

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P520522

Luminaire Tested: **4WSLA-150-L935-UNV-U**

Issue Date: 5/3/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P520522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4WSLA-150-L935-UNV-U  
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

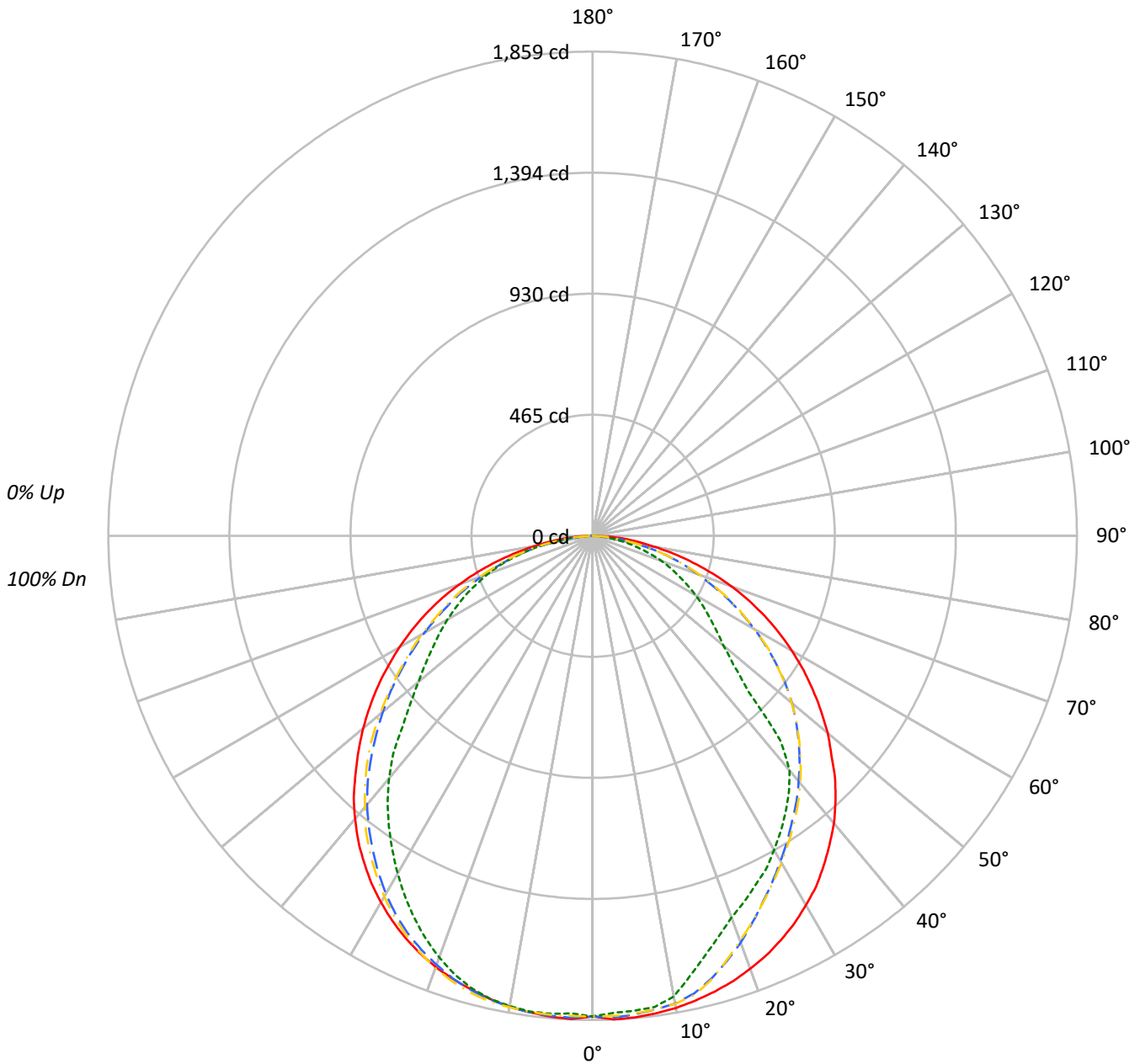
Lumens per Lamp: N/A  
Luminaire Lumens: 4950.0 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 47.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51																			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44																			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39																			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34																			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31																			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28																			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	9931	9931	9931	9931
5°	10028	9888	10011	9953
10°	10062	9813	10035	10019
15°	10093	9294	10049	10016
20°	10132	8930	10092	9865
25°	10164	8782	10111	9617
30°	10175	8656	10101	9301
35°	10159	8487	10055	8956
40°	10126	8262	9966	8540
45°	10013	6419	9787	7836
50°	9863	5495	9623	7310
55°	9688	5146	9438	7032
60°	9505	4912	9217	6916
65°	9279	4652	8963	6832
70°	8910	4423	8537	6729
75°	8295	3891	7904	6403
80°	7364	3251	6902	5430
85°	6966	2322	6113	3118



