

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: P550931

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-96-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: P550931  
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-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,  
AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

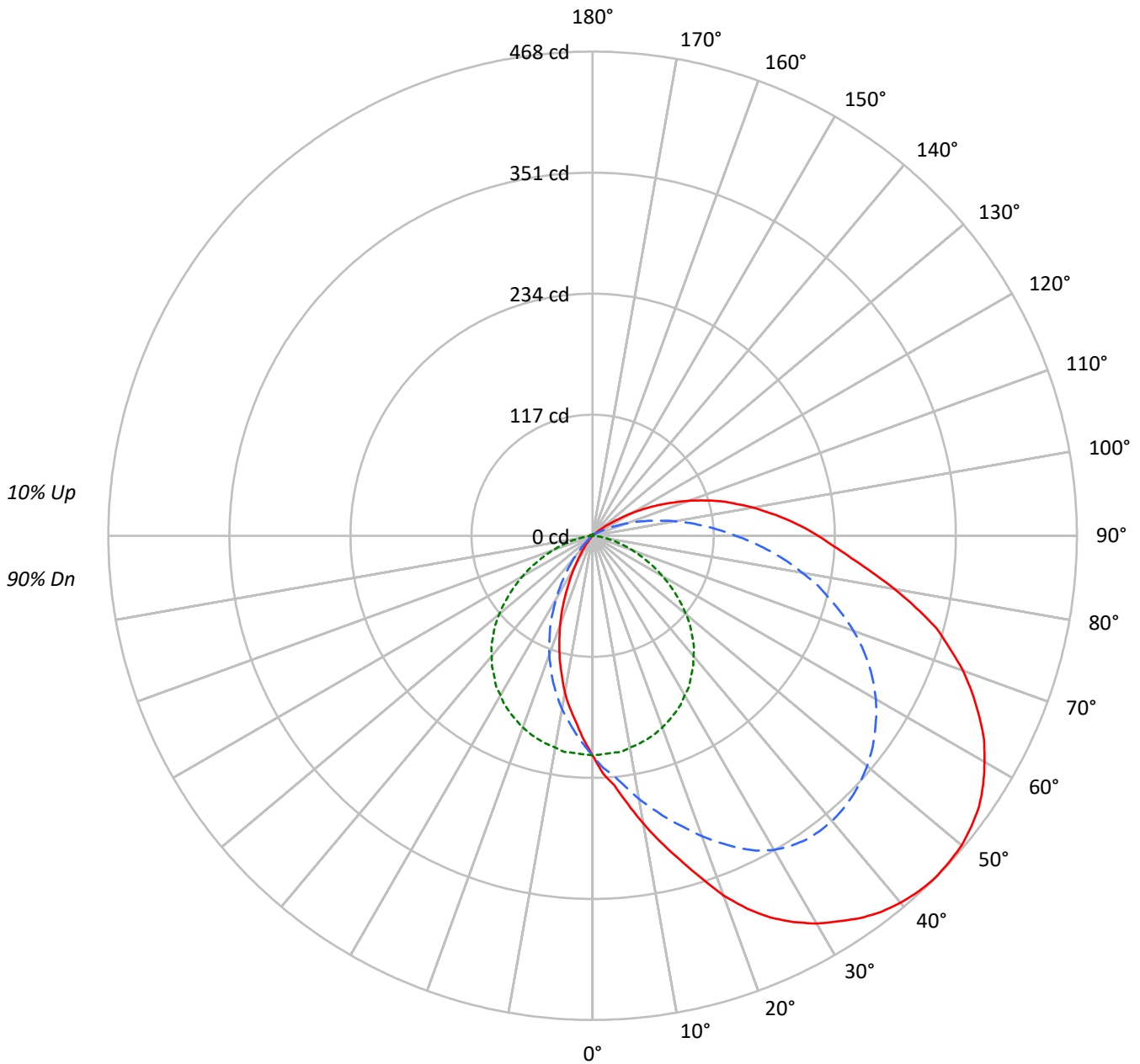
Lumens per Lamp: N/A  
Luminaire Lumens: 1049.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550931

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-96-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550931

