

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: P551287

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-82-84-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: P551287
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-82-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

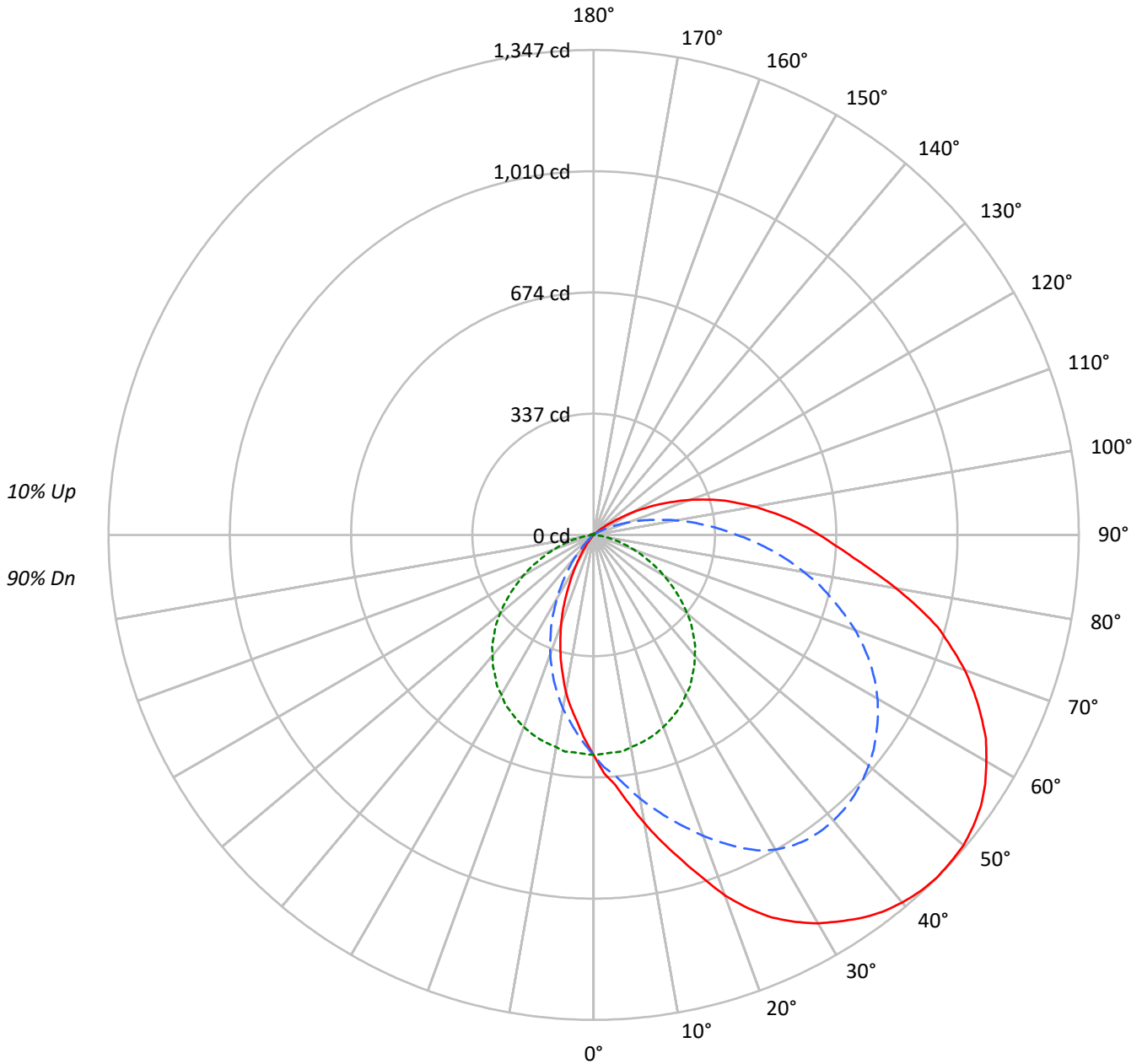
Lumens per Lamp: N/A
Luminaire Lumens: 3019.9 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): 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				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°	6576	6576	6576
5°	7219	6479	5406
10°	8168	6399	4456
15°	9154	6319	3472
20°	10324	6215	2557
25°	11294	6096	1679
30°	12017	5935	946
35°	12641	5763	417
40°	13195	5552	100
45°	13670	5285	0
50°	14069	4933	0
55°	14373	4486	0
60°	14526	3966	0
65°	14585	3376	0
70°	14538	2753	0
75°	14353	2031	12
80°	13771	1241	63
85°	13310	595	86



