

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: P550466

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-94-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: P550466  
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-82-94-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

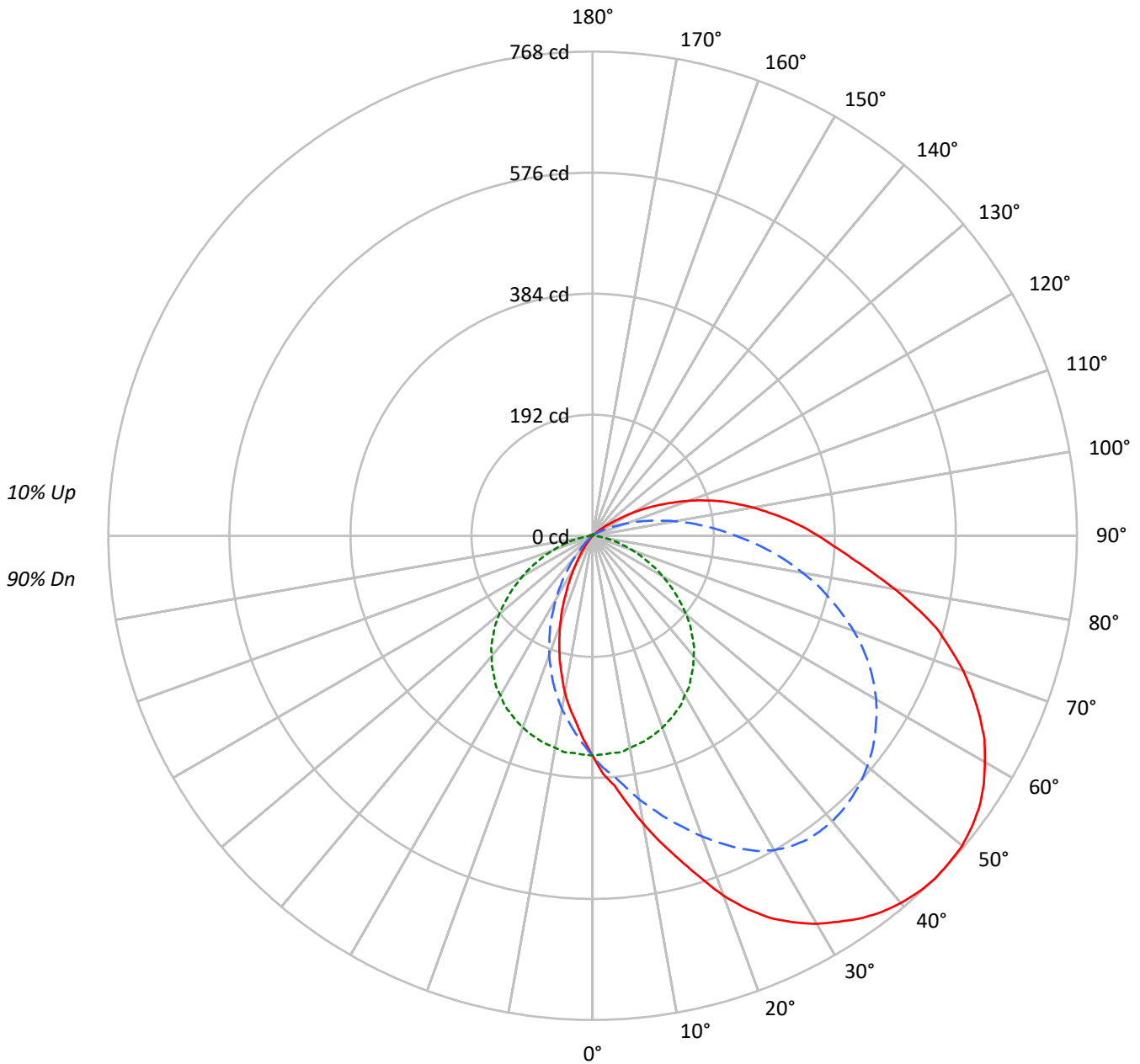
Lumens per Lamp: N/A  
Luminaire Lumens: 1723.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-82-94-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°	3751	3751	3751
5°	4118	3697	3084
10°	4661	3651	2542
15°	5222	3605	1981
20°	5890	3547	1459
25°	6444	3478	958
30°	6856	3386	539
35°	7212	3289	237
40°	7528	3168	57
45°	7799	3016	0
50°	8027	2814	0
55°	8200	2559	0
60°	8288	2263	0
65°	8322	1926	0
70°	8294	1570	0
75°	8188	1157	6
80°	7857	707	36
85°	7594	341	50



