

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: P835367

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835367
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-50-120-EDD-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

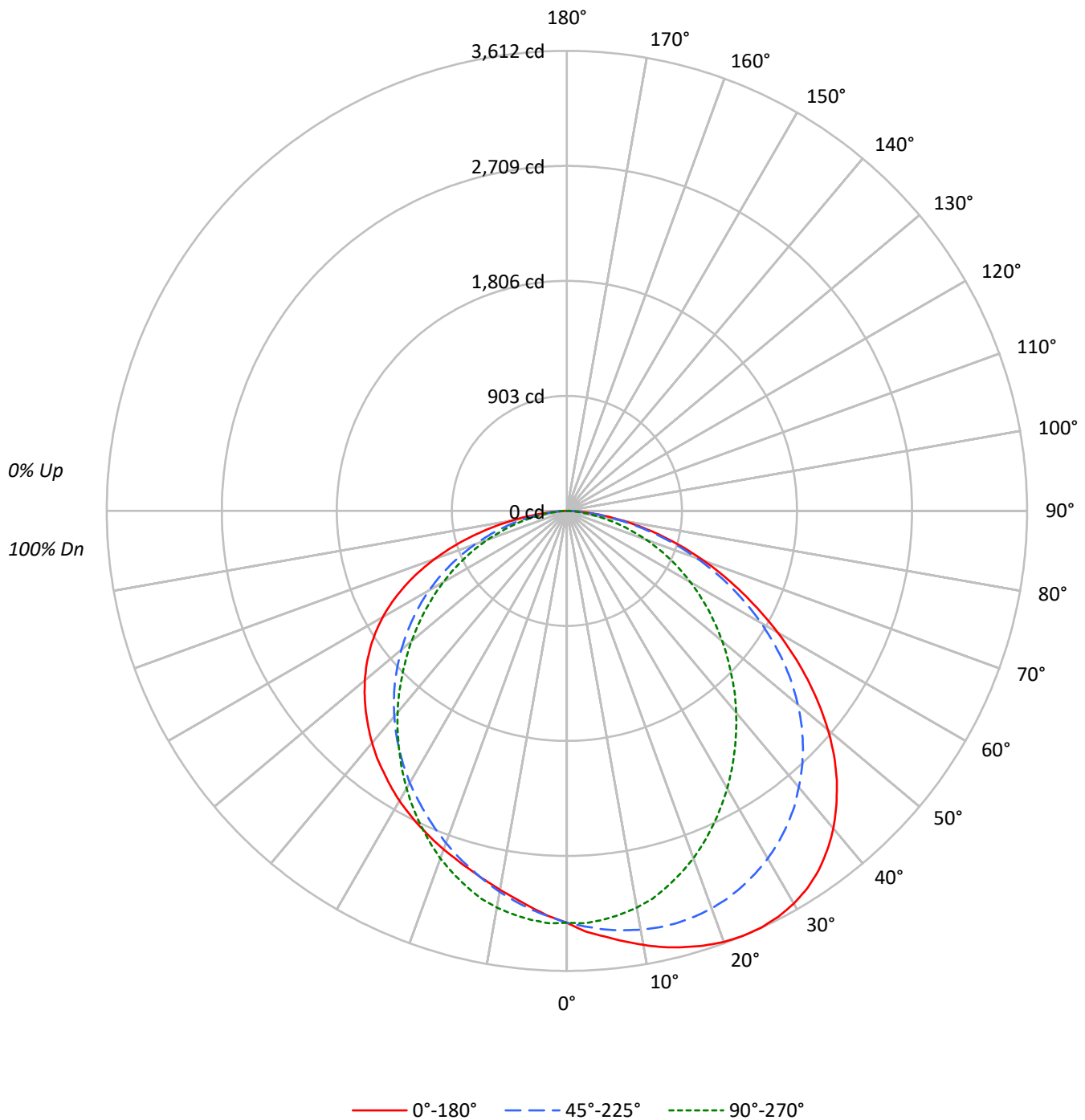
Lumens per Lamp: N/A
Luminaire Lumens: 9511.4 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

