

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: P551172

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-96-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: P551172  
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-LD4-1STD-50-UNV-82-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

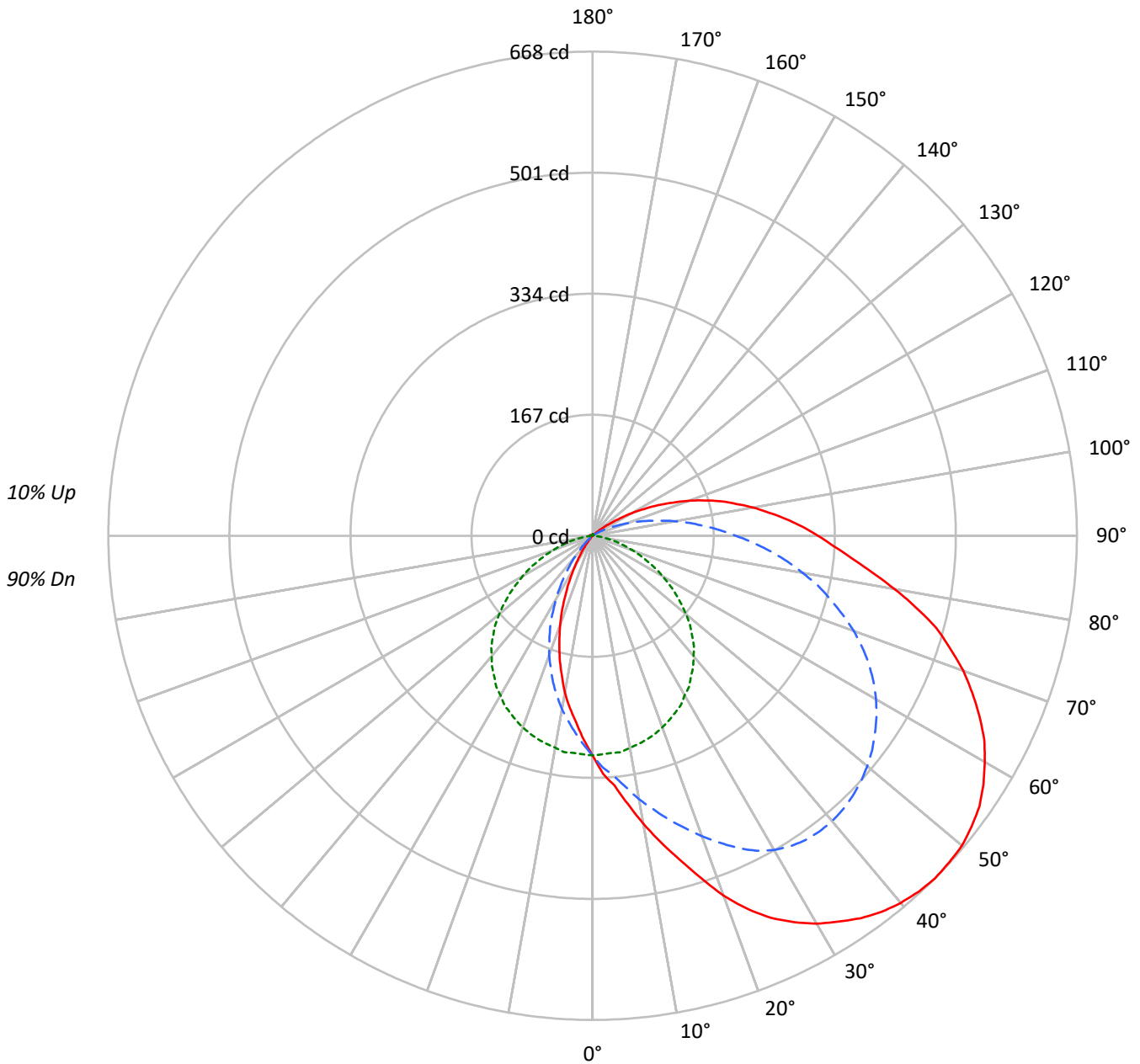
Lumens per Lamp: N/A  
Luminaire Lumens: 1498.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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: P551172

