

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: P551540

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-96-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: P551540  
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-35-UNV-81-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

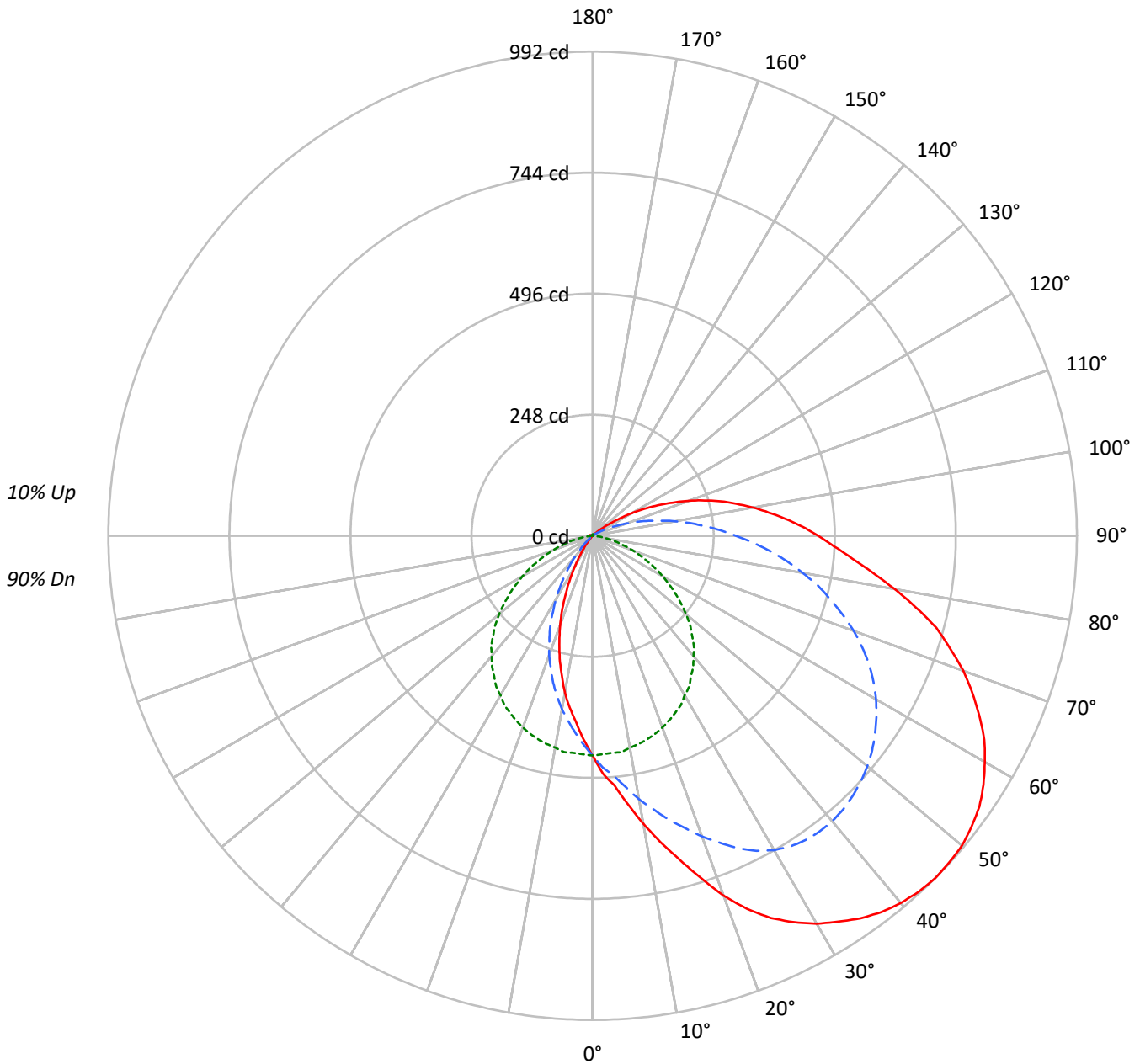
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2225.0 lumens  
Efficiency: N/A  
Efficacy: 94.7 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: P551540  
CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-96-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°	4845	4845	4845
5°	5318	4773	3982
10°	6018	4715	3283
15°	6744	4655	2558
20°	7607	4580	1884
25°	8321	4491	1237
30°	8853	4374	696
35°	9313	4247	307
40°	9721	4090	74
45°	10071	3894	0
50°	10365	3635	0
55°	10589	3304	0
60°	10701	2922	0
65°	10746	2487	0
70°	10710	2029	0
75°	10574	1495	9
80°	10146	914	47
85°	9807	437	63



