

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: P834194

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-2STD-27-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834194
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-27-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

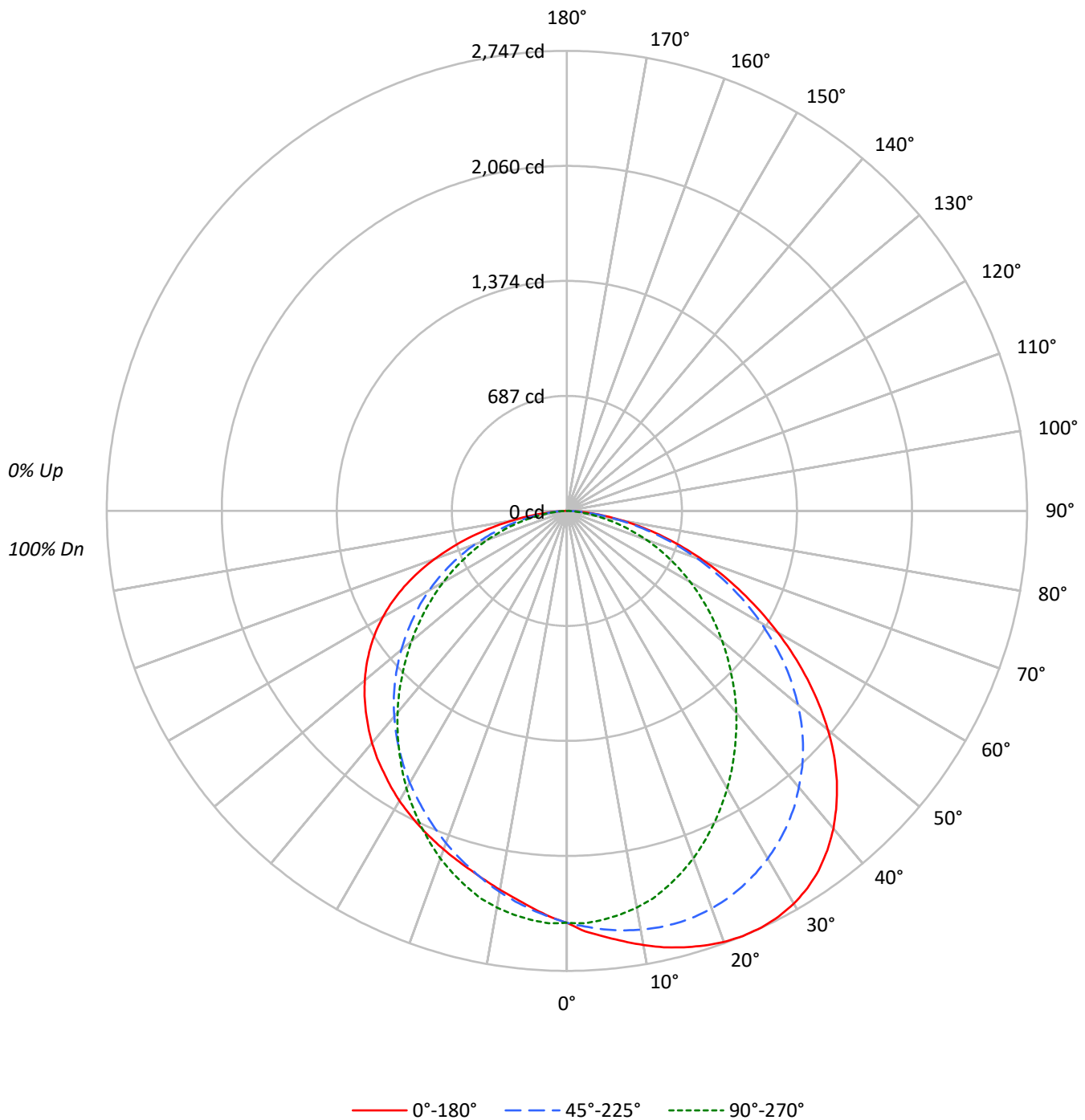
Lumens per Lamp: N/A
Luminaire Lumens: 7235.1 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6619	6619	6619
5°	6891	6622	6426
10°	7192	6572	6277
15°	7516	6467	6187
20°	7844	6325	6161
25°	8152	6141	6171
30°	8418	5949	6211
35°	8610	5736	6263
40°	8697	5524	6355
45°	8673	5291	6459
50°	8519	5068	6592
55°	8228	4835	6730
60°	7827	4586	6831
65°	7350	4306	6823
70°	6840	3972	6620
75°	6210	3488	6104
80°	5332	2865	5150
85°	4066	1958	3535

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	3.2
10°-20°	673.7	9.3
20°-30°	1032.1	14.3
30°-40°	1259.5	17.4
40°-50°	1317.2	18.2
50°-60°	1192.1	16.5
60°-70°	902.8	12.5
70°-80°	503.1	7.0
80°-90°	121.4	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°	1939.0	26.8
0°-40°	3198.5	44.2
0°-60°	5707.7	78.9
0°-90°	7235.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7235.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2460	2460	2460	2460	2460	
5°	2551	2509	2452	2391	2379	246
15°	2698	2548	2322	2213	2221	765
25°	2746	2476	2068	1995	2078	1267
35°	2621	2292	1746	1744	1906	1637
45°	2279	1994	1390	1452	1697	1753
55°	1754	1583	1031	1122	1434	1565
65°	1154	1086	676	769	1072	1145
75°	597	564	336	400	587	633
85°	132	116	63	85	114	158
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°	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6
2.5°	2513.9	2502.1	2492.4	2496.2	2498.3	2490.8	2484.4	2485.4	2479.0	2491.3	2462.3
5°	2551.0	2540.3	2529.0	2533.3	2529.0	2517.7	2508.6	2505.9	2488.7	2495.7	2466.1
7.5°	2592.4	2580.6	2563.9	2568.8	2559.6	2538.7	2526.8	2519.8	2493.5	2494.0	2461.2
10°	2632.2	2622.0	2599.4	2602.6	2586.0	2558.0	2539.2	2529.5	2492.4	2487.0	2453.2
12.5°	2669.3	2655.3	2631.1	2632.7	2608.6	2571.5	2547.3	2533.3	2484.9	2468.8	2435.4
