

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: P550719

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-82-88-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: P550719
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-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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

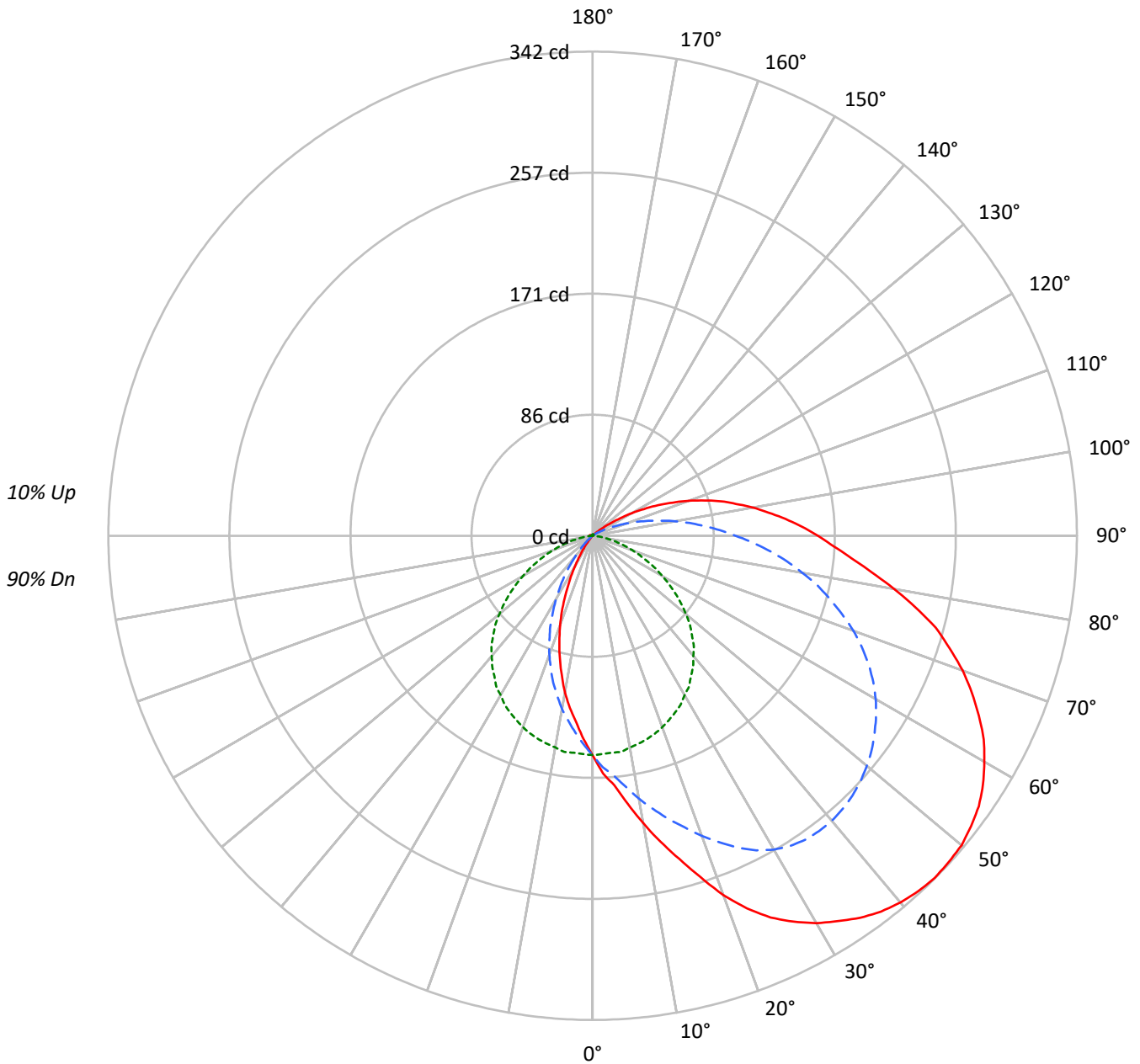
Lumens per Lamp: N/A
Luminaire Lumens: 766.1 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	1667	1667	1667
5°	1831	1644	1371
10°	2072	1623	1130
15°	2322	1602	881
20°	2619	1577	648
25°	2865	1546	426
30°	3048	1506	240
35°	3206	1462	106
40°	3347	1408	26
45°	3468	1341	0
50°	3569	1252	0
55°	3646	1139	0
60°	3685	1005	0
65°	3700	856	0
70°	3687	698	0
75°	3641	516	3
80°	3492	316	16
85°	3377	153	22



