

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: P835196

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835196
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-30-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

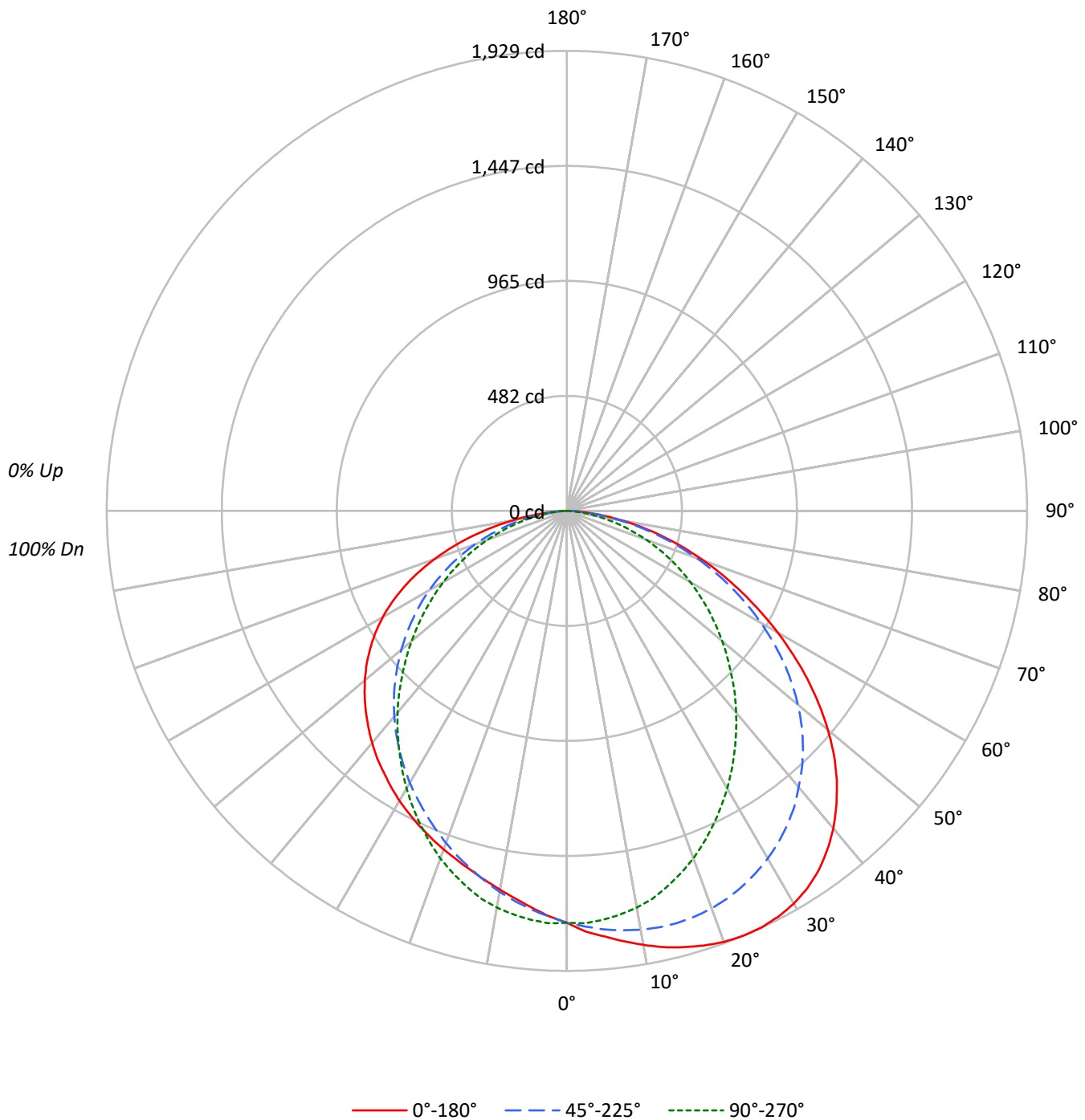
Lumens per Lamp: N/A
Luminaire Lumens: 5079.5 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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
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°	4647	4647	4647
5°	4838	4649	4512
10°	5050	4614	4407
15°	5277	4540	4344
20°	5507	4440	4326
25°	5723	4311	4333
30°	5910	4176	4360
35°	6045	4027	4397
40°	6106	3878	4462
45°	6089	3715	4535
50°	5981	3558	4628
55°	5776	3395	4724
60°	5495	3220	4796
65°	5160	3023	4790
70°	4802	2788	4648
75°	4360	2449	4286
80°	3744	2011	3615
85°	2856	1374	2482

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	3.2
10°-20°	473.0	9.3
20°-30°	724.6	14.3
30°-40°	884.2	17.4
40°-50°	924.7	18.2
50°-60°	836.9	16.5
60°-70°	633.8	12.5
70°-80°	353.2	7.0
80°-90°	85.2	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°	1361.3	26.8
0°-40°	2245.5	44.2
0°-60°	4007.2	78.9
0°-90°	5079.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5079.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1727	1727	1727	1727	1727	
5°	1791	1761	1721	1679	1670	173
15°	1894	1789	1630	1554	1559	537
25°	1928	1738	1452	1401	1459	889
35°	1840	1609	1226	1224	1338	1149
45°	1600	1400	976	1019	1192	1231
55°	1231	1112	724	787	1007	1099
65°	810	762	475	540	752	804
75°	419	396	236	281	412	445
85°	92	82	44	60	80	111
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°	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8
2.5°	1764.9	1756.6	1749.8	1752.5	1754.0	1748.7	1744.2	1744.9	1740.4	1749.1	1728.7
5°	1791.0	1783.4	1775.5	1778.5	1775.5	1767.6	1761.2	1759.3	1747.2	1752.1	1731.3
7.5°	1820.0	1811.7	1800.0	1803.4	1797.0	1782.3	1774.0	1769.1	1750.6	1751.0	1727.9
10°	1848.0	1840.8	1825.0	1827.2	1815.5	1795.9	1782.7	1775.9	1749.8	1746.1	1722.3
