

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: P550661

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-82-97-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: P550661  
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-82-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

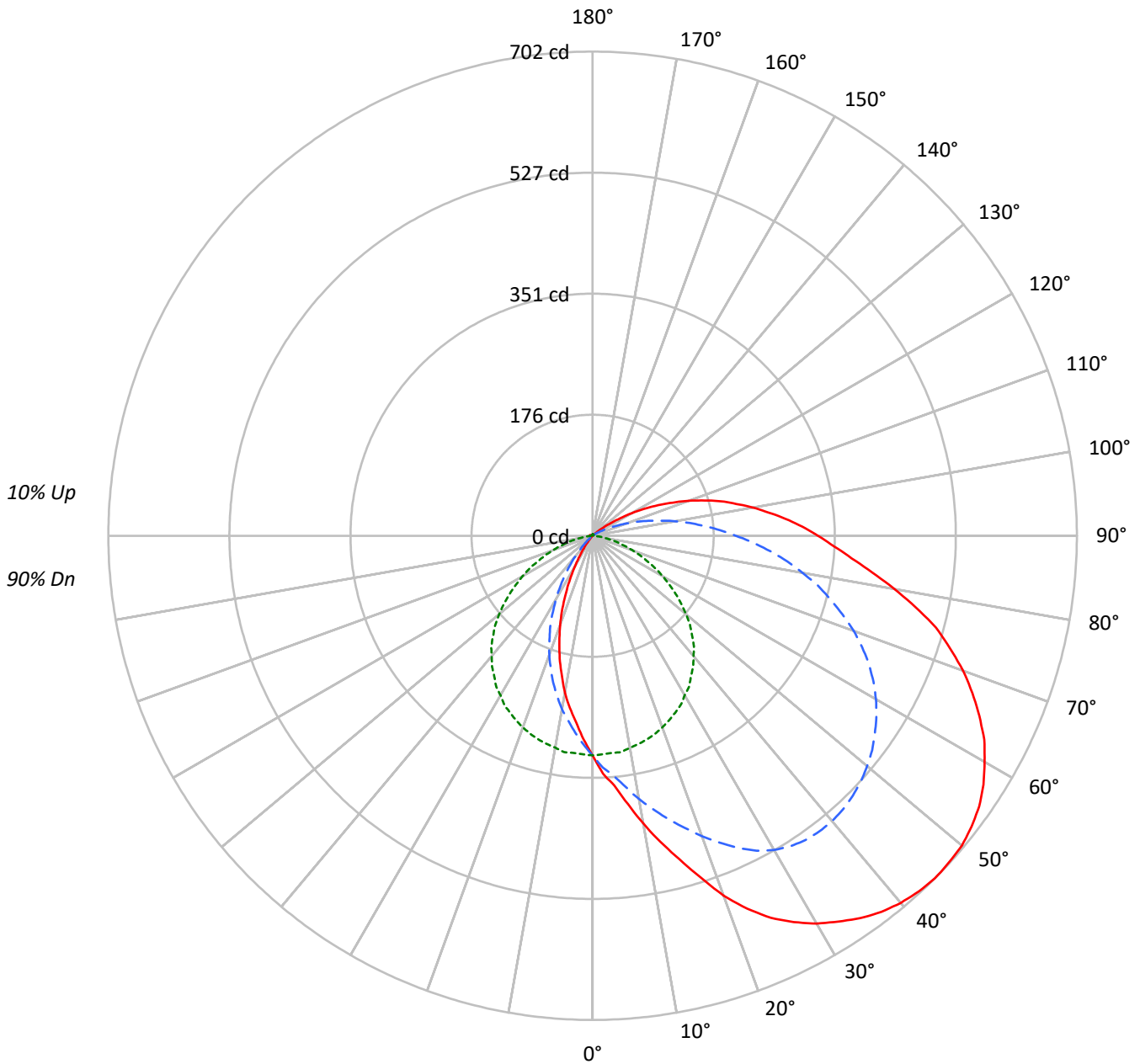
Lumens per Lamp: N/A  
Luminaire Lumens: 1573.9 lumens  
Efficiency: N/A  
Efficacy: 72.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (A<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-LD4-1HI-50-UNV-82-97-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°	3427	3427	3427
5°	3762	3376	2817
10°	4257	3336	2322
15°	4771	3293	1809
20°	5380	3240	1333
25°	5887	3177	875
30°	6262	3094	493
35°	6588	3004	217
40°	6877	2893	52
45°	7125	2755	0
50°	7333	2571	0
55°	7491	2338	0
60°	7570	2067	0
65°	7602	1759	0
70°	7577	1434	0
75°	7480	1058	6
80°	7177	646	32
85°	6937	310	44



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.5	1.9
10°-20°	91.3	5.8
20°-30°	147.9	9.4
30°-40°	190.0	12.1
40°-50°	215.0	13.7
50°-60°	222.8	14.2
60°-70°	210.1	13.3
70°-80°	176.1	11.2
80°-90°	127.6	8.1
90°-100°	83.9	5.3
100°-110°	48.4	3.1
110°-120°	21.4	1.4
120°-130°	5.8	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°	269.7	17.1
0°-40°	459.6	29.2
0°-60°	897.4	57.0
0°-90°	1411.2	89.7
90°-120°	153.7	9.8
90°-150°	161.6	10.3
90°-180°	163.0	10.4
0°-180°	1573.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	318	318	318	318	318	
5°	363	349	316	287	272	37
15°	486	426	305	221	184	140
25°	611	499	283	145	91	282
35°	677	538	249	71	22	425
45°	702	533	204	16	0	542
55°	684	500	147	0	0	611
65°	618	442	88	0	0	612
75°	516	357	37	0	0	541
85°	377	259	6	2	2	322
90°	327	207	2	2	3	179
95°	281	162	1	3	4	220
105°	193	84	1	2	3	204
115°	105	28	1	1	2	105
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°	318.4	318.4	318.4	318.4	318.4	318.4	318.4	318.4	318.4	318.4	318.4
2.5°	345.2	344.7	343.5	341.5	338.7	333.8	329.7	326.1	321.2	317.2	309.5
5°	363.4	361.4	359.8	357.7	351.2	346.8	339.5	331.4	323.7	315.9	300.5
