

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: P551157

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-81-97-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: P551157
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-81-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

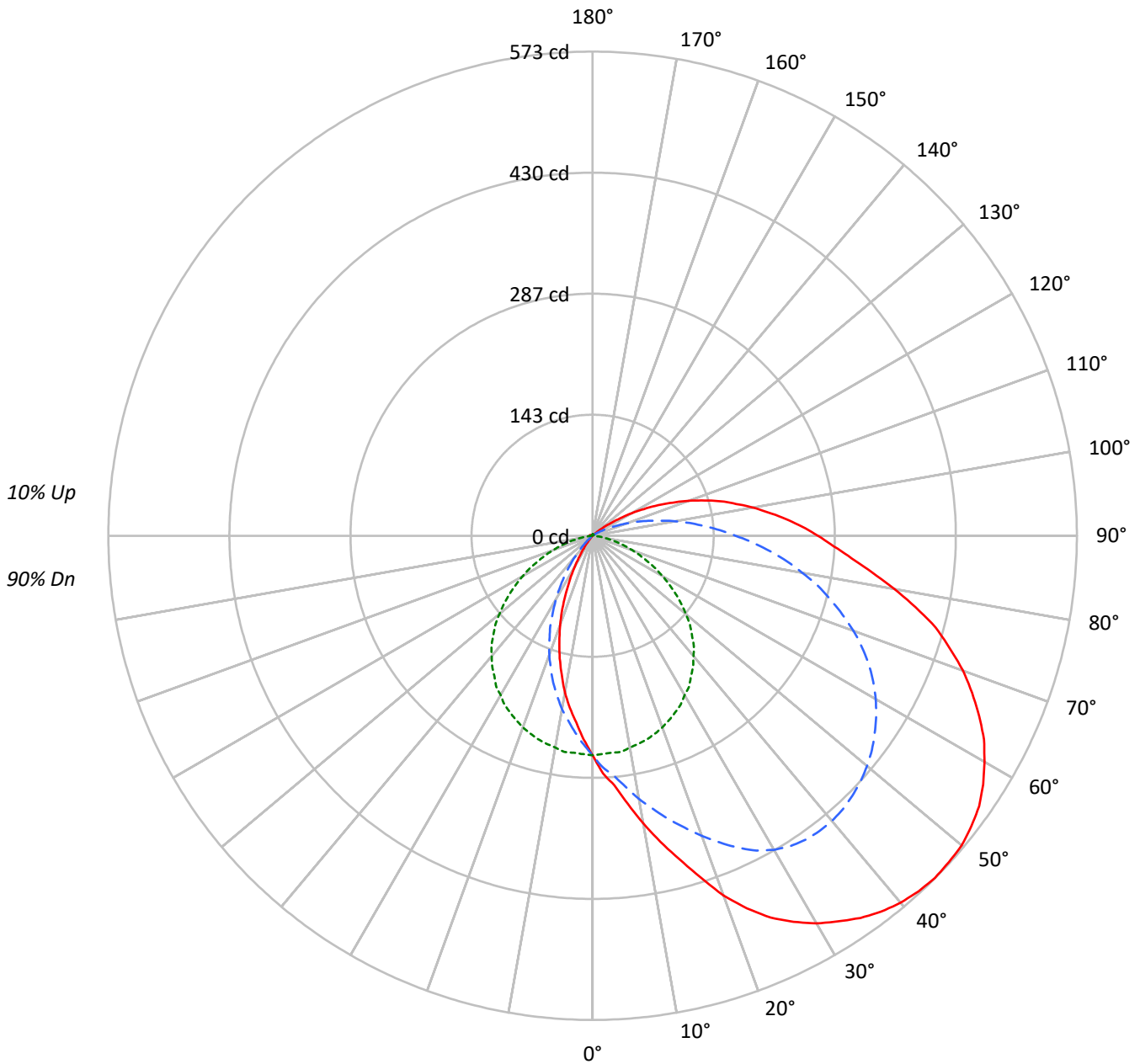
Lumens per Lamp: N/A
Luminaire Lumens: 1284.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

