

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: P550827

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-86-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: P550827
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-81-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 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

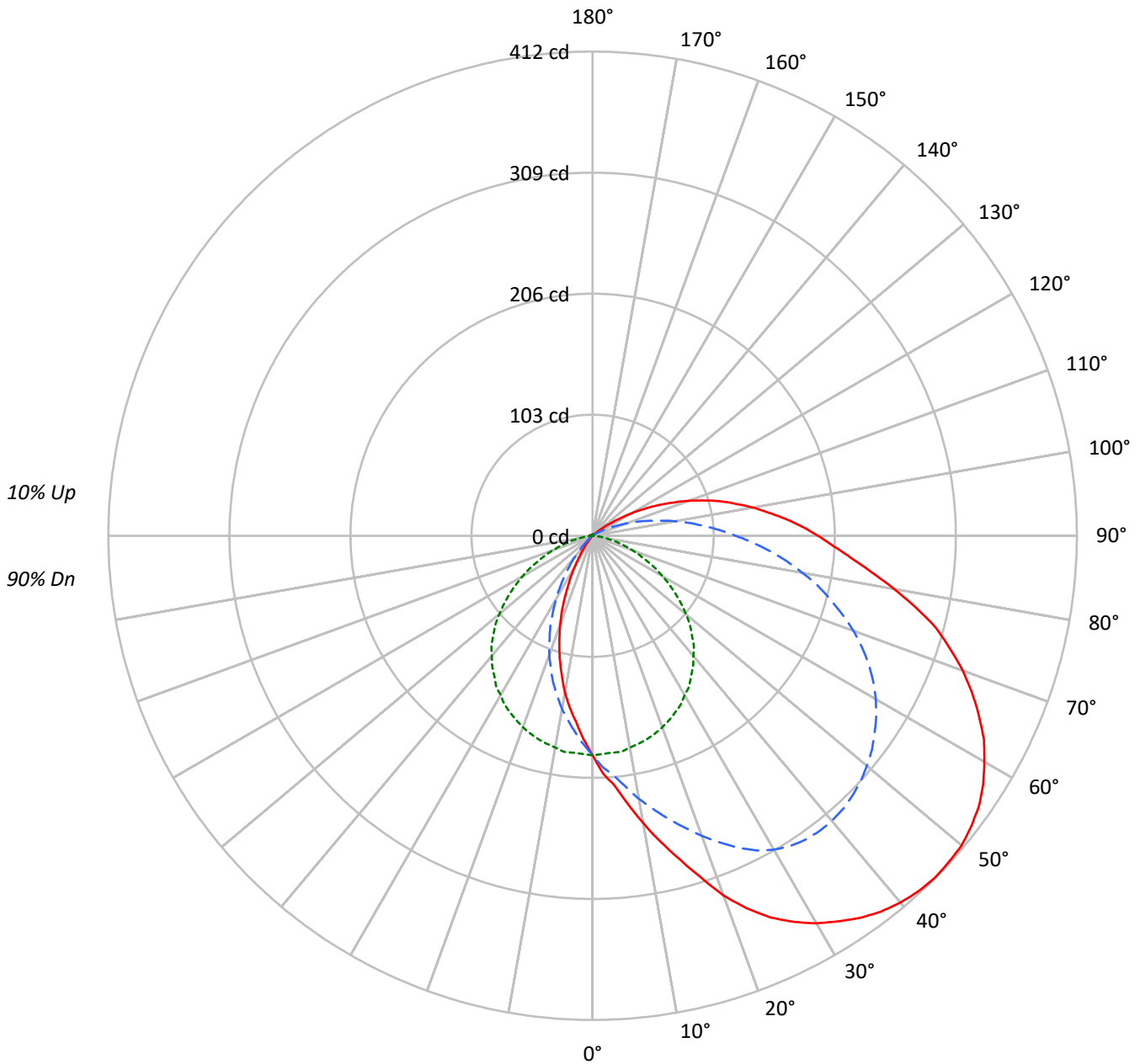
Lumens per Lamp: N/A
Luminaire Lumens: 923.1 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2010	2010	2010
5°	2206	1981	1652
10°	2496	1956	1362
15°	2798	1931	1061
20°	3155	1900	781
25°	3452	1863	513
30°	3673	1814	289
35°	3863	1762	127
40°	4033	1697	31
45°	4178	1616	0
50°	4300	1508	0
55°	4392	1371	0
60°	4439	1212	0
65°	4458	1032	0
70°	4443	841	0
75°	4387	621	3
80°	4208	381	19
85°	4068	183	26



