

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: P550941

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-80-87-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: P550941  
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-30-UNV-80-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

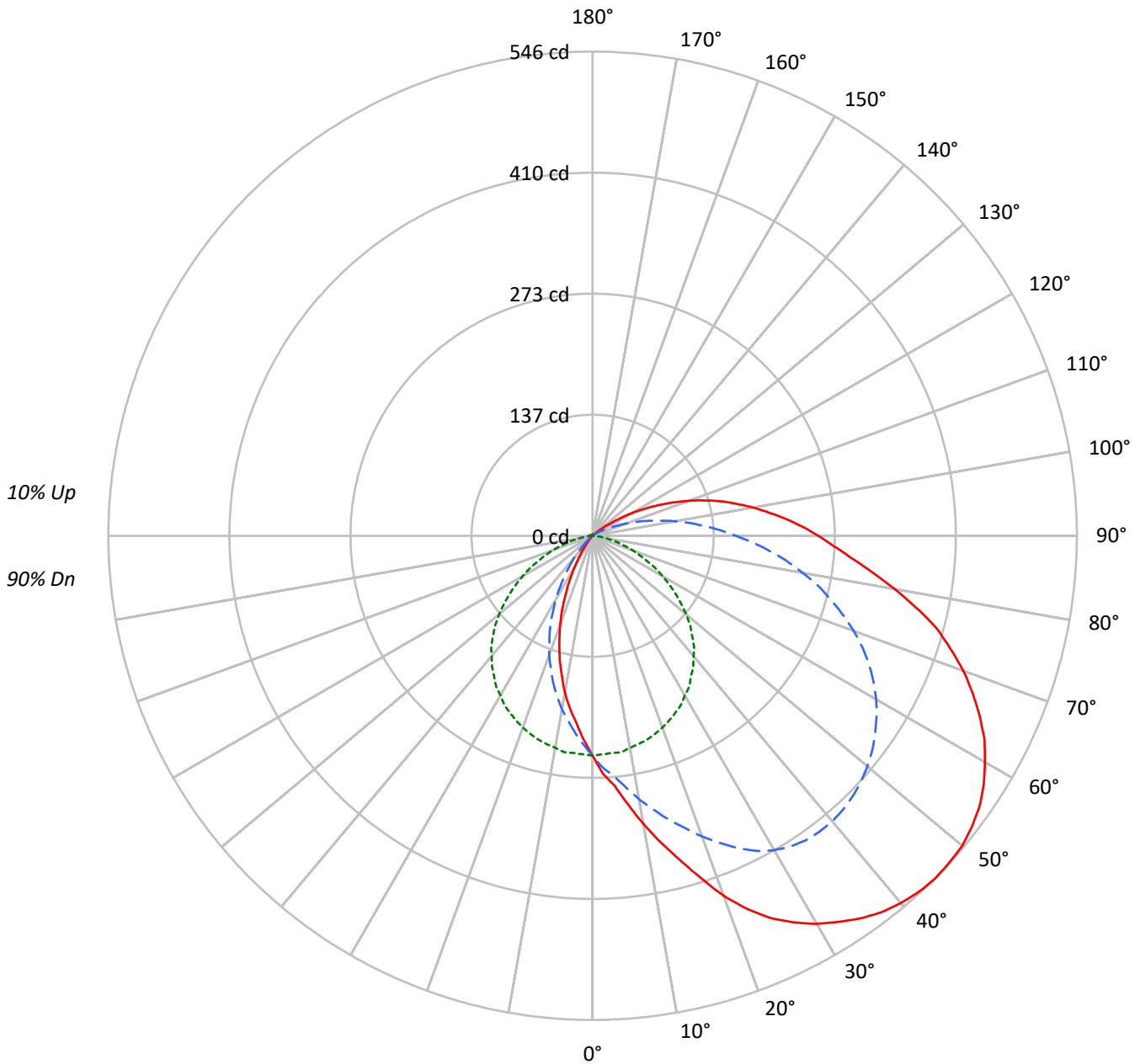
Lumens per Lamp: N/A  
Luminaire Lumens: 1225.0 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (Ain): 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°	2667	2667	2667
5°	2928	2628	2193
10°	3314	2595	1807
15°	3713	2563	1408
20°	4188	2521	1037
25°	4582	2472	681
30°	4875	2408	384
35°	5127	2338	169
40°	5352	2252	41
45°	5545	2145	0
50°	5707	2001	0
55°	5830	1820	0
60°	5892	1609	0
65°	5917	1370	0
70°	5897	1117	0
75°	5822	822	4
80°	5585	504	26
85°	5400	239	35



