

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: P835364

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5STD-50-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835364
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-2-INS-ASY2-LD4-5STD-50-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

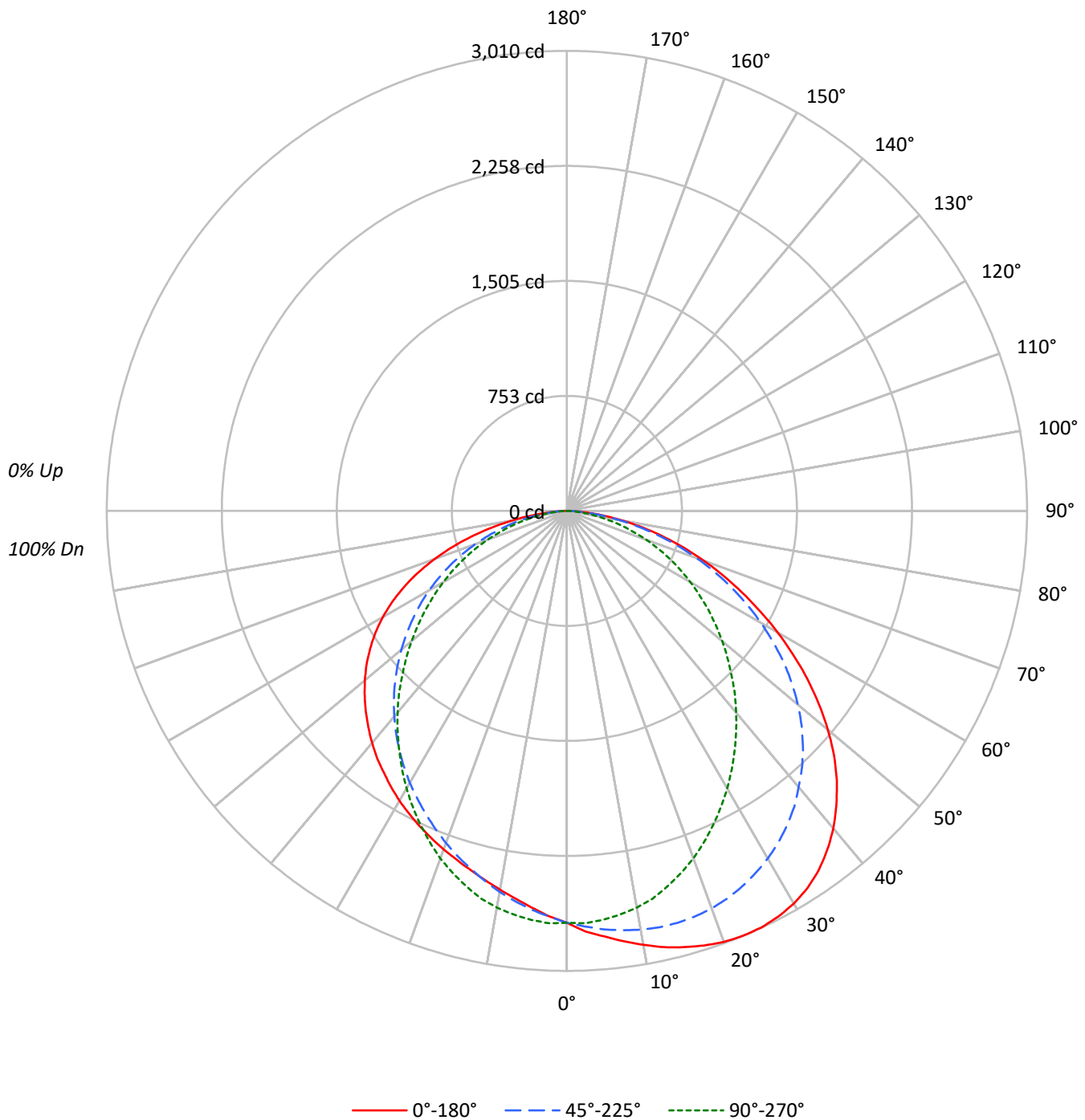
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7925.8 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
Input Voltage (V): 120
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: 28.75 FT

