

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: P835323

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3HI-35-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835323
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-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

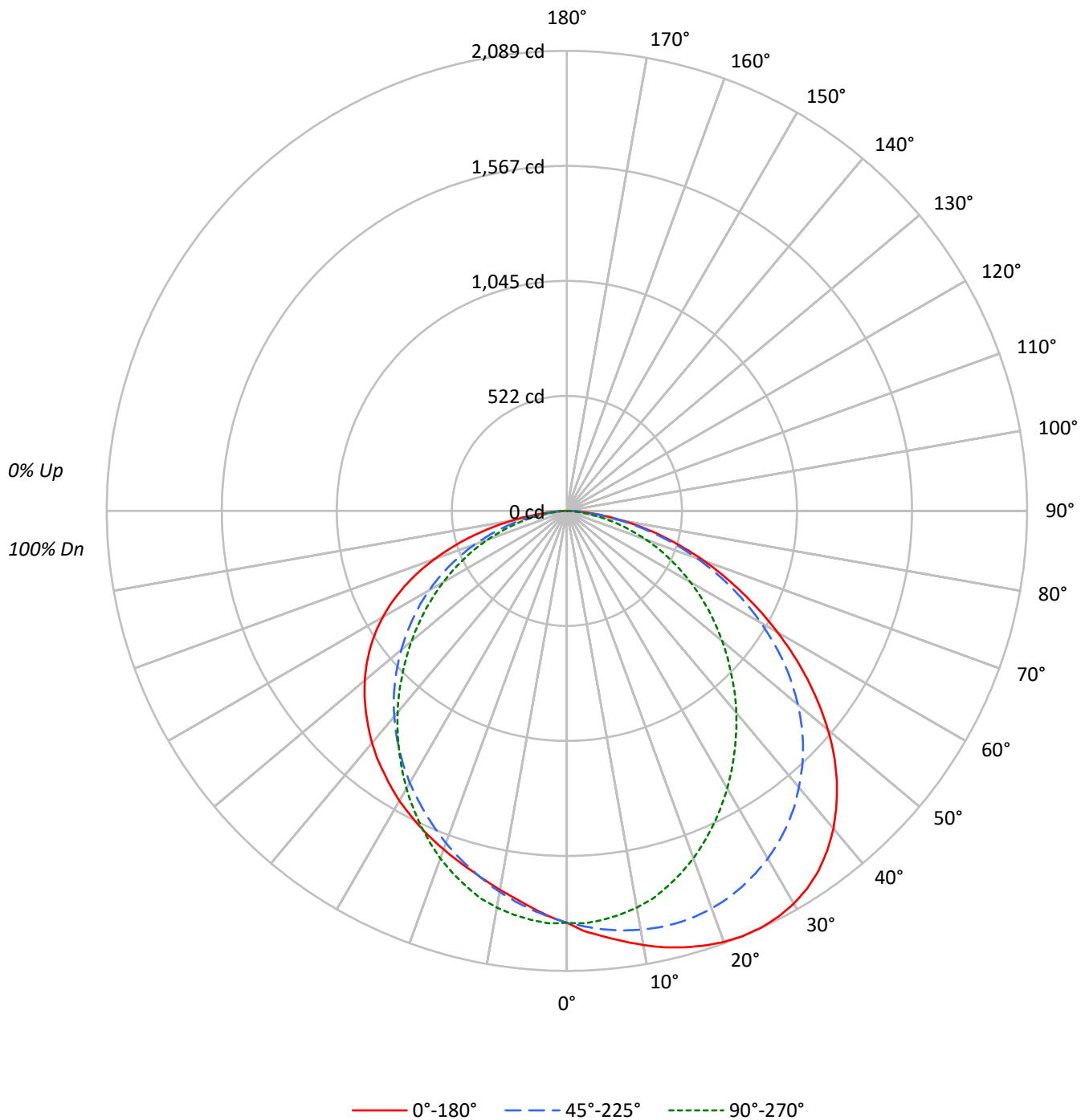
Lumens per Lamp: N/A
Luminaire Lumens: 5501.9 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5033	5033	5033
5°	5240	5036	4887
10°	5470	4998	4774
15°	5715	4918	4705
20°	5965	4810	4686
25°	6199	4670	4693
30°	6401	4524	4723
35°	6547	4362	4762
40°	6614	4201	4833
45°	6596	4023	4912
50°	6478	3854	5013
55°	6257	3677	5118
60°	5952	3488	5195
65°	5589	3275	5188
70°	5201	3020	5034
75°	4722	2652	4641
80°	4055	2179	3916
85°	3094	1488	2689

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.4	3.2
10°-20°	512.3	9.3
20°-30°	784.8	14.3
30°-40°	957.8	17.4
40°-50°	1001.6	18.2
50°-60°	906.5	16.5
60°-70°	686.6	12.5
70°-80°	382.6	7.0
80°-90°	92.3	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°	1474.5	26.8
0°-40°	2432.3	44.2
0°-60°	4340.5	78.9
0°-90°	5501.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5501.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1870	1870	1870	1870	1870	
5°	1940	1908	1864	1818	1809	187
15°	2052	1938	1765	1683	1689	582
25°	2088	1883	1573	1517	1581	963
35°	1993	1743	1328	1326	1450	1245
45°	1733	1516	1057	1104	1291	1333
55°	1334	1204	784	853	1091	1190
65°	878	825	514	585	815	871
75°	454	429	255	305	446	482
85°	100	88	48	65	87	121
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°	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4
2.5°	1911.7	1902.7	1895.4	1898.2	1899.9	1894.1	1889.2	1890.0	1885.1	1894.5	1872.5
5°	1939.9	1931.7	1923.2	1926.4	1923.2	1914.6	1907.6	1905.6	1892.5	1897.8	1875.3
7.5°	1971.4	1962.4	1949.7	1953.4	1946.5	1930.5	1921.5	1916.2	1896.2	1896.6	1871.7
10°	2001.7	1993.9	1976.7	1979.2	1966.5	1945.2	1930.9	1923.6	1895.4	1891.3	1865.5
12.5°	2029.9	2019.2	2000.8	2002.1	1983.7	1955.5	1937.1	1926.4	1889.6	1877.4	1852.0
