

WORLD'S SAFEST RUNWAY LIGHTING

SP-102S SOLAR RUNWAY THRESHOLD END LIGHT



LOW INTENSITY



FEATURES

- Self-contained solar light
- 140 hrs of autonomy
- 320 (red) / 450 (green) cd light output

Compliance:

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

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	Safety & Reliability									
• 320 (red) / 450 (green) cd light output (tested by accredited laboratory)	Five levels of protection against system failure									
Bidirectional	Secondary power supply: backup battery Peal-time monitoring via ALCMS									
LED lifespan: 100.000 hrs	(Airfield Lighting Control and Monitoring System)									
Maximum power consumption: 1,8W	Environmental Conditions									
 NVG-compatible, Infrared LEDs (optional) 	Temperature range: -20 to 50 °C (-4 to 122 °F)									
Color: red / green	Optional: -40 to 80 °C (-40 to 176 °F)									
User-replaceable	Ingress protection: IP-65									
Battery	Jet Blast Resistance: 480 kph									
Built-in battery	Compliance									
Autonomy: 140 hrs (minimum intensity)		1040 Annow 14th Malures I Oth Edition dated								
 Total capacity: 108W (9Ah/12V) 		July 2018, clause 5.3.10.9 (green direction), clause 5.3.11.4 (red direction), Appendix 1, Figure A1-1b								
 Deep-cycle VRLA, 12V/9Ah (available worldwide) 	Photometric & Chromaticity									
 Lifespan: 1.200 cycles (designed for 4-5 years) 										
User-replaceable, air transportable		ICAO, Annex 14th, Volume I, 8th Edition dated July								
Solar Power Supply	let Blast Resistance	2018, Doc 9157, Part 6, clause 3.2.2 & clause 4.9.1								
 5W built-in solar panel 	ber Blast Resistance	FAA AC 150/5345-50B dated September 2007,								
Polycrystalline type		clause 3.2.2								
Lifespan: 15 years										
MPPT-Temp / Built-in inverter 12-36V/2A		ICAO Doc 9157 AN901 Aerodrome Design Manual Part 6, 1st Edition dated 2006, clause 4.9								
Control & Monitoring										
Wireless mesh type network		ICAO, Annex 14th, Volume I, 8th Edition dated July								
Operating frequency: 868 MHz	Frangibility	2018, clause 5.3.1.3								
Operating range: up to 1.5 km, relayed (each light is a repeater)										
Operating Modes:		FAA AC 150-5345-46E clause 3.4.2.1								
Steady / Flashing / Dusk till dawn		EAA AC 150/5220-23, clause 3.2								
 Activation options: 										
Via UR-101 Handheld Controller	O a ser dans Davier Ormalia	ICAO, Annex 14th, Volume I, 8th Edition dated July								
Via ALCMS Computer Interface (requires UR-201)	Secondary Power Supply	2018, clause 8.1.8 - 8.1.9 & clause 8.1.11								
Via UR-201 Control & Monitoring Unit		2014/53/EU RED Directive, clauses 3.1a, 3.1b, 3.2								
Casing & Components	CE Declaration of Conformity									
Materials		2011/65/EU ROHS Directive, clause 4.1								
Casing, Dome: polycarbonate, UV-resistant	Accordited Laboratory Testing									
Francible mounting: aluminum (tested by accredited laboratory)	Accredited Laboratory resting									
Built in antenna (optional: external antenna)	Photometric & Chromaticity	Intertek Laboratory								
Pressure stabilizing valve		Warney Institute of Avistian								
Battery level indicator	Jet Blast Resistance	The Laboratory of Aerodynamics								
Carrying handle		The Eastratory of Acrodynamics								
Casing lifespan: 15 years	Frangibility	Laborex Research Laboratory								
Dimensions (LxWxH): 455 x 280 x 254 mm	In more Dreate etiles	EMAC Institute of Innovative Technologies								
• Weight: 9,9 kg	ingress Protection	EMAG INSTITUTE OF INNOVATIVE TECHNOLOGIES								





