

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: P551409

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-94-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: P551409
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-81-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

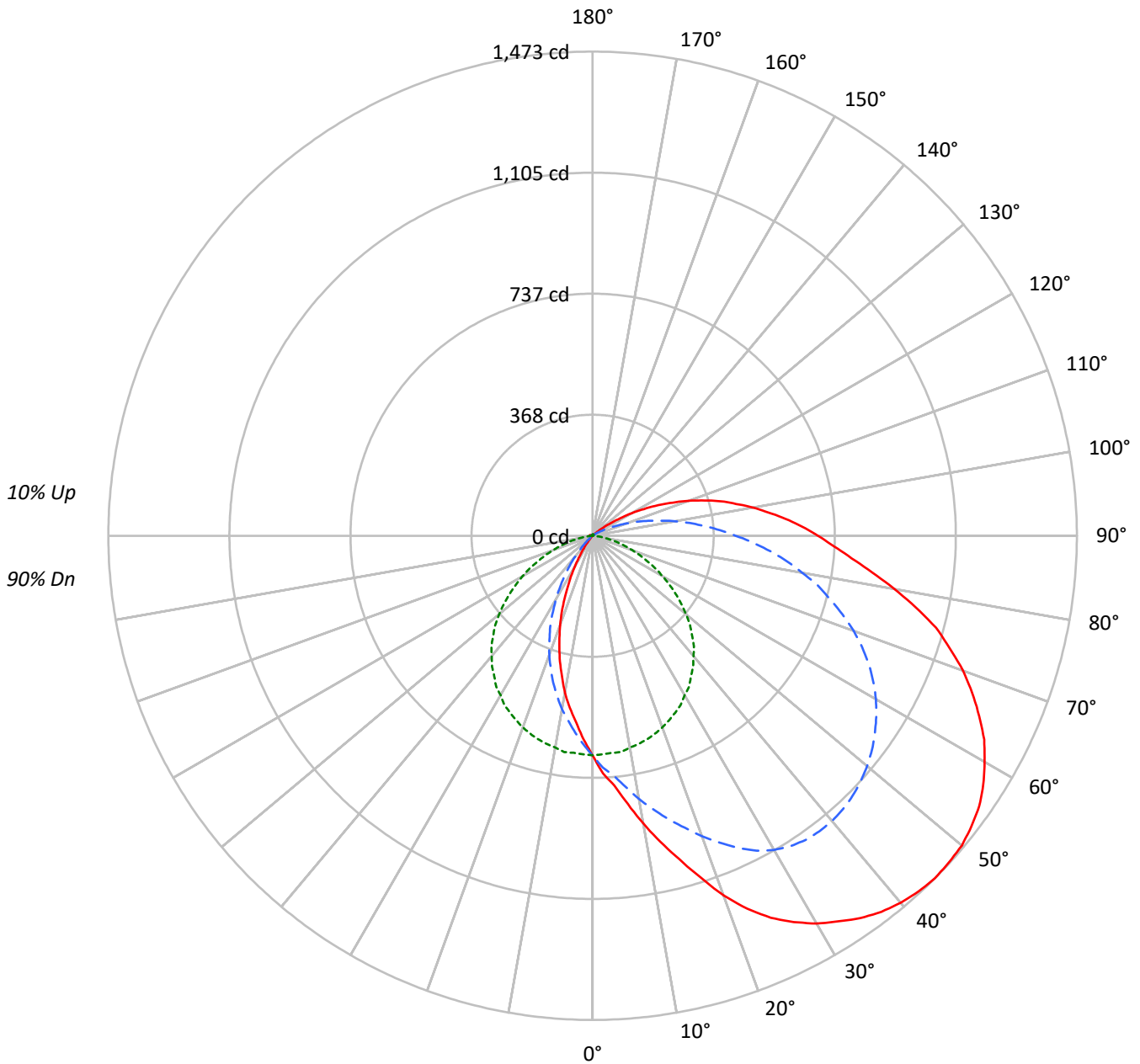
Lumens per Lamp: N/A
Luminaire Lumens: 3302.1 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551409

