

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: P550924

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-86-ED1D**

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: P550924
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-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

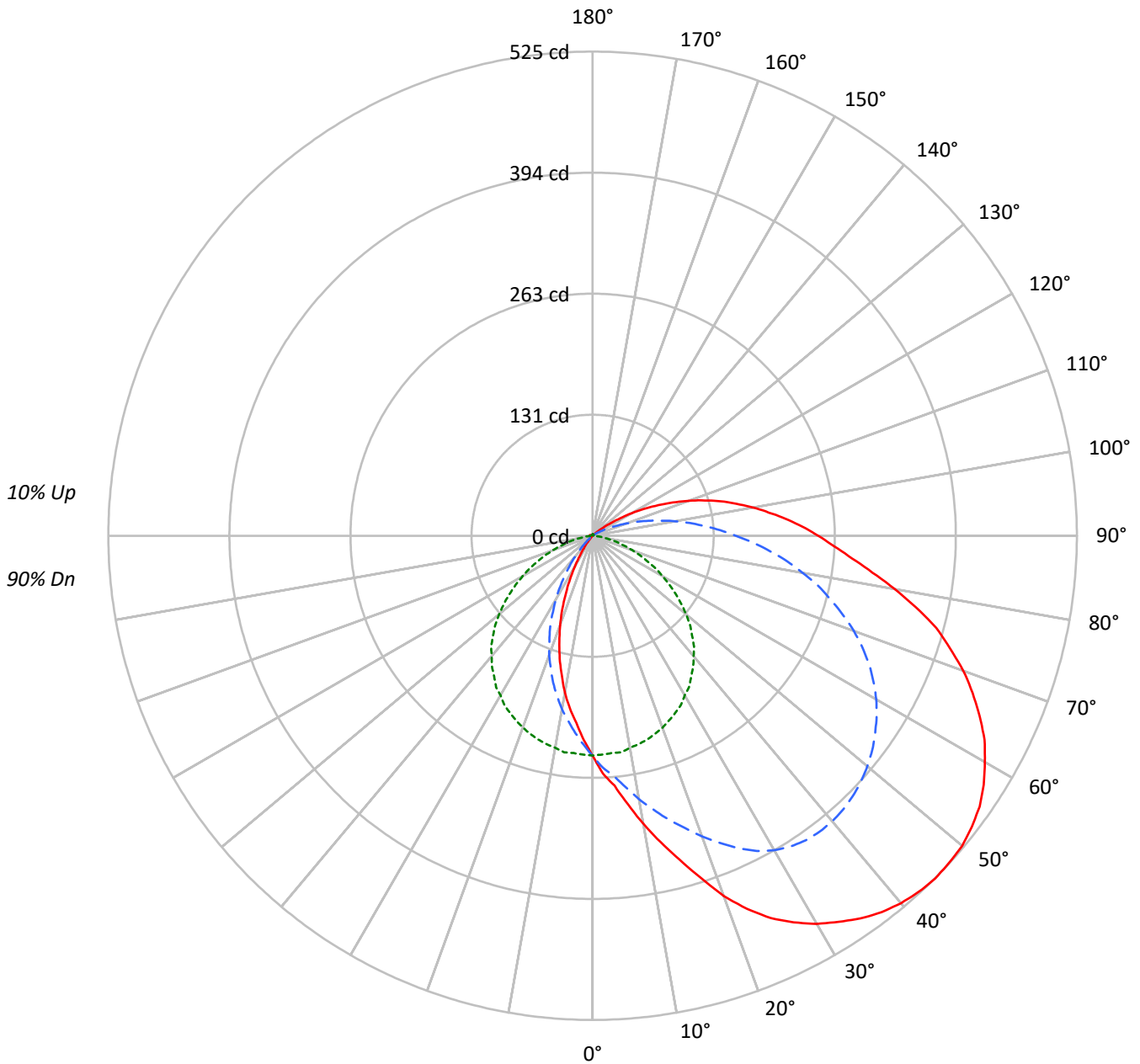
Lumens per Lamp: N/A
Luminaire Lumens: 1177.9 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2565	2565	2565
5°	2816	2528	2109
10°	3186	2496	1738
15°	3570	2465	1354
20°	4028	2425	997
25°	4405	2378	655
30°	4687	2315	368
35°	4931	2249	163
40°	5147	2166	39
45°	5332	2062	0
50°	5488	1924	0
55°	5607	1750	0
60°	5666	1547	0
65°	5689	1318	0
70°	5671	1073	0
75°	5598	791	4
80°	5372	486	24
85°	5192	234	33



