

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: P550868

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-96-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: P550868  
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-93-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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**

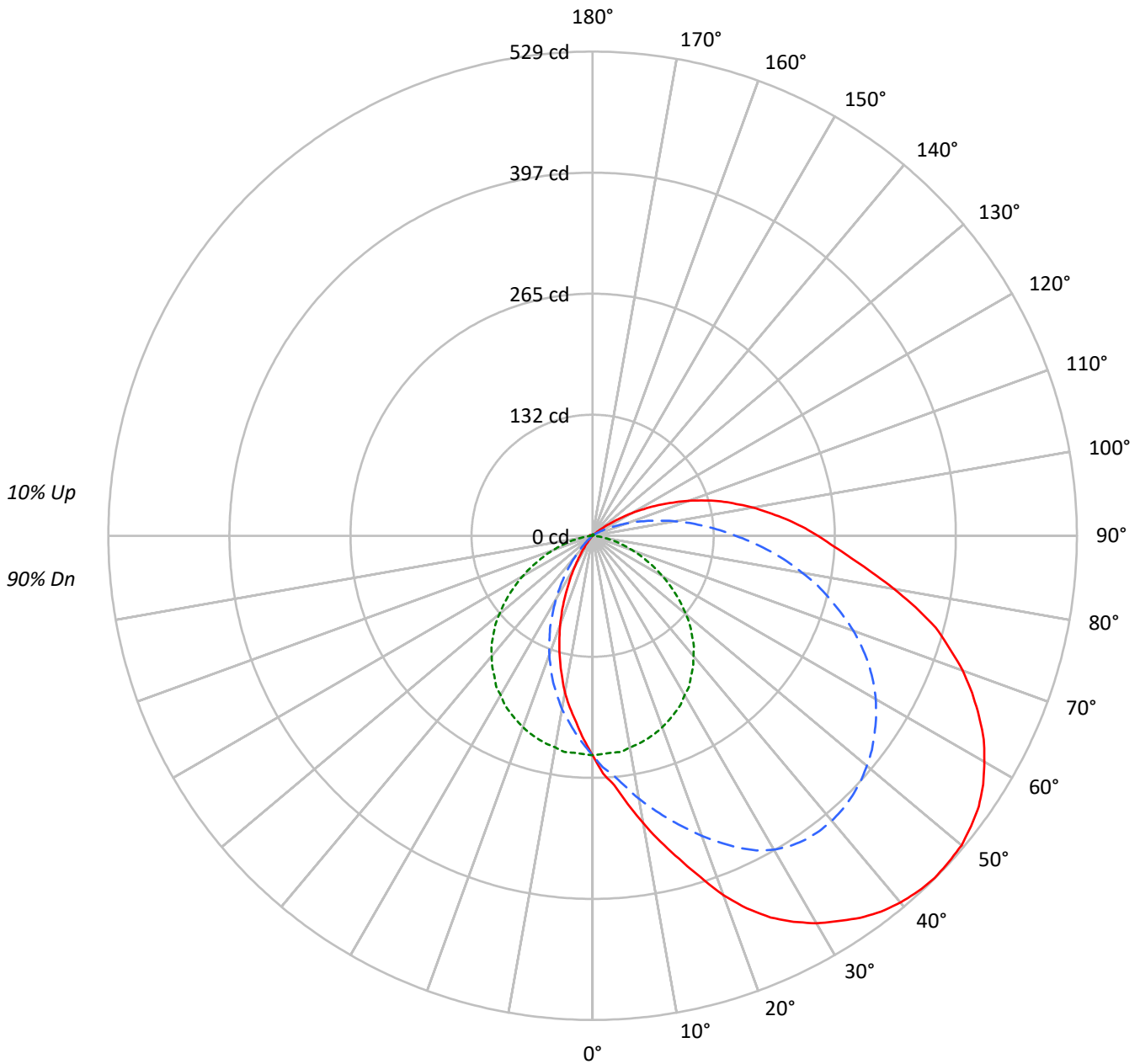
Lumens per Lamp: N/A  
Luminaire Lumens: 1184.9 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550868

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-93-96-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P550868

