

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: P551181

Luminaire Tested: **FCC-X-2-LD4-1STD-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: P551181
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-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

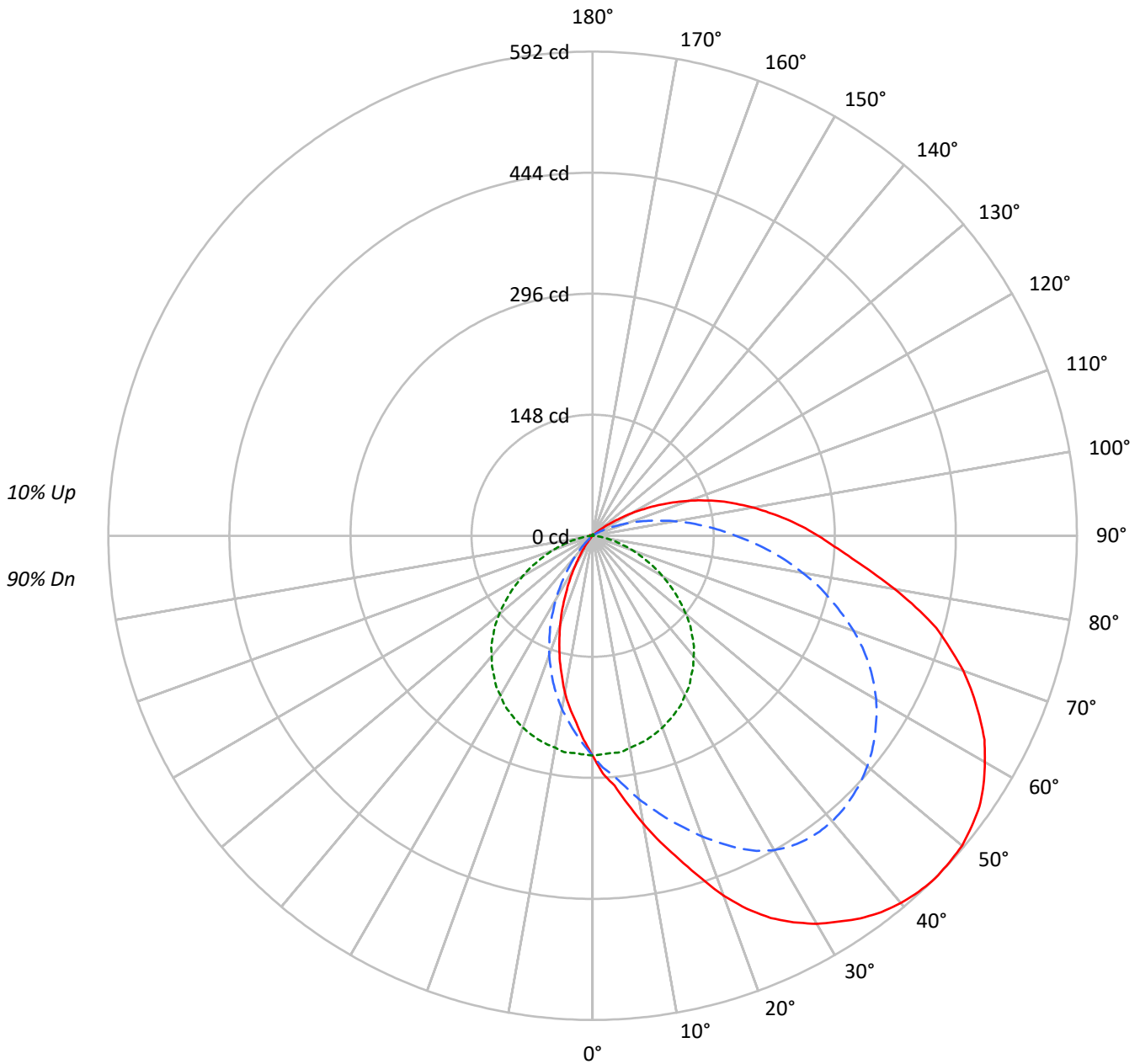
Lumens per Lamp: N/A
Luminaire Lumens: 1328.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2891	2891	2891
5°	3174	2849	2377
10°	3592	2814	1960
15°	4025	2779	1527
20°	4540	2734	1124
25°	4967	2681	739
30°	5284	2611	416
35°	5558	2535	183
40°	5802	2442	44
45°	6011	2325	0
50°	6187	2170	0
55°	6320	1973	0
60°	6388	1745	0
65°	6413	1484	0
70°	6393	1211	0
75°	6311	893	4
80°	6055	548	27
85°	5852	259	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.7	1.9
10°-20°	77.0	5.8
20°-30°	124.8	9.4
30°-40°	160.3	12.1
40°-50°	181.4	13.7
50°-60°	188.0	14.2
60°-70°	177.3	13.3
70°-80°	148.5	11.2
80°-90°	107.7	8.1
90°-100°	70.8	5.3
100°-110°	40.9	3.1
110°-120°	18.0	1.4
120°-130°	4.9	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	227.5	17.1
0°-40°	387.8	29.2
0°-60°	757.2	57.0
0°-90°	1190.7	89.7
90°-120°	129.7	9.8
90°-150°	136.4	10.3
90°-180°	137.0	10.3
0°-180°	1328.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	269	269	269	269	269	
5°	307	294	267	242	230	31
15°	410	359	258	186	155	118
25°	516	421	239	122	77	238
35°	571	454	210	60	19	358
45°	592	450	172	14	0	457
55°	577	421	124	0	0	516
65°	522	373	74	0	0	516
75°	435	301	32	0	0	456
85°	318	218	5	1	2	272
90°	276	175	1	2	2	151
95°	237	137	1	2	3	186
105°	163	71	1	2	3	172
115°	89	23	1	1	2	89
125°	26	3	1	1	1	26
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°	268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6	268.6
2.5°	291.2	290.9	289.8	288.1	285.7	281.6	278.2	275.1	271.0	267.6	261.1
5°	306.6	304.9	303.5	301.8	296.3	292.6	286.4	279.6	273.1	266.6	253.6
7.5°	331.2	328.5	326.5	321.7	314.1	305.6	296.0	289.5	285.0	266.9	244.7
10°	357.6	355.2	351.1	342.5	333.3	321.0	307.3	291.9	278.2	263.1	236.8
