

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: P520573

Luminaire Tested: **4WSLA-200-L940-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: P520573  
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-L940-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

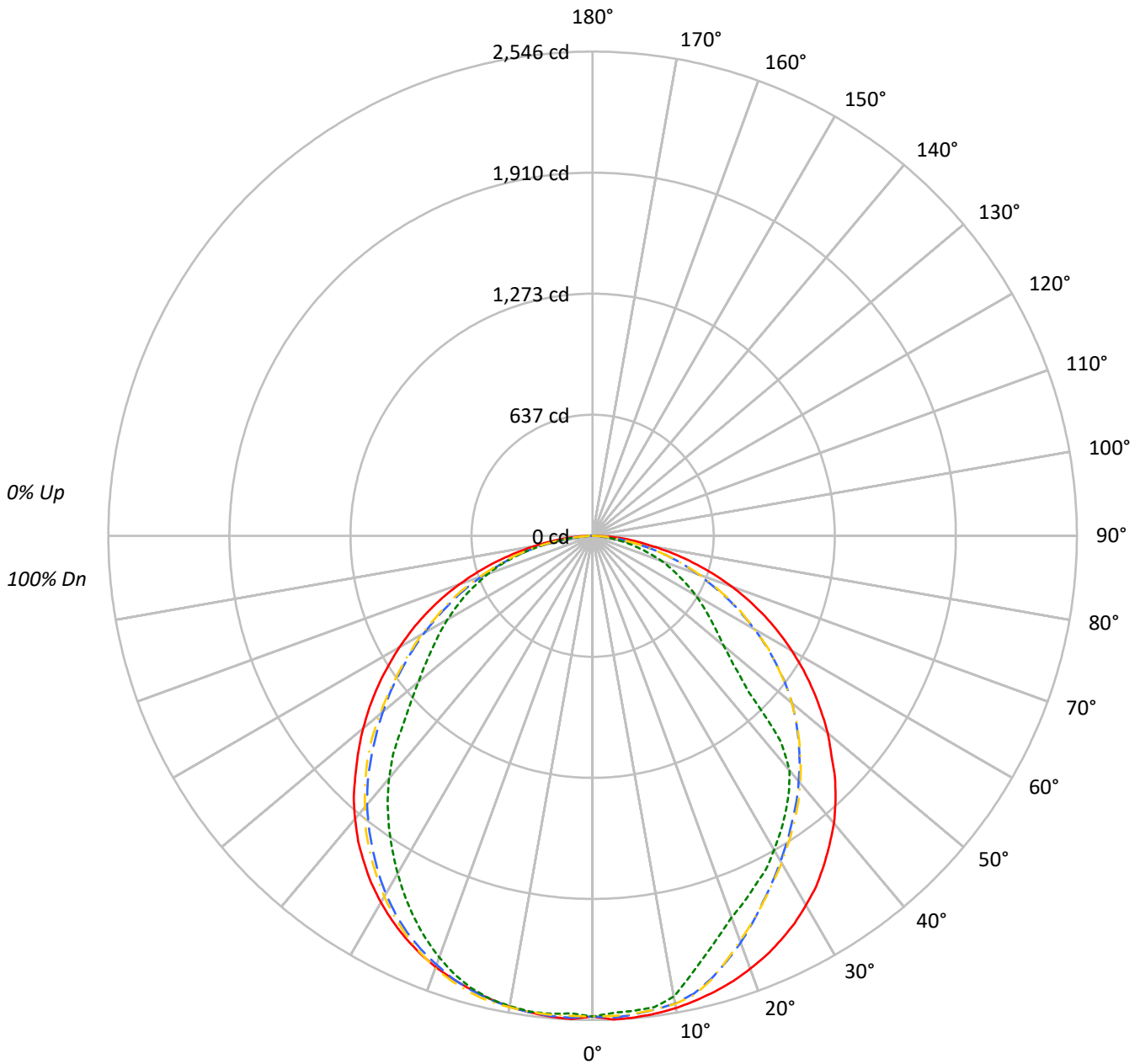
Lumens per Lamp: N/A  
Luminaire Lumens: 6780.0 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 76.3  
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°	13602	13602	13602	13602
5°	13735	13544	13713	13632
10°	13782	13442	13746	13723
15°	13825	12730	13765	13719
20°	13877	12231	13823	13512
25°	13921	12029	13849	13172
30°	13937	11855	13836	12740
35°	13915	11625	13772	12266
40°	13870	11317	13651	11698
45°	13715	8793	13406	10733
50°	13510	7526	13181	10013
55°	13270	7049	12926	9631
60°	13018	6729	12624	9472
65°	12708	6371	12276	9359
70°	12205	6060	11692	9216
75°	11362	5330	10828	8769
80°	10085	4454	9456	7438
85°	9547	3180	8373	4267



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.1	3.5
10°-20°	684.9	10.1
20°-30°	1023.5	15.1
30°-40°	1218.3	18.0
40°-50°	1217.8	18.0
50°-60°	1047.9	15.5
60°-70°	788.7	11.6
70°-80°	449.4	6.6
80°-90°	109.4	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°	1948.6	28.7
0°-40°	3166.9	46.7
0°-60°	5432.5	80.1
0°-90°	6780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2527	2527	2527	2527	2527	
5°	2542	2507	2538	2523	2542	242
15°	2481	2285	2470	2462	2481	701
25°	2344	2026	2332	2218	2344	1081
35°	2118	1769	2096	1867	2118	1325
45°	1802	1155	1761	1410	1802	1388
55°	1414	751	1378	1026	1414	1264
65°	998	500	964	735	998	985
75°	546	256	521	422	546	578
85°	155	52	136	69	155	168
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°	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4
2.5°	2546.3	2523.3	2536.9	2532.8	2511.1	2519.2	2527.4	2519.2	2543.6	2521.9	2536.9
5°	2542.3	2517.9	2526.0	2517.9	2507.0	2509.7	2521.9	2513.8	2538.2	2515.2	2534.1
7.5°	2534.1	2504.3	2512.4	2508.4	2498.9	2500.2	2512.4	2505.7	2527.4	2505.7	2527.4
10°	2521.9	2490.8	2497.5	2479.9	2459.6	2474.5	2498.9	2492.1	2515.2	2490.8	2515.2
