

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: P551357

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-87-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: P551357
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-40-UNV-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

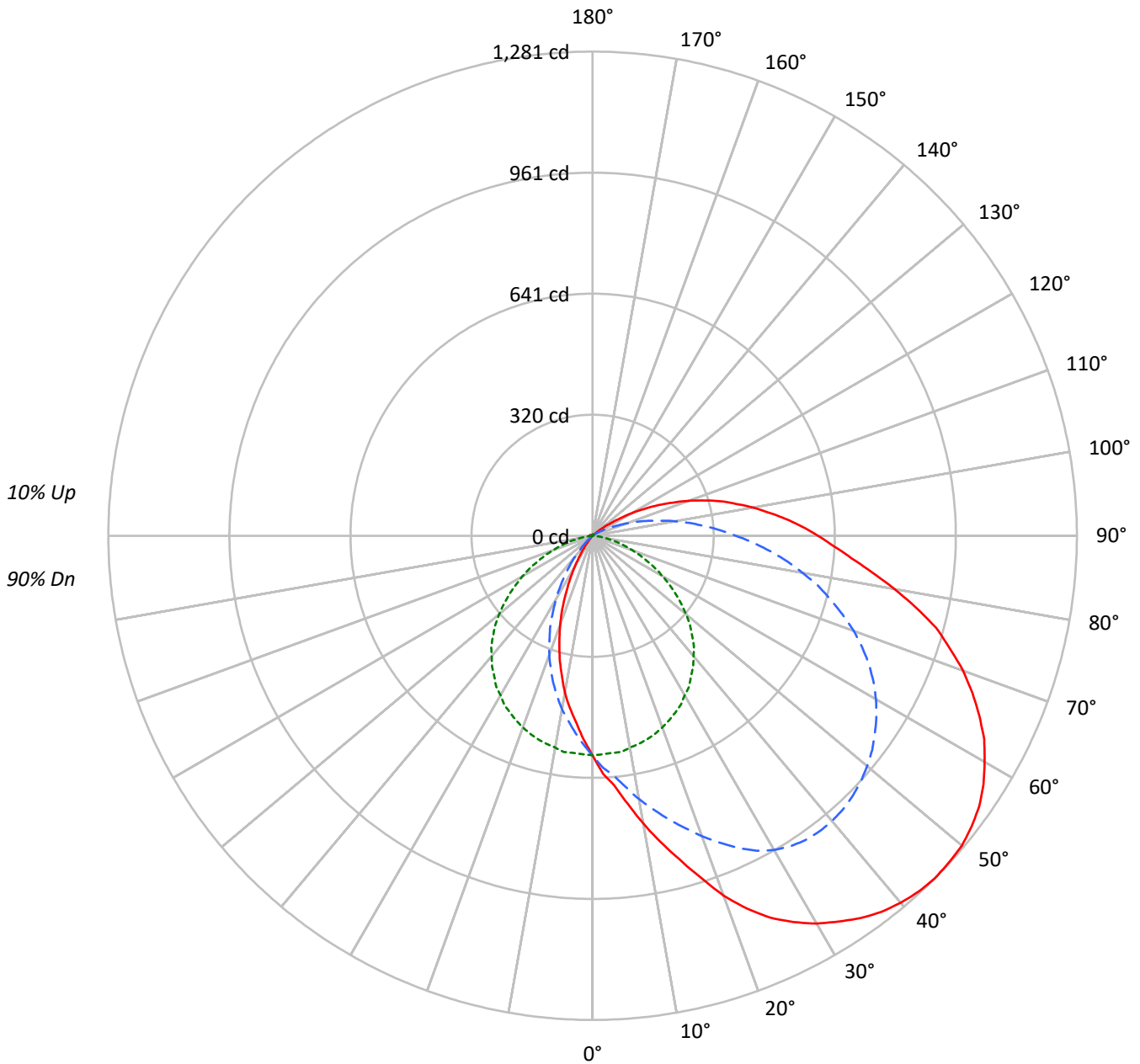
Lumens per Lamp: N/A
Luminaire Lumens: 2872.0 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	6253	6253	6253
5°	6865	6162	5141
10°	7767	6086	4237
15°	8705	6009	3302
20°	9818	5911	2431
25°	10742	5798	1597
30°	11427	5646	899
35°	12021	5481	396
40°	12548	5280	95
45°	13000	5027	0
50°	13380	4692	0
55°	13669	4266	0
60°	13814	3771	0
65°	13871	3212	0
70°	13824	2617	0
75°	13649	1931	10
80°	13097	1182	60
85°	12657	564	81



