

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: P550779

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-82-86-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: P550779
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 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: 891.0 lumens
Efficiency: N/A
Efficacy: 76.2 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: P550779

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-82-86-ED1D-90

Luminous Intensity Polar Plot





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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°	1940	1940	1940
5°	2129	1912	1595
10°	2410	1889	1315
15°	2700	1864	1024
20°	3046	1834	754
25°	3332	1799	495
30°	3545	1752	279
35°	3730	1700	123
40°	3893	1638	30
45°	4033	1560	0
50°	4151	1456	0
55°	4240	1323	0
60°	4286	1170	0
65°	4303	996	0
70°	4289	813	0
75°	4234	598	3
80°	4063	366	18
85°	3927	173	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.3	1.9
10°-20°	51.7	5.8
20°-30°	83.7	9.4
30°-40°	107.5	12.1
40°-50°	121.7	13.7
50°-60°	126.1	14.2
60°-70°	118.9	13.3
70°-80°	99.7	11.2
80°-90°	72.2	8.1
90°-100°	47.5	5.3
100°-110°	27.4	3.1
110°-120°	12.1	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°	152.7	17.1
0°-40°	260.2	29.2
0°-60°	508.0	57.0
0°-90°	798.8	89.7
90°-120°	87.0	9.8
90°-150°	91.5	10.3
90°-180°	92.0	10.3
0°-180°	891.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	180	180	180	180	180	
5°	206	198	179	162	154	21
15°	275	241	173	125	104	79
25°	346	283	160	82	51	160
35°	383	305	141	40	13	240
45°	397	302	115	9	0	307
55°	387	283	83	0	0	346
65°	350	250	50	0	0	346
75°	292	202	21	0	0	306
85°	214	146	3	1	1	182
90°	185	117	1	1	2	101
95°	159	92	0	2	2	125
105°	109	47	0	1	2	115
115°	60	16	1	1	1	60
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	180.2	180.2	180.2	180.2	180.2	180.2	180.2	180.2	180.2	180.2	180.2
2.5°	195.4	195.2	194.5	193.3	191.7	189.0	186.7	184.6	181.8	179.5	175.2
5°	205.7	204.6	203.6	202.5	198.8	196.3	192.2	187.6	183.2	178.9	170.1
7.5°	222.2	220.4	219.0	215.8	210.8	205.0	198.6	194.2	191.2	179.1	164.2
10°	239.9	238.3	235.6	229.8	223.6	215.4	206.2	195.8	186.7	176.6	158.9
12.5°	257.4	255.1	251.2	243.8	235.1	224.8	212.1	200.0	186.9	174.9	152.7
15°	274.8	272.3	268.2	259.2	247.7	234.2	218.8	203.4	188.0	172.9	146.2
17.5°	293.9	290.4	284.2	274.1	259.7	242.9	224.8	206.2	187.6	170.4	139.4
20°	314.3	309.5	302.8	289.3	272.3	252.5	230.7	208.9	187.3	167.4	131.6
22.5°	331.3	326.5	319.1	305.1	284.7	260.6	235.8	210.8	186.4	163.9	124.2
25°	346.0	342.1	334.1	318.0	296.4	269.1	240.6	212.1	185.0	160.3	116.4
27.5°	357.5	353.8	344.8	328.3	306.3	276.7	244.3	212.8	183.2	156.6	108.4
30°	367.6	363.9	353.1	336.1	312.9	282.6	248.0	213.1	180.9	151.1	99.6
32.5°	375.4	371.9	360.9	342.8	317.5	286.8	250.0	212.8	177.9	147.2	90.2
35°	383.2	379.7	366.9	347.6	321.0	288.6	251.6	211.7	174.3	140.7	81.3
37.5°	389.2	385.3	372.2	350.8	322.6	289.1	251.4	210.1	170.4	135.5	72.3
40°	393.3	389.2	375.1	352.6	323.0	288.4	249.6	207.3	165.8	128.8	62.9
42.5°	396.0	391.5	376.5	355.4	322.1	286.5	246.8	203.9	160.7	123.1	54.0
45°	397.4	392.6	376.8	353.1	320.5	283.1	242.7	199.5	155.2	115.3	45.0
47.5°	396.7	391.5	375.6	350.6	317.5	279.4	238.1	194.2	148.5	108.4	36.5
50°	395.6	390.1	373.1	347.4	313.4	274.8	233.0	187.8	141.7	99.9	28.9
52.5°	391.9	386.4	370.3	342.8	308.6	269.5	226.1	181.1	134.3	91.6	22.0
55°	387.3	382.3	365.5	338.6	302.4	263.1	219.7	174.0	127.2	83.1	15.8
57.5°	380.2	375.6	359.5	332.0	296.2	256.0	212.6	166.2	118.2	74.6	11.0
60°	371.5	366.9	351.3	324.4	289.1	248.0	204.8	158.2	110.2	66.1	6.9
62.5°	362.3	357.9	341.6	315.0	280.1	239.5	196.3	150.2	101.7	58.3	4.1
65°	350.1	346.0	331.3	303.7	270.2	230.3	186.9	140.5	93.0	49.6	2.3
67.5°	337.3	333.6	318.7	293.4	258.7	220.2	177.2	131.1	83.8	42.0	1.1
70°	323.5	318.9	305.1	279.4	247.0	208.7	166.7	121.5	75.1	34.7	0.0
72.5°	307.4	304.0	290.7	266.3	233.5	196.5	155.9	110.9	65.4	27.6	0.2
75°	291.8	287.4	275.3	252.3	220.2	183.7	144.0	101.0	56.0	21.1	0.2
77.5°	271.6	270.2	258.7	236.5	207.5	171.3	130.9	89.1	47.1	15.2	0.2
80°	251.4	250.0	241.1	220.6	192.9	156.6	118.7	77.8	38.3	10.1	0.2
82.5°	231.4	229.6	221.1	204.1	177.9	144.2	106.1	66.6	30.3	6.2	0.2
85°	213.5	211.2	202.0	186.4	162.5	130.2	93.0	55.6	22.5	3.4	0.5
87.5°	198.1	196.5	186.4	170.4	146.9	117.1	81.5	45.0	15.8	1.6	0.7
90°	185.0	181.6	172.7	155.7	132.2	102.6	69.3	36.0	10.6	0.9	0.9
92.5°	172.2	169.2	159.3	141.9	119.2	90.2	57.6	27.6	6.7	0.5	1.1
95°	158.9	155.7	146.0	129.9	105.8	77.6	47.3	20.2	3.7	0.5	1.1
97.5°	145.8	142.8	132.7	116.6	93.9	66.6	37.4	14.2	1.8	0.5	0.9
100°	133.6	130.2	121.0	104.9	82.0	55.6	28.9	9.2	1.1	0.5	0.9
102.5°	120.8	118.0	108.6	93.0	69.6	45.2	21.6	5.7	0.5	0.5	0.7
105°	109.3	105.8	96.7	80.6	59.2	35.6	15.2	3.4	0.5	0.5	0.7