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°	2795	2795	2795
5°	3068	2754	2298
10°	3472	2721	1894
15°	3892	2686	1476
20°	4389	2643	1087
25°	4802	2591	714
30°	5109	2524	402
35°	5374	2450	177
40°	5610	2360	43
45°	5812	2248	0
50°	5982	2097	0
55°	6111	1908	0
60°	6176	1686	0
65°	6202	1436	0
70°	6181	1171	0
75°	6102	862	4
80°	5855	530	27
85°	5659	254	37



TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	1.9
10°-20°	74.5	5.8
20°-30°	120.6	9.4
30°-40°	155.0	12.1
40°-50°	175.4	13.7
50°-60°	181.7	14.2
60°-70°	171.4	13.3
70°-80°	143.6	11.2
80°-90°	104.1	8.1
90°-100°	68.4	5.3
100°-110°	39.5	3.1
110°-120°	17.4	1.4
120°-130°	4.7	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	220.0	17.1
0°-40°	374.9	29.2
0°-60°	732.1	57.0
0°-90°	1151.2	89.7
90°-120°	125.4	9.8
90°-150°	131.9	10.3
90°-180°	133.0	10.4
0°-180°	1284.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	260	260	260	260	260	
5°	296	285	258	234	222	30
15°	396	347	249	180	150	114
25°	499	407	231	118	74	230
35°	552	439	203	58	18	346
45°	573	435	166	13	0	442
55°	558	407	120	0	0	498
65°	505	361	72	0	0	499
75°	420	291	30	0	0	441
85°	308	211	5	1	2	263
90°	267	169	1	2	2	146
95°	229	132	1	2	3	180
105°	158	68	1	2	3	166
115°	86	23	1	1	2	86
125°	26	3	1	1	1	25
135°	1	1	2	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	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	259.7	259.7	259.7	259.7	259.7	259.7	259.7	259.7	259.7	259.7	259.7
2.5°	281.6	281.2	280.2	278.6	276.3	272.3	269.0	266.0	262.0	258.7	252.4
5°	296.4	294.8	293.5	291.8	286.5	282.9	276.9	270.3	264.0	257.7	245.2
7.5°	320.3	317.6	315.6	311.0	303.7	295.5	286.2	279.9	275.6	258.1	236.6
10°	345.7	343.4	339.5	331.2	322.3	310.3	297.1	282.2	269.0	254.4	229.0
12.5°	370.9	367.6	362.0	351.4	338.8	323.9	305.7	288.2	269.3	252.1	220.0
15°	396.0	392.4	386.4	373.5	357.0	337.5	315.3	293.1	271.0	249.1	210.8
17.5°	423.5	418.5	409.6	395.0	374.2	350.0	323.9	297.1	270.3	245.5	200.8
20°	452.9	446.0	436.4	416.9	392.4	363.9	332.5	301.1	270.0	241.2	189.6
22.5°	477.4	470.5	459.9	439.7	410.3	375.5	339.8	303.7	268.7	236.2	179.0
25°	498.6	493.0	481.4	458.2	427.1	387.8	346.7	305.7	266.7	230.9	167.7
27.5°	515.1	509.8	496.9	473.1	441.4	398.7	352.0	306.7	264.0	225.6	156.2
30°	529.7	524.4	508.9	484.4	451.0	407.3	357.3	307.0	260.7	217.7	143.6
32.5°	541.0	536.0	520.1	494.0	457.6	413.2	360.3	306.7	256.4	212.1	130.0
35°	552.2	547.2	528.7	500.9	462.5	415.9	362.6	305.0	251.1	202.8	117.1
37.5°	560.8	555.2	536.3	505.5	464.9	416.5	362.3	302.7	245.5	195.2	104.2
40°	566.8	560.8	540.6	508.2	465.5	415.6	359.6	298.8	238.9	185.6	90.7
42.5°	570.7	564.1	542.6	512.2	464.2	412.9	355.7	293.8	231.6	177.3	77.8
45°	572.7	565.8	542.9	508.9	461.9	407.9	349.7	287.5	223.7	166.1	64.8
47.5°	571.7	564.1	541.3	505.2	457.6	402.7	343.1	279.9	214.1	156.2	52.6
50°	570.1	562.1	537.6	500.6	451.6	396.0	335.8	270.6	204.1	143.9	41.7
52.5°	564.8	556.8	533.7	494.0	444.7	388.4	325.9	261.0	193.6	132.0	31.8
55°	558.2	550.9	526.7	488.0	435.7	379.2	316.6	250.8	183.3	119.8	22.8
57.5°	547.9	541.3	518.1	478.4	426.8	368.9	306.4	239.5	170.4	107.5	15.9
60°	535.3	528.7	506.2	467.5	416.5	357.3	295.1	228.0	158.8	95.3	9.9
62.5°	522.1	515.8	492.3	453.9	403.6	345.1	282.9	216.4	146.6	84.0	6.0
65°	504.6	498.6	477.4	437.7	389.4	331.8	269.3	202.5	134.0	71.5	3.3
67.5°	486.0	480.7	459.2	422.8	372.9	317.3	255.4	188.9	120.8	60.5	1.7
70°	466.2	459.6	439.7	402.7	356.0	300.7	240.2	175.0	108.2	50.0	0.0
72.5°	443.0	438.1	418.9	383.8	336.5	283.2	224.7	159.8	94.3	39.7	0.3
75°	420.5	414.2	396.7	363.6	317.3	264.7	207.4	145.6	80.7	30.4	0.3
77.5°	391.4	389.4	372.9	340.8	299.1	246.8	188.6	128.4	67.8	21.8	0.3
80°	362.3	360.3	347.4	318.0	277.9	225.6	171.1	112.2	55.3	14.6	0.3
82.5°	333.5	330.9	318.6	294.1	256.4	207.8	152.9	95.9	43.7	8.9	0.3
85°	307.7	304.4	291.2	268.7	234.2	187.6	134.0	80.1	32.4	5.0	0.7
87.5°	285.5	283.2	268.7	245.5	211.7	168.7	117.5	64.8	22.8	2.3	1.0
90°	266.7	261.7	248.8	224.3	190.6	147.9	99.9	51.9	15.2	1.3	1.3
92.5°	248.1	243.8	229.6	204.5	171.7	130.0	83.0	39.7	9.6	0.7	1.7
95°	229.0	224.3	210.4	187.3	152.5	111.8	68.2	29.1	5.3	0.7	1.7
97.5°	210.1	205.8	191.2	168.1	135.3	95.9	53.9	20.5	2.6	0.7	1.3
100°	192.6	187.6	174.4	151.2	118.1	80.1	41.7	13.2	1.7	0.7	1.3
102.5°	174.0	170.1	156.5	134.0	100.2	65.2	31.1	8.3	0.7	0.7	1.0
105°	157.5	152.5	139.3	116.1	85.4	51.3	21.8	5.0	0.7	0.7	1.0



TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	102.6	98.6	87.0	67.5	43.3	20.2	6.0	1.0	1.0	1.0	1.0
115°	85.7	79.7	69.5	52.3	32.1	13.2	3.0	1.0	1.0	1.0	1.0
117.5°	68.5	63.5	56.2	39.7	21.2	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.6	49.0	40.7	27.5	14.2	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.4	34.7	27.5	17.9	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.5	23.5	18.2	10.9	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.5	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	259.7	259.7	259.7
2.5°	247.1	242.5	241.2
5°	233.9	226.3	222.0
7.5°	220.7	210.4	205.5
10°	208.4	193.9	188.6
12.5°	193.9	177.0	168.7
15°	180.0	158.1	150.2
17.5°	164.4	140.0	130.7
20°	149.9	121.8	112.2
22.5°	133.3	103.9	93.3
25°	118.4	86.0	74.1
27.5°	101.9	67.8	57.6
30°	86.4	51.9	41.7
32.5°	71.5	38.0	28.8
35°	57.6	25.8	18.2
37.5°	44.3	15.9	9.3
40°	32.1	8.3	4.3
42.5°	21.5	4.0	2.3
45°	13.2	2.0	0.0
47.5°	7.6	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.6



TEST NUMBER: P551157

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	139.0	135.0	121.8	99.9	69.8	39.0	14.6	2.6	0.7	1.0	1.0
110°	121.1	117.8	104.2	83.0	56.2	29.1	9.6	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)