12.5°	1874.0	1864.2	1847.2	1848.4	1831.4	1805.3	1788.3	1778.5	1744.6	1733.2	1709.8
15°	1894.0	1884.6	1864.2	1863.8	1841.9	1808.0	1788.7	1775.1	1732.1	1714.4	1689.8
17.5°	1911.0	1902.3	1877.0	1876.3	1849.9	1806.8	1783.8	1766.8	1714.0	1692.1	1664.9
20°	1923.1	1914.4	1886.1	1883.5	1851.8	1801.2	1773.6	1752.1	1690.2	1664.2	1634.0
22.5°	1928.8	1920.1	1888.0	1884.2	1847.2	1789.9	1758.9	1733.6	1663.0	1629.1	1597.7
25°	1927.6	1919.3	1883.1	1879.3	1838.5	1772.9	1738.1	1709.1	1628.7	1588.7	1557.7
27.5°	1918.2	1911.8	1873.6	1868.7	1822.7	1749.8	1712.9	1680.8	1590.6	1546.0	1512.4
30°	1902.0	1897.0	1856.7	1852.1	1803.1	1724.6	1683.4	1646.4	1549.4	1499.2	1465.2
32.5°	1875.9	1871.4	1830.6	1826.5	1776.6	1692.1	1649.1	1610.9	1504.5	1449.0	1415.0
35°	1840.1	1837.4	1797.8	1793.2	1742.7	1655.1	1609.4	1567.5	1457.7	1395.0	1362.6
37.5°	1792.9	1792.9	1754.7	1749.8	1700.4	1609.8	1564.9	1520.4	1404.9	1338.4	1306.3
40°	1738.1	1743.0	1704.2	1699.3	1651.3	1561.1	1512.0	1465.2	1347.9	1278.8	1247.5
42.5°	1672.5	1677.0	1644.5	1640.0	1595.1	1504.9	1459.2	1408.3	1288.2	1218.0	1185.6
45°	1600.0	1606.0	1577.0	1573.6	1531.7	1443.4	1399.6	1347.9	1225.9	1154.6	1122.9
47.5°	1519.2	1527.1	1501.9	1500.0	1461.1	1380.3	1334.7	1282.2	1160.6	1088.6	1058.7
50°	1428.6	1440.0	1419.2	1419.2	1384.5	1304.1	1264.4	1212.0	1092.7	1020.6	991.2
52.5°	1331.6	1346.0	1330.5	1330.9	1302.6	1230.5	1189.3	1138.0	1021.7	950.8	923.6
55°	1231.2	1245.2	1235.4	1236.9	1214.6	1148.9	1111.6	1060.6	949.3	880.2	854.5
57.5°	1126.3	1141.4	1135.0	1138.0	1122.5	1063.6	1024.8	980.2	874.5	806.2	784.3
60°	1021.0	1035.3	1031.9	1036.1	1026.3	975.3	939.8	893.8	799.4	733.8	714.5
62.5°	914.6	927.8	927.0	931.5	926.3	884.0	852.3	813.0	721.7	661.3	643.5
65°	810.4	821.7	820.9	825.9	824.7	790.8	762.1	726.2	643.9	588.4	573.0
67.5°	709.2	718.7	716.0	721.7	723.2	696.0	671.1	639.0	569.9	516.0	502.8
70°	610.3	616.7	613.4	617.1	620.5	600.1	579.0	550.7	491.1	443.5	432.6
72.5°	513.3	517.9	512.6	516.3	519.4	504.6	487.3	462.7	413.3	372.2	363.1
75°	419.3	425.8	414.8	418.6	420.9	406.1	395.9	375.9	333.3	301.6	295.5
