

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: P551043

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-96-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: P551043
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-35-UNV-82-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

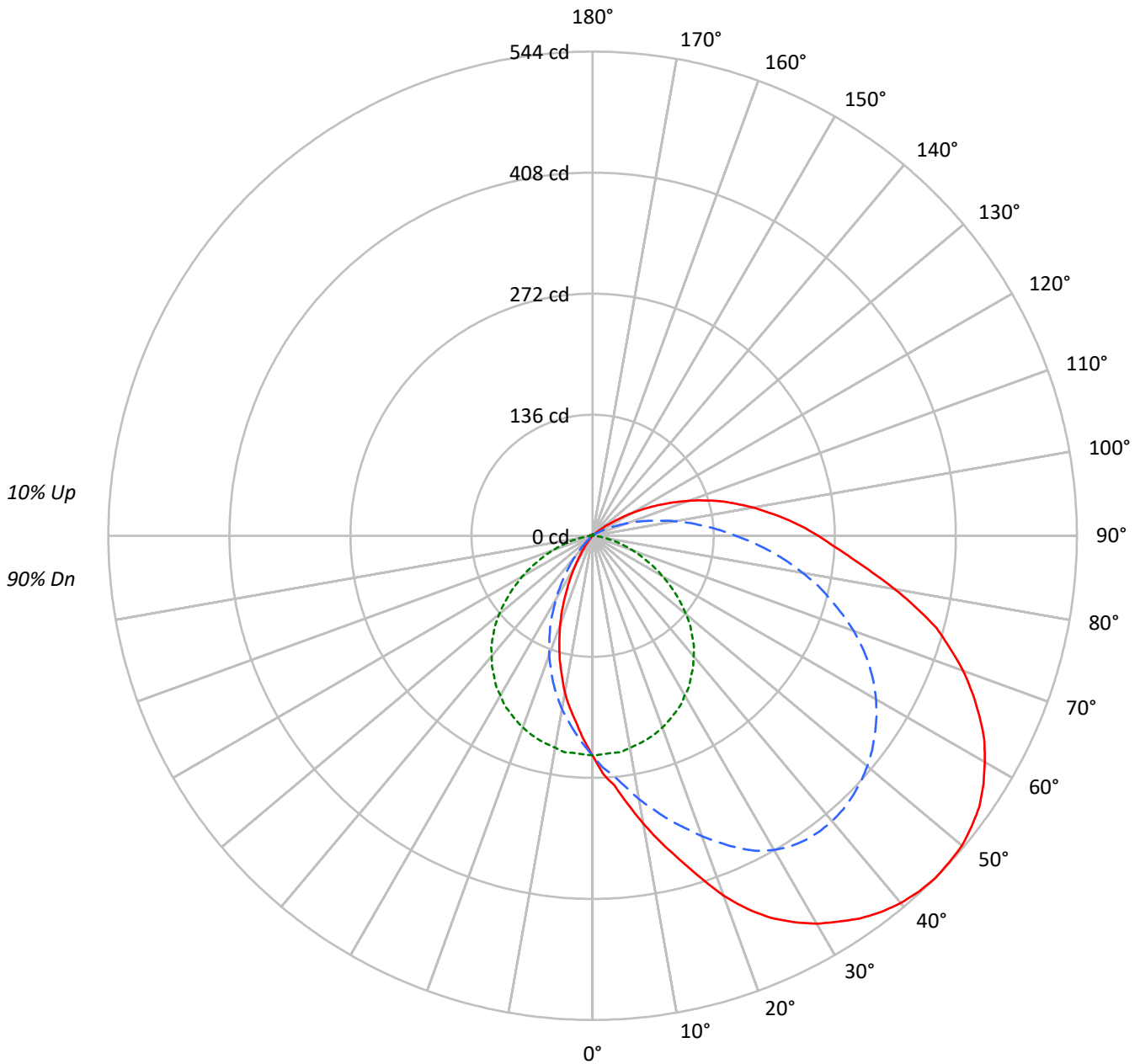
Lumens per Lamp: N/A
Luminaire Lumens: 1220.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-96-ED1D-90

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°	2657	2657	2657
5°	2916	2618	2183
10°	3300	2585	1800
15°	3698	2552	1402
20°	4171	2511	1033
25°	4562	2462	678
30°	4854	2398	382
35°	5107	2328	168
40°	5330	2243	41
45°	5523	2135	0
50°	5684	1992	0
55°	5806	1812	0
60°	5868	1602	0
65°	5892	1364	0
70°	5872	1113	0
75°	5799	820	4
80°	5563	501	26
85°	5378	239	35



