BEACON

Solar Street Light 120W / 100W



The BEACON solar street light is a completely off-grid solution featuring a high-performance Lithium iron phosphate battery, a mono solar panel, and LEDs delivering 196 lumens per watt. With its 5-year warranty, this light ensures long-term reliability, efficiency, and quality, making it an ideal choice for sustainable outdoor lighting. Equipped with the premium components, the BEACON features a simplified and straightforward design. This refined simplicity makes it a more economical alternative without compromising on quality, effectiveness, or performance. It is perfect for projects where high quality needs to align with budget considerations, making it suitable for various applications.

NOMINAL FLUX	**23520 LUMENS or 19600 LUMENS**
NOMINAL POWER	**120 WATT or 100 WATT**

LIGHTING

Efficiency	**196 Lumens/Watt**
Chips LED	**PHILIPS Luxeon 30-30**
LED lifetime	**Over 80000 hours LM80**
Optics/CCT	**TII-S / T3-M/ T-V -- 2300 to 6500K**
Recommended Installation Height	**From 26 to 33 Feet**

BATTERY

Technology	**Lithium Iron Phosphate LIFEPO4**
Capacity	**1536 Wh or 1280 Wh**
Autonomy	**Over 24 hours at full charge - 4 Rainy Days back up**
Charging Time	**5-6 hours**
Lifespan	**Over 3000 CYCLES @ 80% DOD over 10 years Lifetime**
Working Temp	**14°F to 158°F - (Optional -40°F TO 158°F)**

ENERGY

Solar Panel	**250 Watt /18V**
Cells Type	**Monocrystaline Panel Grade A 25 years**
Certificates	**IEC 61215 - IEC 61730 I and II - IEC 60904**

ELECTRONIC

Controller	**MPPT SMART CONTROLLER (Beyond Solar BRIDGE Optional)**
Sensor	**Microwave 360° Motion Sensor**
Cabling	**Waterproof Connector, Plug and Play**
Protection	**Battery Management System (BMS)**

MECHANICAL

Pole Mounting	**3.50 - 3 Inches**
Material	**Aluminium and Stainless Steel**

DIMENSIONS

Product	**49.60 x 34.64 x 10.66 Inches**
Carton Size	**51.96 x 37.20 x 9.64 Inches**
Net Weight	**55.11 Lbs**
Gross Weight	**66.13 Lbs**
QTY /CTN 20"/40"	**81/162**

Model Number	**AVS-BEA-120W / AVS-BEA-100W**
SKU	**786154 / 786153**

Beyond Solar retains the right to modify or change product specifications without prior notice, as part of our ongoing commitment to improvement

5 Year Limited Warranty

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LUMINAIRE HOUSING

LEDs

23520LM or 19600LM - 2300 TO 6500 K

Extruded low-copper aluminum. Protection class (IP65). Beyond Solar uses a high quality Polyester Powder Coating from AKZO NOBEL. This powder coating provides an excellent salt and humidity resistance as well as ultra violet resistance for color retention for this product.
Our Luminaire is equipped with PHILIPS LUXEON HE PLUS High efficiency Chips offering and overall 196 Lumens per Watt efficacy.
Our luminaire also complies with the DARK SKY requirement for light pollution with an Upward lighting of 0.31%.

IP65



LED **3030**	LED QTY (PCS) **72**	LENS (PCS) **35**	CRI **> 80**

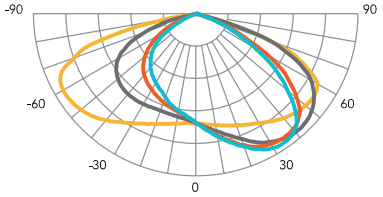
DIFFERENT OPTICS*



*Please contact us for more optics.

