

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: P520534

Luminaire Tested: **4WSLA-175-L835-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: P520534
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-175-L835-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

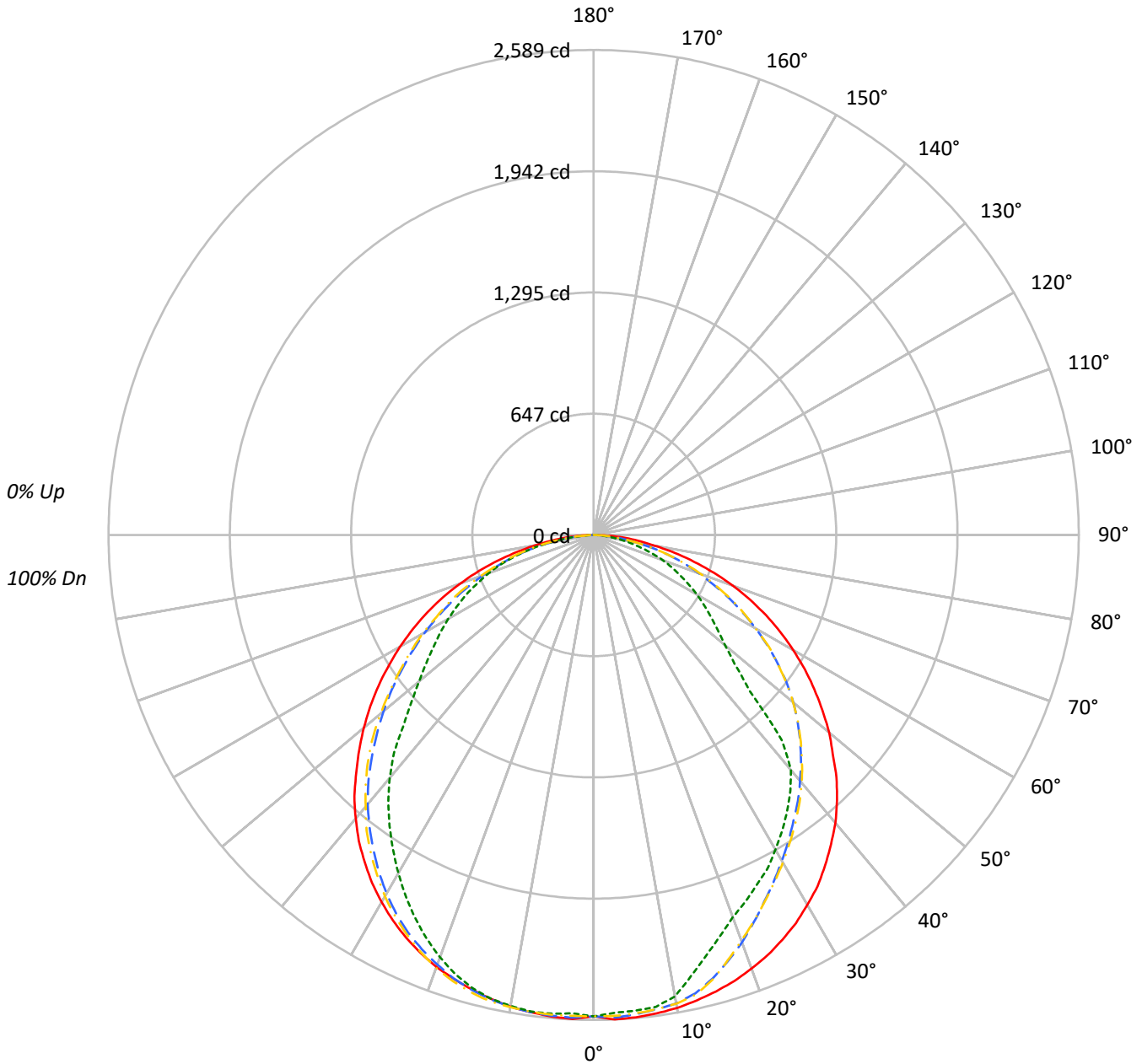
Lumens per Lamp: N/A
Luminaire Lumens: 6894.0 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (Ain): 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					20					
RC	80					70					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°	13831	13831	13831	13831
5°	13966	13772	13943	13861
10°	14014	13667	13976	13954
15°	14058	12944	13996	13950
20°	14110	12436	14055	13739
25°	14155	12231	14082	13394
30°	14171	12055	14068	12955
35°	14149	11821	14004	12473
40°	14103	11507	13880	11894
45°	13946	8940	13631	10913
50°	13736	7654	13402	10181
55°	13493	7167	13143	9793
60°	13237	6842	12837	9632
65°	12922	6478	12483	9515
70°	12409	6161	11888	9372
75°	11553	5419	11008	8917
80°	10256	4528	9614	7562
85°	9707	3236	8515	4341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.2	3.5
10°-20°	696.4	10.1
20°-30°	1040.7	15.1
30°-40°	1238.8	18.0
40°-50°	1238.2	18.0
50°-60°	1065.5	15.5
60°-70°	801.9	11.6
70°-80°	457.0	6.6
80°-90°	111.2	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°	1981.3	28.7
0°-40°	3220.1	46.7
0°-60°	5523.8	80.1
0°-90°	6894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6894.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2570	2570	2570	2570	2570	
5°	2585	2549	2581	2566	2585	246
15°	2523	2323	2512	2504	2523	713
25°	2384	2060	2371	2256	2384	1099
35°	2154	1799	2131	1898	2154	1347
45°	1832	1175	1791	1434	1832	1411
55°	1438	764	1401	1044	1438	1286
65°	1015	509	980	747	1015	1002
75°	556	261	529	429	556	588
85°	157	52	138	70	157	171
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°	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9
2.5°	2589.2	2565.7	2579.5	2575.4	2553.3	2561.6	2569.9	2561.6	2586.4	2564.3	2579.5
5°	2585.0	2560.2	2568.5	2560.2	2549.2	2551.9	2564.3	2556.1	2580.9	2557.4	2576.7
7.5°	2576.7	2546.4	2554.7	2550.6	2540.9	2542.3	2554.7	2547.8	2569.9	2547.8	2569.9
