

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: P550841

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-82-85-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: P550841
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-40-UNV-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

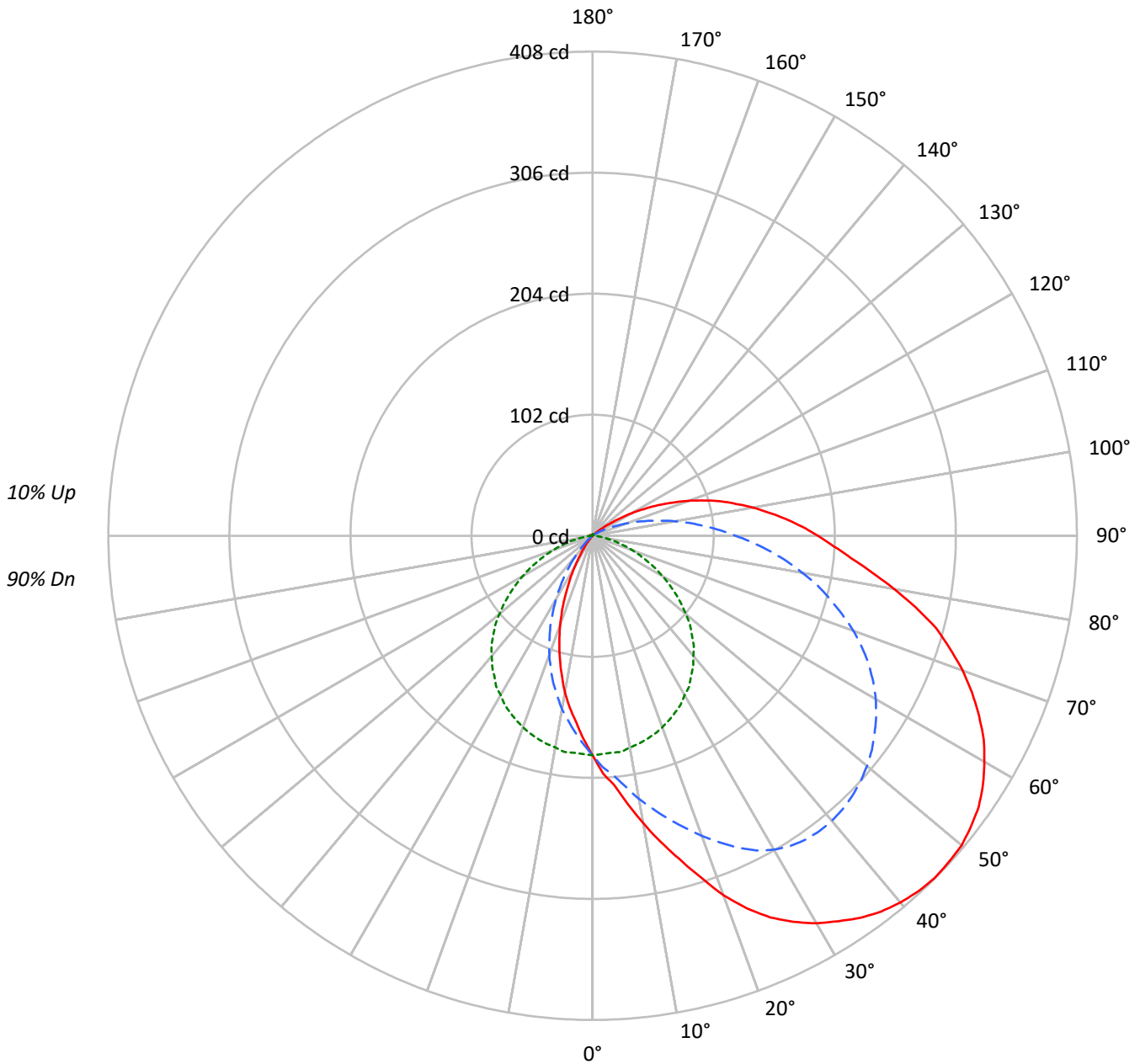
Lumens per Lamp: N/A
Luminaire Lumens: 913.9 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	1990	1990	1990
5°	2184	1961	1636
10°	2472	1937	1348
15°	2770	1912	1051
20°	3124	1881	773
25°	3418	1845	509
30°	3637	1797	286
35°	3826	1745	127
40°	3993	1680	31
45°	4137	1599	0
50°	4258	1492	0
55°	4350	1358	0
60°	4397	1200	0
65°	4415	1022	0
70°	4399	834	0
75°	4343	615	3
80°	4168	377	19
85°	4028	178	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.7	1.9
10°-20°	53.0	5.8
20°-30°	85.9	9.4
30°-40°	110.3	12.1
40°-50°	124.9	13.7
50°-60°	129.4	14.2
60°-70°	122.0	13.3
70°-80°	102.2	11.2
80°-90°	74.1	8.1
90°-100°	48.7	5.3
100°-110°	28.1	3.1
110°-120°	12.4	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°	156.6	17.1
0°-40°	266.9	29.2
0°-60°	521.1	57.0
0°-90°	819.5	89.7
90°-120°	89.2	9.8
90°-150°	93.8	10.3
90°-180°	94.0	10.3
0°-180°	913.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	185	185	185	185	185	
5°	211	203	184	166	158	21
15°	282	247	177	128	107	81
25°	355	290	164	84	53	164
35°	393	313	144	41	13	247
45°	408	310	118	9	0	315
55°	397	290	85	0	0	355
65°	359	257	51	0	0	355
75°	299	207	22	0	0	314
85°	219	150	4	1	1	187
90°	190	120	1	1	2	104
95°	163	94	0	2	2	128
105°	112	49	0	1	2	118
115°	61	16	1	1	1	61
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°	184.9	184.9	184.9	184.9	184.9	184.9	184.9	184.9	184.9	184.9	184.9
2.5°	200.4	200.2	199.5	198.3	196.7	193.8	191.5	189.4	186.5	184.2	179.7
5°	211.0	209.8	208.9	207.7	204.0	201.4	197.1	192.4	187.9	183.5	174.5
7.5°	228.0	226.1	224.7	221.4	216.2	210.3	203.7	199.2	196.2	183.7	168.4
10°	246.1	244.5	241.6	235.8	229.4	220.9	211.5	200.9	191.5	181.1	163.0
