

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: P550687

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-80-88-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: P550687
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-30-UNV-80-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

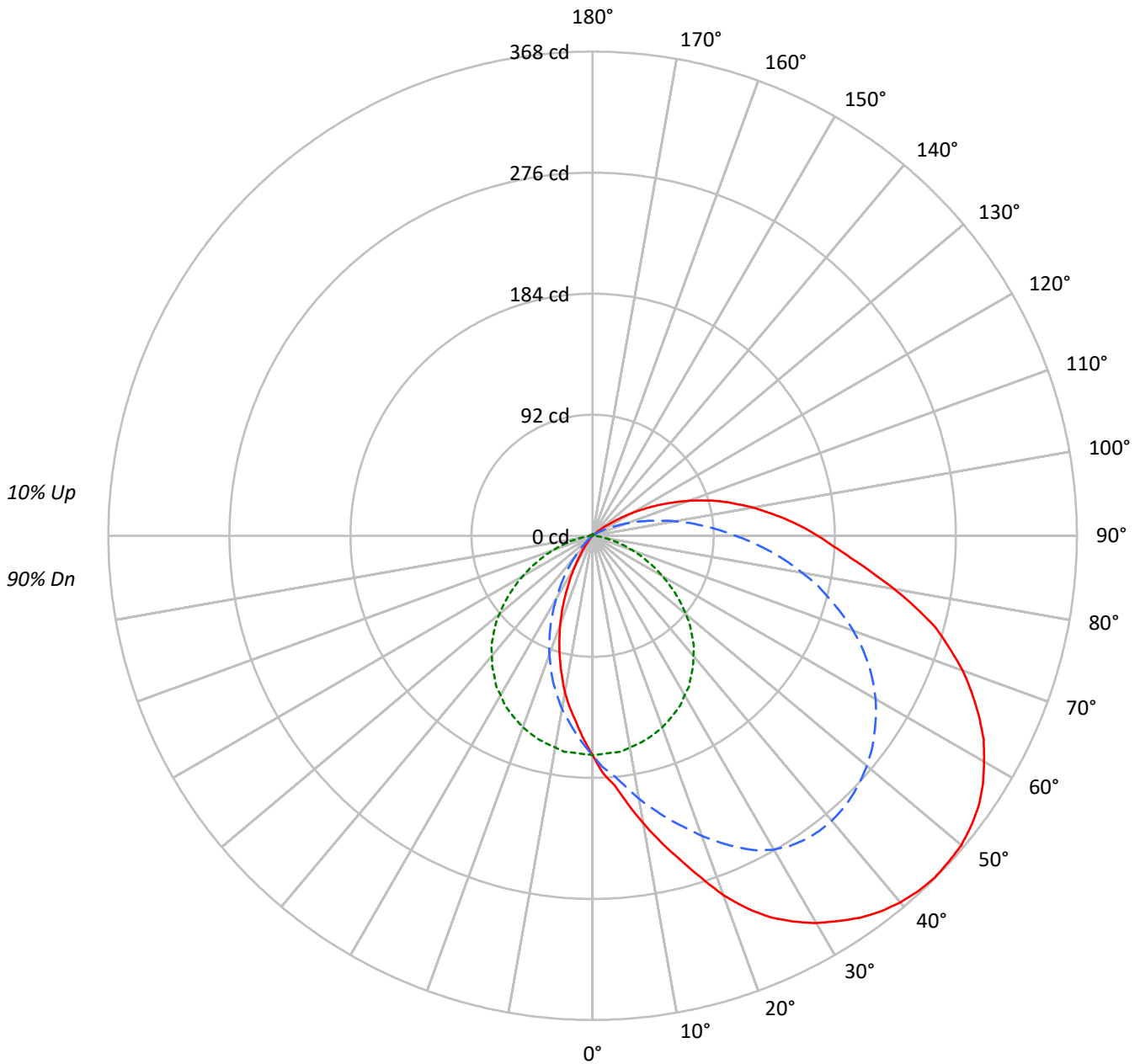
Lumens per Lamp: N/A
Luminaire Lumens: 823.9 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): 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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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°	1794	1794	1794
5°	1969	1768	1475
10°	2229	1746	1215
15°	2498	1724	947
20°	2817	1696	698
25°	3082	1663	458
30°	3278	1619	258
35°	3449	1573	114
40°	3600	1515	28
45°	3730	1442	0
50°	3838	1347	0
55°	3922	1225	0
60°	3963	1081	0
65°	3980	922	0
70°	3967	752	0
75°	3916	553	3
80°	3757	337	18
85°	3632	163	24



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.0	1.9
10°-20°	47.8	5.8
20°-30°	77.4	9.4
30°-40°	99.4	12.1
40°-50°	112.6	13.7
50°-60°	116.6	14.2
60°-70°	110.0	13.4
70°-80°	92.2	11.2
80°-90°	66.8	8.1
90°-100°	43.9	5.3
100°-110°	25.4	3.1
110°-120°	11.2	1.4
120°-130°	3.0	0.4
130°-140°	0.7	0.1
140°-150°	0.4	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	141.2	17.1
0°-40°	240.6	29.2
0°-60°	469.8	57.0
0°-90°	738.8	89.7
90°-120°	80.4	9.8
90°-150°	84.5	10.3
90°-180°	85.0	10.3
0°-180°	823.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	167	167	167	167	167	
5°	190	183	165	150	142	19
15°	254	223	160	116	96	73
25°	320	261	148	76	48	148
35°	354	282	130	37	12	222
45°	368	279	107	8	0	284
55°	358	261	77	0	0	320
65°	324	231	46	0	0	320
75°	270	187	20	0	0	283
85°	198	135	3	1	1	169
90°	171	109	1	1	2	94
95°	147	85	0	2	2	115
105°	101	44	0	1	2	107
115°	55	15	1	1	1	55
125°	16	2	1	1	1	16
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°	166.7	166.7	166.7	166.7	166.7	166.7	166.7	166.7	166.7	166.7	166.7
