

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: P520540

Luminaire Tested: **4WSLA-175-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: P520540
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-L850-UNV-U
Description: 4 FOOT, 1750 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

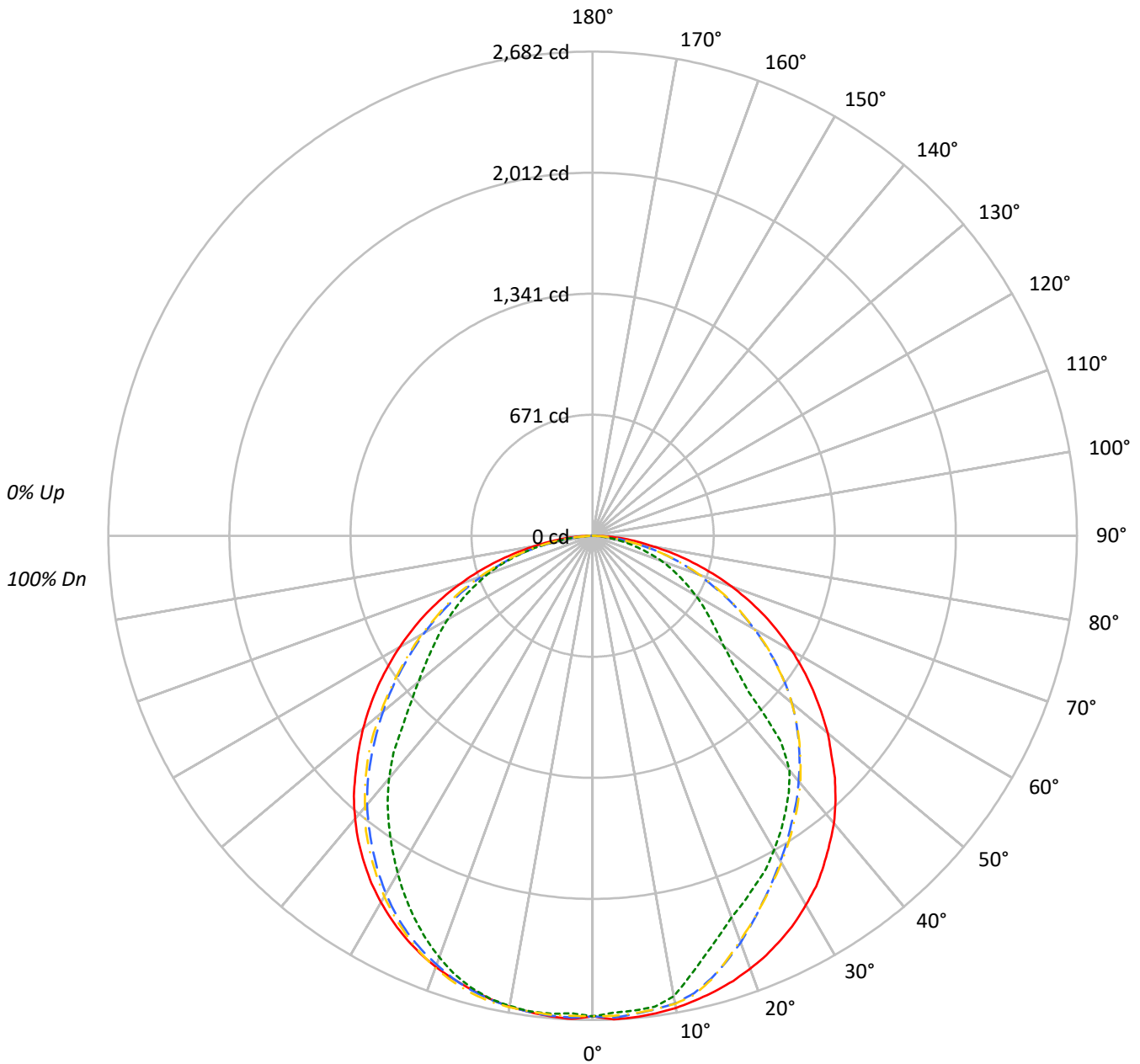
Lumens per Lamp: N/A
Luminaire Lumens: 7140.0 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (A_{in}): 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°	14325	14325	14325	14325
5°	14464	14263	14441	14356
10°	14514	14155	14475	14452
15°	14559	13406	14496	14448
20°	14614	12880	14557	14230
25°	14661	12668	14584	13872
30°	14677	12485	14571	13417
35°	14653	12243	14504	12918
40°	14606	11918	14375	12319
45°	14443	9259	14117	11303
50°	14227	7927	13880	10545
55°	13974	7422	13612	10142
60°	13710	7085	13295	9975
65°	13383	6710	12928	9855
70°	12851	6381	12313	9706
75°	11965	5612	11402	9235
80°	10621	4692	9958	7832
85°	10053	3353	8818	4495



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.9	3.5
10°-20°	721.3	10.1
20°-30°	1077.8	15.1
30°-40°	1283.0	18.0
40°-50°	1282.4	18.0
50°-60°	1103.5	15.5
60°-70°	830.6	11.6
70°-80°	473.3	6.6
80°-90°	115.2	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°	2052.0	28.7
0°-40°	3335.0	46.7
0°-60°	5720.9	80.1
0°-90°	7140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7140.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2662	2662	2662	2662	2662	
5°	2677	2640	2673	2657	2677	255
15°	2613	2406	2602	2593	2613	738
25°	2469	2133	2456	2336	2469	1138
35°	2230	1863	2208	1966	2230	1396
45°	1898	1216	1855	1485	1898	1461
55°	1489	791	1451	1081	1489	1332
65°	1051	527	1015	774	1051	1038
75°	575	270	548	444	575	609
85°	163	54	143	73	163	177
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°	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6
2.5°	2681.5	2657.3	2671.6	2667.3	2644.4	2653.0	2661.6	2653.0	2678.7	2655.8	2671.6
5°	2677.3	2651.6	2660.1	2651.6	2640.1	2643.0	2655.8	2647.3	2673.0	2648.7	2668.7
7.5°	2668.7	2637.3	2645.8	2641.6	2631.6	2633.0	2645.8	2638.7	2661.6	2638.7	2661.6
