

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: P551644

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-80-86-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: P551644  
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-LD4-2LO-50-UNV-80-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

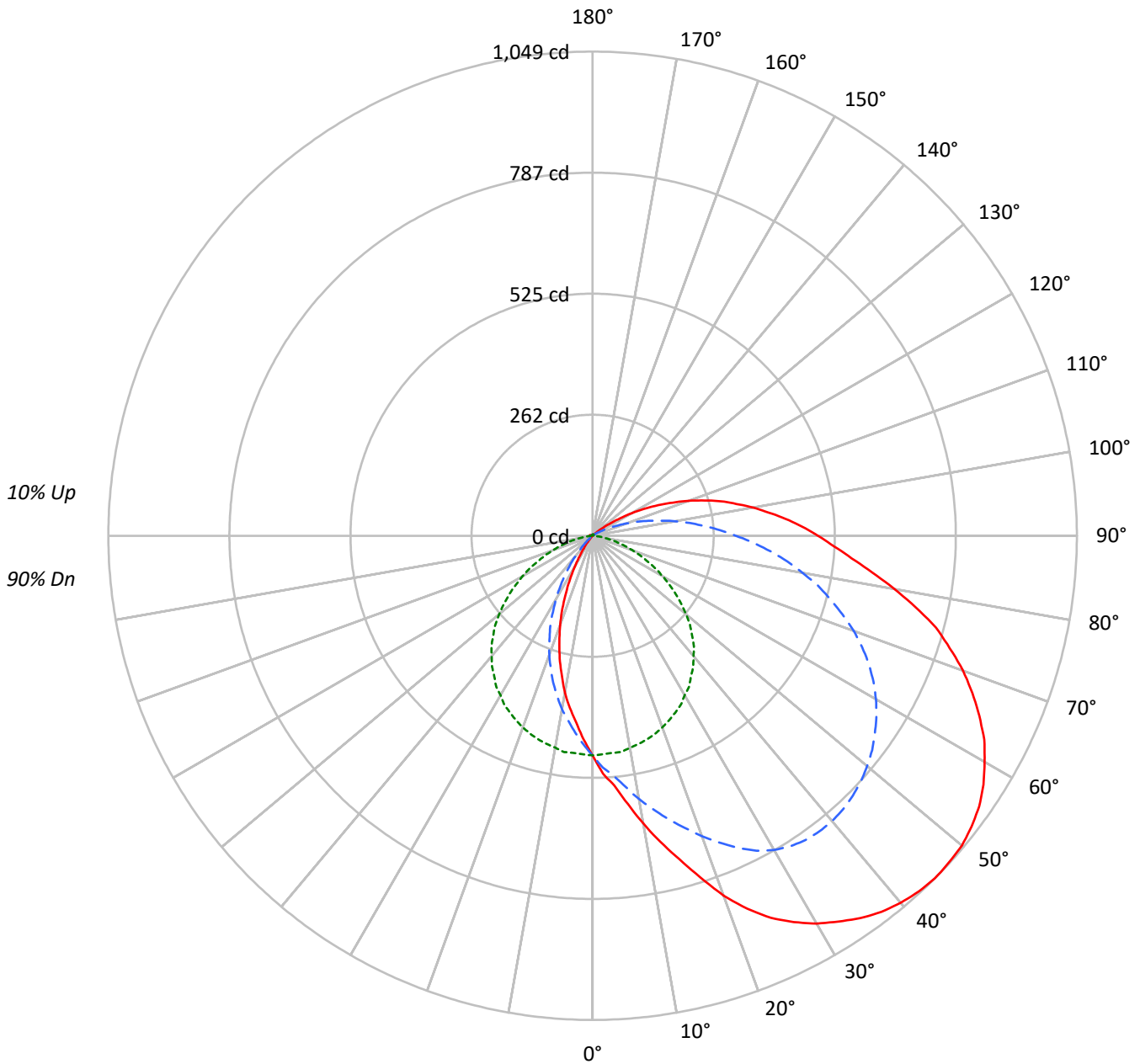
Lumens per Lamp: N/A  
Luminaire Lumens: 2351.9 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): 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: P551644

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-86-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°	5121	5121	5121
5°	5621	5046	4210
10°	6361	4985	3470
15°	7129	4921	2703
20°	8041	4840	1992
25°	8796	4747	1308
30°	9358	4623	737
35°	9845	4489	324
40°	10277	4324	78
45°	10647	4116	0
50°	10957	3842	0
55°	11194	3494	0
60°	11313	3088	0
65°	11359	2629	0
70°	11321	2143	0
75°	11178	1582	9
80°	10724	968	48
85°	10366	463	66