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	1.9
10°-20°	129.1	5.8
20°-30°	209.0	9.4
30°-40°	268.5	12.1
40°-50°	304.0	13.7
50°-60°	314.9	14.2
60°-70°	297.0	13.3
70°-80°	248.9	11.2
80°-90°	180.4	8.1
90°-100°	118.6	5.3
100°-110°	68.5	3.1
110°-120°	30.2	1.4
120°-130°	8.2	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°	381.2	17.1
0°-40°	649.7	29.2
0°-60°	1268.6	57.0
0°-90°	1994.9	89.7
90°-120°	217.3	9.8
90°-150°	228.5	10.3
90°-180°	230.0	10.3
0°-180°	2225.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	450	450	450	450	450	
5°	514	493	447	405	385	52
15°	686	602	432	312	260	198
25°	864	706	400	205	128	399
35°	957	761	352	100	32	600
45°	992	754	288	23	0	766
55°	967	706	208	0	0	864
65°	874	625	124	0	0	865
75°	729	504	53	1	1	764
85°	533	366	9	2	3	455
90°	462	293	2	3	4	253
95°	397	229	1	4	5	311
105°	273	118	1	3	5	288
115°	148	39	2	2	3	149
125°	44	5	2	2	2	44
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°	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1
2.5°	487.9	487.3	485.6	482.7	478.7	471.9	466.1	461.0	454.1	448.3	437.5
5°	513.7	510.8	508.5	505.7	496.5	490.2	479.9	468.4	457.5	446.6	424.8
7.5°	555.0	550.4	547.0	538.9	526.3	512.0	495.9	485.0	477.6	447.2	409.9
10°	599.1	595.1	588.2	573.9	558.4	537.8	514.9	489.1	466.1	440.9	396.7
12.5°	642.7	637.0	627.2	608.9	587.1	561.3	529.8	499.4	466.7	436.9	381.3
15°	686.3	680.0	669.6	647.3	618.6	584.8	546.4	508.0	469.6	431.7	365.2
17.5°	733.9	725.3	709.8	684.6	648.4	606.6	561.3	514.9	468.4	425.4	348.0
20°	784.9	772.8	756.2	722.4	680.0	630.7	576.2	521.7	467.8	418.0	328.5
22.5°	827.3	815.3	796.9	762.0	710.9	650.7	588.8	526.3	465.5	409.4	310.2
25°	864.0	854.3	834.2	794.1	740.2	671.9	600.8	529.8	462.1	400.2	290.7
27.5°	892.7	883.5	861.1	819.9	764.8	690.9	610.0	531.5	457.5	391.0	270.6
30°	917.9	908.7	881.8	839.4	781.4	705.8	619.2	532.1	451.8	377.3	248.8
32.5°	937.4	928.8	901.3	856.0	792.9	716.1	624.4	531.5	444.3	367.5	225.3
35°	956.9	948.3	916.2	868.0	801.5	720.7	628.4	528.6	435.2	351.5	203.0
37.5°	971.8	962.0	929.4	876.0	805.5	721.8	627.8	524.6	425.4	338.3	180.6
40°	982.1	971.8	936.8	880.6	806.7	720.1	623.2	517.7	413.9	321.6	157.1
42.5°	989.0	977.5	940.3	887.5	804.4	715.5	616.3	509.1	401.3	307.3	134.7
45°	992.4	980.4	940.8	881.8	800.4	706.9	606.0	498.2	387.6	287.8	112.4
47.5°	990.7	977.5	938.0	875.5	792.9	697.7	594.5	485.0	370.9	270.6	91.2
50°	987.8	974.1	931.7	867.4	782.6	686.3	581.9	469.0	353.7	249.4	72.2
52.5°	978.7	964.9	924.8	856.0	770.6	673.1	564.7	452.4	335.4	228.8	55.0
55°	967.2	954.6	912.7	845.7	755.1	657.0	548.7	434.6	317.6	207.5	39.6
57.5°	949.4	938.0	897.8	829.0	739.6	639.3	530.9	415.1	295.3	186.3	27.5
60°	927.6	916.2	877.2	810.1	721.8	619.2	511.4	395.0	275.2	165.1	17.2
62.5°	904.7	893.8	853.1	786.6	699.5	598.0	490.2	375.0	254.0	145.6	10.3
65°	874.3	864.0	827.3	758.5	674.8	575.1	466.7	350.9	232.2	123.8	5.7
67.5°	842.2	833.0	795.8	732.7	646.1	549.8	442.6	327.4	209.3	104.9	2.9
70°	807.8	796.4	762.0	697.7	616.9	521.2	416.2	303.3	187.5	86.6	0.0
72.5°	767.7	759.1	725.8	665.1	583.1	490.8	389.3	276.9	163.4	68.8	0.6
75°	728.7	717.8	687.4	630.1	549.8	458.7	359.5	252.3	139.9	52.7	0.6
77.5°	678.2	674.8	646.1	590.5	518.3	427.7	326.8	222.5	117.5	37.8	0.6
80°	627.8	624.4	602.0	551.0	481.6	391.0	296.4	194.4	95.7	25.2	0.6
82.5°	577.9	573.3	552.1	509.7	444.3	360.1	264.9	166.3	75.7	15.5	0.6
85°	533.2	527.5	504.5	465.5	405.9	325.1	232.2	138.7	56.2	8.6	1.1
87.5°	494.8	490.8	465.5	425.4	366.9	292.4	203.5	112.4	39.6	4.0	1.7
90°	462.1	453.5	431.1	388.7	330.2	256.3	173.1	90.0	26.4	2.3	2.3
92.5°	430.0	422.5	397.9	354.3	297.6	225.3	143.9	68.8	16.6	1.1	2.9
95°	396.7	388.7	364.6	324.5	264.3	193.8	118.1	50.5	9.2	1.1	2.9
97.5°	364.1	356.6	331.4	291.3	234.5	166.3	93.5	35.5	4.6	1.1	2.3
100°	333.7	325.1	302.1	262.0	204.7	138.7	72.2	22.9	2.9	1.1	2.3
102.5°	301.6	294.7	271.2	232.2	173.7	112.9	53.9	14.3	1.1	1.1	1.7
105°	272.9	264.3	241.4	201.2	147.9	88.9	37.8	8.6	1.1	1.1	1.7



