

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: P551312

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-88-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: P551312
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-35-UNV-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

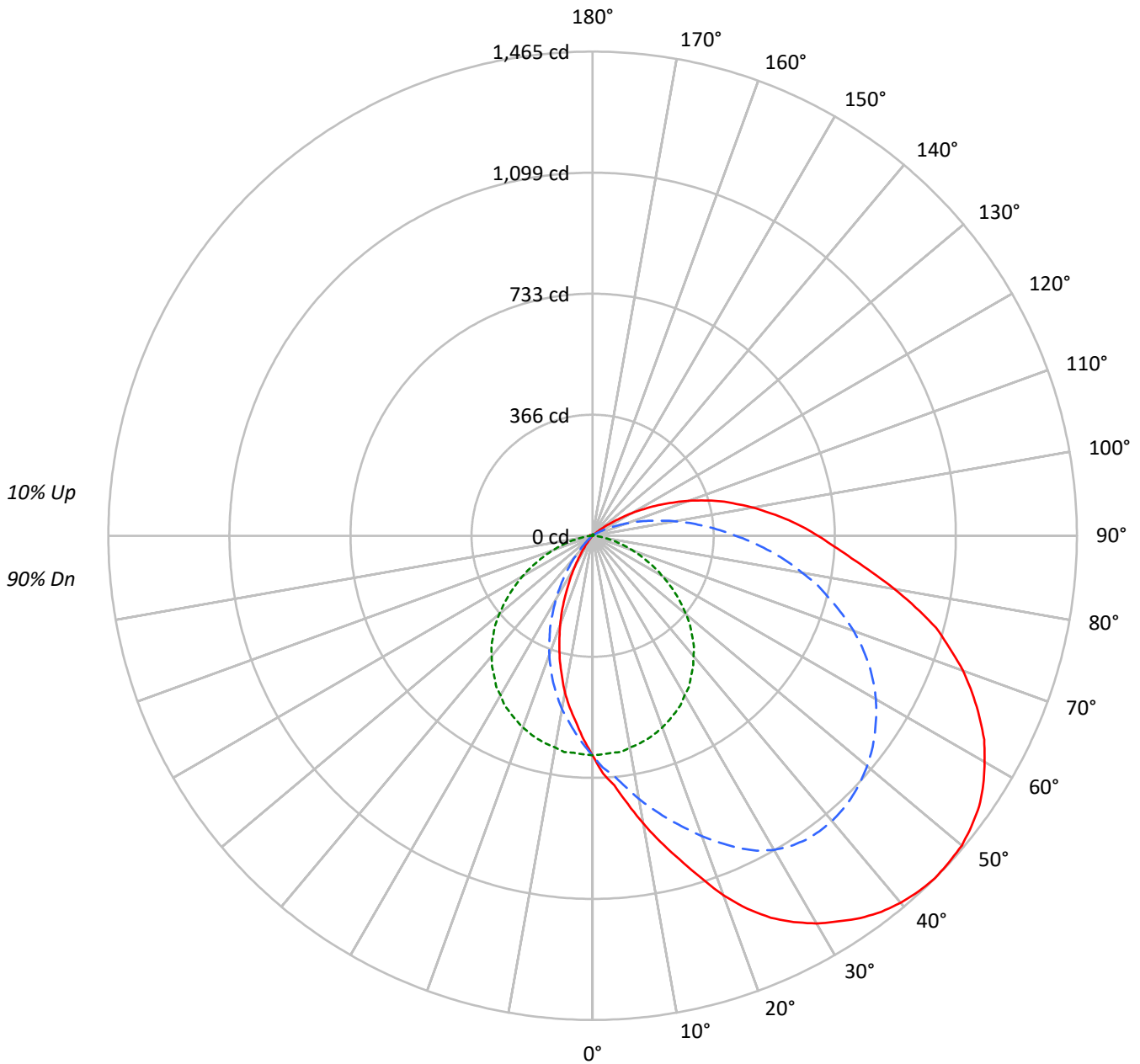
Lumens per Lamp: N/A
Luminaire Lumens: 3283.9 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551312

