

# AOS PRO 120

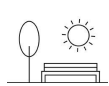
INTEGRATED SOLAR STREET LIGHT



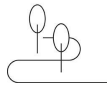
# AOS PRO 120

**Designed to last  
No matter the conditions**

AOS PRO is a fully integrated solar street luminaire designed for streets, parking areas, pathways, and other large outdoor spaces. Its solar panel, LED module, battery, controller, and motion sensor are combined within a single unit for simple installation and reliable operation. The series includes seven models: AOS PRO 20, 30, 40, 60, 80, 100, and 120, delivering outputs from 3,920 to 23,520 lumens. Its durable aluminum and steel construction is rated IP65 and IK08, while multiple CCT options allow the illumination to suit different environments. With efficient LED technology, intelligent controls, and no connection to the electrical grid required, AOS PRO provides a practical and sustainable area-lighting solution.



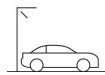
Park & Garden



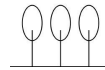
Hiking Trails



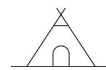
Places



Car Park & Rest



Pathways



Campsites



# AOS PRO 120

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_



**5  
YEARS**

\* Bullard Solar offers a 5 Year Limited Warranty for the AOSPRO-Series luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers all components when installed and operated according to Bullard Solar instructions. Fixture suitable for ambient temperature from -10° to 50°. PV Panels - 20 year performance warranty Controller & Batteries: 5 years

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



Due to the dynamic nature of lighting products and the associated technologies, luminaire data on all specification sheets is subject to change at the discretion of Gordon Bullard LLC and associated companies.

NOMINAL FLUX ..... 23 520 LUMENS  
NOMINAL POWER ..... 120 WATTS

## GENERAL INFORMATION:

AOSPRO is a fully integrated solar street light system with all the components together in one single unit. The AOSPRO series is extremely simple to install and operate, making it the ultimate solution for area lighting with motion sensors.

## LIGHTING:

Efficiency ..... 196 Lumens/Watts  
Chips LED ..... PHILIPS Luxeon 30-30 / 3000K to 6500K  
LED lifetime ..... Over 80 000 hours LM80  
Optics/CCT ..... TIII / 2300 to 6500K  
Light Height ..... From 6 To 8 Meters (236.22" - 314.96")

## BATTERY

Technology ..... Lithium Iron Phosphate LIFEPO4  
Capacity ..... 922Wh  
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) -10°C to 70°C (optional -40°C TO 70°C)

## ENERGY

Solar panel ..... 140 Watts /18V  
Cells type ..... Monocrystalline Panel Grade A 25 years  
Certificates ..... IEC 61215 - IEC 61730 I and II - IEC 60904

## ELECTRONIC

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

## MECHANICAL

Pole mounting ..... 89mm - 76mm (3.50" x 3.00")  
Material ..... Aluminium and Stainless Steel

## DIMENSIONS

Product ..... 140.6 cm x 56.3 cm x 38.4 cm (55.35" x 22.17" x 15.19")  
Carton size ..... 146 cm x 61 cm x 26 cm (57.48" x 24.02" x 10.24")  
Net Weight ..... 22.5 KG (49,60 lb)  
Gross Weight ..... 27.5 KG (60,53 lb)  
QTY /CTN 20"/40"..... 122/267

## CERTIFICATIONS

IEC / TUV / EMC / LM-79- 08 AND LM-80 TEST STANDARDS / IK8 / IP65 / CE / ULOR

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# AOS PRO 120

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

HOW TO ORDER:

CODE:

