

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: P551104

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-88-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: P551104
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-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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

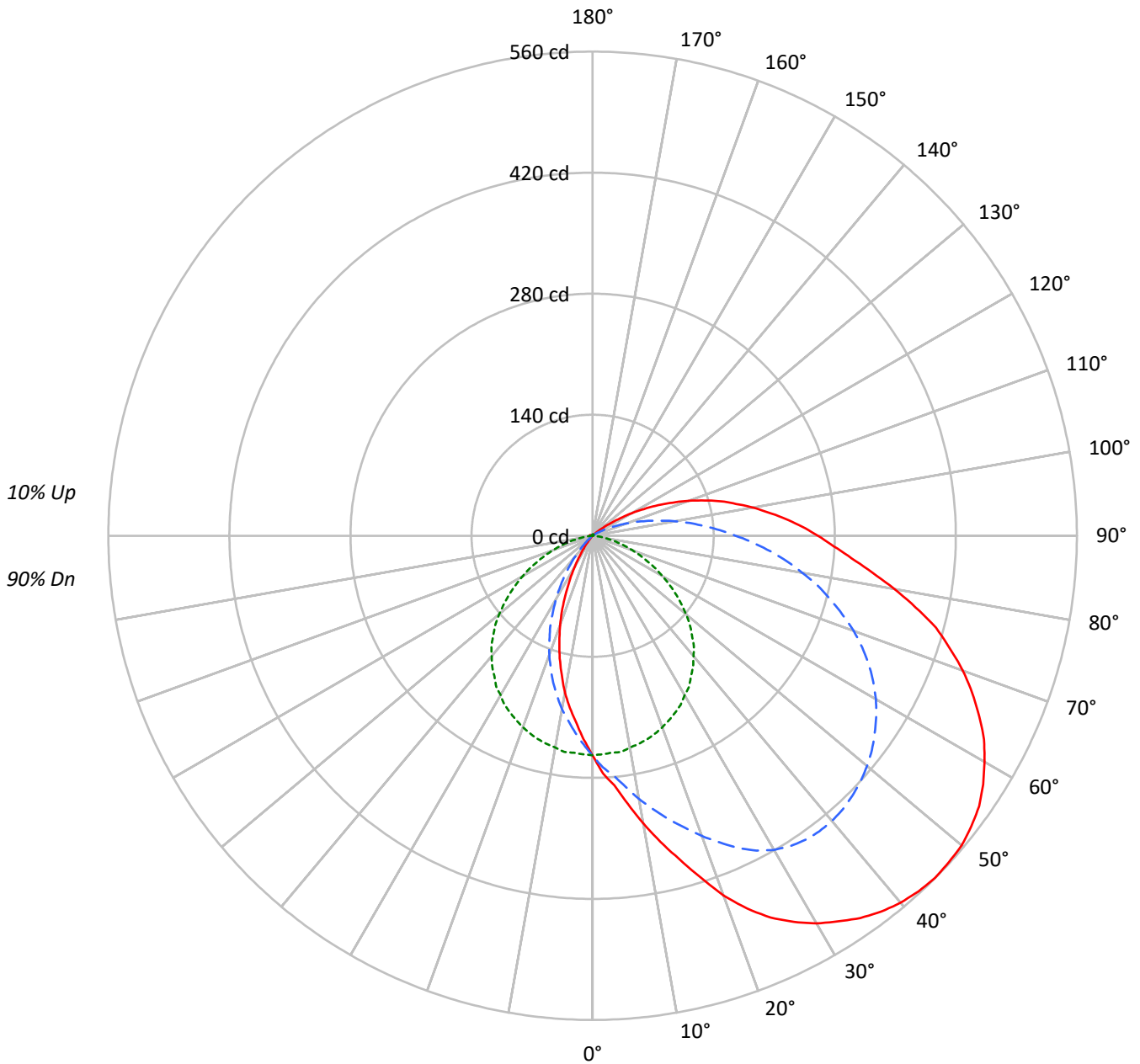
Lumens per Lamp: N/A
Luminaire Lumens: 1255.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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: P551104