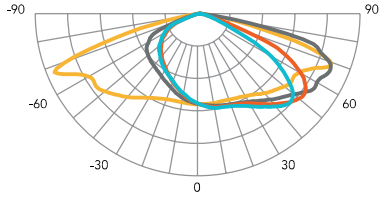
LIGHT DISTRIBUTION CURVES

TYPE-II
AVERAGE BEAM ANGLE (50%):**102.5 DEG**



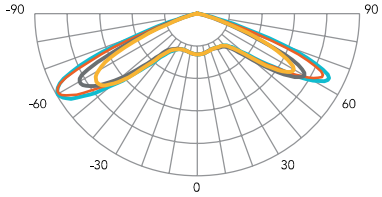
C0/180,150.3 C60/240,106.2
C30/210,142.5 C90/270,91.6

TYPE-III
AVERAGE BEAM ANGLE (50%):**116.7 DEG**



C0/180,154.7 C60/240,98.2
C30/210,115.6 C90/270,98.4

TYPE-V
AVERAGE BEAM ANGLE (50%):**147.5 DEG**



C0/180,145.4 C60/240,149.0
C30/210,150.1 C90/270,145.5

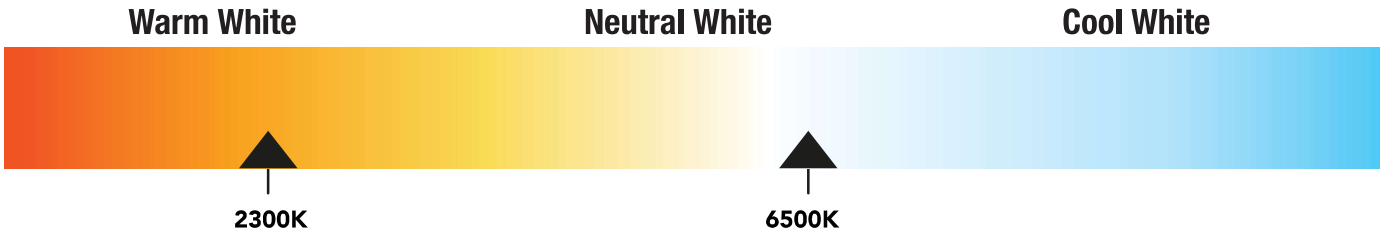
SELECTION Type-II ☐ TYPE-III ☐ TYPE-V ☐

5 Year Limited Warranty

BEYOND SOLAR™

BEACON
Solar Street Light 120W / 100W

CORRELATED COLOR **TEMPERATURE**



BATTERY **LIFEPO4**

+ OVER 10 YEARS LIFETIME

The BEACON Series is equiped with Iron Phosphate Lithium LiFePo4 battery. This technology is proved to be the best chemical technology for solar application on the market.

With a cycle life of over 3000 Cycles @ 80% DOD, the battery enjoys lifespan of over 10 years.

EXTREME TEMPERATURE
14F TO 158F (-40 OPTIONAL)

When Standard Lithium LiFePo4 batteries enjoy a working temperature range from 14F TO 158F. Beyond Solar offers as optional a new Special LIFEPO4 battery with working range of -40F. to 158F.

EASY MAINTENANCE & ANTI THEFT SCREWS

Easy and direct access to the battery casing for maintenance. The fixation are made with anti theft screws, which request special tooling to unscrew.



ALUMINUM WATERPROOF CASING & NATURAL AIRFLOW

High temperatures greatly negatively affect the battery's lifespan. This is why our batteries are encapsulated in an aluminum waterproof casing for a perfect heat dissipation.

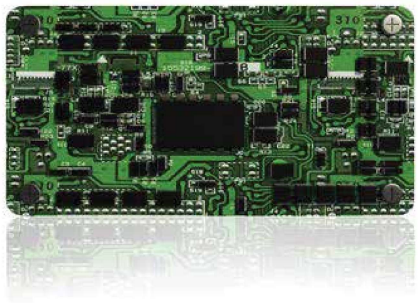
In addition to that, the casing enjoys a natural airflow which keeps the battery to ambient temperature.

BMS ELECTRONIC PROTECTION BATTERY MANAGEMENT SYSTEM

Our batteries are equipped with electronic circuit boards for a higher protection, ensuring battery functioning optimization no matter the situation.

