

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: P835218

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-4HI-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835218
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-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

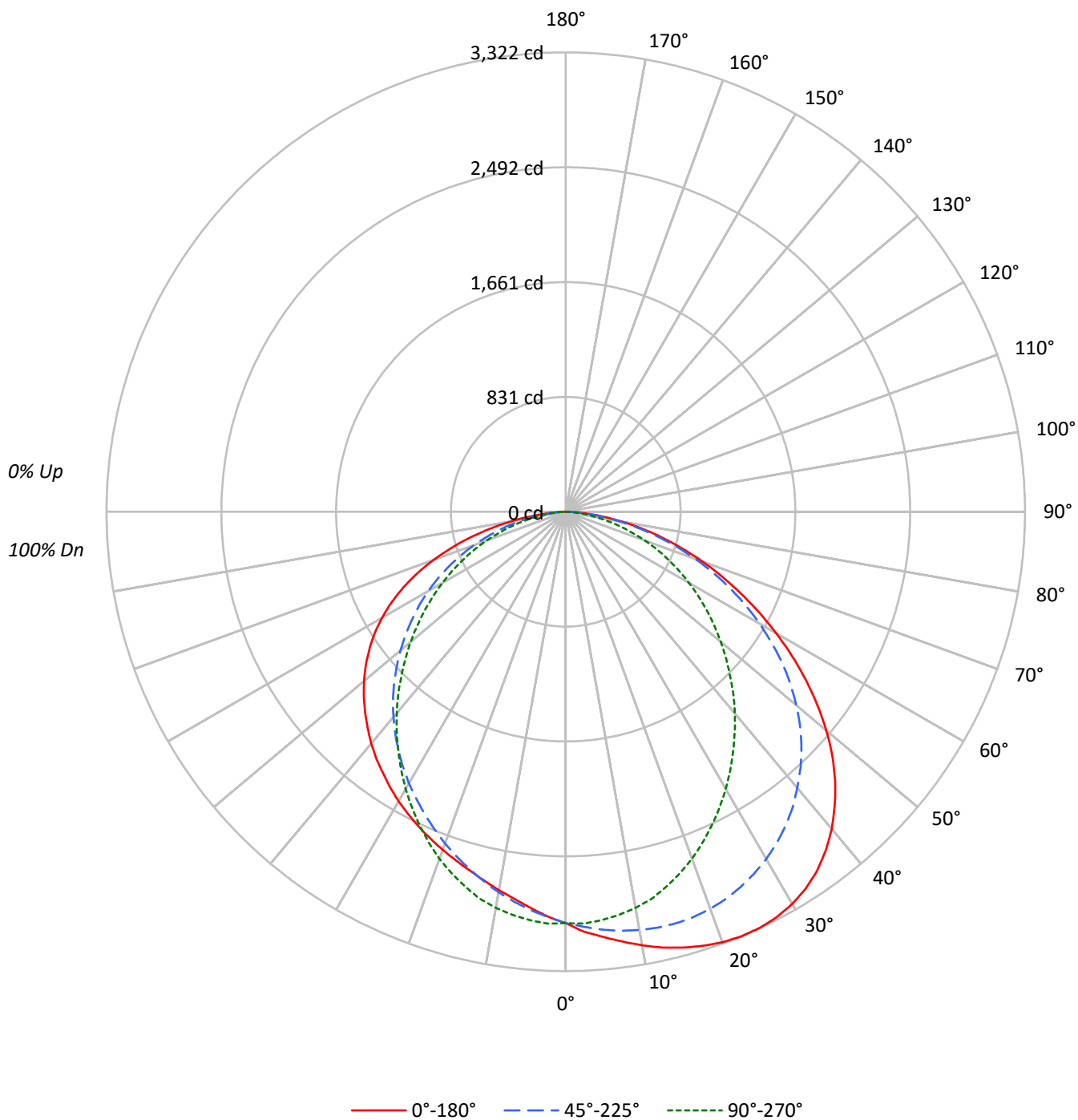
Lumens per Lamp: N/A
Luminaire Lumens: 8749.4 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	8004	8004	8004
5°	8333	8008	7771
10°	8698	7948	7591
15°	9089	7821	7482
20°	9486	7648	7451
25°	9859	7426	7463
30°	10180	7194	7511
35°	10412	6937	7573
40°	10517	6680	7685
45°	10488	6398	7811
50°	10302	6129	7972
55°	9950	5847	8138
60°	9465	5546	8261
65°	8888	5208	8251
70°	8272	4803	8006
75°	7510	4218	7382
80°	6448	3467	6227
85°	4918	2368	4276

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.1	3.2
10°-20°	814.7	9.3
20°-30°	1248.1	14.3
30°-40°	1523.1	17.4
40°-50°	1592.8	18.2
50°-60°	1441.6	16.5
60°-70°	1091.8	12.5
70°-80°	608.4	7.0
80°-90°	146.8	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°	2344.8	26.8
0°-40°	3867.9	44.2
0°-60°	6902.4	78.9
0°-90°	8749.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8749.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2974	2974	2974	2974	2974	
5°	3085	3034	2965	2892	2877	297
15°	3262	3081	2807	2677	2686	925
25°	3320	2994	2501	2413	2514	1532
35°	3170	2772	2112	2109	2305	1979
45°	2756	2411	1681	1755	2052	2120
55°	2121	1915	1246	1356	1735	1892
65°	1396	1313	818	930	1296	1385
75°	722	682	406	484	710	766
85°	159	140	77	103	138	192
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°	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4
2.5°	3040.1	3025.8	3014.1	3018.6	3021.3	3012.1	3004.3	3005.6	2997.8	3012.8	2977.7
5°	3085.0	3072.0	3058.3	3063.5	3058.3	3044.7	3033.6	3030.4	3009.5	3018.0	2982.2
7.5°	3135.0	3120.7	3100.6	3106.4	3095.4	3070.0	3055.7	3047.3	3015.4	3016.0	2976.4
10°	3183.1	3170.8	3143.5	3147.4	3127.2	3093.4	3070.7	3059.0	3014.1	3007.6	2966.6
12.5°	3228.0	3211.1	3181.8	3183.8	3154.5	3109.7	3080.4	3063.5	3005.0	2985.5	2945.2
