

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: P550850

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-82-94-ED1D**

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: P550850  
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-LD4-1LO-40-UNV-82-94-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

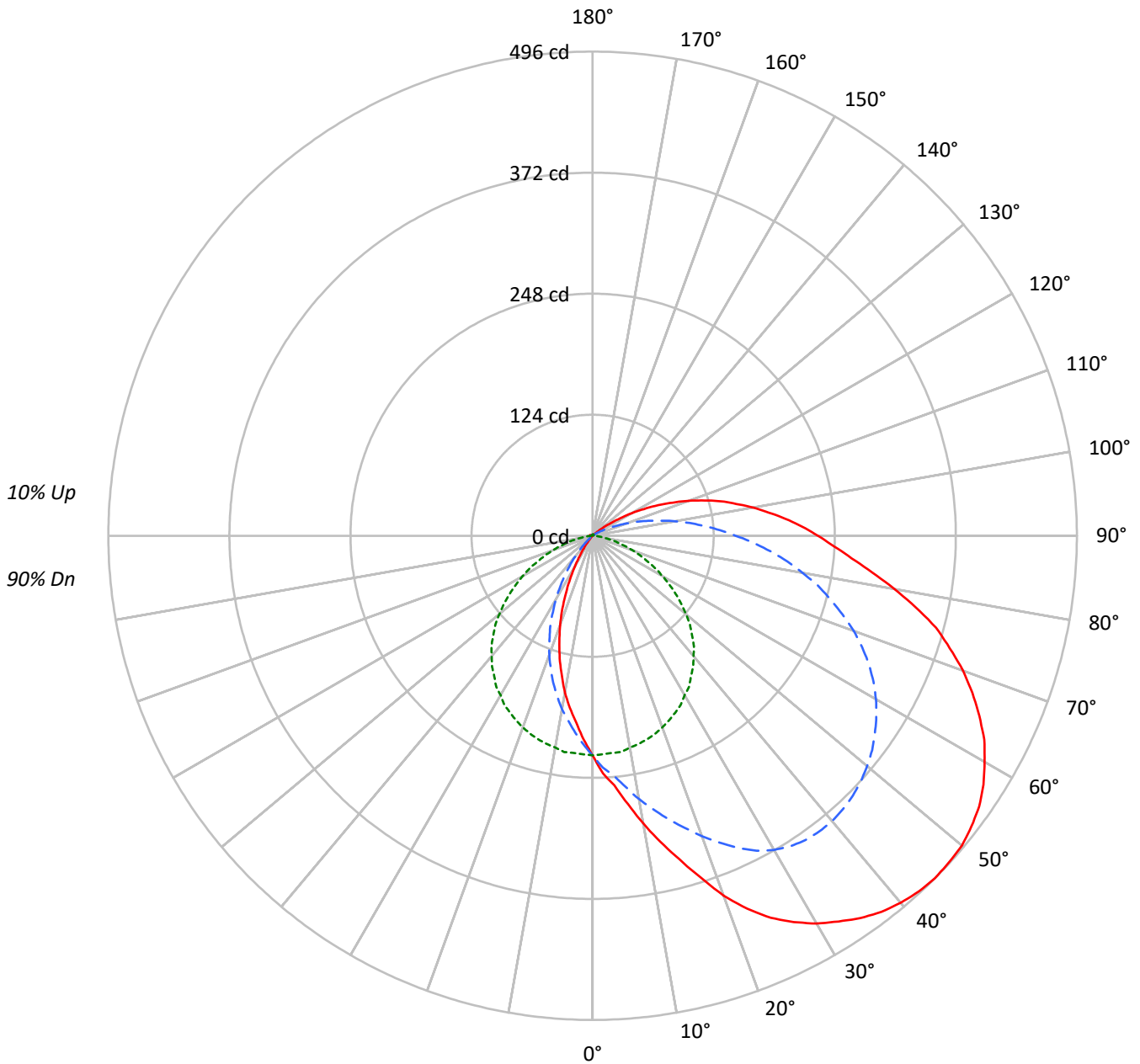
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1112.0 lumens  
Efficiency: N/A  
Efficacy: 95.0 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): 11.7  
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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CATALOG NUMBER: FCC-X-2-LD4-1LO-40-UNV-82-94-ED1D

### 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°	2421	2421	2421
5°	2657	2386	1991
10°	3007	2356	1640
15°	3371	2327	1278
20°	3802	2289	941
25°	4159	2245	618
30°	4424	2185	348
35°	4654	2122	154
40°	4858	2044	37
45°	5034	1946	0
50°	5180	1816	0
55°	5292	1651	0
60°	5348	1460	0
65°	5371	1243	0
70°	5352	1014	0
75°	5285	749	4
80°	5071	457	23
85°	4901	219	31