12.5°	383.6	380.2	374.4	363.4	350.4	335.0	316.2	298.1	278.5	260.8	227.6
15°	409.6	405.8	399.7	386.3	369.2	349.0	326.1	303.2	280.3	257.7	218.0
17.5°	438.0	432.9	423.6	408.6	387.0	362.0	335.0	307.3	279.6	253.9	207.7
20°	468.5	461.3	451.4	431.2	405.8	376.4	343.9	311.4	279.2	249.5	196.1
22.5°	493.8	486.6	475.7	454.8	424.3	388.4	351.4	314.1	277.9	244.3	185.1
25°	515.7	509.9	497.9	473.9	441.8	401.1	358.6	316.2	275.8	238.9	173.5
27.5°	532.8	527.3	514.0	489.3	456.5	412.3	364.1	317.2	273.1	233.4	161.5
30°	547.9	542.4	526.3	501.0	466.4	421.2	369.6	317.6	269.6	225.2	148.5
32.5°	559.5	554.4	537.9	510.9	473.3	427.4	372.6	317.2	265.2	219.3	134.5
35°	571.1	566.0	546.8	518.1	478.4	430.1	375.0	315.5	259.7	209.8	121.1
37.5°	580.0	574.2	554.7	522.9	480.8	430.8	374.7	313.1	253.9	201.9	107.8
40°	586.2	580.0	559.1	525.6	481.5	429.8	372.0	309.0	247.1	192.0	93.8
42.5°	590.3	583.4	561.2	529.7	480.1	427.1	367.9	303.9	239.5	183.4	80.4
45°	592.3	585.2	561.5	526.3	477.7	421.9	361.7	297.4	231.3	171.8	67.1
47.5°	591.3	583.4	559.8	522.5	473.3	416.5	354.9	289.5	221.4	161.5	54.4
50°	589.6	581.4	556.1	517.7	467.1	409.6	347.3	279.9	211.1	148.9	43.1
52.5°	584.1	575.9	552.0	510.9	459.9	401.7	337.1	270.0	200.2	136.5	32.9
55°	577.3	569.8	544.8	504.7	450.7	392.2	327.5	259.4	189.6	123.9	23.6
57.5°	566.7	559.8	535.9	494.8	441.4	381.5	316.9	247.7	176.2	111.2	16.4
60°	553.7	546.8	523.6	483.5	430.8	369.6	305.2	235.8	164.3	98.6	10.3
62.5°	540.0	533.5	509.2	469.5	417.5	356.9	292.6	223.8	151.6	86.9	6.2
65°	521.8	515.7	493.8	452.7	402.8	343.2	278.5	209.4	138.6	73.9	3.4
67.5°	502.7	497.2	475.0	437.3	385.7	328.2	264.2	195.4	124.9	62.6	1.7
70°	482.2	475.3	454.8	416.5	368.2	311.1	248.4	181.0	111.9	51.7	0.0
72.5°	458.2	453.1	433.2	396.9	348.0	292.9	232.3	165.3	97.5	41.1	0.3
75°	434.9	428.4	410.3	376.1	328.2	273.8	214.6	150.6	83.5	31.5	0.3
77.5°	404.8	402.8	385.7	352.5	309.3	255.3	195.1	132.8	70.1	22.6	0.3
80°	374.7	372.6	359.3	328.8	287.4	233.4	176.9	116.0	57.1	15.1	0.3
82.5°	344.9	342.2	329.5	304.2	265.2	214.9	158.1	99.2	45.2	9.2	0.3
