

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: P550670

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-87-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: P550670
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-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

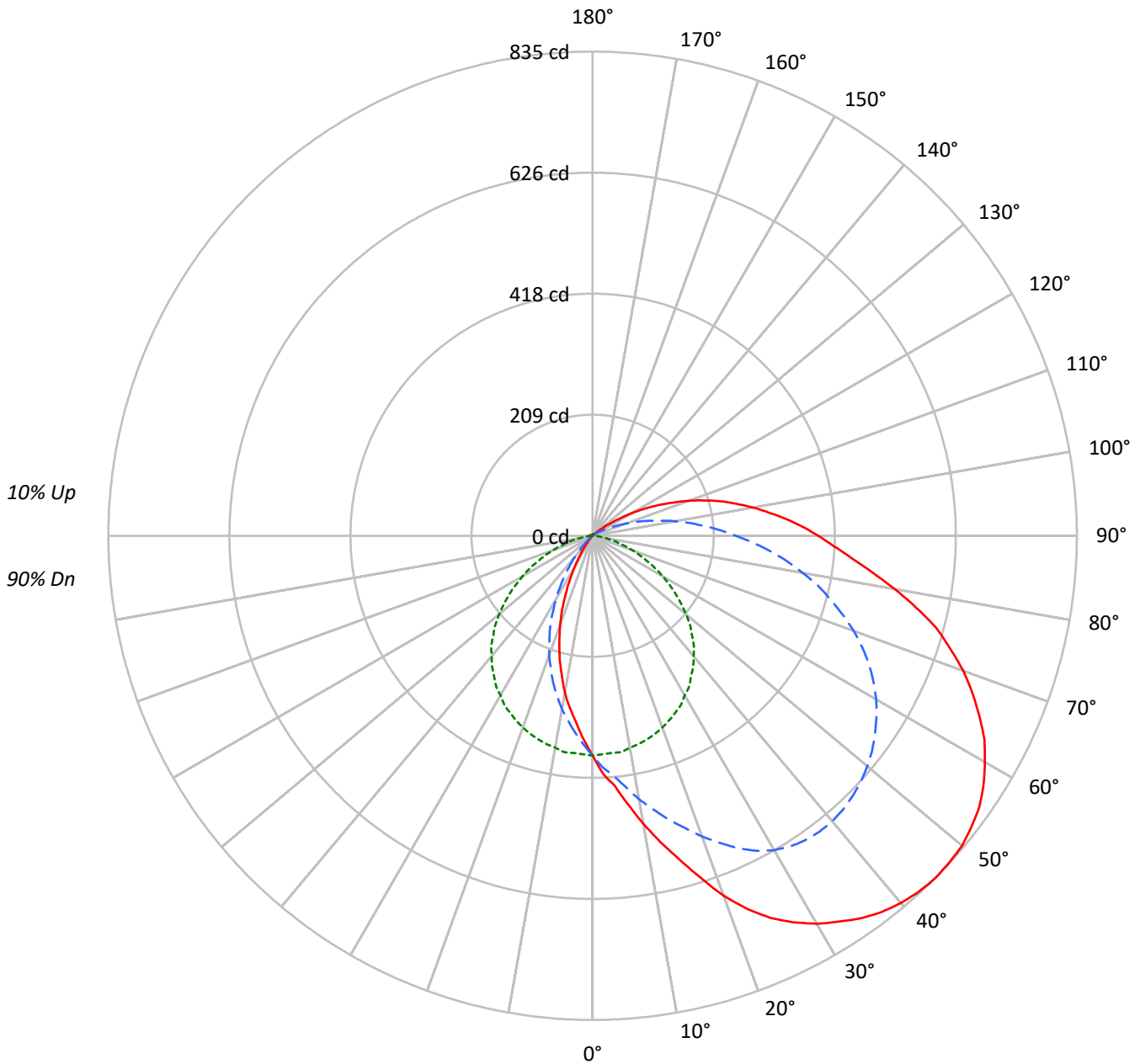
Lumens per Lamp: N/A
Luminaire Lumens: 1872.9 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550670

CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-87-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°	4078	4078	4078
5°	4476	4019	3352
10°	5065	3969	2763
15°	5677	3918	2153
20°	6403	3854	1585
25°	7005	3781	1041
30°	7453	3682	586
35°	7840	3575	258
40°	8183	3444	62
45°	8478	3279	0
50°	8726	3059	0
55°	8914	2782	0
60°	9009	2460	0
65°	9046	2093	0
70°	9016	1708	0
75°	8901	1259	7
80°	8541	769	39
85°	8254	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	1.9
10°-20°	108.7	5.8
20°-30°	176.0	9.4
30°-40°	226.0	12.1
40°-50°	255.9	13.7
50°-60°	265.1	14.2
60°-70°	250.0	13.3
70°-80°	209.5	11.2
80°-90°	151.9	8.1
90°-100°	99.8	5.3
100°-110°	57.6	3.1
110°-120°	25.4	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	320.9	17.1
0°-40°	547.0	29.2
0°-60°	1067.9	57.0
0°-90°	1679.3	89.7
90°-120°	182.9	9.8
90°-150°	192.3	10.3
90°-180°	194.0	10.4
0°-180°	1872.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	379	379	379	379	379	
5°	432	415	376	341	324	44
15°	578	507	363	262	219	167
25°	727	594	337	173	108	336
35°	806	641	296	84	26	505
45°	835	634	242	19	0	645
55°	814	594	175	0	0	727
65°	736	526	104	0	0	728
75°	613	424	44	0	0	643
85°	449	308	7	2	3	383
90°	389	247	2	3	3	213
95°	334	193	1	3	4	262
105°	230	100	1	2	4	242
115°	125	33	1	1	2	125
125°	37	5	2	1	2	37
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: P550670

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9
2.5°	410.7	410.2	408.8	406.4	403.0	397.2	392.4	388.0	382.2	377.4	368.2
5°	432.4	430.0	428.1	425.7	418.0	412.6	404.0	394.3	385.1	376.0	357.6
7.5°	467.2	463.3	460.4	453.7	443.1	431.0	417.5	408.3	402.0	376.4	345.1
10°	504.3	501.0	495.2	483.1	470.1	452.7	433.4	411.7	392.4	371.1	334.0
12.5°	541.0	536.2	528.0	512.6	494.2	472.5	445.9	420.4	392.9	367.8	320.9
15°	577.7	572.4	563.7	544.9	520.8	492.3	459.9	427.6	395.3	363.4	307.4
17.5°	617.8	610.5	597.5	576.3	545.9	510.6	472.5	433.4	394.3	358.1	293.0
20°	660.7	650.6	636.6	608.1	572.4	530.9	485.0	439.2	393.8	351.8	276.5
22.5°	696.4	686.3	670.9	641.4	598.5	547.8	495.7	443.1	391.9	344.6	261.1
25°	727.3	719.1	702.2	668.4	623.1	565.6	505.8	445.9	389.0	336.9	244.7
27.5°	751.5	743.7	724.9	690.2	643.8	581.6	513.5	447.4	385.1	329.2	227.8
30°	772.7	765.0	742.3	706.6	657.8	594.1	521.2	447.9	380.3	317.6	209.5
32.5°	789.1	781.9	758.7	720.6	667.5	602.8	525.6	447.4	374.0	309.4	189.7
35°	805.5	798.3	771.2	730.7	674.7	606.7	529.0	445.0	366.3	295.9	170.9
37.5°	818.1	809.8	782.3	737.5	678.1	607.6	528.5	441.6	358.1	284.8	152.0
40°	826.7	818.1	788.6	741.3	679.1	606.2	524.6	435.8	348.5	270.8	132.2
42.5°	832.5	822.9	791.5	747.1	677.1	602.3	518.8	428.6	337.8	258.7	113.4
45°	835.4	825.3	792.0	742.3	673.7	595.1	510.1	419.4	326.3	242.3	94.6
47.5°	834.0	822.9	789.6	737.0	667.5	587.4	500.5	408.3	312.3	227.8	76.7
50°	831.6	820.0	784.3	730.2	658.8	577.7	489.9	394.8	297.8	209.9	60.8
52.5°	823.8	812.3	778.5	720.6	648.7	566.6	475.4	380.8	282.3	192.6	46.3
55°	814.2	803.6	768.3	711.9	635.6	553.1	461.9	365.8	267.4	174.7	33.3
57.5°	799.2	789.6	755.8	697.9	622.6	538.1	446.9	349.4	248.6	156.9	23.2
60°	780.9	771.2	738.4	682.0	607.6	521.2	430.5	332.5	231.7	139.0	14.5
62.5°	761.6	752.4	718.2	662.2	588.8	503.4	412.6	315.6	213.8	122.6	8.7
65°	736.0	727.3	696.4	638.5	568.1	484.1	392.9	295.4	195.5	104.2	4.8
67.5°	709.0	701.3	669.9	616.8	543.9	462.8	372.6	275.6	176.2	88.3	2.4
70°	680.0	670.4	641.4	587.4	519.3	438.7	350.4	255.3	157.8	72.9	0.0
72.5°	646.2	639.0	611.0	559.8	490.8	413.1	327.7	233.1	137.5	57.9	0.5
75°	613.4	604.3	578.7	530.4	462.8	386.1	302.6	212.4	117.8	44.4	0.5
77.5°	570.9	568.1	543.9	497.1	436.3	360.0	275.1	187.3	98.9	31.9	0.5
80°	528.5	525.6	506.8	463.8	405.4	329.2	249.5	163.6	80.6	21.2	0.5
82.5°	486.5	482.6	464.8	429.1	374.0	303.1	223.0	140.0	63.7	13.0	0.5
85°	448.8	444.0	424.7	391.9	341.7	273.7	195.5	116.8	47.3	7.2	1.0
87.5°	416.5	413.1	391.9	358.1	308.9	246.1	171.3	94.6	33.3	3.4	1.4
90°	389.0	381.8	362.9	327.2	278.0	215.7	145.8	75.8	22.2	1.9	1.9
92.5°	362.0	355.7	334.9	298.3	250.5	189.7	121.1	57.9	14.0	1.0	2.4
95°	334.0	327.2	307.0	273.2	222.5	163.1	99.4	42.5	7.7	1.0	2.4
97.5°	306.5	300.2	279.0	245.2	197.4	140.0	78.7	29.9	3.9	1.0	1.9
100°	280.9	273.7	254.3	220.6	172.3	116.8	60.8	19.3	2.4	1.0	1.9
102.5°	253.9	248.1	228.3	195.5	146.2	95.1	45.4	12.1	1.0	1.0	1.4
105°	229.7	222.5	203.2	169.4	124.5	74.8	31.9	7.2	1.0	1.0	1.4



