

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: P835250

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-3STD-50-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835250
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-LD4-3STD-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

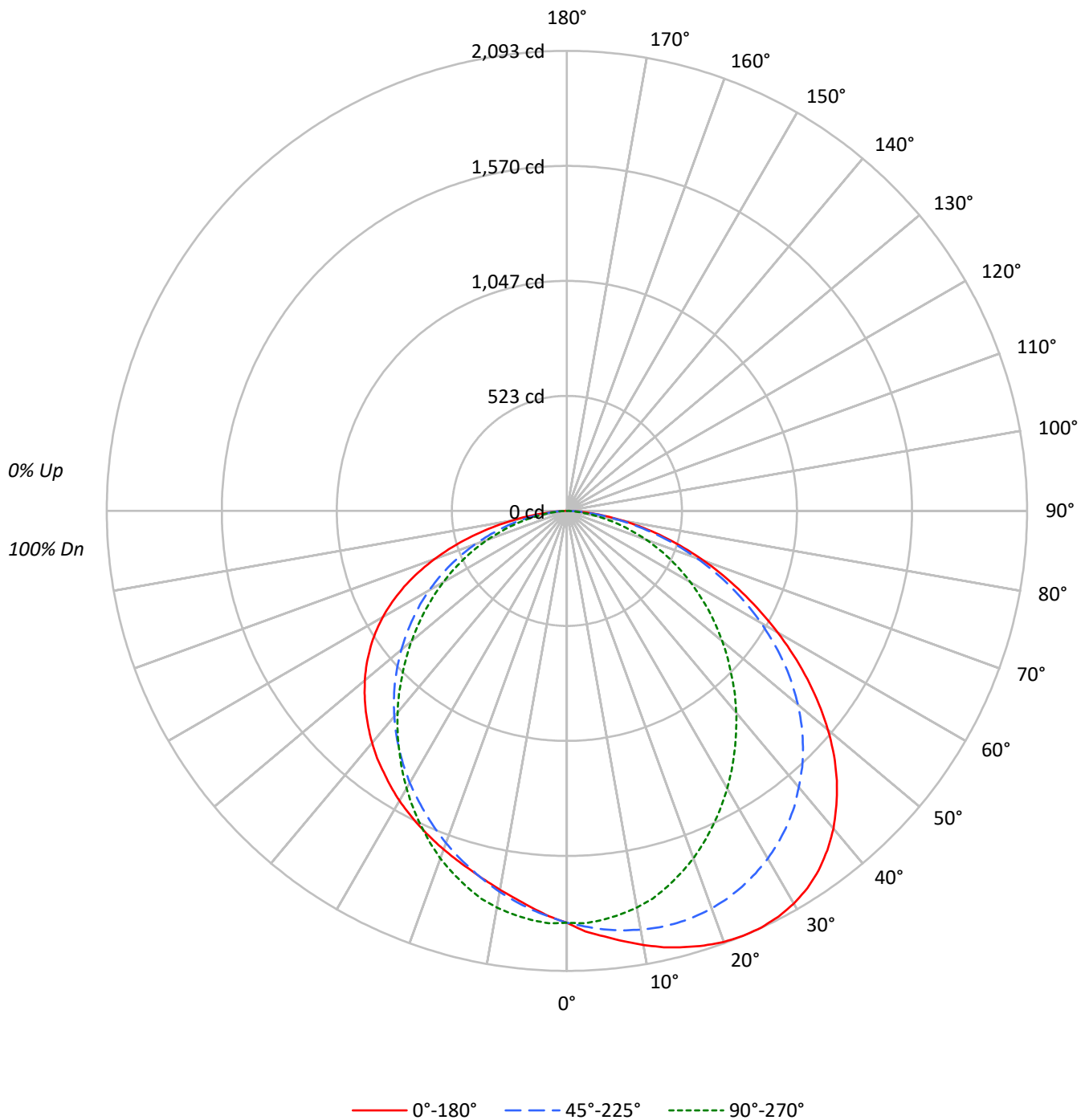
Lumens per Lamp: N/A
Luminaire Lumens: 5511.8 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	94	91	88	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37		
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33		
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29		
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26		
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5042	5042	5042
5°	5250	5045	4895
10°	5479	5007	4782
15°	5726	4927	4713
20°	5976	4818	4694
25°	6211	4678	4701
30°	6413	4532	4732
35°	6559	4370	4771
40°	6626	4208	4841
45°	6607	4031	4921
50°	6490	3862	5022
55°	6268	3683	5126
60°	5963	3494	5204
65°	5599	3280	5198
70°	5211	3026	5043
75°	4731	2658	4650
80°	4062	2183	3922
85°	3097	1491	2692

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.7	3.2
10°-20°	513.2	9.3
20°-30°	786.2	14.3
30°-40°	959.5	17.4
40°-50°	1003.4	18.2
50°-60°	908.2	16.5
60°-70°	687.8	12.5
70°-80°	383.3	7.0
80°-90°	92.5	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°	1477.2	26.8
0°-40°	2436.7	44.2
0°-60°	4348.2	78.9
0°-90°	5511.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5511.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1874	1874	1874	1874	1874	
5°	1943	1911	1868	1822	1812	187
15°	2055	1941	1768	1686	1692	583
25°	2092	1886	1576	1520	1583	965
35°	1997	1746	1330	1329	1452	1247
45°	1736	1519	1059	1106	1293	1336
55°	1336	1206	785	854	1093	1192
65°	879	827	515	586	816	872
75°	455	430	256	305	447	483
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°	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8
2.5°	1915.1	1906.1	1898.8	1901.6	1903.3	1897.5	1892.6	1893.4	1888.5	1897.9	1875.8
5°	1943.4	1935.2	1926.6	1929.9	1926.6	1918.0	1911.1	1909.0	1895.9	1901.2	1878.7