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.3	3.5
10°-20°	500.1	10.1
20°-30°	747.2	15.1
30°-40°	889.5	18.0
40°-50°	889.1	18.0
50°-60°	765.0	15.5
60°-70°	575.8	11.6
70°-80°	328.1	6.6
80°-90°	79.9	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1422.6	28.7
0°-40°	2312.1	46.7
0°-60°	3966.2	80.1
0°-90°	4950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4950.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1845	1845	1845	1845	1845	
5°	1856	1830	1853	1842	1856	177
15°	1812	1668	1804	1798	1812	512
25°	1712	1479	1703	1620	1712	789
35°	1546	1292	1530	1363	1546	967
45°	1316	843	1286	1030	1316	1013
55°	1032	548	1006	749	1032	923
65°	729	365	704	536	729	719
75°	399	187	380	308	399	422
85°	113	38	99	50	113	123
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2
2.5°	1859.1	1842.2	1852.1	1849.2	1833.3	1839.3	1845.2	1839.3	1857.1	1841.2	1852.1
5°	1856.1	1838.3	1844.2	1838.3	1830.3	1832.3	1841.2	1835.3	1853.1	1836.3	1850.1
7.5°	1850.1	1828.4	1834.3	1831.3	1824.4	1825.4	1834.3	1829.4	1845.2	1829.4	1845.2
10°	1841.2	1818.5	1823.4	1810.5	1795.7	1806.6	1824.4	1819.5	1836.3	1818.5	1836.3
12.5°	1827.4	1804.6	1799.7	1757.1	1730.4	1751.2	1805.6	1805.6	1821.4	1804.6	1823.4
15°	1811.5	1786.8	1760.1	1695.7	1668.0	1688.8	1764.0	1789.8	1803.6	1786.8	1805.6
17.5°	1792.7	1764.0	1712.5	1637.3	1611.6	1632.4	1709.6	1766.0	1783.8	1766.0	1782.8
20°	1769.0	1735.3	1662.1	1575.9	1559.1	1577.9	1655.1	1737.3	1762.0	1740.3	1752.1
22.5°	1743.2	1702.6	1605.6	1528.4	1520.5	1532.4	1602.7	1701.7	1734.3	1711.6	1719.5
25°	1711.6	1664.0	1549.2	1484.9	1478.9	1485.9	1551.2	1660.1	1702.6	1678.9	1681.9
27.5°	1677.9	1626.4	1495.8	1448.2	1442.3	1445.3	1499.7	1613.6	1666.0	1642.3	1637.3
30°	1637.3	1581.9	1442.3	1398.7	1392.8	1403.7	1450.2	1566.0	1625.4	1601.7	1586.8
32.5°	1596.7	1533.4	1389.8	1356.2	1344.3	1354.2	1398.7	1516.5	1580.9	1556.1	1531.4
35°	1546.2	1481.9	1335.4	1301.7	1291.8	1302.7	1347.3	1465.1	1530.4	1505.7	1472.0
37.5°	1493.8	1427.5	1285.9	1255.2	1237.4	1250.3	1294.8	1411.6	1477.9	1452.2	1410.6
40°	1441.3	1370.0	1230.5	1198.8	1176.0	1194.8	1240.4	1355.2	1418.5	1394.8	1347.3
42.5°	1379.9	1312.6	1176.0	1131.5	1067.1	1127.5	1182.0	1298.8	1357.2	1334.4	1277.0
45°	1315.6	1251.2	1118.6	1010.7	843.4	1020.6	1122.6	1239.4	1285.9	1264.1	1201.8
47.5°	1242.3	1187.9	1060.2	895.9	733.5	905.8	1062.2	1182.9	1218.6	1194.8	1125.5
50°	1178.0	1124.5	998.8	798.9	656.3	809.7	997.8	1119.6	1149.3	1127.5	1050.3
52.5°	1104.7	1058.2	932.5	712.7	598.9	723.6	930.5	1054.3	1078.0	1052.3	975.1
55°	1032.5	990.9	862.2	636.5	548.4	646.4	860.2	986.9	1005.8	976.1	895.9
