

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: P550637

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-81-87-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: P550637
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-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

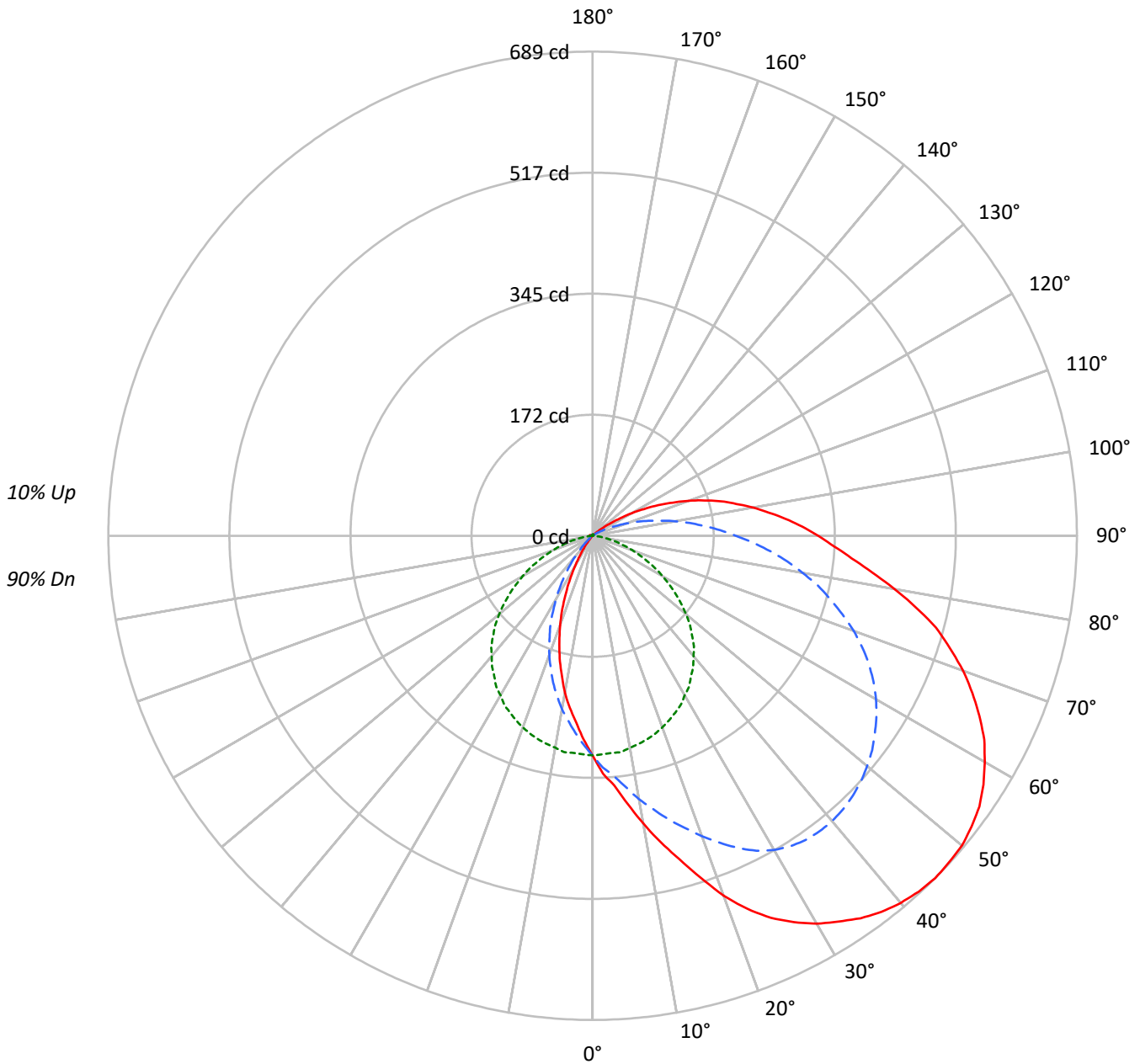
Lumens per Lamp: N/A
Luminaire Lumens: 1545.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3364	3364	3364
5°	3693	3314	2765
10°	4178	3274	2279
15°	4683	3233	1776
20°	5282	3180	1308
25°	5779	3119	859
30°	6148	3037	484
35°	6466	2948	213
40°	6751	2840	51
45°	6993	2705	0
50°	7197	2524	0
55°	7353	2295	0
60°	7431	2030	0
65°	7462	1727	0
70°	7437	1408	0
75°	7343	1038	6
80°	7044	635	32
85°	6809	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.9	1.9
10°-20°	89.6	5.8
20°-30°	145.2	9.4
30°-40°	186.5	12.1
40°-50°	211.1	13.7
50°-60°	218.7	14.2
60°-70°	206.2	13.3
70°-80°	172.8	11.2
80°-90°	125.3	8.1
90°-100°	82.3	5.3
100°-110°	47.6	3.1
110°-120°	21.0	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°	264.7	17.1
0°-40°	451.2	29.2
0°-60°	880.9	57.0
0°-90°	1385.2	89.7
90°-120°	150.9	9.8
90°-150°	158.7	10.3
90°-180°	160.0	10.4
0°-180°	1545.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	312	312	312	312	312	
5°	357	343	310	282	267	36
15°	476	418	300	217	181	137
25°	600	490	278	142	89	277
35°	664	528	244	69	22	417
45°	689	523	200	16	0	532
55°	672	490	144	0	0	600
65°	607	434	86	0	0	601
75°	506	350	37	0	0	531
85°	370	254	6	2	2	316
90°	321	204	2	2	3	176
95°	276	159	1	3	4	216
105°	190	82	1	2	3	200
115°	103	27	1	1	2	103
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°	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5
2.5°	338.8	338.4	337.2	335.2	332.4	327.6	323.7	320.1	315.3	311.3	303.8
5°	356.7	354.7	353.1	351.1	344.8	340.4	333.2	325.3	317.7	310.1	295.0
7.5°	385.4	382.2	379.8	374.2	365.5	355.5	344.4	336.8	331.6	310.5	284.6
