

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: P551419

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-86-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: P551419
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

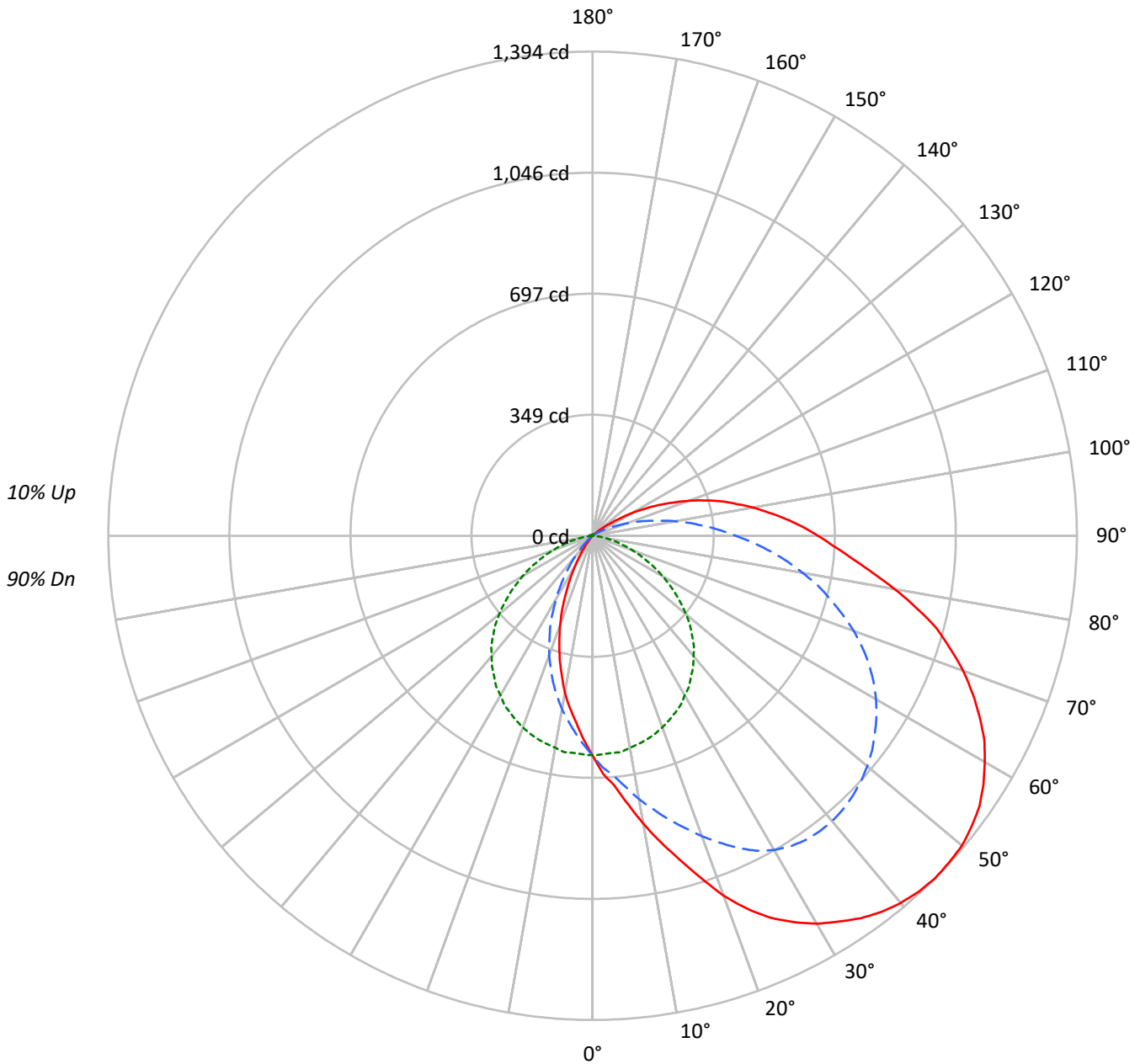
Lumens per Lamp: N/A
Luminaire Lumens: 3125.9 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	6806	6806	6806
5°	7471	6707	5595
10°	8454	6624	4611
15°	9475	6540	3594
20°	10686	6434	2647
25°	11691	6309	1737
30°	12438	6144	979
35°	13085	5966	431
40°	13658	5747	104
45°	14150	5472	0
50°	14563	5107	0
55°	14878	4643	0
60°	15036	4106	0
65°	15098	3495	0
70°	15047	2849	0
75°	14856	2101	12
80°	14254	1284	65
85°	13777	615	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	1.9
10°-20°	181.4	5.8
20°-30°	293.7	9.4
30°-40°	377.3	12.1
40°-50°	427.1	13.7
50°-60°	442.4	14.2
60°-70°	417.3	13.3
70°-80°	349.7	11.2
80°-90°	253.5	8.1
90°-100°	166.6	5.3
100°-110°	96.2	3.1
110°-120°	42.4	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°	535.6	17.1
0°-40°	912.9	29.2
0°-60°	1782.3	57.0
0°-90°	2802.7	89.7
90°-120°	305.2	9.8
90°-150°	321.0	10.3
90°-180°	323.0	10.3
0°-180°	3125.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	632	632	632	632	632	
5°	722	693	628	570	540	73
15°	964	845	606	438	366	278
25°	1214	992	562	288	180	561
35°	1344	1069	494	140	44	843
45°	1394	1059	404	32	0	1076
55°	1359	992	292	0	0	1213
65°	1228	878	174	0	0	1215
75°	1024	708	74	1	1	1074
85°	749	514	12	3	5	640
90°	649	412	3	5	6	356
95°	557	322	2	6	7	437
105°	383	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°	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
2.5°	685.5	684.7	682.3	678.2	672.6	662.9	654.9	647.6	638.0	629.9	614.6
5°	721.7	717.7	714.5	710.4	697.6	688.7	674.2	658.1	642.8	627.5	596.9
7.5°	779.7	773.3	768.4	757.2	739.4	719.3	696.8	681.5	671.0	628.3	575.9
10°	841.7	836.1	826.4	806.3	784.6	755.6	723.3	687.1	654.9	619.4	557.4
12.5°	903.0	894.9	881.2	855.4	824.8	788.6	744.3	701.6	655.7	613.8	535.7