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°	8701	8701	8701
5°	9059	8706	8448
10°	9456	8640	8252
15°	9880	8502	8134
20°	10312	8314	8100
25°	10717	8073	8113
30°	11066	7820	8165
35°	11319	7541	8233
40°	11433	7262	8355
45°	11402	6956	8491
50°	11199	6664	8666
55°	10816	6357	8847
60°	10289	6029	8981
65°	9662	5661	8969
70°	8992	5222	8703
75°	8164	4585	8025
80°	7009	3767	6769
85°	5348	2575	4647

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.7	3.2
10°-20°	885.6	9.3
20°-30°	1356.8	14.3
30°-40°	1655.8	17.4
40°-50°	1731.6	18.2
50°-60°	1567.2	16.5
60°-70°	1186.9	12.5
70°-80°	661.4	7.0
80°-90°	159.5	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°	2549.0	26.8
0°-40°	4204.8	44.2
0°-60°	7503.5	78.9
0°-90°	9511.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9511.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3234	3234	3234	3234	3234	
5°	3354	3298	3223	3144	3128	323
15°	3547	3349	3052	2910	2920	1006
25°	3610	3255	2719	2623	2732	1665
35°	3446	3014	2296	2293	2506	2151
45°	2996	2621	1828	1908	2231	2305
55°	2306	2081	1355	1474	1886	2057
65°	1517	1427	889	1011	1409	1505
75°	785	741	441	526	772	833
85°	173	153	83	112	150	208
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5
2.5°	3304.9	3289.3	3276.6	3281.5	3284.4	3274.5	3266.0	3267.4	3258.9	3275.2	3237.0
5°	3353.6	3339.5	3324.7	3330.3	3324.7	3309.8	3297.8	3294.3	3271.6	3280.8	3242.0
7.5°	3408.1	3392.5	3370.6	3377.0	3364.9	3337.4	3321.8	3312.6	3278.0	3278.7	3235.6
10°	3460.4	3446.9	3417.2	3421.5	3399.6	3362.8	3338.1	3325.4	3276.6	3269.5	3225.0
12.5°	3509.1	3490.7	3458.9	3461.1	3429.3	3380.5	3348.7	3330.3	3266.7	3245.5	3201.7
15°	3546.6	3528.9	3490.7	3490.0	3449.0	3385.4	3349.4	3324.0	3243.4	3210.2	3164.2
17.5°	3578.4	3562.1	3514.8	3513.4	3463.9	3383.3	3340.2	3308.4	3209.5	3168.5	3117.6
20°	3601.0	3584.7	3531.7	3526.8	3467.4	3372.7	3321.1	3280.8	3164.9	3116.2	3059.6
22.5°	3611.6	3595.4	3535.3	3528.2	3458.9	3351.5	3293.6	3246.2	3114.0	3050.4	2991.8
25°	3609.5	3593.9	3526.1	3519.0	3442.7	3319.7	3254.7	3200.3	3049.7	2974.8	2916.8
27.5°	3591.8	3579.8	3508.4	3499.2	3413.0	3276.6	3207.3	3147.3	2978.3	2894.9	2832.0
30°	3561.4	3552.2	3476.6	3468.1	3376.3	3229.2	3152.2	3082.9	2901.3	2807.3	2743.7
32.5°	3512.7	3504.2	3427.8	3420.1	3326.8	3168.5	3087.9	3016.5	2817.2	2713.3	2649.7
35°	3445.5	3440.6	3366.4	3357.9	3263.2	3099.2	3013.7	2935.2	2729.6	2612.2	2551.4
37.5°	3357.2	3357.2	3285.8	3276.6	3184.0	3014.4	2930.3	2846.9	2630.6	2506.2	2446.1
40°	3254.7	3263.9	3191.1	3181.9	3092.1	2923.2	2831.3	2743.7	2523.9	2394.5	2335.9
42.5°	3131.7	3140.2	3079.4	3070.9	2986.8	2817.9	2732.4	2637.0	2412.2	2280.8	2220.0
45°	2996.0	3007.3	2952.9	2946.5	2868.1	2702.7	2620.7	2523.9	2295.6	2162.0	2102.6
47.5°	2844.8	2859.6	2812.2	2808.7	2735.9	2584.7	2499.1	2400.9	2173.3	2038.3	1982.5
50°	2675.1	2696.3	2657.5	2657.5	2592.4	2441.9	2367.7	2269.4	2046.1	1911.1	1856.0
52.5°	2493.5	2520.4	2491.4	2492.1	2439.1	2304.1	2227.0	2130.9	1913.2	1780.4	1729.5
55°	2305.5	2331.6	2313.3	2316.1	2274.4	2151.4	2081.4	1986.0	1777.5	1648.2	1600.1
57.5°	2109.0	2137.3	2125.3	2130.9	2101.9	1991.7	1918.9	1835.5	1637.6	1509.7	1468.7
60°	1911.8	1938.7	1932.3	1940.1	1921.7	1826.3	1759.9	1673.6	1496.9	1374.0	1337.9
62.5°	1712.5	1737.2	1735.8	1744.3	1734.4	1655.3	1595.9	1522.4	1351.3	1238.3	1205.0
65°	1517.4	1538.6	1537.2	1546.4	1544.3	1480.7	1427.0	1359.8	1205.8	1101.9	1072.9
67.5°	1328.0	1345.7	1340.7	1351.3	1354.2	1303.3	1256.6	1196.6	1067.2	966.2	941.4