10°	2564.3	2532.6	2539.5	2521.6	2500.9	2516.1	2540.9	2534.0	2557.4	2532.6	2557.4
12.5°	2545.0	2513.3	2506.4	2447.2	2409.9	2438.9	2514.7	2514.7	2536.8	2513.3	2539.5
15°	2523.0	2488.5	2451.3	2361.7	2323.1	2352.0	2456.8	2492.6	2512.0	2488.5	2514.7
17.5°	2496.8	2456.8	2385.1	2280.3	2244.5	2273.4	2381.0	2459.6	2484.4	2459.6	2483.0
20°	2463.7	2416.8	2314.8	2194.9	2171.4	2197.6	2305.1	2419.6	2454.0	2423.7	2440.3
22.5°	2427.9	2371.3	2236.2	2128.7	2117.6	2134.2	2232.1	2369.9	2415.4	2383.7	2394.8
25°	2383.7	2317.6	2157.6	2068.0	2059.7	2069.4	2160.4	2312.0	2371.3	2338.2	2342.4
27.5°	2336.9	2265.2	2083.2	2017.0	2008.7	2012.9	2088.7	2247.2	2320.3	2287.2	2280.3
30°	2280.3	2203.1	2008.7	1948.1	1939.8	1955.0	2019.8	2181.1	2263.8	2230.7	2210.0
32.5°	2223.8	2135.6	1935.7	1888.8	1872.2	1886.0	1948.1	2112.1	2201.7	2167.3	2132.8
35°	2153.5	2063.9	1859.8	1813.0	1799.2	1814.3	1876.4	2040.4	2131.4	2097.0	2050.1
37.5°	2080.4	1988.1	1790.9	1748.2	1723.3	1741.3	1803.3	1966.0	2058.4	2022.5	1964.6
40°	2007.4	1908.1	1713.7	1669.6	1637.9	1664.1	1727.5	1887.4	1975.6	1942.6	1876.4
42.5°	1921.9	1828.1	1637.9	1575.8	1486.2	1570.3	1646.1	1808.8	1890.2	1858.5	1778.5
45°	1832.3	1742.6	1557.9	1407.6	1174.6	1421.4	1563.4	1726.1	1790.9	1760.6	1673.7
47.5°	1730.2	1654.4	1476.6	1247.7	1021.6	1261.5	1479.3	1647.5	1697.2	1664.1	1567.6
50°	1640.6	1566.2	1391.1	1112.6	914.1	1127.8	1389.7	1559.3	1600.6	1570.3	1462.8
52.5°	1538.6	1473.8	1298.7	992.6	834.1	1007.8	1296.0	1468.3	1501.4	1465.5	1358.0
55°	1438.0	1380.1	1200.8	886.5	763.8	900.3	1198.1	1374.5	1400.7	1359.4	1247.7
57.5°	1335.9	1283.5	1100.2	791.4	699.0	806.5	1107.1	1278.0	1296.0	1243.6	1141.5
60°	1229.8	1185.7	998.2	707.3	635.6	719.7	995.4	1181.5	1192.6	1136.0	1038.1
62.5°	1123.6	1083.6	896.1	630.1	570.8	638.3	903.0	1079.5	1086.4	1032.6	932.0
65°	1014.7	977.5	796.9	548.7	508.7	562.5	803.8	973.3	980.2	919.6	828.6
67.5°	901.7	871.3	690.7	486.7	449.4	490.8	704.5	865.8	869.9	810.7	727.9
70°	788.6	762.4	597.0	419.1	391.5	420.5	606.6	747.2	755.5	692.1	625.9
72.5°	672.8	652.1	506.0	348.8	324.0	348.8	511.5	638.3	643.8	591.5	526.7
