

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: P835251

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3HI-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835251
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-LD4-3HI-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

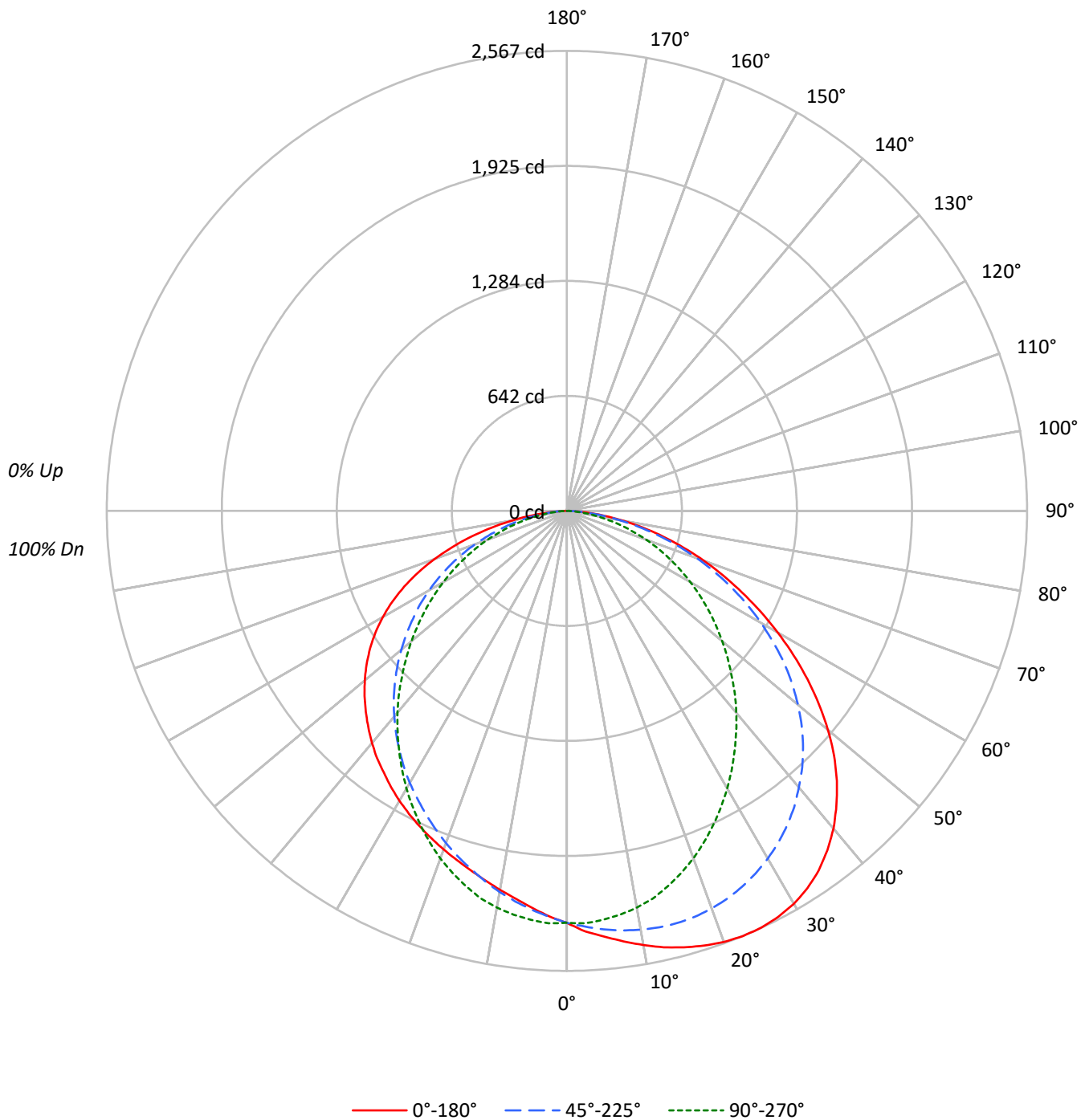
Lumens per Lamp: N/A
Luminaire Lumens: 6761.4 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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°	6185	6185	6185
5°	6440	6189	6005
10°	6722	6142	5866
15°	7024	6044	5782
20°	7331	5911	5758
25°	7619	5739	5767
30°	7867	5559	5804
35°	8046	5361	5853
40°	8128	5162	5939
45°	8105	4945	6036
50°	7961	4737	6161
55°	7689	4518	6289
60°	7315	4286	6384
65°	6869	4025	6376
70°	6392	3712	6187
75°	5804	3260	5704
80°	4984	2678	4812
85°	3801	1831	3304



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.0	3.2
10°-20°	629.6	9.3
20°-30°	964.5	14.3
30°-40°	1177.0	17.4
40°-50°	1230.9	18.2
50°-60°	1114.1	16.5
60°-70°	843.7	12.5
70°-80°	470.2	7.0
80°-90°	113.4	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°	1812.0	26.8
0°-40°	2989.1	44.2
0°-60°	5334.1	78.9
0°-90°	6761.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6761.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2299	2299	2299	2299	2299	
5°	2384	2344	2291	2235	2223	230
15°	2521	2381	2170	2068	2076	715
25°	2566	2314	1933	1864	1942	1184
35°	2449	2142	1632	1630	1782	1529
45°	2130	1863	1299	1356	1586	1639
55°	1639	1480	963	1048	1340	1462
65°	1079	1014	632	718	1001	1070
75°	558	527	314	374	549	592
85°	123	108	59	79	107	148
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°	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6
2.5°	2349.3	2338.3	2329.2	2332.8	2334.8	2327.7	2321.7	2322.7	2316.7	2328.2	2301.1
5°	2384.0	2374.0	2363.4	2367.4	2363.4	2352.9	2344.3	2341.8	2325.7	2332.3	2304.6
7.5°	2422.7	2411.6	2396.1	2400.6	2392.0	2372.4	2361.4	2354.9	2330.2	2330.7	2300.1
10°	2459.9	2450.3	2429.2	2432.2	2416.7	2390.5	2373.0	2363.9	2329.2	2324.2	2292.6
12.5°	2494.5	2481.5	2458.9	2460.4	2437.8	2403.1	2380.5	2367.4	2322.2	2307.1	2276.0