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.6	1.9
10°-20°	136.5	5.8
20°-30°	221.0	9.4
30°-40°	283.9	12.1
40°-50°	321.3	13.7
50°-60°	332.9	14.2
60°-70°	313.9	13.3
70°-80°	263.1	11.2
80°-90°	190.7	8.1
90°-100°	125.3	5.3
100°-110°	72.4	3.1
110°-120°	31.9	1.4
120°-130°	8.6	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	403.0	17.1
0°-40°	686.8	29.2
0°-60°	1341.0	57.0
0°-90°	2108.8	89.7
90°-120°	229.6	9.8
90°-150°	241.5	10.3
90°-180°	243.0	10.3
0°-180°	2351.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	476	476	476	476	476	
5°	543	522	472	428	407	55
15°	725	636	456	330	275	209
25°	913	746	423	217	136	422
35°	1012	805	372	106	33	634
45°	1049	797	304	24	0	810
55°	1022	746	219	0	0	913
65°	924	661	131	0	0	914
75°	770	533	56	1	1	808
85°	564	386	9	2	4	481
90°	488	310	2	4	4	268
95°	419	242	1	4	6	329
105°	288	125	1	3	5	304
115°	157	42	2	2	3	157
125°	47	6	2	2	2	47
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	475.8	475.8	475.8	475.8	475.8	475.8	475.8	475.8	475.8	475.8	475.8
2.5°	515.8	515.1	513.3	510.3	506.1	498.8	492.7	487.3	480.0	473.9	462.4
5°	543.0	540.0	537.6	534.5	524.8	518.2	507.3	495.1	483.6	472.1	449.1
7.5°	586.7	581.8	578.2	569.7	556.4	541.2	524.2	512.7	504.8	472.7	433.3
10°	633.3	629.1	621.8	606.7	590.3	568.5	544.2	517.0	492.7	466.1	419.4
12.5°	679.4	673.3	663.0	643.6	620.6	593.3	560.0	527.9	493.3	461.8	403.0
15°	725.4	718.8	707.9	684.2	653.9	618.2	577.6	537.0	496.4	456.4	386.1
17.5°	775.8	766.7	750.3	723.6	685.4	641.2	593.3	544.2	495.1	449.7	367.9
20°	829.7	817.0	799.4	763.6	718.8	666.7	609.1	551.5	494.5	441.8	347.3
22.5°	874.5	861.8	842.4	805.4	751.5	687.9	622.4	556.4	492.1	432.7	327.9
25°	913.3	903.0	881.8	839.4	782.4	710.3	635.1	560.0	488.5	423.0	307.3
27.5°	943.6	933.9	910.3	866.7	808.5	730.3	644.8	561.8	483.6	413.3	286.1
30°	970.3	960.6	932.1	887.3	826.1	746.1	654.5	562.4	477.6	398.8	263.0
32.5°	990.9	981.8	952.7	904.8	838.2	757.0	660.0	561.8	469.7	388.5	238.2
35°	1011.5	1002.4	968.5	917.6	847.3	761.8	664.2	558.8	460.0	371.5	214.5
37.5°	1027.3	1017.0	982.4	926.1	851.5	763.0	663.6	554.5	449.7	357.6	190.9
40°	1038.2	1027.3	990.3	930.9	852.7	761.2	658.8	547.3	437.6	340.0	166.1
42.5°	1045.4	1033.3	993.9	938.2	850.3	756.4	651.5	538.2	424.2	324.8	142.4
45°	1049.1	1036.4	994.5	932.1	846.1	747.3	640.6	526.7	409.7	304.2	118.8
47.5°	1047.3	1033.3	991.5	925.4	838.2	737.6	628.5	512.7	392.1	286.1	96.4
50°	1044.2	1029.7	984.8	917.0	827.3	725.4	615.1	495.8	373.9	263.6	76.4
52.5°	1034.5	1020.0	977.6	904.8	814.5	711.5	597.0	478.2	354.5	241.8	58.2
55°	1022.4	1009.1	964.8	893.9	798.2	694.5	580.0	459.4	335.8	219.4	41.8
57.5°	1003.6	991.5	949.1	876.4	781.8	675.8	561.2	438.8	312.1	197.0	29.1