15°	2697.8	2684.4	2655.3	2654.8	2623.6	2575.2	2547.8	2528.4	2467.2	2441.9	2406.9
17.5°	2722.0	2709.6	2673.6	2672.5	2634.9	2573.6	2540.8	2516.6	2441.4	2410.2	2371.5
20°	2739.2	2726.8	2686.5	2682.7	2637.6	2565.5	2526.3	2495.7	2407.5	2370.4	2327.4
22.5°	2747.3	2734.9	2689.2	2683.8	2631.1	2549.4	2505.3	2469.3	2368.8	2320.4	2275.8
25°	2745.6	2733.8	2682.2	2676.8	2618.8	2525.2	2475.8	2434.4	2319.8	2262.9	2218.8
27.5°	2732.2	2723.1	2668.8	2661.8	2596.2	2492.4	2439.7	2394.0	2265.5	2202.1	2154.3
30°	2709.1	2702.1	2644.6	2638.1	2568.2	2456.4	2397.8	2345.1	2206.9	2135.4	2087.1
32.5°	2672.0	2665.5	2607.5	2601.6	2530.6	2410.2	2348.9	2294.6	2143.0	2063.9	2015.6
35°	2620.9	2617.2	2560.7	2554.3	2482.2	2357.5	2292.4	2232.8	2076.3	1987.1	1940.8
37.5°	2553.7	2553.7	2499.4	2492.4	2422.0	2293.0	2229.0	2165.5	2001.0	1906.4	1860.7
40°	2475.8	2482.7	2427.4	2420.4	2352.1	2223.6	2153.7	2087.1	1919.9	1821.5	1776.8
42.5°	2382.2	2388.7	2342.4	2336.0	2272.0	2143.5	2078.5	2005.9	1834.9	1734.9	1688.7
45°	2279.0	2287.6	2246.2	2241.4	2181.7	2055.9	1993.5	1919.9	1746.2	1644.6	1599.4
47.5°	2163.9	2175.2	2139.2	2136.5	2081.1	1966.1	1901.0	1826.3	1653.2	1550.5	1508.0
50°	2034.9	2051.0	2021.5	2021.5	1972.0	1857.5	1801.0	1726.3	1556.4	1453.7	1411.8
52.5°	1896.7	1917.2	1895.1	1895.7	1855.3	1752.7	1694.1	1620.9	1455.3	1354.3	1315.6
55°	1753.7	1773.6	1759.6	1761.8	1730.1	1636.5	1583.3	1510.7	1352.1	1253.7	1217.2
57.5°	1604.3	1625.8	1616.6	1620.9	1598.9	1515.0	1459.6	1396.2	1245.7	1148.4	1117.2
60°	1454.3	1474.7	1469.9	1475.8	1461.8	1389.2	1338.7	1273.1	1138.7	1045.1	1017.7
62.5°	1302.7	1321.5	1320.4	1326.9	1319.3	1259.1	1214.0	1158.0	1027.9	941.9	916.6
65°	1154.3	1170.4	1169.3	1176.3	1174.7	1126.3	1085.5	1034.4	917.2	838.2	816.1
67.5°	1010.2	1023.6	1019.9	1027.9	1030.1	991.4	955.9	910.2	811.8	734.9	716.1
70°	869.3	878.5	873.6	879.0	883.9	854.8	824.7	784.4	699.4	631.7	616.1
72.5°	731.2	737.6	730.1	735.5	739.8	718.8	694.1	659.1	588.7	530.1	517.2
75°	597.3	606.4	590.8	596.2	599.5	578.5	564.0	535.5	474.7	429.6	421.0
77.5°	467.7	473.1	464.5	462.4	464.5	449.5	438.2	416.1	370.4	333.3	328.0