15°	2051.5	2041.3	2019.2	2018.8	1995.1	1958.3	1937.5	1922.8	1876.1	1856.9	1830.4
17.5°	2069.9	2060.5	2033.1	2032.3	2003.7	1957.1	1932.2	1913.8	1856.5	1832.8	1803.4
20°	2083.0	2073.6	2043.0	2040.1	2005.7	1951.0	1921.1	1897.8	1830.8	1802.6	1769.8
22.5°	2089.2	2079.7	2045.0	2040.9	2000.8	1938.7	1905.2	1877.8	1801.3	1764.5	1730.6
25°	2087.9	2078.9	2039.7	2035.6	1991.4	1920.3	1882.7	1851.2	1764.1	1720.8	1687.3
27.5°	2077.7	2070.8	2029.5	2024.1	1974.3	1895.4	1855.3	1820.5	1722.8	1674.6	1638.2
30°	2060.1	2054.8	2011.1	2006.2	1953.0	1868.0	1823.4	1783.3	1678.3	1623.9	1587.1
32.5°	2031.9	2027.0	1982.9	1978.4	1924.4	1832.8	1786.2	1744.9	1629.6	1569.5	1532.7
35°	1993.1	1990.2	1947.3	1942.4	1887.6	1792.7	1743.3	1697.9	1578.9	1511.1	1475.9
37.5°	1942.0	1942.0	1900.7	1895.4	1841.8	1743.7	1695.0	1646.8	1521.7	1449.7	1415.0
40°	1882.7	1888.0	1845.9	1840.6	1788.7	1690.9	1637.8	1587.1	1460.0	1385.1	1351.2
42.5°	1811.6	1816.5	1781.3	1776.4	1727.7	1630.0	1580.6	1525.4	1395.4	1319.3	1284.2
45°	1733.1	1739.6	1708.1	1704.4	1659.1	1563.4	1516.0	1460.0	1327.9	1250.6	1216.3
47.5°	1645.6	1654.1	1626.8	1624.7	1582.6	1495.1	1445.6	1388.8	1257.2	1179.1	1146.8
50°	1547.4	1559.7	1537.2	1537.2	1499.6	1412.5	1369.6	1312.8	1183.6	1105.5	1073.6
52.5°	1442.4	1457.9	1441.1	1441.6	1410.9	1332.8	1288.2	1232.6	1106.7	1029.9	1000.4
55°	1333.6	1348.7	1338.1	1339.8	1315.6	1244.5	1204.0	1148.8	1028.2	953.4	925.6
57.5°	1220.0	1236.3	1229.4	1232.6	1215.9	1152.1	1110.0	1061.7	947.3	873.3	849.6
60°	1105.9	1121.4	1117.8	1122.3	1111.6	1056.4	1018.0	968.1	865.9	794.8	773.9
62.5°	990.6	1004.9	1004.1	1009.0	1003.3	957.5	923.2	880.6	781.7	716.3	697.1
65°	877.8	890.0	889.2	894.5	893.3	856.5	825.4	786.6	697.5	637.4	620.6
67.5°	768.2	778.4	775.6	781.7	783.3	753.9	726.9	692.2	617.3	558.9	544.6
70°	661.1	668.0	664.4	668.4	672.1	650.0	627.2	596.5	531.9	480.4	468.5
72.5°	556.0	560.9	555.2	559.3	562.6	546.6	527.8	501.2	447.7	403.1	393.3
75°	454.2	461.2	449.3	453.4	455.9	439.9	428.9	407.2	361.0	326.7	320.1
77.5°	355.7	359.8	353.2	351.6	353.2	341.8	333.2	316.4	281.7	253.5	249.4
