

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: P550966

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-81-97-ED1D**

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: P550966
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-LD4-1STD-30-UNV-81-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

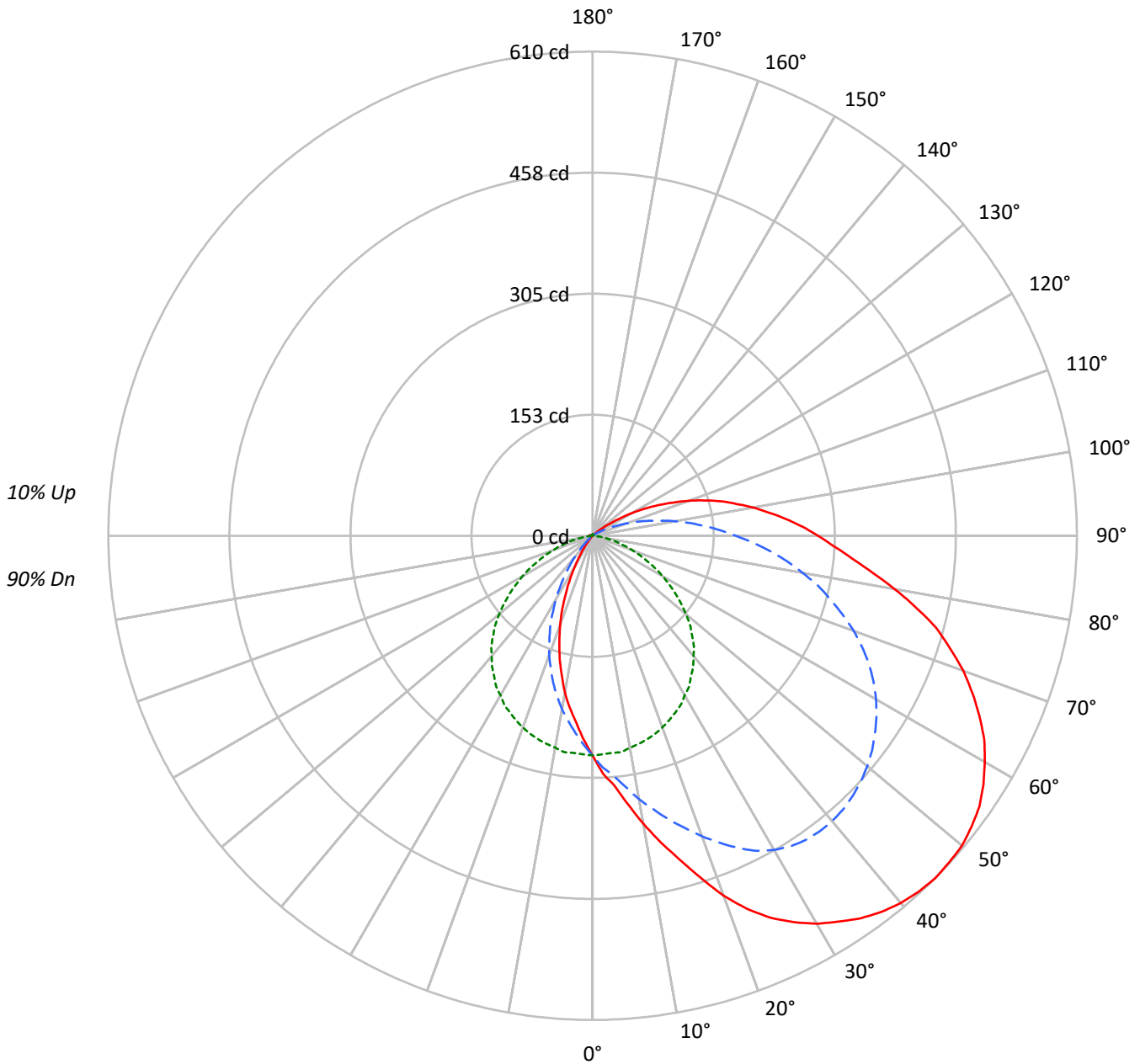
Lumens per Lamp: N/A
Luminaire Lumens: 1368.1 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	2978	2978	2978
5°	3269	2935	2448
10°	3700	2899	2018
15°	4146	2862	1572
20°	4677	2816	1158
25°	5116	2761	761
30°	5444	2688	428
35°	5726	2611	189
40°	5977	2516	46
45°	6193	2395	0
50°	6374	2234	0
55°	6511	2032	0
60°	6579	1796	0
65°	6608	1529	0
70°	6585	1246	0
75°	6501	919	6
80°	6238	562	29
85°	6029	270	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	1.9
10°-20°	79.4	5.8
20°-30°	128.5	9.4
30°-40°	165.1	12.1
40°-50°	186.9	13.7
50°-60°	193.6	14.2
60°-70°	182.6	13.3
70°-80°	153.0	11.2
80°-90°	110.9	8.1
90°-100°	72.9	5.3
100°-110°	42.1	3.1
110°-120°	18.6	1.4
120°-130°	5.0	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	234.4	17.1
0°-40°	399.5	29.2
0°-60°	780.0	57.0
0°-90°	1226.5	89.7
90°-120°	133.6	9.8
90°-150°	140.6	10.3
90°-180°	142.0	10.4
0°-180°	1368.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	277	277	277	277	277	
5°	316	303	275	249	236	32
15°	422	370	265	192	160	122
25°	531	434	246	126	79	246
35°	588	468	216	61	19	369
45°	610	463	177	14	0	471
55°	595	434	128	0	0	531
65°	538	384	76	0	0	532
75°	448	310	32	0	0	470
85°	328	225	5	1	2	280
90°	284	180	1	2	2	156
95°	244	141	1	2	3	191
105°	168	73	1	2	3	177
115°	91	24	1	1	2	91
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7
2.5°	300.0	299.6	298.6	296.8	294.3	290.1	286.6	283.4	279.2	275.7	269.0
5°	315.8	314.1	312.7	310.9	305.3	301.4	295.0	288.0	281.3	274.6	261.2
7.5°	341.2	338.4	336.3	331.4	323.6	314.8	304.9	298.2	293.6	275.0	252.0
10°	368.4	365.9	361.7	352.9	343.3	330.6	316.5	300.7	286.6	271.1	243.9
