

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: P551160

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-82-84-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: P551160
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-LD4-1STD-50-UNV-82-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

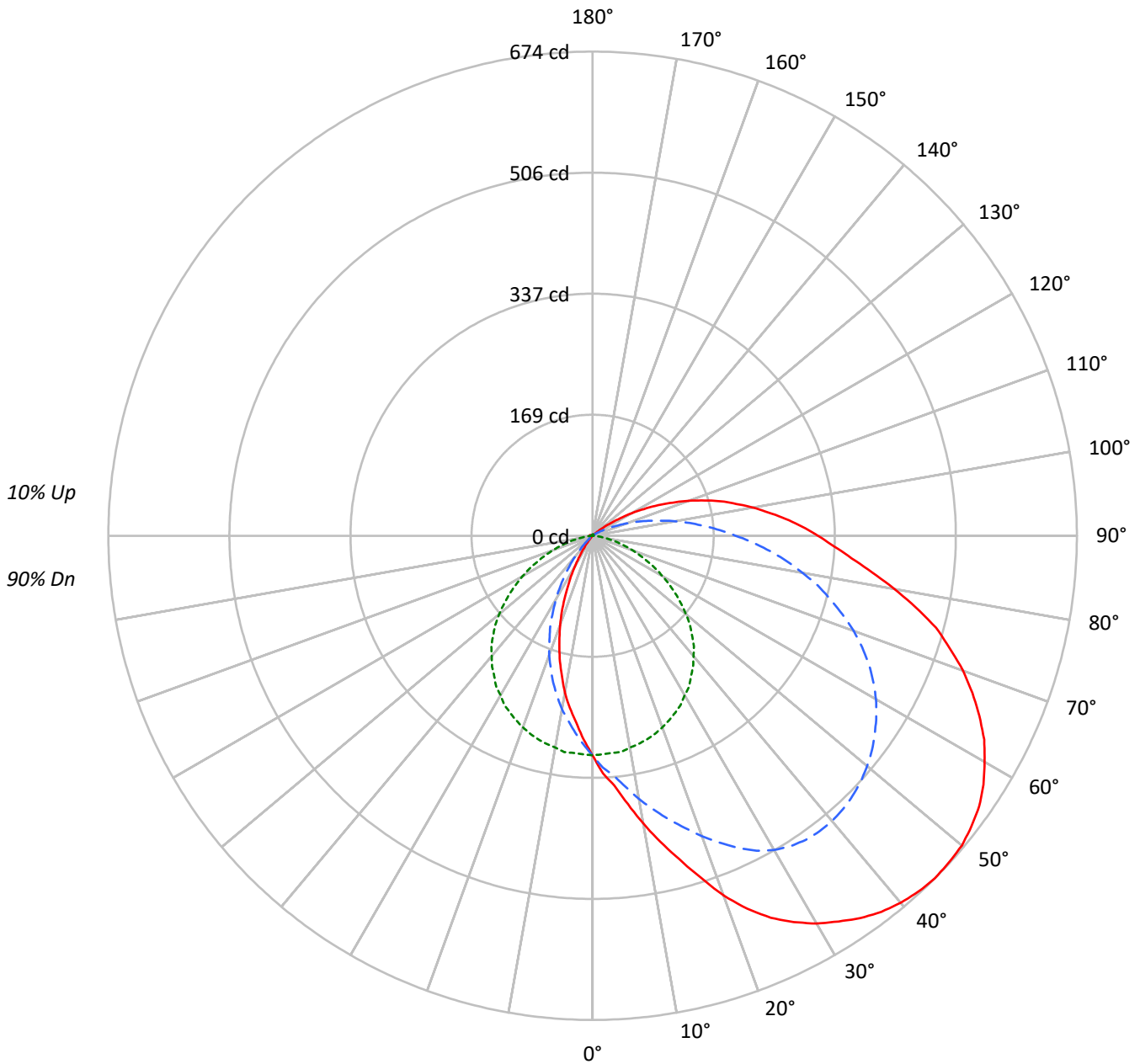
Lumens per Lamp: N/A
Luminaire Lumens: 1511.1 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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

TEST NUMBER: P551160

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-84-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551160

