

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: P835223

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6STD-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835223
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-LD4-6STD-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

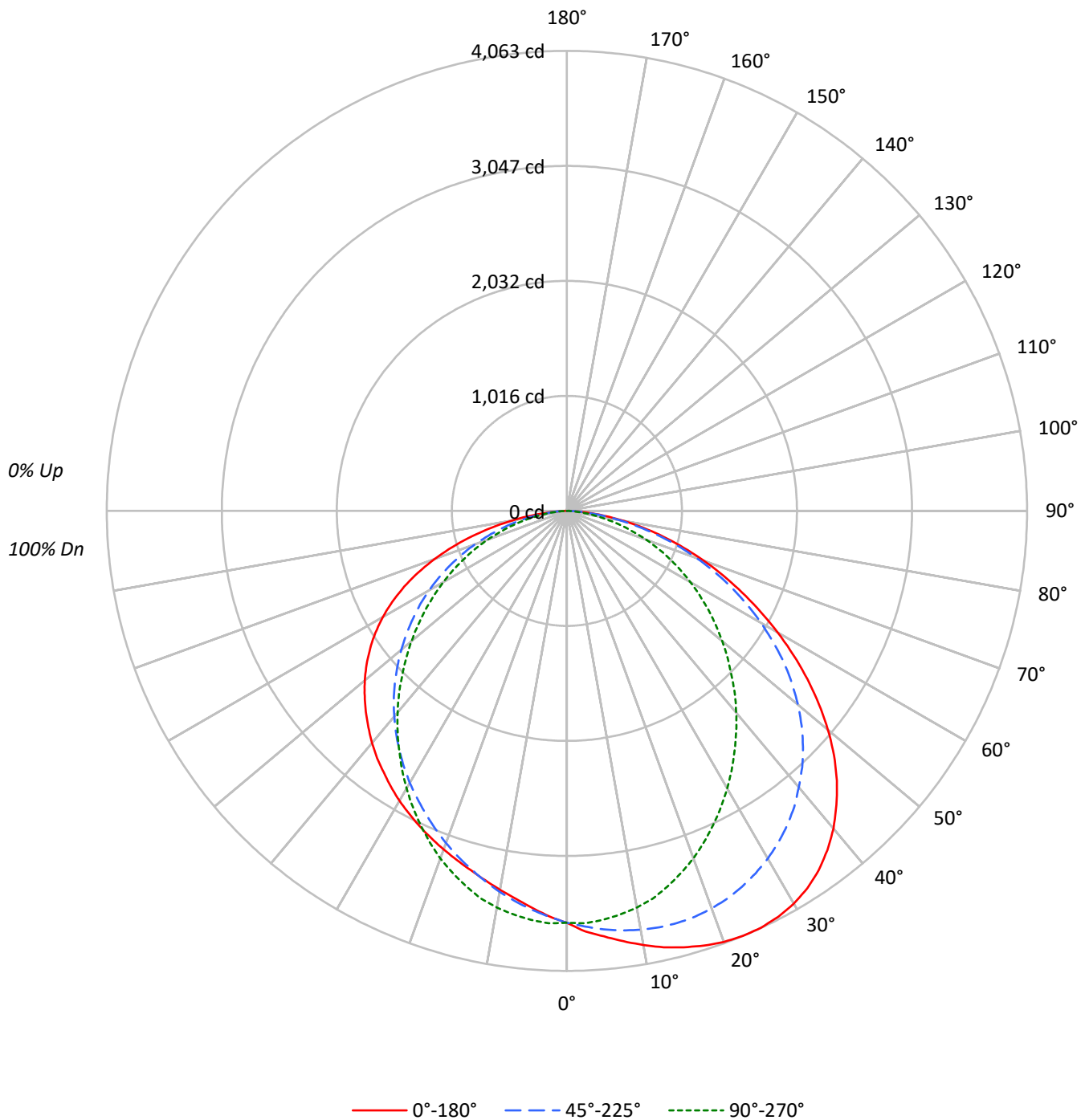
Lumens per Lamp: N/A
Luminaire Lumens: 10700.3 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9789	9789	9789
5°	10191	9794	9504
10°	10637	9721	9284
15°	11115	9565	9151
20°	11601	9354	9113
25°	12057	9082	9127
30°	12450	8798	9186
35°	12734	8484	9262
40°	12862	8170	9399
45°	12827	7825	9553
50°	12599	7496	9750
55°	12169	7151	9953
60°	11576	6783	10104
65°	10870	6369	10090
70°	10116	5874	9791
75°	9185	5159	9028
80°	7886	4238	7615
85°	6015	2896	5230

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.0	3.2
10°-20°	996.3	9.3
20°-30°	1526.4	14.3
30°-40°	1862.7	17.4
40°-50°	1948.0	18.2
50°-60°	1763.1	16.5
60°-70°	1335.2	12.5
70°-80°	744.1	7.0
80°-90°	179.5	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°	2867.7	26.8
0°-40°	4730.4	44.2
0°-60°	8441.5	78.9
0°-90°	10700.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10700.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3638	3638	3638	3638	3638	
5°	3773	3710	3626	3537	3518	364
15°	3990	3768	3433	3274	3285	1132
25°	4061	3662	3059	2951	3074	1873
35°	3876	3390	2582	2579	2820	2420
45°	3370	2948	2056	2147	2510	2593
55°	2594	2342	1524	1659	2121	2314
65°	1707	1605	1000	1137	1585	1693
75°	883	834	496	592	868	937
85°	195	172	94	126	169	234
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°	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7
2.5°	3718.0	3700.5	3686.2	3691.7	3694.9	3683.8	3674.2	3675.8	3666.3	3684.6	3641.6
5°	3772.8	3756.9	3740.2	3746.6	3740.2	3723.5	3710.0	3706.0	3680.6	3690.9	3647.2
7.5°	3834.1	3816.6	3791.9	3799.1	3785.6	3754.6	3737.1	3726.7	3687.8	3688.6	3640.1
10°	3892.9	3877.8	3844.4	3849.2	3824.5	3783.2	3755.3	3741.0	3686.2	3678.2	3628.1
12.5°	3947.8	3927.1	3891.3	3893.7	3857.9	3803.1	3767.3	3746.6	3675.0	3651.2	3601.9