80°	261.7	264.1	257.6	255.9	257.2	249.0	242.4	230.2	205.6	184.4	182.7
82.5°	175.4	176.6	170.9	169.3	170.1	167.6	159.9	151.3	139.8	121.8	121.4
85°	100.2	100.2	96.1	94.4	95.3	91.2	88.3	83.8	79.3	67.0	67.9
87.5°	36.8	36.8	34.8	34.3	38.4	33.9	32.7	30.7	31.9	25.3	27.0
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°	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4	1870.4
2.5°	1878.6	1874.5	1870.8	1858.2	1863.5	1850.4	1849.6	1844.7	1841.0	1834.0	1843.0
5°	1872.5	1864.3	1853.7	1838.5	1843.0	1827.5	1824.2	1818.5	1813.6	1804.6	1811.6
7.5°	1862.7	1849.2	1832.4	1813.2	1819.3	1800.1	1795.2	1789.1	1785.0	1774.3	1780.5
10°	1848.3	1829.1	1809.5	1786.2	1790.7	1769.8	1763.7	1757.2	1753.5	1744.1	1750.2
12.5°	1826.3	1803.0	1776.4	1751.0	1755.9	1736.3	1728.1	1721.2	1720.0	1712.2	1719.6
15°	1797.7	1765.4	1738.0	1711.0	1716.7	1693.8	1690.1	1683.2	1685.2	1679.9	1688.9
17.5°	1761.3	1724.1	1694.2	1665.2	1670.9	1651.7	1648.8	1645.6	1647.6	1646.8	1656.6
20°	1720.4	1679.5	1645.2	1616.5	1619.8	1604.7	1605.9	1605.1	1609.2	1613.7	1627.2
22.5°	1674.2	1628.0	1592.0	1562.6	1567.5	1554.4	1560.1	1561.8	1568.7	1578.9	1596.1
25°	1622.3	1572.8	1535.2	1507.4	1511.9	1503.3	1513.1	1517.2	1528.2	1545.4	1563.0
27.5°	1567.9	1515.6	1475.5	1448.9	1457.5	1448.9	1463.6	1471.8	1488.6	1507.4	1529.0
30°	1510.2	1455.9	1414.6	1390.9	1399.0	1391.3	1415.0	1426.0	1442.8	1468.5	1494.3
32.5°	1449.7	1392.5	1352.0	1333.6	1339.3	1338.1	1364.7	1377.0	1399.4	1428.9	1456.3
35°	1387.6	1327.9	1287.0	1271.5	1278.4	1280.1	1312.0	1326.3	1350.8	1386.4	1415.8
37.5°	1323.4	1262.5	1222.4	1209.7	1215.9	1222.0	1259.2	1273.5	1301.3	1340.2	1372.5
40°	1256.8	1195.8	1156.6	1146.4	1152.5	1159.0	1199.5	1219.1	1249.4	1291.5	1326.7
42.5°	1189.3	1128.4	1090.4	1083.0	1089.1	1101.8	1144.7	1163.1	1195.0	1241.6	1280.5
45°	1120.6	1057.2	1024.1	1018.4	1025.0	1039.7	1081.8	1103.9	1137.8	1188.9	1230.6
47.5°	1051.1	989.4	957.9	954.2	960.8	977.1	1023.7	1043.8	1079.7	1134.1	1179.1
50°	980.8	920.7	890.4	889.2	895.4	912.9	957.5	981.2	1018.4	1079.3	1125.5
