

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: P550704

Luminaire Tested: **FCC-X-2-LD4-1LO-30-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: P550704
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-30-UNV-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

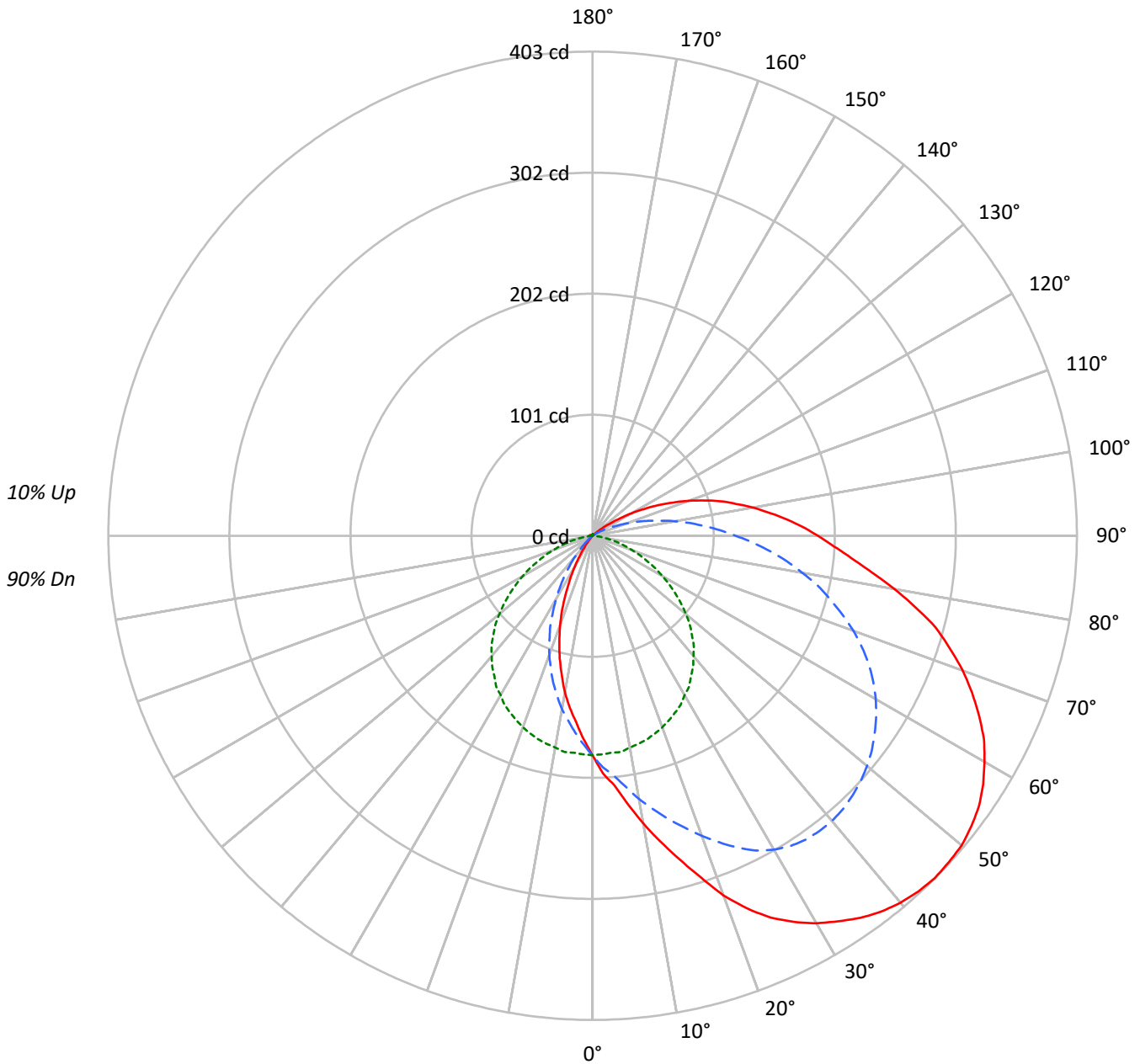
Lumens per Lamp: N/A
Luminaire Lumens: 903.0 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (Ain): 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

