

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: P551404

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-86-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: P551404
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

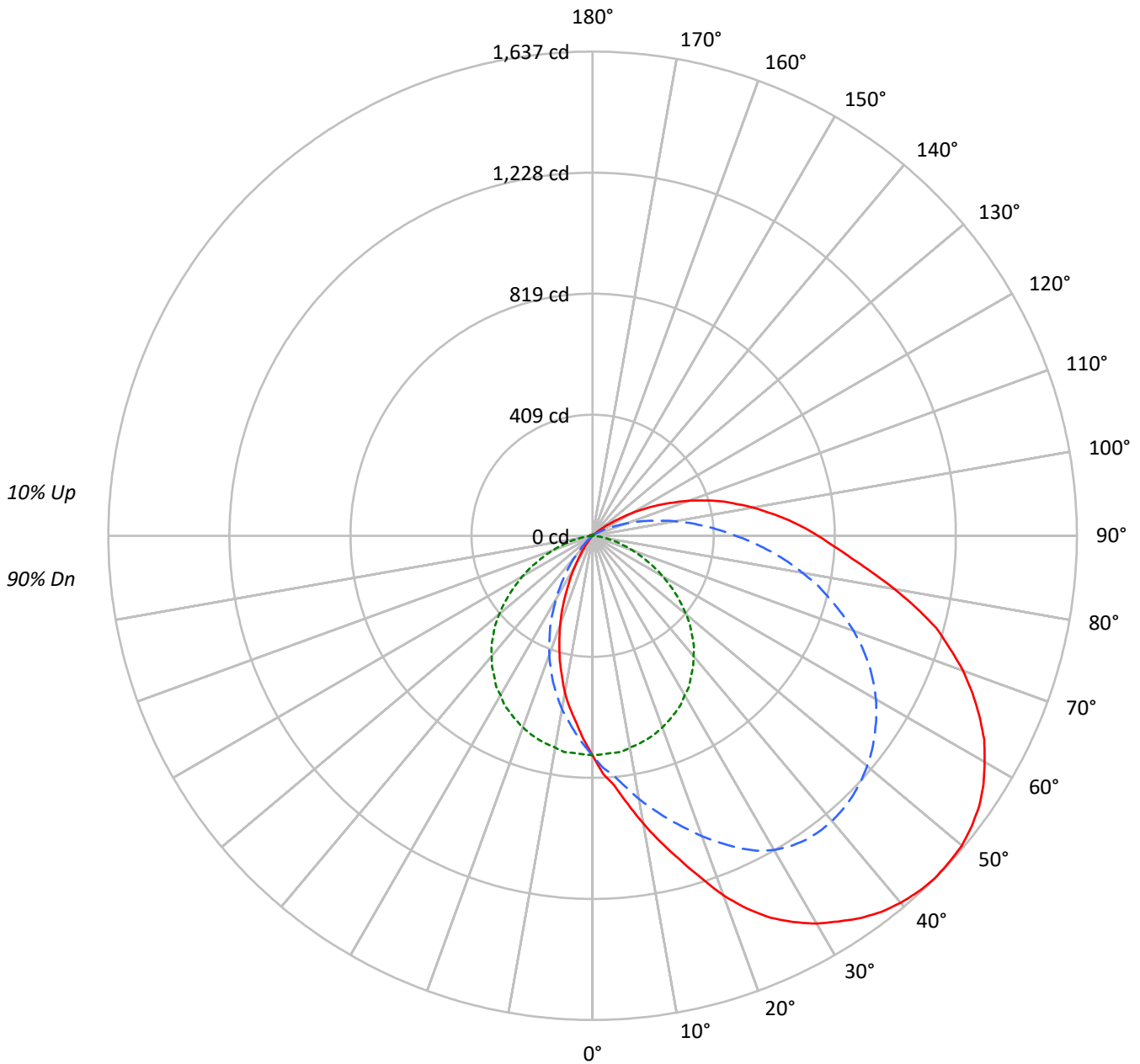
Lumens per Lamp: N/A
Luminaire Lumens: 3669.9 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

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°	7991	7991	7991
5°	8771	7874	6568
10°	9926	7777	5414
15°	11124	7678	4219
20°	12546	7553	3107
25°	13725	7408	2040
30°	14602	7214	1150
35°	15361	7004	506
40°	16034	6747	122
45°	16613	6423	0
50°	17097	5996	0
55°	17466	5451	0
60°	17652	4821	0
65°	17726	4103	0
70°	17667	3345	0
75°	17441	2467	13
80°	16734	1509	76
85°	16176	722	105



TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	1.9
10°-20°	212.9	5.8
20°-30°	344.8	9.4
30°-40°	442.9	12.1
40°-50°	501.4	13.7
50°-60°	519.4	14.2
60°-70°	489.9	13.3
70°-80°	410.5	11.2
80°-90°	297.6	8.1
90°-100°	195.6	5.3
100°-110°	112.9	3.1
110°-120°	49.8	1.4
120°-130°	13.5	0.4
130°-140°	3.1	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	628.8	17.1
0°-40°	1071.7	29.2
0°-60°	2092.5	57.0
0°-90°	3290.5	89.7
90°-120°	358.4	9.8
90°-150°	376.9	10.3
90°-180°	379.0	10.3
0°-180°	3669.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	742	742	742	742	742	
5°	847	814	737	669	634	85
15°	1132	992	712	514	429	326
25°	1425	1165	660	339	212	659
35°	1578	1255	580	164	52	990
45°	1637	1243	475	38	0	1264
55°	1595	1165	342	0	0	1425
65°	1442	1031	204	0	0	1427
75°	1202	832	87	1	1	1261
85°	880	603	14	4	6	751
90°	762	484	4	6	7	418
95°	654	378	2	7	8	513
105°	450	195	2	5	8	475
115°	245	65	3	3	5	245
125°	73	9	4	3	4	73
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	3	1	0
180°	3	3	3	3	3	



TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4
2.5°	804.8	803.8	801.0	796.3	789.6	778.3	768.8	760.3	749.0	739.5	721.5
5°	847.3	842.6	838.8	834.1	819.0	808.5	791.5	772.6	754.6	736.7	700.7
7.5°	915.4	907.8	902.2	888.9	868.1	844.5	818.0	800.0	787.7	737.6	676.2
10°	988.2	981.6	970.3	946.6	921.1	887.0	849.2	806.7	768.8	727.2	654.4
12.5°	1060.1	1050.6	1034.6	1004.3	968.4	925.8	873.8	823.7	769.8	720.6	628.9
15°	1132.0	1121.6	1104.5	1067.7	1020.4	964.6	901.2	837.9	774.5	712.1	602.4
17.5°	1210.5	1196.3	1170.7	1129.1	1069.6	1000.5	925.8	849.2	772.6	701.7	574.0
20°	1294.6	1274.8	1247.3	1191.5	1121.6	1040.2	950.4	860.6	771.7	689.4	541.9
22.5°	1364.6	1344.7	1314.5	1256.8	1172.6	1073.3	971.2	868.1	767.9	675.2	511.6
25°	1425.1	1409.1	1376.0	1309.8	1220.9	1108.3	991.1	873.8	762.2	660.1	479.5
27.5°	1472.4	1457.3	1420.4	1352.3	1261.5	1139.5	1006.2	876.6	754.6	644.9	446.4
30°	1514.0	1498.9	1454.4	1384.5	1289.0	1164.1	1021.3	877.6	745.2	622.3	410.4
32.5°	1546.2	1532.0	1486.6	1411.9	1307.9	1181.1	1029.8	876.6	732.9	606.2	371.6
35°	1578.3	1564.1	1511.2	1431.7	1322.1	1188.7	1036.5	871.9	717.8	579.7	334.8
37.5°	1602.9	1586.8	1532.9	1445.0	1328.7	1190.6	1035.5	865.3	701.7	557.9	297.9
40°	1619.9	1602.9	1545.2	1452.6	1330.6	1187.8	1027.9	853.9	682.8	530.5	259.1
42.5°	1631.3	1612.4	1550.9	1463.9	1326.8	1180.2	1016.6	839.8	662.0	506.9	222.2
45°	1637.0	1617.1	1551.8	1454.4	1320.2	1166.0	999.6	821.8	639.3	474.7	185.4
47.5°	1634.1	1612.4	1547.1	1444.0	1307.9	1150.9	980.7	800.0	611.9	446.4	150.4
50°	1629.4	1606.7	1536.7	1430.8	1290.8	1132.0	959.9	773.6	583.5	411.4	119.2
52.5°	1614.3	1591.6	1525.4	1411.9	1271.0	1110.2	931.5	746.1	553.2	377.3	90.8
55°	1595.3	1574.5	1505.5	1394.9	1245.5	1083.7	905.0	716.8	523.9	342.3	65.3
57.5°	1566.0	1547.1	1480.9	1367.4	1219.9	1054.4	875.7	684.7	487.0	307.3	45.4
60°	1530.1	1511.2	1446.9	1336.2	1190.6	1021.3	843.5	651.6	453.9	272.4	28.4
62.5°	1492.3	1474.3	1407.2	1297.5	1153.7	986.3	808.5	618.5	418.9	240.2	17.0
65°	1442.2	1425.1	1364.6	1251.1	1113.1	948.5	769.8	578.8	383.0	204.3	9.5
67.5°	1389.2	1374.1	1312.6	1208.6	1065.8	906.9	730.1	540.0	345.2	173.1	4.7
70°	1332.5	1313.5	1256.8	1150.9	1017.5	859.6	686.6	500.3	309.2	142.8	0.0
72.5°	1266.3	1252.1	1197.2	1097.0	961.7	809.5	642.1	456.8	269.5	113.5	0.9
75°	1201.9	1184.0	1133.9	1039.3	906.9	756.5	592.9	416.1	230.7	87.0	0.9
77.5°	1118.7	1113.1	1065.8	974.0	854.9	705.5	539.0	366.9	193.9	62.4	0.9
80°	1035.5	1029.8	993.0	908.8	794.4	644.9	488.9	320.6	157.9	41.6	0.9
82.5°	953.2	945.7	910.7	840.7	732.9	593.9	436.9	274.2	124.8	25.5	0.9
85°	879.5	870.0	832.2	767.9	669.5	536.2	383.0	228.9	92.7	14.2	1.9
87.5°	816.1	809.5	767.9	701.7	605.2	482.3	335.7	185.4	65.3	6.6	2.8
90°	762.2	748.0	711.1	641.2	544.7	422.7	285.6	148.5	43.5	3.8	3.8
92.5°	709.3	697.0	656.3	584.4	490.8	371.6	237.4	113.5	27.4	1.9	4.7
95°	654.4	641.2	601.4	535.3	436.0	319.6	194.8	83.2	15.1	1.9	4.7
97.5°	600.5	588.2	546.6	480.4	386.8	274.2	154.1	58.6	7.6	1.9	3.8
100°	550.4	536.2	498.4	432.2	337.6	228.9	119.2	37.8	4.7	1.9	3.8
102.5°	497.4	486.1	447.3	383.0	286.5	186.3	88.9	23.6	1.9	1.9	2.8
105°	450.1	436.0	398.1	331.9	244.0	146.6	62.4	14.2	1.9	1.9	2.8



TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	293.2	281.8	248.7	192.9	123.9	57.7	17.0	2.8	2.8	2.8	2.8
115°	244.9	227.9	198.6	149.4	91.7	37.8	8.5	2.8	2.8	2.8	2.8
117.5°	195.8	181.6	160.8	113.5	60.5	24.6	4.7	2.8	2.8	2.8	2.8
120°	153.2	140.0	116.3	78.5	40.7	14.2	1.9	2.8	2.8	2.8	2.8
122.5°	109.7	99.3	78.5	51.1	24.6	6.6	2.8	2.8	3.8	3.8	2.8
125°	72.8	67.1	52.0	31.2	15.1	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.3	42.6	30.3	18.0	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.5	23.6	18.0	10.4	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.1	14.2	9.5	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.8	4.7	4.7	4.7	3.8
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	3.8
142.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
145°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
150°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
152.5°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
157.5°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	3.8
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	742.4	742.4	742.4
2.5°	706.4	693.2	689.4
5°	668.6	646.8	634.5
7.5°	630.8	601.4	587.3
10°	595.8	554.2	539.0
12.5°	554.2	505.9	482.3
15°	514.4	452.0	429.3
17.5°	470.0	400.0	373.5
20°	428.4	348.0	320.6
22.5°	381.1	296.9	266.7
25°	338.6	245.9	211.8
27.5°	291.3	193.9	164.5
30°	246.8	148.5	119.2
32.5°	204.3	108.8	82.3
35°	164.5	73.8	52.0
37.5°	126.7	45.4	26.5
40°	91.7	23.6	12.3
42.5°	61.5	11.3	6.6
45°	37.8	5.7	0.0
47.5°	21.8	0.0	0.0
50°	11.3	0.0	0.0
52.5°	4.7	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°	0.9	0.9	0.9
77.5°	0.9	1.9	2.8
80°	1.9	3.8	4.7
82.5°	3.8	4.7	4.7
85°	3.8	4.7	5.7
87.5°	4.7	5.7	6.6
90°	5.7	6.6	6.6
92.5°	5.7	7.6	7.6
95°	6.6	7.6	8.5
97.5°	7.6	8.5	8.5
100°	6.6	8.5	9.5
102.5°	5.7	8.5	8.5
105°	4.7	6.6	7.6



TEST NUMBER: P551404

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.8	4.7	4.7
115°	2.8	3.8	4.7
117.5°	2.8	3.8	3.8
120°	2.8	2.8	3.8
122.5°	2.8	2.8	3.8
125°	2.8	2.8	3.8
127.5°	3.8	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.8	2.8	2.8
135°	3.8	2.8	2.8
137.5°	3.8	2.8	2.8
140°	3.8	2.8	2.8
142.5°	3.8	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.8	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	397.2	385.8	348.0	285.6	199.5	111.6	41.6	7.6	1.9	2.8	2.8
110°	346.1	336.7	297.9	237.4	160.8	83.2	27.4	4.7	2.8	2.8	2.8





107.5°	3.8	5.7	6.6
110°	3.8	4.7	5.7



(END OF REPORT)