

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: P551119

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-88-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: P551119
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-LD4-1STD-40-UNV-93-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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

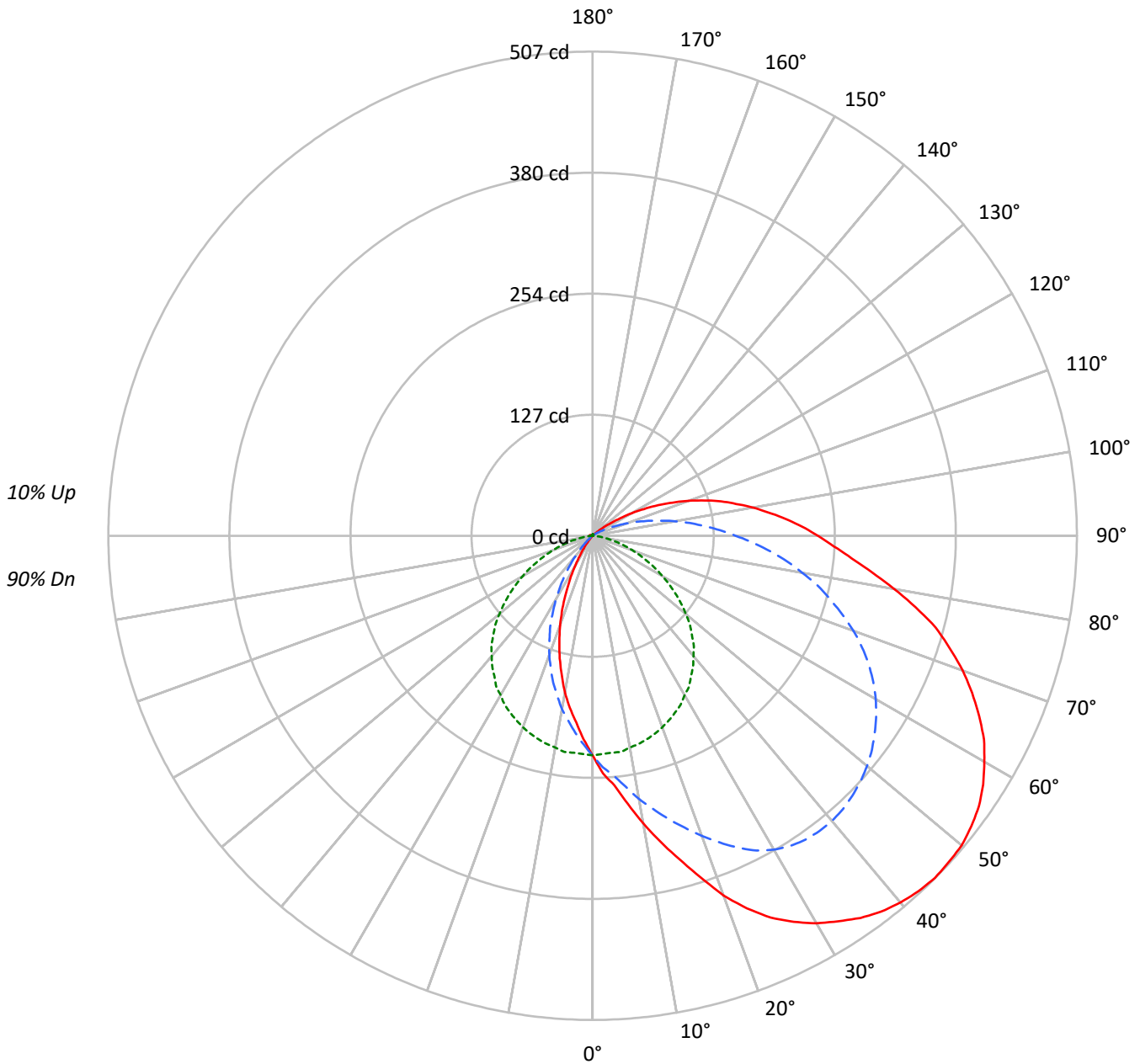
Lumens per Lamp: N/A
Luminaire Lumens: 1136.1 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	2474	2474	2474
5°	2715	2437	2033
10°	3073	2407	1676
15°	3443	2376	1306
20°	3883	2338	961
25°	4248	2293	632
30°	4520	2233	356
35°	4755	2168	157
40°	4963	2088	38
45°	5142	1988	0
50°	5293	1855	0
55°	5406	1688	0
60°	5464	1492	0
65°	5487	1269	0
70°	5468	1035	0
75°	5398	763	4
80°	5180	468	24
85°	5006	224	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	1.9
10°-20°	65.9	5.8
20°-30°	106.7	9.4
30°-40°	137.1	12.1
40°-50°	155.2	13.7
50°-60°	160.8	14.2
60°-70°	151.6	13.3
70°-80°	127.1	11.2
80°-90°	92.1	8.1
90°-100°	60.5	5.3
100°-110°	35.0	3.1
110°-120°	15.4	1.4
120°-130°	4.2	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	194.6	17.1
0°-40°	331.7	29.2
0°-60°	647.7	57.0
0°-90°	1018.5	89.7
90°-120°	110.9	9.8
90°-150°	116.8	10.3
90°-180°	118.0	10.4
0°-180°	1136.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	230	230	230	230	230	
5°	262	252	228	207	196	26
15°	350	307	220	159	133	101
25°	441	360	204	105	66	204
35°	489	389	179	51	16	306
45°	507	385	147	12	0	391
55°	494	360	106	0	0	441
65°	446	319	63	0	0	442
75°	372	257	27	0	0	390
85°	272	187	4	1	2	232
90°	236	150	1	2	2	129
95°	203	117	1	2	3	159
105°	139	60	1	2	2	147
115°	76	20	1	1	2	76
125°	22	3	1	1	1	23
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	1	2	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°	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8	229.8
2.5°	249.1	248.8	247.9	246.5	244.4	240.9	238.0	235.3	231.8	228.9	223.3
5°	262.3	260.8	259.6	258.2	253.5	250.3	245.0	239.2	233.6	228.0	216.9
7.5°	283.4	281.0	279.3	275.2	268.7	261.4	253.2	247.6	243.8	228.3	209.3
10°	305.9	303.8	300.3	293.0	285.1	274.6	262.9	249.7	238.0	225.1	202.6
12.5°	328.1	325.2	320.2	310.9	299.7	286.6	270.5	255.0	238.3	223.1	194.7