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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°	1967	1967	1967
5°	2158	1938	1616
10°	2443	1913	1332
15°	2737	1889	1038
20°	3087	1858	765
25°	3378	1823	502
30°	3593	1775	283
35°	3779	1723	125
40°	3946	1660	30
45°	4088	1580	0
50°	4207	1475	0
55°	4297	1341	0
60°	4344	1186	0
65°	4361	1010	0
70°	4346	822	0
75°	4291	607	3
80°	4118	370	19
85°	3980	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.5	1.9
10°-20°	52.4	5.8
20°-30°	84.8	9.4
30°-40°	109.0	12.1
40°-50°	123.4	13.7
50°-60°	127.8	14.2
60°-70°	120.5	13.3
70°-80°	101.0	11.2
80°-90°	73.2	8.1
90°-100°	48.1	5.3
100°-110°	27.8	3.1
110°-120°	12.3	1.4
120°-130°	3.3	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	154.7	17.1
0°-40°	263.7	29.2
0°-60°	514.9	57.0
0°-90°	809.6	89.7
90°-120°	88.2	9.8
90°-150°	92.8	10.3
90°-180°	93.0	10.3
0°-180°	903.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	183	183	183	183	183	
5°	208	200	181	164	156	21
15°	278	244	175	127	106	80
25°	351	287	162	83	52	162
35°	388	309	143	40	13	244
45°	403	306	117	9	0	311
55°	392	287	84	0	0	351
65°	355	254	50	0	0	351
75°	296	205	21	0	0	310
85°	216	148	4	1	1	185
90°	188	119	1	1	2	103
95°	161	93	0	2	2	126
105°	111	48	0	1	2	117
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°	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7	182.7
2.5°	198.0	197.8	197.1	195.9	194.3	191.5	189.2	187.1	184.3	182.0	177.5
5°	208.5	207.3	206.4	205.2	201.5	198.9	194.8	190.1	185.7	181.3	172.4
7.5°	225.2	223.4	222.0	218.7	213.6	207.8	201.3	196.8	193.8	181.5	166.4
10°	243.2	241.5	238.7	232.9	226.6	218.3	208.9	198.5	189.2	178.9	161.0
12.5°	260.8	258.5	254.6	247.1	238.3	227.8	215.0	202.7	189.4	177.3	154.7
15°	278.5	276.0	271.8	262.7	251.1	237.3	221.7	206.2	190.6	175.2	148.2
17.5°	297.8	294.3	288.1	277.8	263.2	246.2	227.8	208.9	190.1	172.6	141.2
20°	318.5	313.7	306.9	293.2	276.0	255.9	233.8	211.7	189.9	169.6	133.3
22.5°	335.8	330.9	323.4	309.2	288.5	264.1	239.0	213.6	188.9	166.1	125.9
25°	350.7	346.7	338.6	322.3	300.4	272.7	243.9	215.0	187.5	162.4	118.0
27.5°	362.3	358.6	349.5	332.7	310.4	280.4	247.6	215.7	185.7	158.7	109.8
30°	372.5	368.8	357.9	340.6	317.1	286.4	251.3	215.9	183.4	153.1	101.0
32.5°	380.4	376.9	365.8	347.4	321.8	290.6	253.4	215.7	180.3	149.1	91.4
35°	388.3	384.9	371.8	352.3	325.3	292.5	255.0	214.5	176.6	142.6	82.4
37.5°	394.4	390.4	377.2	355.5	326.9	292.9	254.8	212.9	172.6	137.3	73.3
40°	398.6	394.4	380.2	357.4	327.4	292.2	252.9	210.1	168.0	130.5	63.8
42.5°	401.4	396.7	381.6	360.2	326.5	290.4	250.1	206.6	162.9	124.7	54.7
45°	402.8	397.9	381.8	357.9	324.8	286.9	245.9	202.2	157.3	116.8	45.6
47.5°	402.1	396.7	380.7	355.3	321.8	283.2	241.3	196.8	150.5	109.8	37.0
50°	400.9	395.3	378.1	352.0	317.6	278.5	236.2	190.3	143.6	101.2	29.3
52.5°	397.2	391.6	375.3	347.4	312.7	273.2	229.2	183.6	136.1	92.8	22.3
55°	392.5	387.4	370.4	343.2	306.4	266.7	222.7	176.4	128.9	84.2	16.1
57.5°	385.3	380.7	364.4	336.5	300.2	259.4	215.5	168.5	119.8	75.6	11.2
60°	376.5	371.8	356.0	328.8	292.9	251.3	207.6	160.3	111.7	67.0	7.0
62.5°	367.2	362.8	346.2	319.2	283.9	242.7	198.9	152.2	103.1	59.1	4.2
65°	354.8	350.7	335.8	307.8	273.9	233.4	189.4	142.4	94.2	50.3	2.3
67.5°	341.8	338.1	323.0	297.4	262.2	223.1	179.6	132.9	84.9	42.6	1.2
70°	327.8	323.2	309.2	283.2	250.4	211.5	168.9	123.1	76.1	35.1	0.0
72.5°	311.6	308.1	294.6	269.9	236.6	199.2	158.0	112.4	66.3	27.9	0.2
75°	295.7	291.3	279.0	255.7	223.1	186.1	145.9	102.4	56.8	21.4	0.2
77.5°	275.3	273.9	262.2	239.7	210.3	173.6	132.6	90.3	47.7	15.4	0.2
80°	254.8	253.4	244.3	223.6	195.5	158.7	120.3	78.9	38.9	10.2	0.2
82.5°	234.5	232.7	224.1	206.9	180.3	146.1	107.5	67.5	30.7	6.3	0.2
85°	216.4	214.1	204.8	188.9	164.7	131.9	94.2	56.3	22.8	3.5	0.5
87.5°	200.8	199.2	188.9	172.6	148.9	118.7	82.6	45.6	16.1	1.6	0.7
90°	187.5	184.1	175.0	157.8	134.0	104.0	70.3	36.5	10.7	0.9	0.9
92.5°	174.5	171.5	161.5	143.8	120.8	91.4	58.4	27.9	6.7	0.5	1.2
95°	161.0	157.8	148.0	131.7	107.3	78.6	47.9	20.5	3.7	0.5	1.2
97.5°	147.8	144.7	134.5	118.2	95.2	67.5	37.9	14.4	1.9	0.5	0.9
100°	135.4	131.9	122.6	106.3	83.1	56.3	29.3	9.3	1.2	0.5	0.9
102.5°	122.4	119.6	110.1	94.2	70.5	45.8	21.9	5.8	0.5	0.5	0.7
105°	110.8	107.3	98.0	81.7	60.0	36.1	15.4	3.5	0.5	0.5	0.7



