

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: P835248

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

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835248
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-LD4-2HI-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

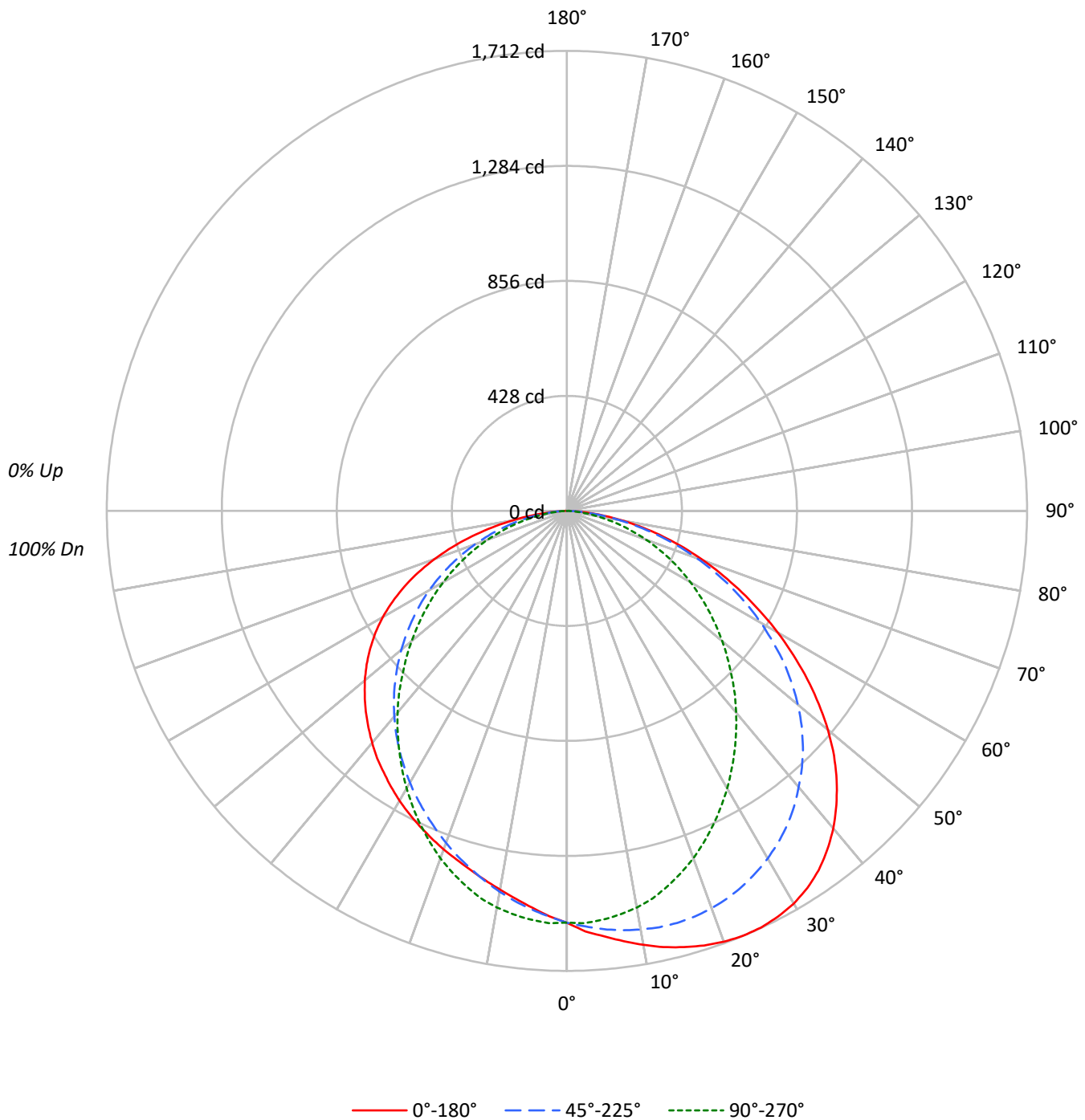
Lumens per Lamp: N/A
Luminaire Lumens: 4507.3 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4123	4123	4123
5°	4293	4126	4004
10°	4481	4095	3911
15°	4682	4029	3855
20°	4887	3940	3838
25°	5079	3826	3844
30°	5244	3706	3869
35°	5364	3574	3902
40°	5418	3442	3959
45°	5403	3296	4024
50°	5307	3158	4107
55°	5126	3012	4192
60°	4876	2857	4256
65°	4579	2683	4250
70°	4261	2474	4124
75°	3869	2173	3802
80°	3322	1785	3208
85°	2535	1220	2201

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.3	3.2
10°-20°	419.7	9.3
20°-30°	643.0	14.3
30°-40°	784.6	17.4
40°-50°	820.6	18.2
50°-60°	742.7	16.5
60°-70°	562.4	12.5
70°-80°	313.4	7.0
80°-90°	75.6	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°	1208.0	26.8
0°-40°	1992.6	44.2
0°-60°	3555.8	78.9
0°-90°	4507.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4507.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1532	1532	1532	1532	1532	
5°	1589	1563	1527	1490	1482	153
15°	1681	1587	1446	1379	1384	477
25°	1710	1542	1288	1243	1295	789
35°	1633	1428	1088	1086	1188	1020
45°	1420	1242	866	904	1057	1092
55°	1092	986	642	699	894	975
65°	719	676	421	479	668	713
75°	372	351	209	250	366	395
85°	82	72	40	53	71	99
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°	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3
2.5°	1566.1	1558.8	1552.7	1555.1	1556.4	1551.7	1547.7	1548.4	1544.4	1552.1	1534.0
5°	1589.2	1582.5	1575.5	1578.2	1575.5	1568.5	1562.8	1561.1	1550.4	1554.7	1536.3
7.5°	1615.0	1607.7	1597.3	1600.3	1594.6	1581.5	1574.2	1569.8	1553.4	1553.7	1533.3
10°	1639.8	1633.5	1619.4	1621.4	1611.0	1593.6	1581.9	1575.8	1552.7	1549.4	1528.3
12.5°	1662.9	1654.2	1639.1	1640.2	1625.1	1602.0	1586.9	1578.2	1548.0	1538.0	1517.2
