

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: P550483

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-93-96-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: P550483
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-30-UNV-93-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

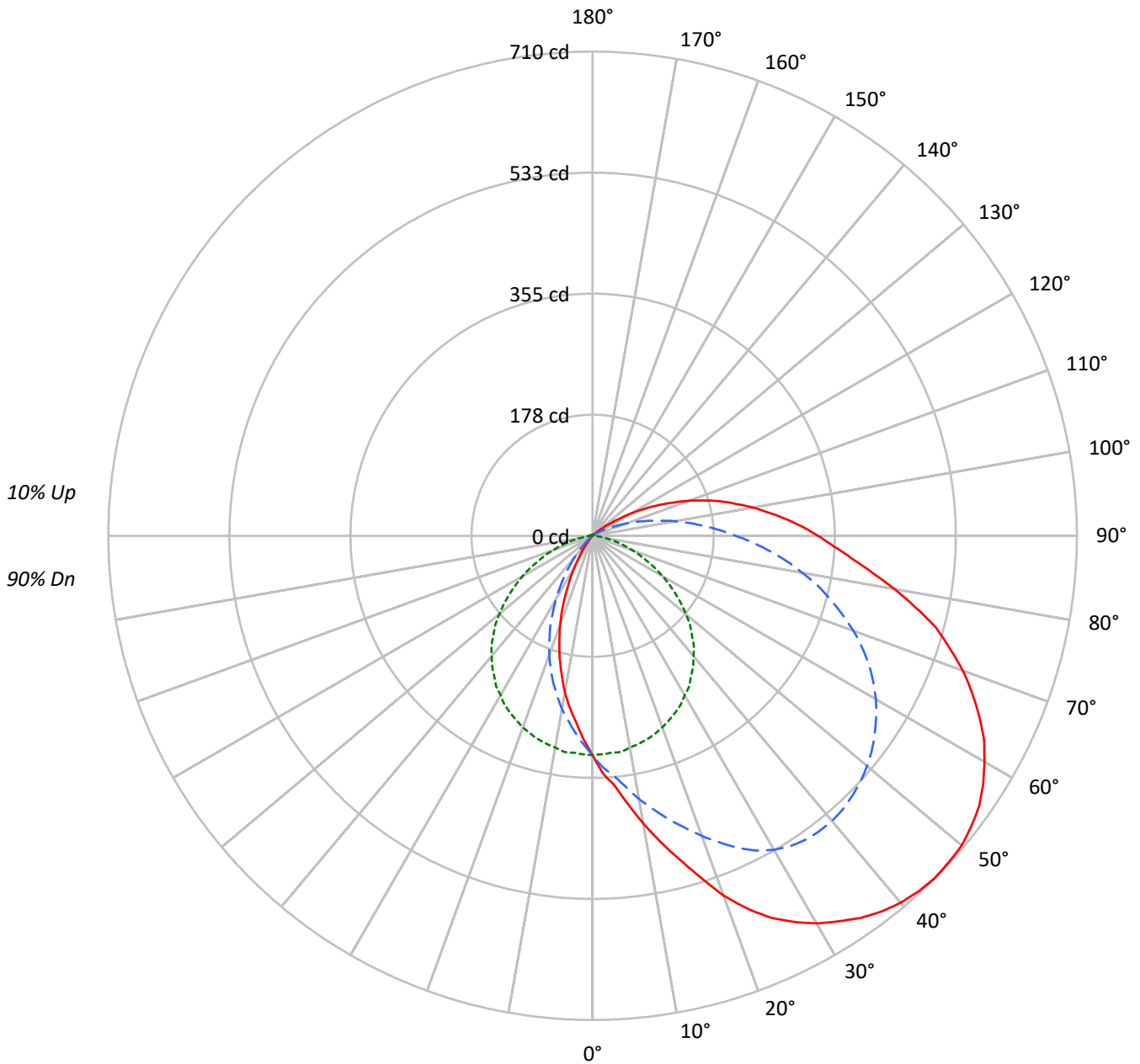
Lumens per Lamp: N/A
Luminaire Lumens: 1590.9 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	3464	3464	3464
5°	3802	3414	2848
10°	4303	3372	2347
15°	4822	3329	1829
20°	5439	3275	1347
25°	5950	3212	884
30°	6331	3128	499
35°	6659	3036	219
40°	6952	2925	52
45°	7201	2785	0
50°	7412	2599	0
55°	7572	2363	0
60°	7652	2090	0
65°	7684	1780	0
70°	7658	1450	0
75°	7562	1069	6
80°	7255	653	32
85°	7013	310	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	1.9
10°-20°	92.3	5.8
20°-30°	149.5	9.4
30°-40°	192.0	12.1
40°-50°	217.3	13.7
50°-60°	225.2	14.2
60°-70°	212.4	13.3
70°-80°	178.0	11.2
80°-90°	129.0	8.1
90°-100°	84.8	5.3
100°-110°	49.0	3.1
110°-120°	21.6	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	272.6	17.1
0°-40°	464.6	29.2
0°-60°	907.1	57.0
0°-90°	1426.4	89.7
90°-120°	155.3	9.8
90°-150°	163.3	10.3
90°-180°	164.0	10.3
0°-180°	1590.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	322	322	322	322	322	
5°	367	353	319	290	275	37
15°	491	430	309	223	186	142
25°	618	505	286	147	92	286
35°	684	544	251	71	22	429
45°	710	539	206	16	0	548
55°	692	505	148	0	0	618
65°	625	447	89	0	0	619
75°	521	361	38	0	0	547
85°	381	261	6	2	2	326
90°	330	210	2	2	3	181
95°	284	164	1	3	4	223
105°	195	85	1	2	3	206
115°	106	28	1	1	2	106
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	321.8	321.8	321.8	321.8	321.8	321.8	321.8	321.8	321.8	321.8	321.8
2.5°	348.9	348.5	347.2	345.2	342.3	337.4	333.3	329.6	324.7	320.6	312.8
5°	367.3	365.3	363.6	361.6	355.0	350.5	343.1	334.9	327.2	319.4	303.8
7.5°	396.8	393.6	391.1	385.4	376.3	366.1	354.6	346.8	341.5	319.8	293.1
10°	428.4	425.5	420.6	410.4	399.3	384.5	368.1	349.7	333.3	315.3	283.7
