

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: P551009

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-80-94-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: P551009
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-80-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

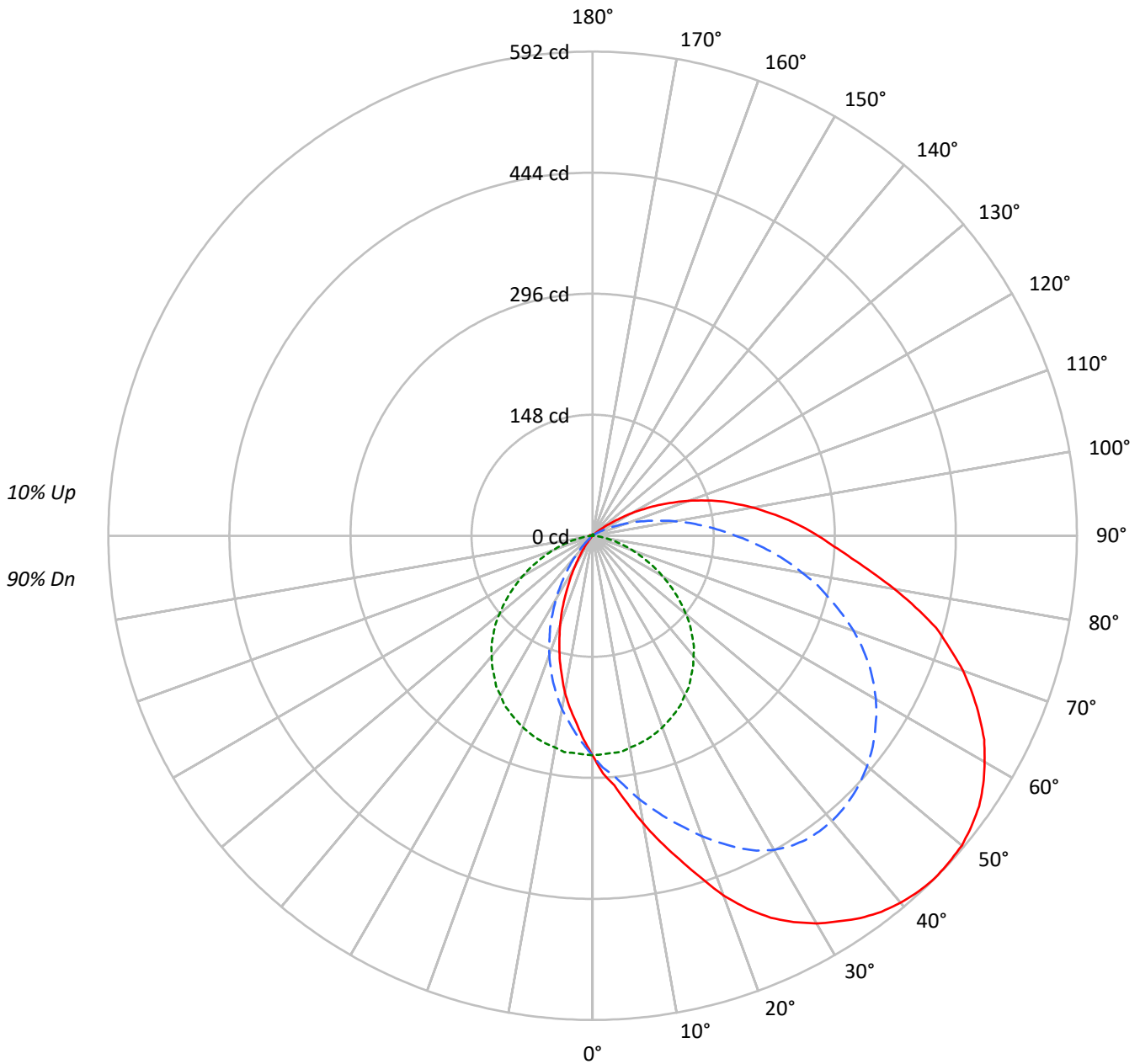
Lumens per Lamp: N/A
Luminaire Lumens: 1327.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2889	2889	2889
5°	3172	2847	2375
10°	3589	2812	1958
15°	4022	2776	1525
20°	4536	2731	1123
25°	4963	2679	738
30°	5280	2608	416
35°	5555	2533	183
40°	5798	2439	44
45°	6007	2323	0
50°	6183	2167	0
55°	6315	1971	0
60°	6383	1743	0
65°	6410	1484	0
70°	6388	1209	0
75°	6306	893	4
80°	6051	544	27
85°	5849	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°	124.7	9.4
30°-40°	160.1	12.1
40°-50°	181.3	13.7
50°-60°	187.8	14.2
60°-70°	177.1	13.3
70°-80°	148.4	11.2
80°-90°	107.6	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°	227.4	17.1
0°-40°	387.5	29.2
0°-60°	756.6	57.0
0°-90°	1189.8	89.7
90°-120°	129.6	9.8
90°-150°	136.3	10.3
90°-180°	137.0	10.3
0°-180°	1327.0	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	258	186	155	118
25°	515	421	239	122	77	238
35°	571	454	210	60	19	358
45°	592	449	172	14	0	457
55°	577	421	124	0	0	515
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°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
2.5°	291.0	290.6	289.6	287.9	285.5	281.4	278.0	274.9	270.8	267.4	260.9
5°	306.4	304.7	303.3	301.6	296.1	292.4	286.2	279.4	272.9	266.4	253.4
7.5°	331.0	328.3	326.2	321.4	313.9	305.3	295.8	289.3	284.8	266.7	244.5
10°	357.3	354.9	350.8	342.3	333.0	320.7	307.1	291.7	278.0	262.9	236.6
12.5°	383.3	379.9	374.1	363.1	350.1	334.8	315.9	297.8	278.3	260.6	227.4
15°	409.3	405.5	399.4	386.0	368.9	348.8	325.9	303.0	280.0	257.5	217.8
17.5°	437.7	432.5	423.3	408.3	386.7	361.8	334.8	307.1	279.4	253.7	207.6
20°	468.1	460.9	451.0	430.8	405.5	376.1	343.6	311.2	279.0	249.3	195.9
22.5°	493.4	486.2	475.3	454.4	424.0	388.1	351.2	313.9	277.7	244.1	185.0
25°	515.3	509.5	497.5	473.6	441.4	400.7	358.3	315.9	275.6	238.7	173.4
27.5°	532.4	526.9	513.6	489.0	456.1	412.0	363.8	317.0	272.9	233.2	161.4
30°	547.4	542.0	525.9	500.6	466.1	420.9	369.3	317.3	269.4	225.0	148.4
32.5°	559.1	553.9	537.5	510.5	472.9	427.1	372.4	317.0	265.0	219.2	134.4
35°	570.7	565.6	546.4	517.7	478.0	429.8	374.8	315.3	259.5	209.6	121.0
37.5°	579.6	573.8	554.3	522.5	480.4	430.5	374.4	312.9	253.7	201.7	107.7
40°	585.7	579.6	558.7	525.2	481.1	429.5	371.7	308.8	246.9	191.8	93.7
42.5°	589.8	583.0	560.8	529.3	479.7	426.7	367.6	303.6	239.4	183.3	80.4
