

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: P550703

Luminaire Tested: **FCC-X-2-LD4-1LO-30-UNV-81-88-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: P550703
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

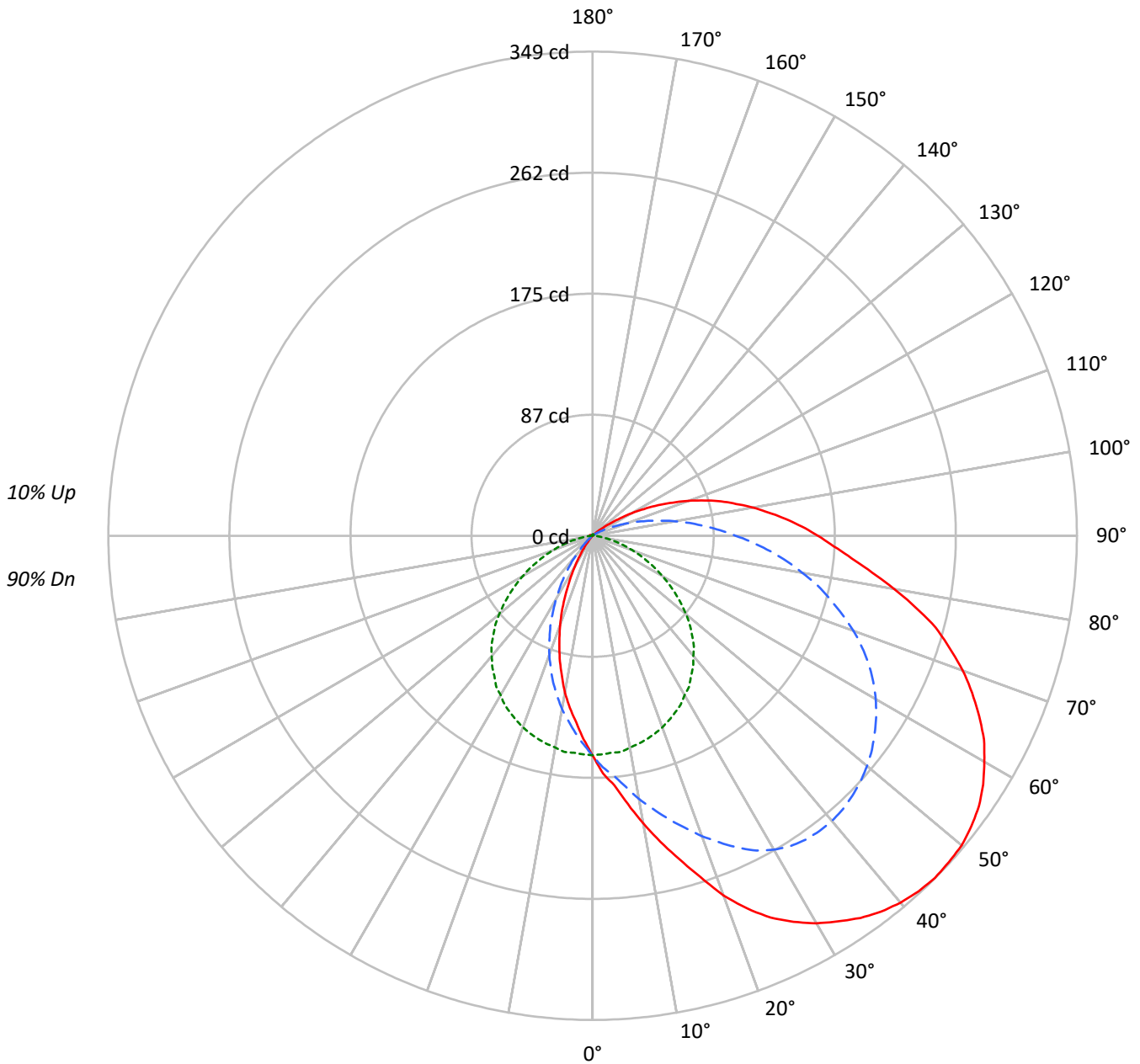
Lumens per Lamp: N/A
Luminaire Lumens: 782.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	1703	1703	1703
5°	1869	1678	1400
10°	2115	1658	1154
15°	2370	1636	899
20°	2674	1609	662
25°	2925	1578	434
30°	3111	1537	245
35°	3273	1492	108
40°	3417	1437	26
45°	3540	1369	0
50°	3643	1278	0
55°	3721	1161	0
60°	3761	1026	0
65°	3777	874	0
70°	3764	712	0
75°	3716	525	3
80°	3565	323	16
85°	3447	153	22



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.2	1.9
10°-20°	45.4	5.8
20°-30°	73.5	9.4
30°-40°	94.4	12.1
40°-50°	106.8	13.7
50°-60°	110.7	14.2
60°-70°	104.4	13.3
70°-80°	87.5	11.2
80°-90°	63.4	8.1
90°-100°	41.7	5.3
100°-110°	24.1	3.1
110°-120°	10.6	1.4
120°-130°	2.9	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°	134.0	17.1
0°-40°	228.4	29.2
0°-60°	445.9	57.0
0°-90°	701.1	89.7
90°-120°	76.3	9.8
90°-150°	80.3	10.3
90°-180°	81.0	10.4
0°-180°	782.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	158	158	158	158	158	
5°	180	173	157	142	135	18
15°	241	211	152	110	92	70
25°	304	248	141	72	45	140
35°	336	268	124	35	11	211
45°	349	265	101	8	0	269
55°	340	248	73	0	0	304
65°	307	220	44	0	0	304
75°	256	177	18	0	0	269
85°	187	128	3	1	1	160
90°	162	103	1	1	1	89
95°	139	80	0	1	2	109
105°	96	42	0	1	2	101
115°	52	14	1	1	1	52
125°	16	2	1	1	1	16
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°	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2	158.2
2.5°	171.5	171.3	170.7	169.7	168.3	165.8	163.8	162.0	159.6	157.6	153.7
5°	180.5	179.5	178.7	177.7	174.5	172.3	168.7	164.6	160.8	157.0	149.3
7.5°	195.1	193.4	192.2	189.4	185.0	179.9	174.3	170.5	167.9	157.2	144.1
