

**THANK YOU FOR YOUR PURCHASE**  
**PLEASE READ THESE INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION / MAINTENANCE**

**SPECIFICATIONS**

**Wattage:** 1.8W  
**Lamp:** In-built Epistar LED Chips 10 \*18 mil (120° Beam Angle)  
**Colour Temperature:** 3000K (Warm White) / 6000K (Daylight White)  
**Lumen Output:** 210 lm  
**LED Life Expectancy:** up to 50,000 hours  
**Sensor:** Light / Charge Sensor  
**IP Rating:** IP65  
**Battery Type:** Lithium - LiFePO4 6.4v/5000mAh (replaceable)  
**Battery Charge Time:** 6-8 hrs full sunshine (approx.)  
**Max Illumination Time at Full Charge:** Up to 23hrs  
**Solar Panel:** 9v / 3.5W Monocrystalline Solar Panel – Grade A  
**Materials:** 6063 Die Cast Aluminium & High Impact Polycarbonate  
**Weight:** 4.7KG (approx.)  
**Mounting:** External Surface Mount  
**Lighting Function:** 1hr 100% + 2hrs 80% + 2hrs 50% + 9hrs 30%  
**Working Temperature:** -25°C ~ 55°C  
**Included:** Bollard & Rubber Bung  
**UK REGISTERED DESIGN: 6074584**



**WARNINGS**



- If a fitting is found to be damaged, cease use immediately.
- The unit may get warm whilst on for a period of time.
- Always take care when installing your solar light.
- Fitting must be mounted to a solid surface or using relevant anchor bolts / J-Bolts
- This Solar Light will not charge correctly if the panel is behind glass or artificial light is used.
- Ensure the waterproof bung is in place at all times, other than when turning the unit on.
- Due to temperature difference in and outside the fitting, condensation may be present internally but will not affect use.

**CLEANING & MAINTENANCE:**

Occasional cleaning and care is recommended for this product. Wipe with a soft, slightly damp cloth to remove any surface dirt. To maintain efficiency, specifically clean the solar panel and polycarbonate lens on a regular basis. Also, keep the solar panel free of debris and snow to prevent reduced battery life or malfunction. Do not use abrasive cleaners or a lot of water as this could damage the fitting. Please refer to our website for more information on the best way to clean different materials.

## PANAMA TECHNOLOGY:

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The Panama is a highly efficient solar light with high capacity LiFePO<sub>4</sub> Lithium batteries and a fast charging Monocrystalline solar panel. This means that even on partially cloudy and rainy days, it will re-charge efficiently. The high battery capacity gives enough power for up to 23 hrs solid light (approx. 2-3 night) even when there is little light during the day. The high lumen light output is bright enough to illuminate driveways and paths, making them safe to navigate at night, with an anti-glare top guide for downward light.

## INSTALLATION:

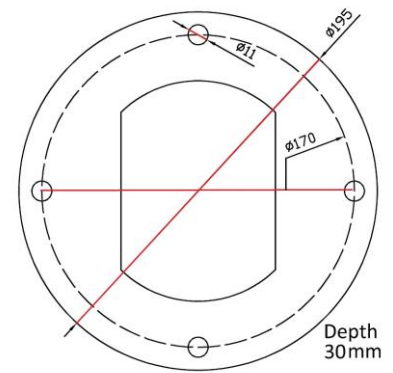
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The Panama is designed to be mounted on a low wall, patio, wood or set in concrete (J-Bolts sold separately) via the external surface mount.

**Recommended spacing is 3m apart for substantial path lighting. Closer spacing / staggering will result in a more intense light.**

**Location** – It is important that the installation location is carefully considered, avoiding shady areas. Ensure there is no other lights which could interfere with the light, imitating daylight and forcing the light off.

1. To surface mount, use the base to mark the 4 x mounting holes on the mounting surface in the correct position.
2. Remove the bollard and drill out the 4 holes marked at the relevant size for the type of mounting screws to be used (anchor bolts recommended)
3. Replace the bollard body, lining up the 4 x holes at the base.
4. Secure in place with screws / bolts.
5. For root mounting, use J-Bolts, set in concrete (sold separately).



**NOTE: MAX SCREW DIAMETER = 10MM (M10) – ensure long enough to clear 30mm depth of base. DO NOT OVERTIGHTEN**

## SETTINGS:

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The Panama has a pre-set time controlled setting which cannot be changed. At dusk, the bollard will illuminate at full brightness, and then follow a gradual dimming sequence until it reaches 30% brightness after 5 hours. From then on it will remain at 30% until dawn. This sequence is to ensure maximum charge is retained.

### **IMPORTANT – SOLAR BOLLARD MUST BE TURNED ON AT ALL TIMES AFTER INSTALLATION**

If the bollard is left in the off position, you may be prompted to turn the fitting on by strobing. Solar bollard will only charge when in the ON position.

#### **Turning on the bollard**

- 1) Remove the waterproof rubber bung located just below the polycarbonate lens, in line with the Lumena Logo, to locate the red on/off button.
- 2) Using a small, flathead screwdriver (or similar), push the on button inwards until it clicks and allow to pop back out (this will be partial). The bollard is now in the ON position.
- 3) Replace the waterproof, rubber bung.

**NOTE:** There will be a 2-5 second delay between turning the solar light on, and the bollard illuminating. In daylight, the light will turn back off within a few seconds, in darkness it will remain on and follow the time controlled cycle.

## STORAGE:

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When storing the bollard, be sure to turn the bollard to the off position by following the above steps (check by covering and uncovering the solar panel). Once pressed, the on/off button will release fully forward. Maximum 6 months storage when fully charged – recharge will be required periodically to prevent damage to battery over long periods of time.