

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: P551055

Luminaire Tested: **FCC-X-2-LD4-1STD-35-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: P551055
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-35-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 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

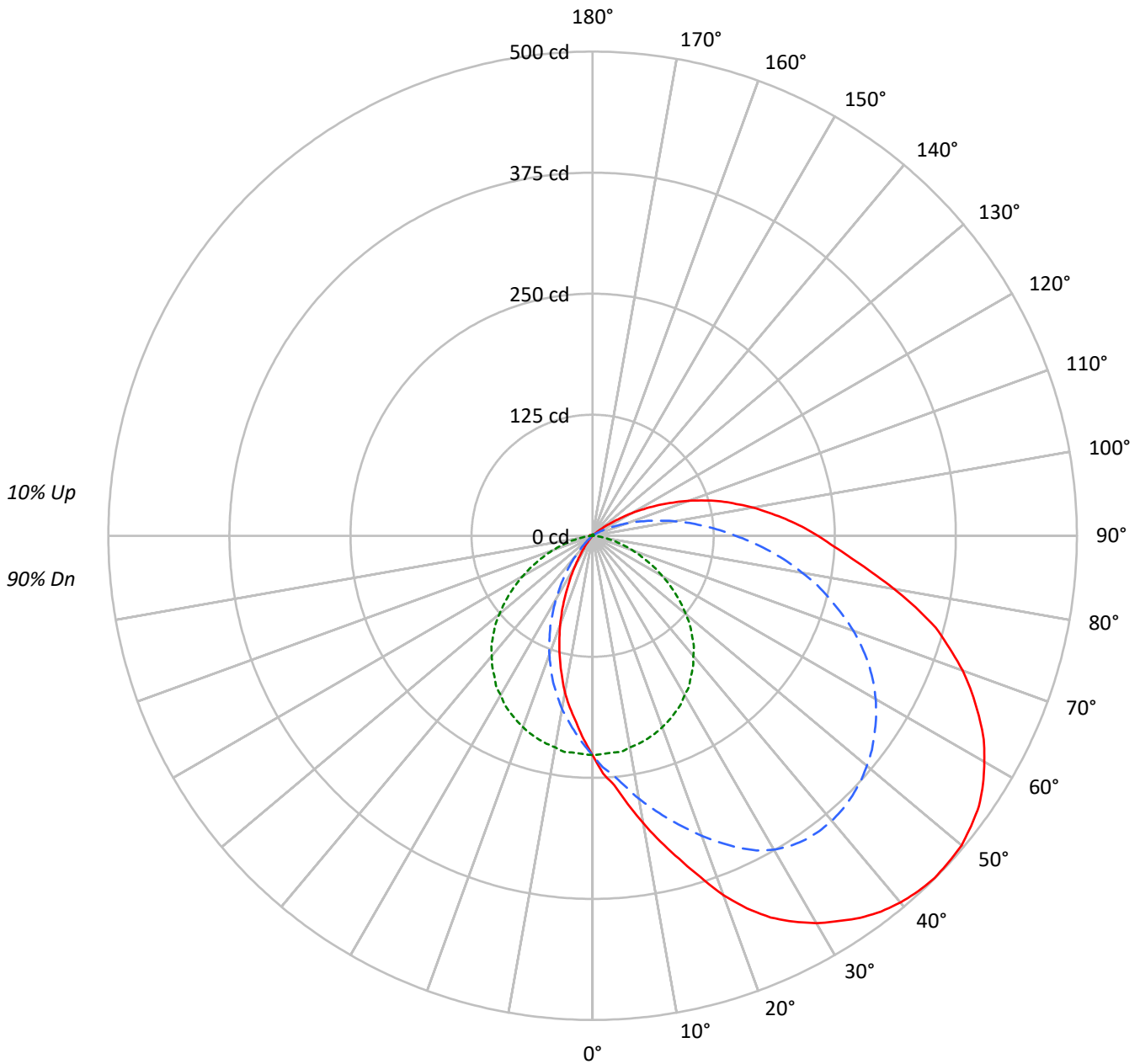
Lumens per Lamp: N/A
Luminaire Lumens: 1120.1 lumens
Efficiency: N/A
Efficacy: 67.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2438	2438	2438
5°	2677	2403	2004
10°	3029	2373	1652
15°	3395	2343	1287
20°	3829	2305	948
25°	4189	2260	622
30°	4456	2201	351
35°	4688	2137	155
40°	4894	2059	38
45°	5070	1961	0
50°	5218	1829	0
55°	5331	1664	0
60°	5388	1471	0
65°	5409	1251	0
70°	5391	1021	0
75°	5323	754	4
80°	5107	461	23
85°	4936	219	31