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Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	94	97	94	91		94	91	88		90
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		69
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		62
5	76	63	54	47	73	61	53	47	59	52	46		57	51	46		55
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46
8	60	46	38	32	59	46	38	32	44	37	32		43	36	31		42
9	56	43	34	29	55	42	34	29	41	34	29		40	33	28		39
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7251	7251	7251
5°	7549	7254	7040
10°	7879	7200	6877
15°	8233	7085	6778
20°	8593	6928	6750
25°	8931	6727	6760
30°	9221	6517	6804
35°	9432	6284	6861
40°	9527	6052	6962
45°	9501	5796	7076
50°	9332	5552	7222
55°	9013	5297	7372
60°	8574	5024	7484
65°	8052	4718	7474
70°	7493	4351	7252
75°	6803	3821	6686
80°	5841	3140	5641
85°	4455	2146	3872

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.5	3.2
10°-20°	738.0	9.3
20°-30°	1130.6	14.3
30°-40°	1379.7	17.4
40°-50°	1442.9	18.2
50°-60°	1305.9	16.5
60°-70°	989.0	12.5
70°-80°	551.2	7.0
80°-90°	132.9	1.7
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°	2124.1	26.8
0°-40°	3503.8	44.2
0°-60°	6252.7	78.9
0°-90°	7925.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7925.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2694	2694	2694	2694	2694	
5°	2795	2748	2686	2620	2606	269
15°	2955	2791	2543	2425	2433	838
25°	3008	2712	2266	2186	2277	1388
35°	2871	2511	1913	1911	2088	1793
45°	2497	2184	1523	1590	1859	1921
55°	1921	1734	1129	1229	1571	1714
65°	1264	1189	741	842	1174	1254
75°	654	618	368	439	643	694
85°	144	127	70	93	125	174
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5
2.5°	2753.9	2741.0	2730.4	2734.5	2736.9	2728.6	2721.5	2722.7	2715.7	2729.2	2697.4
5°	2794.6	2782.8	2770.4	2775.1	2770.4	2758.1	2748.0	2745.1	2726.3	2733.9	2701.5
7.5°	2839.9	2827.0	2808.7	2814.0	2804.0	2781.0	2768.1	2760.4	2731.6	2732.1	2696.2
10°	2883.5	2872.3	2847.6	2851.1	2832.9	2802.2	2781.6	2771.0	2730.4	2724.5	2687.4
12.5°	2924.1	2908.8	2882.3	2884.1	2857.6	2817.0	2790.5	2775.1	2722.1	2704.5	2667.9
15°	2955.4	2940.6	2908.8	2908.2	2874.1	2821.1	2791.0	2769.8	2702.7	2675.0	2636.7
17.5°	2981.9	2968.3	2928.9	2927.7	2886.5	2819.3	2783.4	2756.9	2674.4	2640.3	2597.9
20°	3000.7	2987.2	2943.0	2938.9	2889.4	2810.5	2767.5	2733.9	2637.3	2596.7	2549.6
22.5°	3009.5	2996.0	2945.9	2940.0	2882.3	2792.8	2744.5	2705.1	2594.9	2541.9	2493.0
25°	3007.8	2994.8	2938.3	2932.4	2868.8	2766.3	2712.1	2666.8	2541.3	2478.9	2430.6
27.5°	2993.1	2983.0	2923.6	2915.9	2844.0	2730.4	2672.7	2622.6	2481.8	2412.3	2359.9
30°	2967.7	2960.1	2897.1	2890.0	2813.4	2690.9	2626.7	2569.0	2417.6	2339.3	2286.3
32.5°	2927.1	2920.0	2856.4	2849.9	2772.2	2640.3	2573.1	2513.6	2347.6	2261.0	2208.0
35°	2871.1	2867.0	2805.2	2798.1	2719.2	2582.6	2511.3	2445.9	2274.5	2176.8	2126.1
37.5°	2797.5	2797.5	2738.0	2730.4	2653.2	2511.9	2441.8	2372.3	2192.1	2088.4	2038.4
40°	2712.1	2719.8	2659.1	2651.5	2576.7	2435.9	2359.3	2286.3	2103.1	1995.4	1946.5
42.5°	2609.6	2616.7	2566.1	2559.0	2488.9	2348.1	2276.9	2197.4	2010.1	1900.5	1849.9
45°	2496.6	2506.0	2460.6	2455.3	2390.0	2252.1	2183.8	2103.1	1912.9	1801.6	1752.1
47.5°	2370.5	2382.9	2343.4	2340.5	2279.8	2153.8	2082.5	2000.7	1811.0	1698.5	1652.0
50°	2229.2	2246.8	2214.5	2214.5	2160.3	2034.8	1973.0	1891.1	1705.0	1592.5	1546.6
52.5°	2077.8	2100.2	2076.1	2076.6	2032.5	1920.0	1855.8	1775.7	1594.3	1483.6	1441.2
55°	1921.2	1943.0	1927.6	1930.0	1895.2	1792.8	1734.5	1655.0	1481.2	1373.4	1333.4
57.5°	1757.4	1781.0	1771.0	1775.7	1751.5	1659.7	1599.0	1529.5	1364.6	1258.0	1223.8
60°	1593.1	1615.5	1610.2	1616.7	1601.4	1521.9	1466.5	1394.6	1247.4	1144.9	1114.9