12.5°	395.2	391.6	385.6	374.4	361.0	345.1	325.7	307.0	286.9	268.6	234.4
15°	421.9	418.1	411.7	398.0	380.3	359.6	335.9	312.3	288.7	265.4	224.5
17.5°	451.2	445.9	436.4	420.9	398.7	372.9	345.1	316.5	288.0	261.6	214.0
20°	482.6	475.2	464.9	444.2	418.1	387.8	354.3	320.8	287.6	257.0	202.0
22.5°	508.7	501.3	490.0	468.5	437.1	400.1	362.0	323.6	286.2	251.7	190.7
25°	531.2	525.2	512.9	488.2	455.1	413.1	369.4	325.7	284.1	246.0	178.7
27.5°	548.8	543.2	529.5	504.1	470.2	424.8	375.1	326.8	281.3	240.4	166.4
30°	564.4	558.7	542.1	516.1	480.5	433.9	380.7	327.1	277.8	231.9	153.0
32.5°	576.3	571.1	554.1	526.3	487.5	440.3	383.9	326.8	273.2	226.0	138.5
35°	588.3	583.0	563.3	533.7	492.8	443.1	386.3	325.0	267.5	216.1	124.8
37.5°	597.5	591.5	571.4	538.6	495.3	443.8	386.0	322.5	261.6	208.0	111.0
40°	603.8	597.5	576.0	541.4	496.0	442.7	383.2	318.3	254.5	197.8	96.6
42.5°	608.1	601.0	578.1	545.7	494.6	439.9	378.9	313.0	246.8	188.9	82.8
45°	610.2	602.8	578.5	542.1	492.1	434.6	372.6	306.3	238.3	177.0	69.1
47.5°	609.1	601.0	576.7	538.3	487.5	429.0	365.5	298.2	228.1	166.4	56.0
50°	607.4	598.9	572.8	533.3	481.2	421.9	357.8	288.3	217.5	153.3	44.4
52.5°	601.7	593.3	568.6	526.3	473.8	413.8	347.2	278.1	206.2	140.6	33.8
55°	594.7	586.9	561.2	519.9	464.2	404.0	337.3	267.2	195.3	127.6	24.3
57.5°	583.7	576.7	552.0	509.7	454.7	393.0	326.4	255.2	181.5	114.6	16.9
60°	570.3	563.3	539.3	498.1	443.8	380.7	314.4	242.9	169.2	101.5	10.6
62.5°	556.2	549.5	524.5	483.6	430.1	367.7	301.4	230.5	156.2	89.5	6.3
65°	537.6	531.2	508.7	466.4	414.9	353.6	286.9	215.7	142.8	76.1	3.5
67.5°	517.8	512.2	489.3	450.5	397.3	338.0	272.1	201.3	128.7	64.5	1.8
70°	496.7	489.6	468.5	429.0	379.3	320.4	255.9	186.5	115.3	53.2	0.0
72.5°	472.0	466.7	446.3	408.9	358.5	301.7	239.3	170.3	100.5	42.3	0.4
75°	448.0	441.3	422.6	387.4	338.0	282.0	221.0	155.1	86.0	32.4	0.4
77.5°	417.0	414.9	397.3	363.1	318.7	263.0	200.9	136.8	72.3	23.3	0.4
80°	386.0	383.9	370.1	338.8	296.1	240.4	182.2	119.5	58.9	15.5	0.4
82.5°	355.3	352.5	339.5	313.4	273.2	221.4	162.9	102.2	46.5	9.5	0.4
