

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: P550836

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-96-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: P550836  
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-LD4-1LO-40-UNV-81-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

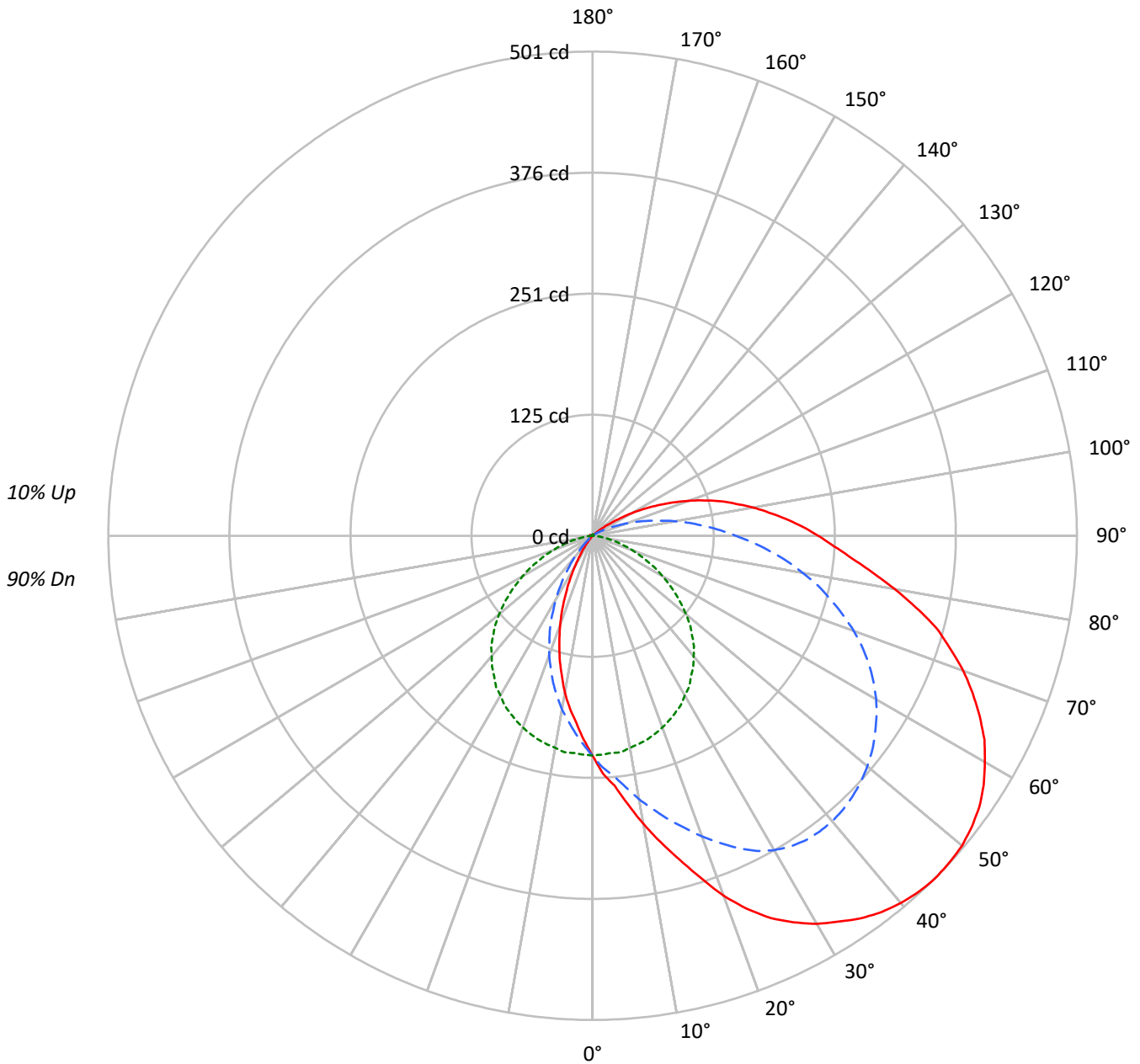
Lumens per Lamp: N/A  
Luminaire Lumens: 1124.1 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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