52.5°	909.7	852.0	824.6	824.6	830.3	848.3	893.3	917.8	956.3	1020.5	1071.6
55°	838.5	783.7	757.6	759.6	767.8	783.3	827.1	852.8	891.7	958.3	1012.3
57.5°	767.4	715.5	691.8	694.6	702.4	717.9	760.8	789.9	825.0	894.1	949.3
60°	697.1	648.0	627.2	630.4	637.4	652.9	697.5	722.4	757.6	827.9	883.1
62.5°	625.9	581.4	561.7	565.8	572.0	587.5	629.6	653.7	688.5	757.6	813.2
65°	555.6	514.3	497.6	501.6	507.4	521.7	561.3	584.6	617.8	685.2	738.4
67.5°	486.1	448.5	434.6	438.7	443.2	456.7	489.4	514.7	545.8	610.0	660.3
70°	417.4	383.9	371.6	375.7	379.8	392.1	420.7	444.0	472.6	531.5	578.1
72.5°	349.6	316.8	310.7	314.4	317.7	328.3	355.7	374.1	399.0	451.4	491.4
75°	283.3	255.1	251.0	254.7	257.6	265.7	288.6	304.6	325.4	370.8	403.5
77.5°	219.5	195.8	194.2	197.1	199.9	205.6	223.6	240.4	256.7	290.3	319.3
80°	159.9	140.6	140.6	143.5	142.7	149.6	162.3	175.8	187.7	211.8	233.0
82.5°	105.5	90.4	92.4	94.4	95.7	98.5	106.3	116.5	123.9	138.6	152.5
85°	58.5	48.2	50.3	51.9	51.1	54.4	58.5	64.6	68.3	75.2	82.6
87.5°	21.7	18.0	18.4	19.6	20.4	22.1	22.1	25.8	26.2	27.0	28.6
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°	1870.4	1870.4	1870.4
2.5°	1825.9	1835.7	1843.0
5°	1794.4	1802.6	1809.1
7.5°	1763.7	1771.1	1776.8
10°	1734.7	1742.9	1747.0
12.5°	1704.8	1714.2	1717.5
15°	1675.4	1684.8	1688.9
17.5°	1645.2	1657.4	1661.9
20°	1616.9	1632.5	1636.2
22.5°	1588.3	1604.3	1608.8
25°	1557.3	1576.1	1580.6
27.5°	1524.1	1546.6	1551.1
30°	1491.0	1515.6	1520.1
32.5°	1455.5	1482.0	1486.1
35°	1418.3	1444.8	1449.7
37.5°	1377.0	1406.0	1415.8
40°	1334.0	1365.5	1375.7
42.5°	1289.1	1323.4	1334.0
45°	1240.8	1278.4	1290.7
47.5°	1192.2	1234.7	1245.3
50°	1139.4	1184.8	1197.5
52.5°	1084.2	1133.7	1146.4
55°	1027.0	1076.9	1090.8
57.5°	964.9	1016.4	1031.1
60°	899.8	951.4	965.3
62.5°	833.2	879.8	893.3
65°	758.8	802.5	814.8
67.5°	679.9	720.0	730.2
70°	596.1	630.8	639.8
72.5°	508.6	532.7	544.6
75°	418.2	437.5	446.4
77.5°	327.5	341.0	348.3
80°	238.8	246.5	252.7
82.5°	156.2	159.4	163.9
85°	84.2	84.2	87.1
87.5°	28.6	27.4	28.6
90°	0.0	0.0	0.0

(END OF REPORT)