

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: P835212

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-2HI-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P835212
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-35-120-EDD
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

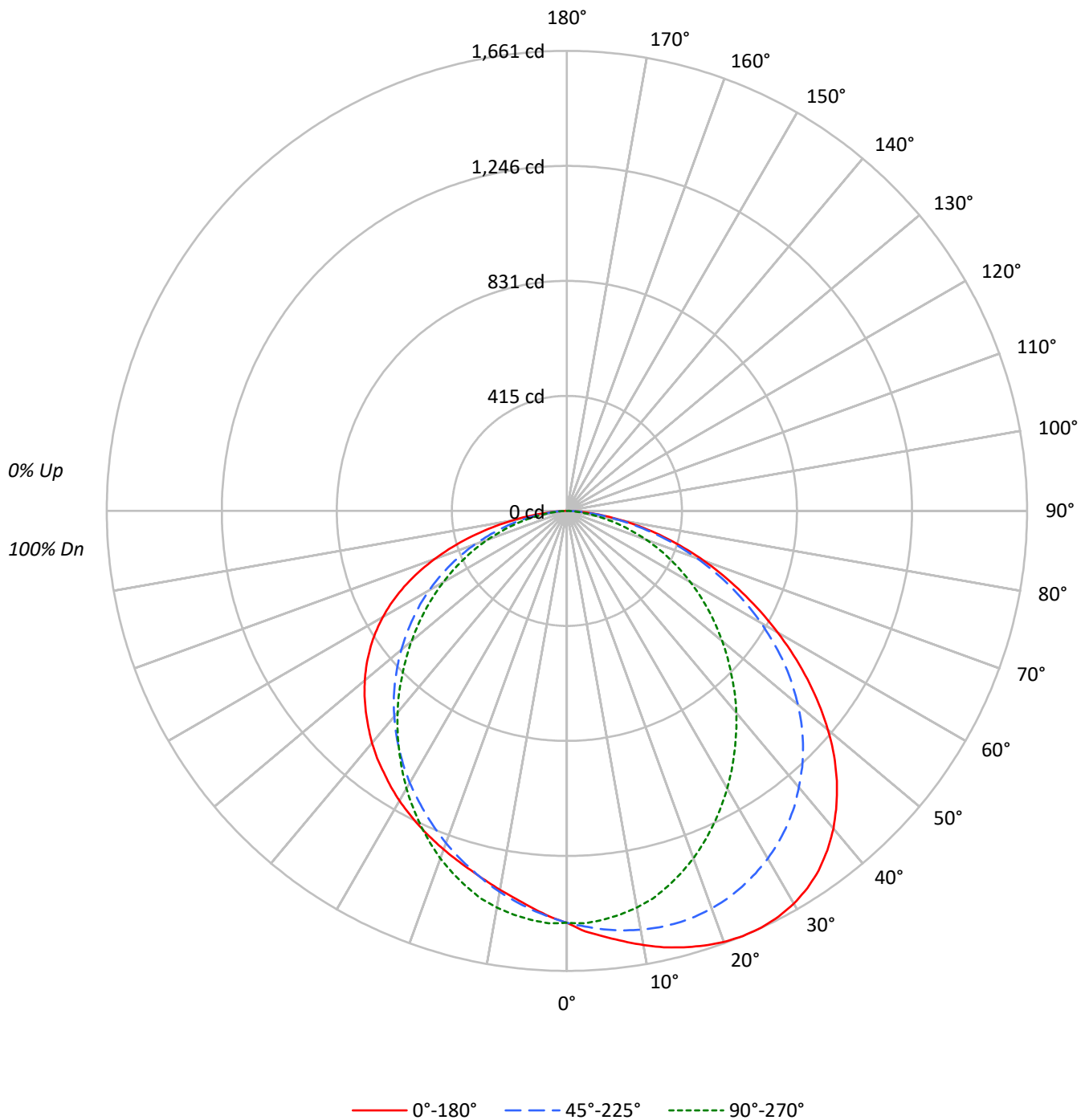
Lumens per Lamp: N/A
Luminaire Lumens: 4374.8 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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°	4002	4002	4002
5°	4167	4004	3886
10°	4349	3974	3796
15°	4544	3911	3741
20°	4743	3824	3726
25°	4929	3713	3732
30°	5090	3597	3755
35°	5206	3469	3787
40°	5259	3340	3843
45°	5244	3199	3906
50°	5151	3065	3986
55°	4975	2924	4069
60°	4732	2773	4131
65°	4444	2604	4125
70°	4136	2401	4002
75°	3755	2109	3691
80°	3225	1733	3113
85°	2458	1186	2137

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	3.2
10°-20°	407.3	9.3
20°-30°	624.0	14.3
30°-40°	761.6	17.4
40°-50°	796.4	18.2
50°-60°	720.8	16.5
60°-70°	545.9	12.5
70°-80°	304.2	7.0
80°-90°	73.4	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°	1172.4	26.8
0°-40°	1934.0	44.2
0°-60°	3451.2	78.9
0°-90°	4374.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4374.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1487	1487	1487	1487	1487	
5°	1542	1517	1482	1446	1438	149
15°	1631	1540	1404	1338	1343	463
25°	1660	1497	1251	1206	1257	766
35°	1585	1386	1056	1055	1153	990
45°	1378	1205	841	878	1026	1060
55°	1060	957	623	678	867	946
65°	698	656	409	465	648	692
75°	361	341	203	242	355	383
85°	80	70	38	51	69	96
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°	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2
2.5°	1520.1	1512.9	1507.1	1509.3	1510.6	1506.1	1502.2	1502.8	1498.9	1506.4	1488.9
5°	1542.5	1536.0	1529.2	1531.8	1529.2	1522.3	1516.8	1515.2	1504.8	1509.0	1491.1
7.5°	1567.5	1560.4	1550.3	1553.2	1547.7	1535.0	1527.9	1523.6	1507.7	1508.0	1488.2
10°	1591.6	1585.4	1571.8	1573.7	1563.6	1546.7	1535.3	1529.5	1507.1	1503.8	1483.3