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-94-ED1D-90

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°	7189	7189	7189
5°	7893	7084	5910
10°	8930	6997	4872
15°	10009	6908	3796
20°	11288	6796	2795
25°	12349	6665	1836
30°	13138	6491	1034
35°	13822	6302	455
40°	14427	6070	110
45°	14946	5779	0
50°	15383	5394	0
55°	15715	4904	0
60°	15883	4336	0
65°	15947	3692	0
70°	15894	3010	0
75°	15692	2221	13
80°	15057	1357	69
85°	14554	651	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	1.9
10°-20°	191.6	5.8
20°-30°	310.2	9.4
30°-40°	398.5	12.1
40°-50°	451.1	13.7
50°-60°	467.3	14.2
60°-70°	440.8	13.3
70°-80°	369.4	11.2
80°-90°	267.7	8.1
90°-100°	176.0	5.3
100°-110°	101.6	3.1
110°-120°	44.9	1.4
120°-130°	12.2	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	565.8	17.1
0°-40°	964.3	29.2
0°-60°	1882.7	57.0
0°-90°	2960.6	89.7
90°-120°	322.5	9.8
90°-150°	339.3	10.3
90°-180°	342.0	10.4
0°-180°	3302.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	668	668	668	668	668	
5°	762	732	663	602	571	77
15°	1018	893	641	463	386	294
25°	1282	1048	594	305	191	593
35°	1420	1130	522	148	47	891
45°	1473	1118	427	34	0	1137
55°	1435	1048	308	0	0	1282
65°	1298	927	184	0	0	1284
75°	1081	748	78	1	1	1134
85°	791	542	13	3	5	676
90°	686	435	3	5	6	376
95°	589	340	2	6	8	462
105°	405	176	2	4	7	427
115°	220	58	3	3	4	221
125°	66	8	3	3	3	65
135°	3	3	4	3	3	6
145°	1	3	3	3	3	1
155°	2	3	3	3	1	1
165°	2	3	3	3	0	0
175°	2	3	4	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°	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9	667.9
2.5°	724.1	723.2	720.7	716.4	710.5	700.2	691.7	684.1	673.9	665.4	649.2
5°	762.4	758.1	754.7	750.4	736.8	727.5	712.2	695.1	679.0	662.8	630.5
7.5°	823.6	816.8	811.7	799.8	781.1	759.8	736.0	719.8	708.8	663.7	608.4
10°	889.1	883.2	873.0	851.7	828.7	798.1	764.1	725.8	691.7	654.3	588.8
12.5°	953.8	945.3	930.8	903.6	871.3	833.0	786.2	741.1	692.6	648.3	565.8
15°	1018.5	1009.1	993.8	960.6	918.1	867.9	810.9	753.9	696.8	640.7	542.0
17.5°	1089.1	1076.3	1053.3	1015.9	962.3	900.2	833.0	764.1	695.1	631.3	516.5
20°	1164.8	1146.9	1122.3	1072.1	1009.1	935.9	855.1	774.3	694.3	620.3	487.5
22.5°	1227.8	1209.9	1182.7	1130.8	1055.1	965.7	873.8	781.1	690.9	607.5	460.3
25°	1282.2	1267.8	1238.0	1178.4	1098.4	997.2	891.7	786.2	685.8	593.9	431.4
27.5°	1324.8	1311.2	1278.0	1216.7	1135.0	1025.3	905.3	788.7	679.0	580.3	401.6
30°	1362.2	1348.6	1308.6	1245.6	1159.7	1047.4	918.9	789.6	670.5	559.9	369.3
32.5°	1391.1	1378.4	1337.5	1270.3	1176.7	1062.7	926.6	788.7	659.4	545.4	334.4
35°	1420.1	1407.3	1359.7	1288.2	1189.5	1069.5	932.5	784.5	645.8	521.6	301.2
37.5°	1442.2	1427.7	1379.2	1300.1	1195.4	1071.2	931.7	778.5	631.3	502.0	268.0
40°	1457.5	1442.2	1390.3	1306.9	1197.1	1068.7	924.9	768.3	614.3	477.3	233.1
42.5°	1467.7	1450.7	1395.4	1317.1	1193.7	1061.9	914.7	755.6	595.6	456.1	199.9
45°	1472.8	1454.9	1396.2	1308.6	1187.8	1049.1	899.3	739.4	575.2	427.1	166.8
47.5°	1470.3	1450.7	1392.0	1299.2	1176.7	1035.5	882.3	719.8	550.5	401.6	135.3
50°	1466.0	1445.6	1382.6	1287.3	1161.4	1018.5	863.6	696.0	525.0	370.1	107.2
52.5°	1452.4	1432.0	1372.4	1270.3	1143.5	998.9	838.1	671.3	497.7	339.5	81.7
55°	1435.4	1416.7	1354.5	1255.0	1120.6	975.1	814.3	644.9	471.4	308.0	58.7
57.5°	1409.0	1392.0	1332.4	1230.3	1097.6	948.7	787.9	616.0	438.2	276.5	40.8
60°	1376.7	1359.7	1301.8	1202.2	1071.2	918.9	759.0	586.2	408.4	245.0	25.5
62.5°	1342.6	1326.5	1266.1	1167.4	1038.0	887.4	727.5	556.5	376.9	216.1	15.3
65°	1297.5	1282.2	1227.8	1125.7	1001.4	853.4	692.6	520.7	344.6	183.8	8.5
67.5°	1249.9	1236.3	1181.0	1087.4	958.9	816.0	656.9	485.8	310.6	155.7	4.3
70°	1198.8	1181.8	1130.8	1035.5	915.5	773.4	617.7	450.1	278.2	128.5	0.0
72.5°	1139.3	1126.5	1077.2	987.0	865.3	728.3	577.7	411.0	242.5	102.1	0.9
75°	1081.4	1065.3	1020.2	935.1	816.0	680.7	533.5	374.4	207.6	78.3	0.9
77.5°	1006.6	1001.4	958.9	876.4	769.2	634.7	485.0	330.1	174.4	56.2	0.9
80°	931.7	926.6	893.4	817.7	714.7	580.3	439.9	288.4	142.1	37.4	0.9
82.5°	857.7	850.8	819.4	756.4	659.4	534.3	393.1	246.7	112.3	23.0	0.9
85°	791.3	782.8	748.7	690.9	602.4	482.4	344.6	205.9	83.4	12.8	1.7
87.5°	734.3	728.3	690.9	631.3	544.5	433.9	302.1	166.8	58.7	6.0	2.6
90°	685.8	673.0	639.8	576.9	490.1	380.3	257.0	133.6	39.1	3.4	3.4
92.5°	638.1	627.1	590.5	525.8	441.6	334.4	213.6	102.1	24.7	1.7	4.3
95°	588.8	576.9	541.1	481.6	392.2	287.6	175.3	74.9	13.6	1.7	4.3
97.5°	540.3	529.2	491.8	432.2	348.0	246.7	138.7	52.8	6.8	1.7	3.4
100°	495.2	482.4	448.4	388.8	303.8	205.9	107.2	34.0	4.3	1.7	3.4
102.5°	447.5	437.3	402.5	344.6	257.8	167.6	80.0	21.3	1.7	1.7	2.6
105°	405.0	392.2	358.2	298.6	219.5	131.9	56.2	12.8	1.7	1.7	2.6



