

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: P551686

Luminaire Tested: **FCC-X-2-LD4-2LO-50-UNV-82-97-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: P551686
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-82-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

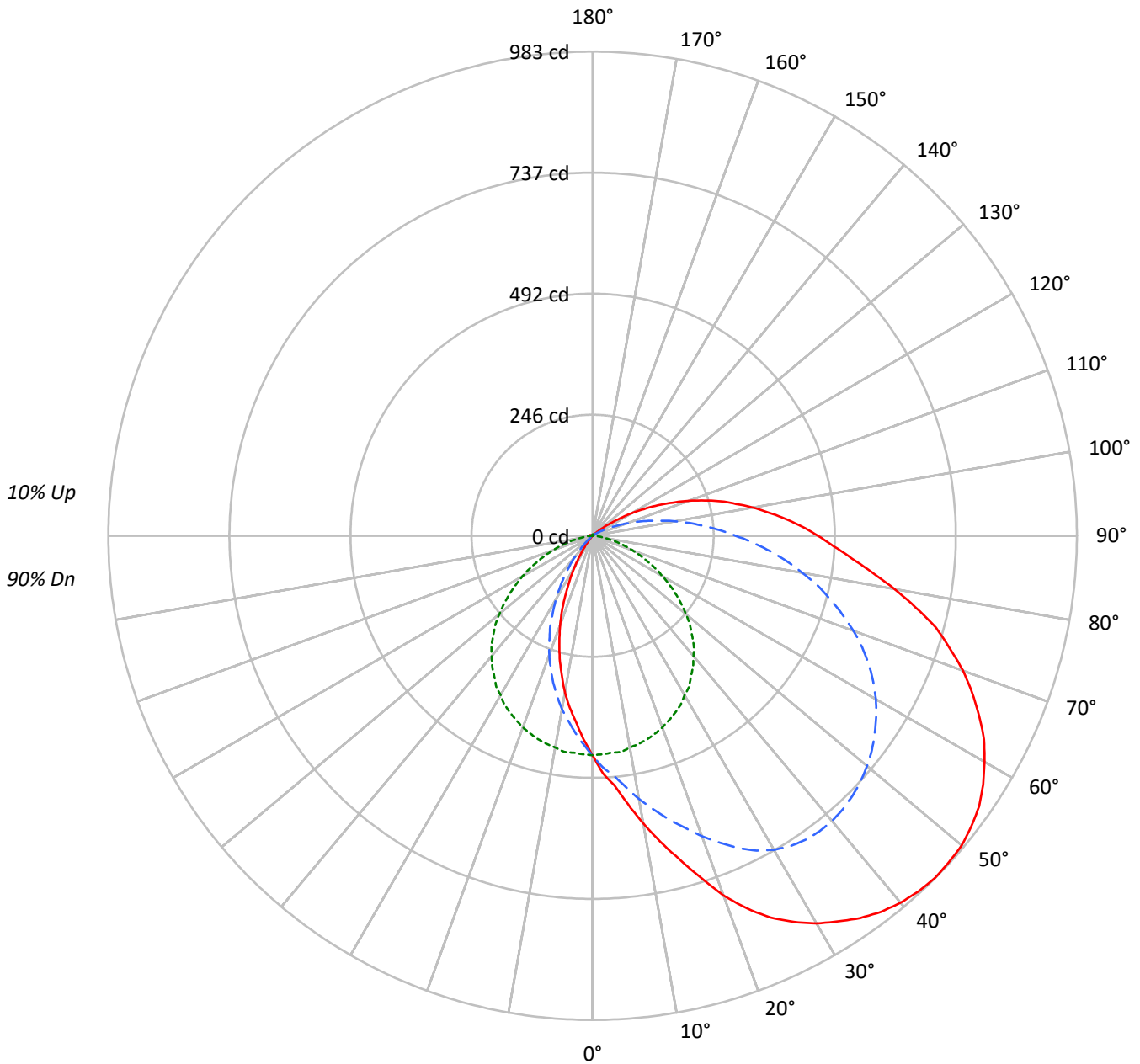
Lumens per Lamp: N/A
Luminaire Lumens: 2203.0 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P551686

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-97-ED1D

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°	4796	4796	4796
5°	5265	4726	3943
10°	5958	4668	3250
15°	6677	4608	2532
20°	7531	4534	1865
25°	8239	4446	1225
30°	8765	4330	690
35°	9221	4205	304
40°	9625	4050	73
45°	9972	3856	0
50°	10263	3598	0
55°	10484	3272	0
60°	10596	2893	0
65°	10640	2462	0
70°	10604	2008	0
75°	10470	1480	9
80°	10046	907	45
85°	9709	432	63