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-88-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°	2733	2733	2733
5°	3000	2692	2246
10°	3394	2660	1851
15°	3804	2626	1443
20°	4290	2582	1062
25°	4693	2533	697
30°	4993	2467	393
35°	5253	2395	173
40°	5484	2307	42
45°	5681	2196	0
50°	5847	2051	0
55°	5972	1865	0
60°	6036	1648	0
65°	6062	1404	0
70°	6040	1143	0
75°	5964	845	4
80°	5723	515	26
85°	5530	249	35



TEST NUMBER: P551104

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-88-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	1.9
10°-20°	72.8	5.8
20°-30°	117.9	9.4
30°-40°	151.5	12.1
40°-50°	171.4	13.7
50°-60°	177.6	14.2
60°-70°	167.5	13.3
70°-80°	140.4	11.2
80°-90°	101.8	8.1
90°-100°	66.9	5.3
100°-110°	38.6	3.1
110°-120°	17.1	1.4
120°-130°	4.6	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°	215.0	17.1
0°-40°	366.5	29.2
0°-60°	715.5	57.0
0°-90°	1125.2	89.7
90°-120°	122.6	9.8
90°-150°	128.9	10.3
90°-180°	130.0	10.4
0°-180°	1255.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	254	254	254	254	254	
5°	290	278	252	229	217	29
15°	387	339	244	176	147	112
25°	487	398	226	116	72	225
35°	540	429	198	56	18	338
45°	560	425	162	13	0	432
55°	546	398	117	0	0	487
65°	493	352	70	0	0	488
75°	411	284	30	0	0	431
85°	301	206	5	1	2	257
90°	261	165	1	2	2	143
95°	224	129	1	2	3	176
105°	154	67	1	2	3	162
115°	84	22	1	1	2	84
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: P551104

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	253.9	253.9	253.9	253.9	253.9	253.9	253.9	253.9	253.9	253.9	253.9
2.5°	275.2	274.9	273.9	272.3	270.0	266.1	262.9	260.0	256.1	252.9	246.7
5°	289.8	288.1	286.8	285.2	280.1	276.5	270.7	264.2	258.1	251.9	239.6
7.5°	313.0	310.4	308.5	304.0	296.9	288.8	279.7	273.6	269.4	252.2	231.2
10°	337.9	335.7	331.8	323.7	315.0	303.3	290.4	275.8	262.9	248.7	223.8
12.5°	362.5	359.3	353.8	343.4	331.1	316.6	298.8	281.7	263.2	246.4	215.1
15°	387.1	383.5	377.7	365.1	348.9	329.9	308.2	286.5	264.9	243.5	206.0
17.5°	413.9	409.1	400.3	386.1	365.7	342.1	316.6	290.4	264.2	240.0	196.3
20°	442.7	435.9	426.5	407.5	383.5	355.7	325.0	294.3	263.9	235.7	185.3
22.5°	466.6	459.9	449.5	429.8	401.0	367.0	332.1	296.9	262.6	230.9	175.0
25°	487.3	481.8	470.5	447.9	417.5	379.0	338.9	298.8	260.6	225.7	164.0
27.5°	503.5	498.3	485.7	462.4	431.4	389.7	344.1	299.8	258.1	220.5	152.6
30°	517.7	512.6	497.4	473.4	440.8	398.1	349.3	300.1	254.8	212.8	140.3
32.5°	528.7	523.9	508.4	482.8	447.2	403.9	352.2	299.8	250.6	207.3	127.1
35°	539.7	534.9	516.8	489.6	452.1	406.5	354.4	298.2	245.4	198.2	114.5
37.5°	548.1	542.6	524.2	494.1	454.4	407.1	354.1	295.9	240.0	190.8	101.9
40°	554.0	548.1	528.4	496.7	455.0	406.2	351.5	292.0	233.5	181.4	88.6
42.5°	557.8	551.4	530.3	500.6	453.7	403.6	347.6	287.2	226.4	173.3	76.0
45°	559.8	553.0	530.7	497.4	451.4	398.7	341.8	281.0	218.6	162.3	63.4
47.5°	558.8	551.4	529.1	493.8	447.2	393.6	335.3	273.6	209.2	152.6	51.4
50°	557.2	549.4	525.5	489.3	441.4	387.1	328.2	264.5	199.5	140.7	40.7
52.5°	552.0	544.3	521.6	482.8	434.6	379.7	318.5	255.1	189.2	129.0	31.0
55°	545.5	538.4	514.8	477.0	425.9	370.6	309.5	245.1	179.2	117.1	22.3
57.5°	535.5	529.1	506.4	467.6	417.2	360.6	299.5	234.1	166.5	105.1	15.5
60°	523.2	516.8	494.8	456.9	407.1	349.3	288.5	222.8	155.2	93.1	9.7
62.5°	510.3	504.2	481.2	443.7	394.5	337.3	276.5	211.5	143.3	82.1	5.8
65°	493.2	487.3	466.6	427.8	380.6	324.4	263.2	197.9	131.0	69.9	3.2
67.5°	475.1	469.9	448.9	413.3	364.5	310.1	249.7	184.7	118.0	59.2	1.6
70°	455.6	449.2	429.8	393.6	348.0	294.0	234.8	171.1	105.7	48.8	0.0
72.5°	433.0	428.2	409.4	375.1	328.9	276.8	219.6	156.2	92.2	38.8	0.3
75°	411.0	404.9	387.7	355.4	310.1	258.7	202.8	142.3	78.9	29.8	0.3
77.5°	382.6	380.6	364.5	333.1	292.3	241.2	184.3	125.5	66.3	21.3	0.3
80°	354.1	352.2	339.6	310.8	271.6	220.5	167.2	109.6	54.0	14.2	0.3
82.5°	326.0	323.4	311.4	287.5	250.6	203.1	149.4	93.8	42.7	8.7	0.3
85°	300.7	297.5	284.6	262.6	229.0	183.4	131.0	78.3	31.7	4.9	0.6
87.5°	279.1	276.8	262.6	240.0	207.0	164.9	114.8	63.4	22.3	2.3	1.0
90°	260.6	255.8	243.2	219.3	186.3	144.6	97.7	50.8	14.9	1.3	1.3
92.5°	242.5	238.3	224.4	199.9	167.8	127.1	81.2	38.8	9.4	0.6	1.6
95°	223.8	219.3	205.7	183.0	149.1	109.3	66.6	28.5	5.2	0.6	1.6
97.5°	205.3	201.1	186.9	164.3	132.3	93.8	52.7	20.0	2.6	0.6	1.3
100°	188.2	183.4	170.4	147.8	115.4	78.3	40.7	12.9	1.6	0.6	1.3
102.5°	170.1	166.2	153.0	131.0	98.0	63.7	30.4	8.1	0.6	0.6	1.0
105°	153.9	149.1	136.1	113.5	83.4	50.1	21.3	4.9	0.6	0.6	1.0



