

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: P551041

Luminaire Tested: **FCC-X-2-LD4-1STD-35-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: P551041  
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-82-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

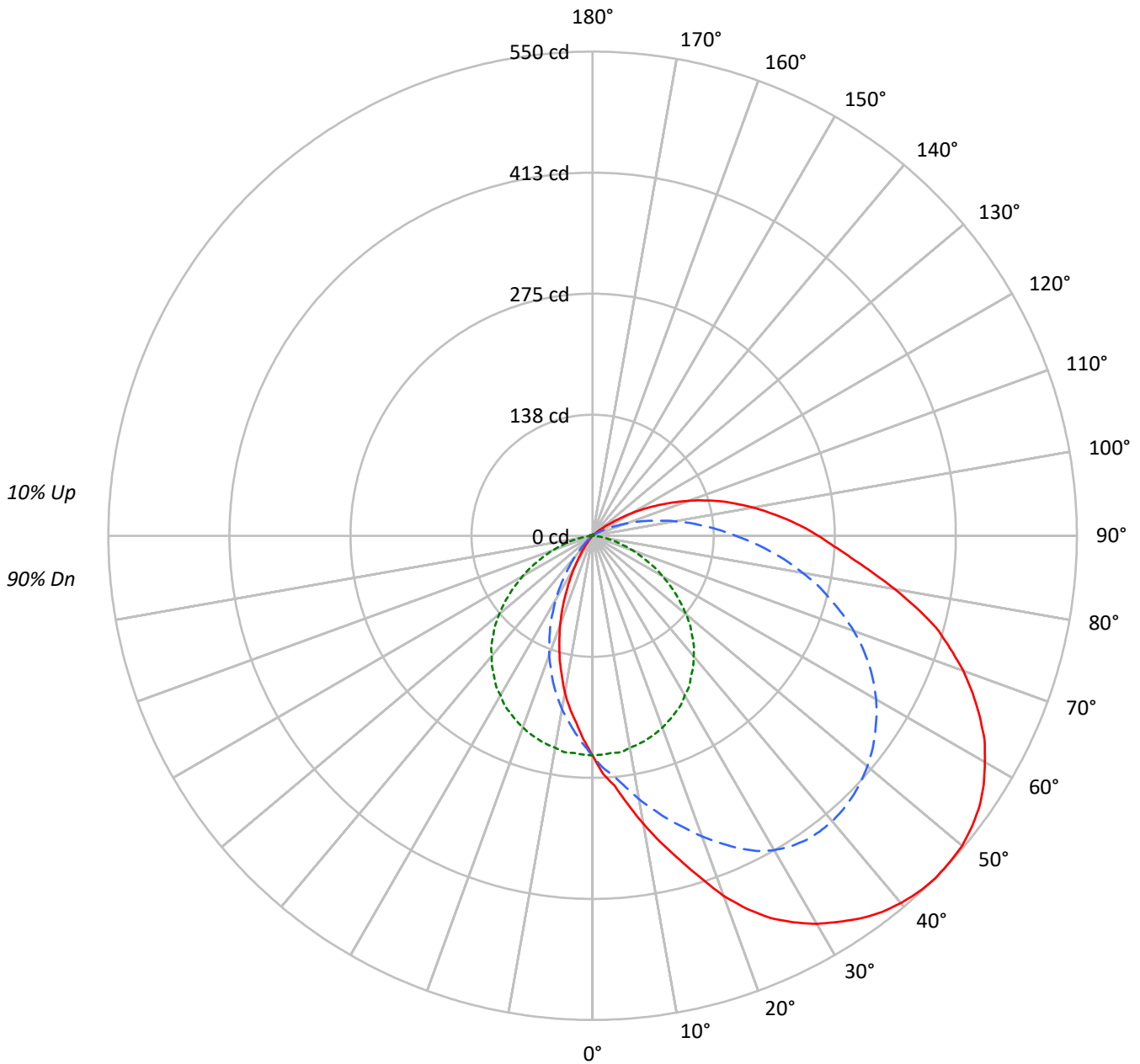
Lumens per Lamp: N/A  
Luminaire Lumens: 1234.1 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-35-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°	2687	2687	2687
5°	2949	2647	2209
10°	3338	2615	1820
15°	3740	2581	1419
20°	4219	2540	1045
25°	4615	2490	686
30°	4910	2425	387
35°	5165	2355	170
40°	5392	2269	41
45°	5586	2160	0
50°	5749	2016	0
55°	5873	1833	0
60°	5936	1621	0
65°	5960	1380	0
70°	5940	1124	0
75°	5864	831	4
80°	5627	508	26
85°	5438	244	35