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	1.9
10°-20°	175.2	5.8
20°-30°	283.7	9.4
30°-40°	364.5	12.1
40°-50°	412.6	13.7
50°-60°	427.4	14.2
60°-70°	403.1	13.3
70°-80°	337.8	11.2
80°-90°	244.9	8.1
90°-100°	160.9	5.3
100°-110°	92.9	3.1
110°-120°	41.0	1.4
120°-130°	11.1	0.4
130°-140°	2.5	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	517.4	17.1
0°-40°	881.9	29.2
0°-60°	1721.9	57.0
0°-90°	2707.7	89.7
90°-120°	294.9	9.8
90°-150°	310.2	10.3
90°-180°	312.0	10.3
0°-180°	3019.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	611	611	611	611	611	
5°	697	670	606	550	522	70
15°	932	817	586	423	353	269
25°	1173	958	543	279	174	542
35°	1299	1033	477	135	43	815
45°	1347	1023	391	31	0	1040
55°	1313	958	282	0	0	1172
65°	1187	848	168	0	0	1174
75°	989	684	72	1	1	1037
85°	724	496	12	3	5	618
90°	627	398	3	5	5	344
95°	538	311	2	5	7	422
105°	370	161	2	4	6	391
115°	202	53	2	2	4	202
125°	60	7	3	2	3	60
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°	610.9	610.9	610.9	610.9	610.9	610.9	610.9	610.9	610.9	610.9	610.9
2.5°	662.2	661.5	659.1	655.2	649.8	640.4	632.7	625.7	616.3	608.5	593.8
5°	697.3	693.4	690.2	686.4	673.9	665.3	651.3	635.8	621.0	606.2	576.6
7.5°	753.3	747.1	742.4	731.5	714.4	694.9	673.1	658.3	648.2	607.0	556.4
10°	813.2	807.8	798.4	779.0	758.0	729.9	698.8	663.8	632.7	598.4	538.5
12.5°	872.3	864.6	851.3	826.4	796.9	761.8	719.0	677.8	633.4	593.0	517.5
15°	931.5	922.9	908.9	878.6	839.7	793.7	741.6	689.5	637.3	586.0	495.7
17.5°	996.1	984.4	963.4	929.2	880.1	823.3	761.8	698.8	635.8	577.4	472.4
20°	1065.3	1049.0	1026.4	980.5	922.9	856.0	782.1	708.1	635.0	567.3	445.9
22.5°	1122.9	1106.6	1081.7	1034.2	964.9	883.2	799.2	714.4	631.9	555.6	421.0
25°	1172.7	1159.5	1132.3	1077.8	1004.6	912.0	815.5	719.0	627.2	543.2	394.5
27.5°	1211.6	1199.2	1168.8	1112.8	1038.1	937.7	828.0	721.4	621.0	530.7	367.3
30°	1245.9	1233.4	1196.8	1139.3	1060.7	957.9	840.4	722.2	613.2	512.0	337.7
32.5°	1272.3	1260.7	1223.3	1161.8	1076.2	972.0	847.4	721.4	603.1	498.8	305.8
35°	1298.8	1287.1	1243.5	1178.2	1087.9	978.2	852.9	717.5	590.6	477.0	275.5
37.5°	1319.0	1305.8	1261.4	1189.1	1093.3	979.7	852.1	712.0	577.4	459.1	245.1
40°	1333.0	1319.0	1271.6	1195.3	1094.9	977.4	845.9	702.7	561.8	436.6	213.2
42.5°	1342.4	1326.8	1276.2	1204.6	1091.8	971.2	836.5	691.0	544.7	417.1	182.9
45°	1347.0	1330.7	1277.0	1196.8	1086.3	959.5	822.5	676.2	526.1	390.6	152.5
47.5°	1344.7	1326.8	1273.1	1188.3	1076.2	947.0	807.0	658.3	503.5	367.3	123.7
50°	1340.8	1322.1	1264.5	1177.4	1062.2	931.5	789.9	636.6	480.1	338.5	98.1
52.5°	1328.4	1309.7	1255.2	1161.8	1045.9	913.6	766.5	614.0	455.2	310.5	74.7
55°	1312.8	1295.7	1238.9	1147.8	1024.9	891.8	744.7	589.9	431.1	281.7	53.7
57.5°	1288.7	1273.1	1218.6	1125.3	1003.9	867.7	720.6	563.4	400.8	252.9	37.4
60°	1259.1	1243.5	1190.6	1099.6	979.7	840.4	694.1	536.2	373.5	224.1	23.3
62.5°	1228.0	1213.2	1157.9	1067.7	949.4	811.6	665.3	508.9	344.7	197.7	14.0
65°	1186.7	1172.7	1122.9	1029.5	915.9	780.5	633.4	476.2	315.2	168.1	7.8
67.5°	1143.2	1130.7	1080.1	994.5	877.0	746.3	600.8	444.3	284.0	142.4	3.9
70°	1096.5	1080.9	1034.2	947.0	837.3	707.4	565.0	411.7	254.5	117.5	0.0
