

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: P551672

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-84-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: P551672  
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-82-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

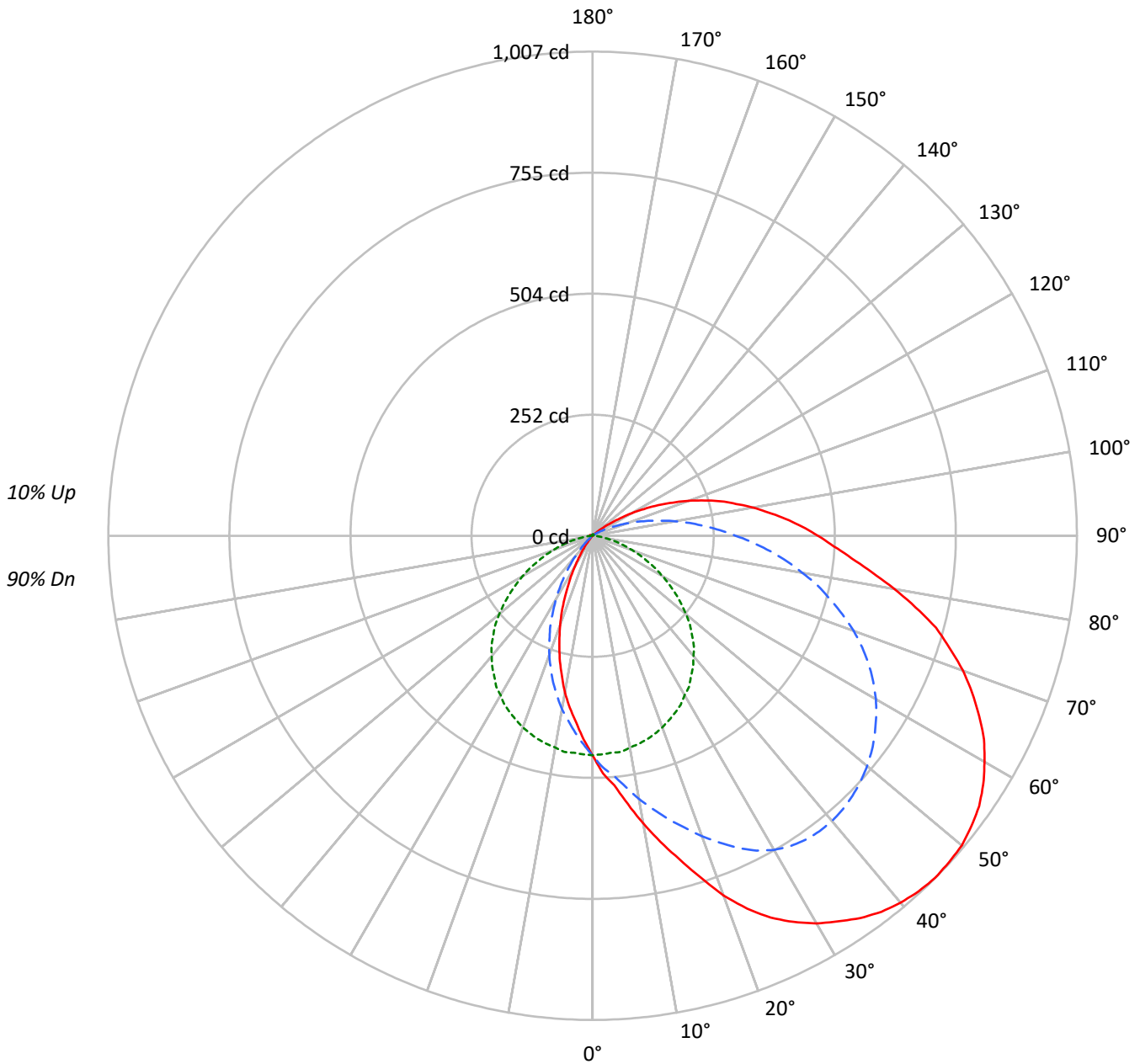
Lumens per Lamp: N/A  
Luminaire Lumens: 2256.9 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
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-LD4-2LO-50-UNV-82-84-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°	4914	4914	4914
5°	5395	4842	4039
10°	6104	4782	3330
15°	6841	4722	2594
20°	7716	4645	1911
25°	8441	4555	1255
30°	8980	4436	707
35°	9447	4308	311
40°	9861	4150	75
45°	10216	3951	0
50°	10515	3687	0
55°	10741	3352	0
60°	10856	2964	0
65°	10901	2523	0
70°	10864	2057	0
75°	10726	1517	9
80°	10291	929	47
85°	9948	442	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	1.9
10°-20°	130.9	5.8
20°-30°	212.0	9.4
30°-40°	272.4	12.1
40°-50°	308.3	13.7
50°-60°	319.4	14.2
60°-70°	301.3	13.3
70°-80°	252.5	11.2
80°-90°	183.0	8.1
90°-100°	120.3	5.3
100°-110°	69.5	3.1
110°-120°	30.6	1.4
120°-130°	8.3	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	386.7	17.1
0°-40°	659.1	29.2
0°-60°	1286.9	57.0
0°-90°	2023.6	89.7
90°-120°	220.4	9.8
90°-150°	231.8	10.3
90°-180°	233.0	10.3
0°-180°	2256.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	456	456	456	456	456	
5°	521	500	453	411	390	53
15°	696	610	438	316	264	201
25°	876	716	406	208	130	405
35°	971	772	356	101	32	609
45°	1007	764	292	23	0	777
55°	981	716	210	0	0	876
65°	887	634	126	0	0	877
75°	739	512	54	1	1	775
85°	541	371	9	2	4	462
90°	469	298	2	4	4	257
95°	402	232	1	4	5	316
105°	277	120	1	3	5	292
115°	151	40	2	2	3	151
125°	45	6	2	2	2	45
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°	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5
2.5°	494.9	494.3	492.6	489.7	485.6	478.6	472.8	467.6	460.6	454.8	443.7
5°	521.1	518.2	515.9	512.9	503.6	497.2	486.8	475.1	464.1	453.0	430.9
7.5°	563.0	558.3	554.8	546.7	533.9	519.3	503.1	492.0	484.5	453.6	415.8
10°	607.7	603.7	596.7	582.2	566.5	545.5	522.3	496.1	472.8	447.2	402.5
12.5°	651.9	646.1	636.2	617.6	595.5	569.4	537.4	506.6	473.4	443.2	386.7
15°	696.1	689.7	679.3	656.6	627.5	593.2	554.2	515.3	476.3	437.9	370.5
17.5°	744.4	735.7	720.0	694.4	657.8	615.3	569.4	522.3	475.1	431.5	353.0