THE BMS PROTECTS AGAINST

- OVER/UNDER POWER • OVERLOAD • OVER/UNDER VOLTAGE
- OVER/UNDER CHARGE • TEMPERATURE MANAGEMENT



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BEYOND™ SOLAR

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SOLAR **PANEL**

Solar cells **GRADE A**

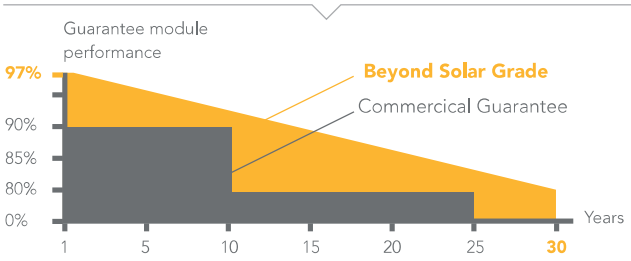


250 Watt

High efficiency mono-crystalline Solar panels. Carefully selected Grade A Solar cells. Up to 20.4% efficiency, all protected by self-cleaning tempered glass at 30 degrees of inclination.

Its anodized aluminium alloy frame gives it a modern and elegant design as well as perfect resistance to corrosion. They are also equipped with fully waterproof Plug and Play connectors.

OUR PV PERFORMANCE GUARANTEE



CONTROLLER **MPPT**



WATERPROOF CONNECTORS "PLUG & PLAY"

All our components are assembled

Seamless and easy to access

In a search for performance and reliability, our products are equipped with MPPT technology controller offering the best charging efficiency on the market up to 98%

REMOTE CONTROL MONITORING

In order to facilitate all maintenance operations and above all to diagnose any possible problem, without having to intervene mechanically on the luminaire, Beyond Solar luminaires are equipped with a wireless diagnostic system via remote control



With a simple click it is possible to have real-time information such as:

- Automatic diagnosis in case of malfunction
- State of charge and battery history
- Real Time load and solar panel energy production history
- Age of the product and installation
- Temperature and its history

FEATURES

- Minimal stand-by power consumption
- Current consumption ≤ 10mA
- Intelligent battery management

3 Phases charging:

- Charge MPPTT
- Constant voltage
- Floating voltage

- Intelligent LED driver Auto detecting of Dusk and Dawn for automatic operation, 7 Lighting Programs Configuration.

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

- The controller also acts against

  - OVERLOAD
  - OVERCURRENT
  - OVERTEMPERATURE
  - OVERVOLTAGE / OVERLOAD
  - OVERDISCHARGE

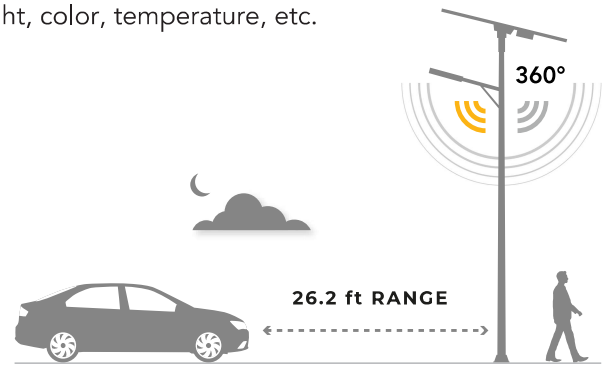
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MOTION SENSOR
MICROWAVE

Beyond Solar luminaires are equipped with micro-wave sensors that use the Doppler effect (like car radars) to detect a nearby objects and measure the distance. The sensor emits a high frequency wave to reflect off of and analyze the objects in the vicinity.