TEST NUMBER: P551043

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	1.9
10°-20°	70.8	5.8
20°-30°	114.6	9.4
30°-40°	147.2	12.1
40°-50°	166.7	13.7
50°-60°	172.7	14.2
60°-70°	162.8	13.3
70°-80°	136.5	11.2
80°-90°	98.9	8.1
90°-100°	65.0	5.3
100°-110°	37.5	3.1
110°-120°	16.6	1.4
120°-130°	4.5	0.4
130°-140°	1.0	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	209.0	17.1
0°-40°	356.3	29.2
0°-60°	695.6	57.0
0°-90°	1093.8	89.7
90°-120°	119.1	9.8
90°-150°	125.3	10.3
90°-180°	126.0	10.3
0°-180°	1220.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	247	247	247	247	247	
5°	282	270	245	222	211	28
15°	376	330	237	171	143	109
25°	474	387	219	112	70	219
35°	525	417	193	55	17	329
45°	544	413	158	13	0	420
55°	530	387	114	0	0	474
65°	479	343	68	0	0	474
75°	400	276	29	0	0	419
85°	292	200	5	1	2	250
90°	253	161	1	2	2	139
95°	218	126	1	2	3	171
105°	150	65	1	2	2	158
115°	81	22	1	1	2	82
125°	24	3	1	1	1	24
135°	1	1	2	1	1	2
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°	246.8	246.8	246.8	246.8	246.8	246.8	246.8	246.8	246.8	246.8	246.8
2.5°	267.5	267.2	266.3	264.7	262.5	258.7	255.6	252.7	249.0	245.8	239.9
5°	281.7	280.1	278.8	277.3	272.2	268.8	263.1	256.8	250.9	244.9	232.9
7.5°	304.3	301.8	299.9	295.5	288.6	280.7	271.9	266.0	261.9	245.2	224.8
10°	328.5	326.3	322.5	314.7	306.2	294.9	282.3	268.2	255.6	241.7	217.5
12.5°	352.4	349.3	343.9	333.9	321.9	307.8	290.5	273.8	255.9	239.5	209.1
15°	376.3	372.8	367.2	354.9	339.2	320.7	299.6	278.5	257.5	236.7	200.3
17.5°	402.4	397.7	389.2	375.4	355.5	332.6	307.8	282.3	256.8	233.3	190.8
20°	430.4	423.8	414.6	396.1	372.8	345.8	315.9	286.1	256.5	229.2	180.1
22.5°	453.6	447.0	437.0	417.8	389.8	356.8	322.9	288.6	255.3	224.5	170.1
25°	473.7	468.4	457.4	435.4	405.8	368.4	329.5	290.5	253.4	219.4	159.4
27.5°	489.5	484.4	472.2	449.5	419.4	378.8	334.5	291.4	250.9	214.4	148.4
30°	503.3	498.3	483.5	460.2	428.5	387.0	339.5	291.7	247.7	206.9	136.4
32.5°	514.0	509.3	494.2	469.3	434.8	392.6	342.3	291.4	243.6	201.5	123.5
35°	524.7	520.0	502.4	475.9	439.5	395.2	344.5	289.8	238.6	192.7	111.3
37.5°	532.8	527.5	509.6	480.4	441.7	395.8	344.2	287.6	233.3	185.5	99.0
40°	538.5	532.8	513.7	482.9	442.3	394.8	341.7	283.9	227.0	176.4	86.1
42.5°	542.3	536.0	515.6	486.6	441.1	392.3	337.9	279.2	220.1	168.5	73.9
45°	544.2	537.6	515.9	483.5	438.9	387.6	332.3	273.2	212.5	157.8	61.6
47.5°	543.2	536.0	514.3	480.0	434.8	382.6	326.0	266.0	203.4	148.4	50.0
50°	541.7	534.1	510.8	475.6	429.1	376.3	319.1	257.2	194.0	136.7	39.6
52.5°	536.6	529.1	507.1	469.3	422.5	369.1	309.6	248.0	183.9	125.4	30.2
55°	530.3	523.4	500.5	463.7	414.0	360.3	300.8	238.3	174.2	113.8	21.7
57.5°	520.6	514.3	492.3	454.6	405.5	350.5	291.1	227.6	161.9	102.2	15.1
60°	508.6	502.4	481.0	444.2	395.8	339.5	280.4	216.6	150.9	90.5	9.4
62.5°	496.1	490.1	467.8	431.3	383.5	327.9	268.8	205.6	139.3	79.8	5.7
