

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: P835201

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5LO-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835201
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-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

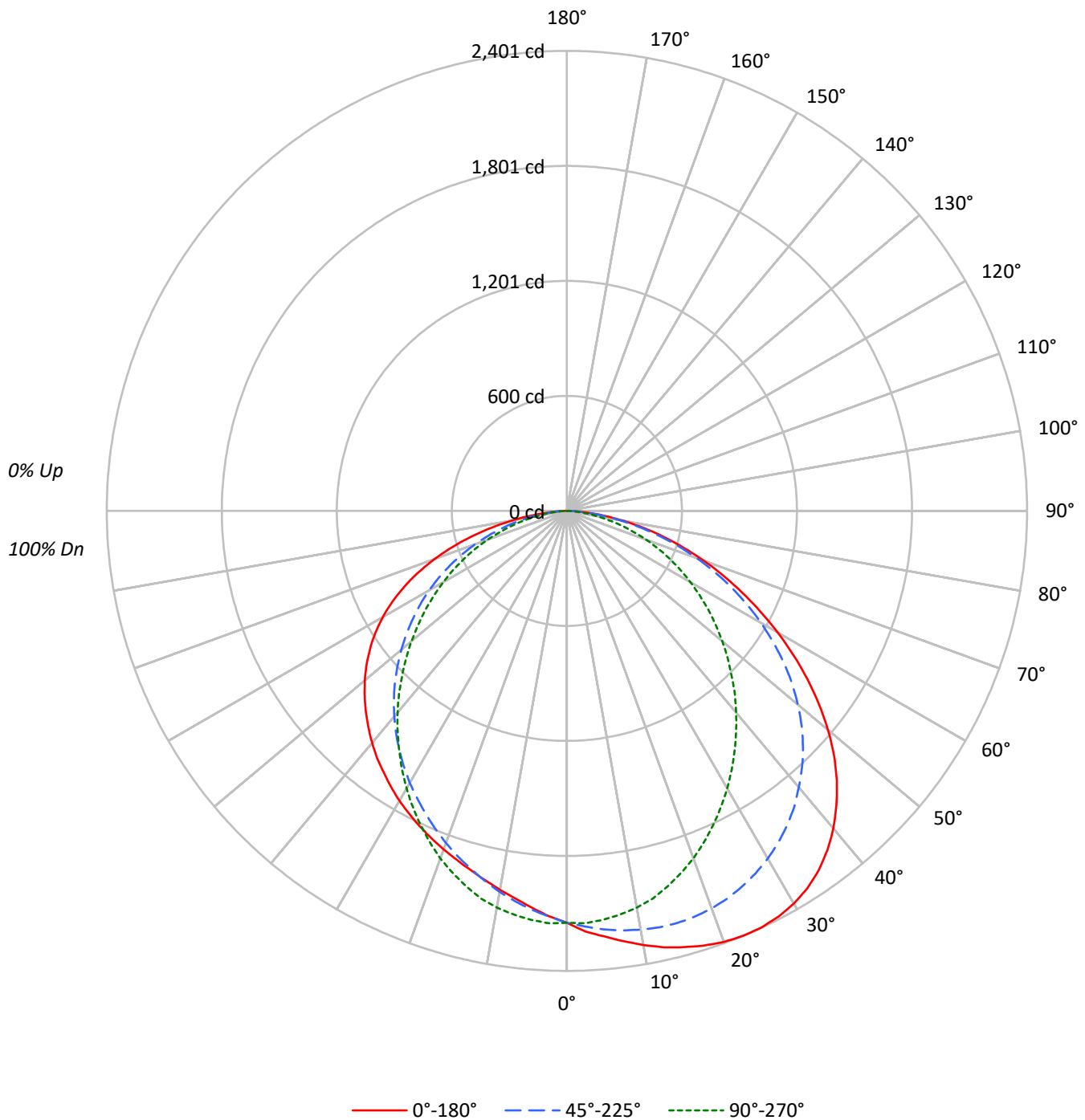
Lumens per Lamp: N/A
Luminaire Lumens: 6322.7 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5784	5784	5784
5°	6022	5787	5616
10°	6286	5744	5486
15°	6568	5652	5407
20°	6855	5527	5384
25°	7124	5366	5393
30°	7356	5198	5428
35°	7524	5013	5473
40°	7600	4827	5554
45°	7579	4624	5644
50°	7445	4429	5761
55°	7190	4226	5881
60°	6840	4008	5970
65°	6423	3763	5962
70°	5977	3471	5785
75°	5427	3048	5334
80°	4660	2504	4500
85°	3554	1711	3091

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.9	3.2
10°-20°	588.7	9.3
20°-30°	901.9	14.3
30°-40°	1100.7	17.4
40°-50°	1151.0	18.2
50°-60°	1041.8	16.5
60°-70°	789.0	12.5
70°-80°	439.7	7.0
80°-90°	106.1	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°	1694.5	26.8
0°-40°	2795.1	44.2
0°-60°	4987.9	78.9
0°-90°	6322.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6322.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2149	2149	2149	2149	2149	
5°	2229	2192	2142	2090	2079	215
15°	2358	2226	2029	1934	1941	669
25°	2399	2164	1807	1744	1816	1107
35°	2290	2003	1526	1524	1666	1430
45°	1992	1742	1215	1268	1483	1532
55°	1533	1384	901	980	1254	1368
65°	1009	949	591	672	936	1001
75°	522	493	293	350	513	554
85°	115	102	55	74	100	139
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°	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4
2.5°	2196.9	2186.6	2178.1	2181.4	2183.3	2176.7	2171.1	2172.0	2166.4	2177.2	2151.8
5°	2229.3	2219.9	2210.0	2213.8	2210.0	2200.2	2192.2	2189.8	2174.8	2180.9	2155.1
7.5°	2265.5	2255.2	2240.6	2244.8	2236.8	2218.5	2208.2	2202.1	2179.0	2179.5	2150.8
10°	2300.3	2291.3	2271.6	2274.4	2259.8	2235.4	2219.0	2210.5	2178.1	2173.4	2143.8
12.5°	2332.7	2320.5	2299.3	2300.7	2279.6	2247.2	2226.0	2213.8	2171.5	2157.4	2128.3