15°	3989.9	3970.0	3927.1	3926.3	3880.2	3808.6	3768.1	3739.4	3648.8	3611.4	3559.7
17.5°	4025.7	4007.4	3954.1	3952.5	3896.9	3806.2	3757.7	3722.0	3610.6	3564.5	3507.3
20°	4051.1	4032.8	3973.2	3967.6	3900.9	3794.3	3736.3	3690.9	3560.5	3505.7	3442.1
22.5°	4063.1	4044.8	3977.2	3969.2	3891.3	3770.5	3705.3	3652.0	3503.3	3431.7	3365.7
25°	4060.7	4043.2	3966.8	3958.9	3873.0	3734.7	3661.5	3600.3	3430.9	3346.7	3281.5
27.5°	4040.8	4027.3	3947.0	3936.6	3839.6	3686.2	3608.2	3540.7	3350.6	3256.8	3186.0
30°	4006.6	3996.3	3911.2	3901.6	3798.3	3632.9	3546.2	3468.3	3264.0	3158.2	3086.7
32.5°	3951.7	3942.2	3856.3	3847.6	3742.6	3564.5	3473.9	3393.6	3169.3	3052.5	2980.9
35°	3876.2	3870.6	3787.2	3777.6	3671.1	3486.6	3390.4	3302.1	3070.7	2938.8	2870.4
37.5°	3776.8	3776.8	3696.5	3686.2	3582.0	3391.2	3296.6	3202.7	2959.4	2819.5	2751.9
40°	3661.5	3671.9	3590.0	3579.6	3478.6	3288.6	3185.2	3086.7	2839.4	2693.9	2627.9
42.5°	3523.2	3532.7	3464.3	3454.8	3360.2	3170.1	3073.9	2966.6	2713.7	2565.8	2497.5
45°	3370.5	3383.2	3322.0	3314.9	3226.6	3040.5	2948.3	2839.4	2582.5	2432.3	2365.5
47.5°	3200.4	3217.1	3163.8	3159.8	3077.9	2907.8	2811.5	2701.0	2445.0	2293.1	2230.3
50°	3009.5	3033.4	2989.6	2989.6	2916.5	2747.1	2663.6	2553.1	2301.9	2150.0	2088.0
52.5°	2805.2	2835.4	2802.8	2803.6	2744.0	2592.1	2505.4	2397.3	2152.4	2002.9	1945.7
55°	2593.7	2623.1	2602.4	2605.6	2558.7	2420.3	2341.6	2234.3	1999.7	1854.2	1800.1
57.5°	2372.6	2404.4	2390.9	2397.3	2364.7	2240.6	2158.7	2064.9	1842.3	1698.4	1652.3
60°	2150.8	2181.0	2173.9	2182.6	2161.9	2054.6	1979.8	1882.8	1684.1	1545.7	1505.2
62.5°	1926.6	1954.4	1952.8	1962.4	1951.2	1862.2	1795.4	1712.7	1520.3	1393.0	1355.7
65°	1707.1	1731.0	1729.4	1739.7	1737.3	1665.8	1605.3	1529.8	1356.5	1239.6	1207.0
67.5°	1494.0	1513.9	1508.3	1520.3	1523.4	1466.2	1413.7	1346.1	1200.6	1086.9	1059.1
70°	1285.7	1299.2	1292.1	1300.0	1307.2	1264.2	1219.7	1160.1	1034.4	934.3	911.2
72.5°	1081.4	1090.9	1079.8	1087.7	1094.1	1063.1	1026.5	974.8	870.7	784.0	764.9
75°	883.4	896.9	873.8	881.8	886.6	855.5	834.1	791.9	702.1	635.3	622.6
77.5°	691.8	699.7	687.0	683.8	687.0	664.7	648.0	615.4	547.8	493.0	485.0
