

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: P551684

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-96-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: P551684
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-LD4-2LO-50-UNV-82-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

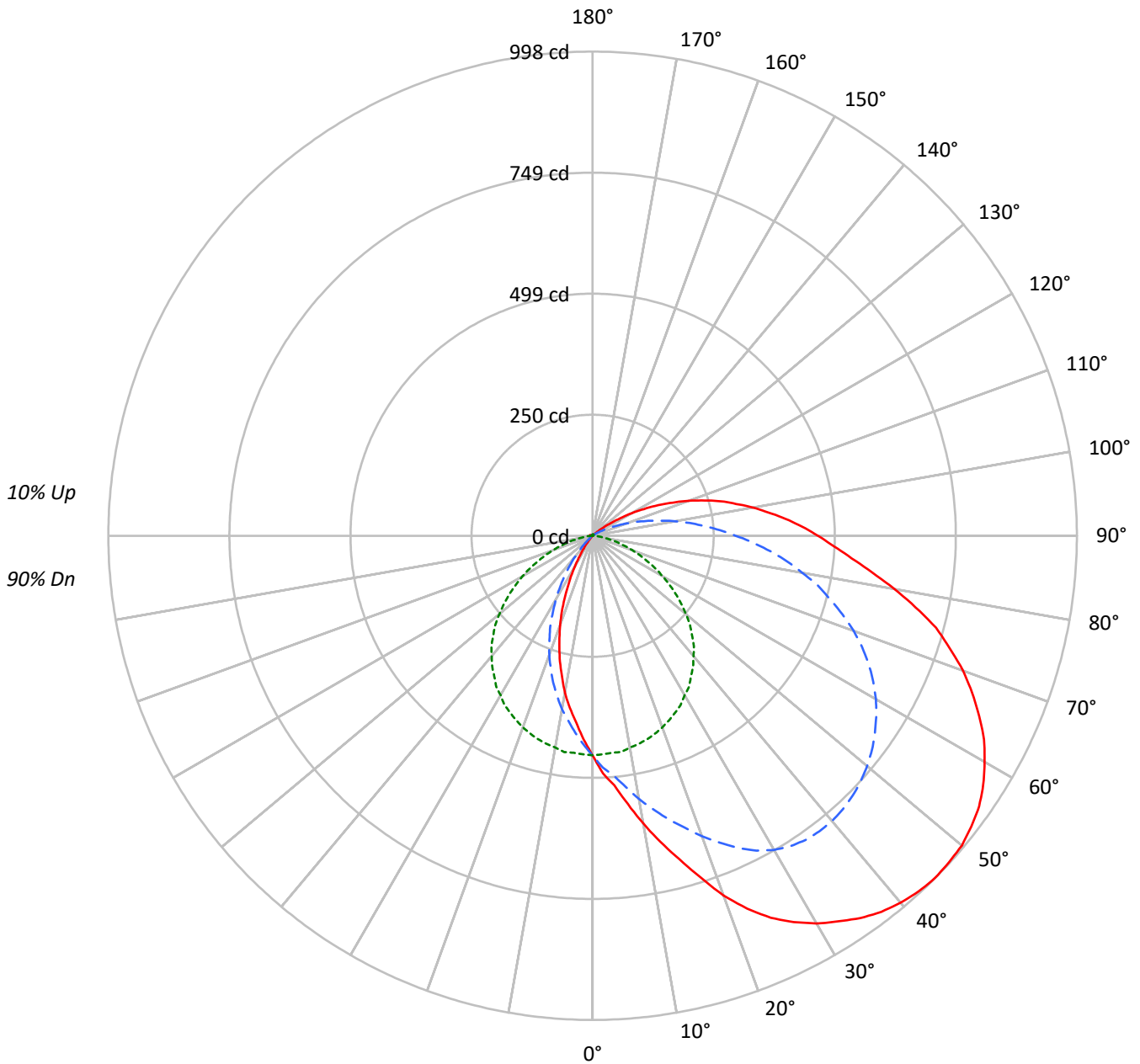
Lumens per Lamp: N/A
Luminaire Lumens: 2237.0 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-96-ED1D