15°	2357.6	2345.8	2320.5	2320.0	2292.7	2250.5	2226.5	2209.6	2156.0	2133.9	2103.4
17.5°	2378.7	2367.9	2336.4	2335.5	2302.6	2249.0	2220.4	2199.2	2133.5	2106.2	2072.4
20°	2393.7	2382.9	2347.7	2344.4	2305.0	2242.0	2207.7	2180.9	2103.9	2071.4	2033.9
22.5°	2400.8	2390.0	2350.1	2345.4	2299.3	2227.9	2189.4	2157.9	2070.0	2027.8	1988.8
25°	2399.4	2389.1	2343.9	2339.2	2288.5	2206.8	2163.5	2127.4	2027.3	1977.5	1939.0
27.5°	2387.6	2379.7	2332.2	2326.1	2268.8	2178.1	2132.1	2092.1	1979.8	1924.4	1882.6
30°	2367.4	2361.3	2311.1	2305.4	2244.3	2146.6	2095.4	2049.4	1928.6	1866.1	1823.9
32.5°	2335.0	2329.4	2278.6	2273.5	2211.5	2106.2	2052.7	2005.2	1872.7	1803.7	1761.4
35°	2290.4	2287.1	2237.8	2232.1	2169.2	2060.2	2003.3	1951.2	1814.5	1736.5	1696.1
37.5°	2231.7	2231.7	2184.2	2178.1	2116.6	2003.8	1947.9	1892.4	1748.7	1666.0	1626.1
40°	2163.5	2169.6	2121.3	2115.1	2055.5	1943.2	1882.1	1823.9	1677.7	1591.8	1552.8
42.5°	2081.8	2087.4	2047.0	2041.4	1985.5	1873.2	1816.3	1752.9	1603.5	1516.1	1475.7
45°	1991.6	1999.1	1962.9	1958.7	1906.5	1796.6	1742.1	1677.7	1526.0	1437.2	1397.7
47.5°	1891.0	1900.9	1869.4	1867.1	1818.7	1718.1	1661.3	1596.0	1444.7	1355.0	1317.9
50°	1778.3	1792.4	1766.5	1766.5	1723.3	1623.2	1573.9	1508.6	1360.1	1270.4	1233.8
52.5°	1657.5	1675.4	1656.1	1656.6	1621.4	1531.6	1480.4	1416.5	1271.8	1183.5	1149.7
55°	1532.6	1549.9	1537.7	1539.6	1511.9	1430.1	1383.6	1320.2	1181.6	1095.6	1063.7
57.5°	1402.0	1420.7	1412.8	1416.5	1397.3	1324.0	1275.6	1220.1	1088.6	1003.5	976.3
60°	1270.9	1288.7	1284.5	1289.7	1277.4	1214.0	1169.9	1112.5	995.1	913.3	889.4
62.5°	1138.4	1154.8	1153.9	1159.5	1152.9	1100.3	1060.9	1012.0	898.3	823.1	801.0
65°	1008.7	1022.8	1021.9	1028.0	1026.6	984.3	948.6	903.9	801.5	732.5	713.2
67.5°	882.8	894.5	891.3	898.3	900.2	866.4	835.3	795.4	709.4	642.2	625.8
70°	759.7	767.7	763.5	768.2	772.4	747.0	720.7	685.5	611.2	552.0	538.4
72.5°	639.0	644.6	638.0	642.7	646.5	628.2	606.5	576.0	514.5	463.2	452.0
75°	522.0	530.0	516.3	521.0	523.9	505.5	492.8	467.9	414.9	375.4	367.9
77.5°	408.7	413.4	405.9	404.0	405.9	392.8	382.9	363.6	323.7	291.3	286.6
