

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: P551427

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-82-96-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: P551427
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-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

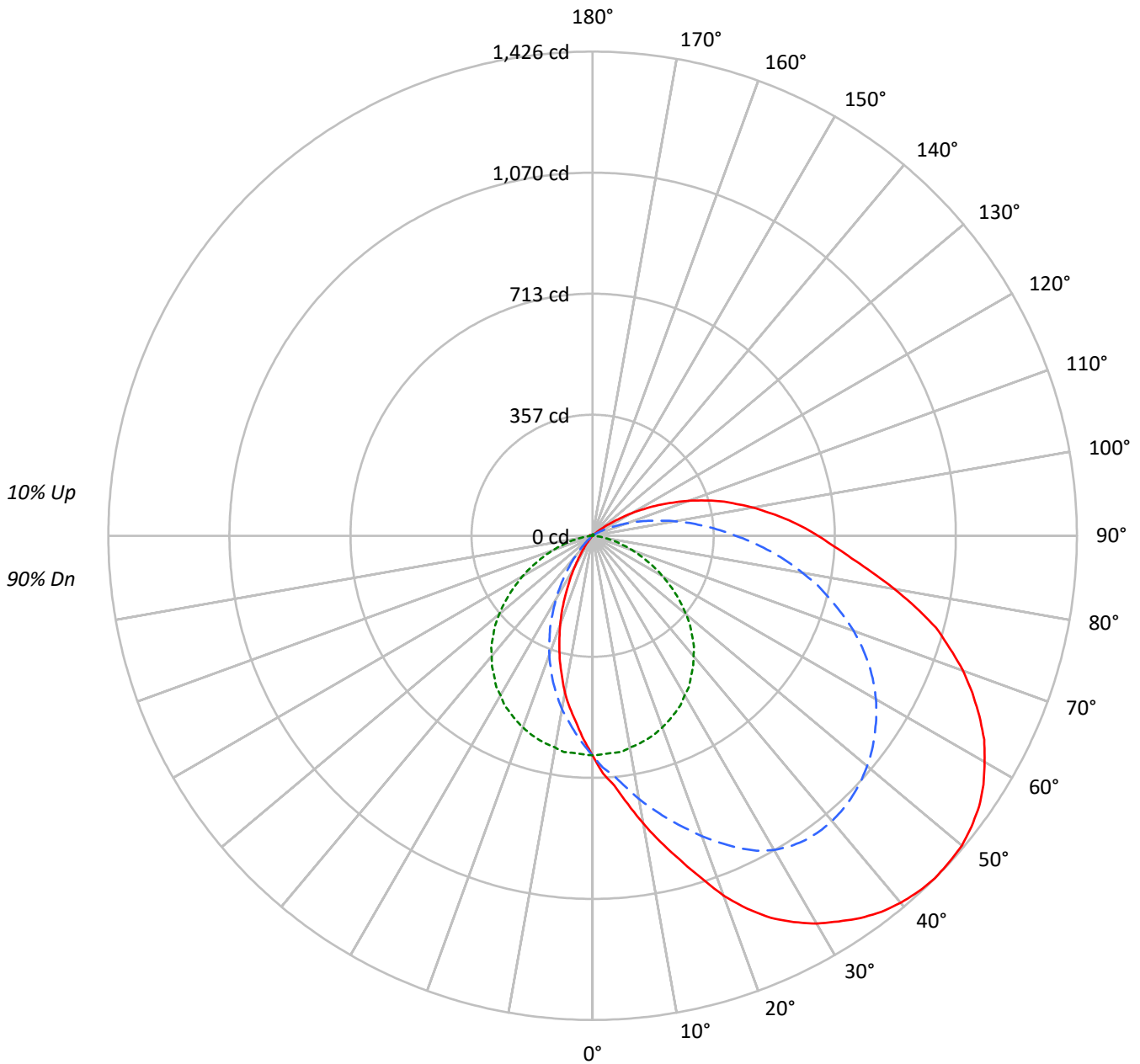
Lumens per Lamp: N/A
Luminaire Lumens: 3197.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	6961	6961	6961
5°	7641	6859	5723
10°	8647	6775	4717
15°	9690	6688	3675
20°	10930	6579	2707
25°	11957	6453	1777
30°	12721	6284	1001
35°	13382	6102	441
40°	13969	5877	106
45°	14471	5595	0
50°	14894	5222	0
55°	15215	4748	0
60°	15377	4199	0
65°	15441	3573	0
70°	15389	2914	0
75°	15193	2150	12
80°	14579	1313	66
85°	14090	631	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	1.9
10°-20°	185.5	5.8
20°-30°	300.3	9.4
30°-40°	385.8	12.1
40°-50°	436.8	13.7
50°-60°	452.5	14.2
60°-70°	426.7	13.3
70°-80°	357.6	11.2
80°-90°	259.2	8.1
90°-100°	170.4	5.3
100°-110°	98.4	3.1
110°-120°	43.4	1.4
120°-130°	11.8	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	547.8	17.1
0°-40°	933.6	29.2
0°-60°	1822.8	57.0
0°-90°	2866.4	89.7
90°-120°	312.2	9.8
90°-150°	328.4	10.3
90°-180°	331.0	10.4
0°-180°	3197.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	647	647	647	647	647	
5°	738	709	642	582	553	74
15°	986	865	620	448	374	284
25°	1242	1014	575	295	184	574
35°	1375	1094	505	143	45	862
45°	1426	1083	414	33	0	1101
55°	1390	1014	298	0	0	1241
65°	1256	898	178	0	0	1243
75°	1047	724	76	1	1	1098
85°	766	525	12	3	5	654
90°	664	421	3	5	6	364
95°	570	329	2	6	7	447
105°	392	170	2	4	7	414
115°	213	56	2	2	4	214
125°	63	8	3	2	3	63
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°	646.7	646.7	646.7	646.7	646.7	646.7	646.7	646.7	646.7	646.7	646.7
2.5°	701.0	700.2	697.8	693.6	687.9	678.0	669.7	662.3	652.4	644.2	628.6
5°	738.1	734.0	730.7	726.6	713.4	704.3	689.5	673.0	657.4	641.7	610.4
7.5°	797.4	790.8	785.9	774.4	756.2	735.6	712.6	696.9	686.2	642.6	589.0
10°	860.9	855.1	845.2	824.6	802.4	772.7	739.8	702.7	669.7	633.5	570.1
12.5°	923.5	915.2	901.2	874.9	843.6	806.5	761.2	717.5	670.6	627.7	547.8
15°	986.1	977.0	962.2	930.1	888.9	840.3	785.1	729.9	674.7	620.3	524.8
17.5°	1054.5	1042.1	1019.9	983.6	931.7	871.6	806.5	739.8	673.0	611.3	500.0
