

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: P551337

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90**

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: P551337
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-81-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

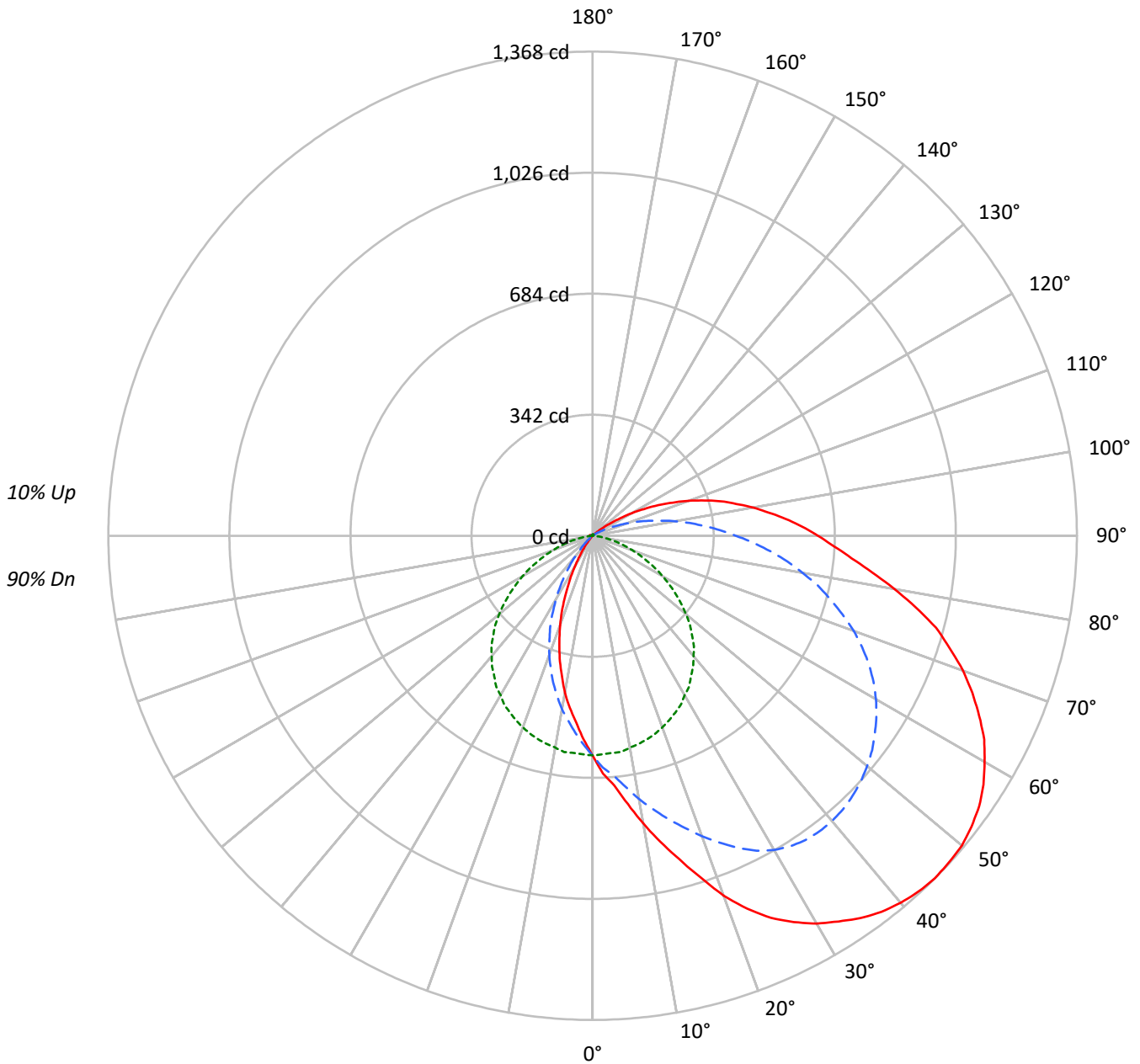
Lumens per Lamp: N/A
Luminaire Lumens: 3067.1 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6678	6678	6678
5°	7330	6580	5490
10°	8296	6499	4525
15°	9296	6417	3526
20°	10485	6312	2596
25°	11471	6190	1705
30°	12204	6028	961
35°	12838	5853	423
40°	13400	5639	102
45°	13883	5368	0
50°	14288	5011	0
55°	14596	4556	0
60°	14752	4028	0
65°	14813	3429	0
70°	14763	2795	0
75°	14576	2062	12
80°	13986	1262	65
85°	13518	605	86



TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.4	1.9
10°-20°	177.9	5.8
20°-30°	288.1	9.4
30°-40°	370.1	12.1
40°-50°	419.0	13.7
50°-60°	434.1	14.2
60°-70°	409.4	13.3
70°-80°	343.1	11.2
80°-90°	248.7	8.1
90°-100°	163.4	5.3
100°-110°	94.4	3.1
110°-120°	41.7	1.4
120°-130°	11.3	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	525.5	17.1
0°-40°	895.6	29.2
0°-60°	1748.7	57.0
0°-90°	2749.9	89.7
90°-120°	299.5	9.8
90°-150°	315.1	10.3
90°-180°	317.0	10.3
0°-180°	3067.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	620	620	620	620	620	
5°	708	680	616	559	530	71
15°	946	829	595	430	359	273
25°	1191	973	552	283	177	550
35°	1319	1049	484	138	44	827
45°	1368	1039	397	32	0	1056
55°	1333	973	286	0	0	1191
65°	1205	861	171	0	0	1192
75°	1004	695	73	1	1	1054
85°	735	504	12	3	5	628
90°	637	404	3	5	6	349
95°	547	316	2	6	7	429
105°	376	163	2	4	6	397
115°	205	54	2	2	4	205
125°	61	8	3	2	3	61
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
2.5°	672.5	671.7	669.4	665.4	659.9	650.4	642.5	635.4	625.9	618.0	603.0
5°	708.1	704.2	701.0	697.0	684.4	675.7	661.5	645.7	630.7	615.6	585.6
7.5°	765.0	758.7	753.9	742.9	725.5	705.7	683.6	668.6	658.3	616.4	565.1
10°	825.9	820.3	810.8	791.1	769.7	741.3	709.7	674.1	642.5	607.7	546.9
12.5°	885.9	878.0	864.6	839.3	809.3	773.7	730.2	688.3	643.3	602.2	525.5
15°	946.0	937.3	923.1	892.2	852.7	806.1	753.1	700.2	647.3	595.1	503.4
17.5°	1011.6	999.7	978.4	943.6	893.8	836.1	773.7	709.7	645.7	586.4	479.7
20°	1081.9	1065.3	1042.4	995.8	937.3	869.3	794.2	719.2	644.9	576.1	452.8
22.5°	1140.4	1123.8	1098.5	1050.3	980.0	897.0	811.6	725.5	641.7	564.3	427.5
25°	1191.0	1177.5	1149.9	1094.6	1020.3	926.2	828.2	730.2	637.0	551.6	400.7
27.5°	1230.5	1217.8	1187.0	1130.1	1054.3	952.3	840.9	732.6	630.7	539.0	373.0
30°	1265.3	1252.6	1215.5	1157.0	1077.2	972.9	853.5	733.4	622.8	520.0	343.0
32.5°	1292.1	1280.3	1242.3	1179.9	1093.0	987.1	860.6	732.6	612.5	506.6	310.6
35°	1319.0	1307.1	1262.9	1196.5	1104.8	993.4	866.2	728.7	599.8	484.4	279.8
37.5°	1339.5	1326.1	1281.1	1207.6	1110.4	995.0	865.4	723.1	586.4	466.3	248.9
40°	1353.8	1339.5	1291.3	1213.9	1111.9	992.6	859.0	713.6	570.6	443.4	216.5
42.5°	1363.3	1347.5	1296.1	1223.4	1108.8	986.3	849.6	701.8	553.2	423.6	185.7
45°	1368.0	1351.4	1296.9	1215.5	1103.2	974.4	835.3	686.8	534.2	396.7	154.9
47.5°	1365.6	1347.5	1292.9	1206.8	1093.0	961.8	819.5	668.6	511.3	373.0	125.7
50°	1361.7	1342.7	1284.2	1195.7	1078.8	946.0	802.1	646.5	487.6	343.8	99.6
52.5°	1349.0	1330.1	1274.7	1179.9	1062.2	927.8	778.4	623.5	462.3	315.3	75.9
55°	1333.2	1315.8	1258.1	1165.7	1040.8	905.7	756.3	599.0	437.8	286.1	54.5
57.5°	1308.7	1292.9	1237.6	1142.8	1019.5	881.2	731.8	572.2	407.0	256.8	37.9
60°	1278.7	1262.9	1209.1	1116.7	995.0	853.5	704.9	544.5	379.3	227.6	23.7
62.5°	1247.1	1232.1	1176.0	1084.3	964.2	824.3	675.7	516.9	350.1	200.7	14.2
65°	1205.2	1191.0	1140.4	1045.6	930.2	792.7	643.3	483.7	320.1	170.7	7.9
67.5°	1160.9	1148.3	1096.9	1010.0	890.7	757.9	610.1	451.3	288.5	144.6	4.0
70°	1113.5	1097.7	1050.3	961.8	850.4	718.4	573.8	418.1	258.4	119.3	0.0
72.5°	1058.2	1046.3	1000.5	916.7	803.7	676.5	536.6	381.7	225.2	94.8	0.8
75°	1004.5	989.4	947.6	868.5	757.9	632.2	495.5	347.7	192.8	72.7	0.8
77.5°	934.9	930.2	890.7	814.0	714.4	589.6	450.5	306.6	162.0	52.2	0.8
80°	865.4	860.6	829.8	759.5	663.8	539.0	408.6	267.9	132.0	34.8	0.8
82.5°	796.6	790.3	761.1	702.6	612.5	496.3	365.1	229.2	104.3	21.3	0.8
85°	735.0	727.1	695.5	641.7	559.5	448.1	320.1	191.3	77.4	11.9	1.6
87.5°	682.0	676.5	641.7	586.4	505.8	403.0	280.6	154.9	54.5	5.5	2.4
90°	637.0	625.1	594.3	535.8	455.2	353.3	238.7	124.1	36.4	3.2	3.2
92.5°	592.7	582.4	548.5	488.4	410.2	310.6	198.4	94.8	22.9	1.6	4.0
95°	546.9	535.8	502.6	447.3	364.3	267.1	162.8	69.5	12.6	1.6	4.0
97.5°	501.8	491.6	456.8	401.5	323.2	229.2	128.8	49.0	6.3	1.6	3.2
100°	460.0	448.1	416.5	361.2	282.1	191.3	99.6	31.6	4.0	1.6	3.2
102.5°	415.7	406.2	373.8	320.1	239.5	155.7	74.3	19.8	1.6	1.6	2.4
105°	376.2	364.3	332.7	277.4	203.9	122.5	52.2	11.9	1.6	1.6	2.4



TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	245.0	235.5	207.8	161.2	103.5	48.2	14.2	2.4	2.4	2.4	2.4
115°	204.7	190.5	166.0	124.9	76.7	31.6	7.1	2.4	2.4	2.4	2.4
117.5°	163.6	151.7	134.3	94.8	50.6	20.5	4.0	2.4	2.4	2.4	2.4
120°	128.0	117.0	97.2	65.6	34.0	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	91.7	83.0	65.6	42.7	20.5	5.5	2.4	2.4	3.2	3.2	2.4
125°	60.9	56.1	43.5	26.1	12.6	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.5	35.6	25.3	15.0	5.5	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.1	19.8	15.0	8.7	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.6	11.9	7.9	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	620.4	620.4	620.4
2.5°	590.3	579.3	576.1
5°	558.7	540.6	530.3
7.5°	527.1	502.6	490.8
10°	497.9	463.1	450.5
12.5°	463.1	422.8	403.0
15°	429.9	377.8	358.8
17.5°	392.8	334.3	312.2
20°	358.0	290.8	267.9
22.5°	318.5	248.2	222.9
25°	282.9	205.5	177.0
27.5°	243.4	162.0	137.5
30°	206.3	124.1	99.6
32.5°	170.7	90.9	68.8
35°	137.5	61.6	43.5
37.5°	105.9	37.9	22.1
40°	76.7	19.8	10.3
42.5°	51.4	9.5	5.5
45°	31.6	4.7	0.0
47.5°	18.2	0.0	0.0
50°	9.5	0.0	0.0
52.5°	4.0	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.7
87.5°	4.0	4.7	5.5
90°	4.7	5.5	5.5
92.5°	4.7	6.3	6.3
95°	5.5	6.3	7.1
97.5°	6.3	7.1	7.1
100°	5.5	7.1	7.9
102.5°	4.7	7.1	7.1
105°	4.0	5.5	6.3



TEST NUMBER: P551337

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-81-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	331.9	322.4	290.8	238.7	166.8	93.3	34.8	6.3	1.6	2.4	2.4
110°	289.2	281.3	248.9	198.4	134.3	69.5	22.9	4.0	2.4	2.4	2.4





107.5°	3.2	4.7	5.5
110°	3.2	4.0	4.7



(END OF REPORT)