

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: P835215

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3HI-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835215
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-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

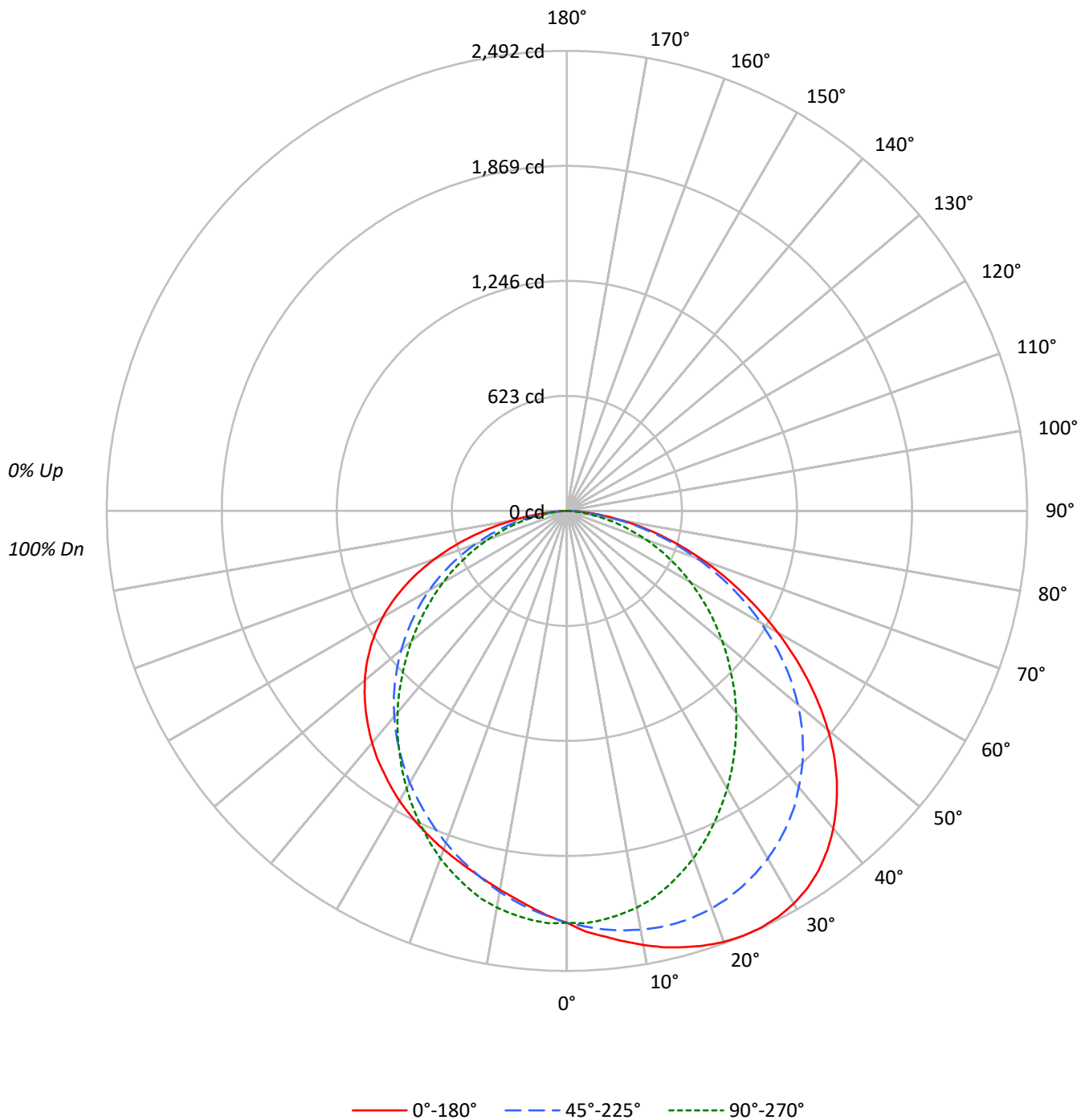
Lumens per Lamp: N/A
Luminaire Lumens: 6562.5 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	6004	6004	6004
5°	6250	6007	5829
10°	6524	5961	5694
15°	6817	5866	5612
20°	7115	5737	5589
25°	7394	5570	5597
30°	7636	5396	5634
35°	7810	5203	5681
40°	7888	5011	5764
45°	7867	4799	5859
50°	7727	4598	5979
55°	7463	4386	6104
60°	7099	4160	6196
65°	6667	3906	6188
70°	6204	3603	6005
75°	5633	3164	5536
80°	4837	2600	4671
85°	3690	1775	3208

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.6	3.2
10°-20°	611.0	9.3
20°-30°	936.1	14.3
30°-40°	1142.4	17.4
40°-50°	1194.7	18.2
50°-60°	1081.3	16.5
60°-70°	818.9	12.5
70°-80°	456.4	7.0
80°-90°	110.1	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°	1758.7	26.8
0°-40°	2901.2	44.2
0°-60°	5177.2	78.9
0°-90°	6562.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6562.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2231	2231	2231	2231	2231	
5°	2314	2275	2224	2169	2158	223
15°	2447	2311	2106	2008	2014	694
25°	2490	2246	1876	1810	1885	1149
35°	2377	2079	1584	1582	1729	1484
45°	2067	1808	1261	1317	1540	1590
55°	1591	1436	935	1017	1301	1419
65°	1047	985	614	697	972	1039
75°	542	512	304	363	532	575
85°	120	105	58	77	104	144
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°	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0
2.5°	2280.2	2269.5	2260.7	2264.1	2266.1	2259.3	2253.4	2254.4	2248.5	2259.8	2233.4
5°	2313.9	2304.1	2293.9	2297.8	2293.9	2283.7	2275.4	2272.9	2257.3	2263.7	2236.8
7.5°	2351.4	2340.7	2325.6	2330.0	2321.7	2302.7	2291.9	2285.6	2261.7	2262.2	2232.5
10°	2387.5	2378.3	2357.8	2360.7	2345.6	2320.2	2303.2	2294.4	2260.7	2255.9	2225.1
12.5°	2421.2	2408.5	2386.5	2388.0	2366.1	2332.4	2310.5	2297.8	2253.9	2239.3	2209.0
