

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: P550510

Luminaire Tested: **FCC-X-2-LD4-1HI-35-UNV-81-87-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: P550510  
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-35-UNV-81-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

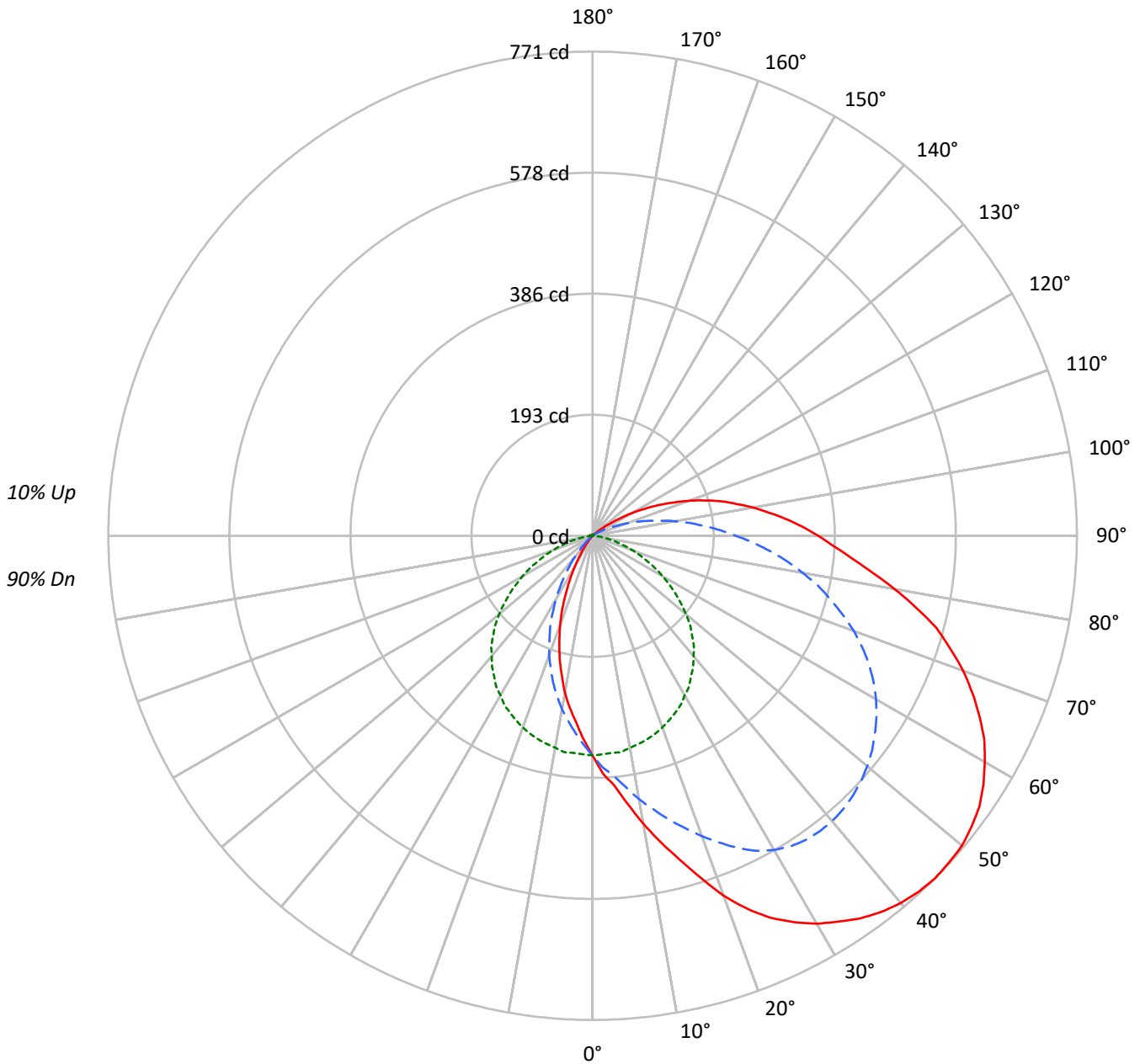
Lumens per Lamp: N/A  
Luminaire Lumens: 1728.9 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-35-UNV-81-87-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	3764	3764	3764
5°	4133	3710	3094
10°	4677	3664	2550
15°	5241	3618	1988
20°	5911	3559	1463
25°	6466	3490	961
30°	6880	3399	541
35°	7237	3300	238
40°	7554	3178	57
45°	7826	3027	0
50°	8054	2825	0
55°	8229	2568	0
60°	8317	2270	0
65°	8350	1932	0
70°	8322	1577	0
75°	8218	1163	6
80°	7883	711	36
85°	7620	341	50



