

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: P550933

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-97-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: P550933
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-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

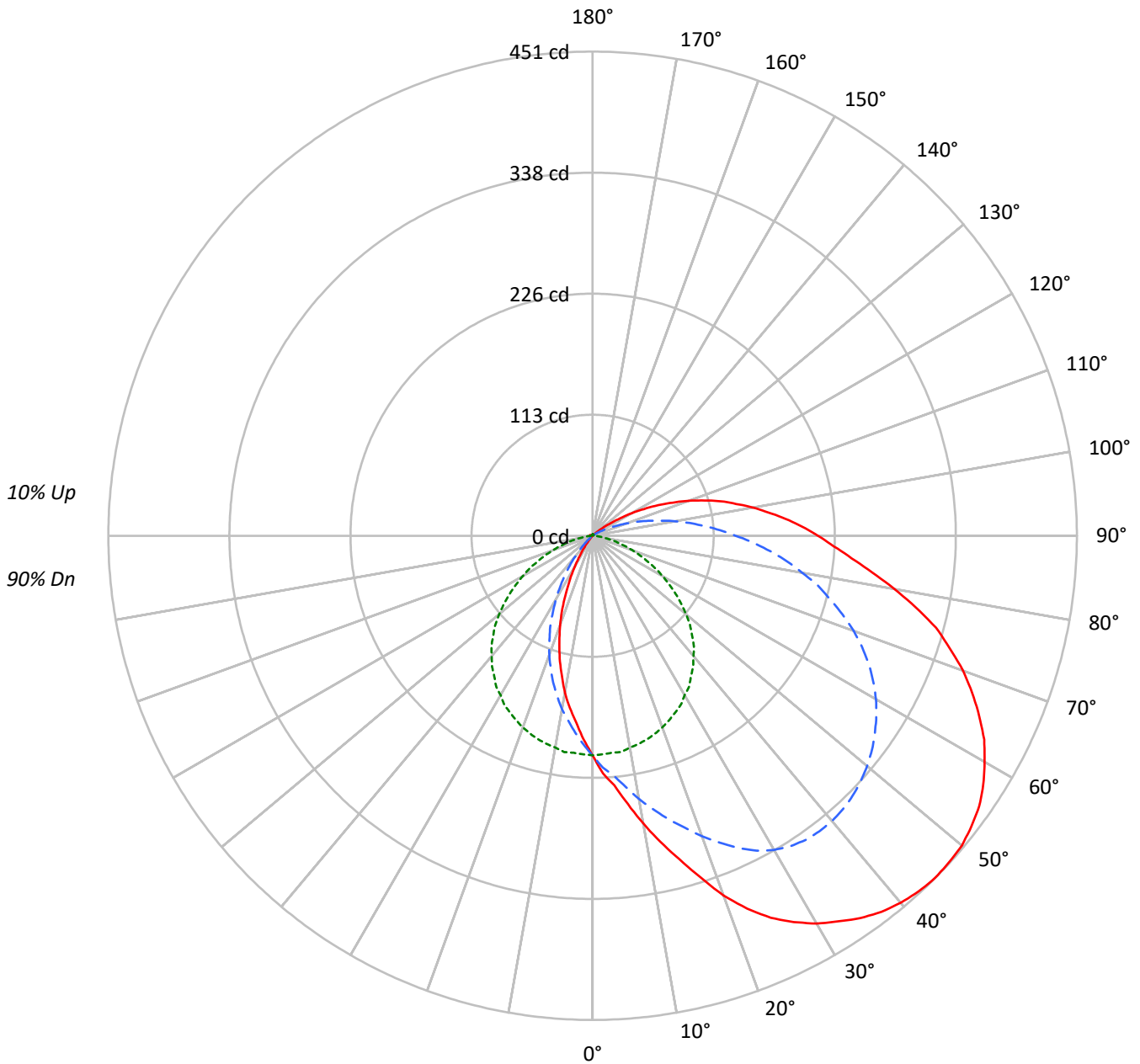
Lumens per Lamp: N/A
Luminaire Lumens: 1011.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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: P550933

