

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: P551078

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-97-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: P551078  
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-40-UNV-80-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

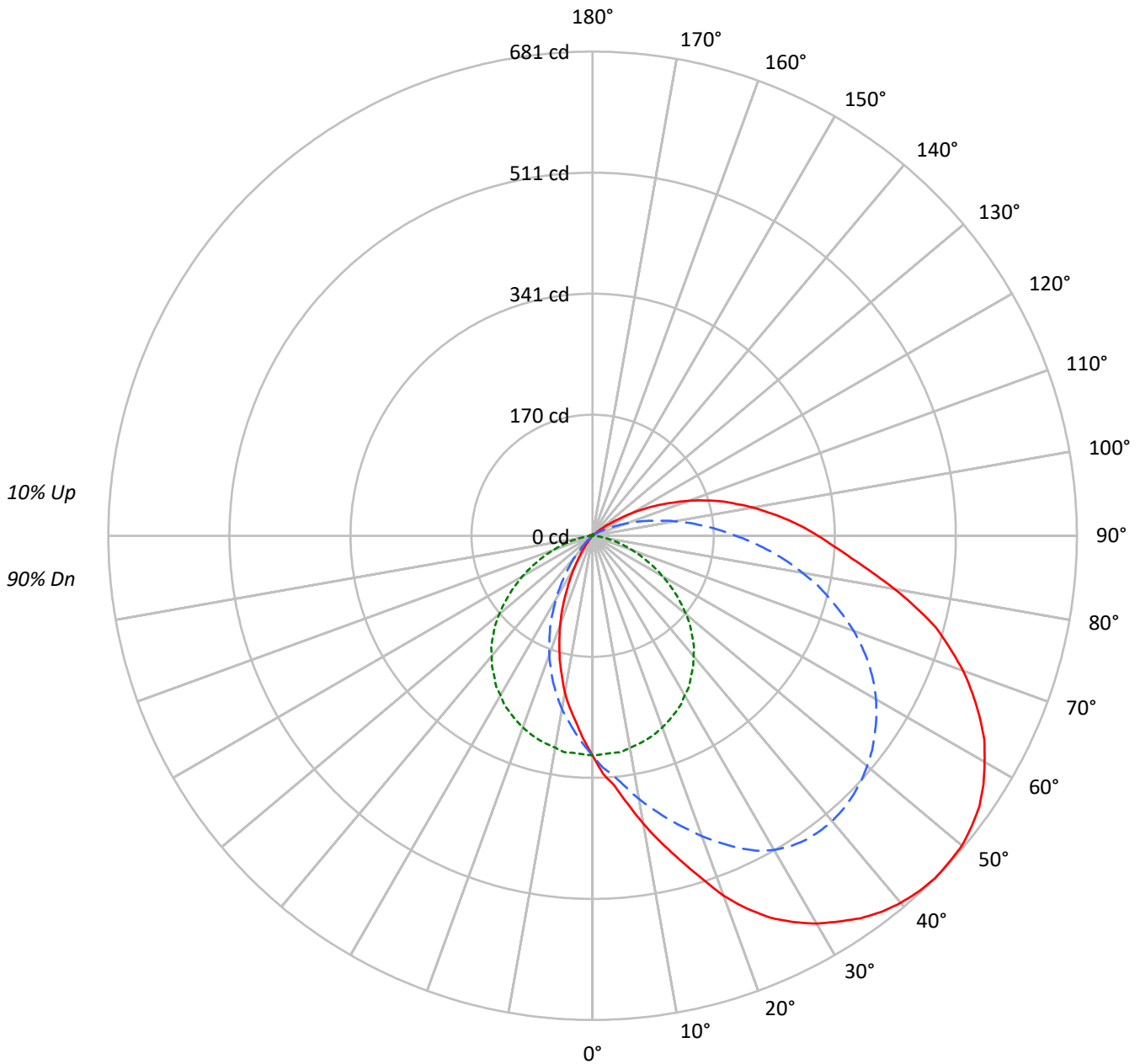
Lumens per Lamp: N/A  
Luminaire Lumens: 1527.1 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**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°	3325	3325	3325
5°	3650	3276	2733
10°	4130	3236	2253
15°	4629	3195	1755
20°	5221	3142	1293
25°	5711	3082	849
30°	6075	3001	478
35°	6392	2914	210
40°	6672	2807	50
45°	6912	2672	0
50°	7114	2495	0
55°	7268	2268	0
60°	7344	2005	0
65°	7374	1707	0
70°	7350	1392	0
75°	7257	1027	6
80°	6964	628	32
85°	6730	300	44



