

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: P550831

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-88-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: P550831
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

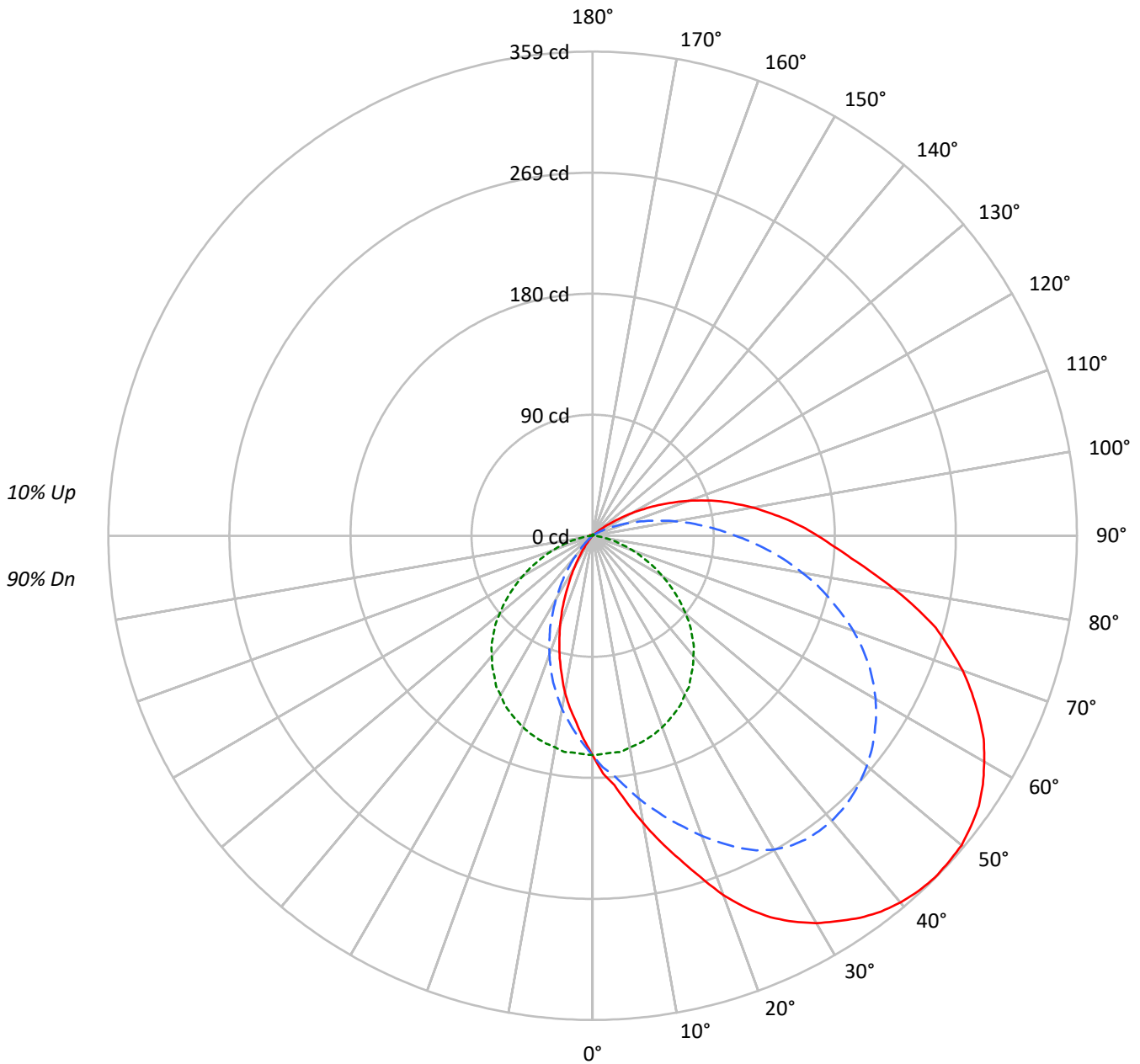
Lumens per Lamp: N/A
Luminaire Lumens: 803.9 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	1750	1750	1750
5°	1921	1725	1439
10°	2175	1704	1186
15°	2437	1682	925
20°	2748	1654	680
25°	3007	1623	447
30°	3199	1580	252
35°	3366	1535	111
40°	3513	1478	27
45°	3639	1407	0
50°	3746	1313	0
55°	3826	1194	0
60°	3867	1056	0
65°	3883	898	0
70°	3870	733	0
75°	3821	542	3
80°	3667	330	16
85°	3544	158	22



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.6	1.9
10°-20°	46.6	5.8
20°-30°	75.5	9.4
30°-40°	97.0	12.1
40°-50°	109.8	13.7
50°-60°	113.8	14.2
60°-70°	107.3	13.3
70°-80°	89.9	11.2
80°-90°	65.2	8.1
90°-100°	42.9	5.3
100°-110°	24.7	3.1
110°-120°	10.9	1.4
120°-130°	2.9	0.4
130°-140°	0.7	0.1
140°-150°	0.4	0.1
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	137.8	17.1
0°-40°	234.8	29.2
0°-60°	458.4	57.0
0°-90°	720.8	89.7
90°-120°	78.5	9.8
90°-150°	82.5	10.3
90°-180°	83.0	10.3
0°-180°	803.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	163	163	163	163	163	
5°	186	178	161	146	139	19
15°	248	217	156	113	94	72
25°	312	255	145	74	46	144
35°	346	275	127	36	11	217
45°	359	272	104	8	0	277
55°	350	255	75	0	0	312
65°	316	226	45	0	0	313
75°	263	182	19	0	0	276
85°	193	132	3	1	1	165
90°	167	106	1	1	2	92
95°	143	83	0	2	2	113
105°	99	43	0	1	2	104
115°	54	14	1	1	1	54
125°	16	2	1	1	1	16
135°	1	1	1	1	1	1
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°	162.6	162.6	162.6	162.6	162.6	162.6	162.6	162.6	162.6	162.6	162.6
2.5°	176.3	176.1	175.5	174.4	173.0	170.5	168.4	166.6	164.1	162.0	158.1
5°	185.6	184.6	183.8	182.7	179.4	177.1	173.4	169.3	165.3	161.4	153.5
7.5°	200.5	198.9	197.6	194.7	190.2	185.0	179.2	175.3	172.6	161.6	148.1
