DRAGONS BREATH

Solar street lights

OFF-GRID LED REMOTE LOCATION SOLAR STREETLIGHT

DO YOU NEED TO LIGHT AN AREA WHERE THERE IS NO MAINS ELECTRICITY? ….

INVEST IN OFF-GRID LED SOLAR STREETLIGHTS AND REDUCE LIGHTING ENERGY COSTS TO ZERO

This product comes complete with manufacturer's warranty on the complete installation with expected long post-warranty operating lifetimes underpin huge savings in the cost of ownership & operation compared with traditional incandescent lighting

The costs of ownership & operational statistics enable typically less than 50p/day. This is a considerable saving based on equivalent incandescent lighting installation.

- Easy to install, no digging required to lay cables
- No issues of management of AC mains power or ground-level electrical components, so suitable for locations susceptible to flooding – a streetlight that will operate normally even if base of column is standing in floodwater
- All valuable components are mounted at the top of the columns – minimising risk or damage, theft or vandalism
- Maintenance free and design to meet the requirements of UNI 11248 and EN13201-2 and suitable for open, outdoor installations
- Low light pollution, low temperature luminaire (safe to touch during operation)
- High luminous efficacy (lm/w) with a high Colour Rendering Index (CRI) value

Product options allow selection of a configuration to best suit your needs:

- Hot-dipped galvanised column; heights in bespoke lengths from 3 – 5m to suit the application
- Bespoke mountings can be fabricated to suit any application
- Choice of AGM or Gel-type fully sealed batteries with MPPT 12v & 24v Charge regulation
- Control electronics module is available in two versions, both incorporate sophisticated power management features to provide 6-8 hours of night time lamp activation subject to full charge (location dependent) - typically sufficient for "dusk operation' timed" STC operation.
    - Programmable summer and winter time zones.

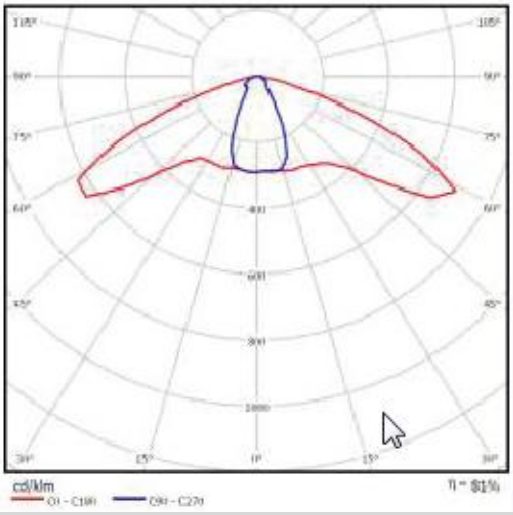
Parts manufactured within the EU with long conditional warranties:

- Selected Crystalline PV solar panels from Sharp and Solarworld have a 25 year manufacturer's warranty
- LED luminaire heads have a 5 year warranty and deliver a mean time between failures (MBTF) of 60,000 hours which in mid-latitude outdoor installations equates to an expectation to many cycles of operational use
- Control Electronics Module has a 1 years warranty
- Mountings & columns have a 10-year manufacturer's warranty
- Batteries are designed around a cycle life
- Total system warranty 1 year from date of purchase, with warranty extension for 3 years when required.

