

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: P834259

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834259
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-LD4-3LO-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

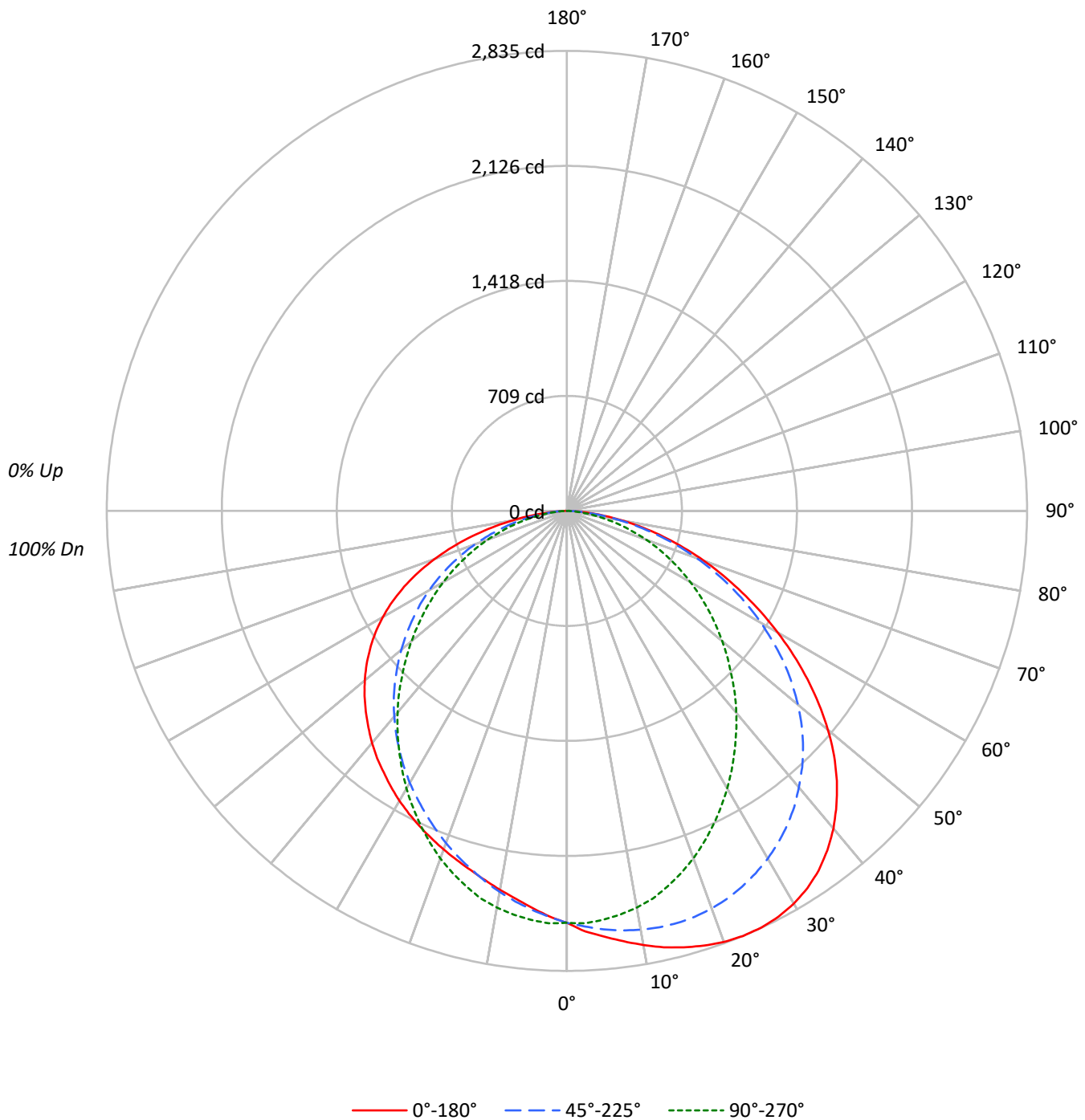
Lumens per Lamp: N/A
Luminaire Lumens: 7466.7 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-EDD-90

