

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: P551377

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-94-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: P551377
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-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

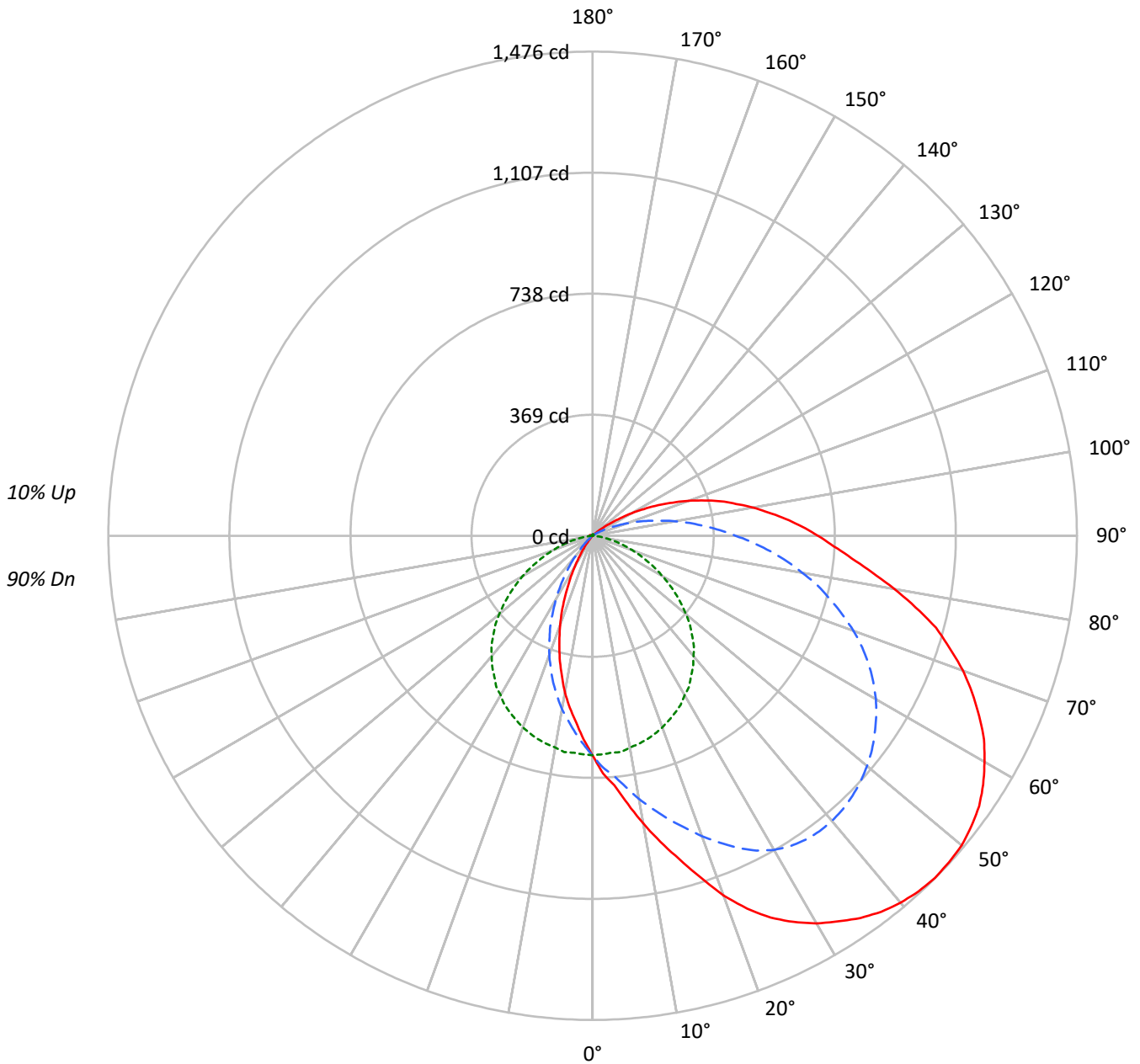
Lumens per Lamp: N/A
Luminaire Lumens: 3308.1 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551377

