

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: P835197

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3HI-30-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835197
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-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

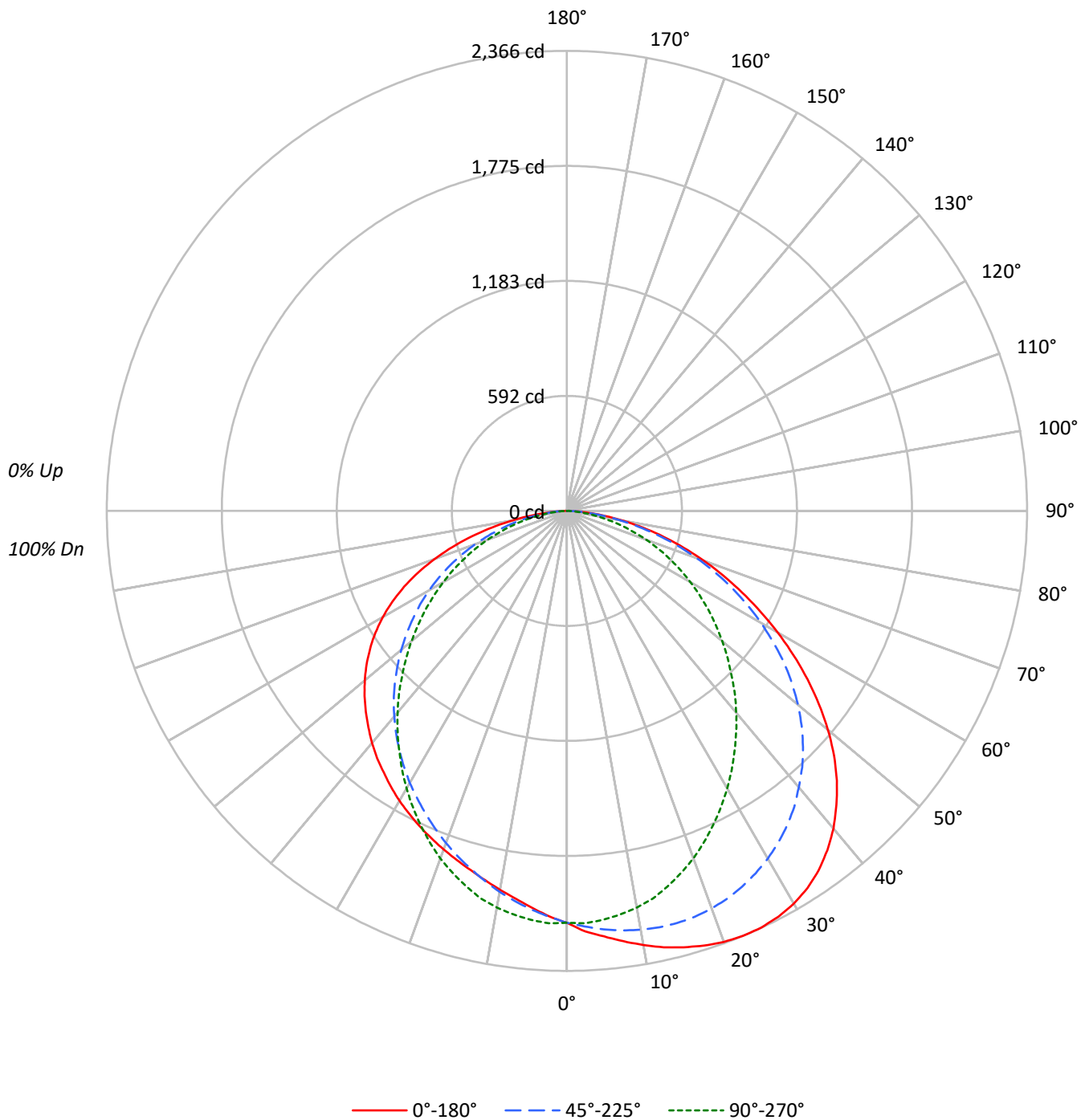
Lumens per Lamp: N/A
Luminaire Lumens: 6231.1 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5700	5700	5700
5°	5935	5703	5535
10°	6194	5660	5406
15°	6473	5570	5329
20°	6756	5447	5306
25°	7021	5289	5315
30°	7250	5123	5349
35°	7415	4940	5394
40°	7490	4757	5473
45°	7469	4557	5563
50°	7337	4365	5678
55°	7086	4164	5796
60°	6741	3950	5884
65°	6330	3709	5876
70°	5891	3421	5701
75°	5348	3004	5257
80°	4592	2469	4434
85°	3501	1686	3044

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.9	3.2
10°-20°	580.2	9.3
20°-30°	888.8	14.3
30°-40°	1084.7	17.4
40°-50°	1134.4	18.2
50°-60°	1026.7	16.5
60°-70°	777.5	12.5
70°-80°	433.3	7.0
80°-90°	104.5	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°	1669.9	26.8
0°-40°	2754.6	44.2
0°-60°	4915.7	78.9
0°-90°	6231.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6231.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2118	2118	2118	2118	2118	
5°	2197	2160	2111	2060	2049	212
15°	2323	2194	1999	1906	1913	659
25°	2365	2132	1781	1718	1790	1091
35°	2257	1974	1504	1502	1642	1409
45°	1963	1717	1197	1250	1462	1510
55°	1510	1364	888	966	1235	1348
65°	994	935	582	662	923	986
75°	514	486	289	345	506	546
85°	113	100	55	73	99	136
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°	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3
2.5°	2165.1	2154.9	2146.6	2149.8	2151.6	2145.2	2139.6	2140.5	2135.0	2145.6	2120.6
5°	2197.0	2187.8	2178.0	2181.7	2178.0	2168.3	2160.4	2158.1	2143.3	2149.3	2123.9
7.5°	2232.7	2222.5	2208.1	2212.3	2204.4	2186.4	2176.2	2170.2	2147.5	2147.9	2119.7
10°	2266.9	2258.1	2238.7	2241.5	2227.1	2203.0	2186.8	2178.5	2146.6	2141.9	2112.8
12.5°	2298.9	2286.8	2266.0	2267.4	2246.6	2214.6	2193.8	2181.7	2140.1	2126.2	2097.5
