

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: P551139

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-80-96-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: P551139  
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-LD4-1STD-50-UNV-80-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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**

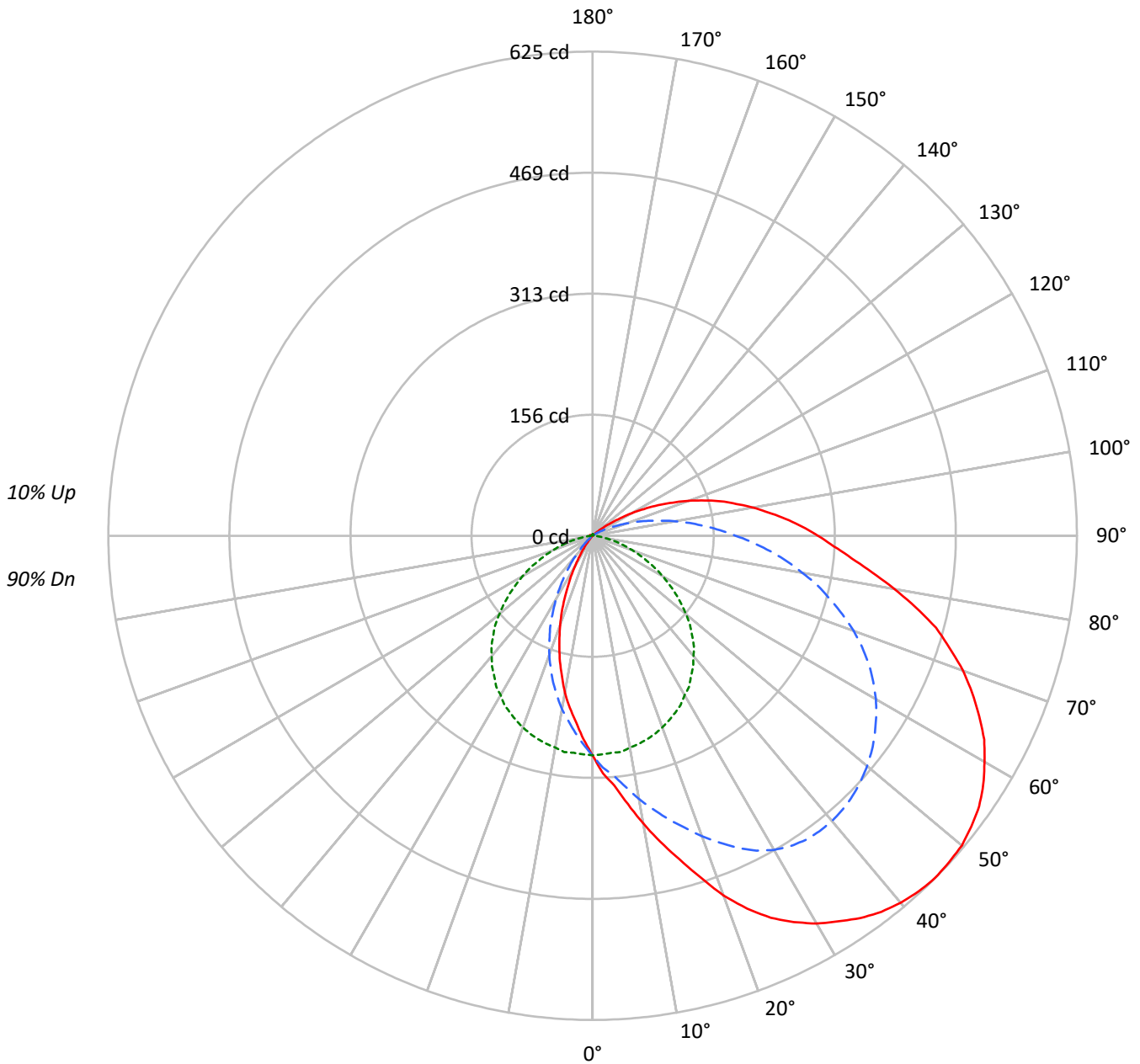
Lumens per Lamp: N/A  
Luminaire Lumens: 1400.9 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P551139

