

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: P551407

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-81-88-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: P551407
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

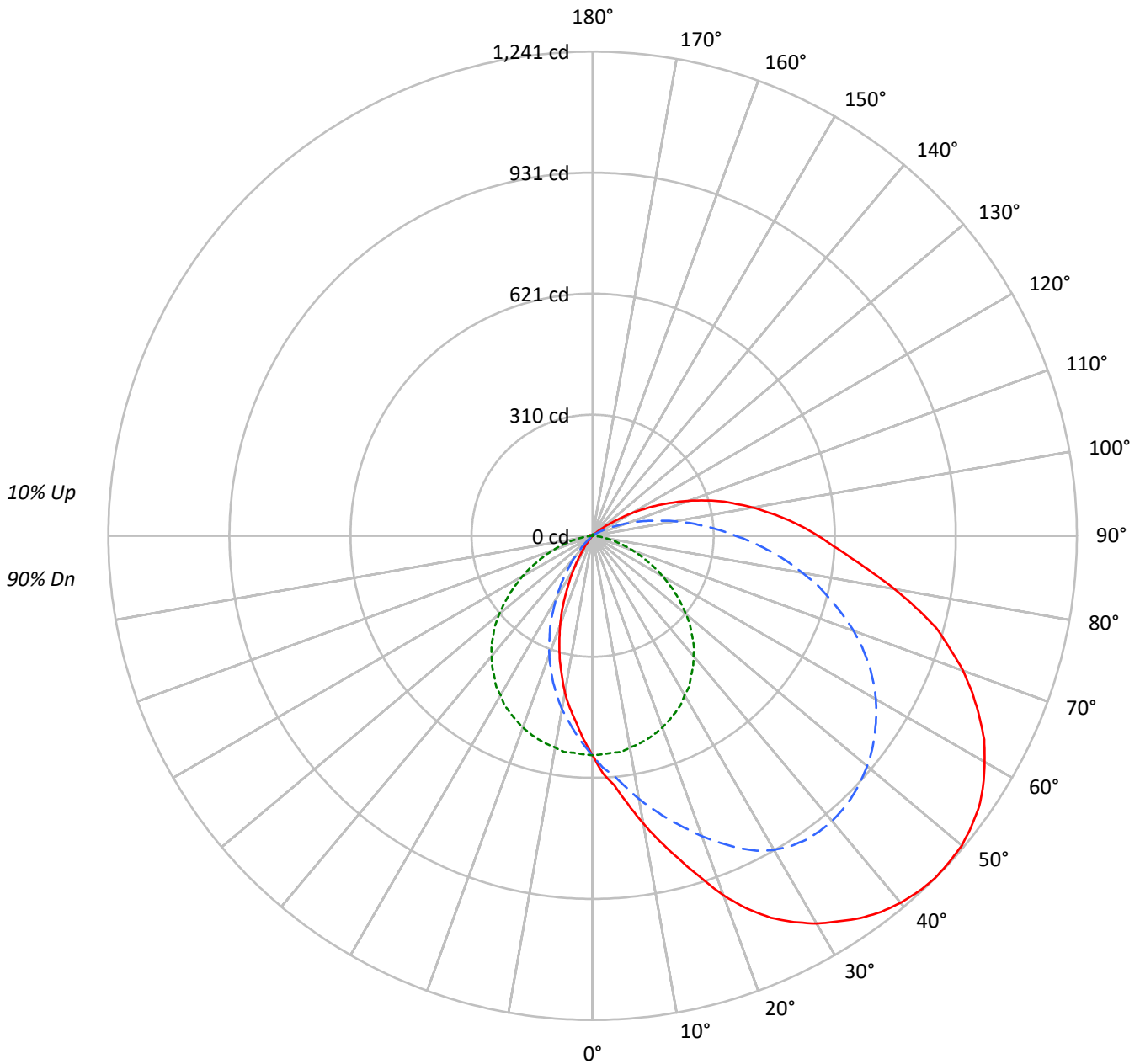
Lumens per Lamp: N/A
Luminaire Lumens: 2782.1 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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: P551407

