

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: P550921

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-85-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: P550921  
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-93-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

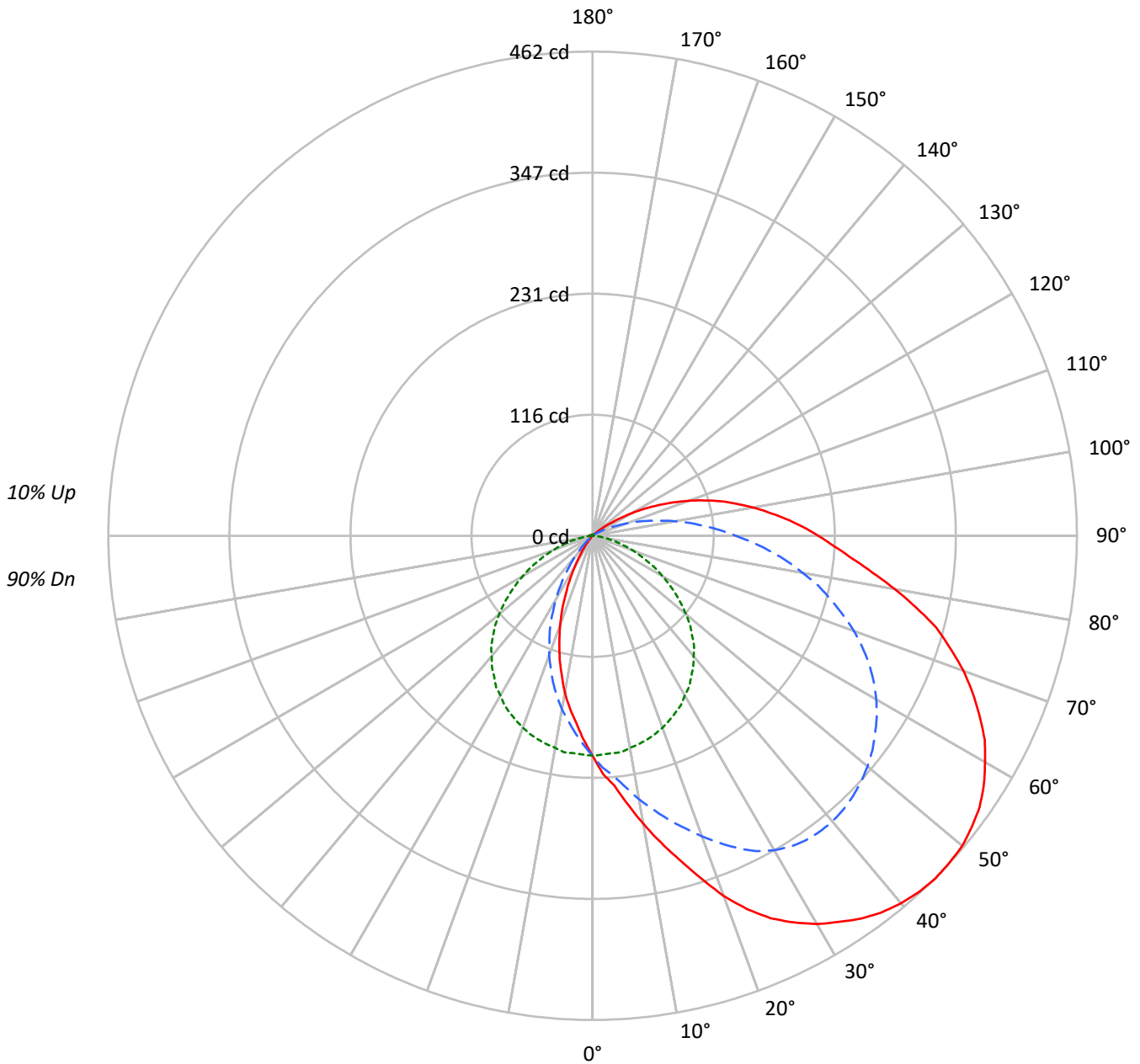
Lumens per Lamp: N/A  
Luminaire Lumens: 1037.0 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550921

