

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: P551185

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-94-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: P551185  
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-93-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

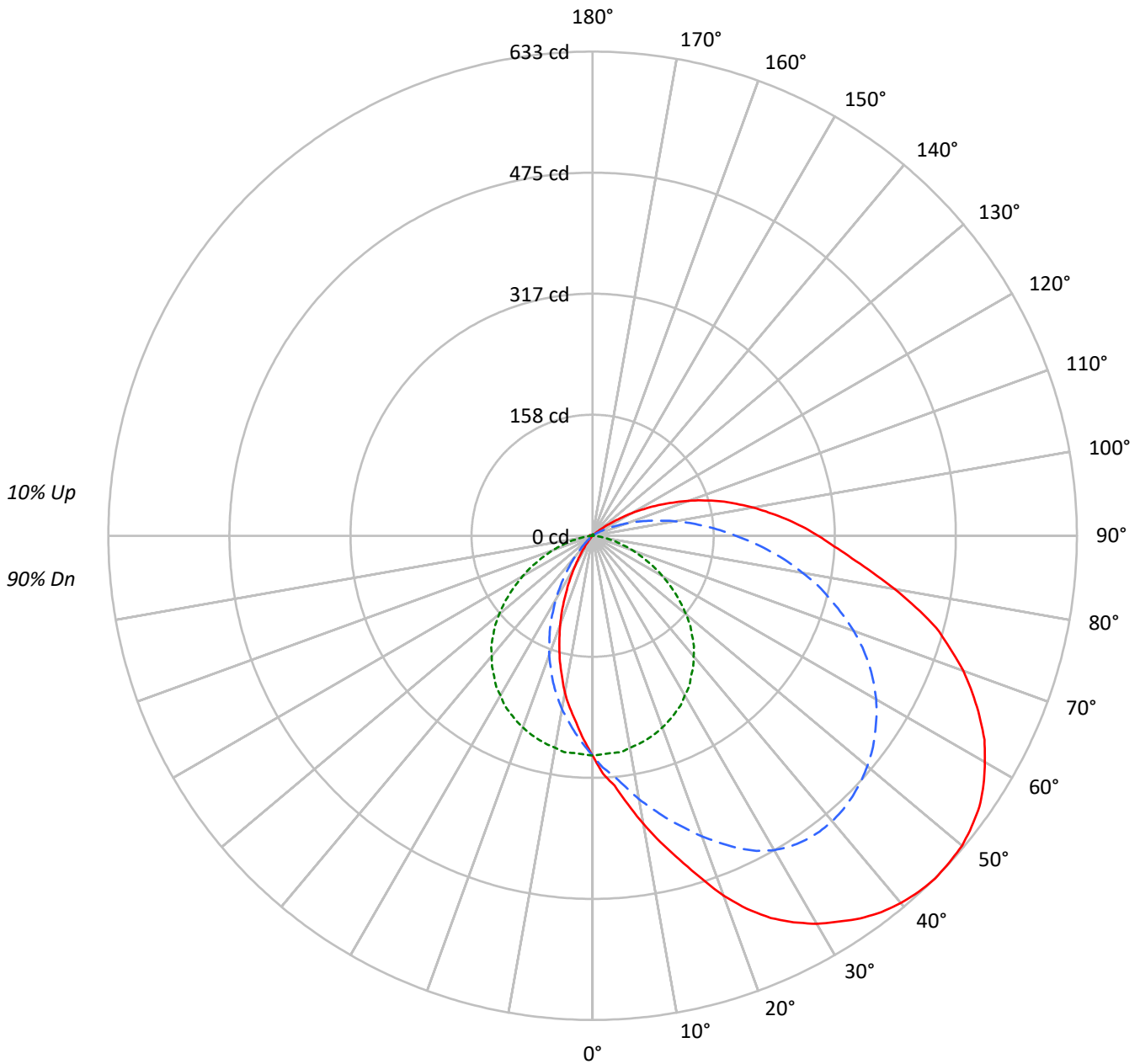
Lumens per Lamp: N/A  
Luminaire Lumens: 1420.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-94-ED1D-90

