

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: P551248

Luminaire Tested: **FCC-X-2-LD4-2HI-30-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: P551248
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-30-UNV-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

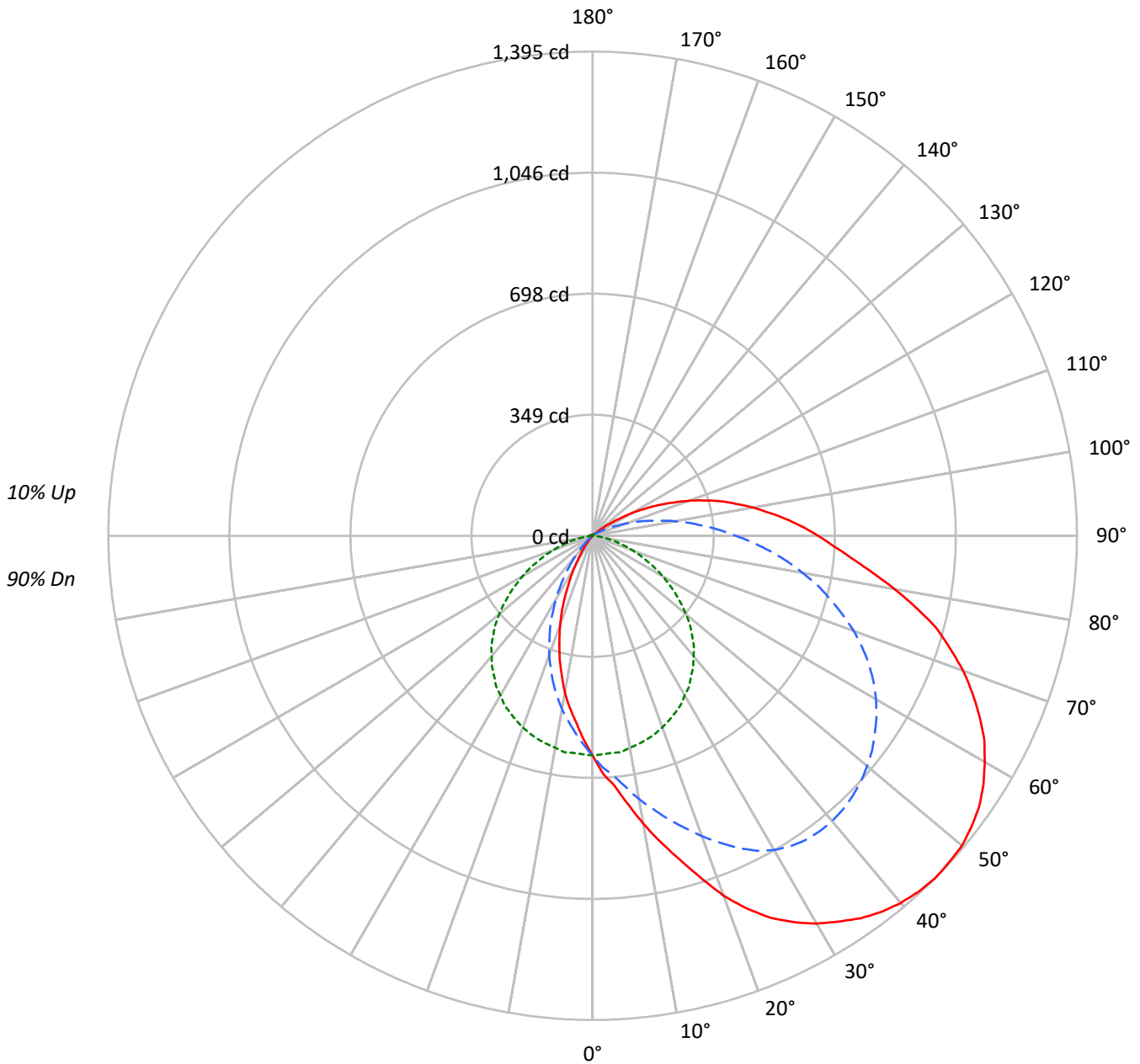
Lumens per Lamp: N/A
Luminaire Lumens: 3127.9 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551248