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.9	1.9
10°-20°	53.5	5.8
20°-30°	86.7	9.4
30°-40°	111.4	12.1
40°-50°	126.1	13.7
50°-60°	130.6	14.2
60°-70°	123.2	13.3
70°-80°	103.2	11.2
80°-90°	74.8	8.1
90°-100°	49.2	5.3
100°-110°	28.4	3.1
110°-120°	12.5	1.4
120°-130°	3.4	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°	158.1	17.1
0°-40°	269.5	29.2
0°-60°	526.3	57.0
0°-90°	827.6	89.7
90°-120°	90.1	9.8
90°-150°	94.8	10.3
90°-180°	96.0	10.4
0°-180°	923.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	187	187	187	187	187	
5°	213	205	185	168	160	21
15°	285	250	179	129	108	82
25°	358	293	166	85	53	166
35°	397	316	146	41	13	249
45°	412	313	119	10	0	318
55°	401	293	86	0	0	358
65°	363	259	51	0	0	359
75°	302	209	22	0	0	317
85°	221	152	4	1	1	189
90°	192	122	1	1	2	105
95°	165	95	0	2	2	129
105°	113	49	0	1	2	119
115°	62	16	1	1	1	62
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°	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7	186.7
2.5°	202.4	202.2	201.4	200.3	198.6	195.7	193.4	191.2	188.4	186.0	181.5
5°	213.1	211.9	211.0	209.8	206.0	203.3	199.1	194.3	189.8	185.3	176.2
7.5°	230.2	228.3	226.9	223.6	218.3	212.4	205.7	201.2	198.1	185.5	170.1
10°	248.5	246.9	244.0	238.1	231.7	223.1	213.6	202.9	193.4	182.9	164.6
12.5°	266.6	264.2	260.2	252.6	243.5	232.8	219.8	207.2	193.6	181.2	158.2
15°	284.7	282.1	277.8	268.5	256.6	242.6	226.7	210.7	194.8	179.1	151.5
17.5°	304.4	300.9	294.4	284.0	269.0	251.6	232.8	213.6	194.3	176.5	144.4
20°	325.6	320.6	313.7	299.7	282.1	261.6	239.0	216.4	194.1	173.4	136.3
22.5°	343.2	338.2	330.6	316.1	294.9	269.9	244.3	218.3	193.1	169.8	128.7
25°	358.4	354.4	346.1	329.4	307.0	278.7	249.3	219.8	191.7	166.0	120.6
27.5°	370.3	366.5	357.2	340.1	317.3	286.6	253.1	220.5	189.8	162.2	112.3
30°	380.8	377.0	365.8	348.2	324.2	292.8	256.9	220.7	187.4	156.5	103.2
32.5°	388.9	385.3	373.9	355.1	328.9	297.1	259.0	220.5	184.3	152.5	93.5
35°	396.9	393.4	380.1	360.1	332.5	299.0	260.7	219.3	180.5	145.8	84.2
37.5°	403.1	399.1	385.5	363.4	334.2	299.4	260.4	217.6	176.5	140.3	74.9
40°	407.4	403.1	388.6	365.3	334.6	298.7	258.5	214.8	171.7	133.4	65.2
42.5°	410.3	405.5	390.0	368.2	333.7	296.8	255.7	211.2	166.5	127.5	55.9
45°	411.7	406.7	390.3	365.8	332.0	293.3	251.4	206.7	160.8	119.4	46.6
47.5°	411.0	405.5	389.1	363.2	328.9	289.4	246.6	201.2	153.9	112.3	37.8
50°	409.8	404.1	386.5	359.8	324.6	284.7	241.4	194.5	146.7	103.5	30.0
52.5°	406.0	400.3	383.6	355.1	319.7	279.2	234.3	187.7	139.1	94.9	22.8
55°	401.2	396.0	378.6	350.8	313.2	272.6	227.6	180.3	131.8	86.1	16.4
57.5°	393.9	389.1	372.5	343.9	306.8	265.2	220.2	172.2	122.5	77.3	11.4
60°	384.8	380.1	363.9	336.1	299.4	256.9	212.1	163.9	114.2	68.5	7.1
62.5°	375.3	370.8	353.9	326.3	290.2	248.1	203.3	155.5	105.4	60.4	4.3
