

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: P835205

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6STD-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835205
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-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

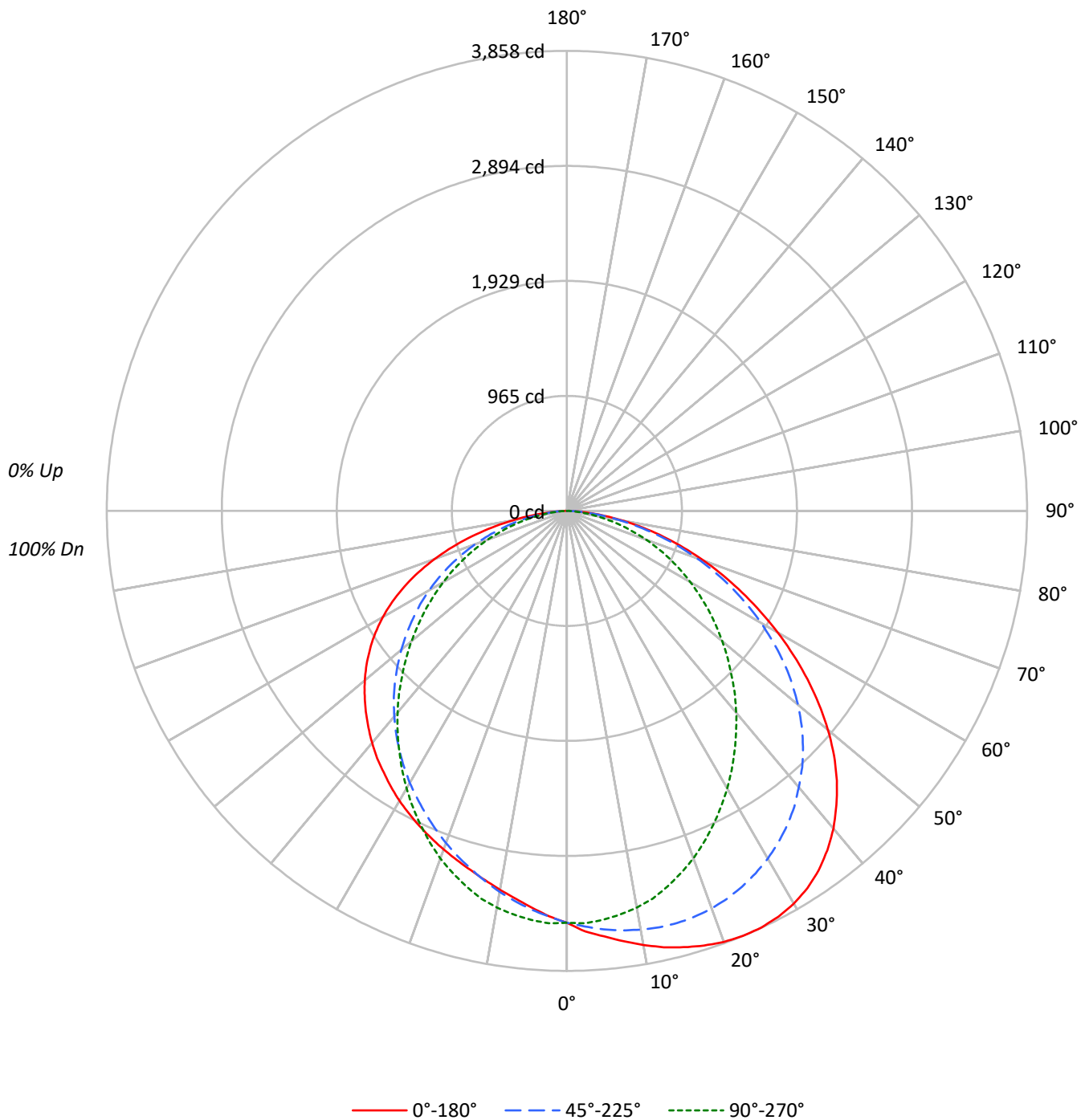
Lumens per Lamp: N/A
Luminaire Lumens: 10159.9 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	9294	9294	9294
5°	9677	9299	9024
10°	10100	9230	8815
15°	10554	9082	8688
20°	11015	8881	8652
25°	11448	8623	8666
30°	11821	8354	8722
35°	12090	8055	8794
40°	12213	7757	8924
45°	12179	7430	9070
50°	11963	7118	9257
55°	11554	6790	9450
60°	10991	6440	9593
65°	10321	6047	9580
70°	9605	5578	9296
75°	8721	4898	8571
80°	7488	4025	7231
85°	5712	2751	4965

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.6	3.2
10°-20°	946.0	9.3
20°-30°	1449.3	14.3
30°-40°	1768.6	17.4
40°-50°	1849.6	18.2
50°-60°	1674.0	16.5
60°-70°	1267.8	12.5
70°-80°	706.5	7.0
80°-90°	170.4	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°	2722.8	26.8
0°-40°	4491.5	44.2
0°-60°	8015.1	78.9
0°-90°	10159.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10159.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3454	3454	3454	3454	3454	
5°	3582	3523	3443	3358	3341	345
15°	3788	3578	3260	3108	3119	1074
25°	3856	3477	2904	2802	2919	1779
35°	3680	3219	2452	2449	2677	2298
45°	3200	2799	1952	2038	2383	2462
55°	2463	2223	1447	1575	2014	2198
65°	1621	1524	950	1080	1505	1608
75°	839	792	471	562	824	890
85°	185	163	89	119	161	223
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°	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9
2.5°	3530.2	3513.6	3500.0	3505.3	3508.3	3497.7	3488.7	3490.2	3481.1	3498.5	3457.7
5°	3582.3	3567.2	3551.3	3557.4	3551.3	3535.5	3522.7	3518.9	3494.7	3504.5	3463.0
7.5°	3640.4	3623.8	3600.4	3607.2	3594.4	3564.9	3548.3	3538.5	3501.5	3502.3	3456.2
10°	3696.3	3681.9	3650.2	3654.8	3631.4	3592.1	3565.7	3552.1	3500.0	3492.5	3444.9
12.5°	3748.4	3728.8	3694.8	3697.0	3663.1	3611.0	3577.0	3557.4	3489.4	3466.8	3420.0
