

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: P835219

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5LO-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835219
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-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

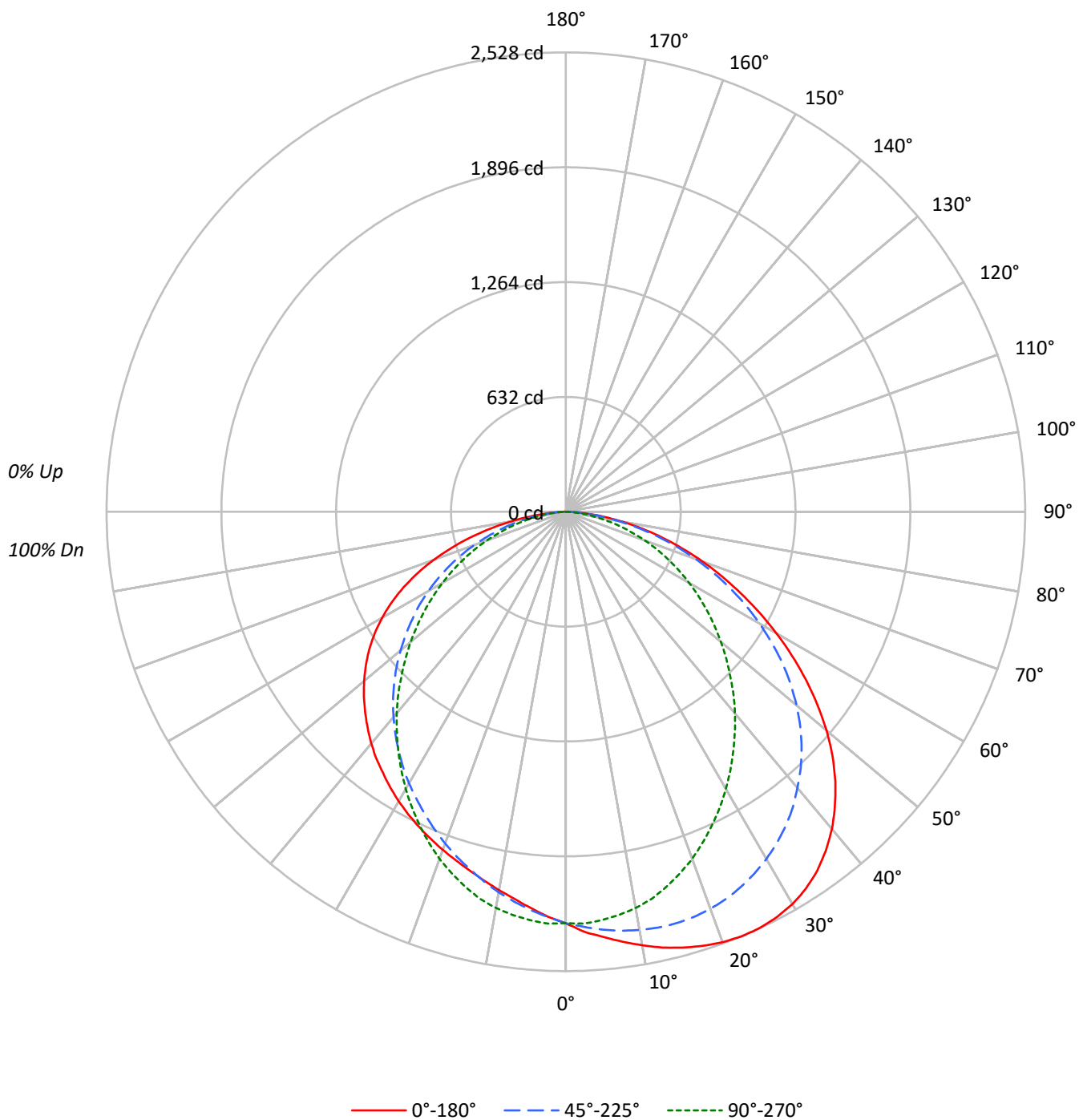
Lumens per Lamp: N/A
Luminaire Lumens: 6659.0 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6092	6092	6092
5°	6342	6095	5915
10°	6620	6049	5777
15°	6917	5952	5695
20°	7220	5821	5671
25°	7503	5652	5680
30°	7748	5475	5716
35°	7924	5280	5764
40°	8004	5084	5849
45°	7982	4870	5945
50°	7841	4665	6067
55°	7573	4450	6194
60°	7204	4221	6288
65°	6765	3964	6280
70°	6295	3655	6093
75°	5715	3211	5618
80°	4908	2638	4739
85°	3742	1803	3254

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	3.2
10°-20°	620.0	9.3
20°-30°	949.9	14.3
30°-40°	1159.2	17.4
40°-50°	1212.3	18.2
50°-60°	1097.2	16.5
60°-70°	830.9	12.5
70°-80°	463.1	7.0
80°-90°	111.7	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°	1784.6	26.8
0°-40°	2943.8	44.2
0°-60°	5253.3	78.9
0°-90°	6659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6659.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2264	2264	2264	2264	2264	
5°	2348	2309	2256	2201	2190	226
15°	2483	2345	2137	2037	2044	704
25°	2527	2279	1904	1836	1913	1166
35°	2412	2110	1607	1605	1755	1506
45°	2098	1835	1280	1336	1562	1614
55°	1614	1457	949	1032	1320	1440
65°	1062	999	622	708	986	1054
75°	550	519	309	369	540	583
85°	121	107	58	78	105	146
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°	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8
2.5°	2313.7	2302.9	2294.0	2297.4	2299.4	2292.5	2286.5	2287.5	2281.6	2293.0	2266.2
5°	2347.9	2338.0	2327.6	2331.6	2327.6	2317.2	2308.8	2306.3	2290.5	2296.9	2269.7
7.5°	2386.0	2375.1	2359.8	2364.2	2355.8	2336.5	2325.6	2319.2	2294.9	2295.4	2265.3
10°	2422.6	2413.2	2392.4	2395.4	2380.1	2354.3	2337.0	2328.1	2294.0	2289.0	2257.8
12.5°	2456.7	2443.9	2421.6	2423.1	2400.8	2366.7	2344.4	2331.6	2287.0	2272.2	2241.5