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-96-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°	3261	3261	3261
5°	3581	3214	2681
10°	4052	3174	2210
15°	4540	3134	1722
20°	5121	3083	1269
25°	5602	3023	833
30°	5961	2944	469
35°	6270	2859	206
40°	6545	2753	49
45°	6781	2622	0
50°	6979	2447	0
55°	7130	2225	0
60°	7205	1968	0
65°	7234	1675	0
70°	7211	1366	0
75°	7119	1007	6
80°	6831	617	31
85°	6603	295	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.0	1.9
10°-20°	86.9	5.8
20°-30°	140.7	9.4
30°-40°	180.8	12.1
40°-50°	204.6	13.7
50°-60°	212.0	14.2
60°-70°	200.0	13.3
70°-80°	167.6	11.2
80°-90°	121.5	8.1
90°-100°	79.8	5.3
100°-110°	46.1	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	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°	256.7	17.1
0°-40°	437.4	29.2
0°-60°	854.1	57.0
0°-90°	1343.1	89.7
90°-120°	146.3	9.8
90°-150°	153.9	10.3
90°-180°	155.0	10.3
0°-180°	1498.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	303	303	303	303	303	
5°	346	332	301	273	259	35
15°	462	405	291	210	175	133
25°	582	475	269	138	86	269
35°	644	512	237	67	21	404
45°	668	507	194	15	0	516
55°	651	475	140	0	0	581
65°	589	421	83	0	0	582
75°	491	340	36	0	0	515
85°	359	246	6	2	2	307
90°	311	197	2	2	3	171
95°	267	154	1	3	4	210
105°	184	80	1	2	3	194
115°	100	26	1	1	2	100
125°	30	4	2	1	2	30
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°	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0	303.0
2.5°	328.5	328.1	326.9	325.0	322.3	317.7	313.8	310.3	305.7	301.9	294.5
5°	345.9	343.9	342.4	340.5	334.3	330.0	323.1	315.4	308.0	300.7	286.0
7.5°	373.6	370.6	368.2	362.8	354.3	344.7	333.9	326.6	321.5	301.1	276.0
10°	403.4	400.7	396.0	386.4	376.0	362.1	346.6	329.3	313.8	296.8	267.1
12.5°	432.7	428.8	422.3	409.9	395.3	377.9	356.7	336.2	314.2	294.1	256.7
15°	462.0	457.8	450.8	435.8	416.5	393.7	367.9	342.0	316.1	290.7	245.9
17.5°	494.1	488.3	477.9	460.9	436.6	408.4	377.9	346.6	315.4	286.4	234.3
20°	528.4	520.3	509.1	486.4	457.8	424.6	387.9	351.3	315.0	281.4	221.2
22.5°	557.0	548.9	536.5	513.0	478.6	438.1	396.4	354.3	313.4	275.6	208.8
25°	581.7	575.1	561.6	534.6	498.3	452.4	404.5	356.7	311.1	269.4	195.7
27.5°	601.0	594.8	579.8	552.0	514.9	465.1	410.7	357.8	308.0	263.3	182.2
30°	618.0	611.8	593.7	565.1	526.1	475.2	416.9	358.2	304.2	254.0	167.5
32.5°	631.1	625.3	606.8	576.3	533.8	482.1	420.4	357.8	299.1	247.4	151.7
35°	644.2	638.4	616.8	584.4	539.6	485.2	423.1	355.9	293.0	236.6	136.6
37.5°	654.3	647.7	625.7	589.8	542.3	486.0	422.7	353.2	286.4	227.7	121.6
40°	661.2	654.3	630.7	592.9	543.1	484.8	419.6	348.6	278.7	216.5	105.8
42.5°	665.8	658.1	633.0	597.5	541.6	481.7	414.9	342.8	270.2	206.9	90.7
45°	668.2	660.1	633.4	593.7	538.9	475.9	408.0	335.4	260.9	193.8	75.7
47.5°	667.0	658.1	631.5	589.4	533.8	469.8	400.3	326.6	249.7	182.2	61.4
50°	665.1	655.8	627.2	584.0	526.9	462.0	391.8	315.7	238.2	167.9	48.6
