

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: P834203

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-2STD-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834203
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-LD4-2STD-30-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

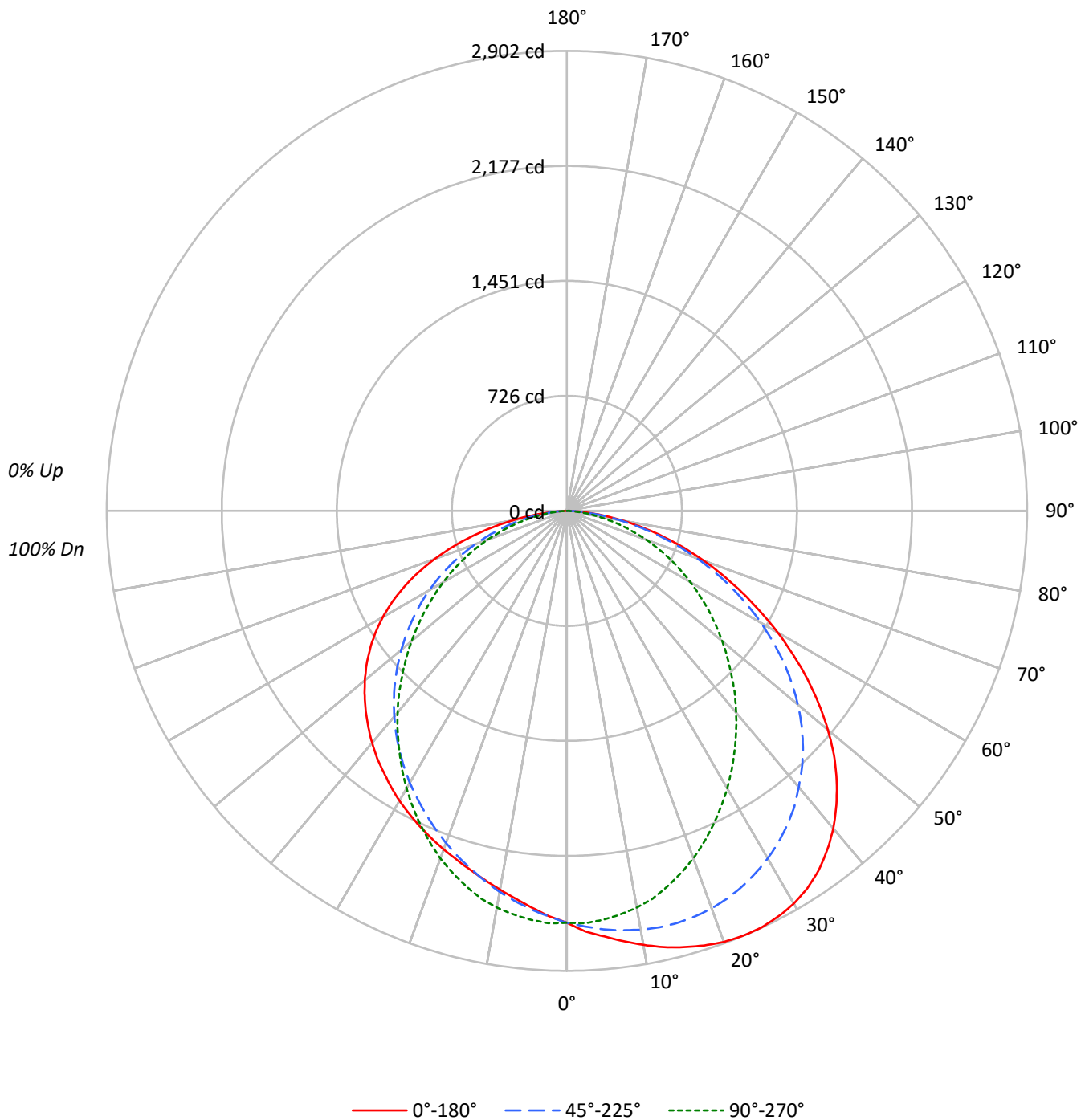
Lumens per Lamp: N/A
Luminaire Lumens: 7641.5 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6991	6991	6991
5°	7278	6994	6787
10°	7597	6942	6630
15°	7938	6831	6535
20°	8285	6680	6507
25°	8610	6486	6518
30°	8891	6283	6560
35°	9094	6059	6615
40°	9185	5834	6712
45°	9160	5588	6822
50°	8997	5353	6963
55°	8690	5107	7108
60°	8267	4844	7215
65°	7762	4548	7206
70°	7224	4195	6992
75°	6560	3684	6447
80°	5632	3027	5438
85°	4295	2069	3733

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.4	3.2
10°-20°	711.5	9.3
20°-30°	1090.0	14.3
30°-40°	1330.2	17.4
40°-50°	1391.1	18.2
50°-60°	1259.1	16.5
60°-70°	953.5	12.5
70°-80°	531.4	7.0
80°-90°	128.2	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°	2047.9	26.8
0°-40°	3378.2	44.2
0°-60°	6028.4	78.9
0°-90°	7641.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7641.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2598	2598	2598	2598	2598	
5°	2694	2650	2589	2526	2513	260
15°	2849	2691	2452	2338	2346	808
25°	2900	2615	2184	2107	2195	1338
35°	2768	2421	1844	1842	2014	1729
45°	2407	2106	1468	1533	1793	1852
55°	1852	1672	1088	1184	1515	1653
65°	1219	1146	714	812	1132	1209
75°	631	596	354	423	620	669
85°	139	123	67	90	121	167
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°	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8
2.5°	2655.2	2642.7	2632.4	2636.4	2638.7	2630.7	2623.9	2625.1	2618.3	2631.3	2600.7
5°	2694.3	2683.0	2671.1	2675.6	2671.1	2659.1	2649.5	2646.6	2628.5	2635.9	2604.6
7.5°	2738.1	2725.6	2708.0	2713.1	2703.4	2681.3	2668.8	2661.4	2633.6	2634.2	2599.5
10°	2780.1	2769.3	2745.4	2748.9	2731.3	2701.7	2681.8	2671.6	2632.4	2626.8	2591.0
12.5°	2819.3	2804.5	2778.9	2780.7	2755.1	2715.9	2690.4	2675.6	2624.5	2607.5	2572.3
