POINT SOLAR LIGHTING
SOL LED
SOLAR POWERED OBSTRUCTION LIGHTING

PRODUCTS OF POINT LIGHTING FOR SOLAR POWERED AVIATION OBSTRUCTION LIGHTING

Point Lighting is an Intertek inspected FAA lighting manufacturer since 1993 with thousands of installed sites around the world. The individual products below operate automatically year round. These lights are the same specification grade photometrics and brightness as their AC powered versions.

DAYS OF AUTONOMY

Solar power "days of autonomy" is the number of days where no power generation is possible due to clouds or rain, despite the fact that you continue to consume energy and we add a 30% safety margin. The battery is designed to withstand deep discharge cycling. The system solar power controller is solid-state, encapsulated and mounted in a listed outdoor NEMA 4X enclosure. The controller does not have a low battery cutoff as the obstruction lights must stay ON despite marginal conditions.

The manufacturer of the lighting must be an FAA certified manufacturing facility. Beware of competitors' quotes by distributors and others who are not FAA approved manufacturers. They use lights that do not accurately state the true power consumption, do not meet international standards for obstruction lighting, and do not allow sufficient safety factors. Thus, competitors dramatically undersize the power system that may cause the light(s) to be out of service for days or months. The solar power system should be specified by the manufacturer of the lighting, not assembled by distributors lacking the proper software and who do not understand the critical backup safety capacity that is required. The power consumption of the light should be measured and third party certified by Intertek Testing Service (ETL).

POL-21007-5F-R-34B-D2-SOL-PM
POL-21007-5F-R-34B-D2.2-SOL-PM

PFB-37003
FLASHING RED LED BEACON

Minimum solar insolation requirements provided are based on a temperature of 32-deg F (0-deg C). Locations with temperatures below freezing will have a reduced battery capacity and will require higher solar insolation values. Extremely low temperature sites may not be compatible with solar power. Consult the factory for assistance.

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SOLAR POWERED POL OBSTRUCTION LIGHTS

FAA L-810 [-43J]	ICAO LOW INTENSITY TYPES A & B TRANSPORT CANADA	ICAO LOW INTENSITY TYPE A & B FAA L-810 [-43H]
POL-21007-5F-R-34B-D2-SOL	POL-21005-3B-R-34B-S3-SOL	POL-21007-5B-R-SOL

Option -PM shown

SOLAR POWERED RED FLASHING BEACON SYSTEM

FAA L-864	ICAO MEDIUM INTENSITY TYPES B & C	TRANSPORT CANADA
PFB-37003-R-5-SOL	PFB-37003-R-5-SOL	PFB-37003-R-5-SOL

Shown with optional PFB bracket kit

- Typically five (5) days autonomy (battery backup)
- Proprietary computer calculations using solar radiation data
- FAA certified lighting manufacturer
- No under sizing as done by distributors of solar products
- Automatic operation based on light levels sensed by the output of the solar array
- Photovoltaic array output to load ratio always exceeds 1-1 year round
- Includes 3m beacon cable loop, solar array & solar controller
- Sealed marine grade deep discharge batteries
- PV panels using high quality crystalline silicone cells

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CUSTOMIZED SOLAR POWERED LIGHTING SYSTEMS

Point Lighting Corporation obstruction lights are combined with an SOL solar power system to provide reliable air hazard marking where commercial power is not available. Each system is analyzed by computer based on the latitude, longitude and weather history of the site. Components are selected to provide days of backup power with unattended charge recovery year round. Unlike less critical types of solar power systems, obstruction lights must not fail due to lack of battery recovery. All SOL systems are custom designed and optimized to meet the particular site requirements.

GENERAL SPECIFICATION

Upon request, the system manufacturer shall produce a computerized report and graph based on published annual temperature and solar radiation data for the latitude and longitude of the site. The report shall prove that the minimum PV to load ratio exceeds 1.0 and states the minimum days of battery backup during the full calendar year. The sizing calculations shall compensate by derating the battery based on the monthly average temperatures during the coldest and hottest months. Cold weather reduces battery capacity by five (5) percent for every 10 deg F below 70 deg F. The manufacturer of the lighting must be an FAA certified manufacturing facility. The lighting manufacturer shall supply all operational solar power system components.

Daytime OFF and nighttime ON operation is automatic based on the output current from the solar array sensed by the solar controller which is directly related to the ambient light level. The batteries shall be valve regulated (VRLA) type designed for solar power systems to withstand deep discharge cycling. The solar array shall be high-efficiency polycrystalline photovoltaic modules shall be listed by Underwriter' Laboratories for electrical and fire safety per UL1703. The solar controller shall be solid-state, encapsulated and mounted in a NEMA 4X rated outdoor enclosure. The controller shall not have a low battery cutoff as the obstruction lights must stay ON despite marginal conditions.

POINT LIGHTING CORPORATION

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