

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: P551520

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-80-88-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: P551520  
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-LD4-2LO-35-UNV-80-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

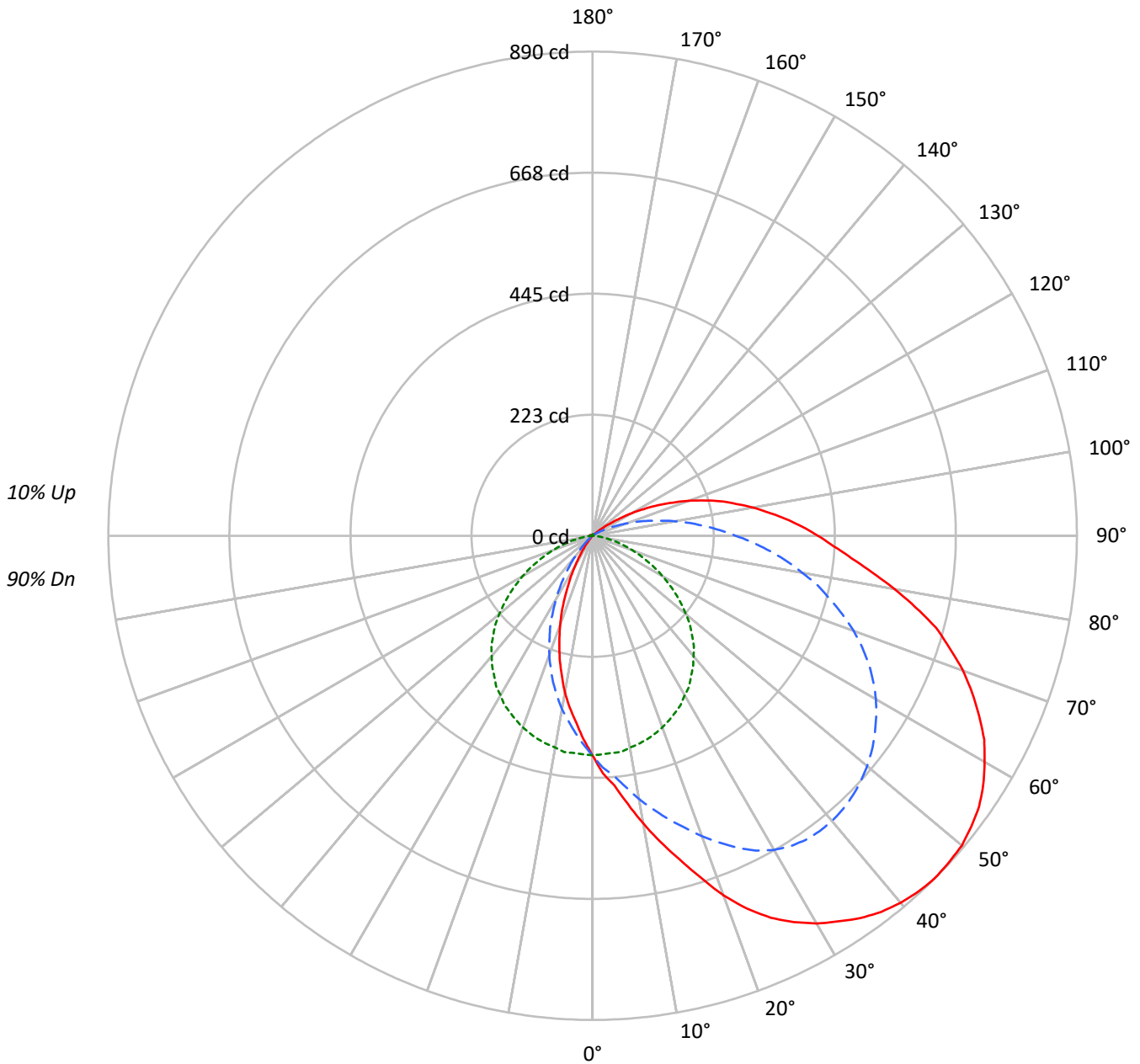
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1995.0 lumens  
Efficiency: N/A  
Efficacy: 84.9 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): 23.5  
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-LD4-2LO-35-UNV-80-88-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°	4343	4343	4343
5°	4768	4281	3570
10°	5396	4227	2943
15°	6047	4174	2294
20°	6821	4106	1689
25°	7461	4027	1110
30°	7938	3922	625
35°	8351	3807	275
40°	8717	3668	66
45°	9030	3492	0
50°	9294	3259	0
55°	9494	2963	0
60°	9596	2621	0
65°	9635	2229	0
70°	9603	1818	0
75°	9481	1341	7
80°	9097	820	42
85°	8793	392	57