20°	1127.8	1110.5	1086.6	1038.0	977.0	906.2	827.9	749.7	672.2	600.5	472.0
22.5°	1188.7	1171.4	1145.1	1094.8	1021.5	935.0	846.0	756.2	668.9	588.2	445.7
25°	1241.5	1227.4	1198.6	1141.0	1063.5	965.5	863.3	761.2	664.0	575.0	417.7
27.5°	1282.6	1269.5	1237.3	1178.0	1098.9	992.7	876.5	763.7	657.4	561.8	388.8
30°	1318.9	1305.7	1267.0	1206.0	1122.8	1014.1	889.7	764.5	649.1	542.1	357.5
32.5°	1346.9	1334.5	1295.0	1229.9	1139.3	1028.9	897.1	763.7	638.4	528.1	323.8
35°	1374.9	1362.6	1316.4	1247.2	1151.7	1035.5	902.9	759.5	625.3	505.0	291.6
37.5°	1396.3	1382.3	1335.4	1258.8	1157.4	1037.2	902.1	753.8	611.3	486.0	259.5
40°	1411.2	1396.3	1346.1	1265.3	1159.1	1034.7	895.5	743.9	594.8	462.1	225.7
42.5°	1421.0	1404.6	1351.0	1275.2	1155.8	1028.1	885.6	731.5	576.7	441.6	193.6
45°	1426.0	1408.7	1351.8	1267.0	1150.0	1015.7	870.7	715.9	556.9	413.5	161.5
47.5°	1423.5	1404.6	1347.7	1257.9	1139.3	1002.6	854.3	696.9	533.0	388.8	131.0
50°	1419.4	1399.6	1338.7	1246.4	1124.5	986.1	836.1	673.9	508.3	358.3	103.8
52.5°	1406.2	1386.4	1328.8	1229.9	1107.2	967.1	811.4	650.0	481.9	328.7	79.1
55°	1389.7	1371.6	1311.5	1215.1	1084.9	944.1	788.4	624.4	456.4	298.2	56.8
57.5°	1364.2	1347.7	1290.1	1191.2	1062.7	918.5	762.8	596.4	424.3	267.7	39.5
60°	1332.9	1316.4	1260.4	1164.0	1037.2	889.7	734.8	567.6	395.4	237.3	24.7
62.5°	1299.9	1284.3	1225.8	1130.2	1005.0	859.2	704.3	538.8	364.9	209.2	14.8
65°	1256.3	1241.5	1188.7	1089.9	969.6	826.3	670.6	504.2	333.6	177.9	8.2
67.5°	1210.1	1197.0	1143.4	1052.8	928.4	790.0	636.0	470.4	300.7	150.8	4.1
70°	1160.7	1144.2	1094.8	1002.6	886.4	748.8	598.1	435.8	269.4	124.4	0.0
72.5°	1103.1	1090.7	1042.9	955.6	837.8	705.2	559.4	397.9	234.8	98.9	0.8
75°	1047.0	1031.4	987.7	905.3	790.0	659.0	516.5	362.5	201.0	75.8	0.8
77.5°	974.5	969.6	928.4	848.5	744.7	614.5	469.6	319.6	168.9	54.4	0.8
80°	902.1	897.1	865.0	791.7	692.0	561.8	425.9	279.3	137.6	36.2	0.8
82.5°	830.4	823.8	793.3	732.4	638.4	517.3	380.6	238.9	108.7	22.2	0.8
85°	766.1	757.9	724.9	668.9	583.2	467.1	333.6	199.4	80.7	12.4	1.6
87.5°	710.9	705.2	668.9	611.3	527.2	420.1	292.4	161.5	56.8	5.8	2.5
90°	664.0	651.6	619.5	558.5	474.5	368.2	248.8	129.3	37.9	3.3	3.3
92.5°	617.8	607.1	571.7	509.1	427.5	323.8	206.8	98.9	23.9	1.6	4.1
