SATO
Solar Aviation Taxiway Obstruction Light

LED PRODUCT

Compliance with Standards

Solar LED Aviation and Obstruction Lights are certified to: CSA, UL, CE, FCC, RoHS, ICAO, IP68/Nema6P, Explosive Atmosphere MIL-STD-810G, Method 511.5

Uses

The SATO is a self-contained, high-performance, low-maintenance and easy-to-install solar-powered light source for permanent, temporary or emergency lighting in aviation and industrial environments. Applications include: taxiway edge lighting; apron edge lighting; emergency airfield and helipad lighting; construction barricade lighting on airfields; and obstruction lighting.

Features

- Easy installation and relocation: no specialized work crew required, limited air traffic disruption and lights are immediately operational. The SATO can also be quickly relocated for temporary or emergency applications.
- Self-contained and low maintenance: all components are incorporated within a compact, stand-alone unit. The SATO also features a replaceable battery pack that extends the service life beyond five years, reducing the total cost of ownership and resulting in significant cost savings.
- Intelligent settings: the first solar product to incorporate intelligent deployment location settings that allow the SATO to tune its intensity to its location, protecting itself against improper configuration.
- Unprecedented reliability: microprocessor Energy Management System (EMS) monitors and adapts the light to environmental conditions for consistent operation and long life under the toughest conditions.
- Designed and tested to toughest industrial standards: MIL-STD-202G: Humidity, Immersion, Vibration, Shock; MIL-STD-810F: Solar radiation, Salt Fog; EN 60945: ESD, EMI, EMC; IP68; L70. The SATO is acceptable for barricade and construction applications at Commercial Part 139 Airports under FAA Advisory Circular AC 150/5370-2E. The SATO Blue is compliant with the requirements of ICAO Annex 14, Volume 1, Fourth Edition dated July 2004 (ETL Certified).
- User friendly: easy configuration and programming options including: on-board user interface, infrared remote and Device Manager software through USB connection. Optional programmable external switch.
- Green solution: a clean, renewable and reliable energy source with the lightest environmental footprint. The SATO features recyclable batteries and is entirely RoHS compliant.

Ordering Code SATO-XXX00

Color
1 = Red
2 = White
3 = Blue
4 = Green
5 = Yellow

Switching
0 = No switch
1 = Switch

Lens
1 = Clear

Equipment Data

Solar Panel	High-efficiency cells with bypass and blocking diode function. Maximum power point tracking (MPPT) for optimal energy collection.
Battery	Tool-less replaceable and recyclable best-in-class battery pack with extreme temperature range. Battery status feedback of Good, Charge or Bad (Replace).
Light Source	High power LED. Color-specific temperature corrected LED drivers provide consistent intensity under all operating conditions.
Intensity	10 cd intensity, steady-on (see photometric plot on reverse). 18 cd peak intensity, flashing, 12.5% duty cycle (Red LEDs).
Flash Patterns	256+
Construction	Premium grade UV resistant, polycarbonate/polysiloxane co-polymer body and lens material. Double O-ring sealing with waterproof vent.
Colors	Blue, Red, Yellow, Green and White. ICAO and SAE25050 (FAA) compliant chromaticity.
Ambient Operating Temperature	-45 to 124 ºF (-43 to 51 ºC) The SATO will function up to 190 ºF (88 ºC) internal and surface temperatures.
Storage Temperature	-45 to 176 ºF (-43 to 80 ºC)
Color Indicator	Yes, FAA Engineering Brief No. 67 compliant.
Weight	3.5 lb (1.58 kg)
Wind Loading	400 mph (180 m/s)
Automatic Light Control (ALC)	When enabled, ALC will dynamically reduce brightness in response to unusually low amounts of sunlight to ensure continued operation.

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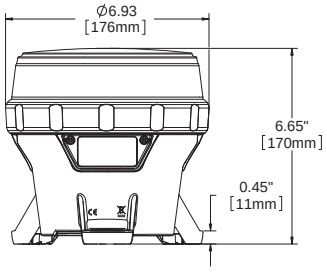
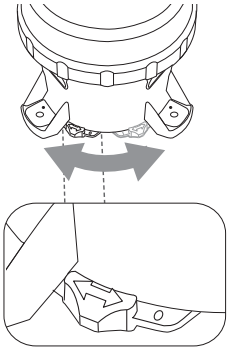
Features (Continued)

- Up to 10 cd of intensity (steady-on, green, equatorial).
- Replaceable and recyclable battery pack.
- Intuitive on-board user interface.
- Dusk-to-Dawn operation.
- Optional external switch.
- Intelligent deployment location settings protect against improper configuration.