77.5°	328.4	332.2	326.1	324.6	326.1	315.5	307.6	292.1	260.1	234.0	230.2
80°	241.6	243.8	237.8	236.3	237.4	229.9	223.8	212.5	189.9	170.2	168.7
82.5°	161.9	163.1	157.8	156.3	157.0	154.8	147.6	139.7	129.1	112.5	112.1
85°	92.5	92.5	88.7	87.2	87.9	84.2	81.5	77.4	73.2	61.9	62.7
87.5°	34.0	34.0	32.1	31.7	35.5	31.3	30.2	28.3	29.4	23.4	24.9
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°	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8	1726.8
2.5°	1734.4	1730.6	1727.2	1715.5	1720.4	1708.3	1707.6	1703.0	1699.6	1693.2	1701.5
5°	1728.7	1721.2	1711.3	1697.4	1701.5	1687.2	1684.2	1678.9	1674.4	1666.0	1672.5
7.5°	1719.6	1707.2	1691.7	1674.0	1679.6	1661.9	1657.4	1651.7	1647.9	1638.1	1643.8
10°	1706.4	1688.7	1670.6	1649.1	1653.2	1634.0	1628.3	1622.3	1618.9	1610.2	1615.8
12.5°	1686.1	1664.5	1640.0	1616.6	1621.1	1603.0	1595.5	1589.0	1587.9	1580.7	1587.5
15°	1659.6	1629.8	1604.5	1579.6	1584.9	1563.8	1560.4	1553.9	1555.8	1550.9	1559.2
17.5°	1626.0	1591.7	1564.1	1537.3	1542.6	1524.9	1522.2	1519.2	1521.1	1520.4	1529.4
20°	1588.3	1550.5	1518.8	1492.4	1495.4	1481.5	1482.6	1481.9	1485.6	1489.8	1502.2
22.5°	1545.6	1503.0	1469.8	1442.6	1447.1	1435.1	1440.3	1441.8	1448.3	1457.7	1473.6
25°	1497.7	1452.0	1417.3	1391.6	1395.8	1387.9	1396.9	1400.7	1410.9	1426.7	1443.0
27.5°	1447.5	1399.2	1362.2	1337.7	1345.6	1337.7	1351.3	1358.8	1374.3	1391.6	1411.6
30°	1394.3	1344.1	1306.0	1284.1	1291.6	1284.4	1306.3	1316.5	1332.0	1355.8	1379.6
32.5°	1338.4	1285.6	1248.2	1231.2	1236.5	1235.4	1259.9	1271.2	1292.0	1319.2	1344.5
35°	1281.1	1225.9	1188.2	1173.9	1180.3	1181.8	1211.2	1224.4	1247.1	1279.9	1307.1
37.5°	1221.8	1165.6	1128.6	1116.9	1122.5	1128.2	1162.5	1175.7	1201.4	1237.3	1267.1
40°	1160.3	1104.0	1067.8	1058.4	1064.0	1070.1	1107.4	1125.5	1153.5	1192.4	1224.8
42.5°	1098.0	1041.8	1006.6	999.9	1005.5	1017.2	1056.8	1073.8	1103.3	1146.3	1182.2
45°	1034.6	976.1	945.5	940.2	946.3	959.8	998.7	1019.1	1050.4	1097.6	1136.1
47.5°	970.4	913.4	884.4	881.0	887.0	902.1	945.1	963.6	996.8	1047.0	1088.6
50°	905.5	850.0	822.1	820.9	826.6	842.8	884.0	905.9	940.2	996.5	1039.1