80°	300.7	303.5	296.0	294.1	295.5	286.1	278.6	264.5	236.3	211.9	210.0
82.5°	201.6	203.0	196.4	194.5	195.4	192.6	183.7	173.8	160.7	140.0	139.5
85°	115.1	115.1	110.4	108.5	109.5	104.8	101.5	96.3	91.1	77.1	78.0
87.5°	42.3	42.3	39.9	39.5	44.2	39.0	37.6	35.2	36.6	29.1	31.0
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°	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4
2.5°	2158.8	2154.1	2149.9	2135.3	2141.5	2126.4	2125.5	2119.8	2115.6	2107.6	2118.0
5°	2151.8	2142.4	2130.2	2112.8	2118.0	2100.1	2096.4	2089.8	2084.1	2073.8	2081.8
7.5°	2140.5	2125.0	2105.7	2083.7	2090.7	2068.6	2063.0	2055.9	2051.2	2039.0	2046.1
10°	2124.1	2102.0	2079.4	2052.7	2057.8	2033.9	2026.8	2019.3	2015.1	2004.3	2011.3
12.5°	2098.7	2071.9	2041.4	2012.3	2017.9	1995.3	1985.9	1978.0	1976.5	1967.6	1976.1
15°	2065.8	2028.7	1997.2	1966.2	1972.8	1946.5	1942.2	1934.3	1936.6	1930.5	1940.8
17.5°	2024.0	1981.2	1946.9	1913.6	1920.2	1898.1	1894.8	1891.0	1893.4	1892.4	1903.7
20°	1977.0	1930.0	1890.6	1857.7	1861.4	1844.1	1845.5	1844.5	1849.2	1854.4	1869.9
22.5°	1923.9	1870.8	1829.5	1795.7	1801.3	1786.3	1792.8	1794.7	1802.7	1814.5	1834.2
25°	1864.3	1807.4	1764.2	1732.2	1737.4	1727.5	1738.8	1743.5	1756.2	1775.9	1796.1
27.5°	1801.8	1741.6	1695.6	1665.1	1674.9	1665.1	1682.0	1691.4	1710.6	1732.2	1757.1
30°	1735.5	1673.0	1625.6	1598.3	1607.7	1598.8	1626.1	1638.7	1658.0	1687.6	1717.2
32.5°	1666.0	1600.2	1553.7	1532.6	1539.1	1537.7	1568.3	1582.4	1608.2	1642.0	1673.5
35°	1594.6	1526.0	1479.0	1461.1	1469.1	1471.0	1507.7	1524.1	1552.3	1593.2	1627.0
37.5°	1520.8	1450.8	1404.8	1390.2	1397.3	1404.3	1447.1	1463.5	1495.4	1540.1	1577.2
40°	1444.2	1374.2	1329.1	1317.4	1324.4	1331.9	1378.5	1401.0	1435.8	1484.2	1524.6
42.5°	1366.7	1296.7	1253.0	1244.6	1251.6	1266.2	1315.5	1336.6	1373.3	1426.9	1471.5
45°	1287.8	1215.0	1176.9	1170.3	1177.8	1194.8	1243.2	1268.5	1307.5	1366.2	1414.2
47.5°	1207.9	1137.0	1100.8	1096.6	1104.1	1122.9	1176.4	1199.5	1240.8	1303.3	1355.0
50°	1127.1	1058.0	1023.3	1021.9	1028.9	1049.1	1100.3	1127.6	1170.3	1240.3	1293.4