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-88-ED1D-90

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°	6057	6057	6057
5°	6649	5968	4979
10°	7524	5896	4104
15°	8433	5820	3199
20°	9511	5726	2355
25°	10405	5616	1547
30°	11069	5468	871
35°	11644	5309	383
40°	12155	5115	92
45°	12593	4870	0
50°	12960	4544	0
55°	13240	4132	0
60°	13381	3654	0
65°	13436	3109	0
70°	13391	2535	0
75°	13221	1872	10
80°	12686	1143	58
85°	12262	549	79



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.9
10°-20°	161.4	5.8
20°-30°	261.4	9.4
30°-40°	335.7	12.1
40°-50°	380.1	13.7
50°-60°	393.7	14.2
60°-70°	371.3	13.3
70°-80°	311.2	11.2
80°-90°	225.6	8.1
90°-100°	148.3	5.3
100°-110°	85.6	3.1
110°-120°	37.8	1.4
120°-130°	10.3	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°	476.7	17.1
0°-40°	812.4	29.2
0°-60°	1586.2	57.0
0°-90°	2494.3	89.7
90°-120°	271.7	9.8
90°-150°	285.9	10.3
90°-180°	288.0	10.4
0°-180°	2782.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	563	563	563	563	563	
5°	642	617	558	507	481	65
15°	858	752	540	390	326	247
25°	1080	883	500	257	161	499
35°	1196	952	439	125	39	750
45°	1241	942	360	29	0	958
55°	1209	883	260	0	0	1080
65°	1093	781	155	0	0	1082
75°	911	630	66	1	1	956
85°	667	457	11	3	4	569
90°	578	367	3	4	5	317
95°	496	286	1	5	6	389
105°	341	148	1	4	6	360
115°	186	49	2	2	4	186
125°	55	7	3	2	3	55
135°	3	2	4	3	2	5
145°	1	3	3	2	2	1
155°	1	3	3	2	1	1
165°	1	2	3	2	0	0
175°	1	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°	562.7	562.7	562.7	562.7	562.7	562.7	562.7	562.7	562.7	562.7	562.7
2.5°	610.0	609.3	607.2	603.6	598.6	590.0	582.8	576.4	567.7	560.6	547.0
5°	642.3	638.7	635.9	632.3	620.8	612.9	600.0	585.7	572.1	558.4	531.2
7.5°	693.9	688.2	683.9	673.8	658.1	640.2	620.1	606.5	597.1	559.1	512.6
10°	749.1	744.1	735.5	717.6	698.2	672.4	643.7	611.5	582.8	551.3	496.1
12.5°	803.6	796.4	784.2	761.3	734.1	701.8	662.4	624.4	583.5	546.2	476.7
15°	858.1	850.2	837.3	809.3	773.5	731.2	683.2	635.1	587.1	539.8	456.6
17.5°	917.6	906.8	887.5	855.9	810.8	758.4	701.8	643.7	585.7	531.9	435.1
20°	981.4	966.3	945.5	903.2	850.2	788.5	720.4	652.3	585.0	522.6	410.8
22.5°	1034.4	1019.4	996.4	952.7	888.9	813.6	736.2	658.1	582.1	511.8	387.8
25°	1080.3	1068.1	1043.0	992.8	925.5	840.2	751.3	662.4	577.8	500.4	363.4
27.5°	1116.1	1104.7	1076.7	1025.1	956.3	863.8	762.7	664.5	572.1	488.9	338.4
30°	1147.7	1136.2	1102.5	1049.5	977.1	882.4	774.2	665.2	564.9	471.7	311.1
32.5°	1172.1	1161.3	1126.9	1070.3	991.4	895.4	780.7	664.5	555.6	459.5	281.7
35°	1196.4	1185.7	1145.5	1085.3	1002.2	901.1	785.7	660.9	544.1	439.4	253.8
37.5°	1215.1	1202.9	1162.0	1095.4	1007.2	902.5	785.0	655.9	531.9	422.9	225.8