75°	555.6	540.4	413.6	279.9	260.6	278.5	416.4	529.4	529.4	479.8	428.8
77.5°	442.6	431.5	317.1	215.1	201.3	212.3	318.5	419.1	416.4	377.8	337.8
80°	330.9	322.6	227.5	155.8	146.1	151.7	227.5	310.2	310.2	282.6	234.4
82.5°	237.1	227.5	150.3	102.0	96.5	99.3	147.5	216.5	220.6	199.9	158.5
85°	157.2	135.1	81.3	56.5	52.4	53.8	77.2	125.5	137.9	115.8	82.7
87.5°	68.9	45.5	20.7	8.3	4.1	5.5	16.5	40.0	52.4	34.5	11.0
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°	2569.9	2569.9	2569.9	2569.9	2569.9	2569.9
2.5°	2578.1	2556.1	2564.3	2569.9	2564.3	2589.2
5°	2575.4	2565.7	2564.3	2571.2	2560.2	2585.0
7.5°	2571.2	2565.7	2564.3	2567.1	2553.3	2576.7
10°	2561.6	2553.3	2556.1	2560.2	2542.3	2564.3
12.5°	2543.7	2535.4	2536.8	2550.6	2525.7	2545.0
15°	2513.3	2503.7	2513.3	2528.5	2506.4	2523.0
17.5°	2473.3	2458.2	2474.7	2498.2	2481.6	2496.8
20°	2422.3	2398.9	2416.8	2459.6	2444.4	2463.7
22.5°	2360.3	2331.3	2349.3	2411.3	2407.2	2427.9
25°	2290.0	2255.5	2280.3	2356.2	2364.4	2383.7
27.5°	2211.4	2172.8	2205.9	2295.5	2314.8	2336.9
30°	2125.9	2084.6	2123.2	2227.9	2256.9	2280.3
32.5°	2037.7	1992.2	2036.3	2152.1	2193.5	2223.8
35°	1945.3	1898.4	1948.1	2073.5	2123.2	2153.5
37.5°	1846.0	1800.6	1854.3	1990.8	2050.1	2080.4
40°	1744.0	1693.0	1753.7	1892.9	1971.5	2007.4
42.5°	1639.2	1575.8	1650.3	1800.6	1886.0	1921.9
45°	1522.1	1433.8	1534.5	1702.7	1792.3	1832.3
47.5°	1404.9	1316.6	1418.7	1597.9	1694.4	1730.2
50°	1291.8	1216.0	1297.3	1483.5	1595.1	1640.6
52.5°	1188.4	1126.4	1195.3	1371.8	1493.1	1538.6
55°	1091.9	1043.7	1100.2	1261.5	1385.6	1438.0
57.5°	1000.9	970.6	1009.2	1156.7	1286.3	1335.9
60°	915.4	894.8	922.3	1053.3	1169.1	1229.8
62.5°	831.3	820.3	841.0	944.4	1060.2	1123.6
65°	750.0	747.2	758.3	849.3	945.8	1014.7
67.5°	668.7	667.3	674.2	748.6	834.1	901.7
70°	587.3	595.6	591.5	639.7	722.4	788.6
72.5°	504.6	517.0	510.1	540.4	620.4	672.8
75°	412.2	428.8	415.0	449.4	499.1	555.6
77.5°	317.1	335.0	318.5	348.8	402.6	442.6
80°	227.5	244.0	230.2	253.7	300.6	330.9
82.5°	143.4	155.8	144.8	168.2	215.1	237.1
85°	63.4	70.3	73.1	91.0	132.4	157.2
87.5°	2.8	1.4	2.8	17.9	46.9	68.9
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)