52.5°	1045.4	979.1	947.6	947.6	954.2	974.9	1026.6	1054.8	1098.9	1172.7	1231.4
55°	963.6	900.7	870.6	872.9	882.3	900.2	950.5	980.1	1024.7	1101.3	1163.3
57.5°	881.9	822.2	794.9	798.2	807.2	825.0	874.3	907.7	948.1	1027.5	1090.9
60°	801.0	744.7	720.7	724.5	732.5	750.3	801.5	830.2	870.6	951.4	1014.8
62.5°	719.3	668.1	645.5	650.2	657.3	675.1	723.5	751.2	791.2	870.6	934.5
65°	638.5	591.0	571.8	576.5	583.1	599.5	645.1	671.8	709.9	787.4	848.5
67.5°	558.6	515.4	499.4	504.1	509.3	524.8	562.4	591.5	627.2	701.0	758.8
70°	479.7	441.2	427.1	431.8	436.5	450.6	483.4	510.2	543.1	610.8	664.3
72.5°	401.7	364.1	357.1	361.3	365.1	377.3	408.7	429.9	458.5	518.7	564.7
75°	325.6	293.2	288.5	292.7	296.0	305.4	331.7	350.0	374.0	426.1	463.7
77.5°	252.3	225.0	223.2	226.5	229.7	236.3	257.0	276.3	295.0	333.6	366.9
80°	183.7	161.6	161.6	164.9	164.0	172.0	186.5	202.0	215.6	243.4	267.8
82.5°	121.2	103.8	106.2	108.5	109.9	113.2	122.2	133.9	142.4	159.3	175.2
85°	67.2	55.4	57.8	59.7	58.7	62.5	67.2	74.2	78.5	86.4	94.9
87.5°	24.9	20.7	21.1	22.6	23.5	25.4	25.4	29.6	30.1	31.0	32.9
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°	2149.4	2149.4	2149.4
2.5°	2098.2	2109.5	2118.0
5°	2062.1	2071.4	2079.0
7.5°	2026.8	2035.3	2041.9
10°	1993.5	2002.9	2007.6
12.5°	1959.2	1970.0	1973.7
15°	1925.3	1936.1	1940.8
17.5°	1890.6	1904.7	1909.8
20°	1858.2	1876.0	1880.2
22.5°	1825.3	1843.6	1848.8
25°	1789.6	1811.2	1816.3
27.5°	1751.5	1777.3	1782.5
30°	1713.4	1741.6	1746.8
32.5°	1672.6	1703.1	1707.8
35°	1629.8	1660.4	1666.0
37.5°	1582.4	1615.7	1627.0
40°	1533.0	1569.2	1581.0
42.5°	1481.4	1520.8	1533.0
45°	1425.9	1469.1	1483.2
47.5°	1370.0	1418.9	1431.1
50°	1309.4	1361.5	1376.1
52.5°	1246.0	1302.8	1317.4
55°	1180.2	1237.5	1253.5
57.5°	1108.8	1168.0	1184.9
60°	1034.1	1093.3	1109.3
62.5°	957.5	1011.1	1026.6
65°	872.0	922.3	936.4
67.5°	781.3	827.4	839.1
70°	685.0	724.9	735.3
72.5°	584.5	612.2	625.8
75°	480.6	502.7	513.0
77.5°	376.3	391.8	400.3
80°	274.4	283.3	290.4
82.5°	179.5	183.2	188.4
85°	96.8	96.8	100.1
87.5°	32.9	31.5	32.9
90°	0.0	0.0	0.0

(END OF REPORT)