40°	1228.0	1215.1	1171.3	1101.1	1008.6	900.4	779.2	647.3	517.6	402.2	196.4
42.5°	1236.6	1222.2	1175.6	1109.7	1005.7	894.6	770.6	636.6	501.8	384.2	168.5
45°	1240.9	1225.8	1176.4	1102.5	1000.7	883.9	757.7	622.9	484.6	359.9	140.5
47.5°	1238.7	1222.2	1172.8	1094.6	991.4	872.4	743.4	606.5	463.8	338.4	114.0
50°	1235.1	1217.9	1164.9	1084.6	978.5	858.1	727.6	586.4	442.3	311.8	90.3
52.5°	1223.7	1206.5	1156.3	1070.3	963.5	841.6	706.1	565.6	419.4	286.0	68.8
55°	1209.3	1193.6	1141.2	1057.4	944.1	821.5	686.0	543.4	397.1	259.5	49.5
57.5°	1187.1	1172.8	1122.6	1036.6	924.7	799.3	663.8	519.0	369.2	233.0	34.4
60°	1159.9	1145.5	1096.8	1012.9	902.5	774.2	639.4	493.9	344.1	206.5	21.5
62.5°	1131.2	1117.6	1066.7	983.5	874.6	747.7	612.9	468.8	317.6	182.1	12.9
65°	1093.2	1080.3	1034.4	948.4	843.7	719.0	583.5	438.7	290.3	154.8	7.2
67.5°	1053.1	1041.6	995.0	916.1	807.9	687.5	553.4	409.3	261.7	131.2	3.6
70°	1010.0	995.7	952.7	872.4	771.3	651.6	520.4	379.2	234.4	108.2	0.0
72.5°	959.9	949.1	907.5	831.6	729.0	613.6	486.7	346.2	204.3	86.0	0.7
75°	911.1	897.5	859.5	787.8	687.5	573.5	449.5	315.4	174.9	66.0	0.7
77.5°	848.0	843.7	807.9	738.4	648.0	534.8	408.6	278.1	147.0	47.3	0.7
80°	785.0	780.7	752.7	688.9	602.2	488.9	370.6	243.0	119.7	31.5	0.7
82.5°	722.6	716.9	690.3	637.3	555.6	450.2	331.2	207.9	94.6	19.4	0.7
85°	666.7	659.5	630.8	582.1	507.5	406.5	290.3	173.5	70.3	10.8	1.4
87.5°	618.6	613.6	582.1	531.9	458.8	365.6	254.5	140.5	49.5	5.0	2.2
90°	577.8	567.0	539.1	486.0	412.9	320.4	216.5	112.5	33.0	2.9	2.9
92.5°	537.6	528.3	497.5	443.0	372.0	281.7	179.9	86.0	20.8	1.4	3.6
95°	496.1	486.0	455.9	405.7	330.5	242.3	147.7	63.1	11.5	1.4	3.6
97.5°	455.2	445.9	414.3	364.2	293.2	207.9	116.8	44.4	5.7	1.4	2.9
100°	417.2	406.5	377.8	327.6	255.9	173.5	90.3	28.7	3.6	1.4	2.9
102.5°	377.1	368.5	339.1	290.3	217.2	141.2	67.4	17.9	1.4	1.4	2.2
105°	341.2	330.5	301.8	251.6	184.9	111.1	47.3	10.8	1.4	1.4	2.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	222.2	213.6	188.5	146.2	93.9	43.7	12.9	2.2	2.2	2.2	2.2
115°	185.7	172.8	150.5	113.3	69.5	28.7	6.5	2.2	2.2	2.2	2.2
117.5°	148.4	137.6	121.9	86.0	45.9	18.6	3.6	2.2	2.2	2.2	2.2
120°	116.1	106.1	88.2	59.5	30.8	10.8	1.4	2.2	2.2	2.2	2.2
122.5°	83.2	75.3	59.5	38.7	18.6	5.0	2.2	2.2	2.9	2.9	2.2
125°	55.2	50.9	39.4	23.7	11.5	2.2	2.2	2.2	2.9	2.9	2.2
127.5°	35.8	32.3	22.9	13.6	5.0	2.2	2.2	2.9	2.9	2.9	2.2
130°	20.1	17.9	13.6	7.9	2.2	2.2	2.2	2.9	2.9	2.9	2.2
132.5°	11.5	10.8	7.2	1.4	2.2	2.2	2.2	2.9	2.9	2.9	2.9
135°	2.9	1.4	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	2.9
137.5°	0.7	0.7	1.4	1.4	2.2	2.2	2.9	3.6	3.6	3.6	2.9