52.5°	658.9	649.6	622.6	576.3	518.8	453.2	380.2	304.6	225.8	154.0	37.1
55°	651.2	642.7	614.5	569.3	508.4	442.4	369.4	292.6	213.8	139.7	26.6
57.5°	639.2	631.5	604.5	558.2	497.9	430.4	357.4	279.5	198.8	125.4	18.5
60°	624.5	616.8	590.6	545.4	486.0	416.9	344.3	266.0	185.3	111.2	11.6
62.5°	609.1	601.8	574.4	529.6	470.9	402.6	330.0	252.4	171.0	98.0	6.9
65°	588.6	581.7	557.0	510.7	454.3	387.2	314.2	236.2	156.3	83.4	3.9
67.5°	567.0	560.9	535.8	493.3	435.0	370.2	298.0	220.4	140.9	70.6	1.9
70°	543.9	536.2	513.0	469.8	415.3	350.9	280.2	204.2	126.2	58.3	0.0
72.5°	516.9	511.1	488.7	447.8	392.6	330.4	262.1	186.4	110.0	46.3	0.4
75°	490.6	483.3	462.8	424.2	370.2	308.8	242.0	169.8	94.2	35.5	0.4
77.5°	456.6	454.3	435.0	397.6	348.9	288.0	220.0	149.8	79.1	25.5	0.4
80°	422.7	420.4	405.3	370.9	324.2	263.3	199.6	130.9	64.5	17.0	0.4
82.5°	389.1	386.0	371.7	343.2	299.1	242.4	178.3	111.9	51.0	10.4	0.4
85°	359.0	355.1	339.7	313.4	273.3	218.9	156.3	93.4	37.8	5.8	0.8
87.5°	333.1	330.4	313.4	286.4	247.0	196.9	137.0	75.7	26.6	2.7	1.2
90°	311.1	305.3	290.3	261.7	222.3	172.5	116.6	60.6	17.8	1.5	1.5
92.5°	289.5	284.5	267.9	238.5	200.3	151.7	96.9	46.3	11.2	0.8	1.9
95°	267.1	261.7	245.5	218.5	177.9	130.5	79.5	34.0	6.2	0.8	1.9
97.5°	245.1	240.1	223.1	196.1	157.9	111.9	62.9	23.9	3.1	0.8	1.5
100°	224.7	218.9	203.4	176.4	137.8	93.4	48.6	15.4	1.9	0.8	1.5
102.5°	203.0	198.4	182.6	156.3	117.0	76.0	36.3	9.6	0.8	0.8	1.2
105°	183.7	177.9	162.5	135.5	99.6	59.8	25.5	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.7	115.0	101.5	78.7	50.6	23.5	6.9	1.2	1.2	1.2	1.2
115°	100.0	93.0	81.1	61.0	37.4	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.9	74.1	65.6	46.3	24.7	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.5	57.1	47.5	32.0	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.8	40.5	32.0	20.8	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.7	27.4	21.2	12.7	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.3	17.4	12.4	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	303.0	303.0	303.0
2.5°	288.3	282.9	281.4
5°	272.9	264.0	259.0
7.5°	257.5	245.5	239.7
10°	243.2	226.2	220.0
12.5°	226.2	206.5	196.9
15°	210.0	184.5	175.2
17.5°	191.8	163.3	152.5
20°	174.9	142.0	130.9
22.5°	155.6	121.2	108.9
25°	138.2	100.4	86.5
27.5°	118.9	79.1	67.2
30°	100.7	60.6	48.6
32.5°	83.4	44.4	33.6
35°	67.2	30.1	21.2
37.5°	51.7	18.5	10.8
40°	37.4	9.6	5.0
42.5°	25.1	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	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	0.8	1.2
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1





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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	162.1	157.5	142.0	116.6	81.4	45.5	17.0	3.1	0.8	1.2	1.2
110°	141.3	137.4	121.6	96.9	65.6	34.0	11.2	1.9	1.2	1.2	1.2







107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)