

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: P551516

Luminaire Tested: **FCC-X-2-LD4-2LO-35-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: P551516  
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-80-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

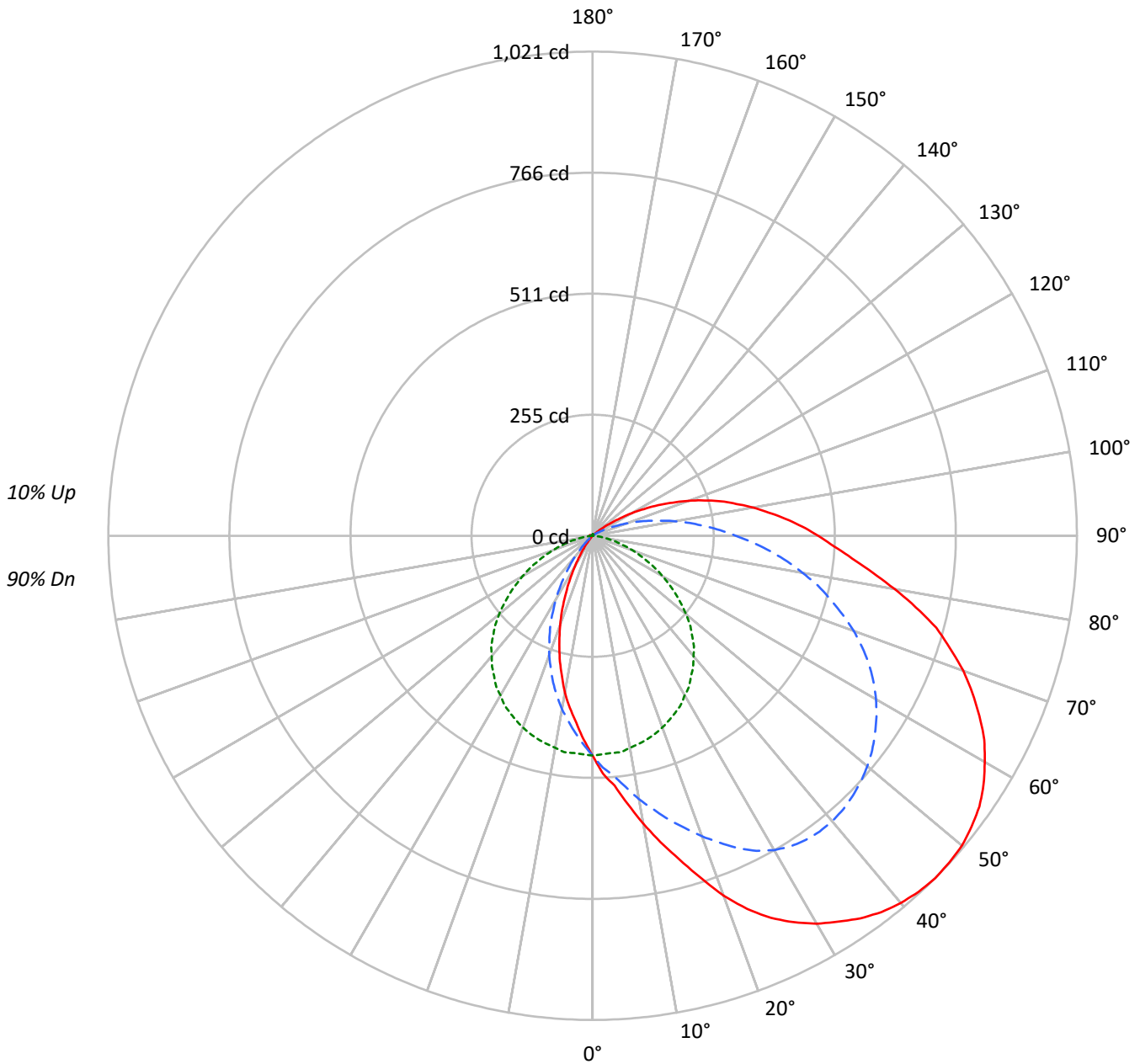
Lumens per Lamp: N/A  
Luminaire Lumens: 2290.1 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-35-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°	4986	4986	4986
5°	5473	4913	4098
10°	6193	4853	3378
15°	6941	4791	2633
20°	7828	4713	1938
25°	8564	4623	1273
30°	9112	4501	717
35°	9585	4370	316
40°	10005	4209	76
45°	10365	4008	0
50°	10668	3741	0
55°	10899	3401	0
60°	11014	3007	0
65°	11060	2561	0
70°	11023	2087	0
75°	10883	1540	9
80°	10441	943	48
85°	10093	453	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	1.9
10°-20°	132.9	5.8
20°-30°	215.1	9.4
30°-40°	276.4	12.1
40°-50°	312.8	13.7
50°-60°	324.1	14.2
60°-70°	305.7	13.3
70°-80°	256.2	11.2
80°-90°	185.7	8.1
90°-100°	122.0	5.3
100°-110°	70.5	3.1
110°-120°	31.1	1.4
120°-130°	8.4	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°	392.4	17.1
0°-40°	668.7	29.2
0°-60°	1305.7	57.0
0°-90°	2053.2	89.7
90°-120°	223.6	9.8
90°-150°	235.3	10.3
90°-180°	237.0	10.3
0°-180°	2290.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	463	463	463	463	463	
5°	529	508	460	417	396	53
15°	706	619	444	321	268	204
25°	889	727	412	211	132	411
35°	985	783	362	103	32	618
45°	1021	776	296	24	0	789
55°	996	727	214	0	0	889
65°	900	643	128	0	0	890
75°	750	519	54	1	1	787
85°	549	376	9	2	4	469
90°	476	302	2	4	4	261
95°	408	236	1	4	5	320
105°	281	122	1	3	5	296
115°	153	40	2	2	3	153
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°	463.2	463.2	463.2	463.2	463.2	463.2	463.2	463.2	463.2	463.2	463.2
2.5°	502.2	501.6	499.8	496.8	492.7	485.6	479.7	474.4	467.3	461.4	450.2
5°	528.7	525.8	523.4	520.4	511.0	504.5	493.9	482.1	470.9	459.7	437.2
7.5°	571.2	566.5	562.9	554.7	541.7	526.9	510.4	499.2	491.5	460.3	421.9
10°	616.6	612.5	605.4	590.7	574.7	553.5	529.9	503.3	479.7	453.8	408.3
