

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: P835258

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6LO-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835258
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-LD4-6LO-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

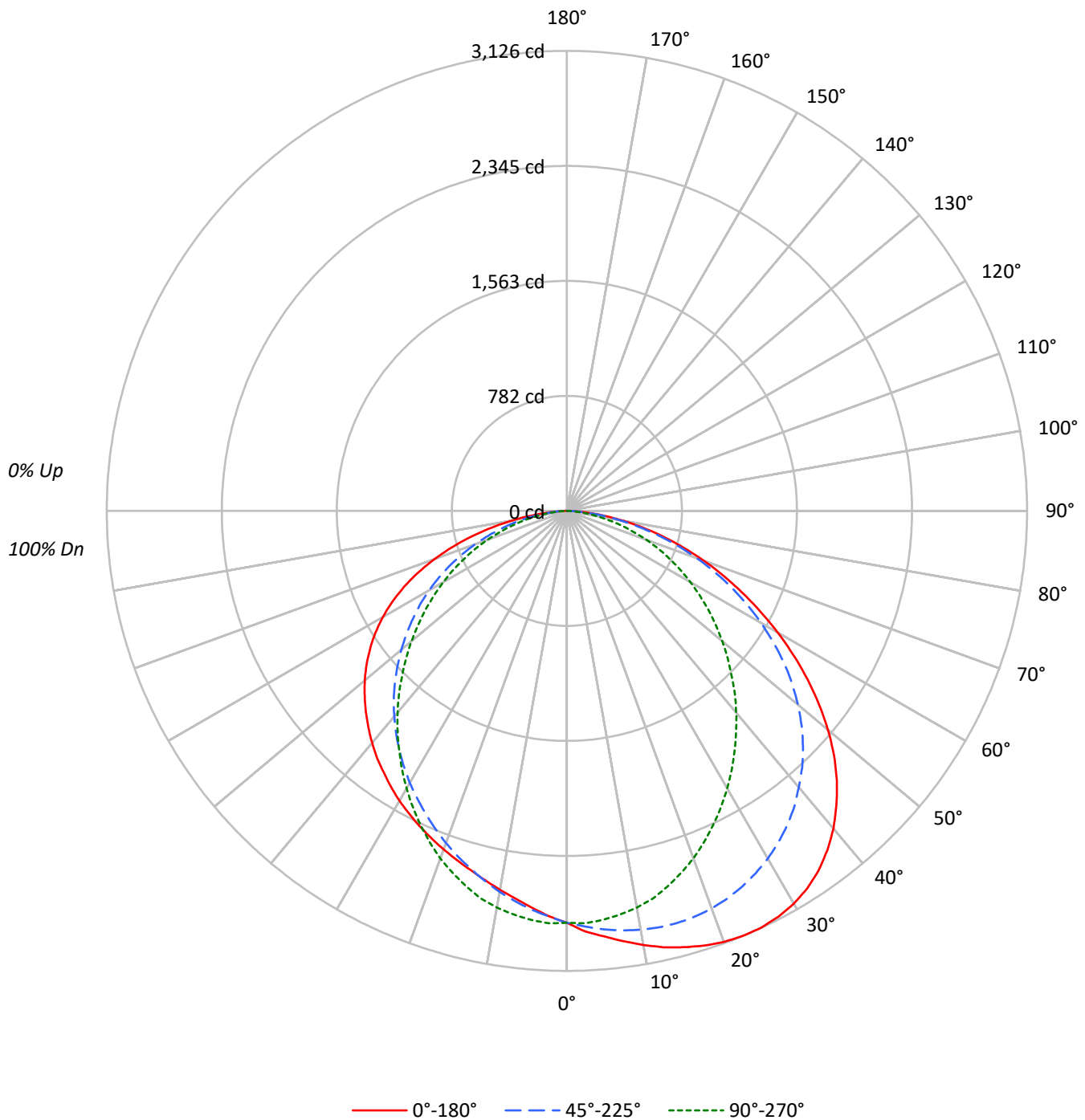
Lumens per Lamp: N/A
Luminaire Lumens: 8232.3 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7531	7531	7531
5°	7841	7535	7312
10°	8184	7479	7142
15°	8552	7359	7040
20°	8925	7196	7011
25°	9276	6987	7022
30°	9578	6769	7067
35°	9797	6527	7126
40°	9896	6285	7231
45°	9868	6020	7349
50°	9693	5767	7501
55°	9362	5502	7657
60°	8906	5218	7773
65°	8363	4900	7763
70°	7783	4519	7533
75°	7066	3969	6945
80°	6067	3261	5858
85°	4628	2229	4023

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.4	3.2
10°-20°	766.5	9.3
20°-30°	1174.3	14.3
30°-40°	1433.1	17.4
40°-50°	1498.7	18.2
50°-60°	1356.4	16.5
60°-70°	1027.3	12.5
70°-80°	572.5	7.0
80°-90°	138.1	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°	2206.3	26.8
0°-40°	3639.3	44.2
0°-60°	6494.5	78.9
0°-90°	8232.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8232.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2799	2799	2799	2799	2799	
5°	2903	2854	2790	2721	2707	280
15°	3070	2899	2641	2518	2527	871
25°	3124	2817	2353	2270	2365	1441
35°	2982	2608	1987	1984	2169	1862
45°	2593	2268	1582	1652	1931	1995
55°	1996	1802	1173	1276	1632	1781
65°	1313	1235	770	875	1219	1303
75°	680	642	382	456	668	721
85°	150	132	72	97	130	180
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°	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6
2.5°	2860.4	2847.0	2836.0	2840.2	2842.7	2834.1	2826.8	2828.0	2820.7	2834.7	2801.7
5°	2902.6	2890.4	2877.6	2882.5	2877.6	2864.7	2854.3	2851.3	2831.7	2839.6	2806.0
7.5°	2949.7	2936.3	2917.3	2922.8	2912.4	2888.6	2875.1	2867.2	2837.2	2837.8	2800.5
10°	2995.0	2983.4	2957.7	2961.4	2942.4	2910.6	2889.2	2878.2	2836.0	2829.8	2791.3
12.5°	3037.2	3021.3	2993.8	2995.6	2968.1	2925.9	2898.4	2882.5	2827.4	2809.0	2771.1