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.7	1.9
10°-20°	127.8	5.8
20°-30°	207.0	9.4
30°-40°	265.9	12.1
40°-50°	301.0	13.7
50°-60°	311.8	14.2
60°-70°	294.1	13.3
70°-80°	246.4	11.2
80°-90°	178.6	8.1
90°-100°	117.4	5.3
100°-110°	67.8	3.1
110°-120°	29.9	1.4
120°-130°	8.1	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°	377.5	17.1
0°-40°	643.3	29.2
0°-60°	1256.1	57.0
0°-90°	1975.2	89.7
90°-120°	215.1	9.8
90°-150°	226.3	10.3
90°-180°	228.0	10.3
0°-180°	2203.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	446	446	446	446	446	
5°	509	488	442	401	381	51
15°	680	596	427	309	258	196
25°	856	699	396	203	127	395
35°	947	754	348	99	31	594
45°	983	746	285	23	0	759
55°	958	699	206	0	0	855
65°	866	619	123	0	0	857
75°	722	499	52	1	1	757
85°	528	362	8	2	3	451
90°	458	290	2	3	4	251
95°	393	227	1	4	5	308
105°	270	117	1	3	4	285
115°	147	39	2	2	3	147
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	



TEST NUMBER: P551686

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6	445.6
2.5°	483.1	482.5	480.8	478.0	474.0	467.2	461.5	456.4	449.6	443.9	433.1
5°	508.6	505.8	503.5	500.7	491.6	485.4	475.1	463.8	453.0	442.2	420.6
7.5°	549.5	545.0	541.5	533.6	521.1	506.9	491.0	480.2	472.9	442.8	405.9
10°	593.2	589.2	582.4	568.2	552.9	532.5	509.8	484.2	461.5	436.5	392.8
12.5°	636.3	630.7	621.0	602.9	581.3	555.7	524.5	494.4	462.1	432.6	377.5
15°	679.5	673.2	663.0	640.9	612.5	579.0	541.0	502.9	464.9	427.4	361.6
17.5°	726.6	718.1	702.8	677.8	642.0	600.6	555.7	509.8	463.8	421.2	344.6
20°	777.1	765.2	748.7	715.3	673.2	624.4	570.5	516.6	463.2	413.8	325.3
22.5°	819.1	807.2	789.0	754.4	703.9	644.3	583.0	521.1	460.9	405.3	307.1
25°	855.5	845.8	825.9	786.2	732.9	665.3	594.9	524.5	457.5	396.2	287.8
27.5°	883.8	874.8	852.6	811.8	757.3	684.0	604.0	526.2	453.0	387.1	267.9
30°	908.8	899.7	873.1	831.1	773.7	698.8	613.1	526.8	447.3	373.5	246.4
32.5°	928.1	919.6	892.4	847.5	785.1	709.0	618.2	526.2	439.9	363.9	223.1
35°	947.4	938.9	907.1	859.4	793.6	713.6	622.2	523.4	430.9	348.0	201.0
37.5°	962.2	952.5	920.2	867.4	797.6	714.7	621.6	519.4	421.2	334.9	178.8
40°	972.4	962.2	927.6	871.9	798.7	713.0	617.0	512.6	409.9	318.5	155.5
42.5°	979.2	967.9	931.0	878.7	796.4	708.4	610.2	504.1	397.4	304.3	133.4
45°	982.6	970.7	931.5	873.1	792.5	699.9	600.0	493.3	383.7	285.0	111.3
47.5°	980.9	967.9	928.7	866.8	785.1	690.8	588.7	480.2	367.3	267.9	90.3
50°	978.1	964.5	922.4	858.9	774.9	679.5	576.2	464.3	350.2	246.9	71.5
52.5°	969.0	955.4	915.6	847.5	762.9	666.4	559.1	447.9	332.1	226.5	54.5
55°	957.6	945.2	903.7	837.3	747.6	650.5	543.3	430.3	314.5	205.5	39.2
57.5°	940.0	928.7	889.0	820.8	732.3	632.9	525.7	411.0	292.3	184.5	27.2
60°	918.5	907.1	868.5	802.1	714.7	613.1	506.4	391.1	272.5	163.5	17.0
62.5°	895.8	885.0	844.7	778.8	692.5	592.1	485.4	371.3	251.5	144.2	10.2
65°	865.7	855.5	819.1	751.0	668.1	569.4	462.1	347.4	229.9	122.6	5.7
67.5°	833.9	824.8	787.9	725.5	639.8	544.4	438.2	324.1	207.2	103.9	2.8
70°	799.8	788.5	754.4	690.8	610.8	516.0	412.1	300.3	185.6	85.7	0.0
72.5°	760.1	751.6	718.7	658.5	577.3	485.9	385.4	274.2	161.8	68.1	0.6
75°	721.5	710.7	680.6	623.9	544.4	454.1	355.9	249.8	138.5	52.2	0.6
77.5°	671.5	668.1	639.8	584.7	513.2	423.5	323.6	220.3	116.4	37.5	0.6
80°	621.6	618.2	596.0	545.5	476.8	387.1	293.5	192.4	94.8	25.0	0.6
82.5°	572.2	567.7	546.7	504.7	439.9	356.5	262.3	164.6	74.9	15.3	0.6
85°	527.9	522.2	499.5	460.9	401.9	321.9	229.9	137.4	55.6	8.5	1.1
87.5°	489.9	485.9	460.9	421.2	363.3	289.5	201.5	111.3	39.2	4.0	1.7
90°	457.5	449.0	426.9	384.9	327.0	253.7	171.4	89.1	26.1	2.3	2.3
92.5°	425.7	418.4	394.0	350.8	294.6	223.1	142.5	68.1	16.5	1.1	2.8
95°	392.8	384.9	361.0	321.3	261.7	191.9	116.9	50.0	9.1	1.1	2.8
97.5°	360.5	353.1	328.1	288.4	232.2	164.6	92.5	35.2	4.5	1.1	2.3
100°	330.4	321.9	299.2	259.4	202.7	137.4	71.5	22.7	2.8	1.1	2.3
102.5°	298.6	291.8	268.5	229.9	172.0	111.8	53.4	14.2	1.1	1.1	1.7
105°	270.2	261.7	239.0	199.2	146.5	88.0	37.5	8.5	1.1	1.1	1.7



