

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: P834266

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-2STD-35-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834266
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-35-120-EDD-90
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

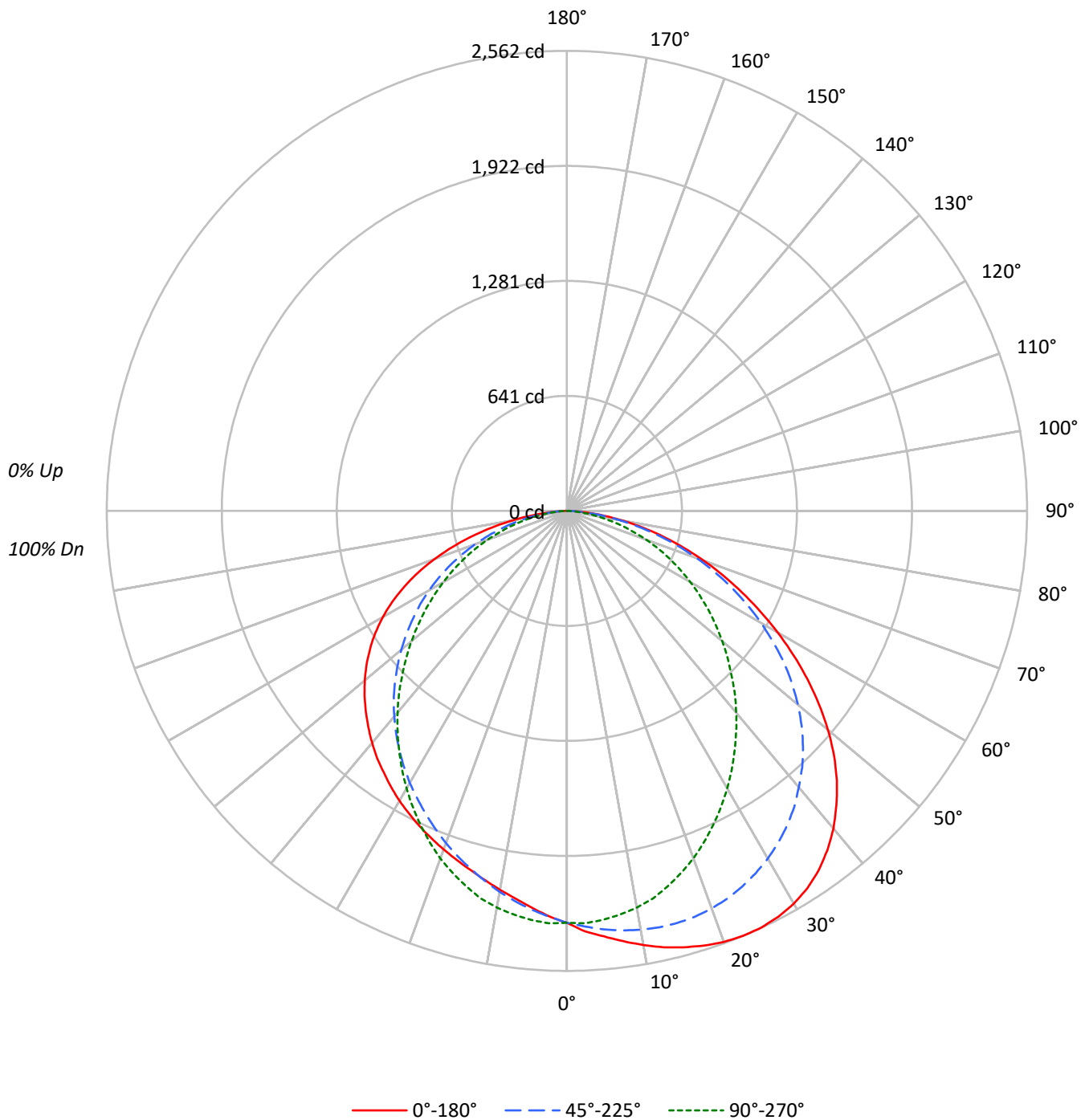
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6747.3 lumens
Efficiency: N/A
Efficacy: 101.3 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°	6173	6173	6173
5°	6426	6176	5993
10°	6708	6130	5854
15°	7009	6031	5770
20°	7315	5898	5746
25°	7603	5727	5755
30°	7851	5548	5792
35°	8029	5350	5841
40°	8111	5152	5926
45°	8088	4934	6024
50°	7945	4727	6148
55°	7673	4509	6276
60°	7299	4277	6371
65°	6855	4016	6362
70°	6379	3704	6174
75°	5791	3253	5692
80°	4973	2673	4802
85°	3792	1828	3298

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.6	3.2
10°-20°	628.3	9.3
20°-30°	962.5	14.3
30°-40°	1174.6	17.4
40°-50°	1228.4	18.2
50°-60°	1111.7	16.5
60°-70°	842.0	12.5
70°-80°	469.2	7.0
80°-90°	113.2	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°	1808.3	26.8
0°-40°	2982.9	44.2
0°-60°	5323.0	78.9
0°-90°	6747.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6747.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2294	2294	2294	2294	2294	
5°	2379	2339	2286	2230	2219	229
15°	2516	2376	2165	2064	2071	714
25°	2560	2309	1929	1861	1938	1181
35°	2444	2138	1628	1626	1778	1526
45°	2125	1859	1297	1354	1583	1635
55°	1636	1477	961	1046	1338	1459
65°	1076	1012	631	717	999	1068
75°	557	526	313	374	548	591
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°	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2344.5	2333.4	2324.4	2327.9	2329.9	2322.9	2316.9	2317.9	2311.9	2323.4	2296.3
5°	2379.0	2369.0	2358.5	2362.5	2358.5	2348.0	2339.4	2336.9	2320.9	2327.4	2299.8
7.5°	2417.7	2406.6	2391.1	2395.6	2387.1	2367.5	2356.5	2350.0	2325.4	2325.9	2295.3
10°	2454.8	2445.2	2424.2	2427.2	2411.6	2385.6	2368.0	2359.0	2324.4	2319.4	2287.8
12.5°	2489.3	2476.3	2453.8	2455.3	2432.7	2398.1	2375.5	2362.5	2317.4	2302.3	2271.2