Example:  
CODE: BS-AOSPR120-SLX-BL-40K

BS-AOSPR120-  
SLX-BL-40K

## 1 DIMENSIONS:

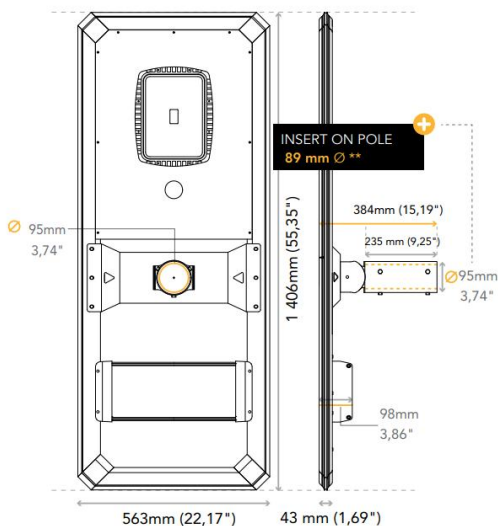
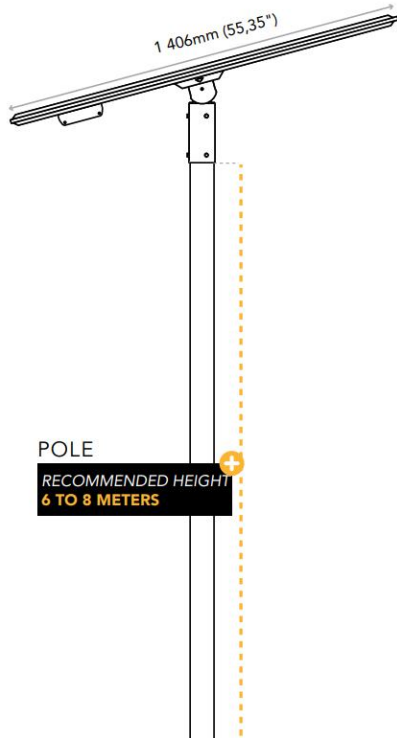
Length - L: 55.35" (140.6 cm)  
Height - H: 15.19" (38.4 cm)  
Width - W: 22.17" (56.3 cm)

## 2 FINISH OPTIONS:

-BL Black

## 3 CCT:

-23K 2300K  
-30K 3000K  
-40K 4000K  
-50K 5000K  
-65K 6500K



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# AOS PRO 120

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PROJECT NAME: \_\_\_\_\_

## LUMINAIRE HOUSING & LEDS

**120 WATTS - 23520 LUMENS - 2300 TO 6500 K**

IP65



**LUXEON**  
BY PHILIPS LUMILEDS

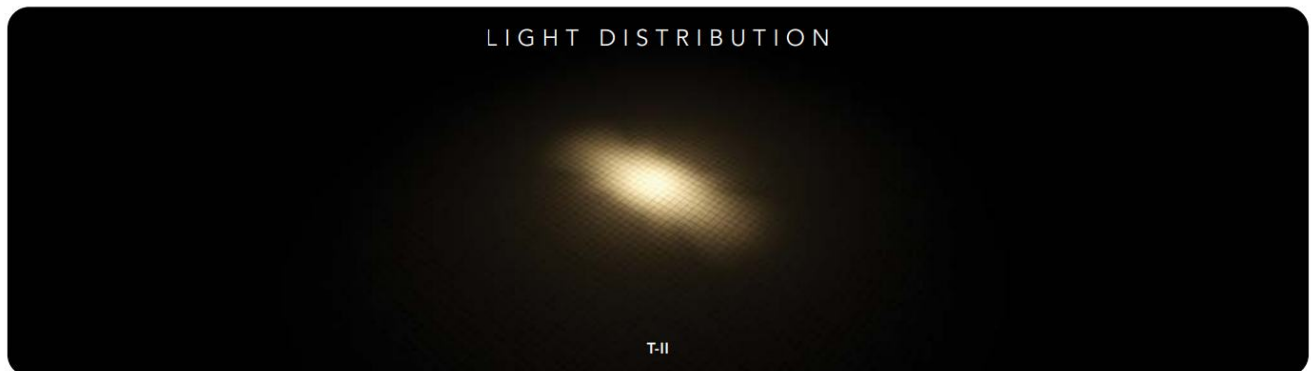
High pressure die-cast low-copper aluminum. Protection class (IP65). Bullard Solar uses a high quality Polyester Powder Coating from AKZO NOBEL. This powder coating provides an excellent salt and humidity resistance as well as ultra violet resistance for color retention for this product.

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 0,71%.

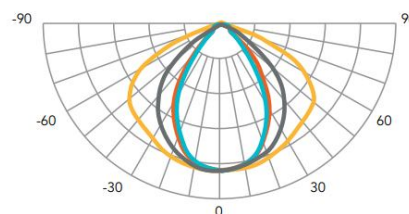
|     |      |               |     |            |   |     |      |
|-----|------|---------------|-----|------------|---|-----|------|
| LED | 3030 | LED QTY (PCS) | 144 | LENS (PCS) | 4 | CRI | > 80 |
|-----|------|---------------|-----|------------|---|-----|------|

### LIGHT DISTRIBUTION



### PHOTOMETRIC CURVE

AVERAGE BEAM ANGLE (50%) : **91,2 DEG**



|                 |                 |
|-----------------|-----------------|
| ● C0/180,129.4° | ● C60/240,72.7° |
| ● C30/210,96.3° | ● C90/270,66.4° |



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# AOS PRO 120

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PROJECT NAME: \_\_\_\_\_

## OVER 10 YEARS LIFESPAN

The AOSPRO Series is equipped 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 over 10 years lifetime.