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CATALOG NUMBER: FCC-X-2-LD4-1LO-30-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	72.1	69.3	61.2	47.5	30.5	14.2	4.2	0.7	0.7	0.7	0.7
115°	60.3	56.1	48.9	36.8	22.6	9.3	2.1	0.7	0.7	0.7	0.7
117.5°	48.2	44.7	39.6	27.9	14.9	6.0	1.2	0.7	0.7	0.7	0.7
120°	37.7	34.4	28.6	19.3	10.0	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.0	24.4	19.3	12.6	6.0	1.6	0.7	0.7	0.9	0.9	0.7
125°	17.9	16.5	12.8	7.7	3.7	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.6	10.5	7.4	4.4	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.5	5.8	4.4	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.7	3.5	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	1.2	1.2	0.9
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	0.9	1.2	1.2	1.2	0.9
140°	0.2	0.2	0.5	0.7	0.7	0.7	0.9	1.2	1.2	1.2	0.9
142.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
145°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	0.9	0.9	0.9
147.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	0.9	0.9
150°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
152.5°	0.2	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	0.9
155°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
157.5°	0.5	0.5	0.5	0.7	0.9	0.9	0.9	1.2	0.9	0.9	1.2
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	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	0.9	0.9	1.2	1.2	1.2	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	182.7	182.7	182.7
2.5°	173.8	170.6	169.6
5°	164.5	159.2	156.1
7.5°	155.2	148.0	144.5
10°	146.6	136.4	132.6
12.5°	136.4	124.5	118.7
15°	126.6	111.2	105.6
17.5°	115.6	98.4	91.9
20°	105.4	85.6	78.9
22.5°	93.8	73.1	65.6
25°	83.3	60.5	52.1
27.5°	71.7	47.7	40.5
30°	60.7	36.5	29.3
32.5°	50.3	26.8	20.2
35°	40.5	18.1	12.8
37.5°	31.2	11.2	6.5
40°	22.6	5.8	3.0
42.5°	15.1	2.8	1.6
45°	9.3	1.4	0.0
47.5°	5.4	0.0	0.0
50°	2.8	0.0	0.0
52.5°	1.2	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	1.2
82.5°	0.9	1.2	1.2
85°	0.9	1.2	1.4
87.5°	1.2	1.4	1.6
90°	1.4	1.6	1.6
92.5°	1.4	1.9	1.9
95°	1.6	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.6	2.1	2.3
102.5°	1.4	2.1	2.1
105°	1.2	1.6	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.9	1.2	1.2
115°	0.7	0.9	1.2
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°	97.7	94.9	85.6	70.3	49.1	27.5	10.2	1.9	0.5	0.7	0.7
110°	85.2	82.8	73.3	58.4	39.6	20.5	6.7	1.2	0.7	0.7	0.7





107.5°	0.9	1.4	1.6
110°	0.9	1.2	1.4



(END OF REPORT)