SP-102S SOLAR
RUNWAY EDGE LIGHT

LOW INTENSITY

Compliance:
ICAO Annex 14 Vol. I (8th. Edition, July 2018)
EASA CS-ADR-DSN
FAA AC

FEATURES

- Self-contained solar light
- 90 hrs of autonomy
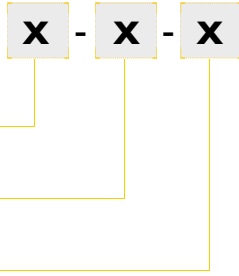- 110 cd light output

APPLICATION

Low intensity, self contained solar light, designed for temporary usage at airports located in regions without access to electricity and with high photovoltaic potential.

TECHNICAL SPECIFICATIONS

Optics
- 110 cd light output (tested by accredited laboratory)
- Omnidirectional
- LED lifespan: 100.000 hrs
- Maximum power consumption: 3,9W
- NVG-compatible, Infrared LEDs (optional)
- Color: white
- User-replaceable

Battery
- Built-in battery
- Autonomy: 90 hrs (minimum intensity)
- Total capacity: 108W (9Ah/12V)
- Deep-cycle VRLA, 12V/9Ah (available worldwide)
- Lifespan: 1.200 cycles (designed for 4-5 years)
- User-replaceable, air transportable

Solar Power Supply
- 5W built-in solar panel
- Polycrystalline type
- Lifespan: 15 years
- MPPT-Temp / Built-in inverter 12-36V/2A

Control & Monitoring
- Wireless mesh type network
- Operating frequency: 868 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 UR-101 Handheld Controller
  Via ALCMS Computer Interface (requires UR-201)
  Via UR-201 Control & Monitoring Unit

Casing & Components
- Materials
  Casing, Dome: polycarbonate, UV-resistant
  Mounting: galvanized steel (optional: marine grade stainless steel)
  Frangible mounting: aluminum (tested by accredited laboratory)
- Built in antenna (optional: external antenna)
- Pressure stabilizing valve
- Battery level indicator
- Carrying handle
- Casing lifespan: 15 years
- Dimensions (LxWxH): 455 x 280 x 254 mm
- Weight: 9,9 kg

Safety & Reliability
- Five levels of protection against system failure
- Secondary power supply: backup battery
- Real-time monitoring via ALCMS
  (Airfield Lighting Control and Monitoring System)

Environmental Conditions
- Temperature range: -20 to 50 ºC (-4 to 122 ºF)
  Optional: -40 to 80 ºC (-40 to 176 °F)
- Ingress protection: IP-65
- Jet Blast Resistance: 480 kph

Compliance

Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.9.8 & clause 5.3.9.9, Appendix 1, Figure A1-1b
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
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
Secondary Power Supply	ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, 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

Accredited Laboratory Testing

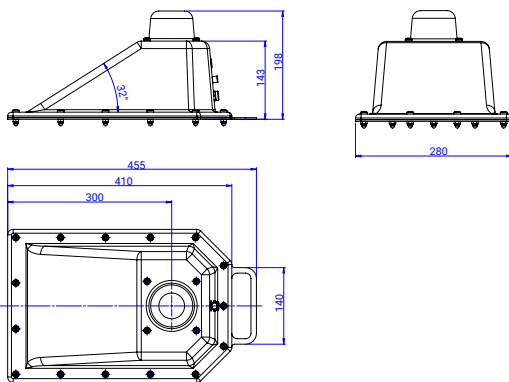|	
Photometric & Chromaticity	Intertek Laboratory
Jet Blast Resistance	Warsaw Institute of Aviation The Laboratory of Aerodynamics
Frangibility	Laborex Research Laboratory
Ingress Protection	EMAG Institute of Innovative Technologies

ORDERING CODES

SP-102S EDG - X - X - X

| Remote Control | 0 - No |
| | 1 - Yes |

| Infrared | 0 - No |
| | 1 - Yes |

| Mounting | 0 - No |
| | 1 - Yes |

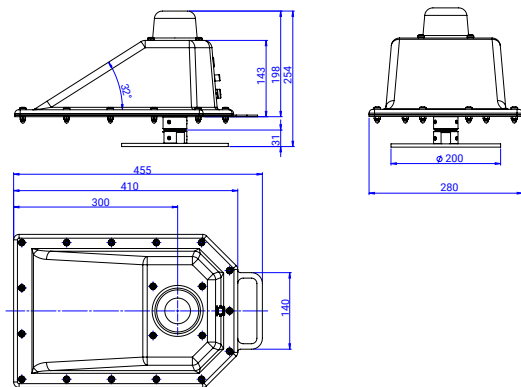## APPLICATION PHOTOS

TECHNICAL DRAWING

Portable version (without mounting)

Fixed version (with mounting)

SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
SP-102S Lighting Unit	500 mm x 300 mm x 210 mm	10,5 kg
SP-102S Lighting Unit, NO battery	500 mm x 300 mm x 210 mm	7,9 kg