

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: P550907

Luminaire Tested: **FCC-X-2-LD4-1LO-50-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: P550907
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-50-UNV-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

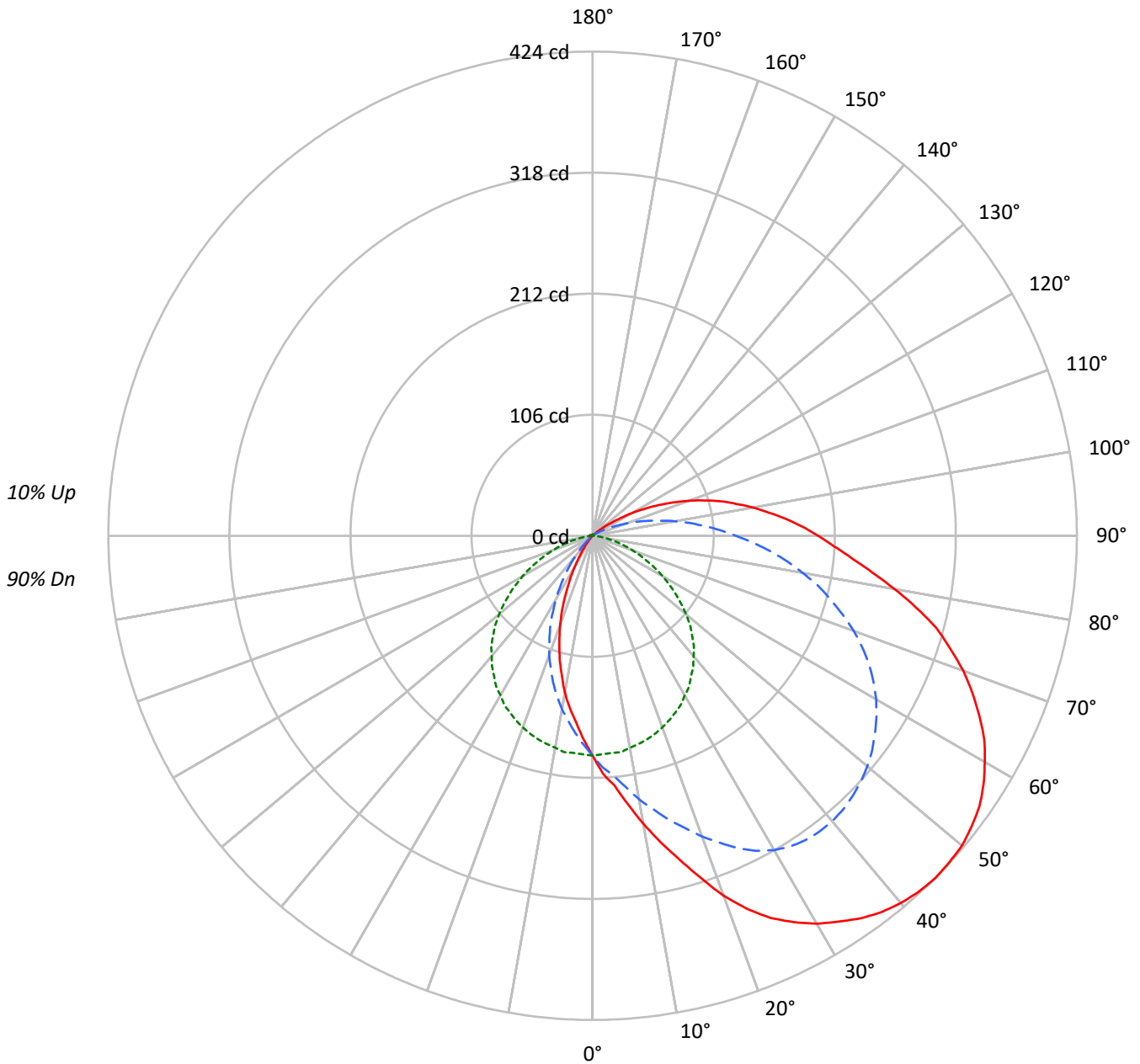
Lumens per Lamp: N/A
Luminaire Lumens: 950.9 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2071	2071	2071
5°	2273	2040	1702
10°	2572	2015	1403
15°	2882	1989	1094
20°	3251	1957	805
25°	3557	1919	529
30°	3784	1869	298
35°	3981	1815	131
40°	4155	1749	32
45°	4305	1664	0
50°	4430	1554	0
55°	4526	1412	0
60°	4574	1249	0
65°	4593	1063	0
70°	4578	867	0
75°	4520	638	3
80°	4336	392	19
85°	4192	188	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.4	1.9
10°-20°	55.2	5.8
20°-30°	89.3	9.4
30°-40°	114.8	12.1
40°-50°	129.9	13.7
50°-60°	134.6	14.2
60°-70°	126.9	13.3
70°-80°	106.4	11.2
80°-90°	77.1	8.1
90°-100°	50.7	5.3
100°-110°	29.3	3.1
110°-120°	12.9	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	162.9	17.1
0°-40°	277.7	29.2
0°-60°	542.2	57.0
0°-90°	852.6	89.7
90°-120°	92.9	9.8
90°-150°	97.7	10.3
90°-180°	98.0	10.3
0°-180°	950.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	192	192	192	192	192	
5°	220	211	191	173	164	22
15°	293	257	184	133	111	85
25°	369	302	171	88	55	171
35°	409	325	150	43	14	257
45°	424	322	123	10	0	327
55°	413	302	89	0	0	369
65°	374	267	53	0	0	370
75°	312	216	22	0	0	327
85°	228	156	4	1	2	195
90°	198	125	1	2	2	108
95°	170	98	0	2	2	133
105°	117	51	0	1	2	123
115°	64	17	1	1	1	64
125°	19	2	1	1	1	19
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°	192.4	192.4	192.4	192.4	192.4	192.4	192.4	192.4	192.4	192.4	192.4
2.5°	208.5	208.3	207.6	206.3	204.6	201.7	199.2	197.0	194.1	191.6	187.0
5°	219.6	218.3	217.4	216.1	212.2	209.5	205.1	200.2	195.6	190.9	181.6
7.5°	237.2	235.2	233.8	230.3	225.0	218.8	212.0	207.3	204.1	191.1	175.2
10°	256.1	254.4	251.4	245.3	238.7	229.9	220.1	209.0	199.2	188.4	169.6
12.5°	274.7	272.3	268.1	260.2	250.9	239.9	226.4	213.4	199.5	186.7	163.0
