

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: P550925

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-87-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: P550925
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-50-UNV-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

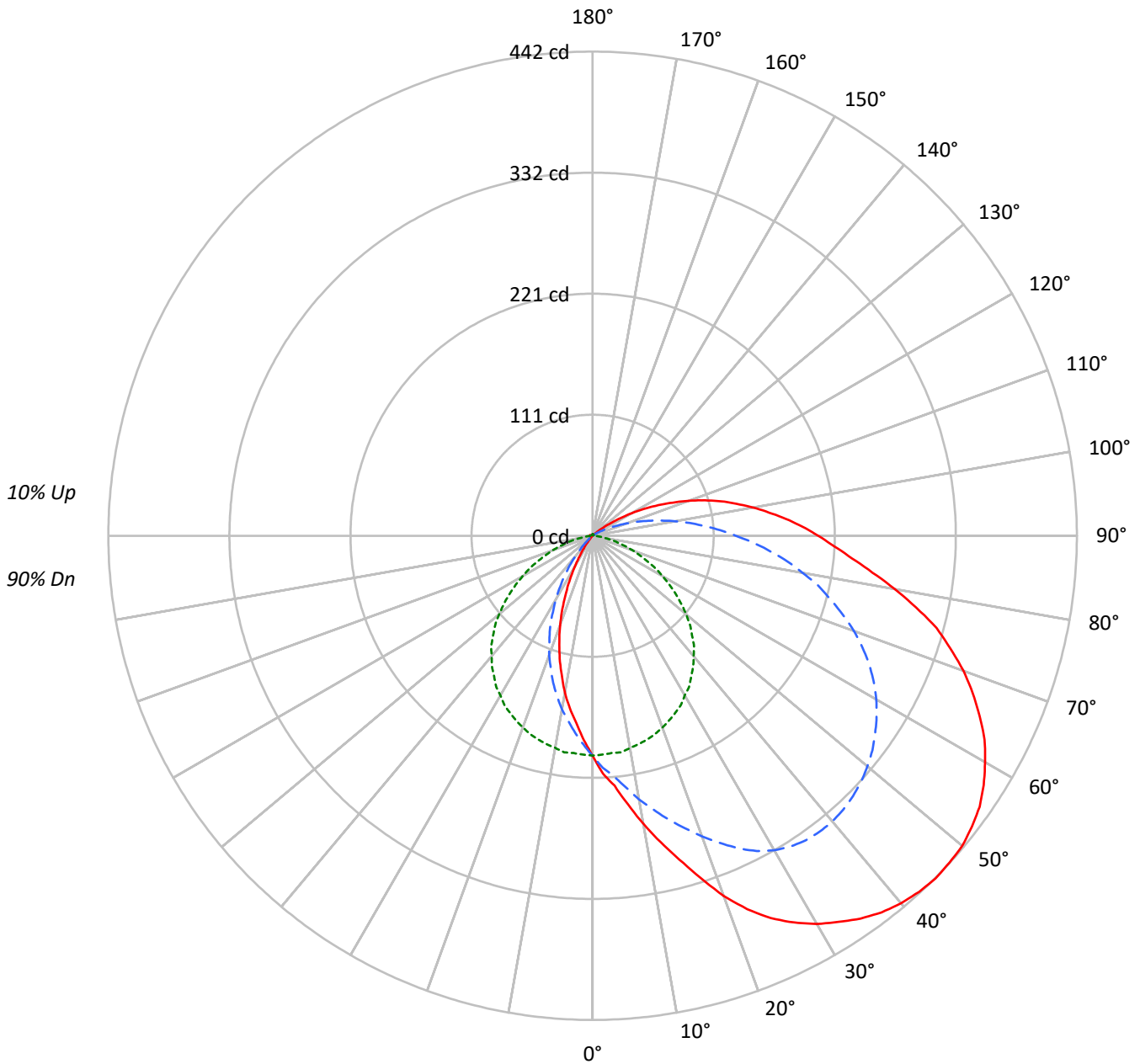
Lumens per Lamp: N/A
Luminaire Lumens: 992.1 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2160	2160	2160
5°	2371	2128	1775
10°	2683	2102	1463
15°	3007	2076	1140
20°	3391	2041	840
25°	3710	2002	552
30°	3947	1950	311
35°	4152	1893	137
40°	4335	1824	33
45°	4491	1736	0
50°	4621	1621	0
55°	4721	1473	0
60°	4772	1302	0
65°	4791	1109	0
70°	4776	904	0
75°	4715	666	4
80°	4523	406	21
85°	4372	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.2	1.9
10°-20°	57.6	5.8
20°-30°	93.2	9.4
30°-40°	119.7	12.1
40°-50°	135.5	13.7
50°-60°	140.4	14.2
60°-70°	132.4	13.3
70°-80°	111.0	11.2
80°-90°	80.4	8.1
90°-100°	52.9	5.3
100°-110°	30.5	3.1
110°-120°	13.5	1.4
120°-130°	3.7	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	170.0	17.1
0°-40°	289.7	29.2
0°-60°	565.6	57.0
0°-90°	889.4	89.7
90°-120°	96.9	9.8
90°-150°	101.9	10.3
90°-180°	103.0	10.4
0°-180°	992.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	201	201	201	201	201	
5°	229	220	199	181	172	23
15°	306	268	192	139	116	88
25°	385	315	178	92	57	178
35°	427	339	157	44	14	268
45°	442	336	128	10	0	342
55°	431	315	92	0	0	385
65°	390	279	55	0	0	386
75°	325	225	24	0	0	341
85°	238	163	4	1	2	203
90°	206	131	1	2	2	113
95°	177	102	0	2	2	139
105°	122	53	0	1	2	128
115°	66	18	1	1	1	66
125°	20	2	1	1	1	20
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°	200.7	200.7	200.7	200.7	200.7	200.7	200.7	200.7	200.7	200.7	200.7
2.5°	217.5	217.3	216.5	215.2	213.4	210.4	207.8	205.5	202.4	199.9	195.0
5°	229.0	227.8	226.7	225.5	221.4	218.6	213.9	208.8	204.0	199.1	189.4
7.5°	247.4	245.4	243.9	240.3	234.7	228.3	221.1	216.3	212.9	199.4	182.8
