

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: P835170

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835170
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-LD4-6HI-20-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

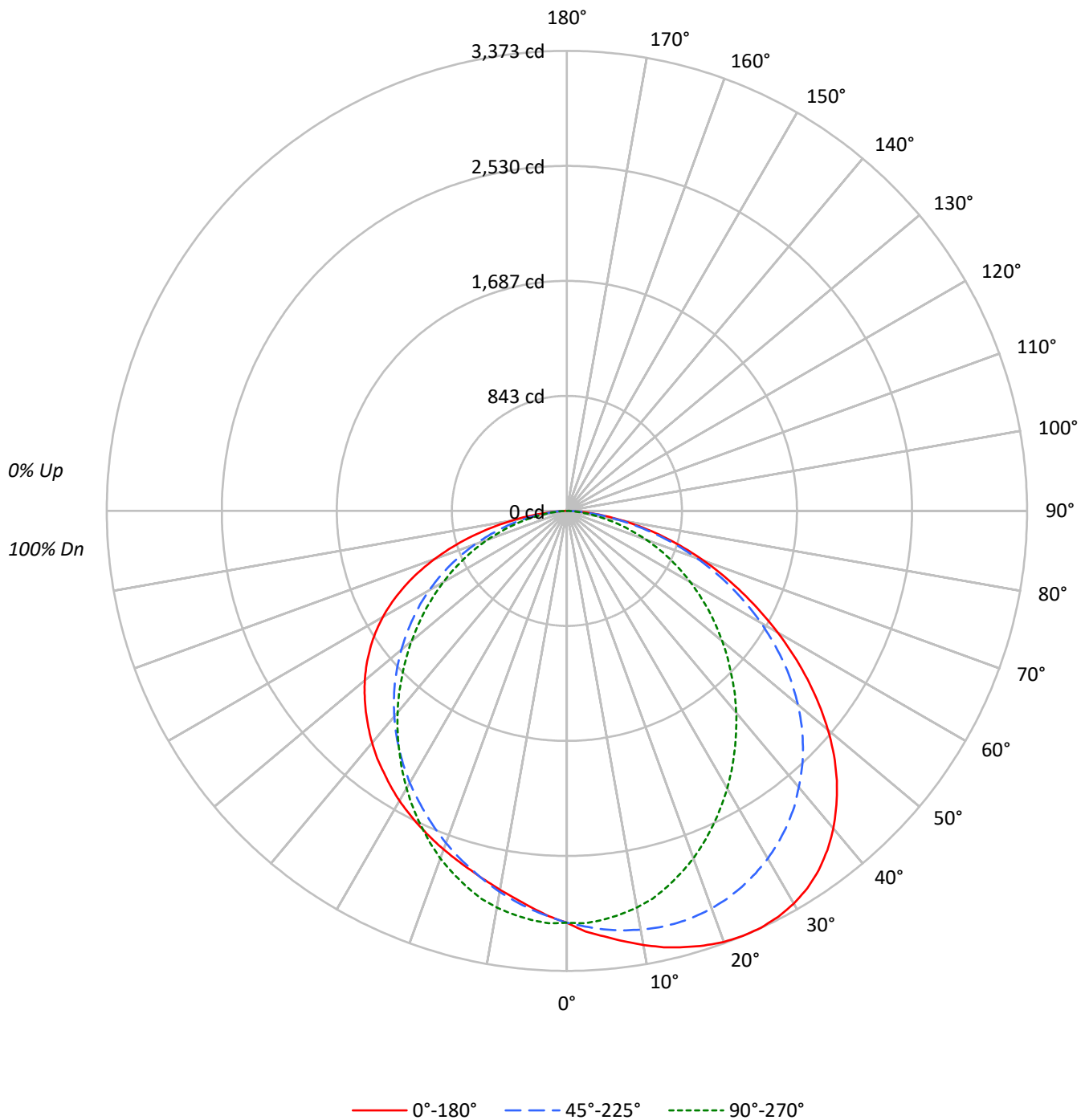
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8882.6 lumens
Efficiency: N/A
Efficacy: 67.3 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): 132
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

TEST NUMBER: P835170
CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835170

