

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: P550465

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-82-94-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: P550465
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-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

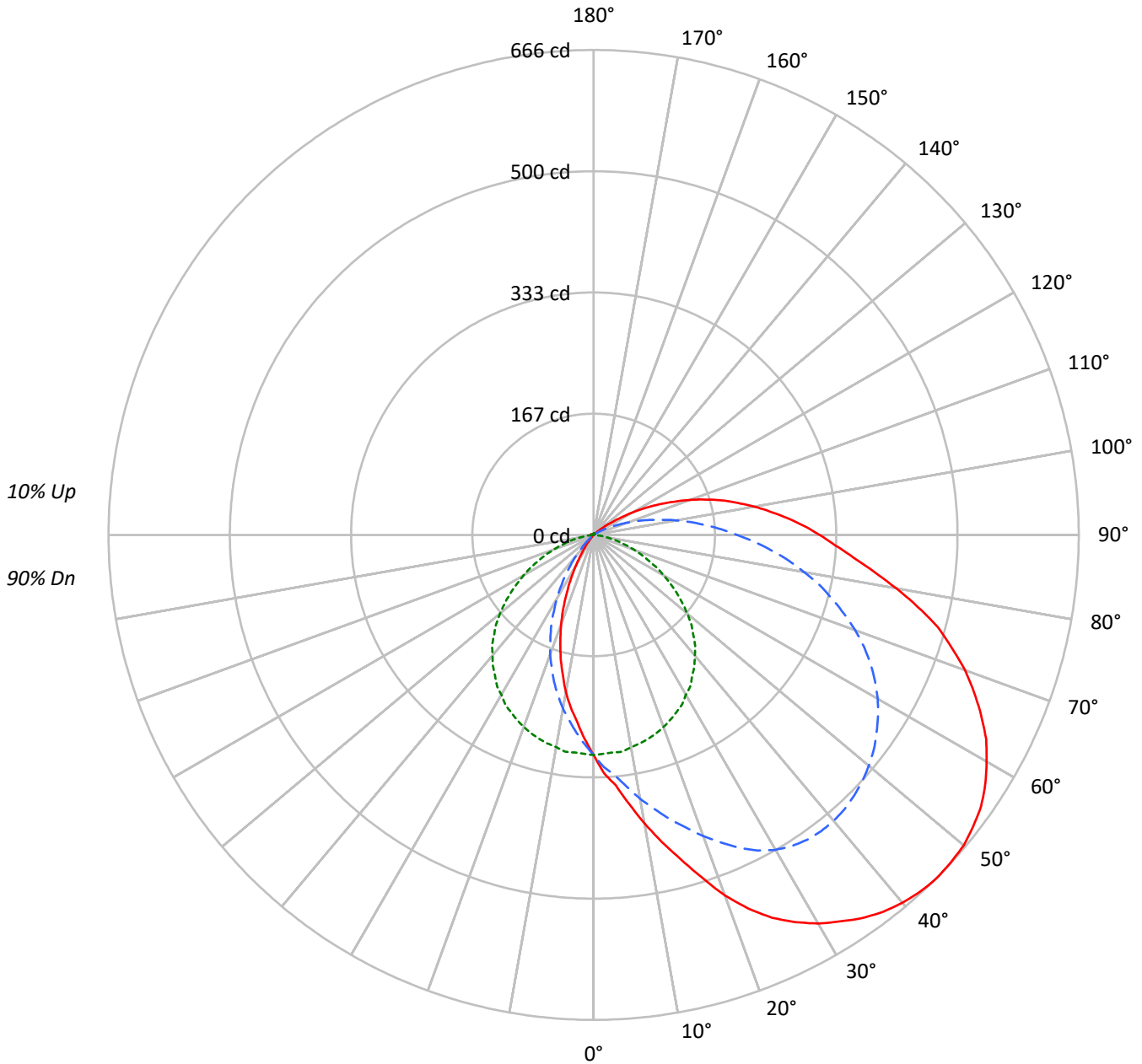
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1494.0 lumens
Efficiency: N/A
Efficacy: 68.8 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°	3253	3253	3253
5°	3570	3205	2674
10°	4041	3165	2204
15°	4528	3126	1718
20°	5107	3074	1265
25°	5587	3015	830
30°	5944	2936	468
35°	6253	2852	206
40°	6528	2747	49
45°	6763	2616	0
50°	6960	2441	0
55°	7110	2220	0
60°	7186	1963	0
65°	7216	1671	0
70°	7191	1361	0
75°	7100	1004	6
80°	6812	613	31
85°	6584	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	1.9
10°-20°	86.7	5.8
20°-30°	140.4	9.4
30°-40°	180.3	12.1
40°-50°	204.1	13.7
50°-60°	211.5	14.2
60°-70°	199.4	13.3
70°-80°	167.1	11.2
80°-90°	121.1	8.1
90°-100°	79.6	5.3
100°-110°	46.0	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	256.0	17.1
0°-40°	436.3	29.2
0°-60°	851.8	57.0
0°-90°	1339.5	89.7
90°-120°	145.9	9.8
90°-150°	153.5	10.3
90°-180°	155.0	10.4
0°-180°	1494.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	302	302	302	302	302	
5°	345	331	300	272	258	35
15°	461	404	290	209	175	133
25°	580	474	269	138	86	268
35°	642	511	236	67	21	403
45°	666	506	193	15	0	514
55°	649	474	139	0	0	580
65°	587	420	83	0	0	581
75°	489	339	35	0	0	513
85°	358	245	6	2	2	306
90°	310	197	2	2	3	170
95°	266	154	1	3	4	209
105°	183	80	1	2	3	193
115°	100	26	1	1	2	100
125°	30	4	2	1	2	30
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°	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2	302.2
2.5°	327.6	327.2	326.1	324.1	321.4	316.8	313.0	309.5	304.9	301.0	293.7
5°	344.9	343.0	341.5	339.5	333.4	329.1	322.2	314.5	307.2	299.9	285.3
7.5°	372.6	369.6	367.3	361.9	353.4	343.8	333.0	325.7	320.7	300.3	275.3
