

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: P835254

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-4HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835254
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-LD4-4HI-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

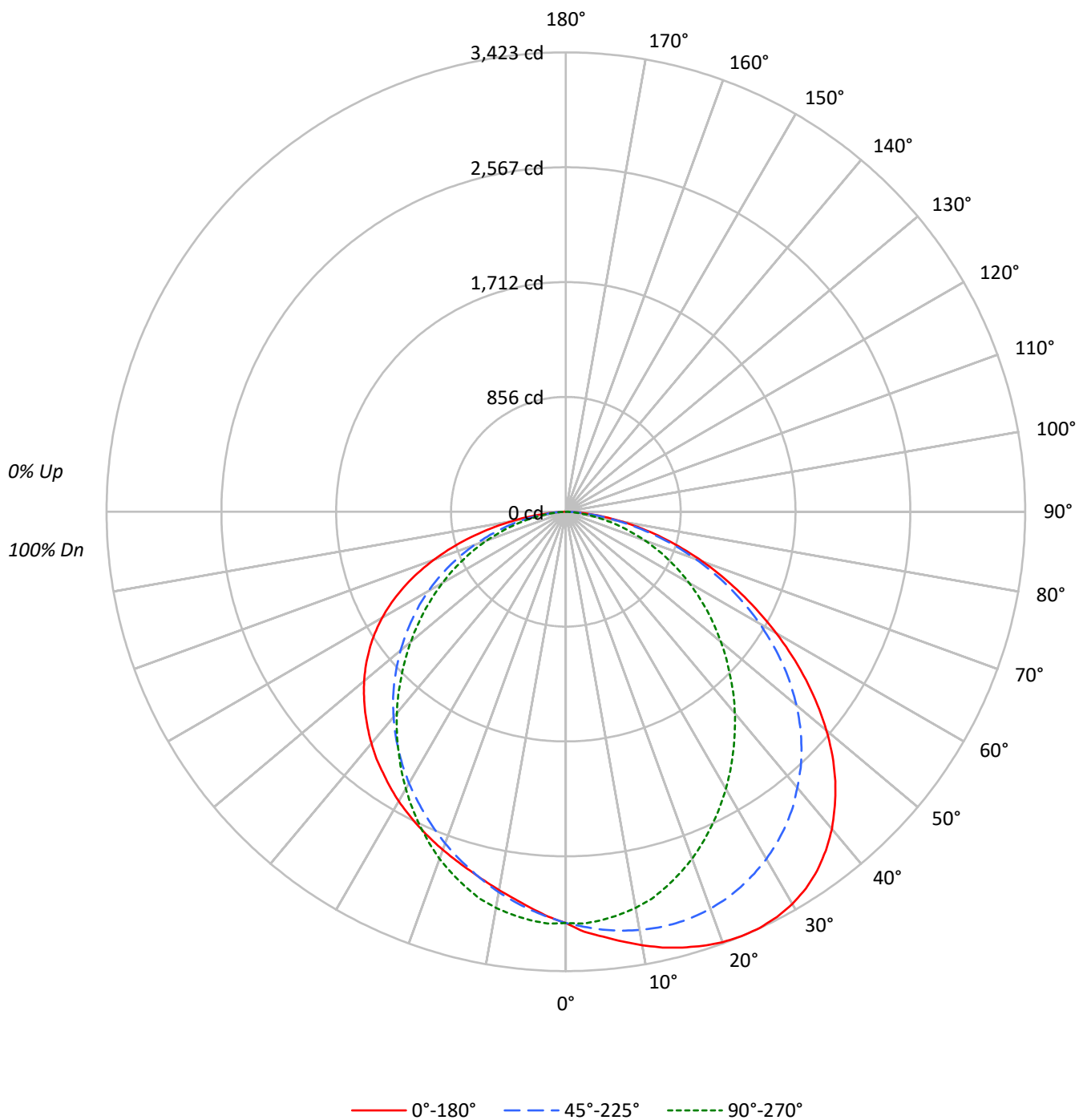
Lumens per Lamp: N/A
Luminaire Lumens: 9014.5 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	8247	8247	8247
5°	8586	8251	8007
10°	8961	8189	7821
15°	9364	8058	7709
20°	9773	7880	7677
25°	10157	7651	7689
30°	10488	7412	7739
35°	10727	7147	7803
40°	10836	6883	7918
45°	10806	6592	8048
50°	10614	6315	8214
55°	10252	6024	8385
60°	9752	5714	8512
65°	9158	5366	8500
70°	8523	4949	8248
75°	7738	4346	7606
80°	6643	3570	6416
85°	5067	2439	4406

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.7	3.2
10°-20°	839.4	9.3
20°-30°	1285.9	14.3
30°-40°	1569.3	17.4
40°-50°	1641.1	18.2
50°-60°	1485.3	16.5
60°-70°	1124.9	12.5
70°-80°	626.9	7.0
80°-90°	151.2	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°	2415.9	26.8
0°-40°	3985.2	44.2
0°-60°	7111.6	78.9
0°-90°	9014.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9014.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3065	3065	3065	3065	3065	
5°	3178	3126	3054	2980	2964	306
15°	3361	3174	2892	2758	2767	953
25°	3421	3085	2577	2486	2590	1578
35°	3266	2856	2176	2173	2375	2039
45°	2840	2484	1732	1809	2115	2185
55°	2185	1973	1284	1397	1787	1950
65°	1438	1352	843	958	1335	1427
75°	744	703	418	499	732	789
85°	164	145	79	106	143	197
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°	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6
2.5°	3132.2	3117.5	3105.4	3110.1	3112.8	3103.4	3095.4	3096.7	3088.7	3104.1	3067.9
5°	3178.4	3165.1	3151.0	3156.3	3151.0	3136.9	3125.5	3122.2	3100.7	3109.5	3072.6
7.5°	3230.0	3215.3	3194.5	3200.6	3189.2	3163.0	3148.3	3139.6	3106.8	3107.4	3066.6
10°	3279.6	3266.9	3238.7	3242.8	3222.0	3187.2	3163.7	3151.7	3105.4	3098.7	3056.5
12.5°	3325.8	3308.4	3278.3	3280.3	3250.1	3203.9	3173.8	3156.3	3096.1	3076.0	3034.4