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-94-ED1D-90

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°	7202	7202	7202
5°	7906	7097	5921
10°	8948	7010	4881
15°	10027	6921	3803
20°	11309	6808	2801
25°	12372	6677	1839
30°	13162	6502	1036
35°	13846	6313	456
40°	14454	6081	110
45°	14974	5790	0
50°	15411	5404	0
55°	15744	4914	0
60°	15911	4344	0
65°	15977	3698	0
70°	15923	3015	0
75°	15721	2223	13
80°	15084	1360	69
85°	14579	651	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	1.9
10°-20°	191.9	5.8
20°-30°	310.8	9.4
30°-40°	399.2	12.1
40°-50°	451.9	13.7
50°-60°	468.2	14.2
60°-70°	441.5	13.3
70°-80°	370.0	11.2
80°-90°	268.2	8.1
90°-100°	176.3	5.3
100°-110°	101.8	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°	566.8	17.1
0°-40°	966.0	29.2
0°-60°	1886.1	57.0
0°-90°	2965.9	89.7
90°-120°	323.1	9.8
90°-150°	339.9	10.3
90°-180°	342.0	10.3
0°-180°	3308.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	669	669	669	669	669	
5°	764	734	664	603	572	77
15°	1020	895	642	464	387	294
25°	1285	1050	595	305	191	594
35°	1423	1132	522	148	47	892
45°	1476	1120	428	34	0	1139
55°	1438	1050	309	0	0	1284
65°	1300	929	184	0	0	1286
75°	1083	750	78	1	1	1136
85°	793	543	13	3	5	677
90°	687	436	3	5	6	377
95°	590	341	2	6	8	463
105°	406	176	2	4	7	428
115°	221	58	3	3	4	221
125°	66	8	3	3	3	66
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°	669.1	669.1	669.1	669.1	669.1	669.1	669.1	669.1	669.1	669.1	669.1
2.5°	725.4	724.5	722.0	717.7	711.7	701.5	693.0	685.3	675.1	666.6	650.4
5°	763.7	759.5	756.1	751.8	738.2	728.8	713.5	696.4	680.2	664.0	631.6
7.5°	825.1	818.3	813.2	801.2	782.5	761.2	737.3	721.1	710.0	664.9	609.5
10°	890.8	884.8	874.6	853.2	830.2	799.5	765.4	727.1	693.0	655.5	589.9
12.5°	955.5	947.0	932.5	905.2	872.9	834.5	787.6	742.4	693.8	649.5	566.8
15°	1020.3	1010.9	995.6	962.4	919.7	869.4	812.3	755.2	698.1	641.9	543.0
17.5°	1091.1	1078.3	1055.3	1017.8	964.1	901.8	834.5	765.4	696.4	632.5	517.4
20°	1166.9	1149.0	1124.3	1074.0	1010.9	937.6	856.7	775.7	695.6	621.4	488.4
22.5°	1230.0	1212.1	1184.8	1132.8	1057.0	967.5	875.4	782.5	692.1	608.6	461.1
25°	1284.6	1270.1	1240.2	1180.6	1100.4	999.0	893.3	787.6	687.0	595.0	432.2
27.5°	1327.2	1313.5	1280.3	1218.9	1137.1	1027.1	906.9	790.2	680.2	581.3	402.3
30°	1364.7	1351.0	1311.0	1247.9	1161.8	1049.3	920.6	791.0	671.7	560.9	369.9
32.5°	1393.7	1380.9	1340.0	1272.6	1178.9	1064.6	928.3	790.2	660.6	546.4	335.0
35°	1422.6	1409.9	1362.1	1290.5	1191.6	1071.5	934.2	785.9	647.0	522.5	301.7
37.5°	1444.8	1430.3	1381.7	1302.5	1197.6	1073.2	933.4	779.9	632.5	502.9	268.5
40°	1460.2	1444.8	1392.8	1309.3	1199.3	1070.6	926.6	769.7	615.4	478.2	233.6
42.5°	1470.4	1453.3	1397.9	1319.5	1195.9	1063.8	916.3	756.9	596.7	456.9	200.3
45°	1475.5	1457.6	1398.8	1311.0	1189.9	1051.0	901.0	740.7	576.2	427.9	167.1
47.5°	1472.9	1453.3	1394.5	1301.6	1178.9	1037.4	883.9	721.1	551.5	402.3	135.5
50°	1468.7	1448.2	1385.1	1289.7	1163.5	1020.3	865.2	697.3	525.9	370.8	107.4
52.5°	1455.0	1434.6	1374.9	1272.6	1145.6	1000.7	839.6	672.5	498.7	340.1	81.8
55°	1438.0	1419.2	1357.0	1257.3	1122.6	976.8	815.7	646.1	472.2	308.6	58.8
57.5°	1411.6	1394.5	1334.8	1232.6	1099.6	950.4	789.3	617.1	439.0	277.0	40.9
60°	1379.2	1362.1	1304.2	1204.4	1073.2	920.6	760.3	587.3	409.1	245.5	25.6
62.5°	1345.1	1328.9	1268.4	1169.5	1039.9	889.0	728.8	557.5	377.6	216.5	15.3
65°	1299.9	1284.6	1230.0	1127.7	1003.3	855.0	693.8	521.7	345.2	184.1	8.5
67.5°	1252.2	1238.5	1183.1	1089.4	960.6	817.4	658.0	486.7	311.1	156.0	4.3
70°	1201.0	1184.0	1132.8	1037.4	917.2	774.8	618.8	450.9	278.7	128.7	0.0
72.5°	1141.4	1128.6	1079.1	988.8	866.9	729.6	578.8	411.7	242.9	102.3	0.9
75°	1083.4	1067.2	1022.0	936.8	817.4	681.9	534.5	375.1	208.0	78.4	0.9
77.5°	1008.4	1003.3	960.6	878.0	770.6	635.9	485.9	330.7	174.7	56.3	0.9
80°	933.4	928.3	895.0	819.2	716.0	581.3	440.7	289.0	142.3	37.5	0.9
82.5°	859.2	852.4	820.9	757.8	660.6	535.3	393.8	247.2	112.5	23.0	0.9
85°	792.7	784.2	750.1	692.1	603.5	483.3	345.2	206.3	83.5	12.8	1.7
87.5°	735.6	729.6	692.1	632.5	545.5	434.7	302.6	167.1	58.8	6.0	2.6
90°	687.0	674.2	641.0	577.9	491.0	381.0	257.4	133.8	39.2	3.4	3.4
92.5°	639.3	628.2	591.6	526.8	442.4	335.0	214.0	102.3	24.7	1.7	4.3
95°	589.9	577.9	542.1	482.5	393.0	288.1	175.6	75.0	13.6	1.7	4.3
97.5°	541.3	530.2	492.7	433.0	348.6	247.2	138.9	52.8	6.8	1.7	3.4
100°	496.1	483.3	449.2	389.5	304.3	206.3	107.4	34.1	4.3	1.7	3.4
102.5°	448.4	438.1	403.2	345.2	258.3	167.9	80.1	21.3	1.7	1.7	2.6
105°	405.7	393.0	358.9	299.2	219.9	132.1	56.3	12.8	1.7	1.7	2.6



