

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: P550793

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-85-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: P550793
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-35-UNV-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

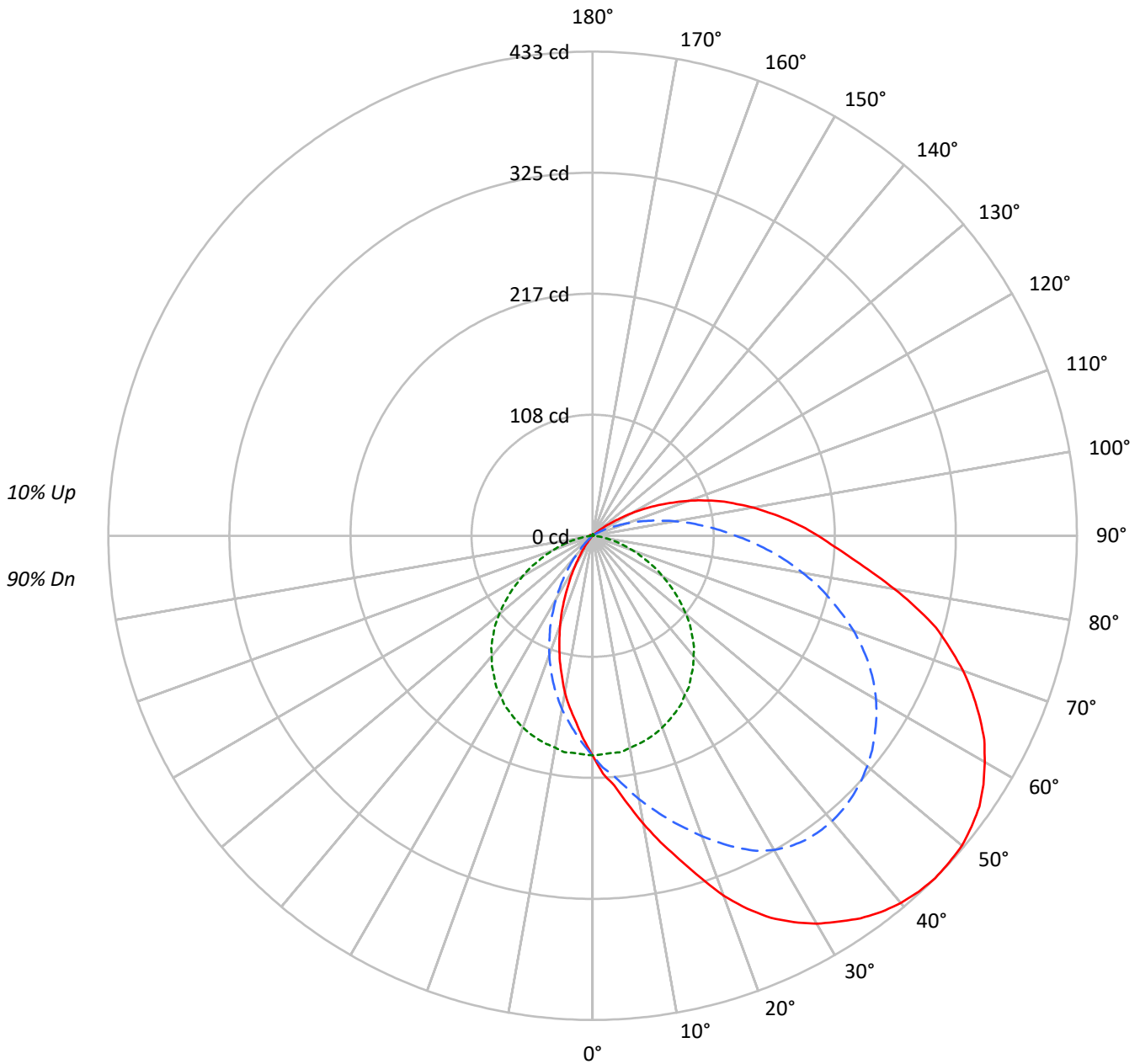
Lumens per Lamp: N/A
Luminaire Lumens: 971.2 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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	37	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°	2114	2114	2114
5°	2321	2083	1738
10°	2627	2058	1432
15°	2943	2031	1116
20°	3319	1998	822
25°	3632	1959	539
30°	3864	1908	304
35°	4064	1853	134
40°	4242	1786	33
45°	4395	1700	0
50°	4524	1586	0
55°	4621	1443	0
60°	4670	1276	0
65°	4690	1085	0
70°	4674	886	0
75°	4614	652	4
80°	4428	399	21
85°	4280	193	28



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	1.9
10°-20°	56.3	5.8
20°-30°	91.2	9.4
30°-40°	117.2	12.1
40°-50°	132.7	13.7
50°-60°	137.4	14.2
60°-70°	129.6	13.3
70°-80°	108.6	11.2
80°-90°	78.7	8.1
90°-100°	51.8	5.3
100°-110°	29.9	3.1
110°-120°	13.2	1.4
120°-130°	3.6	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°	166.4	17.1
0°-40°	283.6	29.2
0°-60°	553.6	57.0
0°-90°	870.6	89.6
90°-120°	94.9	9.8
90°-150°	99.9	10.3
90°-180°	101.0	10.4
0°-180°	971.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	196	196	196	196	196	
5°	224	215	195	177	168	23
15°	300	263	188	136	114	86
25°	377	308	175	90	56	174
35°	418	332	153	44	14	262
45°	433	329	126	10	0	334
55°	422	308	91	0	0	377
65°	382	273	54	0	0	377
75°	318	220	23	0	0	334
85°	233	160	4	1	2	199
90°	202	128	1	2	2	111
95°	173	100	0	2	2	136
105°	119	52	0	1	2	126
115°	65	17	1	1	1	65
125°	19	2	1	1	1	19
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°	196.4	196.4	196.4	196.4	196.4	196.4	196.4	196.4	196.4	196.4	196.4
2.5°	212.9	212.7	211.9	210.7	208.9	205.9	203.4	201.2	198.2	195.7	190.9
5°	224.2	222.9	221.9	220.7	216.7	213.9	209.4	204.4	199.7	194.9	185.4
