

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: P551380

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-96-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P551380
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-2HI-40-UNV-93-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

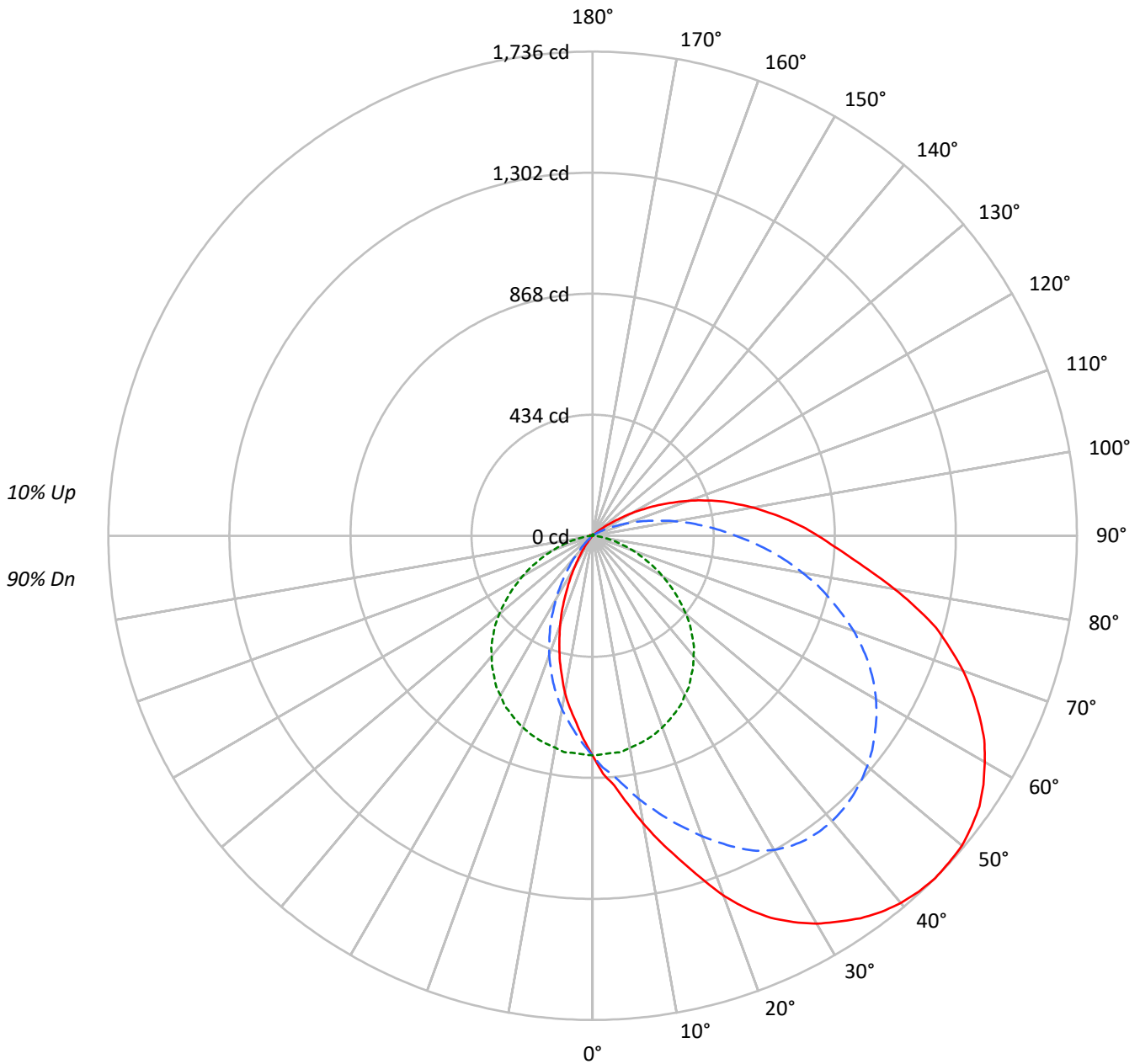
Lumens per Lamp: N/A
Luminaire Lumens: 3892.9 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 FT