ORDERING CODES



PHOTOMETRIC PERFORMANCE



_																																											
12°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	574		579	568	568	555	532	500		-		SP-401 RUNWAY THRESHOL						_D								
11,5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	504	530	556	573	579	587	577	559	530	500	462	425	390	TEST AREA			REQUIRED					RESULTS							
11°	-	-	-	-	-	-	-	-	-	-	352															437	394																
10.5°	-	-	-	-	-	-	-	-	270	308	352	395	434	481	514	550		591	598	600	592		550		486	443	406	AREA 1				MIN. 20 CD						MIN. 180,07 CD					
10°	-	-	-	-	-	-	-	231	268	310	353	396	435	475	511	543	568	589	595	594	588	571	548	520	484	450	411	(BLUE PART)			AVERAGE MIN, 50 CD						AVG	467,6	/ CD				
9.5°	-	-	-	-	-	167	197	232	270	304	353	393	437	484		545	572	594	602	604	600	582	558	532	496	453	412										MAX. 039 CD						
9°	-	-	-	-	142	167	197	230	270	314	350	391	436	476	517	552	580	597	608	610	606	594	568	535	499	463	419																
8.5°	-	-	-	120	142	169	198	229	268	309	356	396	443	485	521	558	584	606	619	621	613	595	571	548	510	469	426	AREA 2 (YELLOW PART)				MIN. 10 CD						MIN. 102.97 CD					
8°	-	-	101	119	142	166	196	229	266	303	346	393	440	479	517	554	584	598	616	623	612	599	582	547	510	471	428																
7.5°	- 1	-	101	119	141	166	196	227	265	304	348	394	439	481	519	558	586	607	615	615	609	596	571	539	506	468	426																
70	-	85	99	118	139	164	195	228	265	308	351	397	445	489	523	558	593	612	628	627	619	608	584	554	518	481	436	AREA 3 (PINK PART)				AREA 3 MIN. 5 CD					MIN. 67,30 CD						
6.5°	-	85	100	117	139	164	192	225	265	303	347	390	439	480	524	553	583	605	619	623	614	603	584	552	517	477	433																
60		84	99	116	137	161	191	222	261	299	342	387	434	479	519	552	583	604	622	623	619	604	585	559	522	483	441	399	354	313	274	240	210	181	158	136	118	103	88	77			
5.5*		84	98	115	137	160	190	222	261	300	344	388	432	476	515	558	584	606	622	631	625	608	587	564	523	485	439	398	358	315	274	241	213	182	157	138	119	104	90	78			
5.0	71	92	9.8	115	125	160	190	220	257	297	341	394	426	472	508	546	575	601	614	623	621	612	597	559	525	486	439	299	354	315	275	240	208	190	157	126	119	102	90	79	69		
4.59	71	82	96	112	134	158	185	219	254	293	335	380	428	470	510	551	580	605	620	623	620	607	591	561	525	486	443	400	361	315	274	239	210	191	156	136	119	103	90	80	69		
4,5	70	02	95	111	191	155	100	212	249	200	220	373	419	460	504	542	574	500	614	621	620	610	505	560	596	405	442	402	259	219	270	240	209	102	150	127	120	105	0.2	00	71		
2.50	69	01	95	112	100	154	102	212	240	207	220	376	420	462	504	540	679	594	611	619	621	609	500	561	5.2.0	400	445	400	256	215	272	220	202	190	157	120	120	105	0.2	01	70		
3,5	69	90	90	110	100	159	102	213	247	207	327	271	421	467	505	544	570	597	617	697	622	612	500	569	520	407	443	400	254	212	273	230	200	100	160	100	120	103	92	01	70		
3.	67	70		100	123	102	102	011	230	207	320	371	44.1	407	505	544	576	600	(17	621	601	610	573	500	530	407	440	400	350	012	070	2.33	211	104	100	100	122	107	32	70	70		
2,5*	67	79	92	108	128	101	177	211	248	280	328	372	417	404	505	342	570	600	606	620	621	012	588	560	527	487	448	401	333	313	2/3	240	208	180	100	130	101	103	91	79	70		
2*	67	78	91	107	126	148	177	208	245	281	326	371	416	461	502	546	580	608	626	629	627	616	594	568	534	488	440	401	358	313	211	243	213	185	160	139	121	106	93	81			
1,5*		//	91	107	126	150	1//	207	244	282	327	372	423	4/0	516	552	580	607	626	631	627	615	597	566	533	490	442	403	359	320	278	241	210	182	158	138	121	105	92	80	-		
1°	-	77	89	105	125	148	174	207	243	282	323	370	418	464	507	549	585	607	626	636	633	625	603	573	531	487	446	400	357	314	276	241	211	183	159	139	121	106	91	79	-		
0,5°	-	75	90	107	126	148	176	212	248	284	331	376	423	469	511	550	580	613	630	637	633	622	606	571	534	493	443	401	357	314	273	239	208	182	157	138	121	105	91	81	-		
0°	-	-	90	107	125	T48	176	209	244	283	323	369	420	466	509	547	581	606	629	639	637	625	600	568	529	491	446	401	360	319	278	240	210	184	158	137	121	106	-92	-	-		
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		

TECHNICAL DRAWING

Portable version (without mounting)



Fixed version (with mounting)





SHIPPING DATA

SP-102S Lighting Unit SP-102S Lighting Unit, NO battery

Dimensions of Package (LxWxH)	Gross Weight
500 mm x 300 mm x 210 mm	10,5 kg
500 mm x 300 mm x 210 mm	7,9 kg