

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: P834260

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3STD-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834260
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-3STD-30-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

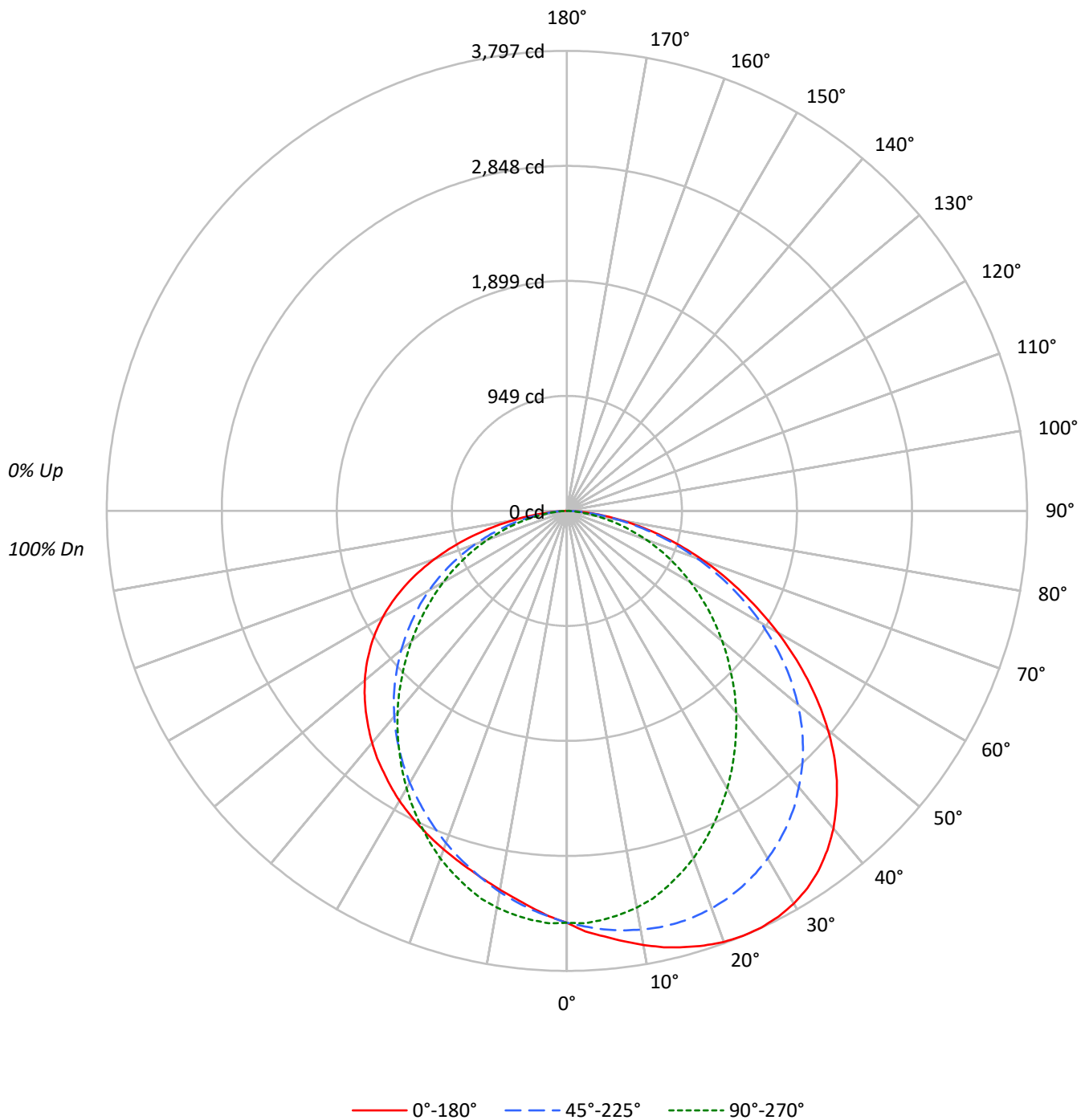
Lumens per Lamp: N/A
Luminaire Lumens: 9999.0 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9147	9147	9147
5°	9524	9152	8881
10°	9940	9083	8675
15°	10387	8938	8551
20°	10841	8741	8515
25°	11267	8487	8529
30°	11634	8222	8584
35°	11899	7928	8655
40°	12019	7634	8783
45°	11986	7312	8927
50°	11773	7005	9111
55°	11371	6682	9300
60°	10817	6338	9441
65°	10157	5952	9429
70°	9452	5489	9149
75°	8583	4820	8436
80°	7369	3961	7116
85°	5619	2708	4888

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.4	3.2
10°-20°	931.0	9.3
20°-30°	1426.3	14.3
30°-40°	1740.6	17.4
40°-50°	1820.3	18.2
50°-60°	1647.5	16.5
60°-70°	1247.7	12.5
70°-80°	695.3	7.0
80°-90°	167.7	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°	2679.7	26.8
0°-40°	4420.4	44.2
0°-60°	7888.2	78.9
0°-90°	9999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9999.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3399	3399	3399	3399	3399	
5°	3526	3467	3388	3305	3288	340
15°	3728	3521	3208	3059	3069	1057
25°	3794	3422	2858	2757	2872	1750
35°	3622	3168	2413	2410	2635	2262
45°	3150	2755	1921	2006	2346	2423
55°	2424	2188	1424	1550	1982	2163
65°	1595	1500	935	1062	1481	1582
75°	826	779	464	554	811	875
85°	182	160	88	117	158	219
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°	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3
2.5°	3474.3	3458.0	3444.6	3449.8	3452.8	3442.4	3433.4	3434.9	3426.0	3443.1	3403.0
5°	3525.6	3510.7	3495.1	3501.1	3495.1	3479.5	3466.9	3463.2	3439.4	3449.0	3408.2
7.5°	3582.8	3566.4	3543.4	3550.1	3537.5	3508.5	3492.1	3482.5	3446.1	3446.8	3401.5
10°	3637.8	3623.7	3592.4	3596.9	3573.9	3535.2	3509.2	3495.9	3444.6	3437.2	3390.3
12.5°	3689.0	3669.7	3636.3	3638.5	3605.1	3553.8	3520.4	3501.1	3434.2	3411.9	3365.8