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.5	1.9
10°-20°	100.3	5.8
20°-30°	162.4	9.4
30°-40°	208.7	12.1
40°-50°	236.2	13.7
50°-60°	244.7	14.2
60°-70°	230.8	13.3
70°-80°	193.4	11.2
80°-90°	140.2	8.1
90°-100°	92.1	5.3
100°-110°	53.2	3.1
110°-120°	23.5	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	296.2	17.1
0°-40°	504.9	29.2
0°-60°	985.8	57.0
0°-90°	1550.2	89.7
90°-120°	168.8	9.8
90°-150°	177.6	10.3
90°-180°	179.0	10.4
0°-180°	1728.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	350	350	350	350	350	
5°	399	383	347	315	299	40
15°	533	468	336	242	202	154
25°	671	549	311	160	100	310
35°	744	591	273	78	24	466
45°	771	586	224	18	0	595
55°	752	549	161	0	0	671
65°	679	486	96	0	0	672
75°	566	392	41	0	0	594
85°	414	284	7	2	3	354
90°	359	228	2	3	3	197
95°	308	178	1	3	4	242
105°	212	92	1	2	4	224
115°	115	30	1	1	2	116
125°	34	4	2	1	2	34
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	349.7	349.7	349.7	349.7	349.7	349.7	349.7	349.7	349.7	349.7	349.7
2.5°	379.1	378.7	377.4	375.1	372.0	366.7	362.2	358.2	352.9	348.4	339.9
5°	399.2	397.0	395.2	393.0	385.8	380.9	372.9	364.0	355.5	347.1	330.1
7.5°	431.3	427.7	425.0	418.8	409.0	397.9	385.4	376.9	371.1	347.5	318.5
10°	465.6	462.5	457.1	446.0	433.9	417.9	400.1	380.0	362.2	342.6	308.3
12.5°	499.4	495.0	487.4	473.1	456.2	436.2	411.7	388.1	362.7	339.5	296.3
15°	533.3	528.4	520.4	503.0	480.7	454.4	424.6	394.7	364.9	335.5	283.8
17.5°	570.3	563.6	551.6	532.0	503.9	471.4	436.2	400.1	364.0	330.6	270.4
20°	609.9	600.6	587.6	561.4	528.4	490.1	447.8	405.4	363.5	324.8	255.3
22.5°	642.9	633.5	619.3	592.1	552.4	505.7	457.6	409.0	361.8	318.1	241.0
25°	671.4	663.8	648.2	617.0	575.2	522.2	466.9	411.7	359.1	311.0	225.9
27.5°	693.7	686.6	669.2	637.1	594.3	536.9	474.0	413.0	355.5	303.8	210.3
30°	713.3	706.2	685.2	652.2	607.2	548.4	481.2	413.4	351.1	293.2	193.4
32.5°	728.4	721.7	700.4	665.2	616.2	556.5	485.2	413.0	345.3	285.6	175.1
35°	743.6	736.9	711.9	674.5	622.8	560.0	488.3	410.8	338.2	273.1	157.7
37.5°	755.2	747.6	722.2	680.8	626.0	560.9	487.8	407.7	330.6	262.9	140.3
40°	763.2	755.2	728.0	684.3	626.9	559.6	484.3	402.3	321.7	249.9	122.1
42.5°	768.5	759.6	730.7	689.7	625.1	556.0	478.9	395.6	311.9	238.8	104.7
45°	771.2	761.8	731.1	685.2	621.9	549.3	470.9	387.2	301.2	223.7	87.3
47.5°	769.9	759.6	728.9	680.3	616.2	542.2	462.0	376.9	288.3	210.3	70.8
50°	767.6	756.9	724.0	674.1	608.1	533.3	452.2	364.4	274.9	193.8	56.1
52.5°	760.5	749.8	718.6	665.2	598.8	523.0	438.8	351.5	260.6	177.8	42.8
55°	751.6	741.8	709.3	657.1	586.8	510.6	426.4	337.7	246.8	161.3	30.7
57.5°	737.8	728.9	697.7	644.2	574.7	496.8	412.6	322.6	229.4	144.8	21.4