15°	964.2	955.3	940.8	909.4	869.1	821.6	767.6	713.7	659.7	606.5	513.1
17.5°	1031.0	1019.0	997.2	961.8	911.0	852.2	788.6	723.3	658.1	597.7	488.9
20°	1102.7	1085.8	1062.4	1014.9	955.3	886.0	809.5	733.0	657.3	587.2	461.5
22.5°	1162.3	1145.4	1119.6	1070.5	998.8	914.2	827.2	739.4	654.1	575.1	435.8
25°	1213.9	1200.2	1172.0	1115.6	1039.9	944.0	844.2	744.3	649.2	562.2	408.4
27.5°	1254.2	1241.3	1209.9	1151.9	1074.5	970.6	857.0	746.7	642.8	549.3	380.2
30°	1289.6	1276.7	1238.9	1179.2	1097.9	991.6	869.9	747.5	634.7	530.0	349.6
32.5°	1317.0	1304.9	1266.2	1202.6	1114.0	1006.1	877.2	746.7	624.3	516.3	316.6
35°	1344.4	1332.3	1287.2	1219.5	1126.1	1012.5	882.8	742.7	611.4	493.8	285.1
37.5°	1365.3	1351.6	1305.7	1230.8	1131.7	1014.1	882.0	737.0	597.7	475.2	253.7
40°	1379.8	1365.3	1316.2	1237.2	1133.3	1011.7	875.6	727.4	581.6	451.9	220.7
42.5°	1389.5	1373.4	1321.0	1246.9	1130.1	1005.3	865.9	715.3	563.8	431.7	189.3
45°	1394.3	1377.4	1321.8	1238.9	1124.5	993.2	851.4	700.0	544.5	404.4	157.9
47.5°	1391.9	1373.4	1317.8	1230.0	1114.0	980.3	835.3	681.5	521.2	380.2	128.1
50°	1387.9	1368.5	1308.9	1218.7	1099.5	964.2	817.6	658.9	497.0	350.4	101.5
52.5°	1375.0	1355.7	1299.3	1202.6	1082.6	945.7	793.4	635.5	471.2	321.4	77.3
55°	1358.9	1341.2	1282.4	1188.1	1060.8	923.1	770.9	610.6	446.2	291.6	55.6
57.5°	1333.9	1317.8	1261.4	1164.7	1039.1	898.1	745.9	583.2	414.8	261.8	38.7
60°	1303.3	1287.2	1232.4	1138.2	1014.1	869.9	718.5	555.0	386.6	232.0	24.2
62.5°	1271.1	1255.8	1198.6	1105.1	982.7	840.1	688.7	526.8	356.8	204.6	14.5
65°	1228.4	1213.9	1162.3	1065.7	948.1	807.9	655.7	493.0	326.2	174.0	8.1
67.5°	1183.3	1170.4	1118.0	1029.4	907.8	772.5	621.8	459.9	294.0	147.4	4.0
70°	1134.9	1118.8	1070.5	980.3	866.7	732.2	584.8	426.1	263.4	121.6	0.0
72.5°	1078.6	1066.5	1019.8	934.4	819.2	689.5	546.9	389.1	229.6	96.7	0.8
75°	1023.8	1008.5	965.8	885.2	772.5	644.4	505.0	354.4	196.5	74.1	0.8
77.5°	952.9	948.1	907.8	829.7	728.2	600.9	459.1	312.5	165.1	53.2	0.8