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

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

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

	0°	90°	180°
0°	2284	2284	2284
5°	2507	2251	1878
10°	2838	2223	1548
15°	3180	2194	1206
20°	3586	2159	888
25°	3923	2118	583
30°	4174	2062	329
35°	4390	2002	145
40°	4583	1928	35
45°	4748	1836	0
50°	4887	1714	0
55°	4992	1557	0
60°	5045	1377	0
65°	5066	1173	0
70°	5050	956	0
75°	4986	706	4
80°	4784	432	23
85°	4624	208	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.3	1.9
10°-20°	60.9	5.8
20°-30°	98.6	9.4
30°-40°	126.6	12.1
40°-50°	143.3	13.7
50°-60°	148.5	14.2
60°-70°	140.0	13.3
70°-80°	117.3	11.2
80°-90°	85.1	8.1
90°-100°	55.9	5.3
100°-110°	32.3	3.1
110°-120°	14.2	1.4
120°-130°	3.9	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
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0°-30°	179.7	17.1
0°-40°	306.3	29.2
0°-60°	598.1	57.0
0°-90°	940.5	89.7
90°-120°	102.4	9.8
90°-150°	107.8	10.3
90°-180°	108.0	10.3
0°-180°	1049.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	212	212	212	212	212	
5°	242	233	211	191	181	24
15°	324	284	204	147	123	93
25°	407	333	189	97	60	188
35°	451	359	166	47	15	283
45°	468	355	136	11	0	361
55°	456	333	98	0	0	407
65°	412	295	58	0	0	408
75°	344	238	25	0	0	360
85°	251	172	4	1	2	215
90°	218	138	1	2	2	119
95°	187	108	0	2	2	147
105°	129	56	0	1	2	136
115°	70	18	1	1	1	70
125°	21	3	1	1	1	21
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2
2.5°	230.0	229.8	228.9	227.6	225.7	222.5	219.8	217.3	214.1	211.4	206.2
5°	242.2	240.8	239.8	238.4	234.1	231.1	226.2	220.8	215.7	210.6	200.3
7.5°	261.7	259.5	257.9	254.1	248.1	241.4	233.8	228.7	225.2	210.8	193.3
10°	282.5	280.6	277.3	270.6	263.3	253.5	242.7	230.6	219.8	207.9	187.0
12.5°	303.0	300.3	295.7	287.1	276.8	264.6	249.8	235.4	220.0	206.0	179.8
15°	323.6	320.6	315.7	305.2	291.7	275.7	257.6	239.5	221.4	203.5	172.2
17.5°	346.0	341.9	334.6	322.7	305.7	286.0	264.6	242.7	220.8	200.6	164.1
20°	370.0	364.4	356.5	340.6	320.6	297.3	271.7	246.0	220.6	197.1	154.9
22.5°	390.0	384.4	375.7	359.2	335.2	306.8	277.6	248.1	219.5	193.0	146.2
25°	407.3	402.8	393.3	374.4	349.0	316.8	283.3	249.8	217.9	188.7	137.0
27.5°	420.9	416.5	406.0	386.5	360.6	325.7	287.6	250.6	215.7	184.3	127.6
30°	432.8	428.4	415.7	395.7	368.4	332.7	291.9	250.8	213.0	177.9	117.3
32.5°	441.9	437.9	424.9	403.6	373.8	337.6	294.4	250.6	209.5	173.3	106.2
35°	451.1	447.1	431.9	409.2	377.9	339.8	296.3	249.2	205.2	165.7	95.7
37.5°	458.2	453.6	438.2	413.0	379.8	340.3	296.0	247.3	200.6	159.5	85.1
40°	463.0	458.2	441.7	415.2	380.3	339.5	293.8	244.1	195.2	151.6	74.1
42.5°	466.3	460.9	443.3	418.4	379.2	337.3	290.6	240.0	189.2	144.9	63.5
45°	467.9	462.2	443.6	415.7	377.3	333.3	285.7	234.9	182.7	135.7	53.0
47.5°	467.1	460.9	442.2	412.8	373.8	329.0	280.3	228.7	174.9	127.6	43.0
50°	465.7	459.2	439.2	409.0	369.0	323.6	274.4	221.1	166.8	117.6	34.1
52.5°	461.4	454.9	436.0	403.6	363.3	317.3	266.2	213.3	158.1	107.9	25.9