15°	3788.4	3769.5	3728.8	3728.0	3684.2	3616.3	3577.8	3550.6	3464.5	3429.0	3380.0
17.5°	3822.4	3805.0	3754.4	3752.9	3700.1	3614.0	3567.9	3534.0	3428.3	3384.5	3330.1
20°	3846.5	3829.2	3772.5	3767.3	3703.8	3602.7	3547.6	3504.5	3380.7	3328.6	3268.2
22.5°	3857.9	3840.5	3776.3	3768.8	3694.8	3580.0	3518.1	3467.5	3326.4	3258.4	3195.8
25°	3855.6	3839.0	3766.5	3759.0	3677.4	3546.1	3476.6	3418.5	3257.7	3177.6	3115.7
27.5°	3836.7	3823.9	3747.6	3737.8	3645.7	3500.0	3426.0	3361.8	3181.4	3092.3	3025.1
30°	3804.3	3794.4	3713.7	3704.6	3606.5	3449.4	3367.1	3293.1	3099.1	2998.7	2930.8
32.5°	3752.2	3743.1	3661.6	3653.3	3553.6	3384.5	3298.4	3222.2	3009.3	2898.3	2830.4
35°	3680.4	3675.2	3595.9	3586.8	3485.7	3310.5	3219.2	3135.4	2915.7	2790.3	2725.4
37.5°	3586.1	3586.1	3509.8	3500.0	3401.1	3219.9	3130.1	3041.0	2810.0	2677.1	2612.9
40°	3476.6	3486.4	3408.7	3398.8	3303.0	3122.5	3024.4	2930.8	2696.0	2557.8	2495.1
42.5°	3345.2	3354.3	3289.4	3280.3	3190.5	3010.0	2918.7	2816.8	2576.7	2436.3	2371.3
45°	3200.3	3212.4	3154.2	3147.4	3063.6	2887.0	2799.4	2696.0	2452.1	2309.4	2246.0
47.5°	3038.7	3054.6	3004.0	3000.2	2922.5	2760.9	2669.5	2564.6	2321.5	2177.3	2117.7
50°	2857.5	2880.2	2838.7	2838.7	2769.2	2608.4	2529.1	2424.2	2185.6	2041.4	1982.5
52.5°	2663.5	2692.2	2661.2	2662.0	2605.4	2461.2	2378.9	2276.2	2043.7	1901.7	1847.4
55°	2462.7	2490.6	2471.0	2474.0	2429.5	2298.1	2223.4	2121.4	1898.7	1760.6	1709.2
57.5°	2252.8	2283.0	2270.2	2276.2	2245.3	2127.5	2049.7	1960.6	1749.2	1612.6	1568.8
60°	2042.2	2070.9	2064.1	2072.4	2052.7	1950.8	1879.9	1787.7	1599.0	1467.6	1429.1
62.5°	1829.3	1855.7	1854.2	1863.2	1852.7	1768.1	1704.7	1626.2	1443.5	1322.7	1287.2
65°	1620.9	1643.6	1642.0	1651.9	1649.6	1581.6	1524.3	1452.5	1288.0	1177.0	1146.0
67.5°	1418.6	1437.4	1432.2	1443.5	1446.5	1392.1	1342.3	1278.1	1140.0	1032.0	1005.6
70°	1220.8	1233.6	1226.8	1234.4	1241.2	1200.4	1158.1	1101.5	982.2	887.1	865.2
72.5°	1026.7	1035.8	1025.2	1032.8	1038.8	1009.4	974.7	925.6	826.7	744.4	726.3
75°	838.8	851.6	829.7	837.3	841.8	812.3	792.0	751.9	666.6	603.2	591.1
77.5°	656.8	664.4	652.3	649.3	652.3	631.1	615.3	584.3	520.2	468.1	460.5