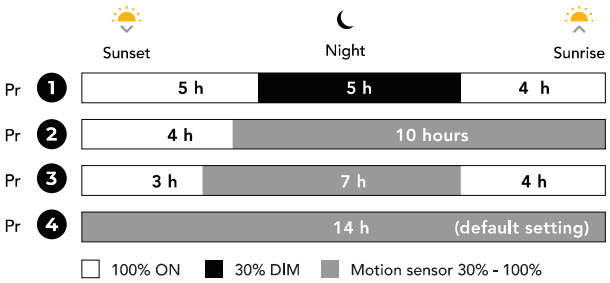
Since the microwaves only detect specific objects, detection reliability increases resulting in:

- Much better reliability compared to the Infrared sensor
- Up to 360° Directivity
- Insensitivity to other environmental variations such as light, color, temperature, etc.



OPERATION MODE & LIGHTING SCHEDULE

In addition to automatic switching on and off , you have the possibility of choosing among different modular operating modes according to the needs of the project



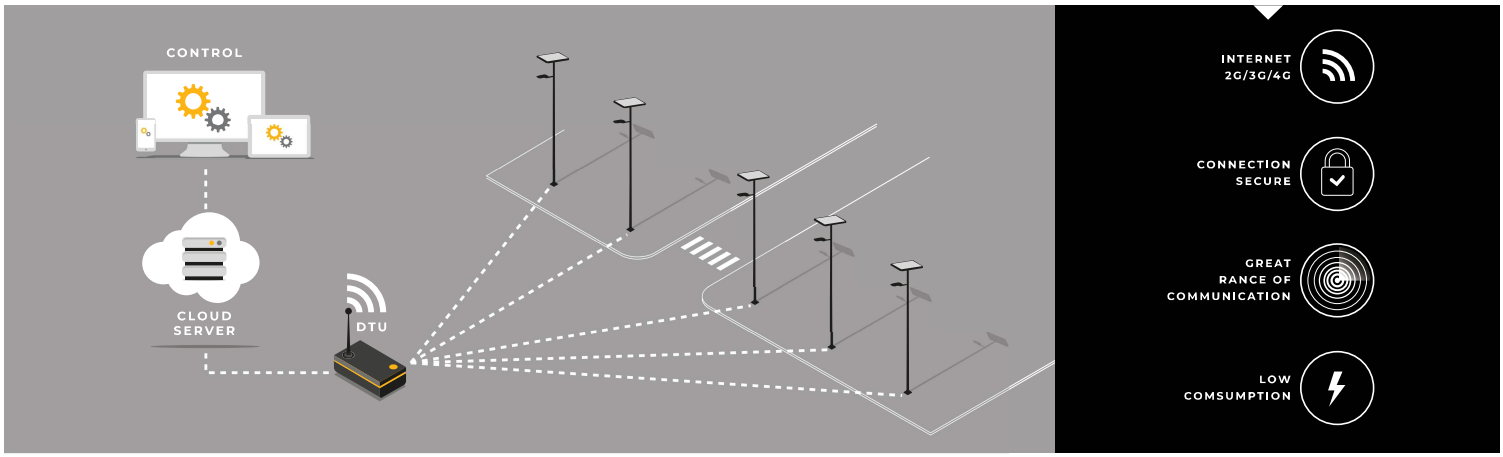
CONTACT US FOR MORE PROGRAM OPTIONS

Remote not included with purchase; provided only upon request for custom settings.

REMOTE MONITORING
SOLAR BRIDGE

As part of his continuous effort for development, the Beyond Solar team is proud to have developed a special tool for remote monitoring of our solar street light. Beyond Solar Bridge uses low frequency technology LORA or ZIGBEE to monitor in real time a batch of solar street lights.