15°	2521.2	2508.6	2481.5	2481.0	2451.8	2406.6	2381.0	2362.9	2305.6	2282.0	2249.4
17.5°	2543.8	2532.2	2498.6	2497.6	2462.4	2405.1	2374.5	2351.8	2281.5	2252.4	2216.2
20°	2559.9	2548.3	2510.6	2507.1	2464.9	2397.6	2360.9	2332.3	2249.9	2215.2	2175.0
22.5°	2567.4	2555.8	2513.1	2508.1	2458.9	2382.5	2341.3	2307.6	2213.7	2168.5	2126.8
25°	2565.9	2554.8	2506.6	2501.6	2447.3	2359.9	2313.7	2275.0	2168.0	2114.7	2073.5
27.5°	2553.3	2544.8	2494.0	2487.5	2426.2	2329.2	2280.0	2237.3	2117.2	2057.9	2013.2
30°	2531.7	2525.2	2471.4	2465.4	2400.1	2295.6	2240.8	2191.6	2062.5	1995.6	1950.4
32.5°	2497.1	2491.0	2436.8	2431.2	2364.9	2252.4	2195.1	2144.3	2002.7	1928.8	1883.6
35°	2449.3	2445.8	2393.0	2387.0	2319.7	2203.1	2142.3	2086.6	1940.4	1857.0	1813.8
37.5°	2386.5	2386.5	2335.8	2329.2	2263.4	2142.8	2083.1	2023.8	1870.0	1781.6	1738.9
40°	2313.7	2320.2	2268.4	2261.9	2198.1	2078.0	2012.7	1950.4	1794.2	1702.2	1660.5
42.5°	2226.2	2232.3	2189.1	2183.0	2123.2	2003.2	1942.4	1874.5	1714.8	1621.3	1578.1
45°	2129.8	2137.8	2099.1	2094.6	2038.8	1921.3	1863.0	1794.2	1631.9	1536.9	1494.7
47.5°	2022.3	2032.8	1999.1	1996.6	1944.9	1837.4	1776.6	1706.7	1545.0	1449.0	1409.3
50°	1901.7	1916.8	1889.1	1889.1	1842.9	1735.9	1683.1	1613.3	1454.5	1358.6	1319.4
52.5°	1772.6	1791.6	1771.0	1771.5	1733.9	1637.9	1583.1	1514.8	1360.1	1265.6	1229.4
55°	1638.9	1657.5	1644.4	1646.4	1616.8	1529.4	1479.6	1411.8	1263.6	1171.7	1137.5
57.5°	1499.2	1519.3	1510.8	1514.8	1494.2	1415.8	1364.1	1304.8	1164.1	1073.2	1044.0
60°	1359.1	1378.2	1373.6	1379.2	1366.1	1298.3	1251.0	1189.7	1064.1	976.7	951.1
62.5°	1217.4	1235.0	1234.0	1240.0	1233.0	1176.7	1134.5	1082.2	960.6	880.2	856.6
65°	1078.7	1093.8	1092.8	1099.3	1097.8	1052.6	1014.4	966.7	857.1	783.3	762.7
67.5°	944.1	956.6	953.1	960.6	962.6	926.5	893.3	850.6	758.7	686.8	669.2
70°	812.4	821.0	816.4	821.5	826.0	798.9	770.7	733.0	653.7	590.3	575.8
72.5°	683.3	689.3	682.3	687.3	691.3	671.7	648.6	616.0	550.2	495.4	483.3
75°	558.2	566.7	552.2	557.2	560.2	540.6	527.0	500.4	443.6	401.4	393.4