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	61	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	52	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	45	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	40	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	35	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	31	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6831	6831	6831
5°	7112	6834	6632
10°	7423	6783	6478
15°	7757	6674	6385
20°	8095	6527	6359
25°	8413	6338	6369
30°	8687	6139	6410
35°	8885	5920	6463
40°	8975	5701	6558
45°	8951	5460	6666
50°	8792	5231	6803
55°	8491	4990	6945
60°	8077	4733	7050
65°	7585	4444	7041
70°	7059	4099	6832
75°	6409	3599	6300
80°	5503	2958	5314
85°	4196	2022	3649

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.7	3.2
10°-20°	695.2	9.3
20°-30°	1065.1	14.3
30°-40°	1299.8	17.4
40°-50°	1359.3	18.2
50°-60°	1230.3	16.5
60°-70°	931.7	12.5
70°-80°	519.2	7.0
80°-90°	125.2	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°	2001.1	26.8
0°-40°	3300.9	44.2
0°-60°	5890.5	78.9
0°-90°	7466.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7466.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2538	2538	2538	2538	2538	
5°	2633	2589	2530	2468	2455	254
15°	2784	2629	2396	2284	2292	790
25°	2834	2555	2134	2059	2145	1307
35°	2705	2366	1802	1800	1968	1689
45°	2352	2057	1435	1498	1752	1810
55°	1810	1634	1064	1157	1480	1615
65°	1191	1120	698	793	1106	1182
75°	616	582	346	413	606	654
85°	136	120	66	88	118	164
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4
2.5°	2594.4	2582.2	2572.2	2576.1	2578.3	2570.6	2563.9	2565.0	2558.4	2571.1	2541.2
5°	2632.7	2621.6	2610.0	2614.4	2610.0	2598.3	2588.9	2586.1	2568.4	2575.6	2545.0
7.5°	2675.4	2663.2	2646.0	2651.0	2641.6	2620.0	2607.7	2600.5	2573.3	2573.9	2540.1
10°	2716.5	2706.0	2682.6	2686.0	2668.8	2639.9	2620.5	2610.5	2572.2	2566.7	2531.7
12.5°	2754.8	2740.4	2715.4	2717.0	2692.1	2653.8	2628.8	2614.4	2564.5	2547.8	2513.4
15°	2784.2	2770.3	2740.4	2739.8	2707.6	2657.7	2629.4	2609.4	2546.2	2520.1	2484.0
17.5°	2809.2	2796.4	2759.2	2758.1	2719.3	2656.0	2622.2	2597.2	2519.5	2487.3	2447.4
20°	2826.9	2814.1	2772.5	2768.6	2722.0	2647.7	2607.2	2575.6	2484.6	2446.3	2401.9
22.5°	2835.2	2822.5	2775.3	2769.8	2715.4	2631.0	2585.6	2548.4	2444.6	2394.7	2348.6
25°	2833.6	2821.4	2768.1	2762.5	2702.6	2606.1	2555.0	2512.3	2394.1	2335.3	2289.8
27.5°	2819.7	2810.3	2754.2	2747.0	2679.3	2572.2	2517.9	2470.7	2338.1	2272.6	2223.2
30°	2795.8	2788.6	2729.3	2722.6	2650.5	2535.1	2474.6	2420.2	2277.6	2203.8	2153.9
32.5°	2757.6	2750.9	2691.0	2684.9	2611.6	2487.3	2424.1	2368.1	2211.6	2130.0	2080.1
35°	2704.8	2701.0	2642.7	2636.0	2561.7	2433.0	2365.8	2304.2	2142.8	2050.7	2003.0
37.5°	2635.5	2635.5	2579.4	2572.2	2499.6	2366.4	2300.4	2234.9	2065.1	1967.5	1920.3
40°	2555.0	2562.2	2505.1	2497.9	2427.4	2294.8	2222.7	2153.9	1981.3	1879.8	1833.7
42.5°	2458.5	2465.2	2417.4	2410.8	2344.8	2212.1	2145.0	2070.1	1893.7	1790.5	1742.7
45°	2352.0	2360.8	2318.1	2313.1	2251.5	2121.7	2057.3	1981.3	1802.1	1697.3	1650.6
47.5°	2233.2	2244.9	2207.7	2204.9	2147.8	2029.0	1961.9	1884.8	1706.1	1600.2	1556.3
50°	2100.1	2116.7	2086.2	2086.2	2035.1	1917.0	1858.7	1781.6	1606.3	1500.3	1457.0
52.5°	1957.5	1978.6	1955.8	1956.4	1914.7	1808.8	1748.3	1672.8	1501.9	1397.6	1357.7
55°	1809.9	1830.4	1816.0	1818.2	1785.5	1688.9	1634.0	1559.1	1395.4	1293.9	1256.2
57.5°	1655.6	1677.8	1668.4	1672.8	1650.1	1563.5	1506.4	1440.9	1285.6	1185.1	1153.0
60°	1500.8	1521.9	1516.9	1523.0	1508.6	1433.7	1381.5	1313.9	1175.1	1078.6	1050.3
62.5°	1344.4	1363.8	1362.7	1369.3	1361.6	1299.4	1252.8	1195.1	1060.9	972.1	946.0
65°	1191.2	1207.9	1206.8	1214.0	1212.3	1162.4	1120.2	1067.5	946.6	865.0	842.2
67.5°	1042.5	1056.4	1052.5	1060.9	1063.1	1023.1	986.5	939.3	837.8	758.5	739.0
70°	897.2	906.6	901.6	907.2	912.2	882.2	851.1	809.5	721.8	651.9	635.8
72.5°	754.6	761.2	753.5	759.0	763.5	741.8	716.3	680.2	607.5	547.1	533.8
75°	616.4	625.9	609.8	615.3	618.6	597.0	582.0	552.6	489.9	443.3	434.4
77.5°	482.7	488.3	479.4	477.2	479.4	463.8	452.2	429.4	382.3	344.0	338.5
80°	355.1	358.4	349.5	347.3	349.0	337.9	329.0	312.4	279.1	250.2	248.0
82.5°	238.0	239.7	231.9	229.7	230.8	227.5	216.9	205.3	189.8	165.3	164.8
85°	135.9	135.9	130.4	128.2	129.3	123.7	119.8	113.7	107.6	91.0	92.1
87.5°	49.9	49.9	47.2	46.6	52.2	46.1	44.4	41.6	43.3	34.4	36.6
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: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-EDD-90