TEST NUMBER: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.6	1.9
10°-20°	88.6	5.8
20°-30°	143.5	9.4
30°-40°	184.3	12.1
40°-50°	208.6	13.7
50°-60°	216.1	14.2
60°-70°	203.8	13.3
70°-80°	170.8	11.2
80°-90°	123.8	8.1
90°-100°	81.4	5.3
100°-110°	47.0	3.1
110°-120°	20.8	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	261.6	17.1
0°-40°	445.9	29.2
0°-60°	870.6	57.0
0°-90°	1369.1	89.7
90°-120°	149.1	9.8
90°-150°	156.9	10.3
90°-180°	158.0	10.3
0°-180°	1527.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	309	309	309	309	309	
5°	353	339	306	278	264	36
15°	471	413	296	214	179	136
25°	593	485	275	141	88	274
35°	657	522	241	68	22	412
45°	681	517	198	16	0	526
55°	664	485	142	0	0	593
65°	600	429	85	0	0	594
75°	500	346	36	0	0	525
85°	366	251	6	2	2	312
90°	317	201	2	2	3	174
95°	272	157	1	3	4	214
105°	187	81	1	2	3	198
115°	102	27	1	1	2	102
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	



TEST NUMBER: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9	308.9
2.5°	334.8	334.5	333.3	331.3	328.5	323.8	319.9	316.4	311.6	307.7	300.2
5°	352.6	350.6	349.0	347.0	340.7	336.4	329.3	321.5	314.0	306.5	291.6
7.5°	380.9	377.7	375.4	369.9	361.2	351.4	340.4	332.9	327.8	306.9	281.3
10°	411.2	408.4	403.7	393.9	383.2	369.1	353.3	335.6	319.9	302.6	272.3
12.5°	441.1	437.1	430.5	417.9	402.9	385.2	363.6	342.7	320.3	299.8	261.7
15°	471.0	466.7	459.6	444.2	424.6	401.3	375.0	348.6	322.3	296.3	250.6
17.5°	503.6	497.7	487.1	469.8	445.0	416.3	385.2	353.3	321.5	292.0	238.8
20°	538.7	530.4	519.0	495.8	466.7	432.8	395.4	358.1	321.1	286.8	225.5
22.5°	567.8	559.5	546.9	522.9	487.9	446.6	404.1	361.2	319.5	280.9	212.9
25°	593.0	586.3	572.5	545.0	508.0	461.1	412.4	363.6	317.1	274.6	199.5
27.5°	612.6	606.3	591.0	562.7	524.9	474.1	418.7	364.7	314.0	268.3	185.7
30°	629.9	623.7	605.2	576.0	536.3	484.4	424.9	365.1	310.1	258.9	170.8
32.5°	643.3	637.4	618.5	587.5	544.2	491.4	428.5	364.7	304.9	252.2	154.6
35°	656.7	650.8	628.8	595.7	550.1	494.6	431.2	362.8	298.6	241.2	139.3
37.5°	666.9	660.2	637.8	601.2	552.8	495.4	430.9	360.0	292.0	232.1	123.9
40°	674.0	666.9	642.9	604.4	553.6	494.2	427.7	355.3	284.1	220.7	107.8
42.5°	678.7	670.9	645.3	609.1	552.0	491.1	423.0	349.4	275.4	210.9	92.5
45°	681.1	672.8	645.7	605.2	549.3	485.2	415.9	341.9	266.0	197.5	77.1
47.5°	679.9	670.9	643.7	600.8	544.2	478.9	408.0	332.9	254.6	185.7	62.6
50°	678.0	668.5	639.4	595.3	537.1	471.0	399.4	321.9	242.8	171.2	49.6
52.5°	671.7	662.2	634.7	587.5	528.8	461.9	387.6	310.4	230.2	157.0	37.8
55°	663.8	655.1	626.4	580.4	518.2	450.9	376.6	298.3	218.0	142.4	27.1
57.5°	651.6	643.7	616.2	569.0	507.6	438.7	364.4	284.9	202.6	127.9	18.9
60°	636.6	628.8	602.0	556.0	495.4	424.9	351.0	271.1	188.9	113.3	11.8
62.5°	620.9	613.4	585.5	539.8	480.0	410.4	336.4	257.3	174.3	99.9	7.1
65°	600.0	593.0	567.8	520.6	463.1	394.7	320.3	240.8	159.4	85.0	3.9
67.5°	578.0	571.7	546.1	502.9	443.4	377.3	303.8	224.7	143.6	72.0	2.0
70°	554.4	546.5	522.9	478.9	423.4	357.7	285.7	208.1	128.7	59.4	0.0
72.5°	526.9	521.0	498.1	456.4	400.2	336.8	267.2	190.0	112.1	47.2	0.4
75°	500.1	492.6	471.8	432.4	377.3	314.8	246.7	173.1	96.0	36.2	0.4
77.5°	465.5	463.1	443.4	405.3	355.7	293.5	224.3	152.7	80.7	26.0	0.4
80°	430.9	428.5	413.1	378.1	330.5	268.3	203.4	133.4	65.7	17.3	0.4
82.5°	396.6	393.5	378.9	349.8	304.9	247.1	181.8	114.1	51.9	10.6	0.4
85°	365.9	362.0	346.3	319.5	278.6	223.1	159.4	95.2	38.6	5.9	0.8
87.5°	339.6	336.8	319.5	292.0	251.8	200.7	139.7	77.1	27.1	2.8	1.2
90°	317.1	311.2	295.9	266.8	226.6	175.9	118.8	61.8	18.1	1.6	1.6
92.5°	295.1	290.0	273.1	243.2	204.2	154.6	98.8	47.2	11.4	0.8	2.0
95°	272.3	266.8	250.2	222.7	181.4	133.0	81.1	34.6	6.3	0.8	2.0
97.5°	249.9	244.7	227.4	199.9	160.9	114.1	64.1	24.4	3.1	0.8	1.6
100°	229.0	223.1	207.4	179.8	140.5	95.2	49.6	15.7	2.0	0.8	1.6
102.5°	207.0	202.2	186.1	159.4	119.2	77.5	37.0	9.8	0.8	0.8	1.2
105°	187.3	181.4	165.7	138.1	101.5	61.0	26.0	5.9	0.8	0.8	1.2