15°	3728.4	3709.8	3669.7	3669.0	3625.9	3559.0	3521.1	3494.4	3409.7	3374.7	3326.4
17.5°	3761.9	3744.8	3695.0	3693.5	3641.5	3556.8	3511.5	3478.0	3374.0	3330.9	3277.4
20°	3785.6	3768.5	3712.8	3707.6	3645.2	3545.6	3491.4	3449.0	3327.2	3275.9	3216.5
22.5°	3796.8	3779.7	3716.5	3709.1	3636.3	3523.3	3462.4	3412.6	3273.7	3206.8	3145.2
25°	3794.5	3778.2	3706.9	3699.4	3619.2	3489.9	3421.6	3364.3	3206.1	3127.3	3066.4
27.5°	3776.0	3763.3	3688.3	3678.6	3588.0	3444.6	3371.8	3308.6	3131.0	3043.4	2977.2
30°	3744.0	3734.4	3654.9	3645.9	3549.4	3394.8	3313.8	3241.0	3050.0	2951.2	2884.4
32.5°	3692.8	3683.8	3603.6	3595.4	3497.3	3330.9	3246.2	3171.2	2961.6	2852.4	2785.5
35°	3622.2	3617.0	3538.9	3530.0	3430.5	3258.1	3168.2	3085.7	2869.5	2746.2	2682.3
37.5°	3529.3	3529.3	3454.2	3444.6	3347.3	3168.9	3080.5	2992.8	2765.5	2634.7	2571.6
40°	3421.6	3431.2	3354.7	3345.0	3250.7	3073.1	2976.5	2884.4	2653.3	2517.3	2455.6
42.5°	3292.3	3301.2	3237.3	3228.4	3140.0	2962.4	2872.5	2772.2	2535.9	2397.7	2333.8
45°	3149.6	3161.5	3104.3	3097.6	3015.1	2841.3	2755.1	2653.3	2413.3	2272.9	2210.4
47.5°	2990.6	3006.2	2956.4	2952.7	2876.2	2717.2	2627.3	2524.0	2284.8	2142.8	2084.1
50°	2812.3	2834.6	2793.7	2793.7	2725.4	2567.1	2489.1	2385.8	2151.0	2009.1	1951.1
52.5°	2621.3	2649.6	2619.1	2619.8	2564.1	2422.2	2341.2	2240.2	2011.3	1871.6	1818.1
55°	2423.7	2451.2	2431.9	2434.8	2391.0	2261.7	2188.2	2087.9	1868.7	1732.7	1682.2
57.5°	2217.1	2246.9	2234.2	2240.2	2209.7	2093.8	2017.3	1929.6	1721.6	1587.1	1544.0
60°	2009.8	2038.1	2031.4	2039.6	2020.2	1919.9	1850.1	1759.4	1573.7	1444.4	1406.5
62.5°	1800.3	1826.3	1824.8	1833.7	1823.3	1740.1	1677.7	1600.4	1420.6	1301.8	1266.8
65°	1595.2	1617.5	1616.0	1625.7	1623.5	1556.6	1500.1	1429.5	1267.6	1158.4	1127.9
67.5°	1396.1	1414.7	1409.5	1420.6	1423.6	1370.1	1321.1	1257.9	1121.9	1015.7	989.7
70°	1201.4	1214.1	1207.4	1214.8	1221.5	1181.4	1139.8	1084.0	966.7	873.0	851.5
72.5°	1010.5	1019.4	1009.0	1016.4	1022.4	993.4	959.2	910.9	813.6	732.6	714.8
75°	825.5	838.1	816.6	824.0	828.5	799.5	779.4	740.0	656.1	593.7	581.8
