

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: P835327

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-5LO-35-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835327
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-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

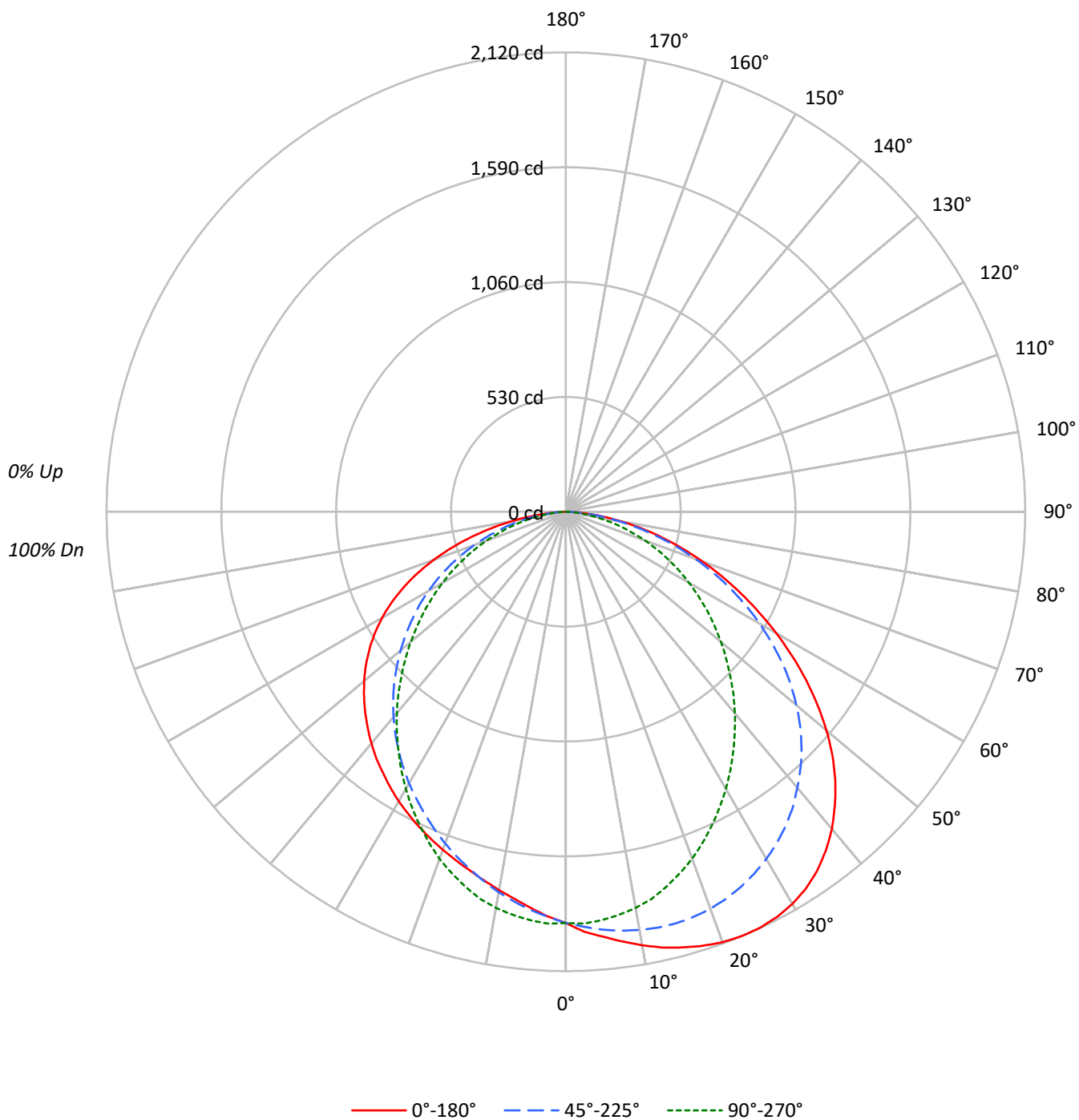
Lumens per Lamp: N/A
Luminaire Lumens: 5582.8 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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°	5107	5107	5107
5°	5317	5110	4959
10°	5550	5072	4844
15°	5799	4990	4774
20°	6053	4880	4754
25°	6290	4738	4762
30°	6495	4590	4793
35°	6644	4426	4832
40°	6711	4262	4904
45°	6692	4083	4984
50°	6574	3911	5087
55°	6349	3731	5193
60°	6040	3539	5271
65°	5671	3323	5265
70°	5278	3065	5108
75°	4792	2692	4710
80°	4114	2211	3973
85°	3137	1513	2729

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.0	3.2
10°-20°	519.8	9.3
20°-30°	796.4	14.3
30°-40°	971.8	17.4
40°-50°	1016.3	18.2
50°-60°	919.9	16.5
60°-70°	696.6	12.5
70°-80°	388.2	7.0
80°-90°	93.6	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°	1496.2	26.8
0°-40°	2468.0	44.2
0°-60°	4404.2	78.9
0°-90°	5582.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5582.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1898	1898	1898	1898	1898	
5°	1968	1936	1892	1845	1836	190
15°	2082	1966	1791	1708	1714	590
25°	2119	1910	1596	1540	1604	977
35°	2022	1769	1347	1346	1471	1263
45°	1758	1538	1073	1120	1310	1353
55°	1353	1222	795	865	1107	1208
65°	891	838	522	593	827	884
75°	461	435	259	309	453	489
85°	102	90	49	66	88	122
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°	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9
2.5°	1939.8	1930.7	1923.2	1926.1	1927.8	1922.0	1917.0	1917.8	1912.8	1922.4	1900.0
5°	1968.4	1960.1	1951.4	1954.7	1951.4	1942.7	1935.7	1933.6	1920.3	1925.7	1902.9
7.5°	2000.4	1991.3	1978.4	1982.1	1975.1	1958.9	1949.8	1944.4	1924.0	1924.5	1899.2
10°	2031.1	2023.2	2005.8	2008.3	1995.4	1973.8	1959.3	1951.8	1923.2	1919.1	1892.9
12.5°	2059.7	2048.9	2030.2	2031.5	2012.8	1984.2	1965.5	1954.7	1917.4	1905.0	1879.2
