

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: P550715

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-86-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: P550715
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

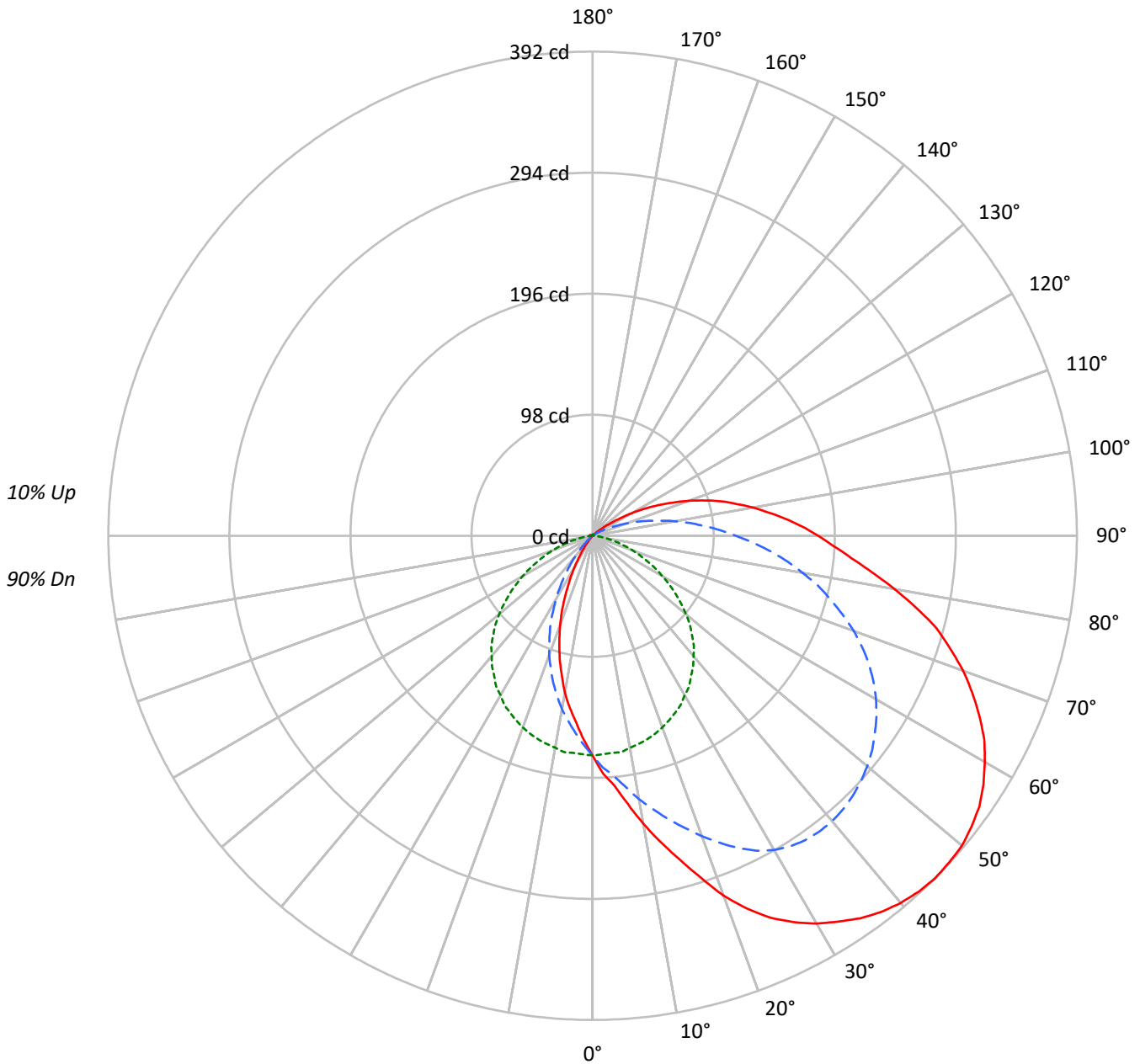
Lumens per Lamp: N/A
Luminaire Lumens: 879.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	1914	1914	1914
5°	2100	1885	1574
10°	2378	1863	1297
15°	2664	1839	1010
20°	3005	1809	744
25°	3287	1774	488
30°	3497	1727	275
35°	3679	1677	122
40°	3841	1616	29
45°	3979	1538	0
50°	4095	1436	0
55°	4183	1306	0
60°	4228	1154	0
65°	4245	982	0
70°	4231	801	0
75°	4178	590	3
80°	4008	363	18
85°	3873	173	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.0	1.9
10°-20°	51.0	5.8
20°-30°	82.6	9.4
30°-40°	106.1	12.1
40°-50°	120.1	13.7
50°-60°	124.4	14.2
60°-70°	117.3	13.3
70°-80°	98.3	11.2
80°-90°	71.3	8.1
90°-100°	46.8	5.3
100°-110°	27.1	3.1
110°-120°	11.9	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°	150.6	17.1
0°-40°	256.7	29.2
0°-60°	501.2	57.0
0°-90°	788.1	89.7
90°-120°	85.8	9.8
90°-150°	90.3	10.3
90°-180°	91.0	10.4
0°-180°	879.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	178	178	178	178	178	
5°	203	195	176	160	152	20
15°	271	238	171	123	103	78
25°	341	279	158	81	51	158
35°	378	301	139	39	12	237
45°	392	298	114	9	0	303
55°	382	279	82	0	0	341
65°	345	247	49	0	0	342
75°	288	199	21	0	0	302
85°	211	144	3	1	1	180
90°	183	116	1	1	2	100
95°	157	90	0	2	2	123
105°	108	47	0	1	2	114
115°	59	16	1	1	1	59
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°	177.8	177.8	177.8	177.8	177.8	177.8	177.8	177.8	177.8	177.8	177.8
2.5°	192.7	192.5	191.8	190.7	189.1	186.4	184.1	182.1	179.4	177.1	172.8
5°	202.9	201.8	200.9	199.8	196.1	193.7	189.6	185.0	180.7	176.4	167.8
7.5°	219.2	217.4	216.1	212.9	207.9	202.3	195.9	191.6	188.7	176.7	161.9
10°	236.7	235.1	232.4	226.7	220.6	212.5	203.4	193.2	184.1	174.2	156.7
12.5°	253.9	251.6	247.8	240.5	231.9	221.7	209.3	197.3	184.4	172.6	150.6
15°	271.1	268.6	264.5	255.7	244.4	231.0	215.9	200.7	185.5	170.6	144.3
17.5°	289.9	286.5	280.4	270.4	256.2	239.6	221.7	203.4	185.0	168.1	137.5