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-97-ED1D-90

Luminous Intensity Polar Plot





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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°	2201	2201	2201
5°	2416	2169	1810
10°	2734	2142	1492
15°	3064	2116	1163
20°	3456	2081	856
25°	3781	2040	562
30°	4023	1987	316
35°	4232	1930	139
40°	4418	1858	34
45°	4576	1770	0
50°	4710	1651	0
55°	4812	1502	0
60°	4863	1327	0
65°	4883	1131	0
70°	4867	921	0
75°	4805	681	4
80°	4611	417	21
85°	4456	198	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.6	1.9
10°-20°	58.7	5.8
20°-30°	95.0	9.4
30°-40°	122.0	12.1
40°-50°	138.1	13.7
50°-60°	143.1	14.2
60°-70°	134.9	13.3
70°-80°	113.1	11.2
80°-90°	82.0	8.1
90°-100°	53.9	5.3
100°-110°	31.1	3.1
110°-120°	13.7	1.4
120°-130°	3.7	0.4
130°-140°	0.8	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°	173.2	17.1
0°-40°	295.2	29.2
0°-60°	576.4	57.0
0°-90°	906.5	89.7
90°-120°	98.7	9.8
90°-150°	103.8	10.3
90°-180°	105.0	10.4
0°-180°	1011.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	204	204	204	204	204	
5°	233	224	203	184	175	24
15°	312	273	196	142	118	90
25°	393	321	182	93	58	181
35°	435	346	160	45	14	273
45°	451	342	131	10	0	348
55°	440	321	94	0	0	392
65°	397	284	56	0	0	393
75°	331	229	24	0	0	347
85°	242	166	4	1	2	207
90°	210	133	1	2	2	115
95°	180	104	0	2	2	141
105°	124	54	0	1	2	131
115°	68	18	1	1	1	68
125°	20	2	1	1	1	20
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°	204.5	204.5	204.5	204.5	204.5	204.5	204.5	204.5	204.5	204.5	204.5
2.5°	221.7	221.4	220.7	219.4	217.5	214.4	211.8	209.5	206.3	203.7	198.8
5°	233.4	232.1	231.1	229.8	225.6	222.7	218.0	212.8	207.9	202.9	193.0
7.5°	252.2	250.1	248.5	244.9	239.1	232.6	225.3	220.4	217.0	203.2	186.3
10°	272.2	270.4	267.3	260.8	253.7	244.4	233.9	222.2	211.8	200.3	180.3
12.5°	292.0	289.4	285.0	276.7	266.8	255.0	240.7	226.9	212.1	198.5	173.2
15°	311.8	309.0	304.3	294.1	281.1	265.7	248.3	230.8	213.4	196.2	165.9
17.5°	333.5	329.5	322.5	311.0	294.6	275.6	255.0	233.9	212.8	193.3	158.1
20°	356.6	351.2	343.6	328.2	309.0	286.6	261.8	237.1	212.6	189.9	149.3
22.5°	375.9	370.4	362.1	346.2	323.0	295.7	267.5	239.1	211.5	186.0	140.9
25°	392.6	388.2	379.0	360.8	336.3	305.3	273.0	240.7	210.0	181.8	132.1
27.5°	405.6	401.4	391.3	372.5	347.5	313.9	277.2	241.5	207.9	177.7	123.0
30°	417.1	412.9	400.7	381.4	355.1	320.7	281.4	241.8	205.3	171.4	113.1
32.5°	425.9	422.0	409.5	388.9	360.3	325.4	283.7	241.5	201.9	167.0	102.4
35°	434.8	430.9	416.3	394.4	364.2	327.5	285.5	240.2	197.7	159.7	92.2
37.5°	441.6	437.1	422.3	398.1	366.0	328.0	285.3	238.4	193.3	153.7	82.1
40°	446.3	441.6	425.7	400.1	366.5	327.2	283.2	235.2	188.1	146.1	71.4
42.5°	449.4	444.2	427.2	403.3	365.5	325.1	280.0	231.3	182.4	139.6	61.2
45°	450.9	445.5	427.5	400.7	363.7	321.2	275.4	226.4	176.1	130.8	51.1
47.5°	450.2	444.2	426.2	397.8	360.3	317.0	270.1	220.4	168.6	123.0	41.4
50°	448.9	442.6	423.3	394.2	355.6	311.8	264.4	213.1	160.7	113.3	32.8
52.5°	444.7	438.4	420.2	388.9	350.1	305.8	256.6	205.5	152.4	103.9	25.0
