

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: P834210

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-1HI-35-120-EDD**

Issue Date: 5/16/2024



Test Information

Test Method: LM-79-08
Report Number: P834210
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-ASY2-LD4-1HI-35-120-EDD
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

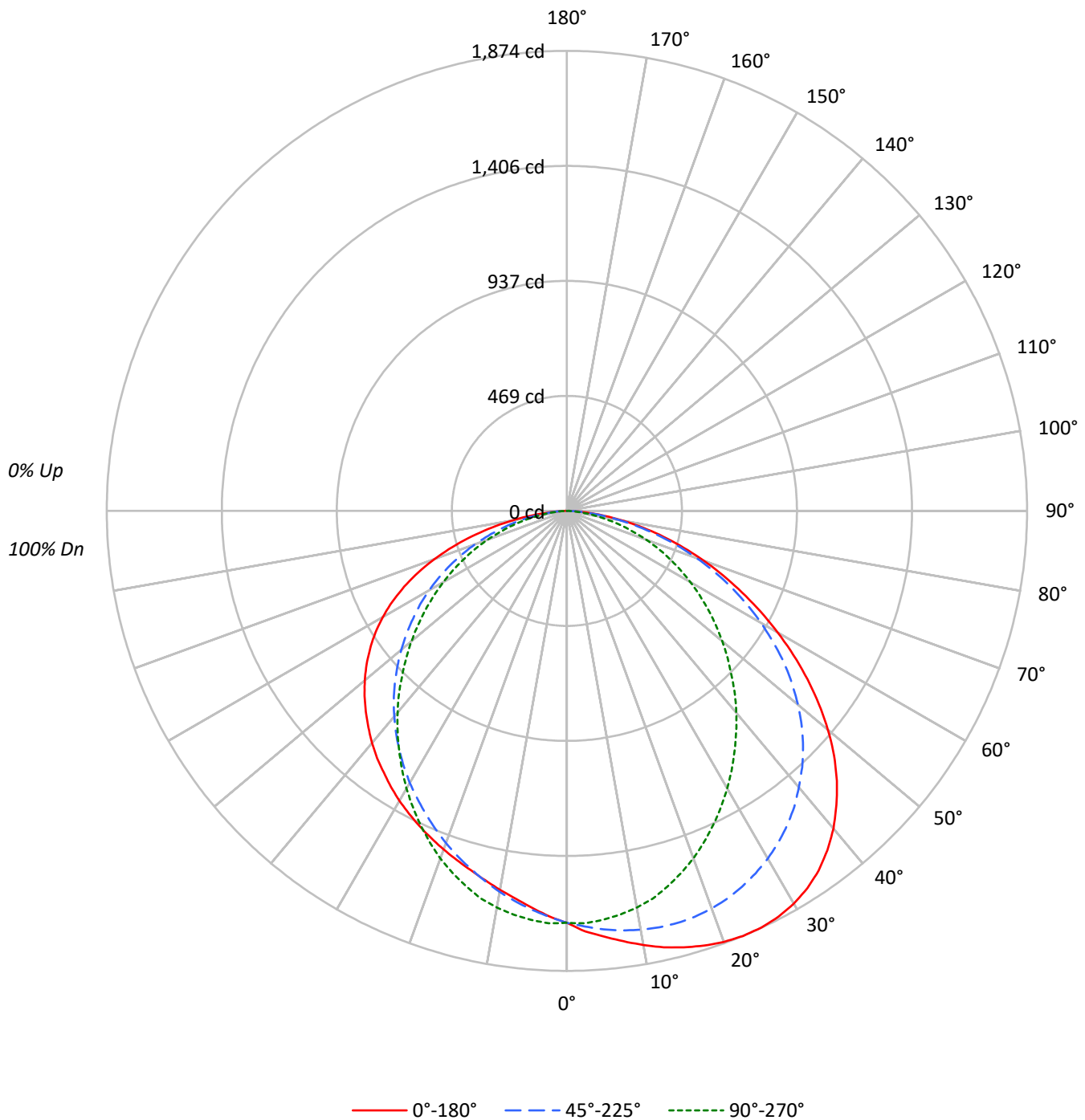
Lumens per Lamp: N/A
Luminaire Lumens: 4935.6 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4515	4515	4515
5°	4701	4518	4384
10°	4906	4484	4282
15°	5127	4412	4221
20°	5351	4314	4203
25°	5561	4189	4210
30°	5743	4058	4237
35°	5873	3913	4272
40°	5933	3769	4335
45°	5917	3609	4407
50°	5812	3458	4497
55°	5613	3299	4591
60°	5339	3129	4660
65°	5014	2938	4654
70°	4666	2710	4516
75°	4237	2380	4164
80°	3637	1956	3513
85°	2776	1337	2411