20°	796.2	784.0	767.1	732.8	689.7	639.7	584.5	529.2	474.6	424.0	333.2
22.5°	839.2	827.0	808.4	772.9	721.2	660.1	597.3	533.9	472.2	415.2	314.6
25°	876.4	866.5	846.2	805.5	750.8	681.6	609.5	537.4	468.7	405.9	294.9
27.5°	905.5	896.2	873.5	831.7	775.8	700.8	618.8	539.1	464.1	396.6	274.5
30°	931.1	921.8	894.5	851.4	792.7	715.9	628.1	539.7	458.3	382.7	252.4
32.5°	950.9	942.2	914.2	868.3	804.3	726.4	633.3	539.1	450.7	372.8	228.6
35°	970.6	961.9	929.4	880.5	813.0	731.0	637.4	536.2	441.4	356.5	205.9
37.5°	985.8	975.9	942.7	888.6	817.1	732.2	636.8	532.1	431.5	343.1	183.2
40°	996.2	985.8	950.3	893.3	818.3	730.5	632.2	525.2	419.9	326.3	159.4
42.5°	1003.2	991.6	953.8	900.3	816.0	725.8	625.2	516.4	407.1	311.7	136.7
45°	1006.7	994.5	954.4	894.5	811.9	717.1	614.7	505.4	393.1	292.0	114.0
47.5°	1005.0	991.6	951.5	888.1	804.3	707.8	603.1	492.0	376.3	274.5	92.5
50°	1002.1	988.1	945.1	879.9	793.9	696.1	590.3	475.7	358.8	253.0	73.3
52.5°	992.7	978.8	938.1	868.3	781.6	682.8	572.9	458.9	340.2	232.0	55.8
55°	981.1	968.3	925.9	857.8	765.9	666.5	556.6	440.8	322.2	210.5	40.1
57.5°	963.1	951.5	910.7	841.0	750.2	648.5	538.5	421.1	299.5	189.0	27.9
60°	941.0	929.4	889.8	821.8	732.2	628.1	518.8	400.7	279.2	167.5	17.4
62.5°	917.7	906.7	865.4	797.9	709.5	606.6	497.2	380.4	257.6	147.7	10.5
65°	886.9	876.4	839.2	769.4	684.5	583.3	473.4	355.9	235.5	125.6	5.8
67.5°	854.3	845.0	807.2	743.3	655.4	557.7	449.0	332.1	212.3	106.4	2.9
70°	819.4	807.8	772.9	707.8	625.8	528.7	422.2	307.7	190.2	87.8	0.0
72.5°	778.7	770.0	736.3	674.6	591.5	497.8	394.9	280.9	165.7	69.8	0.6
75°	739.2	728.1	697.3	639.2	557.7	465.3	364.6	255.9	141.9	53.5	0.6
77.5°	688.0	684.5	655.4	599.0	525.7	433.9	331.5	225.7	119.2	38.4	0.6
80°	636.8	633.3	610.7	558.9	488.5	396.6	300.7	197.2	97.1	25.6	0.6
82.5°	586.2	581.6	560.1	517.0	450.7	365.2	268.7	168.7	76.8	15.7	0.6
85°	540.9	535.0	511.8	472.2	411.8	329.8	235.5	140.7	57.0	8.7	1.2
87.5°	501.9	497.8	472.2	431.5	372.2	296.6	206.5	114.0	40.1	4.1	1.7
90°	468.7	460.0	437.3	394.3	335.0	260.0	175.6	91.3	26.8	2.3	2.3
92.5°	436.2	428.6	403.6	359.4	301.8	228.6	146.0	69.8	16.9	1.2	2.9
95°	402.5	394.3	369.9	329.2	268.1	196.6	119.8	51.2	9.3	1.2	2.9
97.5°	369.3	361.7	336.2	295.4	237.9	168.7	94.8	36.1	4.7	1.2	2.3
100°	338.5	329.8	306.5	265.8	207.6	140.7	73.3	23.3	2.9	1.2	2.3
102.5°	305.9	298.9	275.1	235.5	176.2	114.6	54.7	14.5	1.2	1.2	1.7
105°	276.8	268.1	244.8	204.1	150.0	90.1	38.4	8.7	1.2	1.2	1.7



