

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: P550643

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-96-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: P550643
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-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

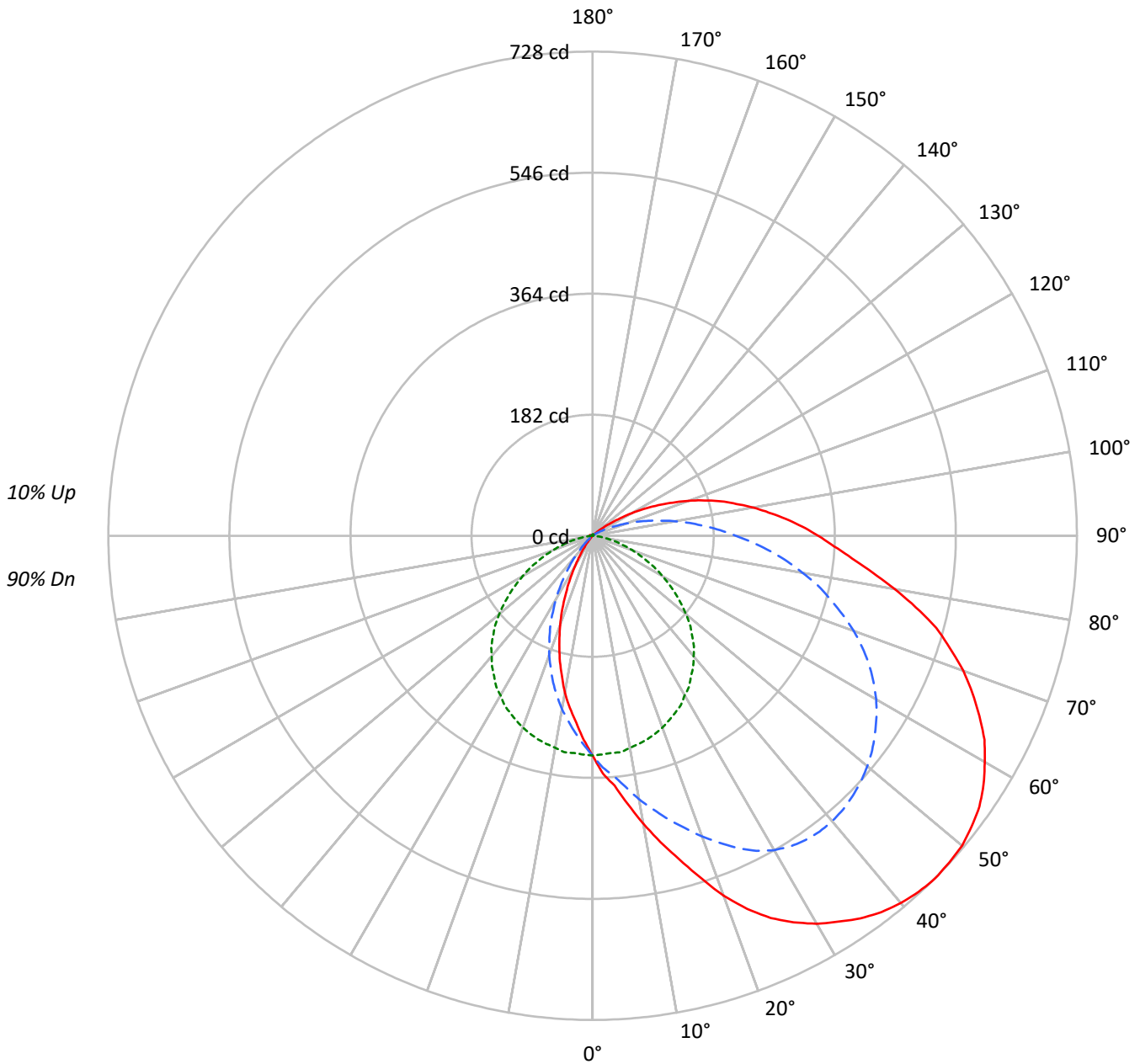
Lumens per Lamp: N/A
Luminaire Lumens: 1633.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (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

