

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: P551582

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-87-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: P551582  
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-40-UNV-80-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

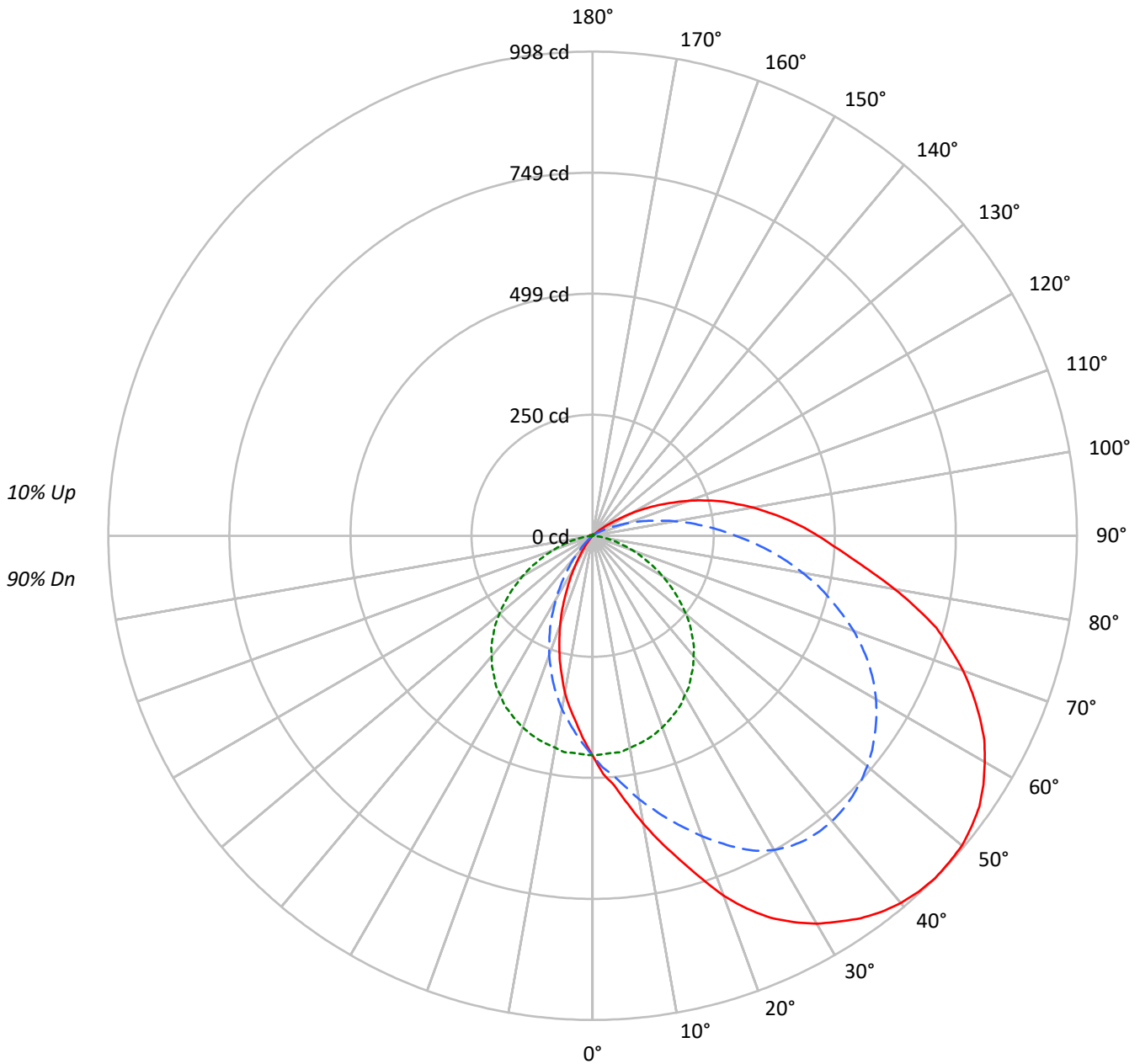
Lumens per Lamp: N/A  
Luminaire Lumens: 2238.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-87-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°	4873	4873	4873
5°	5349	4801	4006
10°	6053	4743	3302
15°	6784	4682	2573
20°	7651	4606	1895
25°	8370	4517	1244
30°	8905	4399	701
35°	9368	4271	309
40°	9779	4114	74
45°	10130	3917	0
50°	10426	3657	0
55°	10652	3325	0
60°	10765	2939	0
65°	10809	2503	0
70°	10772	2040	0
75°	10636	1506	9
80°	10206	921	47
85°	9864	442	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.4	1.9
10°-20°	129.8	5.8
20°-30°	210.3	9.4
30°-40°	270.1	12.1
40°-50°	305.7	13.7
50°-60°	316.8	14.2
60°-70°	298.7	13.3
70°-80°	250.4	11.2
80°-90°	181.5	8.1
90°-100°	119.3	5.3
100°-110°	68.9	3.1
110°-120°	30.4	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°	383.5	17.1
0°-40°	653.5	29.2
0°-60°	1276.0	57.0
0°-90°	2006.6	89.7
90°-120°	218.5	9.8
90°-150°	229.9	10.3
90°-180°	231.0	10.3
0°-180°	2238.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	453	453	453	453	453	
5°	517	496	449	408	387	52
15°	690	605	434	314	262	199
25°	869	710	402	206	129	402
35°	962	766	354	100	32	604
45°	998	758	290	23	0	771
55°	973	710	209	0	0	869
65°	879	629	125	0	0	870
75°	733	507	53	1	1	769
85°	536	368	9	2	4	458
90°	465	295	2	4	4	255
95°	399	230	1	4	5	313
105°	274	119	1	3	5	290
115°	149	40	2	2	3	150
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°	452.7	452.7	452.7	452.7	452.7	452.7	452.7	452.7	452.7	452.7	452.7
2.5°	490.8	490.2	488.4	485.6	481.5	474.6	468.8	463.7	456.7	451.0	440.0
5°	516.7	513.8	511.5	508.6	499.4	493.1	482.7	471.1	460.2	449.2	427.3
7.5°	558.2	553.6	550.2	542.1	529.4	515.0	498.8	487.9	480.4	449.8	412.3
10°	602.6	598.6	591.7	577.3	561.7	540.9	517.9	491.9	468.8	443.5	399.1
12.5°	646.5	640.7	630.9	612.4	590.5	564.6	532.9	502.3	469.4	439.4	383.5
15°	690.3	683.9	673.6	651.1	622.2	588.2	549.6	510.9	472.3	434.2	367.3
17.5°	738.2	729.5	713.9	688.6	652.2	610.1	564.6	517.9	471.1	427.9	350.0
20°	789.5	777.4	760.6	726.6	683.9	634.3	579.6	524.8	470.6	420.4	330.4