12.5°	264.0	261.7	257.7	250.1	241.2	230.6	217.6	205.1	191.7	179.5	156.6
15°	281.9	279.3	275.1	265.9	254.1	240.2	224.4	208.7	192.9	177.3	150.0
17.5°	301.5	297.9	291.6	281.2	266.4	249.2	230.6	211.5	192.4	174.8	143.0
20°	322.4	317.5	310.6	296.8	279.3	259.1	236.7	214.3	192.2	171.7	135.0
22.5°	339.8	334.9	327.4	313.0	292.0	267.3	241.9	216.2	191.2	168.2	127.4
25°	354.9	350.9	342.7	326.2	304.1	276.0	246.8	217.6	189.8	164.4	119.4
27.5°	366.7	362.9	353.7	336.8	314.2	283.8	250.6	218.3	187.9	160.6	111.2
30°	377.1	373.3	362.2	344.8	321.0	289.9	254.4	218.6	185.6	155.0	102.2
32.5°	385.1	381.5	370.2	351.6	325.7	294.2	256.5	218.3	182.5	151.0	92.6
35°	393.1	389.5	376.4	356.6	329.3	296.0	258.1	217.1	178.8	144.4	83.4
37.5°	399.2	395.2	381.8	359.9	330.9	296.5	257.9	215.5	174.8	139.0	74.2
40°	403.4	399.2	384.8	361.8	331.4	295.8	256.0	212.7	170.0	132.1	64.5
42.5°	406.3	401.6	386.2	364.6	330.4	293.9	253.2	209.1	164.9	126.2	55.3
45°	407.7	402.7	386.5	362.2	328.8	290.4	248.9	204.7	159.2	118.2	46.2
47.5°	407.0	401.6	385.3	359.6	325.7	286.6	244.2	199.2	152.4	111.2	37.4
50°	405.8	400.1	382.7	356.3	321.5	281.9	239.0	192.7	145.3	102.4	29.7
52.5°	402.0	396.4	379.9	351.6	316.5	276.5	232.0	185.8	137.8	94.0	22.6
55°	397.3	392.1	374.9	347.4	310.2	269.9	225.4	178.5	130.5	85.3	16.3
57.5°	390.0	385.3	368.8	340.6	303.8	262.6	218.1	170.5	121.3	76.5	11.3
60°	381.1	376.4	360.3	332.8	296.5	254.4	210.1	162.3	113.0	67.8	7.1
62.5°	371.6	367.2	350.4	323.1	287.3	245.6	201.4	154.0	104.3	59.8	4.2
65°	359.2	354.9	339.8	311.6	277.2	236.2	191.7	144.1	95.4	50.9	2.4
67.5°	346.0	342.2	326.9	301.0	265.4	225.9	181.8	134.5	86.0	43.1	1.2
70°	331.8	327.1	313.0	286.6	253.4	214.1	171.0	124.6	77.0	35.6	0.0
72.5°	315.4	311.8	298.2	273.2	239.5	201.6	159.9	113.8	67.1	28.3	0.2
75°	299.3	294.9	282.4	258.8	225.9	188.4	147.7	103.6	57.5	21.7	0.2
77.5°	278.6	277.2	265.4	242.6	212.9	175.7	134.2	91.4	48.3	15.5	0.2
80°	257.9	256.5	247.3	226.3	197.8	160.6	121.8	79.8	39.3	10.4	0.2
