



SP-401S SOLAR RUNWAY EDGE LIGHT

MEDIUM INTENSITY



		Compliance: ICAO Annex 14 Vol. I (7th. Edition, July 2016)
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FEATURES

- Operates 365 days on solar energy
- 5-level protection against system failure
- 180 hrs of autonomy
- 1.200 cd light output

APPLICATION

Medium intensity, combined optics (bi-and omnidirectional); designed for permanent usage at airports located in regions without access to electricity and with high photovoltaic potential.

TECHNICAL SPECIFICATIONS

Optics		Safety & Reliability	
<ul style="list-style-type: none"> • 1.200 cd light output (tested by accredited laboratory) • Combined type, omnidirectional and bidirectional • LED lifespan: 100.000 hrs • Maximum power consumption: 9W • NVG-compatible, Infrared LEDs (optional) • Color: white/white • User-replaceable 		<ul style="list-style-type: none"> • Five levels of protection against system failure • Secondary power supply: backup battery • Real-time monitoring via ALCMS (Airfield Lighting Control and Monitoring System) • Emergency ON/OFF button 	
Battery		Environmental Conditions	
Standard battery	<ul style="list-style-type: none"> • 2x built-in batteries, user-replaceable, air transportable • Autonomy: 180 hrs (minimum intensity) • Total capacity: 216W (2x9Ah/12V) • Deep-cycle VRLA, 12V/9Ah (available worldwide) • Lifespan: 1.200 cycles (designed for 4-5 years) 	<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) 	
Cyclon battery (Arctic Pack)	<ul style="list-style-type: none"> • 1x built-in battery, user-replaceable, air transportable • Autonomy: 100 hrs (minimum intensity) • Total capacity: 120W (10Ah/12V) • Lifespan: 300 cycles (designed for 10-15 years) 	Compliance	
Solar Power Supply		Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 5.3.9.8 & clause 5.3.9.9, Appendix 1, Figure A1-1b
<ul style="list-style-type: none"> • 20W solar panel, separately installed • Polycrystalline type (optional: monocrystalline) • Lifespan: 15 years • MPPT-Temp / Built-in inverter 12-36V/2A 		Jet Blast Resistance	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018. Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1. FAA AC 150/5345-50B dated September 2007, clause 3.2.2
Control & Monitoring		Frangibility	ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9 ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.1.3 FAA AC 150-5345-46E clause 3.4.2.1 FAA AC 150/5220-23, clause 3.2
<ul style="list-style-type: none"> • Wireless mesh type 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 (optional) / Visible + Infrared (optional) • Activation options: Via ALCMS Computer Interface (requires UR-201) Via UR-201 Control & Monitoring Unit Via UR-101 Handheld Controller 		Secondary Power Supply	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11
Casing & Components		CE Declaration of Conformity	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1
<ul style="list-style-type: none"> • Materials Dome: glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow Mounting: galvanized steel (optional: marine grade stainless steel) Frangible mounting: aluminum (tested by accredited laboratory) • Detachable antenna • 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: 12,4 kg 		Accredited Laboratory Testing	
		Photometric & Chromaticity	Intertek Laboratory
		Jet Blast Resistance	Warsaw Institute of Aviation The Laboratory of Aerodynamics
		Frangibility	Laborex Research Laboratory
		Ingress Protection	EMAG Institute of Innovative Technologies
		Impact Resistance	Laborex Research Laboratory
		Electromagnetic Compatibility	Military Institute of Armament Technology