70°	1142.9	1154.9	1148.5	1155.6	1161.9	1123.8	1084.2	1031.2	919.5	830.5	810.0
72.5°	961.2	969.7	959.8	966.9	972.5	945.0	912.4	866.5	773.9	696.9	679.9
75°	785.2	797.2	776.7	783.8	788.1	760.5	741.4	703.9	624.1	564.7	553.4
77.5°	614.9	622.0	610.7	607.8	610.7	590.9	576.0	547.0	487.0	438.2	431.1
80°	452.3	456.6	445.3	442.4	444.6	430.4	419.1	397.9	355.5	318.8	315.9
82.5°	303.2	305.3	295.4	292.6	294.0	289.8	276.3	261.5	241.7	210.6	209.9
85°	173.2	173.2	166.1	163.3	164.7	157.6	152.7	144.9	137.1	115.9	117.3
87.5°	63.6	63.6	60.1	59.4	66.4	58.7	56.5	53.0	55.1	43.8	46.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5	3233.5
2.5°	3247.6	3240.6	3234.2	3212.3	3221.5	3198.9	3197.4	3189.0	3182.6	3170.6	3186.1
5°	3237.0	3222.9	3204.5	3178.4	3186.1	3159.3	3153.6	3143.7	3135.2	3119.7	3131.7
7.5°	3220.1	3196.7	3167.8	3134.5	3145.1	3111.9	3103.4	3092.8	3085.8	3067.4	3078.0
10°	3195.3	3162.1	3128.2	3087.9	3095.7	3059.6	3049.0	3037.7	3031.3	3015.1	3025.7
12.5°	3157.2	3116.9	3070.9	3027.1	3035.6	3001.7	2987.5	2975.5	2973.4	2960.0	2972.7
15°	3107.7	3051.8	3004.5	2957.8	2967.7	2928.2	2921.8	2909.8	2913.3	2904.1	2919.7
17.5°	3044.8	2980.5	2928.9	2878.7	2888.6	2855.4	2850.4	2844.8	2848.3	2846.9	2863.8
20°	2974.1	2903.4	2844.1	2794.6	2800.2	2774.1	2776.2	2774.8	2781.9	2789.6	2813.0
22.5°	2894.2	2814.4	2752.2	2701.3	2709.8	2687.1	2697.0	2699.9	2711.9	2729.6	2759.2
25°	2804.5	2719.0	2653.9	2605.9	2613.6	2598.8	2615.8	2622.8	2641.9	2671.6	2702.0
27.5°	2710.5	2620.0	2550.7	2504.8	2519.6	2504.8	2530.2	2544.4	2573.4	2605.9	2643.3
30°	2610.8	2516.8	2445.4	2404.4	2418.6	2405.1	2446.1	2465.2	2494.2	2538.7	2583.3
32.5°	2506.2	2407.3	2337.3	2305.5	2315.4	2313.3	2359.2	2380.4	2419.3	2470.2	2517.5
35°	2398.8	2295.6	2224.9	2198.1	2210.1	2212.9	2268.0	2292.8	2335.2	2396.7	2447.6
37.5°	2287.8	2182.5	2113.2	2091.3	2101.9	2112.5	2176.9	2201.6	2249.7	2316.8	2372.6
40°	2172.6	2067.3	1999.5	1981.8	1992.4	2003.7	2073.7	2107.6	2159.9	2232.7	2293.5
42.5°	2056.0	1950.7	1885.0	1872.2	1882.8	1904.8	1979.0	2010.8	2065.9	2146.5	2213.6
45°	1937.3	1827.7	1770.5	1760.6	1771.9	1797.3	1870.1	1908.3	1966.9	2055.3	2127.4
47.5°	1817.1	1710.4	1656.0	1649.6	1660.9	1689.2	1769.8	1804.4	1866.6	1960.6	2038.3
50°	1695.5	1591.7	1539.4	1537.2	1547.8	1578.2	1655.3	1696.3	1760.6	1865.9	1945.7
52.5°	1572.6	1472.9	1425.6	1425.6	1435.5	1466.6	1544.3	1586.7	1653.1	1764.1	1852.5
55°	1449.6	1354.9	1309.6	1313.2	1327.3	1354.2	1429.8	1474.3	1541.5	1656.7	1750.0
57.5°	1326.6	1236.9	1195.9	1200.8	1214.2	1241.1	1315.3	1365.5	1426.3	1545.7	1641.1
60°	1205.0	1120.2	1084.2	1089.8	1101.9	1128.7	1205.8	1248.9	1309.6	1431.2	1526.6
62.5°	1082.1	1005.0	971.1	978.2	988.8	1015.6	1088.4	1130.1	1190.2	1309.6	1405.8
65°	960.5	889.1	860.1	867.2	877.1	901.8	970.4	1010.7	1067.9	1184.6	1276.4
67.5°	840.4	775.3	751.3	758.4	766.1	789.5	846.0	889.8	943.5	1054.5	1141.4
70°	721.6	663.7	642.5	649.5	656.6	677.8	727.3	767.6	817.0	918.8	999.4
72.5°	604.3	547.7	537.1	543.5	549.2	567.5	614.9	646.7	689.8	780.3	849.5
75°	489.8	441.0	434.0	440.3	445.3	459.4	499.0	526.5	562.6	641.0	697.6
77.5°	379.5	338.5	335.7	340.7	345.6	355.5	386.6	415.6	443.9	501.8	552.0
80°	276.3	243.1	243.1	248.1	246.7	258.7	280.6	303.9	324.4	366.1	402.9
82.5°	182.3	156.2	159.7	163.3	165.4	170.3	183.8	201.4	214.2	239.6	263.6
85°	101.1	83.4	86.9	89.8	88.3	94.0	101.1	111.7	118.0	130.0	142.8
87.5°	37.5	31.1	31.8	33.9	35.3	38.2	38.2	44.5	45.2	46.6	49.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P835367

