

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: P550998

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-97-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: P550998  
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-30-UNV-93-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

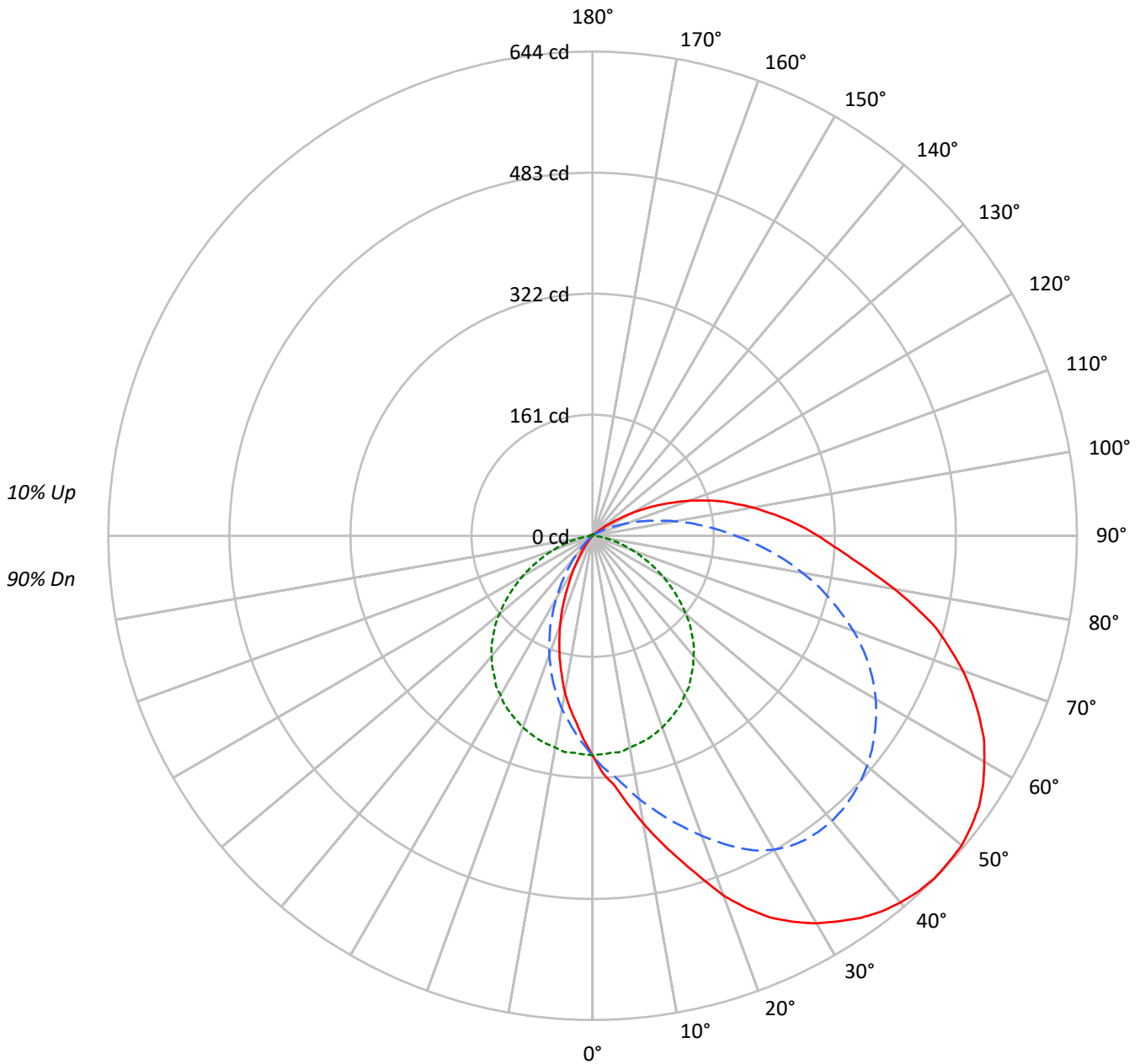
Lumens per Lamp: N/A  
Luminaire Lumens: 1443.0 lumens  
Efficiency: N/A  
Efficacy: 86.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550998

