

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: P550843

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-82-86-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: P550843
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-82-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

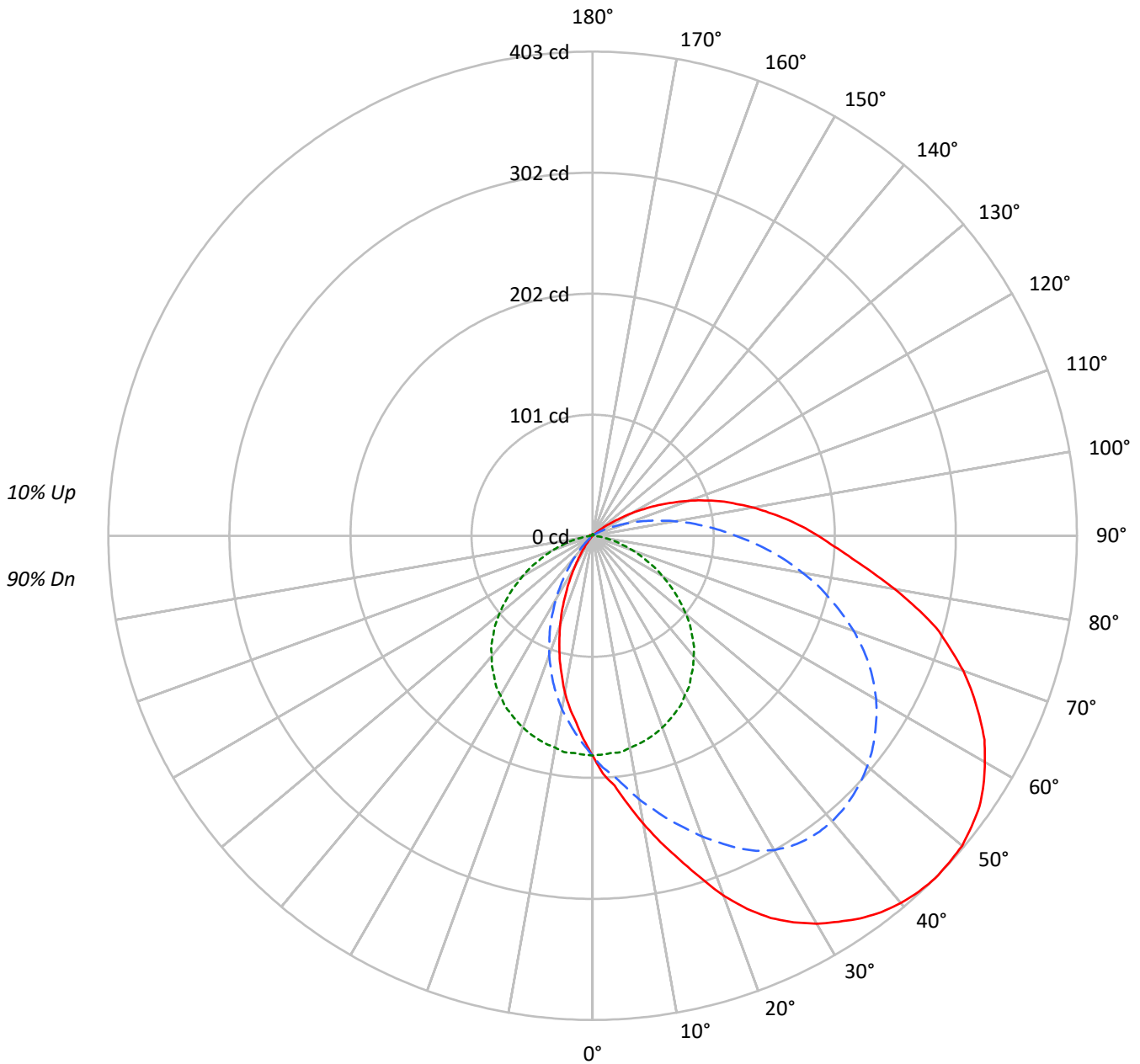
Lumens per Lamp: N/A
Luminaire Lumens: 904.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-82-86-ED1D-90