77.5°	646.4	653.8	642.0	639.0	642.0	621.2	605.6	575.1	511.9	460.7	453.2
80°	475.5	480.0	468.1	465.1	467.4	452.5	440.6	418.3	373.7	335.1	332.1
82.5°	318.8	321.0	310.6	307.6	309.1	304.6	290.5	274.9	254.1	221.4	220.7
85°	182.0	182.0	174.6	171.6	173.1	165.7	160.5	152.3	144.1	121.9	123.3
87.5°	66.9	66.9	63.2	62.4	69.8	61.7	59.4	55.7	58.0	46.1	49.0
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3	3399.3
2.5°	3414.1	3406.7	3400.0	3377.0	3386.6	3362.9	3361.4	3352.5	3345.8	3333.1	3349.5
5°	3403.0	3388.1	3368.8	3341.3	3349.5	3321.2	3315.3	3304.9	3296.0	3279.6	3292.3
7.5°	3385.1	3360.6	3330.2	3295.2	3306.4	3271.5	3262.5	3251.4	3244.0	3224.7	3235.8
10°	3359.1	3324.2	3288.6	3246.2	3254.4	3216.5	3205.3	3193.5	3186.8	3169.7	3180.8
12.5°	3319.0	3276.7	3228.4	3182.3	3191.2	3155.6	3140.7	3128.1	3125.8	3111.7	3125.1
15°	3267.0	3208.3	3158.5	3109.5	3119.9	3078.3	3071.6	3059.0	3062.7	3053.0	3069.4
17.5°	3200.9	3133.3	3079.0	3026.3	3036.7	3001.8	2996.6	2990.6	2994.3	2992.8	3010.7
20°	3126.6	3052.3	2989.9	2937.9	2943.8	2916.3	2918.5	2917.1	2924.5	2932.7	2957.2
22.5°	3042.6	2958.7	2893.3	2839.8	2848.7	2824.9	2835.3	2838.3	2850.9	2869.5	2900.7
25°	2948.3	2858.4	2790.0	2739.5	2747.6	2732.0	2749.9	2757.3	2777.4	2808.6	2840.5
27.5°	2849.4	2754.3	2681.5	2633.2	2648.8	2633.2	2660.0	2674.8	2705.3	2739.5	2778.9
30°	2744.7	2645.9	2570.8	2527.7	2542.6	2528.5	2571.6	2591.6	2622.1	2668.9	2715.7
32.5°	2634.7	2530.7	2457.1	2423.7	2434.1	2431.9	2480.2	2502.5	2543.3	2596.8	2646.6
35°	2521.8	2413.3	2339.0	2310.8	2323.4	2326.4	2384.3	2410.3	2454.9	2519.5	2573.0
37.5°	2405.1	2294.4	2221.6	2198.6	2209.7	2220.9	2288.5	2314.5	2365.0	2435.6	2494.3
40°	2284.0	2173.3	2102.0	2083.4	2094.5	2106.4	2180.0	2215.7	2270.6	2347.2	2411.1
42.5°	2161.4	2050.7	1981.6	1968.2	1979.4	2002.4	2080.4	2113.9	2171.8	2256.5	2327.1
45°	2036.6	1921.4	1861.2	1850.8	1862.7	1889.5	1966.0	2006.1	2067.8	2160.7	2236.5
47.5°	1910.3	1798.1	1740.9	1734.2	1746.1	1775.8	1860.5	1896.9	1962.3	2061.1	2142.8
50°	1782.5	1673.3	1618.3	1616.0	1627.2	1659.1	1740.1	1783.2	1850.8	1961.5	2045.5
52.5°	1653.2	1548.4	1498.6	1498.6	1509.1	1541.7	1623.5	1668.1	1737.9	1854.5	1947.4