72.5°	1042.0	1030.3	985.2	902.7	791.4	666.1	528.4	375.9	221.8	93.4	0.8
75°	989.1	974.3	933.0	855.2	746.3	622.5	487.9	342.4	189.9	71.6	0.8
77.5°	920.6	915.9	877.0	801.5	703.5	580.5	443.6	301.9	159.5	51.4	0.8
80°	852.1	847.4	817.1	747.8	653.7	530.7	402.3	263.8	130.0	34.2	0.8
82.5°	784.4	778.2	749.4	691.8	603.1	488.7	359.5	225.7	102.7	21.0	0.8
85°	723.7	715.9	684.8	631.9	551.0	441.2	315.2	188.3	76.3	11.7	1.6
87.5°	671.6	666.1	631.9	577.4	498.0	396.9	276.3	152.5	53.7	5.4	2.3
90°	627.2	615.5	585.2	527.6	448.2	347.8	235.0	122.2	35.8	3.1	3.1
92.5°	583.6	573.5	540.1	480.9	403.9	305.8	195.3	93.4	22.6	1.6	3.9
95°	538.5	527.6	494.9	440.5	358.7	263.0	160.3	68.5	12.5	1.6	3.9
97.5°	494.1	484.0	449.8	395.3	318.3	225.7	126.8	48.2	6.2	1.6	3.1
100°	452.9	441.2	410.1	355.6	277.8	188.3	98.1	31.1	3.9	1.6	3.1
102.5°	409.3	400.0	368.1	315.2	235.8	153.3	73.1	19.5	1.6	1.6	2.3
105°	370.4	358.7	327.6	273.1	200.8	120.6	51.4	11.7	1.6	1.6	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	241.2	231.9	204.7	158.7	101.9	47.5	14.0	2.3	2.3	2.3	2.3
115°	201.5	187.5	163.4	123.0	75.5	31.1	7.0	2.3	2.3	2.3	2.3
117.5°	161.1	149.4	132.3	93.4	49.8	20.2	3.9	2.3	2.3	2.3	2.3
120°	126.1	115.2	95.7	64.6	33.5	11.7	1.6	2.3	2.3	2.3	2.3
122.5°	90.3	81.7	64.6	42.0	20.2	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.9	55.3	42.8	25.7	12.5	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.9	35.0	24.9	14.8	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.8	19.5	14.8	8.6	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.5	11.7	7.8	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1
137.5°	0.8	0.8	1.6	1.6	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
160°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.6	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.9
172.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	610.9	610.9	610.9
2.5°	581.3	570.4	567.3
5°	550.2	532.3	522.2
7.5°	519.0	494.9	483.3
10°	490.3	456.0	443.6
12.5°	456.0	416.3	396.9
15°	423.3	372.0	353.3
17.5°	386.8	329.2	307.4
20°	352.5	286.4	263.8
22.5°	313.6	244.3	219.4
25°	278.6	202.3	174.3
27.5°	239.7	159.5	135.4
30°	203.1	122.2	98.1
32.5°	168.1	89.5	67.7
35°	135.4	60.7	42.8
37.5°	104.3	37.4	21.8
40°	75.5	19.5	10.1
42.5°	50.6	9.3	5.4
45°	31.1	4.7	0.0
47.5°	17.9	0.0	0.0
50°	9.3	0.0	0.0
52.5°	3.9	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	2.3
80°	1.6	3.1	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.7
87.5°	3.9	4.7	5.4
90°	4.7	5.4	5.4
92.5°	4.7	6.2	6.2
95°	5.4	6.2	7.0
97.5°	6.2	7.0	7.0
100°	5.4	7.0	7.8
102.5°	4.7	7.0	7.0
105°	3.9	5.4	6.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.9	3.9
115°	2.3	3.1	3.9
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.6
152.5°	2.3	1.6	1.6
155°	2.3	1.6	0.8
157.5°	3.1	1.6	0.8
160°	2.3	1.6	0.8
162.5°	2.3	1.6	0.8
165°	2.3	1.6	0.0
167.5°	2.3	1.6	0.8
170°	2.3	1.6	0.8
172.5°	2.3	1.6	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	326.8	317.5	286.4	235.0	164.2	91.8	34.2	6.2	1.6	2.3	2.3
110°	284.8	277.0	245.1	195.3	132.3	68.5	22.6	3.9	2.3	2.3	2.3





107.5°	3.1	4.7	5.4
110°	3.1	3.9	4.7



(END OF REPORT)