

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: P551388

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-86-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: P551388
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-50-UNV-80-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

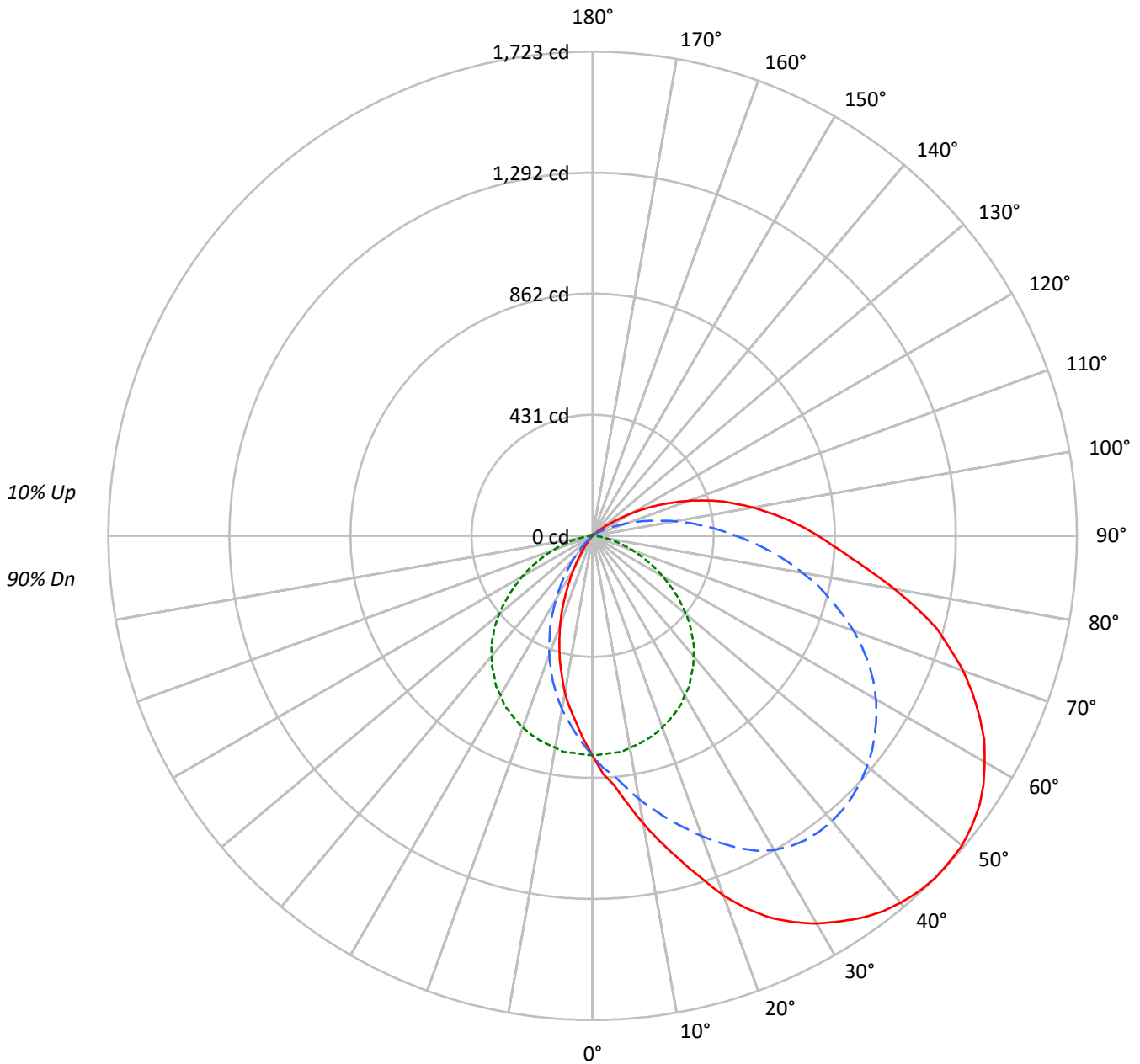
Lumens per Lamp: N/A
Luminaire Lumens: 3863.1 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551388

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-86-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8411	8411	8411
5°	9233	8288	6914
10°	10448	8186	5699
15°	11709	8081	4441
20°	13206	7950	3270
25°	14448	7797	2148
30°	15370	7593	1209
35°	16169	7373	532
40°	16878	7101	128
45°	17486	6761	0
50°	17997	6311	0
55°	18384	5737	0
60°	18581	5074	0
65°	18657	4318	0
70°	18595	3521	0
75°	18359	2598	15
80°	17615	1589	81
85°	17025	758	110



