

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: P550464

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-88-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: P550464  
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-LD4-1HI-30-UNV-82-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

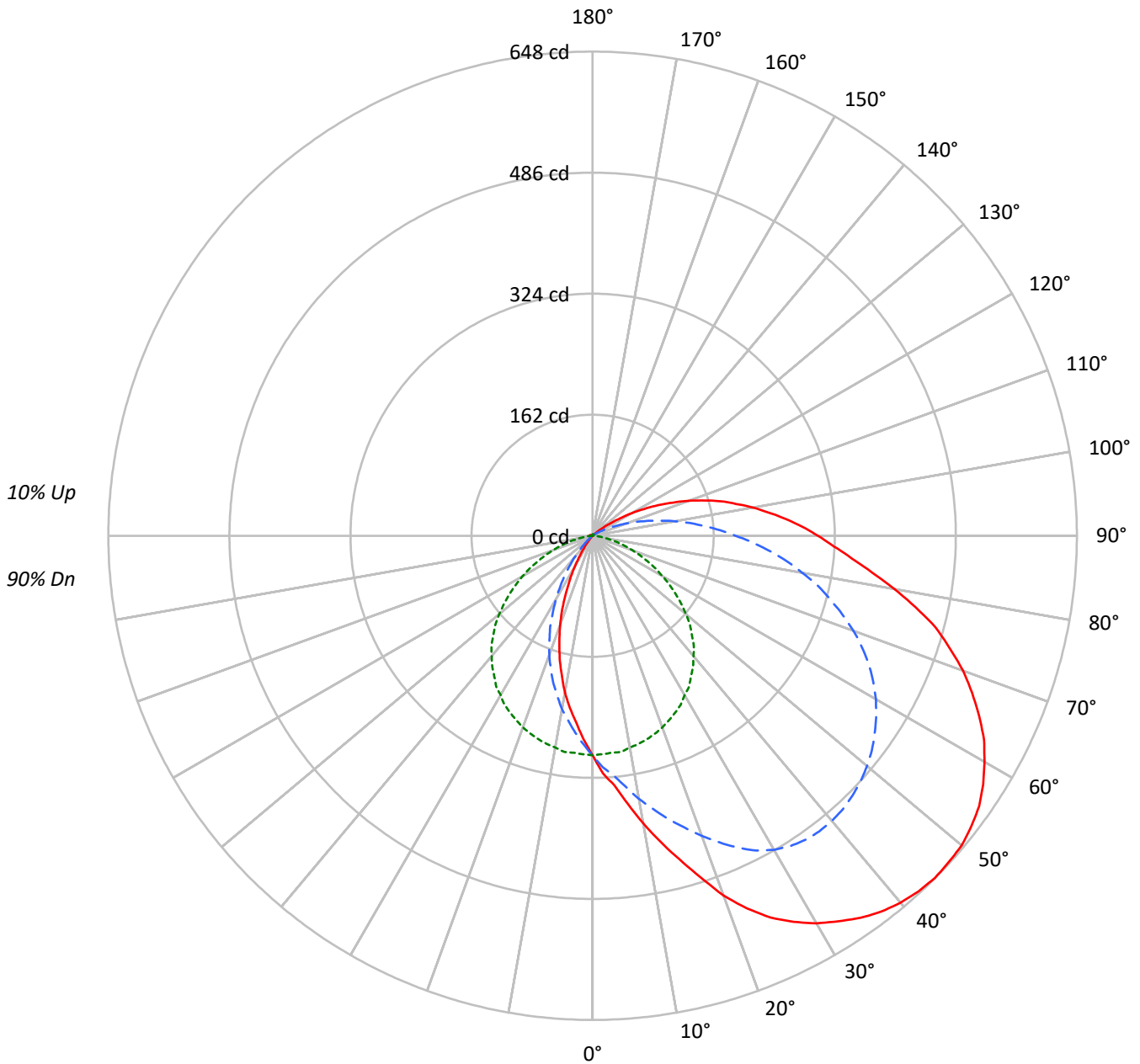
Lumens per Lamp: N/A  
Luminaire Lumens: 1452.0 lumens  
Efficiency: N/A  
Efficacy: 66.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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-LD4-1HI-30-UNV-82-88-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°	3161	3161	3161
5°	3470	3116	2599
10°	3927	3077	2142
15°	4402	3037	1670
20°	4964	2989	1229
25°	5430	2931	807
30°	5777	2854	454
35°	6077	2772	200
40°	6344	2669	49
45°	6572	2541	0
50°	6765	2373	0
55°	6911	2156	0
60°	6984	1908	0
65°	7013	1623	0
70°	6990	1324	0
75°	6900	976	6
80°	6621	599	31
85°	6400	285	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.1	1.9
10°-20°	84.2	5.8
20°-30°	136.4	9.4
30°-40°	175.2	12.1
40°-50°	198.4	13.7
50°-60°	205.5	14.2
60°-70°	193.8	13.3
70°-80°	162.4	11.2
80°-90°	117.7	8.1
90°-100°	77.4	5.3
100°-110°	44.7	3.1
110°-120°	19.7	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	248.8	17.1
0°-40°	424.0	29.2
0°-60°	827.9	57.0
0°-90°	1301.8	89.7
90°-120°	141.8	9.8
90°-150°	149.1	10.3
90°-180°	150.0	10.3
0°-180°	1452.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	294	294	294	294	294	
5°	335	322	292	264	251	34
15°	448	393	282	204	170	129
25°	564	461	261	134	84	261
35°	624	497	229	65	21	392
45°	648	492	188	15	0	500
55°	631	461	135	0	0	564
65°	571	408	81	0	0	565
75°	476	329	34	0	0	499
85°	348	238	6	2	2	297
90°	302	191	2	2	3	165
95°	259	150	1	3	3	203
105°	178	77	1	2	3	188
115°	97	26	1	1	2	97
125°	29	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	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°	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7	293.7
2.5°	318.4	318.0	316.9	315.0	312.4	307.9	304.2	300.8	296.3	292.6	285.5