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-6STD-50-120-EDD-90

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	3233.5	3233.5	3233.5
2.5°	3156.4	3173.4	3186.1
5°	3102.0	3116.2	3127.5
7.5°	3049.0	3061.7	3071.6
10°	2998.8	3013.0	3020.0
12.5°	2947.2	2963.5	2969.2
15°	2896.4	2912.6	2919.7
17.5°	2844.1	2865.3	2873.0
20°	2795.3	2822.1	2828.5
22.5°	2745.8	2773.4	2781.1
25°	2692.1	2724.6	2732.4
27.5°	2634.8	2673.7	2681.5
30°	2577.6	2620.0	2627.8
32.5°	2516.1	2562.0	2569.1
35°	2451.8	2497.7	2506.2
37.5°	2380.4	2430.6	2447.6
40°	2306.2	2360.6	2378.3
42.5°	2228.5	2287.8	2306.2
45°	2145.1	2210.1	2231.3
47.5°	2060.9	2134.5	2152.8
50°	1969.8	2048.2	2070.1
52.5°	1874.4	1959.9	1981.8
55°	1775.4	1861.6	1885.7
57.5°	1668.0	1757.0	1782.5
60°	1555.6	1644.7	1668.7
62.5°	1440.4	1521.0	1544.3
65°	1311.8	1387.4	1408.6
67.5°	1175.4	1244.6	1262.3
70°	1030.5	1090.5	1106.1
72.5°	879.2	920.9	941.4
75°	723.0	756.2	771.8
77.5°	566.1	589.4	602.2
80°	412.8	426.2	436.8
82.5°	270.0	275.6	283.4
85°	145.6	145.6	150.5
87.5°	49.5	47.4	49.5
90°	0.0	0.0	0.0

(END OF REPORT)