

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: P835255

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5LO-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835255
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-LD4-5LO-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

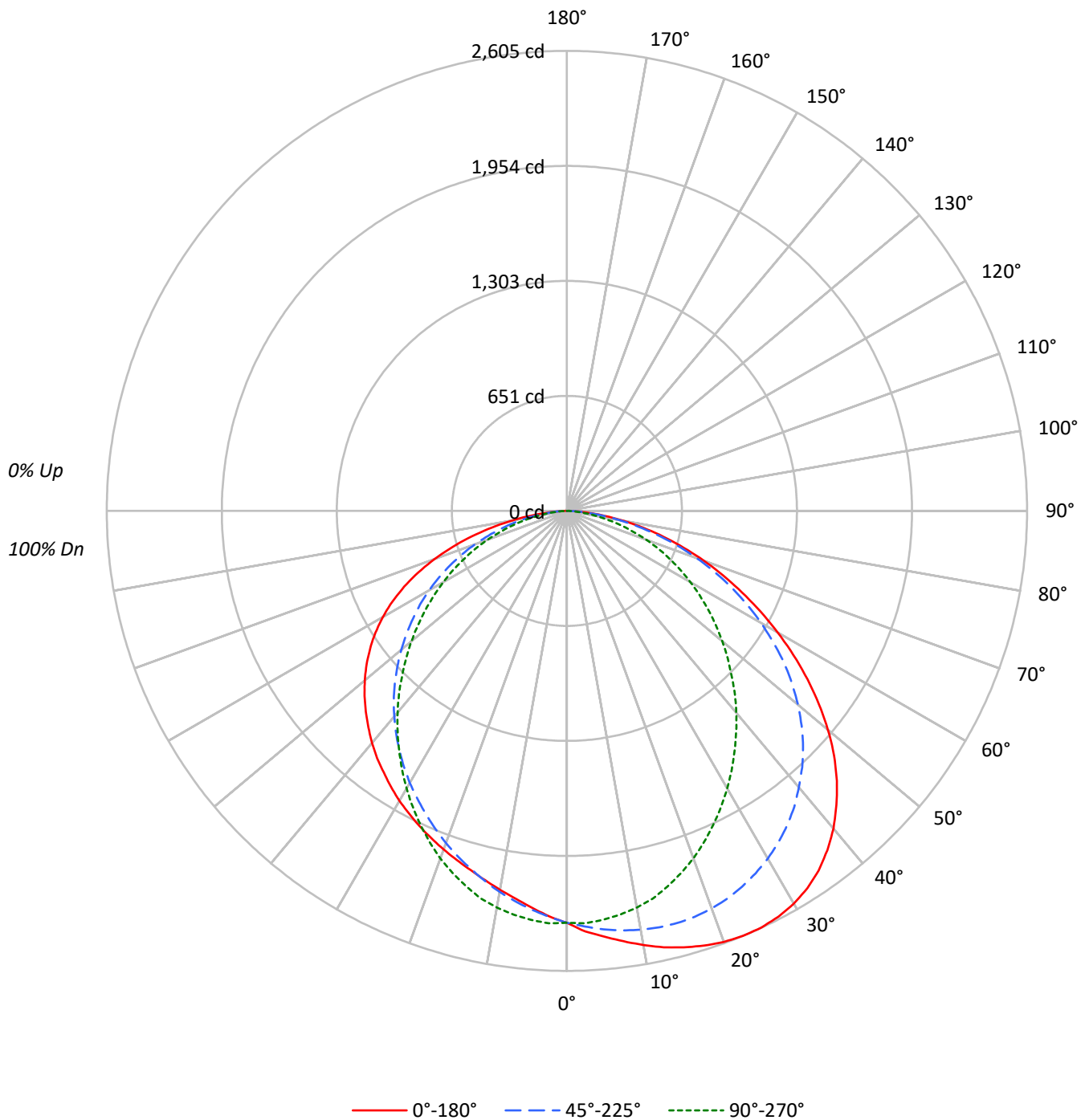
Lumens per Lamp: N/A
Luminaire Lumens: 6860.8 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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

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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°	6276	6276	6276
5°	6534	6280	6094
10°	6820	6233	5952
15°	7127	6133	5867
20°	7438	5997	5843
25°	7731	5823	5852
30°	7982	5641	5890
35°	8164	5440	5939
40°	8247	5238	6026
45°	8224	5017	6125
50°	8078	4806	6251
55°	7802	4585	6381
60°	7422	4349	6478
65°	6970	4083	6469
70°	6486	3766	6277
75°	5889	3307	5788
80°	5057	2718	4883
85°	3856	1859	3353

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.2	3.2
10°-20°	638.8	9.3
20°-30°	978.7	14.3
30°-40°	1194.3	17.4
40°-50°	1249.0	18.2
50°-60°	1130.4	16.5
60°-70°	856.1	12.5
70°-80°	477.1	7.0
80°-90°	115.1	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°	1838.7	26.8
0°-40°	3033.0	44.2
0°-60°	5412.4	78.9
0°-90°	6860.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6860.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2332	2332	2332	2332	2332	
5°	2419	2379	2325	2268	2256	233
15°	2558	2416	2201	2099	2106	726
25°	2604	2348	1961	1892	1971	1201
35°	2485	2174	1656	1654	1808	1552
45°	2161	1890	1318	1376	1610	1663
55°	1663	1501	977	1064	1360	1484
65°	1095	1029	641	729	1016	1086
75°	566	535	318	380	557	601
85°	125	110	60	80	109	150
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°	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4
2.5°	2383.9	2372.6	2363.5	2367.0	2369.1	2361.9	2355.8	2356.8	2350.7	2362.5	2334.9
5°	2419.0	2408.8	2398.1	2402.2	2398.1	2387.4	2378.8	2376.2	2359.9	2366.5	2338.5
7.5°	2458.3	2447.1	2431.3	2435.9	2427.2	2407.3	2396.1	2389.5	2364.5	2365.0	2333.9