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

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°	8126	8126	8126
5°	8460	8130	7890
10°	8830	8069	7707
15°	9227	7940	7596
20°	9630	7765	7564
25°	10009	7539	7576
30°	10335	7303	7626
35°	10570	7043	7689
40°	10677	6782	7802
45°	10648	6496	7930
50°	10459	6223	8094
55°	10101	5936	8262
60°	9609	5631	8387
65°	9023	5287	8376
70°	8397	4877	8128
75°	7624	4283	7494
80°	6546	3519	6321
85°	4993	2405	4341

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835170

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.4	3.2
10°-20°	827.1	9.3
20°-30°	1267.1	14.3
30°-40°	1546.3	17.4
40°-50°	1617.1	18.2
50°-60°	1463.6	16.5
60°-70°	1108.4	12.5
70°-80°	617.7	7.0
80°-90°	149.0	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°	2380.5	26.8
0°-40°	3926.8	44.2
0°-60°	7007.5	78.9
0°-90°	8882.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8882.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3020	3020	3020	3020	3020	
5°	3132	3080	3010	2936	2921	302
15°	3312	3128	2850	2717	2727	939
25°	3371	3040	2539	2449	2552	1555
35°	3218	2814	2144	2141	2340	2009
45°	2798	2448	1707	1782	2084	2153
55°	2153	1944	1265	1377	1761	1921
65°	1417	1333	830	944	1316	1406
75°	733	692	412	492	721	778
85°	162	143	78	104	141	195
90°	0	0	0	0	0	

TEST NUMBER: P835170

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7
2.5°	3086.4	3071.9	3060.0	3064.6	3067.2	3058.0	3050.1	3051.4	3043.5	3058.7	3023.0
5°	3131.9	3118.7	3104.9	3110.1	3104.9	3091.0	3079.8	3076.5	3055.4	3063.9	3027.6
7.5°	3182.8	3168.2	3147.8	3153.7	3142.5	3116.7	3102.2	3093.6	3061.3	3062.0	3021.7
10°	3231.6	3219.1	3191.3	3195.3	3174.8	3140.5	3117.4	3105.5	3060.0	3053.4	3011.8
12.5°	3277.1	3260.0	3230.3	3232.3	3202.6	3157.0	3127.3	3110.1	3050.7	3030.9	2990.0
15°	3312.1	3295.6	3260.0	3259.3	3221.0	3161.6	3128.0	3104.2	3029.0	2997.9	2955.0
17.5°	3341.8	3326.6	3282.4	3281.1	3234.9	3159.7	3119.4	3089.7	2997.3	2959.0	2911.5
20°	3362.9	3347.8	3298.3	3293.6	3238.2	3149.7	3101.6	3063.9	2955.7	2910.2	2857.3
22.5°	3372.8	3357.7	3301.6	3295.0	3230.3	3129.9	3075.8	3031.6	2908.2	2848.8	2794.0
25°	3370.9	3356.3	3293.0	3286.4	3215.1	3100.2	3039.5	2988.7	2848.1	2778.1	2724.0
27.5°	3354.4	3343.1	3276.5	3267.9	3187.4	3060.0	2995.3	2939.2	2781.4	2703.6	2644.8
30°	3326.0	3317.4	3246.8	3238.9	3153.0	3015.8	2943.8	2879.1	2709.5	2621.7	2562.3
32.5°	3280.4	3272.5	3201.2	3194.0	3106.8	2959.0	2883.8	2817.1	2631.0	2533.9	2474.5
35°	3217.7	3213.1	3143.8	3135.9	3047.4	2894.3	2814.4	2741.2	2549.1	2439.5	2382.8
37.5°	3135.2	3135.2	3068.6	3060.0	2973.5	2815.1	2736.6	2658.7	2456.7	2340.5	2284.4
40°	3039.5	3048.1	2980.1	2971.5	2887.7	2730.0	2644.2	2562.3	2357.0	2236.2	2181.5
42.5°	2924.7	2932.6	2875.8	2867.9	2789.4	2631.6	2551.7	2462.6	2252.7	2130.0	2073.2
45°	2797.9	2808.5	2757.7	2751.7	2678.5	2524.0	2447.5	2357.0	2143.8	2019.1	1963.6
47.5°	2656.7	2670.6	2626.3	2623.0	2555.0	2413.8	2333.9	2242.2	2029.6	1903.6	1851.4
50°	2498.3	2518.1	2481.8	2481.8	2421.1	2280.5	2211.2	2119.4	1910.8	1784.8	1733.3
52.5°	2328.6	2353.7	2326.7	2327.3	2277.8	2151.8	2079.8	1990.0	1786.8	1662.7	1615.1
55°	2153.1	2177.5	2160.3	2163.0	2124.0	2009.2	1943.8	1854.7	1660.0	1539.2	1494.3
57.5°	1969.6	1996.0	1984.8	1990.0	1963.0	1860.0	1792.0	1714.1	1529.3	1409.9	1371.6
60°	1785.4	1810.5	1804.6	1811.8	1794.7	1705.6	1643.5	1563.0	1398.0	1283.1	1249.5
62.5°	1599.3	1622.4	1621.1	1629.0	1619.8	1545.8	1490.4	1421.7	1262.0	1156.4	1125.4
65°	1417.1	1436.9	1435.6	1444.2	1442.2	1382.8	1332.6	1269.9	1126.0	1029.0	1002.0
67.5°	1240.2	1256.7	1252.1	1262.0	1264.7	1217.1	1173.6	1117.5	996.7	902.3	879.2
70°	1067.3	1078.5	1072.6	1079.2	1085.1	1049.5	1012.5	963.0	858.7	775.6	756.4
72.5°	897.7	905.6	896.3	902.9	908.2	882.5	852.1	809.2	722.8	650.8	635.0
75°	733.3	744.5	725.4	732.0	736.0	710.2	692.4	657.4	582.8	527.4	516.8
77.5°	574.2	580.8	570.3	567.6	570.3	551.8	537.9	510.9	454.8	409.2	402.6
80°	422.4	426.4	415.8	413.2	415.2	402.0	391.4	371.6	332.0	297.7	295.0
82.5°	283.2	285.1	275.9	273.3	274.6	270.6	258.1	244.2	225.7	196.7	196.0
85°	161.7	161.7	155.1	152.5	153.8	147.2	142.6	135.3	128.0	108.2	109.6
87.5°	59.4	59.4	56.1	55.4	62.0	54.8	52.8	49.5	51.5	40.9	43.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835170