10°	216.5	215.0	212.6	207.4	201.8	194.3	186.0	176.7	168.4	159.3	143.4
12.5°	232.2	230.2	226.6	220.0	212.1	202.8	191.4	180.4	168.6	157.9	137.8
15°	248.0	245.7	242.0	233.9	223.5	211.3	197.4	183.6	169.7	156.0	132.0
17.5°	265.2	262.1	256.5	247.4	234.3	219.2	202.8	186.0	169.3	153.7	125.8
20°	283.6	279.3	273.3	261.0	245.7	227.9	208.2	188.5	169.1	151.0	118.7
22.5°	298.9	294.6	288.0	275.3	256.9	235.1	212.8	190.2	168.2	147.9	112.1
25°	312.2	308.7	301.4	286.9	267.5	242.8	217.1	191.4	167.0	144.6	105.0
27.5°	322.6	319.3	311.2	296.3	276.4	249.6	220.4	192.0	165.3	141.3	97.8
30°	331.7	328.4	318.6	303.3	282.4	255.0	223.7	192.3	163.3	136.3	89.9
32.5°	338.7	335.6	325.7	309.3	286.5	258.8	225.6	192.0	160.6	132.8	81.4
35°	345.8	342.7	331.1	313.7	289.6	260.4	227.1	191.0	157.2	127.0	73.3
37.5°	351.2	347.6	335.8	316.6	291.1	260.8	226.9	189.6	153.7	122.2	65.3
40°	354.9	351.2	338.5	318.2	291.5	260.2	225.2	187.1	149.6	116.2	56.8
42.5°	357.4	353.2	339.8	320.7	290.7	258.6	222.7	184.0	145.0	111.0	48.7
45°	358.6	354.3	340.0	318.6	289.2	255.4	219.0	180.0	140.0	104.0	40.6
47.5°	358.0	353.2	338.9	316.4	286.5	252.1	214.8	175.3	134.0	97.8	32.9
50°	357.0	352.0	336.7	313.5	282.8	248.0	210.3	169.5	127.8	90.1	26.1
52.5°	353.6	348.7	334.2	309.3	278.4	243.2	204.1	163.5	121.2	82.7	19.9
55°	349.5	344.9	329.8	305.6	272.8	237.4	198.3	157.0	114.8	75.0	14.3
57.5°	343.1	338.9	324.4	299.6	267.3	231.0	191.8	150.0	106.7	67.3	9.9
60°	335.2	331.1	317.0	292.7	260.8	223.7	184.8	142.7	99.4	59.7	6.2
62.5°	326.9	323.0	308.3	284.2	252.7	216.1	177.1	135.5	91.8	52.6	3.7
65°	315.9	312.2	298.9	274.1	243.8	207.8	168.6	126.8	83.9	44.7	2.1
67.5°	304.3	301.0	287.6	264.8	233.5	198.7	159.9	118.3	75.6	37.9	1.0
70°	291.9	287.8	275.3	252.1	222.9	188.3	150.4	109.6	67.7	31.3	0.0
72.5°	277.4	274.3	262.3	240.3	210.7	177.3	140.7	100.1	59.0	24.9	0.2
75°	263.3	259.4	248.4	227.7	198.7	165.7	129.9	91.2	50.5	19.1	0.2
77.5°	245.1	243.8	233.5	213.4	187.3	154.6	118.1	80.4	42.5	13.7	0.2