10°	2496.0	2486.3	2464.9	2468.0	2452.2	2425.7	2407.8	2398.6	2363.5	2358.4	2326.3
12.5°	2531.2	2517.9	2495.0	2496.5	2473.6	2438.4	2415.5	2402.2	2356.3	2341.0	2309.4
15°	2558.2	2545.5	2517.9	2517.4	2487.9	2442.0	2416.0	2397.6	2339.5	2315.5	2282.4
17.5°	2581.2	2569.4	2535.3	2534.3	2498.6	2440.5	2409.4	2386.4	2315.0	2285.5	2248.8
20°	2597.5	2585.7	2547.5	2543.9	2501.1	2432.8	2395.6	2366.5	2282.9	2247.7	2207.0
22.5°	2605.1	2593.4	2550.1	2545.0	2495.0	2417.5	2375.7	2341.5	2246.2	2200.3	2158.0
25°	2603.6	2592.4	2543.4	2538.3	2483.3	2394.6	2347.7	2308.4	2199.8	2145.8	2104.0
27.5°	2590.8	2582.2	2530.7	2524.1	2461.9	2363.5	2313.5	2270.2	2148.3	2088.2	2042.8
30°	2568.9	2562.3	2507.7	2501.6	2435.4	2329.3	2273.7	2223.8	2092.8	2025.0	1979.1
32.5°	2533.7	2527.6	2472.6	2467.0	2399.7	2285.5	2227.4	2175.9	2032.1	1957.2	1911.3
35°	2485.3	2481.7	2428.2	2422.1	2353.8	2235.5	2173.8	2117.2	1968.9	1884.3	1840.4
37.5°	2421.6	2421.6	2370.1	2363.5	2296.7	2174.3	2113.7	2053.5	1897.5	1807.8	1764.4
40°	2347.7	2354.3	2301.8	2295.2	2230.4	2108.6	2042.3	1979.1	1820.5	1727.2	1684.9
42.5°	2259.0	2265.1	2221.2	2215.1	2154.4	2032.6	1970.9	1902.1	1740.0	1645.2	1601.3
45°	2161.1	2169.2	2130.0	2125.4	2068.8	1949.5	1890.4	1820.5	1655.9	1559.5	1516.7
47.5°	2052.0	2062.7	2028.5	2026.0	1973.5	1864.4	1802.7	1731.8	1567.7	1470.3	1430.0
50°	1929.6	1944.9	1916.9	1916.9	1870.0	1761.4	1707.9	1637.0	1475.9	1378.5	1338.8
52.5°	1798.6	1818.0	1797.1	1797.6	1759.3	1662.0	1606.4	1537.1	1380.1	1284.2	1247.5
55°	1663.0	1681.9	1668.6	1670.6	1640.6	1551.9	1501.4	1432.6	1282.2	1188.9	1154.2
57.5°	1521.3	1541.7	1533.0	1537.1	1516.2	1436.6	1384.1	1324.0	1181.2	1088.9	1059.4
60°	1379.0	1398.4	1393.8	1399.4	1386.2	1317.3	1269.4	1207.2	1079.8	991.1	965.1
62.5°	1235.3	1253.1	1252.1	1258.2	1251.1	1194.0	1151.1	1098.1	974.8	893.2	869.2
65°	1094.6	1109.9	1108.8	1115.5	1113.9	1068.0	1029.3	980.9	869.7	794.8	773.9
67.5°	957.9	970.7	967.1	974.8	976.8	940.1	906.4	863.1	769.8	696.9	679.1
70°	824.4	833.0	828.4	833.5	838.1	810.6	782.0	743.8	663.3	599.0	584.2
72.5°	693.3	699.5	692.3	697.4	701.5	681.6	658.2	625.0	558.2	502.7	490.4