77.5°	437.1	442.1	434.1	432.1	434.1	420.0	409.5	388.9	346.2	311.5	306.5
80°	321.6	324.6	316.5	314.5	316.0	306.0	297.9	282.9	252.7	226.6	224.6
82.5°	215.5	217.0	210.0	208.0	209.0	206.0	196.4	185.9	171.8	149.7	149.2
85°	123.1	123.1	118.1	116.1	117.1	112.0	108.5	103.0	97.5	82.4	83.4
87.5°	45.2	45.2	42.7	42.2	47.2	41.7	40.2	37.7	39.2	31.2	33.2
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°	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6	2298.6
2.5°	2308.6	2303.6	2299.1	2283.5	2290.1	2274.0	2273.0	2266.9	2262.4	2253.9	2264.9
5°	2301.1	2291.1	2278.0	2259.4	2264.9	2245.8	2241.8	2234.8	2228.8	2217.7	2226.2
7.5°	2289.0	2272.5	2251.9	2228.3	2235.8	2212.2	2206.1	2198.6	2193.6	2180.5	2188.1
10°	2271.5	2247.8	2223.7	2195.1	2200.6	2175.0	2167.5	2159.4	2154.9	2143.3	2150.9
12.5°	2244.3	2215.7	2183.0	2151.9	2157.9	2133.8	2123.7	2115.2	2113.7	2104.2	2113.2
15°	2209.2	2169.5	2135.8	2102.6	2109.7	2081.5	2077.0	2068.5	2071.0	2064.5	2075.5
17.5°	2164.4	2118.7	2082.0	2046.4	2053.4	2029.8	2026.3	2022.3	2024.8	2023.8	2035.8
20°	2114.2	2064.0	2021.8	1986.6	1990.6	1972.0	1973.5	1972.5	1977.5	1983.1	1999.7
22.5°	2057.4	2000.7	1956.4	1920.3	1926.3	1910.2	1917.3	1919.3	1927.8	1940.4	1961.5
25°	1993.6	1932.8	1886.6	1852.4	1858.0	1847.4	1859.5	1864.5	1878.1	1899.2	1920.8
27.5°	1926.8	1862.5	1813.3	1780.6	1791.1	1780.6	1798.7	1808.7	1829.3	1852.4	1879.1
30°	1856.0	1789.1	1738.4	1709.2	1719.3	1709.8	1738.9	1752.5	1773.1	1804.7	1836.4
32.5°	1781.6	1711.3	1661.5	1638.9	1645.9	1644.4	1677.1	1692.2	1719.8	1756.0	1789.6
35°	1705.2	1631.9	1581.6	1562.5	1571.1	1573.1	1612.3	1629.9	1660.0	1703.7	1739.9
37.5°	1626.3	1551.5	1502.2	1486.7	1494.2	1501.7	1547.5	1565.1	1599.2	1646.9	1686.6
40°	1544.5	1469.6	1421.4	1408.8	1416.3	1424.4	1474.1	1498.2	1535.4	1587.2	1630.4
42.5°	1461.6	1386.7	1340.0	1330.9	1338.5	1354.0	1406.8	1429.4	1468.6	1525.9	1573.6
45°	1377.1	1299.3	1258.6	1251.5	1259.6	1277.7	1329.4	1356.5	1398.2	1461.1	1512.3
47.5°	1291.7	1215.9	1177.2	1172.7	1180.7	1200.8	1258.1	1282.7	1326.9	1393.7	1449.0
50°	1205.3	1131.5	1094.3	1092.8	1100.3	1121.9	1176.7	1205.8	1251.5	1326.4	1383.2