15°	2849.4	2835.2	2804.5	2803.9	2771.0	2719.9	2690.9	2670.5	2605.8	2579.1	2542.2
17.5°	2874.9	2861.9	2823.8	2822.7	2782.9	2718.2	2683.6	2658.0	2578.5	2545.6	2504.7
20°	2893.1	2880.0	2837.4	2833.5	2785.8	2709.7	2668.2	2635.9	2542.7	2503.6	2458.1
22.5°	2901.6	2888.5	2840.3	2834.6	2778.9	2692.6	2646.1	2608.0	2501.8	2450.7	2403.6
25°	2899.9	2887.4	2832.9	2827.2	2765.9	2667.1	2614.8	2571.1	2450.2	2390.0	2343.4
27.5°	2885.7	2876.0	2818.7	2811.3	2742.0	2632.4	2576.8	2528.5	2392.8	2325.8	2275.3
30°	2861.3	2853.9	2793.1	2786.3	2712.5	2594.4	2532.5	2476.9	2330.9	2255.4	2204.3
32.5°	2822.1	2815.3	2754.0	2747.7	2672.8	2545.6	2480.8	2423.5	2263.4	2179.9	2128.8
35°	2768.2	2764.2	2704.6	2697.7	2621.7	2489.9	2421.2	2358.2	2192.9	2098.7	2049.9
37.5°	2697.2	2697.2	2639.8	2632.4	2558.1	2421.8	2354.2	2287.2	2113.5	2013.5	1965.3
40°	2614.8	2622.2	2563.7	2556.4	2484.2	2348.5	2274.7	2204.3	2027.7	1923.8	1876.7
42.5°	2516.0	2522.9	2474.0	2467.2	2399.6	2263.9	2195.2	2118.6	1938.0	1832.4	1783.5
45°	2407.0	2416.1	2372.4	2367.3	2304.2	2171.4	2105.5	2027.7	1844.3	1737.0	1689.3
47.5°	2285.5	2297.4	2259.4	2256.5	2198.1	2076.5	2007.8	1928.9	1746.1	1637.6	1592.8
50°	2149.2	2166.3	2135.0	2135.0	2082.8	1961.8	1902.2	1823.3	1643.9	1535.4	1491.1
52.5°	2003.3	2024.9	2001.6	2002.2	1959.6	1851.1	1789.2	1712.0	1537.1	1430.4	1389.5
55°	1852.3	1873.3	1858.5	1860.8	1827.3	1728.5	1672.3	1595.6	1428.1	1324.2	1285.6
57.5°	1694.4	1717.1	1707.5	1712.0	1688.7	1600.1	1541.7	1474.6	1315.7	1212.9	1179.9
60°	1536.0	1557.6	1552.4	1558.7	1543.9	1467.3	1413.9	1344.6	1202.7	1103.9	1074.9
62.5°	1375.8	1395.7	1394.6	1401.4	1393.4	1329.9	1282.2	1223.1	1085.7	994.8	968.1
65°	1219.1	1236.2	1235.0	1242.4	1240.7	1189.6	1146.4	1092.5	968.7	885.2	862.0
67.5°	1066.9	1081.1	1077.2	1085.7	1088.0	1047.1	1009.6	961.3	857.4	776.2	756.3
70°	918.2	927.8	922.7	928.4	933.5	902.8	871.0	828.5	738.7	667.2	650.7
72.5°	772.2	779.1	771.1	776.8	781.3	759.2	733.1	696.2	621.8	559.9	546.3
75°	630.9	640.5	624.0	629.7	633.1	611.0	595.7	565.6	501.4	453.7	444.6
77.5°	494.0	499.7	490.6	488.3	490.6	474.7	462.8	439.5	391.2	352.1	346.4