80°	483.2	487.7	475.6	472.6	474.9	459.8	447.7	425.0	379.7	340.5	337.5
82.5°	323.9	326.1	315.6	312.6	314.1	309.5	295.2	279.3	258.2	225.0	224.2
85°	185.0	185.0	177.4	174.4	175.9	168.4	163.1	154.8	146.5	123.8	125.3
87.5°	67.9	67.9	64.2	63.4	71.0	62.7	60.4	56.6	58.9	46.8	49.8
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°	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9	3453.9
2.5°	3469.0	3461.5	3454.7	3431.3	3441.1	3417.0	3415.4	3406.4	3399.6	3386.8	3403.4
5°	3457.7	3442.6	3423.0	3395.1	3403.4	3374.7	3368.6	3358.1	3349.0	3332.4	3345.2
7.5°	3439.6	3414.7	3383.7	3348.3	3359.6	3324.1	3315.0	3303.7	3296.2	3276.5	3287.9
10°	3413.2	3377.7	3341.5	3298.4	3306.7	3268.2	3256.9	3244.8	3238.0	3220.7	3232.0
12.5°	3372.4	3329.4	3280.3	3233.5	3242.6	3206.3	3191.2	3178.4	3176.1	3161.8	3175.4
15°	3319.6	3259.9	3209.3	3159.5	3170.1	3127.8	3121.0	3108.2	3112.0	3102.1	3118.7
17.5°	3252.4	3183.7	3128.6	3075.0	3085.5	3050.0	3044.8	3038.7	3042.5	3041.0	3059.1
20°	3176.9	3101.4	3038.0	2985.1	2991.2	2963.2	2965.5	2964.0	2971.5	2979.8	3004.7
22.5°	3091.6	3006.3	2939.8	2885.5	2894.5	2870.4	2880.9	2884.0	2896.8	2915.7	2947.4
25°	2995.7	2904.3	2834.9	2783.5	2791.8	2776.0	2794.1	2801.7	2822.0	2853.8	2886.2
27.5°	2895.3	2798.6	2724.7	2675.6	2691.4	2675.6	2702.8	2717.9	2748.8	2783.5	2823.6
30°	2788.8	2688.4	2612.2	2568.4	2583.5	2569.1	2612.9	2633.3	2664.3	2711.8	2759.4
32.5°	2677.1	2571.4	2496.7	2462.7	2473.3	2471.0	2520.1	2542.7	2584.2	2638.6	2689.2
35°	2562.3	2452.1	2376.6	2347.9	2360.8	2363.8	2422.7	2449.1	2494.4	2560.1	2614.4
37.5°	2443.8	2331.3	2257.3	2233.9	2245.3	2256.6	2325.3	2351.7	2403.0	2474.8	2534.4
40°	2320.8	2208.3	2135.8	2116.9	2128.2	2140.3	2215.1	2251.3	2307.2	2384.9	2449.8
42.5°	2196.2	2083.7	2013.5	1999.9	2011.2	2034.6	2113.9	2147.9	2206.8	2292.8	2364.5
45°	2069.3	1952.3	1891.2	1880.6	1892.7	1919.9	1997.6	2038.4	2101.1	2195.4	2272.4
47.5°	1941.0	1827.0	1768.9	1762.1	1774.2	1804.4	1890.4	1927.4	1993.9	2094.3	2177.3
50°	1811.2	1700.2	1644.3	1642.0	1653.4	1685.8	1768.1	1811.9	1880.6	1993.1	2078.4
