

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: P550932

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-96-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: P550932  
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-93-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

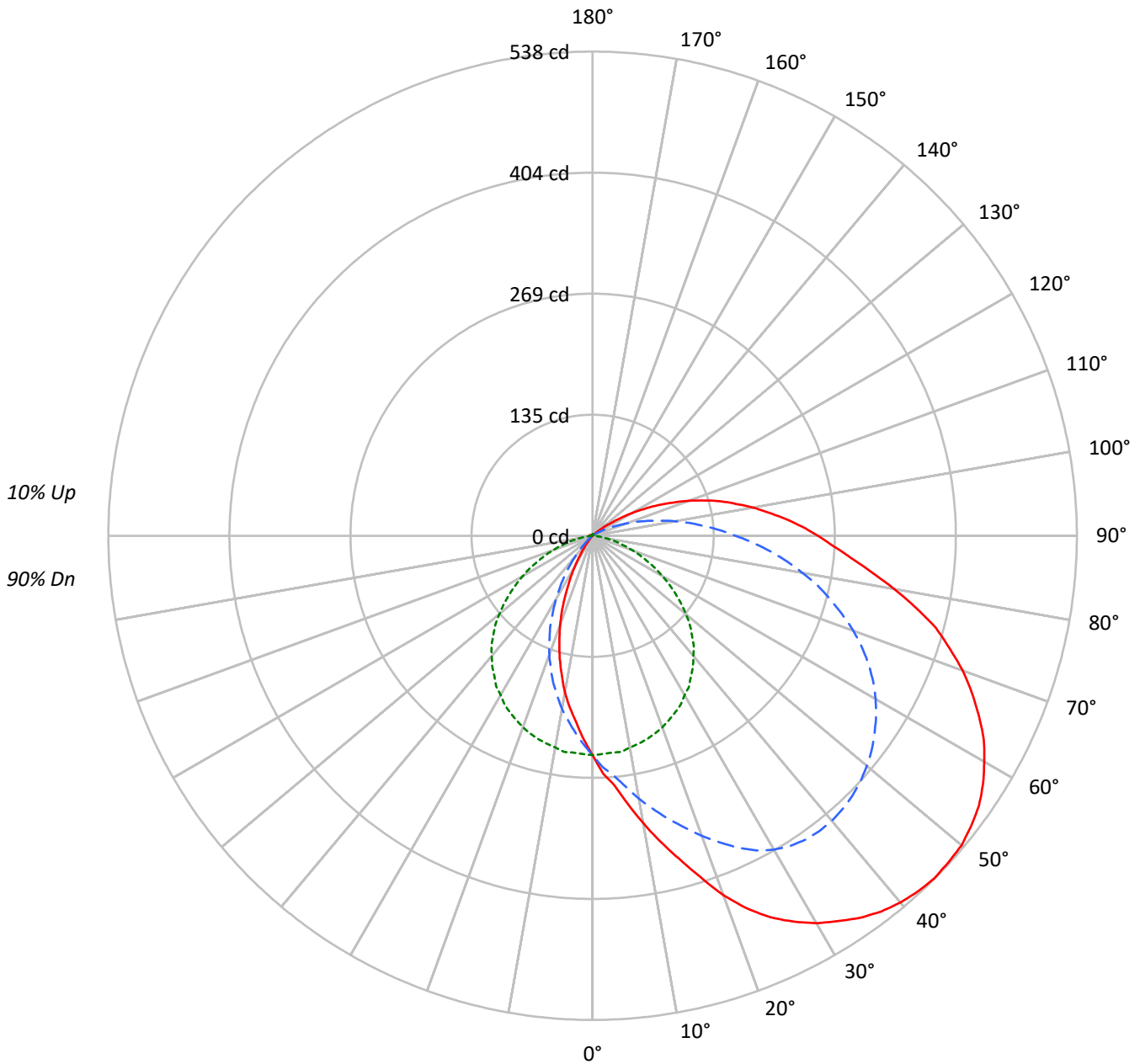
Lumens per Lamp: N/A  
Luminaire Lumens: 1204.9 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550932

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-96-ED1D

### Luminous Intensity Polar Plot





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**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°	2623	2623	2623
5°	2880	2585	2156
10°	3259	2554	1778
15°	3653	2521	1386
20°	4120	2480	1020
25°	4506	2432	670
30°	4794	2368	377
35°	5044	2299	166
40°	5265	2215	40
45°	5455	2109	0
50°	5614	1969	0
55°	5735	1790	0
60°	5796	1582	0
65°	5820	1348	0
70°	5800	1099	0
75°	5726	811	4
80°	5495	497	26
85°	5312	239	35



