

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: P550977

Luminaire Tested: **FCC-X-2-LD4-1STD-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: P550977  
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-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**

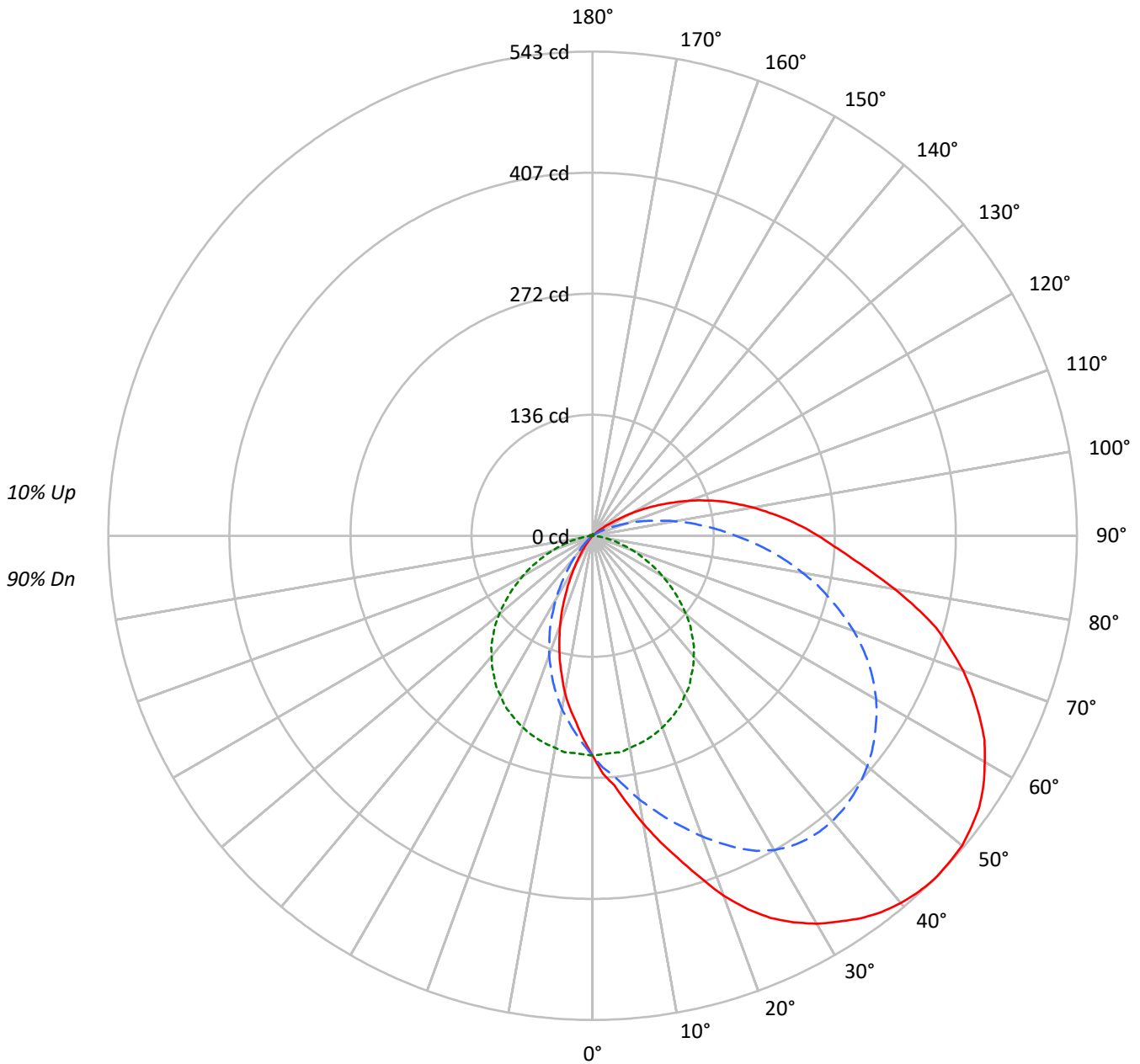
Lumens per Lamp: N/A  
Luminaire Lumens: 1218.0 lumens  
Efficiency: N/A  
Efficacy: 72.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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-30-UNV-82-94-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°	2652	2652	2652
5°	2911	2613	2180
10°	3295	2582	1797
15°	3692	2548	1400
20°	4164	2507	1031
25°	4556	2459	677
30°	4847	2394	381
35°	5098	2325	168
40°	5321	2240	41
45°	5514	2132	0
50°	5675	1989	0
55°	5797	1809	0
60°	5858	1600	0
65°	5882	1362	0
70°	5863	1110	0
75°	5788	820	4
80°	5554	501	26
85°	5369	239	35



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.6	1.9
10°-20°	70.7	5.8
20°-30°	114.4	9.4
30°-40°	147.0	12.1
40°-50°	166.4	13.7
50°-60°	172.4	14.2
60°-70°	162.6	13.3
70°-80°	136.2	11.2
80°-90°	98.8	8.1
90°-100°	64.9	5.3
100°-110°	37.5	3.1
110°-120°	16.5	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°	208.7	17.1
0°-40°	355.7	29.2
0°-60°	694.5	57.0
0°-90°	1092.0	89.7
90°-120°	118.9	9.8
90°-150°	125.1	10.3
90°-180°	126.0	10.3
0°-180°	1218.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	246	246	246	246	246	
5°	281	270	244	222	211	28
15°	376	329	236	171	142	108
25°	473	386	219	112	70	219
35°	524	417	192	55	17	329
45°	543	413	158	13	0	419
55°	530	386	114	0	0	473
65°	479	342	68	0	0	474
75°	399	276	29	0	0	418
85°	292	200	5	1	2	249
90°	253	161	1	2	2	139
95°	217	125	1	2	3	170
105°	149	65	1	2	2	158
115°	81	22	1	1	2	81
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°	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4
2.5°	267.1	266.8	265.8	264.3	262.1	258.3	255.2	252.3	248.6	245.4	239.5
