

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: P551493

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-97-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: P551493  
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-82-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

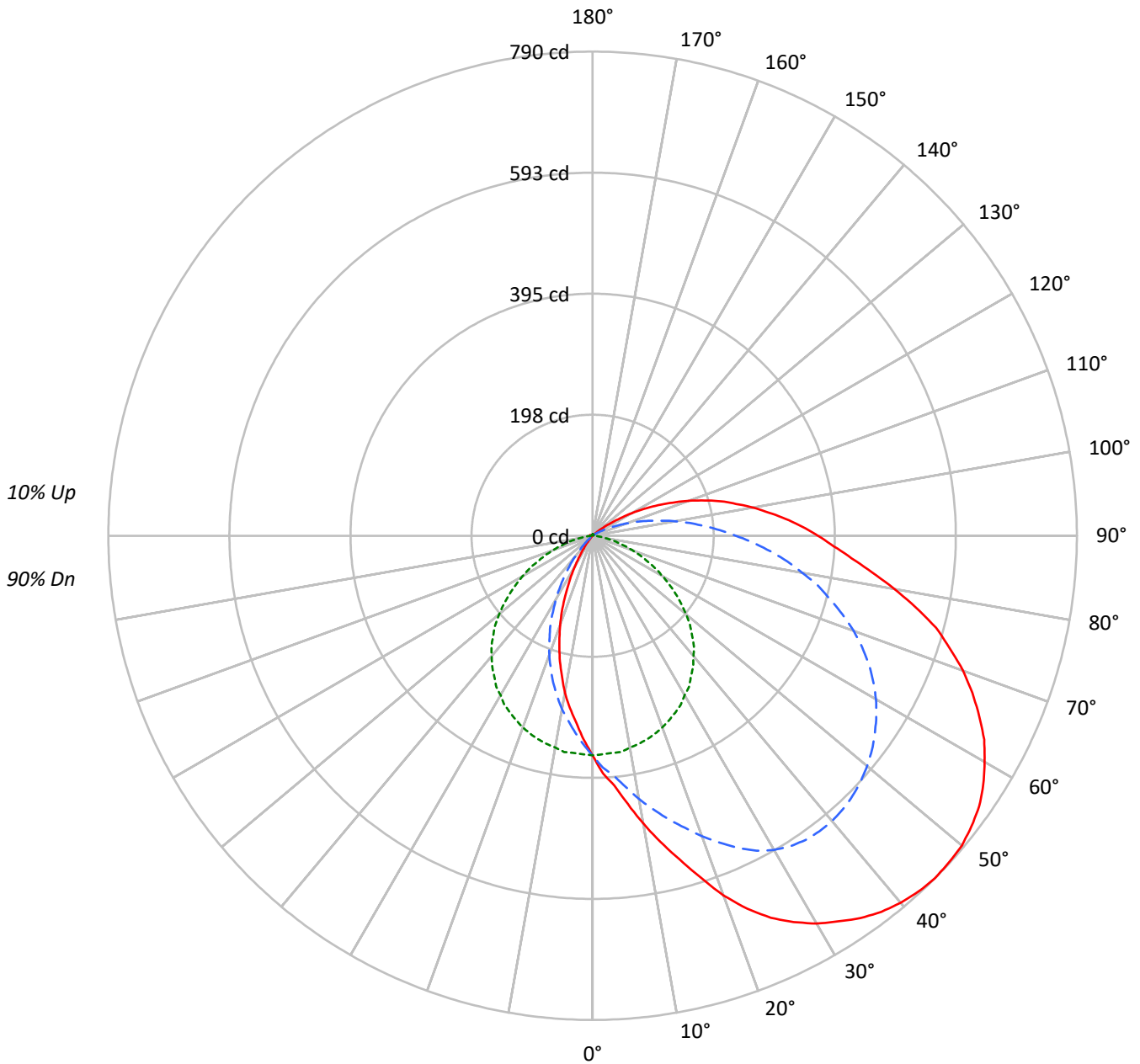
Lumens per Lamp: N/A  
Luminaire Lumens: 1771.0 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551493