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.4	1.9
10°-20°	100.0	5.8
20°-30°	161.9	9.4
30°-40°	207.9	12.1
40°-50°	235.4	13.7
50°-60°	243.9	14.2
60°-70°	230.0	13.3
70°-80°	192.7	11.2
80°-90°	139.7	8.1
90°-100°	91.8	5.3
100°-110°	53.0	3.1
110°-120°	23.4	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°	295.2	17.1
0°-40°	503.2	29.2
0°-60°	982.4	57.0
0°-90°	1544.8	89.7
90°-120°	168.3	9.8
90°-150°	177.0	10.3
90°-180°	178.0	10.3
0°-180°	1723.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	398	382	346	314	298	40
15°	531	466	334	242	202	153
25°	669	547	310	159	100	309
35°	741	589	272	77	24	465
45°	768	584	223	18	0	593
55°	749	547	161	0	0	669
65°	677	484	96	0	0	670
75°	564	390	41	0	0	592
85°	413	283	7	2	3	353
90°	358	227	2	3	3	196
95°	307	177	1	3	4	241
105°	211	92	1	2	4	223
115°	115	30	1	1	2	115
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°	348.5	348.5	348.5	348.5	348.5	348.5	348.5	348.5	348.5	348.5	348.5
2.5°	377.8	377.4	376.0	373.8	370.7	365.4	361.0	357.0	351.6	347.2	338.8
5°	397.8	395.6	393.8	391.6	384.5	379.6	371.6	362.7	354.3	345.9	329.0
7.5°	429.8	426.2	423.6	417.3	407.6	396.5	384.0	375.6	369.8	346.3	317.4
10°	464.0	460.8	455.5	444.4	432.4	416.4	398.7	378.7	361.0	341.4	307.2
12.5°	497.7	493.3	485.7	471.5	454.6	434.7	410.2	386.7	361.4	338.3	295.2
15°	531.4	526.6	518.6	501.2	479.1	452.9	423.1	393.4	363.6	334.3	282.8
17.5°	568.3	561.6	549.6	530.1	502.1	469.7	434.7	398.7	362.7	329.4	269.5
20°	607.8	598.5	585.6	559.4	526.6	488.4	446.2	404.0	362.3	323.7	254.4
22.5°	640.7	631.3	617.1	590.0	550.5	503.9	456.0	407.6	360.5	317.0	240.2
25°	669.1	661.5	646.0	614.9	573.2	520.3	465.3	410.2	357.8	309.9	225.1
27.5°	691.3	684.2	666.9	634.9	592.3	535.0	472.4	411.6	354.3	302.8	209.6
30°	710.8	703.7	682.8	650.0	605.1	546.5	479.5	412.0	349.9	292.1	192.7
32.5°	725.9	719.2	697.9	662.9	614.0	554.5	483.5	411.6	344.1	284.6	174.5
35°	741.0	734.3	709.5	672.2	620.7	558.1	486.6	409.3	337.0	272.2	157.2
37.5°	752.5	745.0	719.7	678.4	623.8	559.0	486.2	406.2	329.4	261.9	139.9
40°	760.5	752.5	725.5	681.9	624.7	557.6	482.6	400.9	320.6	249.1	121.6
42.5°	765.9	757.0	728.1	687.3	622.9	554.1	477.3	394.3	310.8	238.0	104.3
45°	768.5	759.2	728.6	682.8	619.8	547.4	469.3	385.8	300.1	222.9	87.0
47.5°	767.2	757.0	726.3	678.0	614.0	540.3	460.4	375.6	287.3	209.6	70.6
50°	765.0	754.3	721.5	671.7	606.0	531.4	450.6	363.2	273.9	193.1	55.9
52.5°	757.9	747.2	716.1	662.9	596.7	521.2	437.3	350.3	259.7	177.1	42.6
55°	749.0	739.2	706.8	654.9	584.7	508.8	424.9	336.5	246.0	160.7	30.6
57.5°	735.2	726.3	695.3	642.0	572.7	495.0	411.1	321.4	228.6	144.3	21.3
60°	718.4	709.5	679.3	627.3	559.0	479.5	396.0	305.9	213.1	127.9	13.3
62.5°	700.6	692.2	660.6	609.1	541.7	463.1	379.6	290.4	196.7	112.8	8.0
