

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: P550717

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-87-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: P550717
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-82-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

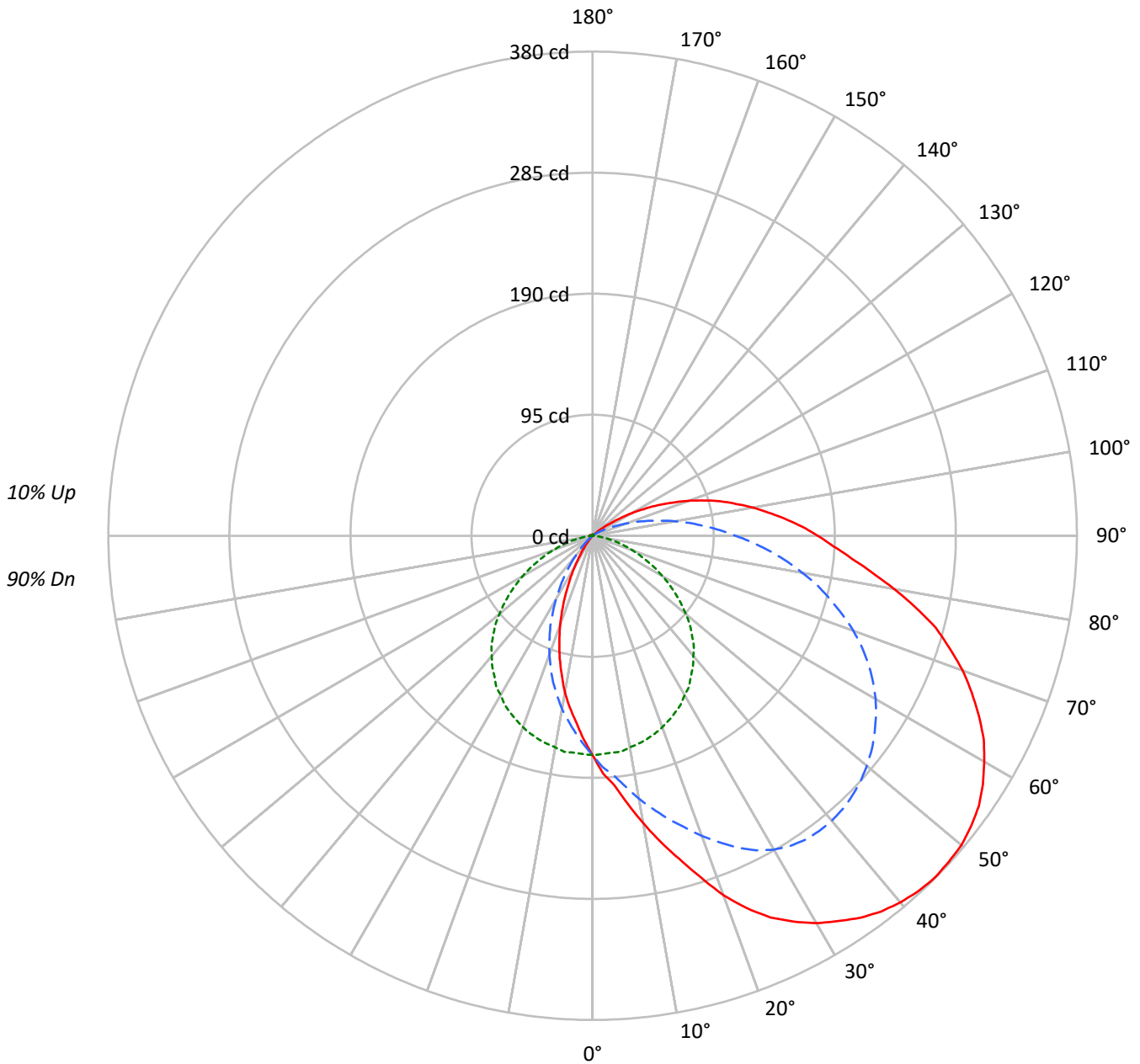
Lumens per Lamp: N/A
Luminaire Lumens: 851.1 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	1852	1852	1852
5°	2034	1826	1523
10°	2302	1803	1256
15°	2580	1780	979
20°	2909	1752	720
25°	3183	1718	473
30°	3386	1673	266
35°	3562	1624	118
40°	3718	1564	29
45°	3852	1490	0
50°	3964	1390	0
55°	4050	1264	0
60°	4093	1118	0
65°	4110	952	0
70°	4097	775	0
75°	4044	573	3
80°	3880	348	18
85°	3750	168	24