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.8	1.9
10°-20°	44.4	5.8
20°-30°	72.0	9.4
30°-40°	92.4	12.1
40°-50°	104.6	13.7
50°-60°	108.4	14.2
60°-70°	102.2	13.3
70°-80°	85.7	11.2
80°-90°	62.1	8.1
90°-100°	40.8	5.3
100°-110°	23.6	3.1
110°-120°	10.4	1.4
120°-130°	2.8	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°	131.2	17.1
0°-40°	223.7	29.2
0°-60°	436.8	57.0
0°-90°	686.8	89.7
90°-120°	74.8	9.8
90°-150°	78.7	10.3
90°-180°	79.0	10.3
0°-180°	766.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	155	155	155	155	155	
5°	177	170	154	140	132	18
15°	236	207	149	107	90	68
25°	298	243	138	71	44	137
35°	329	262	121	34	11	207
45°	342	259	99	8	0	264
55°	333	243	72	0	0	297
65°	301	215	43	0	0	298
75°	251	174	18	0	0	263
85°	184	126	3	1	1	157
90°	159	101	1	1	1	87
95°	137	79	0	1	2	107
105°	94	41	0	1	2	99
115°	51	14	1	1	1	51
125°	15	2	1	1	1	15
135°	1	1	1	1	1	1
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°	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9	154.9
2.5°	168.0	167.8	167.2	166.2	164.8	162.4	160.5	158.7	156.3	154.4	150.6
5°	176.9	175.9	175.1	174.1	170.9	168.8	165.2	161.3	157.5	153.8	146.3
7.5°	191.1	189.5	188.3	185.5	181.2	176.3	170.7	167.0	164.4	154.0	141.1
10°	206.3	204.9	202.5	197.6	192.2	185.1	177.2	168.4	160.5	151.8	136.6
12.5°	221.3	219.3	215.9	209.6	202.1	193.2	182.4	171.9	160.7	150.4	131.3
15°	236.3	234.1	230.5	222.8	213.0	201.3	188.1	174.9	161.7	148.6	125.7
17.5°	252.6	249.7	244.4	235.7	223.2	208.8	193.2	177.2	161.3	146.5	119.8
20°	270.2	266.1	260.3	248.7	234.1	217.1	198.4	179.6	161.1	143.9	113.1
22.5°	284.8	280.7	274.4	262.3	244.8	224.0	202.7	181.2	160.3	140.9	106.8
25°	297.5	294.1	287.2	273.4	254.8	231.3	206.9	182.4	159.1	137.8	100.1
27.5°	307.3	304.2	296.5	282.3	263.3	237.8	210.0	183.0	157.5	134.6	93.2
30°	316.0	312.8	303.6	289.0	269.0	243.0	213.2	183.2	155.5	129.9	85.7
32.5°	322.7	319.8	310.3	294.7	273.0	246.5	214.9	183.0	153.0	126.5	77.6
35°	329.4	326.5	315.4	298.8	275.9	248.1	216.3	182.0	149.8	121.0	69.9
37.5°	334.6	331.2	320.0	301.6	277.3	248.5	216.1	180.6	146.5	116.5	62.2
40°	338.1	334.6	322.5	303.2	277.7	247.9	214.6	178.2	142.5	110.7	54.1
42.5°	340.5	336.5	323.7	305.5	276.9	246.3	212.2	175.3	138.2	105.8	46.4
45°	341.7	337.5	323.9	303.6	275.5	243.4	208.6	171.5	133.4	99.1	38.7
47.5°	341.1	336.5	322.9	301.4	273.0	240.2	204.7	167.0	127.7	93.2	31.4
50°	340.1	335.3	320.7	298.6	269.4	236.3	200.3	161.5	121.8	85.9	24.9
52.5°	336.9	332.2	318.4	294.7	265.3	231.7	194.4	155.7	115.5	78.8	18.9
55°	333.0	328.6	314.2	291.1	259.9	226.2	188.9	149.6	109.3	71.5	13.6
57.5°	326.9	322.9	309.1	285.4	254.6	220.1	182.8	142.9	101.7	64.1	9.5
60°	319.4	315.4	302.0	278.9	248.5	213.2	176.1	136.0	94.7	56.8	5.9
62.5°	311.5	307.7	293.7	270.8	240.8	205.9	168.8	129.1	87.4	50.1	3.6
65°	301.0	297.5	284.8	261.1	232.3	198.0	160.7	120.8	79.9	42.6	2.0
67.5°	290.0	286.8	274.0	252.3	222.4	189.3	152.4	112.7	72.0	36.1	1.0
70°	278.1	274.2	262.3	240.2	212.4	179.4	143.3	104.4	64.5	29.8	0.0
72.5°	264.3	261.3	249.9	229.0	200.7	169.0	134.0	95.3	56.3	23.7	0.2
75°	250.9	247.1	236.7	216.9	189.3	157.9	123.8	86.8	48.2	18.2	0.2
