

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: P550934

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-97-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: P550934  
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-93-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

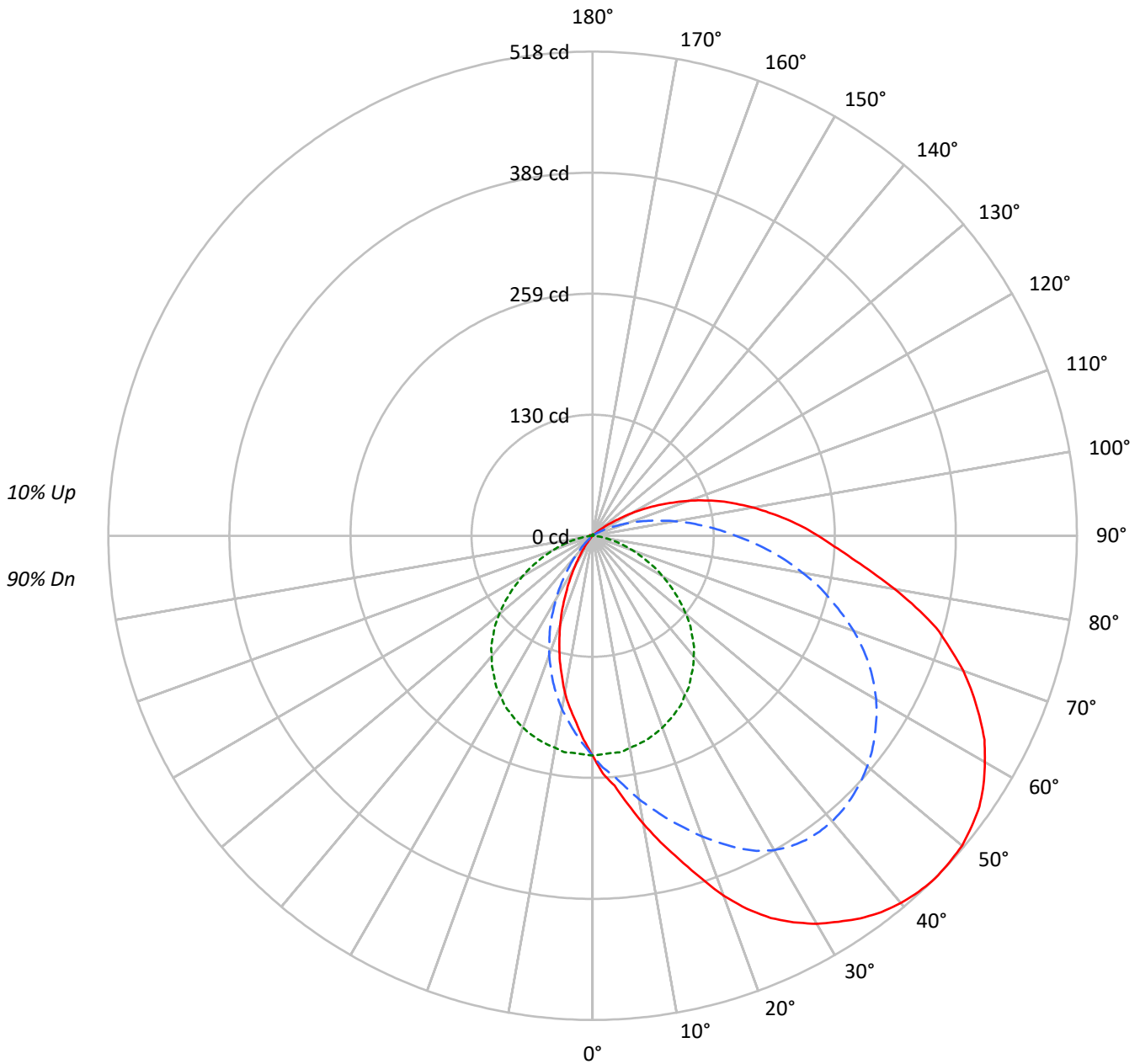
Lumens per Lamp: N/A  
Luminaire Lumens: 1162.0 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-97-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°	2530	2530	2530
5°	2777	2492	2080
10°	3143	2463	1715
15°	3522	2431	1335
20°	3972	2392	984
25°	4346	2346	646
30°	4624	2284	364
35°	4863	2217	161
40°	5077	2137	39
45°	5260	2034	0
50°	5413	1898	0
55°	5530	1726	0
60°	5590	1525	0
65°	5612	1300	0
70°	5594	1059	0
75°	5523	780	4
80°	5299	479	24
85°	5122	229	33