80°	226.9	225.6	217.5	199.1	174.0	141.3	107.1	70.2	34.6	9.1	0.2
82.5°	208.8	207.2	199.5	184.2	160.6	130.1	95.7	60.1	27.3	5.6	0.2
85°	192.7	190.6	182.3	168.2	146.7	117.5	83.9	50.1	20.3	3.1	0.4
87.5°	178.8	177.3	168.2	153.7	132.6	105.7	73.5	40.6	14.3	1.5	0.6
90°	167.0	163.9	155.8	140.5	119.3	92.6	62.6	32.5	9.5	0.8	0.8
92.5°	155.4	152.7	143.8	128.0	107.5	81.4	52.0	24.9	6.0	0.4	1.0
95°	143.4	140.5	131.8	117.3	95.5	70.0	42.7	18.2	3.3	0.4	1.0
97.5°	131.6	128.9	119.7	105.2	84.7	60.1	33.8	12.8	1.7	0.4	0.8
100°	120.6	117.5	109.2	94.7	74.0	50.1	26.1	8.3	1.0	0.4	0.8
102.5°	109.0	106.5	98.0	83.9	62.8	40.8	19.5	5.2	0.4	0.4	0.6
105°	98.6	95.5	87.2	72.7	53.5	32.1	13.7	3.1	0.4	0.4	0.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	64.2	61.7	54.5	42.3	27.1	12.6	3.7	0.6	0.6	0.6	0.6
115°	53.7	49.9	43.5	32.7	20.1	8.3	1.9	0.6	0.6	0.6	0.6
117.5°	42.9	39.8	35.2	24.9	13.3	5.4	1.0	0.6	0.6	0.6	0.6
120°	33.6	30.7	25.5	17.2	8.9	3.1	0.4	0.6	0.6	0.6	0.6
122.5°	24.0	21.8	17.2	11.2	5.4	1.5	0.6	0.6	0.8	0.8	0.6
125°	16.0	14.7	11.4	6.8	3.3	0.6	0.6	0.6	0.8	0.8	0.6
127.5°	10.4	9.3	6.6	3.9	1.5	0.6	0.6	0.8	0.8	0.8	0.6
130°	5.8	5.2	3.9	2.3	0.6	0.6	0.6	0.8	0.8	0.8	0.6
132.5°	3.3	3.1	2.1	0.4	0.6	0.6	0.6	0.8	0.8	0.8	0.8
135°	0.8	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	0.8
137.5°	0.2	0.2	0.4	0.4	0.6	0.6	0.8	1.0	1.0	1.0	0.8
140°	0.2	0.2	0.4	0.6	0.6	0.6	0.8	1.0	1.0	1.0	0.8
142.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	0.8	0.8
145°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	0.8	0.8	0.8
147.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	0.8	0.8
150°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	0.8
152.5°	0.2	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	0.8
155°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	1.0
157.5°	0.4	0.4	0.4	0.6	0.8	0.8	0.8	1.0	0.8	0.8	1.0
160°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8