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4	2538.4
2.5°	2549.5	2543.9	2538.9	2521.7	2529.0	2511.2	2510.1	2503.4	2498.4	2489.0	2501.2
5°	2541.2	2530.1	2515.6	2495.1	2501.2	2480.1	2475.7	2467.9	2461.3	2449.1	2458.5
7.5°	2527.8	2509.5	2486.8	2460.7	2469.0	2443.0	2436.3	2428.0	2422.4	2408.0	2416.3
10°	2508.4	2482.4	2455.7	2424.1	2430.2	2401.9	2393.6	2384.7	2379.7	2366.9	2375.3
12.5°	2478.5	2446.8	2410.8	2376.4	2383.0	2356.4	2345.3	2335.9	2334.2	2323.7	2333.7
15°	2439.6	2395.8	2358.6	2322.0	2329.8	2298.7	2293.7	2284.3	2287.0	2279.8	2292.0
17.5°	2390.2	2339.8	2299.3	2259.9	2267.6	2241.6	2237.7	2233.2	2236.0	2234.9	2248.2
20°	2334.8	2279.3	2232.7	2193.8	2198.3	2177.7	2179.4	2178.3	2183.8	2190.0	2208.3
22.5°	2272.1	2209.4	2160.5	2120.6	2127.3	2109.5	2117.3	2119.5	2128.9	2142.8	2166.1
25°	2201.6	2134.5	2083.4	2045.7	2051.8	2040.1	2053.5	2059.0	2074.0	2097.3	2121.1
27.5°	2127.8	2056.8	2002.4	1966.3	1978.0	1966.3	1986.3	1997.4	2020.2	2045.7	2075.1
30°	2049.6	1975.8	1919.7	1887.6	1898.7	1888.1	1920.3	1935.3	1958.0	1993.0	2027.9
32.5°	1967.5	1889.8	1834.9	1809.9	1817.7	1816.0	1852.1	1868.7	1899.2	1939.2	1976.3
35°	1883.1	1802.1	1746.6	1725.5	1735.0	1737.2	1780.5	1799.9	1833.2	1881.5	1921.4
37.5°	1796.0	1713.3	1659.0	1641.8	1650.1	1658.4	1708.9	1728.3	1766.1	1818.8	1862.6
40°	1705.6	1622.9	1569.6	1555.8	1564.1	1573.0	1627.9	1654.5	1695.6	1752.7	1800.5
42.5°	1614.0	1531.4	1479.8	1469.8	1478.1	1495.3	1553.5	1578.5	1621.8	1685.0	1737.8
45°	1520.8	1434.8	1389.9	1382.1	1391.0	1411.0	1468.1	1498.1	1544.1	1613.5	1670.1
47.5°	1426.5	1342.7	1300.0	1295.0	1303.9	1326.1	1389.3	1416.5	1465.3	1539.1	1600.2
50°	1331.1	1249.5	1208.4	1206.8	1215.1	1239.0	1299.4	1331.6	1382.1	1464.8	1527.5
52.5°	1234.5	1156.3	1119.1	1119.1	1126.9	1151.3	1212.3	1245.6	1297.8	1384.9	1454.2
55°	1138.0	1063.6	1028.1	1030.9	1042.0	1063.1	1122.4	1157.4	1210.1	1300.5	1373.8
57.5°	1041.4	971.0	938.8	942.7	953.2	974.3	1032.6	1071.9	1119.7	1213.4	1288.3
60°	946.0	879.4	851.1	855.6	865.0	886.1	946.6	980.4	1028.1	1123.5	1198.5
62.5°	849.5	789.0	762.3	767.9	776.2	797.3	854.5	887.2	934.3	1028.1	1103.6
65°	754.0	698.0	675.2	680.8	688.6	708.0	761.8	793.4	838.4	929.9	1002.0
67.5°	659.7	608.7	589.8	595.3	601.4	619.8	664.1	698.5	740.7	827.8	896.1
70°	566.5	521.0	504.3	509.9	515.4	532.1	570.9	602.6	641.4	721.3	784.5
72.5°	474.4	430.0	421.7	426.7	431.1	445.5	482.7	507.7	541.5	612.5	666.9
75°	384.5	346.2	340.7	345.7	349.5	360.6	391.7	413.4	441.7	503.2	547.6
77.5°	297.9	265.8	263.5	267.4	271.3	279.1	303.5	326.2	348.4	393.9	433.3
80°	216.9	190.9	190.9	194.7	193.6	203.1	220.3	238.6	254.7	287.4	316.3
82.5°	143.1	122.6	125.4	128.2	129.8	133.7	144.3	158.1	168.1	188.1	207.0
85°	79.3	65.5	68.2	70.5	69.4	73.8	79.3	87.7	92.7	102.1	112.1
87.5°	29.4	24.4	25.0	26.6	27.7	30.0	30.0	35.0	35.5	36.6	38.8
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: P834259