2.5°	180.7	180.5	179.8	178.8	177.3	174.7	172.6	170.7	168.2	166.0	162.0
5°	190.2	189.2	188.3	187.3	183.9	181.5	177.7	173.5	169.4	165.4	157.3
7.5°	205.5	203.8	202.6	199.6	194.9	189.6	183.7	179.6	176.9	165.6	151.8
10°	221.9	220.4	217.8	212.5	206.8	199.2	190.7	181.1	172.6	163.3	146.9
12.5°	238.0	235.9	232.3	225.5	217.4	207.9	196.2	184.9	172.8	161.8	141.2
15°	254.2	251.8	248.0	239.7	229.1	216.6	202.3	188.1	173.9	159.9	135.3
17.5°	271.8	268.6	262.9	253.5	240.1	224.6	207.9	190.7	173.5	157.5	128.9
20°	290.7	286.2	280.1	267.5	251.8	233.6	213.4	193.2	173.3	154.8	121.7
22.5°	306.4	301.9	295.1	282.2	263.3	241.0	218.1	194.9	172.4	151.6	114.9
25°	320.0	316.4	308.9	294.1	274.1	248.8	222.5	196.2	171.1	148.2	107.6
27.5°	330.6	327.2	318.9	303.6	283.2	255.9	225.9	196.8	169.4	144.8	100.2
30°	339.9	336.5	326.6	310.8	289.4	261.4	229.3	197.0	167.3	139.7	92.1
32.5°	347.2	344.0	333.8	317.0	293.6	265.2	231.2	196.8	164.6	136.1	83.4
35°	354.4	351.2	339.3	321.5	296.8	266.9	232.7	195.8	161.2	130.2	75.2
37.5°	359.9	356.3	344.2	324.4	298.3	267.3	232.5	194.3	157.5	125.3	66.9
40°	363.7	359.9	346.9	326.1	298.7	266.7	230.8	191.7	153.3	119.1	58.2
42.5°	366.3	362.0	348.2	328.7	297.9	265.0	228.2	188.5	148.6	113.8	49.9
45°	367.5	363.1	348.4	326.6	296.4	261.8	224.4	184.5	143.5	106.6	41.6
47.5°	366.9	362.0	347.4	324.2	293.6	258.4	220.2	179.6	137.4	100.2	33.8
50°	365.8	360.7	345.0	321.2	289.8	254.2	215.5	173.7	131.0	92.4	26.8
52.5°	362.4	357.3	342.5	317.0	285.4	249.3	209.1	167.5	124.2	84.7	20.4
55°	358.2	353.5	338.0	313.2	279.6	243.3	203.2	160.9	117.6	76.9	14.7
57.5°	351.6	347.4	332.5	307.0	273.9	236.7	196.6	153.7	109.3	69.0	10.2
60°	343.5	339.3	324.9	300.0	267.3	229.3	189.4	146.3	101.9	61.1	6.4
62.5°	335.0	331.0	315.9	291.3	259.0	221.5	181.5	138.9	94.1	53.9	3.8
65°	323.8	320.0	306.4	280.9	249.9	213.0	172.8	129.9	86.0	45.9	2.1
67.5°	311.9	308.5	294.7	271.4	239.3	203.6	163.9	121.2	77.5	38.9	1.1
70°	299.2	294.9	282.2	258.4	228.5	193.0	154.1	112.3	69.4	32.1	0.0
