


SP-401S SOLAR TLOF LIGHT

TOUCHDOWN AND LIFTOFF AREA



	<p>Compliance: ICAO Annex 14 Vol. II (7th. Edition, July 2016)</p>
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FEATURES

- Operates 365 days on solar energy
- Remote activation
- Night Vision Goggles (NVG) compatible

APPLICATION

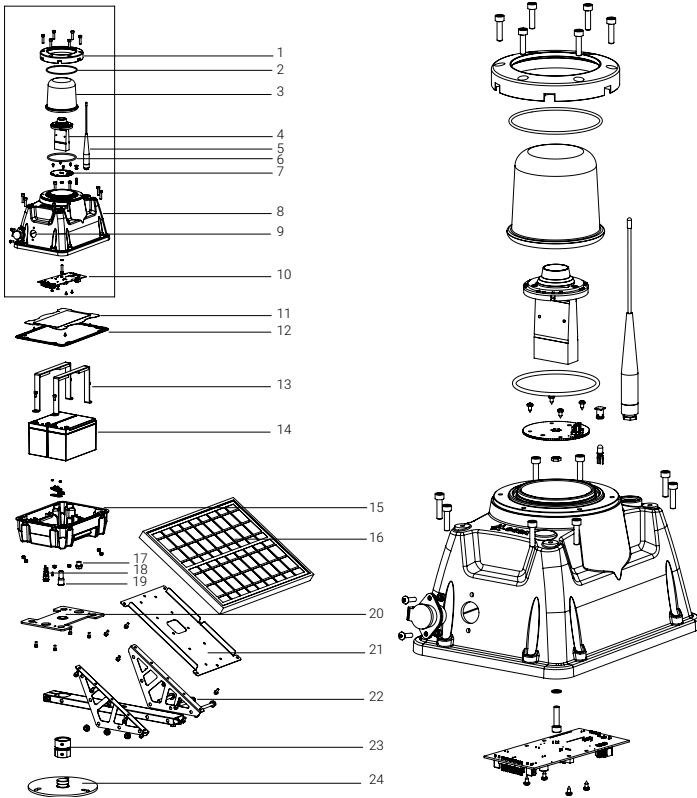
Autonomous solar helipad light designed for permanent usage at heliports, helipads, and landing zone areas located in regions without access to electricity and with high photovoltaic potential.

TECHNICAL SPECIFICATIONS

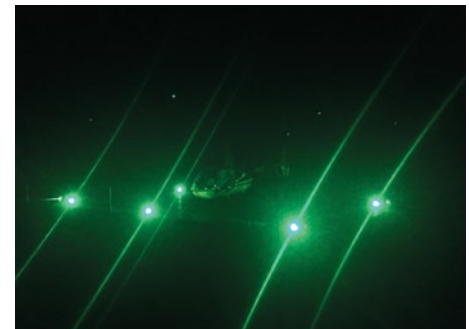
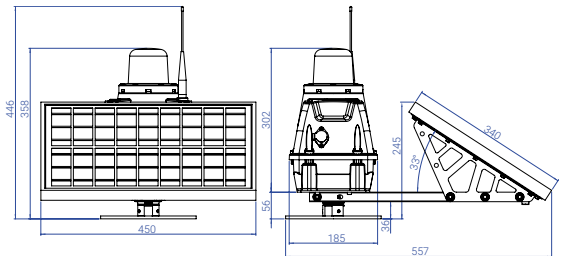
Optics	
	<ul style="list-style-type: none"> • 53 cd light output (peak) • Omnidirectional type • LED lifespan: 100.000 hrs • Maximum power consumption: 2,4W • NVG-compatible, Infrared LEDs (optional) • Color: green • User-replaceable
Battery	
Standard battery	<ul style="list-style-type: none"> • 2x built-in batteries, user-replaceable, air transportable • Autonomy: 280 hrs (minimum intensity) • Total capacity: 216W (2x9Ah/12V) • Deep-cycle VRLA, 12V/9Ah (available worldwide) • Lifespan: 1.200 cycles (designed for 4-5 years)
Cyclon battery (Arctic Pack)	<ul style="list-style-type: none"> • 1x built-in battery, user-replaceable, air transportable • Autonomy: 155 hrs (minimum intensity) • Total capacity: 120W (10Ah/12V) • Lifespan: 300 cycles (designed for 10-15 years)
Solar Power Supply	
	<ul style="list-style-type: none"> • 20W solar panel, separately installed • Polycrystalline type (optional: monocrystalline) • Lifespan: 15 years • Built-in inverter 12-36V/2A
Control & Monitoring	
	<ul style="list-style-type: none"> • S4GA Mesh wireless network • Operating frequency: 868 MHz (optional 2.4GHz or 433 Mhz) • Operating range: up to 1.5 km, relayed (each light is a repeater) • Operating Modes: Steady / Flashing / Dusk till dawn Visible / Infrared / Visible + Infrared (optional) • Activation options: Via UR-101 Handheld Controller Via UR-201 Control & Monitoring Unit Via ALCMS Computer Interface (requires UR-201)

Environmental Conditions	
	<ul style="list-style-type: none"> • Temperature range: -20 to 50 °C (-4 to 122 °F) Optional: -40 to 80 °C (-40 to 176 °F) • Ingress protection: IP-67 (tested by accredited laboratory) • Impact Resistance: IK-10 (tested by accredited laboratory) • Jet Blast Resistance: 240 kph (tested by accredited laboratory)
Casing & Components	
	<ul style="list-style-type: none"> • Materials Dome: glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow Mounting: marine grade stainless steel Frangible mounting: aluminum (tested by accredited laboratory) • Detachable antenna • Emergency ON/OFF button • Pressure stabilizing valve, transportation fuse • Battery level indicator • Carrying handle (optional) • Casing lifespan: 15 years • Dimensions (LxWxH): 557 mm x 450 mm x 358 mm • Weight: 14,2 kg
Compliance	
Photometric & Chromaticity	ICAO, Annex 14th, Volume II, 7th Edition dated July 2016
Jet Blast Resistance	ICAO Annex 14th, Volume II, 3rd Edition dated 1995, Doc 9261, clause 1.4.1.3
	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018. Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1.
CE Declaration of Conformity	FAA AC 150/5345-50B dated September 2007, clause 3.2.2
	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1
Accredited Laboratory Testing	
Jet Blast Resistance	Warsaw Institute of Aviation The Laboratory of Aerodynamics
Ingress Protection	EMAG Institute of Innovative Technologies
Impact Resistance	Laborex Research Laboratory
Electromagnetic Compatibility	Military Institute of Armament Technology

TECHNICAL DRAWING



1. Adapter for glass dome
2. O-ring for the glass dome
3. Glass dome
4. LED optics
5. Radio antenna for wireless control & monitoring
6. O-ring under the glass dome
7. PCB board
8. Casing upper part
9. Charging port
10. Micro-computer with integrated radio transceiver
11. Protective plate
12. Rubber gasket
13. Battery holder
14. 2x batteries built-in, VRLA type 12V/9Ah
15. Casing bottom part
16. 20W Solar panel with standard optimal inclination
17. Pressure stabilizing valve
18. Emergency ON/OFF button
19. Transportation fuse
20. Mounting plate
21. Holding frame for solar panel
22. Holder for solar panel frame
23. Frangible coupling
24. Base plate



SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
SP-401 Lighting Unit	630 mm x 270 mm x 380 mm	15 kg
SP-401 Lighting Unit, NO batteries	630 mm x 270 mm x 380 mm	9,8 kg