

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: P551039

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-88-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: P551039
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-LD4-1STD-35-UNV-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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

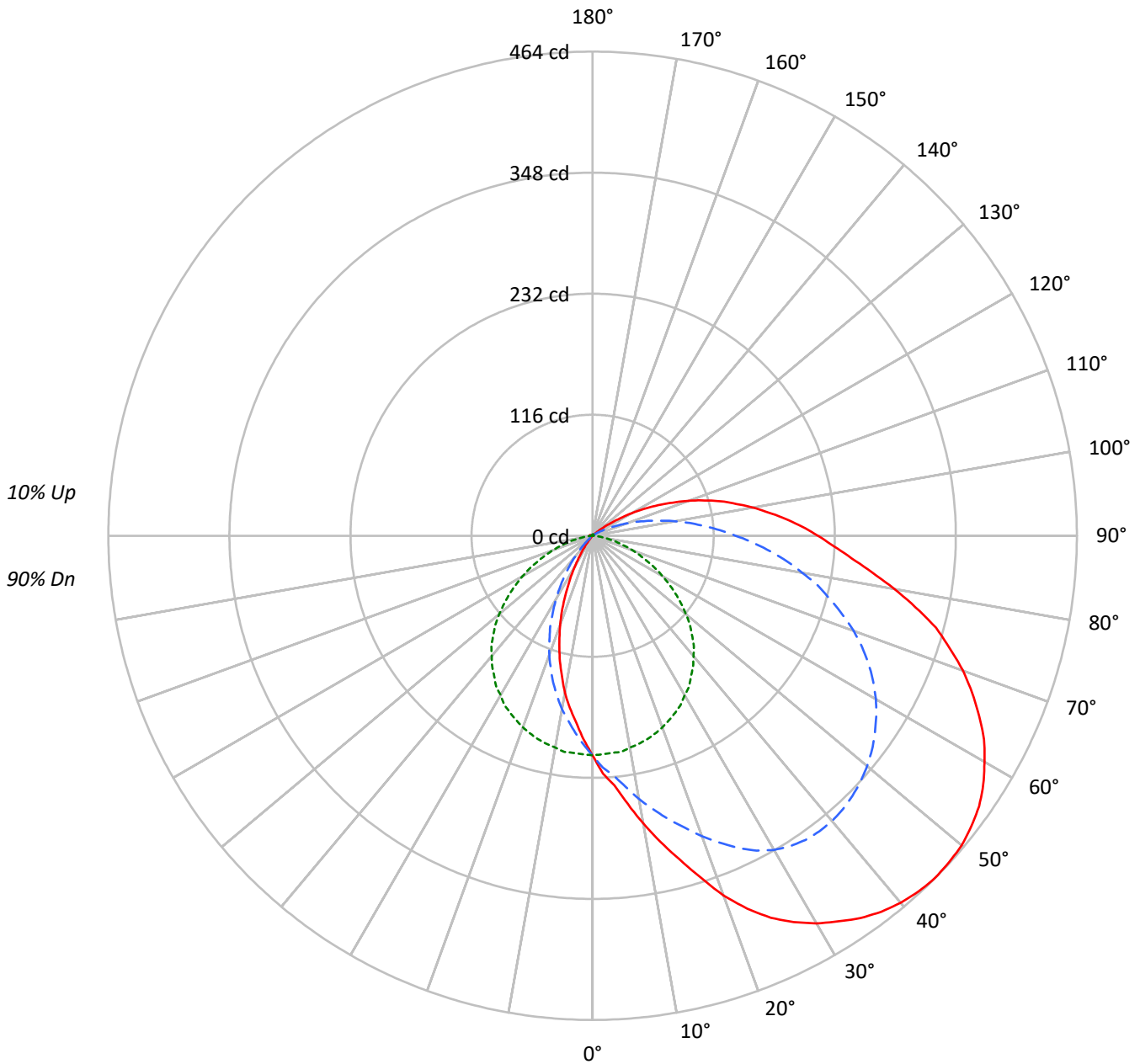
Lumens per Lamp: N/A
Luminaire Lumens: 1040.0 lumens
Efficiency: N/A
Efficacy: 62.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-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°	2265	2265	2265
5°	2486	2232	1861
10°	2812	2204	1535
15°	3153	2176	1196
20°	3556	2141	880
25°	3890	2100	578
30°	4138	2044	326
35°	4353	1985	143
40°	4544	1911	35
45°	4708	1820	0
50°	4845	1699	0
55°	4950	1545	0
60°	5002	1366	0
65°	5023	1163	0
70°	5006	949	0
75°	4942	700	4
80°	4742	428	21
85°	4583	203	29