10°	402.3	399.6	395.0	385.4	375.0	361.1	345.7	328.4	313.0	296.0	266.4
12.5°	431.5	427.7	421.2	408.8	394.2	376.9	355.7	335.3	313.4	293.3	256.0
15°	460.8	456.6	449.6	434.6	415.4	392.7	366.9	341.1	315.3	289.9	245.2
17.5°	492.8	487.0	476.6	459.7	435.4	407.3	376.9	345.7	314.5	285.6	233.7
20°	527.0	518.9	507.8	485.1	456.6	423.5	386.9	350.3	314.1	280.6	220.6
22.5°	555.5	547.4	535.1	511.6	477.4	436.9	395.4	353.4	312.6	274.9	208.3
25°	580.1	573.6	560.1	533.2	497.0	451.2	403.4	355.7	310.3	268.7	195.2
27.5°	599.4	593.2	578.2	550.5	513.5	463.9	409.6	356.9	307.2	262.5	181.7
30°	616.3	610.2	592.1	563.6	524.7	473.9	415.8	357.3	303.4	253.3	167.1
32.5°	629.4	623.6	605.2	574.8	532.4	480.8	419.2	356.9	298.4	246.8	151.3
35°	642.5	636.7	615.2	582.8	538.2	483.9	421.9	354.9	292.2	236.0	136.3
37.5°	652.5	646.0	624.0	588.2	540.9	484.7	421.5	352.2	285.6	227.1	121.3
40°	659.5	652.5	629.0	591.3	541.7	483.5	418.5	347.6	277.9	216.0	105.5
42.5°	664.1	656.4	631.3	595.9	540.1	480.4	413.8	341.9	269.5	206.3	90.5
45°	666.4	658.3	631.7	592.1	537.4	474.7	406.9	334.5	260.2	193.3	75.5
47.5°	665.2	656.4	629.8	587.8	532.4	468.5	399.2	325.7	249.1	181.7	61.2
50°	663.3	654.1	625.6	582.5	525.5	460.8	390.7	314.9	237.5	167.5	48.5
52.5°	657.1	647.9	621.0	574.8	517.4	452.0	379.2	303.7	225.2	153.6	37.0
55°	649.4	641.0	612.9	567.8	507.0	441.2	368.4	291.8	213.3	139.4	26.6
57.5°	637.5	629.8	602.9	556.7	496.6	429.2	356.5	278.7	198.3	125.1	18.5
60°	622.9	615.2	589.0	544.0	484.7	415.8	343.4	265.2	184.8	110.9	11.5
62.5°	607.5	600.2	572.8	528.2	469.7	401.5	329.1	251.8	170.5	97.8	6.9
65°	587.1	580.1	555.5	509.3	453.1	386.1	313.4	235.6	155.9	83.2	3.8
67.5°	565.5	559.4	534.3	492.0	433.9	369.2	297.2	219.8	140.5	70.4	1.9
70°	542.4	534.7	511.6	468.5	414.2	349.9	279.5	203.6	125.9	58.1	0.0
72.5°	515.5	509.7	487.4	446.6	391.5	329.5	261.4	185.9	109.7	46.2	0.4
75°	489.3	482.0	461.6	423.1	369.2	308.0	241.4	169.4	93.9	35.4	0.4
77.5°	455.4	453.1	433.9	396.5	348.0	287.2	219.4	149.4	78.9	25.4	0.4
80°	421.5	419.2	404.2	370.0	323.4	262.5	199.0	130.5	64.3	16.9	0.4
