

SP-401S SOLAR RUNWAY EDGE LIGHT



MEDIUM INTENSITY



INDIVIDUAL LIGHT STATUS MONITORING

The S4GA solar runway lights provide a permanent, reliable lighting solution for civil and military airports, while also serving as a backup system for airports with wired lighting infrastructure.



KEY FEATURES

- Solar-Powered
- Radio-Controlled
- Individual Light Status Monitoring



TECHNICAL SPECIFICATIONS

Optics	
<ul style="list-style-type: none"> • Color: white/white/white • 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) • User-replaceable 	
Battery	
Lead Acid (Standard)	2x built-in batteries, user-replaceable, air transportable Autonomy: 180 hrs (30% intensity) Total capacity: 216Wh (2x9Ah/12V) Deep-cycle VRLA, 12V/9Ah (available worldwide) Lifespan: 1.200 cycles (designed for 4-5 years)
Li-Ion	2x built-in batteries, user-replaceable, air transportable Autonomy: 340 hrs (30% intensity) Total capacity: 408Wh (2x17Ah/12V) Li-On, 12V/17Ah Lifespan: 3.000 cycles (designed for 6-7 years)
LIFEPO4	2x built-in batteries, user-replaceable, air transportable Autonomy: 240 hrs (30% intensity) Total capacity: 288Wh (2x12Ah/12V) LIFEPO4, 12V/12Ah Lifespan: 3.000 cycles (designed for 6-7 years)
Lead Acid Cyclon (Arctic Pack)	1x built-in battery, user-replaceable, air transportable Autonomy: 100 hrs (30% intensity) Total capacity: 120Wh (10Ah/12V) Lifespan: 300 cycles (designed for 10-15 years)
Solar Power Supply	
<ul style="list-style-type: none"> • 25W solar panel, separately installed • Polycrystalline type (optional: monocrystalline) • Lifespan: 15 years • MPPT-Temp / Built-in inverter 12-36V/2A 	
Control & Monitoring	
<ul style="list-style-type: none"> • Wireless mesh type network • Operating frequency: 868 Mhz (optional 915 Mhz, 2.4Ghz) • 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 	
Safety & Reliability	
<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 	

Casing & Components	
<ul style="list-style-type: none"> • Materials Dome: borosilicate hardened glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized,color: aviation yellow • Mounting Material: marine grade stainless steel Frangible coupling material: aluminum (tested by accredited laboratory) Type: permanent / quick release (optional) • Charging port: one port / two ports (optional) / drop-in charging port (optional) • 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 	
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-68 (tested by accredited laboratory) • Impact Resistance: IK-10 (tested by accredited laboratory) • Jet Blast Resistance: 240 kph (tested by accredited laboratory) 	
Compliance	
Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 9th Edition dated July 2022, clause 5.3.9.8 & clause 5.3.9.9, Appendix 1, Figure A1-1b STAC Certificat de conformité de matériel de balisage aéronautiqu dated July 2024
Jet Blast Resistance	ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 3.2.2 & clause 4.9.1. FAA AC 150/5345-50B dated September 2007, clause 3.2.2
Frangibility	ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9 ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 5.3.1.3 FAA AC 150-5345-46E clause 3.4.2.1 FAA AC 150/5220-23, clause 3.2
Secondary Power Supply	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11
CE Declaration of Conformity	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1