15°	2323.4	2311.9	2286.8	2286.4	2259.5	2217.9	2194.2	2177.6	2124.8	2103.0	2072.9
17.5°	2344.3	2333.6	2302.6	2301.7	2269.3	2216.5	2188.2	2167.4	2102.6	2075.7	2042.4
20°	2359.1	2348.4	2313.7	2310.5	2271.6	2209.5	2175.7	2149.3	2073.4	2041.4	2004.4
22.5°	2366.0	2355.4	2316.0	2311.4	2266.0	2195.6	2157.7	2126.6	2040.1	1998.4	1960.0
25°	2364.6	2354.5	2310.0	2305.4	2255.4	2174.8	2132.2	2096.5	1997.9	1948.8	1910.9
27.5°	2353.1	2345.2	2298.4	2292.4	2235.9	2146.6	2101.2	2061.8	1951.2	1896.5	1855.3
30°	2333.2	2327.1	2277.6	2272.0	2211.8	2115.5	2065.1	2019.7	1900.7	1839.1	1797.4
32.5°	2301.2	2295.6	2245.6	2240.5	2179.4	2075.7	2022.9	1976.2	1845.6	1777.5	1735.9
35°	2257.2	2254.0	2205.4	2199.8	2137.8	2030.3	1974.3	1922.9	1788.2	1711.3	1671.5
37.5°	2199.3	2199.3	2152.6	2146.6	2085.9	1974.8	1919.7	1865.0	1723.4	1641.9	1602.5
40°	2132.2	2138.2	2090.5	2084.5	2025.7	1915.0	1854.9	1797.4	1653.4	1568.7	1530.3
42.5°	2051.6	2057.2	2017.4	2011.8	1956.7	1846.1	1790.0	1727.5	1580.3	1494.2	1454.3
45°	1962.7	1970.1	1934.5	1930.3	1878.9	1770.6	1716.9	1653.4	1503.9	1416.4	1377.5
47.5°	1863.7	1873.4	1842.4	1840.0	1792.3	1693.3	1637.2	1572.9	1423.8	1335.3	1298.8
50°	1752.5	1766.4	1741.0	1741.0	1698.4	1599.7	1551.1	1486.8	1340.4	1252.0	1215.9
52.5°	1633.5	1651.1	1632.1	1632.6	1597.9	1509.4	1459.0	1396.0	1253.4	1166.3	1133.0
55°	1510.4	1527.5	1515.5	1517.3	1490.0	1409.4	1363.6	1301.1	1164.5	1079.8	1048.3
57.5°	1381.6	1400.2	1392.3	1396.0	1377.0	1304.8	1257.1	1202.5	1072.8	989.0	962.2
60°	1252.5	1270.1	1265.9	1271.0	1258.9	1196.4	1152.9	1096.4	980.7	900.1	876.5
62.5°	1121.9	1138.1	1137.2	1142.7	1136.2	1084.4	1045.5	997.3	885.3	811.2	789.4
65°	994.1	1008.0	1007.1	1013.1	1011.7	970.0	934.8	890.8	789.9	721.8	702.9
67.5°	870.0	881.6	878.3	885.3	887.1	853.8	823.2	783.9	699.2	632.9	616.7
70°	748.7	756.6	752.4	757.0	761.2	736.2	710.3	675.5	602.4	544.0	530.6
72.5°	629.7	635.3	628.8	633.4	637.1	619.1	597.8	567.7	507.0	456.5	445.4
75°	514.4	522.3	508.9	513.5	516.3	498.2	485.7	461.2	408.8	370.0	362.5
