

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: P551665

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-81-94-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: P551665
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-LD4-2LO-50-UNV-81-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

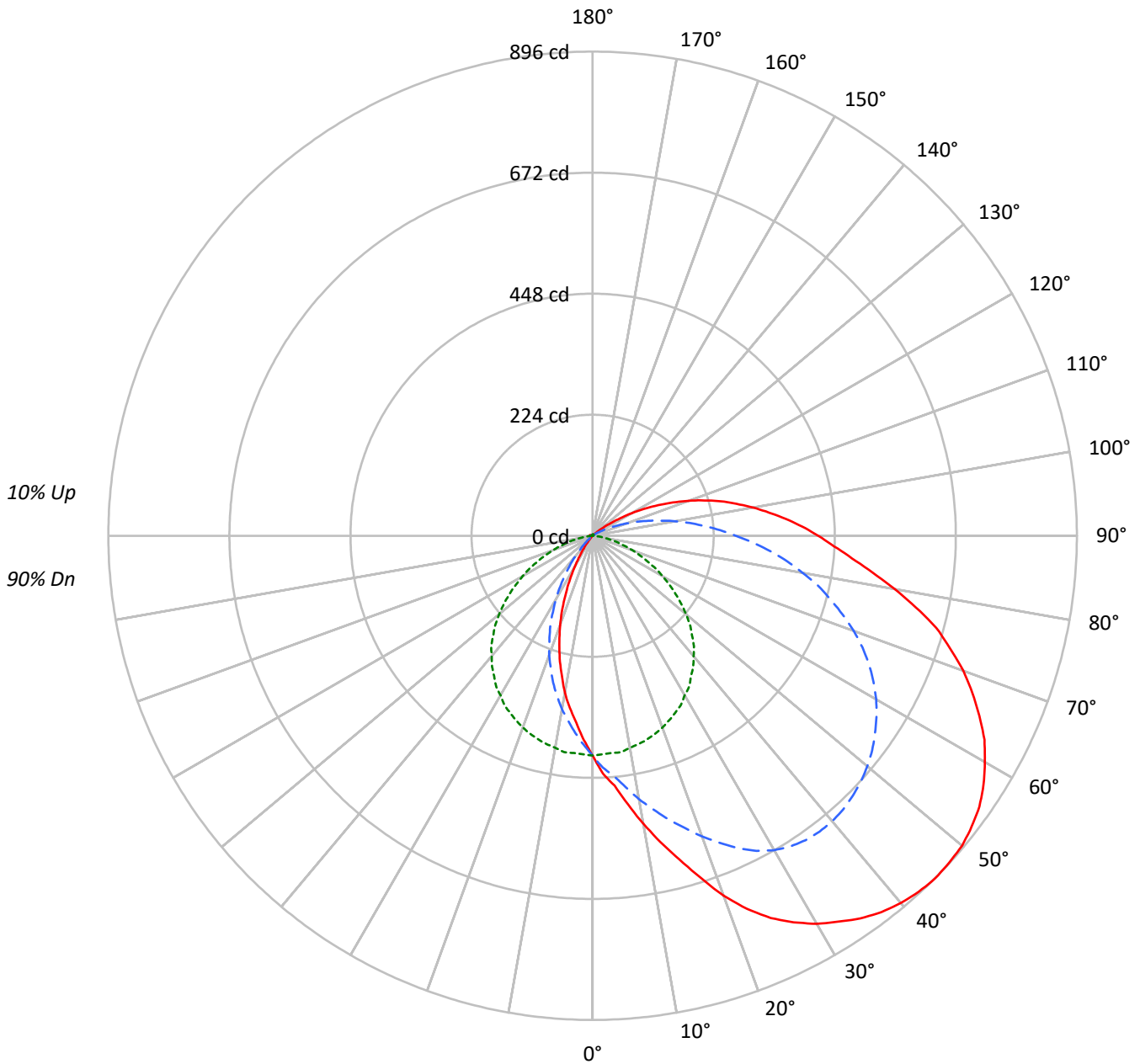
Lumens per Lamp: N/A
Luminaire Lumens: 2010.1 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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: P551665

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-94-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°	4377	4377	4377
5°	4804	4313	3597
10°	5436	4260	2965
15°	6093	4205	2310
20°	6871	4137	1702
25°	7517	4057	1117
30°	7998	3951	630
35°	8413	3836	277
40°	8782	3696	66
45°	9098	3518	0
50°	9364	3284	0
55°	9566	2986	0
60°	9668	2640	0
65°	9707	2248	0
70°	9676	1832	0
75°	9553	1350	7
80°	9165	827	42
85°	8859	397	57