15°	2081.7	2071.3	2048.9	2048.5	2024.4	1987.1	1965.9	1951.0	1903.7	1884.2	1857.3
17.5°	2100.4	2090.8	2063.0	2062.2	2033.1	1985.9	1960.6	1941.9	1883.8	1859.7	1829.9
20°	2113.6	2104.1	2073.0	2070.1	2035.2	1979.6	1949.4	1925.7	1857.7	1829.0	1795.9
22.5°	2119.9	2110.3	2075.0	2070.9	2030.2	1967.2	1933.2	1905.4	1827.8	1790.5	1756.0
25°	2118.6	2109.5	2069.7	2065.5	2020.7	1948.5	1910.4	1878.4	1790.1	1746.1	1712.1
27.5°	2108.2	2101.2	2059.3	2053.9	2003.3	1923.2	1882.6	1847.3	1748.2	1699.2	1662.3
30°	2090.4	2085.0	2040.6	2035.6	1981.7	1895.4	1850.2	1809.5	1702.9	1647.8	1610.4
32.5°	2061.8	2056.8	2012.0	2007.4	1952.7	1859.7	1812.5	1770.6	1653.6	1592.6	1555.2
35°	2022.4	2019.5	1975.9	1970.9	1915.3	1819.1	1768.9	1722.8	1602.1	1533.3	1497.6
37.5°	1970.5	1970.5	1928.6	1923.2	1868.9	1769.3	1719.9	1671.0	1544.0	1471.0	1435.8
40°	1910.4	1915.7	1873.0	1867.6	1814.9	1715.8	1661.9	1610.4	1481.4	1405.5	1371.1
42.5°	1838.2	1843.2	1807.5	1802.5	1753.1	1654.0	1603.8	1547.8	1415.9	1338.7	1303.0
45°	1758.5	1765.2	1733.2	1729.5	1683.4	1586.4	1538.2	1481.4	1347.4	1269.0	1234.2
47.5°	1669.7	1678.5	1650.7	1648.6	1605.9	1517.1	1466.9	1409.2	1275.6	1196.4	1163.6
50°	1570.2	1582.6	1559.8	1559.8	1521.6	1433.3	1389.7	1332.1	1201.0	1121.7	1089.4
52.5°	1463.6	1479.3	1462.3	1462.7	1431.6	1352.4	1307.2	1250.8	1123.0	1045.0	1015.1
55°	1353.2	1368.6	1357.8	1359.4	1335.0	1262.8	1221.7	1165.7	1043.3	967.4	939.2
57.5°	1237.9	1254.5	1247.4	1250.8	1233.7	1169.0	1126.3	1077.3	961.2	886.1	862.0
60°	1122.2	1137.9	1134.2	1138.7	1128.0	1072.0	1033.0	982.4	878.6	806.5	785.3
62.5°	1005.2	1019.7	1018.9	1023.8	1018.0	971.6	936.7	893.6	793.2	726.8	707.3
65°	890.7	903.1	902.3	907.7	906.4	869.1	837.6	798.2	707.7	646.7	629.7
67.5°	779.5	789.9	787.0	793.2	794.8	765.0	737.6	702.3	626.4	567.1	552.6
70°	670.8	677.9	674.1	678.3	682.0	659.6	636.4	605.3	539.7	487.4	475.4
72.5°	564.2	569.2	563.4	567.5	570.8	554.6	535.6	508.6	454.3	409.0	399.1
75°	460.9	467.9	455.9	460.1	462.6	446.4	435.2	413.2	366.3	331.5	324.8