5°	281.2	279.6	278.4	276.8	271.8	268.3	262.7	256.4	250.5	244.5	232.6
7.5°	303.8	301.3	299.4	295.0	288.1	280.3	271.5	265.5	261.4	244.8	224.4
10°	328.0	325.8	322.0	314.2	305.7	294.4	281.8	267.7	255.2	241.4	217.2
12.5°	351.8	348.7	343.4	333.3	321.4	307.3	290.0	273.4	255.5	239.2	208.7
15°	375.7	372.2	366.6	354.3	338.6	320.1	299.1	278.1	257.0	236.3	199.9
17.5°	401.7	397.0	388.5	374.7	355.0	332.1	307.3	281.8	256.4	232.9	190.5
20°	429.7	423.1	414.0	395.5	372.2	345.2	315.4	285.6	256.1	228.8	179.8
22.5°	452.9	446.3	436.3	417.1	389.2	356.2	322.3	288.1	254.8	224.1	169.8
25°	473.0	467.6	456.7	434.7	405.2	367.8	328.9	290.0	253.0	219.1	159.1
27.5°	488.7	483.6	471.4	448.8	418.7	378.2	333.9	290.9	250.5	214.0	148.1
30°	502.5	497.5	482.7	459.5	427.8	386.3	339.0	291.3	247.3	206.5	136.2
32.5°	513.1	508.4	493.4	468.6	434.1	392.0	341.8	290.9	243.2	201.2	123.3
35°	523.8	519.1	501.5	475.2	438.8	394.5	344.0	289.4	238.2	192.4	111.1
37.5°	532.0	526.6	508.8	479.6	441.0	395.1	343.7	287.2	232.9	185.2	98.9
40°	537.6	532.0	512.8	482.1	441.6	394.2	341.2	283.4	226.6	176.1	86.0
42.5°	541.4	535.1	514.7	485.8	440.3	391.7	337.4	278.7	219.7	168.2	73.8
45°	543.3	536.7	515.0	482.7	438.1	387.0	331.7	272.7	212.2	157.6	61.5
47.5°	542.3	535.1	513.5	479.2	434.1	382.0	325.5	265.5	203.1	148.1	49.9
50°	540.8	533.2	510.0	474.9	428.4	375.7	318.6	256.7	193.6	136.5	39.5
52.5°	535.7	528.2	506.2	468.6	421.8	368.5	309.1	247.6	183.6	125.2	30.1
55°	529.5	522.6	499.6	462.9	413.3	359.7	300.4	237.9	173.9	113.6	21.7
57.5°	519.7	513.5	491.5	453.8	404.9	349.9	290.6	227.2	161.6	102.0	15.1
60°	507.8	501.5	480.2	443.5	395.1	339.0	280.0	216.2	150.6	90.4	9.4
62.5°	495.3	489.3	467.0	430.6	382.9	327.3	268.3	205.3	139.0	79.7	5.6
65°	478.6	473.0	452.9	415.2	369.4	314.8	255.5	192.1	127.1	67.8	3.1
67.5°	461.0	456.0	435.6	401.1	353.7	301.0	242.3	179.2	114.6	57.4	1.6
70°	442.2	435.9	417.1	382.0	337.7	285.3	227.9	166.0	102.6	47.4	0.0
72.5°	420.2	415.5	397.3	364.1	319.2	268.7	213.1	151.6	89.4	37.7	0.3