15°	2483.0	2470.6	2443.9	2443.4	2414.7	2370.2	2344.9	2327.1	2270.7	2247.4	2215.3
17.5°	2505.2	2493.9	2460.7	2459.7	2425.1	2368.7	2338.5	2316.2	2246.9	2218.2	2182.6
20°	2521.1	2509.7	2472.6	2469.1	2427.6	2361.3	2325.1	2296.9	2215.8	2181.6	2142.0
22.5°	2528.5	2517.1	2475.1	2470.1	2421.6	2346.4	2305.8	2272.7	2180.1	2135.6	2094.5
25°	2527.0	2516.1	2468.6	2463.7	2410.2	2324.1	2278.6	2240.5	2135.1	2082.7	2042.1
27.5°	2514.6	2506.2	2456.3	2449.8	2389.5	2294.0	2245.5	2203.4	2085.1	2026.8	1982.7
30°	2493.4	2486.9	2434.0	2428.1	2363.7	2260.8	2206.9	2158.4	2031.2	1965.4	1920.9
32.5°	2459.2	2453.3	2399.8	2394.4	2329.1	2218.2	2161.8	2111.9	1972.3	1899.6	1855.1
35°	2412.2	2408.8	2356.8	2350.9	2284.6	2169.8	2109.9	2055.0	1911.0	1828.8	1786.3
37.5°	2350.4	2350.4	2300.4	2294.0	2229.1	2110.4	2051.5	1993.1	1841.7	1754.6	1712.5
40°	2278.6	2285.0	2234.1	2227.7	2164.8	2046.5	1982.2	1920.9	1767.0	1676.4	1635.4
42.5°	2192.5	2198.5	2155.9	2150.0	2091.1	1972.8	1912.9	1846.1	1688.8	1596.8	1554.2
45°	2097.5	2105.4	2067.3	2062.9	2008.0	1892.2	1834.8	1767.0	1607.2	1513.6	1472.1
47.5°	1991.6	2002.0	1968.9	1966.4	1915.4	1809.5	1749.7	1680.9	1521.6	1427.0	1388.0
50°	1872.9	1887.7	1860.5	1860.5	1815.0	1709.6	1657.6	1588.8	1432.5	1338.0	1299.4
52.5°	1745.7	1764.5	1744.2	1744.7	1707.6	1613.1	1559.2	1491.9	1339.5	1246.4	1210.8
55°	1614.1	1632.4	1619.5	1621.5	1592.3	1506.2	1457.2	1390.4	1244.5	1153.9	1120.3
57.5°	1476.5	1496.3	1487.9	1491.9	1471.6	1394.4	1343.4	1285.0	1146.5	1056.9	1028.2
60°	1338.5	1357.3	1352.8	1358.3	1345.4	1278.6	1232.1	1171.7	1048.0	961.9	936.7
62.5°	1198.9	1216.3	1215.3	1221.2	1214.3	1158.9	1117.3	1065.8	946.1	866.9	843.7
65°	1062.4	1077.2	1076.2	1082.7	1081.2	1036.6	999.0	952.0	844.2	771.4	751.1
67.5°	929.8	942.1	938.7	946.1	948.1	912.4	879.8	837.7	747.2	676.4	659.1
70°	800.1	808.5	804.1	809.0	813.5	786.8	759.0	721.9	643.8	581.4	567.1
72.5°	672.9	678.9	672.0	676.9	680.9	661.6	638.8	606.6	541.8	487.9	476.0
75°	549.7	558.1	543.8	548.7	551.7	532.4	519.1	492.8	436.9	395.4	387.4
