

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: P551112

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-84-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: P551112
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-40-UNV-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

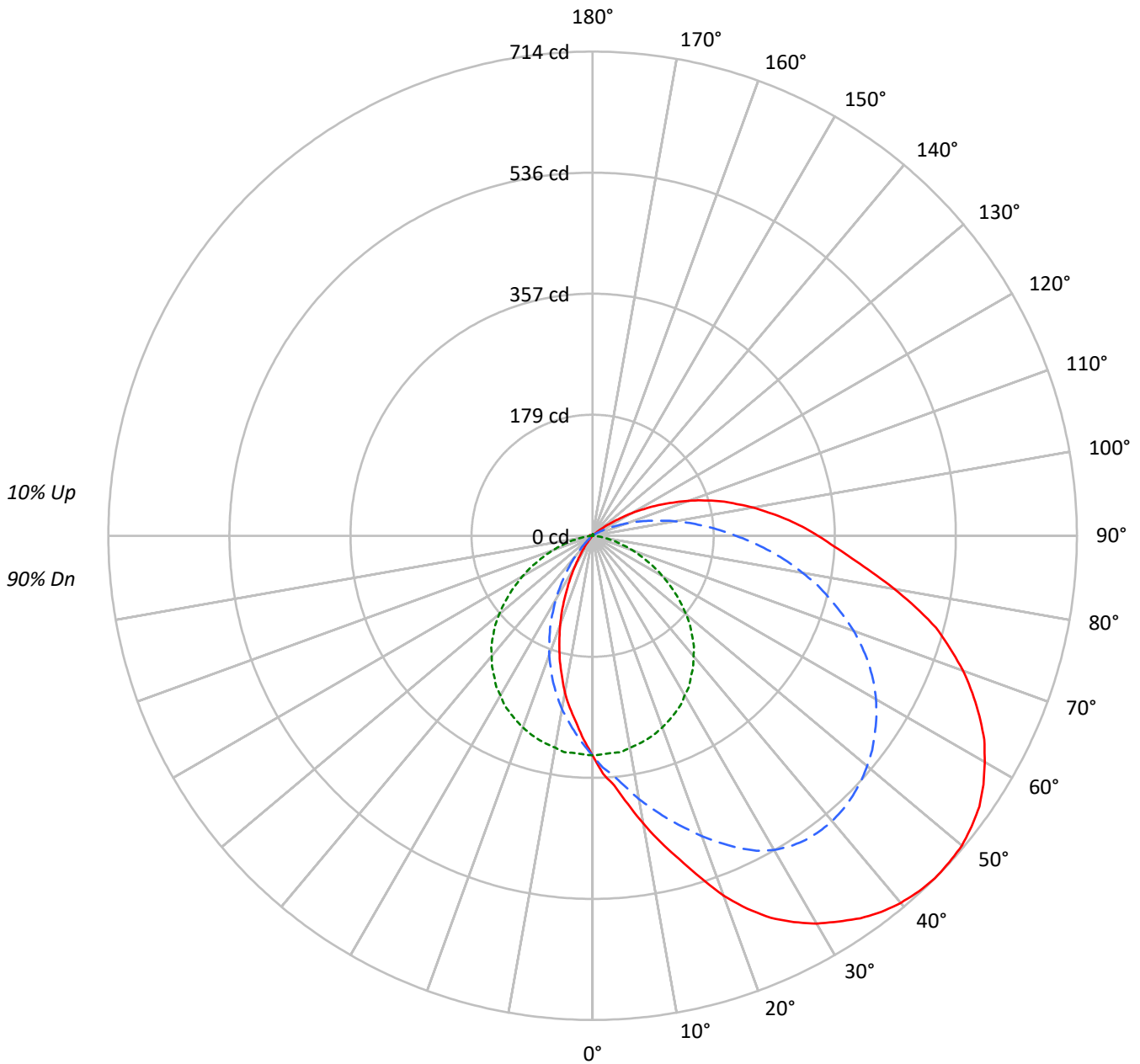
Lumens per Lamp: N/A
Luminaire Lumens: 1601.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