12.5°	1614.0	1605.6	1590.9	1591.9	1577.3	1554.9	1540.2	1531.8	1502.5	1492.8	1472.6
15°	1631.2	1623.1	1605.6	1605.2	1586.4	1557.1	1540.5	1528.8	1491.8	1476.5	1455.4
17.5°	1645.9	1638.4	1616.6	1616.0	1593.2	1556.2	1536.3	1521.7	1476.2	1457.3	1433.9
20°	1656.3	1648.8	1624.4	1622.1	1594.8	1551.3	1527.5	1509.0	1455.7	1433.3	1407.3
22.5°	1661.2	1653.7	1626.0	1622.8	1590.9	1541.5	1514.9	1493.1	1432.3	1403.0	1376.1
25°	1660.2	1653.0	1621.8	1618.6	1583.5	1526.9	1497.0	1472.0	1402.7	1368.3	1341.6
27.5°	1652.1	1646.5	1613.7	1609.5	1569.8	1507.1	1475.2	1447.6	1369.9	1331.5	1302.6
30°	1638.1	1633.8	1599.1	1595.2	1552.9	1485.3	1449.9	1418.0	1334.4	1291.2	1262.0
32.5°	1615.6	1611.7	1576.6	1573.1	1530.1	1457.3	1420.3	1387.4	1295.8	1248.0	1218.7
35°	1584.8	1582.5	1548.4	1544.5	1500.9	1425.5	1386.1	1350.1	1255.5	1201.5	1173.5
37.5°	1544.1	1544.1	1511.3	1507.1	1464.5	1386.5	1347.8	1309.4	1209.9	1152.7	1125.1
40°	1497.0	1501.2	1467.7	1463.5	1422.2	1344.5	1302.3	1262.0	1160.9	1101.4	1074.4
42.5°	1440.4	1444.3	1416.4	1412.5	1373.8	1296.1	1256.8	1212.9	1109.5	1049.0	1021.1
45°	1378.0	1383.2	1358.2	1355.3	1319.2	1243.1	1205.4	1160.9	1055.9	994.4	967.1
47.5°	1308.4	1315.3	1293.5	1291.9	1258.4	1188.8	1149.5	1104.3	999.6	937.5	911.8
50°	1230.4	1240.2	1222.3	1222.3	1192.4	1123.1	1089.0	1043.8	941.1	879.0	853.7
52.5°	1146.9	1159.2	1145.9	1146.2	1121.8	1059.8	1024.3	980.1	880.0	818.9	795.5
55°	1060.4	1072.4	1064.0	1065.3	1046.1	989.5	957.4	913.5	817.6	758.1	736.0
57.5°	970.0	983.0	977.5	980.1	966.8	916.1	882.6	844.2	753.2	694.4	675.5
60°	879.3	891.7	888.8	892.3	883.9	840.0	809.4	769.8	688.5	632.0	615.4
62.5°	787.7	799.0	798.4	802.3	797.7	761.3	734.0	700.2	621.6	569.5	554.3
65°	697.9	707.7	707.0	711.3	710.3	681.0	656.3	625.5	554.6	506.8	493.5
67.5°	610.8	619.0	616.7	621.6	622.9	599.4	578.0	550.4	490.9	444.4	433.0
70°	525.7	531.2	528.3	531.5	534.4	516.9	498.7	474.3	422.9	382.0	372.5
72.5°	442.1	446.0	441.5	444.7	447.3	434.6	419.7	398.5	356.0	320.5	312.7
75°	361.2	366.7	357.3	360.5	362.5	349.8	341.0	323.8	287.0	259.7	254.5