## LIFEPO4 BATTERY

## EXTREME TEMPERATURE

14°F to 158°F (-10 °C to 70°C)

When Standard Lithium LiFePo4 batteries enjoy a working temperature range from 14°F to 158°F (-10°C TO 70 °C). Bullard Solar offers as optional a new Special LIFEPO4 battery with working range of -40°F to 158°F (-40°C to 70°C)

## BMS ELECTRONIC PROTECTION BATTERY MANAGEMENT SYSTEM

Our batteries are equipped with electronic circuit boards for a higher protection, ensuring battery functioning optimization in any situation.

THE BMS PROTECTS AGAINST  
OVER/UNDER CURRENT • OVERLOAD • OVER/UNDER VOLTAGE  
• OVER/UNDER CHARGE • TEMPERATURE MANAGEMENT

## 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.

## COMPARISONS OF DIFFERENT BATTERY TECHNOLOGIES

**LIFETIME & CYCLES AT 80% DOD\***  
*Comparison of different battery technologies*

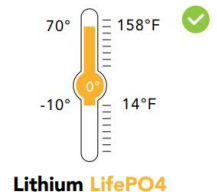
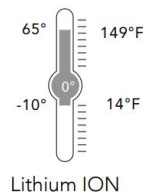
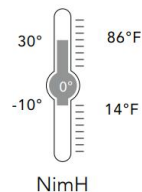
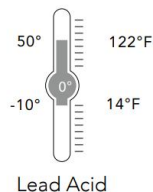
  
Lead Acid  
**200**

  
NimH  
**700**

  
Lithium ION  
**800**

  
Lithium LifePO4  
**3 000**

**CHARGING TEMPERATURE RANGE  
WITHOUT CAPACITY LOSS**  
*Minimum & Maximum temperature range for  
Optimal charging during the day*



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# AOS PRO 120

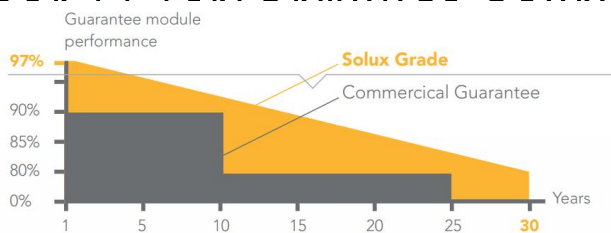
FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

**140 WATTS**

High efficiency mono-crystalline Solar panels. Carefully selected Grade A Solar cells. Up to 19.4% efficiency. Its octagonal 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



solar cells  
**GRADE A**



## 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, BULLARD 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  $\leq 10\text{mA}$
- 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
- OVERCURREN
- OVERTEMPERATURE
- OVERVOLTAGE / OVERLOAD
- OVERDISCHARGE



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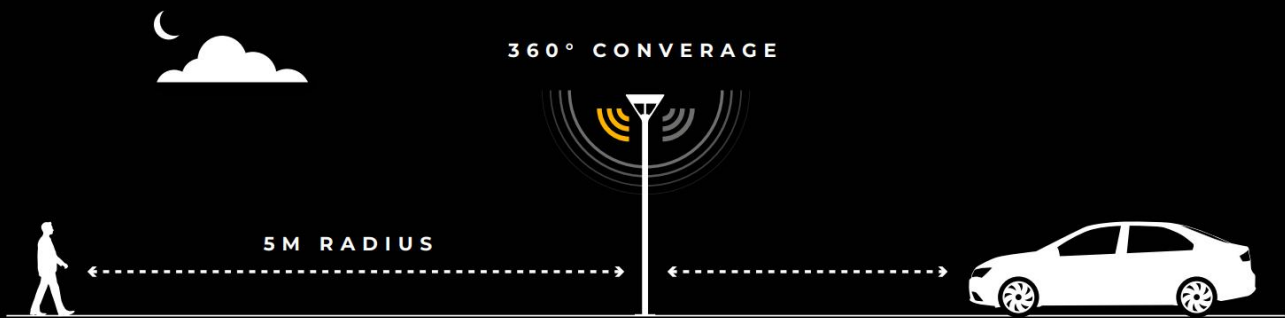
PROJECT NAME: \_\_\_\_\_

Bullard Solar luminaires are equipped with microwave detectors 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:

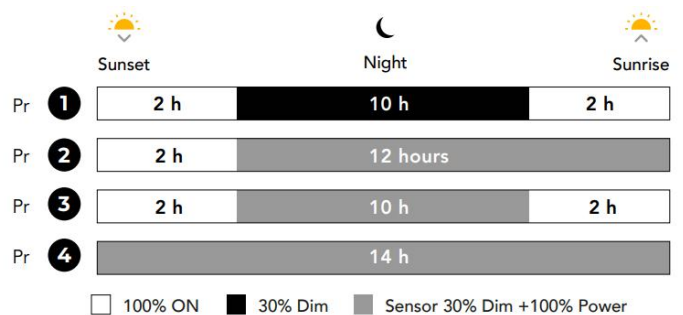
- Much better reliability compared to the Infrared detector
- Up to 360° Directivity
- Insensitivity to other environmental variations such as light, color, temperature, etc.