15°	2515.9	2503.4	2476.3	2475.8	2446.7	2401.6	2376.0	2358.0	2300.8	2277.3	2244.7
17.5°	2538.5	2527.0	2493.4	2492.4	2457.3	2400.1	2369.5	2347.0	2276.8	2247.7	2211.6
20°	2554.5	2543.0	2505.4	2501.9	2459.8	2392.6	2356.0	2327.4	2245.2	2210.6	2170.5
22.5°	2562.0	2550.5	2507.9	2502.9	2453.8	2377.5	2336.4	2302.8	2209.1	2164.0	2122.3
25°	2560.5	2549.5	2501.4	2496.4	2442.2	2355.0	2308.9	2270.2	2163.5	2110.3	2069.2
27.5°	2548.0	2539.5	2488.8	2482.3	2421.2	2324.4	2275.3	2232.6	2112.8	2053.7	2009.0
30°	2526.5	2519.9	2466.3	2460.3	2395.1	2290.8	2236.2	2187.0	2058.2	1991.5	1946.4
32.5°	2491.9	2485.8	2431.7	2426.2	2360.0	2247.7	2190.5	2139.9	1998.5	1924.8	1879.7
35°	2444.2	2440.7	2388.1	2382.1	2314.9	2198.5	2137.9	2082.2	1936.3	1853.1	1810.0
37.5°	2381.6	2381.6	2330.9	2324.4	2258.7	2138.4	2078.7	2019.6	1866.1	1777.9	1735.3
40°	2308.9	2315.4	2263.7	2257.2	2193.5	2073.7	2008.5	1946.4	1790.4	1698.7	1657.1
42.5°	2221.6	2227.6	2184.5	2178.5	2118.8	1999.0	1938.3	1870.6	1711.2	1618.0	1574.8
45°	2125.3	2133.4	2094.8	2090.3	2034.6	1917.3	1859.1	1790.4	1628.5	1533.7	1491.6
47.5°	2018.1	2028.6	1995.0	1992.5	1940.8	1833.5	1772.9	1703.2	1541.7	1446.0	1406.4
50°	1897.7	1912.8	1885.2	1885.2	1839.1	1732.3	1679.6	1609.9	1451.5	1355.7	1316.6
52.5°	1768.9	1787.9	1767.4	1767.9	1730.3	1634.5	1579.8	1511.7	1357.2	1263.0	1226.9
55°	1635.5	1654.1	1641.0	1643.0	1613.4	1526.2	1476.6	1408.9	1261.0	1169.2	1135.1
57.5°	1496.1	1516.2	1507.6	1511.7	1491.1	1412.9	1361.2	1302.1	1161.7	1070.9	1041.9
60°	1356.2	1375.3	1370.8	1376.3	1363.3	1295.6	1248.4	1187.3	1061.9	974.7	949.1
62.5°	1214.8	1232.4	1231.4	1237.4	1230.4	1174.2	1132.1	1080.0	958.6	878.4	854.9
65°	1076.5	1091.5	1090.5	1097.0	1095.5	1050.4	1012.3	964.7	855.4	781.7	761.1
67.5°	942.1	954.6	951.1	958.6	960.6	924.5	891.5	848.8	757.1	685.4	667.8
70°	810.7	819.3	814.7	819.8	824.3	797.2	769.1	731.5	652.3	589.1	574.6
72.5°	681.9	687.9	680.9	685.9	689.9	670.3	647.3	614.7	549.0	494.4	482.3
75°	557.0	565.6	551.0	556.0	559.0	539.5	525.9	499.4	442.7	400.6	392.6