Luminous Intensity Polar Plot





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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°	1969	1969	1969
5°	2161	1940	1618
10°	2445	1915	1334
15°	2740	1891	1040
20°	3090	1860	766
25°	3381	1825	503
30°	3597	1777	284
35°	3784	1725	125
40°	3949	1662	30
45°	4092	1582	0
50°	4212	1476	0
55°	4303	1342	0
60°	4348	1187	0
65°	4366	1010	0
70°	4351	825	0
75°	4297	607	3
80°	4123	370	19
85°	3984	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°	84.9	9.4
30°-40°	109.1	12.1
40°-50°	123.5	13.7
50°-60°	127.9	14.2
60°-70°	120.7	13.3
70°-80°	101.1	11.2
80°-90°	73.3	8.1
90°-100°	48.2	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°	154.9	17.1
0°-40°	264.0	29.2
0°-60°	515.4	57.0
0°-90°	810.5	89.7
90°-120°	88.3	9.8
90°-150°	92.9	10.3
90°-180°	93.0	10.3
0°-180°	904.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	183	183	183	183	183	
5°	209	200	182	165	156	21
15°	279	244	175	127	106	80
25°	351	287	163	83	52	162
35°	389	309	143	40	13	244
45°	403	306	117	9	0	311
55°	393	287	84	0	0	351
65°	355	254	50	0	0	351
75°	296	205	21	0	0	311
85°	217	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°	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9
2.5°	198.2	198.0	197.3	196.1	194.5	191.7	189.4	187.3	184.5	182.2	177.7
5°	208.7	207.5	206.6	205.5	201.7	199.2	195.0	190.3	185.9	181.5	172.6
7.5°	225.5	223.6	222.2	219.0	213.8	208.0	201.5	197.1	194.0	181.7	166.6
10°	243.4	241.8	239.0	233.2	226.9	218.5	209.2	198.7	189.4	179.1	161.2
12.5°	261.1	258.8	254.8	247.4	238.5	228.0	215.2	202.9	189.6	177.5	154.9
15°	278.8	276.3	272.1	263.0	251.3	237.6	222.0	206.4	190.8	175.4	148.4
17.5°	298.2	294.7	288.4	278.1	263.5	246.4	228.0	209.2	190.3	172.8	141.4
20°	318.9	314.0	307.2	293.5	276.3	256.2	234.1	212.0	190.1	169.8	133.5
22.5°	336.1	331.2	323.8	309.6	288.8	264.4	239.2	213.8	189.1	166.3	126.0
25°	351.0	347.1	338.9	322.6	300.7	273.0	244.1	215.2	187.7	162.6	118.1
27.5°	362.7	359.0	349.9	333.1	310.7	280.7	247.8	215.9	185.9	158.9	109.9
30°	372.9	369.2	358.3	341.0	317.5	286.7	251.6	216.2	183.6	153.3	101.1
32.5°	380.9	377.4	366.2	347.8	322.2	290.9	253.7	215.9	180.5	149.3	91.5
35°	388.8	385.3	372.2	352.7	325.6	292.8	255.3	214.8	176.8	142.8	82.5
37.5°	394.8	390.9	377.6	355.9	327.3	293.3	255.1	213.1	172.8	137.4	73.4
40°	399.0	394.8	380.6	357.8	327.7	292.6	253.2	210.3	168.2	130.7	63.8
42.5°	401.8	397.2	382.0	360.6	326.8	290.7	250.4	206.9	163.1	124.9	54.7
45°	403.2	398.3	382.3	358.3	325.2	287.2	246.2	202.4	157.5	116.9	45.7