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°	3485	3485	3485
5°	3826	3435	2865
10°	4330	3392	2361
15°	4853	3349	1841
20°	5474	3295	1356
25°	5988	3232	890
30°	6370	3147	502
35°	6701	3056	221
40°	6995	2943	53
45°	7247	2802	0
50°	7458	2616	0
55°	7620	2377	0
60°	7701	2102	0
65°	7732	1790	0
70°	7707	1459	0
75°	7608	1078	6
80°	7300	660	34
85°	7057	315	46



TEST NUMBER: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	1.9
10°-20°	92.9	5.8
20°-30°	150.4	9.4
30°-40°	193.2	12.1
40°-50°	218.7	13.7
50°-60°	226.6	14.2
60°-70°	213.7	13.3
70°-80°	179.1	11.2
80°-90°	129.8	8.1
90°-100°	85.3	5.3
100°-110°	49.3	3.1
110°-120°	21.7	1.4
120°-130°	5.9	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	274.3	17.1
0°-40°	467.5	29.2
0°-60°	912.8	57.0
0°-90°	1435.5	89.7
90°-120°	156.3	9.8
90°-150°	164.4	10.3
90°-180°	166.0	10.4
0°-180°	1601.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	324	324	324	324	324	
5°	370	355	321	292	277	37
15°	494	433	311	224	187	142
25°	622	508	288	148	92	287
35°	688	548	253	72	23	432
45°	714	542	207	16	0	551
55°	696	508	149	0	0	621
65°	629	450	89	0	0	622
75°	524	363	38	0	0	550
85°	384	263	6	2	2	328
90°	332	211	2	2	3	182
95°	286	165	1	3	4	224
105°	196	85	1	2	3	207
115°	107	28	1	1	2	107
125°	32	4	2	1	2	32
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: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8
2.5°	351.1	350.7	349.4	347.4	344.5	339.5	335.4	331.7	326.7	322.6	314.8
5°	369.6	367.6	365.9	363.9	357.3	352.7	345.3	337.0	329.2	321.4	305.7
7.5°	399.3	396.0	393.6	387.8	378.7	368.4	356.8	349.0	343.6	321.8	295.0
10°	431.1	428.2	423.3	413.0	401.8	387.0	370.5	351.9	335.4	317.2	285.5
12.5°	462.5	458.3	451.3	438.1	422.4	403.9	381.2	359.3	335.8	314.4	274.3
15°	493.8	489.3	481.8	465.8	445.1	420.8	393.2	365.5	337.9	310.6	262.8
17.5°	528.1	521.9	510.7	492.6	466.6	436.5	403.9	370.5	337.0	306.1	250.4
20°	564.8	556.1	544.1	519.8	489.3	453.8	414.6	375.4	336.6	300.7	236.4
22.5°	595.3	586.6	573.4	548.3	511.5	468.2	423.7	378.7	335.0	294.6	223.2
25°	621.7	614.7	600.2	571.4	532.6	483.5	432.3	381.2	332.5	288.0	209.2
27.5°	642.3	635.7	619.6	589.9	550.3	497.1	438.9	382.4	329.2	281.4	194.7
30°	660.5	653.9	634.5	604.0	562.3	507.8	445.5	382.8	325.1	271.5	179.0
32.5°	674.5	668.3	648.5	615.9	570.5	515.3	449.3	382.4	319.7	264.4	162.1
35°	688.5	682.3	659.2	624.6	576.7	518.6	452.1	380.4	313.1	252.9	146.0
37.5°	699.3	692.2	668.7	630.4	579.6	519.4	451.7	377.5	306.1	243.4	130.0
40°	706.7	699.3	674.1	633.7	580.4	518.2	448.4	372.5	297.9	231.4	113.0
42.5°	711.6	703.4	676.6	638.6	578.8	514.8	443.5	366.3	288.8	221.1	96.9
45°	714.1	705.4	677.0	634.5	575.9	508.7	436.1	358.5	278.9	207.1	80.9
47.5°	712.9	703.4	674.9	629.9	570.5	502.1	427.8	349.0	266.9	194.7	65.6
50°	710.8	700.9	670.4	624.2	563.1	493.8	418.7	337.5	254.5	179.5	52.0
52.5°	704.2	694.3	665.4	615.9	554.5	484.3	406.4	325.5	241.3	164.6	39.6
55°	696.0	686.9	656.8	608.5	543.3	472.8	394.8	312.7	228.5	149.3	28.5
57.5°	683.2	674.9	646.0	596.5	532.2	460.0	382.0	298.7	212.5	134.1	19.8
60°	667.5	659.2	631.2	582.9	519.4	445.5	368.0	284.2	198.0	118.8	12.4
62.5°	651.0	643.1	613.9	566.0	503.3	430.3	352.7	269.8	182.8	104.8	7.4
65°	629.1	621.7	595.3	545.8	485.6	413.8	335.8	252.5	167.1	89.1	4.1
67.5°	606.0	599.4	572.6	527.2	464.9	395.6	318.5	235.6	150.6	75.5	2.1
70°	581.3	573.0	548.3	502.1	443.9	375.0	299.5	218.2	134.9	62.3	0.0
72.5°	552.4	546.2	522.3	478.5	419.6	353.1	280.1	199.3	117.6	49.5	0.4
75°	524.3	516.5	494.6	453.4	395.6	330.0	258.7	181.5	100.7	38.0	0.4
77.5°	488.0	485.6	464.9	424.9	372.9	307.8	235.1	160.1	84.6	27.2	0.4
80°	451.7	449.3	433.2	396.5	346.5	281.4	213.3	139.9	68.9	18.2	0.4
82.5°	415.8	412.5	397.3	366.7	319.7	259.1	190.6	119.6	54.5	11.1	0.4
85°	383.7	379.5	363.0	335.0	292.1	233.9	167.1	99.8	40.4	6.2	0.8
87.5°	356.0	353.1	335.0	306.1	264.0	210.4	146.5	80.9	28.5	2.9	1.2
90°	332.5	326.3	310.2	279.7	237.6	184.4	124.6	64.8	19.0	1.7	1.7
92.5°	309.4	304.0	286.3	254.9	214.1	162.1	103.5	49.5	12.0	0.8	2.1
95°	285.5	279.7	262.4	233.5	190.2	139.4	85.0	36.3	6.6	0.8	2.1
97.5°	262.0	256.6	238.4	209.6	168.7	119.6	67.2	25.6	3.3	0.8	1.7
100°	240.1	233.9	217.4	188.5	147.3	99.8	52.0	16.5	2.1	0.8	1.7
102.5°	217.0	212.0	195.1	167.1	125.0	81.3	38.8	10.3	0.8	0.8	1.2
105°	196.4	190.2	173.7	144.8	106.4	63.9	27.2	6.2	0.8	0.8	1.2