52.5°	1679.8	1573.3	1522.8	1522.8	1533.3	1566.5	1649.6	1694.9	1765.9	1884.4	1978.8
55°	1548.4	1447.3	1398.9	1402.7	1417.8	1446.5	1527.3	1574.8	1646.6	1769.6	1869.3
57.5°	1417.1	1321.2	1277.4	1282.7	1297.0	1325.7	1405.0	1458.6	1523.5	1651.1	1753.0
60°	1287.2	1196.6	1158.1	1164.2	1177.0	1205.7	1288.0	1334.0	1398.9	1528.8	1630.7
62.5°	1155.8	1073.6	1037.3	1044.9	1056.2	1084.9	1162.6	1207.2	1271.4	1398.9	1501.6
65°	1026.0	949.7	918.8	926.3	936.9	963.3	1036.6	1079.6	1140.7	1265.3	1363.5
67.5°	897.6	828.2	802.5	810.1	818.4	843.3	903.7	950.5	1007.9	1126.4	1219.3
70°	770.8	708.9	686.3	693.8	701.4	724.0	776.9	819.9	872.7	981.4	1067.5
72.5°	645.5	585.1	573.8	580.6	586.6	606.2	656.8	690.8	736.8	833.5	907.5
75°	523.2	471.1	463.5	470.3	475.6	490.7	533.0	562.4	600.9	684.8	745.1
77.5°	405.4	361.6	358.6	363.9	369.2	379.7	413.0	443.9	474.1	536.0	589.6
80°	295.2	259.7	259.7	265.0	263.5	276.3	299.7	324.6	346.5	391.1	430.3
82.5°	194.8	166.8	170.6	174.4	176.7	181.9	196.3	215.2	228.8	255.9	281.6
85°	108.0	89.1	92.9	95.9	94.4	100.4	108.0	119.3	126.1	138.9	152.5
87.5°	40.0	33.2	34.0	36.2	37.7	40.8	40.8	47.6	48.3	49.8	52.8
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°	3453.9	3453.9	3453.9
2.5°	3371.7	3389.8	3403.4
5°	3313.5	3328.6	3340.7
7.5°	3256.9	3270.5	3281.1
10°	3203.3	3218.4	3226.0
12.5°	3148.2	3165.6	3171.6
15°	3093.8	3111.2	3118.7
17.5°	3038.0	3060.6	3068.9
20°	2985.9	3014.6	3021.4
22.5°	2933.0	2962.5	2970.8
25°	2875.6	2910.4	2918.7
27.5°	2814.5	2856.0	2864.3
30°	2753.3	2798.6	2806.9
32.5°	2687.7	2736.7	2744.3
35°	2619.0	2668.0	2677.1
37.5°	2542.7	2596.3	2614.4
40°	2463.4	2521.6	2540.4
42.5°	2380.4	2443.8	2463.4
45°	2291.3	2360.8	2383.4
47.5°	2201.5	2280.0	2299.6
50°	2104.1	2187.9	2211.3
52.5°	2002.2	2093.5	2116.9
55°	1896.5	1988.6	2014.2
57.5°	1781.7	1876.8	1904.0
60°	1661.7	1756.8	1782.5
62.5°	1538.6	1624.7	1649.6
65°	1401.2	1482.0	1504.6
67.5°	1255.5	1329.5	1348.4
70°	1100.7	1164.9	1181.5
72.5°	939.2	983.7	1005.6
75°	772.3	807.8	824.4
77.5°	604.7	629.6	643.2
80°	440.9	455.2	466.6
82.5°	288.4	294.4	302.7
85°	155.5	155.5	160.8
87.5°	52.8	50.6	52.8
90°	0.0	0.0	0.0

(END OF REPORT)