82.5°	388.0	385.0	370.7	342.2	298.4	241.8	177.9	111.6	50.8	10.4	0.4
85°	358.0	354.2	338.8	312.6	272.6	218.3	155.9	93.2	37.7	5.8	0.8
87.5°	332.2	329.5	312.6	285.6	246.4	196.3	136.7	75.5	26.6	2.7	1.2
90°	310.3	304.5	289.5	261.0	221.7	172.1	116.3	60.4	17.7	1.5	1.5
92.5°	288.7	283.7	267.2	237.9	199.8	151.3	96.6	46.2	11.2	0.8	1.9
95°	266.4	261.0	244.8	217.9	177.5	130.1	79.3	33.9	6.2	0.8	1.9
97.5°	244.5	239.5	222.5	195.6	157.5	111.6	62.7	23.9	3.1	0.8	1.5
100°	224.1	218.3	202.9	175.9	137.4	93.2	48.5	15.4	1.9	0.8	1.5
102.5°	202.5	197.9	182.1	155.9	116.6	75.8	36.2	9.6	0.8	0.8	1.2
105°	183.2	177.5	162.1	135.1	99.3	59.7	25.4	5.8	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°	119.3	114.7	101.2	78.5	50.4	23.5	6.9	1.2	1.2	1.2	1.2
115°	99.7	92.8	80.8	60.8	37.3	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.7	73.9	65.4	46.2	24.6	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.4	57.0	47.4	32.0	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.7	40.4	32.0	20.8	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.6	27.3	21.2	12.7	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.2	17.3	12.3	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
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°	302.2	302.2	302.2
2.5°	287.6	282.2	280.6
5°	272.2	263.3	258.3
7.5°	256.8	244.8	239.1
10°	242.5	225.6	219.4
12.5°	225.6	206.0	196.3
15°	209.4	184.0	174.8
17.5°	191.3	162.8	152.1
20°	174.4	141.7	130.5
22.5°	155.1	120.9	108.6
25°	137.8	100.1	86.2
27.5°	118.6	78.9	67.0
30°	100.5	60.4	48.5
32.5°	83.2	44.3	33.5
35°	67.0	30.0	21.2
37.5°	51.6	18.5	10.8
40°	37.3	9.6	5.0
42.5°	25.0	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.8
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	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°	1.5	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°	161.7	157.1	141.7	116.3	81.2	45.4	16.9	3.1	0.8	1.2	1.2
110°	140.9	137.0	121.3	96.6	65.4	33.9	11.2	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)