

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: P551075

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-80-96-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: P551075  
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-40-UNV-80-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

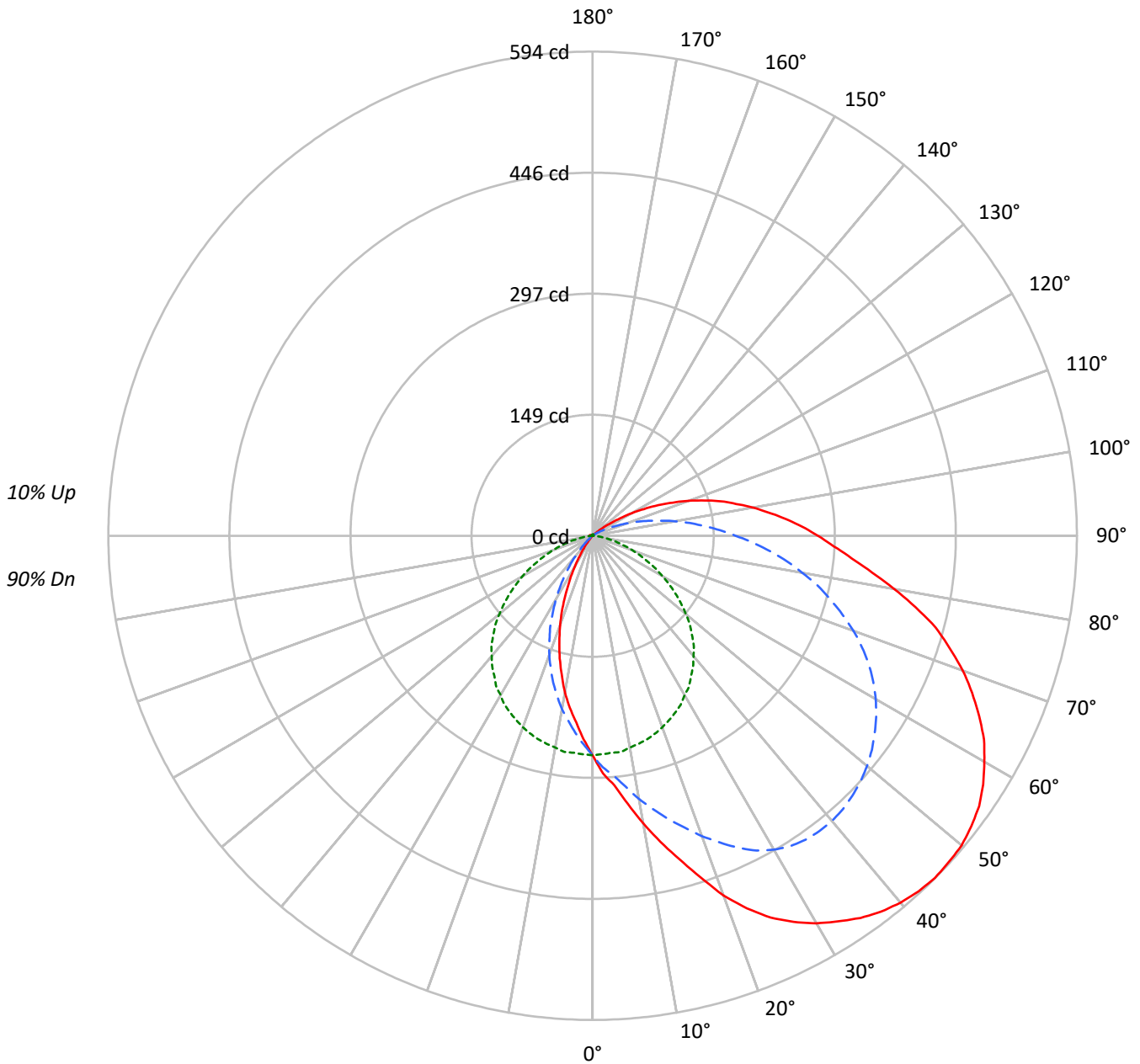
Lumens per Lamp: N/A  
Luminaire Lumens: 1331.0 lumens  
Efficiency: N/A  
Efficacy: 79.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-80-96-ED1D-90