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7	3019.7
2.5°	3032.9	3026.3	3020.4	2999.9	3008.5	2987.4	2986.1	2978.1	2972.2	2961.0	2975.5
5°	3023.0	3009.8	2992.7	2968.2	2975.5	2950.4	2945.1	2935.9	2928.0	2913.5	2924.7
7.5°	3007.2	2985.4	2958.3	2927.3	2937.2	2906.2	2898.3	2888.4	2881.8	2864.6	2874.5
10°	2984.1	2953.1	2921.4	2883.8	2891.0	2857.3	2847.4	2836.9	2830.9	2815.8	2825.7
12.5°	2948.4	2910.8	2867.9	2827.0	2834.9	2803.2	2790.0	2778.8	2776.8	2764.3	2776.2
15°	2902.2	2850.1	2805.9	2762.3	2771.5	2734.6	2728.6	2717.4	2720.7	2712.1	2726.7
17.5°	2843.5	2783.4	2735.2	2688.4	2697.6	2666.6	2662.0	2656.7	2660.0	2658.7	2674.5
20°	2777.5	2711.5	2656.0	2609.8	2615.1	2590.7	2592.7	2591.3	2597.9	2605.2	2627.0
22.5°	2702.9	2628.3	2570.2	2522.7	2530.6	2509.5	2518.7	2521.4	2532.6	2549.1	2576.8
25°	2619.1	2539.2	2478.5	2433.6	2440.9	2427.0	2442.8	2449.4	2467.3	2495.0	2523.4
27.5°	2531.3	2446.8	2382.1	2339.2	2353.1	2339.2	2363.0	2376.2	2403.2	2433.6	2468.6
30°	2438.2	2350.4	2283.8	2245.5	2258.7	2246.1	2284.4	2302.2	2329.3	2370.9	2412.5
32.5°	2340.5	2248.1	2182.8	2153.1	2162.3	2160.3	2203.2	2223.0	2259.3	2306.9	2351.1
35°	2240.2	2143.8	2077.8	2052.7	2064.0	2066.6	2118.1	2141.2	2180.8	2238.2	2285.7
37.5°	2136.6	2038.2	1973.5	1953.1	1963.0	1972.9	2032.9	2056.0	2100.9	2163.6	2215.8
40°	2029.0	1930.6	1867.3	1850.8	1860.7	1871.2	1936.6	1968.3	2017.1	2085.1	2141.9
42.5°	1920.1	1821.7	1760.3	1748.5	1758.4	1778.8	1848.1	1877.8	1929.3	2004.6	2067.3
45°	1809.2	1706.9	1653.4	1644.2	1654.7	1678.5	1746.5	1782.1	1836.9	1919.4	1986.7
47.5°	1697.0	1597.3	1546.5	1540.6	1551.1	1577.5	1652.8	1685.1	1743.2	1831.0	1903.6
50°	1583.5	1486.4	1437.6	1435.6	1445.5	1473.9	1545.8	1584.1	1644.2	1742.5	1817.1
52.5°	1468.6	1375.5	1331.3	1331.3	1340.6	1369.6	1442.2	1481.8	1543.9	1647.5	1730.0
55°	1353.8	1265.3	1223.1	1226.4	1239.6	1264.7	1335.3	1376.9	1439.6	1547.2	1634.3
57.5°	1238.9	1155.1	1116.8	1121.4	1134.0	1159.0	1228.3	1275.2	1332.0	1443.5	1532.6
60°	1125.4	1046.2	1012.5	1017.8	1029.0	1054.1	1126.0	1166.3	1223.1	1336.6	1425.7
62.5°	1010.5	938.6	906.9	913.5	923.4	948.5	1016.5	1055.4	1111.5	1223.1	1312.8
65°	897.0	830.3	803.3	809.9	819.1	842.2	906.2	943.9	997.3	1106.2	1192.0
67.5°	784.8	724.1	701.6	708.2	715.5	737.3	790.1	831.0	881.2	984.8	1066.0
70°	673.9	619.8	600.0	606.6	613.2	633.0	679.2	716.8	763.0	858.1	933.3
72.5°	564.3	511.5	501.6	507.6	512.9	530.0	574.2	603.9	644.2	728.7	793.4
75°	457.4	411.9	405.3	411.2	415.8	429.0	466.0	491.7	525.4	598.7	651.5
77.5°	354.4	316.2	313.5	318.1	322.8	332.0	361.0	388.1	414.5	468.6	515.5
80°	258.1	227.1	227.1	231.7	230.4	241.6	262.0	283.8	303.0	341.9	376.2
82.5°	170.3	145.9	149.2	152.5	154.5	159.1	171.6	188.1	200.0	223.8	246.2
85°	94.4	77.9	81.2	83.8	82.5	87.8	94.4	104.3	110.2	121.4	133.3
87.5°	35.0	29.0	29.7	31.7	33.0	35.6	35.6	41.6	42.2	43.6	46.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835170