15°	1680.7	1672.3	1654.2	1653.9	1634.5	1604.3	1587.2	1575.2	1537.0	1521.3	1499.5
17.5°	1695.7	1688.0	1665.6	1664.9	1641.5	1603.3	1582.9	1567.8	1520.9	1501.5	1477.4
20°	1706.5	1698.8	1673.6	1671.3	1643.2	1598.3	1573.8	1554.7	1499.8	1476.7	1449.9
22.5°	1711.5	1703.8	1675.3	1672.0	1639.1	1588.2	1560.8	1538.3	1475.7	1445.6	1417.8
25°	1710.5	1703.1	1671.0	1667.6	1631.4	1573.2	1542.4	1516.6	1445.2	1409.7	1382.3
27.5°	1702.1	1696.4	1662.6	1658.2	1617.4	1552.7	1519.9	1491.4	1411.4	1371.9	1342.1
30°	1687.7	1683.4	1647.5	1643.5	1600.0	1530.3	1493.8	1461.0	1374.9	1330.3	1300.2
32.5°	1664.6	1660.6	1624.4	1620.7	1576.5	1501.5	1463.3	1429.5	1335.0	1285.8	1255.7
35°	1632.8	1630.4	1595.3	1591.3	1546.4	1468.7	1428.1	1391.0	1293.5	1237.9	1209.1
37.5°	1590.9	1590.9	1557.1	1552.7	1508.9	1428.5	1388.6	1349.1	1246.6	1187.7	1159.2
40°	1542.4	1546.7	1512.2	1507.9	1465.3	1385.3	1341.7	1300.2	1196.0	1134.7	1106.9
42.5°	1484.1	1488.1	1459.3	1455.3	1415.4	1335.4	1294.8	1249.6	1143.1	1080.8	1052.0
45°	1419.8	1425.1	1399.3	1396.3	1359.1	1280.8	1241.9	1196.0	1087.9	1024.6	996.4
47.5°	1348.1	1355.1	1332.7	1331.0	1296.5	1224.8	1184.3	1137.8	1029.9	965.9	939.5
50°	1267.7	1277.8	1259.3	1259.3	1228.5	1157.2	1122.0	1075.5	969.6	905.7	879.5
52.5°	1181.6	1194.4	1180.6	1181.0	1155.8	1091.9	1055.4	1009.8	906.7	843.7	819.6
55°	1092.5	1104.9	1096.2	1097.6	1077.8	1019.5	986.4	941.2	842.3	781.1	758.3
57.5°	999.4	1012.8	1007.1	1009.8	996.1	943.8	909.3	869.8	776.0	715.4	696.0
60°	906.0	918.7	915.7	919.4	910.7	865.5	834.0	793.1	709.4	651.1	634.0
62.5°	811.5	823.3	822.6	826.6	821.9	784.4	756.3	721.4	640.4	586.8	571.1
65°	719.1	729.1	728.5	732.8	731.8	701.7	676.2	644.4	571.4	522.2	508.4
67.5°	629.3	637.7	635.4	640.4	641.7	617.6	595.5	567.0	505.7	457.8	446.1
70°	541.6	547.3	544.3	547.6	550.6	532.5	513.8	488.7	435.7	393.5	383.8
72.5°	455.5	459.5	454.8	458.2	460.9	447.8	432.4	410.6	366.7	330.2	322.2
75°	372.1	377.8	368.1	371.4	373.4	360.4	351.3	333.6	295.7	267.6	262.3
