

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: P551088

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D**

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: P551088
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-40-UNV-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

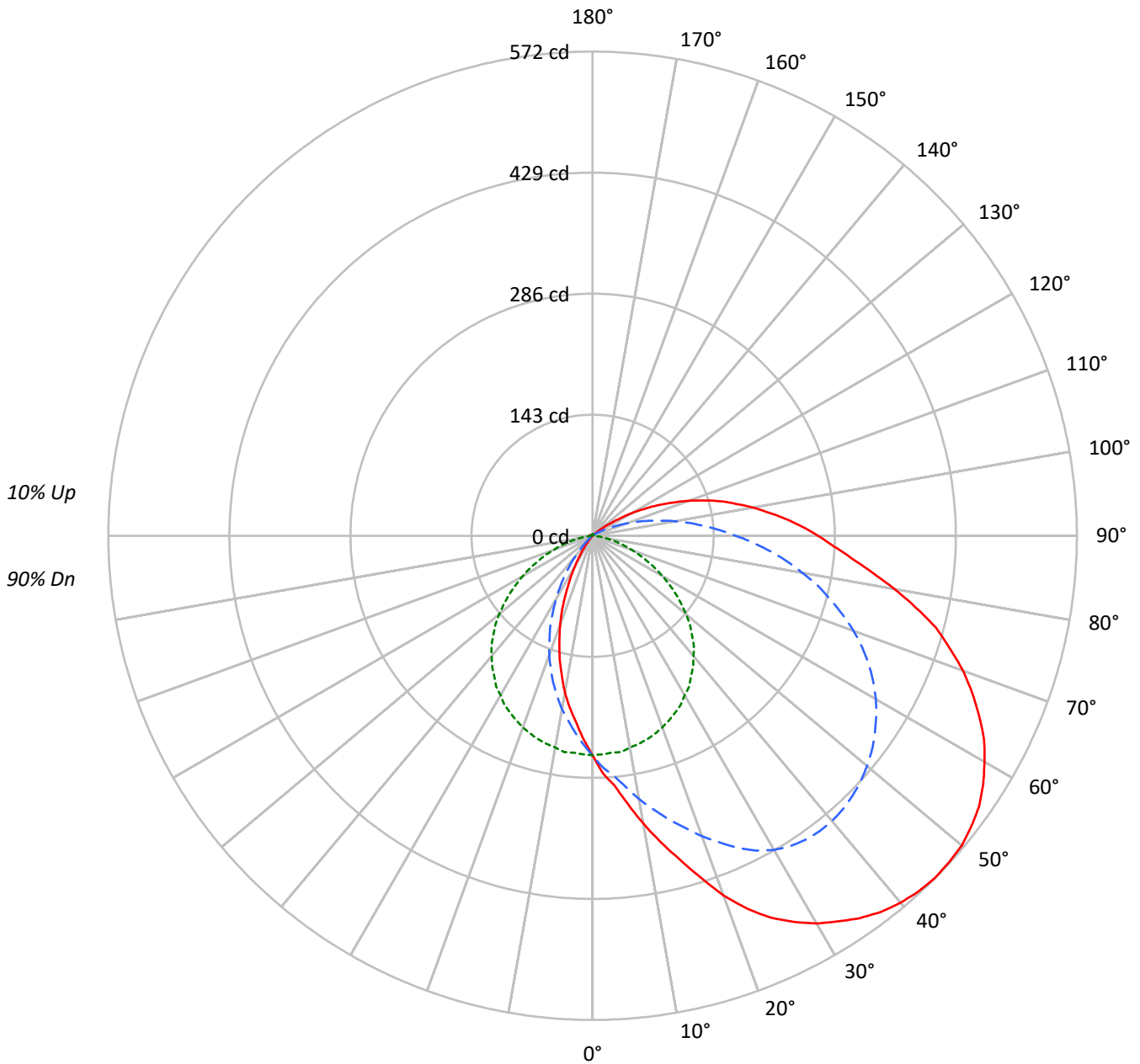
Lumens per Lamp: N/A
Luminaire Lumens: 1282.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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: P551088