10°	210.6	209.2	206.7	201.7	196.3	189.0	180.9	171.9	163.8	155.0	139.4
12.5°	225.9	223.9	220.4	214.0	206.3	197.3	186.2	175.5	164.0	153.5	134.0
15°	241.2	239.0	235.4	227.5	217.4	205.5	192.0	178.5	165.0	151.7	128.4
17.5°	257.9	254.9	249.5	240.6	227.9	213.2	197.3	180.9	164.6	149.5	122.3
20°	275.9	271.6	265.8	253.9	239.0	221.7	202.5	183.4	164.4	146.9	115.5
22.5°	290.8	286.5	280.1	267.8	249.9	228.7	206.9	185.0	163.6	143.9	109.0
25°	303.7	300.2	293.2	279.1	260.1	236.2	211.2	186.2	162.4	140.6	102.2
27.5°	313.7	310.5	302.7	288.1	268.8	242.8	214.4	186.8	160.8	137.4	95.1
30°	322.6	319.4	309.9	295.0	274.6	248.1	217.6	187.0	158.8	132.6	87.5
32.5°	329.5	326.4	316.8	300.8	278.7	251.7	219.4	186.8	156.2	129.2	79.2
35°	336.3	333.3	322.0	305.1	281.7	253.3	220.8	185.8	152.9	123.5	71.3
37.5°	341.5	338.1	326.6	307.9	283.1	253.7	220.6	184.4	149.5	118.9	63.5
40°	345.2	341.5	329.3	309.5	283.5	253.1	219.0	182.0	145.5	113.0	55.2
42.5°	347.6	343.6	330.5	311.9	282.7	251.5	216.6	178.9	141.1	108.0	47.4
45°	348.8	344.6	330.7	309.9	281.3	248.5	213.0	175.1	136.2	101.2	39.5
47.5°	348.2	343.6	329.7	307.7	278.7	245.2	209.0	170.5	130.4	95.1	32.0
50°	347.2	342.4	327.4	304.9	275.1	241.2	204.5	164.8	124.3	87.7	25.4
52.5°	344.0	339.1	325.0	300.8	270.8	236.6	198.5	159.0	117.9	80.4	19.3
55°	339.9	335.5	320.8	297.2	265.4	230.9	192.8	152.7	111.6	72.9	13.9
57.5°	333.7	329.7	315.6	291.4	259.9	224.7	186.6	145.9	103.8	65.5	9.7
60°	326.0	322.0	308.3	284.7	253.7	217.6	179.7	138.8	96.7	58.0	6.0
62.5°	318.0	314.1	299.8	276.5	245.8	210.2	172.3	131.8	89.3	51.2	3.6
65°	307.3	303.7	290.8	266.6	237.2	202.1	164.0	123.3	81.6	43.5	2.0
67.5°	296.0	292.8	279.7	257.5	227.1	193.2	155.6	115.1	73.5	36.9	1.0
70°	283.9	279.9	267.8	245.2	216.8	183.2	146.3	106.6	65.9	30.4	0.0
72.5°	269.8	266.8	255.1	233.7	204.9	172.5	136.8	97.3	57.4	24.2	0.2
75°	256.1	252.3	241.6	221.5	193.2	161.2	126.3	88.7	49.2	18.5	0.2