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-88-ED1D

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°	7150	7150	7150
5°	7849	7046	5878
10°	8882	6959	4844
15°	9954	6871	3776
20°	11227	6759	2780
25°	12282	6629	1826
30°	13067	6455	1028
35°	13746	6267	453
40°	14349	6037	109
45°	14865	5748	0
50°	15299	5365	0
55°	15630	4877	0
60°	15796	4313	0
65°	15861	3672	0
70°	15808	2994	0
75°	15606	2209	12
80°	14975	1349	68
85°	14474	646	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	1.9
10°-20°	190.5	5.8
20°-30°	308.5	9.4
30°-40°	396.3	12.1
40°-50°	448.6	13.7
50°-60°	464.8	14.2
60°-70°	438.3	13.3
70°-80°	367.3	11.2
80°-90°	266.3	8.1
90°-100°	175.0	5.3
100°-110°	101.1	3.1
110°-120°	44.6	1.4
120°-130°	12.1	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°	562.7	17.1
0°-40°	959.0	29.2
0°-60°	1872.4	57.0
0°-90°	2944.4	89.7
90°-120°	320.7	9.8
90°-150°	337.3	10.3
90°-180°	340.0	10.4
0°-180°	3283.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	664	664	664	664	664	
5°	758	728	659	598	568	76
15°	1013	888	637	460	384	292
25°	1275	1042	591	303	190	589
35°	1412	1123	519	147	46	886
45°	1465	1112	425	34	0	1131
55°	1428	1042	306	0	0	1275
65°	1290	922	183	0	0	1277
75°	1076	744	78	1	1	1128
85°	787	539	13	3	5	672
90°	682	433	3	5	6	374
95°	586	338	2	6	8	459
105°	403	175	2	4	7	425
115°	219	58	2	2	4	219
125°	65	8	3	2	3	65
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	664.3	664.3	664.3	664.3	664.3	664.3	664.3	664.3	664.3	664.3	664.3
2.5°	720.1	719.3	716.7	712.5	706.6	696.4	688.0	680.4	670.2	661.7	645.7
5°	758.2	754.0	750.6	746.4	732.8	723.5	708.3	691.4	675.3	659.2	627.0
7.5°	819.1	812.4	807.3	795.4	776.8	755.7	732.0	715.9	704.9	660.0	605.0
10°	884.3	878.4	868.2	847.1	824.2	793.7	759.9	721.8	688.0	650.7	585.6
12.5°	948.6	940.1	925.8	898.7	866.5	828.4	781.9	737.0	688.8	644.8	562.7
15°	1012.9	1003.6	988.4	955.4	913.1	863.1	806.4	749.7	693.0	637.2	539.0
17.5°	1083.1	1070.5	1047.6	1010.4	957.1	895.3	828.4	759.9	691.4	627.9	513.6
20°	1158.5	1140.7	1116.2	1066.2	1003.6	930.8	850.4	770.1	690.5	616.9	484.9
22.5°	1221.1	1203.3	1176.2	1124.6	1049.3	960.4	869.1	776.8	687.1	604.2	457.8
25°	1275.2	1260.9	1231.2	1172.0	1092.5	991.8	886.8	781.9	682.0	590.7	429.0
27.5°	1317.5	1304.0	1271.0	1210.1	1128.8	1019.7	900.4	784.4	675.3	577.1	399.4
30°	1354.8	1341.2	1301.5	1238.9	1153.4	1041.7	913.9	785.3	666.8	556.8	367.3
32.5°	1383.6	1370.9	1330.2	1263.4	1170.3	1056.9	921.5	784.4	655.8	542.4	332.6
35°	1412.3	1399.6	1352.2	1281.2	1183.0	1063.7	927.4	780.2	642.3	518.7	299.6
37.5°	1434.3	1419.9	1371.7	1293.0	1188.9	1065.4	926.6	774.3	627.9	499.3	266.6
40°	1449.6	1434.3	1382.7	1299.8	1190.6	1062.8	919.8	764.1	611.0	474.7	231.9
42.5°	1459.7	1442.8	1387.8	1309.9	1187.2	1056.1	909.7	751.4	592.3	453.6	198.9
45°	1464.8	1447.0	1388.6	1301.5	1181.3	1043.4	894.4	735.4	572.0	424.8	165.9
47.5°	1462.2	1442.8	1384.4	1292.2	1170.3	1029.8	877.5	715.9	547.5	399.4	134.5
50°	1458.0	1437.7	1375.1	1280.3	1155.1	1012.9	858.9	692.2	522.1	368.1	106.6
52.5°	1444.5	1424.2	1364.9	1263.4	1137.3	993.4	833.5	667.7	495.0	337.6	81.2
55°	1427.6	1408.9	1347.2	1248.2	1114.5	969.8	809.8	641.4	468.8	306.3	58.4
57.5°	1401.3	1384.4	1325.2	1223.6	1091.6	943.5	783.6	612.7	435.8	275.0	40.6
60°	1369.2	1352.2	1294.7	1195.7	1065.4	913.9	754.8	583.0	406.2	243.7	25.4
62.5°	1335.3	1319.2	1259.2	1161.0	1032.4	882.6	723.5	553.4	374.9	214.9	15.2
65°	1290.5	1275.2	1221.1	1119.5	996.0	848.7	688.8	517.9	342.7	182.8	8.5