5°	335.2	333.4	331.9	330.0	324.0	319.9	313.2	305.7	298.6	291.5	277.2
7.5°	362.2	359.2	356.9	351.7	343.5	334.1	323.6	316.5	311.7	291.8	267.5
10°	391.0	388.4	383.9	374.5	364.4	350.9	336.0	319.1	304.2	287.7	258.9
12.5°	419.4	415.7	409.3	397.3	383.1	366.3	345.7	325.9	304.6	285.1	248.8
15°	447.9	443.7	437.0	422.4	403.7	381.6	356.6	331.5	306.4	281.7	238.3
17.5°	478.9	473.3	463.2	446.7	423.2	395.8	366.3	336.0	305.7	277.6	227.1
20°	512.2	504.3	493.5	471.4	443.7	411.6	376.0	340.5	305.3	272.8	214.4
22.5°	539.9	532.0	520.1	497.2	463.9	424.7	384.2	343.5	303.8	267.1	202.4
25°	563.8	557.5	544.4	518.2	483.0	438.5	392.1	345.7	301.6	261.2	189.7
27.5°	582.5	576.6	562.0	535.0	499.1	450.8	398.1	346.8	298.6	255.2	176.6
30°	599.0	593.0	575.4	547.7	510.0	460.6	404.1	347.2	294.8	246.2	162.4
32.5°	611.7	606.1	588.2	558.6	517.4	467.3	407.4	346.8	290.0	239.8	147.0
35°	624.4	618.8	597.9	566.5	523.1	470.3	410.1	345.0	284.0	229.4	132.4
37.5°	634.2	627.8	606.5	571.7	525.7	471.1	409.7	342.3	277.6	220.7	117.9
40°	640.9	634.2	611.4	574.7	526.4	469.9	406.7	337.9	270.1	209.9	102.5
42.5°	645.4	637.9	613.6	579.2	524.9	466.9	402.2	332.2	261.9	200.5	87.9
45°	647.6	639.8	614.0	575.4	522.3	461.3	395.5	325.1	252.9	187.8	73.3
47.5°	646.5	637.9	612.1	571.3	517.4	455.3	388.0	316.5	242.1	176.6	59.5
50°	644.7	635.7	608.0	566.1	510.7	447.9	379.8	306.1	230.8	162.8	47.1
52.5°	638.7	629.7	603.5	558.6	502.9	439.2	368.5	295.2	218.9	149.3	35.9
55°	631.2	623.0	595.6	551.9	492.8	428.8	358.1	283.6	207.3	135.4	25.8
57.5°	619.6	612.1	585.9	541.0	482.6	417.2	346.5	270.9	192.7	121.6	18.0
60°	605.4	597.9	572.4	528.7	471.1	404.1	333.7	257.8	179.6	107.8	11.2
62.5°	590.4	583.3	556.7	513.3	456.5	390.2	319.9	244.7	165.7	95.0	6.7
65°	570.6	563.8	539.9	495.0	440.4	375.3	304.6	229.0	151.5	80.8	3.7
67.5°	549.6	543.6	519.3	478.2	421.7	358.8	288.8	213.6	136.6	68.5	1.9
70°	527.2	519.7	497.2	455.3	402.6	340.1	271.6	197.9	122.3	56.5	0.0
72.5°	501.0	495.4	473.7	434.0	380.5	320.3	254.0	180.7	106.6	44.9	0.4
75°	475.5	468.4	448.6	411.2	358.8	299.3	234.6	164.6	91.3	34.4	0.4