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.1	3.2
10°-20°	459.6	9.3
20°-30°	704.0	14.3
30°-40°	859.2	17.4
40°-50°	898.5	18.2
50°-60°	813.2	16.5
60°-70°	615.9	12.5
70°-80°	343.2	7.0
80°-90°	82.8	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°	1322.7	26.8
0°-40°	2181.9	44.2
0°-60°	3893.7	78.9
0°-90°	4935.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4935.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1678	1678	1678	1678	1678	
5°	1740	1711	1672	1631	1623	168
15°	1840	1738	1584	1510	1515	522
25°	1873	1689	1411	1361	1418	864
35°	1788	1564	1191	1190	1300	1116
45°	1555	1360	948	990	1158	1196
55°	1196	1080	703	765	978	1068
65°	787	740	461	524	731	781
75°	408	385	229	273	400	432
85°	90	79	43	58	78	108
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°	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9
2.5°	1715.0	1706.9	1700.3	1702.9	1704.3	1699.2	1694.8	1695.5	1691.1	1699.6	1679.7
5°	1740.3	1732.9	1725.2	1728.2	1725.2	1717.5	1711.3	1709.5	1697.7	1702.5	1682.3
7.5°	1768.5	1760.4	1749.1	1752.4	1746.1	1731.8	1723.8	1719.0	1701.0	1701.4	1679.0
10°	1795.6	1788.7	1773.3	1775.5	1764.1	1745.0	1732.2	1725.6	1700.3	1696.6	1673.5
12.5°	1820.9	1811.4	1794.9	1796.0	1779.5	1754.2	1737.7	1728.2	1695.2	1684.1	1661.4
15°	1840.4	1831.2	1811.4	1811.0	1789.8	1756.8	1738.1	1724.9	1683.0	1665.8	1642.0
17.5°	1856.9	1848.5	1823.9	1823.2	1797.5	1755.7	1733.3	1716.8	1665.4	1644.2	1617.8
20°	1868.6	1860.2	1832.7	1830.1	1799.3	1750.2	1723.4	1702.5	1642.3	1617.0	1587.7
22.5°	1874.1	1865.7	1834.5	1830.9	1794.9	1739.2	1709.1	1684.5	1615.9	1582.9	1552.5
25°	1873.0	1865.0	1829.8	1826.1	1786.5	1722.7	1688.9	1660.7	1582.6	1543.7	1513.6
27.5°	1863.9	1857.6	1820.6	1815.8	1771.1	1700.3	1664.3	1633.2	1545.5	1502.2	1469.6
30°	1848.1	1843.3	1804.1	1799.7	1752.0	1675.7	1635.7	1599.8	1505.5	1456.8	1423.8
32.5°	1822.8	1818.4	1778.8	1774.7	1726.3	1644.2	1602.4	1565.3	1461.9	1408.0	1375.0
35°	1787.9	1785.4	1746.9	1742.5	1693.3	1608.2	1563.9	1523.1	1416.4	1355.5	1324.0
37.5°	1742.1	1742.1	1705.1	1700.3	1652.2	1564.2	1520.6	1477.3	1365.1	1300.5	1269.3
40°	1688.9	1693.7	1655.9	1651.1	1604.6	1516.9	1469.2	1423.8	1309.7	1242.6	1212.1
42.5°	1625.1	1629.5	1598.0	1593.6	1549.9	1462.3	1417.9	1368.4	1251.7	1183.5	1152.0
45°	1554.7	1560.6	1532.3	1529.0	1488.3	1402.5	1359.9	1309.7	1191.2	1121.9	1091.1
47.5°	1476.2	1483.9	1459.3	1457.5	1419.7	1341.2	1296.9	1245.9	1127.8	1057.7	1028.8