67.5°	1243.1	1229.5	1174.5	1081.5	953.7	811.5	653.3	483.2	308.9	154.9	4.2
70°	1192.3	1175.4	1124.6	1029.8	910.5	769.2	614.3	447.6	276.7	127.8	0.0
72.5°	1133.1	1120.4	1071.3	981.6	860.6	724.4	574.6	408.7	241.2	101.5	0.8
75°	1075.5	1059.5	1014.6	930.0	811.5	677.0	530.6	372.3	206.5	77.9	0.8
77.5°	1001.1	996.0	953.7	871.6	765.0	631.3	482.3	328.3	173.5	55.8	0.8
80°	926.6	921.5	888.5	813.2	710.8	577.1	437.5	286.9	141.3	37.2	0.8
82.5°	853.0	846.2	814.9	752.3	655.8	531.4	390.9	245.4	111.7	22.8	0.8
85°	787.0	778.5	744.7	687.1	599.1	479.8	342.7	204.8	82.9	12.7	1.7
87.5°	730.3	724.4	687.1	627.9	541.6	431.6	300.4	165.9	58.4	5.9	2.5
90°	682.0	669.4	636.3	573.7	487.4	378.3	255.6	132.9	38.9	3.4	3.4
92.5°	634.7	623.7	587.3	523.0	439.2	332.6	212.4	101.5	24.5	1.7	4.2
95°	585.6	573.7	538.2	479.0	390.1	286.0	174.3	74.5	13.5	1.7	4.2
97.5°	537.3	526.3	489.1	429.9	346.1	245.4	137.9	52.5	6.8	1.7	3.4
100°	492.5	479.8	446.0	386.7	302.1	204.8	106.6	33.8	4.2	1.7	3.4
102.5°	445.1	435.0	400.3	342.7	256.4	166.7	79.5	21.2	1.7	1.7	2.5
105°	402.8	390.1	356.3	297.0	218.3	131.2	55.8	12.7	1.7	1.7	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	262.3	252.2	222.6	172.6	110.9	51.6	15.2	2.5	2.5	2.5	2.5
115°	219.2	203.9	177.7	133.7	82.1	33.8	7.6	2.5	2.5	2.5	2.5
117.5°	175.2	162.5	143.9	101.5	54.2	22.0	4.2	2.5	2.5	2.5	2.5
120°	137.1	125.2	104.1	70.2	36.4	12.7	1.7	2.5	2.5	2.5	2.5
122.5°	98.2	88.9	70.2	45.7	22.0	5.9	2.5	2.5	3.4	3.4	2.5
125°	65.2	60.1	46.5	27.9	13.5	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	42.3	38.1	27.1	16.1	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.7	21.2	16.1	9.3	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.5	12.7	8.5	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.4	4.2	4.2	4.2	3.4
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	3.4
142.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
145°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
150°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
152.5°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
157.5°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	3.4
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	664.3	664.3	664.3
2.5°	632.1	620.3	616.9
5°	598.3	578.8	567.8
7.5°	564.4	538.2	525.5
10°	533.1	495.9	482.3
12.5°	495.9	452.7	431.6
15°	460.3	404.5	384.2
17.5°	420.6	357.9	334.3
20°	383.3	311.4	286.9
22.5°	341.0	265.7	238.6
25°	302.9	220.0	189.6
27.5°	260.6	173.5	147.2
30°	220.9	132.9	106.6
32.5°	182.8	97.3	73.6
35°	147.2	66.0	46.5
37.5°	113.4	40.6	23.7
40°	82.1	21.2	11.0
42.5°	55.0	10.2	5.9
45°	33.8	5.1	0.0
47.5°	19.5	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.2	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	1.7	2.5
80°	1.7	3.4	4.2
82.5°	3.4	4.2	4.2
85°	3.4	4.2	5.1
87.5°	4.2	5.1	5.9
90°	5.1	5.9	5.9
92.5°	5.1	6.8	6.8
95°	5.9	6.8	7.6
97.5°	6.8	7.6	7.6
100°	5.9	7.6	8.5
102.5°	5.1	7.6	7.6
105°	4.2	5.9	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.2	4.2
115°	2.5	3.4	4.2
117.5°	2.5	3.4	3.4
120°	2.5	2.5	3.4
122.5°	2.5	2.5	3.4
125°	2.5	2.5	3.4
127.5°	3.4	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.4	2.5	2.5
135°	3.4	2.5	2.5
137.5°	3.4	2.5	2.5
140°	3.4	2.5	2.5
142.5°	3.4	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.4	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	355.4	345.3	311.4	255.6	178.6	99.9	37.2	6.8	1.7	2.5	2.5
110°	309.7	301.3	266.6	212.4	143.9	74.5	24.5	4.2	2.5	2.5	2.5





107.5°	3.4	5.1	5.9
110°	3.4	4.2	5.1



(END OF REPORT)