

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: P550892

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-81-86-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: P550892  
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-81-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

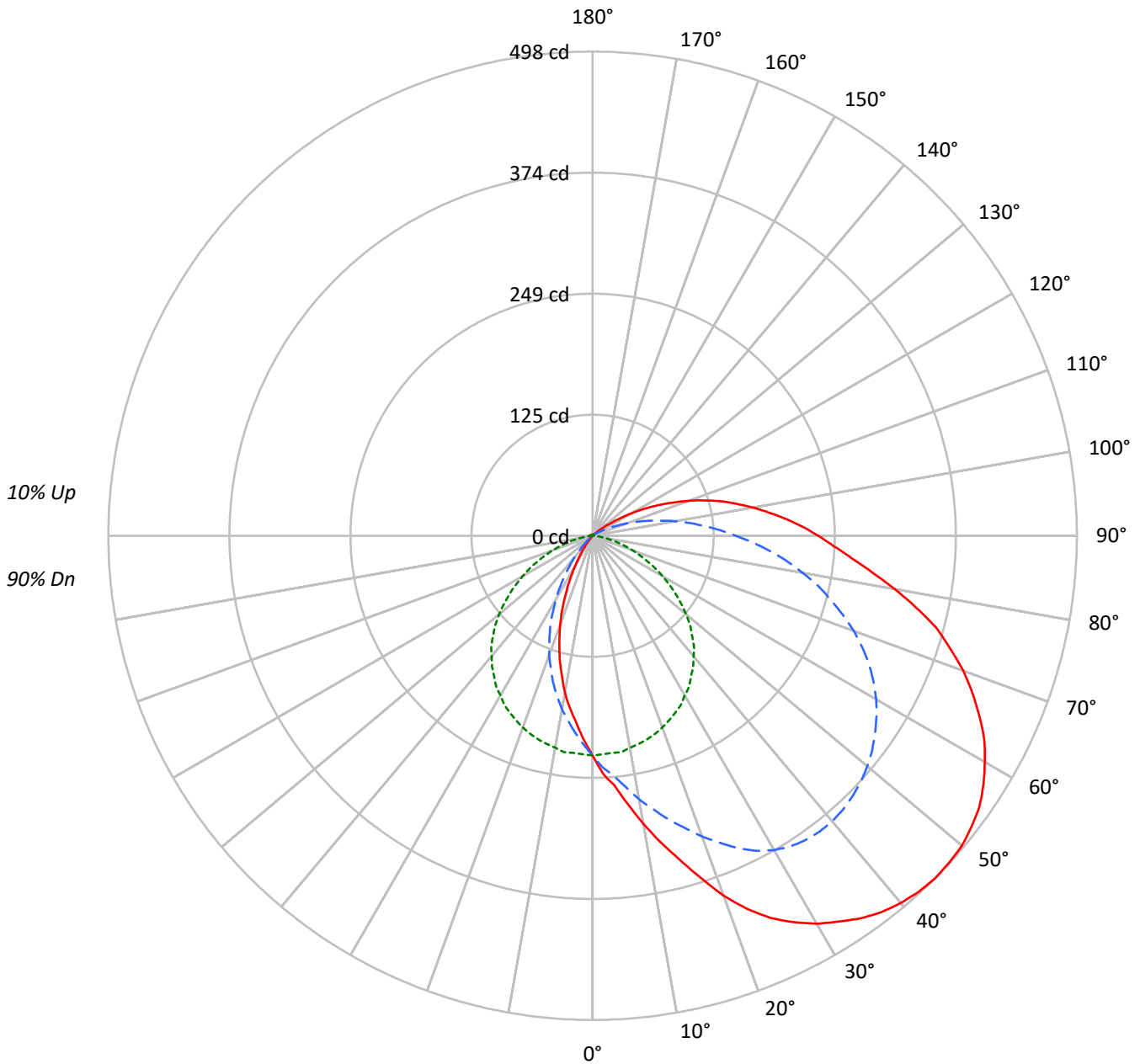
Lumens per Lamp: N/A  
Luminaire Lumens: 1117.1 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-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°	2432	2432	2432
5°	2670	2396	1999
10°	3021	2367	1648
15°	3385	2337	1284
20°	3818	2299	946
25°	4178	2255	621
30°	4444	2196	350
35°	4676	2131	154
40°	4880	2054	37
45°	5056	1955	0
50°	5204	1825	0
55°	5317	1659	0
60°	5373	1467	0
65°	5394	1249	0
70°	5376	1019	0
75°	5308	752	4
80°	5094	461	23
85°	4924	219	31



TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.6	1.9
10°-20°	64.8	5.8
20°-30°	104.9	9.4
30°-40°	134.8	12.1
40°-50°	152.6	13.7
50°-60°	158.1	14.2
60°-70°	149.1	13.3
70°-80°	125.0	11.2
80°-90°	90.6	8.1
90°-100°	59.5	5.3
100°-110°	34.4	3.1
110°-120°	15.2	1.4
120°-130°	4.1	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	191.4	17.1
0°-40°	326.2	29.2
0°-60°	636.9	57.0
0°-90°	1001.5	89.6
90°-120°	109.1	9.8
90°-150°	114.8	10.3
90°-180°	116.0	10.4
0°-180°	1117.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	226	226	226	226	226	
5°	258	248	224	204	193	26
15°	344	302	217	157	131	99
25°	434	354	201	103	64	200
35°	480	382	176	50	16	301
45°	498	378	144	12	0	385
55°	486	354	104	0	0	434
65°	439	314	62	0	0	434
75°	366	253	26	0	0	384
85°	268	184	4	1	2	229
90°	232	147	1	2	2	127
95°	199	115	1	2	3	156
105°	137	59	1	1	2	145
115°	74	20	1	1	1	75
125°	22	3	1	1	1	22
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	1	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	225.9	225.9	225.9	225.9	225.9	225.9	225.9	225.9	225.9	225.9	225.9
2.5°	244.9	244.7	243.8	242.3	240.3	236.9	234.0	231.4	228.0	225.1	219.6
5°	257.9	256.5	255.3	253.9	249.3	246.1	240.9	235.2	229.7	224.2	213.3
7.5°	278.6	276.3	274.6	270.6	264.2	257.0	249.0	243.5	239.8	224.5	205.8
10°	300.8	298.8	295.3	288.1	280.3	270.0	258.5	245.5	234.0	221.3	199.2
12.5°	322.7	319.8	314.9	305.7	294.7	281.8	265.9	250.7	234.3	219.3	191.4
15°	344.5	341.4	336.2	325.0	310.6	293.6	274.3	255.0	235.7	216.7	183.3
17.5°	368.4	364.1	356.3	343.7	325.5	304.5	281.8	258.5	235.2	213.6	174.7
20°	394.0	388.0	379.6	362.7	341.4	316.6	289.3	261.9	234.9	209.8	164.9
22.5°	415.3	409.3	400.1	382.5	356.9	326.7	295.6	264.2	233.7	205.5	155.7
25°	433.8	428.9	418.8	398.6	371.6	337.3	301.6	265.9	232.0	200.9	145.9
27.5°	448.1	443.5	432.3	411.6	384.0	346.8	306.2	266.8	229.7	196.3	135.9
30°	460.8	456.2	442.7	421.4	392.3	354.3	310.9	267.1	226.8	189.4	124.9
32.5°	470.6	466.3	452.5	429.7	398.1	359.5	313.4	266.8	223.1	184.5	113.1
35°	480.4	476.1	459.9	435.8	402.4	361.8	315.5	265.4	218.5	176.4	101.9
37.5°	487.9	483.0	466.6	439.8	404.4	362.4	315.2	263.4	213.6	169.8	90.7
40°	493.0	487.9	470.3	442.1	405.0	361.5	312.9	259.9	207.8	161.5	78.9
42.5°	496.5	490.7	472.0	445.6	403.8	359.2	309.4	255.6	201.5	154.3	67.6
45°	498.2	492.2	472.3	442.7	401.8	354.9	304.2	250.1	194.6	144.5	56.4
47.5°	497.4	490.7	470.9	439.5	398.1	350.3	298.5	243.5	186.2	135.9	45.8
50°	495.9	489.0	467.7	435.5	392.9	344.5	292.1	235.4	177.6	125.2	36.3
52.5°	491.3	484.4	464.3	429.7	386.8	337.9	283.5	227.1	168.4	114.8	27.6
55°	485.6	479.2	458.2	424.5	379.1	329.8	275.4	218.2	159.5	104.2	19.9
57.5°	476.6	470.9	450.7	416.2	371.3	320.9	266.5	208.4	148.2	93.5	13.8
60°	465.7	459.9	440.4	406.7	362.4	310.9	256.7	198.3	138.2	82.9	8.6
62.5°	454.2	448.7	428.3	394.9	351.1	300.2	246.1	188.2	127.5	73.1	5.2
65°	438.9	433.8	415.3	380.8	338.8	288.7	234.3	176.1	116.6	62.2	2.9
67.5°	422.8	418.2	399.5	367.8	324.4	276.0	222.2	164.3	105.1	52.7	1.4
70°	405.5	399.8	382.5	350.3	309.7	261.6	209.0	152.3	94.1	43.5	0.0
72.5°	385.4	381.1	364.4	333.9	292.7	246.4	195.4	139.0	82.0	34.5	0.3
75°	365.8	360.4	345.1	316.3	276.0	230.3	180.5	126.6	70.2	26.5	0.3
77.5°	340.5	338.8	324.4	296.5	260.2	214.7	164.1	111.7	59.0	19.0	0.3
80°	315.2	313.4	302.2	276.6	241.8	196.3	148.8	97.6	48.1	12.7	0.3
82.5°	290.1	287.8	277.2	255.9	223.1	180.8	133.0	83.5	38.0	7.8	0.3
85°	267.7	264.8	253.3	233.7	203.8	163.2	116.6	69.7	28.2	4.3	0.6
87.5°	248.4	246.4	233.7	213.6	184.2	146.8	102.2	56.4	19.9	2.0	0.9
90°	232.0	227.7	216.4	195.1	165.8	128.7	86.9	45.2	13.2	1.2	1.2
92.5°	215.9	212.1	199.8	177.9	149.4	113.1	72.2	34.5	8.3	0.6	1.4
95°	199.2	195.1	183.1	162.9	132.7	97.3	59.3	25.3	4.6	0.6	1.4
97.5°	182.8	179.0	166.4	146.2	117.7	83.5	46.9	17.8	2.3	0.6	1.2
100°	167.5	163.2	151.7	131.5	102.8	69.7	36.3	11.5	1.4	0.6	1.2
102.5°	151.4	147.9	136.1	116.6	87.2	56.7	27.1	7.2	0.6	0.6	0.9
105°	137.0	132.7	121.2	101.0	74.3	44.6	19.0	4.3	0.6	0.6	0.9



TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	89.2	85.8	75.7	58.7	37.7	17.6	5.2	0.9	0.9	0.9	0.9
115°	74.5	69.4	60.4	45.5	27.9	11.5	2.6	0.9	0.9	0.9	0.9
117.5°	59.6	55.3	48.9	34.5	18.4	7.5	1.4	0.9	0.9	0.9	0.9
120°	46.6	42.6	35.4	23.9	12.4	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.4	30.2	23.9	15.5	7.5	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.2	20.4	15.8	9.5	4.6	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.4	13.0	9.2	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.2	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.6	4.3	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.4	1.4	1.4	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	225.9	225.9	225.9
2.5°	215.0	211.0	209.8
5°	203.5	196.9	193.1
7.5°	192.0	183.1	178.7
10°	181.3	168.7	164.1
12.5°	168.7	154.0	146.8
15°	156.6	137.6	130.7
17.5°	143.0	121.7	113.7
20°	130.4	105.9	97.6
22.5°	116.0	90.4	81.2
25°	103.0	74.8	64.5
27.5°	88.6	59.0	50.1
30°	75.1	45.2	36.3
32.5°	62.2	33.1	25.0
35°	50.1	22.5	15.8
37.5°	38.6	13.8	8.1
40°	27.9	7.2	3.7
42.5°	18.7	3.5	2.0
45°	11.5	1.7	0.0
47.5°	6.6	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.4
82.5°	1.2	1.4	1.4
85°	1.2	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3





TEST NUMBER: P550892

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-81-86-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.4	1.4
115°	0.9	1.2	1.4
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	120.9	117.4	105.9	86.9	60.7	34.0	12.7	2.3	0.6	0.9	0.9
110°	105.3	102.5	90.7	72.2	48.9	25.3	8.3	1.4	0.9	0.9	0.9







107.5°	1.2	1.7	2.0
110°	1.2	1.4	1.7



(END OF REPORT)