22.5°	832.1	820.0	801.6	766.4	715.1	654.5	592.3	529.4	468.3	411.7	312.0
25°	869.1	859.3	839.1	798.7	744.5	675.9	604.4	532.9	464.8	402.5	292.4
27.5°	897.9	888.7	866.2	824.7	769.3	694.9	613.6	534.6	460.2	393.3	272.2
30°	923.3	914.0	886.9	844.3	786.0	709.9	622.8	535.2	454.4	379.5	250.3
32.5°	942.9	934.2	906.5	861.0	797.5	720.3	628.0	534.6	446.9	369.7	226.6
35°	962.5	953.8	921.5	873.1	806.2	724.9	632.0	531.7	437.7	353.5	204.1
37.5°	977.5	967.7	934.8	881.2	810.2	726.0	631.5	527.7	427.9	340.2	181.7
40°	987.9	977.5	942.3	885.8	811.4	724.3	626.9	520.7	416.4	323.5	158.0
42.5°	994.8	983.2	945.8	892.7	809.1	719.7	619.9	512.1	403.7	309.1	135.5
45°	998.2	986.1	946.3	886.9	805.0	711.0	609.6	501.1	389.8	289.5	113.0
47.5°	996.5	983.2	943.4	880.6	797.5	701.8	598.0	487.9	373.1	272.2	91.7
50°	993.6	979.8	937.1	872.5	787.2	690.3	585.3	471.7	355.8	250.9	72.7
52.5°	984.4	970.6	930.2	861.0	775.1	677.0	568.0	455.0	337.4	230.1	55.4
55°	972.9	960.2	918.1	850.6	759.5	660.9	551.9	437.1	319.5	208.8	39.8
57.5°	955.0	943.4	903.1	833.9	743.9	643.0	534.0	417.5	297.0	187.4	27.7
60°	933.1	921.5	882.3	814.8	726.0	622.8	514.4	397.3	276.8	166.1	17.3
62.5°	910.0	899.0	858.1	791.2	703.5	601.5	493.1	377.1	255.5	146.5	10.4
65°	879.4	869.1	832.1	762.9	678.8	578.4	469.4	352.9	233.6	124.6	5.8
67.5°	847.1	837.9	800.4	737.0	649.9	553.0	445.2	329.3	210.5	105.5	2.9
70°	812.5	801.0	766.4	701.8	620.5	524.2	418.7	305.1	188.6	87.1	0.0
72.5°	772.2	763.5	730.1	668.9	586.5	493.6	391.6	278.5	164.4	69.2	0.6
75°	733.0	722.0	691.4	633.8	553.0	461.3	361.6	253.7	140.7	53.1	0.6
77.5°	682.2	678.8	649.9	594.0	521.3	430.2	328.7	223.8	118.2	38.1	0.6
80°	631.5	628.0	605.5	554.2	484.4	393.3	298.1	195.5	96.3	25.4	0.6
82.5°	581.3	576.7	555.3	512.7	446.9	362.2	266.4	167.2	76.1	15.6	0.6
85°	536.3	530.5	507.5	468.3	408.3	327.0	233.6	139.6	56.5	8.7	1.2
87.5°	497.7	493.6	468.3	427.9	369.1	294.1	204.7	113.0	39.8	4.0	1.7
90°	464.8	456.2	433.7	391.0	332.2	257.8	174.2	90.5	26.5	2.3	2.3
92.5°	432.5	425.0	400.2	356.4	299.3	226.6	144.7	69.2	16.7	1.2	2.9
95°	399.1	391.0	366.8	326.4	265.8	194.9	118.8	50.7	9.2	1.2	2.9
97.5°	366.2	358.7	333.3	293.0	235.9	167.2	94.0	35.8	4.6	1.2	2.3
100°	335.6	327.0	303.9	263.5	205.9	139.6	72.7	23.1	2.9	1.2	2.3
102.5°	303.3	296.4	272.8	233.6	174.7	113.6	54.2	14.4	1.2	1.2	1.7
105°	274.5	265.8	242.8	202.4	148.8	89.4	38.1	8.7	1.2	1.2	1.7



