

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: P550908

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-86-ED1D**

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: P550908
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
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

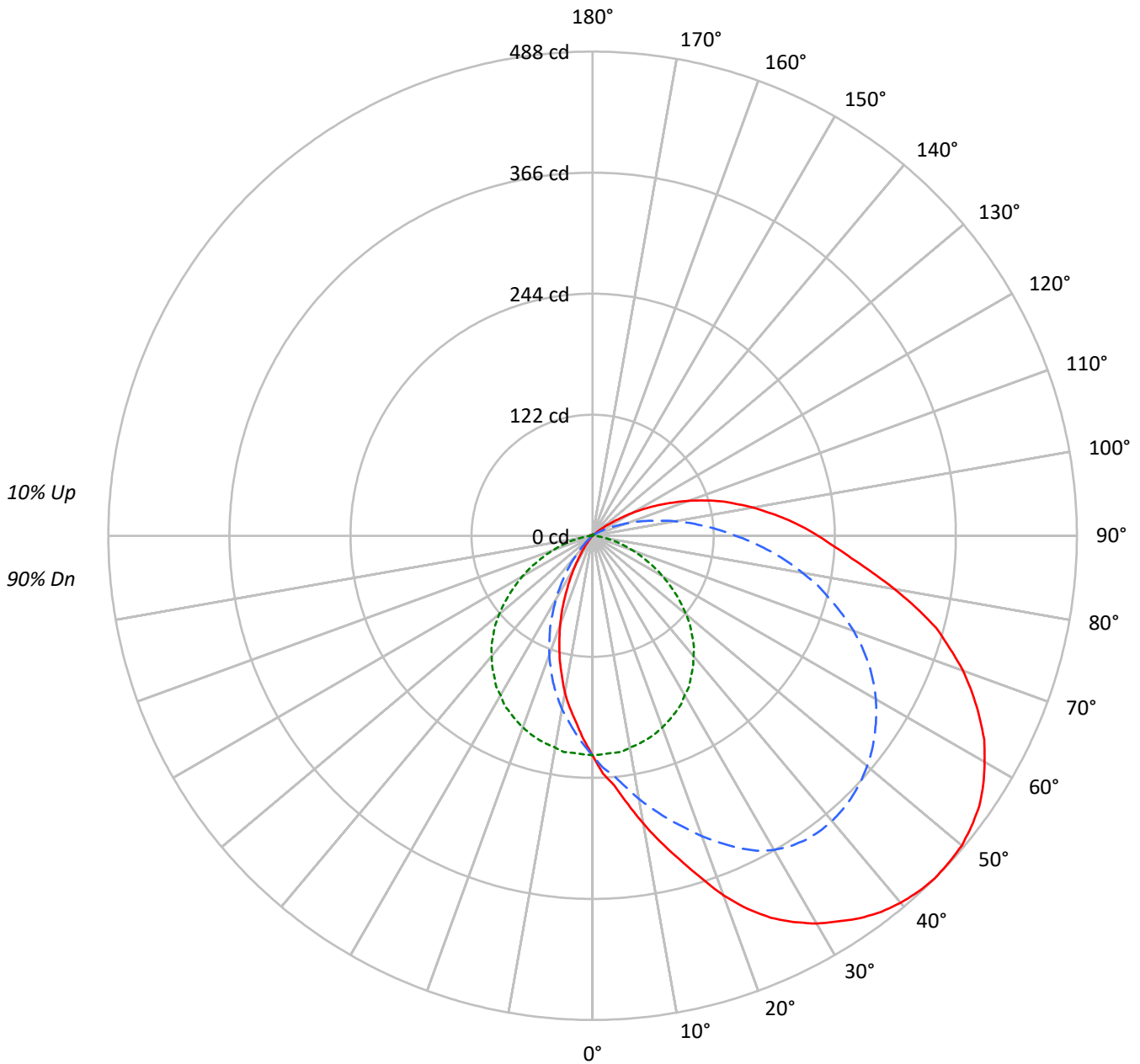
Lumens per Lamp: N/A
Luminaire Lumens: 1093.9 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (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				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2382	2382	2382
5°	2615	2347	1959
10°	2959	2319	1614
15°	3316	2289	1258
20°	3740	2252	926
25°	4091	2209	608
30°	4353	2150	342
35°	4579	2088	151
40°	4780	2011	37
45°	4952	1915	0
50°	5096	1787	0
55°	5207	1624	0
60°	5262	1437	0
65°	5284	1223	0
70°	5266	998	0
75°	5199	734	4
80°	4989	450	23
85°	4822	214	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	1.9
10°-20°	63.5	5.8
20°-30°	102.8	9.4
30°-40°	132.0	12.1
40°-50°	149.5	13.7
50°-60°	154.8	14.2
60°-70°	146.0	13.3
70°-80°	122.4	11.2
80°-90°	88.7	8.1
90°-100°	58.3	5.3
100°-110°	33.7	3.1
110°-120°	14.8	1.4
120°-130°	4.0	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	187.4	17.1
0°-40°	319.5	29.2
0°-60°	623.8	57.0
0°-90°	980.9	89.7
90°-120°	106.8	9.8
90°-150°	112.3	10.3
90°-180°	113.0	10.3
0°-180°	1093.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	221	221	221	221	221	
5°	253	243	220	199	189	25
15°	337	296	212	153	128	97
25°	425	347	197	101	63	196
35°	470	374	173	49	16	295
45°	488	371	142	11	0	377
55°	476	347	102	0	0	425
65°	430	307	61	0	0	425
75°	358	248	26	0	0	376
85°	262	180	4	1	2	224
90°	227	144	1	2	2	125
95°	195	113	1	2	2	153
105°	134	58	1	1	2	142
115°	73	19	1	1	1	73
125°	22	3	1	1	1	22
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	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°	221.3	221.3	221.3	221.3	221.3	221.3	221.3	221.3	221.3	221.3	221.3
2.5°	239.9	239.6	238.8	237.4	235.4	232.0	229.2	226.6	223.3	220.4	215.1
5°	252.6	251.2	250.0	248.6	244.1	241.0	235.9	230.3	225.0	219.6	208.9
7.5°	272.9	270.6	268.9	265.0	258.8	251.7	243.8	238.5	234.8	219.9	201.6
10°	294.6	292.6	289.2	282.2	274.6	264.4	253.1	240.5	229.2	216.8	195.1
12.5°	316.0	313.2	308.4	299.4	288.7	276.0	260.5	245.5	229.5	214.8	187.5
15°	337.4	334.3	329.3	318.3	304.2	287.5	268.6	249.8	230.9	212.3	179.6
17.5°	360.8	356.6	349.0	336.6	318.8	298.2	276.0	253.1	230.3	209.2	171.1
