SP-401P PORTABLE APPROACH LIGHT

MEDIUM INTENSITY

INDIVIDUAL LIGHT STATUS MONITORING

The S4GA portable airfield light offers a reliable and versatile solution for temporary and emergency airfield lighting, designed for rapid deployment and efficient operation in all weather conditions.

KEY FEATURES

- Rapid Deployment
- High Operating Time
- Radio-Controlled
- Weather-Resistant

TECHNICAL SPECIFICATIONS

Optics	
	• Color: white
	• 1.800 cd light output (tested by accredited laboratory)
	• Unidirectional type
	• LED lifespan: 100.000 hrs
	• Maximum power consumption: 3.9 W
	• 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: 216 Wh (2 x 9 Ah / 12 V) Deep-cycle VRLA, 12 V / 9 Ah (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: 408 Wh (2 x 17 Ah / 12 V) Li-ion, 12 V / 17 Ah 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: 288 Wh (2 x 12 Ah / 12 V) LiFePO4, 12 V / 12 Ah 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: 120 Wh (10 Ah / 12 V) Lifespan: 300 cycles (designed for 10-15 years)

Charging	
	• Via OCT-401 Charger (charging time: 8 hrs)
	• Drop-in charging in a Trailer (charging time: 8 hrs)
	• Optional: solar panel charging for off-grid operation

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 Via ALCMS Computer Interface (requires UR-201)

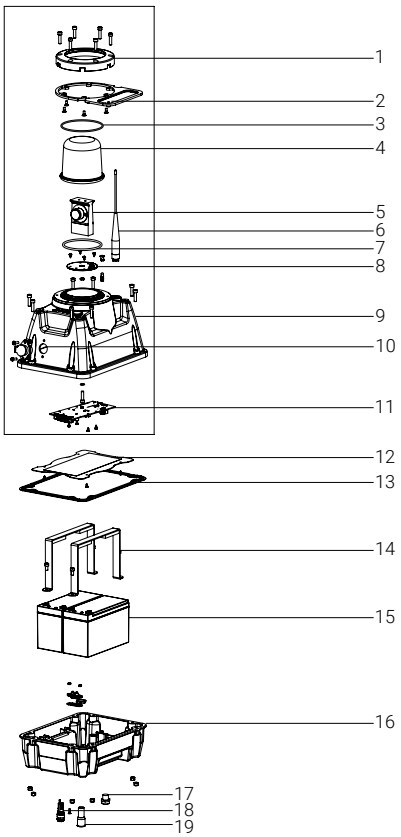
Safety & Reliability	
	• Five levels of protection against system failure
	• Secondary power supply: backup battery
	• Real-time monitoring via ALCMS (Airfield Lighting Control and Monitoring System)
	• Emergency ON/OFF button

Casing & Components	
	• Light body materials Dome: borosilicate hardened glass, UV-resistant Casing: Lexan polycarbonate, UV-stabilized,color: aviation yellow
	• Mounting options Frangible mounting for asphalt / concrete surface Rubber pad for all types surface Type: quick release / permanent (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: aluminium
	• Casing lifespan: 15 years
	• Dimensions (LxWxH): 244 mm x 185 mm x 297 mm

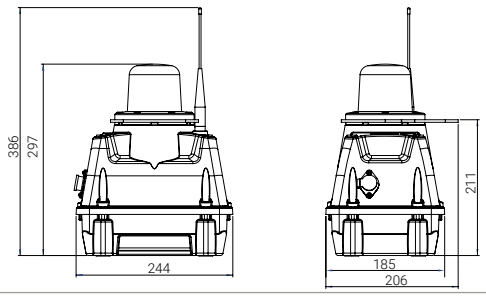
Environmental Conditions	
	• Temperature range: -20 to 50 °C (-4 to 122 °F) Optional: -40 to 80 °C (-40 to 176 °F)
	• Ingress Protection: IP-68 (tested by accredited laboratory)
	• Impact Resistance: IK-10 (tested by accredited laboratory)