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.7	1.9
10°-20°	65.0	5.8
20°-30°	105.2	9.4
30°-40°	135.2	12.1
40°-50°	153.0	13.7
50°-60°	158.5	14.2
60°-70°	149.5	13.3
70°-80°	125.3	11.2
80°-90°	90.8	8.1
90°-100°	59.7	5.3
100°-110°	34.5	3.1
110°-120°	15.2	1.4
120°-130°	4.1	0.4
130°-140°	1.0	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
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0°-30°	191.9	17.1
0°-40°	327.1	29.2
0°-60°	638.6	57.0
0°-90°	1004.2	89.7
90°-120°	109.4	9.8
90°-150°	115.1	10.3
90°-180°	116.0	10.4
0°-180°	1120.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	226	226	226	226	226	
5°	259	248	225	204	194	26
15°	346	303	217	157	131	100
25°	435	355	201	103	65	201
35°	482	383	177	50	16	302
45°	500	379	145	12	0	386
55°	487	355	104	0	0	435
65°	440	315	62	0	0	435
75°	367	254	27	0	0	385
85°	268	184	4	1	2	229
90°	233	148	1	2	2	128
95°	200	115	1	2	3	157
105°	137	60	1	1	2	145
115°	75	20	1	1	1	75
125°	22	3	1	1	1	22
135°	1	1	1	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	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°	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5
2.5°	245.6	245.3	244.4	243.0	241.0	237.5	234.6	232.0	228.6	225.7	220.2
5°	258.6	257.1	256.0	254.5	249.9	246.8	241.6	235.8	230.3	224.8	213.9
7.5°	279.4	277.1	275.3	271.3	264.9	257.7	249.6	244.2	240.4	225.1	206.3
10°	301.6	299.6	296.1	288.9	281.1	270.7	259.2	246.2	234.6	221.9	199.7
12.5°	323.5	320.6	315.7	306.5	295.5	282.5	266.7	251.4	234.9	219.9	191.9
15°	345.5	342.3	337.1	325.8	311.4	294.4	275.0	255.7	236.4	217.3	183.8
17.5°	369.4	365.1	357.3	344.6	326.4	305.3	282.5	259.2	235.8	214.1	175.2
20°	395.1	389.0	380.7	363.6	342.3	317.5	290.0	262.6	235.5	210.4	165.4
22.5°	416.4	410.4	401.2	383.5	357.9	327.6	296.4	264.9	234.3	206.1	156.1
25°	434.9	430.0	419.9	399.7	372.6	338.2	302.5	266.7	232.6	201.4	146.3
27.5°	449.3	444.7	433.5	412.7	385.0	347.8	307.1	267.5	230.3	196.8	136.2
30°	462.0	457.4	443.9	422.5	393.4	355.3	311.7	267.8	227.4	189.9	125.3
32.5°	471.9	467.5	453.7	430.9	399.1	360.5	314.3	267.5	223.7	185.0	113.4
35°	481.7	477.3	461.2	436.9	403.5	362.8	316.3	266.1	219.0	176.9	102.2
37.5°	489.2	484.3	467.8	441.0	405.5	363.3	316.0	264.1	214.1	170.3	90.9
40°	494.4	489.2	471.6	443.3	406.1	362.5	313.7	260.6	208.4	161.9	79.1
42.5°	497.8	492.1	473.3	446.7	404.9	360.2	310.2	256.3	202.0	154.7	67.8
45°	499.6	493.5	473.6	443.9	402.9	355.8	305.0	250.8	195.1	144.9	56.6
47.5°	498.7	492.1	472.1	440.7	399.1	351.2	299.3	244.2	186.7	136.2	45.9
50°	497.3	490.3	469.0	436.6	393.9	345.5	292.9	236.1	178.1	125.5	36.4
52.5°	492.6	485.7	465.5	430.9	387.9	338.8	284.3	227.7	168.8	115.2	27.7
55°	486.9	480.5	459.4	425.7	380.1	330.7	276.2	218.8	159.9	104.5	19.9
57.5°	477.9	472.1	451.9	417.3	372.3	321.8	267.2	208.9	148.6	93.8	13.9
60°	467.0	461.2	441.6	407.8	363.3	311.7	257.4	198.8	138.5	83.1	8.7
62.5°	455.4	449.9	429.4	396.0	352.1	301.0	246.8	188.7	127.8	73.3	5.2
65°	440.1	434.9	416.4	381.8	339.7	289.5	234.9	176.6	116.9	62.3	2.9
