

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: P835305

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3HI-30-120-EDD-90**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835305
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-90
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

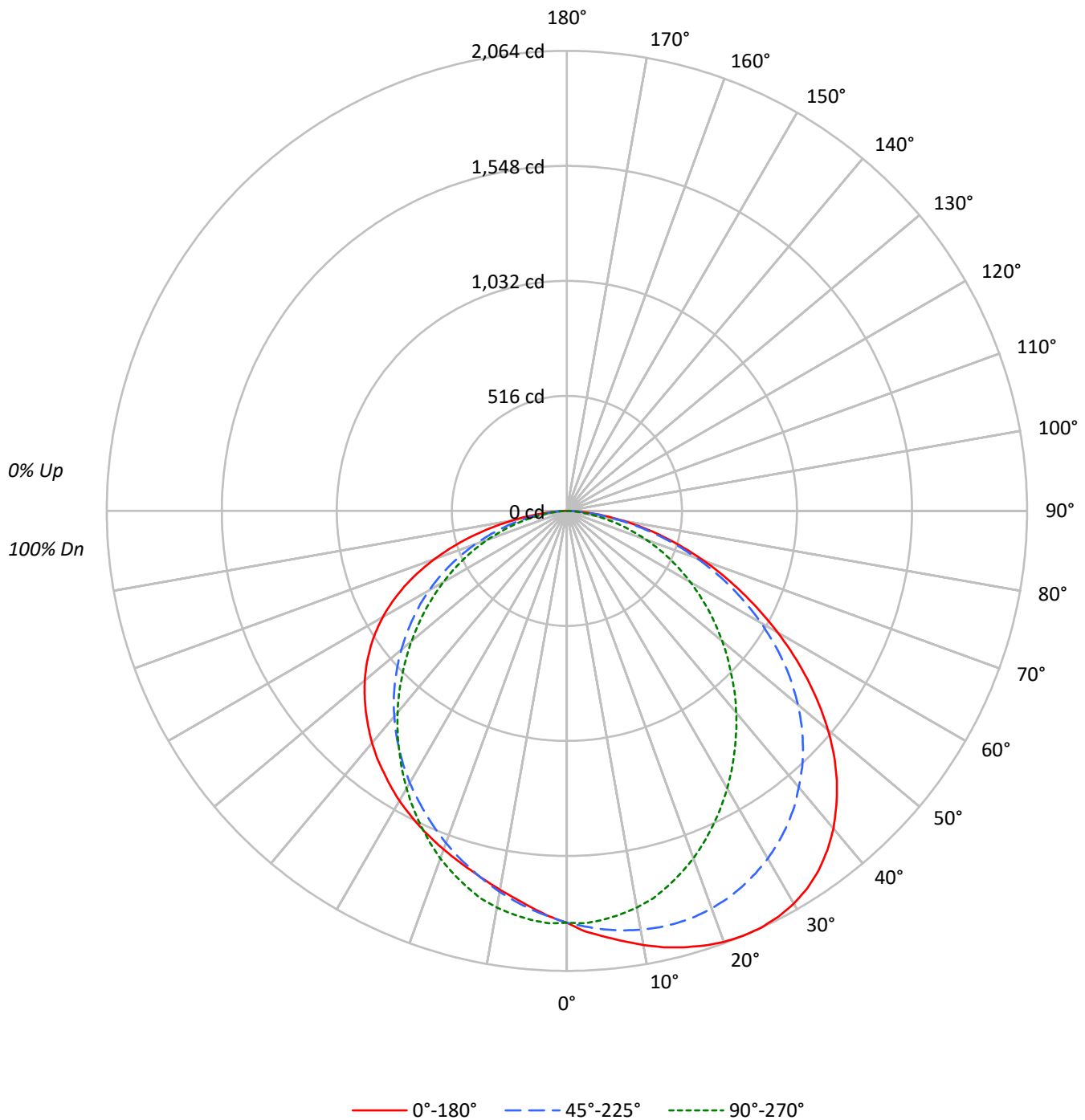
Lumens per Lamp: N/A
Luminaire Lumens: 5435.6 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4973	4973	4973
5°	5177	4975	4828
10°	5404	4938	4716
15°	5646	4859	4649
20°	5893	4752	4629
25°	6125	4613	4636
30°	6324	4469	4666
35°	6469	4310	4705
40°	6534	4150	4775
45°	6516	3975	4853
50°	6400	3808	4953
55°	6182	3633	5056
60°	5880	3446	5132
65°	5522	3235	5126
70°	5139	2984	4973
75°	4665	2620	4586
80°	4006	2152	3868
85°	3057	1473	2655

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.3	3.2
10°-20°	506.1	9.3
20°-30°	775.4	14.3
30°-40°	946.2	17.4
40°-50°	989.6	18.2
50°-60°	895.6	16.5
60°-70°	678.3	12.5
70°-80°	378.0	7.0
80°-90°	91.2	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°	1456.7	26.8
0°-40°	2403.0	44.2
0°-60°	4288.2	78.9
0°-90°	5435.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5435.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1848	1848	1848	1848	1848	
5°	1917	1885	1842	1797	1787	185
15°	2027	1914	1744	1663	1669	575
25°	2063	1860	1554	1499	1562	952
35°	1969	1722	1312	1310	1432	1230
45°	1712	1498	1044	1091	1275	1317
55°	1318	1190	774	843	1078	1176
65°	867	816	508	578	805	860
75°	449	424	252	301	441	476
85°	99	87	48	64	86	119
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°	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9
2.5°	1888.7	1879.8	1872.5	1875.4	1877.0	1871.3	1866.5	1867.3	1862.4	1871.7	1849.9
5°	1916.6	1908.5	1900.0	1903.2	1900.0	1891.5	1884.6	1882.6	1869.7	1875.0	1852.7
7.5°	1947.7	1938.8	1926.2	1929.9	1923.0	1907.3	1898.4	1893.1	1873.3	1873.7	1849.1
10°	1977.5	1969.9	1952.9	1955.3	1942.8	1921.8	1907.7	1900.4	1872.5	1868.5	1843.0
12.5°	2005.4	1994.9	1976.7	1977.9	1959.8	1931.9	1913.7	1903.2	1866.9	1854.8	1829.7