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-96-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°	3050	3050	3050
5°	3349	3006	2507
10°	3789	2969	2067
15°	4246	2931	1611
20°	4789	2884	1186
25°	5239	2828	779
30°	5575	2753	439
35°	5864	2674	194
40°	6121	2575	47
45°	6342	2452	0
50°	6527	2288	0
55°	6668	2081	0
60°	6739	1840	0
65°	6766	1567	0
70°	6744	1277	0
75°	6658	942	6
80°	6388	577	29
85°	6174	275	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.1	1.9
10°-20°	81.3	5.8
20°-30°	131.6	9.4
30°-40°	169.1	12.1
40°-50°	191.4	13.7
50°-60°	198.3	14.2
60°-70°	187.0	13.3
70°-80°	156.7	11.2
80°-90°	113.6	8.1
90°-100°	74.7	5.3
100°-110°	43.1	3.1
110°-120°	19.0	1.4
120°-130°	5.2	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	240.0	17.1
0°-40°	409.1	29.2
0°-60°	798.8	57.0
0°-90°	1256.1	89.7
90°-120°	136.8	9.8
90°-150°	143.9	10.3
90°-180°	145.0	10.4
0°-180°	1400.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	283	283	283	283	283	
5°	324	311	281	255	242	33
15°	432	379	272	196	164	125
25°	544	445	252	129	81	251
35°	602	479	221	63	20	378
45°	625	475	181	14	0	482
55°	609	445	131	0	0	544
65°	550	394	78	0	0	545
75°	459	318	33	0	0	481
85°	336	230	5	1	2	287
90°	291	185	1	2	2	160
95°	250	144	1	2	3	196
105°	172	75	1	2	3	181
115°	94	25	1	1	2	94
125°	28	3	1	1	1	28
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	283.4	283.4	283.4	283.4	283.4	283.4	283.4	283.4	283.4	283.4	283.4
2.5°	307.2	306.9	305.8	304.0	301.4	297.1	293.5	290.2	285.9	282.3	275.4
5°	323.5	321.7	320.2	318.4	312.6	308.7	302.2	294.9	288.1	281.2	267.5
7.5°	349.5	346.6	344.4	339.3	331.4	322.4	312.3	305.4	300.7	281.6	258.1
10°	377.2	374.7	370.4	361.4	351.6	338.6	324.2	307.9	293.5	277.6	249.8
12.5°	404.7	401.1	394.9	383.4	369.7	353.4	333.6	314.4	293.9	275.1	240.1
15°	432.1	428.2	421.7	407.6	389.5	368.2	344.0	319.9	295.7	271.8	230.0
17.5°	462.1	456.7	446.9	431.0	408.3	381.9	353.4	324.2	294.9	267.9	219.1
20°	494.2	486.6	476.2	454.9	428.2	397.1	362.8	328.5	294.6	263.2	206.9
22.5°	520.9	513.3	501.8	479.8	447.6	409.7	370.8	331.4	293.1	257.8	195.3
25°	544.0	537.9	525.3	500.0	466.1	423.1	378.3	333.6	291.0	252.0	183.0
27.5°	562.1	556.3	542.2	516.2	481.6	435.0	384.1	334.7	288.1	246.2	170.4
30°	578.0	572.2	555.2	528.5	492.0	444.4	389.9	335.0	284.5	237.5	156.7
32.5°	590.2	584.8	567.5	539.0	499.3	450.9	393.1	334.7	279.8	231.4	141.9
35°	602.5	597.1	576.9	546.6	504.7	453.8	395.7	332.8	274.0	221.3	127.8
37.5°	611.9	605.8	585.2	551.6	507.2	454.5	395.3	330.3	267.9	213.0	113.7
40°	618.4	611.9	589.9	554.5	507.9	453.4	392.4	326.0	260.6	202.5	98.9
42.5°	622.7	615.5	592.0	558.8	506.5	450.5	388.1	320.6	252.7	193.5	84.8
45°	624.9	617.3	592.4	555.2	504.0	445.1	381.6	313.7	244.0	181.2	70.8
47.5°	623.8	615.5	590.6	551.3	499.3	439.3	374.4	305.4	233.6	170.4	57.4
50°	622.0	613.3	586.6	546.2	492.8	432.1	366.4	295.3	222.7	157.0	45.5
52.5°	616.2	607.6	582.3	539.0	485.2	423.8	355.6	284.8	211.2	144.0	34.7