### 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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	3091	3091	3091
5°	3393	3046	2541
10°	3841	3009	2095
15°	4304	2971	1632
20°	4854	2922	1202
25°	5311	2866	790
30°	5650	2791	445
35°	5944	2710	196
40°	6204	2611	48
45°	6428	2486	0
50°	6615	2320	0
55°	6758	2110	0
60°	6830	1865	0
65°	6858	1587	0
70°	6836	1295	0
75°	6749	956	6
80°	6476	584	29
85°	6259	280	40



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-94-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.5	1.9
10°-20°	82.4	5.8
20°-30°	133.4	9.4
30°-40°	171.4	12.1
40°-50°	194.0	13.7
50°-60°	201.0	14.2
60°-70°	189.5	13.3
70°-80°	158.8	11.2
80°-90°	115.1	8.1
90°-100°	75.7	5.3
100°-110°	43.7	3.1
110°-120°	19.3	1.4
120°-130°	5.2	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°	243.3	17.1
0°-40°	414.7	29.2
0°-60°	809.6	57.0
0°-90°	1273.2	89.7
90°-120°	138.7	9.8
90°-150°	145.9	10.3
90°-180°	147.0	10.4
0°-180°	1420.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	287	287	287	287	287	
5°	328	315	285	259	246	33
15°	438	384	276	199	166	126
25°	551	451	255	131	82	255
35°	611	486	224	64	20	383
45°	633	481	184	15	0	489
55°	617	451	132	0	0	551
65°	558	399	79	0	0	552
75°	465	322	34	0	0	488
85°	340	233	6	2	2	291
90°	295	187	2	2	3	162
95°	253	146	1	3	3	199
105°	174	76	1	2	3	184
115°	95	25	1	1	2	95
125°	28	4	2	1	2	28
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°	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2
2.5°	311.4	311.0	309.9	308.1	305.5	301.1	297.5	294.2	289.8	286.1	279.2
5°	327.8	326.0	324.6	322.7	316.9	312.8	306.3	298.9	292.0	285.0	271.1
7.5°	354.2	351.3	349.1	343.9	335.9	326.7	316.5	309.6	304.8	285.4	261.6
10°	382.4	379.8	375.4	366.3	356.4	343.2	328.6	312.1	297.5	281.4	253.2
12.5°	410.2	406.5	400.3	388.6	374.7	358.2	338.1	318.7	297.8	278.8	243.3
15°	438.0	434.0	427.4	413.1	394.8	373.2	348.7	324.2	299.7	275.5	233.1
17.5°	468.4	462.9	453.0	436.9	413.8	387.1	358.2	328.6	298.9	271.5	222.1
20°	500.9	493.2	482.6	461.0	434.0	402.5	367.7	333.0	298.6	266.7	209.7
22.5°	528.0	520.3	508.6	486.3	453.7	415.3	375.8	335.9	297.1	261.3	198.0
25°	551.4	545.2	532.4	506.8	472.4	428.8	383.5	338.1	294.9	255.4	185.5
27.5°	569.7	563.9	549.6	523.2	488.1	440.9	389.3	339.2	292.0	249.5	172.7
30°	585.8	580.0	562.8	535.7	498.7	450.4	395.2	339.6	288.3	240.8	158.8
32.5°	598.2	592.8	575.2	546.3	506.0	457.0	398.5	339.2	283.6	234.5	143.8
35°	610.7	605.2	584.7	554.0	511.5	459.9	401.0	337.4	277.7	224.3	129.5
37.5°	620.2	614.0	593.1	559.1	514.1	460.7	400.7	334.8	271.5	215.9	115.3
40°	626.8	620.2	597.9	562.0	514.8	459.6	397.7	330.4	264.2	205.3	100.3
42.5°	631.2	623.9	600.1	566.4	513.4	456.6	393.3	324.9	256.1	196.1	86.0
45°	633.4	625.7	600.4	562.8	510.8	451.2	386.8	318.0	247.3	183.7	71.7
47.5°	632.3	623.9	598.6	558.7	506.0	445.3	379.4	309.6	236.7	172.7	58.2
50°	630.4	621.7	594.6	553.6	499.5	438.0	371.4	299.3	225.8	159.2	46.1
52.5°	624.6	615.8	590.2	546.3	491.8	429.6	360.4	288.7	214.1	146.0	35.1
55°	617.3	609.2	582.5	539.7	481.9	419.3	350.2	277.4	202.7	132.5	25.2