45°	591.9	584.7	561.1	525.9	477.3	421.6	361.4	297.1	231.1	171.7	67.0
47.5°	590.9	583.0	559.4	522.1	472.9	416.1	354.6	289.3	221.2	161.4	54.4
50°	589.2	581.0	555.6	517.4	466.7	409.3	347.1	279.7	211.0	148.7	43.1
52.5°	583.7	575.5	551.5	510.5	459.6	401.4	336.8	269.8	200.0	136.4	32.8
55°	576.8	569.3	544.4	504.4	450.3	391.9	327.2	259.2	189.4	123.8	23.6
57.5°	566.2	559.4	535.5	494.4	441.1	381.3	316.6	247.6	176.1	111.1	16.4
60°	553.3	546.4	523.2	483.2	430.5	369.3	305.0	235.6	164.1	98.5	10.3
62.5°	539.6	533.1	508.8	469.1	417.2	356.6	292.4	223.6	151.5	86.9	6.2
65°	521.5	515.3	493.4	452.4	402.5	343.0	278.3	209.3	138.5	73.9	3.4
67.5°	502.3	496.8	474.6	437.0	385.4	327.9	264.0	195.2	124.8	62.6	1.7
70°	481.8	474.9	454.4	416.1	367.9	310.8	248.2	180.9	111.8	51.6	0.0
72.5°	457.9	452.7	432.9	396.6	347.7	292.7	232.2	165.2	97.5	41.0	0.3
75°	434.6	428.1	410.0	375.8	327.9	273.5	214.4	150.5	83.4	31.5	0.3
77.5°	404.5	402.5	385.4	352.2	309.1	255.1	194.9	132.7	70.1	22.6	0.3
80°	374.4	372.4	359.0	328.6	287.2	233.2	176.8	115.9	57.1	15.0	0.3
82.5°	344.7	341.9	329.3	304.0	265.0	214.7	158.0	99.2	45.1	9.2	0.3
85°	318.0	314.6	300.9	277.7	242.1	193.9	138.5	82.7	33.5	5.1	0.7
87.5°	295.1	292.7	277.7	253.7	218.8	174.4	121.4	67.0	23.6	2.4	1.0
90°	275.6	270.5	257.1	231.8	197.0	152.8	103.3	53.7	15.7	1.4	1.4
92.5°	256.5	252.0	237.3	211.3	177.5	134.4	85.8	41.0	9.9	0.7	1.7
95°	236.6	231.8	217.5	193.5	157.6	115.6	70.4	30.1	5.5	0.7	1.7
97.5°	217.1	212.7	197.6	173.7	139.9	99.2	55.7	21.2	2.7	0.7	1.4
100°	199.0	193.9	180.2	156.3	122.1	82.7	43.1	13.7	1.7	0.7	1.4
102.5°	179.9	175.8	161.7	138.5	103.6	67.4	32.1	8.5	0.7	0.7	1.0
105°	162.8	157.6	144.0	120.0	88.2	53.0	22.6	5.1	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-80-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	106.0	101.9	89.9	69.8	44.8	20.9	6.2	1.0	1.0	1.0	1.0
115°	88.6	82.4	71.8	54.0	33.2	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	70.8	65.7	58.1	41.0	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	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°	268.4	268.4	268.4
2.5°	255.4	250.6	249.3
5°	241.7	233.9	229.4
7.5°	228.1	217.5	212.3
10°	215.4	200.4	194.9
12.5°	200.4	182.9	174.4
15°	186.0	163.4	155.2
17.5°	169.9	144.6	135.1
20°	154.9	125.8	115.9
22.5°	137.8	107.4	96.4
25°	122.4	88.9	76.6
27.5°	105.3	70.1	59.5
30°	89.2	53.7	43.1
32.5°	73.9	39.3	29.7
35°	59.5	26.7	18.8
37.5°	45.8	16.4	9.6
40°	33.2	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°	143.6	139.5	125.8	103.3	72.1	40.3	15.0	2.7	0.7	1.0	1.0
110°	125.1	121.7	107.7	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)