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550921

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**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°	2258	2258	2258
5°	2478	2225	1856
10°	2804	2198	1530
15°	3144	2169	1192
20°	3545	2134	878
25°	3878	2093	577
30°	4126	2038	325
35°	4341	1979	143
40°	4531	1906	35
45°	4694	1815	0
50°	4831	1694	0
55°	4936	1540	0
60°	4987	1363	0
65°	5008	1159	0
70°	4992	944	0
75°	4928	698	4
80°	4729	428	21
85°	4570	203	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.1	1.9
10°-20°	60.2	5.8
20°-30°	97.4	9.4
30°-40°	125.1	12.1
40°-50°	141.7	13.7
50°-60°	146.8	14.2
60°-70°	138.4	13.3
70°-80°	116.0	11.2
80°-90°	84.1	8.1
90°-100°	55.3	5.3
100°-110°	31.9	3.1
110°-120°	14.1	1.4
120°-130°	3.8	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
0°-30°	177.7	17.1
0°-40°	302.8	29.2
0°-60°	591.3	57.0
0°-90°	929.8	89.7
90°-120°	101.2	9.8
90°-150°	106.5	10.3
90°-180°	107.0	10.3
0°-180°	1037.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	210	210	210	210	210	
5°	239	230	208	189	179	24
15°	320	280	201	145	121	92
25°	403	329	186	96	60	186
35°	446	355	164	46	15	280
45°	462	351	134	11	0	357
55°	451	329	97	0	0	403
65°	408	291	58	0	0	403
75°	340	235	25	0	0	356
85°	248	170	4	1	2	212
90°	215	137	1	2	2	118
95°	185	107	0	2	2	145
105°	127	55	0	1	2	134
115°	69	18	1	1	1	69
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°	209.8	209.8	209.8	209.8	209.8	209.8	209.8	209.8	209.8	209.8	209.8
2.5°	227.4	227.1	226.3	225.0	223.1	219.9	217.2	214.8	211.6	209.0	203.9
5°	239.4	238.1	237.0	235.7	231.4	228.5	223.7	218.3	213.2	208.2	198.0
7.5°	258.7	256.5	254.9	251.2	245.3	238.6	231.1	226.1	222.6	208.4	191.1
10°	279.2	277.4	274.2	267.5	260.3	250.6	240.0	227.9	217.2	205.5	184.9
12.5°	299.5	296.9	292.3	283.8	273.6	261.6	246.9	232.7	217.5	203.6	177.7
15°	319.9	316.9	312.1	301.7	288.3	272.6	254.7	236.7	218.8	201.2	170.2
17.5°	342.0	338.0	330.8	319.0	302.2	282.7	261.6	240.0	218.3	198.3	162.2
20°	365.8	360.2	352.5	336.7	316.9	293.9	268.5	243.2	218.0	194.8	153.1
22.5°	385.6	380.0	371.4	355.1	331.3	303.3	274.4	245.3	217.0	190.8	144.6
25°	402.7	398.1	388.8	370.1	345.0	313.2	280.0	246.9	215.4	186.5	135.5
27.5°	416.0	411.8	401.4	382.1	356.5	322.0	284.3	247.7	213.2	182.2	126.1
30°	427.8	423.5	411.0	391.2	364.2	328.9	288.6	248.0	210.6	175.8	116.0
32.5°	436.9	432.9	420.1	398.9	369.6	333.7	291.0	247.7	207.1	171.3	105.0
35°	446.0	442.0	427.0	404.6	373.6	335.9	292.9	246.4	202.8	163.8	94.6
37.5°	452.9	448.4	433.1	408.3	375.4	336.4	292.6	244.5	198.3	157.7	84.2
40°	457.7	452.9	436.6	410.4	376.0	335.6	290.5	241.3	192.9	149.9	73.2
42.5°	460.9	455.6	438.2	413.6	374.9	333.5	287.3	237.3	187.0	143.2	62.8
45°	462.5	456.9	438.5	411.0	373.0	329.5	282.4	232.2	180.6	134.1	52.4
47.5°	461.7	455.6	437.2	408.0	369.6	325.2	277.1	226.1	172.9	126.1	42.5
50°	460.4	454.0	434.2	404.3	364.7	319.9	271.2	218.6	164.9	116.2	33.7
52.5°	456.1	449.7	431.0	398.9	359.1	313.7	263.2	210.8	156.3	106.6	25.7
55°	450.8	444.9	425.4	394.1	351.9	306.2	255.7	202.5	148.0	96.7	18.4
