

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: P550799

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-88-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: P550799
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-93-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

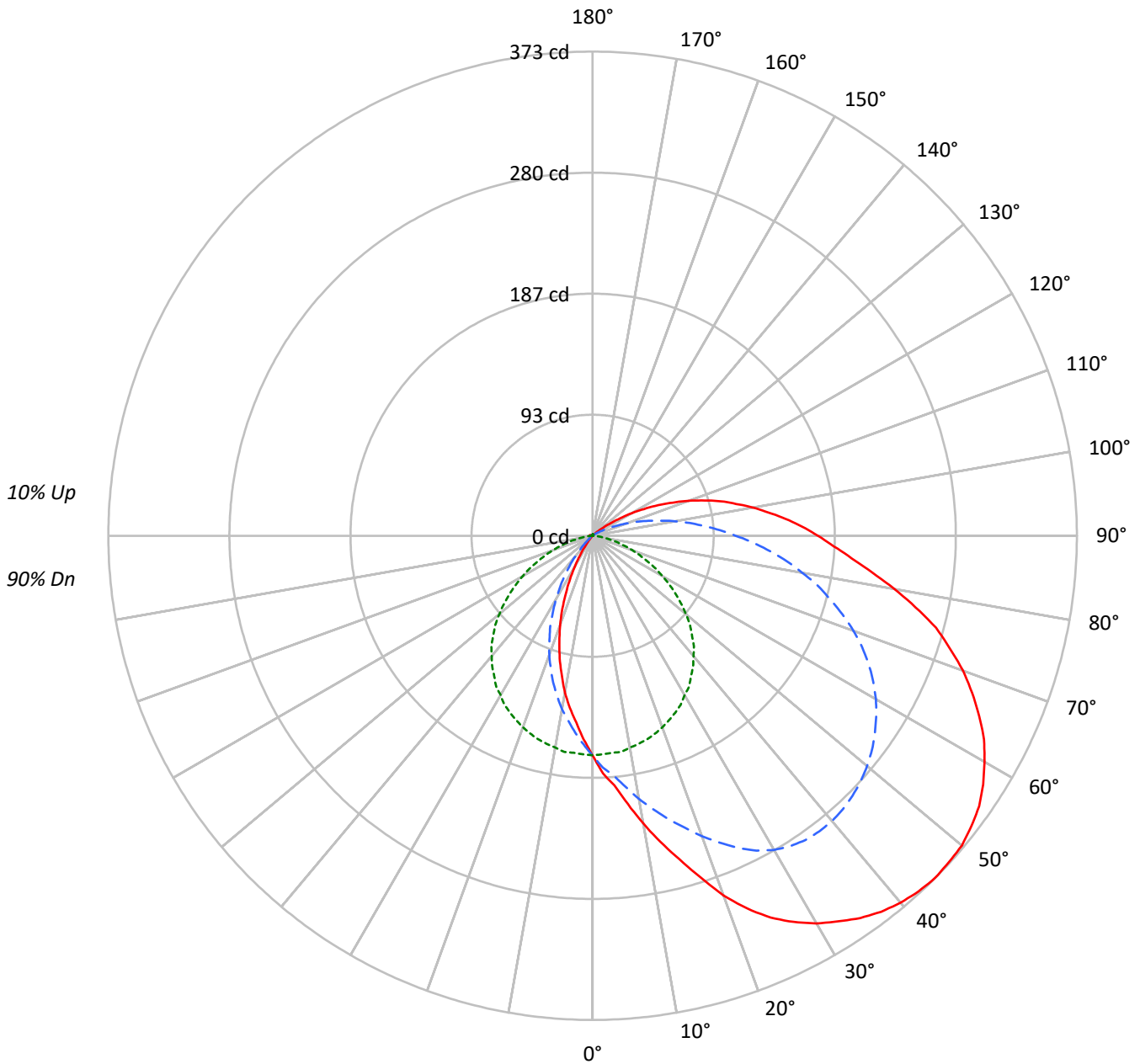
Lumens per Lamp: N/A
Luminaire Lumens: 835.9 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-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°	1820	1820	1820
5°	1998	1793	1496
10°	2261	1772	1233
15°	2534	1749	961
20°	2858	1720	707
25°	3126	1688	465
30°	3327	1643	261
35°	3499	1596	115
40°	3653	1536	28
45°	3784	1463	0
50°	3895	1366	0
55°	3979	1242	0
60°	4021	1097	0
65°	4038	934	0
70°	4024	761	0
75°	3973	562	3
80°	3812	345	18
85°	3684	163	24



