

# OLS100S Series Solar Powered Low Intensity Obstruction Light

•ICAO LIOL-E •FAA L-810F •Peak intensity >100cd



## OVERVIEW

OLS100S is a solar powered low intensity flashing obstruction light. Its peak intensity is over 100cd and effective intensity is over 50cd, complying and exceeding ICAO low intensity type E and FAA L-810F.

A solar panel attached to OLS100S's light body is angle-adjustable from 9 to 60 degrees. It enables OLS100S to adapt to different latitudes and collect as much solar energy as possible. Embedded MPPT (Maximized Power Point Tracking) microcontroller maximizes solar power output.

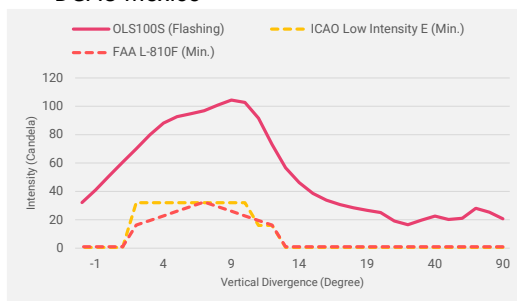
Incorporated SBM (Smart Battery Management) program reduces energy consumption. By detecting ambient solar irradiance, OLS100S can self-adjust LED outputs for extending autonomy. It also protects the VRLA battery pack from over-charging and over-discharging.

Same optical design as FS810, OLS100S's LED head is deployed with 16 units of ultra-bright OSRAM LEDs. REDDOT novel convex lens optimizes photometric performance. An optional GPS function allows OLS100S units with GPS module to flash synchronously.

OLS100S has two sizes of model, OLS100S-B108 and OLS100S-B2016, with 10W-PV 8AH-battery and 20W-PV 16AH-battery, respectively. Once fully charged, the autonomy can reach up to 14 days (suitable for PSH $\geq$ 4) for OLS100S-B108 and 20 days for OLS100S-B2016 (suitable for PSH=3).

## COMPLIANCE

- Obstacle Light Low Intensity Type E, ICAO Annex 14 Volume I July 2016
- L-810F, FAA AC No. 150/5345-43F
- DGAC Mexico



## APPLICATIONS



- Telecommunication Tower
- TV/Radio Tower
- Transmission Tower
- High-rise building
- Industrial Chimney & Cooling Tower
- Tower Crane
- Bridge
- Wind turbine
- Airfield & helipad
- Storage tank & Water tower
- Oil & Gas offshore platform

## FEATURES

- 16 pcs of ultra-bright OSRAM LEDs, reliable light source ensures long lifespan
- Peak intensity>100cd, effective intensity>50cd
- Solar panel inclination angle adjustable, range: 9-60 degree
- Integrated MPPT (Maximized Power Point Tracking) for maximizing sunlight collection
- Integrated SBM (Smart Battery Management) for saving energy to extend autonomy
- Novel convex lens provides excellent light distribution
- High-grade VRLA battery provides long lifetime
- Autonomy at least 14 days once fully charged during insufficient sunlight days
- Protective vent for expelling battery gas and reducing condensation
- Automatically off if continue working 18 hours
- IP67 ON-OFF switch for protecting the battery from over-discharging
- GE polycarbonate lenses, UV-stabilized
- Aluminum base with powder painted, corrosion-resistant
- IP67 waterproof protection, silicon gasket enhanced
- Excellent shock and vibration resistant
- A handle on the light shoulder makes carrying and lifting easier for deployment
- Flash rate adjustable, 20-60FPM
- NVG compatible with IR LEDs or Red/IR dual LEDs available
- GPS available for synchronizing flash