77.5°	282.8	286.1	280.9	279.6	280.9	271.8	264.9	251.6	224.0	201.5	198.3
80°	208.1	210.0	204.8	203.5	204.5	198.0	192.8	183.0	163.5	146.6	145.3
82.5°	139.5	140.4	135.9	134.6	135.2	133.3	127.1	120.3	111.2	96.9	96.5
85°	79.6	79.6	76.4	75.1	75.7	72.5	70.2	66.6	63.1	53.3	54.0
87.5°	29.3	29.3	27.6	27.3	30.6	27.0	26.0	24.4	25.4	20.2	21.5
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°	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2	1487.2
2.5°	1493.7	1490.5	1487.6	1477.5	1481.7	1471.3	1470.7	1466.8	1463.8	1458.3	1465.5
5°	1488.9	1482.4	1473.9	1461.9	1465.5	1453.1	1450.5	1446.0	1442.1	1434.9	1440.4
7.5°	1481.1	1470.3	1457.0	1441.7	1446.6	1431.3	1427.4	1422.5	1419.3	1410.8	1415.7
10°	1469.7	1454.4	1438.8	1420.3	1423.8	1407.3	1402.4	1397.2	1394.3	1386.8	1391.7
12.5°	1452.1	1433.6	1412.5	1392.3	1396.2	1380.6	1374.1	1368.6	1367.6	1361.4	1367.3
15°	1429.4	1403.7	1381.9	1360.5	1365.0	1346.8	1343.9	1338.4	1340.0	1335.7	1342.9
17.5°	1400.4	1370.9	1347.1	1324.0	1328.6	1313.3	1311.0	1308.4	1310.1	1309.4	1317.2
20°	1367.9	1335.4	1308.1	1285.4	1288.0	1275.9	1276.9	1276.3	1279.5	1283.1	1293.8
22.5°	1331.2	1294.5	1265.9	1242.5	1246.4	1236.0	1240.5	1241.8	1247.3	1255.5	1269.1
25°	1289.9	1250.6	1220.7	1198.6	1202.1	1195.3	1203.1	1206.4	1215.1	1228.8	1242.8
27.5°	1246.7	1205.1	1173.2	1152.1	1158.9	1152.1	1163.8	1170.3	1183.6	1198.6	1215.8
30°	1200.8	1157.6	1124.8	1105.9	1112.4	1106.2	1125.1	1133.9	1147.2	1167.7	1188.2
32.5°	1152.7	1107.2	1075.0	1060.4	1065.0	1064.0	1085.1	1094.9	1112.7	1136.2	1157.9
35°	1103.3	1055.9	1023.3	1011.0	1016.5	1017.8	1043.2	1054.6	1074.1	1102.3	1125.7
37.5°	1052.3	1003.8	972.0	961.9	966.8	971.7	1001.2	1012.6	1034.7	1065.6	1091.3
40°	999.3	950.9	919.6	911.5	916.4	921.6	953.8	969.4	993.4	1026.9	1054.9
42.5°	945.7	897.2	867.0	861.1	866.0	876.1	910.2	924.8	950.2	987.3	1018.1
45°	891.0	840.7	814.3	809.8	815.0	826.7	860.2	877.7	904.7	945.3	978.5
47.5°	835.8	786.7	761.7	758.7	763.9	776.9	814.0	829.9	858.5	901.8	937.5
50°	779.9	732.1	708.0	707.0	711.9	725.9	761.3	780.2	809.8	858.2	894.9
