

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: P550651

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-82-86-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: P550651
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

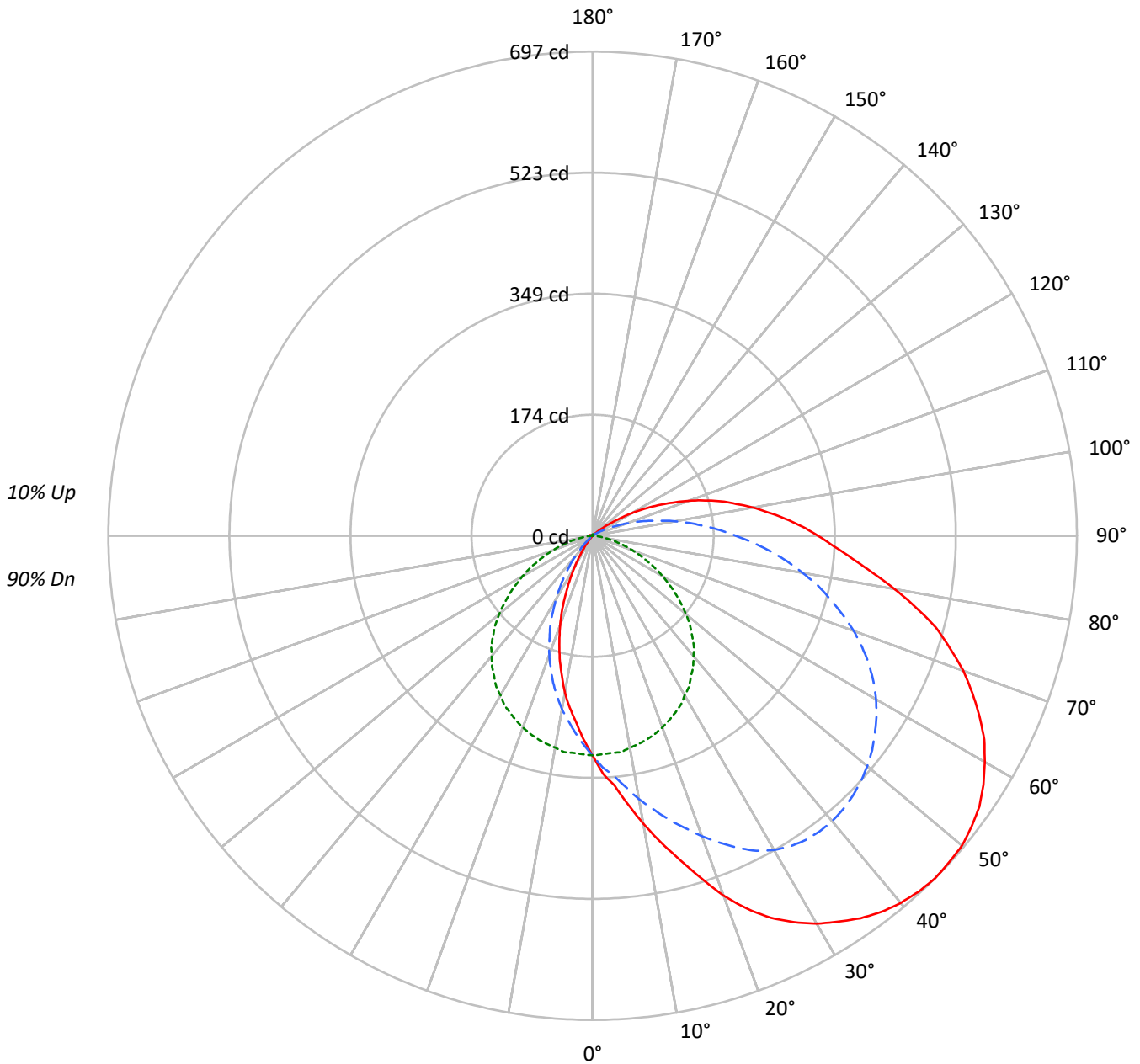
Lumens per Lamp: N/A
Luminaire Lumens: 1562.9 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3404	3404	3404
5°	3736	3353	2797
10°	4228	3312	2306
15°	4738	3270	1796
20°	5344	3217	1323
25°	5845	3155	869
30°	6219	3072	489
35°	6542	2983	216
40°	6829	2873	51
45°	7075	2736	0
50°	7281	2553	0
55°	7438	2322	0
60°	7517	2053	0
65°	7549	1747	0
70°	7524	1424	0
75°	7428	1052	6
80°	7127	642	32
85°	6890	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.3	1.9
10°-20°	90.7	5.8
20°-30°	146.8	9.4
30°-40°	188.6	12.1
40°-50°	213.5	13.7
50°-60°	221.2	14.2
60°-70°	208.6	13.3
70°-80°	174.8	11.2
80°-90°	126.7	8.1
90°-100°	83.3	5.3
100°-110°	48.1	3.1
110°-120°	21.2	1.4
120°-130°	5.7	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°	267.8	17.1
0°-40°	456.4	29.2
0°-60°	891.2	57.0
0°-90°	1401.4	89.7
90°-120°	152.6	9.8
90°-150°	160.5	10.3
90°-180°	162.0	10.4
0°-180°	1562.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	316	316	316	316	316	
5°	361	347	314	285	270	36
15°	482	423	303	219	183	139
25°	607	496	281	144	90	281
35°	672	535	247	70	22	422
45°	697	529	202	16	0	538
55°	679	496	146	0	0	607
65°	614	439	87	0	0	608
75°	512	354	37	0	0	537
85°	375	257	6	2	2	320
90°	325	206	2	2	3	178
95°	279	161	1	3	4	219
105°	192	83	1	2	3	202
115°	104	28	1	1	2	104
125°	31	4	2	1	2	31
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°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2
2.5°	342.7	342.3	341.1	339.1	336.3	331.5	327.4	323.8	319.0	314.9	307.3
5°	360.9	358.8	357.2	355.2	348.8	344.3	337.1	329.0	321.4	313.7	298.4
7.5°	389.9	386.6	384.2	378.6	369.7	359.7	348.4	340.7	335.5	314.1	288.0
10°	420.9	418.1	413.2	403.2	392.3	377.8	361.7	343.5	327.4	309.7	278.7
12.5°	451.5	447.5	440.6	427.7	412.4	394.3	372.1	350.8	327.8	306.9	267.8
