

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: P550435

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-96-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: P550435
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-80-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

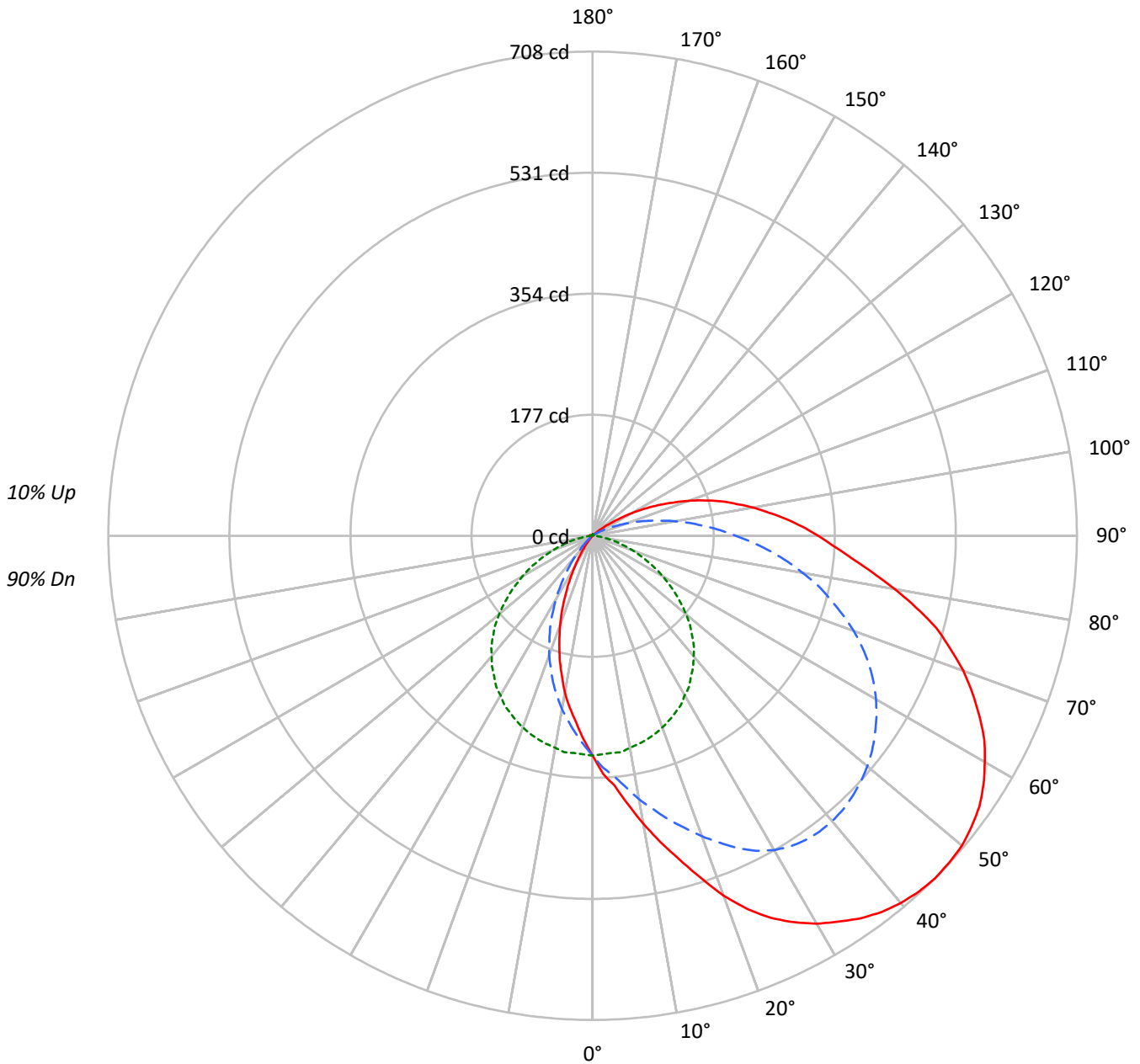
Lumens per Lamp: N/A
Luminaire Lumens: 1587.9 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3457	3457	3457
5°	3795	3407	2843
10°	4295	3365	2342
15°	4813	3322	1826
20°	5429	3268	1344
25°	5939	3205	883
30°	6318	3121	498
35°	6647	3030	219
40°	6938	2920	52
45°	7188	2779	0
50°	7398	2594	0
55°	7558	2358	0
60°	7638	2085	0
65°	7669	1776	0
70°	7643	1448	0
75°	7547	1066	6
80°	7242	653	32
85°	6998	310	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	1.9
10°-20°	92.1	5.8
20°-30°	149.2	9.4
30°-40°	191.6	12.1
40°-50°	216.9	13.7
50°-60°	224.8	14.2
60°-70°	212.0	13.3
70°-80°	177.6	11.2
80°-90°	128.8	8.1
90°-100°	84.6	5.3
100°-110°	48.9	3.1
110°-120°	21.5	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°	272.1	17.1
0°-40°	463.7	29.2
0°-60°	905.4	57.0
0°-90°	1423.8	89.7
90°-120°	155.0	9.8
90°-150°	163.0	10.3
90°-180°	164.0	10.3
0°-180°	1587.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	367	352	319	289	275	37
15°	490	429	308	223	186	141
25°	617	504	286	146	92	285
35°	683	543	251	71	22	428
45°	708	538	205	16	0	547
55°	690	504	148	0	0	616
65°	624	446	88	0	0	617
75°	520	360	38	0	0	545
85°	380	261	6	2	2	325
90°	330	209	2	2	3	181
95°	283	163	1	3	4	222
105°	195	84	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°	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2	321.2
2.5°	348.2	347.8	346.6	344.5	341.7	336.8	332.7	329.0	324.1	320.0	312.2
5°	366.6	364.6	363.0	360.9	354.4	349.9	342.5	334.3	326.5	318.8	303.2
7.5°	396.1	392.8	390.4	384.6	375.6	365.4	353.9	346.2	340.9	319.2	292.6