77.5°	430.5	435.4	427.5	425.5	427.5	413.7	403.3	383.0	340.9	306.8	301.8
80°	316.7	319.6	311.7	309.8	311.2	301.3	293.4	278.6	248.9	223.2	221.2
82.5°	212.3	213.8	206.8	204.9	205.8	202.9	193.5	183.1	169.2	147.5	147.0
85°	121.2	121.2	116.3	114.3	115.3	110.3	106.9	101.4	96.0	81.1	82.1
87.5°	44.5	44.5	42.1	41.6	46.5	41.1	39.6	37.1	38.6	30.7	32.7
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8	2263.8
2.5°	2273.7	2268.7	2264.3	2248.9	2255.4	2239.5	2238.5	2232.6	2228.1	2219.7	2230.6
5°	2266.2	2256.4	2243.5	2225.2	2230.6	2211.8	2207.9	2200.9	2195.0	2184.1	2192.5
7.5°	2254.4	2238.0	2217.8	2194.5	2201.9	2178.7	2172.7	2165.3	2160.4	2147.5	2154.9
10°	2237.1	2213.8	2190.0	2161.8	2167.3	2142.0	2134.6	2126.7	2122.3	2110.9	2118.3
12.5°	2210.3	2182.1	2150.0	2119.3	2125.2	2101.5	2091.6	2083.2	2081.7	2072.3	2081.2
15°	2175.7	2136.6	2103.5	2070.8	2077.7	2050.0	2045.6	2037.1	2039.6	2033.2	2044.1
17.5°	2131.7	2086.6	2050.5	2015.4	2022.3	1999.0	1995.6	1991.6	1994.1	1993.1	2005.0
20°	2082.2	2032.7	1991.1	1956.5	1960.5	1942.1	1943.6	1942.6	1947.6	1953.0	1969.4
22.5°	2026.3	1970.3	1926.8	1891.2	1897.1	1881.3	1888.2	1890.2	1898.6	1911.0	1931.8
25°	1963.4	1903.5	1858.0	1824.4	1829.8	1819.4	1831.3	1836.3	1849.6	1870.4	1891.7
27.5°	1897.6	1834.3	1785.8	1753.6	1764.0	1753.6	1771.4	1781.3	1801.6	1824.4	1850.6
30°	1827.8	1762.0	1712.1	1683.4	1693.3	1683.9	1712.5	1725.9	1746.2	1777.4	1808.5
32.5°	1754.6	1685.3	1636.3	1614.1	1621.0	1619.5	1651.7	1666.5	1693.7	1729.4	1762.5
35°	1679.4	1607.2	1557.7	1538.9	1547.3	1549.3	1587.9	1605.2	1634.9	1677.9	1713.5
37.5°	1601.7	1528.0	1479.5	1464.2	1471.6	1479.0	1524.0	1541.3	1575.0	1622.0	1661.1
40°	1521.1	1447.3	1399.8	1387.5	1394.9	1402.8	1451.8	1475.5	1512.2	1563.1	1605.7
42.5°	1439.4	1365.7	1319.7	1310.8	1318.2	1333.5	1385.5	1407.7	1446.3	1502.7	1549.8
45°	1356.3	1279.6	1239.5	1232.6	1240.5	1258.3	1309.3	1336.0	1377.1	1438.9	1489.4
47.5°	1272.2	1197.4	1159.3	1154.9	1162.8	1182.6	1239.0	1263.3	1306.8	1372.6	1427.0
50°	1187.1	1114.3	1077.7	1076.2	1083.6	1104.9	1158.9	1187.6	1232.6	1306.3	1362.2