65°	362.7	358.4	343.2	314.7	279.9	238.5	193.6	145.6	96.3	51.4	2.4
67.5°	349.4	345.6	330.1	304.0	268.0	228.1	183.6	135.8	86.8	43.5	1.2
70°	335.1	330.4	316.1	289.4	255.9	216.2	172.7	125.8	77.8	35.9	0.0
72.5°	318.5	314.9	301.1	275.9	241.9	203.6	161.5	114.9	67.8	28.5	0.2
75°	302.3	297.8	285.2	261.4	228.1	190.3	149.1	104.6	58.0	21.9	0.2
77.5°	281.4	279.9	268.0	245.0	215.0	177.4	135.6	92.3	48.8	15.7	0.2
80°	260.4	259.0	249.7	228.6	199.8	162.2	123.0	80.6	39.7	10.5	0.2
82.5°	239.7	237.8	229.0	211.4	184.3	149.4	109.9	69.0	31.4	6.4	0.2
85°	221.2	218.8	209.3	193.1	168.4	134.9	96.3	57.6	23.3	3.6	0.5
87.5°	205.3	203.6	193.1	176.5	152.2	121.3	84.4	46.6	16.4	1.7	0.7
90°	191.7	188.1	178.9	161.3	137.0	106.3	71.8	37.3	10.9	1.0	1.0
92.5°	178.4	175.3	165.1	147.0	123.4	93.5	59.7	28.5	6.9	0.5	1.2
95°	164.6	161.3	151.3	134.6	109.6	80.4	49.0	20.9	3.8	0.5	1.2
97.5°	151.0	147.9	137.5	120.8	97.3	69.0	38.8	14.7	1.9	0.5	1.0
100°	138.4	134.9	125.3	108.7	84.9	57.6	30.0	9.5	1.2	0.5	1.0
102.5°	125.1	122.2	112.5	96.3	72.1	46.9	22.4	5.9	0.5	0.5	0.7
105°	113.2	109.6	100.1	83.5	61.4	36.9	15.7	3.6	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°	73.7	70.9	62.6	48.5	31.2	14.5	4.3	0.7	0.7	0.7	0.7
115°	61.6	57.3	49.9	37.6	23.1	9.5	2.1	0.7	0.7	0.7	0.7
117.5°	49.2	45.7	40.4	28.5	15.2	6.2	1.2	0.7	0.7	0.7	0.7
120°	38.5	35.2	29.3	19.7	10.2	3.6	0.5	0.7	0.7	0.7	0.7
122.5°	27.6	25.0	19.7	12.8	6.2	1.7	0.7	0.7	1.0	1.0	0.7
125°	18.3	16.9	13.1	7.8	3.8	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	11.9	10.7	7.6	4.5	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.7	5.9	4.5	2.6	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	3.8	3.6	2.4	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
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°	186.7	186.7	186.7
2.5°	177.7	174.3	173.4
5°	168.1	162.7	159.6
7.5°	158.6	151.3	147.7
10°	149.8	139.4	135.6
12.5°	139.4	127.2	121.3
15°	129.4	113.7	108.0
17.5°	118.2	100.6	93.9
20°	107.7	87.5	80.6
22.5°	95.8	74.7	67.1
25°	85.1	61.8	53.3
27.5°	73.3	48.8	41.4
30°	62.1	37.3	30.0
32.5°	51.4	27.4	20.7
35°	41.4	18.6	13.1
37.5°	31.9	11.4	6.7
40°	23.1	5.9	3.1
42.5°	15.5	2.9	1.7
45°	9.5	1.4	0.0
47.5°	5.5	0.0	0.0
50°	2.9	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	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.4
87.5°	1.2	1.4	1.7
90°	1.4	1.7	1.7
92.5°	1.4	1.9	1.9
95°	1.7	1.9	2.1
97.5°	1.9	2.1	2.1
100°	1.7	2.1	2.4
102.5°	1.4	2.1	2.1
105°	1.2	1.7	1.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	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°	1.0	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°	99.9	97.0	87.5	71.8	50.2	28.1	10.5	1.9	0.5	0.7	0.7
110°	87.0	84.7	74.9	59.7	40.4	20.9	6.9	1.2	0.7	0.7	0.7





107.5°	1.0	1.4	1.7
110°	1.0	1.2	1.4



(END OF REPORT)