7.5°	392.6	389.4	386.9	381.2	372.3	362.2	350.8	343.1	337.9	316.4	290.0
10°	423.8	421.0	416.1	406.0	395.0	380.4	364.2	346.0	329.7	311.9	280.7
12.5°	454.7	450.6	443.7	430.7	415.3	397.1	374.8	353.3	330.1	309.1	269.7
15°	485.5	481.0	473.7	457.9	437.6	413.7	386.5	359.3	332.2	305.4	258.4
17.5°	519.1	513.1	502.1	484.3	458.7	429.1	397.1	364.2	331.4	300.9	246.2
20°	555.2	546.7	535.0	511.0	481.0	446.1	407.6	369.1	331.0	295.7	232.4
22.5°	585.3	576.7	563.8	539.0	502.9	460.3	416.5	372.3	329.3	289.6	219.4
25°	611.2	604.3	590.1	561.7	523.6	475.3	425.1	374.8	326.9	283.1	205.6
27.5°	631.5	625.0	609.2	580.0	541.0	488.7	431.5	376.0	323.7	276.6	191.4
30°	649.3	642.8	623.8	593.8	552.8	499.3	438.0	376.4	319.6	266.9	176.0
32.5°	663.1	657.0	637.6	605.5	560.9	506.6	441.7	376.0	314.3	260.0	159.4
35°	676.9	670.8	648.1	614.1	567.0	509.8	444.5	373.9	307.8	248.6	143.6
37.5°	687.5	680.6	657.4	619.7	569.8	510.6	444.1	371.1	300.9	239.3	127.8
40°	694.8	687.5	662.7	623.0	570.7	509.4	440.9	366.2	292.8	227.5	111.1
42.5°	699.6	691.5	665.2	627.8	569.0	506.2	436.0	360.2	283.9	217.4	95.3
45°	702.1	693.5	665.6	623.8	566.2	500.1	428.7	352.5	274.2	203.6	79.5
47.5°	700.8	691.5	663.5	619.3	560.9	493.6	420.6	343.1	262.4	191.4	64.5
50°	698.8	689.1	659.1	613.6	553.6	485.5	411.7	331.8	250.2	176.4	51.1
52.5°	692.3	682.6	654.2	605.5	545.1	476.2	399.5	320.0	237.3	161.8	38.9
55°	684.2	675.3	645.7	598.2	534.2	464.8	388.1	307.4	224.7	146.8	28.0
57.5°	671.6	663.5	635.1	586.5	523.2	452.2	375.6	293.6	208.9	131.8	19.5
60°	656.2	648.1	620.5	573.1	510.6	438.0	361.8	279.4	194.7	116.8	12.2
62.5°	640.0	632.3	603.5	556.5	494.8	423.0	346.8	265.3	179.7	103.0	7.3
65°	618.5	611.2	585.3	536.6	477.4	406.8	330.1	248.2	164.3	87.6	4.1
67.5°	595.8	589.3	562.9	518.3	457.1	389.0	313.1	231.6	148.0	74.2	2.0
70°	571.5	563.4	539.0	493.6	436.4	368.7	294.5	214.6	132.6	61.2	0.0
72.5°	543.1	537.0	513.5	470.5	412.5	347.2	275.4	195.9	115.6	48.7	0.4
75°	515.5	507.8	486.3	445.7	389.0	324.5	254.3	178.5	99.0	37.3	0.4
77.5°	479.8	477.4	457.1	417.8	366.6	302.6	231.2	157.4	83.1	26.8	0.4
80°	444.1	441.7	425.9	389.8	340.7	276.6	209.7	137.5	67.7	17.8	0.4
