

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: P550709

Luminaire Tested: **FCC-X-2-LD4-1LO-30-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: P550709
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-30-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 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

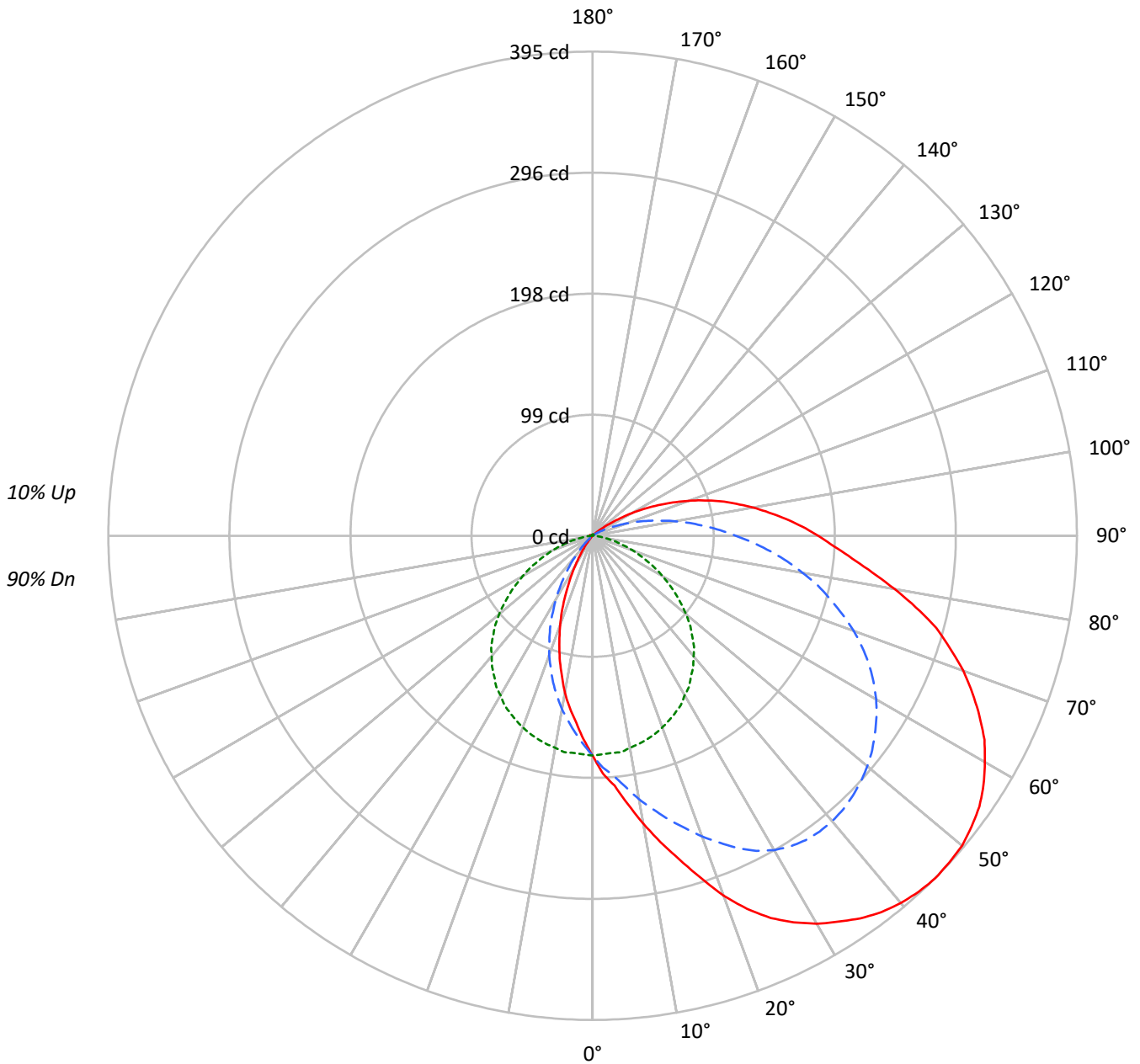
Lumens per Lamp: N/A
Luminaire Lumens: 886.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-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°	1929	1929	1929
5°	2118	1900	1586
10°	2397	1878	1307
15°	2686	1854	1018
20°	3028	1823	750
25°	3314	1789	492
30°	3525	1741	278
35°	3708	1690	123
40°	3871	1629	30
45°	4011	1551	0
50°	4128	1447	0
55°	4216	1315	0
60°	4262	1164	0
65°	4280	990	0
70°	4265	808	0
75°	4211	596	3
80°	4040	363	18
85°	3905	173	26