80°	344.1	347.3	338.7	336.6	338.2	327.4	318.8	302.7	270.4	242.5	240.3
82.5°	230.6	232.3	224.7	222.6	223.7	220.4	210.2	198.9	183.9	160.2	159.7
85°	131.7	131.7	126.3	124.2	125.3	119.9	116.1	110.2	104.3	88.2	89.2
87.5°	48.4	48.4	45.7	45.2	50.5	44.6	43.0	40.3	41.9	33.3	35.5
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°	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6	2459.6
2.5°	2470.4	2465.0	2460.2	2443.5	2450.5	2433.3	2432.2	2425.8	2420.9	2411.8	2423.6
5°	2462.3	2451.6	2437.6	2417.7	2423.6	2403.2	2398.9	2391.4	2384.9	2373.1	2382.2
7.5°	2449.4	2431.7	2409.6	2384.4	2392.4	2367.2	2360.7	2352.6	2347.3	2333.3	2341.4
10°	2430.6	2405.3	2379.5	2348.9	2354.8	2327.4	2319.3	2310.7	2305.9	2293.5	2301.6
12.5°	2401.6	2370.9	2336.0	2302.6	2309.1	2283.3	2272.5	2263.4	2261.8	2251.6	2261.2
15°	2363.9	2321.5	2285.4	2250.0	2257.5	2227.4	2222.5	2213.4	2216.1	2209.1	2220.9
17.5°	2316.1	2267.2	2227.9	2189.7	2197.3	2172.0	2168.2	2163.9	2166.6	2165.5	2178.5
20°	2262.3	2208.6	2163.4	2125.8	2130.1	2110.2	2111.8	2110.7	2116.1	2122.0	2139.7
22.5°	2201.6	2140.8	2093.5	2054.8	2061.3	2044.0	2051.6	2053.7	2062.9	2076.3	2098.9
25°	2133.3	2068.2	2018.8	1982.2	1988.1	1976.8	1989.7	1995.1	2009.6	2032.2	2055.3
27.5°	2061.8	1993.0	1940.3	1905.3	1916.6	1905.3	1924.7	1935.4	1957.5	1982.2	2010.7
30°	1986.0	1914.5	1860.2	1829.0	1839.7	1829.5	1860.7	1875.2	1897.3	1931.1	1965.0
32.5°	1906.4	1831.1	1777.9	1753.7	1761.3	1759.6	1794.6	1810.7	1840.3	1879.0	1915.0
35°	1824.7	1746.2	1692.4	1672.0	1681.2	1683.3	1725.2	1744.1	1776.3	1823.1	1861.8
37.5°	1740.3	1660.2	1607.5	1590.8	1598.9	1607.0	1655.9	1674.7	1711.3	1762.3	1804.8
40°	1652.7	1572.6	1520.9	1507.5	1515.6	1524.2	1577.4	1603.2	1643.0	1698.4	1744.6
42.5°	1563.9	1483.8	1433.8	1424.2	1432.2	1448.9	1505.3	1529.5	1571.5	1632.8	1683.8
45°	1473.6	1390.3	1346.7	1339.2	1347.8	1367.2	1422.6	1451.6	1496.2	1563.4	1618.2
47.5°	1382.2	1301.0	1259.7	1254.8	1263.4	1284.9	1346.2	1372.6	1419.9	1491.4	1550.5
50°	1289.8	1210.7	1170.9	1169.3	1177.4	1200.5	1259.1	1290.3	1339.2	1419.3	1480.1