77.5°	233.5	232.3	222.4	203.3	178.4	147.2	112.5	76.6	40.5	13.0	0.2
80°	216.1	214.9	207.2	189.7	165.8	134.6	102.0	66.9	33.0	8.7	0.2
82.5°	199.0	197.4	190.1	175.5	153.0	124.0	91.2	57.2	26.1	5.3	0.2
85°	183.6	181.6	173.7	160.3	139.7	111.9	79.9	47.8	19.3	3.0	0.4
87.5°	170.3	169.0	160.3	146.5	126.3	100.7	70.1	38.7	13.6	1.4	0.6
90°	159.1	156.1	148.4	133.8	113.7	88.2	59.6	31.0	9.1	0.8	0.8
92.5°	148.0	145.5	137.0	122.0	102.4	77.6	49.5	23.7	5.7	0.4	1.0
95°	136.6	133.8	125.5	111.7	91.0	66.7	40.7	17.4	3.2	0.4	1.0
97.5°	125.3	122.8	114.1	100.3	80.7	57.2	32.2	12.2	1.6	0.4	0.8
100°	114.9	111.9	104.0	90.2	70.5	47.8	24.9	7.9	1.0	0.4	0.8
102.5°	103.8	101.5	93.4	79.9	59.8	38.9	18.6	4.9	0.4	0.4	0.6
105°	94.0	91.0	83.1	69.3	50.9	30.6	13.0	3.0	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°	61.2	58.8	51.9	40.3	25.9	12.0	3.6	0.6	0.6	0.6	0.6
115°	51.1	47.6	41.4	31.2	19.1	7.9	1.8	0.6	0.6	0.6	0.6
117.5°	40.9	37.9	33.6	23.7	12.6	5.1	1.0	0.6	0.6	0.6	0.6
120°	32.0	29.2	24.3	16.4	8.5	3.0	0.4	0.6	0.6	0.6	0.6
122.5°	22.9	20.7	16.4	10.7	5.1	1.4	0.6	0.6	0.8	0.8	0.6
125°	15.2	14.0	10.9	6.5	3.2	0.6	0.6	0.6	0.8	0.8	0.6
127.5°	9.9	8.9	6.3	3.8	1.4	0.6	0.6	0.8	0.8	0.8	0.6
130°	5.5	4.9	3.8	2.2	0.6	0.6	0.6	0.8	0.8	0.8	0.6
132.5°	3.2	3.0	2.0	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	1.0	1.0	0.8
137.5°	0.2	0.2	0.4	0.4	0.6	0.6	0.8	1.0	1.0	1.0	0.8
140°	0.2	0.2	0.4	0.6	0.6	0.6	0.8	1.0	1.0	1.0	0.8
142.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	0.8	0.8
145°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	0.8	0.8	0.8
147.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	0.8	0.8
150°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	0.8
152.5°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	0.8
155°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	1.0
157.5°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	1.0
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	1.0	1.0	1.0	1.0
172.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	1.0
175°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	1.0
177.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	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°	154.9	154.9	154.9
2.5°	147.4	144.7	143.9
5°	139.5	135.0	132.4
7.5°	131.7	125.5	122.6
10°	124.3	115.7	112.5
12.5°	115.7	105.6	100.7
15°	107.4	94.3	89.6
17.5°	98.1	83.5	78.0
20°	89.4	72.6	66.9
22.5°	79.5	62.0	55.7
25°	70.7	51.3	44.2
27.5°	60.8	40.5	34.3
30°	51.5	31.0	24.9
32.5°	42.6	22.7	17.2
35°	34.3	15.4	10.9
37.5°	26.4	9.5	5.5
40°	19.1	4.9	2.6
42.5°	12.8	2.4	1.4
45°	7.9	1.2	0.0
47.5°	4.5	0.0	0.0
50°	2.4	0.0	0.0
52.5°	1.0	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	1.0
82.5°	0.8	1.0	1.0
85°	0.8	1.0	1.2
87.5°	1.0	1.2	1.4
90°	1.2	1.4	1.4
92.5°	1.2	1.6	1.6
95°	1.4	1.6	1.8
97.5°	1.6	1.8	1.8
100°	1.4	1.8	2.0
102.5°	1.2	1.8	1.8
105°	1.0	1.4	1.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.8	1.0	1.0
115°	0.6	0.8	1.0
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°	82.9	80.5	72.6	59.6	41.6	23.3	8.7	1.6	0.4	0.6	0.6
110°	72.2	70.3	62.2	49.5	33.6	17.4	5.7	1.0	0.6	0.6	0.6





107.5°	0.8	1.2	1.4
110°	0.8	1.0	1.2



(END OF REPORT)