7.5°	242.2	240.2	238.7	235.2	229.7	223.4	216.4	211.7	208.4	195.2	178.9
10°	261.5	259.7	256.7	250.5	243.7	234.7	224.7	213.4	203.4	192.4	173.1
12.5°	280.5	278.0	273.7	265.7	256.2	244.9	231.2	217.9	203.7	190.7	166.4
15°	299.5	296.7	292.2	282.5	270.0	255.2	238.4	221.7	204.9	188.4	159.4
17.5°	320.3	316.5	309.8	298.7	283.0	264.7	244.9	224.7	204.4	185.7	151.9
20°	342.5	337.3	330.0	315.3	296.7	275.2	251.5	227.7	204.2	182.4	143.4
22.5°	361.0	355.8	347.8	332.5	310.3	284.0	257.0	229.7	203.2	178.6	135.4
25°	377.1	372.8	364.0	346.5	323.0	293.2	262.2	231.2	201.7	174.6	126.9
27.5°	389.6	385.6	375.8	357.8	333.8	301.5	266.2	231.9	199.7	170.6	118.1
30°	400.6	396.6	384.8	366.3	341.0	308.0	270.2	232.2	197.2	164.6	108.6
32.5°	409.1	405.3	393.3	373.6	346.0	312.5	272.5	231.9	193.9	160.4	98.3
35°	417.6	413.8	399.8	378.8	349.8	314.5	274.2	230.7	189.9	153.4	88.6
37.5°	424.1	419.8	405.6	382.3	351.5	315.0	274.0	228.9	185.7	147.6	78.8
40°	428.6	424.1	408.8	384.3	352.0	314.3	272.0	225.9	180.6	140.4	68.6
42.5°	431.6	426.6	410.3	387.3	351.0	312.3	269.0	222.2	175.1	134.1	58.8
45°	433.1	427.8	410.6	384.8	349.3	308.5	264.5	217.4	169.1	125.6	49.0
47.5°	432.4	426.6	409.3	382.1	346.0	304.5	259.5	211.7	161.9	118.1	39.8
50°	431.1	425.1	406.6	378.6	341.5	299.5	254.0	204.7	154.4	108.8	31.5
52.5°	427.1	421.1	403.6	373.6	336.3	293.7	246.5	197.4	146.4	99.8	24.0
55°	422.1	416.6	398.3	369.1	329.5	286.7	239.4	189.7	138.6	90.6	17.3
57.5°	414.3	409.3	391.8	361.8	322.8	279.0	231.7	181.1	128.9	81.3	12.0
60°	404.8	399.8	382.8	353.5	315.0	270.2	223.2	172.4	120.1	72.1	7.5
62.5°	394.8	390.1	372.3	343.3	305.2	261.0	213.9	163.6	110.8	63.6	4.5
65°	381.6	377.1	361.0	331.0	294.5	251.0	203.7	153.1	101.3	54.0	2.5
67.5°	367.5	363.5	347.3	319.8	282.0	239.9	193.2	142.9	91.3	45.8	1.3
70°	352.5	347.5	332.5	304.5	269.2	227.4	181.6	132.4	81.8	37.8	0.0
72.5°	335.0	331.3	316.8	290.2	254.5	214.2	169.9	120.8	71.3	30.0	0.3
75°	318.0	313.3	300.0	275.0	239.9	200.2	156.9	110.1	61.0	23.0	0.3
77.5°	296.0	294.5	282.0	257.7	226.2	186.7	142.6	97.1	51.3	16.5	0.3