50°	1388.2	1399.2	1379.0	1379.0	1345.3	1267.1	1228.6	1177.7	1061.8	991.7	963.1
52.5°	1293.9	1307.9	1292.8	1293.2	1265.7	1195.6	1155.7	1105.8	992.8	923.9	897.5
55°	1196.4	1209.9	1200.4	1201.9	1180.2	1116.4	1080.1	1030.6	922.4	855.3	830.3
57.5°	1094.4	1109.1	1102.8	1105.8	1090.7	1033.5	995.7	952.5	849.8	783.4	762.1
60°	992.1	1006.0	1002.7	1006.7	997.2	947.7	913.2	868.5	776.8	713.0	694.3
62.5°	888.7	901.5	900.8	905.2	900.0	858.9	828.1	790.0	701.2	642.6	625.3
65°	787.4	798.4	797.7	802.5	801.4	768.4	740.5	705.6	625.7	571.8	556.7
67.5°	689.1	698.3	695.7	701.2	702.7	676.3	652.1	620.9	553.8	501.4	488.5
70°	593.0	599.3	596.0	599.6	602.9	583.1	562.6	535.1	477.2	430.9	420.3
72.5°	498.8	503.2	498.1	501.7	504.7	490.4	473.5	449.6	401.6	361.6	352.8
75°	407.5	413.7	403.1	406.7	408.9	394.6	384.7	365.3	323.8	293.0	287.2
77.5°	319.1	322.7	316.9	315.4	316.9	306.6	298.9	283.9	252.7	227.4	223.7
80°	234.7	236.9	231.1	229.6	230.7	223.4	217.5	206.5	184.5	165.4	163.9
82.5°	157.3	158.4	153.3	151.8	152.6	150.4	143.4	135.7	125.4	109.3	108.9
85°	89.9	89.9	86.2	84.7	85.5	81.8	79.2	75.2	71.2	60.1	60.9
87.5°	33.0	33.0	31.2	30.8	34.5	30.4	29.3	27.5	28.6	22.7	24.2
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°	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9	1677.9
2.5°	1685.2	1681.6	1678.3	1666.9	1671.7	1659.9	1659.2	1654.8	1651.5	1645.3	1653.3
5°	1679.7	1672.4	1662.9	1649.3	1653.3	1639.4	1636.5	1631.3	1626.9	1618.9	1625.1
7.5°	1670.9	1658.8	1643.8	1626.6	1632.1	1614.8	1610.4	1604.9	1601.3	1591.7	1597.2
10°	1658.1	1640.9	1623.3	1602.4	1606.4	1587.7	1582.2	1576.3	1573.0	1564.6	1570.1
12.5°	1638.3	1617.4	1593.6	1570.8	1575.2	1557.6	1550.3	1544.0	1542.9	1536.0	1542.6
15°	1612.6	1583.7	1559.1	1534.9	1540.0	1519.5	1516.2	1509.9	1511.8	1507.0	1515.1
17.5°	1580.0	1546.6	1519.8	1493.8	1498.9	1481.7	1479.1	1476.2	1478.0	1477.3	1486.1
20°	1543.3	1506.6	1475.8	1450.2	1453.1	1439.5	1440.6	1439.9	1443.6	1447.6	1459.7
22.5°	1501.9	1460.4	1428.2	1401.7	1406.1	1394.4	1399.5	1401.0	1407.2	1416.4	1431.8
25°	1455.3	1410.9	1377.2	1352.2	1356.3	1348.6	1357.4	1361.0	1370.9	1386.3	1402.1
27.5°	1406.5	1359.6	1323.6	1299.8	1307.5	1299.8	1313.0	1320.3	1335.4	1352.2	1371.7
30°	1354.8	1306.0	1269.0	1247.7	1255.0	1248.1	1269.3	1279.2	1294.3	1317.4	1340.5
32.5°	1300.5	1249.2	1212.9	1196.4	1201.5	1200.4	1224.2	1235.2	1255.4	1281.8	1306.4
35°	1244.8	1191.2	1154.6	1140.6	1146.8	1148.3	1176.9	1189.8	1211.8	1243.7	1270.1