15°	3069.6	3054.3	3021.3	3020.7	2985.2	2930.2	2899.0	2876.9	2807.2	2778.5	2738.7
17.5°	3097.2	3083.1	3042.1	3040.9	2998.1	2928.3	2891.0	2863.5	2777.8	2742.4	2698.3
20°	3116.7	3102.7	3056.8	3052.5	3001.1	2919.2	2874.5	2839.6	2739.3	2697.1	2648.2
22.5°	3125.9	3111.9	3059.9	3053.7	2993.8	2900.8	2850.6	2809.7	2695.3	2640.2	2589.4
25°	3124.1	3110.6	3051.9	3045.8	2979.7	2873.3	2817.0	2769.9	2639.6	2574.8	2524.6
27.5°	3108.8	3098.4	3036.6	3028.7	2954.0	2836.0	2776.0	2724.0	2577.8	2505.6	2451.2
30°	3082.5	3074.5	3009.1	3001.7	2922.2	2795.0	2728.3	2668.4	2511.1	2429.8	2374.7
32.5°	3040.3	3032.9	2966.9	2960.1	2879.4	2742.4	2672.6	2610.8	2438.3	2348.4	2293.4
35°	2982.2	2977.9	2913.7	2906.3	2824.3	2682.4	2608.4	2540.5	2362.5	2260.9	2208.3
37.5°	2905.7	2905.7	2843.9	2836.0	2755.8	2609.0	2536.2	2464.0	2276.8	2169.2	2117.2
40°	2817.0	2825.0	2761.9	2754.0	2676.3	2530.1	2450.6	2374.7	2184.5	2072.5	2021.8
42.5°	2710.6	2717.9	2665.3	2658.0	2585.2	2439.0	2364.9	2282.4	2087.8	1974.0	1921.4
45°	2593.1	2602.9	2555.8	2550.3	2482.4	2339.2	2268.3	2184.5	1986.9	1871.3	1819.9
47.5°	2462.2	2475.0	2434.1	2431.0	2368.0	2237.1	2163.1	2078.0	1881.1	1764.2	1715.9
50°	2315.4	2333.7	2300.1	2300.1	2243.8	2113.5	2049.3	1964.3	1770.9	1654.1	1606.4
52.5°	2158.2	2181.4	2156.3	2156.9	2111.1	1994.2	1927.5	1844.4	1655.9	1540.9	1496.9
55°	1995.5	2018.1	2002.2	2004.6	1968.5	1862.1	1801.5	1719.0	1538.5	1426.5	1384.9
57.5°	1825.4	1849.9	1839.5	1844.4	1819.3	1723.8	1660.8	1588.7	1417.4	1306.6	1271.2
60°	1654.7	1678.0	1672.5	1679.2	1663.3	1580.7	1523.2	1448.6	1295.6	1189.2	1158.0
62.5°	1482.2	1503.6	1502.4	1509.7	1501.2	1432.7	1381.3	1317.7	1169.6	1071.7	1043.0
65°	1313.4	1331.7	1330.5	1338.5	1336.6	1281.6	1235.1	1177.0	1043.6	953.7	928.6
67.5°	1149.4	1164.7	1160.4	1169.6	1172.1	1128.0	1087.6	1035.7	923.7	836.2	814.8
70°	989.2	999.6	994.1	1000.2	1005.7	972.6	938.4	892.5	795.9	718.8	701.0
72.5°	831.9	839.3	830.7	836.8	841.7	817.9	789.7	750.0	669.8	603.2	588.5
75°	679.6	690.0	672.3	678.4	682.1	658.2	641.7	609.3	540.2	488.8	479.0
77.5°	532.2	538.3	528.5	526.1	528.5	511.4	498.6	473.5	421.5	379.3	373.2
