

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: P520564

Luminaire Tested: **4WSLA-200-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: P520564  
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-200-L850-UNV-U  
Description: 4 FOOT, 2000 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**

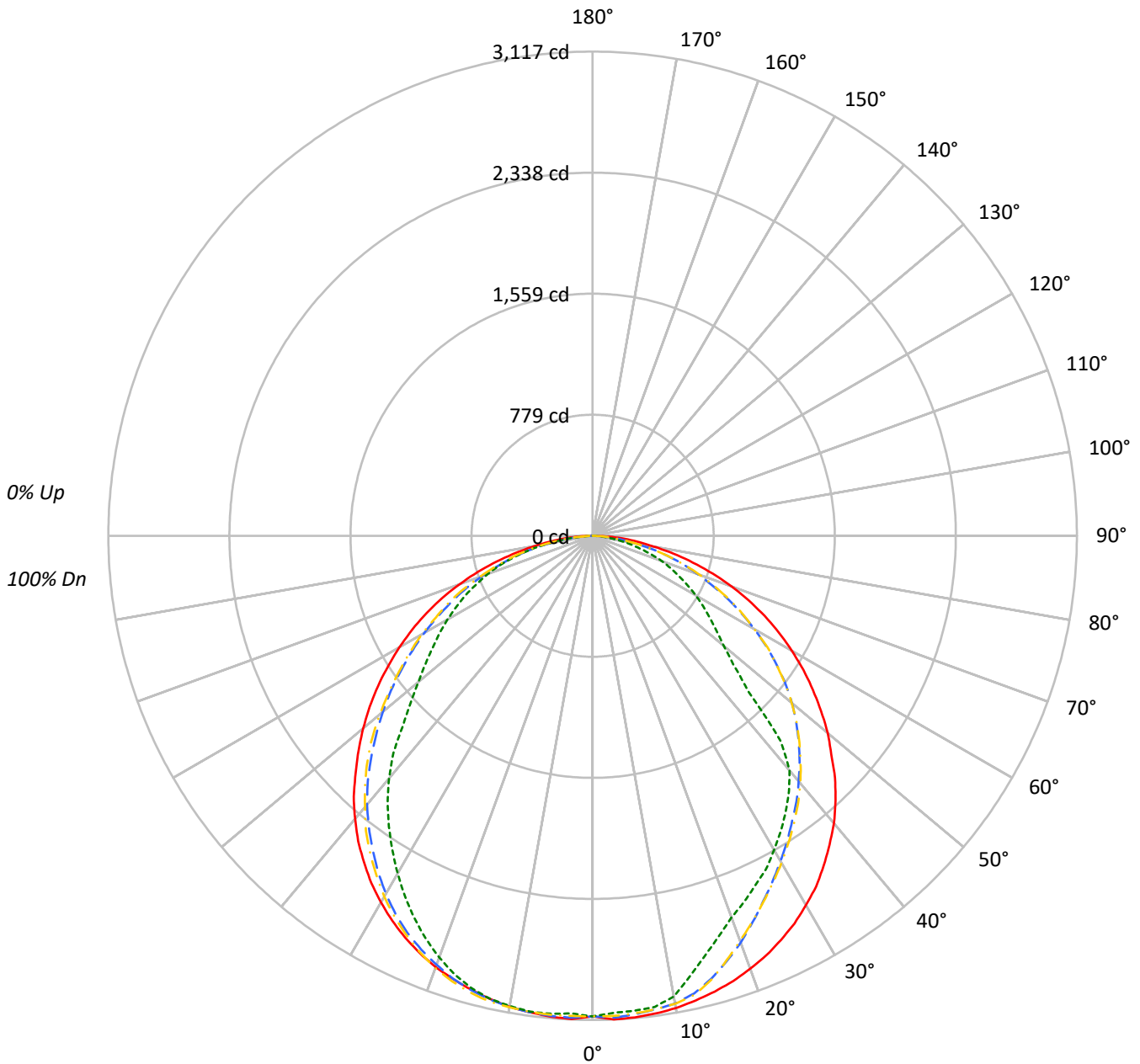
Lumens per Lamp: N/A  
Luminaire Lumens: 8300.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 76.3  
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									
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°	16652	16652	16652	16652
5°	16814	16581	16787	16688
10°	16872	16455	16827	16799
15°	16924	15584	16851	16795
20°	16988	14973	16921	16541
25°	17042	14726	16953	16126
30°	17061	14513	16938	15597
35°	17034	14232	16860	15017
40°	16979	13854	16711	14320
45°	16790	10764	16411	13139
50°	16538	9214	16135	12258
55°	16244	8629	15824	11790
60°	15937	8237	15455	11595
65°	15558	7800	15030	11456
70°	14940	7418	14313	11284
75°	13909	6523	13254	10734
80°	12348	5452	11576	9106
85°	11683	3896	10251	5230



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	294.0	3.5
10°-20°	838.5	10.1
20°-30°	1252.9	15.1
30°-40°	1491.4	18.0
40°-50°	1490.8	18.0
50°-60°	1282.8	15.5
60°-70°	965.5	11.6
70°-80°	550.2	6.6
80°-90°	133.9	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°	2385.4	28.7
0°-40°	3876.8	46.7
0°-60°	6650.4	80.1
0°-90°	8300.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8300.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3094	3094	3094	3094	3094	
5°	3112	3069	3107	3089	3112	296
15°	3038	2797	3024	3014	3038	858
25°	2870	2480	2855	2716	2870	1323
35°	2593	2166	2566	2286	2593	1622
45°	2206	1414	2156	1726	2206	1699
55°	1731	920	1686	1256	1731	1548
65°	1222	612	1180	900	1222	1206
75°	669	314	637	516	669	708
85°	189	63	166	85	189	206
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°	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0
2.5°	3117.2	3089.0	3105.6	3100.6	3074.0	3084.0	3094.0	3084.0	3113.9	3087.3	3105.6
5°	3112.2	3082.3	3092.3	3082.3	3069.1	3072.4	3087.3	3077.4	3107.2	3079.0	3102.3