55°	1523.9	1424.3	1376.8	1380.5	1395.4	1423.6	1503.1	1549.9	1620.5	1741.6	1839.7
57.5°	1394.6	1300.3	1257.2	1262.4	1276.5	1304.7	1382.7	1435.5	1499.4	1625.0	1725.3
60°	1266.8	1177.7	1139.8	1145.7	1158.4	1186.6	1267.6	1312.9	1376.8	1504.6	1604.9
62.5°	1137.5	1056.6	1020.9	1028.3	1039.5	1067.7	1144.2	1188.1	1251.2	1376.8	1477.8
65°	1009.7	934.7	904.2	911.7	922.1	948.1	1020.2	1062.5	1122.7	1245.3	1341.9
67.5°	883.4	815.1	789.8	797.2	805.4	829.9	889.4	935.4	991.9	1108.6	1200.0
70°	758.6	697.7	675.4	682.8	690.3	712.5	764.6	806.9	858.9	965.9	1050.6
72.5°	635.3	575.8	564.7	571.4	577.3	596.6	646.4	679.9	725.2	820.3	893.1
75°	514.9	463.6	456.2	462.9	468.1	483.0	524.6	553.5	591.4	673.9	733.3
77.5°	399.0	355.9	352.9	358.1	363.3	373.7	406.4	436.9	466.6	527.5	580.3
80°	290.5	255.6	255.6	260.8	259.3	271.9	295.0	319.5	341.0	384.9	423.5
82.5°	191.7	164.2	167.9	171.6	173.9	179.1	193.2	211.8	225.1	251.9	277.1
85°	106.3	87.7	91.4	94.4	92.9	98.8	106.3	117.4	124.1	136.7	150.1
87.5°	39.4	32.7	33.4	35.7	37.2	40.1	40.1	46.8	47.6	49.0	52.0
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°	3399.3	3399.3	3399.3
2.5°	3318.3	3336.1	3349.5
5°	3261.1	3275.9	3287.8
7.5°	3205.3	3218.7	3229.1
10°	3152.6	3167.4	3174.9
12.5°	3098.3	3115.4	3121.4
15°	3044.8	3061.9	3069.4
17.5°	2989.9	3012.2	3020.3
20°	2938.6	2966.8	2973.5
22.5°	2886.6	2915.6	2923.7
25°	2830.1	2864.3	2872.5
27.5°	2769.9	2810.8	2819.0
30°	2709.8	2754.3	2762.5
32.5°	2645.1	2693.4	2700.8
35°	2577.5	2625.8	2634.7
37.5°	2502.5	2555.2	2573.0
40°	2424.4	2481.6	2500.2
42.5°	2342.7	2405.1	2424.4
45°	2255.0	2323.4	2345.7
47.5°	2166.6	2243.9	2263.2
50°	2070.8	2153.2	2176.3
52.5°	1970.5	2060.4	2083.4
55°	1866.4	1957.1	1982.3
57.5°	1753.5	1847.1	1873.9
60°	1635.4	1729.0	1754.2
62.5°	1514.3	1599.0	1623.5
65°	1379.0	1458.5	1480.8
67.5°	1235.6	1308.4	1327.0
70°	1083.3	1146.5	1162.8
72.5°	924.3	968.1	989.7
75°	760.1	795.0	811.4
77.5°	595.1	619.7	633.0
80°	433.9	448.0	459.2
82.5°	283.8	289.8	297.9
85°	153.1	153.1	158.3
87.5°	52.0	49.8	52.0
90°	0.0	0.0	0.0

(END OF REPORT)