162.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8
165°	0.4	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	0.8
167.5°	0.4	0.4	0.4	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8
170°	0.4	0.4	0.4	0.6	0.6	0.6	0.8	1.0	1.0	1.0	1.0
172.5°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	1.0
175°	0.4	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	1.0
177.5°	0.2	0.4	0.4	0.6	0.6	0.8	0.8	1.0	1.0	1.0	0.8
180°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	162.6	162.6	162.6
2.5°	154.8	151.9	151.0
5°	146.5	141.7	139.0
7.5°	138.2	131.8	128.7
10°	130.5	121.4	118.1
12.5°	121.4	110.8	105.7
15°	112.7	99.0	94.1
17.5°	103.0	87.6	81.8
20°	93.8	76.2	70.2
22.5°	83.5	65.1	58.4
25°	74.2	53.9	46.4
27.5°	63.8	42.5	36.0
30°	54.1	32.5	26.1
32.5°	44.7	23.8	18.0
35°	36.0	16.2	11.4
37.5°	27.8	9.9	5.8
40°	20.1	5.2	2.7
42.5°	13.5	2.5	1.5
45°	8.3	1.2	0.0
47.5°	4.8	0.0	0.0
50°	2.5	0.0	0.0
52.5°	1.0	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	0.4	0.6
80°	0.4	0.8	1.0
82.5°	0.8	1.0	1.0
85°	0.8	1.0	1.2
87.5°	1.0	1.2	1.5
90°	1.2	1.5	1.5
92.5°	1.2	1.7	1.7
95°	1.5	1.7	1.9
97.5°	1.7	1.9	1.9
100°	1.5	1.9	2.1
102.5°	1.2	1.9	1.9
105°	1.0	1.5	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	0.8	1.0	1.0
115°	0.6	0.8	1.0
117.5°	0.6	0.8	0.8
120°	0.6	0.6	0.8
122.5°	0.6	0.6	0.8
125°	0.6	0.6	0.8
127.5°	0.8	0.6	0.6
130°	0.6	0.6	0.6
132.5°	0.8	0.6	0.6
135°	0.8	0.6	0.6
137.5°	0.8	0.6	0.6
140°	0.8	0.6	0.6
142.5°	0.8	0.6	0.6
145°	0.6	0.6	0.6
147.5°	0.6	0.6	0.6
150°	0.6	0.6	0.4
152.5°	0.6	0.4	0.4
155°	0.6	0.4	0.2
157.5°	0.8	0.4	0.2
160°	0.6	0.4	0.2
162.5°	0.6	0.4	0.2
165°	0.6	0.4	0.0
167.5°	0.6	0.4	0.2
170°	0.6	0.4	0.2
172.5°	0.6	0.4	0.2
175°	0.6	0.2	0.2
177.5°	0.6	0.2	0.2
180°	0.6	0.6	0.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	87.0	84.5	76.2	62.6	43.7	24.4	9.1	1.7	0.4	0.6	0.6
110°	75.8	73.8	65.3	52.0	35.2	18.2	6.0	1.0	0.6	0.6	0.6





107.5°	0.8	1.2	1.5
110°	0.8	1.0	1.2



(END OF REPORT)