15°	2026.8	2016.7	1994.9	1994.5	1971.1	1934.7	1914.1	1899.6	1853.5	1834.6	1808.3
17.5°	2045.0	2035.7	2008.6	2007.8	1979.6	1933.5	1908.9	1890.7	1834.2	1810.7	1781.6
20°	2057.9	2048.6	2018.3	2015.5	1981.6	1927.5	1898.0	1875.0	1808.7	1780.8	1748.5
22.5°	2064.0	2054.7	2020.4	2016.3	1976.7	1915.3	1882.2	1855.2	1779.6	1743.3	1709.8
25°	2062.8	2053.9	2015.1	2011.1	1967.4	1897.2	1860.0	1828.9	1742.9	1700.1	1666.9
27.5°	2052.7	2045.8	2005.0	1999.8	1950.5	1872.5	1832.9	1798.6	1702.1	1654.4	1618.5
30°	2035.3	2030.1	1986.8	1982.0	1929.5	1845.5	1801.4	1761.9	1658.1	1604.3	1568.0
32.5°	2007.4	2002.6	1959.0	1954.5	1901.2	1810.7	1764.7	1723.9	1610.0	1550.6	1514.3
35°	1969.1	1966.2	1923.8	1919.0	1864.9	1771.1	1722.3	1677.4	1559.9	1492.9	1458.1
37.5°	1918.6	1918.6	1877.8	1872.5	1819.6	1722.7	1674.6	1626.9	1503.4	1432.3	1397.9
40°	1860.0	1865.3	1823.7	1818.4	1767.1	1670.6	1618.1	1568.0	1442.4	1368.4	1334.9
42.5°	1789.7	1794.6	1759.8	1755.0	1706.9	1610.4	1561.5	1507.0	1378.5	1303.4	1268.7
45°	1712.2	1718.6	1687.5	1683.9	1639.1	1544.6	1497.7	1442.4	1311.9	1235.6	1201.6
47.5°	1625.7	1634.2	1607.2	1605.1	1563.5	1477.1	1428.2	1372.1	1242.0	1164.9	1133.0
50°	1528.8	1540.9	1518.7	1518.7	1481.5	1395.5	1353.1	1297.0	1169.3	1092.2	1060.7
52.5°	1425.0	1440.3	1423.8	1424.2	1393.9	1316.7	1272.7	1217.8	1093.4	1017.4	988.4
55°	1317.6	1332.5	1322.0	1323.6	1299.8	1229.5	1189.5	1135.0	1015.8	941.9	914.5
57.5°	1205.3	1221.4	1214.6	1217.8	1201.2	1138.2	1096.6	1049.0	935.9	862.8	839.3
60°	1092.6	1107.9	1104.3	1108.7	1098.2	1043.7	1005.7	956.5	855.5	785.2	764.6
62.5°	978.7	992.8	992.0	996.8	991.2	946.0	912.0	870.0	772.3	707.7	688.7
65°	867.2	879.3	878.5	883.8	882.5	846.2	815.5	777.1	689.1	629.7	613.1
67.5°	758.9	769.0	766.2	772.3	773.9	744.8	718.2	683.8	609.9	552.1	538.0
70°	653.1	660.0	656.4	660.4	664.0	642.2	619.6	589.3	525.5	474.6	462.9
72.5°	549.3	554.2	548.5	552.5	555.8	540.0	521.4	495.2	442.3	398.3	388.6
75°	448.7	455.6	443.9	447.9	450.4	434.6	423.7	402.3	356.7	322.7	316.3