80°	508.9	513.6	500.9	497.7	500.1	484.2	471.5	447.7	399.9	358.6	355.4
82.5°	341.1	343.5	332.4	329.2	330.8	326.0	310.9	294.2	271.9	236.9	236.2
85°	194.8	194.8	186.9	183.7	185.3	177.3	171.7	163.0	154.3	130.4	132.0
87.5°	71.6	71.6	67.6	66.8	74.7	66.0	63.6	59.6	62.0	49.3	52.5
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°	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7	3637.7
2.5°	3653.6	3645.6	3638.5	3613.8	3624.2	3598.7	3597.1	3587.6	3580.4	3566.9	3584.4
5°	3641.6	3625.7	3605.1	3575.6	3584.4	3554.2	3547.8	3536.7	3527.1	3509.7	3523.2
7.5°	3622.6	3596.3	3563.7	3526.4	3538.3	3500.9	3491.4	3479.4	3471.5	3450.8	3462.7
10°	3594.7	3557.4	3519.2	3473.9	3482.6	3442.1	3430.1	3417.4	3410.3	3392.0	3403.9
12.5°	3551.8	3506.5	3454.8	3405.5	3415.0	3376.9	3361.0	3347.5	3345.1	3330.0	3344.3
15°	3496.1	3433.3	3380.1	3327.6	3338.7	3294.2	3287.0	3273.5	3277.5	3267.1	3284.6
17.5°	3425.4	3353.0	3295.0	3238.5	3249.7	3212.3	3206.7	3200.4	3204.3	3202.7	3221.8
20°	3345.9	3266.3	3199.6	3143.9	3150.3	3120.8	3123.2	3121.6	3129.6	3138.3	3164.6
22.5°	3256.0	3166.2	3096.2	3038.9	3048.5	3023.0	3034.2	3037.4	3050.9	3070.7	3104.1
25°	3155.0	3058.8	2985.7	2931.6	2940.3	2923.7	2942.7	2950.7	2972.2	3005.5	3039.7
27.5°	3049.3	2947.5	2869.6	2817.9	2834.6	2817.9	2846.5	2862.4	2895.0	2931.6	2973.7
30°	2937.2	2831.4	2751.1	2705.0	2720.9	2705.8	2751.9	2773.4	2806.0	2856.1	2906.2
32.5°	2819.5	2708.2	2629.5	2593.7	2604.8	2602.4	2654.1	2678.0	2721.7	2778.9	2832.2
35°	2698.6	2582.5	2503.0	2472.8	2486.3	2489.5	2551.5	2579.4	2627.1	2696.2	2753.5
37.5°	2573.8	2455.3	2377.4	2352.8	2364.7	2376.6	2449.0	2476.8	2530.9	2606.4	2669.2
40°	2444.2	2325.7	2249.4	2229.5	2241.4	2254.2	2332.9	2371.0	2429.9	2511.8	2580.2
42.5°	2313.0	2194.5	2120.6	2106.3	2118.2	2142.8	2226.3	2262.1	2324.1	2414.8	2490.3
45°	2179.4	2056.2	1991.8	1980.6	1993.4	2022.0	2103.9	2146.8	2212.8	2312.2	2393.3
47.5°	2044.3	1924.2	1863.0	1855.8	1868.5	1900.3	1991.0	2029.9	2099.9	2205.7	2293.1
50°	1907.5	1790.6	1731.8	1729.4	1741.3	1775.5	1862.2	1908.3	1980.6	2099.1	2189.0