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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°	3555	3555	3555
5°	3903	3504	2922
10°	4417	3461	2409
15°	4950	3417	1877
20°	5583	3361	1382
25°	6107	3296	908
30°	6498	3210	511
35°	6835	3116	225
40°	7135	3003	54
45°	7392	2858	0
50°	7607	2667	0
55°	7772	2425	0
60°	7854	2145	0
65°	7887	1826	0
70°	7861	1488	0
75°	7760	1097	6
80°	7447	671	34
85°	7197	320	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	1.9
10°-20°	94.7	5.8
20°-30°	153.4	9.4
30°-40°	197.1	12.1
40°-50°	223.1	13.7
50°-60°	231.1	14.2
60°-70°	218.0	13.3
70°-80°	182.7	11.2
80°-90°	132.4	8.1
90°-100°	87.0	5.3
100°-110°	50.3	3.1
110°-120°	22.2	1.4
120°-130°	6.0	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°	279.8	17.1
0°-40°	476.9	29.2
0°-60°	931.1	57.0
0°-90°	1464.1	89.7
90°-120°	159.5	9.8
90°-150°	167.8	10.3
90°-180°	169.0	10.3
0°-180°	1633.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	330	330	330	330	330	
5°	377	362	328	298	282	38
15°	504	442	317	229	191	145
25°	634	518	294	151	94	293
35°	702	559	258	73	23	440
45°	728	553	211	17	0	562
55°	710	518	152	0	0	634
65°	642	459	91	0	0	635
75°	535	370	39	0	0	561
85°	391	268	6	2	2	334
90°	339	215	2	2	3	186
95°	291	168	1	3	4	228
105°	200	87	1	2	3	211
115°	109	29	1	1	2	109
125°	32	4	2	1	2	32
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	330.3	330.3	330.3	330.3	330.3	330.3	330.3	330.3	330.3	330.3	330.3
2.5°	358.1	357.7	356.4	354.3	351.4	346.3	342.1	338.3	333.3	329.1	321.1
5°	377.0	374.9	373.2	371.1	364.4	359.8	352.2	343.8	335.8	327.8	311.8
7.5°	407.3	404.0	401.4	395.5	386.3	375.8	364.0	356.0	350.5	328.2	300.9
10°	439.7	436.8	431.7	421.2	409.8	394.7	377.9	358.9	342.1	323.6	291.2
12.5°	471.7	467.5	460.3	446.9	430.9	411.9	388.8	366.5	342.5	320.6	279.8
15°	503.7	499.1	491.5	475.1	454.0	429.2	401.0	372.8	344.6	316.9	268.0
17.5°	538.6	532.3	520.9	502.4	475.9	445.2	411.9	377.9	343.8	312.2	255.4
20°	576.1	567.2	555.0	530.2	499.1	462.9	422.9	382.9	343.4	306.8	241.1
22.5°	607.2	598.4	584.9	559.2	521.8	477.6	432.1	386.3	341.7	300.4	227.6
25°	634.1	627.0	612.2	582.8	543.2	493.2	441.0	388.8	339.2	293.7	213.3
27.5°	655.2	648.4	632.0	601.7	561.3	507.0	447.7	390.1	335.8	287.0	198.6
30°	673.7	666.9	647.2	616.0	573.5	518.0	454.4	390.5	331.6	276.9	182.6
32.5°	688.0	681.7	661.5	628.2	581.9	525.6	458.2	390.1	326.1	269.7	165.4
35°	702.3	696.0	672.4	637.1	588.3	528.9	461.2	388.0	319.4	257.9	149.0
37.5°	713.2	706.1	682.1	643.0	591.2	529.8	460.8	385.0	312.2	248.3	132.5
40°	720.8	713.2	687.6	646.3	592.0	528.5	457.4	380.0	303.8	236.1	115.3
42.5°	725.9	717.4	690.1	651.4	590.4	525.1	452.3	373.7	294.5	225.5	98.9
45°	728.4	719.5	690.5	647.2	587.4	518.8	444.8	365.7	284.5	211.2	82.5
47.5°	727.1	717.4	688.4	642.5	581.9	512.1	436.4	356.0	272.2	198.6	66.9
50°	725.0	714.9	683.8	636.6	574.4	503.7	427.1	344.2	259.6	183.0	53.0
52.5°	718.3	708.2	678.7	628.2	565.5	494.0	414.5	332.0	246.2	167.9	40.4
55°	709.9	700.6	669.9	620.7	554.2	482.2	402.7	319.0	233.1	152.3	29.0
57.5°	696.8	688.4	659.0	608.5	542.8	469.2	389.6	304.6	216.7	136.8	20.2