77.5°	351.4	355.4	349.0	347.4	349.0	337.7	329.2	312.6	278.3	250.4	246.4
80°	258.5	260.9	254.5	252.8	254.1	246.0	239.5	227.4	203.2	182.2	180.5
82.5°	173.3	174.5	168.8	167.2	168.0	165.6	157.9	149.4	138.1	120.4	120.0
85°	99.0	99.0	94.9	93.3	94.1	90.1	87.2	82.8	78.4	66.2	67.0
87.5°	36.4	36.4	34.3	33.9	38.0	33.5	32.3	30.3	31.5	25.0	26.7
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°	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9
2.5°	1856.0	1851.9	1848.3	1835.8	1841.0	1828.1	1827.3	1822.4	1818.8	1811.9	1820.8
5°	1849.9	1841.8	1831.3	1816.4	1820.8	1805.5	1802.2	1796.6	1791.7	1782.9	1789.7
7.5°	1840.2	1826.9	1810.3	1791.3	1797.4	1778.4	1773.6	1767.5	1763.5	1753.0	1759.0
10°	1826.1	1807.1	1787.7	1764.7	1769.1	1748.5	1742.5	1736.0	1732.4	1723.1	1729.1
12.5°	1804.3	1781.2	1755.0	1729.9	1734.8	1715.4	1707.3	1700.5	1699.2	1691.6	1698.8
15°	1776.0	1744.1	1717.0	1690.4	1696.0	1673.4	1669.8	1662.9	1664.9	1659.7	1668.6
17.5°	1740.0	1703.3	1673.8	1645.1	1650.8	1631.8	1629.0	1625.7	1627.8	1626.9	1636.6
20°	1699.7	1659.3	1625.3	1597.1	1600.3	1585.3	1586.6	1585.8	1589.8	1594.2	1607.6
22.5°	1654.0	1608.4	1572.8	1543.7	1548.6	1535.7	1541.3	1542.9	1549.8	1559.9	1576.9
25°	1602.7	1553.8	1516.7	1489.2	1493.7	1485.2	1494.9	1498.9	1509.8	1526.8	1544.1
27.5°	1549.0	1497.3	1457.7	1431.5	1439.9	1431.5	1446.0	1454.1	1470.6	1489.2	1510.6
30°	1492.0	1438.3	1397.5	1374.1	1382.2	1374.5	1397.9	1408.8	1425.4	1450.8	1476.3
32.5°	1432.3	1375.7	1335.7	1317.6	1323.2	1322.0	1348.3	1360.4	1382.6	1411.7	1438.7
35°	1370.9	1311.9	1271.5	1256.2	1263.0	1264.6	1296.1	1310.3	1334.5	1369.7	1398.7
37.5°	1307.5	1247.3	1207.7	1195.2	1201.2	1207.3	1244.0	1258.2	1285.6	1324.0	1355.9
40°	1241.6	1181.4	1142.7	1132.6	1138.6	1145.1	1185.1	1204.5	1234.3	1276.0	1310.7
42.5°	1175.0	1114.8	1077.2	1070.0	1076.0	1088.5	1130.9	1149.1	1180.6	1226.7	1265.0
45°	1107.1	1044.5	1011.8	1006.1	1012.6	1027.1	1068.7	1090.6	1124.1	1174.6	1215.8
47.5°	1038.5	977.5	946.4	942.7	949.2	965.3	1011.4	1031.2	1066.7	1120.4	1164.9
50°	969.0	909.6	879.7	878.5	884.6	901.9	946.0	969.4	1006.1	1066.3	1112.0
