

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: P551178

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-85-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: P551178  
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-93-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

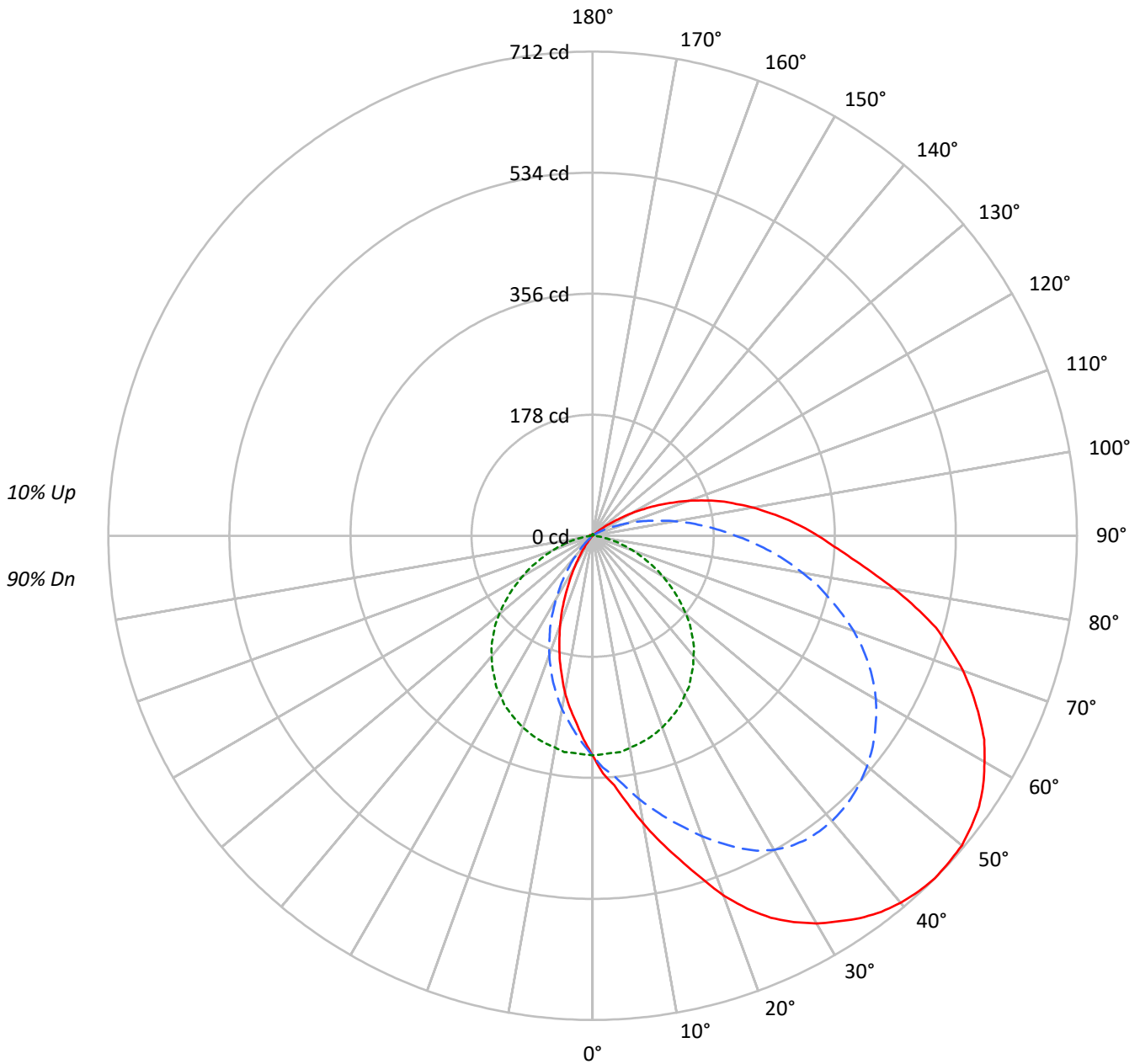
Lumens per Lamp: N/A  
Luminaire Lumens: 1595.9 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551178