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	1.9
10°-20°	115.7	5.8
20°-30°	187.4	9.4
30°-40°	240.8	12.1
40°-50°	272.5	13.7
50°-60°	282.4	14.2
60°-70°	266.3	13.3
70°-80°	223.2	11.2
80°-90°	161.8	8.1
90°-100°	106.3	5.3
100°-110°	61.4	3.1
110°-120°	27.1	1.4
120°-130°	7.3	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	341.8	17.1
0°-40°	582.6	29.2
0°-60°	1137.5	57.0
0°-90°	1788.7	89.7
90°-120°	194.8	9.8
90°-150°	204.9	10.3
90°-180°	206.0	10.3
0°-180°	1995.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	404	404	404	404	404	
5°	461	442	400	363	345	46
15°	615	540	387	280	233	177
25°	775	633	359	184	115	358
35°	858	682	315	89	28	538
45°	890	676	258	21	0	687
55°	867	633	186	0	0	774
65°	784	560	111	0	0	776
75°	653	452	47	0	0	685
85°	478	328	8	2	3	408
90°	414	263	2	3	4	227
95°	356	205	1	4	5	279
105°	245	106	1	3	4	258
115°	133	35	2	2	3	133
125°	40	5	2	2	2	40
135°	2	2	3	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	3	2	0	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5
2.5°	437.5	437.0	435.4	432.8	429.2	423.1	417.9	413.3	407.1	402.0	392.2
5°	460.6	458.0	456.0	453.4	445.2	439.5	430.3	420.0	410.2	400.5	380.9
7.5°	497.6	493.5	490.4	483.2	471.9	459.1	444.7	434.9	428.2	401.0	367.6
10°	537.2	533.6	527.4	514.6	500.7	482.2	461.6	438.5	417.9	395.3	355.7
12.5°	576.3	571.1	562.4	545.9	526.4	503.3	475.0	447.8	418.4	391.7	341.9
15°	615.3	609.7	600.4	580.4	554.7	524.3	489.9	455.5	421.0	387.1	327.5
17.5°	658.0	650.3	636.4	613.8	581.4	543.9	503.3	461.6	420.0	381.4	312.0
20°	703.8	693.0	678.1	647.7	609.7	565.5	516.6	467.8	419.5	374.8	294.6
22.5°	741.8	731.0	714.5	683.2	637.4	583.5	527.9	471.9	417.4	367.0	278.1
25°	774.7	766.0	748.0	712.0	663.7	602.5	538.7	475.0	414.3	358.8	260.6
27.5°	800.4	792.2	772.1	735.1	685.8	619.4	547.0	476.5	410.2	350.6	242.6
30°	823.0	814.8	790.6	752.6	700.7	632.8	555.2	477.1	405.1	338.3	223.1
32.5°	840.5	832.8	808.1	767.5	711.0	642.1	559.8	476.5	398.4	329.5	202.0
35°	858.0	850.3	821.5	778.3	718.7	646.2	563.4	474.0	390.2	315.1	182.0
37.5°	871.3	862.6	833.3	785.5	722.3	647.2	562.9	470.4	381.4	303.3	161.9
40°	880.6	871.3	840.0	789.6	723.3	645.7	558.8	464.2	371.2	288.4	140.9
42.5°	886.8	876.5	843.1	795.8	721.2	641.6	552.6	456.5	359.8	275.5	120.8
45°	889.8	879.1	843.6	790.6	717.6	633.8	543.4	446.7	347.5	258.1	100.8
47.5°	888.3	876.5	841.0	785.0	711.0	625.6	533.1	434.9	332.6	242.6	81.7
50°	885.7	873.4	835.4	777.8	701.7	615.3	521.8	420.5	317.2	223.6	64.8
52.5°	877.5	865.2	829.2	767.5	690.9	603.5	506.4	405.6	300.7	205.1	49.4
55°	867.2	855.9	818.4	758.2	677.0	589.1	492.0	389.7	284.8	186.1	35.5
57.5°	851.3	841.0	805.0	743.3	663.1	573.2	476.0	372.2	264.7	167.1	24.7
60°	831.8	821.5	786.5	726.4	647.2	555.2	458.5	354.2	246.8	148.1	15.4
62.5°	811.2	801.4	764.9	705.3	627.2	536.2	439.5	336.2	227.7	130.6	9.3
65°	783.9	774.7	741.8	680.1	605.1	515.6	418.4	314.6	208.2	111.0	5.1
67.5°	755.2	746.9	713.5	657.0	579.4	493.0	396.9	293.5	187.6	94.1	2.6
70°	724.3	714.0	683.2	625.6	553.1	467.3	373.2	271.9	168.1	77.6	0.0
72.5°	688.3	680.6	650.8	596.3	522.8	440.0	349.0	248.3	146.5	61.7	0.5
75°	653.4	643.6	616.4	565.0	493.0	411.3	322.3	226.2	125.4	47.3	0.5
77.5°	608.1	605.1	579.4	529.5	464.7	383.5	293.0	199.5	105.4	33.9	0.5
80°	562.9	559.8	539.8	494.0	431.8	350.6	265.8	174.3	85.8	22.6	0.5
