

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: P550804

Luminaire Tested: **FCC-X-2-LD4-1LO-35-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: P550804  
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-35-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 3500K,  
AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

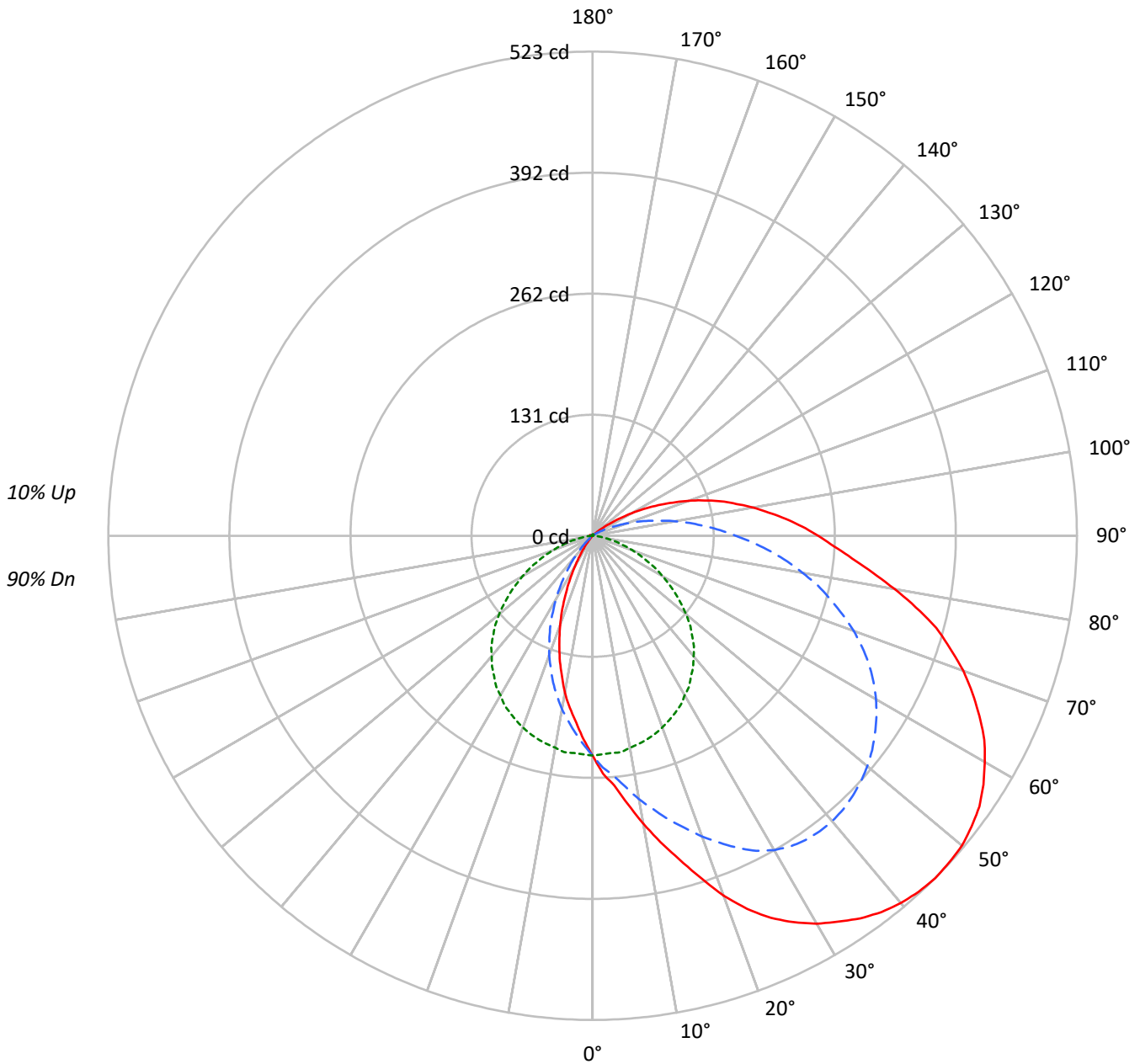
Lumens per Lamp: N/A  
Luminaire Lumens: 1173.0 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**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°	2554	2554	2554
5°	2803	2517	2099
10°	3173	2485	1731
15°	3555	2454	1348
20°	4010	2414	993
25°	4387	2368	652
30°	4667	2306	367
35°	4910	2239	162
40°	5125	2157	39
45°	5310	2053	0
50°	5465	1917	0
55°	5583	1742	0
60°	5641	1540	0
65°	5665	1312	0
70°	5647	1068	0
75°	5575	788	4
80°	5349	482	24
85°	5170	229	33



TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.7	1.9
10°-20°	68.1	5.8
20°-30°	110.2	9.4
30°-40°	141.6	12.1
40°-50°	160.2	13.7
50°-60°	166.0	14.2
60°-70°	156.6	13.3
70°-80°	131.2	11.2
80°-90°	95.1	8.1
90°-100°	62.5	5.3
100°-110°	36.1	3.1
110°-120°	15.9	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°	201.0	17.1
0°-40°	342.5	29.2
0°-60°	668.8	57.0
0°-90°	1051.7	89.7
90°-120°	114.5	9.8
90°-150°	120.5	10.3
90°-180°	121.0	10.3
0°-180°	1173.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	237	237	237	237	237	
5°	271	260	236	214	203	27
15°	362	317	228	164	137	104
25°	456	372	211	108	68	211
35°	504	401	185	53	17	316
45°	523	397	152	12	0	404
55°	510	372	109	0	0	455
65°	461	330	65	0	0	456
75°	384	266	28	0	0	403
85°	281	193	4	1	2	240
90°	244	155	1	2	2	134
95°	209	121	1	2	3	164
105°	144	62	1	2	2	152
115°	78	21	1	1	2	78
125°	23	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	



TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	237.3	237.3	237.3	237.3	237.3	237.3	237.3	237.3	237.3	237.3	237.3
2.5°	257.2	256.9	256.0	254.5	252.4	248.8	245.7	243.0	239.4	236.4	230.6
5°	270.8	269.3	268.1	266.6	261.8	258.4	253.0	246.9	241.2	235.5	224.0
7.5°	292.6	290.2	288.4	284.1	277.5	269.9	261.5	255.7	251.8	235.8	216.1
10°	315.9	313.7	310.1	302.6	294.4	283.5	271.4	257.8	245.7	232.4	209.2
12.5°	338.8	335.8	330.7	321.0	309.5	295.9	279.3	263.3	246.0	230.3	201.0
15°	361.8	358.5	353.0	341.2	326.1	308.3	288.0	267.8	247.5	227.6	192.5
17.5°	386.9	382.4	374.2	360.9	341.8	319.8	295.9	271.4	246.9	224.3	183.5
20°	413.8	407.4	398.7	380.8	358.5	332.5	303.8	275.1	246.6	220.3	173.2
22.5°	436.2	429.8	420.1	401.7	374.8	343.1	310.4	277.5	245.4	215.8	163.5
25°	455.5	450.4	439.8	418.6	390.2	354.2	316.8	279.3	243.6	211.0	153.2
27.5°	470.6	465.8	454.0	432.2	403.2	364.2	321.6	280.2	241.2	206.1	142.7
30°	483.9	479.1	464.9	442.5	412.0	372.1	326.4	280.5	238.2	198.9	131.2
32.5°	494.2	489.7	475.1	451.3	418.0	377.5	329.2	280.2	234.2	193.7	118.8
35°	504.5	499.9	483.0	457.6	422.6	379.9	331.3	278.7	229.4	185.3	107.0
37.5°	512.3	507.2	490.0	461.8	424.7	380.5	331.0	276.6	224.3	178.3	95.2
40°	517.8	512.3	493.9	464.3	425.3	379.6	328.6	272.9	218.2	169.6	82.8
42.5°	521.4	515.3	495.7	467.9	424.1	377.2	324.9	268.4	211.6	162.0	71.0
45°	523.2	516.9	496.0	464.9	421.9	372.7	319.5	262.7	204.3	151.7	59.2
47.5°	522.3	515.3	494.5	461.5	418.0	367.8	313.4	255.7	195.6	142.7	48.1
50°	520.8	513.5	491.2	457.3	412.6	361.8	306.8	247.2	186.5	131.5	38.1
52.5°	515.9	508.7	487.5	451.3	406.2	354.8	297.7	238.5	176.8	120.6	29.0
55°	509.9	503.3	481.2	445.8	398.1	346.4	289.3	229.1	167.4	109.4	20.9
57.5°	500.5	494.5	473.3	437.1	389.9	337.0	279.9	218.8	155.7	98.2	14.5
60°	489.0	483.0	462.4	427.1	380.5	326.4	269.6	208.3	145.1	87.0	9.1
