

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: P551647

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90**

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: P551647  
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-LD4-2LO-50-UNV-80-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

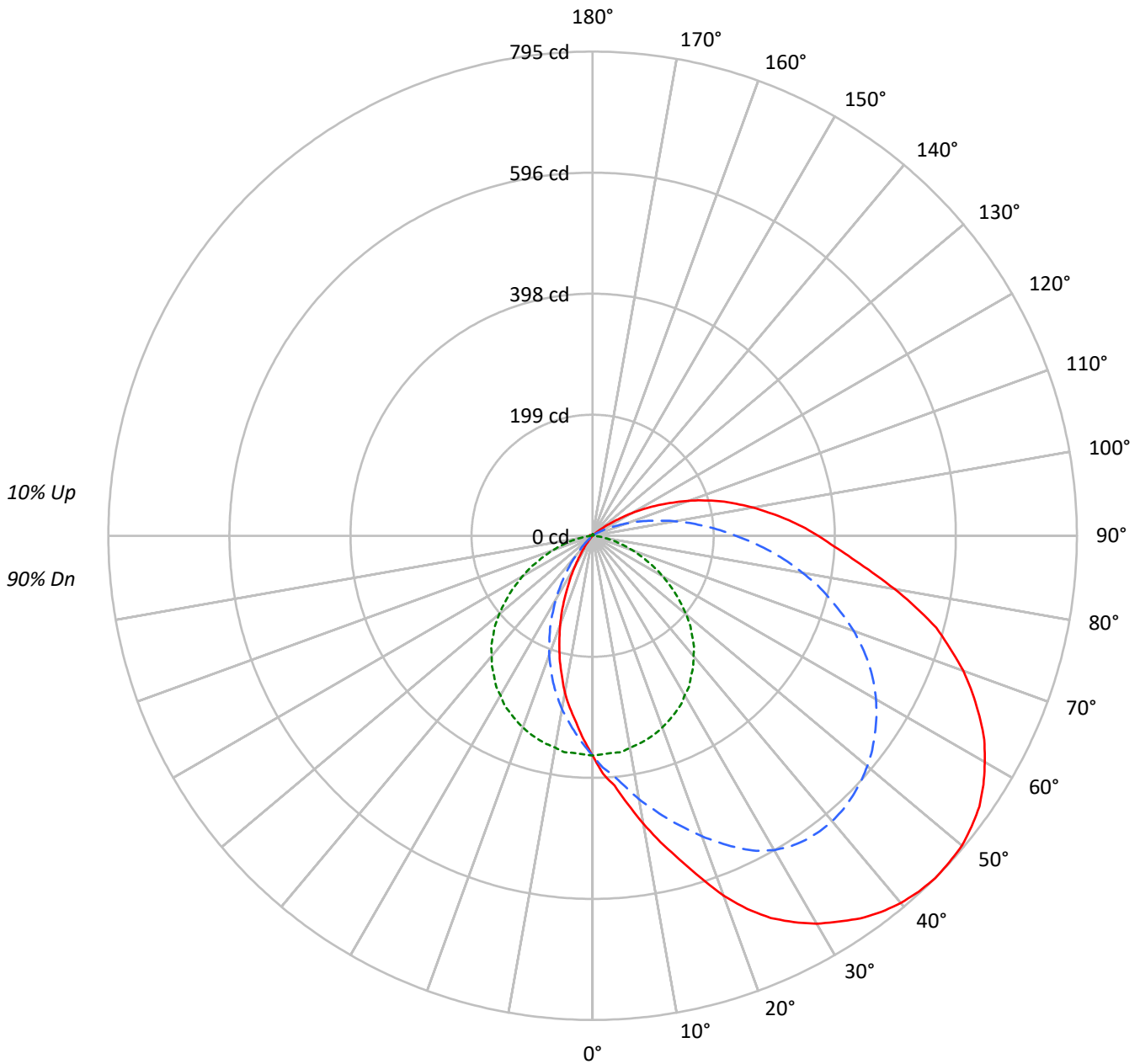
Lumens per Lamp: N/A  
Luminaire Lumens: 1783.0 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): 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: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**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°	3883	3883	3883
5°	4262	3825	3192
10°	4822	3778	2631
15°	5404	3731	2050
20°	6096	3669	1509
25°	6669	3599	991
30°	7095	3504	558
35°	7463	3403	246
40°	7790	3277	59
45°	8071	3120	0
50°	8306	2913	0
55°	8486	2648	0
60°	8576	2341	0
65°	8611	1992	0
70°	8582	1626	0
75°	8473	1200	7
80°	8130	733	37
85°	7859	351	51



TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.5	1.9
10°-20°	103.4	5.8
20°-30°	167.5	9.4
30°-40°	215.2	12.1
40°-50°	243.6	13.7
50°-60°	252.4	14.2
60°-70°	238.0	13.3
70°-80°	199.5	11.2
80°-90°	144.6	8.1
90°-100°	95.0	5.3
100°-110°	54.9	3.1
110°-120°	24.2	1.4
120°-130°	6.6	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	305.5	17.1
0°-40°	520.7	29.2
0°-60°	1016.6	57.0
0°-90°	1598.6	89.7
90°-120°	174.1	9.8
90°-150°	183.1	10.3
90°-180°	184.0	10.3
0°-180°	1783.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	361	361	361	361	361	
5°	412	395	358	325	308	42
15°	550	482	346	250	209	159
25°	692	566	321	164	103	320
35°	767	610	282	80	25	481
45°	795	604	231	18	0	614
55°	775	566	166	0	0	692
65°	701	501	99	0	0	693
75°	584	404	42	0	0	612
85°	427	293	7	2	3	365
90°	370	235	2	3	3	203
95°	318	184	1	3	4	249
105°	219	95	1	2	4	231
115°	119	32	1	1	2	119
125°	35	4	2	1	2	35
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	



TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7	360.7
2.5°	391.0	390.5	389.1	386.8	383.6	378.1	373.5	369.4	363.9	359.3	350.6
5°	411.7	409.4	407.5	405.2	397.9	392.8	384.5	375.4	366.6	357.9	340.4
7.5°	444.7	441.1	438.3	431.9	421.8	410.3	397.4	388.7	382.7	358.4	328.5
10°	480.1	476.9	471.4	459.9	447.5	431.0	412.6	391.9	373.5	353.3	317.9
12.5°	515.0	510.4	502.6	487.9	470.5	449.8	424.5	400.2	374.0	350.1	305.5
15°	549.9	544.9	536.6	518.7	495.7	468.6	437.8	407.1	376.3	346.0	292.7
17.5°	588.1	581.2	568.8	548.6	519.6	486.1	449.8	412.6	375.4	340.9	278.9
20°	629.0	619.3	606.0	578.9	544.9	505.4	461.7	418.1	374.9	334.9	263.3
22.5°	663.0	653.3	638.6	610.6	569.7	521.5	471.8	421.8	373.1	328.0	248.6
25°	692.4	684.6	668.5	636.3	593.1	538.5	481.5	424.5	370.3	320.7	232.9
27.5°	715.3	708.0	690.1	657.0	612.9	553.6	488.8	425.9	366.6	313.3	216.9
30°	735.6	728.2	706.6	672.6	626.2	565.6	496.2	426.4	362.0	302.3	199.4
32.5°	751.2	744.3	722.2	685.9	635.4	573.8	500.3	425.9	356.1	294.5	180.6
35°	766.8	759.9	734.2	695.6	642.3	577.5	503.5	423.6	348.7	281.6	162.6
37.5°	778.7	770.9	744.7	702.0	645.5	578.4	503.1	420.4	340.9	271.1	144.7
40°	787.0	778.7	750.7	705.7	646.4	577.1	499.4	414.9	331.7	257.7	125.9
42.5°	792.5	783.3	753.5	711.2	644.6	573.4	493.9	408.0	321.6	246.3	108.0
45°	795.3	785.6	753.9	706.6	641.4	566.5	485.6	399.3	310.6	230.6	90.0
47.5°	793.9	783.3	751.6	701.6	635.4	559.1	476.4	388.7	297.3	216.9	73.1
50°	791.6	780.6	746.6	695.1	627.1	549.9	466.3	375.8	283.5	199.9	57.9
52.5°	784.3	773.2	741.1	685.9	617.5	539.4	452.5	362.5	268.8	183.3	44.1
55°	775.1	765.0	731.4	677.7	605.1	526.5	439.7	348.3	254.5	166.3	31.7
57.5°	760.8	751.6	719.5	664.3	592.7	512.3	425.4	332.6	236.6	149.3	22.1
60°	743.4	734.2	702.9	649.2	578.4	496.2	409.8	316.6	220.5	132.3	13.8
62.5°	725.0	716.3	683.6	630.3	560.5	479.2	392.8	300.5	203.5	116.7	8.3
65°	700.6	692.4	663.0	607.8	540.8	460.8	374.0	281.2	186.1	99.2	4.6
67.5°	674.9	667.6	637.7	587.2	517.8	440.6	354.7	262.3	167.7	84.1	2.3
70°	647.3	638.2	610.6	559.1	494.4	417.6	333.6	243.0	150.2	69.4	0.0
72.5°	615.2	608.3	581.6	532.9	467.2	393.3	312.0	221.9	130.9	55.1	0.5
75°	583.9	575.2	550.9	504.9	440.6	367.5	288.1	202.2	112.1	42.3	0.5
77.5°	543.5	540.8	517.8	473.2	415.3	342.7	261.9	178.3	94.2	30.3	0.5
80°	503.1	500.3	482.4	441.5	385.9	313.3	237.5	155.7	76.7	20.2	0.5
82.5°	463.1	459.4	442.4	408.4	356.1	288.5	212.3	133.2	60.6	12.4	0.5
85°	427.3	422.7	404.3	373.1	325.3	260.5	186.1	111.2	45.0	6.9	0.9
87.5°	396.5	393.3	373.1	340.9	294.0	234.3	163.1	90.0	31.7	3.2	1.4
90°	370.3	363.4	345.5	311.5	264.6	205.4	138.7	72.1	21.1	1.8	1.8
92.5°	344.6	338.6	318.8	283.9	238.4	180.6	115.3	55.1	13.3	0.9	2.3
95°	317.9	311.5	292.2	260.0	211.8	155.3	94.6	40.4	7.4	0.9	2.3
97.5°	291.7	285.8	265.6	233.4	187.9	133.2	74.9	28.5	3.7	0.9	1.8
100°	267.4	260.5	242.1	210.0	164.0	111.2	57.9	18.4	2.3	0.9	1.8
102.5°	241.7	236.2	217.3	186.1	139.2	90.5	43.2	11.5	0.9	0.9	1.4
105°	218.7	211.8	193.4	161.3	118.5	71.2	30.3	6.9	0.9	0.9	1.4



TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	142.4	136.9	120.8	93.7	60.2	28.0	8.3	1.4	1.4	1.4	1.4
115°	119.0	110.7	96.5	72.6	44.6	18.4	4.1	1.4	1.4	1.4	1.4
117.5°	95.1	88.2	78.1	55.1	29.4	11.9	2.3	1.4	1.4	1.4	1.4
120°	74.4	68.0	56.5	38.1	19.8	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.3	48.2	38.1	24.8	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.4	32.6	25.3	15.2	7.4	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	23.0	20.7	14.7	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.9	11.5	8.7	5.1	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.4	6.9	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	360.7	360.7	360.7
2.5°	343.2	336.8	334.9
5°	324.8	314.3	308.3
7.5°	306.4	292.2	285.3
10°	289.4	269.2	261.9
12.5°	269.2	245.8	234.3
15°	249.9	219.6	208.6
17.5°	228.3	194.3	181.5
20°	208.1	169.1	155.7
22.5°	185.2	144.3	129.6
25°	164.5	119.5	102.9
27.5°	141.5	94.2	79.9
30°	119.9	72.1	57.9
32.5°	99.2	52.8	40.0
35°	79.9	35.8	25.3
37.5°	61.6	22.1	12.9
40°	44.6	11.5	6.0
42.5°	29.9	5.5	3.2
45°	18.4	2.8	0.0
47.5°	10.6	0.0	0.0
50°	5.5	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.8	4.1	4.1
105°	2.3	3.2	3.7





TEST NUMBER: P551647

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-80-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	193.0	187.5	169.1	138.7	96.9	54.2	20.2	3.7	0.9	1.4	1.4
110°	168.2	163.6	144.7	115.3	78.1	40.4	13.3	2.3	1.4	1.4	1.4







107.5°	1.8	2.8	3.2
110°	1.8	2.3	2.8



(END OF REPORT)