65°	479.4	473.7	453.6	415.9	370.0	315.3	255.9	192.4	127.3	67.9	3.1
67.5°	461.8	456.8	436.3	401.8	354.3	301.5	242.7	179.5	114.7	57.5	1.6
70°	442.9	436.7	417.8	382.6	338.3	285.8	228.2	166.3	102.8	47.5	0.0
72.5°	420.9	416.2	398.0	364.7	319.7	269.1	213.5	151.8	89.6	37.7	0.3
75°	399.6	393.6	376.9	345.5	301.5	251.5	197.1	138.3	76.7	28.9	0.3
77.5°	371.9	370.0	354.3	323.8	284.2	234.5	179.2	122.0	64.4	20.7	0.3
80°	344.2	342.3	330.1	302.1	264.1	214.4	162.5	106.6	52.5	13.8	0.3
82.5°	316.9	314.4	302.7	279.5	243.6	197.4	145.2	91.2	41.5	8.5	0.3
85°	292.4	289.2	276.6	255.3	222.6	178.2	127.3	76.1	30.8	4.7	0.6
87.5°	271.3	269.1	255.3	233.3	201.2	160.3	111.6	61.6	21.7	2.2	0.9
90°	253.4	248.7	236.4	213.1	181.1	140.5	94.9	49.4	14.5	1.3	1.3
92.5°	235.8	231.7	218.2	194.3	163.2	123.5	78.9	37.7	9.1	0.6	1.6
95°	217.5	213.1	199.9	177.9	144.9	106.3	64.8	27.7	5.0	0.6	1.6
97.5°	199.6	195.5	181.7	159.7	128.6	91.2	51.2	19.5	2.5	0.6	1.3
100°	183.0	178.2	165.7	143.7	112.2	76.1	39.6	12.6	1.6	0.6	1.3
102.5°	165.4	161.6	148.7	127.3	95.3	61.9	29.6	7.9	0.6	0.6	0.9
105°	149.6	144.9	132.3	110.3	81.1	48.7	20.7	4.7	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	97.5	93.7	82.7	64.1	41.2	19.2	5.7	0.9	0.9	0.9	0.9
115°	81.4	75.8	66.0	49.7	30.5	12.6	2.8	0.9	0.9	0.9	0.9
117.5°	65.1	60.4	53.4	37.7	20.1	8.2	1.6	0.9	0.9	0.9	0.9
120°	50.9	46.5	38.7	26.1	13.5	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.5	33.0	26.1	17.0	8.2	2.2	0.9	0.9	1.3	1.3	0.9
125°	24.2	22.3	17.3	10.4	5.0	0.9	0.9	0.9	1.3	1.3	0.9
127.5°	15.7	14.1	10.1	6.0	2.2	0.9	0.9	1.3	1.3	1.3	0.9
130°	8.8	7.9	6.0	3.5	0.9	0.9	0.9	1.3	1.3	1.3	0.9
132.5°	5.0	4.7	3.1	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.3
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	246.8	246.8	246.8
2.5°	234.8	230.4	229.2
5°	222.3	215.0	210.9
7.5°	209.7	199.9	195.2
10°	198.1	184.2	179.2
12.5°	184.2	168.2	160.3
15°	171.0	150.3	142.7
17.5°	156.2	133.0	124.2
20°	142.4	115.7	106.6
22.5°	126.7	98.7	88.7
25°	112.5	81.7	70.4
27.5°	96.8	64.4	54.7
30°	82.0	49.4	39.6
32.5°	67.9	36.2	27.3
35°	54.7	24.5	17.3
37.5°	42.1	15.1	8.8
40°	30.5	7.9	4.1
42.5°	20.4	3.8	2.2
45°	12.6	1.9	0.0
47.5°	7.2	0.0	0.0
50°	3.8	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.9	2.8	2.8
105°	1.6	2.2	2.5



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-96-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	0.9	1.3	1.6
117.5°	0.9	1.3	1.3
120°	0.9	0.9	1.3
122.5°	0.9	0.9	1.3
125°	0.9	0.9	1.3
127.5°	1.3	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.3	0.9	0.9
135°	1.3	0.9	0.9
137.5°	1.3	0.9	0.9
140°	1.3	0.9	0.9
142.5°	1.3	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.3	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	132.0	128.3	115.7	94.9	66.3	37.1	13.8	2.5	0.6	0.9	0.9
110°	115.1	111.9	99.0	78.9	53.4	27.7	9.1	1.6	0.9	0.9	0.9





107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)