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.8	1.9
10°-20°	68.3	5.8
20°-30°	110.7	9.4
30°-40°	142.2	12.1
40°-50°	160.9	13.7
50°-60°	166.7	14.2
60°-70°	157.2	13.3
70°-80°	131.8	11.2
80°-90°	95.5	8.1
90°-100°	62.8	5.3
100°-110°	36.2	3.1
110°-120°	16.0	1.4
120°-130°	4.3	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°	201.8	17.1
0°-40°	344.0	29.2
0°-60°	671.7	57.0
0°-90°	1056.2	89.7
90°-120°	115.0	9.8
90°-150°	120.9	10.3
90°-180°	122.0	10.4
0°-180°	1177.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	238	238	238	238	238	
5°	272	261	236	215	204	27
15°	363	319	229	165	138	105
25°	457	374	212	109	68	211
35°	507	403	186	53	17	318
45°	525	399	152	12	0	406
55°	512	374	110	0	0	457
65°	463	331	66	0	0	458
75°	386	267	28	0	0	405
85°	282	194	5	1	2	241
90°	245	155	1	2	2	134
95°	210	121	1	2	3	165
105°	144	63	1	2	2	152
115°	79	21	1	1	2	79
125°	23	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°	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3	238.3
2.5°	258.3	258.0	257.1	255.6	253.5	249.8	246.8	244.0	240.4	237.4	231.6
5°	272.0	270.5	269.2	267.7	262.9	259.5	254.1	248.0	242.2	236.5	224.9
7.5°	293.8	291.4	289.6	285.3	278.7	271.1	262.6	256.8	252.9	236.8	217.0
10°	317.2	315.1	311.4	303.8	295.7	284.7	272.6	258.9	246.8	233.4	210.1
12.5°	340.3	337.2	332.1	322.4	310.8	297.2	280.5	264.4	247.1	231.3	201.9
15°	363.3	360.0	354.5	342.7	327.5	309.6	289.3	268.9	248.6	228.6	193.4
17.5°	388.5	384.0	375.8	362.4	343.3	321.1	297.2	272.6	248.0	225.2	184.3
20°	415.6	409.2	400.4	382.5	360.0	333.9	305.1	276.2	247.7	221.3	173.9
22.5°	438.0	431.6	421.9	403.4	376.4	344.5	311.7	278.7	246.5	216.7	164.2
25°	457.4	452.3	441.7	420.4	391.9	355.8	318.1	280.5	244.7	211.9	153.9
27.5°	472.6	467.8	455.9	434.1	404.9	365.8	323.0	281.4	242.2	207.0	143.3
30°	486.0	481.1	466.8	444.4	413.7	373.7	327.8	281.7	239.2	199.7	131.7
32.5°	496.3	491.7	477.2	453.2	419.8	379.1	330.6	281.4	235.2	194.6	119.3
35°	506.6	502.1	485.1	459.6	424.4	381.6	332.7	279.9	230.4	186.1	107.5
37.5°	514.5	509.3	492.0	463.8	426.5	382.2	332.4	277.7	225.2	179.1	95.6
40°	520.0	514.5	496.0	466.2	427.1	381.2	330.0	274.1	219.2	170.3	83.2
42.5°	523.6	517.5	497.8	469.9	425.9	378.8	326.3	269.5	212.5	162.7	71.3
45°	525.4	519.1	498.1	466.8	423.7	374.3	320.8	263.8	205.2	152.4	59.5
47.5°	524.5	517.5	496.6	463.5	419.8	369.4	314.8	256.8	196.4	143.3	48.3
50°	523.0	515.7	493.3	459.3	414.3	363.3	308.1	248.3	187.3	132.0	38.2
52.5°	518.1	510.9	489.6	453.2	408.0	356.4	299.0	239.5	177.6	121.1	29.1
55°	512.1	505.4	483.2	447.7	399.8	347.9	290.5	230.1	168.2	109.9	20.9
57.5°	502.7	496.6	475.3	438.9	391.6	338.5	281.1	219.8	156.3	98.7	14.6
60°	491.1	485.1	464.4	428.9	382.2	327.8	270.8	209.1	145.7	87.4	9.1