77.5°	360.9	365.1	358.4	356.8	358.4	346.8	338.1	321.1	285.8	257.2	253.1
80°	265.5	268.0	261.4	259.7	260.9	252.6	246.0	233.6	208.7	187.1	185.4
82.5°	178.0	179.2	173.4	171.7	172.6	170.1	162.2	153.5	141.9	123.6	123.2
85°	101.6	101.6	97.5	95.8	96.7	92.5	89.6	85.0	80.5	68.0	68.9
87.5°	37.3	37.3	35.3	34.8	39.0	34.4	33.2	31.1	32.4	25.7	27.4
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):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9	1897.9
2.5°	1906.2	1902.1	1898.3	1885.5	1890.9	1877.6	1876.8	1871.8	1868.0	1861.0	1870.1
5°	1900.0	1891.7	1880.9	1865.6	1870.1	1854.4	1851.0	1845.2	1840.2	1831.1	1838.2
7.5°	1890.0	1876.3	1859.3	1839.8	1846.1	1826.6	1821.6	1815.4	1811.2	1800.4	1806.6
10°	1875.5	1856.0	1836.1	1812.5	1817.0	1795.9	1789.6	1783.0	1779.3	1769.7	1775.9
12.5°	1853.1	1829.5	1802.5	1776.8	1781.8	1761.8	1753.5	1746.5	1745.2	1737.4	1744.8
15°	1824.1	1791.3	1763.5	1736.1	1741.9	1718.7	1715.0	1707.9	1710.0	1704.6	1713.7
17.5°	1787.1	1749.4	1719.1	1689.7	1695.5	1676.0	1673.1	1669.7	1671.8	1671.0	1680.9
20°	1745.7	1704.2	1669.3	1640.3	1643.6	1628.3	1629.5	1628.7	1632.8	1637.4	1651.1
22.5°	1698.8	1651.9	1615.4	1585.5	1590.5	1577.2	1583.0	1584.7	1591.8	1602.1	1619.6
25°	1646.1	1595.9	1557.7	1529.5	1534.1	1525.4	1535.3	1539.5	1550.7	1568.1	1585.9
27.5°	1590.9	1537.8	1497.2	1470.2	1478.9	1470.2	1485.1	1493.4	1510.4	1529.5	1551.5
30°	1532.4	1477.3	1435.4	1411.3	1419.6	1411.7	1435.8	1447.0	1464.0	1490.1	1516.3
32.5°	1471.0	1413.0	1371.9	1353.2	1359.0	1357.8	1384.7	1397.2	1420.0	1449.9	1477.7
35°	1408.0	1347.4	1305.9	1290.2	1297.2	1298.9	1331.2	1345.8	1370.6	1406.7	1436.6
37.5°	1342.8	1281.0	1240.4	1227.5	1233.7	1240.0	1277.7	1292.2	1320.4	1359.9	1392.6
40°	1275.2	1213.4	1173.6	1163.2	1169.4	1176.1	1217.2	1237.1	1267.8	1310.5	1346.2
42.5°	1206.8	1145.0	1106.4	1098.9	1105.1	1118.0	1161.6	1180.2	1212.6	1259.9	1299.3
45°	1137.1	1072.8	1039.2	1033.4	1040.0	1054.9	1097.7	1120.1	1154.5	1206.4	1248.7
47.5°	1066.6	1003.9	972.0	968.2	974.9	991.5	1038.8	1059.1	1095.6	1150.8	1196.4
50°	995.2	934.2	903.5	902.3	908.5	926.3	971.6	995.6	1033.4	1095.2	1142.1
