

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: P551475

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-81-96-ED1D-90**

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: P551475  
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-30-UNV-81-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

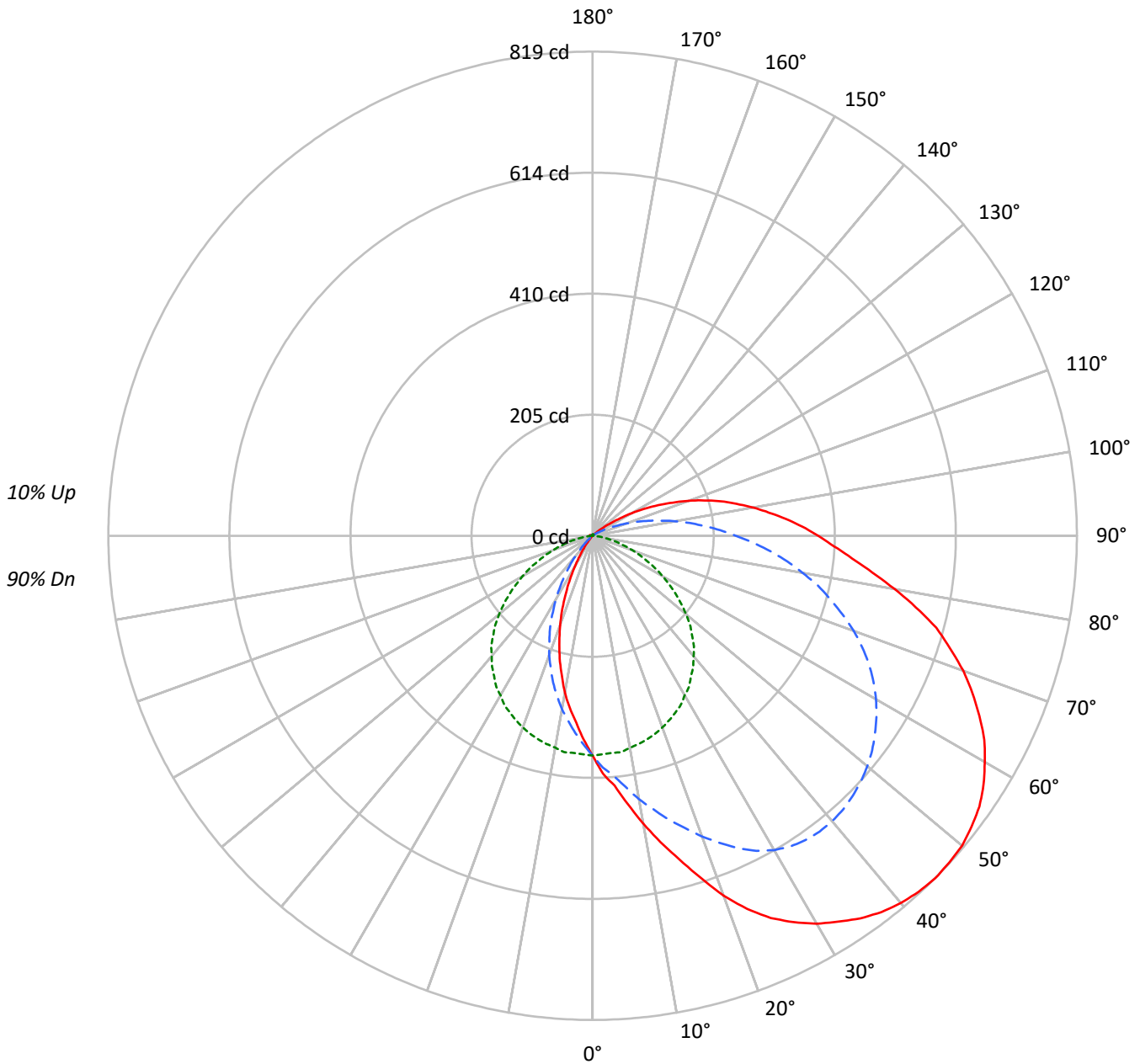
Lumens per Lamp: N/A  
Luminaire Lumens: 1837.0 lumens  
Efficiency: N/A  
Efficacy: 78.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

