

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: P550444

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-81-86-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: P550444  
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-81-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

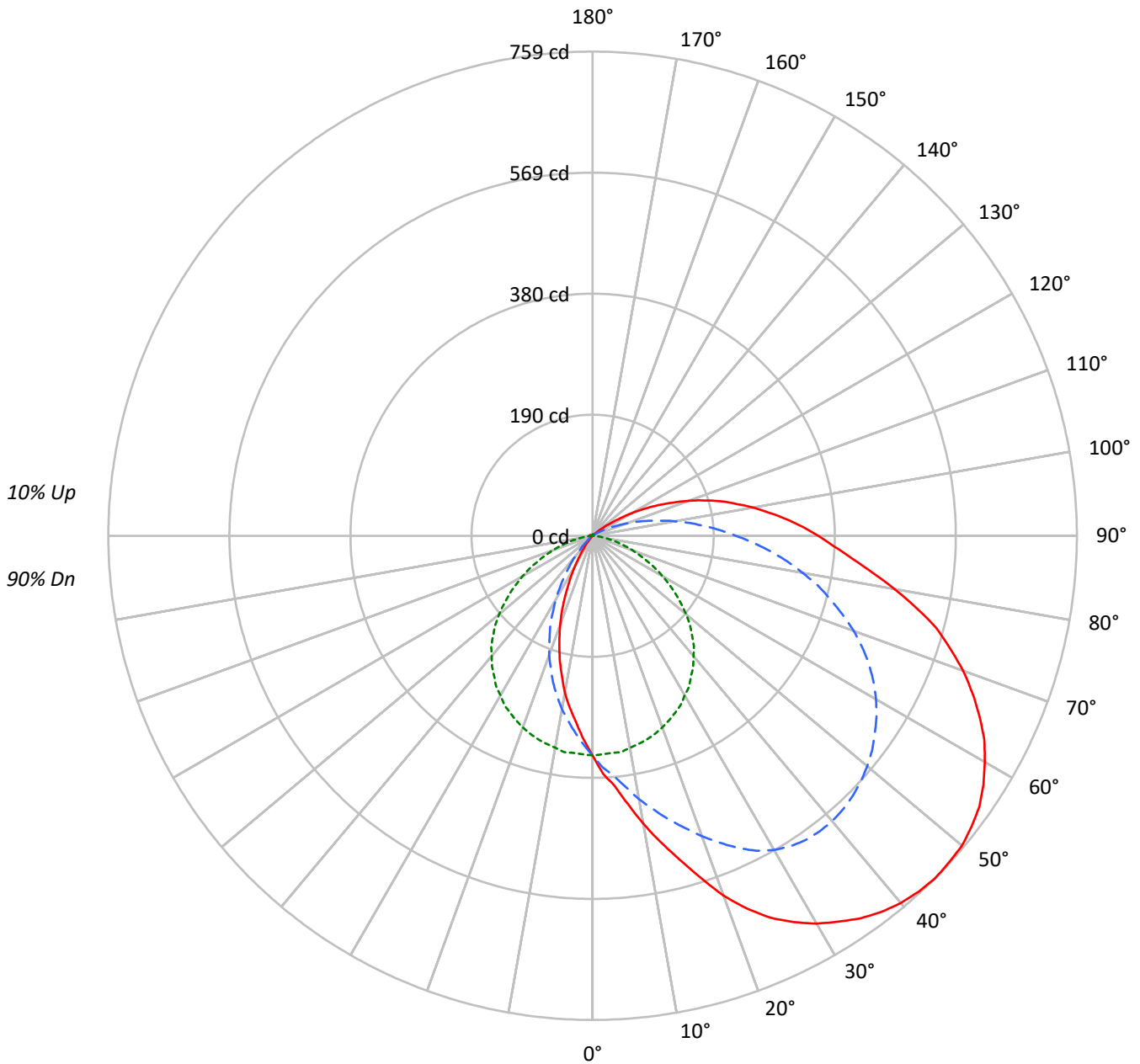
Lumens per Lamp: N/A  
Luminaire Lumens: 1702.0 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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: P550444