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2791	2791	2791
5°	3064	2750	2295
10°	3467	2716	1891
15°	3886	2682	1474
20°	4382	2638	1085
25°	4794	2588	713
30°	5101	2520	401
35°	5366	2447	177
40°	5602	2357	43
45°	5803	2243	0
50°	5973	2094	0
55°	6102	1904	0
60°	6166	1683	0
65°	6192	1434	0
70°	6172	1169	0
75°	6093	862	4
80°	5845	526	27
85°	5650	254	37



TEST NUMBER: P551088

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.8	1.9
10°-20°	74.4	5.8
20°-30°	120.4	9.4
30°-40°	154.7	12.1
40°-50°	175.1	13.7
50°-60°	181.4	14.2
60°-70°	171.1	13.3
70°-80°	143.4	11.2
80°-90°	104.0	8.1
90°-100°	68.3	5.3
100°-110°	39.5	3.1
110°-120°	17.4	1.4
120°-130°	4.7	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	219.7	17.1
0°-40°	374.4	29.2
0°-60°	731.0	57.0
0°-90°	1149.4	89.7
90°-120°	125.2	9.8
90°-150°	131.7	10.3
90°-180°	133.0	10.4
0°-180°	1282.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	259	259	259	259	259	
5°	296	284	257	234	222	30
15°	395	347	249	180	150	114
25°	498	407	231	118	74	230
35°	551	438	202	58	18	346
45°	572	434	166	13	0	441
55°	557	407	120	0	0	498
65°	504	360	71	0	0	498
75°	420	291	30	0	0	440
85°	307	211	5	1	2	262
90°	266	169	1	2	2	146
95°	229	132	1	2	3	179
105°	157	68	1	2	3	166
115°	86	23	1	1	2	86
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551088