15°	2447.0	2434.8	2408.5	2408.0	2379.7	2335.8	2311.0	2293.4	2237.8	2214.9	2183.2
17.5°	2469.0	2457.7	2425.1	2424.1	2390.0	2334.4	2304.6	2282.7	2214.4	2186.1	2151.0
20°	2484.6	2473.3	2436.8	2433.4	2392.4	2327.1	2291.5	2263.7	2183.7	2150.0	2111.0
22.5°	2491.9	2480.7	2439.2	2434.3	2386.5	2312.4	2272.4	2239.8	2148.6	2104.7	2064.2
25°	2490.4	2479.7	2432.9	2428.0	2375.3	2290.5	2245.6	2208.1	2104.2	2052.5	2012.5
27.5°	2478.2	2469.9	2420.7	2414.3	2354.8	2260.7	2212.9	2171.5	2054.9	1997.4	1954.0
30°	2457.3	2450.9	2398.7	2392.9	2329.5	2228.1	2174.9	2127.1	2001.8	1936.9	1893.0
32.5°	2423.6	2417.8	2365.1	2359.7	2295.4	2186.1	2130.5	2081.3	1943.8	1872.1	1828.2
35°	2377.3	2373.9	2322.7	2316.8	2251.5	2138.3	2079.3	2025.2	1883.3	1802.3	1760.4
37.5°	2316.3	2316.3	2267.1	2260.7	2196.9	2079.8	2021.8	1964.2	1815.0	1729.2	1687.7
40°	2245.6	2252.0	2201.7	2195.4	2133.5	2016.9	1953.5	1893.0	1741.4	1652.1	1611.7
42.5°	2160.8	2166.6	2124.7	2118.8	2060.8	1944.3	1885.2	1819.4	1664.3	1573.6	1531.7
45°	2067.1	2074.9	2037.4	2033.0	1978.9	1864.8	1808.2	1741.4	1583.9	1491.7	1450.8
47.5°	1962.8	1973.0	1940.3	1937.9	1887.7	1783.3	1724.3	1656.5	1499.5	1406.4	1367.9
50°	1845.7	1860.4	1833.6	1833.6	1788.7	1684.8	1633.6	1565.8	1411.7	1318.6	1280.6
52.5°	1720.4	1739.0	1719.0	1719.4	1682.9	1589.7	1536.6	1470.3	1320.1	1228.4	1193.3
55°	1590.7	1608.7	1596.1	1598.0	1569.2	1484.4	1436.1	1370.3	1226.4	1137.2	1104.0
57.5°	1455.1	1474.6	1466.4	1470.3	1450.3	1374.2	1324.0	1266.4	1129.9	1041.6	1013.3
60°	1319.1	1337.6	1333.2	1338.6	1325.9	1260.1	1214.2	1154.7	1032.8	948.0	923.1
62.5°	1181.6	1198.6	1197.7	1203.5	1196.7	1142.1	1101.1	1050.4	932.4	854.4	831.4
65°	1047.0	1061.6	1060.6	1067.0	1065.5	1021.6	984.6	938.2	831.9	760.2	740.2
67.5°	916.3	928.5	925.1	932.4	934.3	899.2	867.0	825.6	736.3	666.6	649.5
70°	788.5	796.8	792.4	797.3	801.7	775.4	748.1	711.5	634.4	573.0	558.8
72.5°	663.2	669.1	662.2	667.1	671.0	652.0	629.6	597.9	534.0	480.8	469.1
75°	541.8	550.1	535.9	540.8	543.7	524.7	511.5	485.7	430.6	389.6	381.8
77.5°	424.3	429.1	421.3	419.4	421.3	407.7	397.4	377.4	336.0	302.3	297.5