15°	293.3	290.6	286.2	276.7	264.4	250.0	233.5	217.1	200.7	184.5	156.1
17.5°	313.7	310.0	303.4	292.6	277.2	259.3	239.9	220.1	200.2	181.8	148.7
20°	335.5	330.3	323.2	308.8	290.6	269.6	246.3	223.0	200.0	178.6	140.4
22.5°	353.6	348.5	340.6	325.7	303.9	278.1	251.7	225.0	199.0	175.0	132.6
25°	369.3	365.1	356.5	339.4	316.4	287.2	256.8	226.4	197.5	171.0	124.2
27.5°	381.5	377.6	368.1	350.4	326.9	295.3	260.7	227.2	195.6	167.1	115.7
30°	392.3	388.4	376.9	358.8	334.0	301.7	264.7	227.4	193.1	161.2	106.4
32.5°	400.7	397.0	385.2	365.9	338.9	306.1	266.9	227.2	189.9	157.1	96.3
35°	409.0	405.3	391.6	371.0	342.6	308.0	268.6	225.9	186.0	150.2	86.7
37.5°	415.4	411.2	397.2	374.4	344.3	308.5	268.3	224.2	181.8	144.6	77.2
40°	419.8	415.4	400.4	376.4	344.8	307.8	266.4	221.3	176.9	137.5	67.1
42.5°	422.7	417.8	401.9	379.3	343.8	305.8	263.4	217.6	171.5	131.3	57.6
45°	424.2	419.0	402.1	376.9	342.1	302.1	259.0	212.9	165.7	123.0	48.0
47.5°	423.4	417.8	400.9	374.2	338.9	298.2	254.1	207.3	158.5	115.7	39.0
50°	422.2	416.3	398.2	370.8	334.5	293.3	248.7	200.5	151.2	106.6	30.9
52.5°	418.3	412.4	395.3	365.9	329.3	287.7	241.4	193.3	143.4	97.8	23.5
55°	413.4	408.0	390.1	361.4	322.7	280.8	234.5	185.7	135.8	88.7	16.9
57.5°	405.8	400.9	383.7	354.3	316.1	273.2	226.9	177.4	126.2	79.6	11.8
60°	396.5	391.6	374.9	346.3	308.5	264.7	218.6	168.8	117.6	70.6	7.4
62.5°	386.7	382.0	364.6	336.2	299.0	255.6	209.5	160.3	108.6	62.2	4.4
65°	373.7	369.3	353.6	324.2	288.4	245.8	199.5	150.0	99.2	52.9	2.5
67.5°	360.0	356.1	340.1	313.2	276.2	235.0	189.2	139.9	89.4	44.8	1.2
70°	345.3	340.4	325.7	298.2	263.7	222.8	177.9	129.6	80.1	37.0	0.0
72.5°	328.1	324.4	310.2	284.3	249.2	209.8	166.4	118.4	69.8	29.4	0.2
75°	311.5	306.8	293.8	269.3	235.0	196.0	153.6	107.8	59.8	22.5	0.2
77.5°	289.9	288.4	276.2	252.4	221.5	182.8	139.7	95.1	50.2	16.2	0.2
80°	268.3	266.9	257.3	235.5	205.8	167.1	126.7	83.1	40.9	10.8	0.2
82.5°	247.0	245.1	236.0	217.8	189.9	153.9	113.2	71.1	32.3	6.6	0.2
85°	227.9	225.4	215.6	199.0	173.5	138.9	99.2	59.3	24.0	3.7	0.5