7.5°	3102.3	3065.7	3075.7	3070.7	3059.1	3060.8	3075.7	3067.4	3094.0	3067.4	3094.0
10°	3087.3	3049.1	3057.4	3035.9	3011.0	3029.2	3059.1	3050.8	3079.0	3049.1	3079.0
12.5°	3064.1	3025.9	3017.6	2946.2	2901.4	2936.3	3027.6	3027.6	3054.1	3025.9	3057.4
15°	3037.5	2996.0	2951.2	2843.3	2796.9	2831.7	2957.9	3001.0	3024.3	2996.0	3027.6
17.5°	3006.0	2957.9	2871.5	2745.4	2702.2	2737.1	2866.6	2961.2	2991.1	2961.2	2989.4
20°	2966.2	2909.7	2786.9	2642.5	2614.3	2645.8	2775.3	2913.0	2954.5	2918.0	2937.9
22.5°	2923.0	2854.9	2692.3	2562.8	2549.5	2569.5	2687.3	2853.3	2908.1	2869.9	2883.2
25°	2869.9	2790.2	2597.7	2489.8	2479.8	2491.4	2601.0	2783.6	2854.9	2815.1	2820.1
27.5°	2813.5	2727.1	2508.0	2428.4	2418.4	2423.4	2514.7	2705.6	2793.5	2753.7	2745.4
30°	2745.4	2652.4	2418.4	2345.4	2335.4	2353.7	2431.7	2625.9	2725.5	2685.6	2660.7
32.5°	2677.3	2571.1	2330.4	2274.0	2254.1	2270.7	2345.4	2542.9	2650.8	2609.3	2567.8
35°	2592.7	2484.8	2239.1	2182.7	2166.1	2184.4	2259.1	2456.6	2566.1	2524.6	2468.2
37.5°	2504.7	2393.5	2156.1	2104.7	2074.8	2096.4	2171.1	2367.0	2478.2	2435.0	2365.3
40°	2416.7	2297.2	2063.2	2010.1	1971.9	2003.4	2079.8	2272.3	2378.6	2338.7	2259.1
42.5°	2313.8	2201.0	1971.9	1897.2	1789.3	1890.6	1981.9	2177.7	2275.7	2237.5	2141.2
45°	2205.9	2098.1	1875.6	1694.7	1414.2	1711.3	1882.3	2078.1	2156.1	2119.6	2015.1
47.5°	2083.1	1991.8	1777.7	1502.2	1230.0	1518.8	1781.0	1983.5	2043.3	2003.4	1887.3
50°	1975.2	1885.6	1674.8	1339.5	1100.5	1357.8	1673.1	1877.3	1927.1	1890.6	1761.1
52.5°	1852.4	1774.4	1563.6	1195.1	1004.2	1213.4	1560.3	1767.7	1807.6	1764.4	1635.0
55°	1731.2	1661.5	1445.7	1067.3	919.6	1083.9	1442.4	1654.9	1686.4	1636.6	1502.2
57.5°	1608.4	1545.3	1324.6	952.8	841.5	971.0	1332.9	1538.7	1560.3	1497.2	1374.4
60°	1480.6	1427.5	1201.7	851.5	765.2	866.4	1198.4	1422.5	1435.8	1367.7	1249.9
62.5°	1352.8	1304.6	1078.9	758.6	687.2	768.5	1087.2	1299.7	1308.0	1243.2	1122.1
65°	1221.7	1176.8	959.4	660.6	612.5	677.2	967.7	1171.9	1180.2	1107.1	997.6
67.5°	1085.5	1049.0	831.6	585.9	541.1	590.9	848.2	1042.4	1047.4	976.0	876.4
70°	949.4	917.9	718.7	504.6	471.4	506.3	730.3	899.6	909.6	833.2	753.6
72.5°	810.0	785.1	609.2	419.9	390.1	419.9	615.8	768.5	775.2	712.1	634.1