7.5°	1974.9	1965.9	1953.2	1956.9	1950.0	1934.0	1925.0	1919.7	1899.6	1900.0	1875.0
10°	2005.3	1997.5	1980.3	1982.7	1970.0	1948.7	1934.4	1927.0	1898.8	1894.7	1868.9
12.5°	2033.5	2022.9	2004.4	2005.7	1987.2	1959.0	1940.5	1929.9	1893.0	1880.7	1855.3
15°	2055.2	2045.0	2022.9	2022.5	1998.7	1961.8	1940.9	1926.2	1879.5	1860.3	1833.6
17.5°	2073.6	2064.2	2036.8	2036.0	2007.3	1960.6	1935.6	1917.2	1859.9	1836.1	1806.6
20°	2086.8	2077.3	2046.6	2043.8	2009.3	1954.5	1924.6	1901.2	1834.1	1805.8	1773.0
22.5°	2092.9	2083.5	2048.7	2044.6	2004.4	1942.2	1908.6	1881.2	1804.6	1767.7	1733.7
25°	2091.7	2082.7	2043.3	2039.2	1995.0	1923.7	1886.1	1854.5	1767.3	1723.9	1690.3
27.5°	2081.4	2074.5	2033.1	2027.8	1977.8	1898.8	1858.6	1823.8	1725.9	1677.6	1641.1
30°	2063.8	2058.5	2014.7	2009.8	1956.5	1871.3	1826.7	1786.5	1681.3	1626.8	1589.9
32.5°	2035.6	2030.6	1986.4	1981.9	1927.8	1836.1	1789.4	1748.0	1632.5	1572.3	1535.5
35°	1996.7	1993.8	1950.8	1945.9	1891.0	1796.0	1746.4	1700.9	1581.8	1513.8	1478.5
37.5°	1945.5	1945.5	1904.1	1898.8	1845.1	1746.8	1698.1	1649.7	1524.4	1452.3	1417.5
40°	1886.1	1891.4	1849.2	1843.9	1791.9	1694.0	1640.7	1589.9	1462.6	1387.6	1353.6
42.5°	1814.8	1819.7	1784.5	1779.6	1730.8	1633.0	1583.4	1528.1	1397.9	1321.7	1286.5
45°	1736.2	1742.7	1711.2	1707.5	1662.0	1566.2	1518.7	1462.6	1330.3	1252.9	1218.5
47.5°	1648.5	1657.1	1629.7	1627.6	1585.4	1497.8	1448.2	1391.3	1259.4	1181.2	1148.8
50°	1550.2	1562.5	1540.0	1540.0	1502.3	1415.1	1372.1	1315.1	1185.7	1107.5	1075.5
52.5°	1445.0	1460.5	1443.7	1444.1	1413.4	1335.2	1290.6	1234.9	1108.7	1031.7	1002.2
55°	1336.0	1351.2	1340.5	1342.2	1318.0	1246.7	1206.2	1150.9	1030.1	955.1	927.3
57.5°	1222.2	1238.5	1231.6	1234.9	1218.1	1154.2	1112.0	1063.7	949.0	874.8	851.1
60°	1107.9	1123.4	1119.8	1124.3	1113.6	1058.3	1019.8	969.9	867.5	796.2	775.3
62.5°	992.4	1006.7	1005.9	1010.8	1005.1	959.2	924.8	882.2	783.1	717.6	698.3
65°	879.3	891.6	890.8	896.1	894.9	858.0	826.9	788.0	698.7	638.5	621.7
67.5°	769.6	779.8	777.0	783.1	784.7	755.2	728.2	693.4	618.4	559.9	545.5
70°	662.3	669.2	665.6	669.6	673.3	651.2	628.3	597.6	532.8	481.2	469.4
72.5°	557.0	561.9	556.2	560.3	563.6	547.6	528.8	502.1	448.5	403.8	394.0