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	264.2	254.0	224.2	173.9	111.7	52.0	15.3	2.6	2.6	2.6	2.6
115°	220.8	205.4	179.0	134.7	82.7	34.1	7.7	2.6	2.6	2.6	2.6
117.5°	176.4	163.7	144.9	102.3	54.6	22.2	4.3	2.6	2.6	2.6	2.6
120°	138.1	126.2	104.8	70.7	36.7	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	98.9	89.5	70.7	46.0	22.2	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.6	60.5	46.9	28.1	13.6	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.6	38.4	27.3	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.9	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: P551377

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	669.1	669.1	669.1
2.5°	636.7	624.8	621.4
5°	602.6	583.0	572.0
7.5°	568.5	542.1	529.3
10°	537.0	499.5	485.9
12.5°	499.5	456.0	434.7
15°	463.7	407.4	387.0
17.5°	423.6	360.6	336.7
20°	386.1	313.7	289.0
22.5°	343.5	267.7	240.4
25°	305.2	221.6	190.9
27.5°	262.5	174.7	148.3
30°	222.5	133.8	107.4
32.5°	184.1	98.0	74.2
35°	148.3	66.5	46.9
37.5°	114.2	40.9	23.9
40°	82.7	21.3	11.1
42.5°	55.4	10.2	6.0
45°	34.1	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°	358.0	347.8	313.7	257.4	179.9	100.6	37.5	6.8	1.7	2.6	2.6
110°	312.0	303.5	268.5	214.0	144.9	75.0	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)