TEST NUMBER: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.2	1.9
10°-20°	48.5	5.8
20°-30°	78.5	9.4
30°-40°	100.9	12.1
40°-50°	114.2	13.7
50°-60°	118.3	14.2
60°-70°	111.6	13.3
70°-80°	93.5	11.2
80°-90°	67.8	8.1
90°-100°	44.5	5.3
100°-110°	25.7	3.1
110°-120°	11.3	1.4
120°-130°	3.1	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°	143.2	17.1
0°-40°	244.1	29.2
0°-60°	476.7	57.0
0°-90°	749.5	89.7
90°-120°	81.6	9.8
90°-150°	85.8	10.3
90°-180°	86.0	10.3
0°-180°	835.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	169	169	169	169	169	
5°	193	185	168	152	144	19
15°	258	226	162	117	98	74
25°	325	265	150	77	48	150
35°	360	286	132	38	12	225
45°	373	283	108	9	0	288
55°	363	265	78	0	0	325
65°	328	235	46	0	0	325
75°	274	189	20	0	0	287
85°	200	137	3	1	1	171
90°	174	110	1	1	2	95
95°	149	86	0	2	2	117
105°	102	44	0	1	2	108
115°	56	15	1	1	1	56
125°	17	2	1	1	1	17
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: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1	169.1
2.5°	183.3	183.1	182.5	181.4	179.9	177.3	175.1	173.2	170.6	168.5	164.4
5°	193.0	191.9	191.1	190.0	186.6	184.2	180.3	176.0	171.9	167.8	159.6
7.5°	208.5	206.8	205.5	202.5	197.8	192.4	186.3	182.2	179.4	168.0	154.0
10°	225.1	223.6	221.0	215.6	209.8	202.1	193.4	183.8	175.1	165.7	149.1
12.5°	241.5	239.3	235.7	228.8	220.6	210.9	199.0	187.6	175.3	164.1	143.3
15°	257.9	255.5	251.6	243.2	232.4	219.7	205.3	190.9	176.4	162.2	137.2
17.5°	275.7	272.5	266.7	257.2	243.6	227.9	210.9	193.4	176.0	159.8	130.8
20°	294.9	290.4	284.1	271.4	255.5	237.0	216.5	196.0	175.8	157.0	123.4
22.5°	310.8	306.3	299.4	286.3	267.1	244.5	221.2	197.8	174.9	153.8	116.5
25°	324.6	321.0	313.4	298.4	278.1	252.5	225.8	199.0	173.6	150.4	109.2
27.5°	335.4	332.0	323.6	308.0	287.4	259.6	229.2	199.7	171.9	146.9	101.7
30°	344.9	341.4	331.3	315.4	293.6	265.2	232.7	199.9	169.7	141.7	93.5
32.5°	352.2	349.0	338.6	321.6	297.9	269.1	234.6	199.7	166.9	138.1	84.7
35°	359.5	356.3	344.2	326.1	301.2	270.8	236.1	198.6	163.5	132.1	76.3
37.5°	365.1	361.5	349.2	329.2	302.7	271.2	235.9	197.1	159.8	127.1	67.9
40°	369.0	365.1	352.0	330.9	303.1	270.6	234.2	194.5	155.5	120.8	59.0
42.5°	371.6	367.3	353.3	333.5	302.2	268.8	231.6	191.3	150.8	115.5	50.6
45°	372.9	368.4	353.5	331.3	300.7	265.6	227.7	187.2	145.6	108.1	42.2
47.5°	372.2	367.3	352.4	328.9	297.9	262.2	223.4	182.2	139.4	101.7	34.3
50°	371.2	366.0	350.1	325.9	294.0	257.9	218.6	176.2	132.9	93.7	27.1
52.5°	367.7	362.5	347.5	321.6	289.5	252.9	212.2	170.0	126.0	86.0	20.7
55°	363.4	358.7	342.9	317.7	283.7	246.9	206.2	163.3	119.3	78.0	14.9
57.5°	356.7	352.4	337.3	311.5	277.9	240.2	199.5	156.0	110.9	70.0	10.3
60°	348.5	344.2	329.6	304.4	271.2	232.7	192.2	148.4	103.4	62.0	6.5
62.5°	339.9	335.8	320.5	295.6	262.8	224.7	184.2	140.9	95.4	54.7	3.9
65°	328.5	324.6	310.8	285.0	253.5	216.1	175.3	131.8	87.2	46.5	2.2
67.5°	316.4	313.0	299.0	275.3	242.8	206.6	166.3	123.0	78.6	39.4	1.1
70°	303.5	299.2	286.3	262.2	231.8	195.8	156.4	114.0	70.4	32.5	0.0
72.5°	288.4	285.2	272.7	249.9	219.1	184.4	146.3	104.0	61.4	25.9	0.2
75°	273.8	269.7	258.3	236.7	206.6	172.3	135.1	94.8	52.6	19.8	0.2
77.5°	254.8	253.5	242.8	221.9	194.7	160.7	122.8	83.6	44.2	14.2	0.2
80°	235.9	234.6	226.2	207.0	181.0	146.9	111.4	73.0	36.0	9.5	0.2
82.5°	217.1	215.4	207.4	191.5	166.9	135.3	99.5	62.5	28.4	5.8	0.2
85°	200.3	198.2	189.6	174.9	152.5	122.1	87.2	52.1	21.1	3.2	0.4
87.5°	185.9	184.4	174.9	159.8	137.9	109.9	76.5	42.2	14.9	1.5	0.6
90°	173.6	170.4	162.0	146.1	124.1	96.3	65.1	33.8	9.9	0.9	0.9
92.5°	161.6	158.8	149.5	133.1	111.8	84.7	54.1	25.9	6.2	0.4	1.1
95°	149.1	146.1	137.0	121.9	99.3	72.8	44.4	19.0	3.4	0.4	1.1
97.5°	136.8	134.0	124.5	109.4	88.1	62.5	35.1	13.4	1.7	0.4	0.9
100°	125.4	122.1	113.5	98.4	76.9	52.1	27.1	8.6	1.1	0.4	0.9
102.5°	113.3	110.7	101.9	87.2	65.3	42.4	20.2	5.4	0.4	0.4	0.6
105°	102.5	99.3	90.7	75.6	55.6	33.4	14.2	3.2	0.4	0.4	0.6