57.5°	442.5	437.2	418.5	386.4	344.7	297.9	247.4	193.5	137.6	86.8	12.8
60°	432.3	427.0	408.8	377.6	336.4	288.6	238.4	184.1	128.3	77.0	8.0
62.5°	421.7	416.6	397.6	366.6	326.0	278.7	228.5	174.8	118.4	67.9	4.8
65°	407.5	402.7	385.6	353.5	314.5	268.0	217.5	163.5	108.2	57.7	2.7
67.5°	392.5	388.3	370.9	341.5	301.1	256.3	206.3	152.6	97.5	48.9	1.3
70°	376.5	371.2	355.1	325.2	287.5	242.9	194.0	141.4	87.4	40.3	0.0
72.5°	357.8	353.8	338.3	310.0	271.8	228.7	181.4	129.1	76.2	32.1	0.3
75°	339.6	334.5	320.4	293.7	256.3	213.8	167.5	117.6	65.2	24.6	0.3
77.5°	316.1	314.5	301.1	275.2	241.6	199.3	152.3	103.7	54.8	17.6	0.3
80°	292.6	291.0	280.6	256.8	224.5	182.2	138.1	90.6	44.6	11.8	0.3
82.5°	269.3	267.2	257.3	237.6	207.1	167.8	123.5	77.5	35.3	7.2	0.3
85°	248.5	245.8	235.1	217.0	189.2	151.5	108.2	64.7	26.2	4.0	0.5
87.5°	230.6	228.7	217.0	198.3	171.0	136.3	94.9	52.4	18.4	1.9	0.8
90°	215.4	211.4	200.9	181.2	153.9	119.4	80.7	42.0	12.3	1.1	1.1
92.5°	200.4	196.9	185.4	165.1	138.7	105.0	67.1	32.1	7.7	0.5	1.3
95°	184.9	181.2	169.9	151.2	123.2	90.3	55.0	23.5	4.3	0.5	1.3
97.5°	169.7	166.2	154.4	135.7	109.3	77.5	43.6	16.6	2.1	0.5	1.1
100°	155.5	151.5	140.8	122.1	95.4	64.7	33.7	10.7	1.3	0.5	1.1
102.5°	140.6	137.3	126.4	108.2	81.0	52.6	25.1	6.7	0.5	0.5	0.8
105°	127.2	123.2	112.5	93.8	68.9	41.4	17.6	4.0	0.5	0.5	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	82.8	79.6	70.3	54.5	35.0	16.3	4.8	0.8	0.8	0.8	0.8
115°	69.2	64.4	56.1	42.2	25.9	10.7	2.4	0.8	0.8	0.8	0.8
117.5°	55.3	51.3	45.4	32.1	17.1	6.9	1.3	0.8	0.8	0.8	0.8
120°	43.3	39.5	32.9	22.2	11.5	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	31.0	28.1	22.2	14.4	6.9	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.6	19.0	14.7	8.8	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.4	12.0	8.6	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.5	6.7	5.1	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.0	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	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
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	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	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°	209.8	209.8	209.8
2.5°	199.6	195.9	194.8
5°	188.9	182.8	179.3
7.5°	178.2	169.9	165.9
10°	168.3	156.6	152.3
12.5°	156.6	143.0	136.3
15°	145.4	127.7	121.3
17.5°	132.8	113.0	105.5
20°	121.0	98.3	90.6
22.5°	107.7	83.9	75.4
25°	95.7	69.5	59.9
27.5°	82.3	54.8	46.5
30°	69.7	42.0	33.7
32.5°	57.7	30.7	23.2
35°	46.5	20.8	14.7
37.5°	35.8	12.8	7.5
40°	25.9	6.7	3.5
42.5°	17.4	3.2	1.9
45°	10.7	1.6	0.0
47.5°	6.1	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.3	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.3	1.9	2.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
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°	112.2	109.0	98.3	80.7	56.4	31.5	11.8	2.1	0.5	0.8	0.8
110°	97.8	95.1	84.2	67.1	45.4	23.5	7.7	1.3	0.8	0.8	0.8







107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)