

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: P551047

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-84-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: P551047
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-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

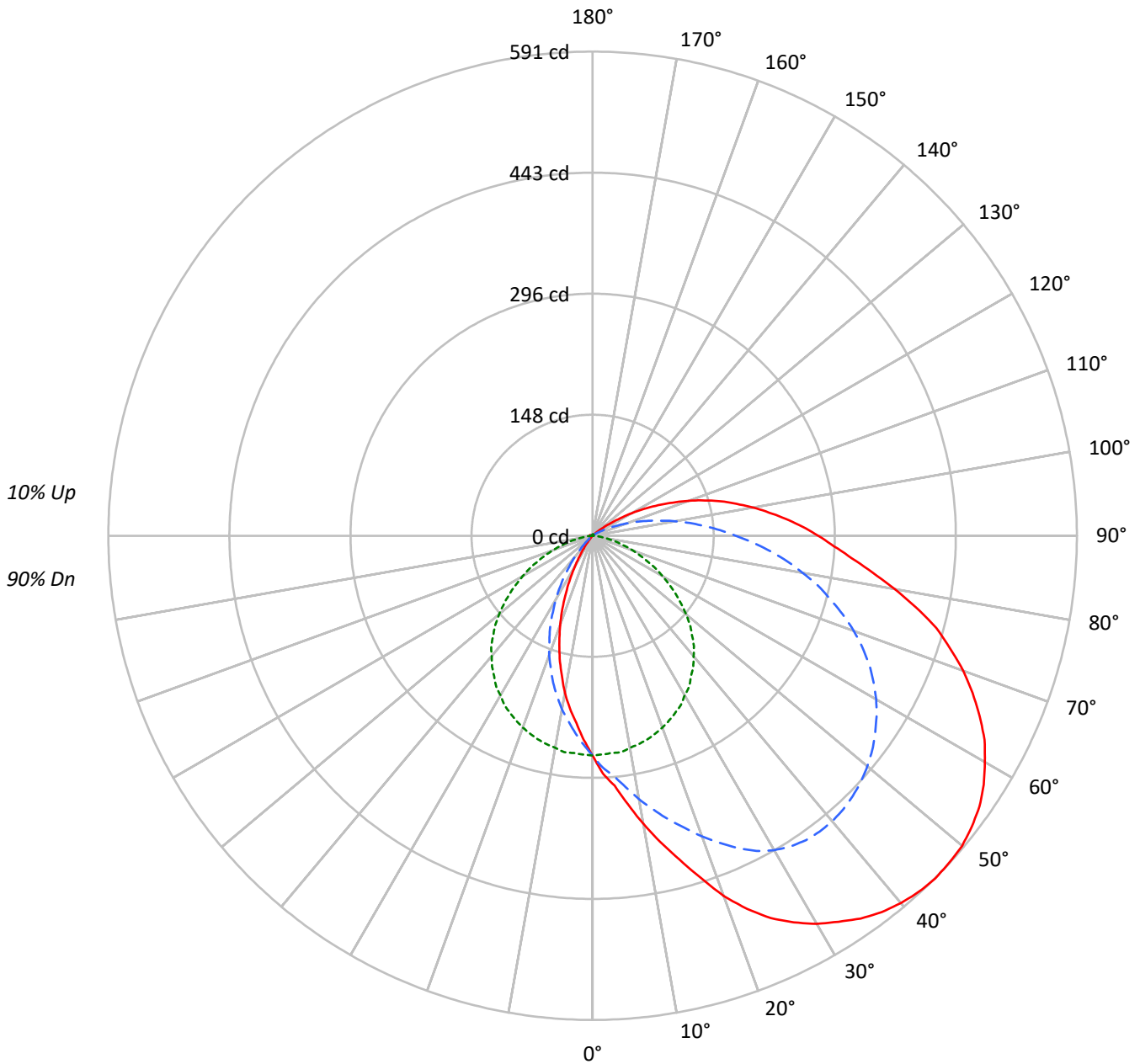
Lumens per Lamp: N/A
Luminaire Lumens: 1326.0 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2887	2887	2887
5°	3169	2845	2374
10°	3587	2810	1957
15°	4019	2774	1524
20°	4533	2729	1122
25°	4959	2677	737
30°	5276	2606	416
35°	5551	2530	183
40°	5794	2438	44
45°	6002	2321	0
50°	6177	2166	0
55°	6311	1970	0
60°	6378	1741	0
65°	6405	1482	0
70°	6383	1209	0
75°	6302	890	4
80°	6046	544	27
85°	5845	259	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.7	1.9
10°-20°	76.9	5.8
20°-30°	124.6	9.4
30°-40°	160.0	12.1
40°-50°	181.2	13.7
50°-60°	187.7	14.2
60°-70°	177.0	13.3
70°-80°	148.3	11.2
80°-90°	107.5	8.1
90°-100°	70.7	5.3
100°-110°	40.8	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°	227.2	17.1
0°-40°	387.2	29.2
0°-60°	756.0	57.0
0°-90°	1188.9	89.7
90°-120°	129.5	9.8
90°-150°	136.2	10.3
90°-180°	137.0	10.3
0°-180°	1326.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	268	268	268	268	268	
5°	306	294	266	242	229	31
15°	409	359	257	186	155	118
25°	515	421	238	122	76	238
35°	570	454	209	60	19	358
45°	591	449	172	14	0	457
55°	576	421	124	0	0	515
65°	521	372	74	0	0	516
75°	434	300	31	0	0	455
85°	318	218	5	1	2	271
90°	275	175	1	2	2	151
95°	236	136	1	2	3	186
105°	163	71	1	2	3	172
115°	88	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°	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2
2.5°	290.8	290.4	289.4	287.7	285.3	281.2	277.8	274.7	270.6	267.2	260.7
5°	306.1	304.4	303.1	301.4	295.9	292.1	286.0	279.2	272.7	266.2	253.2
7.5°	330.7	328.0	326.0	321.2	313.7	305.1	295.6	289.1	284.6	266.5	244.3