TEST NUMBER: P551104

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	100.2	96.4	85.0	66.0	42.4	19.7	5.8	1.0	1.0	1.0	1.0
115°	83.8	77.9	67.9	51.1	31.4	12.9	2.9	1.0	1.0	1.0	1.0
117.5°	66.9	62.1	55.0	38.8	20.7	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.4	47.9	39.8	26.8	13.9	4.9	0.6	1.0	1.0	1.0	1.0
122.5°	37.5	34.0	26.8	17.5	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	24.9	23.0	17.8	10.7	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.2	14.6	10.3	6.1	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.1	6.1	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	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: P551104

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	253.9	253.9	253.9
2.5°	241.6	237.0	235.7
5°	228.6	221.2	217.0
7.5°	215.7	205.7	200.8
10°	203.7	189.5	184.3
12.5°	189.5	173.0	164.9
15°	175.9	154.6	146.8
17.5°	160.7	136.8	127.7
20°	146.5	119.0	109.6
22.5°	130.3	101.5	91.2
25°	115.8	84.1	72.4
27.5°	99.6	66.3	56.3
30°	84.4	50.8	40.7
32.5°	69.9	37.2	28.1
35°	56.3	25.2	17.8
37.5°	43.3	15.5	9.1
40°	31.4	8.1	4.2
42.5°	21.0	3.9	2.3
45°	12.9	1.9	0.0
47.5°	7.4	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	2.6



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
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	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	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°	135.8	131.9	119.0	97.7	68.2	38.2	14.2	2.6	0.6	1.0	1.0
110°	118.4	115.1	101.9	81.2	55.0	28.5	9.4	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)