77.5°	442.6	440.4	421.7	385.4	338.2	279.1	213.3	145.2	76.7	24.7	0.4
80°	409.7	407.4	392.9	359.6	314.3	255.2	193.4	126.8	62.5	16.5	0.4
82.5°	377.1	374.1	360.3	332.6	290.0	235.0	172.9	108.5	49.4	10.1	0.4
85°	348.0	344.2	329.2	303.8	264.9	212.1	151.5	90.5	36.7	5.6	0.7
87.5°	322.9	320.3	303.8	277.6	239.5	190.8	132.8	73.3	25.8	2.6	1.1
90°	301.6	295.9	281.4	253.7	215.5	167.2	113.0	58.7	17.2	1.5	1.5
92.5°	280.6	275.7	259.7	231.2	194.2	147.0	93.9	44.9	10.9	0.7	1.9
95°	258.9	253.7	238.0	211.8	172.5	126.5	77.1	32.9	6.0	0.7	1.9
97.5°	237.6	232.7	216.3	190.1	153.0	108.5	61.0	23.2	3.0	0.7	1.5
100°	217.8	212.1	197.2	171.0	133.6	90.5	47.1	15.0	1.9	0.7	1.5
102.5°	196.8	192.3	177.0	151.5	113.4	73.7	35.2	9.4	0.7	0.7	1.1
105°	178.1	172.5	157.5	131.3	96.5	58.0	24.7	5.6	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.0	111.5	98.4	76.3	49.0	22.8	6.7	1.1	1.1	1.1	1.1
115°	96.9	90.2	78.6	59.1	36.3	15.0	3.4	1.1	1.1	1.1	1.1
117.5°	77.4	71.8	63.6	44.9	23.9	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.6	55.4	46.0	31.1	16.1	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.4	39.3	31.1	20.2	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.8	26.6	20.6	12.3	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.7	16.8	12.0	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.4	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	293.7	293.7	293.7
2.5°	279.5	274.2	272.8
5°	264.5	255.9	251.1
7.5°	249.6	238.0	232.3
10°	235.7	219.2	213.3
12.5°	219.2	200.2	190.8
15°	203.5	178.8	169.9
17.5°	186.0	158.3	147.8
20°	169.5	137.7	126.8
22.5°	150.8	117.5	105.5
25°	133.9	97.3	83.8
27.5°	115.2	76.7	65.1
30°	97.7	58.7	47.1
32.5°	80.8	43.0	32.6
35°	65.1	29.2	20.6
37.5°	50.1	18.0	10.5
40°	36.3	9.4	4.9
42.5°	24.3	4.5	2.6
45°	15.0	2.2	0.0
47.5°	8.6	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.7
102.5°	2.2	3.4	3.4
105°	1.9	2.6	3.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	157.1	152.7	137.7	113.0	78.9	44.1	16.5	3.0	0.7	1.1	1.1
110°	136.9	133.2	117.9	93.9	63.6	32.9	10.9	1.9	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)