62.5°	479.0	473.2	451.7	416.5	370.3	316.6	259.5	198.5	134.5	77.1	5.5
65°	462.9	457.4	438.0	401.6	357.3	304.5	247.1	185.8	122.9	65.6	3.0
67.5°	445.9	441.0	421.3	387.9	342.1	291.1	234.3	173.3	110.8	55.5	1.5
70°	427.7	421.6	403.4	369.4	326.6	275.9	220.4	160.6	99.3	45.8	0.0
72.5°	406.4	401.9	384.3	352.1	308.7	259.8	206.1	146.6	86.5	36.4	0.3
75°	385.8	380.0	363.9	333.6	291.1	242.8	190.3	133.6	74.1	27.9	0.3
77.5°	359.1	357.3	342.1	312.6	274.4	226.4	173.0	117.8	62.2	20.0	0.3
80°	332.4	330.6	318.7	291.7	255.0	207.0	156.9	102.9	50.7	13.4	0.3
82.5°	306.0	303.5	292.3	269.8	235.2	190.6	140.2	88.0	40.1	8.2	0.3
85°	282.3	279.3	267.1	246.5	214.9	172.1	122.9	73.5	29.7	4.6	0.6
87.5°	262.0	259.8	246.5	225.2	194.3	154.8	107.8	59.5	20.9	2.1	0.9
90°	244.7	240.1	228.3	205.8	174.8	135.7	91.7	47.7	14.0	1.2	1.2
92.5°	227.7	223.7	210.7	187.6	157.5	119.3	76.2	36.4	8.8	0.6	1.5
95°	210.1	205.8	193.1	171.8	139.9	102.6	62.5	26.7	4.9	0.6	1.5
97.5°	192.7	188.8	175.4	154.2	124.1	88.0	49.5	18.8	2.4	0.6	1.2
100°	176.7	172.1	160.0	138.7	108.4	73.5	38.2	12.1	1.5	0.6	1.2
102.5°	159.7	156.0	143.6	122.9	92.0	59.8	28.5	7.6	0.6	0.6	0.9
105°	144.5	139.9	127.8	106.5	78.3	47.0	20.0	4.6	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°	94.1	90.5	79.8	61.9	39.8	18.5	5.5	0.9	0.9	0.9	0.9
115°	78.6	73.2	63.7	48.0	29.4	12.1	2.7	0.9	0.9	0.9	0.9
117.5°	62.8	58.3	51.6	36.4	19.4	7.9	1.5	0.9	0.9	0.9	0.9
120°	49.2	44.9	37.3	25.2	13.1	4.6	0.6	0.9	0.9	0.9	0.9
122.5°	35.2	31.9	25.2	16.4	7.9	2.1	0.9	0.9	1.2	1.2	0.9
125°	23.4	21.6	16.7	10.0	4.9	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.2	13.7	9.7	5.8	2.1	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.5	7.6	5.8	3.3	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	4.9	4.6	3.0	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°	238.3	238.3	238.3
2.5°	226.7	222.5	221.3
5°	214.6	207.6	203.7
7.5°	202.5	193.1	188.5
10°	191.2	177.9	173.0
12.5°	177.9	162.4	154.8
15°	165.1	145.1	137.8
17.5°	150.9	128.4	119.9
20°	137.5	111.7	102.9
22.5°	122.3	95.3	85.6
25°	108.7	78.9	68.0
27.5°	93.5	62.2	52.8
30°	79.2	47.7	38.2
32.5°	65.6	34.9	26.4
35°	52.8	23.7	16.7
37.5°	40.7	14.6	8.5
40°	29.4	7.6	3.9
42.5°	19.7	3.6	2.1
45°	12.1	1.8	0.0
47.5°	7.0	0.0	0.0
50°	3.6	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	2.1
90°	1.8	2.1	2.1
92.5°	1.8	2.4	2.4
95°	2.1	2.4	2.7
97.5°	2.4	2.7	2.7
100°	2.1	2.7	3.0
102.5°	1.8	2.7	2.7
105°	1.5	2.1	2.4



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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°	127.5	123.8	111.7	91.7	64.0	35.8	13.4	2.4	0.6	0.9	0.9
110°	111.1	108.1	95.6	76.2	51.6	26.7	8.8	1.5	0.9	0.9	0.9





107.5°	1.2	1.8	2.1
110°	1.2	1.5	1.8



(END OF REPORT)