62.5°	1427.0	1447.6	1446.5	1453.5	1445.3	1379.3	1329.9	1268.6	1126.1	1031.8	1004.2
65°	1264.5	1282.1	1281.0	1288.6	1286.9	1233.9	1189.1	1133.1	1004.8	918.2	894.0
67.5°	1106.6	1121.4	1117.2	1126.1	1128.4	1086.0	1047.2	997.1	889.3	805.1	784.5
70°	952.3	962.3	957.0	962.9	968.2	936.4	903.5	859.3	766.2	692.0	674.9
72.5°	801.0	808.0	799.8	805.7	810.4	787.4	760.3	722.1	644.9	580.7	566.6
75°	654.3	664.3	647.3	653.1	656.7	633.7	617.8	586.6	520.0	470.6	461.1
77.5°	512.4	518.3	508.9	506.5	508.9	492.4	480.0	455.8	405.8	365.1	359.3
80°	376.9	380.5	371.0	368.7	370.5	358.7	349.2	331.6	296.2	265.6	263.3
82.5°	252.7	254.4	246.2	243.8	245.0	241.5	230.3	217.9	201.4	175.5	174.9
85°	144.3	144.3	138.4	136.0	137.2	131.3	127.2	120.7	114.3	96.6	97.8
87.5°	53.0	53.0	50.1	49.5	55.4	48.9	47.1	44.2	45.9	36.5	38.9
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5	2694.5
2.5°	2706.2	2700.3	2695.0	2676.8	2684.4	2665.6	2664.4	2657.3	2652.0	2642.0	2655.0
5°	2697.4	2685.6	2670.3	2648.5	2655.0	2632.6	2627.9	2619.7	2612.6	2599.6	2609.6
7.5°	2683.3	2663.8	2639.7	2612.0	2620.8	2593.2	2586.1	2577.3	2571.4	2556.0	2564.9
10°	2662.6	2635.0	2606.7	2573.1	2579.6	2549.6	2540.7	2531.3	2526.0	2512.5	2521.3
12.5°	2630.8	2597.3	2559.0	2522.5	2529.5	2501.3	2489.5	2479.5	2477.7	2466.5	2477.1
15°	2589.6	2543.1	2503.6	2464.8	2473.0	2440.0	2434.7	2424.7	2427.7	2420.0	2433.0
17.5°	2537.2	2483.6	2440.6	2398.8	2407.0	2379.4	2375.2	2370.5	2373.5	2372.3	2386.4
20°	2478.3	2419.4	2369.9	2328.7	2333.4	2311.6	2313.4	2312.2	2318.1	2324.6	2344.0
22.5°	2411.8	2345.2	2293.4	2251.0	2258.0	2239.2	2247.4	2249.8	2259.8	2274.5	2299.3
25°	2337.0	2265.7	2211.5	2171.5	2177.9	2165.6	2179.7	2185.6	2201.5	2226.2	2251.6
27.5°	2258.6	2183.2	2125.5	2087.2	2099.6	2087.2	2108.4	2120.2	2144.4	2171.5	2202.7
30°	2175.6	2097.3	2037.8	2003.6	2015.4	2004.2	2038.4	2054.3	2078.4	2115.5	2152.6
32.5°	2088.4	2006.0	1947.7	1921.2	1929.4	1927.6	1965.9	1983.6	2016.0	2058.4	2097.8
35°	1998.9	1912.9	1854.0	1831.6	1841.7	1844.0	1889.9	1910.6	1945.9	1997.1	2039.5
37.5°	1906.4	1818.7	1761.0	1742.7	1751.5	1760.4	1814.0	1834.6	1874.6	1930.6	1977.1
40°	1810.4	1722.7	1666.1	1651.4	1660.3	1669.7	1728.0	1756.3	1799.8	1860.5	1911.1
42.5°	1713.3	1625.5	1570.7	1560.1	1569.0	1587.2	1649.1	1675.6	1721.5	1788.6	1844.6
45°	1614.3	1523.0	1475.3	1467.1	1476.5	1497.7	1558.4	1590.2	1639.1	1712.7	1772.7
47.5°	1514.2	1425.3	1379.9	1374.6	1384.0	1407.6	1474.7	1503.6	1555.4	1633.8	1698.5
50°	1412.9	1326.3	1282.7	1281.0	1289.8	1315.1	1379.3	1413.5	1467.1	1554.8	1621.4
52.5°	1310.4	1227.4	1187.9	1187.9	1196.2	1222.1	1286.9	1322.2	1377.6	1470.0	1543.6
55°	1207.9	1129.0	1091.3	1094.3	1106.1	1128.4	1191.4	1228.6	1284.5	1380.5	1458.2
57.5°	1105.5	1030.7	996.5	1000.6	1011.8	1034.2	1096.0	1137.9	1188.5	1288.0	1367.5
60°	1004.2	933.5	903.5	908.2	918.2	940.6	1004.8	1040.7	1091.3	1192.6	1272.1
62.5°	901.7	837.5	809.2	815.1	823.9	846.3	907.0	941.7	991.8	1091.3	1171.4
65°	800.4	740.9	716.8	722.6	730.9	751.5	808.6	842.2	889.9	987.1	1063.6
67.5°	700.3	646.1	626.1	631.9	638.4	657.9	705.0	741.5	786.2	878.7	951.2
70°	601.3	553.0	535.4	541.2	547.1	564.8	606.0	639.6	680.8	765.6	832.8
72.5°	503.6	456.4	447.6	452.9	457.6	472.9	512.4	538.9	574.8	650.2	707.9
75°	408.1	367.5	361.6	366.9	371.0	382.8	415.8	438.8	468.8	534.2	581.3
77.5°	316.3	282.1	279.8	283.9	288.0	296.2	322.2	346.3	369.9	418.2	460.0
80°	230.3	202.6	202.6	206.7	205.5	215.6	233.8	253.2	270.3	305.1	335.7
82.5°	151.9	130.2	133.1	136.0	137.8	141.9	153.1	167.9	178.5	199.7	219.7
85°	84.2	69.5	72.4	74.8	73.6	78.3	84.2	93.1	98.4	108.4	119.0
87.5°	31.2	25.9	26.5	28.3	29.4	31.8	31.8	37.1	37.7	38.9	41.2
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):