## MOTION SENSOR MICROWAVE



## 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**



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# AOS PRO 120

FIXTURE TYPE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

## EASY INSTALLATION

### NO CABLING & NO TRENCHING

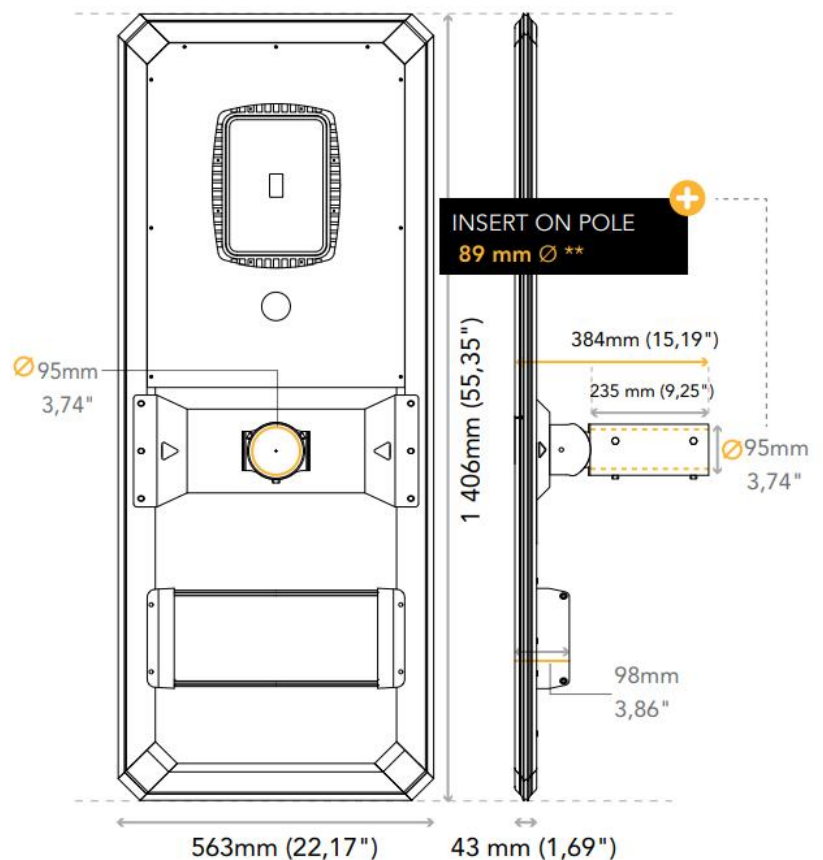
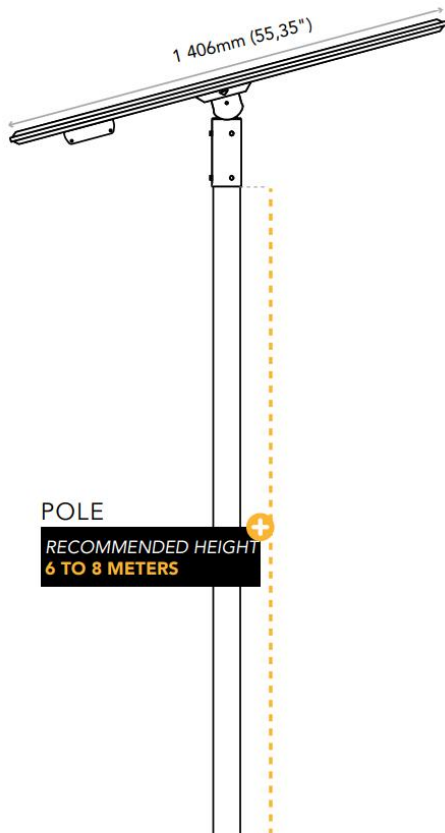
With a well designed bracket support AOSPRO is effortless and flexible to install.

INSERT, ORIENTATE & CHOOSE YOUR TILT



## DIMENSIONS\*

### SOLAR PANEL & LED



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