10°	357.1	354.7	350.6	342.0	332.8	320.5	306.8	291.5	277.8	262.8	236.4
12.5°	383.0	379.6	373.8	362.9	349.9	334.5	315.7	297.6	278.1	260.4	227.2
15°	409.0	405.2	399.1	385.8	368.7	348.5	325.6	302.7	279.8	257.3	217.6
17.5°	437.3	432.2	423.0	408.0	386.4	361.5	334.5	306.8	279.2	253.5	207.4
20°	467.8	460.6	450.7	430.5	405.2	375.8	343.4	310.9	278.8	249.1	195.8
22.5°	493.0	485.9	474.9	454.1	423.7	387.8	350.9	313.7	277.4	244.0	184.8
25°	514.9	509.1	497.1	473.2	441.1	400.4	358.1	315.7	275.4	238.5	173.2
27.5°	532.0	526.5	513.2	488.6	455.8	411.7	363.5	316.7	272.7	233.0	161.3
30°	547.0	541.6	525.5	500.2	465.7	420.6	369.0	317.1	269.2	224.8	148.3
32.5°	558.6	553.5	537.1	510.1	472.5	426.8	372.1	316.7	264.8	219.0	134.3
35°	570.3	565.1	546.0	517.3	477.7	429.5	374.5	315.0	259.3	209.4	121.0
37.5°	579.1	573.3	553.9	522.1	480.1	430.2	374.1	312.6	253.5	201.6	107.6
40°	585.3	579.1	558.3	524.8	480.7	429.1	371.4	308.5	246.7	191.7	93.6
42.5°	589.4	582.6	560.4	528.9	479.4	426.4	367.3	303.4	239.2	183.1	80.3
45°	591.4	584.3	560.7	525.5	477.0	421.3	361.2	296.9	231.0	171.5	67.0
47.5°	590.4	582.6	559.0	521.7	472.5	415.8	354.3	289.1	221.1	161.3	54.3
50°	588.7	580.5	555.2	517.0	466.4	409.0	346.8	279.5	210.8	148.6	43.1
52.5°	583.2	575.0	551.1	510.1	459.2	401.1	336.6	269.6	199.9	136.3	32.8
55°	576.4	568.9	544.0	504.0	450.0	391.6	327.0	259.0	189.3	123.7	23.6
57.5°	565.8	559.0	535.1	494.1	440.8	381.0	316.4	247.4	176.0	111.0	16.4
60°	552.8	546.0	522.8	482.8	430.2	369.0	304.8	235.4	164.0	98.4	10.3
62.5°	539.2	532.7	508.4	468.8	416.8	356.4	292.1	223.5	151.4	86.8	6.2
65°	521.1	514.9	493.0	452.0	402.2	342.7	278.1	209.1	138.4	73.8	3.4
67.5°	501.9	496.5	474.3	436.7	385.1	327.7	263.8	195.1	124.7	62.5	1.7
70°	481.4	474.6	454.1	415.8	367.6	310.6	248.1	180.7	111.7	51.6	0.0
72.5°	457.5	452.4	432.6	396.3	347.5	292.5	232.0	165.0	97.4	41.0	0.3