52.5°	723.3	677.5	655.7	655.7	660.2	674.5	710.3	729.8	760.4	811.4	852.0
55°	666.7	623.2	602.4	604.0	610.5	622.9	657.6	678.1	709.0	762.0	804.9
57.5°	610.2	568.9	550.0	552.3	558.5	570.8	605.0	628.1	656.0	710.9	754.8
60°	554.3	515.3	498.7	501.3	506.8	519.2	554.6	574.4	602.4	658.3	702.2
62.5°	497.7	462.3	446.7	449.9	454.8	467.1	500.6	519.8	547.4	602.4	646.6
65°	441.8	408.9	395.6	398.9	403.4	414.8	446.3	464.9	491.2	544.8	587.1
67.5°	386.5	356.6	345.6	348.8	352.4	363.1	389.1	409.3	434.0	485.0	525.0
70°	331.9	305.2	295.5	298.7	302.0	311.8	334.5	353.0	375.8	422.6	459.7
72.5°	277.9	251.9	247.1	250.0	252.6	261.0	282.8	297.4	317.3	358.9	390.7
75°	225.3	202.8	199.6	202.5	204.8	211.3	229.5	242.2	258.8	294.8	320.9
77.5°	174.6	155.7	154.4	156.7	159.0	163.5	177.8	191.1	204.1	230.8	253.9
80°	127.1	111.8	111.8	114.1	113.5	119.0	129.1	139.8	149.2	168.4	185.3
82.5°	83.9	71.8	73.5	75.1	76.1	78.3	84.5	92.6	98.5	110.2	121.3
85°	46.5	38.4	40.0	41.3	40.6	43.2	46.5	51.4	54.3	59.8	65.7
87.5°	17.2	14.3	14.6	15.6	16.3	17.6	17.6	20.5	20.8	21.5	22.8
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°	1487.2	1487.2	1487.2
2.5°	1451.8	1459.6	1465.5
5°	1426.8	1433.3	1438.5
7.5°	1402.4	1408.2	1412.8
10°	1379.3	1385.8	1389.1
12.5°	1355.6	1363.1	1365.7
15°	1332.2	1339.7	1342.9
17.5°	1308.1	1317.9	1321.4
20°	1285.7	1298.0	1301.0
22.5°	1262.9	1275.6	1279.2
25°	1238.2	1253.2	1256.8
27.5°	1211.9	1229.8	1233.3
30°	1185.6	1205.1	1208.6
32.5°	1157.3	1178.4	1181.7
35°	1127.7	1148.8	1152.7
37.5°	1094.9	1117.9	1125.7
40°	1060.7	1085.8	1093.9
42.5°	1025.0	1052.3	1060.7
45°	986.6	1016.5	1026.3
47.5°	947.9	981.7	990.2
50°	906.0	942.1	952.2
52.5°	862.1	901.4	911.5
55°	816.6	856.3	867.3
57.5°	767.2	808.1	819.8
60°	715.5	756.5	767.5
62.5°	662.5	699.6	710.3
65°	603.3	638.1	647.9
67.5°	540.6	572.5	580.6
70°	474.0	501.6	508.7
72.5°	404.4	423.6	433.0
75°	332.6	347.8	355.0
77.5°	260.4	271.1	277.0
80°	189.8	196.0	200.9
82.5°	124.2	126.8	130.4
85°	67.0	67.0	69.2
87.5°	22.8	21.8	22.8
90°	0.0	0.0	0.0

(END OF REPORT)