52.5°	898.7	841.7	814.7	814.7	820.3	838.1	882.5	906.8	944.7	1008.2	1058.6
55°	828.4	774.3	748.4	750.5	758.5	773.9	817.1	842.6	880.9	946.8	1000.1
57.5°	758.1	706.8	683.4	686.2	693.9	709.3	751.7	780.4	815.1	883.4	937.9
60°	688.7	640.2	619.6	622.8	629.7	645.0	689.1	713.7	748.4	817.9	872.4
62.5°	618.4	574.4	555.0	559.0	565.1	580.4	622.0	645.9	680.2	748.4	803.4
65°	548.9	508.1	491.6	495.6	501.3	515.4	554.6	577.6	610.3	677.0	729.5
67.5°	480.2	443.1	429.4	433.4	437.8	451.2	483.5	508.5	539.2	602.6	652.3
70°	412.4	379.3	367.2	371.2	375.2	387.3	415.6	438.6	466.9	525.1	571.1
72.5°	345.3	313.0	307.0	310.6	313.8	324.3	351.4	369.6	394.2	445.9	485.5
75°	279.9	252.0	248.0	251.6	254.5	262.5	285.2	300.9	321.5	366.3	398.7
77.5°	216.9	193.5	191.9	194.7	197.5	203.2	220.9	237.5	253.7	286.8	315.5
80°	157.9	138.9	138.9	141.8	141.0	147.8	160.4	173.7	185.4	209.2	230.2
82.5°	104.2	89.3	91.3	93.3	94.5	97.3	105.0	115.1	122.4	136.9	150.7
85°	57.8	47.7	49.7	51.3	50.5	53.7	57.8	63.8	67.5	74.3	81.6
87.5°	21.4	17.8	18.2	19.4	20.2	21.8	21.8	25.4	25.9	26.7	28.3
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°	1847.9	1847.9	1847.9
2.5°	1803.9	1813.6	1820.8
5°	1772.8	1780.8	1787.3
7.5°	1742.5	1749.7	1755.4
10°	1713.8	1721.9	1725.9
12.5°	1684.3	1693.6	1696.8
15°	1655.2	1664.5	1668.6
17.5°	1625.3	1637.5	1641.9
20°	1597.5	1612.8	1616.4
22.5°	1569.2	1584.9	1589.4
25°	1538.5	1557.1	1561.5
27.5°	1505.8	1528.0	1532.4
30°	1473.1	1497.3	1501.7
32.5°	1437.9	1464.2	1468.2
35°	1401.2	1427.4	1432.3
37.5°	1360.4	1389.0	1398.7
40°	1318.0	1349.1	1359.2
42.5°	1273.5	1307.5	1318.0
45°	1225.9	1263.0	1275.1
47.5°	1177.8	1219.8	1230.3
50°	1125.7	1170.5	1183.1
52.5°	1071.2	1120.0	1132.6
55°	1014.6	1063.9	1077.6
57.5°	953.2	1004.1	1018.7
60°	889.0	939.9	953.6
62.5°	823.2	869.2	882.5
65°	749.7	792.9	805.0
67.5°	671.7	711.3	721.4
70°	588.9	623.2	632.1
72.5°	502.5	526.3	538.0
75°	413.2	432.2	441.1
77.5°	323.5	336.9	344.1
80°	235.9	243.6	249.6
82.5°	154.3	157.5	162.0
85°	83.2	83.2	86.0
87.5°	28.3	27.1	28.3
90°	0.0	0.0	0.0

(END OF REPORT)