TEST NUMBER: P551475

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-96-ED1D-90

### 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°	4000	4000	4000
5°	4390	3941	3288
10°	4969	3893	2710
15°	5568	3843	2112
20°	6280	3781	1555
25°	6870	3708	1021
30°	7309	3611	575
35°	7689	3506	253
40°	8027	3378	61
45°	8316	3215	0
50°	8558	3001	0
55°	8742	2729	0
60°	8836	2412	0
65°	8873	2053	0
70°	8843	1675	0
75°	8730	1234	7
80°	8376	754	39
85°	8096	361	51



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.6	1.9
10°-20°	106.6	5.8
20°-30°	172.6	9.4
30°-40°	221.7	12.1
40°-50°	251.0	13.7
50°-60°	260.0	14.2
60°-70°	245.2	13.3
70°-80°	205.5	11.2
80°-90°	148.9	8.1
90°-100°	97.9	5.3
100°-110°	56.5	3.1
110°-120°	24.9	1.4
120°-130°	6.7	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	314.7	17.1
0°-40°	536.4	29.2
0°-60°	1047.4	57.0
0°-90°	1647.0	89.7
90°-120°	179.4	9.8
90°-150°	188.7	10.3
90°-180°	190.0	10.3
0°-180°	1837.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	372	372	372	372	372	
5°	424	407	369	335	318	43
15°	567	497	356	258	215	163
25°	713	583	330	170	106	330
35°	790	628	290	82	26	495
45°	819	622	238	19	0	633
55°	798	583	171	0	0	713
65°	722	516	102	0	0	714
75°	602	416	44	0	0	631
85°	440	302	7	2	3	376
90°	382	242	2	3	3	209
95°	328	189	1	3	4	257
105°	225	98	1	2	4	238
115°	123	32	1	1	2	123
125°	36	4	2	1	2	36
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	371.6	371.6	371.6	371.6	371.6	371.6	371.6	371.6	371.6	371.6	371.6
2.5°	402.8	402.3	400.9	398.6	395.2	389.6	384.8	380.6	374.9	370.2	361.2
5°	424.1	421.8	419.9	417.5	409.9	404.7	396.2	386.7	377.7	368.7	350.8
7.5°	458.2	454.4	451.6	445.0	434.5	422.7	409.4	400.5	394.3	369.2	338.4
10°	494.7	491.3	485.7	473.8	461.0	444.0	425.1	403.8	384.8	364.0	327.6
12.5°	530.6	525.9	517.8	502.7	484.7	463.4	437.4	412.3	385.3	360.7	314.8
15°	566.6	561.4	552.9	534.4	510.7	482.8	451.1	419.4	387.7	356.4	301.5
17.5°	605.9	598.8	586.0	565.2	535.4	500.8	463.4	425.1	386.7	351.2	287.3
20°	648.0	638.1	624.4	596.4	561.4	520.7	475.7	430.7	386.3	345.1	271.2
22.5°	683.0	673.1	658.0	629.1	587.0	537.3	486.1	434.5	384.4	338.0	256.1
25°	713.3	705.3	688.7	655.6	611.1	554.8	496.1	437.4	381.5	330.4	240.0
27.5°	737.0	729.4	711.0	676.9	631.5	570.4	503.6	438.8	377.7	322.8	223.4
30°	757.8	750.3	728.0	693.0	645.2	582.7	511.2	439.3	373.0	311.5	205.4
32.5°	773.9	766.8	744.1	706.7	654.6	591.2	515.5	438.8	366.8	303.4	186.0
35°	790.0	782.9	756.4	716.7	661.7	595.0	518.8	436.4	359.3	290.2	167.6
37.5°	802.3	794.3	767.3	723.3	665.1	595.9	518.3	433.1	351.2	279.3	149.1
40°	810.9	802.3	773.5	727.1	666.0	594.5	514.5	427.4	341.8	265.6	129.7
42.5°	816.5	807.1	776.3	732.7	664.1	590.7	508.9	420.3	331.3	253.7	111.2
45°	819.4	809.4	776.8	728.0	660.8	583.6	500.3	411.3	320.0	237.6	92.8
47.5°	818.0	807.1	774.4	722.8	654.6	576.1	490.9	400.5	306.3	223.4	75.3
50°	815.6	804.2	769.2	716.2	646.1	566.6	480.5	387.2	292.1	205.9	59.6
52.5°	808.0	796.7	763.5	706.7	636.2	555.7	466.3	373.5	276.9	188.9	45.4
