

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: P835252

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-4LO-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835252
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-LD4-4LO-50-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

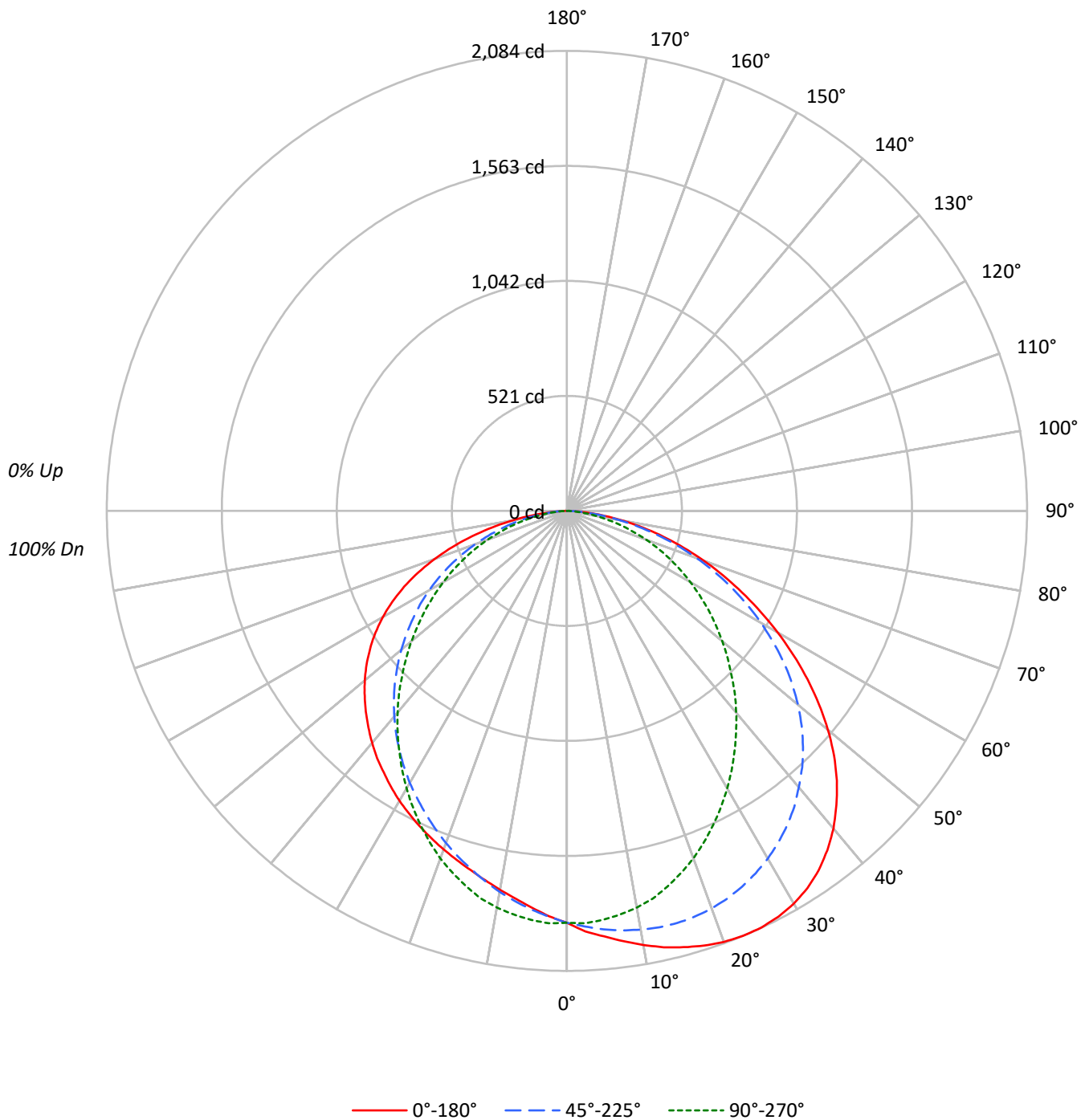
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5488.2 lumens
Efficiency: N/A
Efficacy: 117.3 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): 46.8
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

TEST NUMBER: P835252
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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°	5021	5021	5021
5°	5227	5023	4875
10°	5456	4986	4762
15°	5701	4906	4693
20°	5950	4798	4674
25°	6184	4658	4681
30°	6385	4512	4712
35°	6531	4351	4751
40°	6597	4190	4821
45°	6579	4013	4900
50°	6462	3845	5001
55°	6241	3668	5105
60°	5937	3479	5182
65°	5575	3266	5175
70°	5188	3013	5021
75°	4711	2646	4630
80°	4045	2174	3905
85°	3084	1485	2683

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.0	3.2
10°-20°	511.0	9.3
20°-30°	782.9	14.3
30°-40°	955.4	17.4
40°-50°	999.1	18.2
50°-60°	904.3	16.5
60°-70°	684.8	12.5
70°-80°	381.7	7.0
80°-90°	92.1	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°	1470.8	26.8
0°-40°	2426.2	44.2
0°-60°	4329.6	78.9
0°-90°	5488.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5488.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1866	1866	1866	1866	1866	
5°	1935	1903	1860	1814	1805	187
15°	2046	1933	1761	1679	1685	580
25°	2083	1878	1569	1513	1577	961
35°	1988	1739	1325	1323	1446	1241
45°	1729	1512	1055	1101	1288	1330
55°	1330	1201	782	851	1088	1187
65°	876	823	513	583	813	869
75°	453	428	254	304	445	481
85°	100	88	48	64	87	120
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°	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8
2.5°	1906.9	1898.0	1890.6	1893.5	1895.1	1889.4	1884.5	1885.3	1880.4	1889.8	1867.8
5°	1935.1	1926.9	1918.4	1921.6	1918.4	1909.8	1902.9	1900.8	1887.8	1893.1	1870.6
