

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: P551548

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-86-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: P551548  
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-82-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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**

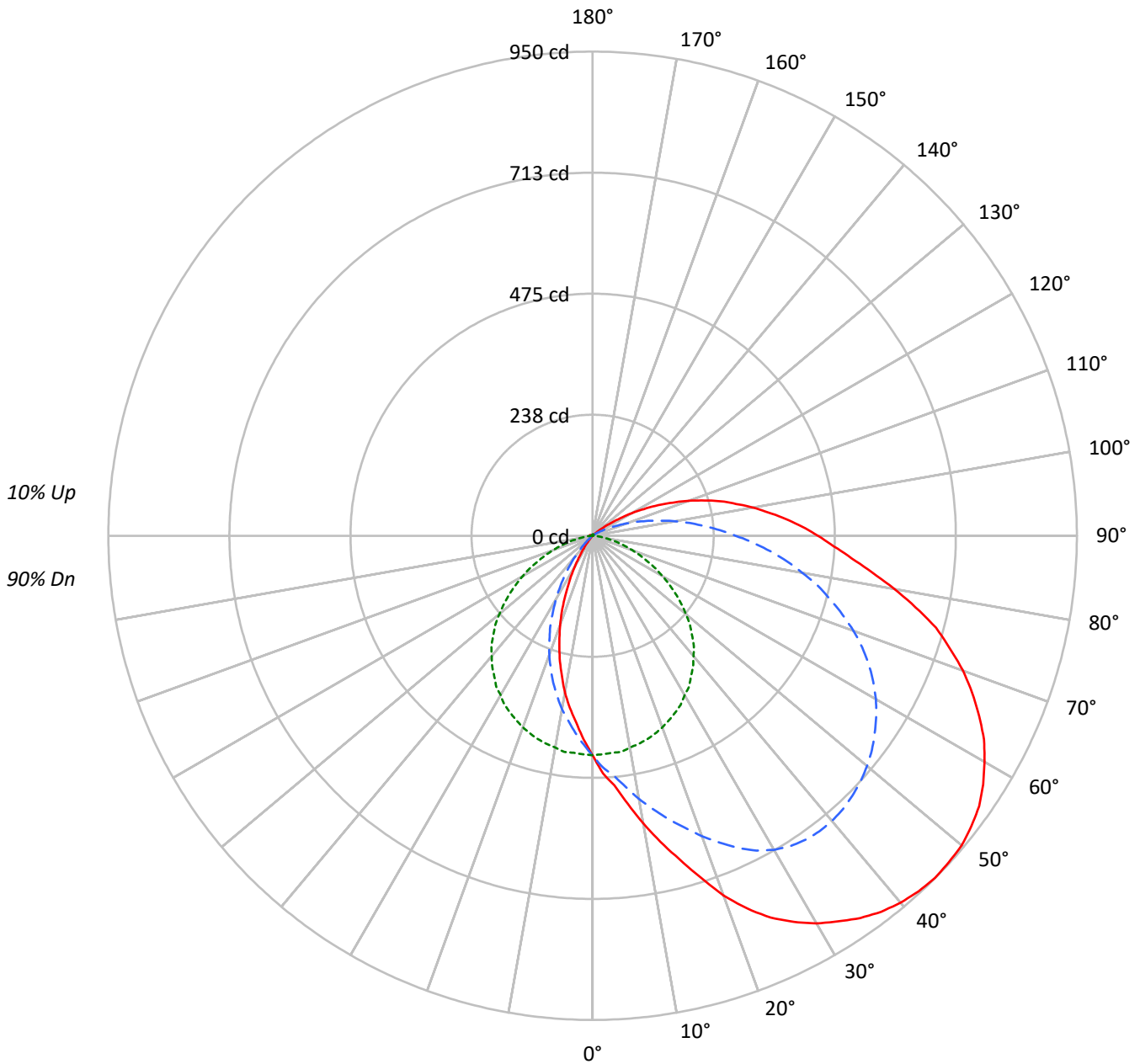
Lumens per Lamp: N/A  
Luminaire Lumens: 2128.9 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551548

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-82-86-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°	4635	4635	4635
5°	5088	4568	3811
10°	5758	4512	3141
15°	6453	4454	2448
20°	7278	4381	1803
25°	7962	4297	1184
30°	8471	4185	666
35°	8911	4063	294
40°	9302	3914	70
45°	9637	3726	0
50°	9918	3477	0
55°	10133	3162	0
60°	10240	2796	0
65°	10282	2380	0
70°	10249	1940	0
75°	10118	1432	7
80°	9708	874	44
85°	9384	417	61