52.5°	923.0	864.5	836.7	836.7	842.5	860.8	906.4	931.3	970.3	1035.5	1087.3
55°	850.8	795.3	768.7	770.8	779.1	794.8	839.2	865.4	904.8	972.4	1027.2
57.5°	778.7	726.0	701.9	704.8	712.7	728.5	772.0	801.5	837.2	907.3	963.3
60°	707.3	657.5	636.4	639.7	646.7	662.5	707.7	733.0	768.7	840.1	896.1
62.5°	635.1	589.9	570.0	574.1	580.4	596.1	638.9	663.3	698.6	768.7	825.1
65°	563.8	521.9	504.9	509.0	514.8	529.3	569.6	593.2	626.8	695.3	749.2
67.5°	493.2	455.1	441.0	445.1	449.7	463.4	496.6	522.3	553.8	618.9	670.0
70°	423.6	389.5	377.1	381.2	385.4	397.8	426.9	450.5	479.6	539.3	586.6
72.5°	354.7	321.5	315.3	319.0	322.3	333.1	360.9	379.6	404.9	458.0	498.6
75°	287.5	258.9	254.7	258.4	261.4	269.6	292.9	309.1	330.2	376.3	409.5
77.5°	222.8	198.7	197.1	200.0	202.9	208.7	226.9	243.9	260.5	294.5	324.0
80°	162.2	142.7	142.7	145.6	144.8	151.8	164.7	178.4	190.4	214.9	236.5
82.5°	107.0	91.7	93.8	95.8	97.1	100.0	107.9	118.2	125.7	140.6	154.7
85°	59.3	49.0	51.0	52.7	51.9	55.2	59.3	65.5	69.3	76.3	83.8
87.5°	22.0	18.3	18.7	19.9	20.7	22.4	22.4	26.1	26.6	27.4	29.0
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):

	160°	170°	180°
0°	1897.9	1897.9	1897.9
2.5°	1852.7	1862.6	1870.1
5°	1820.7	1829.0	1835.7
7.5°	1789.6	1797.1	1802.9
10°	1760.2	1768.5	1772.6
12.5°	1729.9	1739.4	1742.8
15°	1700.0	1709.6	1713.7
17.5°	1669.3	1681.8	1686.3
20°	1640.7	1656.5	1660.2
22.5°	1611.7	1627.8	1632.4
25°	1580.1	1599.2	1603.8
27.5°	1546.5	1569.4	1573.9
30°	1512.9	1537.8	1542.4
32.5°	1476.8	1503.8	1508.0
35°	1439.1	1466.1	1471.0
37.5°	1397.2	1426.6	1436.6
40°	1353.6	1385.6	1395.9
42.5°	1308.0	1342.8	1353.6
45°	1259.1	1297.2	1309.7
47.5°	1209.7	1252.8	1263.6
50°	1156.2	1202.2	1215.1
52.5°	1100.2	1150.4	1163.2
55°	1042.1	1092.7	1106.8
57.5°	979.0	1031.3	1046.2
60°	913.1	965.3	979.4
62.5°	845.5	892.7	906.4
65°	770.0	814.3	826.8
67.5°	689.9	730.5	740.9
70°	604.8	640.1	649.2
72.5°	516.1	540.5	552.6
75°	424.4	443.9	453.0
77.5°	332.3	346.0	353.4
80°	242.3	250.2	256.4
82.5°	158.5	161.8	166.4
85°	85.5	85.5	88.4
87.5°	29.0	27.8	29.0
90°	0.0	0.0	0.0

(END OF REPORT)