80°	882.0	877.2	845.8	774.1	676.6	549.3	416.4	273.1	134.5	35.4	0.8
82.5°	811.9	805.5	775.7	716.1	624.3	505.9	372.1	233.6	106.3	21.7	0.8
85°	749.1	741.1	708.8	654.1	570.3	456.7	326.2	194.9	78.9	12.1	1.6
87.5°	695.1	689.5	654.1	597.7	515.5	410.8	286.0	157.9	55.6	5.6	2.4
90°	649.2	637.1	605.7	546.1	464.0	360.1	243.3	126.5	37.1	3.2	3.2
92.5°	604.1	593.7	559.0	497.8	418.1	316.6	202.2	96.7	23.4	1.6	4.0
95°	557.4	546.1	512.3	455.9	371.3	272.3	165.9	70.9	12.9	1.6	4.0
97.5°	511.5	501.0	465.6	409.2	329.4	233.6	131.3	49.9	6.4	1.6	3.2
100°	468.8	456.7	424.5	368.1	287.6	194.9	101.5	32.2	4.0	1.6	3.2
102.5°	423.7	414.0	381.0	326.2	244.1	158.7	75.7	20.1	1.6	1.6	2.4
105°	383.4	371.3	339.1	282.7	207.8	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°	249.7	240.0	211.8	164.3	105.5	49.1	14.5	2.4	2.4	2.4	2.4
115°	208.6	194.1	169.2	127.3	78.1	32.2	7.2	2.4	2.4	2.4	2.4
117.5°	166.7	154.7	136.9	96.7	51.6	20.9	4.0	2.4	2.4	2.4	2.4
120°	130.5	119.2	99.1	66.9	34.6	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.4	84.6	66.9	43.5	20.9	5.6	2.4	2.4	3.2	3.2	2.4
125°	62.0	57.2	44.3	26.6	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.3	36.2	25.8	15.3	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.6	20.1	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°	632.3	632.3	632.3
2.5°	601.7	590.4	587.2
5°	569.5	551.0	540.5
7.5°	537.3	512.3	500.2
10°	507.5	472.0	459.1
12.5°	472.0	430.9	410.8
15°	438.2	385.0	365.7
17.5°	400.3	340.7	318.2
20°	364.9	296.4	273.1
22.5°	324.6	252.9	227.2
25°	288.4	209.4	180.4
27.5°	248.1	165.1	140.2
30°	210.2	126.5	101.5
32.5°	174.0	92.6	70.1
35°	140.2	62.8	44.3
37.5°	107.9	38.7	22.6
40°	78.1	20.1	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	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	8.1
102.5°	4.8	7.2	7.2
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°	338.3	328.6	296.4	243.3	170.0	95.0	35.4	6.4	1.6	2.4	2.4
110°	294.8	286.8	253.7	202.2	136.9	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)