15°	3361.3	3344.6	3308.4	3307.7	3268.9	3208.6	3174.4	3150.3	3074.0	3042.5	2998.9
17.5°	3391.5	3376.1	3331.2	3329.8	3282.9	3206.6	3165.7	3135.6	3041.8	3002.9	2954.7
20°	3412.9	3397.5	3347.3	3342.6	3286.3	3196.5	3147.6	3109.5	2999.6	2953.4	2899.8
22.5°	3422.9	3407.5	3350.6	3343.9	3278.3	3176.4	3121.5	3076.6	2951.4	2891.1	2835.5
25°	3420.9	3406.2	3341.9	3335.2	3262.9	3146.3	3084.7	3033.1	2890.4	2819.4	2764.5
27.5°	3404.2	3392.8	3325.1	3316.4	3234.7	3105.4	3039.8	2982.9	2822.8	2743.7	2684.1
30°	3375.4	3366.7	3295.0	3287.0	3199.9	3060.6	2987.5	2921.9	2749.7	2660.7	2600.4
32.5°	3329.2	3321.1	3248.8	3241.4	3153.0	3002.9	2926.6	2858.9	2670.0	2571.6	2511.3
35°	3265.5	3260.8	3190.5	3182.5	3092.7	2937.3	2856.3	2781.9	2587.0	2475.8	2418.2
37.5°	3181.8	3181.8	3114.1	3105.4	3017.7	2856.9	2777.2	2698.2	2493.2	2375.3	2318.4
40°	3084.7	3093.4	3024.4	3015.7	2930.6	2770.5	2683.4	2600.4	2392.0	2269.5	2213.9
42.5°	2968.1	2976.2	2918.5	2910.5	2830.8	2670.7	2589.6	2499.2	2286.2	2161.6	2104.0
45°	2839.5	2850.2	2798.6	2792.6	2718.3	2561.5	2483.8	2392.0	2175.7	2049.1	1992.8
47.5°	2696.2	2710.2	2665.3	2662.0	2593.0	2449.6	2368.6	2275.5	2059.8	1931.9	1878.9
50°	2535.4	2555.5	2518.6	2518.6	2457.0	2314.3	2244.0	2150.9	1939.2	1811.3	1759.0
52.5°	2363.2	2388.7	2361.2	2361.9	2311.7	2183.7	2110.7	2019.6	1813.3	1687.4	1639.1
55°	2185.1	2209.8	2192.4	2195.1	2155.6	2039.0	1972.7	1882.3	1684.7	1562.1	1516.5
57.5°	1998.8	2025.6	2014.2	2019.6	1992.1	1887.6	1818.6	1739.6	1552.0	1430.8	1392.0
60°	1812.0	1837.4	1831.4	1838.7	1821.3	1730.9	1667.9	1586.2	1418.7	1302.2	1268.0
62.5°	1623.1	1646.5	1645.2	1653.2	1643.8	1568.8	1512.5	1442.9	1280.8	1173.6	1142.1
65°	1438.2	1458.3	1456.9	1465.6	1463.6	1403.3	1352.4	1288.8	1142.8	1044.3	1016.8
67.5°	1258.7	1275.4	1270.7	1280.8	1283.4	1235.2	1191.0	1134.1	1011.5	915.7	892.2
70°	1083.2	1094.5	1088.5	1095.2	1101.2	1065.1	1027.6	977.3	871.5	787.1	767.7
72.5°	911.0	919.0	909.7	916.4	921.7	895.6	864.8	821.2	733.5	660.5	644.4
75°	744.2	755.6	736.2	742.9	746.9	720.8	702.7	667.2	591.5	535.2	524.5
77.5°	582.8	589.5	578.8	576.1	578.8	560.0	545.9	518.5	461.5	415.3	408.6