82.5°	518.2	514.1	495.0	457.0	398.4	322.8	237.5	149.1	67.9	13.9	0.5
85°	478.1	472.9	452.4	417.4	364.0	291.5	208.2	124.4	50.4	7.7	1.0
87.5°	443.6	440.0	417.4	381.4	329.0	262.2	182.5	100.8	35.5	3.6	1.5
90°	414.3	406.6	386.6	348.5	296.1	229.8	155.2	80.7	23.6	2.1	2.1
92.5°	385.5	378.9	356.8	317.7	266.8	202.0	129.0	61.7	14.9	1.0	2.6
95°	355.7	348.5	326.9	291.0	237.0	173.8	105.9	45.2	8.2	1.0	2.6
97.5°	326.4	319.7	297.1	261.1	210.3	149.1	83.8	31.9	4.1	1.0	2.1
100°	299.2	291.5	270.9	234.9	183.5	124.4	64.8	20.6	2.6	1.0	2.1
102.5°	270.4	264.2	243.2	208.2	155.8	101.3	48.3	12.9	1.0	1.0	1.5
105°	244.7	237.0	216.4	180.4	132.6	79.7	33.9	7.7	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	159.4	153.2	135.2	104.9	67.3	31.4	9.3	1.5	1.5	1.5	1.5
115°	133.1	123.9	108.0	81.2	49.9	20.6	4.6	1.5	1.5	1.5	1.5
117.5°	106.4	98.7	87.4	61.7	32.9	13.4	2.6	1.5	1.5	1.5	1.5
120°	83.3	76.1	63.2	42.7	22.1	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.6	54.0	42.7	27.8	13.4	3.6	1.5	1.5	2.1	2.1	1.5
125°	39.6	36.5	28.3	17.0	8.2	1.5	1.5	1.5	2.1	2.1	1.5
127.5°	25.7	23.1	16.5	9.8	3.6	1.5	1.5	2.1	2.1	2.1	1.5
130°	14.4	12.9	9.8	5.7	1.5	1.5	1.5	2.1	2.1	2.1	1.5
132.5°	8.2	7.7	5.1	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1
135°	2.1	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.1	2.6	2.6	2.6	2.1
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.1
142.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
145°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.1	2.1	2.1
147.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.1	2.1
150°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
152.5°	0.5	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.1
155°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
157.5°	1.0	1.0	1.0	1.5	2.1	2.1	2.1	2.6	2.1	2.1	2.6
160°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.1	2.1	2.1
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.1	2.1	2.1	2.1
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.1	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.1	2.1	2.6	2.6	2.6	2.1
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	403.5	403.5	403.5
2.5°	384.0	376.8	374.8
5°	363.4	351.6	344.9
7.5°	342.9	326.9	319.2
10°	323.9	301.2	293.0
12.5°	301.2	275.0	262.2
15°	279.7	245.7	233.4
17.5°	255.5	217.4	203.1
20°	232.9	189.2	174.3
22.5°	207.2	161.4	145.0
25°	184.0	133.7	115.2
27.5°	158.3	105.4	89.4
30°	134.2	80.7	64.8
32.5°	111.0	59.1	44.7
35°	89.4	40.1	28.3
37.5°	68.9	24.7	14.4
40°	49.9	12.9	6.7
42.5°	33.4	6.2	3.6
45°	20.6	3.1	0.0
47.5°	11.8	0.0	0.0
50°	6.2	0.0	0.0
52.5°	2.6	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.1	2.6
82.5°	2.1	2.6	2.6
85°	2.1	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.1
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.1	2.6	2.6
115°	1.5	2.1	2.6
117.5°	1.5	2.1	2.1
120°	1.5	1.5	2.1
122.5°	1.5	1.5	2.1
125°	1.5	1.5	2.1
127.5°	2.1	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.1	1.5	1.5
135°	2.1	1.5	1.5
137.5°	2.1	1.5	1.5
140°	2.1	1.5	1.5
142.5°	2.1	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.1	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	215.9	209.7	189.2	155.2	108.5	60.7	22.6	4.1	1.0	1.5	1.5
110°	188.1	183.0	161.9	129.0	87.4	45.2	14.9	2.6	1.5	1.5	1.5







107.5°	2.1	3.1	3.6
110°	2.1	2.6	3.1



(END OF REPORT)