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.5	1.9
10°-20°	49.4	5.8
20°-30°	80.0	9.4
30°-40°	102.7	12.1
40°-50°	116.3	13.7
50°-60°	120.4	14.2
60°-70°	113.6	13.3
70°-80°	95.2	11.2
80°-90°	69.0	8.1
90°-100°	45.4	5.3
100°-110°	26.2	3.1
110°-120°	11.6	1.4
120°-130°	3.2	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	145.8	17.1
0°-40°	248.5	29.2
0°-60°	485.2	57.0
0°-90°	763.0	89.6
90°-120°	83.1	9.8
90°-150°	87.5	10.3
90°-180°	88.0	10.3
0°-180°	851.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	172	172	172	172	172	
5°	196	189	171	155	147	20
15°	262	230	165	119	100	76
25°	330	270	153	78	49	153
35°	366	291	134	38	12	230
45°	380	288	110	9	0	293
55°	370	270	79	0	0	330
65°	334	239	47	0	0	331
75°	279	193	20	0	0	292
85°	204	140	3	1	1	174
90°	177	112	1	1	2	97
95°	152	88	0	2	2	119
105°	104	45	0	1	2	110
115°	57	15	1	1	1	57
125°	17	2	1	1	1	17
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°	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1
2.5°	186.6	186.4	185.7	184.6	183.1	180.5	178.3	176.3	173.7	171.5	167.3
5°	196.5	195.4	194.5	193.4	189.9	187.5	183.5	179.2	175.0	170.8	162.5
7.5°	212.3	210.5	209.2	206.1	201.3	195.8	189.7	185.5	182.7	171.0	156.8
10°	229.2	227.6	225.0	219.5	213.6	205.7	196.9	187.0	178.3	168.6	151.7
12.5°	245.8	243.6	239.9	232.9	224.5	214.7	202.6	191.0	178.5	167.1	145.8
15°	262.5	260.1	256.1	247.6	236.6	223.7	209.0	194.3	179.6	165.1	139.7
17.5°	280.7	277.4	271.5	261.8	248.0	232.0	214.7	196.9	179.2	162.7	133.1
20°	300.2	295.6	289.2	276.3	260.1	241.2	220.4	199.5	178.9	159.9	125.6
22.5°	316.4	311.8	304.8	291.4	271.9	248.9	225.2	201.3	178.1	156.6	118.6
25°	330.5	326.7	319.1	303.7	283.1	257.0	229.8	202.6	176.7	153.1	111.2
27.5°	341.4	337.9	329.4	313.6	292.5	264.2	233.3	203.3	175.0	149.6	103.5
30°	351.1	347.6	337.3	321.0	298.9	269.9	236.8	203.5	172.8	144.3	95.2
32.5°	358.5	355.2	344.7	327.4	303.3	273.9	238.8	203.3	169.9	140.6	86.2
35°	366.0	362.7	350.4	332.0	306.6	275.6	240.3	202.2	166.4	134.4	77.6
37.5°	371.7	368.0	355.5	335.1	308.1	276.1	240.1	200.6	162.7	129.4	69.1
40°	375.6	371.7	358.3	336.8	308.5	275.4	238.4	198.0	158.3	123.0	60.1
42.5°	378.3	373.9	359.6	339.4	307.7	273.7	235.7	194.7	153.5	117.5	51.5
45°	379.6	375.0	359.8	337.3	306.1	270.4	231.8	190.6	148.2	110.1	43.0
47.5°	378.9	373.9	358.7	334.8	303.3	266.9	227.4	185.5	141.9	103.5	34.9
50°	377.8	372.6	356.3	331.8	299.3	262.5	222.6	179.4	135.3	95.4	27.6
52.5°	374.3	369.1	353.7	327.4	294.7	257.4	216.0	173.0	128.3	87.5	21.1
55°	369.9	365.1	349.1	323.4	288.8	251.3	209.9	166.2	121.5	79.4	15.1
57.5°	363.1	358.7	343.4	317.1	282.9	244.5	203.1	158.8	112.9	71.3	10.5
60°	354.8	350.4	335.5	309.8	276.1	236.8	195.6	151.1	105.3	63.2	6.6
62.5°	346.0	341.9	326.3	300.9	267.5	228.7	187.5	143.4	97.1	55.7	3.9
65°	334.4	330.5	316.4	290.1	258.1	219.9	178.5	134.2	88.8	47.4	2.2
67.5°	322.1	318.6	304.4	280.2	247.1	210.3	169.3	125.2	80.0	40.1	1.1
70°	309.0	304.6	291.4	266.9	235.9	199.3	159.2	116.0	71.7	33.1	0.0
72.5°	293.6	290.3	277.6	254.4	223.0	187.7	148.9	105.9	62.5	26.3	0.2