80°	274.0	272.5	262.7	240.4	210.2	170.6	129.4	84.8	41.8	11.0	0.3
82.5°	252.2	250.2	240.9	222.4	193.9	157.1	115.6	72.6	33.0	6.8	0.3
85°	232.7	230.2	220.2	203.2	177.1	141.9	101.3	60.5	24.5	3.8	0.5
87.5°	215.9	214.2	203.2	185.7	160.1	127.6	88.8	49.0	17.3	1.8	0.8
90°	201.7	197.9	188.2	169.6	144.1	111.8	75.6	39.3	11.5	1.0	1.0
92.5°	187.7	184.4	173.6	154.6	129.9	98.3	62.8	30.0	7.3	0.5	1.3
95°	173.1	169.6	159.1	141.6	115.3	84.6	51.5	22.0	4.0	0.5	1.3
97.5°	158.9	155.6	144.6	127.1	102.3	72.6	40.8	15.5	2.0	0.5	1.0
100°	145.6	141.9	131.9	114.3	89.3	60.5	31.5	10.0	1.3	0.5	1.0
102.5°	131.6	128.6	118.3	101.3	75.8	49.3	23.5	6.3	0.5	0.5	0.8
105°	119.1	115.3	105.3	87.8	64.6	38.8	16.5	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°	77.6	74.6	65.8	51.0	32.8	15.3	4.5	0.8	0.8	0.8	0.8
115°	64.8	60.3	52.5	39.5	24.3	10.0	2.3	0.8	0.8	0.8	0.8
117.5°	51.8	48.0	42.5	30.0	16.0	6.5	1.3	0.8	0.8	0.8	0.8
120°	40.5	37.0	30.8	20.8	10.8	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.0	26.3	20.8	13.5	6.5	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.3	17.8	13.8	8.3	4.0	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.5	11.3	8.0	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.0	6.3	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.0	3.8	2.5	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°	196.4	196.4	196.4
2.5°	186.9	183.4	182.4
5°	176.9	171.1	167.9
7.5°	166.9	159.1	155.4
10°	157.6	146.6	142.6
12.5°	146.6	133.9	127.6
15°	136.1	119.6	113.6
17.5°	124.4	105.8	98.8
20°	113.3	92.1	84.8
22.5°	100.8	78.6	70.6
25°	89.6	65.1	56.0
27.5°	77.1	51.3	43.5
30°	65.3	39.3	31.5
32.5°	54.0	28.8	21.8
35°	43.5	19.5	13.8
37.5°	33.5	12.0	7.0
40°	24.3	6.3	3.3
42.5°	16.3	3.0	1.8
45°	10.0	1.5	0.0
47.5°	5.8	0.0	0.0
50°	3.0	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	2.5
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°	105.1	102.1	92.1	75.6	52.8	29.5	11.0	2.0	0.5	0.8	0.8
110°	91.6	89.1	78.8	62.8	42.5	22.0	7.3	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)