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-88-ED1D

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°	6810	6810	6810
5°	7476	6711	5598
10°	8460	6628	4614
15°	9481	6544	3596
20°	10693	6438	2648
25°	11699	6314	1738
30°	12446	6149	980
35°	13093	5970	431
40°	13667	5751	104
45°	14159	5475	0
50°	14573	5110	0
55°	14886	4647	0
60°	15045	4107	0
65°	15108	3497	0
70°	15057	2851	0
75°	14865	2104	12
80°	14263	1288	65
85°	13787	615	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	1.9
10°-20°	181.5	5.8
20°-30°	293.9	9.4
30°-40°	377.5	12.1
40°-50°	427.3	13.7
50°-60°	442.7	14.2
60°-70°	417.5	13.3
70°-80°	349.9	11.2
80°-90°	253.6	8.1
90°-100°	166.7	5.3
100°-110°	96.3	3.1
110°-120°	42.5	1.4
120°-130°	11.5	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°	535.9	17.1
0°-40°	913.4	29.2
0°-60°	1783.5	57.0
0°-90°	2804.5	89.7
90°-120°	305.4	9.8
90°-150°	321.2	10.3
90°-180°	323.0	10.3
0°-180°	3127.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	633	633	633	633	633	
5°	722	694	628	570	541	73
15°	965	846	607	438	366	278
25°	1215	993	563	289	180	561
35°	1345	1070	494	140	44	844
45°	1395	1060	405	32	0	1077
55°	1360	993	292	0	0	1214
65°	1229	879	174	0	0	1216
75°	1024	709	74	1	1	1074
85°	750	514	12	3	5	640
90°	650	412	3	5	6	356
95°	558	322	2	6	7	438
105°	384	166	2	4	6	405
115°	209	55	2	2	4	209
125°	62	8	3	2	3	62
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°	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7
2.5°	685.9	685.1	682.7	678.7	673.0	663.3	655.3	648.0	638.4	630.3	615.0
5°	722.2	718.2	714.9	710.9	698.0	689.1	674.6	658.5	643.2	627.9	597.3
7.5°	780.2	773.8	768.9	757.7	739.9	719.8	697.2	681.9	671.4	628.7	576.3
10°	842.3	836.6	827.0	806.8	785.1	756.0	723.8	687.5	655.3	619.8	557.8
12.5°	903.5	895.5	881.8	856.0	825.4	789.1	744.8	702.0	656.1	614.2	536.0
15°	964.8	955.9	941.4	910.0	869.7	822.1	768.1	714.1	660.1	606.9	513.4
17.5°	1031.7	1019.6	997.8	962.4	911.6	852.8	789.1	723.8	658.5	598.1	489.2
20°	1103.4	1086.5	1063.1	1015.6	955.9	886.6	810.0	733.5	657.7	587.6	461.8
22.5°	1163.1	1146.1	1120.4	1071.2	999.5	914.8	827.8	739.9	654.5	575.5	436.1
25°	1214.7	1201.0	1172.7	1116.3	1040.6	944.6	844.7	744.8	649.6	562.6	408.6
27.5°	1255.0	1242.1	1210.6	1152.6	1075.2	971.2	857.6	747.2	643.2	549.7	380.4
30°	1290.4	1277.5	1239.6	1180.0	1098.6	992.2	870.5	748.0	635.1	530.4	349.8
32.5°	1317.8	1305.7	1267.1	1203.4	1114.7	1006.7	877.7	747.2	624.7	516.7	316.8
35°	1345.2	1333.1	1288.0	1220.3	1126.8	1013.2	883.4	743.1	611.8	494.1	285.3
37.5°	1366.2	1352.5	1306.5	1231.6	1132.4	1014.8	882.6	737.5	598.1	475.5	253.9
40°	1380.7	1366.2	1317.0	1238.0	1134.1	1012.4	876.1	727.8	581.9	452.2	220.8
42.5°	1390.4	1374.3	1321.9	1247.7	1130.8	1005.9	866.5	715.7	564.2	432.0	189.4
45°	1395.2	1378.3	1322.7	1239.6	1125.2	993.8	852.0	700.4	544.9	404.6	158.0
47.5°	1392.8	1374.3	1318.6	1230.8	1114.7	980.9	835.8	681.9	521.5	380.4	128.2
50°	1388.8	1369.4	1309.8	1219.5	1100.2	964.8	818.1	659.3	497.3	350.6	101.6
52.5°	1375.9	1356.5	1300.1	1203.4	1083.3	946.3	793.9	635.9	471.5	321.6	77.4
