

# SP-401P PORTABLE RUNWAY EDGE LIGHT



**MEDIUM INTENSITY**

**YELLOW / RED**

				<p><b>Compliance:</b> ICAO Annex 14 Vol. I (8th. Edition, July 2018) EASA CS-ADR-DSN FAA AC</p>	
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## FEATURES

- 180 hrs of autonomy
- Remote activation
- Convertible to solar airfield light

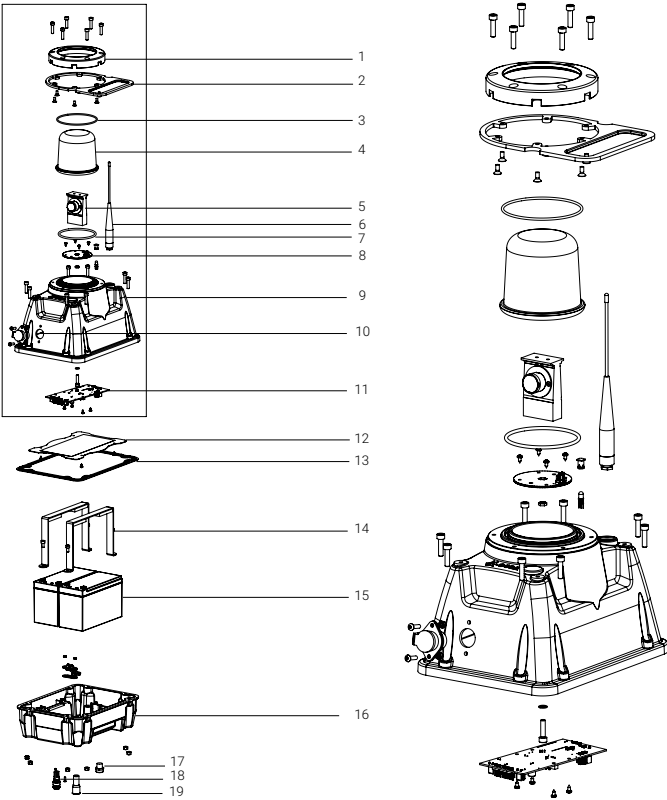
## APPLICATION

Mobile airfield light designed to quickly illuminate temporary airfield in accordance with ICAO:

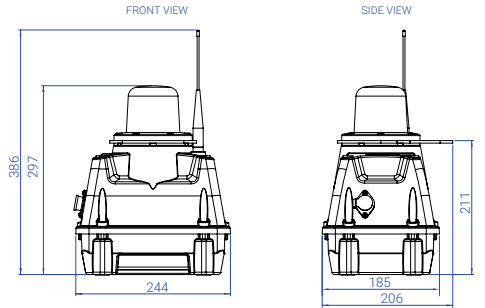
- Temporary runways
- Remote airfields
- Backup airport lighting
- Emergency landing airstrips