55°	439.5	433.8	414.7	384.3	343.1	298.5	249.3	197.5	144.3	94.3	18.0
57.5°	431.4	426.2	408.0	376.7	336.1	290.5	241.2	188.6	134.2	84.7	12.5
60°	421.5	416.3	398.6	368.1	328.0	281.4	232.4	179.5	125.0	75.0	7.8
62.5°	411.1	406.1	387.6	357.4	317.8	271.7	222.7	170.4	115.4	66.2	4.7
65°	397.3	392.6	375.9	344.7	306.6	261.3	212.1	159.4	105.5	56.3	2.6
67.5°	382.7	378.5	361.6	332.9	293.6	249.8	201.1	148.8	95.1	47.7	1.3
70°	367.1	361.8	346.2	317.0	280.3	236.8	189.1	137.8	85.2	39.3	0.0
72.5°	348.8	344.9	329.8	302.2	264.9	223.0	176.9	125.8	74.2	31.3	0.3
75°	331.1	326.2	312.4	286.3	249.8	208.4	163.3	114.6	63.6	24.0	0.3
77.5°	308.2	306.6	293.6	268.3	235.5	194.3	148.5	101.1	53.4	17.2	0.3
80°	285.3	283.7	273.5	250.4	218.8	177.7	134.7	88.3	43.5	11.5	0.3
82.5°	262.6	260.5	250.9	231.6	201.9	163.6	120.4	75.5	34.4	7.0	0.3
85°	242.3	239.7	229.2	211.5	184.4	147.7	105.5	63.0	25.5	3.9	0.5
87.5°	224.8	223.0	211.5	193.3	166.7	132.9	92.5	51.1	18.0	1.8	0.8
90°	210.0	206.1	195.9	176.6	150.1	116.4	78.7	40.9	12.0	1.0	1.0
92.5°	195.4	192.0	180.8	161.0	135.2	102.4	65.4	31.3	7.6	0.5	1.3
95°	180.3	176.6	165.7	147.4	120.1	88.1	53.7	22.9	4.2	0.5	1.3
97.5°	165.4	162.0	150.6	132.3	106.5	75.5	42.5	16.2	2.1	0.5	1.0
100°	151.6	147.7	137.3	119.1	93.0	63.0	32.8	10.4	1.3	0.5	1.0
102.5°	137.0	133.9	123.2	105.5	78.9	51.3	24.5	6.5	0.5	0.5	0.8
105°	124.0	120.1	109.7	91.4	67.2	40.4	17.2	3.9	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°	80.8	77.6	68.5	53.1	34.1	15.9	4.7	0.8	0.8	0.8	0.8
115°	67.5	62.8	54.7	41.2	25.3	10.4	2.3	0.8	0.8	0.8	0.8
117.5°	53.9	50.0	44.3	31.3	16.7	6.8	1.3	0.8	0.8	0.8	0.8
120°	42.2	38.6	32.0	21.6	11.2	3.9	0.5	0.8	0.8	0.8	0.8
122.5°	30.2	27.4	21.6	14.1	6.8	1.8	0.8	0.8	1.0	1.0	0.8
125°	20.1	18.5	14.3	8.6	4.2	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	13.0	11.7	8.3	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.3	6.5	4.9	2.9	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.2	3.9	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
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°	204.5	204.5	204.5
2.5°	194.6	191.0	189.9
5°	184.2	178.2	174.8
7.5°	173.8	165.7	161.8
10°	164.1	152.7	148.5
12.5°	152.7	139.4	132.9
15°	141.7	124.5	118.3
17.5°	129.5	110.2	102.9
20°	118.0	95.9	88.3
22.5°	105.0	81.8	73.5
25°	93.3	67.7	58.4
27.5°	80.2	53.4	45.3
30°	68.0	40.9	32.8
32.5°	56.3	30.0	22.7
35°	45.3	20.3	14.3
37.5°	34.9	12.5	7.3
40°	25.3	6.5	3.4
42.5°	16.9	3.1	1.8
45°	10.4	1.6	0.0
47.5°	6.0	0.0	0.0
50°	3.1	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	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.6
87.5°	1.3	1.6	1.8
90°	1.6	1.8	1.8
92.5°	1.6	2.1	2.1
95°	1.8	2.1	2.3
97.5°	2.1	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.6	2.3	2.3
105°	1.3	1.8	2.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	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°	1.0	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°	109.4	106.3	95.9	78.7	55.0	30.7	11.5	2.1	0.5	0.8	0.8
110°	95.3	92.7	82.1	65.4	44.3	22.9	7.6	1.3	0.8	0.8	0.8





107.5°	1.0	1.6	1.8
110°	1.0	1.3	1.6



(END OF REPORT)