### 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°	2898	2898	2898
5°	3181	2856	2382
10°	3600	2820	1964
15°	4034	2785	1530
20°	4550	2739	1127
25°	4978	2687	740
30°	5296	2616	417
35°	5571	2540	184
40°	5815	2447	45
45°	6025	2330	0
50°	6200	2175	0
55°	6335	1978	0
60°	6402	1748	0
65°	6428	1488	0
70°	6406	1213	0
75°	6325	896	4
80°	6068	548	27
85°	5867	259	39



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	1.9
10°-20°	77.2	5.8
20°-30°	125.0	9.4
30°-40°	160.6	12.1
40°-50°	181.8	13.7
50°-60°	188.4	14.2
60°-70°	177.7	13.3
70°-80°	148.9	11.2
80°-90°	107.9	8.1
90°-100°	70.9	5.3
100°-110°	41.0	3.1
110°-120°	18.1	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°	228.1	17.1
0°-40°	388.7	29.2
0°-60°	758.9	57.0
0°-90°	1193.4	89.7
90°-120°	130.0	9.8
90°-150°	136.7	10.3
90°-180°	138.0	10.4
0°-180°	1331.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	269	269	269	269	269	
5°	307	295	267	242	230	31
15°	410	360	258	187	156	118
25°	517	422	239	123	77	239
35°	572	455	210	60	19	359
45°	594	451	172	14	0	458
55°	579	422	124	0	0	517
65°	523	374	74	0	0	517
75°	436	302	32	0	0	457
85°	319	219	5	1	2	272
90°	276	175	1	2	2	152
95°	237	137	1	2	3	186
105°	163	71	1	2	3	172
115°	89	24	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°	269.2	269.2	269.2	269.2	269.2	269.2	269.2	269.2	269.2	269.2	269.2
2.5°	291.9	291.5	290.5	288.8	286.4	282.3	278.8	275.7	271.6	268.2	261.7
5°	307.3	305.6	304.2	302.5	297.0	293.2	287.1	280.2	273.7	267.2	254.1
7.5°	332.0	329.2	327.2	322.4	314.8	306.3	296.7	290.2	285.7	267.5	245.2
10°	358.4	356.0	351.9	343.3	334.1	321.7	308.0	292.6	278.8	263.7	237.3
12.5°	384.5	381.0	375.2	364.2	351.2	335.8	316.9	298.7	279.2	261.3	228.1
15°	410.5	406.8	400.6	387.2	370.1	349.8	326.8	303.9	280.9	258.3	218.5
17.5°	439.0	433.9	424.6	409.5	387.9	362.9	335.8	308.0	280.2	254.5	208.2
20°	469.5	462.3	452.4	432.1	406.8	377.3	344.7	312.1	279.9	250.0	196.5
22.5°	494.9	487.7	476.7	455.8	425.3	389.3	352.2	314.8	278.5	244.9	185.5
25°	516.9	511.0	499.0	475.0	442.8	402.0	359.4	316.9	276.4	239.4	173.9
27.5°	534.0	528.5	515.1	490.4	457.5	413.3	364.9	317.9	273.7	233.9	161.9
30°	549.1	543.6	527.5	502.1	467.5	422.2	370.4	318.3	270.3	225.7	148.8
32.5°	560.8	555.6	539.1	512.1	474.3	428.4	373.5	317.9	265.8	219.8	134.8
35°	572.4	567.3	548.1	519.3	479.5	431.1	375.9	316.2	260.3	210.2	121.4
37.5°	581.3	575.5	556.0	524.1	481.9	431.8	375.5	313.8	254.5	202.4	108.0
40°	587.5	581.3	560.4	526.8	482.6	430.8	372.8	309.7	247.6	192.4	94.0
42.5°	591.6	584.8	562.5	530.9	481.2	428.0	368.7	304.6	240.1	183.8	80.6
45°	593.7	586.5	562.8	527.5	478.8	422.9	362.5	298.0	231.8	172.2	67.2