20°	385.9	380.0	371.8	355.2	334.3	310.1	283.3	256.5	230.0	205.5	161.5
22.5°	406.8	400.9	391.8	374.6	349.6	320.0	289.5	258.8	228.9	201.3	152.5
25°	424.8	420.0	410.2	390.4	363.9	330.4	295.4	260.5	227.2	196.8	142.9
27.5°	438.9	434.4	423.4	403.1	376.1	339.7	299.9	261.3	225.0	192.3	133.1
30°	451.3	446.8	433.6	412.7	384.2	347.0	304.4	261.6	222.1	185.5	122.3
32.5°	460.9	456.7	443.1	420.9	389.9	352.1	307.0	261.3	218.5	180.7	110.8
35°	470.5	466.3	450.5	426.8	394.1	354.3	309.0	259.9	214.0	172.8	99.8
37.5°	477.8	473.0	457.0	430.7	396.1	354.9	308.7	257.9	209.2	166.3	88.8
40°	482.9	477.8	460.6	433.0	396.6	354.1	306.4	254.6	203.5	158.1	77.2
42.5°	486.3	480.6	462.3	436.4	395.5	351.8	303.0	250.3	197.3	151.1	66.2
45°	488.0	482.0	462.6	433.6	393.5	347.6	298.0	245.0	190.6	141.5	55.3
47.5°	487.1	480.6	461.2	430.5	389.9	343.1	292.3	238.5	182.4	133.1	44.8
50°	485.7	478.9	458.1	426.5	384.8	337.4	286.1	230.6	173.9	122.6	35.5
52.5°	481.2	474.4	454.7	420.9	378.9	330.9	277.7	222.4	164.9	112.5	27.1
55°	475.6	469.4	448.8	415.8	371.3	323.1	269.8	213.7	156.2	102.0	19.5
57.5°	466.8	461.2	441.5	407.6	363.6	314.3	261.0	204.1	145.2	91.6	13.5
60°	456.1	450.5	431.3	398.3	354.9	304.4	251.5	194.2	135.3	81.2	8.5
62.5°	444.8	439.5	419.5	386.8	343.9	294.0	241.0	184.4	124.9	71.6	5.1
65°	429.9	424.8	406.8	373.0	331.8	282.7	229.5	172.5	114.2	60.9	2.8
67.5°	414.1	409.6	391.3	360.3	317.7	270.3	217.6	161.0	102.9	51.6	1.4
70°	397.2	391.6	374.6	343.1	303.3	256.2	204.7	149.1	92.2	42.6	0.0
72.5°	377.5	373.2	356.9	327.0	286.7	241.3	191.4	136.2	80.3	33.8	0.3
75°	358.3	352.9	338.0	309.8	270.3	225.5	176.8	124.0	68.8	25.9	0.3
77.5°	333.5	331.8	317.7	290.4	254.8	210.3	160.7	109.4	57.8	18.6	0.3
80°	308.7	307.0	296.0	270.9	236.8	192.3	145.7	95.6	47.1	12.4	0.3
82.5°	284.2	281.9	271.5	250.6	218.5	177.0	130.2	81.8	37.2	7.6	0.3
85°	262.2	259.3	248.1	228.9	199.6	159.8	114.2	68.2	27.6	4.2	0.6
87.5°	243.3	241.3	228.9	209.2	180.4	143.8	100.1	55.3	19.5	2.0	0.8
90°	227.2	223.0	212.0	191.1	162.4	126.0	85.1	44.3	13.0	1.1	1.1
92.5°	211.4	207.8	195.6	174.2	146.3	110.8	70.8	33.8	8.2	0.6	1.4
95°	195.1	191.1	179.3	159.6	130.0	95.3	58.1	24.8	4.5	0.6	1.4
97.5°	179.0	175.3	162.9	143.2	115.3	81.8	45.9	17.5	2.3	0.6	1.1
100°	164.1	159.8	148.6	128.8	100.6	68.2	35.5	11.3	1.4	0.6	1.1
102.5°	148.3	144.9	133.3	114.2	85.4	55.5	26.5	7.0	0.6	0.6	0.8
105°	134.2	130.0	118.7	98.9	72.7	43.7	18.6	4.2	0.6	0.6	0.8