77.5°	238.4	237.2	227.1	207.5	182.2	150.3	114.9	78.2	41.3	13.3	0.2
80°	220.6	219.4	211.6	193.6	169.3	137.4	104.2	68.3	33.7	8.9	0.2
82.5°	203.1	201.5	194.0	179.1	156.2	126.5	93.1	58.4	26.6	5.4	0.2
85°	187.4	185.4	177.3	163.6	142.7	114.3	81.6	48.8	19.7	3.0	0.4
87.5°	173.9	172.5	163.6	149.5	129.0	102.8	71.5	39.5	13.9	1.4	0.6
90°	162.4	159.4	151.5	136.6	116.1	90.1	60.9	31.6	9.3	0.8	0.8
92.5°	151.1	148.5	139.8	124.5	104.6	79.2	50.6	24.2	5.8	0.4	1.0
95°	139.4	136.6	128.2	114.1	92.9	68.1	41.5	17.7	3.2	0.4	1.0
97.5°	128.0	125.3	116.5	102.4	82.4	58.4	32.8	12.5	1.6	0.4	0.8
100°	117.3	114.3	106.2	92.1	71.9	48.8	25.4	8.1	1.0	0.4	0.8
102.5°	106.0	103.6	95.3	81.6	61.1	39.7	18.9	5.0	0.4	0.4	0.6
105°	95.9	92.9	84.8	70.7	52.0	31.2	13.3	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°	62.5	60.0	53.0	41.1	26.4	12.3	3.6	0.6	0.6	0.6	0.6
115°	52.2	48.6	42.3	31.8	19.5	8.1	1.8	0.6	0.6	0.6	0.6
117.5°	41.7	38.7	34.3	24.2	12.9	5.2	1.0	0.6	0.6	0.6	0.6
120°	32.6	29.8	24.8	16.7	8.7	3.0	0.4	0.6	0.6	0.6	0.6
122.5°	23.4	21.2	16.7	10.9	5.2	1.4	0.6	0.6	0.8	0.8	0.6
125°	15.5	14.3	11.1	6.6	3.2	0.6	0.6	0.6	0.8	0.8	0.6
127.5°	10.1	9.1	6.4	3.8	1.4	0.6	0.6	0.8	0.8	0.8	0.6
130°	5.6	5.0	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°	158.2	158.2	158.2
2.5°	150.5	147.7	146.9
5°	142.5	137.8	135.2
7.5°	134.4	128.2	125.1
10°	126.9	118.1	114.9
12.5°	118.1	107.8	102.8
15°	109.6	96.3	91.5
17.5°	100.1	85.2	79.6
20°	91.3	74.2	68.3
22.5°	81.2	63.3	56.8
25°	72.1	52.4	45.1
27.5°	62.1	41.3	35.1
30°	52.6	31.6	25.4
32.5°	43.5	23.2	17.5
35°	35.1	15.7	11.1
37.5°	27.0	9.7	5.6
40°	19.5	5.0	2.6
42.5°	13.1	2.4	1.4
45°	8.1	1.2	0.0
47.5°	4.6	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°	84.6	82.2	74.2	60.9	42.5	23.8	8.9	1.6	0.4	0.6	0.6
110°	73.8	71.7	63.5	50.6	34.3	17.7	5.8	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)