10°	2655.8	2623.0	2630.1	2611.6	2590.2	2605.9	2631.6	2624.4	2648.7	2623.0	2648.7
12.5°	2635.9	2603.0	2595.9	2534.5	2495.9	2525.9	2604.4	2604.4	2627.3	2603.0	2630.1
15°	2613.0	2577.3	2538.8	2445.9	2406.0	2436.0	2544.5	2581.6	2601.6	2577.3	2604.4
17.5°	2585.9	2544.5	2470.2	2361.7	2324.6	2354.6	2465.9	2547.3	2573.0	2547.3	2571.6
20°	2551.6	2503.1	2397.4	2273.2	2248.9	2276.0	2387.4	2505.9	2541.6	2510.2	2527.3
22.5°	2514.5	2455.9	2316.0	2204.6	2193.2	2210.3	2311.7	2454.5	2501.6	2468.8	2480.2
25°	2468.8	2400.3	2234.6	2141.8	2133.2	2143.2	2237.5	2394.5	2455.9	2421.7	2426.0
27.5°	2420.2	2346.0	2157.5	2089.0	2080.4	2084.7	2163.2	2327.4	2403.1	2368.8	2361.7
30°	2361.7	2281.7	2080.4	2017.6	2009.0	2024.7	2091.8	2258.9	2344.6	2310.3	2288.9
32.5°	2303.2	2211.8	2004.7	1956.2	1939.1	1953.3	2017.6	2187.5	2280.3	2244.6	2208.9
35°	2230.3	2137.5	1926.2	1877.7	1863.4	1879.1	1943.3	2113.3	2207.5	2171.8	2123.2
37.5°	2154.7	2059.0	1854.8	1810.5	1784.8	1803.4	1867.7	2036.1	2131.8	2094.7	2034.7
40°	2079.0	1976.2	1774.8	1729.2	1696.3	1723.4	1789.1	1954.8	2046.1	2011.9	1943.3
42.5°	1990.5	1893.4	1696.3	1632.1	1539.2	1626.3	1704.9	1873.4	1957.6	1924.8	1842.0
45°	1897.6	1804.8	1613.5	1457.9	1216.5	1472.1	1619.2	1787.7	1854.8	1823.4	1733.4
47.5°	1792.0	1713.4	1529.3	1292.2	1058.1	1306.5	1532.1	1706.3	1757.7	1723.4	1623.5
50°	1699.2	1622.1	1440.7	1152.3	946.7	1168.0	1439.3	1614.9	1657.8	1626.3	1515.0
52.5°	1593.5	1526.4	1345.1	1028.1	863.9	1043.8	1342.2	1520.7	1555.0	1517.8	1406.5
55°	1489.3	1429.3	1243.7	918.1	791.0	932.4	1240.8	1423.6	1450.7	1407.9	1292.2
57.5°	1383.6	1329.4	1139.4	819.6	723.9	835.3	1146.6	1323.6	1342.2	1287.9	1182.3
60°	1273.7	1228.0	1033.8	732.5	658.2	745.3	1030.9	1223.7	1235.1	1176.6	1075.2
62.5°	1163.7	1122.3	928.1	652.5	591.1	661.1	935.3	1118.0	1125.2	1069.5	965.2
65°	1050.9	1012.4	825.3	568.3	526.9	582.6	832.5	1008.1	1015.2	952.4	858.2
67.5°	933.8	902.4	715.4	504.0	465.5	508.3	729.6	896.7	901.0	839.6	753.9
70°	816.7	789.6	618.3	434.1	405.5	435.5	628.3	773.9	782.5	716.8	648.3
72.5°	696.8	675.4	524.0	361.3	335.6	361.3	529.7	661.1	666.8	612.6	545.4