10°	416.0	413.2	408.5	398.5	387.8	373.4	357.5	339.6	323.7	306.1	275.5
12.5°	446.3	442.3	435.5	422.8	407.7	389.7	367.9	346.8	324.1	303.4	264.7
15°	476.5	472.2	465.0	449.5	429.6	406.1	379.4	352.7	326.1	299.8	253.6
17.5°	509.6	503.6	492.9	475.3	450.3	421.2	389.7	357.5	325.3	295.4	241.7
20°	545.0	536.7	525.1	501.6	472.2	437.9	400.1	362.3	324.9	290.2	228.1
22.5°	574.5	566.1	553.4	529.1	493.7	451.9	408.9	365.5	323.3	284.3	215.4
25°	600.0	593.2	579.3	551.4	514.0	466.6	417.2	367.9	320.9	277.9	201.8
27.5°	619.9	613.5	598.0	569.3	531.1	479.7	423.6	369.0	317.7	271.5	187.9
30°	637.4	631.0	612.3	582.8	542.6	490.1	430.0	369.4	313.7	262.0	172.8
32.5°	650.9	644.9	625.8	594.4	550.6	497.2	433.5	369.0	308.5	255.2	156.5
35°	664.4	658.5	636.2	602.7	556.6	500.4	436.3	367.1	302.2	244.0	140.9
37.5°	674.8	668.0	645.3	608.3	559.3	501.2	435.9	364.3	295.4	234.9	125.4
40°	682.0	674.8	650.5	611.5	560.1	500.0	432.7	359.5	287.4	223.3	109.1
42.5°	686.7	678.8	652.9	616.3	558.5	496.8	428.0	353.5	278.7	213.4	93.6
45°	689.1	680.8	653.3	612.3	555.8	490.9	420.8	346.0	269.1	199.9	78.0
47.5°	687.9	678.8	651.3	607.9	550.6	484.5	412.8	336.8	257.6	187.9	63.3
50°	685.9	676.4	646.9	602.3	543.4	476.5	404.1	325.7	245.6	173.2	50.2
52.5°	679.6	670.0	642.2	594.4	535.1	467.4	392.1	314.1	232.9	158.8	38.2
55°	671.6	662.9	633.8	587.2	524.3	456.2	381.0	301.8	220.6	144.1	27.5
57.5°	659.3	651.3	623.4	575.7	513.6	443.9	368.6	288.2	205.0	129.4	19.1
60°	644.1	636.2	609.1	562.5	501.2	430.0	355.1	274.3	191.1	114.7	11.9
62.5°	628.2	620.7	592.4	546.2	485.7	415.2	340.4	260.4	176.4	101.1	7.2
65°	607.1	600.0	574.5	526.7	468.6	399.3	324.1	243.6	161.2	86.0	4.0
67.5°	584.8	578.5	552.6	508.8	448.7	381.8	307.3	227.3	145.3	72.9	2.0
70°	560.9	553.0	529.1	484.5	428.4	361.9	289.0	210.6	130.2	60.1	0.0
72.5°	533.1	527.1	504.0	461.8	404.9	340.8	270.3	192.3	113.5	47.8	0.4
75°	506.0	498.4	477.3	437.5	381.8	318.5	249.6	175.2	97.1	36.6	0.4
77.5°	471.0	468.6	448.7	410.1	359.9	297.0	226.9	154.5	81.6	26.3	0.4