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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°	3289	3289	3289
5°	3612	3242	2705
10°	4087	3202	2229
15°	4580	3161	1737
20°	5165	3109	1279
25°	5651	3050	840
30°	6012	2970	474
35°	6324	2884	208
40°	6602	2777	50
45°	6840	2645	0
50°	7039	2469	0
55°	7191	2244	0
60°	7268	1984	0
65°	7298	1689	0
70°	7273	1377	0
75°	7181	1015	6
80°	6889	620	31
85°	6660	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	1.9
10°-20°	87.7	5.8
20°-30°	142.0	9.4
30°-40°	182.4	12.1
40°-50°	206.4	13.7
50°-60°	213.9	14.2
60°-70°	201.7	13.3
70°-80°	169.0	11.2
80°-90°	122.5	8.1
90°-100°	80.5	5.3
100°-110°	46.5	3.1
110°-120°	20.5	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	258.9	17.1
0°-40°	441.2	29.2
0°-60°	861.5	57.0
0°-90°	1354.7	89.7
90°-120°	147.6	9.8
90°-150°	155.3	10.3
90°-180°	156.0	10.3
0°-180°	1511.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	306	306	306	306	306	
5°	349	335	303	275	261	35
15°	466	409	293	212	177	134
25°	587	479	272	139	87	271
35°	650	517	239	68	21	408
45°	674	512	196	16	0	520
55°	657	480	141	0	0	587
65°	594	424	84	0	0	587
75°	495	342	36	0	0	519
85°	362	248	6	2	2	309
90°	314	199	2	2	3	172
95°	269	156	1	3	4	211
105°	185	80	1	2	3	196
115°	101	27	1	1	2	101
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551160

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	305.6	305.6	305.6	305.6	305.6	305.6	305.6	305.6	305.6	305.6	305.6
2.5°	331.3	330.9	329.8	327.8	325.1	320.4	316.5	313.0	308.4	304.5	297.1
5°	348.9	346.9	345.4	343.4	337.2	332.9	325.9	318.1	310.7	303.3	288.5
7.5°	376.9	373.8	371.4	366.0	357.4	347.7	336.8	329.4	324.3	303.7	278.4
10°	406.9	404.1	399.5	389.7	379.2	365.2	349.6	332.1	316.5	299.4	269.4
12.5°	436.5	432.6	425.9	413.5	398.7	381.2	359.8	339.1	316.9	296.7	258.9
15°	466.1	461.8	454.8	439.6	420.1	397.1	371.0	345.0	318.9	293.2	248.0
17.5°	498.4	492.5	482.0	464.9	440.4	411.9	381.2	349.6	318.1	288.9	236.3
20°	533.0	524.8	513.6	490.6	461.8	428.3	391.3	354.3	317.7	283.8	223.1
22.5°	561.8	553.7	541.2	517.4	482.8	441.9	399.9	357.4	316.2	278.0	210.6
25°	586.7	580.1	566.5	539.2	502.6	456.3	408.0	359.8	313.8	271.8	197.4
27.5°	606.2	600.0	584.8	556.8	519.4	469.2	414.3	360.9	310.7	265.5	183.8
30°	623.3	617.1	598.8	570.0	530.7	479.3	420.5	361.3	306.8	256.2	169.0
32.5°	636.6	630.7	612.1	581.3	538.5	486.3	424.0	360.9	301.7	249.6	153.0
35°	649.8	644.0	622.2	589.5	544.3	489.4	426.7	359.0	295.5	238.7	137.8
37.5°	659.9	653.3	631.1	594.9	547.0	490.2	426.3	356.3	288.9	229.7	122.6
40°	667.0	659.9	636.2	598.0	547.8	489.0	423.2	351.6	281.1	218.4	106.7
42.5°	671.6	663.8	638.5	602.7	546.3	485.9	418.6	345.7	272.5	208.7	91.5
45°	674.0	665.8	638.9	598.8	543.5	480.1	411.5	338.3	263.2	195.5	76.3
47.5°	672.8	663.8	637.0	594.5	538.5	473.8	403.8	329.4	251.9	183.8	61.9
50°	670.8	661.5	632.7	589.1	531.5	466.1	395.2	318.5	240.2	169.4	49.1
52.5°	664.6	655.3	628.0	581.3	523.3	457.1	383.5	307.2	227.8	155.4	37.4
55°	656.8	648.3	619.8	574.3	512.8	446.2	372.6	295.1	215.7	140.9	26.9
57.5°	644.8	637.0	609.7	563.0	502.3	434.1	360.5	281.9	200.5	126.5	18.7
60°	630.0	622.2	595.7	550.2	490.2	420.5	347.3	268.3	186.9	112.1	11.7
62.5°	614.4	607.0	579.4	534.2	475.0	406.1	332.9	254.6	172.5	98.9	7.0
65°	593.8	586.7	561.8	515.1	458.3	390.5	316.9	238.3	157.7	84.1	3.9
67.5°	572.0	565.7	540.4	497.6	438.8	373.4	300.6	222.3	142.1	71.3	1.9
70°	548.6	540.8	517.4	473.8	418.9	353.9	282.7	206.0	127.3	58.8	0.0
72.5°	521.3	515.5	492.9	451.6	396.0	333.3	264.4	188.1	111.0	46.7	0.4
75°	494.9	487.5	466.8	427.9	373.4	311.5	244.1	171.3	95.0	35.8	0.4
77.5°	460.6	458.3	438.8	401.0	352.0	290.5	221.9	151.1	79.8	25.7	0.4
80°	426.3	424.0	408.8	374.2	327.1	265.5	201.3	132.0	65.0	17.1	0.4
82.5°	392.5	389.3	374.9	346.1	301.7	244.5	179.9	112.9	51.4	10.5	0.4
85°	362.1	358.2	342.6	316.2	275.7	220.8	157.7	94.2	38.2	5.8	0.8
87.5°	336.0	333.3	316.2	288.9	249.2	198.6	138.2	76.3	26.9	2.7	1.2
90°	313.8	308.0	292.8	264.0	224.3	174.0	117.6	61.1	17.9	1.6	1.6
92.5°	292.0	287.0	270.2	240.6	202.1	153.0	97.7	46.7	11.3	0.8	1.9
95°	269.4	264.0	247.6	220.4	179.5	131.6	80.2	34.3	6.2	0.8	1.9
97.5°	247.2	242.2	225.0	197.8	159.2	112.9	63.5	24.1	3.1	0.8	1.6
100°	226.6	220.8	205.2	177.9	139.0	94.2	49.1	15.6	1.9	0.8	1.6
102.5°	204.8	200.1	184.2	157.7	118.0	76.7	36.6	9.7	0.8	0.8	1.2
105°	185.3	179.5	163.9	136.7	100.5	60.3	25.7	5.8	0.8	0.8	1.2