82.5°	408.8	405.6	390.6	360.6	314.3	254.7	187.4	117.6	53.5	11.0	0.4
85°	377.2	373.1	356.9	329.3	287.2	230.0	164.3	98.2	39.7	6.1	0.8
87.5°	350.0	347.2	329.3	300.9	259.6	206.8	144.0	79.5	28.0	2.8	1.2
90°	326.9	320.8	305.0	275.0	233.6	181.3	122.5	63.7	18.7	1.6	1.6
92.5°	304.2	298.9	281.5	250.7	210.5	159.4	101.8	48.7	11.8	0.8	2.0
95°	280.7	275.0	258.0	229.6	187.0	137.1	83.6	35.7	6.5	0.8	2.0
97.5°	257.5	252.3	234.4	206.0	165.9	117.6	66.1	25.1	3.2	0.8	1.6
100°	236.0	230.0	213.7	185.4	144.8	98.2	51.1	16.2	2.0	0.8	1.6
102.5°	213.3	208.5	191.8	164.3	122.9	79.9	38.1	10.1	0.8	0.8	1.2
105°	193.1	187.0	170.8	142.4	104.6	62.9	26.8	6.1	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°	125.7	120.9	106.7	82.7	53.1	24.7	7.3	1.2	1.2	1.2	1.2
115°	105.0	97.7	85.2	64.1	39.3	16.2	3.7	1.2	1.2	1.2	1.2
117.5°	84.0	77.9	68.9	48.7	26.0	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.7	60.0	49.9	33.7	17.4	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.0	42.6	33.7	21.9	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.2	28.8	22.3	13.4	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.3	18.3	13.0	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.4	10.1	7.7	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.1	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°	318.4	318.4	318.4
2.5°	303.0	297.3	295.7
5°	286.7	277.4	272.1
7.5°	270.5	258.0	251.9
10°	255.5	237.7	231.2
12.5°	237.7	217.0	206.8
15°	220.6	193.9	184.1
17.5°	201.6	171.6	160.2
20°	183.7	149.3	137.5
22.5°	163.4	127.4	114.4
25°	145.2	105.5	90.9
27.5°	124.9	83.1	70.6
30°	105.9	63.7	51.1
32.5°	87.6	46.6	35.3
35°	70.6	31.6	22.3
37.5°	54.3	19.5	11.4
40°	39.3	10.1	5.3
42.5°	26.4	4.9	2.8
45°	16.2	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.9	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	3.7
97.5°	3.2	3.7	3.7
100°	2.8	3.7	4.1
102.5°	2.4	3.7	3.7
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°	170.3	165.5	149.3	122.5	85.6	47.9	17.8	3.2	0.8	1.2	1.2
110°	148.4	144.4	127.8	101.8	68.9	35.7	11.8	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)