80°	428.7	432.7	422.0	419.3	421.3	407.9	397.2	377.1	336.9	302.1	299.4
82.5°	287.4	289.4	280.0	277.3	278.7	274.6	261.9	247.8	229.1	199.6	198.9
85°	164.1	164.1	157.4	154.7	156.1	149.4	144.7	137.3	130.0	109.9	111.2
87.5°	60.3	60.3	56.9	56.3	63.0	55.6	53.6	50.2	52.2	41.5	44.2
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6	3064.6
2.5°	3078.0	3071.3	3065.2	3044.5	3053.2	3031.8	3030.4	3022.4	3016.3	3005.0	3019.7
5°	3067.9	3054.5	3037.1	3012.3	3019.7	2994.2	2988.9	2979.5	2971.5	2956.7	2968.1
7.5°	3051.8	3029.7	3002.3	2970.8	2980.8	2949.4	2941.3	2931.3	2924.6	2907.2	2917.2
10°	3028.4	2996.9	2964.8	2926.6	2934.0	2899.8	2889.7	2879.0	2873.0	2857.6	2867.6
12.5°	2992.2	2954.0	2910.5	2869.0	2877.0	2844.9	2831.5	2820.1	2818.1	2805.3	2817.4
15°	2945.3	2892.4	2847.5	2803.3	2812.7	2775.2	2769.2	2757.8	2761.1	2752.4	2767.2
17.5°	2885.7	2824.8	2775.9	2728.3	2737.7	2706.2	2701.5	2696.2	2699.5	2698.2	2714.2
20°	2818.7	2751.8	2695.5	2648.6	2654.0	2629.2	2631.2	2629.8	2636.5	2643.9	2666.0
22.5°	2743.0	2667.4	2608.4	2560.2	2568.2	2546.8	2556.2	2558.8	2570.2	2587.0	2615.1
25°	2658.0	2576.9	2515.3	2469.7	2477.1	2463.0	2479.1	2485.8	2503.9	2532.0	2560.8
27.5°	2568.9	2483.1	2417.5	2374.0	2388.0	2374.0	2398.1	2411.5	2438.9	2469.7	2505.2
30°	2474.4	2385.3	2317.7	2278.8	2292.2	2279.5	2318.4	2336.4	2363.9	2406.1	2448.3
32.5°	2375.3	2281.5	2215.2	2185.1	2194.4	2192.4	2236.0	2256.1	2292.9	2341.1	2386.0
35°	2273.5	2175.7	2108.7	2083.2	2094.6	2097.3	2149.6	2173.0	2213.2	2271.5	2319.7
37.5°	2168.3	2068.5	2002.9	1982.1	1992.1	2002.2	2063.1	2086.6	2132.1	2195.8	2248.7
40°	2059.1	1959.3	1895.0	1878.3	1888.3	1899.0	1965.3	1997.5	2047.1	2116.1	2173.7
42.5°	1948.6	1848.8	1786.5	1774.4	1784.5	1805.3	1875.6	1905.7	1958.0	2034.3	2098.0
45°	1836.1	1732.2	1678.0	1668.6	1679.3	1703.4	1772.4	1808.6	1864.2	1947.9	2016.3
47.5°	1722.2	1621.0	1569.5	1563.4	1574.2	1600.9	1677.3	1710.1	1769.1	1858.2	1931.9
50°	1607.0	1508.5	1458.9	1456.9	1467.0	1495.8	1568.8	1607.6	1668.6	1768.4	1844.1
52.5°	1490.4	1396.0	1351.1	1351.1	1360.5	1389.9	1463.6	1503.8	1566.8	1672.0	1755.7