TEST NUMBER: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.2	1.9
10°-20°	51.4	5.8
20°-30°	83.2	9.4
30°-40°	106.9	12.1
40°-50°	121.0	13.7
50°-60°	125.4	14.2
60°-70°	118.3	13.3
70°-80°	99.1	11.2
80°-90°	71.8	8.1
90°-100°	47.2	5.3
100°-110°	27.3	3.1
110°-120°	12.0	1.4
120°-130°	3.3	0.4
130°-140°	0.7	0.1
140°-150°	0.5	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	151.8	17.1
0°-40°	258.7	29.2
0°-60°	505.2	57.0
0°-90°	794.4	89.7
90°-120°	86.5	9.8
90°-150°	91.0	10.3
90°-180°	92.0	10.4
0°-180°	886.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	179	179	179	179	179	
5°	205	196	178	161	153	21
15°	273	240	172	124	104	79
25°	344	281	159	82	51	159
35°	381	303	140	40	13	239
45°	395	300	115	9	0	305
55°	385	281	83	0	0	344
65°	348	249	49	0	0	344
75°	290	201	21	0	0	304
85°	212	146	3	1	1	181
90°	184	117	1	1	2	101
95°	158	91	0	2	2	124
105°	109	47	0	1	2	115
115°	59	16	1	1	1	59
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: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	179.2	179.2	179.2	179.2	179.2	179.2	179.2	179.2	179.2	179.2	179.2
2.5°	194.3	194.1	193.4	192.2	190.6	187.9	185.6	183.6	180.8	178.5	174.2
5°	204.6	203.4	202.5	201.4	197.7	195.2	191.1	186.5	182.2	177.8	169.2
7.5°	221.0	219.2	217.8	214.6	209.6	203.9	197.5	193.1	190.2	178.1	163.2
10°	238.6	237.0	234.2	228.5	222.4	214.1	205.0	194.7	185.6	175.6	158.0
12.5°	255.9	253.6	249.8	242.5	233.8	223.5	211.0	198.9	185.8	174.0	151.8
15°	273.3	270.8	266.7	257.8	246.3	232.9	217.6	202.3	187.0	171.9	145.4
17.5°	292.2	288.8	282.6	272.6	258.2	241.5	223.5	205.0	186.5	169.4	138.6
20°	312.5	307.8	301.1	287.7	270.8	251.1	229.4	207.8	186.3	166.4	130.8
22.5°	329.4	324.6	317.3	303.4	283.1	259.1	234.5	209.6	185.4	163.0	123.5
25°	344.1	340.2	332.2	316.2	294.7	267.6	239.3	211.0	184.0	159.4	115.7
27.5°	355.5	351.8	342.9	326.5	304.6	275.1	242.9	211.6	182.2	155.7	107.8
30°	365.5	361.9	351.1	334.2	311.2	281.0	246.6	211.9	179.9	150.2	99.1
32.5°	373.3	369.8	358.9	340.9	315.7	285.1	248.6	211.6	176.9	146.3	89.7
35°	381.0	377.6	364.8	345.6	319.2	287.0	250.2	210.5	173.3	139.9	80.8
37.5°	387.0	383.1	370.1	348.8	320.8	287.4	250.0	208.9	169.4	134.7	71.9
40°	391.1	387.0	373.0	350.7	321.2	286.7	248.2	206.2	164.8	128.1	62.6
42.5°	393.8	389.3	374.4	353.4	320.3	284.9	245.4	202.7	159.8	122.4	53.7
45°	395.2	390.4	374.6	351.1	318.7	281.5	241.3	198.4	154.3	114.6	44.7
47.5°	394.5	389.3	373.5	348.6	315.7	277.8	236.7	193.1	147.7	107.8	36.3
50°	393.4	387.9	371.0	345.4	311.6	273.3	231.7	186.8	140.9	99.3	28.8
52.5°	389.7	384.2	368.3	340.9	306.8	268.0	224.9	180.1	133.6	91.1	21.9
55°	385.1	380.1	363.5	336.7	300.7	261.6	218.5	173.1	126.5	82.6	15.8
57.5°	378.1	373.5	357.5	330.1	294.5	254.6	211.4	165.3	117.6	74.2	11.0
60°	369.4	364.8	349.3	322.6	287.4	246.6	203.6	157.3	109.6	65.8	6.8
62.5°	360.3	355.9	339.7	313.2	278.5	238.1	195.2	149.3	101.1	58.0	4.1
65°	348.2	344.1	329.4	302.0	268.7	229.0	185.8	139.7	92.5	49.3	2.3
67.5°	335.4	331.7	316.9	291.8	257.3	218.9	176.2	130.4	83.3	41.8	1.1
70°	321.7	317.1	303.4	277.8	245.7	207.5	165.7	120.8	74.7	34.5	0.0
72.5°	305.7	302.3	289.0	264.8	232.2	195.4	155.0	110.3	65.1	27.4	0.2
75°	290.2	285.8	273.7	250.9	218.9	182.6	143.1	100.5	55.7	21.0	0.2
77.5°	270.1	268.7	257.3	235.2	206.4	170.3	130.1	88.6	46.8	15.1	0.2
80°	250.0	248.6	239.7	219.4	191.8	155.7	118.0	77.4	38.1	10.0	0.2
82.5°	230.1	228.3	219.9	203.0	176.9	143.4	105.5	66.2	30.1	6.2	0.2
85°	212.3	210.0	200.9	185.4	161.6	129.4	92.5	55.2	22.4	3.4	0.5
87.5°	197.0	195.4	185.4	169.4	146.1	116.4	81.0	44.7	15.8	1.6	0.7
90°	184.0	180.6	171.7	154.8	131.5	102.1	68.9	35.8	10.5	0.9	0.9
92.5°	171.2	168.3	158.4	141.1	118.5	89.7	57.3	27.4	6.6	0.5	1.1
95°	158.0	154.8	145.2	129.2	105.2	77.2	47.0	20.1	3.7	0.5	1.1
97.5°	145.0	142.0	132.0	116.0	93.4	66.2	37.2	14.2	1.8	0.5	0.9
100°	132.9	129.4	120.3	104.3	81.5	55.2	28.8	9.1	1.1	0.5	0.9
102.5°	120.1	117.3	108.0	92.5	69.2	45.0	21.5	5.7	0.5	0.5	0.7
105°	108.7	105.2	96.1	80.1	58.9	35.4	15.1	3.4	0.5	0.5	0.7



