

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: P835202

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5STD-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835202
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-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

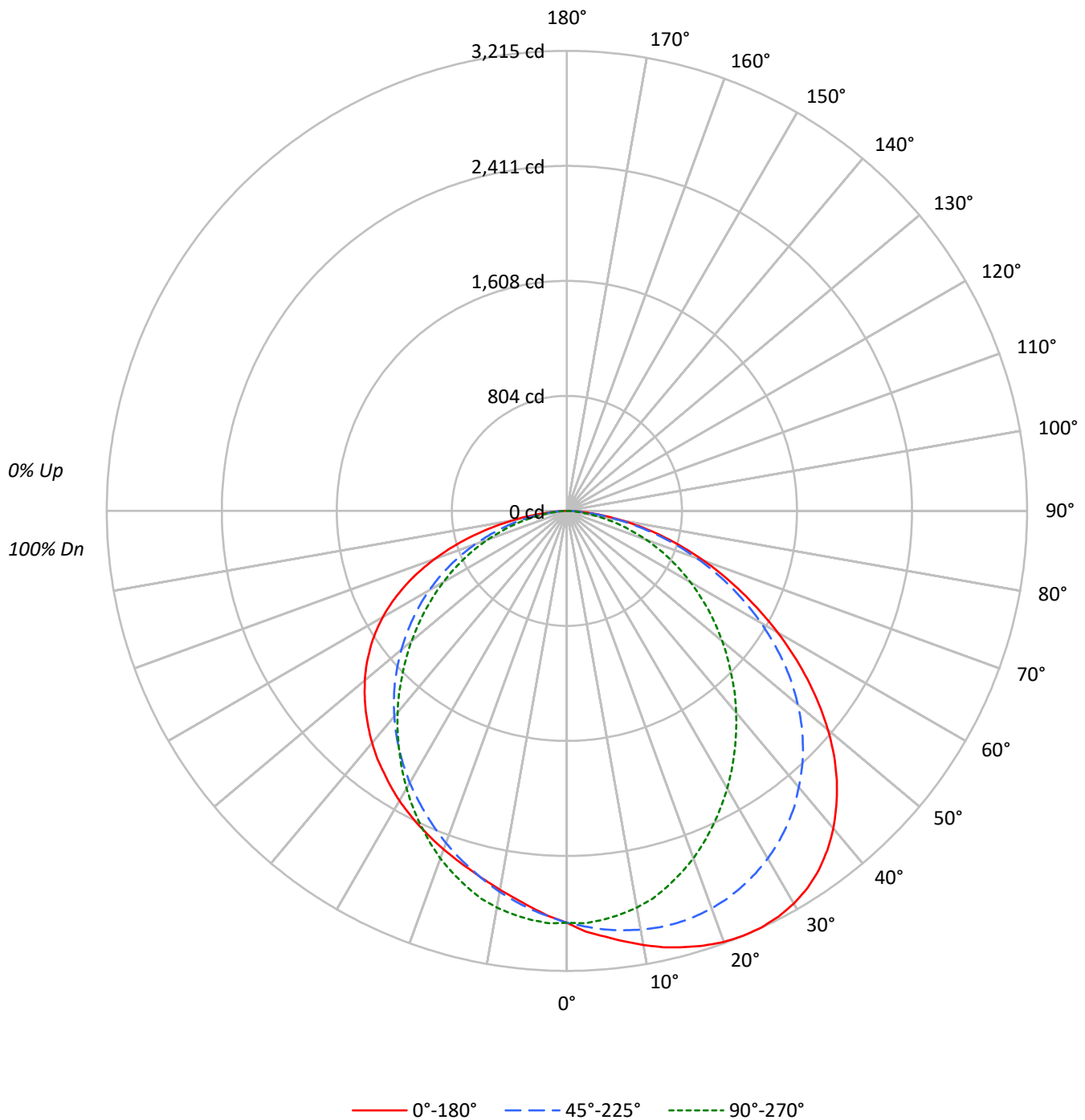
Lumens per Lamp: N/A
Luminaire Lumens: 8466.2 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	30	10	50	30	10
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	94	97	94	91	94	91	88	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7745	7745	7745
5°	8064	7749	7520
10°	8416	7691	7345
15°	8795	7568	7240
20°	9179	7401	7210
25°	9539	7186	7221
30°	9850	6961	7268
35°	10075	6712	7328
40°	10177	6464	7436
45°	10149	6191	7558
50°	9969	5931	7714
55°	9628	5658	7875
60°	9158	5366	7994
65°	8600	5039	7983
70°	8004	4648	7747
75°	7267	4082	7143
80°	6239	3353	6025
85°	4758	2291	4137

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.0	3.2
10°-20°	788.3	9.3
20°-30°	1207.7	14.3
30°-40°	1473.8	17.4
40°-50°	1541.3	18.2
50°-60°	1395.0	16.5
60°-70°	1056.5	12.5
70°-80°	588.7	7.0
80°-90°	142.0	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°	2268.9	26.8
0°-40°	3742.7	44.2
0°-60°	6679.0	78.9
0°-90°	8466.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8466.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2878	2878	2878	2878	2878	
5°	2985	2935	2869	2798	2784	288
15°	3157	2981	2716	2590	2599	895
25°	3213	2897	2420	2335	2432	1482
35°	3067	2682	2043	2041	2231	1915
45°	2667	2333	1627	1699	1986	2052
55°	2052	1853	1206	1312	1678	1831
65°	1351	1270	791	900	1254	1340
75°	699	660	393	469	687	741
85°	154	136	74	99	134	185
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°	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2
2.5°	2941.7	2927.9	2916.5	2920.9	2923.5	2914.7	2907.1	2908.4	2900.8	2915.3	2881.3
5°	2985.1	2972.5	2959.3	2964.4	2959.3	2946.1	2935.4	2932.3	2912.1	2920.3	2885.7
7.5°	3033.6	3019.7	3000.2	3005.9	2995.2	2970.6	2956.8	2948.6	2917.8	2918.4	2880.1
10°	3080.1	3068.2	3041.7	3045.5	3026.0	2993.3	2971.3	2959.9	2916.5	2910.2	2870.6