55°	609.0	601.1	574.7	532.5	475.4	413.7	345.5	273.6	200.0	130.7	24.9
57.5°	597.8	590.6	565.3	522.0	465.7	402.5	334.3	261.4	185.9	117.3	17.3
60°	584.1	576.9	552.3	510.1	454.5	389.9	322.0	248.7	173.3	104.0	10.8
62.5°	569.7	562.8	537.2	495.3	440.4	376.5	308.7	236.1	159.9	91.7	6.5
65°	550.5	544.0	520.9	477.6	424.9	362.1	293.9	220.9	146.2	78.0	3.6
67.5°	530.3	524.5	501.1	461.4	406.9	346.2	278.7	206.1	131.8	66.1	1.8
70°	508.7	501.4	479.8	439.3	388.4	328.2	262.1	191.0	118.0	54.5	0.0
72.5°	483.4	478.0	457.0	418.8	367.1	309.0	245.1	174.4	102.9	43.3	0.4
75°	458.8	452.0	432.8	396.7	346.2	288.8	226.3	158.8	88.1	33.2	0.4
77.5°	427.1	424.9	406.9	371.8	326.3	269.3	205.8	140.1	74.0	23.8	0.4
80°	395.3	393.1	379.1	346.9	303.2	246.2	186.6	122.4	60.3	15.9	0.4
82.5°	363.9	361.0	347.6	320.9	279.8	226.7	166.8	104.7	47.7	9.7	0.4
85°	335.7	332.1	317.7	293.1	255.6	204.7	146.2	87.4	35.4	5.4	0.7
87.5°	311.5	309.0	293.1	267.9	231.0	184.1	128.2	70.8	24.9	2.5	1.1
90°	291.0	285.6	271.5	244.8	207.9	161.4	109.0	56.7	16.6	1.4	1.4
92.5°	270.8	266.1	250.5	223.1	187.4	141.9	90.6	43.3	10.5	0.7	1.8
95°	249.8	244.8	229.6	204.3	166.4	122.0	74.4	31.8	5.8	0.7	1.8
97.5°	229.2	224.5	208.7	183.4	147.7	104.7	58.8	22.4	2.9	0.7	1.4
100°	210.1	204.7	190.2	165.0	128.9	87.4	45.5	14.4	1.8	0.7	1.4
102.5°	189.9	185.6	170.8	146.2	109.4	71.1	33.9	9.0	0.7	0.7	1.1
105°	171.8	166.4	152.0	126.7	93.1	56.0	23.8	5.4	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	111.9	107.6	94.9	73.6	47.3	22.0	6.5	1.1	1.1	1.1	1.1
115°	93.5	87.0	75.8	57.0	35.0	14.4	3.2	1.1	1.1	1.1	1.1
117.5°	74.7	69.3	61.4	43.3	23.1	9.4	1.8	1.1	1.1	1.1	1.1
120°	58.5	53.4	44.4	30.0	15.5	5.4	0.7	1.1	1.1	1.1	1.1
122.5°	41.9	37.9	30.0	19.5	9.4	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.8	25.6	19.9	11.9	5.8	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	18.1	16.2	11.6	6.9	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	10.1	9.0	6.9	4.0	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.8	5.4	3.6	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	283.4	283.4	283.4
2.5°	269.7	264.6	263.2
5°	255.2	246.9	242.2
7.5°	240.8	229.6	224.2
10°	227.4	211.5	205.8
12.5°	211.5	193.1	184.1
15°	196.4	172.6	163.9
17.5°	179.4	152.7	142.6
20°	163.5	132.8	122.4
22.5°	145.5	113.4	101.8
25°	129.2	93.9	80.9
27.5°	111.2	74.0	62.8
30°	94.2	56.7	45.5
32.5°	78.0	41.5	31.4
35°	62.8	28.2	19.9
37.5°	48.4	17.3	10.1
40°	35.0	9.0	4.7
42.5°	23.5	4.3	2.5
45°	14.4	2.2	0.0
47.5°	8.3	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.2
87.5°	1.8	2.2	2.5
90°	2.2	2.5	2.5
92.5°	2.2	2.9	2.9
95°	2.5	2.9	3.2
97.5°	2.9	3.2	3.2
100°	2.5	3.2	3.6
102.5°	2.2	3.2	3.2
105°	1.8	2.5	2.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	151.6	147.3	132.8	109.0	76.2	42.6	15.9	2.9	0.7	1.1	1.1
110°	132.1	128.5	113.7	90.6	61.4	31.8	10.5	1.8	1.1	1.1	1.1







107.5°	1.4	2.2	2.5
110°	1.4	1.8	2.2



(END OF REPORT)