

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: P550911

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-88-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: P550911  
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-LD4-1LO-50-UNV-82-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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**

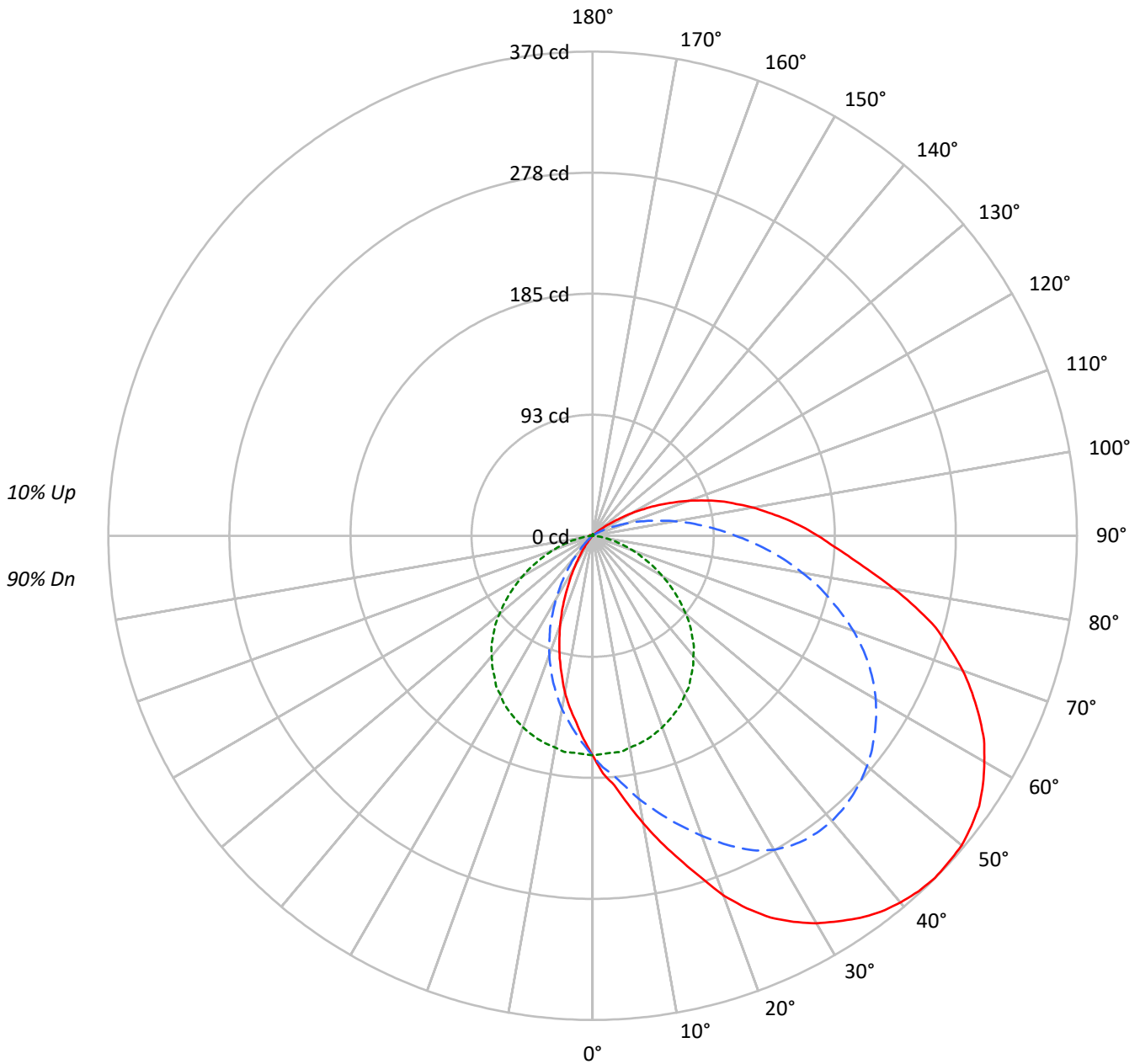
Lumens per Lamp: N/A  
Luminaire Lumens: 829.0 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	1805	1805	1805
5°	1981	1779	1483
10°	2242	1757	1223
15°	2513	1735	953
20°	2834	1706	702
25°	3100	1673	460
30°	3299	1630	259
35°	3470	1582	114
40°	3622	1524	28
45°	3753	1451	0
50°	3863	1354	0
55°	3946	1231	0
60°	3987	1088	0
65°	4004	926	0
70°	3991	757	0
75°	3940	559	3
80°	3780	341	18
85°	3654	163	24



TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	16.1	1.9
10°-20°	48.1	5.8
20°-30°	77.9	9.4
30°-40°	100.0	12.1
40°-50°	113.3	13.7
50°-60°	117.3	14.2
60°-70°	110.7	13.3
70°-80°	92.7	11.2
80°-90°	67.2	8.1
90°-100°	44.2	5.3
100°-110°	25.5	3.1
110°-120°	11.3	1.4
120°-130°	3.0	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	142.0	17.1
0°-40°	242.1	29.2
0°-60°	472.7	57.0
0°-90°	743.3	89.7
90°-120°	80.9	9.8
90°-150°	85.1	10.3
90°-180°	86.0	10.4
0°-180°	829.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	168	168	168	168	168	
5°	191	184	166	151	143	19
15°	256	224	161	116	97	74
25°	322	263	149	76	48	149
35°	356	284	131	37	12	224
45°	370	281	107	8	0	285
55°	360	263	77	0	0	322
65°	326	233	46	0	0	322
75°	272	188	20	0	0	285
85°	199	136	3	1	1	170
90°	172	109	1	1	2	94
95°	148	85	0	2	2	116
105°	102	44	0	1	2	107
115°	55	15	1	1	1	55
125°	16	2	1	1	1	16
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7
2.5°	181.8	181.6	180.9	179.9	178.4	175.8	173.7	171.7	169.2	167.0	163.0
5°	191.4	190.3	189.5	188.4	185.0	182.6	178.8	174.5	170.5	166.4	158.3
7.5°	206.8	205.1	203.8	200.8	196.1	190.8	184.8	180.7	177.9	166.6	152.7
10°	223.2	221.7	219.2	213.8	208.1	200.4	191.8	182.2	173.7	164.3	147.8
12.5°	239.5	237.3	233.7	226.9	218.7	209.1	197.4	186.1	173.9	162.8	142.1
15°	255.7	253.3	249.5	241.2	230.5	217.9	203.6	189.3	174.9	160.9	136.1
17.5°	273.4	270.2	264.5	255.1	241.6	226.0	209.1	191.8	174.5	158.5	129.7
20°	292.4	288.0	281.8	269.2	253.3	235.0	214.7	194.4	174.3	155.7	122.4
22.5°	308.2	303.8	296.9	283.9	264.9	242.5	219.4	196.1	173.5	152.5	115.6
25°	321.9	318.3	310.8	295.9	275.8	250.4	223.9	197.4	172.2	149.1	108.3
27.5°	332.6	329.2	320.8	305.5	285.0	257.4	227.3	198.0	170.5	145.7	100.8
30°	342.0	338.6	328.5	312.7	291.2	263.0	230.7	198.2	168.3	140.6	92.7
32.5°	349.3	346.1	335.8	318.9	295.4	266.8	232.6	198.0	165.6	136.9	84.0
35°	356.5	353.3	341.4	323.4	298.6	268.5	234.1	197.0	162.1	130.9	75.6
37.5°	362.1	358.4	346.3	326.4	300.1	268.9	233.9	195.5	158.5	126.0	67.3
40°	365.9	362.1	349.0	328.1	300.6	268.3	232.2	192.9	154.2	119.8	58.5
42.5°	368.5	364.2	350.3	330.7	299.7	266.6	229.6	189.7	149.5	114.5	50.2
45°	369.8	365.3	350.5	328.5	298.2	263.4	225.8	185.6	144.4	107.2	41.9
47.5°	369.1	364.2	349.5	326.2	295.4	260.0	221.5	180.7	138.2	100.8	34.0
50°	368.1	362.9	347.1	323.2	291.6	255.7	216.8	174.7	131.8	92.9	26.9
52.5°	364.6	359.5	344.6	318.9	287.1	250.8	210.4	168.5	125.0	85.2	20.5
55°	360.4	355.7	340.1	315.1	281.3	244.8	204.4	161.9	118.3	77.3	14.7
57.5°	353.7	349.5	334.5	308.9	275.6	238.2	197.8	154.7	110.0	69.4	10.3
60°	345.6	341.4	326.8	301.8	268.9	230.7	190.5	147.2	102.5	61.5	6.4
62.5°	337.1	333.0	317.9	293.1	260.6	222.8	182.6	139.7	94.6	54.3	3.8
65°	325.8	321.9	308.2	282.6	251.4	214.3	173.9	130.7	86.5	46.1	2.1
67.5°	313.8	310.4	296.5	273.0	240.7	204.9	164.9	122.0	78.0	39.1	1.1
70°	301.0	296.7	283.9	260.0	229.8	194.2	155.1	113.0	69.9	32.3	0.0
72.5°	286.0	282.8	270.4	247.8	217.2	182.9	145.0	103.2	60.9	25.6	0.2
75°	271.5	267.4	256.1	234.8	204.9	170.9	133.9	94.0	52.1	19.7	0.2
77.5°	252.7	251.4	240.7	220.0	193.1	159.4	121.8	82.9	43.8	14.1	0.2
80°	233.9	232.6	224.3	205.3	179.4	145.7	110.4	72.4	35.7	9.4	0.2
82.5°	215.3	213.6	205.7	189.9	165.6	134.1	98.7	61.9	28.2	5.8	0.2
85°	198.7	196.5	188.0	173.5	151.2	121.1	86.5	51.7	20.9	3.2	0.4
87.5°	184.3	182.9	173.5	158.5	136.7	108.9	75.8	41.9	14.7	1.5	0.6
90°	172.2	169.0	160.6	144.8	123.0	95.5	64.5	33.5	9.8	0.9	0.9
92.5°	160.2	157.4	148.2	132.0	110.9	84.0	53.6	25.6	6.2	0.4	1.1
95°	147.8	144.8	135.9	120.9	98.5	72.2	44.0	18.8	3.4	0.4	1.1
97.5°	135.6	132.9	123.5	108.5	87.4	61.9	34.8	13.2	1.7	0.4	0.9
100°	124.3	121.1	112.6	97.6	76.3	51.7	26.9	8.5	1.1	0.4	0.9
102.5°	112.4	109.8	101.0	86.5	64.7	42.1	20.1	5.3	0.4	0.4	0.6
105°	101.7	98.5	89.9	75.0	55.1	33.1	14.1	3.2	0.4	0.4	0.6



TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	66.2	63.7	56.2	43.6	28.0	13.0	3.8	0.6	0.6	0.6	0.6
115°	55.3	51.5	44.9	33.8	20.7	8.5	1.9	0.6	0.6	0.6	0.6
117.5°	44.2	41.0	36.3	25.6	13.7	5.6	1.1	0.6	0.6	0.6	0.6
120°	34.6	31.6	26.3	17.7	9.2	3.2	0.4	0.6	0.6	0.6	0.6
122.5°	24.8	22.4	17.7	11.5	5.6	1.5	0.6	0.6	0.9	0.9	0.6
125°	16.4	15.2	11.7	7.0	3.4	0.6	0.6	0.6	0.9	0.9	0.6
127.5°	10.7	9.6	6.8	4.1	1.5	0.6	0.6	0.9	0.9	0.9	0.6
130°	6.0	5.3	4.1	2.3	0.6	0.6	0.6	0.9	0.9	0.9	0.6
132.5°	3.4	3.2	2.1	0.4	0.6	0.6	0.6	0.9	0.9	0.9	0.9
135°	0.9	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.4	0.4	0.6	0.6	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.4	0.6	0.6	0.6	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.4	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.4	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.4	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9
167.5°	0.4	0.4	0.4	0.6	0.6	0.6	0.9	0.9	0.9	0.9	0.9
170°	0.4	0.4	0.4	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	0.9
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	167.7	167.7	167.7
2.5°	159.6	156.6	155.7
5°	151.0	146.1	143.3
7.5°	142.5	135.9	132.7
10°	134.6	125.2	121.8
12.5°	125.2	114.3	108.9
15°	116.2	102.1	97.0
17.5°	106.2	90.4	84.4
20°	96.8	78.6	72.4
22.5°	86.1	67.1	60.2
25°	76.5	55.5	47.8
27.5°	65.8	43.8	37.2
30°	55.8	33.5	26.9
32.5°	46.1	24.6	18.6
35°	37.2	16.7	11.7
37.5°	28.6	10.3	6.0
40°	20.7	5.3	2.8
42.5°	13.9	2.6	1.5
45°	8.5	1.3	0.0
47.5°	4.9	0.0	0.0
50°	2.6	0.0	0.0
52.5°	1.1	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°	0.2	0.2	0.2
77.5°	0.2	0.4	0.6
80°	0.4	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.3
87.5°	1.1	1.3	1.5
90°	1.3	1.5	1.5
92.5°	1.3	1.7	1.7
95°	1.5	1.7	1.9
97.5°	1.7	1.9	1.9
100°	1.5	1.9	2.1
102.5°	1.3	1.9	1.9
105°	1.1	1.5	1.7





TEST NUMBER: P550911

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-88-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.6	0.9	1.1
117.5°	0.6	0.9	0.9
120°	0.6	0.6	0.9
122.5°	0.6	0.6	0.9
125°	0.6	0.6	0.9
127.5°	0.9	0.6	0.6
130°	0.6	0.6	0.6
132.5°	0.9	0.6	0.6
135°	0.9	0.6	0.6
137.5°	0.9	0.6	0.6
140°	0.9	0.6	0.6
142.5°	0.9	0.6	0.6
145°	0.6	0.6	0.6
147.5°	0.6	0.6	0.6
150°	0.6	0.6	0.4
152.5°	0.6	0.4	0.4
155°	0.6	0.4	0.2
157.5°	0.9	0.4	0.2
160°	0.6	0.4	0.2
162.5°	0.6	0.4	0.2
165°	0.6	0.4	0.0
167.5°	0.6	0.4	0.2
170°	0.6	0.4	0.2
172.5°	0.6	0.4	0.2
175°	0.6	0.2	0.2
177.5°	0.6	0.2	0.2
180°	0.6	0.6	0.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	89.7	87.2	78.6	64.5	45.1	25.2	9.4	1.7	0.4	0.6	0.6
110°	78.2	76.0	67.3	53.6	36.3	18.8	6.2	1.1	0.6	0.6	0.6







107.5°	0.9	1.3	1.5
110°	0.9	1.1	1.3



(END OF REPORT)