TEST NUMBER: P551582

CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	178.8	171.9	151.7	117.6	75.5	35.2	10.4	1.7	1.7	1.7	1.7
115°	149.4	139.0	121.1	91.1	55.9	23.1	5.2	1.7	1.7	1.7	1.7
117.5°	119.4	110.7	98.0	69.2	36.9	15.0	2.9	1.7	1.7	1.7	1.7
120°	93.4	85.3	70.9	47.9	24.8	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	66.9	60.6	47.9	31.1	15.0	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.4	40.9	31.7	19.0	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.8	26.0	18.5	11.0	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.1	14.4	11.0	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	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°	452.7	452.7	452.7
2.5°	430.8	422.7	420.4
5°	407.7	394.4	387.0
7.5°	384.6	366.8	358.1
10°	363.3	337.9	328.7
12.5°	337.9	308.5	294.1
15°	313.7	275.7	261.8
17.5°	286.6	243.9	227.8
20°	261.2	212.2	195.5
22.5°	232.4	181.1	162.6
25°	206.5	149.9	129.2
27.5°	177.6	118.2	100.3
30°	150.5	90.5	72.7
32.5°	124.6	66.3	50.2
35°	100.3	45.0	31.7
37.5°	77.3	27.7	16.1
40°	55.9	14.4	7.5
42.5°	37.5	6.9	4.0
45°	23.1	3.5	0.0
47.5°	13.3	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	1.2	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	4.0
90°	3.5	4.0	4.0
92.5°	3.5	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.8
102.5°	3.5	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	1.2
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°	242.2	235.3	212.2	174.2	121.7	68.0	25.4	4.6	1.2	1.7	1.7
110°	211.1	205.3	181.7	144.7	98.0	50.7	16.7	2.9	1.7	1.7	1.7







107.5°	2.3	3.5	4.0
110°	2.3	2.9	3.5



(END OF REPORT)