75°	566.4	575.1	560.3	565.4	568.4	548.6	534.8	507.8	450.2	407.3	399.2
77.5°	443.5	448.6	440.5	438.4	440.5	426.2	415.5	394.6	351.3	316.1	311.0
80°	326.3	329.3	321.2	319.1	320.7	310.5	302.3	287.0	256.4	229.9	227.9
82.5°	218.7	220.2	213.1	211.1	212.1	209.0	199.3	188.6	174.4	151.9	151.4
85°	124.9	124.9	119.8	117.8	118.8	113.7	110.1	104.5	98.9	83.6	84.6
87.5°	45.9	45.9	43.3	42.8	47.9	42.3	40.8	38.2	39.8	31.6	33.6
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4	2332.4
2.5°	2342.6	2337.5	2332.9	2317.1	2323.7	2307.4	2306.4	2300.3	2295.7	2287.0	2298.2
5°	2334.9	2324.7	2311.5	2292.6	2298.2	2278.8	2274.8	2267.6	2261.5	2250.3	2259.0
7.5°	2322.7	2305.9	2285.0	2261.0	2268.6	2244.7	2238.6	2230.9	2225.8	2212.6	2220.2
10°	2304.8	2280.9	2256.4	2227.4	2233.0	2207.0	2199.3	2191.2	2186.6	2174.8	2182.5
12.5°	2277.3	2248.3	2215.1	2183.5	2189.6	2165.2	2155.0	2146.3	2144.8	2135.1	2144.3
15°	2241.6	2201.4	2167.2	2133.5	2140.7	2112.1	2107.5	2098.9	2101.4	2094.8	2106.0
17.5°	2196.3	2149.9	2112.6	2076.4	2083.6	2059.6	2056.1	2052.0	2054.5	2053.5	2065.7
20°	2145.3	2094.3	2051.5	2015.8	2019.9	2001.0	2002.5	2001.5	2006.6	2012.2	2029.0
22.5°	2087.7	2030.1	1985.2	1948.5	1954.6	1938.3	1945.4	1947.5	1956.1	1968.9	1990.3
25°	2022.9	1961.2	1914.3	1879.7	1885.3	1874.6	1886.8	1891.9	1905.7	1927.1	1949.0
27.5°	1955.1	1889.9	1839.9	1806.8	1817.5	1806.8	1825.1	1835.3	1856.2	1879.7	1906.7
30°	1883.2	1815.4	1763.9	1734.4	1744.6	1734.9	1764.4	1778.2	1799.1	1831.2	1863.3
32.5°	1807.8	1736.4	1685.9	1663.0	1670.1	1668.6	1701.7	1717.0	1745.1	1781.8	1815.9
35°	1730.3	1655.9	1604.9	1585.5	1594.2	1596.2	1636.0	1653.8	1684.4	1728.8	1765.5
37.5°	1650.2	1574.3	1524.3	1508.5	1516.2	1523.8	1570.2	1588.1	1622.7	1671.2	1711.4
40°	1567.1	1491.2	1442.2	1429.5	1437.1	1445.3	1495.8	1520.2	1558.0	1610.5	1654.3
42.5°	1483.0	1407.1	1359.7	1350.5	1358.1	1373.9	1427.5	1450.4	1490.2	1548.3	1596.7
45°	1397.4	1318.4	1277.1	1269.9	1278.1	1296.4	1349.0	1376.5	1418.8	1482.5	1534.5
47.5°	1310.7	1233.7	1194.5	1189.9	1198.0	1218.4	1276.6	1301.5	1346.4	1414.2	1470.3
50°	1223.0	1148.1	1110.4	1108.8	1116.5	1138.4	1194.0	1223.5	1269.9	1345.9	1403.5