75°	455.0	462.0	450.1	454.2	456.7	440.7	429.6	407.9	361.6	327.2	320.7
77.5°	356.3	360.4	353.9	352.2	353.9	342.4	333.8	317.0	282.2	253.9	249.8
80°	262.1	264.6	258.0	256.4	257.6	249.4	242.9	230.6	206.0	184.7	183.1
82.5°	175.7	176.9	171.2	169.6	170.4	167.9	160.1	151.5	140.1	122.1	121.6
85°	100.3	100.3	96.2	94.6	95.4	91.3	88.5	84.0	79.5	67.2	68.0
87.5°	36.9	36.9	34.8	34.4	38.5	34.0	32.8	30.7	31.9	25.4	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°	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8	1873.8
2.5°	1882.0	1877.9	1874.2	1861.5	1866.8	1853.7	1852.9	1848.0	1844.3	1837.3	1846.3
5°	1875.8	1867.6	1857.0	1841.8	1846.3	1830.8	1827.5	1821.8	1816.8	1807.8	1814.8
7.5°	1866.0	1852.5	1835.7	1816.4	1822.6	1803.3	1798.4	1792.3	1788.2	1777.5	1783.7
10°	1851.7	1832.4	1812.8	1789.4	1793.9	1773.0	1766.9	1760.3	1756.6	1747.2	1753.4
12.5°	1829.5	1806.2	1779.6	1754.2	1759.1	1739.4	1731.2	1724.3	1723.1	1715.3	1722.6
15°	1800.9	1768.5	1741.1	1714.0	1719.8	1696.8	1693.2	1686.2	1688.2	1682.9	1691.9
17.5°	1764.4	1727.2	1697.3	1668.2	1673.9	1654.7	1651.8	1648.5	1650.6	1649.7	1659.6
20°	1723.5	1682.5	1648.1	1619.4	1622.7	1607.6	1608.8	1608.0	1612.1	1616.6	1630.1
22.5°	1677.2	1630.9	1594.9	1565.4	1570.3	1557.2	1562.9	1564.6	1571.5	1581.8	1599.0
25°	1625.2	1575.6	1537.9	1510.1	1514.6	1506.0	1515.8	1519.9	1531.0	1548.2	1565.8
27.5°	1570.7	1518.3	1478.1	1451.5	1460.1	1451.5	1466.3	1474.4	1491.2	1510.1	1531.8
30°	1512.9	1458.5	1417.1	1393.4	1401.5	1393.8	1417.5	1428.6	1445.4	1471.2	1497.0
32.5°	1452.3	1395.0	1354.4	1336.0	1341.7	1340.5	1367.1	1379.4	1402.0	1431.4	1458.9
35°	1390.1	1330.3	1289.3	1273.8	1280.7	1282.4	1314.3	1328.6	1353.2	1388.8	1418.3
37.5°	1325.8	1264.8	1224.6	1211.9	1218.1	1224.2	1261.5	1275.8	1303.7	1342.6	1374.9
40°	1259.0	1198.0	1158.7	1148.4	1154.6	1161.1	1201.7	1221.3	1251.6	1293.8	1329.1
42.5°	1191.4	1130.4	1092.3	1084.9	1091.1	1103.8	1146.8	1165.2	1197.2	1243.9	1282.8
45°	1122.6	1059.1	1026.0	1020.2	1026.8	1041.5	1083.7	1105.8	1139.8	1191.0	1232.8
47.5°	1053.0	991.2	959.6	955.9	962.5	978.9	1025.6	1045.6	1081.7	1136.1	1181.2