52.5°	1769.1	1657.0	1603.8	1603.8	1614.9	1649.9	1737.3	1785.0	1859.8	1984.6	2084.0
55°	1630.8	1524.2	1473.4	1477.3	1493.2	1523.4	1608.5	1658.6	1734.2	1863.8	1968.7
57.5°	1492.4	1391.5	1345.3	1350.9	1366.0	1396.2	1479.7	1536.2	1604.6	1738.9	1846.3
60°	1355.7	1260.3	1219.7	1226.1	1239.6	1269.8	1356.5	1405.0	1473.4	1610.1	1717.5
62.5°	1217.3	1130.7	1092.5	1100.4	1112.4	1142.6	1224.5	1271.4	1339.0	1473.4	1581.5
65°	1080.6	1000.3	967.7	975.6	986.7	1014.6	1091.7	1137.0	1201.4	1332.6	1436.0
67.5°	945.4	872.2	845.2	853.2	861.9	888.1	951.8	1001.1	1061.5	1186.3	1284.1
70°	811.8	746.6	722.8	730.7	738.7	762.5	818.2	863.5	919.2	1033.7	1124.3
72.5°	679.8	616.2	604.3	611.4	617.8	638.5	691.8	727.5	776.0	877.8	955.7
75°	551.0	496.2	488.2	495.4	500.9	516.8	561.4	592.4	632.9	721.2	784.8
77.5°	427.0	380.9	377.7	383.2	388.8	399.9	434.9	467.5	499.3	564.5	621.0
80°	310.9	273.5	273.5	279.1	277.5	291.0	315.7	341.9	365.0	411.9	453.2
82.5°	205.1	175.7	179.7	183.7	186.1	191.6	206.7	226.6	240.9	269.5	296.6
85°	113.7	93.8	97.8	101.0	99.4	105.8	113.7	125.6	132.8	146.3	160.6
87.5°	42.1	35.0	35.8	38.2	39.8	42.9	42.9	50.1	50.9	52.5	55.7
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°	3637.7	3637.7	3637.7
2.5°	3551.0	3570.1	3584.4
5°	3489.8	3505.7	3518.4
7.5°	3430.1	3444.5	3455.6
10°	3373.7	3389.6	3397.5
12.5°	3315.6	3333.9	3340.3
15°	3258.4	3276.7	3284.6
17.5°	3199.6	3223.4	3232.2
20°	3144.7	3174.9	3182.1
22.5°	3089.0	3120.0	3128.8
25°	3028.6	3065.2	3073.9
27.5°	2964.2	3007.9	3016.7
30°	2899.8	2947.5	2956.3
32.5°	2830.6	2882.3	2890.3
35°	2758.3	2810.0	2819.5
37.5°	2678.0	2734.4	2753.5
40°	2594.5	2655.7	2675.6
42.5°	2507.0	2573.8	2594.5
45°	2413.2	2486.3	2510.2
47.5°	2318.6	2401.3	2421.9
50°	2216.0	2304.3	2328.9
52.5°	2108.7	2204.9	2229.5
55°	1997.3	2094.3	2121.4
57.5°	1876.5	1976.7	2005.3
60°	1750.1	1850.2	1877.3
62.5°	1620.5	1711.1	1737.3
65°	1475.7	1560.8	1584.7
67.5°	1322.3	1400.2	1420.1
70°	1159.3	1226.9	1244.4
72.5°	989.1	1036.0	1059.1
75°	813.4	850.8	868.3
77.5°	636.9	663.1	677.4
80°	464.3	479.5	491.4
82.5°	303.7	310.1	318.8
85°	163.8	163.8	169.4
87.5°	55.7	53.3	55.7
90°	0.0	0.0	0.0

(END OF REPORT)