47.5°	592.6	584.8	561.1	523.7	474.3	417.4	355.7	290.2	221.9	161.9	54.5
50°	590.9	582.7	557.3	518.9	468.2	410.5	348.1	280.5	211.6	149.2	43.2
52.5°	585.4	577.2	553.2	512.1	460.9	402.6	337.8	270.6	200.6	136.8	32.9
55°	578.6	571.0	546.0	505.9	451.7	393.0	328.2	260.0	190.0	124.2	23.7
57.5°	568.0	561.1	537.1	495.9	442.4	382.4	317.6	248.3	176.6	111.5	16.5
60°	554.9	548.1	524.7	484.6	431.8	370.4	305.9	236.3	164.6	98.8	10.3
62.5°	541.2	534.7	510.3	470.6	418.4	357.7	293.2	224.3	151.9	87.1	6.2
65°	523.0	516.9	494.9	453.7	403.7	344.0	279.2	209.9	138.9	74.1	3.4
67.5°	503.8	498.3	476.0	438.3	386.5	328.9	264.8	195.8	125.2	62.8	1.7
70°	483.2	476.4	455.8	417.4	369.0	311.8	249.0	181.4	112.2	51.8	0.0
72.5°	459.2	454.1	434.2	397.8	348.8	293.6	232.9	165.7	97.7	41.2	0.3
75°	435.9	429.4	411.2	376.9	328.9	274.4	215.0	150.9	83.7	31.6	0.3
77.5°	405.7	403.7	386.5	353.3	310.0	255.9	195.5	133.1	70.3	22.6	0.3
80°	375.5	373.5	360.1	329.6	288.1	233.9	177.3	116.3	57.3	15.1	0.3
82.5°	345.7	343.0	330.3	304.9	265.8	215.4	158.5	99.5	45.3	9.3	0.3
85°	319.0	315.5	301.8	278.5	242.8	194.5	138.9	83.0	33.6	5.1	0.7
87.5°	296.0	293.6	278.5	254.5	219.5	174.9	121.8	67.2	23.7	2.4	1.0
90°	276.4	271.3	257.9	232.5	197.5	153.3	103.6	53.8	15.8	1.4	1.4
92.5°	257.2	252.8	238.0	212.0	178.0	134.8	86.1	41.2	9.9	0.7	1.7
95°	237.3	232.5	218.1	194.1	158.1	115.9	70.7	30.2	5.5	0.7	1.7
97.5°	217.8	213.3	198.2	174.2	140.3	99.5	55.9	21.3	2.7	0.7	1.4
100°	199.6	194.5	180.7	156.7	122.4	83.0	43.2	13.7	1.7	0.7	1.4
102.5°	180.4	176.3	162.2	138.9	103.9	67.6	32.2	8.6	0.7	0.7	1.0
105°	163.3	158.1	144.4	120.4	88.5	53.2	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°	106.3	102.2	90.2	70.0	44.9	20.9	6.2	1.0	1.0	1.0	1.0
115°	88.8	82.7	72.0	54.2	33.3	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	71.0	65.8	58.3	41.2	21.9	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.6	50.8	42.2	28.5	14.7	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.8	36.0	28.5	18.5	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.4	24.4	18.9	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°	269.2	269.2	269.2
2.5°	256.2	251.4	250.0
5°	242.5	234.6	230.1
7.5°	228.8	218.1	213.0
10°	216.1	201.0	195.5
12.5°	201.0	183.5	174.9
15°	186.6	163.9	155.7
17.5°	170.5	145.1	135.5
20°	155.4	126.2	116.3
22.5°	138.2	107.7	96.7
25°	122.8	89.2	76.8
27.5°	105.6	70.3	59.7
30°	89.5	53.8	43.2
32.5°	74.1	39.4	29.8
35°	59.7	26.8	18.9
37.5°	46.0	16.5	9.6
40°	33.3	8.6	4.5
42.5°	22.3	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°	144.0	139.9	126.2	103.6	72.4	40.5	15.1	2.7	0.7	1.0	1.0
110°	125.5	122.1	108.0	86.1	58.3	30.2	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)