80°	435.9	433.5	418.0	382.6	334.4	271.5	205.8	135.0	66.5	17.5	0.4
82.5°	401.3	398.1	383.4	353.9	308.5	250.0	183.9	115.5	52.6	10.7	0.4
85°	370.2	366.3	350.3	323.3	281.9	225.7	161.2	96.3	39.0	6.0	0.8
87.5°	343.6	340.8	323.3	295.4	254.8	203.0	141.3	78.0	27.5	2.8	1.2
90°	320.9	314.9	299.4	269.9	229.3	178.0	120.2	62.5	18.3	1.6	1.6
92.5°	298.6	293.4	276.3	246.0	206.6	156.5	99.9	47.8	11.5	0.8	2.0
95°	275.5	269.9	253.2	225.3	183.5	134.6	82.0	35.0	6.4	0.8	2.0
97.5°	252.8	247.6	230.1	202.2	162.8	115.5	64.9	24.7	3.2	0.8	1.6
100°	231.7	225.7	209.8	181.9	142.1	96.3	50.2	15.9	2.0	0.8	1.6
102.5°	209.4	204.6	188.3	161.2	120.6	78.4	37.4	10.0	0.8	0.8	1.2
105°	189.5	183.5	167.6	139.7	102.7	61.7	26.3	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°	123.4	118.6	104.7	81.2	52.2	24.3	7.2	1.2	1.2	1.2	1.2
115°	103.1	95.9	83.6	62.9	38.6	15.9	3.6	1.2	1.2	1.2	1.2
117.5°	82.4	76.4	67.7	47.8	25.5	10.4	2.0	1.2	1.2	1.2	1.2
120°	64.5	58.9	49.0	33.0	17.1	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.2	41.8	33.0	21.5	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.7	28.3	21.9	13.1	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.9	17.9	12.7	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	10.0	7.6	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°	312.5	312.5	312.5
2.5°	297.4	291.8	290.2
5°	281.5	272.3	267.1
7.5°	265.5	253.2	247.2
10°	250.8	233.3	226.9
12.5°	233.3	213.0	203.0
15°	216.6	190.3	180.7
17.5°	197.9	168.4	157.3
20°	180.3	146.5	135.0
22.5°	160.4	125.0	112.3
25°	142.5	103.5	89.2
27.5°	122.6	81.6	69.3
30°	103.9	62.5	50.2
32.5°	86.0	45.8	34.6
35°	69.3	31.1	21.9
37.5°	53.3	19.1	11.1
40°	38.6	10.0	5.2
42.5°	25.9	4.8	2.8
45°	15.9	2.4	0.0
47.5°	9.2	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°	167.2	162.4	146.5	120.2	84.0	47.0	17.5	3.2	0.8	1.2	1.2
110°	145.7	141.7	125.4	99.9	67.7	35.0	11.5	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)