15°	350.4	347.2	341.9	330.5	315.8	298.6	279.0	259.4	239.7	220.4	186.5
17.5°	374.7	370.3	362.4	349.5	331.1	309.7	286.6	262.9	239.2	217.2	177.7
20°	400.7	394.6	386.1	368.8	347.2	322.0	294.2	266.4	238.9	213.4	167.7
22.5°	422.4	416.2	406.9	389.0	363.0	332.2	300.6	268.7	237.7	209.0	158.4
25°	441.1	436.2	425.9	405.4	377.9	343.1	306.8	270.5	235.9	204.3	148.4
27.5°	455.8	451.1	439.7	418.6	390.5	352.7	311.5	271.4	233.6	199.6	138.2
30°	468.6	464.0	450.2	428.5	399.0	360.3	316.1	271.6	230.7	192.6	127.0
32.5°	478.6	474.2	460.2	437.0	404.8	365.6	318.8	271.4	226.9	187.6	115.0
35°	488.6	484.2	467.8	443.2	409.2	367.9	320.8	269.9	222.2	179.4	103.6
37.5°	496.2	491.2	474.5	447.3	411.3	368.5	320.5	267.8	217.2	172.7	92.2
40°	501.4	496.2	478.3	449.6	411.9	367.7	318.2	264.3	211.3	164.2	80.2
42.5°	504.9	499.1	480.1	453.1	410.7	365.3	314.7	259.9	204.9	156.9	68.8
45°	506.7	500.6	480.4	450.2	408.6	360.9	309.4	254.4	197.9	146.9	57.4
47.5°	505.8	499.1	478.9	447.0	404.8	356.2	303.6	247.6	189.4	138.2	46.5
50°	504.4	497.3	475.7	442.9	399.6	350.4	297.1	239.4	180.6	127.3	36.9
52.5°	499.7	492.6	472.2	437.0	393.4	343.7	288.3	231.0	171.2	116.8	28.1
55°	493.8	487.4	466.0	431.8	385.5	335.5	280.1	221.9	162.2	106.0	20.2
57.5°	484.7	478.9	458.4	423.3	377.6	326.4	271.1	211.9	150.8	95.1	14.1
60°	473.6	467.8	447.9	413.6	368.5	316.1	261.1	201.7	140.5	84.3	8.8
62.5°	461.9	456.4	435.6	401.6	357.1	305.3	250.3	191.4	129.7	74.4	5.3
65°	446.4	441.1	422.4	387.3	344.5	293.6	238.3	179.1	118.6	63.2	2.9
67.5°	430.0	425.3	406.3	374.1	329.9	280.7	226.0	167.1	106.8	53.6	1.5
70°	412.4	406.6	389.0	356.2	315.0	266.1	212.5	154.8	95.7	44.2	0.0
72.5°	392.0	387.6	370.6	339.6	297.7	250.6	198.8	141.4	83.4	35.1	0.3
75°	372.0	366.5	351.0	321.7	280.7	234.2	183.5	128.8	71.4	26.9	0.3
77.5°	346.3	344.5	329.9	301.5	264.6	218.4	166.9	113.6	60.0	19.3	0.3
80°	320.5	318.8	307.4	281.3	245.9	199.6	151.3	99.2	48.9	12.9	0.3
82.5°	295.1	292.7	281.9	260.2	226.9	183.8	135.2	84.9	38.6	7.9	0.3
85°	272.2	269.3	257.6	237.7	207.2	166.0	118.6	70.8	28.7	4.4	0.6
87.5°	252.6	250.6	237.7	217.2	187.3	149.3	103.9	57.4	20.2	2.0	0.9
90°	235.9	231.5	220.1	198.5	168.6	130.8	88.4	46.0	13.5	1.2	1.2
92.5°	219.5	215.7	203.1	180.9	151.9	115.0	73.5	35.1	8.5	0.6	1.5
95°	202.6	198.5	186.2	165.7	134.9	98.9	60.3	25.8	4.7	0.6	1.5
