

Q & A

Q: Why use Solar floodlight?

A: No wiring required, with no need for mains electricity, the light is easy to set up wherever you need security lighting. Sunlight provides a free and reliable source of power, this means there are no running cost.

Q: Does LED power equals brightness?

A: Calculation of the brightness is by lumens (lm) and not the wattage. As solar floodlight is powered by a built-in battery, it is the battery that powers the light, therefore the brightness is directly affected by capacity and power of the battery.

In choosing the most suitable light for your needs, a simple calculation: Wattage (W)= Volt(V) x Current(A), multiply by the light's Lumen per watt, this can be use to work out the average lumen of the light. And it is this lumen calculation that will give the best understanding of the brightness of the light that these solar floodlight produces.

For example, our TK-IK30W Model has a 3.7V battery with current of 5000mA (5A) will have a full capacity of 18.5W. Our solar floodlight is designed so that the light is discharged over a duration of 10 hours. The LEDs used in the light produce 200 lumen per watt. Overall, on average the light brightness is 370 lumens.

This can be summarised in a simple equation $(W=V \times A) / 10 \times \text{Lm/W} (200) = \text{Avr. Lumen discharge}$.

Note: this is the average for the course of 10 hour, it will be higher at the beginning and may be lower toward the end of the duration.

Q: How long does it take for the solar panel to charge the floodlight battery?

A: This depends on the size and capacity of the solar panel, and the size of the battery. The bigger the solar panel the greater the surface area, the higher the wattage produced per hour. Be aware that charging times will be affected by multiple factors including weather, seasons, places etc.

Q: How do you determine a good solar floodlight?

A: There's a lot of solar floodlight out there and it can be a minefield, often the information provided can be misleading and/or not accurate, for example stating 50W does not mean it has the same lumen output as a mains powered 50W.

When choosing a good solar floodlight, there are a few things you can look out for, i.e. quality and capacity of the solar panel and battery. All of our models come with high quality Panasonic 21700 Li-Ion battery, while the solar panels are made from Grade A+ Polycrystalline, which has a high conversion efficiency. In addition, the chipset lumen output, all our lights use 2835 LUMILEDS, each with Optic lens to produce 200lm/W, in comparison to what's currently available on the market, which generally only have an output of 80-120lm/W.

Furthermore, all our lights are built to last, using the most durable material with the ability to withstand all weather conditions. And of course, all lights sold come with generous manufacturer warranty of 2 years.

Light Discharge Table													
Remote Control Mode	0-30mins	0.5-2hrs	3hrs	4hrs	5hrs	6hrs	7hrs	8hrs	9hrs	10hrs	11hrs	12hrs	
AUTO	100% Uniformly Decreasing to 70%	70%	60%	50%	50%	40%	30%	20%	20%	20%	60%	60%	Turn Off At Dawn
3H	100% Uniformly Decreasing to 70%	70%	60%	Turn Off									
5H	100% Uniformly Decreasing to 70%	70%	60%	50%	50%	Turn Off							
8H	100% Uniformly Decreasing to 70%	70%	60%	50%	50%	40%	30%	Turn Off					