7.5°	1966.5	1957.5	1944.9	1948.5	1941.6	1925.7	1916.7	1911.4	1891.4	1891.9	1867.0
10°	1996.7	1988.9	1971.8	1974.2	1961.6	1940.4	1926.1	1918.8	1890.6	1886.6	1860.9
12.5°	2024.8	2014.2	1995.8	1997.1	1978.7	1950.6	1932.2	1921.6	1884.9	1872.7	1847.4
15°	2046.4	2036.2	2014.2	2013.8	1990.1	1953.4	1932.6	1918.0	1871.5	1852.3	1825.8
17.5°	2064.8	2055.4	2028.1	2027.2	1998.7	1952.2	1927.3	1909.0	1851.9	1828.2	1798.9
20°	2077.8	2068.4	2037.9	2035.0	2000.7	1946.1	1916.3	1893.1	1826.2	1798.1	1765.4
22.5°	2083.9	2074.6	2039.9	2035.8	1995.8	1933.9	1900.4	1873.1	1796.8	1760.1	1726.3
25°	2082.7	2073.7	2034.6	2030.5	1986.5	1915.5	1878.0	1846.6	1759.7	1716.5	1683.1
27.5°	2072.5	2065.6	2024.4	2019.1	1969.3	1890.6	1850.7	1816.0	1718.5	1670.4	1634.1
30°	2055.0	2049.7	2006.0	2001.1	1948.1	1863.3	1818.9	1778.9	1674.1	1619.8	1583.1
32.5°	2026.8	2021.9	1977.9	1973.4	1919.6	1828.2	1781.7	1740.6	1625.6	1565.6	1528.9
35°	1988.1	1985.2	1942.4	1937.5	1882.9	1788.3	1738.9	1693.7	1575.0	1507.3	1472.2
37.5°	1937.1	1937.1	1895.9	1890.6	1837.2	1739.3	1690.8	1642.7	1517.9	1446.1	1411.4
40°	1878.0	1883.3	1841.3	1836.0	1784.2	1686.7	1633.7	1583.1	1456.3	1381.7	1347.8
42.5°	1807.0	1811.9	1776.9	1772.0	1723.4	1626.0	1576.6	1521.6	1391.9	1316.0	1280.9
45°	1728.7	1735.3	1703.9	1700.2	1654.9	1559.5	1512.2	1456.3	1324.6	1247.5	1213.2
47.5°	1641.5	1650.0	1622.7	1620.7	1578.7	1491.4	1442.0	1385.3	1254.0	1176.1	1143.9
50°	1543.6	1555.8	1533.4	1533.4	1495.9	1409.0	1366.2	1309.5	1180.6	1102.7	1070.9
52.5°	1438.8	1454.3	1437.5	1438.0	1407.4	1329.5	1285.0	1229.6	1104.0	1027.3	997.9
55°	1330.3	1345.4	1334.8	1336.4	1312.3	1241.4	1201.0	1146.0	1025.7	951.0	923.3
57.5°	1216.9	1233.2	1226.3	1229.6	1212.8	1149.2	1107.2	1059.1	944.9	871.1	847.4
60°	1103.1	1118.6	1115.0	1119.5	1108.8	1053.8	1015.5	965.7	863.8	792.8	772.0
62.5°	988.1	1002.4	1001.6	1006.5	1000.8	955.1	920.8	878.4	779.7	714.5	695.3
65°	875.6	887.8	887.0	892.3	891.1	854.4	823.4	784.6	695.7	635.8	619.1
67.5°	766.3	776.5	773.6	779.7	781.4	752.0	725.1	690.4	615.8	557.5	543.2
70°	659.4	666.4	662.7	666.8	670.4	648.4	625.6	595.0	530.6	479.2	467.4