95°	570.1	558.5	523.9	466.3	379.8	278.4	169.7	72.5	13.2	1.6	4.1
97.5°	523.1	512.4	476.2	418.5	336.9	238.9	134.3	51.1	6.6	1.6	3.3
100°	479.4	467.1	434.1	376.5	294.1	199.4	103.8	33.0	4.1	1.6	3.3
102.5°	433.3	423.4	389.7	333.6	249.6	162.3	77.4	20.6	1.6	1.6	2.5
105°	392.1	379.8	346.8	289.2	212.5	127.7	54.4	12.4	1.6	1.6	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	255.4	245.5	216.7	168.1	107.9	50.3	14.8	2.5	2.5	2.5	2.5
115°	213.4	198.5	173.0	130.2	79.9	33.0	7.4	2.5	2.5	2.5	2.5
117.5°	170.5	158.2	140.0	98.9	52.7	21.4	4.1	2.5	2.5	2.5	2.5
120°	133.5	121.9	101.3	68.4	35.4	12.4	1.6	2.5	2.5	2.5	2.5
122.5°	95.6	86.5	68.4	44.5	21.4	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.4	58.5	45.3	27.2	13.2	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.2	37.1	26.4	15.7	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.1	20.6	15.7	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.2	12.4	8.2	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.6	1.6	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
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°	646.7	646.7	646.7
2.5°	615.4	603.8	600.5
5°	582.4	563.5	552.8
7.5°	549.5	523.9	511.6
10°	519.0	482.7	469.6
12.5°	482.7	440.7	420.1
15°	448.1	393.8	374.0
17.5°	409.4	348.5	325.4
20°	373.2	303.2	279.3
22.5°	332.0	258.7	232.3
25°	294.9	214.2	184.5
27.5°	253.7	168.9	143.3
30°	215.0	129.3	103.8
32.5°	177.9	94.7	71.7
35°	143.3	64.3	45.3
37.5°	110.4	39.5	23.1
40°	79.9	20.6	10.7
42.5°	53.5	9.9	5.8
45°	33.0	4.9	0.0
47.5°	18.9	0.0	0.0
50°	9.9	0.0	0.0
52.5°	4.1	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	2.5
80°	1.6	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	4.9
87.5°	4.1	4.9	5.8
90°	4.9	5.8	5.8
92.5°	4.9	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.2
102.5°	4.9	7.4	7.4
105°	4.1	5.8	6.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.6
152.5°	2.5	1.6	1.6
155°	2.5	1.6	0.8
157.5°	3.3	1.6	0.8
160°	2.5	1.6	0.8
162.5°	2.5	1.6	0.8
165°	2.5	1.6	0.0
167.5°	2.5	1.6	0.8
170°	2.5	1.6	0.8
172.5°	2.5	1.6	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°	346.0	336.1	303.2	248.8	173.8	97.2	36.2	6.6	1.6	2.5	2.5
110°	301.5	293.3	259.5	206.8	140.0	72.5	23.9	4.1	2.5	2.5	2.5





107.5°	3.3	4.9	5.8
110°	3.3	4.1	4.9



(END OF REPORT)