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	1.9
10°-20°	116.6	5.8
20°-30°	188.8	9.4
30°-40°	242.6	12.1
40°-50°	274.6	13.7
50°-60°	284.5	14.2
60°-70°	268.3	13.3
70°-80°	224.8	11.2
80°-90°	163.0	8.1
90°-100°	107.1	5.3
100°-110°	61.9	3.1
110°-120°	27.3	1.4
120°-130°	7.4	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	344.4	17.1
0°-40°	587.0	29.2
0°-60°	1146.0	57.0
0°-90°	1802.1	89.7
90°-120°	196.3	9.8
90°-150°	206.6	10.3
90°-180°	208.0	10.3
0°-180°	2010.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	407	407	407	407	407	
5°	464	446	404	366	348	47
15°	620	544	390	282	235	179
25°	780	638	362	185	116	361
35°	864	688	318	90	28	542
45°	896	681	260	21	0	692
55°	874	638	188	0	0	780
65°	790	565	112	0	0	781
75°	658	456	48	0	0	690
85°	482	330	8	2	3	411
90°	418	265	2	3	4	229
95°	358	207	1	4	5	281
105°	246	107	1	3	4	260
115°	134	35	2	2	3	134
125°	40	5	2	2	2	40
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	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°	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6	406.6
2.5°	440.8	440.2	438.7	436.1	432.5	426.3	421.1	416.4	410.2	405.0	395.2
5°	464.1	461.5	459.4	456.8	448.5	442.8	433.5	423.1	413.3	403.5	383.8
7.5°	501.4	497.2	494.1	486.9	475.5	462.5	448.0	438.2	431.4	404.0	370.3
10°	541.2	537.6	531.4	518.4	504.5	485.8	465.1	441.8	421.1	398.3	358.4
12.5°	580.6	575.4	566.6	550.0	530.4	507.1	478.6	451.1	421.6	394.7	344.4
15°	620.0	614.3	604.9	584.7	558.8	528.3	493.6	458.9	424.2	390.0	329.9
17.5°	662.9	655.2	641.2	618.4	585.8	548.0	507.1	465.1	423.1	384.3	314.4
20°	709.0	698.2	683.1	652.6	614.3	569.7	520.5	471.3	422.6	377.6	296.8
22.5°	747.4	736.5	719.9	688.3	642.2	587.9	531.9	475.5	420.6	369.8	280.2
25°	780.5	771.7	753.6	717.3	668.6	607.0	542.8	478.6	417.5	361.5	262.6
27.5°	806.4	798.1	777.9	740.6	690.9	624.1	551.1	480.1	413.3	353.2	244.5
30°	829.2	820.9	796.6	758.2	705.9	637.6	559.4	480.6	408.1	340.8	224.8
32.5°	846.8	839.0	814.2	773.3	716.3	646.9	564.0	480.1	401.4	332.0	203.5
35°	864.4	856.7	827.7	784.1	724.1	651.0	567.7	477.5	393.1	317.5	183.3
37.5°	877.9	869.1	839.6	791.4	727.7	652.1	567.1	473.9	384.3	305.6	163.1
40°	887.2	877.9	846.3	795.5	728.7	650.5	563.0	467.7	373.9	290.6	141.9
42.5°	893.4	883.1	849.4	801.8	726.7	646.4	556.8	459.9	362.6	277.6	121.7
45°	896.5	885.7	849.9	796.6	723.0	638.6	547.5	450.1	350.1	260.0	101.5
47.5°	895.0	883.1	847.3	790.9	716.3	630.3	537.1	438.2	335.1	244.5	82.4
50°	892.4	880.0	841.6	783.6	707.0	620.0	525.7	423.7	319.6	225.3	65.3
52.5°	884.1	871.7	835.4	773.3	696.1	608.0	510.2	408.6	303.0	206.7	49.7
55°	873.7	862.4	824.5	763.9	682.1	593.5	495.7	392.6	286.9	187.5	35.7
57.5°	857.7	847.3	811.1	748.9	668.1	577.5	479.6	375.0	266.7	168.3	24.9
60°	838.0	827.7	792.4	731.8	652.1	559.4	462.0	356.9	248.6	149.2	15.5
62.5°	817.3	807.5	770.7	710.6	631.9	540.2	442.8	338.7	229.4	131.6	9.3
65°	789.8	780.5	747.4	685.2	609.6	519.5	421.6	317.0	209.8	111.9	5.2
67.5°	760.8	752.6	718.9	661.9	583.7	496.7	399.8	295.7	189.0	94.8	2.6
70°	729.8	719.4	688.3	630.3	557.3	470.8	376.0	274.0	169.4	78.2	0.0
72.5°	693.5	685.7	655.7	600.8	526.7	443.3	351.7	250.2	147.6	62.2	0.5
75°	658.3	648.4	621.0	569.2	496.7	414.3	324.7	227.9	126.4	47.6	0.5
77.5°	612.7	609.6	583.7	533.5	468.2	386.4	295.2	201.0	106.2	34.2	0.5
80°	567.1	564.0	543.8	497.7	435.1	353.2	267.8	175.6	86.5	22.8	0.5
82.5°	522.1	517.9	498.8	460.4	401.4	325.3	239.3	150.2	68.4	14.0	0.5
85°	481.7	476.5	455.8	420.6	366.7	293.7	209.8	125.3	50.8	7.8	1.0
87.5°	447.0	443.3	420.6	384.3	331.5	264.1	183.9	101.5	35.7	3.6	1.6
90°	417.5	409.7	389.5	351.2	298.3	231.5	156.4	81.3	23.8	2.1	2.1
92.5°	388.4	381.7	359.4	320.1	268.8	203.5	130.0	62.2	15.0	1.0	2.6
95°	358.4	351.2	329.4	293.1	238.8	175.1	106.7	45.6	8.3	1.0	2.6
97.5°	328.9	322.2	299.4	263.1	211.8	150.2	84.4	32.1	4.1	1.0	2.1
100°	301.4	293.7	272.9	236.7	184.9	125.3	65.3	20.7	2.6	1.0	2.1
102.5°	272.4	266.2	245.0	209.8	156.9	102.0	48.7	12.9	1.0	1.0	1.6
105°	246.5	238.8	218.0	181.8	133.6	80.3	34.2	7.8	1.0	1.0	1.6