57.5°	605.9	598.6	573.0	529.1	472.0	408.0	338.8	264.9	188.4	118.9	17.6
60°	592.0	584.7	559.8	517.0	460.7	395.2	326.4	252.1	175.6	105.4	11.0
62.5°	577.4	570.4	544.5	502.0	446.4	381.6	312.8	239.3	162.1	92.9	6.6
65°	558.0	551.4	528.0	484.1	430.7	367.0	297.8	223.9	148.2	79.0	3.7
67.5°	537.5	531.7	507.9	467.6	412.4	350.9	282.5	208.9	133.6	67.0	1.8
70°	515.6	508.2	486.3	445.3	393.7	332.6	265.6	193.6	119.6	55.3	0.0
72.5°	489.9	484.5	463.2	424.4	372.1	313.2	248.4	176.7	104.3	43.9	0.4
75°	465.1	458.1	438.7	402.1	350.9	292.7	229.4	161.0	89.3	33.7	0.4
77.5°	432.9	430.7	412.4	376.9	330.8	273.0	208.6	142.0	75.0	24.1	0.4
80°	400.7	398.5	384.2	351.6	307.4	249.5	189.2	124.0	61.1	16.1	0.4
82.5°	368.8	365.9	352.4	325.3	283.6	229.8	169.0	106.1	48.3	9.9	0.4
85°	340.3	336.6	322.0	297.1	259.1	207.5	148.2	88.5	35.9	5.5	0.7
87.5°	315.8	313.2	297.1	271.5	234.2	186.6	129.9	71.7	25.2	2.6	1.1
90°	294.9	289.4	275.2	248.1	210.8	163.6	110.5	57.4	16.8	1.5	1.5
92.5°	274.4	269.7	253.9	226.1	189.9	143.8	91.8	43.9	10.6	0.7	1.8
95°	253.2	248.1	232.7	207.1	168.7	123.7	75.4	32.2	5.9	0.7	1.8
97.5°	232.3	227.6	211.5	185.9	149.7	106.1	59.6	22.7	2.9	0.7	1.5
100°	213.0	207.5	192.8	167.2	130.6	88.5	46.1	14.6	1.8	0.7	1.5
102.5°	192.5	188.1	173.1	148.2	110.9	72.1	34.4	9.1	0.7	0.7	1.1
105°	174.2	168.7	154.0	128.4	94.4	56.7	24.1	5.5	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°	113.4	109.0	96.2	74.6	47.9	22.3	6.6	1.1	1.1	1.1	1.1
115°	94.8	88.2	76.8	57.8	35.5	14.6	3.3	1.1	1.1	1.1	1.1
117.5°	75.7	70.3	62.2	43.9	23.4	9.5	1.8	1.1	1.1	1.1	1.1
120°	59.3	54.2	45.0	30.4	15.7	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.4	38.4	30.4	19.8	9.5	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.2	26.0	20.1	12.1	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.3	16.5	11.7	7.0	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.2	9.1	7.0	4.0	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.5	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	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
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	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	287.2	287.2	287.2
2.5°	273.3	268.2	266.7
5°	258.7	250.3	245.5
7.5°	244.1	232.7	227.2
10°	230.5	214.4	208.6
12.5°	214.4	195.8	186.6
15°	199.0	174.9	166.1
17.5°	181.9	154.8	144.5
20°	165.8	134.7	124.0
22.5°	147.5	114.9	103.2
25°	131.0	95.1	82.0
27.5°	112.7	75.0	63.7
30°	95.5	57.4	46.1
32.5°	79.0	42.1	31.8
35°	63.7	28.5	20.1
37.5°	49.0	17.6	10.2
40°	35.5	9.1	4.8
42.5°	23.8	4.4	2.6
45°	14.6	2.2	0.0
47.5°	8.4	0.0	0.0
50°	4.4	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	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	2.9	2.9
95°	2.6	2.9	3.3
97.5°	2.9	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.8	2.6	2.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
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°	153.7	149.3	134.7	110.5	77.2	43.2	16.1	2.9	0.7	1.1	1.1
110°	133.9	130.3	115.3	91.8	62.2	32.2	10.6	1.8	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)