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.5	1.9
10°-20°	64.5	5.8
20°-30°	104.5	9.4
30°-40°	134.2	12.1
40°-50°	151.9	13.7
50°-60°	157.4	14.2
60°-70°	148.4	13.3
70°-80°	124.4	11.2
80°-90°	90.2	8.1
90°-100°	59.3	5.3
100°-110°	34.2	3.1
110°-120°	15.1	1.4
120°-130°	4.1	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	190.5	17.1
0°-40°	324.7	29.2
0°-60°	634.0	57.0
0°-90°	997.0	89.7
90°-120°	108.6	9.8
90°-150°	114.2	10.3
90°-180°	115.0	10.3
0°-180°	1112.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	225	225	225	225	225	
5°	257	247	223	203	192	26
15°	343	301	216	156	130	99
25°	432	353	200	103	64	200
35°	478	380	176	50	16	300
45°	496	377	144	12	0	383
55°	483	353	104	0	0	432
65°	437	312	62	0	0	432
75°	364	252	26	0	0	382
85°	266	183	4	1	2	228
90°	231	147	1	2	2	127
95°	198	114	1	2	3	156
105°	136	59	1	1	2	144
115°	74	20	1	1	1	74
125°	22	3	1	1	1	22
135°	1	1	1	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	1	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°	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9	224.9
2.5°	243.8	243.6	242.7	241.3	239.3	235.8	233.0	230.4	226.9	224.1	218.6
5°	256.7	255.3	254.2	252.7	248.1	245.0	239.8	234.1	228.7	223.2	212.3
7.5°	277.4	275.1	273.4	269.3	263.0	255.9	247.9	242.4	238.7	223.5	204.9
10°	299.4	297.4	294.0	286.8	279.1	268.8	257.3	244.4	233.0	220.3	198.3
12.5°	321.2	318.3	313.5	304.3	293.4	280.5	264.8	249.6	233.2	218.3	190.5
15°	343.0	339.8	334.7	323.5	309.2	292.3	273.1	253.9	234.7	215.8	182.5
17.5°	366.8	362.5	354.7	342.1	324.1	303.2	280.5	257.3	234.1	212.6	173.9
20°	392.3	386.3	377.9	361.0	339.8	315.2	288.0	260.7	233.8	208.9	164.2
22.5°	413.5	407.5	398.3	380.8	355.3	325.2	294.3	263.0	232.7	204.6	155.0
25°	431.8	426.9	416.9	396.9	369.9	335.8	300.3	264.8	230.9	200.0	145.3
27.5°	446.1	441.6	430.4	409.7	382.2	345.3	304.9	265.6	228.7	195.4	135.2
30°	458.7	454.2	440.7	419.5	390.5	352.7	309.5	265.9	225.8	188.5	124.4
32.5°	468.5	464.2	450.4	427.8	396.3	357.9	312.0	265.6	222.1	183.7	112.6
35°	478.2	473.9	457.9	433.8	400.6	360.2	314.0	264.2	217.5	175.6	101.4
37.5°	485.7	480.8	464.5	437.8	402.6	360.7	313.8	262.2	212.6	169.1	90.3
40°	490.8	485.7	468.2	440.1	403.2	359.9	311.5	258.7	206.9	160.7	78.5
42.5°	494.3	488.5	469.9	443.6	402.0	357.6	308.0	254.4	200.6	153.6	67.3
45°	496.0	490.0	470.2	440.7	400.0	353.3	302.9	249.0	193.7	143.8	56.2
47.5°	495.1	488.5	468.8	437.5	396.3	348.7	297.1	242.4	185.4	135.2	45.6
50°	493.7	486.8	465.6	433.5	391.1	343.0	290.8	234.4	176.8	124.6	36.1
52.5°	489.1	482.2	462.2	427.8	385.1	336.4	282.2	226.1	167.6	114.3	27.5
55°	483.4	477.1	456.2	422.6	377.4	328.4	274.2	217.2	158.7	103.7	19.8
57.5°	474.5	468.8	448.7	414.3	369.6	319.5	265.3	207.5	147.6	93.1	13.8
60°	463.6	457.9	438.4	404.9	360.7	309.5	255.6	197.4	137.5	82.5	8.6
62.5°	452.2	446.7	426.4	393.1	349.6	298.9	245.0	187.4	126.9	72.8	5.2
65°	437.0	431.8	413.5	379.1	337.3	287.4	233.2	175.4	116.0	61.9	2.9
