap LED Chips	**Bridgelux**
Solar Panel	Poly/Mono	**High Efficiency Mono**
Lighting time after charging	Generally 2 days	**Up to 5 days**
Working Time at Full Power	6-8 hours	**Up to 12 hours**
Brightness	Usually up to 150 lm/w	**Up to 200 lm/w**
Anti-Glare Design	No	**Yes**
Built in WiFi Camera	No	**Yes**
Remote Control	No	**Yes**

Enviro Energy Solutions Ltd

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**We do not inherit the earth
from our fathers,
We borrow it
from our children..."**

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