

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: P550837

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-97-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: P550837  
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-81-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

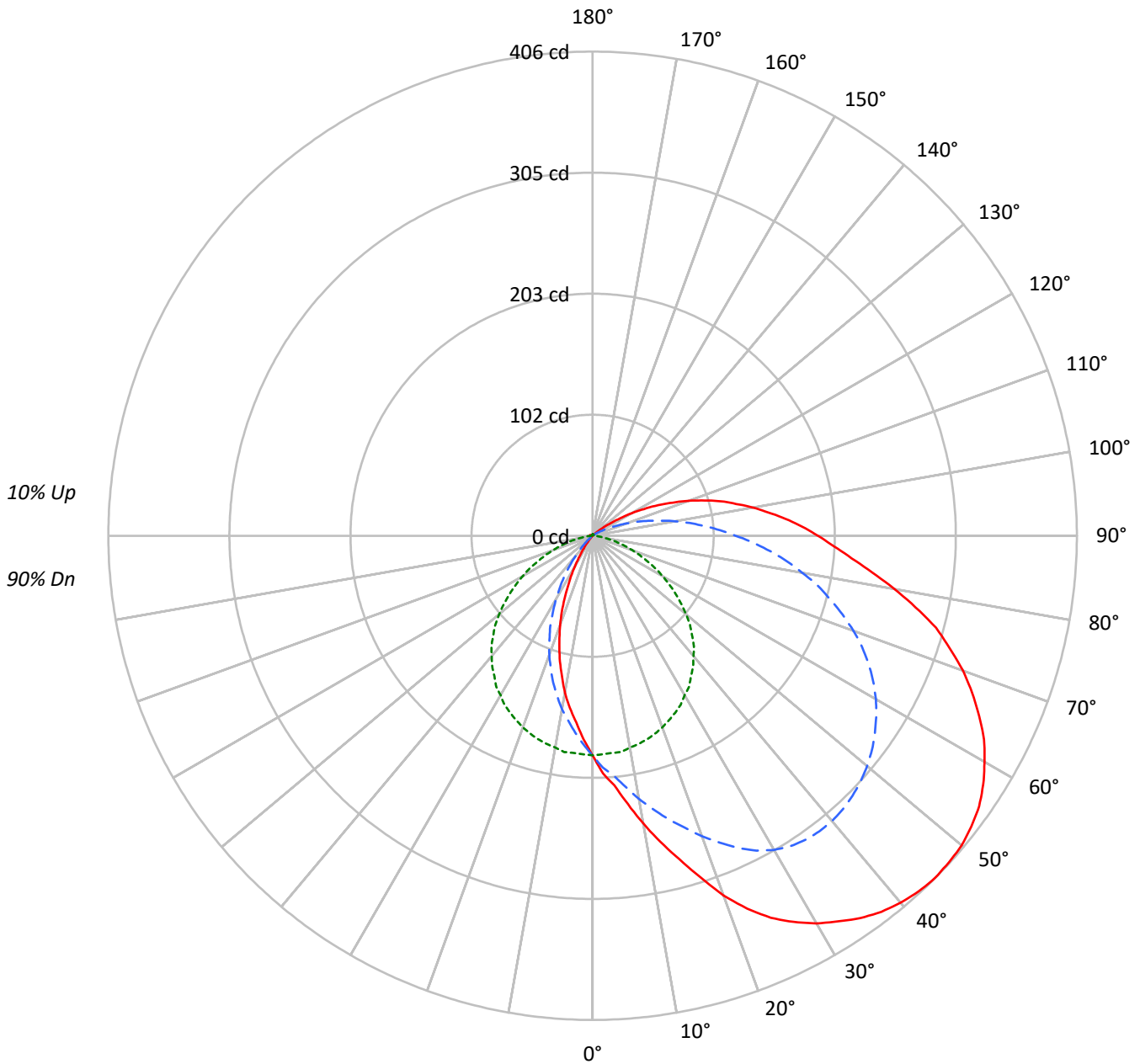
Lumens per Lamp: N/A  
Luminaire Lumens: 910.0 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**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°	1982	1982	1982
5°	2175	1953	1628
10°	2461	1928	1343
15°	2758	1904	1047
20°	3111	1872	770
25°	3404	1837	506
30°	3621	1789	285
35°	3809	1736	126
40°	3976	1672	30
45°	4119	1593	0
50°	4239	1487	0
55°	4331	1352	0
60°	4377	1195	0
65°	4395	1016	0
70°	4381	829	0
75°	4324	613	3
80°	4150	374	19
85°	4011	178	26



TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.6	1.9
10°-20°	52.8	5.8
20°-30°	85.5	9.4
30°-40°	109.8	12.1
40°-50°	124.3	13.7
50°-60°	128.8	14.2
60°-70°	121.5	13.3
70°-80°	101.8	11.2
80°-90°	73.8	8.1
90°-100°	48.5	5.3
100°-110°	28.0	3.1
110°-120°	12.4	1.4
120°-130°	3.3	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	155.9	17.1
0°-40°	265.7	29.2
0°-60°	518.9	57.0
0°-90°	815.9	89.7
90°-120°	88.9	9.8
90°-150°	93.4	10.3
90°-180°	94.0	10.3
0°-180°	910.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	184	184	184	184	184	
5°	210	202	183	166	157	21
15°	281	246	177	128	106	81
25°	353	289	164	84	52	163
35°	391	311	144	41	13	245
45°	406	308	118	9	0	313
55°	396	289	85	0	0	353
65°	358	256	51	0	0	354
75°	298	206	22	0	0	313
85°	218	150	4	1	1	186
90°	189	120	1	1	2	104
95°	162	94	0	2	2	127
105°	112	48	0	1	2	118
115°	61	16	1	1	1	61
125°	18	2	1	1	1	18
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	184.1	184.1	184.1	184.1	184.1	184.1	184.1	184.1	184.1	184.1	184.1
2.5°	199.5	199.3	198.6	197.4	195.8	193.0	190.6	188.5	185.7	183.4	178.9
5°	210.1	208.9	208.0	206.8	203.1	200.5	196.3	191.6	187.1	182.7	173.8
7.5°	227.0	225.1	223.7	220.4	215.3	209.4	202.8	198.4	195.3	182.9	167.7
10°	245.0	243.4	240.6	234.7	228.4	219.9	210.6	200.0	190.6	180.3	162.3
12.5°	262.9	260.5	256.5	249.0	240.1	229.6	216.7	204.2	190.9	178.7	155.9
15°	280.7	278.1	273.9	264.7	253.0	239.2	223.5	207.8	192.0	176.6	149.4
17.5°	300.1	296.6	290.3	280.0	265.2	248.1	229.6	210.6	191.6	174.0	142.3
20°	321.0	316.1	309.3	295.5	278.1	257.9	235.7	213.4	191.3	170.9	134.4
22.5°	338.4	333.4	325.9	311.6	290.8	266.1	240.8	215.3	190.4	167.4	126.9
25°	353.4	349.4	341.2	324.8	302.7	274.8	245.7	216.7	189.0	163.7	118.9
27.5°	365.1	361.3	352.2	335.3	312.8	282.6	249.5	217.4	187.1	159.9	110.7
30°	375.4	371.7	360.6	343.3	319.6	288.7	253.2	217.6	184.8	154.3	101.8
32.5°	383.4	379.9	368.6	350.1	324.3	292.9	255.4	217.4	181.7	150.3	92.2
35°	391.4	387.8	374.7	355.0	327.8	294.7	257.0	216.2	178.0	143.7	83.0
37.5°	397.5	393.5	380.1	358.3	329.5	295.2	256.8	214.6	174.0	138.3	73.9
40°	401.7	397.5	383.1	360.2	329.9	294.5	254.9	211.7	169.3	131.5	64.2
42.5°	404.5	399.8	384.6	363.0	329.0	292.6	252.1	208.2	164.1	125.7	55.1
45°	405.9	401.0	384.8	360.6	327.3	289.1	247.9	203.8	158.5	117.7	46.0
47.5°	405.2	399.8	383.6	358.1	324.3	285.4	243.2	198.4	151.7	110.7	37.3
50°	404.0	398.4	381.0	354.8	320.1	280.7	238.0	191.8	144.7	102.0	29.5
52.5°	400.3	394.6	378.2	350.1	315.1	275.3	231.0	185.0	137.2	93.6	22.5
55°	395.6	390.4	373.3	345.9	308.8	268.7	224.4	177.7	129.9	84.9	16.2
57.5°	388.3	383.6	367.2	339.1	302.5	261.5	217.1	169.8	120.8	76.2	11.3
60°	379.4	374.7	358.8	331.3	295.2	253.2	209.2	161.6	112.6	67.5	7.0
62.5°	370.0	365.6	348.9	321.7	286.1	244.6	200.5	153.4	103.9	59.6	4.2
65°	357.6	353.4	338.4	310.2	276.0	235.2	190.9	143.5	95.0	50.6	2.3
67.5°	344.5	340.7	325.5	299.7	264.3	224.9	181.0	133.9	85.6	42.9	1.2
70°	330.4	325.7	311.6	285.4	252.3	213.1	170.2	124.0	76.7	35.4	0.0
72.5°	314.0	310.5	296.9	272.0	238.5	200.7	159.2	113.3	66.8	28.1	0.2
75°	298.0	293.6	281.1	257.7	224.9	187.6	147.0	103.2	57.2	21.6	0.2
77.5°	277.4	276.0	264.3	241.5	212.0	174.9	133.7	91.0	48.1	15.5	0.2
80°	256.8	255.4	246.2	225.3	197.0	159.9	121.2	79.5	39.2	10.3	0.2
82.5°	236.4	234.5	225.8	208.5	181.7	147.3	108.3	68.0	31.0	6.3	0.2
85°	218.1	215.7	206.3	190.4	166.0	133.0	95.0	56.7	23.0	3.5	0.5
87.5°	202.4	200.7	190.4	174.0	150.1	119.6	83.2	46.0	16.2	1.6	0.7
90°	189.0	185.5	176.3	159.0	135.1	104.8	70.8	36.8	10.8	0.9	0.9
92.5°	175.9	172.8	162.7	144.9	121.7	92.2	58.9	28.1	6.8	0.5	1.2
95°	162.3	159.0	149.1	132.7	108.1	79.3	48.3	20.6	3.8	0.5	1.2
97.5°	148.9	145.9	135.5	119.1	95.9	68.0	38.2	14.5	1.9	0.5	0.9
100°	136.5	133.0	123.6	107.2	83.7	56.7	29.5	9.4	1.2	0.5	0.9
102.5°	123.3	120.5	110.9	95.0	71.0	46.2	22.0	5.9	0.5	0.5	0.7
105°	111.6	108.1	98.7	82.3	60.5	36.3	15.5	3.5	0.5	0.5	0.7



TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	72.7	69.9	61.7	47.8	30.7	14.3	4.2	0.7	0.7	0.7	0.7
115°	60.7	56.5	49.2	37.0	22.7	9.4	2.1	0.7	0.7	0.7	0.7
117.5°	48.5	45.0	39.9	28.1	15.0	6.1	1.2	0.7	0.7	0.7	0.7
120°	38.0	34.7	28.8	19.5	10.1	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.2	24.6	19.5	12.7	6.1	1.6	0.7	0.7	0.9	0.9	0.7
125°	18.1	16.6	12.9	7.7	3.8	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.7	10.6	7.5	4.5	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.9	4.5	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.8	3.5	2.3	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9
135°	0.9	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.2	1.2	1.2	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
160°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.5	0.5	0.5	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9
170°	0.5	0.5	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	0.9
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	184.1	184.1	184.1
2.5°	175.2	171.9	170.9
5°	165.8	160.4	157.3
7.5°	156.4	149.1	145.6
10°	147.7	137.4	133.7
12.5°	137.4	125.4	119.6
15°	127.6	112.1	106.5
17.5°	116.5	99.2	92.6
20°	106.2	86.3	79.5
22.5°	94.5	73.6	66.1
25°	83.9	61.0	52.5
27.5°	72.2	48.1	40.8
30°	61.2	36.8	29.5
32.5°	50.6	27.0	20.4
35°	40.8	18.3	12.9
37.5°	31.4	11.3	6.6
40°	22.7	5.9	3.0
42.5°	15.2	2.8	1.6
45°	9.4	1.4	0.0
47.5°	5.4	0.0	0.0
50°	2.8	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	0.9	1.2
82.5°	0.9	1.2	1.2
85°	0.9	1.2	1.4
87.5°	1.2	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.9	1.9
95°	1.6	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.2	1.6	1.9





TEST NUMBER: P550837

CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-81-97-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	0.9	1.2	1.2
115°	0.7	0.9	1.2
117.5°	0.7	0.9	0.9
120°	0.7	0.7	0.9
122.5°	0.7	0.7	0.9
125°	0.7	0.7	0.9
127.5°	0.9	0.7	0.7
130°	0.7	0.7	0.7
132.5°	0.9	0.7	0.7
135°	0.9	0.7	0.7
137.5°	0.9	0.7	0.7
140°	0.9	0.7	0.7
142.5°	0.9	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	0.9	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	98.5	95.7	86.3	70.8	49.5	27.7	10.3	1.9	0.5	0.7	0.7
110°	85.8	83.5	73.9	58.9	39.9	20.6	6.8	1.2	0.7	0.7	0.7







107.5°	0.9	1.4	1.6
110°	0.9	1.2	1.4



(END OF REPORT)