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.9	1.9
10°-20°	71.6	5.8
20°-30°	115.9	9.4
30°-40°	148.9	12.1
40°-50°	168.6	13.7
50°-60°	174.6	14.2
60°-70°	164.7	13.3
70°-80°	138.0	11.2
80°-90°	100.1	8.1
90°-100°	65.8	5.3
100°-110°	38.0	3.1
110°-120°	16.8	1.4
120°-130°	4.6	0.4
130°-140°	1.1	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°	211.4	17.1
0°-40°	360.4	29.2
0°-60°	703.6	57.0
0°-90°	1106.4	89.7
90°-120°	120.5	9.8
90°-150°	126.8	10.3
90°-180°	128.0	10.4
0°-180°	1234.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	250	250	250	250	250	
5°	285	274	248	225	213	29
15°	381	334	239	173	144	110
25°	479	392	222	114	71	221
35°	531	422	195	55	18	333
45°	550	418	160	13	0	425
55°	536	392	115	0	0	479
65°	485	347	69	0	0	480
75°	404	280	29	0	0	424
85°	296	203	5	1	2	253
90°	256	163	1	2	2	141
95°	220	127	1	2	3	173
105°	151	66	1	2	2	160
115°	82	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°	249.6	249.6	249.6	249.6	249.6	249.6	249.6	249.6	249.6	249.6	249.6
2.5°	270.6	270.3	269.3	267.7	265.5	261.7	258.5	255.7	251.8	248.7	242.6
5°	284.9	283.3	282.0	280.5	275.4	271.9	266.1	259.8	253.7	247.7	235.6
7.5°	307.8	305.3	303.3	298.9	291.9	283.9	275.0	269.0	264.9	248.0	227.4
10°	332.3	330.1	326.2	318.3	309.7	298.3	285.5	271.2	258.5	244.5	220.0
12.5°	356.4	353.3	347.9	337.7	325.6	311.3	293.8	277.0	258.8	242.3	211.5
15°	380.6	377.1	371.4	359.0	343.1	324.3	303.0	281.7	260.4	239.4	202.5
17.5°	407.0	402.2	393.7	379.7	359.6	336.4	311.3	285.5	259.8	235.9	193.0
20°	435.3	428.6	419.4	400.6	377.1	349.8	319.6	289.4	259.5	231.8	182.2
22.5°	458.8	452.2	442.0	422.6	394.3	360.9	326.6	291.9	258.2	227.0	172.0
25°	479.2	473.8	462.7	440.4	410.5	372.7	333.2	293.8	256.3	221.9	161.2
27.5°	495.1	490.0	477.6	454.7	424.2	383.2	338.3	294.8	253.7	216.9	150.1
30°	509.1	504.0	489.0	465.5	433.4	391.4	343.4	295.1	250.6	209.2	138.0
32.5°	519.9	515.1	499.9	474.7	439.8	397.1	346.3	294.8	246.4	203.8	125.0
35°	530.7	525.9	508.1	481.4	444.5	399.7	348.5	293.2	241.3	194.9	112.6
37.5°	539.0	533.6	515.4	485.9	446.8	400.3	348.2	290.9	235.9	187.6	100.2
40°	544.7	539.0	519.6	488.4	447.4	399.4	345.6	287.1	229.6	178.4	87.1
42.5°	548.5	542.1	521.5	492.2	446.1	396.8	341.8	282.4	222.6	170.4	74.7
45°	550.4	543.7	521.8	489.0	443.9	392.1	336.1	276.3	214.9	159.6	62.3
47.5°	549.5	542.1	520.2	485.5	439.8	387.0	329.7	269.0	205.7	150.1	50.6
50°	547.9	540.2	516.7	481.1	434.0	380.6	322.7	260.1	196.2	138.3	40.1
52.5°	542.8	535.1	512.9	474.7	427.4	373.3	313.2	250.9	186.0	126.9	30.5
55°	536.4	529.4	506.2	469.0	418.8	364.4	304.3	241.0	176.2	115.1	21.9
57.5°	526.6	520.2	497.9	459.8	410.2	354.5	294.4	230.2	163.8	103.3	15.3
60°	514.5	508.1	486.5	449.3	400.3	343.4	283.6	219.1	152.6	91.6	9.5