TEST NUMBER: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	122.0	117.3	103.5	80.3	51.5	24.0	7.1	1.2	1.2	1.2	1.2
115°	101.9	94.8	82.6	62.2	38.2	15.7	3.5	1.2	1.2	1.2	1.2
117.5°	81.4	75.5	66.9	47.2	25.2	10.2	2.0	1.2	1.2	1.2	1.2
120°	63.7	58.2	48.4	32.7	16.9	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.6	41.3	32.7	21.2	10.2	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.3	27.9	21.6	13.0	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.7	17.7	12.6	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.0	9.8	7.5	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
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: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	308.9	308.9	308.9
2.5°	293.9	288.4	286.8
5°	278.2	269.1	264.0
7.5°	262.4	250.2	244.3
10°	247.9	230.6	224.3
12.5°	230.6	210.5	200.7
15°	214.0	188.1	178.6
17.5°	195.6	166.4	155.4
20°	178.2	144.8	133.4
22.5°	158.6	123.6	111.0
25°	140.9	102.3	88.1
27.5°	121.2	80.7	68.5
30°	102.7	61.8	49.6
32.5°	85.0	45.2	34.2
35°	68.5	30.7	21.6
37.5°	52.7	18.9	11.0
40°	38.2	9.8	5.1
42.5°	25.6	4.7	2.8
45°	15.7	2.4	0.0
47.5°	9.0	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.1	3.1
95°	2.8	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.8	3.5	3.9
102.5°	2.4	3.5	3.5
105°	2.0	2.8	3.1





TEST NUMBER: P551078

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	165.3	160.5	144.8	118.8	83.0	46.4	17.3	3.1	0.8	1.2	1.2
110°	144.0	140.1	123.9	98.8	66.9	34.6	11.4	2.0	1.2	1.2	1.2







107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)