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-85-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°	3475	3475	3475
5°	3815	3424	2856
10°	4317	3383	2354
15°	4838	3339	1835
20°	5456	3285	1351
25°	5969	3222	887
30°	6350	3137	500
35°	6681	3046	220
40°	6973	2934	52
45°	7225	2793	0
50°	7435	2607	0
55°	7596	2371	0
60°	7677	2095	0
65°	7709	1784	0
70°	7683	1455	0
75°	7585	1072	6
80°	7277	657	34
85°	7035	315	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.9	1.9
10°-20°	92.6	5.8
20°-30°	149.9	9.4
30°-40°	192.6	12.1
40°-50°	218.0	13.7
50°-60°	225.9	14.2
60°-70°	213.0	13.3
70°-80°	178.5	11.2
80°-90°	129.4	8.1
90°-100°	85.1	5.3
100°-110°	49.1	3.1
110°-120°	21.7	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°	273.5	17.1
0°-40°	466.1	29.2
0°-60°	910.0	57.0
0°-90°	1430.9	89.7
90°-120°	155.8	9.8
90°-150°	163.9	10.3
90°-180°	165.0	10.3
0°-180°	1595.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	323	323	323	323	323	
5°	368	354	320	291	276	37
15°	492	432	310	224	187	142
25°	620	506	287	147	92	286
35°	686	546	252	72	23	430
45°	712	541	206	16	0	550
55°	694	506	149	0	0	620
65°	627	448	89	0	0	621
75°	523	362	38	0	0	548
85°	382	262	6	2	2	327
90°	332	210	2	2	3	182
95°	285	164	1	3	4	223
105°	196	85	1	2	3	207
115°	106	28	1	1	2	107
125°	32	4	2	1	2	32
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°	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8
2.5°	350.0	349.6	348.3	346.3	343.4	338.5	334.3	330.6	325.7	321.6	313.8
5°	368.5	366.4	364.8	362.7	356.1	351.6	344.2	336.0	328.2	320.4	304.7
7.5°	398.1	394.8	392.3	386.6	377.5	367.2	355.7	347.9	342.6	320.8	294.0
10°	429.8	426.9	421.9	411.7	400.6	385.8	369.3	350.8	334.3	316.3	284.6
12.5°	461.0	456.9	449.9	436.7	421.1	402.6	380.0	358.2	334.8	313.4	273.5
15°	492.3	487.7	480.3	464.3	443.7	419.5	391.9	364.4	336.8	309.7	262.0
17.5°	526.4	520.2	509.1	491.0	465.1	435.1	402.6	369.3	336.0	305.1	249.6
20°	563.0	554.4	542.4	518.2	487.7	452.4	413.3	374.2	335.6	299.8	235.6
22.5°	593.4	584.8	571.6	546.6	510.0	466.8	422.4	377.5	333.9	293.6	222.5
25°	619.8	612.8	598.4	569.6	530.9	482.0	431.0	380.0	331.5	287.1	208.5
27.5°	640.3	633.7	617.7	588.1	548.6	495.6	437.6	381.2	328.2	280.5	194.1
30°	658.4	651.8	632.5	602.1	560.5	506.3	444.2	381.6	324.1	270.6	178.5
32.5°	672.4	666.2	646.5	614.0	568.8	513.7	447.9	381.2	318.7	263.6	161.6
35°	686.4	680.2	657.2	622.6	574.9	516.9	450.7	379.2	312.1	252.1	145.6
37.5°	697.1	690.1	666.6	628.4	577.8	517.8	450.3	376.3	305.1	242.6	129.5
40°	704.5	697.1	672.0	631.7	578.6	516.5	447.0	371.4	296.9	230.7	112.7
42.5°	709.4	701.2	674.5	636.6	577.0	513.2	442.1	365.2	287.9	220.4	96.6
45°	711.9	703.2	674.9	632.5	574.1	507.1	434.7	357.4	278.0	206.4	80.6
47.5°	710.6	701.2	672.8	628.0	568.8	500.5	426.5	347.9	266.1	194.1	65.4
50°	708.6	698.7	668.3	622.2	561.4	492.3	417.4	336.4	253.7	178.9	51.8
52.5°	702.0	692.1	663.3	614.0	552.7	482.8	405.1	324.5	240.6	164.1	39.5
55°	693.8	684.7	654.7	606.6	541.6	471.3	393.6	311.7	227.8	148.9	28.4
57.5°	681.0	672.8	644.0	594.7	530.5	458.5	380.8	297.7	211.8	133.7	19.7
60°	665.4	657.2	629.2	581.1	517.8	444.2	366.8	283.4	197.4	118.4	12.3
62.5°	649.0	641.1	611.9	564.2	501.7	428.9	351.6	269.0	182.2	104.5	7.4
