

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: P551140

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-80-96-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: P551140  
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-80-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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**

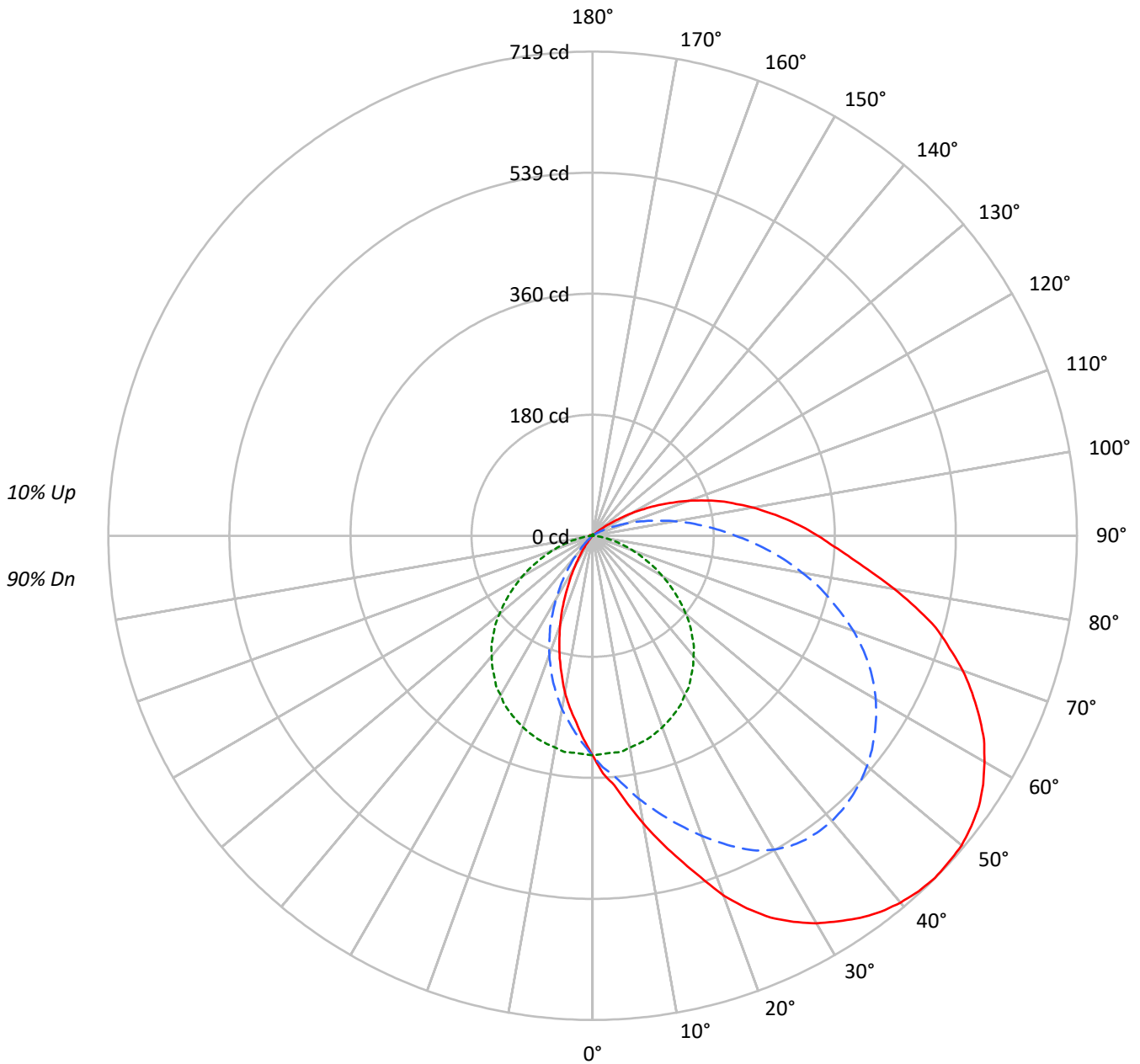
Lumens per Lamp: N/A  
Luminaire Lumens: 1611.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551140