72.5°	554.6	559.5	553.8	557.9	561.2	545.2	526.5	500.0	446.6	402.1	392.3
75°	453.1	460.0	448.2	452.3	454.7	438.8	427.8	406.2	360.1	325.8	319.3
77.5°	354.8	358.9	352.4	350.7	352.4	340.9	332.4	315.6	281.0	252.8	248.8
80°	261.0	263.4	256.9	255.3	256.5	248.4	241.8	229.6	205.1	183.9	182.3
82.5°	175.0	176.2	170.5	168.8	169.7	167.2	159.5	150.9	139.5	121.5	121.1
85°	99.9	99.9	95.8	94.2	95.0	90.9	88.1	83.6	79.1	66.9	67.7
87.5°	36.7	36.7	34.7	34.3	38.3	33.8	32.6	30.6	31.8	25.3	26.9
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8	1865.8
2.5°	1873.9	1869.8	1866.2	1853.5	1858.8	1845.8	1845.0	1840.1	1836.4	1829.5	1838.4
5°	1867.8	1859.6	1849.0	1833.9	1838.4	1822.9	1819.7	1814.0	1809.1	1800.1	1807.0
7.5°	1858.0	1844.5	1827.8	1808.7	1814.8	1795.6	1790.7	1784.6	1780.5	1769.9	1776.0
10°	1843.7	1824.6	1805.0	1781.7	1786.2	1765.4	1759.3	1752.8	1749.1	1739.7	1745.9
12.5°	1821.7	1798.5	1772.0	1746.7	1751.6	1732.0	1723.8	1716.9	1715.7	1707.9	1715.3
15°	1793.2	1760.9	1733.6	1706.7	1712.4	1689.6	1685.9	1679.0	1681.0	1675.7	1684.7
17.5°	1756.9	1719.8	1690.0	1661.0	1666.7	1647.6	1644.7	1641.5	1643.5	1642.7	1652.5
20°	1716.1	1675.3	1641.0	1612.5	1615.8	1600.7	1601.9	1601.1	1605.2	1609.6	1623.1
22.5°	1670.0	1623.9	1588.0	1558.7	1563.6	1550.5	1556.2	1557.9	1564.8	1575.0	1592.1
25°	1618.2	1568.9	1531.3	1503.6	1508.1	1499.5	1509.3	1513.4	1524.4	1541.5	1559.1
27.5°	1564.0	1511.8	1471.8	1445.3	1453.9	1445.3	1460.0	1468.1	1484.9	1503.6	1525.2
30°	1506.5	1452.2	1411.0	1387.4	1395.5	1387.8	1411.4	1422.5	1439.2	1464.9	1490.6
32.5°	1446.1	1389.0	1348.6	1330.3	1336.0	1334.8	1361.3	1373.5	1396.0	1425.3	1452.6
35°	1384.1	1324.6	1283.8	1268.3	1275.2	1276.9	1308.7	1323.0	1347.4	1382.9	1412.3
37.5°	1320.1	1259.3	1219.4	1206.7	1212.8	1219.0	1256.1	1270.3	1298.1	1336.8	1369.0
40°	1253.6	1192.9	1153.7	1143.5	1149.6	1156.2	1196.5	1216.1	1246.3	1288.3	1323.4
42.5°	1186.3	1125.6	1087.6	1080.3	1086.4	1099.1	1141.9	1160.2	1192.0	1238.5	1277.3
45°	1117.8	1054.6	1021.6	1015.9	1022.4	1037.1	1079.1	1101.1	1134.9	1185.9	1227.5
47.5°	1048.5	986.9	955.5	951.8	958.4	974.7	1021.2	1041.2	1077.0	1131.3	1176.1