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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°	2580	2580	2580
5°	2832	2543	2121
10°	3205	2511	1748
15°	3592	2479	1362
20°	4051	2439	1003
25°	4432	2392	659
30°	4715	2329	371
35°	4960	2262	164
40°	5178	2178	40
45°	5364	2074	0
50°	5520	1935	0
55°	5640	1760	0
60°	5700	1556	0
65°	5724	1326	0
70°	5704	1080	0
75°	5632	797	4
80°	5404	486	24
85°	5223	234	33



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.0	1.9
10°-20°	68.7	5.8
20°-30°	111.3	9.4
30°-40°	143.0	12.1
40°-50°	161.9	13.7
50°-60°	167.7	14.2
60°-70°	158.2	13.3
70°-80°	132.6	11.2
80°-90°	96.1	8.1
90°-100°	63.1	5.3
100°-110°	36.5	3.1
110°-120°	16.1	1.4
120°-130°	4.3	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	203.0	17.1
0°-40°	346.0	29.2
0°-60°	675.6	57.0
0°-90°	1062.4	89.7
90°-120°	115.7	9.8
90°-150°	121.6	10.3
90°-180°	122.0	10.3
0°-180°	1184.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	240	240	240	240	240	
5°	274	263	238	216	205	28
15°	366	320	230	166	139	105
25°	460	376	213	109	68	213
35°	510	405	187	53	17	320
45°	529	401	153	12	0	408
55°	515	376	110	0	0	460
65°	466	333	66	0	0	461
75°	388	269	28	0	0	407
85°	284	195	5	1	2	243
90°	246	156	1	2	2	135
95°	211	122	1	2	3	166
105°	145	63	1	2	2	153
115°	79	21	1	1	2	79
125°	24	3	1	1	1	23
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°	239.7	239.7	239.7	239.7	239.7	239.7	239.7	239.7	239.7	239.7	239.7
2.5°	259.8	259.5	258.6	257.1	255.0	251.3	248.2	245.5	241.8	238.8	233.0
5°	273.6	272.1	270.8	269.3	264.4	261.1	255.6	249.5	243.7	237.9	226.3
7.5°	295.6	293.1	291.3	287.0	280.3	272.7	264.1	258.3	254.4	238.2	218.3
10°	319.1	316.9	313.3	305.7	297.4	286.4	274.2	260.5	248.2	234.8	211.3
12.5°	342.3	339.2	334.0	324.3	312.7	298.9	282.1	266.0	248.6	232.7	203.1
15°	365.5	362.1	356.6	344.7	329.5	311.5	291.0	270.5	250.1	229.9	194.5
17.5°	390.8	386.3	378.0	364.6	345.3	323.1	298.9	274.2	249.5	226.6	185.3
20°	418.0	411.6	402.8	384.7	362.1	335.9	306.9	277.9	249.2	222.6	175.0
22.5°	440.6	434.2	424.4	405.8	378.6	346.6	313.6	280.3	247.9	218.0	165.2
25°	460.2	455.0	444.3	422.9	394.2	357.9	320.0	282.1	246.1	213.1	154.8
27.5°	475.4	470.5	458.6	436.6	407.3	367.9	324.9	283.1	243.7	208.2	144.1
30°	488.9	484.0	469.6	447.0	416.2	375.9	329.8	283.4	240.6	200.9	132.5
32.5°	499.2	494.7	480.0	455.9	422.3	381.4	332.5	283.1	236.6	195.7	120.0
35°	509.6	505.0	487.9	462.3	426.9	383.8	334.7	281.5	231.8	187.2	108.1
37.5°	517.6	512.4	495.0	466.6	429.0	384.4	334.4	279.4	226.6	180.2	96.2
40°	523.1	517.6	498.9	469.0	429.6	383.5	331.9	275.7	220.5	171.3	83.7
42.5°	526.7	520.6	500.8	472.7	428.4	381.1	328.2	271.1	213.7	163.7	71.8
45°	528.6	522.1	501.1	469.6	426.3	376.5	322.8	265.3	206.4	153.3	59.8
47.5°	527.6	520.6	499.5	466.3	422.3	371.6	316.6	258.3	197.6	144.1	48.6
50°	526.1	518.8	496.2	462.0	416.8	365.5	309.9	249.8	188.4	132.8	38.5
52.5°	521.2	513.9	492.5	455.9	410.4	358.5	300.8	240.9	178.6	121.8	29.3
55°	515.1	508.4	486.1	450.4	402.1	349.9	292.2	231.5	169.2	110.5	21.1