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.2	1.9
10°-20°	123.5	5.8
20°-30°	200.0	9.4
30°-40°	256.9	12.1
40°-50°	290.8	13.7
50°-60°	301.3	14.2
60°-70°	284.2	13.3
70°-80°	238.1	11.2
80°-90°	172.6	8.1
90°-100°	113.4	5.3
100°-110°	65.5	3.1
110°-120°	28.9	1.4
120°-130°	7.8	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	364.8	17.1
0°-40°	621.7	29.2
0°-60°	1213.9	57.0
0°-90°	1908.8	89.7
90°-120°	207.9	9.8
90°-150°	218.6	10.3
90°-180°	220.0	10.3
0°-180°	2128.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	431	431	431	431	431	
5°	492	472	427	388	368	50
15°	657	576	413	298	249	189
25°	827	676	383	196	123	382
35°	916	728	336	96	30	574
45°	950	721	275	22	0	733
55°	926	676	199	0	0	826
65°	837	598	118	0	0	828
75°	697	482	50	0	0	731
85°	510	350	8	2	3	436
90°	442	281	2	3	4	242
95°	380	219	1	4	5	298
105°	261	113	1	3	4	276
115°	142	38	2	2	3	142
125°	42	5	2	2	2	42
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	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°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6
2.5°	466.9	466.3	464.7	461.9	458.1	451.5	446.0	441.1	434.5	429.0	418.6
5°	491.5	488.8	486.6	483.9	475.1	469.0	459.2	448.2	437.8	427.4	406.5
7.5°	531.0	526.6	523.4	515.7	503.6	489.9	474.5	464.1	457.0	427.9	392.2
10°	573.3	569.4	562.9	549.1	534.3	514.6	492.6	467.9	446.0	421.9	379.6
12.5°	615.0	609.5	600.2	582.6	561.8	537.1	506.9	477.8	446.6	418.0	364.8
15°	656.7	650.6	640.8	619.4	591.9	559.6	522.8	486.1	449.3	413.1	349.5
17.5°	702.2	694.0	679.2	655.0	620.5	580.4	537.1	492.6	448.2	407.1	333.0
20°	751.0	739.5	723.6	691.2	650.6	603.5	551.3	499.2	447.7	399.9	314.3
22.5°	791.6	780.1	762.5	729.1	680.3	622.7	563.4	503.6	445.5	391.7	296.8
25°	826.7	817.4	798.2	759.8	708.2	643.0	574.9	506.9	442.2	382.9	278.1
27.5°	854.2	845.4	824.0	784.5	731.8	661.1	583.7	508.5	437.8	374.1	258.9
30°	878.3	869.5	843.7	803.1	747.7	675.3	592.5	509.1	432.3	361.0	238.1
32.5°	896.9	888.7	862.4	819.0	758.7	685.2	597.4	508.5	425.2	351.6	215.6
35°	915.6	907.4	876.7	830.6	766.9	689.6	601.3	505.8	416.4	336.3	194.2
37.5°	929.9	920.5	889.3	838.3	770.8	690.7	600.7	502.0	407.1	323.7	172.8
40°	939.7	929.9	896.4	842.6	771.9	689.0	596.3	495.4	396.1	307.8	150.3
42.5°	946.3	935.4	899.7	849.2	769.7	684.6	589.7	487.2	384.0	294.0	128.9
45°	949.6	938.1	900.2	843.7	765.8	676.4	579.9	476.7	370.8	275.4	107.5
47.5°	948.0	935.4	897.5	837.7	758.7	667.6	568.9	464.1	354.9	258.9	87.2
50°	945.2	932.1	891.5	830.0	748.8	656.7	556.8	448.7	338.5	238.6	69.1
52.5°	936.4	923.3	884.9	819.0	737.3	644.0	540.4	432.8	320.9	218.9	52.7
55°	925.5	913.4	873.4	809.2	722.5	628.7	525.0	415.8	303.9	198.6	37.9
57.5°	908.5	897.5	859.1	793.3	707.7	611.7	508.0	397.2	282.5	178.3	26.3
60°	887.6	876.7	839.3	775.2	690.7	592.5	489.3	378.0	263.3	158.0	16.5
62.5°	865.7	855.3	816.3	752.7	669.3	572.2	469.0	358.8	243.0	139.3	9.9
65°	836.6	826.7	791.6	725.8	645.7	550.2	446.6	335.7	222.2	118.5	5.5
67.5°	805.9	797.1	761.4	701.1	618.3	526.1	423.5	313.2	200.2	100.4	2.7
70°	773.0	762.0	729.1	667.6	590.3	498.7	398.3	290.2	179.4	82.8	0.0
72.5°	734.6	726.3	694.5	636.4	557.9	469.6	372.5	265.0	156.3	65.8	0.5
75°	697.3	686.8	657.8	602.9	526.1	438.9	344.0	241.4	133.9	50.5	0.5
77.5°	649.0	645.7	618.3	565.1	495.9	409.3	312.7	212.9	112.5	36.2	0.5
80°	600.7	597.4	576.0	527.2	460.8	374.1	283.6	186.0	91.6	24.1	0.5
82.5°	553.0	548.6	528.3	487.7	425.2	344.5	253.5	159.1	72.4	14.8	0.5
85°	510.2	504.7	482.8	445.5	388.4	311.1	222.2	132.8	53.8	8.2	1.1
87.5°	473.4	469.6	445.5	407.1	351.1	279.8	194.8	107.5	37.9	3.8	1.6
90°	442.2	433.9	412.5	371.9	316.0	245.2	165.7	86.1	25.2	2.2	2.2
92.5°	411.4	404.3	380.7	339.0	284.7	215.6	137.7	65.8	15.9	1.1	2.7
95°	379.6	371.9	348.9	310.5	252.9	185.4	113.0	48.3	8.8	1.1	2.7
97.5°	348.4	341.2	317.1	278.7	224.4	159.1	89.4	34.0	4.4	1.1	2.2
100°	319.3	311.1	289.1	250.7	195.8	132.8	69.1	21.9	2.7	1.1	2.2
102.5°	288.6	282.0	259.5	222.2	166.2	108.1	51.6	13.7	1.1	1.1	1.6
105°	261.1	252.9	231.0	192.6	141.5	85.0	36.2	8.2	1.1	1.1	1.6