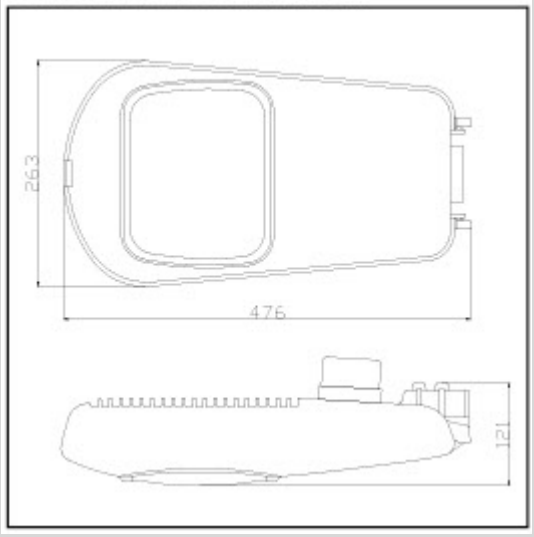
Technical Specifications

Expected Operating Life	longer than 60,000 hours LM70 @700mA at 25°C ambient temperature (critical failures included)
Luminary Source Efficacy	142 lm/W (If=350mA & Ta=25°C)
Correlated Colour Temperature (CCT)	4500K
Colour Rendering Index (CRI)	70
Photometric	Designed to comply with UNI EN 11356 and LM-79-08 "Cut-off" design ensures light is directed downwards in compliance with regional laws for light pollution high optical efficiency (about 92%) modules made of polymethylmethacrylate (PMMA)
Alignment	Adjustable tilting system which allows an inclination of 0° / -5° / -10° / -30° for bracket installation and of 0° for top-pole installation.
Electronics	Thermal protection, overload / short-circuit and overvoltage protections. User programmable to switch can provide light on at dusk until dawn program subject to climatic daylight weather conditions in each previous 24 hour cycle, (climate changes excluded) system storage will offer on full charge 3 days autonomy.
Luminaire Casing	Finned body in extruded aluminium alloy EN AW 6060 T5 EN - T6 state designed to act as an efficient heat sink and is surface anodised to ensure resistance to the external environment and promote heat dissipation. Luminaire has an interior air exchange filter. Casing thickness 6mm, dimensions 233/380x300mm, height 79mm.