80°	312.1	315.0	307.2	305.3	306.7	297.0	289.2	274.5	245.3	219.9	218.0
82.5°	209.2	210.7	203.8	201.9	202.9	199.9	190.7	180.4	166.8	145.3	144.8
85°	119.5	119.5	114.6	112.6	113.6	108.7	105.3	100.0	94.6	80.0	80.9
87.5°	43.9	43.9	41.5	41.0	45.8	40.5	39.0	36.6	38.0	30.2	32.2
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°	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0	2231.0
2.5°	2240.7	2235.9	2231.5	2216.4	2222.7	2207.1	2206.1	2200.3	2195.9	2187.6	2198.3
5°	2233.4	2223.7	2211.0	2193.0	2198.3	2179.8	2175.9	2169.1	2163.2	2152.5	2160.8
7.5°	2221.7	2205.6	2185.6	2162.7	2170.0	2147.1	2141.3	2133.9	2129.1	2116.4	2123.7
10°	2204.7	2181.7	2158.3	2130.5	2135.9	2111.0	2103.7	2095.9	2091.5	2080.3	2087.6
12.5°	2178.3	2150.5	2118.8	2088.6	2094.4	2071.0	2061.3	2053.0	2051.5	2042.3	2051.0
15°	2144.2	2105.7	2073.0	2040.8	2047.6	2020.3	2015.9	2007.6	2010.1	2003.7	2014.5
17.5°	2100.8	2056.4	2020.8	1986.2	1993.0	1970.1	1966.7	1962.8	1965.2	1964.2	1975.9
20°	2052.0	2003.3	1962.3	1928.2	1932.1	1914.0	1915.5	1914.5	1919.4	1924.7	1940.8
22.5°	1996.9	1941.8	1898.9	1863.8	1869.6	1854.0	1860.9	1862.8	1871.1	1883.3	1903.8
25°	1935.0	1876.0	1831.1	1798.0	1803.3	1793.1	1804.8	1809.7	1822.8	1843.3	1864.3
27.5°	1870.1	1807.7	1759.9	1728.2	1738.5	1728.2	1745.8	1755.5	1775.5	1798.0	1823.8
30°	1801.4	1736.5	1687.3	1659.0	1668.7	1659.5	1687.7	1700.9	1720.9	1751.6	1782.4
32.5°	1729.2	1660.9	1612.7	1590.7	1597.5	1596.1	1627.8	1642.4	1669.2	1704.3	1737.0
35°	1655.1	1583.9	1535.1	1516.6	1524.9	1526.8	1564.9	1581.9	1611.2	1653.6	1688.7
37.5°	1578.5	1505.9	1458.1	1442.9	1450.3	1457.6	1502.0	1519.0	1552.2	1598.5	1637.0
40°	1499.0	1426.4	1379.6	1367.4	1374.7	1382.5	1430.8	1454.2	1490.3	1540.5	1582.4
42.5°	1418.6	1345.9	1300.6	1291.8	1299.1	1314.2	1365.4	1387.4	1425.4	1481.0	1527.3
45°	1336.6	1261.1	1221.6	1214.7	1222.5	1240.1	1290.3	1316.6	1357.1	1418.1	1467.8
47.5°	1253.7	1180.1	1142.6	1138.2	1146.0	1165.5	1221.1	1245.0	1287.9	1352.7	1406.4
50°	1169.9	1098.2	1062.1	1060.6	1067.9	1088.9	1142.1	1170.4	1214.7	1287.4	1342.5