37.5°	1187.2	1132.5	1096.6	1085.2	1090.7	1096.2	1129.6	1142.4	1167.4	1202.2	1231.2
40°	1127.4	1072.8	1037.6	1028.4	1033.9	1039.8	1076.1	1093.7	1120.8	1158.6	1190.1
42.5°	1066.9	1012.3	978.1	971.5	977.0	988.4	1026.9	1043.4	1072.0	1113.8	1148.7
45°	1005.3	948.4	918.7	913.6	919.5	932.7	970.4	990.2	1020.7	1066.5	1103.9
47.5°	942.9	887.6	859.3	856.0	861.9	876.5	918.4	936.3	968.6	1017.4	1057.7
50°	879.9	825.9	798.8	797.7	803.2	819.0	858.9	880.2	913.6	968.2	1009.7
52.5°	816.0	764.3	739.7	739.7	744.9	761.0	801.4	823.4	857.8	915.4	961.3
55°	752.2	703.1	679.6	681.4	688.8	702.7	741.9	765.1	799.9	859.7	908.1
57.5°	688.4	641.8	620.6	623.1	630.1	644.0	682.5	708.6	740.1	802.1	851.6
60°	625.3	581.3	562.6	565.5	571.8	585.7	625.7	648.1	679.6	742.7	792.2
62.5°	561.5	521.5	503.9	507.6	513.1	527.0	564.8	586.4	617.6	679.6	729.5
65°	498.4	461.4	446.3	450.0	455.1	468.0	503.6	524.5	554.2	614.7	662.4
67.5°	436.1	402.3	389.9	393.5	397.6	409.7	439.0	461.7	489.6	547.2	592.3
70°	374.5	344.4	333.4	337.0	340.7	351.7	377.4	398.3	424.0	476.8	518.6
72.5°	313.6	284.2	278.7	282.0	285.0	294.5	319.1	335.6	358.0	404.9	440.8
75°	254.2	228.9	225.2	228.5	231.1	238.4	258.9	273.2	291.9	332.6	362.0
77.5°	196.9	175.7	174.2	176.8	179.3	184.5	200.6	215.7	230.3	260.4	286.4
80°	143.4	126.2	126.2	128.7	128.0	134.2	145.6	157.7	168.3	190.0	209.1
82.5°	94.6	81.1	82.9	84.7	85.8	88.4	95.4	104.5	111.1	124.3	136.8
85°	52.4	43.3	45.1	46.6	45.8	48.8	52.4	57.9	61.2	67.5	74.1
87.5°	19.4	16.1	16.5	17.6	18.3	19.8	19.8	23.1	23.5	24.2	25.7
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°	1677.9	1677.9	1677.9
2.5°	1637.9	1646.7	1653.3
5°	1609.7	1617.0	1622.9
7.5°	1582.2	1588.8	1593.9
10°	1556.2	1563.5	1567.2
12.5°	1529.4	1537.8	1540.7
15°	1503.0	1511.4	1515.1
17.5°	1475.8	1486.8	1490.9
20°	1450.5	1464.5	1467.8
22.5°	1424.9	1439.2	1443.2
25°	1397.0	1413.8	1417.9
27.5°	1367.3	1387.4	1391.5
30°	1337.6	1359.6	1363.6
32.5°	1305.7	1329.5	1333.2
35°	1272.3	1296.1	1300.5
37.5°	1235.2	1261.3	1270.1
40°	1196.7	1225.0	1234.1
42.5°	1156.4	1187.2	1196.7
45°	1113.1	1146.8	1157.9
47.5°	1069.5	1107.6	1117.1
50°	1022.2	1062.9	1074.2
52.5°	972.6	1017.0	1028.4
55°	921.3	966.0	978.5
57.5°	865.5	911.8	925.0
60°	807.2	853.4	865.9
62.5°	747.5	789.3	801.4
65°	680.7	719.9	730.9
67.5°	609.9	645.9	655.0
70°	534.7	565.9	574.0
72.5°	456.2	477.9	488.5
75°	375.2	392.4	400.5
77.5°	293.8	305.9	312.5
80°	214.2	221.2	226.7
82.5°	140.1	143.0	147.1
85°	75.6	75.6	78.1
87.5°	25.7	24.6	25.7
90°	0.0	0.0	0.0

(END OF REPORT)