57.5°	959.2	921.6	789.9	568.2	501.9	579.1	794.9	917.6	930.5	892.9	819.6
60°	883.0	851.3	716.7	507.8	456.3	516.7	714.7	848.4	856.3	815.7	745.4
62.5°	806.8	778.1	643.4	452.4	409.8	458.3	648.4	775.1	780.1	741.4	669.2
65°	728.6	701.8	572.2	394.0	365.3	403.9	577.1	698.9	703.8	660.3	594.9
67.5°	647.4	625.6	495.9	349.4	322.7	352.4	505.8	621.7	624.6	582.1	522.7
70°	566.2	547.4	428.6	300.9	281.1	301.9	435.6	536.5	542.5	496.9	449.4
72.5°	483.1	468.2	363.3	250.4	232.6	250.4	367.3	458.3	462.3	424.7	378.1
75°	398.9	388.0	297.0	201.0	187.1	200.0	299.0	380.1	380.1	344.5	307.9
77.5°	317.8	309.8	227.7	154.4	144.5	152.4	228.7	300.9	299.0	271.2	242.5
80°	237.6	231.6	163.3	111.9	104.9	108.9	163.3	222.7	222.7	202.9	168.3
82.5°	170.3	163.3	107.9	73.3	69.3	71.3	105.9	155.4	158.4	143.5	113.8
85°	112.8	97.0	58.4	40.6	37.6	38.6	55.4	90.1	99.0	83.2	59.4
87.5°	49.5	32.7	14.8	5.9	3.0	4.0	11.9	28.7	37.6	24.7	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1845.2	1845.2	1845.2	1845.2	1845.2	1845.2
2.5°	1851.1	1835.3	1841.2	1845.2	1841.2	1859.1
5°	1849.2	1842.2	1841.2	1846.2	1838.3	1856.1
7.5°	1846.2	1842.2	1841.2	1843.2	1833.3	1850.1
10°	1839.3	1833.3	1835.3	1838.3	1825.4	1841.2
12.5°	1826.4	1820.4	1821.4	1831.3	1813.5	1827.4
15°	1804.6	1797.7	1804.6	1815.5	1799.7	1811.5
17.5°	1775.9	1765.0	1776.9	1793.7	1781.8	1792.7
20°	1739.3	1722.4	1735.3	1766.0	1755.1	1769.0
22.5°	1694.7	1673.9	1686.8	1731.4	1728.4	1743.2
25°	1644.2	1619.5	1637.3	1691.8	1697.7	1711.6
27.5°	1587.8	1560.1	1583.9	1648.2	1662.1	1677.9
30°	1526.4	1496.7	1524.5	1599.7	1620.5	1637.3
32.5°	1463.1	1430.4	1462.1	1545.3	1575.0	1596.7
35°	1396.8	1363.1	1398.7	1488.8	1524.5	1546.2
37.5°	1325.5	1292.8	1331.4	1429.4	1472.0	1493.8
40°	1252.2	1215.6	1259.2	1359.1	1415.6	1441.3
42.5°	1177.0	1131.5	1184.9	1292.8	1354.2	1379.9
45°	1092.9	1029.5	1101.8	1222.5	1286.9	1315.6
47.5°	1008.7	945.4	1018.6	1147.3	1216.6	1242.3
50°	927.5	873.1	931.5	1065.1	1145.3	1178.0
52.5°	853.3	808.8	858.3	985.0	1072.1	1104.7
55°	784.0	749.4	789.9	905.8	994.9	1032.5
57.5°	718.7	696.9	724.6	830.5	923.6	959.2
60°	657.3	642.5	662.3	756.3	839.4	883.0
62.5°	596.9	589.0	603.8	678.1	761.2	806.8
65°	538.5	536.5	544.5	609.8	679.1	728.6
67.5°	480.1	479.1	484.1	537.5	598.9	647.4
70°	421.7	427.6	424.7	459.3	518.7	566.2
72.5°	362.3	371.2	366.3	388.0	445.5	483.1
75°	296.0	307.9	298.0	322.7	358.3	398.9
77.5°	227.7	240.5	228.7	250.4	289.1	317.8
80°	163.3	175.2	165.3	182.1	215.8	237.6
82.5°	103.0	111.9	103.9	120.8	154.4	170.3
85°	45.5	50.5	52.5	65.3	95.0	112.8
87.5°	2.0	1.0	2.0	12.9	33.7	49.5
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°









(END OF REPORT)