TEST NUMBER: P551548

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	170.1	163.5	144.3	111.9	71.9	33.5	9.9	1.6	1.6	1.6	1.6
115°	142.1	132.2	115.2	86.7	53.2	21.9	4.9	1.6	1.6	1.6	1.6
117.5°	113.6	105.3	93.3	65.8	35.1	14.3	2.7	1.6	1.6	1.6	1.6
120°	88.9	81.2	67.5	45.5	23.6	8.2	1.1	1.6	1.6	1.6	1.6
122.5°	63.6	57.6	45.5	29.6	14.3	3.8	1.6	1.6	2.2	2.2	1.6
125°	42.2	39.0	30.2	18.1	8.8	1.6	1.6	1.6	2.2	2.2	1.6
127.5°	27.4	24.7	17.6	10.4	3.8	1.6	1.6	2.2	2.2	2.2	1.6
130°	15.4	13.7	10.4	6.0	1.6	1.6	1.6	2.2	2.2	2.2	1.6
132.5°	8.8	8.2	5.5	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.2	2.7	2.7	2.7	2.2
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.2
142.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
145°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.2	2.2
150°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
152.5°	0.5	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
157.5°	1.1	1.1	1.1	1.6	2.2	2.2	2.2	2.7	2.2	2.2	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.2	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.2	2.2	2.7	2.7	2.7	2.2
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	430.6	430.6	430.6
2.5°	409.8	402.1	399.9
5°	387.9	375.2	368.1
7.5°	365.9	348.9	340.7
10°	345.6	321.5	312.7
12.5°	321.5	293.5	279.8
15°	298.4	262.2	249.1
17.5°	272.7	232.1	216.7
20°	248.5	201.9	186.0
22.5°	221.1	172.3	154.7
25°	196.4	142.6	122.9
27.5°	169.0	112.5	95.5
30°	143.2	86.1	69.1
32.5°	118.5	63.1	47.7
35°	95.5	42.8	30.2
37.5°	73.5	26.3	15.4
40°	53.2	13.7	7.1
42.5°	35.7	6.6	3.8
45°	21.9	3.3	0.0
47.5°	12.6	0.0	0.0
50°	6.6	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.2	2.7
82.5°	2.2	2.7	2.7
85°	2.2	2.7	3.3
87.5°	2.7	3.3	3.8
90°	3.3	3.8	3.8
92.5°	3.3	4.4	4.4
95°	3.8	4.4	4.9
97.5°	4.4	4.9	4.9
100°	3.8	4.9	5.5
102.5°	3.3	4.9	4.9
105°	2.7	3.8	4.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.2	2.7	2.7
115°	1.6	2.2	2.7
117.5°	1.6	2.2	2.2
120°	1.6	1.6	2.2
122.5°	1.6	1.6	2.2
125°	1.6	1.6	2.2
127.5°	2.2	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.2	1.6	1.6
135°	2.2	1.6	1.6
137.5°	2.2	1.6	1.6
140°	2.2	1.6	1.6
142.5°	2.2	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.2	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	230.4	223.8	201.9	165.7	115.8	64.7	24.1	4.4	1.1	1.6	1.6
110°	200.8	195.3	172.8	137.7	93.3	48.3	15.9	2.7	1.6	1.6	1.6







107.5°	2.2	3.3	3.8
110°	2.2	2.7	3.3



(END OF REPORT)