20°	310.1	305.3	298.8	285.4	268.6	249.1	227.6	206.1	184.8	165.1	129.8
22.5°	326.8	322.1	314.8	301.0	280.9	257.1	232.6	207.9	183.9	161.7	122.5
25°	341.3	337.5	329.6	313.7	292.4	265.5	237.4	209.3	182.6	158.1	114.8
27.5°	352.7	349.0	340.2	323.9	302.1	272.9	241.0	210.0	180.7	154.5	106.9
30°	362.6	359.0	348.4	331.6	308.7	278.8	244.6	210.2	178.5	149.0	98.3
32.5°	370.3	366.9	356.1	338.2	313.2	282.9	246.7	210.0	175.5	145.2	89.0
35°	378.0	374.6	361.9	342.9	316.6	284.7	248.2	208.8	171.9	138.8	80.2
37.5°	383.9	380.1	367.2	346.1	318.2	285.2	248.0	207.2	168.1	133.6	71.3
40°	388.0	383.9	370.1	347.9	318.7	284.5	246.2	204.5	163.5	127.1	62.1
42.5°	390.7	386.2	371.5	350.6	317.8	282.7	243.5	201.1	158.5	121.4	53.2
45°	392.1	387.3	371.7	348.4	316.2	279.3	239.4	196.8	153.1	113.7	44.4
47.5°	391.4	386.2	370.6	345.9	313.2	275.6	234.9	191.6	146.5	106.9	36.0
50°	390.3	384.8	368.1	342.7	309.2	271.1	229.9	185.3	139.7	98.5	28.5
52.5°	386.6	381.2	365.3	338.2	304.4	265.9	223.1	178.7	132.5	90.4	21.7
55°	382.1	377.1	360.6	334.1	298.3	259.6	216.8	171.7	125.5	82.0	15.6
57.5°	375.1	370.6	354.7	327.5	292.2	252.5	209.7	164.0	116.6	73.6	10.9
60°	366.5	361.9	346.5	320.0	285.2	244.6	202.0	156.1	108.7	65.2	6.8
62.5°	357.4	353.1	337.0	310.8	276.3	236.2	193.7	148.1	100.3	57.5	4.1
65°	345.4	341.3	326.8	299.7	266.6	227.2	184.4	138.6	91.7	48.9	2.3
67.5°	332.7	329.1	314.4	289.5	255.3	217.2	174.9	129.3	82.7	41.4	1.1
70°	319.1	314.6	301.0	275.6	243.7	205.9	164.4	119.8	74.1	34.2	0.0
72.5°	303.3	299.9	286.7	262.7	230.3	193.9	153.8	109.4	64.6	27.2	0.2
75°	287.9	283.6	271.6	248.9	217.2	181.2	142.0	99.7	55.3	20.8	0.2
77.5°	267.9	266.6	255.3	233.3	204.8	169.0	129.1	87.9	46.4	14.9	0.2
80°	248.0	246.7	237.8	217.7	190.3	154.5	117.1	76.8	37.8	10.0	0.2
82.5°	228.3	226.5	218.1	201.4	175.5	142.2	104.6	65.7	29.9	6.1	0.2
85°	210.6	208.4	199.3	183.9	160.4	128.4	91.7	54.8	22.2	3.4	0.5
87.5°	195.5	193.9	183.9	168.1	145.0	115.5	80.4	44.4	15.6	1.6	0.7
90°	182.6	179.2	170.3	153.6	130.5	101.2	68.4	35.6	10.4	0.9	0.9
92.5°	169.9	166.9	157.2	140.0	117.6	89.0	56.9	27.2	6.6	0.5	1.1
95°	156.7	153.6	144.1	128.2	104.4	76.6	46.7	19.9	3.6	0.5	1.1