TEST NUMBER: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	70.8	68.0	60.0	46.6	29.9	13.9	4.1	0.7	0.7	0.7	0.7
115°	59.1	55.0	47.9	36.1	22.1	9.1	2.1	0.7	0.7	0.7	0.7
117.5°	47.3	43.8	38.8	27.4	14.6	5.9	1.1	0.7	0.7	0.7	0.7
120°	37.0	33.8	28.1	18.9	9.8	3.4	0.5	0.7	0.7	0.7	0.7
122.5°	26.5	24.0	18.9	12.3	5.9	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.6	16.2	12.6	7.5	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.4	10.3	7.3	4.3	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.4	5.7	4.3	2.5	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.7	3.4	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	1.1	1.1	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.1	0.9	0.9	1.1
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	1.1	1.1	1.1	1.1
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.1	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: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	179.2	179.2	179.2
2.5°	170.5	167.3	166.4
5°	161.4	156.2	153.2
7.5°	152.3	145.2	141.8
10°	143.8	133.8	130.1
12.5°	133.8	122.1	116.4
15°	124.2	109.1	103.6
17.5°	113.5	96.6	90.2
20°	103.4	84.0	77.4
22.5°	92.0	71.7	64.4
25°	81.7	59.4	51.1
27.5°	70.3	46.8	39.7
30°	59.6	35.8	28.8
32.5°	49.3	26.3	19.9
35°	39.7	17.8	12.6
37.5°	30.6	11.0	6.4
40°	22.1	5.7	3.0
42.5°	14.8	2.7	1.6
45°	9.1	1.4	0.0
47.5°	5.3	0.0	0.0
50°	2.7	0.0	0.0
52.5°	1.1	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	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.4
87.5°	1.1	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.8	1.8
95°	1.6	1.8	2.1
97.5°	1.8	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.1	1.6	1.8



TEST NUMBER: P550709

CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.7	0.9	1.1
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°	95.9	93.1	84.0	68.9	48.2	26.9	10.0	1.8	0.5	0.7	0.7
110°	83.6	81.3	71.9	57.3	38.8	20.1	6.6	1.1	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.1	1.4



(END OF REPORT)