60°	720.9	711.9	681.6	629.5	560.9	481.2	397.4	307.0	213.9	128.3	13.4
62.5°	703.0	694.6	662.9	611.3	543.5	464.7	380.9	291.4	197.4	113.2	8.0
65°	679.4	671.4	642.9	589.4	524.4	446.9	362.7	272.7	180.4	96.2	4.5
67.5°	654.5	647.3	618.4	569.4	502.1	427.3	343.9	254.4	162.6	81.5	2.2
70°	627.7	618.8	592.1	542.2	479.4	405.0	323.4	235.7	145.7	67.3	0.0
72.5°	596.6	589.9	564.0	516.8	453.1	381.4	302.5	215.2	127.0	53.5	0.4
75°	566.3	557.8	534.2	489.6	427.3	356.4	279.3	196.0	108.7	41.0	0.4
77.5°	527.1	524.4	502.1	458.9	402.8	332.4	253.9	172.9	91.3	29.4	0.4
80°	487.8	485.2	467.8	428.1	374.2	303.8	230.3	151.0	74.4	19.6	0.4
82.5°	449.1	445.5	429.0	396.1	345.3	279.8	205.8	129.2	58.8	12.0	0.4
85°	414.3	409.9	392.1	361.8	315.4	252.6	180.4	107.8	43.7	6.7	0.9
87.5°	384.5	381.4	361.8	330.6	285.1	227.2	158.2	87.3	30.7	3.1	1.3
90°	359.1	352.4	335.0	302.1	256.6	199.1	134.5	69.9	20.5	1.8	1.8
92.5°	334.1	328.4	309.2	275.3	231.2	175.1	111.8	53.5	12.9	0.9	2.2
95°	308.3	302.1	283.4	252.2	205.4	150.6	91.8	39.2	7.1	0.9	2.2
97.5°	282.9	277.1	257.5	226.3	182.2	129.2	72.6	27.6	3.6	0.9	1.8
100°	259.3	252.6	234.8	203.6	159.1	107.8	56.1	17.8	2.2	0.9	1.8
102.5°	234.3	229.0	210.7	180.4	135.0	87.8	41.9	11.1	0.9	0.9	1.3
105°	212.1	205.4	187.6	156.4	114.9	69.1	29.4	6.7	0.9	0.9	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	138.1	132.8	117.2	90.9	58.4	27.2	8.0	1.3	1.3	1.3	1.3
115°	115.4	107.4	93.6	70.4	43.2	17.8	4.0	1.3	1.3	1.3	1.3
117.5°	92.2	85.5	75.7	53.5	28.5	11.6	2.2	1.3	1.3	1.3	1.3
120°	72.2	65.9	54.8	37.0	19.2	6.7	0.9	1.3	1.3	1.3	1.3
122.5°	51.7	46.8	37.0	24.1	11.6	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.3	31.6	24.5	14.7	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.3	20.0	14.3	8.5	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.5	11.1	8.5	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.7	4.5	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	349.7	349.7	349.7
2.5°	332.8	326.6	324.8
5°	315.0	304.7	298.9
7.5°	297.2	283.4	276.7
10°	280.7	261.1	253.9
12.5°	261.1	238.4	227.2
15°	242.4	213.0	202.3
17.5°	221.4	188.5	176.0
20°	201.8	164.0	151.0
22.5°	179.5	139.9	125.6
25°	159.5	115.8	99.8
27.5°	137.2	91.3	77.5
30°	116.3	69.9	56.1
32.5°	96.2	51.2	38.8
35°	77.5	34.8	24.5
37.5°	59.7	21.4	12.5
40°	43.2	11.1	5.8
42.5°	29.0	5.3	3.1
45°	17.8	2.7	0.0
47.5°	10.2	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.6	3.6
95°	3.1	3.6	4.0
97.5°	3.6	4.0	4.0
100°	3.1	4.0	4.5
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	187.1	181.8	164.0	134.5	94.0	52.6	19.6	3.6	0.9	1.3	1.3
110°	163.1	158.6	140.3	111.8	75.7	39.2	12.9	2.2	1.3	1.3	1.3







107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)