12.5°	459.6	455.5	448.5	435.4	419.8	401.4	378.8	357.1	333.7	312.4	272.6
15°	490.7	486.2	478.8	462.8	442.4	418.2	390.7	363.2	335.8	308.7	261.1
17.5°	524.8	518.6	507.5	489.5	463.7	433.7	401.4	368.1	334.9	304.2	248.8
20°	561.2	552.6	540.7	516.6	486.2	451.0	412.0	373.1	334.5	298.9	234.9
22.5°	591.6	583.0	569.8	544.8	508.4	465.3	421.0	376.3	332.9	292.7	221.8
25°	617.8	610.8	596.5	567.8	529.3	480.5	429.6	378.8	330.4	286.2	207.9
27.5°	638.3	631.8	615.8	586.2	546.9	494.0	436.2	380.0	327.2	279.6	193.5
30°	656.4	649.8	630.5	600.2	558.8	504.7	442.8	380.4	323.1	269.8	177.9
32.5°	670.3	664.1	644.5	612.1	567.0	512.0	446.4	380.0	317.7	262.8	161.1
35°	684.2	678.1	655.1	620.7	573.1	515.3	449.3	378.0	311.2	251.3	145.1
37.5°	694.9	687.9	664.6	626.4	576.0	516.1	448.9	375.1	304.2	241.9	129.1
40°	702.3	694.9	669.9	629.7	576.8	514.9	445.6	370.2	296.0	230.0	112.3
42.5°	707.2	699.0	672.3	634.6	575.2	511.6	440.7	364.0	287.0	219.7	96.3
45°	709.6	701.0	672.7	630.5	572.3	505.5	433.3	356.3	277.1	205.8	80.4
47.5°	708.4	699.0	670.7	626.0	567.0	498.9	425.1	346.8	265.2	193.5	65.2
50°	706.4	696.5	666.2	620.3	559.6	490.7	416.1	335.3	252.9	178.3	51.7
52.5°	699.8	690.0	661.3	612.1	551.0	481.3	403.8	323.5	239.8	163.6	39.4
55°	691.6	682.6	652.7	604.7	539.9	469.8	392.3	310.8	227.1	148.4	28.3
57.5°	678.9	670.7	642.0	592.8	528.9	457.1	379.6	296.8	211.1	133.2	19.7
60°	663.3	655.1	627.2	579.3	516.1	442.8	365.7	282.5	196.8	118.1	12.3
62.5°	646.9	639.1	610.0	562.5	500.2	427.6	350.5	268.1	181.6	104.1	7.4
65°	625.2	617.8	591.6	542.4	482.5	411.2	333.7	250.9	166.0	88.6	4.1
67.5°	602.2	595.7	569.0	523.9	462.0	393.2	316.5	234.1	149.6	75.0	2.0
70°	577.6	569.4	544.8	498.9	441.1	372.7	297.6	216.9	134.1	61.9	0.0
72.5°	548.9	542.8	519.0	475.6	416.9	350.9	278.4	198.0	116.8	49.2	0.4
75°	521.1	513.3	491.5	450.5	393.2	328.0	257.0	180.4	100.0	37.7	0.4
77.5°	485.0	482.5	462.0	422.3	370.6	305.8	233.7	159.1	84.0	27.1	0.4
80°	448.9	446.4	430.5	394.0	344.4	279.6	212.0	139.0	68.5	18.0	0.4
82.5°	413.2	410.0	394.8	364.5	317.7	257.5	189.4	118.9	54.1	11.1	0.4