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3	259.3
2.5°	281.1	280.8	279.8	278.1	275.8	271.9	268.6	265.6	261.6	258.3	252.1
5°	296.0	294.3	293.0	291.4	286.1	282.4	276.5	269.9	263.6	257.3	244.8
7.5°	319.8	317.1	315.1	310.5	303.3	295.0	285.7	279.5	275.2	257.7	236.2
10°	345.2	342.9	338.9	330.7	321.8	309.9	296.6	281.8	268.6	254.0	228.6
12.5°	370.3	367.0	361.4	350.8	338.3	323.4	305.2	287.7	268.9	251.7	219.7
15°	395.4	391.8	385.8	373.0	356.4	336.9	314.8	292.7	270.5	248.7	210.4
17.5°	422.8	417.9	409.0	394.4	373.6	349.5	323.4	296.6	269.9	245.1	200.5
20°	452.2	445.3	435.7	416.2	391.8	363.4	332.0	300.6	269.6	240.8	189.3
22.5°	476.7	469.7	459.2	439.0	409.6	374.9	339.3	303.3	268.2	235.9	178.7
25°	497.8	492.2	480.6	457.5	426.5	387.2	346.2	305.2	266.3	230.6	167.5
27.5°	514.3	509.1	496.2	472.4	440.7	398.1	351.5	306.2	263.6	225.3	155.9
30°	528.9	523.6	508.1	483.6	450.3	406.6	356.8	306.6	260.3	217.4	143.4
32.5°	540.1	535.2	519.3	493.2	456.9	412.6	359.7	306.2	256.0	211.7	129.8
35°	551.3	546.4	527.9	500.1	461.8	415.2	362.1	304.6	250.7	202.5	116.9
37.5°	559.9	554.3	535.5	504.8	464.1	415.9	361.7	302.3	245.1	194.9	104.1
40°	565.9	559.9	539.8	507.4	464.8	414.9	359.1	298.3	238.5	185.3	90.5
42.5°	569.8	563.2	541.8	511.4	463.5	412.3	355.1	293.3	231.2	177.1	77.6
45°	571.8	564.9	542.1	508.1	461.2	407.3	349.2	287.1	223.3	165.8	64.7
47.5°	570.8	563.2	540.4	504.4	456.9	402.0	342.6	279.5	213.7	155.9	52.5
50°	569.2	561.2	536.8	499.8	450.9	395.4	335.3	270.2	203.8	143.7	41.6
52.5°	563.9	556.0	532.8	493.2	444.0	387.8	325.4	260.6	193.2	131.8	31.7
55°	557.3	550.0	525.9	487.3	435.1	378.6	316.1	250.4	183.0	119.6	22.8
57.5°	547.0	540.4	517.3	477.7	426.1	368.3	305.9	239.2	170.1	107.4	15.9
60°	534.5	527.9	505.4	466.8	415.9	356.8	294.7	227.6	158.6	95.1	9.9
62.5°	521.3	515.0	491.5	453.2	403.0	344.5	282.4	216.0	146.3	83.9	5.9
65°	503.8	497.8	476.7	437.0	388.8	331.3	268.9	202.2	133.8	71.4	3.3
67.5°	485.3	480.0	458.5	422.2	372.3	316.8	255.0	188.6	120.6	60.5	1.7
70°	465.5	458.8	439.0	402.0	355.4	300.3	239.8	174.8	108.0	49.9	0.0
72.5°	442.3	437.4	418.2	383.2	336.0	282.8	224.3	159.6	94.1	39.6	0.3
75°	419.9	413.6	396.1	363.0	316.8	264.3	207.1	145.4	80.6	30.4	0.3
77.5°	390.8	388.8	372.3	340.3	298.6	246.4	188.3	128.2	67.7	21.8	0.3
80°	361.7	359.7	346.9	317.5	277.5	225.3	170.8	112.0	55.2	14.5	0.3
82.5°	333.0	330.3	318.1	293.7	256.0	207.5	152.6	95.8	43.6	8.9	0.3
85°	307.2	303.9	290.7	268.2	233.9	187.3	133.8	79.9	32.4	5.0	0.7
87.5°	285.1	282.8	268.2	245.1	211.4	168.5	117.3	64.7	22.8	2.3	1.0
90°	266.3	261.3	248.4	224.0	190.3	147.7	99.8	51.9	15.2	1.3	1.3
92.5°	247.8	243.5	229.3	204.2	171.4	129.8	82.9	39.6	9.6	0.7	1.7
95°	228.6	224.0	210.1	187.0	152.3	111.7	68.1	29.1	5.3	0.7	1.7
97.5°	209.8	205.5	190.9	167.8	135.1	95.8	53.8	20.5	2.6	0.7	1.3
100°	192.3	187.3	174.1	151.0	117.9	79.9	41.6	13.2	1.7	0.7	1.3
102.5°	173.8	169.8	156.3	133.8	100.1	65.1	31.1	8.3	0.7	0.7	1.0
105°	157.2	152.3	139.1	115.9	85.2	51.2	21.8	5.0	0.7	0.7	1.0



TEST NUMBER: P551088

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	102.4	98.4	86.9	67.4	43.3	20.2	5.9	1.0	1.0	1.0	1.0
115°	85.6	79.6	69.4	52.2	32.0	13.2	3.0	1.0	1.0	1.0	1.0
117.5°	68.4	63.4	56.2	39.6	21.1	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.5	48.9	40.6	27.4	14.2	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.3	34.7	27.4	17.8	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.4	23.5	18.2	10.9	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.5	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.2	8.3	6.3	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



TEST NUMBER: P551088

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	259.3	259.3	259.3
2.5°	246.8	242.1	240.8
5°	233.6	226.0	221.7
7.5°	220.3	210.1	205.1
10°	208.1	193.6	188.3
12.5°	193.6	176.7	168.5
15°	179.7	157.9	150.0
17.5°	164.2	139.7	130.5
20°	149.6	121.6	112.0
22.5°	133.1	103.7	93.2
25°	118.3	85.9	74.0
27.5°	101.7	67.7	57.5
30°	86.2	51.9	41.6
32.5°	71.4	38.0	28.7
35°	57.5	25.8	18.2
37.5°	44.3	15.9	9.2
40°	32.0	8.3	4.3
42.5°	21.5	4.0	2.3
45°	13.2	2.0	0.0
47.5°	7.6	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	3.0
97.5°	2.6	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.6



TEST NUMBER: P551088

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	138.7	134.8	121.6	99.8	69.7	39.0	14.5	2.6	0.7	1.0	1.0
110°	120.9	117.6	104.1	82.9	56.2	29.1	9.6	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)