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.6	143.8	126.9	98.5	63.2	29.4	8.7	1.4	1.4	1.4	1.4
115°	125.0	116.3	101.4	76.3	46.8	19.3	4.3	1.4	1.4	1.4	1.4
117.5°	99.9	92.7	82.0	57.9	30.9	12.5	2.4	1.4	1.4	1.4	1.4
120°	78.2	71.4	59.4	40.1	20.8	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	56.0	50.7	40.1	26.1	12.5	3.4	1.4	1.4	1.9	1.9	1.4
125°	37.2	34.3	26.5	15.9	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	24.1	21.7	15.4	9.2	3.4	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.5	12.1	9.2	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	378.9	378.9	378.9
2.5°	360.5	353.8	351.8
5°	341.2	330.1	323.8
7.5°	321.9	307.0	299.7
10°	304.1	282.8	275.1
12.5°	282.8	258.2	246.1
15°	262.5	230.7	219.1
17.5°	239.9	204.2	190.6
20°	218.6	177.6	163.6
22.5°	194.5	151.5	136.1
25°	172.8	125.5	108.1
27.5°	148.6	98.9	84.0
30°	126.0	75.8	60.8
32.5°	104.2	55.5	42.0
35°	84.0	37.6	26.5
37.5°	64.7	23.2	13.5
40°	46.8	12.1	6.3
42.5°	31.4	5.8	3.4
45°	19.3	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.3
97.5°	3.9	4.3	4.3
100°	3.4	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.4	3.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	202.7	196.9	177.6	145.8	101.8	57.0	21.2	3.9	1.0	1.4	1.4
110°	176.6	171.8	152.0	121.1	82.0	42.5	14.0	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)