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-81-86-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°	3706	3706	3706
5°	4068	3651	3047
10°	4603	3607	2511
15°	5159	3560	1957
20°	5819	3503	1441
25°	6365	3435	946
30°	6772	3346	533
35°	7124	3248	235
40°	7437	3128	56
45°	7705	2980	0
50°	7929	2781	0
55°	8101	2529	0
60°	8186	2235	0
65°	8220	1902	0
70°	8192	1551	0
75°	8088	1143	6
80°	7760	700	36
85°	7502	336	48



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.0	1.9
10°-20°	98.7	5.8
20°-30°	159.9	9.4
30°-40°	205.4	12.1
40°-50°	232.5	13.7
50°-60°	240.9	14.2
60°-70°	227.2	13.3
70°-80°	190.4	11.2
80°-90°	138.0	8.1
90°-100°	90.7	5.3
100°-110°	52.4	3.1
110°-120°	23.1	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	291.6	17.1
0°-40°	497.0	29.2
0°-60°	970.4	57.0
0°-90°	1526.0	89.7
90°-120°	166.2	9.8
90°-150°	174.8	10.3
90°-180°	176.0	10.3
0°-180°	1702.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	344	344	344	344	344	
5°	393	377	342	310	294	40
15°	525	460	330	239	199	151
25°	661	540	306	157	98	305
35°	732	582	269	76	24	459
45°	759	576	220	18	0	586
55°	740	540	159	0	0	661
65°	669	478	95	0	0	662
75°	557	386	40	0	0	585
85°	408	280	7	2	3	348
90°	354	224	2	3	3	194
95°	304	175	1	3	4	238
105°	209	91	1	2	4	220
115°	114	30	1	1	2	114
125°	34	4	2	1	2	34
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°	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3	344.3
2.5°	373.2	372.8	371.5	369.3	366.2	360.9	356.6	352.6	347.3	343.0	334.6
5°	393.0	390.8	389.0	386.8	379.8	375.0	367.1	358.3	350.0	341.6	325.0
7.5°	424.5	421.0	418.4	412.3	402.6	391.6	379.4	371.0	365.3	342.1	313.6
10°	458.3	455.2	450.0	439.0	427.2	411.4	393.8	374.1	356.6	337.3	303.5
12.5°	491.6	487.2	479.8	465.8	449.1	429.4	405.2	382.0	357.0	334.2	291.6
15°	525.0	520.1	512.2	495.1	473.2	447.3	418.0	388.6	359.2	330.2	279.4
17.5°	561.4	554.8	542.9	523.6	496.0	464.0	429.4	393.8	358.3	325.4	266.2
20°	600.4	591.2	578.5	552.6	520.1	482.4	440.8	399.1	357.9	319.7	251.3
22.5°	632.8	623.6	609.6	582.9	543.8	497.8	450.4	402.6	356.1	313.1	237.3
25°	660.9	653.5	638.1	607.4	566.2	514.0	459.6	405.2	353.5	306.1	222.4
27.5°	682.8	675.8	658.7	627.1	585.0	528.5	466.6	406.5	350.0	299.1	207.0
30°	702.1	695.1	674.5	642.1	597.8	539.9	473.7	407.0	345.6	288.6	190.3
32.5°	717.1	710.5	689.4	654.8	606.5	547.8	477.6	406.5	339.9	281.1	172.4
35°	732.0	725.4	700.8	664.0	613.1	551.3	480.7	404.4	332.9	268.8	155.3
37.5°	743.4	735.9	710.9	670.1	616.2	552.2	480.2	401.3	325.4	258.8	138.1
40°	751.3	743.4	716.6	673.6	617.1	550.8	476.7	396.0	316.6	246.0	120.2
42.5°	756.5	747.8	719.2	678.9	615.3	547.3	471.5	389.4	307.0	235.1	103.1
45°	759.2	749.9	719.7	674.5	612.2	540.8	463.6	381.1	296.5	220.2	86.0
47.5°	757.8	747.8	717.5	669.7	606.5	533.7	454.8	371.0	283.8	207.0	69.7
50°	755.6	745.1	712.7	663.5	598.6	525.0	445.1	358.7	270.6	190.8	55.3