80°	363.4	366.8	357.7	355.5	357.2	345.8	336.7	319.7	285.6	256.1	253.8
82.5°	243.6	245.3	237.4	235.1	236.2	232.8	222.0	210.1	194.2	169.2	168.6
85°	139.1	139.1	133.4	131.2	132.3	126.6	122.7	116.4	110.2	93.1	94.3
87.5°	51.1	51.1	48.3	47.7	53.4	47.1	45.4	42.6	44.3	35.2	37.5
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°	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8	2597.8
2.5°	2609.2	2603.5	2598.4	2580.8	2588.2	2570.0	2568.9	2562.0	2556.9	2547.3	2559.8
5°	2600.7	2589.3	2574.5	2553.5	2559.8	2538.2	2533.6	2525.7	2518.9	2506.4	2516.0
7.5°	2587.0	2568.3	2545.0	2518.3	2526.8	2500.1	2493.3	2484.8	2479.1	2464.4	2472.9
10°	2567.1	2540.5	2513.2	2480.8	2487.1	2458.1	2449.6	2440.5	2435.4	2422.4	2430.9
12.5°	2536.5	2504.1	2467.2	2432.0	2438.8	2411.6	2400.2	2390.6	2388.9	2378.1	2388.3
15°	2496.7	2451.9	2413.8	2376.4	2384.3	2352.5	2347.4	2337.7	2340.6	2333.2	2345.7
17.5°	2446.2	2394.5	2353.1	2312.8	2320.7	2294.0	2290.0	2285.5	2288.3	2287.2	2300.8
20°	2389.4	2332.6	2284.9	2245.2	2249.7	2228.7	2230.4	2229.3	2235.0	2241.2	2260.0
22.5°	2325.3	2261.1	2211.1	2170.2	2177.1	2158.9	2166.8	2169.1	2178.8	2192.9	2216.8
25°	2253.1	2184.4	2132.2	2093.6	2099.8	2087.9	2101.5	2107.2	2122.5	2146.4	2170.8
27.5°	2177.6	2104.9	2049.3	2012.4	2024.3	2012.4	2032.8	2044.2	2067.5	2093.6	2123.7
30°	2097.6	2022.0	1964.7	1931.7	1943.1	1932.3	1965.3	1980.6	2003.9	2039.6	2075.4
32.5°	2013.5	1934.0	1877.8	1852.3	1860.2	1858.5	1895.4	1912.4	1943.7	1984.6	2022.6
35°	1927.2	1844.3	1787.5	1765.9	1775.6	1777.9	1822.2	1842.0	1876.1	1925.5	1966.4
37.5°	1838.1	1753.5	1697.8	1680.2	1688.7	1697.2	1748.9	1768.8	1807.4	1861.3	1906.2
40°	1745.5	1660.9	1606.4	1592.2	1600.7	1609.8	1666.0	1693.3	1735.3	1793.8	1842.6
42.5°	1651.8	1567.2	1514.4	1504.2	1512.7	1530.3	1589.9	1615.5	1659.8	1724.5	1778.4
45°	1556.4	1468.4	1422.4	1414.5	1423.5	1444.0	1502.5	1533.1	1580.3	1651.2	1709.2
47.5°	1459.9	1374.1	1330.4	1325.3	1334.4	1357.1	1421.8	1449.7	1499.6	1575.2	1637.6
50°	1362.2	1278.7	1236.7	1235.0	1243.5	1268.0	1329.9	1362.8	1414.5	1499.1	1563.2