67.5°	423.9	419.3	400.6	368.8	325.2	276.8	222.8	164.8	105.3	52.8	1.4
70°	406.6	400.9	383.5	351.2	310.5	262.3	209.5	152.7	94.4	43.6	0.0
72.5°	386.4	382.1	365.4	334.8	293.5	247.0	196.0	139.4	82.3	34.6	0.3
75°	366.8	361.3	346.0	317.2	276.8	230.9	181.0	127.0	70.4	26.6	0.3
77.5°	341.4	339.7	325.2	297.3	260.9	215.3	164.5	112.0	59.2	19.0	0.3
80°	316.0	314.3	303.0	277.3	242.4	196.8	149.2	97.8	48.2	12.7	0.3
82.5°	290.9	288.6	277.9	256.6	223.7	181.2	133.3	83.7	38.1	7.8	0.3
85°	268.4	265.5	254.0	234.3	204.3	163.6	116.9	69.8	28.3	4.3	0.6
87.5°	249.1	247.0	234.3	214.1	184.7	147.2	102.5	56.6	19.9	2.0	0.9
90°	232.6	228.3	217.0	195.7	166.2	129.0	87.2	45.3	13.3	1.2	1.2
92.5°	216.4	212.7	200.3	178.4	149.8	113.4	72.4	34.6	8.4	0.6	1.4
95°	199.7	195.7	183.5	163.3	133.0	97.5	59.5	25.4	4.6	0.6	1.4
97.5°	183.3	179.5	166.8	146.6	118.0	83.7	47.0	17.9	2.3	0.6	1.2
100°	168.0	163.6	152.1	131.9	103.0	69.8	36.4	11.5	1.4	0.6	1.2
102.5°	151.8	148.3	136.5	116.9	87.4	56.9	27.1	7.2	0.6	0.6	0.9
105°	137.4	133.0	121.5	101.3	74.5	44.7	19.0	4.3	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°	89.5	86.0	75.9	58.9	37.8	17.6	5.2	0.9	0.9	0.9	0.9
115°	74.7	69.6	60.6	45.6	28.0	11.5	2.6	0.9	0.9	0.9	0.9
117.5°	59.7	55.4	49.1	34.6	18.5	7.5	1.4	0.9	0.9	0.9	0.9
120°	46.8	42.7	35.5	24.0	12.4	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.5	30.3	24.0	15.6	7.5	2.0	0.9	0.9	1.2	1.2	0.9
125°	22.2	20.5	15.9	9.5	4.6	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	14.4	13.0	9.2	5.5	2.0	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.1	7.2	5.5	3.2	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.6	4.3	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	1.4	1.4	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.4	1.4	1.4	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.4	1.4	1.4	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.4	1.2	1.2	1.4
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	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.4	1.4	1.4	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°	226.5	226.5	226.5
2.5°	215.6	211.5	210.4
5°	204.0	197.4	193.6
7.5°	192.5	183.5	179.2
10°	181.8	169.1	164.5
12.5°	169.1	154.4	147.2
15°	157.0	137.9	131.0
17.5°	143.4	122.1	114.0
20°	130.7	106.2	97.8
22.5°	116.3	90.6	81.4
25°	103.3	75.0	64.6
27.5°	88.9	59.2	50.2
30°	75.3	45.3	36.4
32.5°	62.3	33.2	25.1
35°	50.2	22.5	15.9
37.5°	38.7	13.9	8.1
40°	28.0	7.2	3.8
42.5°	18.8	3.5	2.0
45°	11.5	1.7	0.0
47.5°	6.6	0.0	0.0
50°	3.5	0.0	0.0
52.5°	1.4	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	1.4
82.5°	1.2	1.4	1.4
85°	1.2	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	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°	1.7	2.6	2.6
105°	1.4	2.0	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.4	1.4
115°	0.9	1.2	1.4
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°	121.2	117.7	106.2	87.2	60.9	34.1	12.7	2.3	0.6	0.9	0.9
110°	105.6	102.7	90.9	72.4	49.1	25.4	8.4	1.4	0.9	0.9	0.9





107.5°	1.2	1.7	2.0
110°	1.2	1.4	1.7



(END OF REPORT)