## SPECIFICATIONS

Item		OLS100S-B108	OLS100S-B2016
			
LIGHT OUTPUT	Effective Intensity	Effective>50cd, peak>100cd	
	Vertical beam	>10°	
	Horizontal Spread	360°	
	Light Source	OSRAM LEDs	
	LED Color	Red (for obstruction). White, yellow, green and blue are available for other applications	
	LED Lifespan	100,000 Hours	
OPERATION	Flash Pattern	20-60FPM (40FPM as default)	
	Autonomy <sup>(Note1)</sup>	14 days	20 days
	Suitable areas <sup>(Note2)</sup>	PSH≥4	PSH=3
	ON&OFF Level	70/100Lux	
POWER SUPPLY	Solar Panel Type	Solar Module, Mono-Crystalline Silicon	
	Solar Panel Efficiency	15%	
	Solar Panel Power	10W	20W
	Battery type	VRLA battery	
	Battery Capacity	12V/8Ah	12V/16 Ah
	Battery Replaceability	Yes, replaceable	
MECHANICAL STRUCTURE	Lens	Polycarbonate, UV Stabilized	
	Body	Aviation yellow powder-coated extruding aluminum	
	Mounting	Four Φ16*25 slot holes on 200mm bottom PCD	
	Net Weight	11KG	14KG
	Overall Dimension (W*H) <sup>(Note2)</sup>	409mm * 345mm	452mm * 345mm
	Light body Dimension (W*H) <sup>(Note3)</sup>	235mm * 345mm	235mm * 345mm
	Protection	IP67	
	Operation Temperature	-40°C~+55°C	
	Operation Humidity	0-95% RH non-condensing	
	Wind resistance	Max.240kph	
OTHERS	Optional	•GPS •Zigbee Wireless Monitoring •NVG compatible with IR LEDs	
	Warranty	•5 years for light •2 years for battery •10 years for PV	

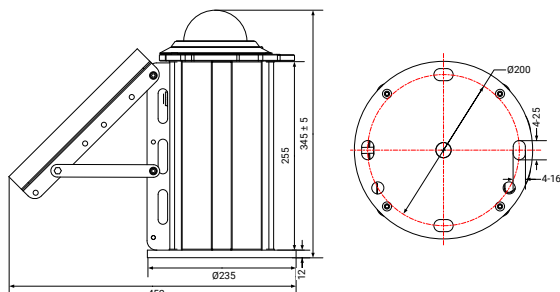
Notes: 1) The days of autonomy indicated in the specs table is once fully charges, how many days the solar light can run during cloudy/rainy days (12 working hours/day), without optional functions.  
 2) PSH is the abbreviation of Peak Sun Hours which reflects solar radiation. 1 Peak Sun Hour = 1000 W/m<sup>2</sup> of sunlight. The PSH given in the table is a yearly average value. The more PSH value is, the more solar energy potential is. As PSH value varies in different month, please consult REDDOT to select the safest solar obstruction light.  
 3) Overall dimension is measured when solar panel is attached to the light body, solar panel is extended to the maximum inclination angle.  
 4) Light body dimension is measured without solar panel attached.

## ORDERING CODE

Main P/N	Flashing	NVG Compatible	GPS	Zigbee Wireless Monitoring <sup>(Note)</sup>
OLS100S-B108	F (Flashing)	[Blank] (Only red LEDs) NVG (IR LEDs)	[Blank] (without GPS) GPS (with GPS)	[Blank] (without Zigbee module) ZB (with Zigbee module)
OLS100S-B2016		RED-NVG (dual Red/IR LEDs)		

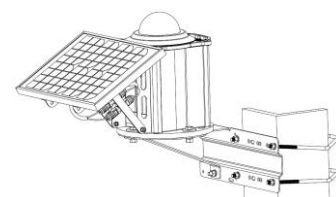
Note: CTRW wireless monitoring box is needed to receive signals from solar lights with Zigbee modules.  
 E.g: OLS100S-B108-F-GPS = Solar powered low intensity obstruction light, red flashing>100cd, with 10W PV 12V8Ah battery, with GPS sync

## DIMENSIONS



## MOUNTING

### U-bolt mounting



AMP30150S bracket (U-bolt holders) for dia.30-150mm angular/tubular structures