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.5	1.9
10°-20°	67.4	5.8
20°-30°	109.2	9.4
30°-40°	140.2	12.1
40°-50°	158.7	13.7
50°-60°	164.5	14.2
60°-70°	155.1	13.3
70°-80°	130.0	11.2
80°-90°	94.2	8.1
90°-100°	61.9	5.3
100°-110°	35.8	3.1
110°-120°	15.8	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	199.1	17.1
0°-40°	339.3	29.2
0°-60°	662.5	57.0
0°-90°	1041.8	89.7
90°-120°	113.5	9.8
90°-150°	119.4	10.3
90°-180°	120.0	10.3
0°-180°	1162.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	235	235	235	235	235	
5°	268	258	233	212	201	27
15°	358	314	226	163	136	103
25°	451	369	209	107	67	209
35°	500	398	184	52	16	313
45°	518	394	150	12	0	400
55°	505	369	108	0	0	451
65°	457	326	65	0	0	452
75°	381	263	28	0	0	399
85°	278	191	4	1	2	238
90°	241	153	1	2	2	132
95°	207	120	1	2	3	163
105°	142	62	1	2	2	150
115°	78	20	1	1	2	78
125°	23	3	1	1	1	23
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°	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0
2.5°	254.8	254.5	253.6	252.1	250.0	246.4	243.4	240.7	237.1	234.1	228.5
5°	268.3	266.8	265.6	264.1	259.3	256.0	250.6	244.6	238.9	233.2	221.9
7.5°	289.8	287.4	285.6	281.5	274.9	267.4	259.0	253.3	249.4	233.5	214.1
10°	312.9	310.8	307.2	299.7	291.6	280.9	268.9	255.4	243.4	230.3	207.2
12.5°	335.6	332.7	327.6	318.0	306.6	293.1	276.7	260.8	243.7	228.2	199.1
15°	358.4	355.1	349.7	338.0	323.1	305.4	285.3	265.3	245.2	225.5	190.7
17.5°	383.3	378.8	370.7	357.5	338.6	316.8	293.1	268.9	244.6	222.2	181.7
20°	409.9	403.6	394.9	377.3	355.1	329.4	300.9	272.5	244.3	218.3	171.6
22.5°	432.1	425.8	416.2	397.9	371.3	339.8	307.5	274.9	243.1	213.8	162.0
25°	451.2	446.1	435.7	414.7	386.6	350.9	313.8	276.7	241.3	209.0	151.8
27.5°	466.2	461.4	449.7	428.2	399.4	360.8	318.6	277.6	238.9	204.2	141.3
30°	479.4	474.6	460.5	438.4	408.1	368.6	323.4	277.9	235.9	197.0	129.9
32.5°	489.6	485.1	470.7	447.0	414.1	374.0	326.1	277.6	232.1	191.9	117.7
35°	499.7	495.2	478.5	453.3	418.6	376.4	328.2	276.1	227.3	183.5	106.0
37.5°	507.5	502.4	485.4	457.5	420.7	377.0	327.9	274.0	222.2	176.7	94.3
40°	512.9	507.5	489.3	459.9	421.3	376.1	325.5	270.4	216.2	168.0	82.0
42.5°	516.5	510.5	491.0	463.5	420.1	373.7	321.9	265.9	209.6	160.5	70.4
45°	518.3	512.0	491.3	460.5	418.0	369.2	316.5	260.2	202.4	150.3	58.7
47.5°	517.4	510.5	489.9	457.2	414.1	364.4	310.5	253.3	193.7	141.3	47.6
50°	515.9	508.7	486.6	453.0	408.7	358.4	303.9	244.9	184.7	130.2	37.7
52.5°	511.1	503.9	483.0	447.0	402.4	351.5	294.9	236.2	175.2	119.5	28.7
55°	505.1	498.5	476.7	441.6	394.3	343.1	286.5	227.0	165.9	108.4	20.7
57.5°	495.8	489.9	468.9	433.0	386.3	333.9	277.3	216.8	154.2	97.3	14.4
60°	484.5	478.5	458.1	423.1	377.0	323.4	267.1	206.3	143.7	86.2	9.0
62.5°	472.5	466.8	445.5	410.8	365.3	312.3	256.0	195.8	132.6	76.1	5.4
