

SP-301S SOLAR TAXIWAY EDGE LIGHT, TURNING PAD LIGHT

The S4GA solar taxiway edge and turning pad lights are designed for temporary or permanent use at airports of any type and size. They operate efficiently in all climate conditions and do not require connection to electrical infrastructure.

KEY FEATURES

- Self-Contained
- Solar-Powered
- Radio-Controlled
- Compliant with ICAO, FAA, EASA, CASA

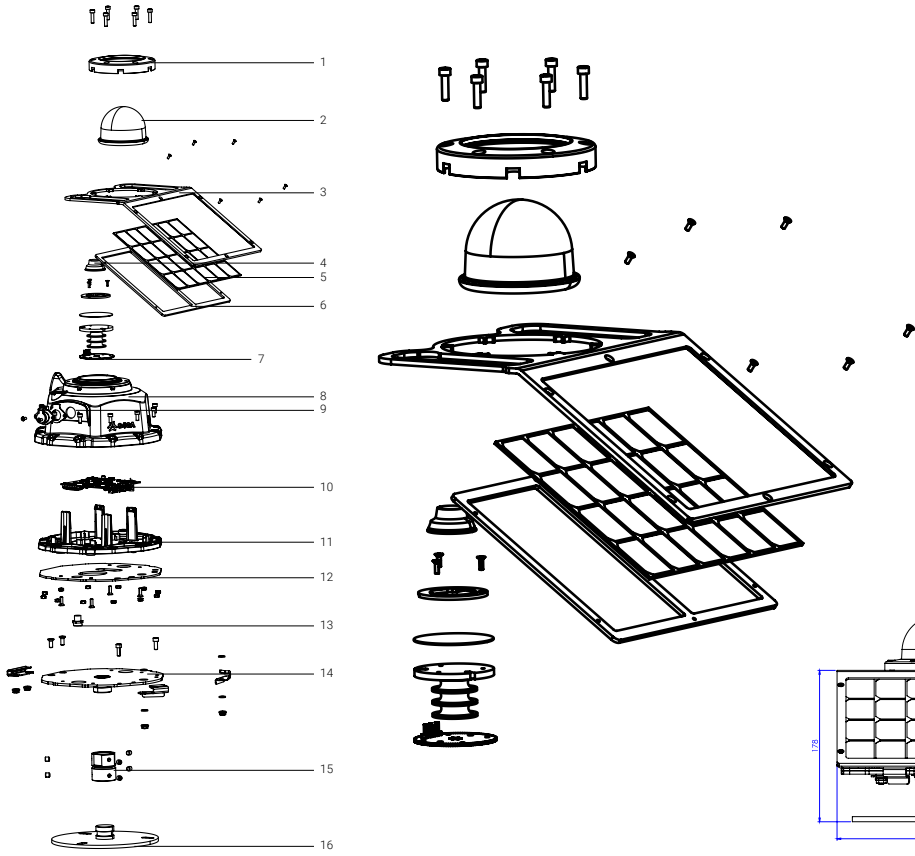


TECHNICAL SPECIFICATIONS

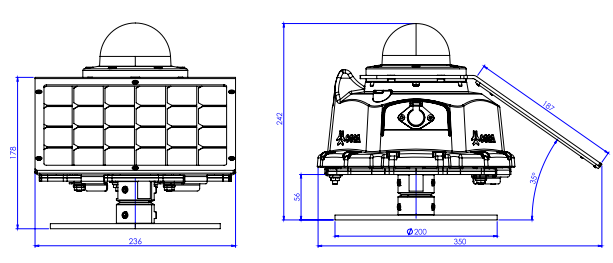
Optics	
	• Color: blue
	• 6 cd light output
	• Omnidirectional type
	• LED lifespan: 100.000 hrs
	• Maximum power consumption: 0.2 W
	• NVG-compatible, Infrared LEDs (optional)
	• User-replaceable
Battery	
LiFePO4	2x built-in batteries, user-replaceable, air transportable Autonomy: 630 hrs (30% intensity) Total capacity: 54 Wh (2 x 4,5 Ah / 6 V) LiFePO4, 6 V / 4,5 Ah Lifespan: 3,000 cycles (designed for 6-7 years)
Solar Power Supply	
	• 5 W solar panel
	• Monocrystalline type (optional: polycrystalline)
	• Lifespan: 15 years
	• MPPT-Temp / Built-in inverter 12-36 V / 2 A
Control & Monitoring	
Communication	Wireless mesh type network
Frequency	868 MHz (optional 915 MHz, 2.4 GHz)
Wireless range	>10 km (relayed)
Operating modes	Steady / Flashing / Dusk till dawn Visible / Infrared (optional) / Visible + Infrared (optional)
Activation options	Via UR-101 Handheld Controller Via UR-201 Control & Monitoring Unit (optional) Via ALCMS Computer Interface (requires UR-201; optional)
Safety & Reliability	
	• Five levels of protection against system failure
	• Secondary power supply: backup battery
	• Real-time monitoring via ALCMS (optional)
	• Emergency ON/OFF button