15°	482.1	477.7	470.4	454.7	434.6	410.8	383.8	356.8	329.9	303.3	256.6
17.5°	515.5	509.5	498.6	480.9	455.5	426.1	394.3	361.7	329.0	298.8	244.5
20°	551.4	542.9	531.2	507.5	477.7	443.0	404.8	366.5	328.6	293.6	230.8
22.5°	581.2	572.7	559.8	535.3	499.4	457.1	413.6	369.7	327.0	287.6	217.9
25°	606.9	600.1	586.0	557.8	519.9	472.0	422.1	372.1	324.6	281.1	204.2
27.5°	627.1	620.6	604.9	575.9	537.3	485.3	428.5	373.3	321.4	274.7	190.1
30°	644.8	638.4	619.4	589.6	548.9	495.8	435.0	373.8	317.4	265.0	174.8
32.5°	658.5	652.5	633.1	601.3	557.0	503.0	438.6	373.3	312.1	258.2	158.3
35°	672.2	666.1	643.6	609.8	563.0	506.3	441.4	371.3	305.7	246.9	142.6
37.5°	682.7	675.8	652.9	615.4	565.9	507.1	441.0	368.5	298.8	237.6	126.9
40°	689.9	682.7	658.1	618.6	566.7	505.9	437.8	363.7	290.8	225.9	110.4
42.5°	694.7	686.7	660.5	623.5	565.1	502.6	433.0	357.6	281.9	215.9	94.6
45°	697.2	688.7	660.9	619.4	562.2	496.6	425.7	350.0	272.3	202.2	78.9
47.5°	695.9	686.7	658.9	615.0	557.0	490.1	417.6	340.7	260.6	190.1	64.0
50°	693.9	684.3	654.5	609.4	549.8	482.1	408.8	329.4	248.5	175.2	50.7
52.5°	687.5	677.8	649.6	601.3	541.3	472.8	396.7	317.8	235.6	160.7	38.7
55°	679.4	670.6	641.2	594.1	530.4	461.5	385.4	305.3	223.1	145.8	27.8
57.5°	667.0	658.9	630.7	582.4	519.5	449.1	372.9	291.6	207.4	130.9	19.3
60°	651.6	643.6	616.2	569.1	507.1	435.0	359.3	277.5	193.3	116.0	12.1
62.5°	635.5	627.9	599.3	552.6	491.4	420.1	344.3	263.4	178.4	102.3	7.2
65°	614.2	606.9	581.2	532.8	474.0	404.0	327.8	246.5	163.1	87.0	4.0
67.5°	591.6	585.2	559.0	514.7	453.9	386.2	310.9	230.0	147.0	73.7	2.0
70°	567.5	559.4	535.3	490.1	433.4	366.1	292.4	213.1	131.7	60.8	0.0
72.5°	539.3	533.2	509.9	467.2	409.6	344.8	273.5	194.5	114.8	48.3	0.4
75°	511.9	504.2	482.9	442.6	386.2	322.2	252.5	177.2	98.3	37.1	0.4
77.5°	476.5	474.0	453.9	414.8	364.1	300.5	229.6	156.3	82.6	26.6	0.4
80°	441.0	438.6	422.9	387.0	338.3	274.7	208.2	136.5	67.3	17.7	0.4
82.5°	406.0	402.7	387.8	358.0	312.1	252.9	186.1	116.8	53.2	10.9	0.4