12.5°	661.5	655.6	645.5	626.7	604.2	577.7	545.2	514.0	480.3	449.6	392.4
15°	706.3	699.8	689.2	666.2	636.7	601.9	562.3	522.8	483.3	444.3	375.9
17.5°	755.3	746.4	730.5	704.6	667.4	624.3	577.7	529.9	482.1	437.8	358.2
20°	807.8	795.4	778.3	743.5	699.8	649.1	593.0	537.0	481.5	430.2	338.1
22.5°	851.5	839.1	820.2	784.2	731.7	669.7	606.0	541.7	479.1	421.3	319.2
25°	889.2	879.2	858.6	817.3	761.8	691.6	618.4	545.2	475.6	411.9	299.2
27.5°	918.8	909.3	886.3	843.8	787.2	711.0	627.8	547.0	470.9	402.4	278.5
30°	944.7	935.3	907.5	863.9	804.3	726.4	637.3	547.6	465.0	388.3	256.1
32.5°	964.8	955.9	927.6	881.0	816.1	737.0	642.6	547.0	457.3	378.2	231.9
35°	984.8	976.0	942.9	893.4	824.9	741.7	646.7	544.1	447.9	361.7	208.9
37.5°	1000.2	990.2	956.5	901.6	829.1	742.9	646.1	539.9	437.8	348.1	185.9
40°	1010.8	1000.2	964.2	906.4	830.2	741.1	641.4	532.8	426.0	331.0	161.7
42.5°	1017.9	1006.1	967.7	913.4	827.9	736.4	634.3	524.0	413.1	316.3	138.7
45°	1021.4	1009.0	968.3	907.5	823.8	727.6	623.7	512.8	398.9	296.2	115.7
47.5°	1019.7	1006.1	965.4	901.1	816.1	718.1	611.9	499.2	381.8	278.5	93.8
50°	1016.7	1002.5	958.9	892.8	805.5	706.3	598.9	482.7	364.1	256.7	74.3
52.5°	1007.3	993.1	951.8	881.0	793.1	692.8	581.2	465.6	345.2	235.4	56.6
55°	995.5	982.5	939.4	870.4	777.1	676.2	564.7	447.3	326.9	213.6	40.7
57.5°	977.2	965.4	924.1	853.3	761.2	657.9	546.4	427.2	303.9	191.8	28.3
60°	954.7	942.9	902.8	833.8	742.9	637.3	526.4	406.6	283.2	169.9	17.7
62.5°	931.1	919.9	878.0	809.6	719.9	615.5	504.5	385.9	261.4	149.9	10.6
65°	899.9	889.2	851.5	780.7	694.5	591.8	480.3	361.1	239.0	127.5	5.9
67.5°	866.8	857.4	819.0	754.1	665.0	565.9	455.5	336.9	215.4	108.0	3.0
70°	831.4	819.6	784.2	718.1	634.9	536.4	428.4	312.2	193.0	89.1	0.0
72.5°	790.1	781.3	747.0	684.5	600.1	505.1	400.7	285.0	168.2	70.8	0.6
75°	750.0	738.8	707.5	648.5	565.9	472.1	370.0	259.6	144.0	54.3	0.6
77.5°	698.1	694.5	665.0	607.8	533.4	440.2	336.3	229.0	121.0	38.9	0.6
80°	646.1	642.6	619.6	567.1	495.7	402.4	305.1	200.0	98.5	26.0	0.6
82.5°	594.8	590.1	568.2	524.6	457.3	370.6	272.6	171.1	77.9	15.9	0.6
85°	548.8	542.9	519.3	479.1	417.8	334.6	239.0	142.8	57.8	8.9	1.2