12.5°	2503.0	2471.8	2465.0	2406.7	2370.1	2398.6	2473.1	2473.1	2494.8	2471.8	2497.5
15°	2481.3	2447.4	2410.8	2322.6	2284.7	2313.1	2416.2	2451.4	2470.4	2447.4	2473.1
17.5°	2455.5	2416.2	2345.7	2242.6	2207.4	2235.8	2341.6	2418.9	2443.3	2418.9	2441.9
20°	2423.0	2376.9	2276.5	2158.6	2135.5	2161.3	2267.0	2379.6	2413.5	2383.6	2399.9
22.5°	2387.7	2332.1	2199.2	2093.5	2082.6	2098.9	2195.2	2330.8	2375.5	2344.3	2355.2
25°	2344.3	2279.2	2122.0	2033.8	2025.7	2035.2	2124.7	2273.8	2332.1	2299.6	2303.6
27.5°	2298.2	2227.7	2048.7	1983.7	1975.5	1979.6	2054.2	2210.1	2281.9	2249.4	2242.6
30°	2242.6	2166.7	1975.5	1915.9	1907.7	1922.6	1986.4	2145.0	2226.4	2193.8	2173.5
32.5°	2187.0	2100.3	1903.7	1857.6	1841.3	1854.8	1915.9	2077.2	2165.3	2131.4	2097.5
35°	2117.9	2029.8	1829.1	1783.0	1769.4	1784.3	1845.4	2006.7	2096.2	2062.3	2016.2
37.5°	2046.0	1955.2	1761.3	1719.3	1694.8	1712.5	1773.5	1933.5	2024.3	1989.1	1932.1
40°	1974.2	1876.5	1685.4	1642.0	1610.8	1636.5	1698.9	1856.2	1943.0	1910.4	1845.4
42.5°	1890.1	1797.9	1610.8	1549.8	1461.6	1544.3	1618.9	1778.9	1858.9	1827.7	1749.1
45°	1802.0	1713.8	1532.1	1384.4	1155.2	1397.9	1537.6	1697.6	1761.3	1731.5	1646.0
47.5°	1701.6	1627.1	1452.1	1227.1	1004.7	1240.6	1454.9	1620.3	1669.1	1636.5	1541.6
50°	1613.5	1540.3	1368.1	1094.2	898.9	1109.1	1366.7	1533.5	1574.2	1544.3	1438.6
52.5°	1513.2	1449.4	1277.2	976.2	820.3	991.1	1274.5	1444.0	1476.6	1441.3	1335.5
55°	1414.2	1357.2	1181.0	871.8	751.2	885.4	1178.3	1351.8	1377.6	1336.9	1227.1
57.5°	1313.8	1262.3	1082.0	778.3	687.4	793.2	1088.8	1256.9	1274.5	1223.0	1122.7
60°	1209.4	1166.1	981.7	695.6	625.1	707.8	978.9	1162.0	1172.8	1117.2	1021.0
62.5°	1105.0	1065.7	881.3	619.6	561.3	627.8	888.1	1061.7	1068.4	1015.6	916.6
65°	997.9	961.3	783.7	539.6	500.3	553.2	790.5	957.3	964.0	904.4	814.9
67.5°	886.7	856.9	679.3	478.6	442.0	482.7	692.9	851.5	855.6	797.3	715.9
70°	775.6	749.8	587.1	412.2	385.1	413.5	596.6	734.9	743.0	680.7	615.6
72.5°	661.7	641.3	497.6	343.0	318.6	343.0	503.0	627.8	633.2	581.7	517.9
75°	546.4	531.5	406.8	275.2	256.3	273.9	409.5	520.7	520.7	471.8	421.7