TEST NUMBER: P551380

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-96-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8477	8477	8477
5°	9305	8352	6968
10°	10530	8250	5743
15°	11800	8145	4475
20°	13309	8012	3296
25°	14559	7858	2164
30°	15490	7652	1219
35°	16295	7430	537
40°	17009	7157	129
45°	17622	6814	0
50°	18136	6360	0
55°	18528	5782	0
60°	18725	5113	0
65°	18802	4353	0
70°	18739	3549	0
75°	18501	2618	15
80°	17751	1600	81
85°	17158	763	110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	1.9
10°-20°	225.9	5.8
20°-30°	365.7	9.4
30°-40°	469.8	12.1
40°-50°	531.8	13.7
50°-60°	551.0	14.2
60°-70°	519.6	13.3
70°-80°	435.5	11.2
80°-90°	315.6	8.1
90°-100°	207.5	5.3
100°-110°	119.8	3.1
110°-120°	52.9	1.4
120°-130°	14.3	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	667.0	17.1
0°-40°	1136.8	29.2
0°-60°	2219.7	57.0
0°-90°	3490.4	89.7
90°-120°	380.1	9.8
90°-150°	399.8	10.3
90°-180°	403.0	10.4
0°-180°	3892.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	788	788	788	788	788	
5°	899	863	781	709	673	91
15°	1201	1053	755	546	455	346
25°	1512	1235	700	359	225	699
35°	1674	1332	615	174	55	1050
45°	1736	1319	504	40	0	1341
55°	1692	1235	363	0	0	1511
65°	1530	1093	217	0	0	1514
75°	1275	882	92	1	1	1337
85°	933	640	15	4	6	797
90°	808	513	4	6	7	443
95°	694	401	2	7	9	545
105°	478	207	2	5	8	504
115°	260	69	3	3	5	260
125°	77	10	4	3	4	77
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	5	3	1	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	787.5	787.5	787.5	787.5	787.5	787.5	787.5	787.5	787.5	787.5	787.5
2.5°	853.7	852.7	849.7	844.6	837.6	825.6	815.5	806.5	794.5	784.5	765.4
5°	898.8	893.8	889.8	884.8	868.7	857.7	839.6	819.6	800.5	781.4	743.3
7.5°	971.0	963.0	957.0	942.9	920.9	895.8	867.7	848.7	835.6	782.4	717.2
10°	1048.3	1041.3	1029.2	1004.1	977.1	940.9	900.8	855.7	815.5	771.4	694.2
12.5°	1124.5	1114.5	1097.4	1065.3	1027.2	982.1	926.9	873.7	816.6	764.4	667.1
15°	1200.8	1189.7	1171.7	1132.5	1082.4	1023.2	956.0	888.8	821.6	755.4	639.0
17.5°	1284.0	1269.0	1241.9	1197.7	1134.5	1061.3	982.1	900.8	819.6	744.3	608.9
20°	1373.3	1352.2	1323.1	1263.9	1189.7	1103.4	1008.1	912.9	818.6	731.3	574.8
22.5°	1447.5	1426.5	1394.4	1333.2	1243.9	1138.6	1030.2	920.9	814.5	716.2	542.7
25°	1511.7	1494.7	1459.6	1389.3	1295.0	1175.7	1051.3	926.9	808.5	700.2	508.6
27.5°	1561.9	1545.8	1506.7	1434.5	1338.2	1208.8	1067.3	929.9	800.5	684.1	473.5
30°	1606.0	1590.0	1542.8	1468.6	1367.3	1234.9	1083.4	930.9	790.5	660.1	435.4
32.5°	1640.1	1625.1	1576.9	1497.7	1387.3	1252.9	1092.4	929.9	777.4	643.0	394.2
35°	1674.2	1659.2	1603.0	1518.7	1402.4	1260.9	1099.4	924.9	761.4	614.9	355.1
37.5°	1700.3	1683.3	1626.1	1532.8	1409.4	1262.9	1098.4	917.9	744.3	591.8	316.0
40°	1718.4	1700.3	1639.1	1540.8	1411.4	1259.9	1090.4	905.8	724.3	562.8	274.9
42.5°	1730.4	1710.3	1645.1	1552.9	1407.4	1251.9	1078.4	890.8	702.2	537.7	235.7
45°	1736.4	1715.4	1646.1	1542.8	1400.4	1236.9	1060.3	871.7	678.1	503.6	196.6
47.5°	1733.4	1710.3	1641.1	1531.8	1387.3	1220.8	1040.3	848.7	649.0	473.5	159.5
50°	1728.4	1704.3	1630.1	1517.7	1369.3	1200.8	1018.2	820.6	618.9	436.4	126.4