75°	278.7	274.5	262.9	241.0	210.3	175.4	137.5	96.5	53.5	20.2	0.2
77.5°	259.4	258.1	247.1	225.9	198.2	163.6	125.0	85.1	45.0	14.5	0.2
80°	240.1	238.8	230.2	210.7	184.2	149.6	113.4	74.3	36.6	9.6	0.2
82.5°	221.0	219.3	211.2	194.9	169.9	137.7	101.3	63.6	28.9	5.9	0.2
85°	203.9	201.7	193.0	178.1	155.3	124.3	88.8	53.1	21.5	3.3	0.4
87.5°	189.2	187.7	178.1	162.7	140.3	111.8	77.8	43.0	15.1	1.5	0.7
90°	176.7	173.5	164.9	148.7	126.3	98.0	66.2	34.4	10.1	0.9	0.9
92.5°	164.5	161.6	152.2	135.5	113.8	86.2	55.0	26.3	6.4	0.4	1.1
95°	151.7	148.7	139.5	124.1	101.1	74.1	45.2	19.3	3.5	0.4	1.1
97.5°	139.2	136.4	126.7	111.4	89.7	63.6	35.7	13.6	1.8	0.4	0.9
100°	127.6	124.3	115.6	100.2	78.3	53.1	27.6	8.8	1.1	0.4	0.9
102.5°	115.3	112.7	103.7	88.8	66.4	43.2	20.6	5.5	0.4	0.4	0.7
105°	104.4	101.1	92.3	77.0	56.6	34.0	14.5	3.3	0.4	0.4	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	68.0	65.3	57.7	44.7	28.7	13.4	3.9	0.7	0.7	0.7	0.7
115°	56.8	52.8	46.0	34.6	21.3	8.8	2.0	0.7	0.7	0.7	0.7
117.5°	45.4	42.1	37.3	26.3	14.0	5.7	1.1	0.7	0.7	0.7	0.7
120°	35.5	32.5	27.0	18.2	9.4	3.3	0.4	0.7	0.7	0.7	0.7
122.5°	25.4	23.0	18.2	11.8	5.7	1.5	0.7	0.7	0.9	0.9	0.7
125°	16.9	15.6	12.1	7.2	3.5	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.0	9.9	7.0	4.2	1.5	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.1	5.5	4.2	2.4	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.5	3.3	2.2	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.4	0.4	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.4	0.4	0.4	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.4	0.4	0.4	0.4	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.4	0.4	0.4	0.7	0.7	0.7	0.9	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.7	0.7	0.9	0.9	1.1	1.1	1.1	0.9
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	172.1	172.1	172.1
2.5°	163.8	160.7	159.9
5°	155.0	150.0	147.1
7.5°	146.3	139.5	136.2
10°	138.1	128.5	125.0
12.5°	128.5	117.3	111.8
15°	119.3	104.8	99.6
17.5°	109.0	92.8	86.6
20°	99.3	80.7	74.3
22.5°	88.4	68.9	61.8
25°	78.5	57.0	49.1
27.5°	67.5	45.0	38.2
30°	57.2	34.4	27.6
32.5°	47.4	25.2	19.1
35°	38.2	17.1	12.1
37.5°	29.4	10.5	6.1
40°	21.3	5.5	2.9
42.5°	14.3	2.6	1.5
45°	8.8	1.3	0.0
47.5°	5.0	0.0	0.0
50°	2.6	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	0.7
80°	0.4	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.3
87.5°	1.1	1.3	1.5
90°	1.3	1.5	1.5
92.5°	1.3	1.8	1.8
95°	1.5	1.8	2.0
97.5°	1.8	2.0	2.0
100°	1.5	2.0	2.2
102.5°	1.3	2.0	2.0
105°	1.1	1.5	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.7	0.9	1.1
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.4
152.5°	0.7	0.4	0.4
155°	0.7	0.4	0.2
157.5°	0.9	0.4	0.2
160°	0.7	0.4	0.2
162.5°	0.7	0.4	0.2
165°	0.7	0.4	0.0
167.5°	0.7	0.4	0.2
170°	0.7	0.4	0.2
172.5°	0.7	0.4	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	92.1	89.5	80.7	66.2	46.3	25.9	9.6	1.8	0.4	0.7	0.7
110°	80.3	78.1	69.1	55.0	37.3	19.3	6.4	1.1	0.7	0.7	0.7





107.5°	0.9	1.3	1.5
110°	0.9	1.1	1.3



(END OF REPORT)