65°	677.1	669.1	640.7	587.4	522.6	445.3	361.4	271.7	179.8	95.9	4.4
67.5°	652.2	645.1	616.2	567.4	500.4	425.8	342.7	253.5	162.1	81.2	2.2
70°	625.6	616.7	590.0	540.3	477.7	403.6	322.3	234.9	145.2	67.0	0.0
72.5°	594.5	587.8	562.1	515.0	451.5	380.0	301.5	214.4	126.5	53.3	0.4
75°	564.3	555.9	532.3	487.9	425.8	355.2	278.4	195.3	108.3	40.8	0.4
77.5°	525.2	522.6	500.4	457.3	401.4	331.2	253.1	172.3	91.0	29.3	0.4
80°	486.2	483.5	466.2	426.7	372.9	302.8	229.5	150.5	74.1	19.5	0.4
82.5°	447.5	444.0	427.5	394.7	344.1	278.8	205.1	128.8	58.6	12.0	0.4
85°	412.9	408.5	390.7	360.5	314.3	251.7	179.8	107.4	43.5	6.7	0.9
87.5°	383.2	380.0	360.5	329.4	284.1	226.4	157.6	87.0	30.6	3.1	1.3
90°	357.8	351.2	333.9	301.0	255.7	198.5	134.1	69.7	20.4	1.8	1.8
92.5°	333.0	327.2	308.1	274.4	230.4	174.5	111.4	53.3	12.9	0.9	2.2
95°	307.2	301.0	282.4	251.3	204.7	150.1	91.5	39.1	7.1	0.9	2.2
97.5°	281.9	276.2	256.6	225.5	181.6	128.8	72.4	27.5	3.6	0.9	1.8
100°	258.4	251.7	234.0	202.9	158.5	107.4	55.9	17.8	2.2	0.9	1.8
102.5°	233.5	228.2	210.0	179.8	134.5	87.5	41.7	11.1	0.9	0.9	1.3
105°	211.3	204.7	186.9	155.8	114.5	68.8	29.3	6.7	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°	137.6	132.3	116.8	90.6	58.2	27.1	8.0	1.3	1.3	1.3	1.3
115°	115.0	107.0	93.2	70.1	43.1	17.8	4.0	1.3	1.3	1.3	1.3
117.5°	91.9	85.2	75.5	53.3	28.4	11.5	2.2	1.3	1.3	1.3	1.3
120°	71.9	65.7	54.6	36.9	19.1	6.7	0.9	1.3	1.3	1.3	1.3
122.5°	51.5	46.6	36.9	24.0	11.5	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.2	31.5	24.4	14.7	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.2	20.0	14.2	8.4	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.4	11.1	8.4	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.7	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°	348.5	348.5	348.5
2.5°	331.7	325.4	323.7
5°	313.9	303.7	297.9
7.5°	296.1	282.4	275.7
10°	279.7	260.2	253.1
12.5°	260.2	237.5	226.4
15°	241.5	212.2	201.6
17.5°	220.7	187.8	175.4
20°	201.1	163.4	150.5
22.5°	178.9	139.4	125.2
25°	158.9	115.4	99.5
27.5°	136.7	91.0	77.3
30°	115.9	69.7	55.9
32.5°	95.9	51.1	38.6
35°	77.3	34.6	24.4
37.5°	59.5	21.3	12.4
40°	43.1	11.1	5.8
42.5°	28.9	5.3	3.1
45°	17.8	2.7	0.0
47.5°	10.2	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	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.6	3.6
95°	3.1	3.6	4.0
97.5°	3.6	4.0	4.0
100°	3.1	4.0	4.4
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.6





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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°	186.5	181.1	163.4	134.1	93.7	52.4	19.5	3.6	0.9	1.3	1.3
110°	162.5	158.1	139.9	111.4	75.5	39.1	12.9	2.2	1.3	1.3	1.3







107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)