77.5°	436.2	441.2	433.2	431.2	433.2	419.2	408.6	388.1	345.5	310.9	305.8
80°	320.9	323.9	315.9	313.9	315.4	305.3	297.3	282.3	252.2	226.1	224.1
82.5°	215.1	216.6	209.6	207.6	208.6	205.6	196.0	185.5	171.5	149.4	148.9
85°	122.8	122.8	117.8	115.8	116.8	111.8	108.3	102.8	97.3	82.2	83.2
87.5°	45.1	45.1	42.6	42.1	47.1	41.6	40.1	37.6	39.1	31.1	33.1
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°	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2303.8	2298.8	2294.3	2278.8	2285.3	2269.2	2268.2	2262.2	2257.7	2249.2	2260.2
5°	2296.3	2286.3	2273.3	2254.7	2260.2	2241.2	2237.2	2230.1	2224.1	2213.1	2221.6
7.5°	2284.3	2267.7	2247.2	2223.6	2231.1	2207.6	2201.6	2194.0	2189.0	2176.0	2183.5
10°	2266.7	2243.2	2219.1	2190.5	2196.0	2170.5	2163.0	2154.9	2150.4	2138.9	2146.4
12.5°	2239.7	2211.1	2178.5	2147.4	2153.4	2129.4	2119.3	2110.8	2109.3	2099.8	2108.8
15°	2204.6	2165.0	2131.4	2098.3	2105.3	2077.2	2072.7	2064.2	2066.7	2060.2	2071.2
17.5°	2159.9	2114.3	2077.7	2042.1	2049.1	2025.6	2022.1	2018.1	2020.6	2019.6	2031.6
20°	2109.8	2059.7	2017.6	1982.5	1986.5	1967.9	1969.4	1968.4	1973.4	1978.9	1995.5
22.5°	2053.1	1996.5	1952.4	1916.3	1922.3	1906.2	1913.3	1915.3	1923.8	1936.3	1957.4
25°	1989.5	1928.8	1882.7	1848.6	1854.1	1843.6	1855.6	1860.6	1874.2	1895.2	1916.8
27.5°	1922.8	1858.6	1809.5	1776.9	1787.4	1776.9	1794.9	1805.0	1825.5	1848.6	1875.2
30°	1852.1	1785.4	1734.8	1705.7	1715.7	1706.2	1735.3	1748.8	1769.4	1801.0	1832.5
32.5°	1777.9	1707.7	1658.1	1635.5	1642.5	1641.0	1673.6	1688.6	1716.2	1752.3	1785.9
35°	1701.7	1628.5	1578.3	1559.3	1567.8	1569.8	1608.9	1626.5	1656.6	1700.2	1736.3
37.5°	1623.0	1548.3	1499.1	1483.6	1491.1	1498.6	1544.2	1561.8	1595.9	1643.5	1683.1
40°	1541.2	1466.5	1418.4	1405.9	1413.4	1421.4	1471.0	1495.1	1532.2	1583.9	1627.0
42.5°	1458.5	1383.8	1337.2	1328.2	1335.7	1351.2	1403.9	1426.4	1465.5	1522.7	1570.3
45°	1374.3	1296.6	1256.0	1248.9	1257.0	1275.0	1326.7	1353.7	1395.3	1458.0	1509.2
47.5°	1289.0	1213.3	1174.7	1170.2	1178.2	1198.3	1255.5	1280.0	1324.1	1390.8	1446.0
50°	1202.8	1129.1	1092.0	1090.5	1098.0	1119.6	1174.2	1203.3	1248.9	1323.6	1380.3