TEST NUMBER: P551540

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	177.7	170.9	150.8	117.0	75.1	35.0	10.3	1.7	1.7	1.7	1.7
115°	148.5	138.2	120.4	90.6	55.6	22.9	5.2	1.7	1.7	1.7	1.7
117.5°	118.7	110.1	97.5	68.8	36.7	14.9	2.9	1.7	1.7	1.7	1.7
120°	92.9	84.9	70.5	47.6	24.7	8.6	1.1	1.7	1.7	1.7	1.7
122.5°	66.5	60.2	47.6	31.0	14.9	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.1	40.7	31.5	18.9	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.7	25.8	18.3	10.9	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.1	14.3	10.9	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.1	1.1	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°	450.1	450.1	450.1
2.5°	428.3	420.3	418.0
5°	405.3	392.2	384.7
7.5°	382.4	364.6	356.0
10°	361.2	336.0	326.8
12.5°	336.0	306.7	292.4
15°	311.9	274.1	260.3
17.5°	284.9	242.5	226.5
20°	259.7	211.0	194.4
22.5°	231.1	180.0	161.7
25°	205.3	149.1	128.4
27.5°	176.6	117.5	99.8
30°	149.6	90.0	72.2
32.5°	123.8	65.9	49.9
35°	99.8	44.7	31.5
37.5°	76.8	27.5	16.1
40°	55.6	14.3	7.5
42.5°	37.3	6.9	4.0
45°	22.9	3.4	0.0
47.5°	13.2	0.0	0.0
50°	6.9	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	1.1	1.7
80°	1.1	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.4
87.5°	2.9	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.7
102.5°	3.4	5.2	5.2
105°	2.9	4.0	4.6





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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	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	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°	240.8	233.9	211.0	173.1	121.0	67.7	25.2	4.6	1.1	1.7	1.7
110°	209.8	204.1	180.6	143.9	97.5	50.5	16.6	2.9	1.7	1.7	1.7







107.5°	2.3	3.4	4.0
110°	2.3	2.9	3.4



(END OF REPORT)