97.5°	143.8	140.9	130.9	115.1	92.6	65.7	36.9	14.0	1.8	0.5	0.9
100°	131.8	128.4	119.4	103.5	80.9	54.8	28.5	9.1	1.1	0.5	0.9
102.5°	119.1	116.4	107.1	91.7	68.6	44.6	21.3	5.7	0.5	0.5	0.7
105°	107.8	104.4	95.4	79.5	58.4	35.1	14.9	3.4	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	70.2	67.5	59.6	46.2	29.7	13.8	4.1	0.7	0.7	0.7	0.7
115°	58.7	54.6	47.6	35.8	22.0	9.1	2.0	0.7	0.7	0.7	0.7
117.5°	46.9	43.5	38.5	27.2	14.5	5.9	1.1	0.7	0.7	0.7	0.7
120°	36.7	33.5	27.9	18.8	9.7	3.4	0.5	0.7	0.7	0.7	0.7
122.5°	26.3	23.8	18.8	12.2	5.9	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.4	16.1	12.5	7.5	3.6	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.3	10.2	7.2	4.3	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.3	5.7	4.3	2.5	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.6	3.4	2.3	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.5	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	1.1	1.1	1.1	1.1
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.5	0.5	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°	177.8	177.8	177.8
2.5°	169.2	166.0	165.1
5°	160.1	154.9	152.0
7.5°	151.1	144.1	140.7
10°	142.7	132.7	129.1
12.5°	132.7	121.2	115.5
15°	123.2	108.3	102.8
17.5°	112.6	95.8	89.5
20°	102.6	83.4	76.8
22.5°	91.3	71.1	63.9
25°	81.1	58.9	50.7
27.5°	69.8	46.4	39.4
30°	59.1	35.6	28.5
32.5°	48.9	26.0	19.7
35°	39.4	17.7	12.5
37.5°	30.4	10.9	6.3
40°	22.0	5.7	2.9
42.5°	14.7	2.7	1.6
45°	9.1	1.4	0.0
47.5°	5.2	0.0	0.0
50°	2.7	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	0.5	0.7
80°	0.5	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.4
87.5°	1.1	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.8	1.8
95°	1.6	1.8	2.0
97.5°	1.8	2.0	2.0
100°	1.6	2.0	2.3
102.5°	1.4	2.0	2.0
105°	1.1	1.6	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	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	0.9	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	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°	95.1	92.4	83.4	68.4	47.8	26.7	10.0	1.8	0.5	0.7	0.7
110°	82.9	80.6	71.3	56.9	38.5	19.9	6.6	1.1	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.1	1.4



(END OF REPORT)