52.5°	1196.2	1120.4	1084.4	1084.4	1091.9	1115.6	1174.7	1207.0	1257.5	1341.9	1409.1
55°	1102.7	1030.6	996.2	998.9	1009.7	1030.1	1087.6	1121.5	1172.6	1260.2	1331.2
57.5°	1009.1	940.8	909.7	913.4	923.6	944.1	1000.5	1038.7	1084.9	1175.8	1248.4
60°	916.6	852.1	824.7	829.0	838.2	858.6	917.2	950.0	996.2	1088.7	1161.3
62.5°	823.1	764.5	738.7	744.1	752.1	772.6	827.9	859.7	905.4	996.2	1069.3
65°	730.6	676.3	654.3	659.7	667.2	686.0	738.2	768.8	812.3	901.1	970.9
67.5°	639.2	589.8	571.5	576.9	582.8	600.5	643.5	676.9	717.7	802.1	868.3
70°	548.9	504.8	488.7	494.1	499.5	515.6	553.2	583.9	621.5	698.9	760.2
72.5°	459.7	416.7	408.6	413.4	417.7	431.7	467.7	491.9	524.7	593.5	646.2
75°	372.6	335.5	330.1	334.9	338.7	349.5	379.6	400.5	427.9	487.6	530.6
77.5°	288.7	257.5	255.4	259.1	262.9	270.4	294.1	316.1	337.6	381.7	419.9
80°	210.2	184.9	184.9	188.7	187.6	196.8	213.4	231.2	246.8	278.5	306.4
82.5°	138.7	118.8	121.5	124.2	125.8	129.6	139.8	153.2	162.9	182.3	200.5
85°	76.9	63.4	66.1	68.3	67.2	71.5	76.9	84.9	89.8	98.9	108.6
87.5°	28.5	23.7	24.2	25.8	26.9	29.0	29.0	33.9	34.4	35.5	37.6
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°	2459.6	2459.6	2459.6
2.5°	2401.0	2413.9	2423.6
5°	2359.6	2370.4	2379.0
7.5°	2319.3	2329.0	2336.5
10°	2281.1	2291.9	2297.3
12.5°	2241.9	2254.3	2258.6
15°	2203.2	2215.5	2220.9
17.5°	2163.4	2179.5	2185.4
20°	2126.3	2146.7	2151.6
22.5°	2088.7	2109.6	2115.6
25°	2047.8	2072.5	2078.5
27.5°	2004.3	2033.8	2039.7
30°	1960.7	1993.0	1998.9
32.5°	1913.9	1948.9	1954.3
35°	1865.0	1900.0	1906.4
37.5°	1810.7	1848.9	1861.8
40°	1754.3	1795.7	1809.1
42.5°	1695.1	1740.3	1754.3
45°	1631.7	1681.2	1697.3
47.5°	1567.7	1623.6	1637.6
50°	1498.4	1558.0	1574.7
52.5°	1425.8	1490.8	1507.5
55°	1350.5	1416.1	1434.4
57.5°	1268.8	1336.5	1355.9
60°	1183.3	1251.1	1269.3
62.5°	1095.7	1157.0	1174.7
65°	997.8	1055.4	1071.5
67.5°	894.1	946.8	960.2
70°	783.9	829.6	841.4
72.5°	668.8	700.5	716.1
75°	550.0	575.3	587.1
77.5°	430.6	448.4	458.1
80°	314.0	324.2	332.3
82.5°	205.4	209.7	215.6
85°	110.8	110.8	114.5
87.5°	37.6	36.0	37.6
90°	0.0	0.0	0.0

(END OF REPORT)