10°	427.6	424.7	419.8	409.6	398.6	383.8	367.5	349.0	332.7	314.7	283.2
12.5°	458.7	454.6	447.7	434.6	419.0	400.6	378.1	356.4	333.1	311.8	272.1
15°	489.8	485.3	477.9	462.0	441.5	417.4	390.0	362.5	335.1	308.1	260.7
17.5°	523.8	517.6	506.6	488.6	462.8	432.9	400.6	367.5	334.3	303.6	248.4
20°	560.2	551.6	539.7	515.6	485.3	450.1	411.2	372.4	333.9	298.3	234.5
22.5°	590.5	581.9	568.8	543.8	507.4	464.4	420.2	375.6	332.3	292.2	221.4
25°	616.6	609.7	595.4	566.7	528.3	479.6	428.8	378.1	329.8	285.6	207.5
27.5°	637.1	630.6	614.6	585.1	545.9	493.1	435.4	379.3	326.5	279.1	193.1
30°	655.1	648.6	629.3	599.1	557.7	503.7	441.9	379.7	322.4	269.2	177.6
32.5°	669.0	662.9	643.2	610.9	565.9	511.1	445.6	379.3	317.1	262.3	160.8
35°	682.9	676.8	653.9	619.5	572.0	514.4	448.5	377.3	310.6	250.8	144.9
37.5°	693.6	686.6	663.3	625.2	574.9	515.2	448.1	374.4	303.6	241.4	128.9
40°	700.9	693.6	668.6	628.5	575.7	513.9	444.8	369.5	295.4	229.6	112.1
42.5°	705.9	697.7	671.1	633.4	574.1	510.7	439.9	363.4	286.4	219.3	96.2
45°	708.3	699.7	671.5	629.3	571.2	504.5	432.5	355.6	276.6	205.4	80.2
47.5°	707.1	697.7	669.4	624.8	565.9	498.0	424.3	346.2	264.7	193.1	65.1
50°	705.0	695.2	664.9	619.1	558.5	489.8	415.3	334.7	252.5	178.0	51.6
52.5°	698.5	688.7	660.0	610.9	550.0	480.4	403.1	322.9	239.4	163.3	39.3
55°	690.3	681.3	651.4	603.6	538.9	468.9	391.6	310.2	226.7	148.1	28.2
57.5°	677.6	669.4	640.8	591.7	527.9	456.2	378.9	296.3	210.7	133.0	19.6
60°	662.1	653.9	626.1	578.2	515.2	441.9	365.0	281.9	196.4	117.8	12.3
62.5°	645.7	637.9	608.9	561.4	499.2	426.8	349.9	267.6	181.3	103.9	7.4
65°	624.0	616.6	590.5	541.4	481.6	410.4	333.1	250.4	165.7	88.4	4.1
67.5°	601.1	594.6	568.0	522.9	461.2	392.4	315.9	233.6	149.4	74.9	2.0
70°	576.5	568.4	543.8	498.0	440.3	372.0	297.1	216.5	133.8	61.8	0.0
72.5°	547.9	541.8	518.0	474.7	416.1	350.3	277.8	197.6	116.6	49.1	0.4
75°	520.1	512.3	490.6	449.7	392.4	327.4	256.6	180.0	99.8	37.6	0.4