65°	456.6	451.2	432.1	396.1	352.4	300.3	243.7	183.2	121.3	64.7	3.0
67.5°	439.8	435.1	415.6	382.7	337.4	287.1	231.2	171.0	109.3	54.8	1.5
70°	421.9	415.9	397.9	364.4	322.2	272.2	217.4	158.4	97.9	45.2	0.0
72.5°	400.9	396.4	379.1	347.3	304.5	256.3	203.3	144.6	85.3	35.9	0.3
75°	380.6	374.9	359.0	329.1	287.1	239.5	187.7	131.7	73.1	27.5	0.3
77.5°	354.2	352.4	337.4	308.4	270.7	223.4	170.7	116.2	61.4	19.8	0.3
80°	327.9	326.1	314.4	287.7	251.5	204.2	154.8	101.5	50.0	13.2	0.3
82.5°	301.8	299.4	288.3	266.2	232.1	188.0	138.3	86.8	39.5	8.1	0.3
85°	278.5	275.5	263.5	243.1	212.0	169.8	121.3	72.5	29.3	4.5	0.6
87.5°	258.4	256.3	243.1	222.2	191.6	152.7	106.3	58.7	20.7	2.1	0.9
90°	241.3	236.8	225.2	203.0	172.5	133.8	90.4	47.0	13.8	1.2	1.2
92.5°	224.6	220.7	207.8	185.0	155.4	117.7	75.2	35.9	8.7	0.6	1.5
95°	207.2	203.0	190.4	169.5	138.0	101.2	61.7	26.3	4.8	0.6	1.5
97.5°	190.1	186.2	173.1	152.1	122.5	86.8	48.8	18.6	2.4	0.6	1.2
100°	174.3	169.8	157.8	136.8	106.9	72.5	37.7	12.0	1.5	0.6	1.2
102.5°	157.5	153.9	141.6	121.3	90.7	59.0	28.1	7.5	0.6	0.6	0.9
105°	142.5	138.0	126.1	105.1	77.3	46.4	19.8	4.5	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°	92.8	89.2	78.7	61.1	39.2	18.3	5.4	0.9	0.9	0.9	0.9
115°	77.5	72.2	62.9	47.3	29.0	12.0	2.7	0.9	0.9	0.9	0.9
117.5°	62.0	57.5	50.9	35.9	19.2	7.8	1.5	0.9	0.9	0.9	0.9
120°	48.5	44.3	36.8	24.9	12.9	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	34.7	31.4	24.9	16.2	7.8	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.1	21.3	16.5	9.9	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.0	13.5	9.6	5.7	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.4	7.5	5.7	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	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	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
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	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	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°	235.0	235.0	235.0
2.5°	223.7	219.5	218.3
5°	211.7	204.8	200.9
7.5°	199.7	190.4	185.9
10°	188.6	175.5	170.7
12.5°	175.5	160.2	152.7
15°	162.9	143.1	135.9
17.5°	148.8	126.7	118.3
20°	135.6	110.2	101.5
22.5°	120.7	94.0	84.4
25°	107.2	77.8	67.1
27.5°	92.2	61.4	52.1
30°	78.1	47.0	37.7
32.5°	64.7	34.4	26.0
35°	52.1	23.4	16.5
37.5°	40.1	14.4	8.4
40°	29.0	7.5	3.9
42.5°	19.5	3.6	2.1
45°	12.0	1.8	0.0
47.5°	6.9	0.0	0.0
50°	3.6	0.0	0.0
52.5°	1.5	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	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
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°	125.8	122.2	110.2	90.4	63.2	35.3	13.2	2.4	0.6	0.9	0.9
110°	109.6	106.6	94.3	75.2	50.9	26.3	8.7	1.5	0.9	0.9	0.9







107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)