

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: P520516

Luminaire Tested: **4WSLA-150-L850-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: P520516  
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-L850-UNV-U  
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

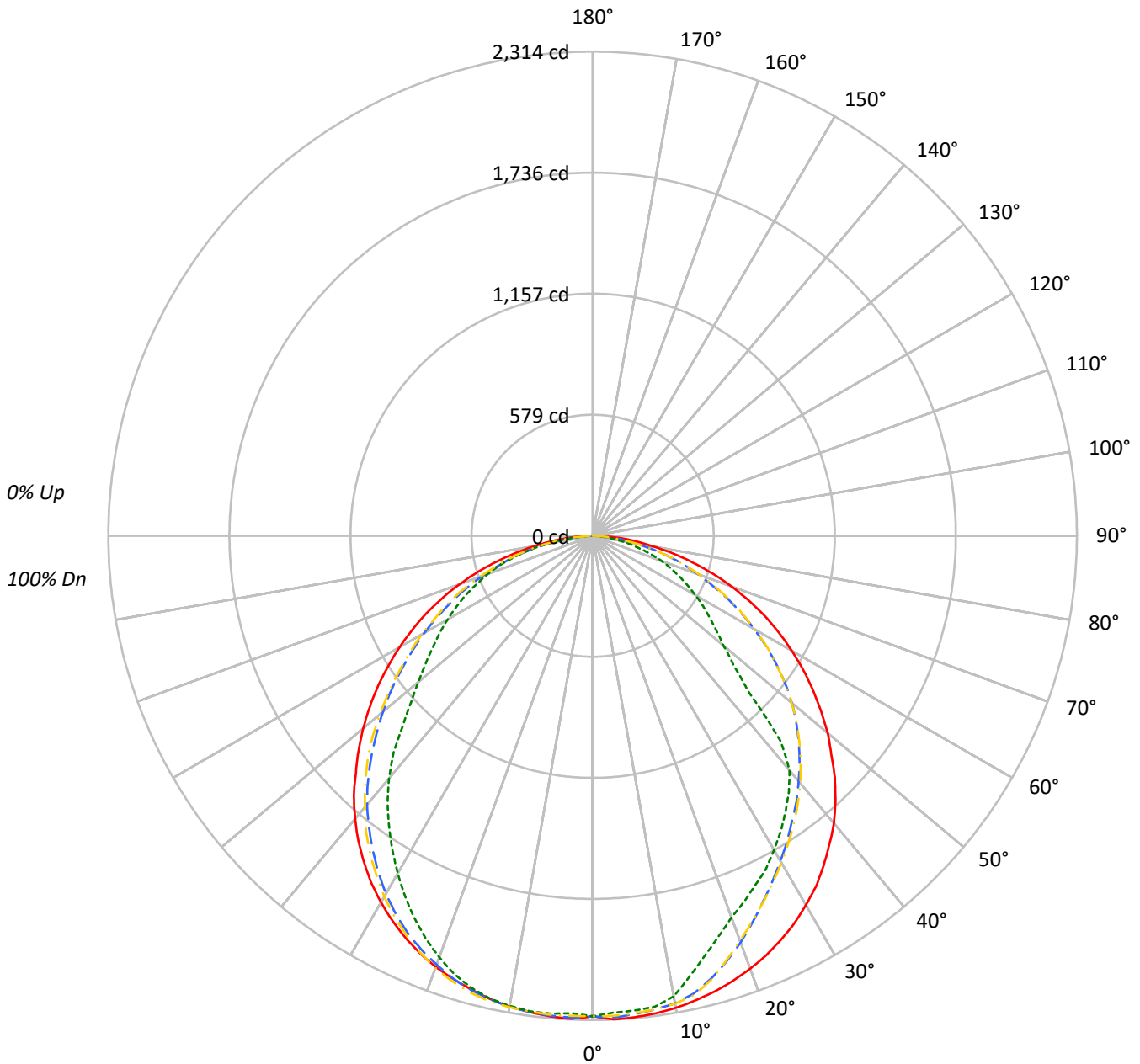
Lumens per Lamp: N/A  
Luminaire Lumens: 6160.0 lumens  
Efficiency: N/A  
Efficacy: 129.1 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