75°	434.3	427.8	409.7	375.5	327.7	273.3	214.2	150.3	83.4	31.4	0.3
77.5°	404.2	402.2	385.1	351.9	308.9	254.9	194.8	132.6	70.0	22.6	0.3
80°	374.1	372.1	358.8	328.4	287.0	233.0	176.6	115.8	57.1	15.0	0.3
82.5°	344.4	341.7	329.0	303.8	264.8	214.6	157.9	99.1	45.1	9.2	0.3
85°	317.8	314.3	300.7	277.4	241.9	193.7	138.4	82.7	33.5	5.1	0.7
87.5°	294.9	292.5	277.4	253.5	218.7	174.3	121.3	67.0	23.6	2.4	1.0
90°	275.4	270.3	256.9	231.7	196.8	152.7	103.2	53.6	15.7	1.4	1.4
92.5°	256.3	251.8	237.1	211.2	177.3	134.3	85.8	41.0	9.9	0.7	1.7
95°	236.4	231.7	217.3	193.4	157.5	115.5	70.4	30.1	5.5	0.7	1.7
97.5°	217.0	212.5	197.5	173.6	139.7	99.1	55.7	21.2	2.7	0.7	1.4
100°	198.9	193.7	180.1	156.1	122.0	82.7	43.1	13.7	1.7	0.7	1.4
102.5°	179.7	175.6	161.6	138.4	103.5	67.3	32.1	8.5	0.7	0.7	1.0
105°	162.6	157.5	143.8	119.9	88.2	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°	105.9	101.8	89.9	69.7	44.8	20.8	6.2	1.0	1.0	1.0	1.0
115°	88.5	82.3	71.8	54.0	33.1	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	70.7	65.6	58.1	41.0	21.9	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.4	50.6	42.0	28.4	14.7	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.6	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	10.9	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.6	8.5	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°	268.2	268.2	268.2
2.5°	255.2	250.5	249.1
5°	241.6	233.7	229.3
7.5°	227.9	217.3	212.2
10°	215.3	200.2	194.8
12.5°	200.2	182.8	174.3
15°	185.9	163.3	155.1
17.5°	169.8	144.5	135.0
20°	154.8	125.7	115.8
22.5°	137.7	107.3	96.4
25°	122.3	88.8	76.5
27.5°	105.2	70.0	59.5
30°	89.2	53.6	43.1
32.5°	73.8	39.3	29.7
35°	59.5	26.7	18.8
37.5°	45.8	16.4	9.6
40°	33.1	8.5	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°	143.5	139.4	125.7	103.2	72.1	40.3	15.0	2.7	0.7	1.0	1.0
110°	125.1	121.6	107.6	85.8	58.1	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)