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-81-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	160.6	154.3	136.2	105.7	67.8	31.6	9.3	1.6	1.6	1.6	1.6
115°	134.1	124.8	108.8	81.8	50.2	20.7	4.7	1.6	1.6	1.6	1.6
117.5°	107.2	99.4	88.0	62.2	33.1	13.5	2.6	1.6	1.6	1.6	1.6
120°	83.9	76.7	63.7	43.0	22.3	7.8	1.0	1.6	1.6	1.6	1.6
122.5°	60.1	54.4	43.0	28.0	13.5	3.6	1.6	1.6	2.1	2.1	1.6
125°	39.9	36.8	28.5	17.1	8.3	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	25.9	23.3	16.6	9.8	3.6	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.5	12.9	9.8	5.7	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.3	7.8	5.2	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.6	1.6	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.6	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.6	1.6	1.6	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.6	1.6	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	406.6	406.6	406.6
2.5°	386.9	379.6	377.6
5°	366.2	354.3	347.5
7.5°	345.5	329.4	321.6
10°	326.3	303.5	295.2
12.5°	303.5	277.1	264.1
15°	281.8	247.6	235.1
17.5°	257.4	219.1	204.6
20°	234.6	190.6	175.6
22.5°	208.7	162.6	146.1
25°	185.4	134.7	116.0
27.5°	159.5	106.2	90.1
30°	135.2	81.3	65.3
32.5°	111.9	59.6	45.1
35°	90.1	40.4	28.5
37.5°	69.4	24.9	14.5
40°	50.2	12.9	6.7
42.5°	33.7	6.2	3.6
45°	20.7	3.1	0.0
47.5°	11.9	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.6
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.7
97.5°	4.1	4.7	4.7
100°	3.6	4.7	5.2
102.5°	3.1	4.7	4.7
105°	2.6	3.6	4.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.6	2.1	2.6
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.0
152.5°	1.6	1.0	1.0
155°	1.6	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.6	1.0	0.5
162.5°	1.6	1.0	0.5
165°	1.6	1.0	0.0
167.5°	1.6	1.0	0.5
170°	1.6	1.0	0.5
172.5°	1.6	1.0	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	217.5	211.3	190.6	156.4	109.3	61.1	22.8	4.1	1.0	1.6	1.6
110°	189.6	184.4	163.1	130.0	88.0	45.6	15.0	2.6	1.6	1.6	1.6





107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)