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°	12358	12358	12358	12358
5°	12479	12306	12459	12385
10°	12522	12212	12489	12468
15°	12561	11565	12506	12465
20°	12608	11112	12559	12277
25°	12648	10929	12583	11968
30°	12662	10772	12571	11575
35°	12642	10562	12513	11145
40°	12601	10282	12402	10628
45°	12461	7989	12180	9752
50°	12275	6838	11975	9097
55°	12056	6404	11744	8750
60°	11827	6113	11470	8606
65°	11547	5789	11154	8503
70°	11087	5506	10623	8375
75°	10324	4841	9836	7966
80°	9165	4048	8591	6757
85°	8670	2890	7608	3878



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.2	3.5
10°-20°	622.3	10.1
20°-30°	929.9	15.1
30°-40°	1106.9	18.0
40°-50°	1106.4	18.0
50°-60°	952.0	15.5
60°-70°	716.6	11.6
70°-80°	408.3	6.6
80°-90°	99.4	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°	1770.4	28.7
0°-40°	2877.3	46.7
0°-60°	4935.7	80.1
0°-90°	6160.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6160.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2296	2296	2296	2296	2296	
5°	2310	2278	2306	2292	2310	220
15°	2254	2076	2244	2237	2254	637
25°	2130	1840	2119	2015	2130	982
35°	1924	1608	1904	1696	1924	1204
45°	1637	1050	1600	1281	1637	1261
55°	1285	682	1252	932	1285	1149
65°	907	455	876	668	907	895
75°	496	233	473	383	496	526
85°	140	47	123	63	140	153
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°	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2
2.5°	2313.5	2292.5	2304.9	2301.2	2281.5	2288.9	2296.2	2288.9	2311.0	2291.3	2304.9
5°	2309.8	2287.6	2295.0	2287.6	2277.8	2280.2	2291.3	2283.9	2306.1	2285.2	2302.4
7.5°	2302.4	2275.3	2282.7	2279.0	2270.4	2271.6	2282.7	2276.5	2296.2	2276.5	2296.2
10°	2291.3	2263.0	2269.1	2253.1	2234.6	2248.2	2270.4	2264.2	2285.2	2263.0	2285.2
12.5°	2274.1	2245.7	2239.6	2186.6	2153.3	2179.2	2247.0	2247.0	2266.7	2245.7	2269.1
15°	2254.4	2223.6	2190.3	2110.2	2075.7	2101.6	2195.2	2227.3	2244.5	2223.6	2247.0
17.5°	2231.0	2195.2	2131.2	2037.5	2005.5	2031.4	2127.5	2197.7	2219.9	2197.7	2218.6
20°	2201.4	2159.5	2068.3	1961.2	1940.2	1963.6	2059.7	2162.0	2192.8	2165.7	2180.4
22.5°	2169.4	2118.9	1998.1	1902.0	1892.2	1907.0	1994.4	2117.6	2158.3	2129.9	2139.8
25°	2129.9	2070.8	1927.9	1847.8	1840.4	1849.1	1930.4	2065.9	2118.9	2089.3	2093.0
27.5°	2088.1	2024.0	1861.4	1802.3	1794.9	1798.6	1866.3	2008.0	2073.3	2043.7	2037.5
30°	2037.5	1968.6	1794.9	1740.7	1733.3	1746.8	1804.7	1948.9	2022.8	1993.2	1974.7
32.5°	1987.0	1908.2	1729.6	1687.7	1672.9	1685.2	1740.7	1887.3	1967.3	1936.5	1905.7
35°	1924.2	1844.1	1661.8	1619.9	1607.6	1621.2	1676.6	1823.2	1904.5	1873.7	1831.8
37.5°	1858.9	1776.4	1600.2	1562.0	1539.9	1555.9	1611.3	1756.7	1839.2	1807.2	1755.4
40°	1793.6	1704.9	1531.2	1491.8	1463.5	1486.9	1543.6	1686.5	1765.3	1735.7	1676.6
42.5°	1717.3	1633.5	1463.5	1408.1	1328.0	1403.1	1470.9	1616.2	1688.9	1660.6	1589.1
45°	1637.2	1557.1	1392.0	1257.8	1049.6	1270.1	1397.0	1542.3	1600.2	1573.1	1495.5