50°	982.6	922.4	892.0	890.8	897.0	914.6	959.2	983.0	1020.2	1081.3	1127.5
52.5°	911.3	853.5	826.1	826.1	831.8	849.9	894.9	919.5	958.0	1022.3	1073.5
55°	840.0	785.1	758.9	761.0	769.2	784.7	828.6	854.4	893.3	960.0	1014.1
57.5°	768.8	716.7	693.0	695.9	703.6	719.2	762.2	791.3	826.5	895.7	951.0
60°	698.3	649.2	628.3	631.6	638.5	654.1	698.7	723.7	758.9	829.4	884.7
62.5°	627.1	582.4	562.7	566.8	573.0	588.6	630.7	654.9	689.7	758.9	814.6
65°	556.6	515.2	498.4	502.5	508.3	522.6	562.3	585.7	618.9	686.4	739.7
67.5°	487.0	449.3	435.4	439.5	444.0	457.5	490.3	515.6	546.8	611.1	661.5
70°	418.2	384.6	372.3	376.4	380.5	392.8	421.4	444.8	473.5	532.4	579.1
72.5°	350.2	317.4	311.3	315.0	318.2	328.9	356.3	374.8	399.7	452.2	492.3
75°	283.8	255.6	251.5	255.2	258.0	266.2	289.2	305.1	326.0	371.5	404.2
77.5°	219.9	196.2	194.5	197.4	200.3	206.0	224.0	240.8	257.2	290.8	319.9
80°	160.1	140.9	140.9	143.8	142.9	149.9	162.6	176.1	188.0	212.2	233.5
82.5°	105.7	90.5	92.6	94.6	95.8	98.7	106.5	116.7	124.1	138.8	152.8
85°	58.6	48.3	50.4	52.0	51.2	54.5	58.6	64.7	68.4	75.4	82.7
87.5°	21.7	18.0	18.4	19.7	20.5	22.1	22.1	25.8	26.2	27.0	28.7
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):

	160°	170°	180°
0°	1873.8	1873.8	1873.8
2.5°	1829.1	1839.0	1846.3
5°	1797.6	1805.8	1812.3
7.5°	1766.9	1774.3	1780.0
10°	1737.8	1746.0	1750.1
12.5°	1707.9	1717.3	1720.6
15°	1678.4	1687.8	1691.9
17.5°	1648.1	1660.4	1664.9
20°	1619.8	1635.4	1639.1
22.5°	1591.2	1607.2	1611.7
25°	1560.0	1578.9	1583.4
27.5°	1526.9	1549.4	1553.9
30°	1493.7	1518.3	1522.8
32.5°	1458.1	1484.7	1488.8
35°	1420.8	1447.4	1452.3
37.5°	1379.4	1408.5	1418.3
40°	1336.4	1368.0	1378.2
42.5°	1291.4	1325.8	1336.4
45°	1243.0	1280.7	1293.0
47.5°	1194.3	1236.9	1247.5
50°	1141.5	1186.9	1199.6
52.5°	1086.2	1135.7	1148.4
55°	1028.8	1078.8	1092.7
57.5°	966.6	1018.2	1032.9
60°	901.5	953.1	967.0
62.5°	834.7	881.4	894.9
65°	760.2	804.0	816.3
67.5°	681.1	721.3	731.5
70°	597.2	632.0	641.0
72.5°	509.5	533.7	545.5
75°	419.0	438.2	447.2
77.5°	328.1	341.6	349.0
80°	239.2	247.0	253.1
82.5°	156.5	159.7	164.2
85°	84.4	84.4	87.2
87.5°	28.7	27.4	28.7
90°	0.0	0.0	0.0

(END OF REPORT)