80°	391.5	395.2	385.4	382.9	384.8	372.5	362.8	344.4	307.7	275.9	273.4
82.5°	262.4	264.3	255.7	253.3	254.5	250.8	239.2	226.3	209.2	182.3	181.7
85°	149.9	149.9	143.8	141.3	142.5	136.4	132.1	125.4	118.7	100.3	101.5
87.5°	55.1	55.1	52.0	51.4	57.5	50.8	48.9	45.9	47.7	37.9	40.4
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6	2798.6
2.5°	2810.9	2804.8	2799.3	2780.3	2788.2	2768.7	2767.4	2760.1	2754.6	2744.2	2757.7
5°	2801.7	2789.5	2773.6	2750.9	2757.7	2734.4	2729.5	2721.0	2713.6	2700.2	2710.6
7.5°	2787.0	2766.8	2741.8	2713.0	2722.2	2693.4	2686.1	2676.9	2670.8	2654.9	2664.1
10°	2765.6	2736.9	2707.5	2672.6	2679.4	2648.2	2639.0	2629.2	2623.7	2609.6	2618.8
12.5°	2732.6	2697.7	2658.0	2620.0	2627.4	2598.0	2585.8	2575.4	2573.5	2561.9	2572.9
15°	2689.8	2641.4	2600.4	2560.1	2568.6	2534.4	2528.9	2518.5	2521.5	2513.6	2527.0
17.5°	2635.3	2579.6	2535.0	2491.6	2500.1	2471.4	2467.1	2462.2	2465.3	2464.0	2478.7
20°	2574.1	2513.0	2461.6	2418.8	2423.7	2401.0	2402.9	2401.6	2407.8	2414.5	2434.7
22.5°	2505.0	2435.9	2382.1	2338.0	2345.4	2325.8	2334.3	2336.8	2347.2	2362.5	2388.2
25°	2427.3	2353.3	2297.0	2255.4	2262.2	2249.3	2264.0	2270.1	2286.6	2312.3	2338.6
27.5°	2346.0	2267.7	2207.7	2168.0	2180.8	2168.0	2190.0	2202.2	2227.3	2255.4	2287.9
30°	2259.7	2178.4	2116.6	2081.1	2093.3	2081.7	2117.2	2133.7	2158.8	2197.3	2235.9
32.5°	2169.2	2083.5	2023.0	1995.5	2004.0	2002.2	2041.9	2060.3	2093.9	2138.0	2179.0
35°	2076.2	1986.9	1925.7	1902.5	1912.9	1915.3	1963.0	1984.4	2021.1	2074.4	2118.4
37.5°	1980.2	1889.0	1829.1	1810.1	1819.3	1828.4	1884.1	1905.5	1947.1	2005.2	2053.6
40°	1880.4	1789.3	1730.6	1715.3	1724.5	1734.2	1794.8	1824.2	1869.4	1932.4	1985.1
42.5°	1779.5	1688.4	1631.5	1620.5	1629.6	1648.6	1712.8	1740.4	1788.1	1857.8	1915.9
45°	1676.7	1581.9	1532.4	1523.8	1533.6	1555.6	1618.6	1651.7	1702.4	1778.9	1841.3
47.5°	1572.7	1480.4	1433.3	1427.8	1437.6	1462.0	1531.8	1561.7	1615.6	1696.9	1764.2
50°	1467.5	1377.6	1332.3	1330.5	1339.7	1366.0	1432.7	1468.1	1523.8	1615.0	1684.1
52.5°	1361.1	1274.8	1233.9	1233.9	1242.4	1269.3	1336.6	1373.3	1430.8	1526.9	1603.3