97.5°	185.9	182.1	169.2	148.7	119.7	84.9	47.7	18.1	2.3	0.6	1.2
100°	170.4	166.0	154.3	133.8	104.5	70.8	36.9	11.7	1.5	0.6	1.2
102.5°	154.0	150.5	138.5	118.6	88.7	57.7	27.5	7.3	0.6	0.6	0.9
105°	139.3	134.9	123.2	102.7	75.5	45.4	19.3	4.4	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	90.7	87.2	77.0	59.7	38.3	17.9	5.3	0.9	0.9	0.9	0.9
115°	75.8	70.5	61.5	46.2	28.4	11.7	2.6	0.9	0.9	0.9	0.9
117.5°	60.6	56.2	49.8	35.1	18.7	7.6	1.5	0.9	0.9	0.9	0.9
120°	47.4	43.3	36.0	24.3	12.6	4.4	0.6	0.9	0.9	0.9	0.9
122.5°	34.0	30.7	24.3	15.8	7.6	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.5	20.8	16.1	9.7	4.7	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.6	13.2	9.4	5.6	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.2	7.3	5.6	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.7	4.4	2.9	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.5	1.5	1.5	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.5	1.2	1.2	1.5
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.5	1.5	1.5	1.5
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.5
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.5	1.5	1.5	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	229.8	229.8	229.8
2.5°	218.7	214.6	213.4
5°	207.0	200.2	196.4
7.5°	195.2	186.2	181.8
10°	184.4	171.5	166.9
12.5°	171.5	156.6	149.3
15°	159.2	139.9	132.9
17.5°	145.5	123.8	115.6
20°	132.6	107.7	99.2
22.5°	118.0	91.9	82.5
25°	104.8	76.1	65.6
27.5°	90.2	60.0	50.9
30°	76.4	46.0	36.9
32.5°	63.2	33.7	25.5
35°	50.9	22.8	16.1
37.5°	39.2	14.1	8.2
40°	28.4	7.3	3.8
42.5°	19.0	3.5	2.0
45°	11.7	1.8	0.0
47.5°	6.7	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.5	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°	0.3	0.3	0.3
77.5°	0.3	0.6	0.9
80°	0.6	1.2	1.5
82.5°	1.2	1.5	1.5
85°	1.2	1.5	1.8
87.5°	1.5	1.8	2.0
90°	1.8	2.0	2.0
92.5°	1.8	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.8	2.6	2.6
105°	1.5	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.5	1.5
115°	0.9	1.2	1.5
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	122.9	119.4	107.7	88.4	61.8	34.5	12.9	2.3	0.6	0.9	0.9
110°	107.1	104.2	92.2	73.5	49.8	25.8	8.5	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.0
110°	1.2	1.5	1.8



(END OF REPORT)