55°	456.0	450.1	430.3	398.7	356.0	309.8	258.7	204.9	149.7	97.8	18.7
57.5°	447.6	442.2	423.3	390.9	348.7	301.4	250.3	195.7	139.2	87.8	13.0
60°	437.3	431.9	413.6	381.9	340.3	291.9	241.1	186.2	129.7	77.8	8.1
62.5°	426.5	421.4	402.2	370.9	329.8	281.9	231.1	176.8	119.7	68.7	4.9
65°	412.2	407.3	390.0	357.6	318.1	271.1	220.0	165.4	109.5	58.4	2.7
67.5°	397.1	392.7	375.2	345.4	304.6	259.2	208.7	154.3	98.7	49.5	1.4
70°	380.9	375.5	359.2	329.0	290.8	245.7	196.2	143.0	88.4	40.8	0.0
72.5°	361.9	357.9	342.2	313.6	274.9	231.4	183.5	130.6	77.0	32.4	0.3
75°	343.6	338.4	324.1	297.1	259.2	216.2	169.5	118.9	66.0	24.9	0.3
77.5°	319.8	318.1	304.6	278.4	244.4	201.6	154.1	104.9	55.4	17.8	0.3
80°	296.0	294.4	283.8	259.8	227.1	184.3	139.7	91.6	45.1	11.9	0.3
82.5°	272.5	270.3	260.3	240.3	209.5	169.8	124.9	78.4	35.7	7.3	0.3
85°	251.4	248.7	237.9	219.5	191.4	153.3	109.5	65.4	26.5	4.1	0.5
87.5°	233.3	231.4	219.5	200.6	173.0	137.9	96.0	53.0	18.7	1.9	0.8
90°	217.9	213.8	203.3	183.3	155.7	120.8	81.6	42.4	12.4	1.1	1.1
92.5°	202.7	199.2	187.6	167.0	140.3	106.2	67.8	32.4	7.8	0.5	1.4
95°	187.0	183.3	171.9	153.0	124.6	91.4	55.7	23.8	4.3	0.5	1.4
97.5°	171.6	168.1	156.2	137.3	110.6	78.4	44.1	16.8	2.2	0.5	1.1
100°	157.3	153.3	142.4	123.5	96.5	65.4	34.1	10.8	1.4	0.5	1.1
102.5°	142.2	138.9	127.9	109.5	81.9	53.2	25.4	6.8	0.5	0.5	0.8
105°	128.7	124.6	113.8	94.9	69.7	41.9	17.8	4.1	0.5	0.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	83.8	80.6	71.1	55.1	35.4	16.5	4.9	0.8	0.8	0.8	0.8
115°	70.0	65.1	56.8	42.7	26.2	10.8	2.4	0.8	0.8	0.8	0.8
117.5°	56.0	51.9	46.0	32.4	17.3	7.0	1.4	0.8	0.8	0.8	0.8
120°	43.8	40.0	33.2	22.4	11.6	4.1	0.5	0.8	0.8	0.8	0.8
122.5°	31.4	28.4	22.4	14.6	7.0	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.8	19.2	14.9	8.9	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.5	12.2	8.6	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.6	6.8	5.1	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.1	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	212.2	212.2	212.2
2.5°	201.9	198.1	197.1
5°	191.1	184.9	181.4
7.5°	180.3	171.9	167.9
10°	170.3	158.4	154.1
12.5°	158.4	144.6	137.9
15°	147.0	129.2	122.7
17.5°	134.3	114.3	106.8
20°	122.4	99.5	91.6
22.5°	108.9	84.9	76.2
25°	96.8	70.3	60.5
27.5°	83.3	55.4	47.0
30°	70.5	42.4	34.1
32.5°	58.4	31.1	23.5
35°	47.0	21.1	14.9
37.5°	36.2	13.0	7.6
40°	26.2	6.8	3.5
42.5°	17.6	3.2	1.9
45°	10.8	1.6	0.0
47.5°	6.2	0.0	0.0
50°	3.2	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	0.5	0.8
80°	0.5	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.6
87.5°	1.4	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.2	2.2
95°	1.9	2.2	2.4
97.5°	2.2	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.4	1.9	2.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	113.5	110.3	99.5	81.6	57.0	31.9	11.9	2.2	0.5	0.8	0.8
110°	98.9	96.2	85.1	67.8	46.0	23.8	7.8	1.4	0.8	0.8	0.8







107.5°	1.1	1.6	1.9
110°	1.1	1.4	1.6



(END OF REPORT)