85°	374.6	370.5	354.4	327.0	285.1	228.4	163.1	97.5	39.5	6.0	0.8
87.5°	347.6	344.8	327.0	298.8	257.8	205.4	143.0	78.9	27.8	2.8	1.2
90°	324.6	318.6	302.9	273.1	232.0	180.0	121.6	63.2	18.5	1.6	1.6
92.5°	302.1	296.8	279.5	248.9	209.0	158.3	101.1	48.3	11.7	0.8	2.0
95°	278.7	273.1	256.1	228.0	185.7	136.1	83.0	35.4	6.4	0.8	2.0
97.5°	255.7	250.5	232.8	204.6	164.7	116.8	65.6	25.0	3.2	0.8	1.6
100°	234.4	228.4	212.2	184.1	143.8	97.5	50.7	16.1	2.0	0.8	1.6
102.5°	211.8	207.0	190.5	163.1	122.0	79.3	37.9	10.1	0.8	0.8	1.2
105°	191.7	185.7	169.6	141.4	103.9	62.4	26.6	6.0	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°	124.9	120.0	105.9	82.2	52.8	24.6	7.2	1.2	1.2	1.2	1.2
115°	104.3	97.1	84.6	63.6	39.1	16.1	3.6	1.2	1.2	1.2	1.2
117.5°	83.4	77.3	68.5	48.3	25.8	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.2	59.6	49.5	33.4	17.3	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.7	42.3	33.4	21.7	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.0	28.6	22.2	13.3	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.1	18.1	12.9	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.3	10.1	7.7	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	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°	316.2	316.2	316.2
2.5°	300.9	295.2	293.6
5°	284.7	275.5	270.2
7.5°	268.6	256.1	250.1
10°	253.7	236.0	229.6
12.5°	236.0	215.5	205.4
15°	219.1	192.5	182.8
17.5°	200.2	170.4	159.1
20°	182.4	148.2	136.5
22.5°	162.3	126.5	113.6
25°	144.2	104.7	90.2
27.5°	124.0	82.6	70.1
30°	105.1	63.2	50.7
32.5°	87.0	46.3	35.0
35°	70.1	31.4	22.2
37.5°	54.0	19.3	11.3
40°	39.1	10.1	5.2
42.5°	26.2	4.8	2.8
45°	16.1	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.8	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	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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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°	169.2	164.3	148.2	121.6	85.0	47.5	17.7	3.2	0.8	1.2	1.2
110°	147.4	143.4	126.9	101.1	68.5	35.4	11.7	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)