52.5°	748.6	738.1	707.4	654.8	589.4	514.9	432.0	346.0	256.6	175.0	42.1
55°	739.9	730.2	698.2	646.9	577.6	502.6	419.7	332.4	243.0	158.8	30.3
57.5°	726.3	717.5	686.8	634.2	565.7	489.0	406.1	317.5	225.9	142.5	21.1
60°	709.6	700.8	671.0	619.7	552.2	473.7	391.2	302.2	210.5	126.3	13.2
62.5°	692.1	683.7	652.6	601.7	535.0	457.4	375.0	286.8	194.3	111.4	7.9
65°	668.8	660.9	632.8	580.2	516.2	439.9	357.0	268.4	177.6	94.7	4.4
67.5°	644.3	637.2	608.7	560.5	494.3	420.6	338.6	250.4	160.1	80.3	2.2
70°	617.9	609.2	582.9	533.7	471.9	398.7	318.4	232.0	143.4	66.2	0.0
72.5°	587.2	580.7	555.2	508.7	446.0	375.4	297.8	211.8	125.0	52.6	0.4
75°	557.4	549.1	525.8	482.0	420.6	350.9	275.0	193.0	107.0	40.3	0.4
77.5°	518.8	516.2	494.3	451.7	396.5	327.2	250.0	170.2	89.9	28.9	0.4
80°	480.2	477.6	460.5	421.5	368.4	299.1	226.7	148.7	73.2	19.3	0.4
82.5°	442.1	438.6	422.3	389.9	339.9	275.4	202.6	127.2	57.9	11.8	0.4
85°	407.9	403.5	385.9	356.1	310.5	248.7	177.6	106.1	43.0	6.6	0.9
87.5°	378.5	375.4	356.1	325.4	280.7	223.7	155.7	86.0	30.3	3.1	1.3
90°	353.5	346.9	329.8	297.3	252.6	196.0	132.4	68.9	20.2	1.8	1.8
92.5°	328.9	323.2	304.4	271.0	227.6	172.4	110.1	52.6	12.7	0.9	2.2
95°	303.5	297.3	278.9	248.2	202.2	148.2	90.3	38.6	7.0	0.9	2.2
97.5°	278.5	272.8	253.5	222.8	179.4	127.2	71.5	27.2	3.5	0.9	1.8
100°	255.2	248.7	231.1	200.4	156.6	106.1	55.3	17.5	2.2	0.9	1.8
102.5°	230.7	225.4	207.4	177.6	132.9	86.4	41.2	11.0	0.9	0.9	1.3
105°	208.8	202.2	184.6	153.9	113.1	68.0	28.9	6.6	0.9	0.9	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	136.0	130.7	115.3	89.5	57.5	26.8	7.9	1.3	1.3	1.3	1.3
115°	113.6	105.7	92.1	69.3	42.5	17.5	3.9	1.3	1.3	1.3	1.3
117.5°	90.8	84.2	74.6	52.6	28.1	11.4	2.2	1.3	1.3	1.3	1.3
120°	71.0	64.9	53.9	36.4	18.9	6.6	0.9	1.3	1.3	1.3	1.3
122.5°	50.9	46.0	36.4	23.7	11.4	3.1	1.3	1.3	1.8	1.8	1.3
125°	33.8	31.1	24.1	14.5	7.0	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	21.9	19.7	14.0	8.3	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.3	11.0	8.3	4.8	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.0	6.6	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	344.3	344.3	344.3
2.5°	327.6	321.5	319.7
5°	310.1	300.0	294.3
7.5°	292.5	278.9	272.3
10°	276.3	257.0	250.0
12.5°	257.0	234.6	223.7
15°	238.6	209.6	199.1
17.5°	218.0	185.5	173.2
20°	198.7	161.4	148.7
22.5°	176.7	137.7	123.7
25°	157.0	114.0	98.2
27.5°	135.1	89.9	76.3
30°	114.5	68.9	55.3
32.5°	94.7	50.4	38.2
35°	76.3	34.2	24.1
37.5°	58.8	21.1	12.3
40°	42.5	11.0	5.7
42.5°	28.5	5.3	3.1
45°	17.5	2.6	0.0
47.5°	10.1	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
105°	2.2	3.1	3.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	184.2	178.9	161.4	132.4	92.5	51.8	19.3	3.5	0.9	1.3	1.3
110°	160.5	156.1	138.1	110.1	74.6	38.6	12.7	2.2	1.3	1.3	1.3







107.5°	1.8	2.6	3.1
110°	1.8	2.2	2.6



(END OF REPORT)