50°	978.3	918.4	888.2	887.0	893.1	910.7	955.1	978.8	1015.9	1076.6	1122.7
52.5°	907.4	849.9	822.6	822.6	828.3	846.2	891.1	915.5	953.9	1017.9	1068.9
55°	836.4	781.8	755.7	757.7	765.9	781.4	825.0	850.7	889.4	955.9	1009.8
57.5°	765.5	713.7	690.0	692.9	700.6	716.1	758.9	787.9	823.0	891.9	946.9
60°	695.3	646.4	625.6	628.9	635.8	651.3	695.7	720.6	755.7	825.8	880.9
62.5°	624.4	579.9	560.3	564.4	570.5	586.0	628.0	652.1	686.8	755.7	811.1
65°	554.2	513.0	496.3	500.4	506.1	520.4	559.9	583.2	616.2	683.5	736.5
67.5°	484.9	447.4	433.5	437.6	442.1	455.5	488.2	513.4	544.4	608.5	658.6
70°	416.4	382.9	370.7	374.8	378.9	391.1	419.6	442.9	471.4	530.2	576.7
72.5°	348.7	316.1	309.9	313.6	316.9	327.5	354.8	373.2	398.0	450.2	490.2
75°	282.6	254.5	250.4	254.1	256.9	265.1	287.9	303.8	324.6	369.9	402.5
77.5°	219.0	195.3	193.7	196.6	199.4	205.1	223.1	239.8	256.1	289.5	318.5
80°	159.5	140.3	140.3	143.1	142.3	149.3	161.9	175.4	187.2	211.2	232.5
82.5°	105.2	90.1	92.2	94.2	95.4	98.3	106.0	116.2	123.6	138.2	152.1
85°	58.3	48.1	50.2	51.8	51.0	54.2	58.3	64.4	68.1	75.0	82.4
87.5°	21.6	17.9	18.4	19.6	20.4	22.0	22.0	25.7	26.1	26.9	28.5
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°	1865.8	1865.8	1865.8
2.5°	1821.3	1831.1	1838.4
5°	1789.9	1798.1	1804.6
7.5°	1759.3	1766.7	1772.4
10°	1730.4	1738.5	1742.6
12.5°	1700.6	1710.0	1713.2
15°	1671.2	1680.6	1684.7
17.5°	1641.0	1653.3	1657.8
20°	1612.9	1628.4	1632.1
22.5°	1584.4	1600.3	1604.8
25°	1553.4	1572.1	1576.6
27.5°	1520.3	1542.8	1547.3
30°	1487.3	1511.8	1516.3
32.5°	1451.8	1478.3	1482.4
35°	1414.7	1441.2	1446.1
37.5°	1373.5	1402.5	1412.3
40°	1330.7	1362.1	1372.3
42.5°	1285.8	1320.1	1330.7
45°	1237.7	1275.2	1287.5
47.5°	1189.2	1231.6	1242.2
50°	1136.6	1181.8	1194.5
52.5°	1081.5	1130.9	1143.5
55°	1024.4	1074.2	1088.1
57.5°	962.4	1013.8	1028.5
60°	897.6	949.0	962.9
62.5°	831.1	877.6	891.1
65°	756.9	800.5	812.8
67.5°	678.2	718.2	728.4
70°	594.6	629.3	638.2
72.5°	507.3	531.4	543.2
75°	417.2	436.4	445.3
77.5°	326.7	340.1	347.5
80°	238.2	245.9	252.0
82.5°	155.8	159.0	163.5
85°	84.0	84.0	86.9
87.5°	28.5	27.3	28.5
90°	0.0	0.0	0.0

(END OF REPORT)