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-97-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°	3856	3856	3856
5°	4233	3800	3170
10°	4790	3753	2613
15°	5368	3705	2036
20°	6054	3645	1499
25°	6623	3574	984
30°	7047	3481	555
35°	7413	3380	244
40°	7738	3256	58
45°	8016	3100	0
50°	8251	2893	0
55°	8429	2631	0
60°	8519	2325	0
65°	8553	1980	0
70°	8525	1614	0
75°	8416	1191	7
80°	8076	729	37
85°	7806	346	50



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.3	1.9
10°-20°	102.7	5.8
20°-30°	166.4	9.4
30°-40°	213.7	12.1
40°-50°	241.9	13.7
50°-60°	250.7	14.2
60°-70°	236.4	13.3
70°-80°	198.1	11.2
80°-90°	143.6	8.1
90°-100°	94.4	5.3
100°-110°	54.5	3.1
110°-120°	24.1	1.4
120°-130°	6.5	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°	303.4	17.1
0°-40°	517.2	29.2
0°-60°	1009.8	57.0
0°-90°	1587.9	89.7
90°-120°	172.9	9.8
90°-150°	181.9	10.3
90°-180°	183.0	10.3
0°-180°	1771.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	358	358	358	358	358	
5°	409	393	356	323	306	41
15°	546	479	344	248	207	158
25°	688	562	318	163	102	318
35°	762	606	280	79	25	478
45°	790	600	229	18	0	610
55°	770	562	165	0	0	687
65°	696	497	99	0	0	689
75°	580	401	42	0	0	608
85°	424	291	7	2	3	362
90°	368	233	2	3	3	202
95°	316	182	1	3	4	248
105°	217	94	1	2	4	229
115°	118	31	1	1	2	118
125°	35	4	2	1	2	35
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°	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2	358.2
2.5°	388.3	387.9	386.5	384.2	381.0	375.6	371.0	366.9	361.4	356.9	348.2
5°	408.9	406.6	404.8	402.5	395.2	390.2	382.0	372.8	364.2	355.5	338.2
7.5°	441.7	438.1	435.4	429.0	418.9	407.5	394.7	386.1	380.1	355.9	326.3
10°	476.9	473.7	468.2	456.8	444.5	428.1	409.8	389.3	371.0	350.9	315.8
12.5°	511.6	507.0	499.2	484.6	467.3	446.8	421.7	397.5	371.5	347.7	303.5
15°	546.2	541.2	533.0	515.2	492.4	465.5	434.9	404.3	373.7	343.6	290.7
17.5°	584.1	577.3	565.0	544.9	516.1	482.8	446.8	409.8	372.8	338.6	277.0
20°	624.7	615.2	601.9	575.0	541.2	502.0	458.6	415.3	372.4	332.7	261.5
22.5°	658.5	648.9	634.3	606.5	565.9	518.0	468.7	418.9	370.6	325.8	246.9
25°	687.7	680.0	664.0	632.0	589.1	534.8	478.2	421.7	367.8	318.5	231.4
27.5°	710.5	703.2	685.4	652.6	608.8	549.9	485.6	423.0	364.2	311.2	215.4
30°	730.6	723.3	701.9	668.1	622.0	561.8	492.9	423.5	359.6	300.3	198.1
32.5°	746.1	739.3	717.4	681.3	631.1	570.0	497.0	423.0	353.7	292.5	179.3
35°	761.6	754.8	729.2	690.9	638.0	573.6	500.2	420.8	346.4	279.7	161.5
37.5°	773.5	765.7	739.7	697.3	641.2	574.5	499.7	417.6	338.6	269.2	143.7
40°	781.7	773.5	745.7	700.9	642.1	573.2	496.0	412.1	329.5	256.0	125.0
42.5°	787.2	778.1	748.4	706.4	640.3	569.5	490.6	405.2	319.4	244.6	107.2
45°	789.9	780.3	748.9	701.9	637.1	562.7	482.4	396.6	308.5	229.1	89.4
47.5°	788.6	778.1	746.6	696.8	631.1	555.4	473.2	386.1	295.3	215.4	72.6
50°	786.3	775.3	741.6	690.4	622.9	546.2	463.2	373.3	281.6	198.5	57.5
52.5°	779.0	768.0	736.1	681.3	613.3	535.7	449.5	360.1	267.0	182.1	43.8