65°	627.2	619.8	593.4	544.1	484.0	412.5	334.8	251.7	166.6	88.8	4.1
67.5°	604.1	597.5	570.8	525.6	463.5	394.4	317.5	234.8	150.1	75.3	2.1
70°	579.5	571.2	546.6	500.5	442.5	373.8	298.6	217.6	134.5	62.1	0.0
72.5°	550.7	544.5	520.6	477.1	418.2	352.0	279.2	198.6	117.2	49.4	0.4
75°	522.7	514.9	493.1	452.0	394.4	329.0	257.9	181.0	100.3	37.8	0.4
77.5°	486.5	484.0	463.5	423.6	371.8	306.8	234.4	159.6	84.3	27.1	0.4
80°	450.3	447.9	431.8	395.2	345.5	280.5	212.6	139.4	68.7	18.1	0.4
82.5°	414.5	411.3	396.0	365.6	318.7	258.3	190.0	119.3	54.3	11.1	0.4
85°	382.5	378.4	361.9	333.9	291.2	233.2	166.6	99.5	40.3	6.2	0.8
87.5°	354.9	352.0	333.9	305.1	263.2	209.7	146.0	80.6	28.4	2.9	1.2
90°	331.5	325.3	309.3	278.8	236.9	183.8	124.2	64.6	18.9	1.6	1.6
92.5°	308.4	303.1	285.4	254.2	213.4	161.6	103.2	49.4	11.9	0.8	2.1
95°	284.6	278.8	261.6	232.8	189.6	139.0	84.7	36.2	6.6	0.8	2.1
97.5°	261.1	255.8	237.7	208.9	168.2	119.3	67.0	25.5	3.3	0.8	1.6
100°	239.3	233.2	216.7	187.9	146.8	99.5	51.8	16.5	2.1	0.8	1.6
102.5°	216.3	211.4	194.5	166.6	124.6	81.0	38.7	10.3	0.8	0.8	1.2
105°	195.8	189.6	173.1	144.3	106.1	63.7	27.1	6.2	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°	127.5	122.6	108.2	83.9	53.9	25.1	7.4	1.2	1.2	1.2	1.2
115°	106.5	99.1	86.4	65.0	39.9	16.5	3.7	1.2	1.2	1.2	1.2
117.5°	85.1	79.0	69.9	49.4	26.3	10.7	2.1	1.2	1.2	1.2	1.2
120°	66.6	60.9	50.6	34.1	17.7	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	47.7	43.2	34.1	22.2	10.7	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.7	29.2	22.6	13.6	6.6	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.6	18.5	13.2	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.5	10.3	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.6	6.2	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	2.1	2.1	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.1	2.1	2.1	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.1	2.1	2.1	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	2.1
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.1	1.6	1.6	2.1
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	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.1	2.1	2.1	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°	322.8	322.8	322.8
2.5°	307.2	301.4	299.8
5°	290.8	281.3	275.9
7.5°	274.3	261.6	255.4
10°	259.1	241.0	234.4
12.5°	241.0	220.0	209.7
15°	223.7	196.6	186.7
17.5°	204.4	174.0	162.4
20°	186.3	151.3	139.4
22.5°	165.7	129.1	116.0
25°	147.2	106.9	92.1
27.5°	126.7	84.3	71.6
30°	107.3	64.6	51.8
32.5°	88.8	47.3	35.8
35°	71.6	32.1	22.6
37.5°	55.1	19.7	11.5
40°	39.9	10.3	5.3
42.5°	26.7	4.9	2.9
45°	16.5	2.5	0.0
47.5°	9.5	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.1	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	2.1
82.5°	1.6	2.1	2.1
85°	1.6	2.1	2.5
87.5°	2.1	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°	2.1	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.1	2.1
115°	1.2	1.6	2.1
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°	172.7	167.8	151.3	124.2	86.8	48.5	18.1	3.3	0.8	1.2	1.2
110°	150.5	146.4	129.5	103.2	69.9	36.2	11.9	2.1	1.2	1.2	1.2







107.5°	1.6	2.5	2.9
110°	1.6	2.1	2.5



(END OF REPORT)