85°	318.2	314.8	301.1	277.9	242.3	194.0	138.6	82.8	33.5	5.1	0.7
87.5°	295.3	292.9	277.9	253.9	219.0	174.5	121.5	67.1	23.6	2.4	1.0
90°	275.8	270.7	257.3	232.0	197.1	153.0	103.3	53.7	15.7	1.4	1.4
92.5°	256.6	252.2	237.5	211.5	177.6	134.5	85.9	41.1	9.9	0.7	1.7
95°	236.8	232.0	217.6	193.7	157.8	115.7	70.5	30.1	5.5	0.7	1.7
97.5°	217.3	212.8	197.8	173.8	140.0	99.2	55.8	21.2	2.7	0.7	1.4
100°	199.2	194.0	180.3	156.4	122.2	82.8	43.1	13.7	1.7	0.7	1.4
102.5°	180.0	175.9	161.9	138.6	103.7	67.4	32.2	8.6	0.7	0.7	1.0
105°	162.9	157.8	144.1	120.1	88.3	53.0	22.6	5.1	0.7	0.7	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	106.1	102.0	90.0	69.8	44.8	20.9	6.2	1.0	1.0	1.0	1.0
115°	88.6	82.5	71.9	54.1	33.2	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	70.8	65.7	58.2	41.1	21.9	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.4	50.6	42.1	28.4	14.7	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.7	35.9	28.4	18.5	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.3	24.3	18.8	11.3	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.1	15.4	11.0	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.6	8.6	6.5	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.1	3.4	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	268.6	268.6	268.6
2.5°	255.6	250.8	249.5
5°	241.9	234.1	229.6
7.5°	228.2	217.6	212.5
10°	215.6	200.5	195.1
12.5°	200.5	183.1	174.5
15°	186.2	163.6	155.4
17.5°	170.1	144.7	135.2
20°	155.0	125.9	116.0
22.5°	137.9	107.4	96.5
25°	122.5	89.0	76.7
27.5°	105.4	70.1	59.5
30°	89.3	53.7	43.1
32.5°	73.9	39.4	29.8
35°	59.5	26.7	18.8
37.5°	45.9	16.4	9.6
40°	33.2	8.6	4.4
42.5°	22.2	4.1	2.4
45°	13.7	2.1	0.0
47.5°	7.9	0.0	0.0
50°	4.1	0.0	0.0
52.5°	1.7	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	0.7	1.0
80°	0.7	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.4	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	143.7	139.6	125.9	103.3	72.2	40.4	15.1	2.7	0.7	1.0	1.0
110°	125.2	121.8	107.8	85.9	58.2	30.1	9.9	1.7	1.0	1.0	1.0





107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)