TEST NUMBER: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	127.9	122.9	108.5	84.2	54.0	25.2	7.4	1.2	1.2	1.2	1.2
115°	106.8	99.4	86.6	65.2	40.0	16.5	3.7	1.2	1.2	1.2	1.2
117.5°	85.4	79.2	70.1	49.5	26.4	10.7	2.1	1.2	1.2	1.2	1.2
120°	66.8	61.1	50.7	34.2	17.7	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	47.9	43.3	34.2	22.3	10.7	2.9	1.2	1.2	1.7	1.7	1.2
125°	31.8	29.3	22.7	13.6	6.6	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.6	18.6	13.2	7.8	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.3	7.8	4.5	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.6	6.2	4.1	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
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: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	323.8	323.8	323.8
2.5°	308.2	302.4	300.7
5°	291.7	282.2	276.8
7.5°	275.2	262.4	256.2
10°	259.9	241.7	235.1
12.5°	241.7	220.7	210.4
15°	224.4	197.2	187.3
17.5°	205.0	174.5	163.0
20°	186.9	151.8	139.9
22.5°	166.3	129.5	116.3
25°	147.7	107.3	92.4
27.5°	127.1	84.6	71.8
30°	107.7	64.8	52.0
32.5°	89.1	47.4	35.9
35°	71.8	32.2	22.7
37.5°	55.3	19.8	11.6
40°	40.0	10.3	5.4
42.5°	26.8	5.0	2.9
45°	16.5	2.5	0.0
47.5°	9.5	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.5	3.7	3.7
105°	2.1	2.9	3.3



TEST NUMBER: P551112

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	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°	1.7	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°	173.3	168.3	151.8	124.6	87.0	48.7	18.2	3.3	0.8	1.2	1.2
110°	151.0	146.9	130.0	103.5	70.1	36.3	12.0	2.1	1.2	1.2	1.2





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)