	160°	170°	180°
0°	2694.5	2694.5	2694.5
2.5°	2630.3	2644.4	2655.0
5°	2584.9	2596.7	2606.1
7.5°	2540.7	2551.3	2559.6
10°	2498.9	2510.7	2516.6
12.5°	2455.9	2469.5	2474.2
15°	2413.5	2427.1	2433.0
17.5°	2369.9	2387.6	2394.1
20°	2329.3	2351.7	2357.0
22.5°	2288.1	2311.0	2317.5
25°	2243.3	2270.4	2276.9
27.5°	2195.6	2228.0	2234.5
30°	2147.9	2183.2	2189.7
32.5°	2096.7	2134.9	2140.8
35°	2043.1	2081.4	2088.4
37.5°	1983.6	2025.4	2039.5
40°	1921.7	1967.1	1981.8
42.5°	1857.0	1906.4	1921.7
45°	1787.5	1841.7	1859.3
47.5°	1717.4	1778.6	1793.9
50°	1641.4	1706.8	1725.0
52.5°	1561.9	1633.2	1651.4
55°	1479.4	1551.3	1571.3
57.5°	1389.9	1464.1	1485.3
60°	1296.3	1370.5	1390.5
62.5°	1200.3	1267.4	1286.9
65°	1093.1	1156.1	1173.8
67.5°	979.4	1037.1	1051.9
70°	858.7	908.8	921.7
72.5°	732.7	767.4	784.5
75°	602.5	630.2	643.1
77.5°	471.7	491.2	501.8
80°	343.9	355.1	364.0
82.5°	225.0	229.7	236.2
85°	121.3	121.3	125.4
87.5°	41.2	39.5	41.2
90°	0.0	0.0	0.0

(END OF REPORT)