55°	1373.9	1284.1	1241.2	1244.6	1258.0	1283.4	1355.1	1397.3	1460.9	1570.1	1658.6
57.5°	1257.3	1172.2	1133.4	1138.1	1150.8	1176.3	1246.6	1294.2	1351.8	1465.0	1555.4
60°	1142.1	1061.7	1027.6	1032.9	1044.3	1069.8	1142.8	1183.6	1241.2	1356.5	1446.9
62.5°	1025.5	952.5	920.4	927.1	937.1	962.6	1031.6	1071.1	1128.0	1241.2	1332.3
65°	910.3	842.7	815.2	821.9	831.3	854.7	919.7	957.9	1012.1	1122.7	1209.8
67.5°	796.5	734.8	712.1	718.8	726.1	748.2	801.8	843.3	894.3	999.4	1081.8
70°	683.9	629.0	608.9	615.6	622.3	642.4	689.3	727.5	774.3	870.8	947.2
72.5°	572.7	519.1	509.1	515.1	520.5	537.9	582.8	612.9	653.8	739.5	805.2
75°	464.2	418.0	411.3	417.3	422.0	435.4	472.9	499.0	533.2	607.6	661.1
77.5°	359.7	320.9	318.2	322.9	327.6	336.9	366.4	393.9	420.7	475.6	523.2
80°	261.9	230.4	230.4	235.1	233.8	245.2	265.9	288.0	307.5	347.0	381.8
82.5°	172.8	148.0	151.4	154.7	156.7	161.4	174.2	190.9	203.0	227.1	249.9
85°	95.8	79.0	82.4	85.1	83.7	89.1	95.8	105.8	111.9	123.3	135.3
87.5°	35.5	29.5	30.1	32.2	33.5	36.2	36.2	42.2	42.9	44.2	46.9
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):

	160°	170°	180°
0°	3064.6	3064.6	3064.6
2.5°	2991.6	3007.6	3019.7
5°	2940.0	2953.4	2964.1
7.5°	2889.7	2901.8	2911.2
10°	2842.2	2855.6	2862.3
12.5°	2793.3	2808.7	2814.0
15°	2745.1	2760.5	2767.2
17.5°	2695.5	2715.6	2722.9
20°	2649.3	2674.7	2680.7
22.5°	2602.4	2628.5	2635.9
25°	2551.5	2582.3	2589.6
27.5°	2497.2	2534.1	2541.4
30°	2443.0	2483.1	2490.5
32.5°	2384.7	2428.2	2434.9
35°	2323.7	2367.3	2375.3
37.5°	2256.1	2303.6	2319.7
40°	2185.7	2237.3	2254.1
42.5°	2112.0	2168.3	2185.7
45°	2033.0	2094.6	2114.7
47.5°	1953.3	2023.0	2040.4
50°	1866.9	1941.2	1962.0
52.5°	1776.4	1857.5	1878.3
55°	1682.7	1764.4	1787.2
57.5°	1580.9	1665.3	1689.4
60°	1474.3	1558.7	1581.5
62.5°	1365.2	1441.5	1463.6
65°	1243.2	1314.9	1335.0
67.5°	1114.0	1179.6	1196.4
70°	976.6	1033.6	1048.3
72.5°	833.3	872.8	892.2
75°	685.3	716.7	731.5
77.5°	536.6	558.7	570.7
80°	391.2	403.9	414.0
82.5°	255.9	261.2	268.6
85°	138.0	138.0	142.7
87.5°	46.9	44.9	46.9
90°	0.0	0.0	0.0

(END OF REPORT)