55°	1254.7	1172.7	1133.5	1136.6	1148.8	1172.1	1237.5	1276.1	1334.2	1433.9	1514.6
57.5°	1148.2	1070.5	1035.0	1039.3	1050.9	1074.2	1138.4	1181.9	1234.5	1337.8	1420.4
60°	1043.0	969.6	938.4	943.3	953.7	976.9	1043.6	1080.9	1133.5	1238.7	1321.3
62.5°	936.6	869.9	840.5	846.6	855.8	879.1	942.1	978.2	1030.1	1133.5	1216.7
65°	831.3	769.6	744.5	750.6	759.2	780.6	839.9	874.8	924.3	1025.3	1104.8
67.5°	727.3	671.1	650.3	656.4	663.1	683.3	732.2	770.2	816.7	912.7	987.9
70°	624.6	574.4	556.1	562.2	568.3	586.6	629.5	664.3	707.2	795.2	865.0
72.5°	523.0	474.1	464.9	470.4	475.3	491.2	532.2	559.7	597.0	675.3	735.3
75°	423.9	381.7	375.6	381.1	385.4	397.6	431.9	455.7	486.9	554.8	603.8
77.5°	328.5	293.0	290.6	294.9	299.1	307.7	334.6	359.7	384.2	434.3	477.8
80°	239.2	210.4	210.4	214.7	213.5	223.9	242.9	263.0	280.8	316.9	348.7
82.5°	157.8	135.2	138.3	141.3	143.1	147.4	159.0	174.3	185.4	207.4	228.2
85°	87.5	72.2	75.2	77.7	76.5	81.4	87.5	96.7	102.2	112.6	123.6
87.5°	32.4	26.9	27.5	29.4	30.6	33.0	33.0	38.5	39.2	40.4	42.8
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):

	160°	170°	180°
0°	2798.6	2798.6	2798.6
2.5°	2732.0	2746.7	2757.7
5°	2684.9	2697.1	2706.9
7.5°	2639.0	2650.0	2658.6
10°	2595.6	2607.8	2613.9
12.5°	2550.9	2565.0	2569.9
15°	2506.9	2520.9	2527.0
17.5°	2461.6	2479.9	2486.7
20°	2419.4	2442.6	2448.1
22.5°	2376.6	2400.4	2407.1
25°	2330.1	2358.2	2364.9
27.5°	2280.5	2314.2	2320.9
30°	2231.0	2267.7	2274.4
32.5°	2177.7	2217.5	2223.6
35°	2122.1	2161.8	2169.2
37.5°	2060.3	2103.7	2118.4
40°	1996.1	2043.2	2058.5
42.5°	1928.8	1980.2	1996.1
45°	1856.6	1912.9	1931.2
47.5°	1783.8	1847.4	1863.3
50°	1704.9	1772.8	1791.7
52.5°	1622.3	1696.3	1715.3
55°	1536.7	1611.3	1632.1
57.5°	1443.7	1520.8	1542.8
60°	1346.4	1423.5	1444.3
62.5°	1246.7	1316.4	1336.6
65°	1135.4	1200.8	1219.2
67.5°	1017.3	1077.2	1092.5
70°	891.9	943.9	957.4
72.5°	761.0	797.1	814.8
75°	625.8	654.5	668.0
77.5°	490.0	510.2	521.2
80°	357.2	368.9	378.0
82.5°	233.7	238.6	245.3
85°	126.0	126.0	130.3
87.5°	42.8	41.0	42.8
90°	0.0	0.0	0.0

(END OF REPORT)