52.5°	1263.4	1183.4	1145.3	1145.3	1153.3	1178.2	1240.7	1274.8	1328.1	1417.3	1488.3
55°	1164.6	1088.5	1052.2	1055.0	1066.4	1088.0	1148.7	1184.5	1238.4	1331.0	1405.9
57.5°	1065.8	993.7	960.8	964.7	975.5	997.1	1056.7	1097.0	1145.9	1241.8	1318.5
60°	968.1	900.0	871.0	875.6	885.2	906.8	968.7	1003.4	1052.2	1149.9	1226.5
62.5°	869.3	807.5	780.2	785.9	794.4	816.0	874.5	908.0	956.2	1052.2	1129.4
65°	771.7	714.3	691.0	696.7	704.7	724.5	779.6	812.0	858.0	951.7	1025.5
67.5°	675.1	622.9	603.6	609.3	615.5	634.3	679.7	714.9	758.0	847.2	917.0
70°	579.8	533.2	516.2	521.8	527.5	544.5	584.3	616.7	656.4	738.2	802.9
72.5°	485.5	440.1	431.5	436.7	441.2	456.0	494.0	519.6	554.2	626.9	682.5
75°	393.5	354.3	348.6	353.8	357.7	369.1	400.9	423.0	452.0	515.0	560.4
77.5°	304.9	272.0	269.7	273.7	277.7	285.6	310.6	333.9	356.6	403.2	443.5
80°	222.0	195.3	195.3	199.3	198.2	207.8	225.4	244.2	260.6	294.1	323.7
82.5°	146.5	125.5	128.3	131.2	132.9	136.8	147.6	161.8	172.1	192.5	211.8
85°	81.2	67.0	69.8	72.1	71.0	75.5	81.2	89.7	94.8	104.5	114.7
87.5°	30.1	25.0	25.6	27.3	28.4	30.7	30.7	35.8	36.3	37.5	39.7
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°	2597.8	2597.8	2597.8
2.5°	2535.9	2549.5	2559.8
5°	2492.2	2503.6	2512.6
7.5°	2449.6	2459.8	2467.8
10°	2409.3	2420.6	2426.3
12.5°	2367.8	2380.9	2385.4
15°	2327.0	2340.0	2345.7
17.5°	2284.9	2302.0	2308.2
20°	2245.8	2267.3	2272.4
22.5°	2206.0	2228.2	2234.4
25°	2162.9	2189.0	2195.2
27.5°	2116.9	2148.1	2154.3
30°	2070.9	2104.9	2111.2
32.5°	2021.5	2058.4	2064.1
35°	1969.8	2006.7	2013.5
37.5°	1912.4	1952.8	1966.4
40°	1852.8	1896.5	1910.7
42.5°	1790.4	1838.1	1852.8
45°	1723.4	1775.6	1792.6
47.5°	1655.8	1714.8	1729.6
50°	1582.5	1645.6	1663.2
52.5°	1505.9	1574.6	1592.2
55°	1426.4	1495.7	1515.0
57.5°	1340.1	1411.6	1432.1
60°	1249.8	1321.3	1340.6
62.5°	1157.2	1222.0	1240.7
65°	1053.9	1114.6	1131.7
67.5°	944.3	999.9	1014.1
70°	827.9	876.2	888.7
72.5°	706.4	739.9	756.3
75°	580.9	607.6	620.1
77.5°	454.8	473.6	483.8
80°	331.6	342.4	350.9
82.5°	216.9	221.5	227.7
85°	117.0	117.0	120.9
87.5°	39.7	38.0	39.7
90°	0.0	0.0	0.0

(END OF REPORT)