87.5°	509.2	505.1	479.1	437.8	377.7	300.9	209.5	115.7	40.7	4.1	1.8
90°	475.6	466.8	443.7	400.1	339.9	263.8	178.2	92.6	27.1	2.4	2.4
92.5°	442.6	434.9	409.5	364.7	306.3	231.9	148.1	70.8	17.1	1.2	3.0
95°	408.3	400.1	375.3	334.0	272.0	199.4	121.6	51.9	9.4	1.2	3.0
97.5°	374.7	367.0	341.1	299.8	241.3	171.1	96.2	36.6	4.7	1.2	2.4
100°	343.4	334.6	311.0	269.7	210.7	142.8	74.3	23.6	3.0	1.2	2.4
102.5°	310.4	303.3	279.1	239.0	178.8	116.2	55.5	14.8	1.2	1.2	1.8
105°	280.9	272.0	248.4	207.1	152.2	91.5	38.9	8.9	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°	182.9	175.8	155.2	120.4	77.3	36.0	10.6	1.8	1.8	1.8	1.8
115°	152.8	142.2	123.9	93.2	57.2	23.6	5.3	1.8	1.8	1.8	1.8
117.5°	122.1	113.3	100.3	70.8	37.8	15.3	3.0	1.8	1.8	1.8	1.8
120°	95.6	87.3	72.6	49.0	25.4	8.9	1.2	1.8	1.8	1.8	1.8
122.5°	68.4	62.0	49.0	31.9	15.3	4.1	1.8	1.8	2.4	2.4	1.8
125°	45.4	41.9	32.5	19.5	9.4	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.5	26.6	18.9	11.2	4.1	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.5	14.8	11.2	6.5	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.4	8.9	5.9	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°	463.2	463.2	463.2
2.5°	440.8	432.5	430.2
5°	417.2	403.6	395.9
7.5°	393.6	375.3	366.4
10°	371.7	345.8	336.3
12.5°	345.8	315.7	300.9
15°	321.0	282.1	267.9
17.5°	293.3	249.6	233.1
20°	267.3	217.1	200.0
22.5°	237.8	185.3	166.4
25°	211.2	153.4	132.2
27.5°	181.7	121.0	102.7
30°	154.0	92.6	74.3
32.5°	127.5	67.9	51.3
35°	102.7	46.0	32.5
37.5°	79.1	28.3	16.5
40°	57.2	14.8	7.7
42.5°	38.4	7.1	4.1
45°	23.6	3.5	0.0
47.5°	13.6	0.0	0.0
50°	7.1	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	3.5
87.5°	3.0	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.3
97.5°	4.7	5.3	5.3
100°	4.1	5.3	5.9
102.5°	3.5	5.3	5.3
105°	3.0	4.1	4.7





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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°	247.8	240.8	217.1	178.2	124.5	69.6	26.0	4.7	1.2	1.8	1.8
110°	216.0	210.1	185.9	148.1	100.3	51.9	17.1	3.0	1.8	1.8	1.8







107.5°	2.4	3.5	4.1
110°	2.4	3.0	3.5



(END OF REPORT)