TEST NUMBER: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.2	1.9
10°-20°	60.3	5.8
20°-30°	97.7	9.4
30°-40°	125.5	12.1
40°-50°	142.1	13.7
50°-60°	147.2	14.2
60°-70°	138.8	13.3
70°-80°	116.3	11.2
80°-90°	84.3	8.1
90°-100°	55.4	5.3
100°-110°	32.0	3.1
110°-120°	14.1	1.4
120°-130°	3.8	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	178.2	17.1
0°-40°	303.7	29.2
0°-60°	593.0	57.0
0°-90°	932.5	89.7
90°-120°	101.5	9.8
90°-150°	106.8	10.3
90°-180°	108.0	10.4
0°-180°	1040.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	210	210	210	210	210	
5°	240	231	209	190	180	24
15°	321	281	202	146	122	92
25°	404	330	187	96	60	187
35°	447	356	164	47	15	281
45°	464	352	134	11	0	358
55°	452	330	97	0	0	404
65°	409	292	58	0	0	404
75°	341	236	25	0	0	357
85°	249	171	4	1	2	213
90°	216	137	1	2	2	118
95°	185	107	0	2	2	145
105°	128	55	0	1	2	135
115°	69	18	1	1	1	70
125°	21	3	1	1	1	21
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: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4	210.4
2.5°	228.1	227.8	227.0	225.6	223.8	220.6	217.9	215.5	212.2	209.6	204.5
5°	240.1	238.8	237.7	236.4	232.1	229.1	224.3	218.9	213.9	208.8	198.6
7.5°	259.4	257.3	255.7	251.9	246.0	239.3	231.8	226.7	223.2	209.0	191.6
10°	280.0	278.2	275.0	268.3	261.0	251.4	240.6	228.6	217.9	206.1	185.4
12.5°	300.4	297.7	293.2	284.6	274.4	262.4	247.6	233.4	218.1	204.2	178.2
15°	320.8	317.8	313.0	302.6	289.2	273.3	255.4	237.4	219.5	201.8	170.7
17.5°	343.0	339.0	331.8	320.0	303.1	283.5	262.4	240.6	218.9	198.8	162.7
20°	366.9	361.2	353.5	337.7	317.8	294.8	269.3	243.9	218.7	195.4	153.6
22.5°	386.7	381.1	372.5	356.2	332.3	304.2	275.2	246.0	217.6	191.3	145.0
25°	403.9	399.3	389.9	371.2	346.0	314.1	280.8	247.6	216.0	187.1	135.9
27.5°	417.3	413.0	402.5	383.2	357.5	322.9	285.1	248.4	213.9	182.8	126.5
30°	429.0	424.8	412.2	392.3	365.3	329.9	289.4	248.7	211.2	176.3	116.3
32.5°	438.2	434.1	421.3	400.1	370.6	334.7	291.8	248.4	207.7	171.8	105.3
35°	447.3	443.2	428.2	405.7	374.6	336.9	293.7	247.1	203.4	164.3	94.9
37.5°	454.2	449.7	434.4	409.5	376.5	337.4	293.4	245.2	198.8	158.1	84.4
40°	459.1	454.2	437.9	411.6	377.1	336.6	291.3	242.0	193.5	150.3	73.4
42.5°	462.3	456.9	439.5	414.8	376.0	334.4	288.1	238.0	187.6	143.6	63.0
45°	463.9	458.3	439.8	412.2	374.1	330.4	283.3	232.9	181.2	134.5	52.5
47.5°	463.1	456.9	438.4	409.2	370.6	326.1	277.9	226.7	173.4	126.5	42.6
50°	461.7	455.3	435.5	405.5	365.8	320.8	272.0	219.2	165.3	116.6	33.8
52.5°	457.4	451.0	432.3	400.1	360.2	314.6	264.0	211.4	156.8	106.9	25.7
55°	452.1	446.2	426.6	395.3	352.9	307.1	256.5	203.1	148.5	97.0	18.5
57.5°	443.8	438.4	419.7	387.5	345.7	298.8	248.2	194.0	138.0	87.1	12.9
60°	433.6	428.2	410.0	378.7	337.4	289.4	239.0	184.6	128.6	77.2	8.0
62.5°	422.9	417.8	398.8	367.7	326.9	279.5	229.1	175.3	118.7	68.1	4.8
65°	408.7	403.9	386.7	354.5	315.4	268.8	218.1	164.0	108.5	57.9	2.7
67.5°	393.7	389.4	372.0	342.5	302.0	257.0	206.9	153.0	97.8	49.0	1.3
70°	377.6	372.2	356.2	326.1	288.4	243.6	194.6	141.8	87.6	40.5	0.0
72.5°	358.8	354.8	339.3	310.9	272.5	229.4	182.0	129.4	76.4	32.2	0.3
75°	340.6	335.5	321.3	294.5	257.0	214.4	168.0	117.9	65.4	24.7	0.3
77.5°	317.0	315.4	302.0	276.0	242.3	199.9	152.8	104.0	54.9	17.7	0.3
80°	293.4	291.8	281.4	257.5	225.1	182.8	138.5	90.8	44.8	11.8	0.3
82.5°	270.1	268.0	258.1	238.2	207.7	168.3	123.8	77.7	35.4	7.2	0.3
85°	249.2	246.5	235.8	217.6	189.7	151.9	108.5	64.9	26.3	4.0	0.5
87.5°	231.3	229.4	217.6	198.8	171.5	136.7	95.1	52.5	18.5	1.9	0.8
90°	216.0	212.0	201.5	181.7	154.4	119.8	80.9	42.1	12.3	1.1	1.1
92.5°	201.0	197.5	186.0	165.6	139.1	105.3	67.3	32.2	7.8	0.5	1.3
95°	185.4	181.7	170.4	151.7	123.5	90.6	55.2	23.6	4.3	0.5	1.3
97.5°	170.2	166.7	154.9	136.1	109.6	77.7	43.7	16.6	2.1	0.5	1.1
100°	156.0	151.9	141.2	122.5	95.7	64.9	33.8	10.7	1.3	0.5	1.1
102.5°	141.0	137.7	126.8	108.5	81.2	52.8	25.2	6.7	0.5	0.5	0.8
105°	127.6	123.5	112.8	94.1	69.1	41.5	17.7	4.0	0.5	0.5	0.8