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6HI-20-120-EDD

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	3019.7	3019.7	3019.7
2.5°	2947.8	2963.6	2975.5
5°	2897.0	2910.2	2920.7
7.5°	2847.4	2859.3	2868.6
10°	2800.6	2813.8	2820.4
12.5°	2752.4	2767.6	2772.9
15°	2704.9	2720.1	2726.7
17.5°	2656.0	2675.8	2683.1
20°	2610.5	2635.6	2641.5
22.5°	2564.3	2590.0	2597.3
25°	2514.1	2544.5	2551.7
27.5°	2460.7	2497.0	2504.2
30°	2407.2	2446.8	2454.1
32.5°	2349.8	2392.7	2399.3
35°	2289.7	2332.6	2340.5
37.5°	2223.0	2269.9	2285.7
40°	2153.7	2204.6	2221.1
42.5°	2081.1	2136.6	2153.7
45°	2003.2	2064.0	2083.8
47.5°	1924.7	1993.3	2010.5
50°	1839.6	1912.8	1933.3
52.5°	1750.4	1830.3	1850.8
55°	1658.0	1738.6	1761.0
57.5°	1557.7	1640.9	1664.6
60°	1452.8	1535.9	1558.4
62.5°	1345.2	1420.4	1442.2
65°	1225.0	1295.7	1315.5
67.5°	1097.7	1162.3	1178.8
70°	962.4	1018.5	1033.0
72.5°	821.1	860.0	879.2
75°	675.2	706.3	720.8
77.5°	528.7	550.5	562.4
80°	385.5	398.0	407.9
82.5°	252.1	257.4	264.7
85°	136.0	136.0	140.6
87.5°	46.2	44.2	46.2
90°	0.0	0.0	0.0

(END OF REPORT)