85°	381.3	377.2	360.8	332.9	290.3	232.4	166.0	99.2	40.2	6.1	0.8
87.5°	353.8	350.9	332.9	304.2	262.4	209.1	145.5	80.4	28.3	2.9	1.2
90°	330.4	324.3	308.3	278.0	236.1	183.3	123.8	64.4	18.9	1.6	1.6
92.5°	307.5	302.1	284.5	253.4	212.8	161.1	102.9	49.2	11.9	0.8	2.0
95°	283.7	278.0	260.7	232.0	189.0	138.6	84.5	36.1	6.6	0.8	2.0
97.5°	260.3	255.0	237.0	208.3	167.7	118.9	66.8	25.4	3.3	0.8	1.6
100°	238.6	232.4	216.1	187.4	146.4	99.2	51.7	16.4	2.0	0.8	1.6
102.5°	215.6	210.7	193.9	166.0	124.2	80.8	38.5	10.2	0.8	0.8	1.2
105°	195.1	189.0	172.6	143.9	105.8	63.5	27.1	6.1	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	127.1	122.2	107.8	83.6	53.7	25.0	7.4	1.2	1.2	1.2	1.2
115°	106.2	98.8	86.1	64.8	39.8	16.4	3.7	1.2	1.2	1.2	1.2
117.5°	84.9	78.7	69.7	49.2	26.2	10.7	2.0	1.2	1.2	1.2	1.2
120°	66.4	60.7	50.4	34.0	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.6	43.0	34.0	22.1	10.7	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.6	29.1	22.5	13.5	6.6	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.5	18.4	13.1	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.5	10.2	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.6	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	321.8	321.8	321.8
2.5°	306.2	300.5	298.9
5°	289.8	280.4	275.1
7.5°	273.4	260.7	254.6
10°	258.3	240.2	233.7
12.5°	240.2	219.3	209.1
15°	223.0	196.0	186.1
17.5°	203.8	173.4	161.9
20°	185.7	150.9	139.0
22.5°	165.2	128.7	115.6
25°	146.8	106.6	91.8
27.5°	126.3	84.0	71.3
30°	107.0	64.4	51.7
32.5°	88.6	47.1	35.7
35°	71.3	32.0	22.5
37.5°	54.9	19.7	11.5
40°	39.8	10.2	5.3
42.5°	26.6	4.9	2.9
45°	16.4	2.5	0.0
47.5°	9.4	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.5
87.5°	2.0	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°	2.0	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	172.2	167.3	150.9	123.8	86.5	48.4	18.0	3.3	0.8	1.2	1.2
110°	150.0	145.9	129.1	102.9	69.7	36.1	11.9	2.0	1.2	1.2	1.2





107.5°	1.6	2.5	2.9
110°	1.6	2.0	2.5



(END OF REPORT)