10°	267.1	265.3	262.3	255.9	249.0	239.8	229.5	218.0	207.8	196.6	176.9
12.5°	286.5	284.0	279.6	271.5	261.7	250.2	236.2	222.6	208.1	194.8	170.0
15°	306.0	303.2	298.6	288.6	275.8	260.7	243.6	226.5	209.3	192.5	162.8
17.5°	327.2	323.4	316.5	305.2	289.1	270.4	250.2	229.5	208.8	189.7	155.2
20°	349.9	344.6	337.2	322.1	303.2	281.2	256.9	232.6	208.6	186.3	146.5
22.5°	368.9	363.5	355.3	339.7	317.0	290.1	262.5	234.7	207.6	182.5	138.3
25°	385.2	380.9	371.9	354.0	330.0	299.6	267.9	236.2	206.0	178.4	129.6
27.5°	398.0	393.9	383.9	365.5	341.0	308.0	272.0	237.0	204.0	174.3	120.7
30°	409.2	405.1	393.1	374.2	348.4	314.7	276.1	237.2	201.4	168.2	110.9
32.5°	417.9	414.1	401.8	381.6	353.5	319.3	278.4	237.0	198.1	163.8	100.5
35°	426.6	422.8	408.5	387.0	357.3	321.3	280.2	235.7	194.0	156.7	90.5
37.5°	433.3	428.9	414.4	390.6	359.1	321.8	279.9	233.9	189.7	150.8	80.5
40°	437.9	433.3	417.7	392.6	359.7	321.1	277.9	230.8	184.6	143.4	70.0
42.5°	440.9	435.8	419.2	395.7	358.6	319.0	274.8	227.0	178.9	137.0	60.1
45°	442.5	437.1	419.5	393.1	356.8	315.2	270.2	222.1	172.8	128.3	50.1
47.5°	441.7	435.8	418.2	390.3	353.5	311.1	265.1	216.3	165.4	120.7	40.6
50°	440.4	434.3	415.4	386.7	348.9	306.0	259.4	209.1	157.7	111.2	32.2
52.5°	436.3	430.2	412.3	381.6	343.5	300.1	251.8	201.7	149.5	102.0	24.5
55°	431.2	425.6	406.9	377.0	336.6	292.9	244.6	193.8	141.6	92.5	17.6
57.5°	423.3	418.2	400.3	369.6	329.7	285.0	236.7	185.1	131.6	83.1	12.3
60°	413.6	408.5	391.1	361.2	321.8	276.1	228.0	176.1	122.7	73.6	7.7
62.5°	403.4	398.5	380.4	350.7	311.9	266.6	218.6	167.2	113.2	64.9	4.6
65°	389.8	385.2	368.9	338.2	300.9	256.4	208.1	156.4	103.5	55.2	2.6
67.5°	375.5	371.4	354.8	326.7	288.1	245.1	197.3	146.0	93.3	46.8	1.3
70°	360.2	355.0	339.7	311.1	275.0	232.4	185.6	135.2	83.6	38.6	0.0
72.5°	342.3	338.4	323.6	296.5	260.0	218.8	173.6	123.5	72.9	30.7	0.3
75°	324.9	320.0	306.5	280.9	245.1	204.5	160.3	112.5	62.4	23.5	0.3
77.5°	302.4	300.9	288.1	263.3	231.1	190.7	145.7	99.2	52.4	16.9	0.3