15°	3262.5	3246.2	3211.1	3210.4	3172.7	3114.2	3081.1	3057.7	2983.5	2953.0	2910.7
17.5°	3291.7	3276.8	3233.2	3231.9	3186.4	3112.3	3072.6	3043.4	2952.3	2914.6	2867.8
20°	3312.5	3297.6	3248.8	3244.3	3189.6	3102.5	3055.1	3018.0	2911.4	2866.5	2814.5
22.5°	3322.3	3307.3	3252.1	3245.6	3181.8	3083.0	3029.7	2986.1	2864.6	2806.1	2752.1
25°	3320.3	3306.0	3243.6	3237.1	3166.9	3053.8	2993.9	2943.9	2805.4	2736.5	2683.2
27.5°	3304.1	3293.0	3227.3	3218.9	3139.6	3014.1	2950.4	2895.1	2739.7	2663.0	2605.2
30°	3276.1	3267.7	3198.1	3190.3	3105.8	2970.5	2899.7	2836.0	2668.9	2582.4	2523.9
32.5°	3231.2	3223.4	3153.2	3146.1	3060.3	2914.6	2840.5	2774.8	2591.5	2495.9	2437.4
35°	3169.5	3164.9	3096.7	3088.9	3001.7	2850.9	2772.2	2700.1	2510.9	2403.0	2347.0
37.5°	3088.2	3088.2	3022.6	3014.1	2928.9	2772.9	2695.5	2618.8	2419.9	2305.4	2250.2
40°	2993.9	3002.4	2935.4	2927.0	2844.4	2689.0	2604.5	2523.9	2321.7	2202.7	2148.7
42.5°	2880.8	2888.6	2832.7	2824.9	2747.5	2592.2	2513.5	2425.7	2219.0	2098.0	2042.1
45°	2756.0	2766.4	2716.3	2710.5	2638.3	2486.2	2410.8	2321.7	2111.7	1988.8	1934.2
47.5°	2616.9	2630.5	2586.9	2583.7	2516.7	2377.6	2298.9	2208.6	1999.2	1875.0	1823.7
50°	2460.8	2480.3	2444.6	2444.6	2384.8	2246.3	2178.0	2087.6	1882.2	1758.0	1707.3
52.5°	2293.7	2318.4	2291.8	2292.4	2243.7	2119.5	2048.6	1960.2	1760.0	1637.7	1590.9
55°	2120.8	2144.8	2127.9	2130.5	2092.2	1979.1	1914.7	1826.9	1635.1	1516.2	1471.9
57.5°	1940.0	1966.1	1955.0	1960.2	1933.5	1832.1	1765.2	1688.4	1506.4	1388.7	1351.0
60°	1758.7	1783.4	1777.5	1784.7	1767.8	1680.0	1618.9	1539.6	1377.0	1263.9	1230.7
62.5°	1575.3	1598.1	1596.8	1604.6	1595.5	1522.7	1468.0	1400.4	1243.1	1139.1	1108.5
65°	1395.9	1415.4	1414.1	1422.5	1420.6	1362.1	1312.7	1250.9	1109.2	1013.6	986.9
67.5°	1221.6	1237.9	1233.3	1243.1	1245.7	1198.9	1156.0	1100.7	981.7	888.8	866.0
70°	1051.3	1062.3	1056.5	1063.0	1068.8	1033.7	997.3	948.6	845.8	763.9	745.1
72.5°	884.2	892.0	882.9	889.4	894.6	869.3	839.3	797.1	711.9	641.0	625.4
75°	722.3	733.4	714.5	721.0	724.9	699.6	682.0	647.6	574.1	519.5	509.1
77.5°	565.6	572.1	561.7	559.1	561.7	543.5	529.9	503.2	448.0	403.1	396.6