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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4871	4871	4871
5°	5347	4799	4004
10°	6051	4741	3301
15°	6781	4680	2572
20°	7647	4604	1894
25°	8367	4515	1243
30°	8901	4397	700
35°	9363	4269	309
40°	9774	4113	74
45°	10126	3916	0
50°	10422	3654	0
55°	10646	3323	0
60°	10760	2938	0
65°	10804	2501	0
70°	10768	2038	0
75°	10631	1503	9
80°	10201	921	47
85°	9860	437	64



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	1.9
10°-20°	129.8	5.8
20°-30°	210.2	9.4
30°-40°	270.0	12.1
40°-50°	305.6	13.7
50°-60°	316.6	14.2
60°-70°	298.6	13.3
70°-80°	250.2	11.2
80°-90°	181.4	8.1
90°-100°	119.2	5.3
100°-110°	68.9	3.1
110°-120°	30.4	1.4
120°-130°	8.2	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	383.3	17.1
0°-40°	653.3	29.2
0°-60°	1275.5	57.0
0°-90°	2005.7	89.7
90°-120°	218.4	9.8
90°-150°	229.8	10.3
90°-180°	231.0	10.3
0°-180°	2237.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	452	452	452	452	452	
5°	516	496	449	408	387	52
15°	690	605	434	314	262	199
25°	869	710	402	206	129	401
35°	962	765	353	100	32	603
45°	998	758	289	23	0	770
55°	972	710	209	0	0	868
65°	879	628	124	0	0	870
75°	733	507	53	1	1	768
85°	536	367	9	2	4	458
90°	465	295	2	4	4	255
95°	399	230	1	4	5	313
105°	274	119	1	3	5	290
115°	149	40	2	2	3	150
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5	452.5
2.5°	490.5	490.0	488.2	485.3	481.3	474.4	468.6	463.4	456.5	450.8	439.8
5°	516.5	513.6	511.3	508.4	499.2	492.8	482.5	470.9	460.0	449.0	427.1
7.5°	558.0	553.4	549.9	541.8	529.2	514.7	498.6	487.7	480.2	449.6	412.1
10°	602.4	598.3	591.4	577.0	561.4	540.7	517.6	491.7	468.6	443.3	398.9
12.5°	646.2	640.4	630.6	612.2	590.3	564.3	532.6	502.1	469.2	439.2	383.3
15°	690.0	683.6	673.3	650.8	622.0	588.0	549.3	510.7	472.1	434.0	367.2
17.5°	737.8	729.2	713.6	688.2	651.9	609.9	564.3	517.6	470.9	427.7	349.9
20°	789.1	777.0	760.3	726.3	683.6	634.1	579.3	524.5	470.4	420.2	330.3
22.5°	831.8	819.7	801.2	766.1	714.8	654.2	592.0	529.2	468.1	411.6	311.8
25°	868.7	858.9	838.7	798.3	744.2	675.6	604.1	532.6	464.6	402.3	292.2
27.5°	897.5	888.3	865.8	824.3	768.9	694.6	613.3	534.3	460.0	393.1	272.1
30°	922.9	913.6	886.5	843.9	785.7	709.6	622.5	534.9	454.2	379.3	250.2
32.5°	942.5	933.8	906.1	860.6	797.2	720.0	627.7	534.3	446.7	369.5	226.5
35°	962.0	953.4	921.1	872.7	805.8	724.6	631.8	531.5	437.5	353.3	204.1
37.5°	977.0	967.2	934.4	880.8	809.9	725.7	631.2	527.4	427.7	340.1	181.6
40°	987.4	977.0	941.9	885.4	811.0	724.0	626.6	520.5	416.2	323.4	157.9
42.5°	994.3	982.8	945.3	892.3	808.7	719.4	619.7	511.9	403.5	309.0	135.5
45°	997.8	985.7	945.9	886.5	804.7	710.7	609.3	500.9	389.7	289.4	113.0
47.5°	996.1	982.8	943.0	880.2	797.2	701.5	597.7	487.7	372.9	272.1	91.7
50°	993.2	979.3	936.7	872.1	786.8	690.0	585.1	471.5	355.7	250.7	72.6
52.5°	984.0	970.1	929.8	860.6	774.7	676.7	567.8	454.8	337.2	230.0	55.3