52.5°	1101.0	1031.2	998.0	998.0	1005.0	1026.7	1081.2	1110.9	1157.4	1235.1	1296.9
55°	1014.9	948.6	916.9	919.4	929.3	948.1	1001.0	1032.2	1079.2	1159.8	1225.2
57.5°	928.8	865.9	837.2	840.7	850.1	868.9	920.8	956.0	998.5	1082.2	1149.0
60°	843.7	784.3	759.0	763.0	771.4	790.2	844.2	874.3	916.9	1002.0	1068.8
62.5°	757.6	703.6	679.9	684.8	692.2	711.0	762.0	791.2	833.3	916.9	984.2
65°	672.5	622.5	602.2	607.1	614.1	631.4	679.4	707.6	747.7	829.3	893.6
67.5°	588.3	542.8	526.0	530.9	536.4	552.7	592.3	623.0	660.6	738.3	799.1
70°	505.2	464.6	449.8	454.7	459.7	474.5	509.2	537.4	572.0	643.3	699.7
72.5°	423.1	383.5	376.1	380.5	384.5	397.3	430.5	452.8	482.9	546.3	594.8
75°	342.9	308.8	303.8	308.3	311.7	321.6	349.3	368.6	393.9	448.8	488.4
77.5°	265.7	237.0	235.0	238.5	242.0	248.9	270.7	291.0	310.7	351.3	386.4
80°	193.5	170.2	170.2	173.7	172.7	181.1	196.4	212.8	227.1	256.3	282.0
82.5°	127.7	109.4	111.8	114.3	115.8	119.3	128.7	141.0	149.9	167.7	184.6
85°	70.8	58.4	60.9	62.8	61.9	65.8	70.8	78.2	82.6	91.0	100.0
87.5°	26.2	21.8	22.3	23.8	24.7	26.7	26.7	31.2	31.7	32.7	34.6
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°	2263.8	2263.8	2263.8
2.5°	2209.8	2221.7	2230.6
5°	2171.7	2181.6	2189.6
7.5°	2134.6	2143.5	2150.5
10°	2099.5	2109.4	2114.3
12.5°	2063.4	2074.8	2078.7
15°	2027.7	2039.1	2044.1
17.5°	1991.1	2006.0	2011.4
20°	1957.0	1975.8	1980.2
22.5°	1922.4	1941.6	1947.1
25°	1884.7	1907.5	1912.9
27.5°	1844.7	1871.9	1877.3
30°	1804.6	1834.3	1839.7
32.5°	1761.5	1793.7	1798.6
35°	1716.5	1748.7	1754.6
37.5°	1666.5	1701.7	1713.5
40°	1614.6	1652.7	1665.0
42.5°	1560.1	1601.7	1614.6
45°	1501.8	1547.3	1562.1
47.5°	1442.9	1494.3	1507.2
50°	1379.0	1434.0	1449.3
52.5°	1312.2	1372.1	1387.5
55°	1243.0	1303.3	1320.2
57.5°	1167.8	1230.1	1247.9
60°	1089.1	1151.4	1168.3
62.5°	1008.4	1064.8	1081.2
65°	918.4	971.3	986.2
67.5°	822.9	871.4	883.7
70°	721.4	763.5	774.4
72.5°	615.5	644.7	659.1
75°	506.2	529.5	540.3
77.5°	396.3	412.7	421.6
80°	289.0	298.4	305.8
82.5°	189.0	193.0	198.4
85°	101.9	101.9	105.4
87.5°	34.6	33.2	34.6
90°	0.0	0.0	0.0

(END OF REPORT)