62.5°	477.0	471.2	449.8	414.7	368.8	315.3	258.4	197.7	133.9	76.8	5.4
65°	460.9	455.5	436.2	399.9	355.8	303.2	246.0	185.0	122.4	65.3	3.0
67.5°	444.0	439.2	419.5	386.3	340.6	289.9	233.3	172.6	110.3	55.3	1.5
70°	425.9	419.8	401.7	367.8	325.2	274.7	219.4	159.9	98.8	45.6	0.0
72.5°	404.7	400.2	382.7	350.6	307.4	258.7	205.2	146.0	86.1	36.3	0.3
75°	384.2	378.4	362.4	332.2	289.9	241.8	189.5	133.0	73.8	27.8	0.3
77.5°	357.6	355.8	340.6	311.3	273.2	225.5	172.3	117.3	62.0	19.9	0.3
80°	331.0	329.2	317.4	290.5	253.9	206.1	156.3	102.5	50.5	13.3	0.3
82.5°	304.7	302.3	291.1	268.7	234.2	189.8	139.6	87.7	39.9	8.2	0.3
85°	281.1	278.1	266.0	245.4	214.0	171.4	122.4	73.1	29.6	4.5	0.6
87.5°	260.8	258.7	245.4	224.3	193.4	154.1	107.3	59.2	20.9	2.1	0.9
90°	243.6	239.1	227.3	204.9	174.1	135.1	91.3	47.5	13.9	1.2	1.2
92.5°	226.7	222.8	209.8	186.8	156.9	118.8	75.9	36.3	8.8	0.6	1.5
95°	209.2	204.9	192.2	171.1	139.3	102.2	62.3	26.6	4.8	0.6	1.5
97.5°	191.9	188.0	174.7	153.5	123.6	87.7	49.3	18.7	2.4	0.6	1.2
100°	175.9	171.4	159.3	138.1	107.9	73.1	38.1	12.1	1.5	0.6	1.2
102.5°	159.0	155.4	143.0	122.4	91.6	59.5	28.4	7.6	0.6	0.6	0.9
105°	143.9	139.3	127.2	106.1	78.0	46.8	19.9	4.5	0.6	0.6	0.9



TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	93.7	90.1	79.5	61.7	39.6	18.4	5.4	0.9	0.9	0.9	0.9
115°	78.3	72.8	63.5	47.8	29.3	12.1	2.7	0.9	0.9	0.9	0.9
117.5°	62.6	58.0	51.4	36.3	19.3	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.0	44.7	37.2	25.1	13.0	4.5	0.6	0.9	0.9	0.9	0.9
122.5°	35.1	31.7	25.1	16.3	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.3	21.5	16.6	10.0	4.8	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.1	13.6	9.7	5.7	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.7	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.8	4.5	3.0	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



TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	237.3	237.3	237.3
2.5°	225.8	221.6	220.3
5°	213.7	206.7	202.8
7.5°	201.6	192.2	187.7
10°	190.4	177.1	172.3
12.5°	177.1	161.7	154.1
15°	164.4	144.5	137.2
17.5°	150.2	127.9	119.4
20°	136.9	111.2	102.5
22.5°	121.8	94.9	85.2
25°	108.2	78.6	67.7
27.5°	93.1	62.0	52.6
30°	78.9	47.5	38.1
32.5°	65.3	34.8	26.3
35°	52.6	23.6	16.6
37.5°	40.5	14.5	8.5
40°	29.3	7.6	3.9
42.5°	19.6	3.6	2.1
45°	12.1	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.6	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	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4





TEST NUMBER: P550804

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-96-ED1D

**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°	126.9	123.3	111.2	91.3	63.8	35.7	13.3	2.4	0.6	0.9	0.9
110°	110.6	107.6	95.2	75.9	51.4	26.6	8.8	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)