140°	0.7	0.7	1.4	2.2	2.2	2.2	2.9	3.6	3.6	3.6	2.9
142.5°	0.7	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	2.9	2.9
145°	0.7	1.4	1.4	2.2	2.2	2.9	2.9	3.6	2.9	2.9	2.9
147.5°	1.4	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	2.9	2.9
150°	0.7	1.4	1.4	2.2	2.9	2.9	2.9	3.6	2.9	2.9	2.9
152.5°	0.7	1.4	1.4	2.2	2.9	2.9	2.9	3.6	2.9	2.9	2.9
155°	1.4	1.4	1.4	2.2	2.9	2.9	2.9	3.6	2.9	2.9	3.6
157.5°	1.4	1.4	1.4	2.2	2.9	2.9	2.9	3.6	2.9	2.9	3.6
160°	1.4	1.4	1.4	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
162.5°	1.4	1.4	1.4	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9
165°	1.4	1.4	1.4	1.4	2.2	2.2	2.9	2.9	2.9	2.9	2.9
167.5°	1.4	1.4	1.4	2.2	2.2	2.2	2.9	2.9	2.9	2.9	2.9
170°	1.4	1.4	1.4	2.2	2.2	2.2	2.9	3.6	3.6	3.6	3.6
172.5°	1.4	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	3.6	3.6
175°	1.4	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	3.6	3.6
177.5°	0.7	1.4	1.4	2.2	2.2	2.9	2.9	3.6	3.6	3.6	2.9
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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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-81-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	562.7	562.7	562.7
2.5°	535.5	525.5	522.6
5°	506.8	490.3	481.0
7.5°	478.1	455.9	445.2
10°	451.6	420.1	408.6
12.5°	420.1	383.5	365.6
15°	390.0	342.7	325.5
17.5°	356.3	303.2	283.2
20°	324.7	263.8	243.0
22.5°	288.9	225.1	202.2
25°	256.6	186.4	160.6
27.5°	220.8	147.0	124.7
30°	187.1	112.5	90.3
32.5°	154.8	82.4	62.4
35°	124.7	55.9	39.4
37.5°	96.1	34.4	20.1
40°	69.5	17.9	9.3
42.5°	46.6	8.6	5.0
45°	28.7	4.3	0.0
47.5°	16.5	0.0	0.0
50°	8.6	0.0	0.0
52.5°	3.6	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	1.4	2.2
80°	1.4	2.9	3.6
82.5°	2.9	3.6	3.6
85°	2.9	3.6	4.3
87.5°	3.6	4.3	5.0
90°	4.3	5.0	5.0
92.5°	4.3	5.7	5.7
95°	5.0	5.7	6.5
97.5°	5.7	6.5	6.5
100°	5.0	6.5	7.2
102.5°	4.3	6.5	6.5
105°	3.6	5.0	5.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.9	3.6	3.6
115°	2.2	2.9	3.6
117.5°	2.2	2.9	2.9
120°	2.2	2.2	2.9
122.5°	2.2	2.2	2.9
125°	2.2	2.2	2.9
127.5°	2.9	2.2	2.2
130°	2.2	2.2	2.2
132.5°	2.9	2.2	2.2
135°	2.9	2.2	2.2
137.5°	2.9	2.2	2.2
140°	2.9	2.2	2.2
142.5°	2.9	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.4
152.5°	2.2	1.4	1.4
155°	2.2	1.4	0.7
157.5°	2.9	1.4	0.7
160°	2.2	1.4	0.7
162.5°	2.2	1.4	0.7
165°	2.2	1.4	0.0
167.5°	2.2	1.4	0.7
170°	2.2	1.4	0.7
172.5°	2.2	1.4	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°	301.1	292.5	263.8	216.5	151.3	84.6	31.5	5.7	1.4	2.2	2.2
110°	262.4	255.2	225.8	179.9	121.9	63.1	20.8	3.6	2.2	2.2	2.2





107.5°	2.9	4.3	5.0
110°	2.9	3.6	4.3



(END OF REPORT)