TEST NUMBER: P550779

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	71.2	68.4	60.4	46.8	30.1	14.0	4.1	0.7	0.7	0.7	0.7
115°	59.5	55.3	48.2	36.3	22.3	9.2	2.1	0.7	0.7	0.7	0.7
117.5°	47.5	44.1	39.0	27.6	14.7	6.0	1.1	0.7	0.7	0.7	0.7
120°	37.2	34.0	28.2	19.1	9.9	3.4	0.5	0.7	0.7	0.7	0.7
122.5°	26.6	24.1	19.1	12.4	6.0	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.7	16.3	12.6	7.6	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.5	10.3	7.3	4.4	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.4	5.7	4.4	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: P550779

CATALOG NUMBER: FCC-X-2-LD4-1LO-35-UNV-82-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	180.2	180.2	180.2
2.5°	171.5	168.3	167.4
5°	162.3	157.0	154.1
7.5°	153.1	146.0	142.6
10°	144.6	134.5	130.9
12.5°	134.5	122.8	117.1
15°	124.9	109.7	104.2
17.5°	114.1	97.1	90.7
20°	104.0	84.5	77.8
22.5°	92.5	72.1	64.7
25°	82.2	59.7	51.4
27.5°	70.7	47.1	39.9
30°	59.9	36.0	28.9
32.5°	49.6	26.4	20.0
35°	39.9	17.9	12.6
37.5°	30.8	11.0	6.4
40°	22.3	5.7	3.0
42.5°	14.9	2.8	1.6
45°	9.2	1.4	0.0
47.5°	5.3	0.0	0.0
50°	2.8	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



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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°	96.4	93.7	84.5	69.3	48.4	27.1	10.1	1.8	0.5	0.7	0.7
110°	84.0	81.7	72.3	57.6	39.0	20.2	6.7	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)