TEST NUMBER: P551388

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-86-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	1.9
10°-20°	224.1	5.8
20°-30°	362.9	9.4
30°-40°	466.2	12.1
40°-50°	527.7	13.7
50°-60°	546.7	14.2
60°-70°	515.6	13.3
70°-80°	432.1	11.2
80°-90°	313.2	8.1
90°-100°	205.9	5.3
100°-110°	118.9	3.1
110°-120°	52.5	1.4
120°-130°	14.2	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°	661.9	17.1
0°-40°	1128.1	29.2
0°-60°	2202.6	57.0
0°-90°	3463.5	89.7
90°-120°	377.3	9.8
90°-150°	396.9	10.3
90°-180°	400.0	10.4
0°-180°	3863.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	781	781	781	781	781	
5°	892	857	775	704	668	90
15°	1192	1045	750	542	452	344
25°	1500	1226	695	356	223	693
35°	1661	1321	610	173	55	1042
45°	1723	1308	500	40	0	1330
55°	1679	1226	360	0	0	1500
65°	1518	1085	215	0	0	1502
75°	1265	875	92	1	1	1327
85°	926	635	15	4	6	791
90°	802	509	4	6	7	440
95°	689	398	2	7	9	540
105°	474	206	2	5	8	500
115°	258	68	3	3	5	258
125°	77	9	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°	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4
2.5°	847.1	846.1	843.1	838.1	831.2	819.2	809.3	800.3	788.4	778.4	759.5
5°	891.9	886.9	882.9	877.9	862.0	851.1	833.2	813.2	794.3	775.4	737.6
7.5°	963.6	955.6	949.6	935.7	913.8	888.9	861.0	842.1	829.2	776.4	711.7
10°	1040.2	1033.2	1021.3	996.4	969.5	933.7	893.9	849.1	809.3	765.5	688.8
12.5°	1115.8	1105.9	1089.0	1057.1	1019.3	974.5	919.8	867.0	810.3	758.5	661.9
15°	1191.5	1180.5	1162.6	1123.8	1074.0	1015.3	948.6	881.9	815.2	749.5	634.1
17.5°	1274.1	1259.2	1232.3	1188.5	1125.8	1053.1	974.5	893.9	813.2	738.6	604.2
20°	1362.7	1341.8	1312.9	1254.2	1180.5	1094.9	1000.4	905.8	812.2	725.6	570.4
22.5°	1436.4	1415.5	1383.6	1322.9	1234.3	1129.8	1022.3	913.8	808.3	710.7	538.5
25°	1500.1	1483.2	1448.3	1378.6	1285.1	1166.6	1043.2	919.8	802.3	694.8	504.7
27.5°	1549.8	1533.9	1495.1	1423.4	1327.9	1199.5	1059.1	922.7	794.3	678.9	469.8
30°	1593.6	1577.7	1530.9	1457.3	1356.7	1225.3	1075.0	923.7	784.4	655.0	432.0
32.5°	1627.5	1612.6	1564.8	1486.1	1376.6	1243.3	1084.0	922.7	771.4	638.1	391.2
35°	1661.3	1646.4	1590.7	1507.0	1391.6	1251.2	1091.0	917.8	755.5	610.2	352.4
37.5°	1687.2	1670.3	1613.5	1521.0	1398.5	1253.2	1090.0	910.8	738.6	587.3	313.6
40°	1705.1	1687.2	1626.5	1528.9	1400.5	1250.2	1082.0	898.8	718.7	558.4	272.7
42.5°	1717.1	1697.2	1632.5	1540.9	1396.6	1242.3	1070.1	883.9	696.8	533.5	233.9
45°	1723.0	1702.1	1633.5	1530.9	1389.6	1227.3	1052.1	865.0	672.9	499.7	195.1
47.5°	1720.1	1697.2	1628.5	1520.0	1376.6	1211.4	1032.2	842.1	644.0	469.8	158.3
50°	1715.1	1691.2	1617.5	1506.0	1358.7	1191.5	1010.3	814.2	614.2	433.0	125.4
52.5°	1699.2	1675.3	1605.6	1486.1	1337.8	1168.6	980.5	785.4	582.3	397.2	95.6
55°	1679.2	1657.3	1584.7	1468.2	1310.9	1140.7	952.6	754.5	551.5	360.3	68.7
57.5°	1648.4	1628.5	1558.8	1439.4	1284.1	1109.9	921.7	720.7	512.6	323.5	47.8
60°	1610.6	1590.7	1523.0	1406.5	1253.2	1075.0	887.9	685.8	477.8	286.7	29.9
62.5°	1570.7	1551.8	1481.2	1365.7	1214.4	1038.2	851.1	651.0	441.0	252.8	17.9
65°	1518.0	1500.1	1436.4	1316.9	1171.6	998.4	810.3	609.2	403.1	215.0	10.0
67.5°	1462.2	1446.3	1381.6	1272.1	1121.8	954.6	768.5	568.4	363.3	182.2	5.0
70°	1402.5	1382.6	1322.9	1211.4	1071.1	904.8	722.7	526.6	325.5	150.3	0.0
72.5°	1332.8	1317.9	1260.2	1154.7	1012.3	852.1	675.9	480.8	283.7	119.4	1.0
75°	1265.2	1246.2	1193.5	1093.9	954.6	796.3	624.1	438.0	242.9	91.6	1.0
77.5°	1177.6	1171.6	1121.8	1025.3	899.8	742.6	567.4	386.2	204.1	65.7	1.0
80°	1090.0	1084.0	1045.2	956.6	836.1	678.9	514.6	337.4	166.2	43.8	1.0
82.5°	1003.4	995.4	958.6	884.9	771.4	625.1	459.9	288.7	131.4	26.9	1.0
85°	925.7	915.8	876.0	808.3	704.7	564.4	403.1	240.9	97.5	14.9	2.0
87.5°	859.0	852.1	808.3	738.6	637.1	507.7	353.4	195.1	68.7	7.0	3.0
90°	802.3	787.4	748.5	674.9	573.4	444.9	300.6	156.3	45.8	4.0	4.0
92.5°	746.6	733.6	690.8	615.2	516.6	391.2	249.8	119.4	28.9	2.0	5.0
95°	688.8	674.9	633.1	563.4	458.9	336.4	205.1	87.6	15.9	2.0	5.0
97.5°	632.1	619.1	575.3	505.7	407.1	288.7	162.3	61.7	8.0	2.0	4.0
100°	579.3	564.4	524.6	454.9	355.4	240.9	125.4	39.8	5.0	2.0	4.0
102.5°	523.6	511.6	470.8	403.1	301.6	196.1	93.6	24.9	2.0	2.0	3.0
105°	473.8	458.9	419.1	349.4	256.8	154.3	65.7	14.9	2.0	2.0	3.0