52.5°	1712.4	1688.3	1618.1	1497.7	1348.2	1177.7	988.1	791.5	586.8	400.3	96.3
55°	1692.3	1670.2	1597.0	1479.6	1321.1	1149.6	960.0	760.4	555.7	363.1	69.2
57.5°	1661.2	1641.1	1570.9	1450.5	1294.0	1118.5	928.9	726.3	516.6	326.0	48.2
60°	1623.1	1603.0	1534.8	1417.4	1262.9	1083.4	894.8	691.2	481.5	288.9	30.1
62.5°	1582.9	1563.9	1492.7	1376.3	1223.8	1046.3	857.7	656.0	444.4	254.8	18.1
65°	1529.8	1511.7	1447.5	1327.1	1180.7	1006.1	816.6	613.9	406.3	216.7	10.0
67.5°	1473.6	1457.6	1392.4	1282.0	1130.5	962.0	774.4	572.8	366.1	183.6	5.0
70°	1413.4	1393.4	1333.2	1220.8	1079.4	911.8	728.3	530.7	328.0	151.5	0.0
72.5°	1343.2	1328.1	1270.0	1163.6	1020.2	858.7	681.1	484.5	285.9	120.4	1.0
75°	1275.0	1255.9	1202.8	1102.4	962.0	802.5	629.0	441.4	244.8	92.3	1.0
77.5°	1186.7	1180.7	1130.5	1033.2	906.8	748.3	571.8	389.2	205.6	66.2	1.0
80°	1098.4	1092.4	1053.3	964.0	842.6	684.1	518.6	340.1	167.5	44.1	1.0
82.5°	1011.2	1003.1	966.0	891.8	777.4	630.0	463.4	290.9	132.4	27.1	1.0
85°	932.9	922.9	882.8	814.5	710.2	568.8	406.3	242.8	98.3	15.0	2.0
87.5°	865.7	858.7	814.5	744.3	642.0	511.6	356.1	196.6	69.2	7.0	3.0
90°	808.5	793.5	754.4	680.1	577.8	448.4	302.9	157.5	46.1	4.0	4.0
92.5°	752.4	739.3	696.2	619.9	520.6	394.2	251.8	120.4	29.1	2.0	5.0
95°	694.2	680.1	638.0	567.8	462.4	339.1	206.6	88.3	16.1	2.0	5.0
97.5°	637.0	623.9	579.8	509.6	410.3	290.9	163.5	62.2	8.0	2.0	4.0
100°	583.8	568.8	528.7	458.4	358.1	242.8	126.4	40.1	5.0	2.0	4.0
102.5°	527.6	515.6	474.5	406.3	303.9	197.6	94.3	25.1	2.0	2.0	3.0
105°	477.5	462.4	422.3	352.1	258.8	155.5	66.2	15.0	2.0	2.0	3.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	311.0	298.9	263.8	204.6	131.4	61.2	18.1	3.0	3.0	3.0	3.0
115°	259.8	241.8	210.7	158.5	97.3	40.1	9.0	3.0	3.0	3.0	3.0
117.5°	207.6	192.6	170.5	120.4	64.2	26.1	5.0	3.0	3.0	3.0	3.0
120°	162.5	148.5	123.4	83.3	43.1	15.0	2.0	3.0	3.0	3.0	3.0
122.5°	116.4	105.3	83.3	54.2	26.1	7.0	3.0	3.0	4.0	4.0	3.0
125°	77.2	71.2	55.2	33.1	16.1	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.2	45.1	32.1	19.1	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.1	25.1	19.1	11.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.1	15.0	10.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	787.5	787.5	787.5
2.5°	749.3	735.3	731.3
5°	709.2	686.1	673.1
7.5°	669.1	638.0	622.9
10°	632.0	587.8	571.8
12.5°	587.8	536.7	511.6
15°	545.7	479.5	455.4
17.5°	498.6	424.3	396.2
20°	454.4	369.2	340.1
22.5°	404.3	315.0	282.9
25°	359.1	260.8	224.7
27.5°	309.0	205.6	174.5
30°	261.8	157.5	126.4
32.5°	216.7	115.4	87.3
35°	174.5	78.2	55.2
37.5°	134.4	48.2	28.1
40°	97.3	25.1	13.0
42.5°	65.2	12.0	7.0
45°	40.1	6.0	0.0
47.5°	23.1	0.0	0.0
50°	12.0	0.0	0.0
52.5°	5.0	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	1.0	1.0	1.0
77.5°	1.0	2.0	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	7.0
90°	6.0	7.0	7.0
92.5°	6.0	8.0	8.0
95°	7.0	8.0	9.0
97.5°	8.0	9.0	9.0
100°	7.0	9.0	10.0
102.5°	6.0	9.0	9.0
105°	5.0	7.0	8.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	421.3	409.3	369.2	302.9	211.7	118.4	44.1	8.0	2.0	3.0	3.0
110°	367.1	357.1	316.0	251.8	170.5	88.3	29.1	5.0	3.0	3.0	3.0





107.5°	4.0	6.0	7.0
110°	4.0	5.0	6.0



(END OF REPORT)