55°	972.4	959.7	917.7	850.2	759.1	660.6	551.6	436.9	319.3	208.7	39.8
57.5°	954.6	943.0	902.7	833.5	743.6	642.7	533.8	417.3	296.9	187.3	27.7
60°	932.7	921.1	881.9	814.5	725.7	622.5	514.2	397.2	276.7	166.0	17.3
62.5°	909.6	898.6	857.7	790.9	703.2	601.2	492.8	377.0	255.4	146.4	10.4
65°	879.0	868.7	831.8	762.6	678.4	578.2	469.2	352.8	233.5	124.5	5.8
67.5°	846.8	837.5	800.1	736.7	649.6	552.8	445.0	329.1	210.4	105.5	2.9
70°	812.2	800.7	766.1	701.5	620.2	524.0	418.5	304.9	188.5	87.0	0.0
72.5°	771.8	763.2	729.8	668.6	586.2	493.4	391.4	278.4	164.3	69.2	0.6
75°	732.6	721.7	691.1	633.5	552.8	461.1	361.4	253.6	140.6	53.0	0.6
77.5°	681.9	678.4	649.6	593.7	521.1	430.0	328.6	223.7	118.2	38.0	0.6
80°	631.2	627.7	605.2	553.9	484.2	393.1	298.0	195.4	96.3	25.4	0.6
82.5°	581.0	576.4	555.1	512.4	446.7	362.0	266.3	167.2	76.1	15.6	0.6
85°	536.1	530.3	507.3	468.1	408.1	326.8	233.5	139.5	56.5	8.6	1.2
87.5°	497.5	493.4	468.1	427.7	368.9	294.0	204.6	113.0	39.8	4.0	1.7
90°	464.6	455.9	433.5	390.8	332.0	257.7	174.1	90.5	26.5	2.3	2.3
92.5°	432.3	424.8	400.0	356.2	299.2	226.5	144.7	69.2	16.7	1.2	2.9
95°	398.9	390.8	366.6	326.3	265.7	194.8	118.7	50.7	9.2	1.2	2.9
97.5°	366.0	358.5	333.2	292.8	235.8	167.2	94.0	35.7	4.6	1.2	2.3
100°	335.5	326.8	303.8	263.4	205.8	139.5	72.6	23.1	2.9	1.2	2.3
102.5°	303.2	296.3	272.6	233.5	174.7	113.6	54.2	14.4	1.2	1.2	1.7
105°	274.4	265.7	242.7	202.3	148.7	89.3	38.0	8.6	1.2	1.2	1.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	178.7	171.8	151.6	117.6	75.5	35.2	10.4	1.7	1.7	1.7	1.7
115°	149.3	138.9	121.0	91.1	55.9	23.1	5.2	1.7	1.7	1.7	1.7
117.5°	119.3	110.7	98.0	69.2	36.9	15.0	2.9	1.7	1.7	1.7	1.7
120°	93.4	85.3	70.9	47.8	24.8	8.6	1.2	1.7	1.7	1.7	1.7
122.5°	66.9	60.5	47.8	31.1	15.0	4.0	1.7	1.7	2.3	2.3	1.7
125°	44.4	40.9	31.7	19.0	9.2	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.8	25.9	18.4	11.0	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.1	14.4	11.0	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.2	8.6	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	452.5	452.5	452.5
2.5°	430.6	422.5	420.2
5°	407.5	394.3	386.8
7.5°	384.5	366.6	358.0
10°	363.1	337.8	328.6
12.5°	337.8	308.4	294.0
15°	313.6	275.5	261.7
17.5°	286.5	243.8	227.7
20°	261.1	212.1	195.4
22.5°	232.3	181.0	162.6
25°	206.4	149.9	129.1
27.5°	177.5	118.2	100.3
30°	150.4	90.5	72.6
32.5°	124.5	66.3	50.1
35°	100.3	45.0	31.7
37.5°	77.2	27.7	16.1
40°	55.9	14.4	7.5
42.5°	37.5	6.9	4.0
45°	23.1	3.5	0.0
47.5°	13.3	0.0	0.0
50°	6.9	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.0
90°	3.5	4.0	4.0
92.5°	3.5	4.6	4.6
95°	4.0	4.6	5.2
97.5°	4.6	5.2	5.2
100°	4.0	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.0	4.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	242.1	235.2	212.1	174.1	121.6	68.0	25.4	4.6	1.2	1.7	1.7
110°	211.0	205.2	181.6	144.7	98.0	50.7	16.7	2.9	1.7	1.7	1.7





107.5°	2.3	3.5	4.0
110°	2.3	2.9	3.5



(END OF REPORT)