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.9
10°-20°	166.6	5.8
20°-30°	269.8	9.4
30°-40°	346.6	12.1
40°-50°	392.4	13.7
50°-60°	406.5	14.2
60°-70°	383.4	13.3
70°-80°	321.2	11.2
80°-90°	232.9	8.1
90°-100°	153.1	5.3
100°-110°	88.4	3.1
110°-120°	39.0	1.4
120°-130°	10.6	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	492.1	17.1
0°-40°	838.7	29.2
0°-60°	1637.5	57.0
0°-90°	2575.0	89.7
90°-120°	280.4	9.8
90°-150°	295.0	10.3
90°-180°	297.0	10.3
0°-180°	2872.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	581	581	581	581	581	
5°	663	637	576	523	497	67
15°	886	777	557	403	336	255
25°	1115	911	517	265	166	515
35°	1235	982	454	129	41	775
45°	1281	973	372	30	0	989
55°	1248	911	268	0	0	1115
65°	1129	807	160	0	0	1117
75°	941	651	68	1	1	987
85°	688	472	11	3	4	588
90°	596	379	3	4	5	327
95°	512	296	2	5	7	402
105°	352	153	2	4	6	372
115°	192	51	2	2	4	192
125°	57	7	3	2	3	57
135°	3	2	4	3	2	5
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°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	629.8	629.0	626.8	623.1	617.9	609.1	601.7	595.0	586.1	578.7	564.7
5°	663.1	659.4	656.4	652.7	640.9	632.7	619.4	604.6	590.6	576.5	548.4
7.5°	716.4	710.4	706.0	695.6	679.4	660.9	640.1	626.1	616.5	577.2	529.1
10°	773.3	768.2	759.3	740.8	720.8	694.2	664.6	631.3	601.7	569.1	512.1
12.5°	829.6	822.2	809.6	785.9	757.8	724.5	683.8	644.6	602.4	563.9	492.1
15°	885.8	877.7	864.4	835.5	798.5	754.8	705.3	655.7	606.1	557.3	471.4
17.5°	947.3	936.2	916.2	883.6	837.0	783.0	724.5	664.6	604.6	549.1	449.2
20°	1013.1	997.6	976.1	932.5	877.7	814.1	743.7	673.4	603.9	539.5	424.0
22.5°	1067.9	1052.3	1028.7	983.5	917.7	840.0	760.0	679.4	600.9	528.4	400.4
25°	1115.3	1102.7	1076.8	1025.0	955.4	867.3	775.6	683.8	596.5	516.6	375.2
27.5°	1152.3	1140.4	1111.6	1058.3	987.2	891.8	787.4	686.0	590.6	504.7	349.3
30°	1184.8	1173.0	1138.2	1083.4	1008.7	911.0	799.3	686.8	583.2	487.0	321.2
32.5°	1210.0	1198.9	1163.4	1104.9	1023.5	924.3	805.9	686.0	573.5	474.4	290.8
35°	1235.1	1224.0	1182.6	1120.4	1034.6	930.2	811.1	682.3	561.7	453.6	262.0
37.5°	1254.4	1241.8	1199.6	1130.8	1039.8	931.7	810.4	677.1	549.1	436.6	233.1
40°	1267.7	1254.4	1209.2	1136.7	1041.2	929.5	804.4	668.3	534.3	415.2	202.8
42.5°	1276.6	1261.8	1213.7	1145.6	1038.3	923.6	795.6	657.2	518.0	396.7	173.9
45°	1281.0	1265.5	1214.4	1138.2	1033.1	912.5	782.2	643.1	500.3	371.5	145.0
47.5°	1278.8	1261.8	1210.7	1130.1	1023.5	900.6	767.4	626.1	478.8	349.3	117.7
50°	1275.1	1257.3	1202.6	1119.7	1010.2	885.8	751.1	605.4	456.6	321.9	93.2
52.5°	1263.3	1245.5	1193.7	1104.9	994.6	868.8	728.9	583.9	432.9	295.3	71.0
55°	1248.5	1232.2	1178.2	1091.6	974.6	848.1	708.2	561.0	410.0	267.9	51.1
57.5°	1225.5	1210.7	1158.9	1070.1	954.7	825.2	685.3	535.8	381.1	240.5	35.5
60°	1197.4	1182.6	1132.3	1045.7	931.7	799.3	660.1	509.9	355.2	213.1	22.2
62.5°	1167.8	1153.7	1101.2	1015.3	902.9	771.9	632.7	484.0	327.8	188.0	13.3
65°	1128.6	1115.3	1067.9	979.1	871.0	742.3	602.4	452.9	299.7	159.9	7.4
67.5°	1087.1	1075.3	1027.2	945.8	834.0	709.7	571.3	422.6	270.1	135.4	3.7
70°	1042.7	1027.9	983.5	900.6	796.3	672.7	537.3	391.5	242.0	111.7	0.0
72.5°	990.9	979.8	936.9	858.5	752.6	633.5	502.5	357.4	210.9	88.8	0.7
