

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: P551048

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-84-ED1D**

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: P551048  
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-35-UNV-93-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

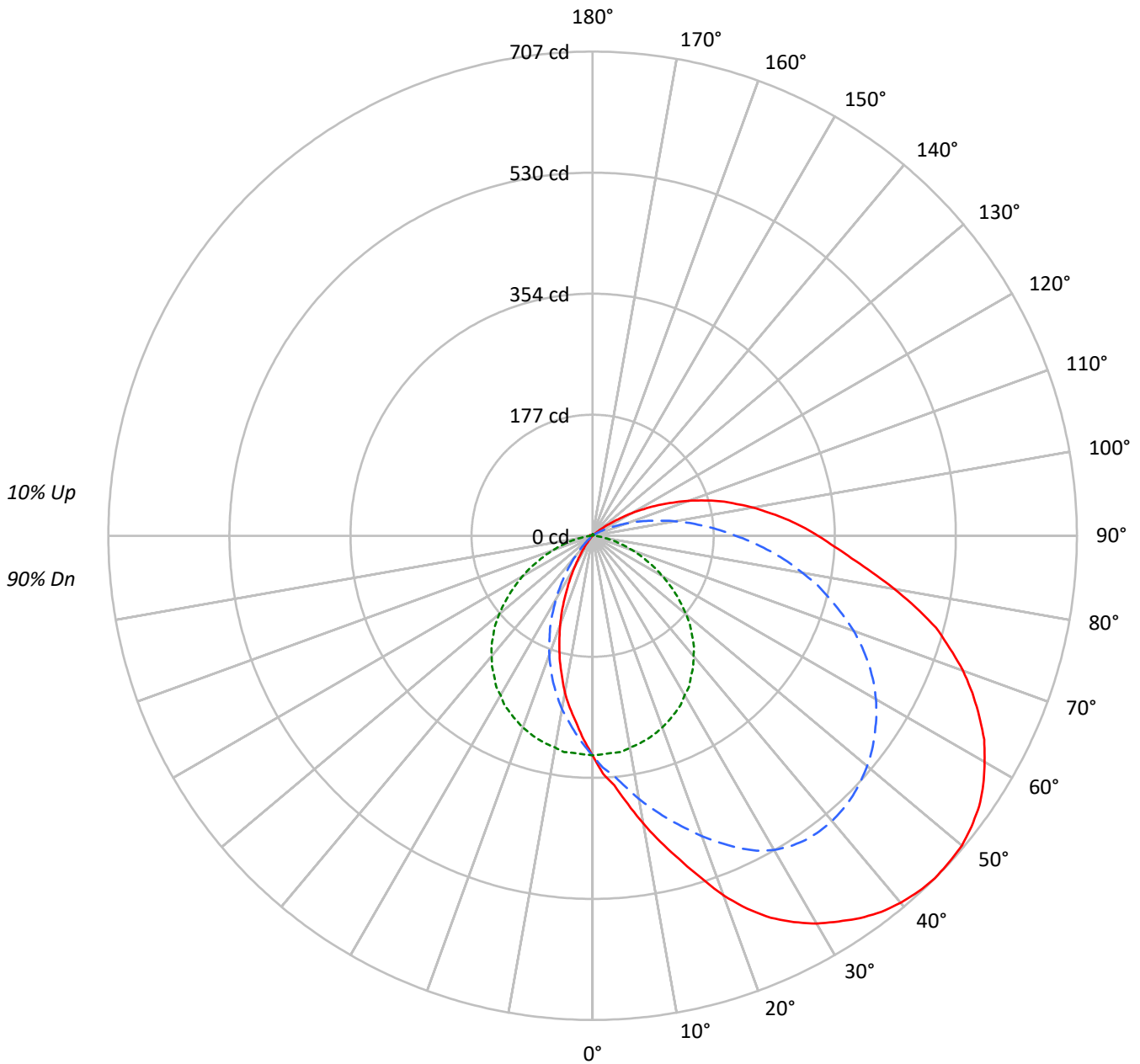
Lumens per Lamp: N/A  
Luminaire Lumens: 1584.9 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551048