77.5°	484.1	481.6	461.2	421.5	369.9	305.3	233.2	158.8	83.9	27.0	0.4
80°	448.1	445.6	429.6	393.2	343.7	279.1	211.6	138.7	68.3	18.0	0.4
82.5°	412.5	409.2	394.1	363.8	317.1	257.0	189.0	118.7	54.0	11.0	0.4
85°	380.5	376.5	360.1	332.3	289.7	232.0	165.7	99.0	40.1	6.1	0.8
87.5°	353.1	350.3	332.3	303.6	261.9	208.7	145.3	80.2	28.2	2.9	1.2
90°	329.8	323.7	307.7	277.4	235.7	182.9	123.6	64.2	18.8	1.6	1.6
92.5°	306.9	301.6	284.0	252.9	212.4	160.8	102.7	49.1	11.9	0.8	2.0
95°	283.2	277.4	260.2	231.6	188.6	138.3	84.3	36.0	6.5	0.8	2.0
97.5°	259.8	254.5	236.5	207.9	167.4	118.7	66.7	25.4	3.3	0.8	1.6
100°	238.1	232.0	215.6	187.0	146.1	99.0	51.6	16.4	2.0	0.8	1.6
102.5°	215.2	210.3	193.5	165.7	124.0	80.6	38.5	10.2	0.8	0.8	1.2
105°	194.8	188.6	172.3	143.6	105.6	63.4	27.0	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°	126.8	121.9	107.6	83.5	53.6	25.0	7.4	1.2	1.2	1.2	1.2
115°	106.0	98.6	85.9	64.7	39.7	16.4	3.7	1.2	1.2	1.2	1.2
117.5°	84.7	78.6	69.6	49.1	26.2	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.3	60.6	50.3	34.0	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.5	43.0	34.0	22.1	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.5	29.1	22.5	13.5	6.5	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°	6.5	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°	321.2	321.2	321.2
2.5°	305.7	299.9	298.3
5°	289.3	279.9	274.6
7.5°	272.9	260.2	254.1
10°	257.8	239.8	233.2
12.5°	239.8	218.9	208.7
15°	222.6	195.6	185.8
17.5°	203.4	173.1	161.6
20°	185.4	150.6	138.7
22.5°	164.9	128.5	115.4
25°	146.5	106.4	91.7
27.5°	126.0	83.9	71.2
30°	106.8	64.2	51.6
32.5°	88.4	47.1	35.6
35°	71.2	31.9	22.5
37.5°	54.8	19.6	11.5
40°	39.7	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°	171.9	166.9	150.6	123.6	86.3	48.3	18.0	3.3	0.8	1.2	1.2
110°	149.8	145.7	128.9	102.7	69.6	36.0	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)