62.5°	501.8	495.7	473.1	436.3	387.9	331.6	271.9	208.0	140.9	80.8	5.7
65°	484.9	479.2	458.8	420.7	374.3	318.9	258.8	194.6	128.8	68.7	3.2
67.5°	467.1	462.0	441.3	406.4	358.4	304.9	245.5	181.6	116.1	58.2	1.6
70°	448.0	441.7	422.6	387.0	342.1	289.0	230.8	168.2	104.0	48.0	0.0
72.5°	425.8	421.0	402.6	368.8	323.4	272.2	215.9	153.6	90.6	38.2	0.3
75°	404.1	398.1	381.2	349.5	304.9	254.4	199.4	139.9	77.6	29.3	0.3
77.5°	376.2	374.3	358.4	327.5	287.4	237.2	181.2	123.4	65.2	21.0	0.3
80°	348.2	346.3	333.9	305.6	267.1	216.9	164.4	107.8	53.1	14.0	0.3
82.5°	320.5	318.0	306.2	282.7	246.4	199.7	146.9	92.2	42.0	8.6	0.3
85°	295.7	292.5	279.8	258.2	225.1	180.3	128.8	76.9	31.2	4.8	0.6
87.5°	274.4	272.2	258.2	235.9	203.5	162.2	112.9	62.3	21.9	2.2	1.0
90°	256.3	251.5	239.1	215.6	183.2	142.1	96.0	49.9	14.6	1.3	1.3
92.5°	238.5	234.3	220.7	196.5	165.0	125.0	79.8	38.2	9.2	0.6	1.6
95°	220.0	215.6	202.2	180.0	146.6	107.5	65.5	28.0	5.1	0.6	1.6
97.5°	201.9	197.8	183.8	161.5	130.1	92.2	51.8	19.7	2.5	0.6	1.3
100°	185.1	180.3	167.6	145.3	113.5	76.9	40.1	12.7	1.6	0.6	1.3
102.5°	167.3	163.4	150.4	128.8	96.3	62.6	29.9	7.9	0.6	0.6	1.0
105°	151.4	146.6	133.9	111.6	82.0	49.3	21.0	4.8	0.6	0.6	1.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	98.6	94.8	83.6	64.9	41.7	19.4	5.7	1.0	1.0	1.0	1.0
115°	82.4	76.6	66.8	50.2	30.8	12.7	2.9	1.0	1.0	1.0	1.0
117.5°	65.8	61.1	54.1	38.2	20.4	8.3	1.6	1.0	1.0	1.0	1.0
120°	51.5	47.1	39.1	26.4	13.7	4.8	0.6	1.0	1.0	1.0	1.0
122.5°	36.9	33.4	26.4	17.2	8.3	2.2	1.0	1.0	1.3	1.3	1.0
125°	24.5	22.6	17.5	10.5	5.1	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	15.9	14.3	10.2	6.0	2.2	1.0	1.0	1.3	1.3	1.3	1.0
130°	8.9	7.9	6.0	3.5	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.1	4.8	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	249.6	249.6	249.6
2.5°	237.5	233.1	231.8
5°	224.8	217.5	213.4
7.5°	212.1	202.2	197.5
10°	200.3	186.3	181.2
12.5°	186.3	170.1	162.2
15°	173.0	152.0	144.4
17.5°	158.0	134.5	125.6
20°	144.0	117.0	107.8
22.5°	128.1	99.8	89.7
25°	113.8	82.7	71.2
27.5°	97.9	65.2	55.3
30°	83.0	49.9	40.1
32.5°	68.7	36.6	27.7
35°	55.3	24.8	17.5
37.5°	42.6	15.3	8.9
40°	30.8	7.9	4.1
42.5°	20.7	3.8	2.2
45°	12.7	1.9	0.0
47.5°	7.3	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	1.0
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	2.9
97.5°	2.5	2.9	2.9
100°	2.2	2.9	3.2
102.5°	1.9	2.9	2.9
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°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	133.5	129.7	117.0	96.0	67.1	37.5	14.0	2.5	0.6	1.0	1.0
110°	116.4	113.2	100.2	79.8	54.1	28.0	9.2	1.6	1.0	1.0	1.0







107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)