75°	575.4	559.7	428.4	289.9	269.9	288.4	431.2	548.3	548.3	496.9	444.1
77.5°	458.3	446.9	328.4	222.7	208.5	219.9	329.8	434.1	431.2	391.2	349.8
80°	342.7	334.1	235.6	161.3	151.4	157.1	235.6	321.3	321.3	292.7	242.7
82.5°	245.6	235.6	155.6	105.7	100.0	102.8	152.8	224.2	228.5	207.0	164.2
85°	162.8	139.9	84.2	58.5	54.3	55.7	80.0	129.9	142.8	119.9	85.7
87.5°	71.4	47.1	21.4	8.6	4.3	5.7	17.1	41.4	54.3	35.7	11.4
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°	2661.6	2661.6	2661.6	2661.6	2661.6	2661.6
2.5°	2670.1	2647.3	2655.8	2661.6	2655.8	2681.5
5°	2667.3	2657.3	2655.8	2663.0	2651.6	2677.3
7.5°	2663.0	2657.3	2655.8	2658.7	2644.4	2668.7
10°	2653.0	2644.4	2647.3	2651.6	2633.0	2655.8
12.5°	2634.4	2625.9	2627.3	2641.6	2615.9	2635.9
15°	2603.0	2593.0	2603.0	2618.7	2595.9	2613.0
17.5°	2561.6	2545.9	2563.0	2587.3	2570.2	2585.9
20°	2508.8	2484.5	2503.1	2547.3	2531.6	2551.6
22.5°	2444.5	2414.5	2433.1	2497.4	2493.1	2514.5
25°	2371.7	2336.0	2361.7	2440.2	2448.8	2468.8
27.5°	2290.3	2250.3	2284.6	2377.4	2397.4	2420.2
30°	2201.8	2158.9	2198.9	2307.4	2337.4	2361.7
32.5°	2110.4	2063.3	2109.0	2228.9	2271.7	2303.2
35°	2014.7	1966.2	2017.6	2147.5	2198.9	2230.3
37.5°	1911.9	1864.8	1920.5	2061.8	2123.2	2154.7
40°	1806.3	1753.4	1816.3	1960.5	2041.9	2079.0
42.5°	1697.7	1632.1	1709.2	1864.8	1953.3	1990.5
45°	1576.4	1485.0	1589.2	1763.4	1856.2	1897.6
47.5°	1455.0	1363.6	1469.3	1654.9	1754.9	1792.0
50°	1337.9	1259.4	1343.6	1536.4	1652.0	1699.2
52.5°	1230.8	1166.6	1238.0	1420.7	1546.4	1593.5
55°	1130.9	1080.9	1139.4	1306.5	1435.0	1489.3
57.5°	1036.6	1005.2	1045.2	1198.0	1332.2	1383.6
60°	948.1	926.7	955.2	1090.9	1210.8	1273.7
62.5°	861.0	849.6	871.0	978.1	1098.0	1163.7
65°	776.8	773.9	785.3	879.6	979.5	1050.9
67.5°	692.5	691.1	698.2	775.3	863.9	933.8
70°	608.3	616.8	612.6	662.5	748.2	816.7
72.5°	522.6	535.5	528.3	559.7	642.5	696.8
75°	426.9	444.1	429.8	465.5	516.9	575.4
77.5°	328.4	347.0	329.8	361.3	416.9	458.3
80°	235.6	252.7	238.5	262.7	311.3	342.7
82.5°	148.5	161.3	149.9	174.2	222.7	245.6
85°	65.7	72.8	75.7	94.2	137.1	162.8
87.5°	2.9	1.4	2.9	18.6	48.5	71.4
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)