TEST NUMBER: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	83.1	79.9	70.5	54.7	35.1	16.3	4.8	0.8	0.8	0.8	0.8
115°	69.4	64.6	56.3	42.3	26.0	10.7	2.4	0.8	0.8	0.8	0.8
117.5°	55.5	51.5	45.6	32.2	17.2	7.0	1.3	0.8	0.8	0.8	0.8
120°	43.4	39.7	33.0	22.2	11.5	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	31.1	28.1	22.2	14.5	7.0	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.6	19.0	14.7	8.8	4.3	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.4	12.1	8.6	5.1	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.5	6.7	5.1	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.3	4.0	2.7	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	210.4	210.4	210.4
2.5°	200.2	196.4	195.4
5°	189.5	183.3	179.8
7.5°	178.7	170.4	166.4
10°	168.8	157.0	152.8
12.5°	157.0	143.4	136.7
15°	145.8	128.1	121.7
17.5°	133.2	113.4	105.9
20°	121.4	98.6	90.8
22.5°	108.0	84.1	75.6
25°	95.9	69.7	60.0
27.5°	82.5	54.9	46.6
30°	69.9	42.1	33.8
32.5°	57.9	30.8	23.3
35°	46.6	20.9	14.7
37.5°	35.9	12.9	7.5
40°	26.0	6.7	3.5
42.5°	17.4	3.2	1.9
45°	10.7	1.6	0.0
47.5°	6.2	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.7
102.5°	1.6	2.4	2.4
105°	1.3	1.9	2.1



TEST NUMBER: P551039

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-88-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	112.6	109.3	98.6	80.9	56.5	31.6	11.8	2.1	0.5	0.8	0.8
110°	98.1	95.4	84.4	67.3	45.6	23.6	7.8	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)