80°	416.1	420.0	409.6	407.0	408.9	395.9	385.5	366.0	327.0	293.2	290.6
82.5°	278.9	280.9	271.8	269.2	270.5	266.6	254.2	240.6	222.4	193.7	193.1
85°	159.3	159.3	152.8	150.2	151.5	145.0	140.4	133.3	126.1	106.6	107.9
87.5°	58.5	58.5	55.3	54.6	61.1	54.0	52.0	48.8	50.7	40.3	42.9
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°	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4	2974.4
2.5°	2987.4	2980.9	2975.1	2954.9	2963.4	2942.6	2941.3	2933.5	2927.6	2916.6	2930.9
5°	2977.7	2964.7	2947.8	2923.7	2930.9	2906.2	2901.0	2891.9	2884.1	2869.8	2880.8
7.5°	2962.1	2940.6	2914.0	2883.4	2893.2	2862.6	2854.8	2845.1	2838.6	2821.7	2831.4
10°	2939.3	2908.8	2877.6	2840.5	2847.7	2814.5	2804.8	2794.3	2788.5	2773.5	2783.3
12.5°	2904.2	2867.2	2824.9	2784.6	2792.4	2761.2	2748.2	2737.1	2735.2	2722.8	2734.5
15°	2858.7	2807.4	2763.8	2720.9	2730.0	2693.6	2687.7	2676.7	2679.9	2671.5	2685.8
17.5°	2800.8	2741.7	2694.2	2648.1	2657.2	2626.6	2622.1	2616.9	2620.1	2618.8	2634.4
20°	2735.8	2670.8	2616.2	2570.7	2575.9	2551.8	2553.8	2552.5	2559.0	2566.1	2587.6
22.5°	2662.4	2588.9	2531.7	2484.9	2492.7	2471.9	2481.0	2483.6	2494.6	2510.9	2538.2
25°	2579.8	2501.1	2441.3	2397.1	2404.3	2390.6	2406.2	2412.7	2430.3	2457.6	2485.5
27.5°	2493.3	2410.1	2346.4	2304.1	2317.8	2304.1	2327.5	2340.5	2367.2	2397.1	2431.6
30°	2401.7	2315.2	2249.5	2211.8	2224.8	2212.5	2250.2	2267.7	2294.4	2335.3	2376.3
32.5°	2305.4	2214.4	2150.0	2120.8	2129.9	2127.9	2170.2	2189.7	2225.5	2272.3	2315.8
35°	2206.6	2111.7	2046.7	2022.0	2033.0	2035.6	2086.3	2109.1	2148.1	2204.7	2251.5
37.5°	2104.5	2007.7	1944.0	1923.8	1933.5	1943.3	2002.5	2025.2	2069.4	2131.2	2182.6
40°	1998.6	1901.7	1839.3	1823.0	1832.8	1843.2	1907.5	1938.7	1986.9	2053.8	2109.7
42.5°	1891.3	1794.4	1734.0	1722.2	1732.0	1752.2	1820.4	1849.7	1900.4	1974.5	2036.3
45°	1782.1	1681.3	1628.6	1619.5	1629.9	1653.3	1720.3	1755.4	1809.4	1890.6	1957.0
47.5°	1671.5	1573.4	1523.3	1517.5	1527.9	1553.9	1628.0	1659.8	1717.0	1803.5	1875.0
50°	1559.7	1464.1	1416.0	1414.1	1423.8	1451.8	1522.7	1560.4	1619.5	1716.4	1789.9
52.5°	1446.6	1354.9	1311.4	1311.4	1320.5	1349.1	1420.6	1459.6	1520.7	1622.8	1704.0