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-96-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°	3508	3508	3508
5°	3850	3457	2883
10°	4357	3414	2377
15°	4883	3371	1852
20°	5507	3315	1364
25°	6025	3252	896
30°	6410	3166	504
35°	6743	3075	222
40°	7039	2962	53
45°	7293	2820	0
50°	7505	2632	0
55°	7667	2393	0
60°	7749	2116	0
65°	7781	1802	0
70°	7755	1469	0
75°	7656	1083	6
80°	7347	664	34
85°	7101	315	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	1.9
10°-20°	93.5	5.8
20°-30°	151.3	9.4
30°-40°	194.4	12.1
40°-50°	220.1	13.7
50°-60°	228.0	14.2
60°-70°	215.0	13.3
70°-80°	180.2	11.2
80°-90°	130.6	8.1
90°-100°	85.8	5.3
100°-110°	49.6	3.1
110°-120°	21.9	1.4
120°-130°	5.9	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	276.0	17.1
0°-40°	470.4	29.2
0°-60°	918.5	57.0
0°-90°	1444.4	89.7
90°-120°	157.3	9.8
90°-150°	165.5	10.3
90°-180°	167.0	10.4
0°-180°	1611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	372	357	323	294	278	38
15°	497	436	313	226	188	143
25°	626	511	290	149	93	289
35°	693	551	254	72	23	435
45°	719	546	208	17	0	555
55°	700	511	150	0	0	625
65°	633	452	90	0	0	626
75°	528	365	38	0	0	553
85°	386	265	6	2	2	330
90°	335	212	2	2	3	183
95°	287	166	1	3	4	225
105°	198	86	1	2	3	209
115°	108	28	1	1	2	108
125°	32	4	2	1	2	32
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	