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D

### 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°	3142	3142	3142
5°	3449	3096	2583
10°	3903	3057	2128
15°	4374	3019	1659
20°	4933	2970	1221
25°	5396	2912	802
30°	5742	2837	452
35°	6040	2754	200
40°	6304	2653	48
45°	6531	2526	0
50°	6723	2357	0
55°	6868	2143	0
60°	6940	1895	0
65°	6969	1613	0
70°	6946	1314	0
75°	6858	970	6
80°	6581	595	31
85°	6360	285	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.0	1.9
10°-20°	83.7	5.8
20°-30°	135.6	9.4
30°-40°	174.1	12.1
40°-50°	197.1	13.7
50°-60°	204.2	14.2
60°-70°	192.6	13.3
70°-80°	161.4	11.2
80°-90°	117.0	8.1
90°-100°	76.9	5.3
100°-110°	44.4	3.1
110°-120°	19.6	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	247.2	17.1
0°-40°	421.4	29.2
0°-60°	822.8	57.0
0°-90°	1293.8	89.7
90°-120°	140.9	9.8
90°-150°	148.2	10.3
90°-180°	149.0	10.3
0°-180°	1443.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	292	292	292	292	292	
5°	333	320	290	263	250	34
15°	445	390	280	202	169	128
25°	560	458	260	133	83	259
35°	621	494	228	65	20	389
45°	644	489	187	15	0	497
55°	627	458	135	0	0	560
65°	567	405	80	0	0	561
75°	473	327	34	0	0	496
85°	346	237	6	2	2	295
90°	300	190	2	2	3	164
95°	257	149	1	3	3	202
105°	177	77	1	2	3	187
115°	96	26	1	1	2	96
125°	29	4	2	1	2	29
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°	291.9	291.9	291.9	291.9	291.9	291.9	291.9	291.9	291.9	291.9	291.9
2.5°	316.4	316.1	314.9	313.1	310.5	306.0	302.3	298.9	294.5	290.8	283.7
5°	333.2	331.3	329.8	328.0	322.0	317.9	311.2	303.8	296.7	289.7	275.5
7.5°	359.9	357.0	354.7	349.5	341.3	332.0	321.6	314.6	309.7	290.0	265.9
10°	388.6	386.0	381.5	372.2	362.2	348.8	333.9	317.2	302.3	285.9	257.3
12.5°	416.8	413.1	406.8	394.9	380.8	364.0	343.6	323.9	302.7	283.3	247.3
15°	445.1	441.0	434.3	419.8	401.2	379.3	354.4	329.4	304.5	280.0	236.9
17.5°	475.9	470.4	460.3	444.0	420.5	393.4	364.0	333.9	303.8	275.9	225.7
20°	509.0	501.2	490.4	468.5	441.0	409.0	373.7	338.4	303.4	271.1	213.1
22.5°	536.5	528.7	516.8	494.2	461.1	422.0	381.9	341.3	301.9	265.5	201.2
25°	560.3	554.0	541.0	515.0	480.0	435.8	389.7	343.6	299.7	259.5	188.5
27.5°	578.9	573.0	558.5	531.7	496.0	448.1	395.6	344.7	296.7	253.6	175.5
30°	595.3	589.3	571.9	544.4	506.8	457.7	401.6	345.1	293.0	244.7	161.4
32.5°	607.9	602.4	584.5	555.1	514.2	464.4	404.9	344.7	288.2	238.3	146.1
35°	620.6	615.0	594.2	562.9	519.8	467.4	407.5	342.8	282.2	227.9	131.6
37.5°	630.2	623.9	602.7	568.2	522.4	468.1	407.2	340.2	275.9	219.4	117.1
40°	636.9	630.2	607.6	571.1	523.2	467.0	404.2	335.8	268.5	208.6	101.9
42.5°	641.4	634.0	609.8	575.6	521.7	464.0	399.7	330.2	260.3	199.3	87.4
45°	643.6	635.8	610.2	571.9	519.1	458.5	393.0	323.1	251.4	186.7	72.9
47.5°	642.5	634.0	608.3	567.8	514.2	452.5	385.6	314.6	240.6	175.5	59.1
50°	640.7	631.7	604.2	562.6	507.5	445.1	377.4	304.2	229.4	161.7	46.9
52.5°	634.7	625.8	599.8	555.1	499.7	436.5	366.2	293.4	217.5	148.4	35.7
55°	627.3	619.1	591.9	548.4	489.7	426.1	355.8	281.8	206.0	134.6	25.7
57.5°	615.7	608.3	582.3	537.7	479.7	414.6	344.3	269.2	191.5	120.8	17.8
60°	601.6	594.2	568.9	525.4	468.1	401.6	331.7	256.2	178.5	107.1	11.2
62.5°	586.7	579.7	553.3	510.1	453.6	387.8	317.9	243.2	164.7	94.4	6.7
65°	567.0	560.3	536.5	491.9	437.6	372.9	302.7	227.6	150.6	80.3	3.7
67.5°	546.2	540.3	516.1	475.2	419.0	356.6	287.1	212.3	135.7	68.0	1.9
70°	523.9	516.5	494.2	452.5	400.1	338.0	269.9	196.7	121.6	56.1	0.0
72.5°	497.9	492.3	470.7	431.3	378.1	318.3	252.5	179.6	106.0	44.6	0.4
75°	472.6	465.5	445.8	408.6	356.6	297.5	233.1	163.6	90.7	34.2	0.4
77.5°	439.9	437.6	419.0	383.0	336.1	277.4	211.9	144.3	76.2	24.5	0.4
80°	407.2	404.9	390.4	357.3	312.3	253.6	192.2	126.0	62.1	16.4	0.4
82.5°	374.8	371.8	358.1	330.6	288.2	233.5	171.8	107.8	49.1	10.0	0.4
85°	345.8	342.1	327.2	301.9	263.3	210.8	150.6	90.0	36.4	5.6	0.7
87.5°	320.9	318.3	301.9	275.9	238.0	189.6	132.0	72.9	25.7	2.6	1.1
90°	299.7	294.1	279.6	252.1	214.2	166.2	112.3	58.4	17.1	1.5	1.5
92.5°	278.9	274.0	258.0	229.8	193.0	146.1	93.3	44.6	10.8	0.7	1.9
95°	257.3	252.1	236.5	210.5	171.4	125.7	76.6	32.7	5.9	0.7	1.9
97.5°	236.1	231.3	214.9	188.9	152.1	107.8	60.6	23.1	3.0	0.7	1.5
100°	216.4	210.8	196.0	169.9	132.7	90.0	46.9	14.9	1.9	0.7	1.5
102.5°	195.6	191.1	175.9	150.6	112.7	73.2	35.0	9.3	0.7	0.7	1.1
105°	177.0	171.4	156.5	130.5	95.9	57.6	24.5	5.6	0.7	0.7	1.1