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CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-82-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	87.4	84.0	74.1	57.5	36.9	17.2	5.1	0.8	0.8	0.8	0.8
115°	73.0	67.9	59.2	44.5	27.3	11.3	2.5	0.8	0.8	0.8	0.8
117.5°	58.4	54.1	47.9	33.8	18.0	7.3	1.4	0.8	0.8	0.8	0.8
120°	45.7	41.7	34.7	23.4	12.1	4.2	0.6	0.8	0.8	0.8	0.8
122.5°	32.7	29.6	23.4	15.2	7.3	2.0	0.8	0.8	1.1	1.1	0.8
125°	21.7	20.0	15.5	9.3	4.5	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	14.1	12.7	9.0	5.4	2.0	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.9	7.0	5.4	3.1	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.5	4.2	2.8	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	221.3	221.3	221.3
2.5°	210.6	206.6	205.5
5°	199.3	192.8	189.2
7.5°	188.0	179.3	175.1
10°	177.6	165.2	160.7
12.5°	165.2	150.8	143.8
15°	153.4	134.7	128.0
17.5°	140.1	119.2	111.3
20°	127.7	103.7	95.6
22.5°	113.6	88.5	79.5
25°	100.9	73.3	63.1
27.5°	86.8	57.8	49.1
30°	73.6	44.3	35.5
32.5°	60.9	32.4	24.5
35°	49.1	22.0	15.5
37.5°	37.8	13.5	7.9
40°	27.3	7.0	3.7
42.5°	18.3	3.4	2.0
45°	11.3	1.7	0.0
47.5°	6.5	0.0	0.0
50°	3.4	0.0	0.0
52.5°	1.4	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.8
80°	0.6	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.5
97.5°	2.3	2.5	2.5
100°	2.0	2.5	2.8
102.5°	1.7	2.5	2.5
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.6
152.5°	0.8	0.6	0.6
155°	0.8	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.8	0.6	0.3
162.5°	0.8	0.6	0.3
165°	0.8	0.6	0.0
167.5°	0.8	0.6	0.3
170°	0.8	0.6	0.3
172.5°	0.8	0.6	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	118.4	115.0	103.7	85.1	59.5	33.3	12.4	2.3	0.6	0.8	0.8
110°	103.2	100.4	88.8	70.8	47.9	24.8	8.2	1.4	0.8	0.8	0.8





107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)