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-84-ED1D

### 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°	3451	3451	3451
5°	3788	3401	2836
10°	4287	3359	2338
15°	4804	3316	1822
20°	5418	3262	1342
25°	5928	3200	881
30°	6307	3115	497
35°	6634	3026	219
40°	6925	2914	52
45°	7175	2774	0
50°	7384	2590	0
55°	7543	2354	0
60°	7623	2081	0
65°	7655	1772	0
70°	7630	1445	0
75°	7533	1066	6
80°	7227	653	32
85°	6985	310	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.7	1.9
10°-20°	92.0	5.8
20°-30°	148.9	9.4
30°-40°	191.3	12.1
40°-50°	216.5	13.7
50°-60°	224.3	14.2
60°-70°	211.6	13.3
70°-80°	177.3	11.2
80°-90°	128.5	8.1
90°-100°	84.5	5.3
100°-110°	48.8	3.1
110°-120°	21.5	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	271.6	17.1
0°-40°	462.9	29.2
0°-60°	903.7	57.0
0°-90°	1421.1	89.7
90°-120°	154.8	9.8
90°-150°	162.7	10.3
90°-180°	164.0	10.3
0°-180°	1584.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	366	351	318	289	274	37
15°	489	429	308	222	185	141
25°	616	503	285	146	92	284
35°	682	542	250	71	22	428
45°	707	537	205	16	0	546
55°	689	503	148	0	0	615
65°	623	445	88	0	0	616
75°	519	359	38	0	0	544
85°	380	260	6	2	2	324
90°	329	209	2	2	3	181
95°	283	163	1	3	4	222
105°	194	84	1	2	3	205
115°	106	28	1	1	2	106
125°	31	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	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°	320.6	320.6	320.6	320.6	320.6	320.6	320.6	320.6	320.6	320.6	320.6
2.5°	347.6	347.2	345.9	343.9	341.0	336.1	332.0	328.4	323.5	319.4	311.6
5°	365.9	363.9	362.3	360.2	353.7	349.2	341.8	333.7	325.9	318.2	302.6
7.5°	395.3	392.1	389.6	383.9	374.9	364.7	353.3	345.5	340.2	318.6	292.0
10°	426.8	423.9	419.0	408.8	397.8	383.1	366.8	348.4	332.0	314.1	282.6
12.5°	457.8	453.8	446.8	433.7	418.2	399.8	377.4	355.7	332.5	311.2	271.6
15°	488.9	484.4	477.0	461.1	440.7	416.6	389.2	361.9	334.5	307.5	260.2
17.5°	522.8	516.6	505.6	487.7	461.9	432.1	399.8	366.8	333.7	303.0	247.9
20°	559.1	550.5	538.7	514.6	484.4	449.3	410.5	371.7	333.3	297.7	234.0
22.5°	589.3	580.8	567.7	542.8	506.4	463.6	419.4	374.9	331.6	291.6	221.0
25°	615.5	608.5	594.2	565.7	527.3	478.7	428.0	377.4	329.2	285.1	207.1
27.5°	635.9	629.4	613.4	584.0	544.8	492.1	434.6	378.6	325.9	278.5	192.8
30°	653.9	647.3	628.1	597.9	556.7	502.8	441.1	379.0	321.8	268.7	177.3
32.5°	667.8	661.6	642.0	609.8	564.8	510.1	444.8	378.6	316.5	261.8	160.5
35°	681.6	675.5	652.7	618.3	571.0	513.4	447.6	376.6	310.0	250.4	144.6
37.5°	692.3	685.3	662.0	624.1	573.8	514.2	447.2	373.7	303.0	241.0	128.7
40°	699.6	692.3	667.4	627.3	574.6	513.0	443.9	368.8	294.9	229.1	111.9
42.5°	704.5	696.4	669.8	632.2	573.0	509.7	439.0	362.7	285.9	218.9	96.0
45°	707.0	698.4	670.2	628.1	570.2	503.6	431.7	354.9	276.1	205.0	80.0
47.5°	705.7	696.4	668.2	623.7	564.8	497.0	423.5	345.5	264.2	192.8	64.9
50°	703.7	693.9	663.7	617.9	557.5	488.9	414.5	334.1	252.0	177.7	51.5