12.5°	3123.5	3107.2	3078.8	3080.7	3052.4	3009.0	2980.7	2964.4	2907.7	2888.9	2849.9
15°	3156.9	3141.1	3107.2	3106.5	3070.0	3013.4	2981.3	2958.7	2887.0	2857.4	2816.5
17.5°	3185.2	3170.7	3128.5	3127.3	3083.3	3011.5	2973.2	2944.8	2856.8	2820.3	2775.0
20°	3205.3	3190.8	3143.6	3139.2	3086.4	3002.1	2956.2	2920.3	2817.1	2773.7	2723.4
22.5°	3214.7	3200.3	3146.8	3140.5	3078.8	2983.2	2931.6	2889.5	2771.8	2715.2	2663.0
25°	3212.8	3199.0	3138.6	3132.3	3064.4	2954.9	2897.0	2848.6	2714.6	2647.9	2596.3
27.5°	3197.1	3186.4	3122.9	3114.7	3038.0	2916.5	2854.9	2801.4	2651.1	2576.8	2520.8
30°	3170.1	3161.9	3094.6	3087.0	3005.2	2874.4	2805.8	2744.2	2582.5	2498.8	2442.2
32.5°	3126.7	3119.1	3051.2	3044.2	2961.2	2820.3	2748.6	2685.0	2507.6	2415.1	2358.5
35°	3066.9	3062.5	2996.4	2988.9	2904.6	2758.6	2682.5	2612.7	2429.6	2325.2	2271.1
37.5°	2988.3	2988.3	2924.7	2916.5	2834.1	2683.1	2608.3	2534.0	2341.5	2230.8	2177.3
40°	2897.0	2905.2	2840.4	2832.2	2752.3	2602.0	2520.2	2442.2	2246.5	2131.4	2079.2
42.5°	2787.6	2795.1	2741.0	2733.5	2658.6	2508.2	2432.1	2347.2	2147.1	2030.1	1976.0
45°	2666.8	2676.9	2628.4	2622.7	2552.9	2405.7	2332.7	2246.5	2043.3	1924.4	1871.6
47.5°	2532.2	2545.4	2503.2	2500.1	2435.3	2300.6	2224.5	2137.1	1934.5	1814.3	1764.6
50°	2381.2	2400.0	2365.4	2365.4	2307.6	2173.6	2107.5	2020.1	1821.3	1701.1	1652.0
52.5°	2219.5	2243.4	2217.6	2218.2	2171.0	2050.9	1982.3	1896.8	1703.0	1584.7	1539.4
55°	2052.1	2075.4	2059.1	2061.6	2024.5	1915.0	1852.7	1767.8	1582.2	1467.1	1424.3
57.5°	1877.3	1902.4	1891.7	1896.8	1871.0	1772.8	1708.0	1633.8	1457.6	1343.8	1307.3
60°	1701.7	1725.6	1720.0	1726.9	1710.5	1625.6	1566.5	1489.7	1332.4	1223.0	1190.9
62.5°	1524.3	1546.3	1545.1	1552.6	1543.8	1473.4	1420.5	1355.1	1202.9	1102.2	1072.6
65°	1350.7	1369.6	1368.3	1376.5	1374.6	1318.0	1270.2	1210.4	1073.3	980.8	955.0
67.5°	1182.1	1197.8	1193.4	1202.9	1205.4	1160.1	1118.6	1065.1	950.0	860.0	838.0
70°	1017.3	1028.0	1022.3	1028.6	1034.3	1000.3	965.1	917.9	818.5	739.2	721.0
72.5°	855.6	863.1	854.3	860.6	865.7	841.1	812.2	771.3	688.9	620.3	605.2
75°	698.9	709.6	691.4	697.7	701.5	676.9	659.9	626.6	555.5	502.7	492.6