55°	798.5	788.1	753.6	698.2	623.4	542.5	453.0	358.8	262.2	171.4	32.7
57.5°	783.9	774.4	741.3	684.5	610.6	527.8	438.3	342.7	243.8	153.8	22.7
60°	765.9	756.4	724.2	668.8	595.9	511.2	422.2	326.1	227.2	136.3	14.2
62.5°	746.9	738.0	704.3	649.4	577.5	493.7	404.7	309.6	209.7	120.2	8.5
65°	721.9	713.3	683.0	626.2	557.1	474.8	385.3	289.7	191.7	102.2	4.7
67.5°	695.4	687.8	657.0	604.9	533.5	453.9	365.4	270.3	172.8	86.6	2.4
70°	667.0	657.5	629.1	576.1	509.3	430.3	343.7	250.4	154.8	71.5	0.0
72.5°	633.8	626.7	599.3	549.1	481.4	405.2	321.4	228.6	134.9	56.8	0.5
75°	601.6	592.6	567.5	520.2	453.9	378.7	296.8	208.3	115.5	43.5	0.5
77.5°	560.0	557.1	533.5	487.6	427.9	353.1	269.8	183.7	97.0	31.2	0.5
80°	518.3	515.5	497.0	454.9	397.6	322.8	244.7	160.5	79.0	20.8	0.5
82.5°	477.1	473.4	455.8	420.8	366.8	297.3	218.7	137.3	62.5	12.8	0.5
85°	440.2	435.5	416.5	384.4	335.1	268.4	191.7	114.6	46.4	7.1	0.9
87.5°	408.5	405.2	384.4	351.2	302.9	241.4	168.0	92.8	32.7	3.3	1.4
90°	381.5	374.4	356.0	320.9	272.7	211.6	143.0	74.3	21.8	1.9	1.9
92.5°	355.0	348.9	328.5	292.5	245.7	186.0	118.8	56.8	13.7	0.9	2.4
95°	327.6	320.9	301.1	267.9	218.2	160.0	97.5	41.7	7.6	0.9	2.4
97.5°	300.6	294.4	273.6	240.5	193.6	137.3	77.2	29.3	3.8	0.9	1.9
100°	275.5	268.4	249.5	216.3	169.0	114.6	59.6	18.9	2.4	0.9	1.9
102.5°	249.0	243.3	223.9	191.7	143.4	93.3	44.5	11.8	0.9	0.9	1.4
105°	225.3	218.2	199.3	166.1	122.1	73.4	31.2	7.1	0.9	0.9	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	146.7	141.1	124.5	96.6	62.0	28.9	8.5	1.4	1.4	1.4	1.4
115°	122.6	114.1	99.4	74.8	45.9	18.9	4.3	1.4	1.4	1.4	1.4
117.5°	98.0	90.9	80.5	56.8	30.3	12.3	2.4	1.4	1.4	1.4	1.4
120°	76.7	70.1	58.2	39.3	20.4	7.1	0.9	1.4	1.4	1.4	1.4
122.5°	54.9	49.7	39.3	25.6	12.3	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.4	33.6	26.0	15.6	7.6	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.7	21.3	15.1	9.0	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.3	11.8	9.0	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.6	7.1	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	371.6	371.6	371.6
2.5°	353.6	347.0	345.1
5°	334.7	323.8	317.6
7.5°	315.7	301.1	294.0
10°	298.2	277.4	269.8
12.5°	277.4	253.2	241.4
15°	257.5	226.3	214.9
17.5°	235.3	200.2	187.0
20°	214.4	174.2	160.5
22.5°	190.8	148.6	133.5
25°	169.5	123.1	106.0
27.5°	145.8	97.0	82.4
30°	123.5	74.3	59.6
32.5°	102.2	54.4	41.2
35°	82.4	36.9	26.0
37.5°	63.4	22.7	13.3
40°	45.9	11.8	6.2
42.5°	30.8	5.7	3.3
45°	18.9	2.8	0.0
47.5°	10.9	0.0	0.0
50°	5.7	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.8
87.5°	2.4	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.8	3.8
95°	3.3	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.3	4.3	4.7
102.5°	2.8	4.3	4.3
105°	2.4	3.3	3.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.9	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	198.8	193.1	174.2	143.0	99.9	55.9	20.8	3.8	0.9	1.4	1.4
110°	173.2	168.5	149.1	118.8	80.5	41.7	13.7	2.4	1.4	1.4	1.4







107.5°	1.9	2.8	3.3
110°	1.9	2.4	2.8



(END OF REPORT)