TEST NUMBER: P550836

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-96-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°	2448	2448	2448
5°	2686	2411	2011
10°	3040	2382	1658
15°	3407	2352	1292
20°	3843	2313	952
25°	4204	2269	625
30°	4472	2210	352
35°	4705	2145	155
40°	4911	2067	38
45°	5087	1967	0
50°	5236	1836	0
55°	5349	1669	0
60°	5406	1476	0
65°	5429	1257	0
70°	5411	1024	0
75°	5341	754	4
80°	5125	461	23
85°	4955	219	31



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.8	1.9
10°-20°	65.2	5.8
20°-30°	105.6	9.4
30°-40°	135.6	12.1
40°-50°	153.6	13.7
50°-60°	159.1	14.2
60°-70°	150.0	13.3
70°-80°	125.7	11.2
80°-90°	91.1	8.1
90°-100°	59.9	5.3
100°-110°	34.6	3.1
110°-120°	15.3	1.4
120°-130°	4.2	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
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0°-30°	192.6	17.1
0°-40°	328.2	29.2
0°-60°	640.9	57.0
0°-90°	1007.8	89.7
90°-120°	109.8	9.8
90°-150°	115.5	10.3
90°-180°	116.0	10.3
0°-180°	1124.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	227	227	227	227	227	
5°	260	249	226	205	194	26
15°	347	304	218	158	132	100
25°	436	357	202	104	65	202
35°	483	384	178	50	16	303
45°	501	381	145	12	0	387
55°	489	357	105	0	0	436
65°	442	316	63	0	0	437
75°	368	255	27	0	0	386
85°	269	185	4	1	2	230
90°	233	148	1	2	2	128
95°	200	116	1	2	3	157
105°	138	60	1	1	2	145
115°	75	20	1	1	1	75
125°	22	3	1	1	1	22
135°	1	1	1	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	1	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°	227.4	227.4	227.4	227.4	227.4	227.4	227.4	227.4	227.4	227.4	227.4
2.5°	246.5	246.2	245.3	243.9	241.8	238.4	235.5	232.9	229.4	226.5	221.0
5°	259.5	258.1	256.9	255.5	250.8	247.6	242.4	236.6	231.1	225.6	214.6
7.5°	280.4	278.0	276.3	272.3	265.9	258.6	250.5	245.0	241.3	225.9	207.1
10°	302.7	300.6	297.2	289.9	282.1	271.7	260.1	247.1	235.5	222.7	200.4
12.5°	324.7	321.8	316.9	307.6	296.6	283.5	267.6	252.3	235.8	220.7	192.6
15°	346.7	343.5	338.3	327.0	312.5	295.4	276.0	256.6	237.2	218.1	184.5
17.5°	370.7	366.4	358.6	345.8	327.6	306.4	283.5	260.1	236.6	214.9	175.8
20°	396.5	390.4	382.0	364.9	343.5	318.6	291.1	263.6	236.3	211.1	166.0
22.5°	417.9	411.9	402.6	384.9	359.1	328.7	297.4	265.9	235.2	206.8	156.7
25°	436.5	431.5	421.4	401.1	373.9	339.4	303.5	267.6	233.4	202.2	146.8
27.5°	451.0	446.3	435.0	414.2	386.4	349.0	308.2	268.5	231.1	197.5	136.7
30°	463.7	459.1	445.4	424.0	394.8	356.5	312.8	268.8	228.2	190.6	125.7
32.5°	473.5	469.2	455.3	432.4	400.6	361.7	315.4	268.5	224.5	185.7	113.8
35°	483.4	479.0	462.8	438.5	404.9	364.1	317.4	267.0	219.8	177.5	102.5
37.5°	490.9	486.0	469.5	442.6	406.9	364.6	317.1	265.0	214.9	170.9	91.2
40°	496.1	490.9	473.3	444.9	407.5	363.8	314.8	261.5	209.1	162.5	79.4
42.5°	499.6	493.8	475.0	448.3	406.3	361.5	311.4	257.2	202.7	155.2	68.1
45°	501.3	495.3	475.3	445.4	404.3	357.1	306.1	251.7	195.8	145.4	56.8
47.5°	500.5	493.8	473.8	442.3	400.6	352.5	300.3	245.0	187.4	136.7	46.1
50°	499.0	492.1	470.6	438.2	395.3	346.7	294.0	236.9	178.7	126.0	36.5
52.5°	494.4	487.4	467.2	432.4	389.3	340.0	285.3	228.5	169.4	115.6	27.8
55°	488.6	482.2	461.1	427.2	381.4	331.9	277.2	219.5	160.5	104.8	20.0
57.5°	479.6	473.8	453.6	418.8	373.6	322.9	268.2	209.7	149.2	94.1	13.9
60°	468.6	462.8	443.1	409.2	364.6	312.8	258.3	199.6	139.0	83.4	8.7
62.5°	457.0	451.5	431.0	397.4	353.3	302.1	247.6	189.4	128.3	73.6	5.2
65°	441.7	436.5	417.9	383.2	340.9	290.5	235.8	177.3	117.3	62.6	2.9
67.5°	425.5	420.8	402.0	370.1	326.4	277.8	223.6	165.4	105.7	53.0	1.4
70°	408.1	402.3	384.9	352.5	311.6	263.3	210.3	153.2	94.7	43.7	0.0
72.5°	387.8	383.5	366.7	336.0	294.6	247.9	196.7	139.9	82.5	34.8	0.3
75°	368.1	362.6	347.3	318.3	277.8	231.7	181.6	127.4	70.7	26.6	0.3
77.5°	342.6	340.9	326.4	298.3	261.8	216.1	165.1	112.4	59.4	19.1	0.3
80°	317.1	315.4	304.1	278.3	243.3	197.5	149.7	98.2	48.4	12.7	0.3
82.5°	291.9	289.6	278.9	257.5	224.5	181.9	133.8	84.0	38.2	7.8	0.3
85°	269.4	266.5	254.9	235.2	205.1	164.2	117.3	70.1	28.4	4.3	0.6
87.5°	249.9	247.9	235.2	214.9	185.4	147.7	102.8	56.8	20.0	2.0	0.9
90°	233.4	229.1	217.8	196.4	166.8	129.5	87.5	45.5	13.3	1.2	1.2
92.5°	217.2	213.5	201.0	179.0	150.3	113.8	72.7	34.8	8.4	0.6	1.4
95°	200.4	196.4	184.2	163.9	133.5	97.9	59.7	25.5	4.6	0.6	1.4
97.5°	183.9	180.1	167.4	147.1	118.5	84.0	47.2	18.0	2.3	0.6	1.2
100°	168.6	164.2	152.6	132.4	103.4	70.1	36.5	11.6	1.4	0.6	1.2
102.5°	152.3	148.9	137.0	117.3	87.8	57.1	27.2	7.2	0.6	0.6	0.9
105°	137.9	133.5	121.9	101.7	74.7	44.9	19.1	4.3	0.6	0.6	0.9



