

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: P550665

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-85-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: P550665
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-LD4-1HI-50-UNV-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

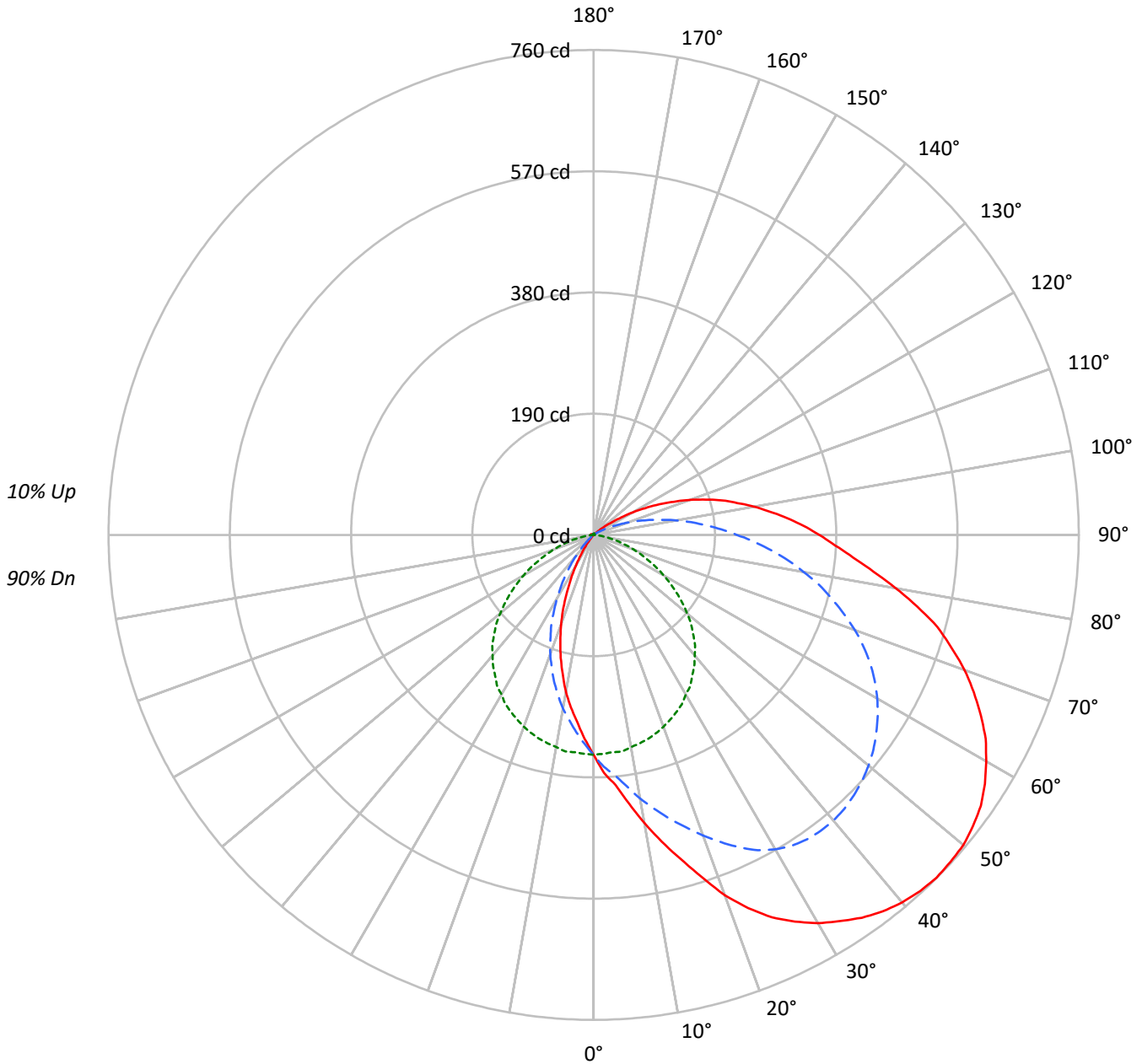
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1703.0 lumens
Efficiency: N/A
Efficacy: 78.5 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): 21.7
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: P550665
CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-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°	3708	3708	3708
5°	4070	3653	3049
10°	4606	3609	2512
15°	5162	3563	1958
20°	5821	3505	1442
25°	6369	3437	947
30°	6776	3347	533
35°	7128	3250	235
40°	7441	3131	56
45°	7709	2981	0
50°	7934	2782	0
55°	8105	2530	0
60°	8191	2237	0
65°	8225	1904	0
70°	8198	1553	0
75°	8093	1146	6
80°	7765	700	36
85°	7506	336	48



TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	1.9
10°-20°	98.8	5.8
20°-30°	160.0	9.4
30°-40°	205.5	12.1
40°-50°	232.7	13.7
50°-60°	241.0	14.2
60°-70°	227.3	13.3
70°-80°	190.5	11.2
80°-90°	138.1	8.1
90°-100°	90.8	5.3
100°-110°	52.4	3.1
110°-120°	23.1	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	291.8	17.1
0°-40°	497.3	29.2
0°-60°	971.0	57.0
0°-90°	1526.9	89.7
90°-120°	166.3	9.8
90°-150°	175.0	10.3
90°-180°	176.0	10.3
0°-180°	1703.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	344	344	344	344	344	
5°	393	378	342	310	294	40
15°	525	461	330	239	199	151
25°	661	540	306	157	98	306
35°	732	583	269	76	24	459
45°	760	577	220	18	0	586
55°	740	540	159	0	0	661
65°	669	478	95	0	0	662
75°	558	386	40	0	0	585
85°	408	280	7	2	3	348
90°	354	224	2	3	3	194
95°	304	175	1	3	4	238
105°	209	91	1	2	4	220
115°	114	30	1	1	2	114
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	344.5	344.5	344.5	344.5	344.5	344.5	344.5	344.5	344.5	344.5	344.5
2.5°	373.4	373.0	371.7	369.5	366.4	361.2	356.8	352.8	347.5	343.2	334.8
5°	393.2	391.0	389.2	387.0	380.0	375.2	367.3	358.5	350.2	341.8	325.2
7.5°	424.8	421.3	418.6	412.5	402.8	391.9	379.6	371.2	365.5	342.3	313.8
10°	458.6	455.5	450.2	439.3	427.4	411.6	394.1	374.3	356.8	337.5	303.7
12.5°	491.9	487.5	480.1	466.0	449.4	429.6	405.5	382.2	357.2	334.4	291.8
15°	525.3	520.4	512.5	495.4	473.5	447.6	418.2	388.8	359.4	330.4	279.5
17.5°	561.7	555.1	543.3	524.0	496.3	464.3	429.6	394.1	358.5	325.6	266.4
20°	600.7	591.5	578.8	552.9	520.4	482.7	441.0	399.3	358.1	319.9	251.4
22.5°	633.2	624.0	610.0	583.2	544.1	498.1	450.7	402.8	356.3	313.3	237.4
25°	661.3	653.8	638.5	607.8	566.5	514.3	459.9	405.5	353.7	306.3	222.5
27.5°	683.2	676.2	659.1	627.5	585.4	528.8	466.9	406.8	350.2	299.3	207.1
30°	702.6	695.5	674.9	642.4	598.1	540.2	473.9	407.2	345.8	288.7	190.4
32.5°	717.5	710.9	689.8	655.2	606.9	548.1	477.9	406.8	340.1	281.3	172.5
35°	732.4	725.8	701.2	664.4	613.5	551.6	480.9	404.6	333.1	269.0	155.3
37.5°	743.8	736.3	711.3	670.5	616.5	552.5	480.5	401.5	325.6	258.9	138.2
40°	751.7	743.8	717.0	674.0	617.4	551.2	477.0	396.3	316.8	246.2	120.2
42.5°	757.0	748.2	719.7	679.3	615.7	547.7	471.7	389.7	307.2	235.2	103.1
45°	759.6	750.4	720.1	674.9	612.6	541.1	463.8	381.3	296.6	220.3	86.0
47.5°	758.3	748.2	717.9	670.1	606.9	534.0	455.1	371.2	283.9	207.1	69.8
50°	756.1	745.6	713.1	663.9	599.0	525.3	445.4	359.0	270.8	190.9	55.3
52.5°	749.1	738.5	707.8	655.2	589.8	515.2	432.2	346.2	256.7	175.1	42.1
55°	740.3	730.6	698.6	647.3	577.9	502.9	420.0	332.6	243.1	158.9	30.3
57.5°	726.7	717.9	687.2	634.5	566.1	489.3	406.4	317.7	226.0	142.6	21.1
60°	710.0	701.2	671.4	620.1	552.5	473.9	391.4	302.3	210.6	126.4	13.2
62.5°	692.5	684.1	653.0	602.1	535.4	457.7	375.2	287.0	194.4	111.5	7.9
65°	669.2	661.3	633.2	580.6	516.5	440.1	357.2	268.6	177.7	94.8	4.4
67.5°	644.6	637.6	609.1	560.8	494.6	420.8	338.8	250.6	160.2	80.3	2.2
70°	618.3	609.5	583.2	534.0	472.2	398.9	318.6	232.1	143.5	66.3	0.0
72.5°	587.6	581.0	555.5	509.0	446.3	375.6	298.0	212.0	125.1	52.7	0.4
75°	557.7	549.4	526.1	482.3	420.8	351.1	275.1	193.1	107.1	40.4	0.4
77.5°	519.1	516.5	494.6	452.0	396.7	327.4	250.1	170.3	90.0	29.0	0.4
80°	480.5	477.9	460.8	421.7	368.6	299.3	226.9	148.8	73.3	19.3	0.4
82.5°	442.3	438.8	422.6	390.1	340.1	275.6	202.7	127.3	57.9	11.8	0.4
85°	408.1	403.7	386.2	356.3	310.7	248.8	177.7	106.2	43.0	6.6	0.9
87.5°	378.7	375.6	356.3	325.6	280.8	223.8	155.8	86.0	30.3	3.1	1.3
90°	353.7	347.1	330.0	297.5	252.8	196.2	132.5	68.9	20.2	1.8	1.8
92.5°	329.1	323.4	304.5	271.2	227.7	172.5	110.1	52.7	12.7	0.9	2.2
95°	303.7	297.5	279.1	248.4	202.3	148.3	90.4	38.6	7.0	0.9	2.2
97.5°	278.7	272.9	253.6	222.9	179.5	127.3	71.5	27.2	3.5	0.9	1.8
100°	255.4	248.8	231.3	200.5	156.7	106.2	55.3	17.6	2.2	0.9	1.8
102.5°	230.8	225.6	207.6	177.7	133.0	86.4	41.2	11.0	0.9	0.9	1.3
105°	208.9	202.3	184.7	154.0	113.2	68.0	29.0	6.6	0.9	0.9	1.3



TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	136.0	130.8	115.4	89.5	57.5	26.8	7.9	1.3	1.3	1.3	1.3
115°	113.7	105.8	92.2	69.3	42.6	17.6	3.9	1.3	1.3	1.3	1.3
117.5°	90.8	84.3	74.6	52.7	28.1	11.4	2.2	1.3	1.3	1.3	1.3
120°	71.1	64.9	54.0	36.4	18.9	6.6	0.9	1.3	1.3	1.3	1.3
122.5°	50.9	46.1	36.4	23.7	11.4	3.1	1.3	1.3	1.8	1.8	1.3
125°	33.8	31.2	24.1	14.5	7.0	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	21.9	19.7	14.0	8.3	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.3	11.0	8.3	4.8	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.0	6.6	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	344.5	344.5	344.5
2.5°	327.8	321.7	319.9
5°	310.2	300.2	294.5
7.5°	292.7	279.1	272.5
10°	276.5	257.2	250.1
12.5°	257.2	234.8	223.8
15°	238.7	209.8	199.2
17.5°	218.1	185.6	173.3
20°	198.8	161.5	148.8
22.5°	176.8	137.8	123.7
25°	157.1	114.1	98.3
27.5°	135.2	90.0	76.4
30°	114.5	68.9	55.3
32.5°	94.8	50.5	38.2
35°	76.4	34.2	24.1
37.5°	58.8	21.1	12.3
40°	42.6	11.0	5.7
42.5°	28.5	5.3	3.1
45°	17.6	2.6	0.0
47.5°	10.1	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.6
87.5°	2.2	2.6	3.1
90°	2.6	3.1	3.1
92.5°	2.6	3.5	3.5
95°	3.1	3.5	3.9
97.5°	3.5	3.9	3.9
100°	3.1	3.9	4.4
102.5°	2.6	3.9	3.9
105°	2.2	3.1	3.5



TEST NUMBER: P550665

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	184.3	179.0	161.5	132.5	92.6	51.8	19.3	3.5	0.9	1.3	1.3
110°	160.6	156.2	138.2	110.1	74.6	38.6	12.7	2.2	1.3	1.3	1.3





107.5°	1.8	2.6	3.1
110°	1.8	2.2	2.6



(END OF REPORT)