77.5°	291.4	294.7	289.4	288.0	289.4	280.0	273.0	259.2	230.8	207.7	204.3
80°	214.4	216.4	211.0	209.7	210.7	204.0	198.6	188.6	168.5	151.1	149.7
82.5°	143.7	144.7	140.0	138.7	139.3	137.3	131.0	123.9	114.5	99.8	99.5
85°	82.1	82.1	78.7	77.4	78.0	74.7	72.3	68.7	65.0	54.9	55.6
87.5°	30.1	30.1	28.5	28.1	31.5	27.8	26.8	25.1	26.1	20.8	22.1
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°	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3	1532.3
2.5°	1539.0	1535.7	1532.6	1522.3	1526.6	1515.9	1515.2	1511.2	1508.2	1502.5	1509.9
5°	1534.0	1527.3	1518.6	1506.2	1509.9	1497.1	1494.5	1489.8	1485.7	1478.4	1484.1
7.5°	1525.9	1514.9	1501.2	1485.4	1490.4	1474.7	1470.7	1465.7	1462.3	1453.6	1458.6
10°	1514.2	1498.5	1482.4	1463.3	1467.0	1449.9	1444.9	1439.5	1436.5	1428.8	1433.8
12.5°	1496.1	1477.0	1455.3	1434.5	1438.5	1422.4	1415.7	1410.1	1409.0	1402.7	1408.7
15°	1472.7	1446.2	1423.8	1401.7	1406.4	1387.6	1384.6	1378.9	1380.6	1376.2	1383.6
17.5°	1442.9	1412.4	1387.9	1364.2	1368.9	1353.1	1350.8	1348.1	1349.8	1349.1	1357.1
20°	1409.4	1375.9	1347.8	1324.3	1327.0	1314.6	1315.6	1314.9	1318.3	1322.0	1333.0
22.5°	1371.5	1333.7	1304.2	1280.1	1284.1	1273.4	1278.1	1279.4	1285.1	1293.5	1307.6
25°	1329.0	1288.5	1257.7	1234.9	1238.6	1231.5	1239.6	1242.9	1252.0	1266.0	1280.4
27.5°	1284.5	1241.6	1208.8	1187.0	1194.0	1187.0	1199.0	1205.7	1219.5	1234.9	1252.6
30°	1237.2	1192.7	1158.9	1139.4	1146.1	1139.8	1159.2	1168.2	1182.0	1203.1	1224.2
32.5°	1187.7	1140.8	1107.6	1092.5	1097.2	1096.2	1118.0	1128.0	1146.5	1170.6	1193.0
35°	1136.8	1087.9	1054.4	1041.6	1047.3	1048.7	1074.8	1086.5	1106.6	1135.7	1159.9
37.5°	1084.2	1034.3	1001.4	991.1	996.1	1001.1	1031.6	1043.3	1066.1	1097.9	1124.4
40°	1029.6	979.7	947.5	939.1	944.2	949.5	982.7	998.8	1023.5	1058.0	1086.8
42.5°	974.3	924.4	893.3	887.2	892.3	902.6	937.8	952.9	979.0	1017.2	1049.0
45°	918.0	866.1	839.0	834.3	839.7	851.7	886.2	904.3	932.1	974.0	1008.1
47.5°	861.1	810.5	784.7	781.7	787.1	800.5	838.7	855.1	884.5	929.1	965.9
50°	803.5	754.3	729.5	728.5	733.5	747.9	784.4	803.8	834.3	884.2	922.1