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	89.8	86.3	76.2	59.1	37.9	17.7	5.2	0.9	0.9	0.9	0.9
115°	75.0	69.8	60.8	45.8	28.1	11.6	2.6	0.9	0.9	0.9	0.9
117.5°	60.0	55.6	49.2	34.8	18.5	7.5	1.4	0.9	0.9	0.9	0.9
120°	46.9	42.9	35.6	24.0	12.5	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.6	30.4	24.0	15.6	7.5	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.3	20.6	15.9	9.6	4.6	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.5	13.0	9.3	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.2	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.6	4.3	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.4	1.4	1.4	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.2
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°	227.4	227.4	227.4
2.5°	216.4	212.3	211.1
5°	204.8	198.1	194.3
7.5°	193.2	184.2	179.9
10°	182.5	169.7	165.1
12.5°	169.7	155.0	147.7
15°	157.6	138.4	131.5
17.5°	143.9	122.5	114.4
20°	131.2	106.6	98.2
22.5°	116.7	90.9	81.7
25°	103.7	75.3	64.9
27.5°	89.2	59.4	50.4
30°	75.6	45.5	36.5
32.5°	62.6	33.3	25.2
35°	50.4	22.6	15.9
37.5°	38.8	13.9	8.1
40°	28.1	7.2	3.8
42.5°	18.8	3.5	2.0
45°	11.6	1.7	0.0
47.5°	6.7	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.4	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	1.2	1.4
82.5°	1.2	1.4	1.4
85°	1.2	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.4	1.4
115°	0.9	1.2	1.4
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	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°	1.2	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°	121.6	118.2	106.6	87.5	61.1	34.2	12.7	2.3	0.6	0.9	0.9
110°	106.0	103.1	91.2	72.7	49.2	25.5	8.4	1.4	0.9	0.9	0.9







107.5°	1.2	1.7	2.0
110°	1.2	1.4	1.7



(END OF REPORT)