77.5°	402.8	407.5	400.0	398.2	400.0	387.1	377.4	358.4	319.0	287.1	282.4
80°	296.3	299.1	291.7	289.8	291.2	282.0	274.6	260.7	232.9	208.8	207.0
82.5°	198.6	200.0	193.5	191.7	192.6	189.8	181.0	171.3	158.4	138.0	137.5
85°	113.4	113.4	108.8	107.0	107.9	103.3	100.0	94.9	89.8	75.9	76.9
87.5°	41.7	41.7	39.4	38.9	43.5	38.4	37.0	34.7	36.1	28.7	30.6
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3	2118.3
2.5°	2127.6	2122.9	2118.8	2104.4	2110.4	2095.6	2094.7	2089.1	2085.0	2077.1	2087.3
5°	2120.6	2111.4	2099.3	2082.2	2087.3	2069.7	2066.0	2059.5	2054.0	2043.8	2051.6
7.5°	2109.5	2094.2	2075.3	2053.5	2060.4	2038.7	2033.1	2026.2	2021.5	2009.5	2016.4
10°	2093.3	2071.5	2049.3	2022.9	2028.0	2004.4	1997.5	1990.1	1985.9	1975.2	1982.2
12.5°	2068.3	2041.9	2011.8	1983.1	1988.7	1966.4	1957.2	1949.3	1947.9	1939.1	1947.5
15°	2035.9	1999.3	1968.3	1937.7	1944.2	1918.3	1914.1	1906.2	1908.6	1902.5	1912.7
17.5°	1994.7	1952.6	1918.7	1885.9	1892.4	1870.6	1867.4	1863.7	1866.0	1865.0	1876.2
20°	1948.4	1902.1	1863.2	1830.8	1834.5	1817.3	1818.7	1817.8	1822.4	1827.5	1842.8
22.5°	1896.1	1843.7	1803.0	1769.7	1775.2	1760.4	1766.9	1768.7	1776.6	1788.2	1807.6
25°	1837.3	1781.2	1738.6	1707.2	1712.2	1702.5	1713.6	1718.3	1730.8	1750.2	1770.1
27.5°	1775.7	1716.4	1671.0	1640.9	1650.7	1640.9	1657.6	1666.9	1685.9	1707.2	1731.7
30°	1710.4	1648.8	1602.0	1575.2	1584.5	1575.7	1602.5	1615.0	1634.0	1663.2	1692.3
32.5°	1641.9	1577.0	1531.2	1510.4	1516.8	1515.5	1545.6	1559.4	1584.9	1618.3	1649.3
35°	1571.5	1503.9	1457.6	1440.0	1447.9	1449.7	1485.8	1502.0	1529.8	1570.1	1603.4
37.5°	1498.8	1429.8	1384.4	1370.1	1377.0	1384.0	1426.1	1442.3	1473.8	1517.8	1554.4
40°	1423.3	1354.3	1309.9	1298.3	1305.2	1312.7	1358.5	1380.7	1415.0	1462.7	1502.5
42.5°	1346.9	1277.9	1234.9	1226.5	1233.5	1247.8	1296.5	1317.3	1353.4	1406.2	1450.2
45°	1269.1	1197.4	1159.9	1153.4	1160.8	1177.5	1225.1	1250.2	1288.6	1346.5	1393.7
47.5°	1190.4	1120.5	1084.9	1080.7	1088.1	1106.6	1159.4	1182.1	1222.8	1284.4	1335.3
50°	1110.8	1042.7	1008.5	1007.1	1014.0	1033.9	1084.4	1111.2	1153.4	1222.4	1274.7