55°	1333.5	1246.3	1204.7	1208.0	1221.0	1245.7	1315.3	1356.2	1418.0	1524.0	1609.8
57.5°	1220.3	1137.8	1100.1	1104.6	1117.0	1141.7	1209.9	1256.1	1312.0	1421.9	1509.6
60°	1108.5	1030.5	997.3	1002.5	1013.6	1038.3	1109.2	1148.8	1204.7	1316.6	1404.3
62.5°	995.4	924.5	893.3	899.8	909.6	934.3	1001.2	1039.6	1094.9	1204.7	1293.1
65°	883.6	817.9	791.2	797.7	806.8	829.6	892.7	929.7	982.4	1089.7	1174.2
67.5°	773.0	713.2	691.1	697.6	704.8	726.2	778.2	818.5	868.0	970.0	1050.0
70°	663.8	610.5	591.0	597.5	604.0	623.5	669.0	706.1	751.6	845.2	919.3
72.5°	555.9	503.9	494.1	500.0	505.2	522.1	565.6	594.9	634.5	717.8	781.5
75°	450.6	405.7	399.2	405.0	409.6	422.6	459.0	484.4	517.5	589.7	641.7
77.5°	349.1	311.4	308.8	313.4	317.9	327.0	355.6	382.3	408.3	461.6	507.8
80°	254.2	223.7	223.7	228.2	226.9	238.0	258.1	279.6	298.4	336.8	370.6
82.5°	167.7	143.7	146.9	150.2	152.1	156.7	169.0	185.3	197.0	220.4	242.5
85°	93.0	76.7	80.0	82.6	81.3	86.5	93.0	102.7	108.6	119.6	131.3
87.5°	34.5	28.6	29.3	31.2	32.5	35.1	35.1	41.0	41.6	42.9	45.5
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):

	160°	170°	180°
0°	2974.4	2974.4	2974.4
2.5°	2903.6	2919.2	2930.9
5°	2853.5	2866.5	2876.9
7.5°	2804.8	2816.5	2825.6
10°	2758.6	2771.6	2778.1
12.5°	2711.1	2726.1	2731.3
15°	2664.3	2679.3	2685.8
17.5°	2616.2	2635.7	2642.9
20°	2571.3	2596.1	2601.9
22.5°	2525.8	2551.2	2558.3
25°	2476.4	2506.3	2513.5
27.5°	2423.8	2459.5	2466.7
30°	2371.1	2410.1	2417.3
32.5°	2314.5	2356.8	2363.3
35°	2255.4	2297.6	2305.4
37.5°	2189.7	2235.9	2251.5
40°	2121.4	2171.5	2187.8
42.5°	2049.9	2104.5	2121.4
45°	1973.2	2033.0	2052.5
47.5°	1895.8	1963.5	1980.4
50°	1812.0	1884.1	1904.3
52.5°	1724.2	1802.9	1823.0
55°	1633.2	1712.5	1734.6
57.5°	1534.4	1616.3	1639.7
60°	1431.0	1512.9	1535.0
62.5°	1325.0	1399.1	1420.6
65°	1206.7	1276.2	1295.8
67.5°	1081.2	1144.9	1161.2
70°	947.9	1003.2	1017.5
72.5°	808.8	847.1	866.0
75°	665.1	695.7	710.0
77.5°	520.8	542.2	553.9
80°	379.7	392.0	401.8
82.5°	248.4	253.6	260.7
85°	133.9	133.9	138.5
87.5°	45.5	43.6	45.5
90°	0.0	0.0	0.0

(END OF REPORT)