72.5°	284.3	281.1	268.8	246.3	215.9	181.8	144.2	102.6	60.5	25.5	0.2
75°	269.9	265.8	254.6	233.3	203.6	169.9	133.1	93.4	51.8	19.5	0.2
77.5°	251.2	249.9	239.3	218.7	191.9	158.4	121.0	82.4	43.5	14.0	0.2
80°	232.5	231.2	222.9	204.0	178.4	144.8	109.8	72.0	35.5	9.3	0.2
82.5°	214.0	212.3	204.5	188.8	164.6	133.3	98.1	61.6	28.0	5.7	0.2
85°	197.5	195.3	186.8	172.4	150.3	120.4	86.0	51.4	20.8	3.2	0.4
87.5°	183.2	181.8	172.4	157.5	135.9	108.3	75.4	41.6	14.7	1.5	0.6
90°	171.1	167.9	159.7	144.0	122.3	94.9	64.1	33.3	9.8	0.8	0.8
92.5°	159.2	156.5	147.4	131.2	110.2	83.4	53.3	25.5	6.2	0.4	1.1
95°	146.9	144.0	135.0	120.2	97.9	71.8	43.7	18.7	3.4	0.4	1.1
97.5°	134.8	132.1	122.7	107.9	86.8	61.6	34.6	13.2	1.7	0.4	0.8
100°	123.6	120.4	111.9	97.0	75.8	51.4	26.8	8.5	1.1	0.4	0.8
102.5°	111.7	109.1	100.4	86.0	64.3	41.8	20.0	5.3	0.4	0.4	0.6
105°	101.1	97.9	89.4	74.5	54.8	32.9	14.0	3.2	0.4	0.4	0.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	65.8	63.3	55.8	43.3	27.8	13.0	3.8	0.6	0.6	0.6	0.6
115°	55.0	51.2	44.6	33.5	20.6	8.5	1.9	0.6	0.6	0.6	0.6
117.5°	44.0	40.8	36.1	25.5	13.6	5.5	1.1	0.6	0.6	0.6	0.6
120°	34.4	31.4	26.1	17.6	9.1	3.2	0.4	0.6	0.6	0.6	0.6
122.5°	24.6	22.3	17.6	11.5	5.5	1.5	0.6	0.6	0.8	0.8	0.6
125°	16.3	15.1	11.7	7.0	3.4	0.6	0.6	0.6	0.8	0.8	0.6
127.5°	10.6	9.6	6.8	4.0	1.5	0.6	0.6	0.8	0.8	0.8	0.6
130°	5.9	5.3	4.0	2.3	0.6	0.6	0.6	0.8	0.8	0.8	0.6
132.5°	3.4	3.2	2.1	0.4	0.6	0.6	0.6	0.8	0.8	0.8	0.8
135°	0.8	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	0.8
137.5°	0.2	0.2	0.4	0.4	0.6	0.6	0.8	1.1	1.1	1.1	0.8
140°	0.2	0.2	0.4	0.6	0.6	0.6	0.8	1.1	1.1	1.1	0.8
142.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	0.8	0.8
145°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.1	0.8	0.8	0.8
147.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	0.8	0.8
150°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.1	0.8	0.8	0.8
152.5°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.1	0.8	0.8	0.8
155°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.1	0.8	0.8	1.1