47.5°	1546.0	1478.3	1319.4	1114.9	912.8	1127.2	1321.8	1472.1	1516.5	1486.9	1400.7
50°	1466.0	1399.4	1243.0	994.1	816.7	1007.7	1241.7	1393.3	1430.2	1403.1	1307.0
52.5°	1374.8	1316.9	1160.4	887.0	745.3	900.5	1158.0	1312.0	1341.5	1309.5	1213.4
55°	1284.9	1233.1	1073.0	792.1	682.5	804.4	1070.5	1228.2	1251.6	1214.6	1114.9
57.5°	1193.7	1146.9	983.0	707.1	624.6	720.7	989.2	1142.0	1158.0	1111.2	1020.0
60°	1098.8	1059.4	891.9	632.0	567.9	643.0	889.4	1055.7	1065.6	1015.1	927.6
62.5°	1004.0	968.3	800.7	563.0	510.0	570.4	806.9	964.6	970.7	922.7	832.8
65°	906.7	873.4	712.0	490.3	454.6	502.6	718.2	869.7	875.9	821.7	740.4
67.5°	805.7	778.6	617.2	434.9	401.6	438.6	629.5	773.6	777.3	724.4	650.4
70°	704.6	681.2	533.4	374.5	349.9	375.7	542.0	667.7	675.1	618.4	559.3
72.5°	601.2	582.7	452.1	311.7	289.5	311.7	457.0	570.4	575.3	528.5	470.6
75°	496.5	482.9	369.6	250.1	232.8	248.8	372.0	473.0	473.0	428.7	383.1
77.5°	395.4	385.6	283.3	192.2	179.9	189.7	284.6	374.5	372.0	337.5	301.8
80°	295.7	288.3	203.3	139.2	130.6	135.5	203.3	277.2	277.2	252.5	209.4
82.5°	211.9	203.3	134.3	91.2	86.2	88.7	131.8	193.4	197.1	178.6	141.7
85°	140.4	120.7	72.7	50.5	46.8	48.0	69.0	112.1	123.2	103.5	73.9
87.5°	61.6	40.7	18.5	7.4	3.7	4.9	14.8	35.7	46.8	30.8	9.9
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°	2296.2	2296.2	2296.2	2296.2	2296.2	2296.2
2.5°	2303.6	2283.9	2291.3	2296.2	2291.3	2313.5
5°	2301.2	2292.5	2291.3	2297.5	2287.6	2309.8
7.5°	2297.5	2292.5	2291.3	2293.8	2281.5	2302.4
10°	2288.9	2281.5	2283.9	2287.6	2271.6	2291.3
12.5°	2272.8	2265.4	2266.7	2279.0	2256.8	2274.1
15°	2245.7	2237.1	2245.7	2259.3	2239.6	2254.4
17.5°	2210.0	2196.5	2211.2	2232.2	2217.4	2231.0
20°	2164.4	2143.5	2159.5	2197.7	2184.1	2201.4
22.5°	2109.0	2083.1	2099.1	2154.6	2150.9	2169.4
25°	2046.2	2015.4	2037.5	2105.3	2112.7	2129.9
27.5°	1976.0	1941.5	1971.0	2051.1	2068.3	2088.1
30°	1899.6	1862.6	1897.1	1990.7	2016.6	2037.5
32.5°	1820.7	1780.1	1819.5	1923.0	1959.9	1987.0
35°	1738.2	1696.3	1740.7	1852.8	1897.1	1924.2
37.5°	1649.5	1608.8	1656.9	1778.9	1831.8	1858.9
40°	1558.3	1512.8	1567.0	1691.4	1761.6	1793.6
42.5°	1464.7	1408.1	1474.6	1608.8	1685.2	1717.3
45°	1360.0	1281.2	1371.1	1521.4	1601.5	1637.2
47.5°	1255.3	1176.5	1267.6	1427.8	1514.0	1546.0
50°	1154.3	1086.5	1159.2	1325.5	1425.3	1466.0
52.5°	1061.9	1006.5	1068.0	1225.7	1334.1	1374.8
55°	975.7	932.5	983.0	1127.2	1238.1	1284.9
57.5°	894.4	867.3	901.7	1033.6	1149.4	1193.7
60°	818.0	799.5	824.1	941.2	1044.6	1098.8
62.5°	742.8	733.0	751.5	843.8	947.3	1004.0
65°	670.1	667.7	677.5	758.8	845.1	906.7
67.5°	597.5	596.2	602.4	668.9	745.3	805.7
70°	524.8	532.2	528.5	571.6	645.5	704.6
72.5°	450.9	462.0	455.8	482.9	554.4	601.2
75°	368.3	383.1	370.8	401.6	445.9	496.5
77.5°	283.3	299.3	284.6	311.7	359.7	395.4
80°	203.3	218.0	205.7	226.7	268.6	295.7
82.5°	128.1	139.2	129.3	150.3	192.2	211.9
85°	56.7	62.8	65.3	81.3	118.3	140.4
87.5°	2.5	1.2	2.5	16.0	41.9	61.6
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)