52.5°	1134.3	1062.4	1028.3	1028.3	1035.4	1057.9	1113.9	1144.5	1192.4	1272.5	1336.2
55°	1045.6	977.3	944.7	947.2	957.4	976.8	1031.3	1063.5	1111.9	1195.0	1262.3
57.5°	956.9	892.2	862.6	866.2	875.9	895.2	948.8	984.9	1028.8	1115.0	1183.8
60°	869.2	808.0	782.0	786.1	794.8	814.2	869.7	900.8	944.7	1032.4	1101.2
62.5°	780.5	724.9	700.5	705.6	713.2	732.6	785.1	815.2	858.5	944.7	1014.0
65°	692.8	641.3	620.4	625.5	632.7	650.5	700.0	729.0	770.3	854.4	920.7
67.5°	606.2	559.3	541.9	547.0	552.6	569.5	610.2	641.8	680.6	760.6	823.3
70°	520.5	478.7	463.4	468.5	473.6	488.9	524.6	553.7	589.3	662.8	720.9
72.5°	435.9	395.1	387.5	392.0	396.1	409.4	443.5	466.5	497.6	562.8	612.8
75°	353.3	318.1	313.0	317.6	321.2	331.4	359.9	379.8	405.8	462.4	503.2
77.5°	273.8	244.2	242.2	245.7	249.3	256.4	278.9	299.8	320.2	362.0	398.2
80°	199.3	175.4	175.4	178.9	177.9	186.6	202.4	219.2	234.0	264.1	290.6
82.5°	131.5	112.7	115.2	117.8	119.3	122.9	132.6	145.3	154.5	172.8	190.2
85°	72.9	60.2	62.7	64.7	63.7	67.8	72.9	80.5	85.1	93.8	103.0
87.5°	27.0	22.4	22.9	24.5	25.5	27.5	27.5	32.1	32.6	33.6	35.7
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°	2332.4	2332.4	2332.4
2.5°	2276.8	2289.0	2298.2
5°	2237.5	2247.7	2255.9
7.5°	2199.3	2208.5	2215.6
10°	2163.1	2173.3	2178.4
12.5°	2125.9	2137.6	2141.7
15°	2089.2	2100.9	2106.0
17.5°	2051.5	2066.8	2072.4
20°	2016.3	2035.7	2040.3
22.5°	1980.6	2000.5	2006.1
25°	1941.9	1965.3	1970.9
27.5°	1900.6	1928.6	1934.2
30°	1859.3	1889.9	1895.5
32.5°	1814.9	1848.1	1853.2
35°	1768.5	1801.7	1807.8
37.5°	1717.0	1753.2	1765.5
40°	1663.5	1702.8	1715.5
42.5°	1607.4	1650.2	1663.5
45°	1547.3	1594.2	1609.5
47.5°	1486.6	1539.6	1552.9
50°	1420.8	1477.4	1493.2
52.5°	1352.0	1413.7	1429.5
55°	1280.6	1342.8	1360.2
57.5°	1203.1	1267.4	1285.7
60°	1122.1	1186.3	1203.7
62.5°	1039.0	1097.1	1113.9
65°	946.2	1000.8	1016.0
67.5°	847.8	897.8	910.5
70°	743.3	786.6	797.8
72.5°	634.2	664.3	679.1
75°	521.5	545.5	556.7
77.5°	408.4	425.2	434.4
80°	297.7	307.4	315.1
82.5°	194.7	198.8	204.4
85°	105.0	105.0	108.6
87.5°	35.7	34.2	35.7
90°	0.0	0.0	0.0

(END OF REPORT)