## TECHNICAL SPECIFICATIONS

<b>Optics</b>		<b>Safety &amp; Reliability</b>	
<ul style="list-style-type: none"> <li>• 800 cd (yellow) / 320 cd (red) light output (tested by accredited laboratory)</li> <li>• Bidirectional type</li> <li>• LED lifespan: 100.000 hrs</li> <li>• Maximum power consumption: 9W</li> <li>• NVG-compatible, Infrared LEDs (optional)</li> <li>• Color: yellow / red</li> <li>• User-replaceable</li> </ul>		<ul style="list-style-type: none"> <li>• Five levels of protection against system failure</li> <li>• Secondary power supply: backup battery</li> <li>• Real-time monitoring via ALCMS (Airfield Lighting Control and Monitoring System)</li> <li>• Emergency ON/OFF button</li> </ul>	
<b>Battery</b>		<b>Environmental Conditions</b>	
Standard battery	<ul style="list-style-type: none"> <li>• 2x built-in batteries, user-replaceable, air transportable</li> <li>• Autonomy: 180 hrs (minimum intensity)</li> <li>• Total capacity: 216W (2x9Ah/12V)</li> <li>• Deep-cycle VRLA, 12V/9Ah (available worldwide)</li> <li>• Lifespan: 1.200 cycles (designed for 4-5 years)</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature range: -20 to 50 °C (-4 to 122 °F) Optional: -40 to 80 °C (-40 to 176 °F)</li> <li>• Ingress protection: IP-67 (tested by accredited laboratory)</li> <li>• Impact Resistance: IK-10 (tested by accredited laboratory)</li> <li>• Jet blast resistance: 240 kph (tested by accredited laboratory)</li> </ul>	
Cyclon battery (Arctic Pack)	<ul style="list-style-type: none"> <li>• 1x built-in battery, user-replaceable, air transportable</li> <li>• Autonomy: 100 hrs (minimum intensity)</li> <li>• Total capacity: 120W (10Ah/12V)</li> <li>• Lifespan: 300 cycles (designed for 10-15 years)</li> </ul>	<b>Compliance</b>	
<b>Charging</b>		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"> <li>• Via OCT-401 Charger (charging time: 8 hrs)</li> <li>• Contactless charging in a Trailer (charging time: 8 hrs)</li> <li>• Optional: solar power supply</li> </ul>		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
<b>Remote Activation &amp; Control</b>		Frangibility	FAA AC 150/5345-50B dated September 2007, clause 3.2.2 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"> <li>• Wireless mesh type network</li> <li>• Operating frequency: 868 MHz (optional 2.4GHz or 433 Mhz)</li> <li>• Operating range: up to 1.5 km, relayed (each light is a repeater)</li> </ul>		Secondary Power Supply	ICAO, Annex 14th, Volume I, 7th Edition dated July 2016, clause 8.1.8-8.1.9 & clause 8.1.11
<p>Operating Modes:</p> <ul style="list-style-type: none"> <li>• Steady / Flashing / Dusk till dawn</li> <li>• Visible / Infrared (optional) / Visible + Infrared (optional)</li> </ul> <p>Remote activation:</p> <ul style="list-style-type: none"> <li>• Via UR-101 Handheld Controller</li> <li>• Via UR-201 Control &amp; Monitoring Unit GSM activation (Cell Phone) VHF activation (Air-band Radio)</li> <li>• Via ALCMS Computer Interface (requires UR-201)</li> </ul>		CE Declaration of Conformity	2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2 2011/65/EU ROHS Directive, clause 4.1
<b>Casing &amp; Components</b>		<b>Accredited Laboratory Testing</b>	
<ul style="list-style-type: none"> <li>• Materials Dome: glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized, color: aviation yellow Carrying handle: polycarbonate, stainless steel (optional)</li> <li>• Detachable antenna</li> <li>• Pressure stabilizing valve, transportation fuse</li> <li>• Battery level indicator</li> <li>• Transport circuit breaker</li> <li>• Casing lifespan: 15 years</li> <li>• Optional: frangible mounting (tested by accredited laboratory)</li> <li>• Dimensions (LxWxH): 244 mm x 185 mm x 297 mm</li> <li>• Weight: 7 kg</li> </ul>		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

**TECHNICAL DRAWING**


1. Adapter for glass dome
2. Carrying handle
3. O-ring for the glass dome
4. Glass dome
5. LED optics
6. Radio antenna for wireless control & monitoring
7. O-ring under the glass dome
8. PCB board
9. Casing upper part
10. Charging port
11. Micro-computer with integrated radio transceiver
12. Protective plate
13. Rubber gasket
14. Battery holder
15. 2x batteries built-in, VRLA type 12V/9Ah
16. Casing bottom part
17. Pressure stabilizing valve
18. Emergency ON/OFF button
19. Transportation fuse


**PHOTOMETRIC PERFORMANCE**
**Yellow**

																				SP-401 RUNWAY EDGE LIGHT (YELLOW DIRECTION)																					
																				TEST AREA	REQUIRED	RESULTS																			
12°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 1	MIN 25 CD	MIN. 500,03 CD																		
11.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 2	MIN. 10 CD	MIN. 476,91 CD																		
11°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 3	MIN. 5 CD	MIN. 276,95 CD																		
10.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																					
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V/H	-10	-9.5	-9	-8.5	-8	-7.5	-7	-6.5	-6	-5.5	-5	-4.5	-4	-3.5	-3	-2.5	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	c

**Red**

																				SP-401 RUNWAY EDGE LIGHT (RED DIRECTION)																					
																				TEST AREA	REQUIRED	RESULTS																			
12°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 1	MIN. 20 CD	MIN. 149,79 CD																		
11.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 2	AVG MIN. 50 CD	AVERAGE: 328,16 CD																		
11°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	AREA 3	MIN. 5 CD	MIN. 35,06 CD																		
10.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																					
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V/H	-10	-9.5	-9	-8.5	-8	-7.5	-7	-6.5	-6	-5.5	-5	-4.5	-4	-3.5	-3	-2.5	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

**SHIPPING DATA**

Item	Dimensions of Package (LxWxH)	Gross Weight
SP-401 Lighting Unit	270 mm x 210 mm x 370 mm	8,2 kg
SP-401 Lighting Unit, NO batteries	270 mm x 210 mm x 370 mm	3 kg