60°	980.6	968.5	927.3	856.4	763.0	654.5	540.6	417.6	290.9	174.5	18.2
62.5°	956.4	944.8	901.8	831.5	739.4	632.1	518.2	396.4	268.5	153.9	10.9
65°	924.2	913.3	874.5	801.8	713.3	607.9	493.3	370.9	245.5	130.9	6.1
67.5°	890.3	880.6	841.2	774.5	683.0	581.2	467.9	346.1	221.2	110.9	3.0
70°	853.9	841.8	805.4	737.6	652.1	550.9	440.0	320.6	198.2	91.5	0.0
72.5°	811.5	802.4	767.3	703.0	616.4	518.8	411.5	292.7	172.7	72.7	0.6
75°	770.3	758.8	726.7	666.1	581.2	484.8	380.0	266.7	147.9	55.8	0.6
77.5°	717.0	713.3	683.0	624.2	547.9	452.1	345.5	235.1	124.2	40.0	0.6
80°	663.6	660.0	636.4	582.4	509.1	413.3	313.3	205.5	101.2	26.7	0.6
82.5°	610.9	606.1	583.6	538.8	469.7	380.6	280.0	175.8	80.0	16.4	0.6
85°	563.6	557.6	533.3	492.1	429.1	343.6	245.5	146.7	59.4	9.1	1.2
87.5°	523.0	518.8	492.1	449.7	387.9	309.1	215.1	118.8	41.8	4.2	1.8
90°	488.5	479.4	455.8	410.9	349.1	270.9	183.0	95.2	27.9	2.4	2.4
92.5°	454.5	446.7	420.6	374.5	314.5	238.2	152.1	72.7	17.6	1.2	3.0
95°	419.4	410.9	385.5	343.0	279.4	204.8	124.8	53.3	9.7	1.2	3.0
97.5°	384.8	377.0	350.3	307.9	247.9	175.8	98.8	37.6	4.8	1.2	2.4
100°	352.7	343.6	319.4	277.0	216.4	146.7	76.4	24.2	3.0	1.2	2.4
102.5°	318.8	311.5	286.7	245.5	183.6	119.4	57.0	15.2	1.2	1.2	1.8
105°	288.5	279.4	255.1	212.7	156.4	93.9	40.0	9.1	1.2	1.2	1.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	187.9	180.6	159.4	123.6	79.4	37.0	10.9	1.8	1.8	1.8	1.8
115°	157.0	146.1	127.3	95.8	58.8	24.2	5.5	1.8	1.8	1.8	1.8
117.5°	125.5	116.4	103.0	72.7	38.8	15.8	3.0	1.8	1.8	1.8	1.8
120°	98.2	89.7	74.5	50.3	26.1	9.1	1.2	1.8	1.8	1.8	1.8
122.5°	70.3	63.6	50.3	32.7	15.8	4.2	1.8	1.8	2.4	2.4	1.8
125°	46.7	43.0	33.3	20.0	9.7	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	30.3	27.3	19.4	11.5	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	17.0	15.2	11.5	6.7	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.7	9.1	6.1	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	475.8	475.8	475.8
2.5°	452.7	444.2	441.8
5°	428.5	414.5	406.7
7.5°	404.2	385.5	376.4
10°	381.8	355.1	345.5
12.5°	355.1	324.2	309.1
15°	329.7	289.7	275.1
17.5°	301.2	256.4	239.4
20°	274.5	223.0	205.5
22.5°	244.2	190.3	170.9
25°	217.0	157.6	135.8
27.5°	186.7	124.2	105.5
30°	158.2	95.2	76.4
32.5°	130.9	69.7	52.7
35°	105.5	47.3	33.3
37.5°	81.2	29.1	17.0
40°	58.8	15.2	7.9
42.5°	39.4	7.3	4.2
45°	24.2	3.6	0.0
47.5°	13.9	0.0	0.0
50°	7.3	0.0	0.0
52.5°	3.0	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.5
97.5°	4.8	5.5	5.5
100°	4.2	5.5	6.1
102.5°	3.6	5.5	5.5
105°	3.0	4.2	4.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	254.5	247.3	223.0	183.0	127.9	71.5	26.7	4.8	1.2	1.8	1.8
110°	221.8	215.8	190.9	152.1	103.0	53.3	17.6	3.0	1.8	1.8	1.8







107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)