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.7	1.9
10°-20°	71.1	5.8
20°-30°	115.1	9.4
30°-40°	147.8	12.1
40°-50°	167.4	13.7
50°-60°	173.4	14.2
60°-70°	163.5	13.3
70°-80°	137.0	11.2
80°-90°	99.3	8.1
90°-100°	65.3	5.3
100°-110°	37.7	3.1
110°-120°	16.6	1.4
120°-130°	4.5	0.4
130°-140°	1.0	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°	209.9	17.1
0°-40°	357.7	29.2
0°-60°	698.5	57.0
0°-90°	1098.3	89.7
90°-120°	119.6	9.8
90°-150°	125.8	10.3
90°-180°	127.0	10.4
0°-180°	1225.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	248	248	248	248	248	
5°	283	272	246	223	212	29
15°	378	331	238	172	143	109
25°	476	389	220	113	71	220
35°	527	419	194	55	17	330
45°	546	415	158	13	0	422
55°	532	389	114	0	0	476
65°	481	344	68	0	0	476
75°	401	278	29	0	0	421
85°	294	201	5	1	2	251
90°	254	161	1	2	2	139
95°	218	126	1	2	3	171
105°	150	65	1	2	2	159
115°	82	22	1	1	2	82
125°	24	3	1	1	1	24
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°	247.8	247.8	247.8	247.8	247.8	247.8	247.8	247.8	247.8	247.8	247.8
2.5°	268.6	268.3	267.4	265.8	263.6	259.8	256.6	253.8	250.0	246.8	240.8
5°	282.8	281.2	280.0	278.4	273.4	269.9	264.2	257.9	251.9	245.9	233.9
7.5°	305.6	303.0	301.1	296.7	289.8	281.9	273.0	267.0	262.9	246.2	225.7
10°	329.9	327.6	323.9	316.0	307.4	296.1	283.5	269.3	256.6	242.7	218.4
12.5°	353.8	350.7	345.3	335.2	323.2	309.0	291.7	274.9	256.9	240.5	209.9
15°	377.8	374.4	368.7	356.4	340.6	322.0	300.8	279.7	258.5	237.7	201.1
17.5°	404.0	399.3	390.8	376.9	357.0	334.0	309.0	283.5	257.9	234.2	191.6
20°	432.1	425.5	416.3	397.7	374.4	347.2	317.2	287.2	257.6	230.1	180.9
22.5°	455.5	448.9	438.8	419.5	391.4	358.3	324.2	289.8	256.3	225.4	170.8
25°	475.7	470.3	459.3	437.2	407.5	369.9	330.8	291.7	254.4	220.3	160.0
27.5°	491.5	486.4	474.1	451.4	421.1	380.4	335.9	292.6	251.9	215.3	149.0
30°	505.4	500.3	485.5	462.1	430.2	388.6	340.9	292.9	248.7	207.7	137.0
32.5°	516.1	511.4	496.2	471.3	436.5	394.3	343.7	292.6	244.6	202.3	124.1
35°	526.8	522.1	504.4	477.9	441.3	396.8	346.0	291.0	239.6	193.5	111.7
37.5°	535.0	529.7	511.7	482.3	443.5	397.4	345.6	288.8	234.2	186.2	99.4
40°	540.7	535.0	515.8	484.8	444.1	396.5	343.1	285.0	227.9	177.1	86.5
42.5°	544.5	538.2	517.7	488.6	442.9	393.9	339.3	280.3	221.0	169.2	74.2
45°	546.4	539.8	518.0	485.5	440.7	389.2	333.6	274.3	213.4	158.5	61.9
47.5°	545.4	538.2	516.4	482.0	436.5	384.2	327.3	267.0	204.2	149.0	50.2
50°	543.9	536.3	512.9	477.6	430.9	377.8	320.4	258.2	194.8	137.3	39.8
52.5°	538.8	531.2	509.1	471.3	424.2	370.6	310.9	249.1	184.7	125.9	30.3
55°	532.5	525.6	502.5	465.6	415.7	361.7	302.1	239.3	174.9	114.3	21.8
57.5°	522.7	516.4	494.3	456.4	407.2	352.0	292.3	228.5	162.6	102.6	15.2
60°	510.7	504.4	483.0	446.0	397.4	340.9	281.6	217.5	151.5	90.9	9.5
62.5°	498.1	492.1	469.7	433.1	385.1	329.2	269.9	206.4	139.8	80.2	5.7
65°	481.4	475.7	455.5	417.6	371.5	316.6	256.9	193.2	127.8	68.2	3.2