52.5°	697.2	687.4	658.8	609.8	548.9	479.5	402.3	322.2	238.9	163.0	39.2
55°	689.0	680.0	650.2	602.4	537.9	468.0	390.9	309.6	226.3	147.8	28.2
57.5°	676.3	668.2	639.6	590.6	526.9	455.4	378.2	295.7	210.3	132.7	19.6
60°	660.8	652.7	624.9	577.1	514.2	441.1	364.3	281.4	196.0	117.6	12.3
62.5°	644.5	636.7	607.7	560.3	498.3	426.0	349.2	267.1	180.9	103.7	7.4
65°	622.8	615.5	589.3	540.3	480.7	409.6	332.5	250.0	165.4	88.2	4.1
67.5°	600.0	593.4	566.9	522.0	460.3	391.7	315.3	233.2	149.1	74.7	2.0
70°	575.5	567.3	542.8	497.0	439.5	371.3	296.5	216.1	133.6	61.7	0.0
72.5°	546.9	540.7	517.1	473.8	415.4	349.6	277.3	197.3	116.4	49.0	0.4
75°	519.1	511.3	489.7	448.9	391.7	326.7	256.1	179.7	99.7	37.6	0.4
77.5°	483.2	480.7	460.3	420.7	369.2	304.7	232.8	158.5	83.7	27.0	0.4
80°	447.2	444.8	428.8	392.5	343.1	278.5	211.2	138.5	68.2	18.0	0.4
82.5°	411.7	408.4	393.3	363.1	316.5	256.5	188.7	118.4	53.9	11.0	0.4
85°	379.8	375.7	359.4	331.6	289.2	231.6	165.4	98.8	40.0	6.1	0.8
87.5°	352.5	349.6	331.6	303.0	261.4	208.3	145.0	80.0	28.2	2.9	1.2
90°	329.2	323.1	307.1	276.9	235.2	182.6	123.3	64.1	18.8	1.6	1.6
92.5°	306.3	301.0	283.4	252.4	212.0	160.5	102.5	49.0	11.8	0.8	2.0
95°	282.6	276.9	259.8	231.2	188.3	138.0	84.1	35.9	6.5	0.8	2.0
97.5°	259.3	254.0	236.1	207.5	167.0	118.4	66.6	25.3	3.3	0.8	1.6
100°	237.7	231.6	215.2	186.6	145.8	98.8	51.5	16.3	2.0	0.8	1.6
102.5°	214.8	209.9	193.2	165.4	123.8	80.5	38.4	10.2	0.8	0.8	1.2
105°	194.4	188.3	171.9	143.4	105.4	63.3	27.0	6.1	0.8	0.8	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.6	121.7	107.4	83.3	53.5	24.9	7.4	1.2	1.2	1.2	1.2
115°	105.8	98.4	85.8	64.5	39.6	16.3	3.7	1.2	1.2	1.2	1.2
117.5°	84.5	78.4	69.4	49.0	26.1	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.2	60.4	50.2	33.9	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.4	42.9	33.9	22.1	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.4	29.0	22.5	13.5	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.4	18.4	13.1	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.2	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	320.6	320.6	320.6
2.5°	305.1	299.4	297.7
5°	288.8	279.4	274.0
7.5°	272.4	259.8	253.6
10°	257.3	239.3	232.8
12.5°	239.3	218.5	208.3
15°	222.2	195.2	185.4
17.5°	203.0	172.8	161.3
20°	185.0	150.3	138.5
22.5°	164.6	128.2	115.2
25°	146.2	106.2	91.5
27.5°	125.8	83.7	71.1
30°	106.6	64.1	51.5
32.5°	88.2	47.0	35.5
35°	71.1	31.9	22.5
37.5°	54.7	19.6	11.4
40°	39.6	10.2	5.3
42.5°	26.5	4.9	2.9
45°	16.3	2.5	0.0
47.5°	9.4	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.5
87.5°	2.0	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.5	3.7	3.7
105°	2.0	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	171.5	166.6	150.3	123.3	86.2	48.2	18.0	3.3	0.8	1.2	1.2
110°	149.5	145.4	128.7	102.5	69.4	35.9	11.8	2.0	1.2	1.2	1.2







107.5°	1.6	2.5	2.9
110°	1.6	2.0	2.5



(END OF REPORT)