55°	769.9	759.8	726.5	673.1	601.0	523.0	436.7	345.9	252.8	165.2	31.5
57.5°	755.7	746.6	714.6	659.9	588.7	508.8	422.6	330.4	235.0	148.3	21.9
60°	738.4	729.2	698.2	644.8	574.5	492.9	407.1	314.4	219.0	131.4	13.7
62.5°	720.1	711.4	679.0	626.1	556.7	476.0	390.2	298.4	202.2	115.9	8.2
65°	695.9	687.7	658.5	603.7	537.1	457.7	371.5	279.3	184.8	98.6	4.6
67.5°	670.4	663.1	633.4	583.2	514.3	437.6	352.3	260.6	166.6	83.5	2.3
70°	643.0	633.9	606.5	555.4	491.0	414.8	331.3	241.4	149.2	68.9	0.0
72.5°	611.0	604.2	577.7	529.4	464.1	390.6	309.9	220.4	130.1	54.8	0.5
75°	580.0	571.3	547.2	501.5	437.6	365.1	286.1	200.8	111.3	42.0	0.5
77.5°	539.9	537.1	514.3	470.0	412.5	340.4	260.1	177.1	93.6	30.1	0.5
80°	499.7	497.0	479.2	438.5	383.3	311.2	235.9	154.7	76.2	20.1	0.5
82.5°	460.0	456.3	439.5	405.7	353.7	286.6	210.8	132.3	60.2	12.3	0.5
85°	424.4	419.8	401.6	370.6	323.1	258.7	184.8	110.4	44.7	6.8	0.9
87.5°	393.8	390.6	370.6	338.6	292.1	232.7	162.0	89.4	31.5	3.2	1.4
90°	367.8	361.0	343.2	309.4	262.9	204.0	137.8	71.6	21.0	1.8	1.8
92.5°	342.3	336.3	316.7	282.0	236.8	179.3	114.5	54.8	13.2	0.9	2.3
95°	315.8	309.4	290.2	258.3	210.4	154.2	94.0	40.2	7.3	0.9	2.3
97.5°	289.8	283.8	263.8	231.8	186.6	132.3	74.4	28.3	3.7	0.9	1.8
100°	265.6	258.7	240.5	208.5	162.9	110.4	57.5	18.3	2.3	0.9	1.8
102.5°	240.0	234.6	215.9	184.8	138.3	89.9	42.9	11.4	0.9	0.9	1.4
105°	217.2	210.4	192.1	160.2	117.7	70.7	30.1	6.8	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°	141.5	136.0	120.0	93.1	59.8	27.8	8.2	1.4	1.4	1.4	1.4
115°	118.2	110.0	95.8	72.1	44.3	18.3	4.1	1.4	1.4	1.4	1.4
117.5°	94.5	87.6	77.6	54.8	29.2	11.9	2.3	1.4	1.4	1.4	1.4
120°	73.9	67.5	56.1	37.9	19.6	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.9	47.9	37.9	24.6	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.1	32.4	25.1	15.1	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.8	20.5	14.6	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.4	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
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°	358.2	358.2	358.2
2.5°	340.9	334.5	332.7
5°	322.6	312.1	306.2
7.5°	304.4	290.2	283.4
10°	287.5	267.4	260.1
12.5°	267.4	244.1	232.7
15°	248.3	218.1	207.2
17.5°	226.8	193.0	180.3
20°	206.7	167.9	154.7
22.5°	183.9	143.3	128.7
25°	163.4	118.6	102.2
27.5°	140.6	93.6	79.4
30°	119.1	71.6	57.5
32.5°	98.6	52.5	39.7
35°	79.4	35.6	25.1
37.5°	61.2	21.9	12.8
40°	44.3	11.4	5.9
42.5°	29.7	5.5	3.2
45°	18.3	2.7	0.0
47.5°	10.5	0.0	0.0
50°	5.5	0.0	0.0
52.5°	2.3	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	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	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°	1.8	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°	191.7	186.2	167.9	137.8	96.3	53.8	20.1	3.7	0.9	1.4	1.4
110°	167.0	162.5	143.7	114.5	77.6	40.2	13.2	2.3	1.4	1.4	1.4







107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)