TEST NUMBER: P551388

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	308.6	296.6	261.8	203.1	130.4	60.7	17.9	3.0	3.0	3.0	3.0
115°	257.8	239.9	209.0	157.3	96.6	39.8	9.0	3.0	3.0	3.0	3.0
117.5°	206.0	191.1	169.2	119.4	63.7	25.9	5.0	3.0	3.0	3.0	3.0
120°	161.3	147.3	122.4	82.6	42.8	14.9	2.0	3.0	3.0	3.0	3.0
122.5°	115.5	104.5	82.6	53.8	25.9	7.0	3.0	3.0	4.0	4.0	3.0
125°	76.6	70.7	54.7	32.8	15.9	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	49.8	44.8	31.9	18.9	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	27.9	24.9	18.9	10.9	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	15.9	14.9	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°	781.4	781.4	781.4
2.5°	743.6	729.6	725.6
5°	703.8	680.9	667.9
7.5°	663.9	633.1	618.1
10°	627.1	583.3	567.4
12.5°	583.3	532.5	507.7
15°	541.5	475.8	451.9
17.5°	494.7	421.1	393.2
20°	450.9	366.3	337.4
22.5°	401.1	312.6	280.7
25°	356.4	258.8	223.0
27.5°	306.6	204.1	173.2
30°	259.8	156.3	125.4
32.5°	215.0	114.5	86.6
35°	173.2	77.6	54.7
37.5°	133.4	47.8	27.9
40°	96.6	24.9	12.9
42.5°	64.7	11.9	7.0
45°	39.8	6.0	0.0
47.5°	22.9	0.0	0.0
50°	11.9	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°	418.1	406.1	366.3	300.6	210.0	117.5	43.8	8.0	2.0	3.0	3.0
110°	364.3	354.4	313.6	249.8	169.2	87.6	28.9	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)