55°	1359.7	1342.0	1283.2	1188.9	1061.5	923.7	771.4	611.0	446.5	291.8	55.6
57.5°	1334.8	1318.6	1262.2	1165.5	1039.8	898.7	746.4	583.6	415.1	262.0	38.7
60°	1304.1	1288.0	1233.2	1138.9	1014.8	870.5	719.0	555.3	386.9	232.1	24.2
62.5°	1271.9	1256.6	1199.3	1105.8	983.3	840.7	689.1	527.1	357.1	204.7	14.5
65°	1229.2	1214.7	1163.1	1066.4	948.7	808.4	656.1	493.3	326.4	174.1	8.1
67.5°	1184.0	1171.1	1118.7	1030.1	908.4	773.0	622.2	460.2	294.2	147.5	4.0
70°	1135.7	1119.6	1071.2	980.9	867.3	732.7	585.2	426.4	263.6	121.7	0.0
72.5°	1079.2	1067.2	1020.4	935.0	819.7	689.9	547.3	389.3	229.7	96.7	0.8
75°	1024.4	1009.1	966.4	885.8	773.0	644.8	505.4	354.6	196.7	74.2	0.8
77.5°	953.5	948.7	908.4	830.2	728.6	601.3	459.4	312.7	165.2	53.2	0.8
80°	882.6	877.7	846.3	774.6	677.0	549.7	416.7	273.2	134.6	35.5	0.8
82.5°	812.5	806.0	776.2	716.5	624.7	506.2	372.4	233.7	106.4	21.8	0.8
85°	749.6	741.5	709.3	654.5	570.7	457.0	326.4	195.1	79.0	12.1	1.6
87.5°	695.6	689.9	654.5	598.1	515.8	411.1	286.1	158.0	55.6	5.6	2.4
90°	649.6	637.6	606.1	546.5	464.3	360.3	243.4	126.5	37.1	3.2	3.2
92.5°	604.5	594.0	559.4	498.1	418.3	316.8	202.3	96.7	23.4	1.6	4.0
95°	557.8	546.5	512.6	456.2	371.6	272.4	166.0	70.9	12.9	1.6	4.0
97.5°	511.8	501.3	465.9	409.5	329.7	233.7	131.4	50.0	6.4	1.6	3.2
100°	469.1	457.0	424.8	368.3	287.7	195.1	101.6	32.2	4.0	1.6	3.2
102.5°	424.0	414.3	381.2	326.4	244.2	158.8	75.8	20.2	1.6	1.6	2.4
105°	383.7	371.6	339.3	282.9	208.0	124.9	53.2	12.1	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	249.9	240.2	212.0	164.4	105.6	49.2	14.5	2.4	2.4	2.4	2.4
115°	208.8	194.2	169.3	127.3	78.2	32.2	7.3	2.4	2.4	2.4	2.4
117.5°	166.8	154.8	137.0	96.7	51.6	21.0	4.0	2.4	2.4	2.4	2.4
120°	130.6	119.3	99.1	66.9	34.7	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.5	84.6	66.9	43.5	21.0	5.6	2.4	2.4	3.2	3.2	2.4
125°	62.1	57.2	44.3	26.6	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.3	36.3	25.8	15.3	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.6	20.2	15.3	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.1	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	632.7	632.7	632.7
2.5°	602.1	590.8	587.6
5°	569.9	551.3	540.8
7.5°	537.6	512.6	500.5
10°	507.8	472.3	459.4
12.5°	472.3	431.2	411.1
15°	438.5	385.3	365.9
17.5°	400.6	340.9	318.4
20°	365.1	296.6	273.2
22.5°	324.8	253.1	227.3
25°	288.6	209.6	180.5
27.5°	248.3	165.2	140.2
30°	210.4	126.5	101.6
32.5°	174.1	92.7	70.1
35°	140.2	62.9	44.3
37.5°	108.0	38.7	22.6
40°	78.2	20.2	10.5
42.5°	52.4	9.7	5.6
45°	32.2	4.8	0.0
47.5°	18.5	0.0	0.0
50°	9.7	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	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.4	6.4
95°	5.6	6.4	7.3
97.5°	6.4	7.3	7.3
100°	5.6	7.3	8.1
102.5°	4.8	7.3	7.3
105°	4.0	5.6	6.4



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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°	338.5	328.9	296.6	243.4	170.1	95.1	35.5	6.4	1.6	2.4	2.4
110°	295.0	286.9	253.9	202.3	137.0	70.9	23.4	4.0	2.4	2.4	2.4





107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)