TEST NUMBER: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	66.8	64.2	56.7	43.9	28.2	13.1	3.9	0.6	0.6	0.6	0.6
115°	55.8	51.9	45.2	34.0	20.9	8.6	1.9	0.6	0.6	0.6	0.6
117.5°	44.6	41.4	36.6	25.9	13.8	5.6	1.1	0.6	0.6	0.6	0.6
120°	34.9	31.9	26.5	17.9	9.3	3.2	0.4	0.6	0.6	0.6	0.6
122.5°	25.0	22.6	17.9	11.6	5.6	1.5	0.6	0.6	0.9	0.9	0.6
125°	16.6	15.3	11.8	7.1	3.4	0.6	0.6	0.6	0.9	0.9	0.6
127.5°	10.8	9.7	6.9	4.1	1.5	0.6	0.6	0.9	0.9	0.9	0.6
130°	6.0	5.4	4.1	2.4	0.6	0.6	0.6	0.9	0.9	0.9	0.6
132.5°	3.4	3.2	2.2	0.4	0.6	0.6	0.6	0.9	0.9	0.9	0.9
135°	0.9	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9
137.5°	0.2	0.2	0.4	0.4	0.6	0.6	0.9	1.1	1.1	1.1	0.9
140°	0.2	0.2	0.4	0.6	0.6	0.6	0.9	1.1	1.1	1.1	0.9
142.5°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9	0.9
145°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	0.9	0.9	0.9
147.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	0.9	0.9
150°	0.2	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	0.9
152.5°	0.2	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	0.9
155°	0.4	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	1.1
157.5°	0.4	0.4	0.4	0.6	0.9	0.9	0.9	1.1	0.9	0.9	1.1
160°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.4	0.4	0.4	0.4	0.6	0.6	0.9	0.9	0.9	0.9	0.9
167.5°	0.4	0.4	0.4	0.6	0.6	0.6	0.9	0.9	0.9	0.9	0.9
170°	0.4	0.4	0.4	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.1
172.5°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1
175°	0.4	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1
177.5°	0.2	0.4	0.4	0.6	0.6	0.9	0.9	1.1	1.1	1.1	0.9
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