TEST NUMBER: P551686

CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	176.0	169.2	149.3	115.8	74.4	34.6	10.2	1.7	1.7	1.7	1.7
115°	147.0	136.8	119.2	89.7	55.1	22.7	5.1	1.7	1.7	1.7	1.7
117.5°	117.5	109.0	96.5	68.1	36.3	14.8	2.8	1.7	1.7	1.7	1.7
120°	92.0	84.0	69.8	47.1	24.4	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	65.8	59.6	47.1	30.7	14.8	4.0	1.7	1.7	2.3	2.3	1.7
125°	43.7	40.3	31.2	18.7	9.1	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.4	25.5	18.2	10.8	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	15.9	14.2	10.8	6.2	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.1	8.5	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	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



TEST NUMBER: P551686

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	445.6	445.6	445.6
2.5°	424.0	416.1	413.8
5°	401.3	388.3	380.9
7.5°	378.6	361.0	352.5
10°	357.6	332.6	323.6
12.5°	332.6	303.7	289.5
15°	308.8	271.3	257.7
17.5°	282.1	240.1	224.2
20°	257.2	208.9	192.4
22.5°	228.8	178.2	160.1
25°	203.2	147.6	127.2
27.5°	174.8	116.4	98.8
30°	148.2	89.1	71.5
32.5°	122.6	65.3	49.4
35°	98.8	44.3	31.2
37.5°	76.1	27.2	15.9
40°	55.1	14.2	7.4
42.5°	36.9	6.8	4.0
45°	22.7	3.4	0.0
47.5°	13.1	0.0	0.0
50°	6.8	0.0	0.0
52.5°	2.8	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	1.1	1.7
80°	1.1	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.5	4.5
95°	4.0	4.5	5.1
97.5°	4.5	5.1	5.1
100°	4.0	5.1	5.7
102.5°	3.4	5.1	5.1
105°	2.8	4.0	4.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-50-UNV-82-97-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
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	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	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°	238.4	231.6	208.9	171.4	119.8	67.0	25.0	4.5	1.1	1.7	1.7
110°	207.8	202.1	178.8	142.5	96.5	50.0	16.5	2.8	1.7	1.7	1.7





107.5°	2.3	3.4	4.0
110°	2.3	2.8	3.4



(END OF REPORT)