TEST NUMBER: P551672

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	180.3	173.3	153.0	118.6	76.2	35.5	10.5	1.7	1.7	1.7	1.7
115°	150.6	140.2	122.1	91.9	56.4	23.3	5.2	1.7	1.7	1.7	1.7
117.5°	120.4	111.7	98.9	69.8	37.2	15.1	2.9	1.7	1.7	1.7	1.7
120°	94.2	86.1	71.5	48.3	25.0	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.5	61.1	48.3	31.4	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.8	41.3	32.0	19.2	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.1	26.2	18.6	11.0	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.3	14.5	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	456.5	456.5	456.5
2.5°	434.4	426.3	424.0
5°	411.2	397.8	390.2
7.5°	387.9	369.9	361.2
10°	366.4	340.8	331.5
12.5°	340.8	311.1	296.6
15°	316.4	278.0	264.0
17.5°	289.0	246.0	229.7
20°	263.5	214.0	197.2
22.5°	234.4	182.6	164.0
25°	208.2	151.2	130.3
27.5°	179.1	119.2	101.2
30°	151.8	91.3	73.3
32.5°	125.6	66.9	50.6
35°	101.2	45.4	32.0
37.5°	77.9	27.9	16.3
40°	56.4	14.5	7.6
42.5°	37.8	7.0	4.1
45°	23.3	3.5	0.0
47.5°	13.4	0.0	0.0
50°	7.0	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.2
97.5°	4.7	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	244.3	237.3	214.0	175.6	122.7	68.6	25.6	4.7	1.2	1.7	1.7
110°	212.9	207.0	183.2	146.0	98.9	51.2	16.9	2.9	1.7	1.7	1.7







107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)