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	263.8	253.6	223.8	173.6	111.5	51.9	15.3	2.6	2.6	2.6	2.6
115°	220.4	205.1	178.7	134.4	82.5	34.0	7.7	2.6	2.6	2.6	2.6
117.5°	176.1	163.4	144.6	102.1	54.5	22.1	4.3	2.6	2.6	2.6	2.6
120°	137.8	125.9	104.7	70.6	36.6	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	98.7	89.3	70.6	45.9	22.1	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.5	60.4	46.8	28.1	13.6	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.5	38.3	27.2	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.8	21.3	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.6	12.8	8.5	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3	4.3	3.4
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	3.4
142.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
145°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
150°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
152.5°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
157.5°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	3.4
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



TEST NUMBER: P551409

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	667.9	667.9	667.9
2.5°	635.6	623.7	620.3
5°	601.5	582.0	570.9
7.5°	567.5	541.1	528.4
10°	536.0	498.6	485.0
12.5°	498.6	455.2	433.9
15°	462.9	406.7	386.3
17.5°	422.9	359.9	336.1
20°	385.4	313.1	288.4
22.5°	342.9	267.2	239.9
25°	304.6	221.2	190.6
27.5°	262.1	174.4	148.0
30°	222.1	133.6	107.2
32.5°	183.8	97.8	74.0
35°	148.0	66.4	46.8
37.5°	114.0	40.8	23.8
40°	82.5	21.3	11.1
42.5°	55.3	10.2	6.0
45°	34.0	5.1	0.0
47.5°	19.6	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.3	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	1.7	2.6
80°	1.7	3.4	4.3
82.5°	3.4	4.3	4.3
85°	3.4	4.3	5.1
87.5°	4.3	5.1	6.0
90°	5.1	6.0	6.0
92.5°	5.1	6.8	6.8
95°	6.0	6.8	7.7
97.5°	6.8	7.7	7.7
100°	6.0	7.7	8.5
102.5°	5.1	7.7	7.7
105°	4.3	6.0	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.3	4.3
115°	2.6	3.4	4.3
117.5°	2.6	3.4	3.4
120°	2.6	2.6	3.4
122.5°	2.6	2.6	3.4
125°	2.6	2.6	3.4
127.5°	3.4	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.4	2.6	2.6
135°	3.4	2.6	2.6
137.5°	3.4	2.6	2.6
140°	3.4	2.6	2.6
142.5°	3.4	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.4	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	357.4	347.1	313.1	257.0	179.5	100.4	37.4	6.8	1.7	2.6	2.6
110°	311.4	302.9	268.0	213.6	144.6	74.9	24.7	4.3	2.6	2.6	2.6





107.5°	3.4	5.1	6.0
110°	3.4	4.3	5.1



(END OF REPORT)