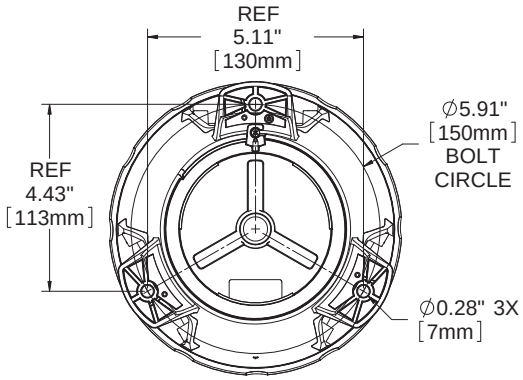
Technical Drawings and Dimensions



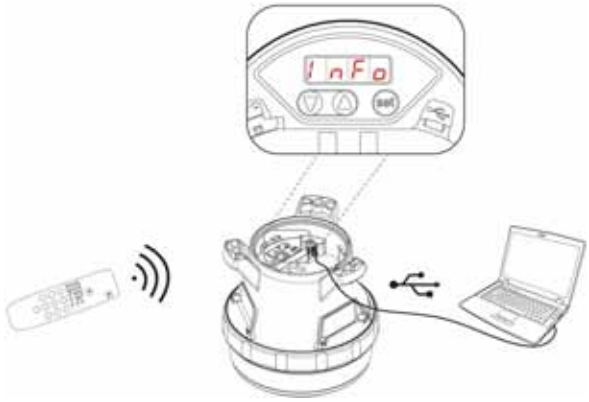
Side View



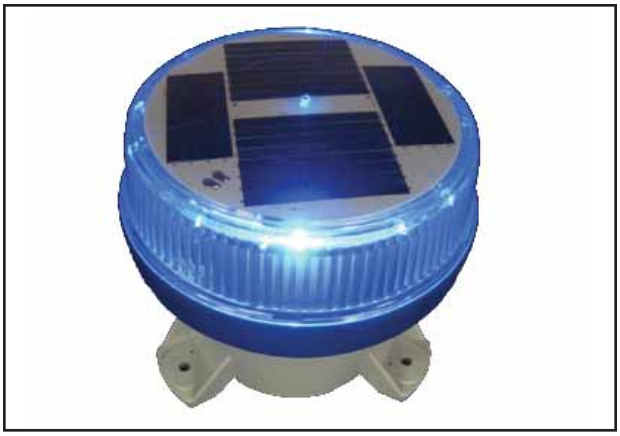
Switched View



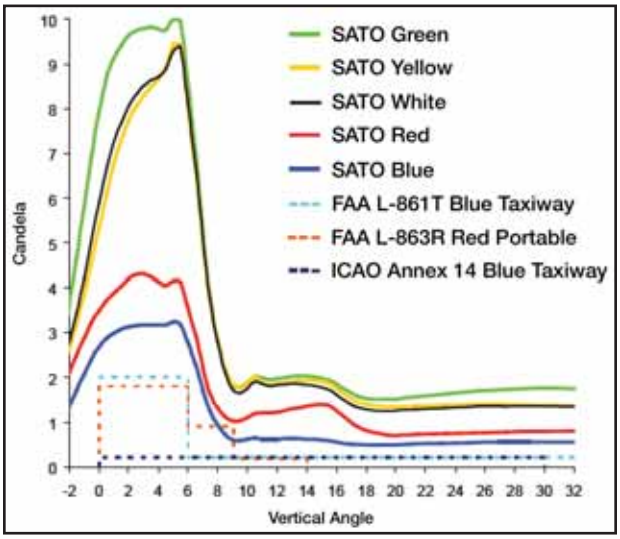
Bottom View



Programming and Configuration Options



Photometric Data



Note: Intensity dependent on location. Based on equatorial location of 12-hour night duration and steady-on (001) flash code.

Spare Components

For a complete list of solar aviation light accessories, including mounting equipment, see Catalog Sheet #3017.

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