Compliance	
Photometric & Chromaticity	ICAO, Annex 14th, Volume I, 9th Edition dated July 2022, clause 5.3.4.8 & clause 5.3.4.9, Appendix 1, Figure A1-1b
Secondary Power Supply	ICAO, Annex 14th, 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. 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. LED PCB
9. Casing (upper part)
10. Charging port
11. Main PCB
12. Protective plate
13. Rubber gasket
14. Battery holder
15. 2x batteries built-in
16. Casing (bottom part)
17. Pressure-stabilizing valve
18. Transportation fuse
19. Emergency ON/OFF button



PHOTOMETRIC PERFORMANCE

12°	794	796	802	805	806	797	794	794	791	791	788	785	784	781	777	771	766	764	758	751	747	737	729	722	715	708	702	696	687	680	SP-401 APPROACH LIGHT									
11,5°	866	868	868	874	876	874	872	872	869	868	863	859	854	851	845	839	833	827	818	807	801	793	785	780	772	765	757	747	741	733	TEST AREA		REQUIRED			RESULTS				
11°	946	948	949	953	955	952	949	948	946	944	941	939	932	925	920	914	905	897	891	883	875	864	856	850	840	832	826	815	807	798	AREA 1 (BLUE PART)		MIN. 25 CD AVG MIN. 50 CD			MIN. 1488.8 CD AVERAGE: 1764.1 CD				
10,5°	1025	1030	1032	1034	1034	1032	1031	1030	1028	1026	1021	1016	1011	1006	1000	993	985	978	971	960	951	940	930	923	915	908	898	889	880	871										
10°	1110	1114	1118	1119	1119	1121	1123	1120	1115	1109	1105	1102	1097	1092	1086	1078	1072	1064	1055	1045	1037	1026	1016	1006	996	986	977	968	960	950	AREA 2 (YELLOW PART)		MIN. 10 CD			MIN. 1124.7 CD				
9,5°	1190	1193	1197	1200	1202	1202	1203	1200	1197	1195	1192	1189	1184	1176	1169	1159	1151	1142	1135	1124	1113	1105	1098	1090	1078	1068	1056	1045	1035	1026										
9°	1262	1267	1268	1274	1279	1280	1279	1277	1276	1273	1266	1261	1258	1251	1242	1232	1226	1219	1208	1198	1189	1180	1170	1161	1151	1144	1125	1112	1102	1093	AREA 3 (PINK PART)		MIN. 5CD			MIN. 721.7 CD				
8,5°	1336	1345	1348	1351	1352	1352	1353	1351	1350	1349	1347	1341	1333	1327	1323	1314	1308	1297	1286	1275	1263	1250	1242	1233	1221	1209	1198	1190	1178	1166										
8°	1412	1418	1419	1424	1426	1428	1428	1428	1426	1424	1423	1417	1413	1410	1403	1392	1387	1378	1369	1361	1349	1340	1329	1313	1299	1291	1279	1269	1255	1236	1222	1210	1199	1183	1170	1156	1144	1130	1112	1090	1082
7,5°	1476	1489	1490	1494	1499	1503	1502	1501	1501	1500	1501	1497	1493	1486	1479	1474	1466	1461	1452	1440	1426	1417	1407	1395	1379	1369	1360	1350	1335	1325	1311	1296	1287	1269	1252	1235	1218	1203	1187	1176	1155
7°	1545	1548	1558	1567	1570	1576	1575	1577	1577	1576	1574	1572	1572	1567	1559	1557	1549	1536	1527	1521	1511	1501	1489	1479	1469	1457	1441	1431	1417	1402	1389	1373	1362	1347	1335	1320	1304	1285	1271	1255	1238
6,5°	1600	1605	1614	1624	1636	1639	1635	1631	1634	1634	1636	1635	1634	1634	1632	1624	1618	1609	1598	1596	1589	1577	1566	1553	1543	1530	1518	1507	1496	1483	1469	1458	1447	1431	1415	1402	1388	1372	1357	1341	1323