85°	327.8	324.3	310.2	286.2	249.6	199.9	142.8	85.3	34.5	5.3	0.7
87.5°	304.2	301.7	286.2	261.6	225.6	179.8	125.1	69.1	24.3	2.5	1.1
90°	284.1	278.8	265.1	239.0	203.0	157.6	106.5	55.3	16.2	1.4	1.4
92.5°	264.4	259.8	244.6	217.8	182.9	138.5	88.5	42.3	10.2	0.7	1.8
95°	243.9	239.0	224.2	199.5	162.5	119.1	72.6	31.0	5.6	0.7	1.8
97.5°	223.8	219.3	203.7	179.1	144.2	102.2	57.5	21.9	2.8	0.7	1.4
100°	205.2	199.9	185.8	161.1	125.8	85.3	44.4	14.1	1.8	0.7	1.4
102.5°	185.4	181.2	166.7	142.8	106.8	69.4	33.1	8.8	0.7	0.7	1.1
105°	167.8	162.5	148.4	123.7	90.9	54.6	23.3	5.3	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	109.3	105.0	92.7	71.9	46.2	21.5	6.3	1.1	1.1	1.1	1.1
115°	91.3	85.0	74.0	55.7	34.2	14.1	3.2	1.1	1.1	1.1	1.1
117.5°	73.0	67.7	59.9	42.3	22.6	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.1	52.2	43.4	29.3	15.2	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	40.9	37.0	29.3	19.0	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.1	25.0	19.4	11.6	5.6	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.6	15.9	11.3	6.7	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	9.9	8.8	6.7	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.6	5.3	3.5	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	276.7	276.7	276.7
2.5°	263.3	258.4	257.0
5°	249.2	241.1	236.5
7.5°	235.1	224.2	218.9
10°	222.1	206.6	200.9
12.5°	206.6	188.6	179.8
15°	191.8	168.5	160.0
17.5°	175.2	149.1	139.2
20°	159.7	129.7	119.5
22.5°	142.1	110.7	99.4
25°	126.2	91.7	79.0
27.5°	108.6	72.3	61.3
30°	92.0	55.3	44.4
32.5°	76.1	40.5	30.7
35°	61.3	27.5	19.4
37.5°	47.2	16.9	9.9
40°	34.2	8.8	4.6
42.5°	22.9	4.2	2.5
45°	14.1	2.1	0.0
47.5°	8.1	0.0	0.0
50°	4.2	0.0	0.0
52.5°	1.8	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	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.5
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	148.1	143.8	129.7	106.5	74.4	41.6	15.5	2.8	0.7	1.1	1.1
110°	129.0	125.5	111.0	88.5	59.9	31.0	10.2	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)