80°	279.9	278.4	268.4	245.6	214.7	174.3	132.2	86.7	42.7	11.2	0.3
82.5°	257.7	255.6	246.2	227.2	198.1	160.5	118.1	74.1	33.7	6.9	0.3
85°	237.7	235.2	224.9	207.6	181.0	144.9	103.5	61.9	25.1	3.8	0.5
87.5°	220.6	218.8	207.6	189.7	163.6	130.4	90.7	50.1	17.6	1.8	0.8
90°	206.0	202.2	192.2	173.3	147.2	114.3	77.2	40.1	11.8	1.0	1.0
92.5°	191.7	188.4	177.4	158.0	132.7	100.5	64.2	30.7	7.4	0.5	1.3
95°	176.9	173.3	162.6	144.7	117.8	86.4	52.7	22.5	4.1	0.5	1.3
97.5°	162.3	159.0	147.7	129.9	104.5	74.1	41.7	15.8	2.0	0.5	1.0
100°	148.8	144.9	134.7	116.8	91.3	61.9	32.2	10.2	1.3	0.5	1.0
102.5°	134.5	131.4	120.9	103.5	77.5	50.4	24.0	6.4	0.5	0.5	0.8
105°	121.7	117.8	107.6	89.7	65.9	39.6	16.9	3.8	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	79.2	76.2	67.2	52.1	33.5	15.6	4.6	0.8	0.8	0.8	0.8
115°	66.2	61.6	53.7	40.4	24.8	10.2	2.3	0.8	0.8	0.8	0.8
117.5°	52.9	49.1	43.5	30.7	16.4	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.4	37.8	31.4	21.2	11.0	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.7	26.8	21.2	13.8	6.6	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.7	18.1	14.1	8.4	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.8	11.5	8.2	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.2	6.4	4.9	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.8	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	200.7	200.7	200.7
2.5°	190.9	187.4	186.3
5°	180.7	174.8	171.5
7.5°	170.5	162.6	158.7
10°	161.0	149.8	145.7
12.5°	149.8	136.8	130.4
15°	139.1	122.2	116.0
17.5°	127.0	108.1	101.0
20°	115.8	94.1	86.7
22.5°	103.0	80.3	72.1
25°	91.5	66.5	57.3
27.5°	78.7	52.4	44.5
30°	66.7	40.1	32.2
32.5°	55.2	29.4	22.2
35°	44.5	19.9	14.1
37.5°	34.3	12.3	7.2
40°	24.8	6.4	3.3
42.5°	16.6	3.1	1.8
45°	10.2	1.5	0.0
47.5°	5.9	0.0	0.0
50°	3.1	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	107.4	104.3	94.1	77.2	53.9	30.2	11.2	2.0	0.5	0.8	0.8
110°	93.6	91.0	80.5	64.2	43.5	22.5	7.4	1.3	0.8	0.8	0.8





107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)