67.5°	420.9	416.3	397.7	366.2	322.9	274.8	221.2	163.6	104.6	52.4	1.4
70°	403.7	398.0	380.8	348.7	308.3	260.5	208.0	151.6	93.7	43.3	0.0
72.5°	383.7	379.4	362.8	332.4	291.4	245.3	194.6	138.4	81.7	34.4	0.3
75°	364.2	358.7	343.6	314.9	274.8	229.2	179.7	126.1	69.9	26.4	0.3
77.5°	339.0	337.3	322.9	295.1	259.0	213.8	163.3	111.2	58.7	18.9	0.3
80°	313.8	312.0	300.9	275.4	240.7	195.4	148.1	97.1	47.9	12.6	0.3
82.5°	288.8	286.5	275.9	254.7	222.1	179.9	132.4	83.1	37.8	7.7	0.3
85°	266.5	263.6	252.2	232.7	202.9	162.5	116.0	69.3	28.1	4.3	0.6
87.5°	247.3	245.3	232.7	212.6	183.4	146.1	101.7	56.2	19.8	2.0	0.9
90°	230.9	226.7	215.5	194.3	165.0	128.1	86.5	45.0	13.2	1.1	1.1
92.5°	214.9	211.2	198.9	177.1	148.7	112.6	71.9	34.4	8.3	0.6	1.4
95°	198.3	194.3	182.2	162.2	132.1	96.8	59.0	25.2	4.6	0.6	1.4
97.5°	182.0	178.2	165.6	145.6	117.2	83.1	46.7	17.8	2.3	0.6	1.1
100°	166.8	162.5	151.0	130.9	102.3	69.3	36.1	11.5	1.4	0.6	1.1
102.5°	150.7	147.3	135.5	116.0	86.8	56.4	26.9	7.2	0.6	0.6	0.9
105°	136.4	132.1	120.6	100.6	73.9	44.4	18.9	4.3	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°	88.8	85.4	75.4	58.5	37.5	17.5	5.2	0.9	0.9	0.9	0.9
115°	74.2	69.1	60.2	45.3	27.8	11.5	2.6	0.9	0.9	0.9	0.9
117.5°	59.3	55.0	48.7	34.4	18.3	7.4	1.4	0.9	0.9	0.9	0.9
120°	46.4	42.4	35.2	23.8	12.3	4.3	0.6	0.9	0.9	0.9	0.9
122.5°	33.2	30.1	23.8	15.5	7.4	2.0	0.9	0.9	1.1	1.1	0.9
125°	22.1	20.3	15.8	9.5	4.6	0.9	0.9	0.9	1.1	1.1	0.9
127.5°	14.3	12.9	9.2	5.4	2.0	0.9	0.9	1.1	1.1	1.1	0.9
130°	8.0	7.2	5.4	3.2	0.9	0.9	0.9	1.1	1.1	1.1	0.9
132.5°	4.6	4.3	2.9	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.9	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	0.9	0.9	1.1	1.1	1.4	1.4	1.4	1.1
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°	224.9	224.9	224.9
2.5°	214.0	210.0	208.9
5°	202.6	196.0	192.3
7.5°	191.1	182.2	177.9
10°	180.5	167.9	163.3
12.5°	167.9	153.3	146.1
15°	155.9	137.0	130.1
17.5°	142.4	121.2	113.2
20°	129.8	105.4	97.1
22.5°	115.5	90.0	80.8
25°	102.6	74.5	64.2
27.5°	88.3	58.7	49.9
30°	74.8	45.0	36.1
32.5°	61.9	33.0	24.9
35°	49.9	22.3	15.8
37.5°	38.4	13.8	8.0
40°	27.8	7.2	3.7
42.5°	18.6	3.4	2.0
45°	11.5	1.7	0.0
47.5°	6.6	0.0	0.0
50°	3.4	0.0	0.0
52.5°	1.4	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	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.3	2.3
95°	2.0	2.3	2.6
97.5°	2.3	2.6	2.6
100°	2.0	2.6	2.9
102.5°	1.7	2.6	2.6
105°	1.4	2.0	2.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.9	1.1	1.4
117.5°	0.9	1.1	1.1
120°	0.9	0.9	1.1
122.5°	0.9	0.9	1.1
125°	0.9	0.9	1.1
127.5°	1.1	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.1	0.9	0.9
135°	1.1	0.9	0.9
137.5°	1.1	0.9	0.9
140°	1.1	0.9	0.9
142.5°	1.1	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°	1.1	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°	120.3	116.9	105.4	86.5	60.5	33.8	12.6	2.3	0.6	0.9	0.9
110°	104.9	102.0	90.3	71.9	48.7	25.2	8.3	1.4	0.9	0.9	0.9







107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)