52.5°	1117.9	1047.1	1013.4	1013.4	1020.4	1042.5	1097.8	1127.9	1175.2	1254.1	1316.9
55°	1030.5	963.1	931.0	933.5	943.6	962.6	1016.4	1048.1	1095.8	1177.7	1244.0
57.5°	943.1	879.2	850.1	853.6	863.2	882.3	935.0	970.7	1013.9	1098.8	1166.6
60°	856.6	796.3	770.7	774.7	783.3	802.4	857.1	887.8	931.0	1017.4	1085.2
62.5°	769.2	714.4	690.3	695.4	702.9	722.0	773.7	803.4	846.1	931.0	999.3
65°	682.8	632.1	611.5	616.5	623.5	641.1	689.8	718.5	759.2	842.1	907.4
67.5°	597.4	551.2	534.1	539.1	544.6	561.2	601.4	632.6	670.7	749.6	811.4
70°	513.0	471.8	456.7	461.7	466.8	481.8	517.0	545.6	580.8	653.2	710.4
72.5°	429.6	389.4	381.8	386.4	390.4	403.4	437.1	459.7	490.4	554.7	603.9
75°	348.2	313.5	308.5	313.0	316.5	326.6	354.7	374.3	399.9	455.7	495.9
77.5°	269.8	240.7	238.7	242.2	245.7	252.7	274.8	295.4	315.5	356.7	392.4
80°	196.4	172.8	172.8	176.4	175.3	183.9	199.5	216.0	230.6	260.3	286.4
82.5°	129.6	111.0	113.5	116.1	117.6	121.1	130.6	143.2	152.2	170.3	187.4
85°	71.8	59.3	61.8	63.8	62.8	66.8	71.8	79.4	83.9	92.4	101.5
87.5°	26.6	22.1	22.6	24.1	25.1	27.1	27.1	31.7	32.2	33.2	35.2
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°	2298.6	2298.6	2298.6
2.5°	2243.8	2255.9	2264.9
5°	2205.1	2215.2	2223.2
7.5°	2167.5	2176.5	2183.5
10°	2131.8	2141.8	2146.9
12.5°	2095.1	2106.7	2110.7
15°	2058.9	2070.5	2075.5
17.5°	2021.8	2036.8	2042.4
20°	1987.1	2006.2	2010.7
22.5°	1951.9	1971.5	1977.0
25°	1913.7	1936.8	1942.4
27.5°	1873.0	1900.7	1906.2
30°	1832.3	1862.5	1868.0
32.5°	1788.6	1821.3	1826.3
35°	1742.9	1775.6	1781.6
37.5°	1692.2	1727.8	1739.9
40°	1639.4	1678.1	1690.7
42.5°	1584.1	1626.3	1639.4
45°	1524.9	1571.1	1586.2
47.5°	1465.1	1517.3	1530.4
50°	1400.3	1456.0	1471.6
52.5°	1332.4	1393.2	1408.8
55°	1262.1	1323.4	1340.5
57.5°	1185.7	1249.0	1267.1
60°	1105.8	1169.1	1186.2
62.5°	1023.9	1081.2	1097.8
65°	932.5	986.3	1001.3
67.5°	835.5	884.8	897.3
70°	732.5	775.2	786.3
72.5°	625.0	654.7	669.2
75°	514.0	537.6	548.6
77.5°	402.4	419.0	428.1
80°	293.4	303.0	310.5
82.5°	191.9	195.9	201.5
85°	103.5	103.5	107.0
87.5°	35.2	33.7	35.2
90°	0.0	0.0	0.0

(END OF REPORT)