77.5°	547.3	553.6	543.5	541.0	543.5	525.9	512.7	486.9	433.5	390.0	383.8
80°	402.6	406.4	396.3	393.8	395.7	383.1	373.1	354.2	316.4	283.7	281.2
82.5°	269.9	271.8	263.0	260.5	261.7	257.9	246.0	232.8	215.2	187.5	186.8
85°	154.1	154.1	147.8	145.3	146.6	140.3	135.9	129.0	122.0	103.2	104.4
87.5°	56.6	56.6	53.5	52.8	59.1	52.2	50.3	47.2	49.1	39.0	41.5
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°	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2	2878.2
2.5°	2890.7	2884.5	2878.8	2859.3	2867.5	2847.3	2846.1	2838.5	2832.9	2822.2	2836.0
5°	2881.3	2868.7	2852.4	2829.1	2836.0	2812.1	2807.1	2798.3	2790.7	2776.9	2787.6
7.5°	2866.2	2845.5	2819.7	2790.1	2799.5	2770.0	2762.4	2753.0	2746.7	2730.3	2739.8
10°	2844.2	2814.6	2784.4	2748.6	2755.5	2723.4	2714.0	2703.9	2698.2	2683.8	2693.2
12.5°	2810.2	2774.4	2733.5	2694.5	2702.0	2671.8	2659.2	2648.5	2646.7	2634.7	2646.0
15°	2766.2	2716.5	2674.3	2632.8	2641.6	2606.4	2600.7	2590.0	2593.2	2585.0	2598.8
17.5°	2710.2	2652.9	2607.0	2562.4	2571.2	2541.6	2537.2	2532.2	2535.3	2534.0	2549.1
20°	2647.3	2584.4	2531.5	2487.5	2492.5	2469.2	2471.1	2469.9	2476.2	2483.1	2503.8
22.5°	2576.2	2505.1	2449.7	2404.4	2412.0	2391.9	2400.7	2403.2	2413.9	2429.6	2456.0
25°	2496.3	2420.2	2362.3	2319.5	2326.4	2313.2	2328.3	2334.6	2351.6	2378.0	2405.1
27.5°	2412.6	2332.1	2270.4	2229.6	2242.8	2229.6	2252.2	2264.8	2290.6	2319.5	2352.9
30°	2323.9	2240.3	2176.7	2140.2	2152.8	2140.9	2177.3	2194.3	2220.1	2259.8	2299.4
32.5°	2230.8	2142.7	2080.5	2052.1	2061.0	2059.1	2100.0	2118.8	2153.4	2198.7	2240.9
35°	2135.2	2043.3	1980.4	1956.5	1967.2	1969.7	2018.8	2040.8	2078.6	2133.3	2178.6
37.5°	2036.4	1942.7	1881.0	1861.5	1871.0	1880.4	1937.6	1959.7	2002.4	2062.2	2111.9
40°	1933.9	1840.1	1779.7	1764.0	1773.5	1783.5	1845.8	1876.0	1922.6	1987.3	2041.5
42.5°	1830.1	1736.3	1677.8	1666.5	1675.9	1695.4	1761.5	1789.8	1838.9	1910.6	1970.4
45°	1724.4	1626.9	1575.9	1567.1	1577.2	1599.8	1664.6	1698.6	1750.8	1829.4	1893.6
47.5°	1617.4	1522.4	1474.0	1468.3	1478.4	1503.6	1575.3	1606.1	1661.5	1745.1	1814.3
50°	1509.2	1416.7	1370.2	1368.3	1377.7	1404.8	1473.4	1509.9	1567.1	1660.8	1731.9