TEST NUMBER: P551140

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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	325.9	325.9	325.9	325.9	325.9	325.9	325.9	325.9	325.9	325.9	325.9
2.5°	353.3	352.8	351.6	349.5	346.6	341.6	337.5	333.8	328.8	324.6	316.7
5°	371.9	369.9	368.2	366.1	359.5	354.9	347.5	339.2	331.3	323.4	307.6
7.5°	401.8	398.5	396.0	390.2	381.1	370.7	359.1	351.2	345.8	323.8	296.8
10°	433.8	430.9	425.9	415.5	404.3	389.4	372.8	354.1	337.5	319.2	287.3
12.5°	465.3	461.2	454.1	440.9	425.1	406.4	383.6	361.6	337.9	316.3	276.1
15°	496.9	492.3	484.9	468.7	447.9	423.4	395.6	367.8	340.0	312.6	264.4
17.5°	531.3	525.1	513.9	495.6	469.5	439.2	406.4	372.8	339.2	308.0	252.0
20°	568.3	559.6	547.5	523.0	492.3	456.6	417.2	377.8	338.7	302.6	237.9
22.5°	599.0	590.3	577.0	551.7	514.7	471.2	426.3	381.1	337.1	296.4	224.6
25°	625.6	618.5	604.0	574.9	535.9	486.5	435.0	383.6	334.6	289.8	210.5
27.5°	646.3	639.7	623.5	593.6	553.8	500.2	441.7	384.8	331.3	283.1	195.9
30°	664.6	658.0	638.4	607.7	565.8	511.0	448.3	385.2	327.1	273.1	180.2
32.5°	678.7	672.5	652.6	619.8	574.1	518.5	452.1	384.8	321.7	266.1	163.1
35°	692.8	686.6	663.4	628.5	580.3	521.8	455.0	382.7	315.1	254.5	147.0
37.5°	703.6	696.6	672.9	634.3	583.2	522.6	454.6	379.8	308.0	244.9	130.8
40°	711.1	703.6	678.3	637.6	584.1	521.4	451.2	374.9	299.7	232.9	113.7
42.5°	716.1	707.8	680.8	642.6	582.4	518.1	446.3	368.6	290.6	222.5	97.6
45°	718.6	709.8	681.2	638.4	579.5	511.8	438.8	360.7	280.6	208.4	81.4
47.5°	717.3	707.8	679.1	633.9	574.1	505.2	430.5	351.2	268.6	195.9	66.0
50°	715.2	705.3	674.6	628.1	566.6	496.9	421.3	339.6	256.1	180.6	52.3
52.5°	708.6	698.6	669.6	619.8	557.9	487.3	408.9	327.5	242.8	165.6	39.9
55°	700.3	691.2	660.9	612.3	546.7	475.7	397.3	314.7	230.0	150.3	28.6
57.5°	687.4	679.1	650.1	600.3	535.5	462.9	384.4	300.5	213.8	134.9	19.9
60°	671.7	663.4	635.1	586.6	522.6	448.3	370.3	286.0	199.3	119.6	12.5
62.5°	655.1	647.2	617.7	569.5	506.4	433.0	354.9	271.5	183.9	105.4	7.5
65°	633.1	625.6	599.0	549.2	488.6	416.4	337.9	254.1	168.1	89.7	4.2
67.5°	609.8	603.2	576.2	530.5	467.8	398.1	320.5	237.0	151.5	76.0	2.1
70°	584.9	576.6	551.7	505.2	446.7	377.3	301.4	219.6	135.7	62.7	0.0
72.5°	555.8	549.6	525.5	481.5	422.2	355.3	281.9	200.5	118.3	49.8	0.4
75°	527.6	519.7	497.7	456.2	398.1	332.1	260.3	182.7	101.3	38.2	0.4
77.5°	491.1	488.6	467.8	427.6	375.3	309.7	236.6	161.1	85.1	27.4	0.4
80°	454.6	452.1	435.9	398.9	348.7	283.1	214.6	140.7	69.3	18.3	0.4
82.5°	418.4	415.1	399.8	369.0	321.7	260.7	191.8	120.4	54.8	11.2	0.4
85°	386.1	381.9	365.3	337.1	293.9	235.4	168.1	100.5	40.7	6.2	0.8
87.5°	358.2	355.3	337.1	308.0	265.7	211.7	147.4	81.4	28.6	2.9	1.2
90°	334.6	328.4	312.2	281.4	239.1	185.6	125.4	65.2	19.1	1.7	1.7
92.5°	311.3	305.9	288.1	256.5	215.4	163.1	104.2	49.8	12.0	0.8	2.1
95°	287.3	281.4	264.0	235.0	191.4	140.3	85.5	36.5	6.6	0.8	2.1
97.5°	263.6	258.2	239.9	210.9	169.8	120.4	67.7	25.7	3.3	0.8	1.7
100°	241.6	235.4	218.8	189.7	148.2	100.5	52.3	16.6	2.1	0.8	1.7
102.5°	218.4	213.4	196.4	168.1	125.8	81.8	39.0	10.4	0.8	0.8	1.2
105°	197.6	191.4	174.8	145.7	107.1	64.3	27.4	6.2	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-80-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.7	123.7	109.2	84.7	54.4	25.3	7.5	1.2	1.2	1.2	1.2
115°	107.5	100.0	87.2	65.6	40.3	16.6	3.7	1.2	1.2	1.2	1.2
117.5°	85.9	79.7	70.6	49.8	26.6	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.2	61.4	51.1	34.5	17.9	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.2	43.6	34.5	22.4	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	32.0	29.5	22.8	13.7	6.6	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.8	18.7	13.3	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.4	7.9	4.6	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.6	6.2	4.2	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P551140

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	325.9	325.9	325.9
2.5°	310.1	304.3	302.6
5°	293.5	283.9	278.5
7.5°	276.9	264.0	257.8
10°	261.5	243.3	236.6
12.5°	243.3	222.1	211.7
15°	225.8	198.4	188.5
17.5°	206.3	175.6	164.0
20°	188.0	152.8	140.7
22.5°	167.3	130.3	117.1
25°	148.6	107.9	93.0
27.5°	127.9	85.1	72.2
30°	108.3	65.2	52.3
32.5°	89.7	47.7	36.1
35°	72.2	32.4	22.8
37.5°	55.6	19.9	11.6
40°	40.3	10.4	5.4
42.5°	27.0	5.0	2.9
45°	16.6	2.5	0.0
47.5°	9.5	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.2
102.5°	2.5	3.7	3.7
105°	2.1	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	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°	1.7	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°	174.3	169.4	152.8	125.4	87.6	49.0	18.3	3.3	0.8	1.2	1.2
110°	151.9	147.8	130.8	104.2	70.6	36.5	12.0	2.1	1.2	1.2	1.2







107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)