YOU CAN NOW MANAGE YOUR SOLAR PARK REMOTELY



BEYOND SOLAR™

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EASY INSTALLATION

NO CABLING • NO TRENCHING

With a well designed bracket support SSLXPRO is effortless and flexible to install. Free 360° rotation of the panel to always face the Sun

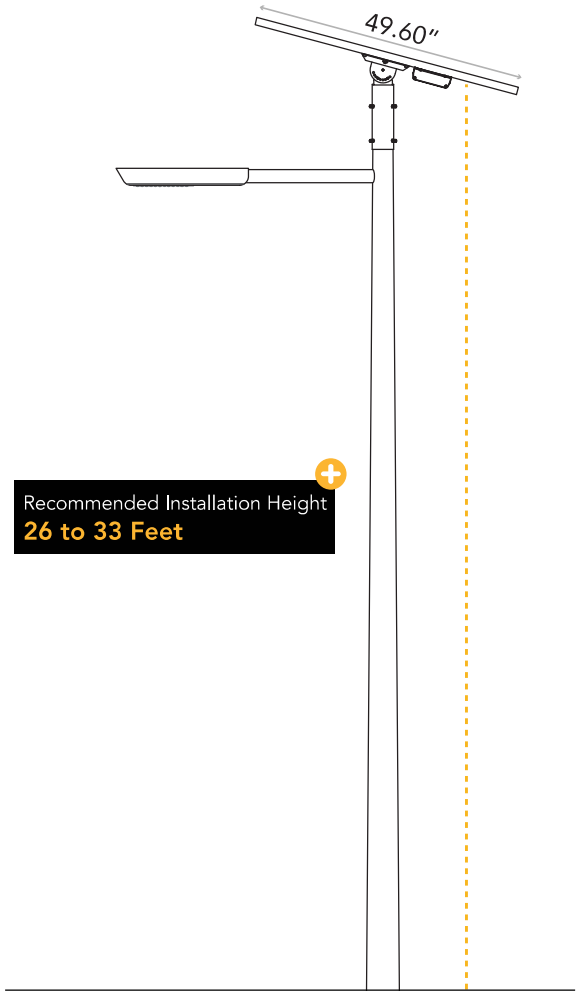
INSERT, ORIENTATE & CHOOSE YOUR TILT

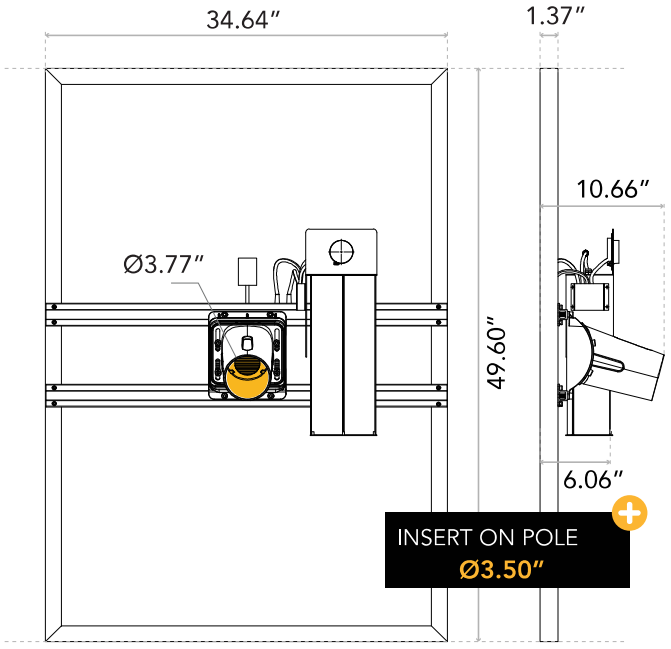


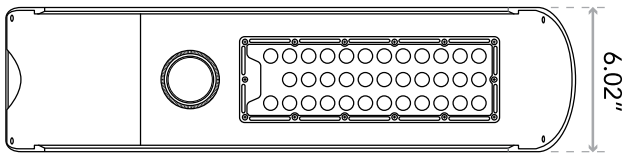
DIMENSIONS

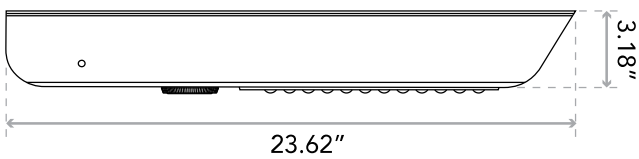
SOLAR PANEL & LED

All dimensions are in inches









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