60°	680.8	672.4	643.8	594.6	529.8	454.4	375.3	289.9	202.0	121.2	12.6
62.5°	664.0	656.0	626.1	577.3	513.4	438.9	359.8	275.2	186.4	106.9	7.6
65°	641.7	634.1	607.2	556.7	495.3	422.0	342.5	257.5	170.4	90.9	4.2
67.5°	618.1	611.4	584.1	537.8	474.2	403.5	324.8	240.3	153.6	77.0	2.1
70°	592.9	584.5	559.2	512.1	452.8	382.5	305.5	222.6	137.6	63.5	0.0
72.5°	563.4	557.1	532.7	488.1	427.9	360.2	285.7	203.2	119.9	50.5	0.4
75°	534.8	526.8	504.5	462.4	403.5	336.6	263.8	185.1	102.7	38.7	0.4
77.5°	497.8	495.3	474.2	433.4	380.4	313.9	239.8	163.3	86.3	27.8	0.4
80°	460.8	458.2	441.8	404.4	353.5	287.0	217.5	142.6	70.3	18.5	0.4
82.5°	424.2	420.8	405.2	374.1	326.1	264.3	194.4	122.0	55.5	11.4	0.4
85°	391.3	387.1	370.3	341.7	297.9	238.6	170.4	101.8	41.2	6.3	0.8
87.5°	363.1	360.2	341.7	312.2	269.3	214.6	149.4	82.5	29.0	2.9	1.3
90°	339.2	332.8	316.4	285.3	242.4	188.1	127.1	66.1	19.4	1.7	1.7
92.5°	315.6	310.1	292.0	260.0	218.4	165.4	105.6	50.5	12.2	0.8	2.1
95°	291.2	285.3	267.6	238.2	194.0	142.2	86.7	37.0	6.7	0.8	2.1
97.5°	267.2	261.7	243.2	213.8	172.1	122.0	68.6	26.1	3.4	0.8	1.7
100°	244.9	238.6	221.8	192.3	150.2	101.8	53.0	16.8	2.1	0.8	1.7
102.5°	221.3	216.3	199.0	170.4	127.5	82.9	39.6	10.5	0.8	0.8	1.3
105°	200.3	194.0	177.2	147.7	108.6	65.2	27.8	6.3	0.8	0.8	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-81-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	130.4	125.4	110.7	85.8	55.1	25.7	7.6	1.3	1.3	1.3	1.3
115°	109.0	101.4	88.4	66.5	40.8	16.8	3.8	1.3	1.3	1.3	1.3
117.5°	87.1	80.8	71.5	50.5	26.9	10.9	2.1	1.3	1.3	1.3	1.3
120°	68.2	62.3	51.8	34.9	18.1	6.3	0.8	1.3	1.3	1.3	1.3
122.5°	48.8	44.2	34.9	22.7	10.9	2.9	1.3	1.3	1.7	1.7	1.3
125°	32.4	29.9	23.1	13.9	6.7	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.0	18.9	13.5	8.0	2.9	1.3	1.3	1.7	1.7	1.7	1.3
130°	11.8	10.5	8.0	4.6	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.7	6.3	4.2	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	330.3	330.3	330.3
2.5°	314.3	308.4	306.8
5°	297.5	287.8	282.3
7.5°	280.7	267.6	261.3
10°	265.1	246.6	239.8
12.5°	246.6	225.1	214.6
15°	228.9	201.1	191.0
17.5°	209.1	178.0	166.2
20°	190.6	154.8	142.6
22.5°	169.6	132.1	118.7
25°	150.6	109.4	94.3
27.5°	129.6	86.3	73.2
30°	109.8	66.1	53.0
32.5°	90.9	48.4	36.6
35°	73.2	32.8	23.1
37.5°	56.4	20.2	11.8
40°	40.8	10.5	5.5
42.5°	27.4	5.0	2.9
45°	16.8	2.5	0.0
47.5°	9.7	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	1.3
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	3.4	3.4
95°	2.9	3.4	3.8
97.5°	3.4	3.8	3.8
100°	2.9	3.8	4.2
102.5°	2.5	3.8	3.8
105°	2.1	2.9	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.8
152.5°	1.3	0.8	0.8
155°	1.3	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.3	0.8	0.4
162.5°	1.3	0.8	0.4
165°	1.3	0.8	0.0
167.5°	1.3	0.8	0.4
170°	1.3	0.8	0.4
172.5°	1.3	0.8	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°	176.7	171.7	154.8	127.1	88.8	49.7	18.5	3.4	0.8	1.3	1.3
110°	154.0	149.8	132.5	105.6	71.5	37.0	12.2	2.1	1.3	1.3	1.3





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)