52.5°	1085.0	1016.3	983.6	983.6	990.4	1011.9	1065.5	1094.8	1140.6	1217.2	1278.1
55°	1000.2	934.8	903.6	906.0	915.8	934.3	986.5	1017.2	1063.6	1143.0	1207.4
57.5°	915.3	853.4	825.1	828.5	837.8	856.3	907.5	942.1	984.1	1066.5	1132.3
60°	831.4	772.9	748.1	752.0	760.2	778.8	831.9	861.7	903.6	987.5	1053.3
62.5°	746.6	693.4	670.0	674.9	682.2	700.7	751.0	779.7	821.2	903.6	969.9
65°	662.7	613.5	593.5	598.3	605.2	622.2	669.5	697.3	736.8	817.3	880.7
67.5°	579.8	534.9	518.4	523.2	528.6	544.7	583.7	613.9	651.0	727.6	787.6
70°	497.9	457.9	443.3	448.1	453.0	467.7	501.8	529.6	563.7	633.9	689.5
72.5°	416.9	377.9	370.6	375.0	378.9	391.6	424.3	446.2	475.9	538.4	586.2
75°	337.9	304.3	299.4	303.8	307.2	317.0	344.3	363.3	388.2	442.3	481.3
77.5°	261.9	233.6	231.6	235.0	238.5	245.3	266.7	286.7	306.2	346.2	380.9
80°	190.7	167.8	167.8	171.2	170.2	178.5	193.6	209.7	223.8	252.6	278.0
82.5°	125.8	107.8	110.2	112.6	114.1	117.5	126.8	139.0	147.8	165.3	181.9
85°	69.7	57.5	60.0	61.9	61.0	64.9	69.7	77.0	81.4	89.7	98.5
87.5°	25.8	21.5	21.9	23.4	24.4	26.3	26.3	30.7	31.2	32.2	34.1
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°	2231.0	2231.0	2231.0
2.5°	2177.8	2189.5	2198.3
5°	2140.3	2150.0	2157.8
7.5°	2103.7	2112.5	2119.3
10°	2069.1	2078.8	2083.7
12.5°	2033.5	2044.7	2048.6
15°	1998.4	2009.6	2014.5
17.5°	1962.3	1976.9	1982.3
20°	1928.6	1947.2	1951.6
22.5°	1894.5	1913.5	1918.9
25°	1857.4	1879.9	1885.2
27.5°	1817.9	1844.8	1850.1
30°	1778.5	1807.7	1813.1
32.5°	1736.0	1767.7	1772.6
35°	1691.6	1723.3	1729.2
37.5°	1642.4	1677.0	1688.7
40°	1591.2	1628.7	1640.9
42.5°	1537.6	1578.5	1591.2
45°	1480.0	1524.9	1539.5
47.5°	1422.0	1472.7	1485.4
50°	1359.1	1413.2	1428.3
52.5°	1293.2	1352.2	1367.4
55°	1225.0	1284.5	1301.0
57.5°	1150.8	1212.3	1229.8
60°	1073.3	1134.8	1151.3
62.5°	993.8	1049.4	1065.5
65°	905.1	957.3	971.9
67.5°	811.0	858.7	870.9
70°	711.0	752.4	763.2
72.5°	606.6	635.4	649.5
75°	498.9	521.8	532.5
77.5°	390.6	406.7	415.5
80°	284.8	294.1	301.4
82.5°	186.3	190.2	195.5
85°	100.5	100.5	103.9
87.5°	34.1	32.7	34.1
90°	0.0	0.0	0.0

(END OF REPORT)