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.3	1.9
10°-20°	69.9	5.8
20°-30°	113.2	9.4
30°-40°	145.4	12.1
40°-50°	164.6	13.7
50°-60°	170.5	14.2
60°-70°	160.8	13.3
70°-80°	134.8	11.2
80°-90°	97.7	8.1
90°-100°	64.2	5.3
100°-110°	37.1	3.1
110°-120°	16.4	1.4
120°-130°	4.4	0.4
130°-140°	1.0	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	206.5	17.1
0°-40°	351.9	29.2
0°-60°	687.0	57.0
0°-90°	1080.4	89.7
90°-120°	117.7	9.8
90°-150°	123.7	10.3
90°-180°	125.0	10.4
0°-180°	1204.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	244	244	244	244	244	
5°	278	267	242	220	208	28
15°	372	326	234	169	141	107
25°	468	382	217	111	70	216
35°	518	412	190	54	17	325
45°	538	408	156	12	0	415
55°	524	382	112	0	0	468
65°	474	338	67	0	0	468
75°	395	273	29	0	0	414
85°	289	198	5	1	2	247
90°	250	159	1	2	2	137
95°	215	124	1	2	3	169
105°	148	64	1	2	2	156
115°	80	21	1	1	2	81
125°	24	3	1	1	1	24
135°	1	1	2	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	2	1	0	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7	243.7
2.5°	264.2	263.9	263.0	261.4	259.3	255.5	252.4	249.6	245.9	242.8	236.9
5°	278.2	276.7	275.4	273.9	268.9	265.5	259.9	253.7	247.8	241.9	230.1
7.5°	300.6	298.1	296.2	291.9	285.0	277.3	268.6	262.7	258.6	242.2	222.0
10°	324.5	322.3	318.6	310.8	302.4	291.2	278.8	264.9	252.4	238.8	214.9
12.5°	348.1	345.0	339.7	329.8	318.0	304.0	286.9	270.4	252.7	236.6	206.5
15°	371.7	368.3	362.7	350.6	335.0	316.7	295.9	275.1	254.3	233.8	197.8
17.5°	397.4	392.8	384.4	370.7	351.2	328.5	304.0	278.8	253.7	230.4	188.5
20°	425.1	418.6	409.5	391.2	368.3	341.6	312.1	282.6	253.4	226.4	177.9
22.5°	448.1	441.5	431.6	412.7	385.0	352.4	318.9	285.0	252.1	221.7	168.0
25°	467.9	462.6	451.8	430.0	400.9	363.9	325.4	286.9	250.3	216.7	157.4
27.5°	483.4	478.5	466.4	444.0	414.2	374.2	330.4	287.8	247.8	211.8	146.6
30°	497.1	492.1	477.5	454.6	423.2	382.2	335.3	288.1	244.7	204.3	134.8
32.5°	507.7	503.0	488.1	463.6	429.4	387.8	338.1	287.8	240.6	199.0	122.0
35°	518.2	513.6	496.2	470.1	434.1	390.3	340.3	286.3	235.7	190.3	109.9
37.5°	526.3	521.0	503.3	474.4	436.3	390.9	340.0	284.1	230.4	183.2	97.8
40°	531.9	526.3	507.4	476.9	436.9	390.0	337.5	280.4	224.2	174.2	85.1
42.5°	535.6	529.4	509.2	480.7	435.6	387.5	333.8	275.7	217.4	166.4	73.0
45°	537.5	531.0	509.5	477.5	433.5	382.8	328.2	269.8	209.9	155.9	60.9
47.5°	536.5	529.4	508.0	474.1	429.4	377.9	322.0	262.7	200.9	146.6	49.4
50°	535.0	527.5	504.6	469.8	423.8	371.7	315.2	254.0	191.6	135.1	39.1
52.5°	530.0	522.6	500.8	463.6	417.3	364.5	305.8	245.0	181.6	123.9	29.8
55°	523.8	517.0	494.3	458.0	408.9	355.8	297.1	235.4	172.0	112.4	21.4
57.5°	514.2	508.0	486.2	449.0	400.5	346.2	287.5	224.8	159.9	100.9	14.9
60°	502.4	496.2	475.1	438.7	390.9	335.3	277.0	213.9	149.0	89.4	9.3
62.5°	490.0	484.1	462.0	426.0	378.8	323.9	265.5	203.1	137.6	78.9	5.6
65°	473.5	467.9	448.1	410.8	365.5	311.4	252.7	190.0	125.8	67.1	3.1
67.5°	456.1	451.2	431.0	396.8	349.9	297.8	239.7	177.3	113.3	56.8	1.6