87.5°	211.5	209.8	199.0	181.8	156.8	125.0	87.0	48.0	16.9	1.7	0.7
90°	197.5	193.8	184.3	166.1	141.1	109.5	74.0	38.5	11.3	1.0	1.0
92.5°	183.8	180.6	170.1	151.4	127.2	96.3	61.5	29.4	7.1	0.5	1.2
95°	169.6	166.1	155.9	138.7	113.0	82.8	50.5	21.6	3.9	0.5	1.2
97.5°	155.6	152.4	141.6	124.5	100.2	71.1	39.9	15.2	2.0	0.5	1.0
100°	142.6	138.9	129.1	112.0	87.5	59.3	30.9	9.8	1.2	0.5	1.0
102.5°	128.9	126.0	115.9	99.2	74.3	48.3	23.0	6.1	0.5	0.5	0.7
105°	116.6	113.0	103.2	86.0	63.2	38.0	16.2	3.7	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°	76.0	73.0	64.4	50.0	32.1	14.9	4.4	0.7	0.7	0.7	0.7
115°	63.5	59.1	51.5	38.7	23.8	9.8	2.2	0.7	0.7	0.7	0.7
117.5°	50.7	47.0	41.7	29.4	15.7	6.4	1.2	0.7	0.7	0.7	0.7
120°	39.7	36.3	30.1	20.3	10.5	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.4	25.7	20.3	13.2	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.9	17.4	13.5	8.1	3.9	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.3	11.0	7.8	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.1	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.9	3.7	2.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
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°	192.4	192.4	192.4
2.5°	183.1	179.6	178.6
5°	173.3	167.6	164.4
7.5°	163.4	155.9	152.2
10°	154.4	143.6	139.7
12.5°	143.6	131.1	125.0
15°	133.3	117.1	111.3
17.5°	121.8	103.7	96.8
20°	111.0	90.2	83.1
22.5°	98.8	76.9	69.1
25°	87.7	63.7	54.9
27.5°	75.5	50.2	42.6
30°	64.0	38.5	30.9
32.5°	52.9	28.2	21.3
35°	42.6	19.1	13.5
37.5°	32.8	11.8	6.9
40°	23.8	6.1	3.2
42.5°	15.9	2.9	1.7
45°	9.8	1.5	0.0
47.5°	5.6	0.0	0.0
50°	2.9	0.0	0.0
52.5°	1.2	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	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	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°	1.0	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°	102.9	100.0	90.2	74.0	51.7	28.9	10.8	2.0	0.5	0.7	0.7
110°	89.7	87.2	77.2	61.5	41.7	21.6	7.1	1.2	0.7	0.7	0.7





107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)