52.5°	839.8	786.6	761.3	761.3	766.6	783.2	824.7	847.4	882.8	942.1	989.3
55°	774.1	723.6	699.4	701.3	708.8	723.2	763.6	787.4	823.2	884.7	934.6
57.5°	708.5	660.5	638.6	641.3	648.5	662.8	702.4	729.2	761.7	825.5	876.4
60°	643.5	598.3	579.0	582.0	588.4	602.8	643.9	666.9	699.4	764.3	815.3
62.5°	577.9	536.7	518.6	522.4	528.0	542.4	581.3	603.5	635.6	699.4	750.7
65°	512.9	474.8	459.4	463.1	468.4	481.6	518.2	539.7	570.3	632.6	681.7
67.5°	448.8	414.1	401.2	405.0	409.2	421.6	451.8	475.2	503.9	563.1	609.6
70°	385.4	354.4	343.1	346.9	350.6	362.0	388.4	409.9	436.3	490.7	533.7
72.5°	322.7	292.5	286.9	290.3	293.3	303.1	328.4	345.4	368.4	416.7	453.7
75°	261.6	235.5	231.8	235.1	237.8	245.3	266.5	281.2	300.4	342.3	372.5
77.5°	202.7	180.8	179.3	181.9	184.6	189.9	206.5	221.9	237.0	268.0	294.8
80°	147.6	129.8	129.8	132.5	131.7	138.1	149.8	162.3	173.2	195.5	215.1
82.5°	97.4	83.4	85.3	87.2	88.3	91.0	98.1	107.6	114.4	128.0	140.8
85°	54.0	44.5	46.4	47.9	47.2	50.2	54.0	59.6	63.0	69.5	76.2
87.5°	20.0	16.6	17.0	18.1	18.9	20.4	20.4	23.8	24.2	24.9	26.4
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):

	160°	170°	180°
0°	1726.8	1726.8	1726.8
2.5°	1685.7	1694.7	1701.5
5°	1656.6	1664.2	1670.2
7.5°	1628.3	1635.1	1640.4
10°	1601.5	1609.1	1612.8
12.5°	1574.0	1582.6	1585.7
15°	1546.8	1555.5	1559.2
17.5°	1518.8	1530.2	1534.3
20°	1492.8	1507.1	1510.5
22.5°	1466.4	1481.1	1485.3
25°	1437.7	1455.1	1459.2
27.5°	1407.1	1427.9	1432.0
30°	1376.5	1399.2	1403.3
32.5°	1343.7	1368.2	1372.0
35°	1309.4	1333.9	1338.4
37.5°	1271.2	1298.0	1307.1
40°	1231.6	1260.7	1270.1
42.5°	1190.1	1221.8	1231.6
45°	1145.5	1180.3	1191.6
47.5°	1100.6	1139.9	1149.7
50°	1051.9	1093.8	1105.5
52.5°	1001.0	1046.7	1058.4
55°	948.1	994.2	1007.0
57.5°	890.8	938.3	951.9
60°	830.8	878.3	891.2
62.5°	769.2	812.3	824.7
65°	700.5	740.9	752.3
67.5°	627.7	664.7	674.1
70°	550.3	582.4	590.7
72.5°	469.5	491.8	502.8
75°	386.1	403.9	412.2
77.5°	302.3	314.8	321.6
80°	220.4	227.6	233.3
82.5°	144.2	147.2	151.4
85°	77.8	77.8	80.4
87.5°	26.4	25.3	26.4
90°	0.0	0.0	0.0

(END OF REPORT)