57.5°	505.7	499.5	478.2	441.5	393.9	340.5	282.8	221.1	157.3	99.2	14.7
60°	494.1	487.9	467.2	431.5	384.4	329.8	272.4	210.4	146.6	87.9	9.2
62.5°	481.8	476.0	454.4	418.9	372.5	318.5	261.1	199.7	135.3	77.6	5.5
65°	465.7	460.2	440.6	404.0	359.4	306.3	248.6	186.9	123.7	66.0	3.1
67.5°	448.6	443.7	423.8	390.2	344.1	292.8	235.7	174.4	111.5	55.9	1.5
70°	430.2	424.1	405.8	371.6	328.6	277.6	221.7	161.5	99.8	46.1	0.0
72.5°	408.9	404.3	386.6	354.2	310.5	261.4	207.3	147.5	87.0	36.6	0.3
75°	388.1	382.3	366.1	335.6	292.8	244.3	191.5	134.4	74.5	28.1	0.3
77.5°	361.2	359.4	344.1	314.5	276.0	227.8	174.0	118.5	62.6	20.2	0.3
80°	334.4	332.5	320.6	293.4	256.5	208.2	157.9	103.5	51.0	13.4	0.3
82.5°	307.8	305.3	294.0	271.5	236.6	191.8	141.1	88.6	40.3	8.2	0.3
85°	284.0	280.9	268.7	247.9	216.2	173.1	123.7	73.9	29.9	4.6	0.6
87.5°	263.5	261.4	247.9	226.6	195.4	155.7	108.4	59.8	21.1	2.1	0.9
90°	246.1	241.5	229.6	207.0	175.9	136.5	92.2	47.9	14.0	1.2	1.2
92.5°	229.0	225.0	211.9	188.7	158.5	120.0	76.6	36.6	8.9	0.6	1.5
95°	211.3	207.0	194.2	172.8	140.8	103.2	62.9	26.9	4.9	0.6	1.5
97.5°	193.9	189.9	176.5	155.1	124.9	88.6	49.8	18.9	2.4	0.6	1.2
100°	177.7	173.1	160.9	139.5	109.0	73.9	38.5	12.2	1.5	0.6	1.2
102.5°	160.6	156.9	144.4	123.7	92.5	60.2	28.7	7.6	0.6	0.6	0.9
105°	145.3	140.8	128.6	107.2	78.8	47.3	20.2	4.6	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°	94.7	91.0	80.3	62.3	40.0	18.6	5.5	0.9	0.9	0.9	0.9
115°	79.1	73.6	64.1	48.2	29.6	12.2	2.7	0.9	0.9	0.9	0.9
117.5°	63.2	58.6	51.9	36.6	19.5	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.5	45.2	37.6	25.3	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.4	32.1	25.3	16.5	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.5	21.7	16.8	10.1	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.3	13.7	9.8	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.8	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.1	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	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
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	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	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°	239.7	239.7	239.7
2.5°	228.1	223.8	222.6
5°	215.9	208.9	204.9
7.5°	203.7	194.2	189.6
10°	192.4	178.9	174.0
12.5°	178.9	163.4	155.7
15°	166.1	146.0	138.6
17.5°	151.8	129.2	120.6
20°	138.3	112.4	103.5
22.5°	123.1	95.9	86.1
25°	109.3	79.4	68.4
27.5°	94.0	62.6	53.1
30°	79.7	47.9	38.5
32.5°	66.0	35.1	26.6
35°	53.1	23.8	16.8
37.5°	40.9	14.7	8.5
40°	29.6	7.6	4.0
42.5°	19.8	3.7	2.1
45°	12.2	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.7	0.0	0.0
52.5°	1.5	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	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.1
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
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°	128.2	124.6	112.4	92.2	64.4	36.0	13.4	2.4	0.6	0.9	0.9
110°	111.8	108.7	96.2	76.6	51.9	26.9	8.9	1.5	0.9	0.9	0.9







107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)