75°	398.9	392.9	376.3	344.9	301.0	251.1	196.8	138.1	76.6	28.9	0.3
77.5°	371.3	369.4	353.7	323.3	283.7	234.1	178.9	121.8	64.3	20.7	0.3
80°	343.7	341.8	329.5	301.6	263.6	214.0	162.3	106.4	52.4	13.8	0.3
82.5°	316.4	313.8	302.2	279.0	243.2	197.1	145.0	91.0	41.4	8.5	0.3
85°	291.9	288.7	276.2	254.8	222.2	178.0	127.1	76.0	30.8	4.7	0.6
87.5°	270.9	268.7	254.8	232.9	200.9	160.1	111.4	61.5	21.7	2.2	0.9
90°	253.0	248.3	236.0	212.8	180.8	140.3	94.8	49.3	14.4	1.3	1.3
92.5°	235.4	231.3	217.8	194.0	162.9	123.3	78.8	37.7	9.1	0.6	1.6
95°	217.2	212.8	199.6	177.6	144.7	106.1	64.7	27.6	5.0	0.6	1.6
97.5°	199.3	195.2	181.4	159.4	128.4	91.0	51.2	19.5	2.5	0.6	1.3
100°	182.7	178.0	165.4	143.4	112.0	76.0	39.5	12.6	1.6	0.6	1.3
102.5°	165.1	161.3	148.5	127.1	95.1	61.8	29.5	7.8	0.6	0.6	0.9
105°	149.4	144.7	132.1	110.2	81.0	48.6	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°	97.3	93.5	82.5	64.0	41.1	19.1	5.6	0.9	0.9	0.9	0.9
115°	81.3	75.6	65.9	49.6	30.4	12.6	2.8	0.9	0.9	0.9	0.9
117.5°	65.0	60.3	53.4	37.7	20.1	8.2	1.6	0.9	0.9	0.9	0.9
120°	50.8	46.4	38.6	26.0	13.5	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.4	33.0	26.0	16.9	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	10.0	6.0	2.2	0.9	0.9	1.3	1.3	1.3	0.9
130°	8.8	7.8	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°	246.4	246.4	246.4
2.5°	234.4	230.1	228.8
5°	221.9	214.7	210.6
7.5°	209.3	199.6	194.9
10°	197.7	183.9	178.9
12.5°	183.9	167.9	160.1
15°	170.7	150.0	142.5
17.5°	156.0	132.8	124.0
20°	142.2	115.5	106.4
22.5°	126.5	98.5	88.5
25°	112.4	81.6	70.3
27.5°	96.7	64.3	54.6
30°	81.9	49.3	39.5
32.5°	67.8	36.1	27.3
35°	54.6	24.5	17.3
37.5°	42.1	15.1	8.8
40°	30.4	7.8	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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**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°	131.8	128.1	115.5	94.8	66.2	37.0	13.8	2.5	0.6	0.9	0.9
110°	114.9	111.7	98.9	78.8	53.4	27.6	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)