67.5°	463.7	458.6	438.1	403.4	355.7	302.7	243.7	180.2	115.2	57.8	1.6
70°	444.8	438.4	419.5	384.2	339.6	286.9	229.2	167.0	103.2	47.7	0.0
72.5°	422.7	417.9	399.6	366.2	321.0	270.2	214.3	152.5	90.0	37.9	0.3
75°	401.2	395.2	378.5	346.9	302.7	252.5	197.9	138.9	77.0	29.0	0.3
77.5°	373.4	371.5	355.7	325.1	285.4	235.5	179.9	122.5	64.7	20.8	0.3
80°	345.6	343.7	331.4	303.3	265.1	215.3	163.2	107.0	52.7	13.9	0.3
82.5°	318.2	315.7	304.0	280.6	244.6	198.2	145.8	91.5	41.7	8.5	0.3
85°	293.6	290.4	277.8	256.3	223.5	179.0	127.8	76.4	30.9	4.7	0.6
87.5°	272.4	270.2	256.3	234.2	202.0	161.0	112.1	61.9	21.8	2.2	0.9
90°	254.4	249.7	237.4	214.0	181.8	141.1	95.3	49.6	14.5	1.3	1.3
92.5°	236.7	232.6	219.1	195.1	163.8	124.1	79.2	37.9	9.2	0.6	1.6
95°	218.4	214.0	200.8	178.7	145.5	106.7	65.0	27.8	5.1	0.6	1.6
97.5°	200.4	196.3	182.4	160.4	129.1	91.5	51.5	19.6	2.5	0.6	1.3
100°	183.7	179.0	166.3	144.3	112.7	76.4	39.8	12.6	1.6	0.6	1.3
102.5°	166.0	162.2	149.3	127.8	95.6	62.2	29.7	7.9	0.6	0.6	0.9
105°	150.3	145.5	132.9	110.8	81.4	48.9	20.8	4.7	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°	97.9	94.1	83.0	64.4	41.4	19.3	5.7	0.9	0.9	0.9	0.9
115°	81.8	76.1	66.3	49.9	30.6	12.6	2.8	0.9	0.9	0.9	0.9
117.5°	65.3	60.6	53.7	37.9	20.2	8.2	1.6	0.9	0.9	0.9	0.9
120°	51.1	46.7	38.8	26.2	13.6	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.6	33.1	26.2	17.0	8.2	2.2	0.9	0.9	1.3	1.3	0.9
125°	24.3	22.4	17.4	10.4	5.1	0.9	0.9	0.9	1.3	1.3	0.9
127.5°	15.8	14.2	10.1	6.0	2.2	0.9	0.9	1.3	1.3	1.3	0.9
130°	8.8	7.9	6.0	3.5	0.9	0.9	0.9	1.3	1.3	1.3	0.9
132.5°	5.1	4.7	3.2	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	0.9	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	0.9	0.9	1.3	1.3	1.6	1.6	1.6	1.3
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°	247.8	247.8	247.8
2.5°	235.8	231.4	230.1
5°	223.2	215.9	211.8
7.5°	210.5	200.8	196.0
10°	198.9	185.0	179.9
12.5°	185.0	168.9	161.0
15°	171.7	150.9	143.3
17.5°	156.9	133.5	124.7
20°	143.0	116.2	107.0
22.5°	127.2	99.1	89.0
25°	113.0	82.1	70.7
27.5°	97.2	64.7	54.9
30°	82.4	49.6	39.8
32.5°	68.2	36.3	27.5
35°	54.9	24.6	17.4
37.5°	42.3	15.2	8.8
40°	30.6	7.9	4.1
42.5°	20.5	3.8	2.2
45°	12.6	1.9	0.0
47.5°	7.3	0.0	0.0
50°	3.8	0.0	0.0
52.5°	1.6	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	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.2
102.5°	1.9	2.8	2.8
105°	1.6	2.2	2.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	0.9	1.3	1.6
117.5°	0.9	1.3	1.3
120°	0.9	0.9	1.3
122.5°	0.9	0.9	1.3
125°	0.9	0.9	1.3
127.5°	1.3	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.3	0.9	0.9
135°	1.3	0.9	0.9
137.5°	1.3	0.9	0.9
140°	1.3	0.9	0.9
142.5°	1.3	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°	1.3	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°	132.6	128.8	116.2	95.3	66.6	37.2	13.9	2.5	0.6	0.9	0.9
110°	115.5	112.4	99.4	79.2	53.7	27.8	9.2	1.6	0.9	0.9	0.9







107.5°	1.3	1.9	2.2
110°	1.3	1.6	1.9



(END OF REPORT)