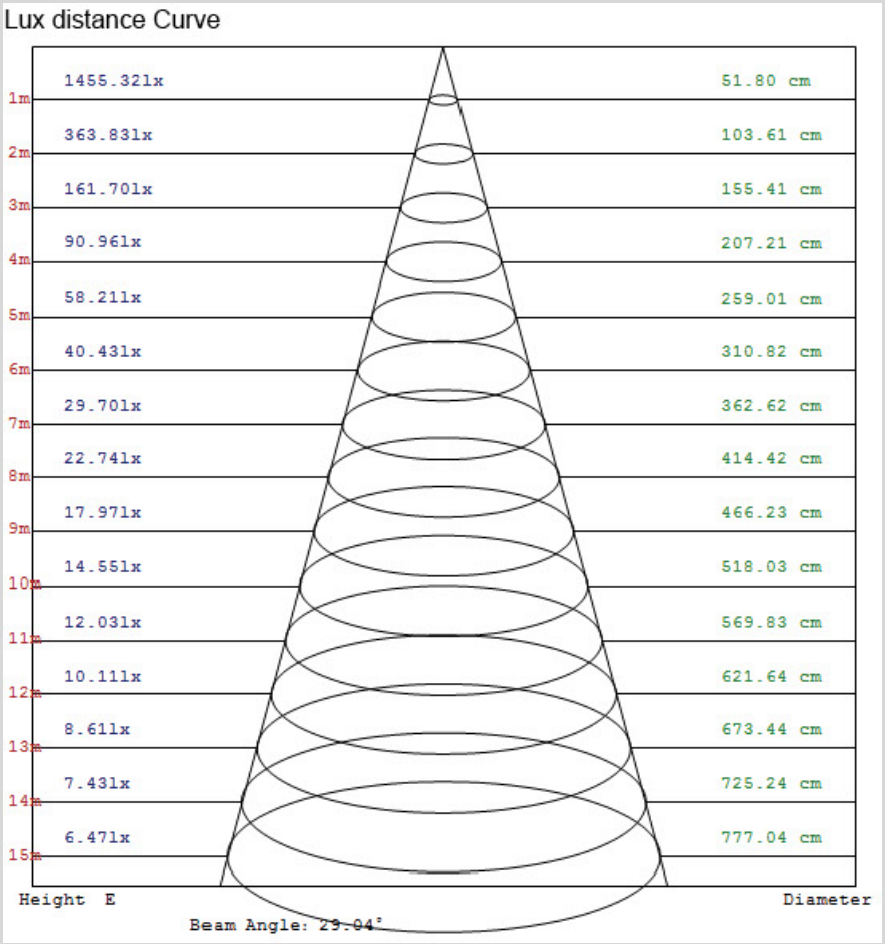
Light distribution curves



Constructional dimension



Lux distance Curve



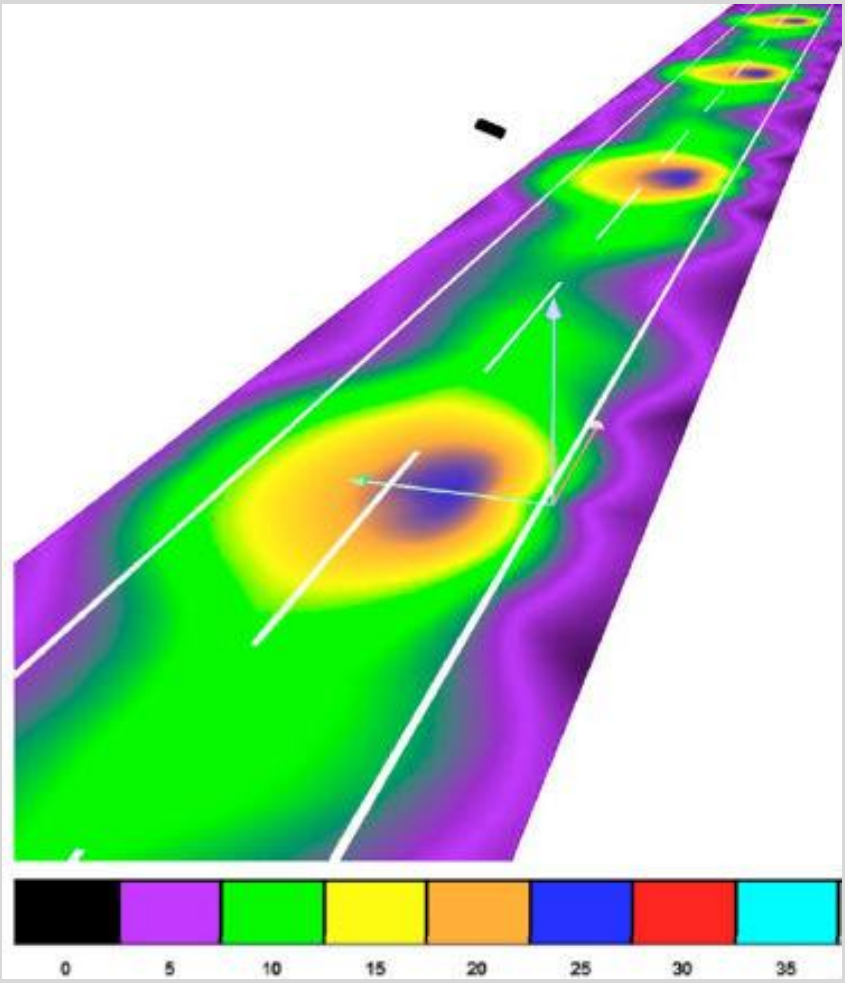
Note: Luminance ***E*** is measured in Lux = lm/m2 at the distance of the illuminated surface.

Example from Curve: At 5m luminaire-to-ground distance, 58.2 Lux (lm/m2) will be delivered over an area of 259cm diameter.

Lighting options

The photometric data have been measured in laboratory in compliance with the UNI11356 and LM79-08 rules.

Model Code	LED Array Module	Input Power Rating (W)	Luminous Flux (lm)	Typical Column height for module	Typical Column Spacing
OGSS 1812	12 LED	12W	1704 lm	3.5m-4.5m	6m
OGSS 1830	18 LED	18W	2556 lm	3.5m-4.5m	6m
OGSS 2170	24 LED	24W	3408 lm	4m-5m	8m



Dragons Breath® products are backed by our renewable energy company which has been designing engineering systems for the last 15 years of its 20 year trading history. We will be here to provide any after-sales support or advice that you require.

DRAGONS BREATH

Solar street lights

tel: 01646 600151

info@solardragons.co.uk

www.dragonsbreathsolar.co.uk