70°	437.5	431.3	412.7	377.9	334.1	282.2	225.4	164.3	101.5	46.9	0.0
72.5°	415.8	411.1	393.1	360.2	315.8	265.8	210.8	150.0	88.5	37.3	0.3
75°	394.6	388.7	372.3	341.2	297.8	248.4	194.7	136.6	75.8	28.6	0.3
77.5°	367.3	365.5	349.9	319.8	280.7	231.6	177.0	120.5	63.7	20.5	0.3
80°	340.0	338.1	326.0	298.4	260.8	211.8	160.5	105.3	51.9	13.7	0.3
82.5°	313.0	310.5	299.0	276.0	240.6	195.0	143.5	90.0	41.0	8.4	0.3
85°	288.8	285.7	273.2	252.1	219.8	176.1	125.8	75.1	30.4	4.7	0.6
87.5°	268.0	265.8	252.1	230.4	198.7	158.4	110.2	60.9	21.4	2.2	0.9
90°	250.3	245.6	233.5	210.5	178.8	138.8	93.8	48.7	14.3	1.2	1.2
92.5°	232.9	228.8	215.5	191.9	161.1	122.0	77.9	37.3	9.0	0.6	1.6
95°	214.9	210.5	197.5	175.7	143.1	104.9	64.0	27.3	5.0	0.6	1.6
97.5°	197.2	193.1	179.5	157.7	127.0	90.0	50.6	19.3	2.5	0.6	1.2
100°	180.7	176.1	163.6	141.9	110.8	75.1	39.1	12.4	1.6	0.6	1.2
102.5°	163.3	159.6	146.9	125.8	94.1	61.2	29.2	7.8	0.6	0.6	0.9
105°	147.8	143.1	130.7	109.0	80.1	48.1	20.5	4.7	0.6	0.6	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	96.3	92.5	81.7	63.3	40.7	18.9	5.6	0.9	0.9	0.9	0.9
115°	80.4	74.8	65.2	49.1	30.1	12.4	2.8	0.9	0.9	0.9	0.9
117.5°	64.3	59.6	52.8	37.3	19.9	8.1	1.6	0.9	0.9	0.9	0.9
120°	50.3	46.0	38.2	25.8	13.4	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.0	32.6	25.8	16.8	8.1	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.9	22.0	17.1	10.2	5.0	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.5	14.0	9.9	5.9	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.7	7.8	5.9	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	5.0	4.7	3.1	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	1.6	1.6	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.6	1.6	1.6	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.6	1.6	1.6	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.6
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.6
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	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	243.7	243.7	243.7
2.5°	231.9	227.6	226.4
5°	219.5	212.4	208.3
7.5°	207.1	197.5	192.8
10°	195.6	182.0	177.0
12.5°	182.0	166.1	158.4
15°	168.9	148.4	141.0
17.5°	154.3	131.3	122.6
20°	140.7	114.3	105.3
22.5°	125.1	97.5	87.6
25°	111.2	80.7	69.6
27.5°	95.6	63.7	54.0
30°	81.0	48.7	39.1
32.5°	67.1	35.7	27.0
35°	54.0	24.2	17.1
37.5°	41.6	14.9	8.7
40°	30.1	7.8	4.0
42.5°	20.2	3.7	2.2
45°	12.4	1.9	0.0
47.5°	7.1	0.0	0.0
50°	3.7	0.0	0.0
52.5°	1.6	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	1.6
82.5°	1.2	1.6	1.6
85°	1.2	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.9	2.8	2.8
105°	1.6	2.2	2.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.6	1.6
115°	0.9	1.2	1.6
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°	130.4	126.7	114.3	93.8	65.5	36.6	13.7	2.5	0.6	0.9	0.9
110°	113.6	110.5	97.8	77.9	52.8	27.3	9.0	1.6	0.9	0.9	0.9







107.5°	1.2	1.9	2.2
110°	1.2	1.6	1.9



(END OF REPORT)