52.5°	1030.2	964.9	933.9	933.9	940.4	960.8	1011.7	1039.5	1083.0	1155.7	1213.6
55°	949.7	887.6	858.0	860.3	869.5	887.1	936.7	965.9	1009.8	1085.3	1146.4
57.5°	869.1	810.3	783.4	786.7	795.5	813.1	861.7	894.6	934.4	1012.6	1075.1
60°	789.4	733.9	710.3	714.0	721.8	739.4	789.9	818.2	858.0	937.6	1000.1
62.5°	708.9	658.4	636.2	640.8	647.8	665.4	713.0	740.4	779.7	858.0	920.9
65°	629.2	582.5	563.5	568.1	574.6	590.8	635.7	662.1	699.6	776.0	836.2
67.5°	550.5	507.9	492.2	496.8	501.9	517.2	554.2	582.9	618.1	690.8	747.8
70°	472.7	434.8	420.9	425.5	430.1	444.0	476.4	502.8	535.2	601.9	654.7
72.5°	395.9	358.8	351.9	356.1	359.8	371.8	402.8	423.7	451.9	511.2	556.5
75°	320.9	288.9	284.3	288.5	291.7	301.0	326.9	344.9	368.6	420.0	457.0
77.5°	248.6	221.8	219.9	223.2	226.4	232.9	253.3	272.3	290.8	328.7	361.6
80°	181.0	159.3	159.3	162.5	161.6	169.5	183.8	199.1	212.5	239.8	263.9
82.5°	119.5	102.3	104.6	107.0	108.3	111.6	120.4	132.0	140.3	157.0	172.7
85°	66.2	54.6	57.0	58.8	57.9	61.6	66.2	73.2	77.3	85.2	93.5
87.5°	24.5	20.4	20.8	22.2	23.2	25.0	25.0	29.2	29.6	30.6	32.4
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°	2118.3	2118.3	2118.3
2.5°	2067.8	2079.0	2087.3
5°	2032.2	2041.4	2048.9
7.5°	1997.5	2005.8	2012.3
10°	1964.6	1973.8	1978.5
12.5°	1930.8	1941.4	1945.1
15°	1897.5	1908.1	1912.7
17.5°	1863.2	1877.1	1882.2
20°	1831.2	1848.8	1853.0
22.5°	1798.8	1816.9	1822.0
25°	1763.6	1784.9	1790.0
27.5°	1726.1	1751.6	1756.7
30°	1688.6	1716.4	1721.5
32.5°	1648.3	1678.4	1683.1
35°	1606.2	1636.3	1641.9
37.5°	1559.4	1592.3	1603.4
40°	1510.8	1546.5	1558.1
42.5°	1459.9	1498.8	1510.8
45°	1405.3	1447.9	1461.8
47.5°	1350.2	1398.3	1410.4
50°	1290.4	1341.8	1356.2
52.5°	1227.9	1284.0	1298.3
55°	1163.1	1219.6	1235.3
57.5°	1092.7	1151.1	1167.7
60°	1019.1	1077.4	1093.2
62.5°	943.6	996.4	1011.7
65°	859.4	908.9	922.8
67.5°	770.0	815.4	827.0
70°	675.1	714.4	724.6
72.5°	576.0	603.3	616.7
75°	473.7	495.4	505.6
77.5°	370.9	386.2	394.5
80°	270.4	279.2	286.1
82.5°	176.9	180.6	185.7
85°	95.4	95.4	98.6
87.5°	32.4	31.0	32.4
90°	0.0	0.0	0.0

(END OF REPORT)