52.5°	745.2	698.0	675.6	675.6	680.2	695.0	731.8	751.9	783.4	836.0	877.9
55°	686.9	642.1	620.6	622.3	629.0	641.7	677.6	698.7	730.5	785.1	829.3
57.5°	628.7	586.1	566.7	569.0	575.4	588.1	623.3	647.1	675.9	732.5	777.7
60°	571.1	530.9	513.8	516.5	522.2	534.9	571.4	591.8	620.6	678.2	723.4
62.5°	512.8	476.3	460.2	463.5	468.6	481.3	515.8	535.6	564.0	620.6	666.2
65°	455.2	421.3	407.6	411.0	415.6	427.4	459.9	478.9	506.1	561.3	604.9
67.5°	398.2	367.4	356.0	359.4	363.1	374.1	400.9	421.7	447.1	499.7	540.9
70°	342.0	314.5	304.5	307.8	311.1	321.2	344.6	363.7	387.2	435.4	473.6
72.5°	286.4	259.6	254.5	257.6	260.2	268.9	291.4	306.5	326.9	369.8	402.6
75°	232.1	209.0	205.6	208.7	211.0	217.7	236.5	249.5	266.6	303.8	330.6
77.5°	179.9	160.4	159.1	161.4	163.8	168.5	183.2	196.9	210.3	237.8	261.6
80°	131.0	115.2	115.2	117.6	116.9	122.6	133.0	144.0	153.7	173.5	190.9
82.5°	86.4	74.0	75.7	77.4	78.4	80.7	87.1	95.5	101.5	113.5	124.9
85°	47.9	39.5	41.2	42.5	41.9	44.5	47.9	52.9	55.9	61.6	67.7
87.5°	17.8	14.7	15.1	16.1	16.7	18.1	18.1	21.1	21.4	22.1	23.4
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°	1532.3	1532.3	1532.3
2.5°	1495.8	1503.8	1509.9
5°	1470.0	1476.7	1482.1
7.5°	1444.9	1450.9	1455.6
10°	1421.1	1427.8	1431.2
12.5°	1396.7	1404.4	1407.0
15°	1372.5	1380.2	1383.6
17.5°	1347.8	1357.8	1361.5
20°	1324.6	1337.4	1340.4
22.5°	1301.2	1314.3	1317.9
25°	1275.7	1291.2	1294.8
27.5°	1248.6	1267.0	1270.7
30°	1221.5	1241.6	1245.3
32.5°	1192.4	1214.1	1217.5
35°	1161.9	1183.6	1187.7
37.5°	1128.0	1151.8	1159.9
40°	1092.9	1118.7	1127.0
42.5°	1056.0	1084.2	1092.9
45°	1016.5	1047.3	1057.4
47.5°	976.7	1011.5	1020.2
50°	933.4	970.6	981.0
52.5°	888.2	928.8	939.1
55°	841.3	882.2	893.6
57.5°	790.4	832.6	844.7
60°	737.2	779.4	790.8
62.5°	682.6	720.8	731.8
65°	621.6	657.5	667.5
67.5°	557.0	589.8	598.2
70°	488.3	516.8	524.2
72.5°	416.7	436.4	446.1
75°	342.6	358.4	365.7
77.5°	268.3	279.3	285.4
80°	195.6	202.0	207.0
82.5°	127.9	130.6	134.3
85°	69.0	69.0	71.3
87.5°	23.4	22.4	23.4
90°	0.0	0.0	0.0

(END OF REPORT)