6°	1640	1656	1666	1672	1682	1688	1691	1689	1689	1688	1689	1693	1695	1695	1685	1682	1683	1678	1671	1670	1666	1654	1639	1627	1617	1609	1597	1590	1578	1562	1544	1533	1525	1509	1491	1477	1460	1450	1436	1417	1405
5,5°	1679	1692	1705	1714	1724	1731	1732	1736	1741	1743	1743	1746	1746	1746	1744	1745	1738	1734	1728	1724	1718	1708	1703	1696	1688	1677	1669	1661	1648	1636	1623	1609	1594	1579	1565	1552	1539	1523	1511	1495	1484
5°	1711	1723	1738	1751	1761	1767	1769	1776	1782	1787	1790	1789	1791	1790	1791	1788	1784	1785	1784	1778	1773	1769	1762	1756	1746	1734	1732	1728	1712	1699	1682	1670	1660	1648	1636	1622	1610	1598	1587	1573	1562
4,5°	1726	1743	1761	1771	1778	1785	1793	1801	1808	1812	1819	1818	1819	1823	1825	1830	1830	1828	1821	1818	1816	1814	1812	1809	1796	1791	1783	1772	1759	1752	1740	1730	1719	1713	1699	1686	1680	1666	1648	1634	1627
4°	1729	1744	1760	1770	1780	1794	1805	1809	1811	1816	1824	1831	1837	1844	1847	1850	1853	1856	1858	1856	1853	1849	1842	1839	1835	1826	1820	1815	1804	1796	1789	1781	1771	1761	1752	1738	1726	1718	1709	1690	1685
3,5°	1715	1733	1744	1764	1779	1796	1798	1802	1811	1817	1827	1838	1841	1847	1854	1859	1860	1859	1861	1860	1866	1870	1866	1864	1863	1855	1854	1847	1836	1831	1828	1817	1805	1801	1796	1788	1781	1765	1760	1753	1735
3°	1688	1706	1719	1738	1749	1760	1773	1779	1791	1805	1816	1822	1823	1833	1842	1852	1853	1861	1868	1871	1867	1865	1861	1864	1864	1864	1860	1858	1851	1840	1841	1837	1831	1835	1826	1816	1811	1794	1786	1782	1768
2,5°	1644	1664	1683	1702	1716	1729	1743	1749	1762	1773	1785	1794	1806	1819	1823	1830	1836	1840	1846	1850	1855	1861	1861	1864	1862	1861	1864	1862	1859	1856	1848	1848	1846	1844	1840	1833	1825	1814	1801	1804	1787
2°	1601	1617	1639	1657	1673	1684	1700	1714	1726	1738	1749	1757	1766	1777	1789	1800	1805	1812	1819	1822	1830	1833	1838	1845	1842	1847	1850	1848	1847	1847	1850	1854	1855	1848	1846	1843	1837	1819	1815	1814	1801
1,5°	1545	1567	1580	1597	1615	1634	1648	1662	1679	1691	1704	1719	1732	1744	1751	1759	1771	1778	1783	1789	1796	1801	1807	1814	1813	1815	1819	1824	1833	1833	1828	1827	1830	1827	1821	1822	1818	1818	1817	1810	1803
1°	1482	1503	1525	1541	1559	1576	1592	1607	1623	1635	1648	1659	1671	1683	1693	1702	1714	1725	1737	1743	1752	1759	1762	1772	1777	1780	1783	1790	1798	1800	1797	1798	1802	1806	1812	1807	1806	1800	1808	1800	1795
0,5°	1405	1423	1442	1464	1479	1496	1513	1530	1545	1556	1571	1580	1597	1613	1623	1633	1644	1654	1665	1672	1679	1686	1694	1704	1708	1711	1717	1724	1729	1736	1746	1755	1757	1762	1766	1764	1765	1765	1764	1759	1755
0°	1316	1336	1356	1377	1394	1411	1429	1447	1464	1475	1486	1500	1517	1531	1543	1552	1564	1576	1588	1592	1603	1617	1625	1635	1641	1646	1658	1668	1678	1683	1689	1696	1706	1711	1713	1713	1714	1713	1715	1718	1715
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 (NO batteries)	630 mm x 270 mm x 380 mm	3.5 kg
SP-401 Lighting Unit (Lead Acid batteries)	630 mm x 270 mm x 380 mm	8.3 kg
SP-401 Lighting Unit (LiFePO4 batteries)	630 mm x 270 mm x 380 mm	6 kg
SP-401 Lighting Unit (Li-ion batteries)	630 mm x 270 mm x 380 mm	5.5 kg