77.5°	435.2	424.4	311.9	211.5	198.0	208.8	313.2	412.2	409.5	371.5	332.2
80°	325.4	317.3	223.7	153.2	143.7	149.1	223.7	305.1	305.1	278.0	230.5
82.5°	233.2	223.7	147.8	100.3	94.9	97.6	145.1	212.9	216.9	196.6	155.9
85°	154.6	132.9	80.0	55.6	51.5	52.9	75.9	123.4	135.6	113.9	81.4
87.5°	67.8	44.7	20.3	8.1	4.1	5.4	16.3	39.3	51.5	33.9	10.8
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°	2527.4	2527.4	2527.4	2527.4	2527.4	2527.4
2.5°	2535.5	2513.8	2521.9	2527.4	2521.9	2546.3
5°	2532.8	2523.3	2521.9	2528.7	2517.9	2542.3
7.5°	2528.7	2523.3	2521.9	2524.6	2511.1	2534.1
10°	2519.2	2511.1	2513.8	2517.9	2500.2	2521.9
12.5°	2501.6	2493.5	2494.8	2508.4	2484.0	2503.0
15°	2471.8	2462.3	2471.8	2486.7	2465.0	2481.3
17.5°	2432.4	2417.5	2433.8	2456.9	2440.6	2455.5
20°	2382.3	2359.2	2376.9	2418.9	2404.0	2423.0
22.5°	2321.3	2292.8	2310.4	2371.4	2367.4	2387.7
25°	2252.1	2218.2	2242.6	2317.2	2325.3	2344.3
27.5°	2174.8	2136.9	2169.4	2257.5	2276.5	2298.2
30°	2090.8	2050.1	2088.1	2191.1	2219.6	2242.6
32.5°	2004.0	1959.2	2002.6	2116.5	2157.2	2187.0
35°	1913.1	1867.0	1915.9	2039.2	2088.1	2117.9
37.5°	1815.5	1770.8	1823.7	1957.9	2016.2	2046.0
40°	1715.2	1665.0	1724.7	1861.6	1938.9	1974.2
42.5°	1612.1	1549.8	1623.0	1770.8	1854.8	1890.1
45°	1496.9	1410.1	1509.1	1674.5	1762.6	1802.0
47.5°	1381.6	1294.9	1395.2	1571.5	1666.4	1701.6
50°	1270.5	1195.9	1275.9	1458.9	1568.8	1613.5
52.5°	1168.8	1107.8	1175.5	1349.1	1468.4	1513.2
55°	1073.9	1026.4	1082.0	1240.6	1362.7	1414.2
57.5°	984.4	954.5	992.5	1137.6	1265.0	1313.8
60°	900.3	880.0	907.1	1035.9	1149.8	1209.4
62.5°	817.6	806.7	827.1	928.8	1042.7	1105.0
65°	737.6	734.9	745.7	835.2	930.1	997.9
67.5°	657.6	656.2	663.0	736.2	820.3	886.7
70°	577.6	585.7	581.7	629.1	710.5	775.6
72.5°	496.3	508.5	501.7	531.5	610.1	661.7
75°	405.4	421.7	408.1	442.0	490.8	546.4
77.5°	311.9	329.5	313.2	343.0	395.9	435.2
80°	223.7	240.0	226.4	249.5	295.6	325.4
82.5°	141.0	153.2	142.4	165.4	211.5	233.2
85°	62.4	69.1	71.9	89.5	130.2	154.6
87.5°	2.7	1.4	2.7	17.6	46.1	67.8
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)