75°	940.6	926.5	887.3	813.3	709.7	592.0	464.0	325.6	180.6	68.1	0.7
77.5°	875.5	871.0	834.0	762.2	669.0	552.1	421.8	287.1	151.7	48.8	0.7
80°	810.4	805.9	777.0	711.2	621.6	504.7	382.6	250.9	123.6	32.6	0.7
82.5°	746.0	740.0	712.7	657.9	573.5	464.7	341.9	214.6	97.7	20.0	0.7
85°	688.2	680.8	651.2	600.9	524.0	419.6	299.7	179.1	72.5	11.1	1.5
87.5°	638.7	633.5	600.9	549.1	473.6	377.4	262.7	145.0	51.1	5.2	2.2
90°	596.5	585.4	556.5	501.8	426.3	330.8	223.5	116.2	34.0	3.0	3.0
92.5°	555.0	545.4	513.6	457.3	384.1	290.8	185.8	88.8	21.5	1.5	3.7
95°	512.1	501.8	470.7	418.9	341.2	250.1	152.4	65.1	11.8	1.5	3.7
97.5°	469.9	460.3	427.7	375.9	302.7	214.6	120.6	45.9	5.9	1.5	3.0
100°	430.7	419.6	390.0	338.2	264.2	179.1	93.2	29.6	3.7	1.5	3.0
102.5°	389.3	380.4	350.0	299.7	224.2	145.8	69.6	18.5	1.5	1.5	2.2
105°	352.3	341.2	311.6	259.8	190.9	114.7	48.8	11.1	1.5	1.5	2.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	229.4	220.5	194.6	151.0	96.9	45.1	13.3	2.2	2.2	2.2	2.2
115°	191.7	178.4	155.4	116.9	71.8	29.6	6.7	2.2	2.2	2.2	2.2
117.5°	153.2	142.1	125.8	88.8	47.4	19.2	3.7	2.2	2.2	2.2	2.2
120°	119.9	109.5	91.0	61.4	31.8	11.1	1.5	2.2	2.2	2.2	2.2
122.5°	85.8	77.7	61.4	40.0	19.2	5.2	2.2	2.2	3.0	3.0	2.2
125°	57.0	52.5	40.7	24.4	11.8	2.2	2.2	2.2	3.0	3.0	2.2
127.5°	37.0	33.3	23.7	14.1	5.2	2.2	2.2	3.0	3.0	3.0	2.2
130°	20.7	18.5	14.1	8.1	2.2	2.2	2.2	3.0	3.0	3.0	2.2
132.5°	11.8	11.1	7.4	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	3.0	3.7	3.7	3.7	3.0
140°	0.7	0.7	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.0
142.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
145°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
150°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
152.5°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
157.5°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
160°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.0
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	580.9	580.9	580.9
2.5°	552.8	542.5	539.5
5°	523.2	506.2	496.6
7.5°	493.6	470.7	459.6
10°	466.2	433.7	421.8
12.5°	433.7	395.9	377.4
15°	402.6	353.7	336.0
17.5°	367.8	313.0	292.3
20°	335.2	272.3	250.9
22.5°	298.2	232.4	208.7
25°	264.9	192.4	165.8
27.5°	227.9	151.7	128.8
30°	193.2	116.2	93.2
32.5°	159.9	85.1	64.4
35°	128.8	57.7	40.7
37.5°	99.2	35.5	20.7
40°	71.8	18.5	9.6
42.5°	48.1	8.9	5.2
45°	29.6	4.4	0.0
47.5°	17.0	0.0	0.0
50°	8.9	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	3.0	3.7
82.5°	3.0	3.7	3.7
85°	3.0	3.7	4.4
87.5°	3.7	4.4	5.2
90°	4.4	5.2	5.2
92.5°	4.4	5.9	5.9
95°	5.2	5.9	6.7
97.5°	5.9	6.7	6.7
100°	5.2	6.7	7.4
102.5°	4.4	6.7	6.7
105°	3.7	5.2	5.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.0	3.7	3.7
115°	2.2	3.0	3.7
117.5°	2.2	3.0	3.0
120°	2.2	2.2	3.0
122.5°	2.2	2.2	3.0
125°	2.2	2.2	3.0
127.5°	3.0	2.2	2.2
130°	2.2	2.2	2.2
132.5°	3.0	2.2	2.2
135°	3.0	2.2	2.2
137.5°	3.0	2.2	2.2
140°	3.0	2.2	2.2
142.5°	3.0	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	3.0	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	310.8	301.9	272.3	223.5	156.1	87.3	32.6	5.9	1.5	2.2	2.2
110°	270.9	263.5	233.1	185.8	125.8	65.1	21.5	3.7	2.2	2.2	2.2





107.5°	3.0	4.4	5.2
110°	3.0	3.7	4.4



(END OF REPORT)