52.5°	1399.8	1311.1	1268.9	1268.9	1277.7	1305.4	1374.6	1412.3	1471.5	1570.3	1648.9
55°	1290.3	1206.0	1165.7	1168.9	1181.5	1205.4	1272.7	1312.3	1372.1	1474.6	1557.7
57.5°	1180.8	1100.9	1064.4	1068.9	1080.8	1104.7	1170.8	1215.4	1269.5	1375.9	1460.8
60°	1072.6	997.1	965.1	970.1	980.8	1004.7	1073.3	1111.6	1165.7	1273.9	1358.9
62.5°	963.2	894.6	864.4	870.7	880.1	904.0	968.8	1005.9	1059.4	1165.7	1251.3
65°	855.0	791.4	765.6	771.9	780.7	802.7	863.8	899.6	950.6	1054.4	1136.2
67.5°	748.0	690.1	668.7	675.0	682.0	702.7	753.0	792.0	839.9	938.6	1016.0
70°	642.3	590.7	571.9	578.1	584.4	603.3	647.4	683.2	727.2	817.8	889.6
72.5°	537.9	487.6	478.1	483.8	488.8	505.2	547.3	575.6	614.0	694.5	756.2
75°	436.0	392.6	386.3	391.9	396.3	408.9	444.1	468.7	500.8	570.6	620.9
77.5°	337.8	301.3	298.8	303.2	307.6	316.4	344.1	369.9	395.1	446.7	491.3
80°	246.0	216.4	216.4	220.8	219.6	230.3	249.8	270.5	288.8	325.9	358.6
82.5°	162.3	139.0	142.2	145.3	147.2	151.6	163.6	179.3	190.6	213.3	234.7
85°	90.0	74.2	77.4	79.9	78.6	83.7	90.0	99.4	105.1	115.8	127.1
87.5°	33.3	27.7	28.3	30.2	31.5	34.0	34.0	39.6	40.3	41.5	44.0
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°	2878.2	2878.2	2878.2
2.5°	2809.6	2824.7	2836.0
5°	2761.2	2773.7	2783.8
7.5°	2714.0	2725.3	2734.1
10°	2669.3	2681.9	2688.2
12.5°	2623.4	2637.8	2642.9
15°	2578.1	2592.6	2598.8
17.5°	2531.5	2550.4	2557.3
20°	2488.1	2512.0	2517.7
22.5°	2444.1	2468.6	2475.5
25°	2396.3	2425.2	2432.1
27.5°	2345.3	2379.9	2386.8
30°	2294.4	2332.1	2339.0
32.5°	2239.6	2280.5	2286.8
35°	2182.4	2223.3	2230.8
37.5°	2118.8	2163.5	2178.6
40°	2052.8	2101.2	2116.9
42.5°	1983.6	2036.4	2052.8
45°	1909.3	1967.2	1986.1
47.5°	1834.5	1899.9	1916.3
50°	1753.3	1823.2	1842.7
52.5°	1668.4	1744.5	1764.0
55°	1580.3	1657.1	1678.5
57.5°	1484.7	1564.0	1586.6
60°	1384.7	1463.9	1485.3
62.5°	1282.1	1353.8	1374.6
65°	1167.6	1234.9	1253.8
67.5°	1046.2	1107.9	1123.6
70°	917.2	970.7	984.6
72.5°	782.6	819.7	838.0
75°	643.6	673.1	687.0
77.5°	503.9	524.7	536.0
80°	367.4	379.4	388.8
82.5°	240.3	245.4	252.3
85°	129.6	129.6	134.0
87.5°	44.0	42.2	44.0
90°	0.0	0.0	0.0

(END OF REPORT)