TEST NUMBER: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	169.1	169.1	169.1
2.5°	160.9	157.9	157.0
5°	152.3	147.3	144.5
7.5°	143.7	137.0	133.8
10°	135.7	126.2	122.8
12.5°	126.2	115.2	109.9
15°	117.2	103.0	97.8
17.5°	107.1	91.1	85.1
20°	97.6	79.3	73.0
22.5°	86.8	67.6	60.7
25°	77.1	56.0	48.3
27.5°	66.3	44.2	37.5
30°	56.2	33.8	27.1
32.5°	46.5	24.8	18.7
35°	37.5	16.8	11.8
37.5°	28.9	10.3	6.0
40°	20.9	5.4	2.8
42.5°	14.0	2.6	1.5
45°	8.6	1.3	0.0
47.5°	5.0	0.0	0.0
50°	2.6	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	0.4	0.6
80°	0.4	0.9	1.1
82.5°	0.9	1.1	1.1
85°	0.9	1.1	1.3
87.5°	1.1	1.3	1.5
90°	1.3	1.5	1.5
92.5°	1.3	1.7	1.7
95°	1.5	1.7	1.9
97.5°	1.7	1.9	1.9
100°	1.5	1.9	2.2
102.5°	1.3	1.9	1.9
105°	1.1	1.5	1.7



TEST NUMBER: P550799

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-93-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.1	1.1
115°	0.6	0.9	1.1
117.5°	0.6	0.9	0.9
120°	0.6	0.6	0.9
122.5°	0.6	0.6	0.9
125°	0.6	0.6	0.9
127.5°	0.9	0.6	0.6
130°	0.6	0.6	0.6
132.5°	0.9	0.6	0.6
135°	0.9	0.6	0.6
137.5°	0.9	0.6	0.6
140°	0.9	0.6	0.6
142.5°	0.9	0.6	0.6
145°	0.6	0.6	0.6
147.5°	0.6	0.6	0.6
150°	0.6	0.6	0.4
152.5°	0.6	0.4	0.4
155°	0.6	0.4	0.2
157.5°	0.9	0.4	0.2
160°	0.6	0.4	0.2
162.5°	0.6	0.4	0.2
165°	0.6	0.4	0.0
167.5°	0.6	0.4	0.2
170°	0.6	0.4	0.2
172.5°	0.6	0.4	0.2
175°	0.6	0.2	0.2
177.5°	0.6	0.2	0.2
180°	0.6	0.6	0.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	90.5	87.9	79.3	65.1	45.5	25.4	9.5	1.7	0.4	0.6	0.6
110°	78.8	76.7	67.9	54.1	36.6	19.0	6.2	1.1	0.6	0.6	0.6





107.5°	0.9	1.3	1.5
110°	0.9	1.1	1.3



(END OF REPORT)