47.5°	402.5	397.2	381.1	355.7	322.2	283.5	241.6	197.1	150.7	109.9	37.0
50°	401.4	395.8	378.5	352.4	318.0	278.8	236.4	190.5	143.7	101.3	29.4
52.5°	397.6	392.0	375.7	347.8	313.1	273.5	229.4	183.8	136.3	92.9	22.4
55°	393.0	387.8	370.8	343.6	306.8	266.9	222.9	176.6	129.0	84.3	16.1
57.5°	385.7	381.1	364.8	336.8	300.5	259.7	215.7	168.6	120.0	75.7	11.2
60°	376.9	372.2	356.4	329.1	293.3	251.6	207.8	160.5	111.8	67.1	7.0
62.5°	367.6	363.2	346.6	319.6	284.2	243.0	199.2	152.3	103.2	59.2	4.2
65°	355.2	351.0	336.1	308.2	274.2	233.6	189.6	142.6	94.3	50.3	2.3
67.5°	342.2	338.5	323.3	297.7	262.5	223.4	179.8	133.0	85.0	42.6	1.2
70°	328.2	323.6	309.6	283.5	250.6	211.7	169.1	123.2	76.2	35.2	0.0
72.5°	311.9	308.4	294.9	270.2	236.9	199.4	158.2	112.5	66.4	28.0	0.2
75°	296.1	291.6	279.3	256.0	223.4	186.4	146.1	102.5	56.8	21.4	0.2
77.5°	275.6	274.2	262.5	239.9	210.6	173.8	132.8	90.4	47.8	15.4	0.2
80°	255.1	253.7	244.6	223.9	195.7	158.9	120.4	79.0	38.9	10.2	0.2
82.5°	234.8	232.9	224.3	207.1	180.5	146.3	107.6	67.6	30.7	6.3	0.2
85°	216.6	214.3	205.0	189.1	164.9	132.1	94.3	56.4	22.8	3.5	0.5
87.5°	201.0	199.4	189.1	172.8	149.1	118.8	82.7	45.7	16.1	1.6	0.7
90°	187.7	184.3	175.2	157.9	134.2	104.1	70.3	36.6	10.7	0.9	0.9
92.5°	174.7	171.7	161.7	144.0	120.9	91.5	58.5	28.0	6.8	0.5	1.2
95°	161.2	157.9	148.1	131.8	107.4	78.7	48.0	20.5	3.7	0.5	1.2
97.5°	147.9	144.9	134.6	118.3	95.3	67.6	38.0	14.4	1.9	0.5	0.9
100°	135.6	132.1	122.8	106.5	83.2	56.4	29.4	9.3	1.2	0.5	0.9
102.5°	122.5	119.7	110.2	94.3	70.6	45.9	21.9	5.8	0.5	0.5	0.7
105°	110.9	107.4	98.1	81.8	60.1	36.1	15.4	3.5	0.5	0.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	72.2	69.4	61.3	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	28.0	14.9	6.1	1.2	0.7	0.7	0.7	0.7
120°	37.7	34.5	28.7	19.3	10.0	3.5	0.5	0.7	0.7	0.7	0.7
122.5°	27.0	24.5	19.3	12.6	6.1	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	7.5	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°	182.9	182.9	182.9
2.5°	174.0	170.7	169.8
5°	164.7	159.3	156.3
7.5°	155.4	148.1	144.7
10°	146.8	136.5	132.8
12.5°	136.5	124.6	118.8
15°	126.7	111.3	105.8
17.5°	115.8	98.5	92.0
20°	105.5	85.7	79.0
22.5°	93.9	73.1	65.7
25°	83.4	60.6	52.2
27.5°	71.7	47.8	40.5
30°	60.8	36.6	29.4
32.5°	50.3	26.8	20.3
35°	40.5	18.2	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°	97.8	95.0	85.7	70.3	49.2	27.5	10.2	1.9	0.5	0.7	0.7
110°	85.3	82.9	73.4	58.5	39.6	20.5	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)