157.5°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.1	0.8	0.8	1.1
160°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8
162.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8
165°	0.4	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8
167.5°	0.4	0.4	0.4	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8
170°	0.4	0.4	0.4	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.1	1.1	1.1	0.8
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	166.7	166.7	166.7
2.5°	158.6	155.6	154.8
5°	150.1	145.2	142.5
7.5°	141.6	135.0	131.9
10°	133.8	124.4	121.0
12.5°	124.4	113.6	108.3
15°	115.5	101.5	96.4
17.5°	105.5	89.8	83.9
20°	96.2	78.1	72.0
22.5°	85.6	66.7	59.9
25°	76.0	55.2	47.6
27.5°	65.4	43.5	36.9
30°	55.4	33.3	26.8
32.5°	45.9	24.4	18.5
35°	36.9	16.6	11.7
37.5°	28.5	10.2	5.9
40°	20.6	5.3	2.8
42.5°	13.8	2.5	1.5
45°	8.5	1.3	0.0
47.5°	4.9	0.0	0.0
50°	2.5	0.0	0.0
52.5°	1.1	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°	0.2	0.2	0.2
77.5°	0.2	0.4	0.6
80°	0.4	0.8	1.1
82.5°	0.8	1.1	1.1
85°	0.8	1.1	1.3
87.5°	1.1	1.3	1.5
90°	1.3	1.5	1.5
92.5°	1.3	1.7	1.7
95°	1.5	1.7	1.9
97.5°	1.7	1.9	1.9
100°	1.5	1.9	2.1
102.5°	1.3	1.9	1.9
105°	1.1	1.5	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.8	1.1	1.1
115°	0.6	0.8	1.1
117.5°	0.6	0.8	0.8
120°	0.6	0.6	0.8
122.5°	0.6	0.6	0.8
125°	0.6	0.6	0.8
127.5°	0.8	0.6	0.6
130°	0.6	0.6	0.6
132.5°	0.8	0.6	0.6
135°	0.8	0.6	0.6
137.5°	0.8	0.6	0.6
140°	0.8	0.6	0.6
142.5°	0.8	0.6	0.6
145°	0.6	0.6	0.6
147.5°	0.6	0.6	0.6
150°	0.6	0.6	0.4
152.5°	0.6	0.4	0.4
155°	0.6	0.4	0.2
157.5°	0.8	0.4	0.2
160°	0.6	0.4	0.2
162.5°	0.6	0.4	0.2
165°	0.6	0.4	0.0
167.5°	0.6	0.4	0.2
170°	0.6	0.4	0.2
172.5°	0.6	0.4	0.2
175°	0.6	0.2	0.2
177.5°	0.6	0.2	0.2
180°	0.6	0.6	0.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	89.2	86.6	78.1	64.1	44.8	25.1	9.3	1.7	0.4	0.6	0.6
110°	77.7	75.6	66.9	53.3	36.1	18.7	6.2	1.1	0.6	0.6	0.6





107.5°	0.8	1.3	1.5
110°	0.8	1.1	1.3



(END OF REPORT)