52.5°	1115.6	1044.9	1011.3	1011.3	1018.3	1040.4	1095.5	1125.6	1172.7	1251.4	1314.1
55°	1028.3	961.1	929.1	931.6	941.6	960.6	1014.3	1045.9	1093.5	1175.2	1241.4
57.5°	941.1	877.4	848.3	851.8	861.4	880.4	933.1	968.7	1011.8	1096.5	1164.2
60°	854.9	794.7	769.1	773.1	781.7	800.7	855.4	885.9	929.1	1015.3	1083.0
62.5°	767.6	713.0	688.9	693.9	701.4	720.5	772.1	801.7	844.3	929.1	997.2
65°	681.4	630.7	610.2	615.2	622.2	639.8	688.4	717.0	757.6	840.3	905.5
67.5°	596.1	550.0	533.0	538.0	543.5	560.0	600.2	631.2	669.3	748.1	809.7
70°	511.9	470.8	455.8	460.8	465.8	480.8	515.9	544.5	579.6	651.8	709.0
72.5°	428.7	388.6	381.0	385.6	389.6	402.6	436.2	458.8	489.3	553.5	602.7
75°	347.5	312.9	307.8	312.4	315.9	325.9	354.0	373.5	399.1	454.8	494.9
77.5°	269.2	240.2	238.2	241.7	245.2	252.2	274.3	294.8	314.9	356.0	391.6
80°	196.0	172.5	172.5	176.0	175.0	183.5	199.0	215.6	230.1	259.7	285.8
82.5°	129.4	110.8	113.3	115.8	117.3	120.8	130.4	142.9	151.9	170.0	187.0
85°	71.7	59.2	61.7	63.7	62.7	66.7	71.7	79.2	83.7	92.3	101.3
87.5°	26.6	22.1	22.6	24.1	25.1	27.1	27.1	31.6	32.1	33.1	35.1
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°	2293.8	2293.8	2293.8
2.5°	2239.2	2251.2	2260.2
5°	2200.6	2210.6	2218.6
7.5°	2163.0	2172.0	2179.0
10°	2127.4	2137.4	2142.4
12.5°	2090.8	2102.3	2106.3
15°	2054.7	2066.2	2071.2
17.5°	2017.6	2032.6	2038.1
20°	1983.0	2002.0	2006.5
22.5°	1947.9	1967.4	1972.9
25°	1909.8	1932.8	1938.3
27.5°	1869.1	1896.7	1902.2
30°	1828.5	1858.6	1864.1
32.5°	1784.9	1817.5	1822.5
35°	1739.3	1771.9	1777.9
37.5°	1688.6	1724.2	1736.3
40°	1636.0	1674.6	1687.1
42.5°	1580.8	1623.0	1636.0
45°	1521.7	1567.8	1582.9
47.5°	1462.0	1514.2	1527.2
50°	1397.3	1453.0	1468.5
52.5°	1329.7	1390.3	1405.9
55°	1259.5	1320.6	1337.7
57.5°	1183.3	1246.4	1264.5
60°	1103.5	1166.7	1183.8
62.5°	1021.8	1079.0	1095.5
65°	930.6	984.2	999.2
67.5°	833.8	882.9	895.5
70°	731.0	773.6	784.7
72.5°	623.7	653.3	667.8
75°	512.9	536.5	547.5
77.5°	401.6	418.2	427.2
80°	292.8	302.3	309.9
82.5°	191.5	195.5	201.1
85°	103.3	103.3	106.8
87.5°	35.1	33.6	35.1
90°	0.0	0.0	0.0

(END OF REPORT)