TEST NUMBER: P550998

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.3	110.8	97.8	75.9	48.7	22.7	6.7	1.1	1.1	1.1	1.1
115°	96.3	89.6	78.1	58.7	36.1	14.9	3.3	1.1	1.1	1.1	1.1
117.5°	77.0	71.4	63.2	44.6	23.8	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.2	55.0	45.7	30.9	16.0	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.1	39.0	30.9	20.1	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.6	26.4	20.5	12.3	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.6	16.7	11.9	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.4	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P550998

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	291.9	291.9	291.9
2.5°	277.8	272.5	271.1
5°	262.9	254.3	249.5
7.5°	248.0	236.5	230.9
10°	234.3	217.9	211.9
12.5°	217.9	198.9	189.6
15°	202.3	177.7	168.8
17.5°	184.8	157.3	146.9
20°	168.4	136.8	126.0
22.5°	149.8	116.8	104.9
25°	133.1	96.7	83.3
27.5°	114.5	76.2	64.7
30°	97.0	58.4	46.9
32.5°	80.3	42.8	32.3
35°	64.7	29.0	20.5
37.5°	49.8	17.8	10.4
40°	36.1	9.3	4.8
42.5°	24.2	4.5	2.6
45°	14.9	2.2	0.0
47.5°	8.6	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.9	2.6	3.0





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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	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°	1.5	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°	156.2	151.7	136.8	112.3	78.5	43.9	16.4	3.0	0.7	1.1	1.1
110°	136.1	132.4	117.1	93.3	63.2	32.7	10.8	1.9	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)