Casing & Components	
	• Light body materials Dome: borosilicate hardened glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow
	• Mounting components Material: marine grade stainless steel Frangible coupling material: aluminum Type: permanent / quick release (optional)
	• Charging port: one port / two ports (optional) / drop-in charging port (optional)
	• Built-in antenna / external antenna (optional)
	• Pressure stabilizing valve, transportation fuse
	• Battery level indicator
	• Carrying handle
	• Casing lifespan: 15 years
	• Dimensions (LxWxH): 350 mm x 236 mm x 242 mm
Environmental Conditions	
	• Temperature range: -20 to 50 °C (-4 to 122 °F) Optional: -40 to 80 °C (-40 to 176 °F)
	• Ingress Protection: IP-68
	• Impact Resistance: IK-10
	• Jet Blast Resistance: 240 kph
Compliance	
Photometric & Chromaticity	ICAO Annex 14, Volume I, 9th Edition dated July 2022, clause 5.3.18.7 & clause 5.3.18.8, Appendix 1, Figure A1-1b
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 Annex 14, Volume I, 9th Edition dated July 2022, 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 14, Volume I, 7th Edition dated July 2016, clauses 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

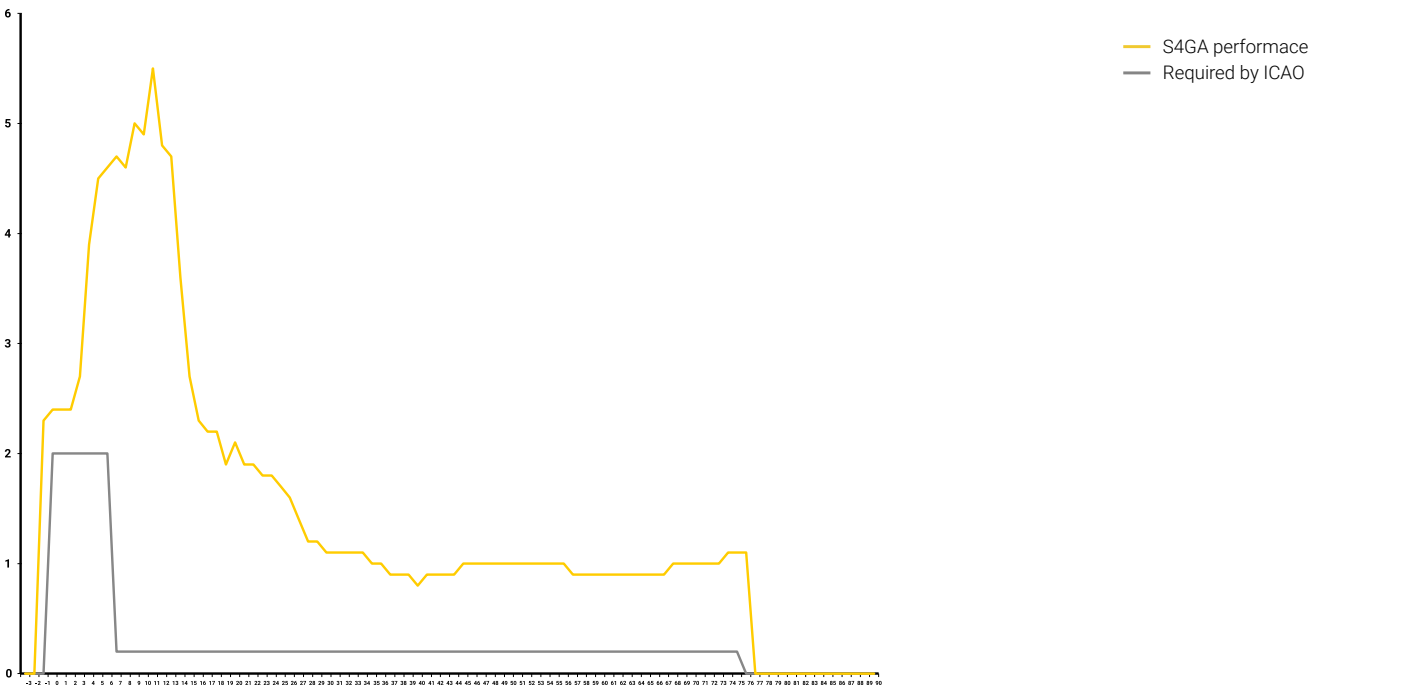
TECHNICAL DRAWING



1. Adapter for the glass dome
2. Glass dome
3. Carrying handle / Solar panel frame
4. LED optics
5. 5 W solar panel with fixed optimal inclination
6. Solar panel frame
7. LED module PCB
8. Casing (upper part)
9. Charging port
10. Main PCB
11. Casing (bottom part) with battery holder
12. Quick release / Mounting plate (optional)
13. Pressure-stabilizing valve
14. Mounting plate
15. Frangible coupling
16. Base plate



PHOTOMETRIC PERFORMANCE



SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
SP-301 Lighting Unit with solar panel (NO batteries)	380 mm x 260 mm x 245 mm	3,88 kg
SP-301 Lighting Unit with solar panel (LiFePO4 batteries)	380 mm x 260 mm x 245 mm	4,58 kg

Document version: 11005-DS-0326