82.5°	237.4	235.5	226.8	209.4	182.5	147.9	108.8	68.3	31.1	6.4	0.2
85°	219.0	216.7	207.3	191.2	166.7	133.5	95.4	57.0	23.1	3.5	0.5
87.5°	203.3	201.6	191.2	174.8	150.7	120.1	83.6	46.2	16.3	1.6	0.7
90°	189.8	186.3	177.1	159.7	135.7	105.3	71.1	37.0	10.8	0.9	0.9
92.5°	176.6	173.6	163.4	145.5	122.2	92.6	59.1	28.3	6.8	0.5	1.2
95°	163.0	159.7	149.8	133.3	108.6	79.6	48.5	20.7	3.8	0.5	1.2
97.5°	149.6	146.5	136.1	119.6	96.3	68.3	38.4	14.6	1.9	0.5	0.9
100°	137.1	133.5	124.1	107.6	84.1	57.0	29.7	9.4	1.2	0.5	0.9
102.5°	123.9	121.1	111.4	95.4	71.4	46.4	22.1	5.9	0.5	0.5	0.7
105°	112.1	108.6	99.2	82.7	60.8	36.5	15.5	3.5	0.5	0.5	0.7



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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-82-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	73.0	70.2	61.9	48.0	30.9	14.4	4.2	0.7	0.7	0.7	0.7
115°	61.0	56.8	49.5	37.2	22.8	9.4	2.1	0.7	0.7	0.7	0.7
117.5°	48.8	45.2	40.0	28.3	15.1	6.1	1.2	0.7	0.7	0.7	0.7
120°	38.2	34.9	29.0	19.5	10.1	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.3	24.7	19.5	12.7	6.1	1.6	0.7	0.7	0.9	0.9	0.7
125°	18.1	16.7	13.0	7.8	3.8	0.7	0.7	0.7	0.9	0.9	0.7
127.5°	11.8	10.6	7.5	4.5	1.6	0.7	0.7	0.9	0.9	0.9	0.7
130°	6.6	5.9	4.5	2.6	0.7	0.7	0.7	0.9	0.9	0.9	0.7
132.5°	3.8	3.5	2.4	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°	184.9	184.9	184.9
2.5°	175.9	172.6	171.7
5°	166.5	161.1	158.0
7.5°	157.1	149.8	146.3
10°	148.4	138.0	134.2
12.5°	138.0	126.0	120.1
15°	128.1	112.6	106.9
17.5°	117.1	99.6	93.0
20°	106.7	86.7	79.8
22.5°	94.9	74.0	66.4
25°	84.3	61.2	52.8
27.5°	72.5	48.3	41.0
30°	61.5	37.0	29.7
32.5°	50.9	27.1	20.5
35°	41.0	18.4	13.0
37.5°	31.6	11.3	6.6
40°	22.8	5.9	3.1
42.5°	15.3	2.8	1.6
45°	9.4	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	2.4
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°	98.9	96.1	86.7	71.1	49.7	27.8	10.4	1.9	0.5	0.7	0.7
110°	86.2	83.8	74.2	59.1	40.0	20.7	6.8	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)