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-3LO-30-120-EDD-90

CANDELA DISTRIBUTION (continued):

	160°	170°	180°
0°	2538.4	2538.4	2538.4
2.5°	2477.9	2491.2	2501.2
5°	2435.2	2446.3	2455.2
7.5°	2393.6	2403.6	2411.3
10°	2354.2	2365.3	2370.8
12.5°	2313.7	2326.4	2330.9
15°	2273.7	2286.5	2292.0
17.5°	2232.7	2249.3	2255.4
20°	2194.4	2215.5	2220.5
22.5°	2155.6	2177.2	2183.3
25°	2113.4	2138.9	2145.0
27.5°	2068.4	2099.0	2105.1
30°	2023.5	2056.8	2062.9
32.5°	1975.2	2011.3	2016.8
35°	1924.7	1960.8	1967.5
37.5°	1868.7	1908.1	1921.4
40°	1810.4	1853.2	1867.0
42.5°	1749.4	1796.0	1810.4
45°	1683.9	1735.0	1751.6
47.5°	1617.9	1675.6	1690.0
50°	1546.3	1607.9	1625.1
52.5°	1471.4	1538.6	1555.8
55°	1393.8	1461.4	1480.3
57.5°	1309.4	1379.3	1399.3
60°	1221.2	1291.1	1310.0
62.5°	1130.8	1194.0	1212.3
65°	1029.8	1089.1	1105.8
67.5°	922.7	977.1	990.9
70°	809.0	856.1	868.3
72.5°	690.2	723.0	739.0
75°	567.6	593.7	605.9
77.5°	444.4	462.7	472.7
80°	324.0	334.6	342.9
82.5°	211.9	216.4	222.5
85°	114.3	114.3	118.2
87.5°	38.8	37.2	38.8
90°	0.0	0.0	0.0

(END OF REPORT)