TEST NUMBER: P551160

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	120.7	116.0	102.4	79.4	51.0	23.8	7.0	1.2	1.2	1.2	1.2
115°	100.8	93.8	81.8	61.5	37.8	15.6	3.5	1.2	1.2	1.2	1.2
117.5°	80.6	74.8	66.2	46.7	24.9	10.1	1.9	1.2	1.2	1.2	1.2
120°	63.1	57.6	47.9	32.3	16.7	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	45.2	40.9	32.3	21.0	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	30.0	27.6	21.4	12.8	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.5	17.5	12.5	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.7	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.9	1.9	1.9	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P551160

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	305.6	305.6	305.6
2.5°	290.8	285.4	283.8
5°	275.3	266.3	261.3
7.5°	259.7	247.6	241.8
10°	245.3	228.2	221.9
12.5°	228.2	208.3	198.6
15°	211.8	186.1	176.8
17.5°	193.5	164.7	153.8
20°	176.4	143.3	132.0
22.5°	156.9	122.3	109.8
25°	139.4	101.2	87.2
27.5°	119.9	79.8	67.7
30°	101.6	61.1	49.1
32.5°	84.1	44.8	33.9
35°	67.7	30.4	21.4
37.5°	52.2	18.7	10.9
40°	37.8	9.7	5.1
42.5°	25.3	4.7	2.7
45°	15.6	2.3	0.0
47.5°	9.0	0.0	0.0
50°	4.7	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	1.9
82.5°	1.6	1.9	1.9
85°	1.6	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-82-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	1.9	1.9
115°	1.2	1.6	1.9
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	163.5	158.9	143.3	117.6	82.2	45.9	17.1	3.1	0.8	1.2	1.2
110°	142.5	138.6	122.6	97.7	66.2	34.3	11.3	1.9	1.2	1.2	1.2





107.5°	1.6	2.3	2.7
110°	1.6	1.9	2.3



(END OF REPORT)