75°	668.9	650.7	498.0	337.0	313.7	335.3	501.3	637.4	637.4	577.6	516.2
77.5°	532.8	519.5	381.8	258.9	242.3	255.6	383.4	504.6	501.3	454.8	406.7
80°	398.4	388.4	273.9	187.6	175.9	182.6	273.9	373.5	373.5	340.3	282.2
82.5°	285.5	273.9	180.9	122.8	116.2	119.5	177.6	260.6	265.6	240.7	190.9
85°	189.2	162.7	97.9	68.1	63.1	64.7	93.0	151.0	166.0	139.4	99.6
87.5°	83.0	54.8	24.9	10.0	5.0	6.6	19.9	48.1	63.1	41.5	13.3
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°	3094.0	3094.0	3094.0	3094.0	3094.0	3094.0
2.5°	3103.9	3077.4	3087.3	3094.0	3087.3	3117.2
5°	3100.6	3089.0	3087.3	3095.6	3082.3	3112.2
7.5°	3095.6	3089.0	3087.3	3090.6	3074.0	3102.3
10°	3084.0	3074.0	3077.4	3082.3	3060.8	3087.3
12.5°	3062.4	3052.5	3054.1	3070.7	3040.9	3064.1
15°	3025.9	3014.3	3025.9	3044.2	3017.6	3037.5
17.5°	2977.8	2959.5	2979.4	3007.7	2987.7	3006.0
20°	2916.4	2888.1	2909.7	2961.2	2942.9	2966.2
22.5°	2841.7	2806.8	2828.4	2903.1	2898.1	2923.0
25°	2757.0	2715.5	2745.4	2836.7	2846.6	2869.9
27.5°	2662.4	2615.9	2655.8	2763.7	2786.9	2813.5
30°	2559.5	2509.7	2556.2	2682.3	2717.2	2745.4
32.5°	2453.3	2398.5	2451.6	2591.0	2640.8	2677.3
35°	2342.1	2285.6	2345.4	2496.4	2556.2	2592.7
37.5°	2222.5	2167.8	2232.5	2396.8	2468.2	2504.7
40°	2099.7	2038.3	2111.3	2279.0	2373.6	2416.7
42.5°	1973.6	1897.2	1986.8	2167.8	2270.7	2313.8
45°	1832.5	1726.2	1847.4	2049.9	2157.8	2205.9
47.5°	1691.4	1585.2	1708.0	1923.8	2040.0	2083.1
50°	1555.3	1464.0	1561.9	1786.0	1920.4	1975.2
52.5°	1430.8	1356.1	1439.1	1651.6	1797.6	1852.4
55°	1314.6	1256.5	1324.6	1518.8	1668.2	1731.2
57.5°	1205.1	1168.5	1215.0	1392.6	1548.6	1608.4
60°	1102.1	1077.2	1110.4	1268.1	1407.6	1480.6
62.5°	1000.9	987.6	1012.5	1137.0	1276.4	1352.8
65°	903.0	899.6	912.9	1022.5	1138.7	1221.7
67.5°	805.0	803.4	811.7	901.3	1004.2	1085.5
70°	707.1	717.1	712.1	770.2	869.8	949.4
72.5°	607.5	622.4	614.1	650.7	746.9	810.0
75°	496.3	516.2	499.6	541.1	600.9	668.9
77.5°	381.8	403.3	383.4	419.9	484.7	532.8
80°	273.9	293.8	277.2	305.4	361.8	398.4
82.5°	172.6	187.6	174.3	202.5	258.9	285.5
85°	76.4	84.7	88.0	109.6	159.3	189.2
87.5°	3.3	1.7	3.3	21.6	56.4	83.0
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)