

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: P550423

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-84-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: P550423  
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-LD4-1HI-30-UNV-80-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

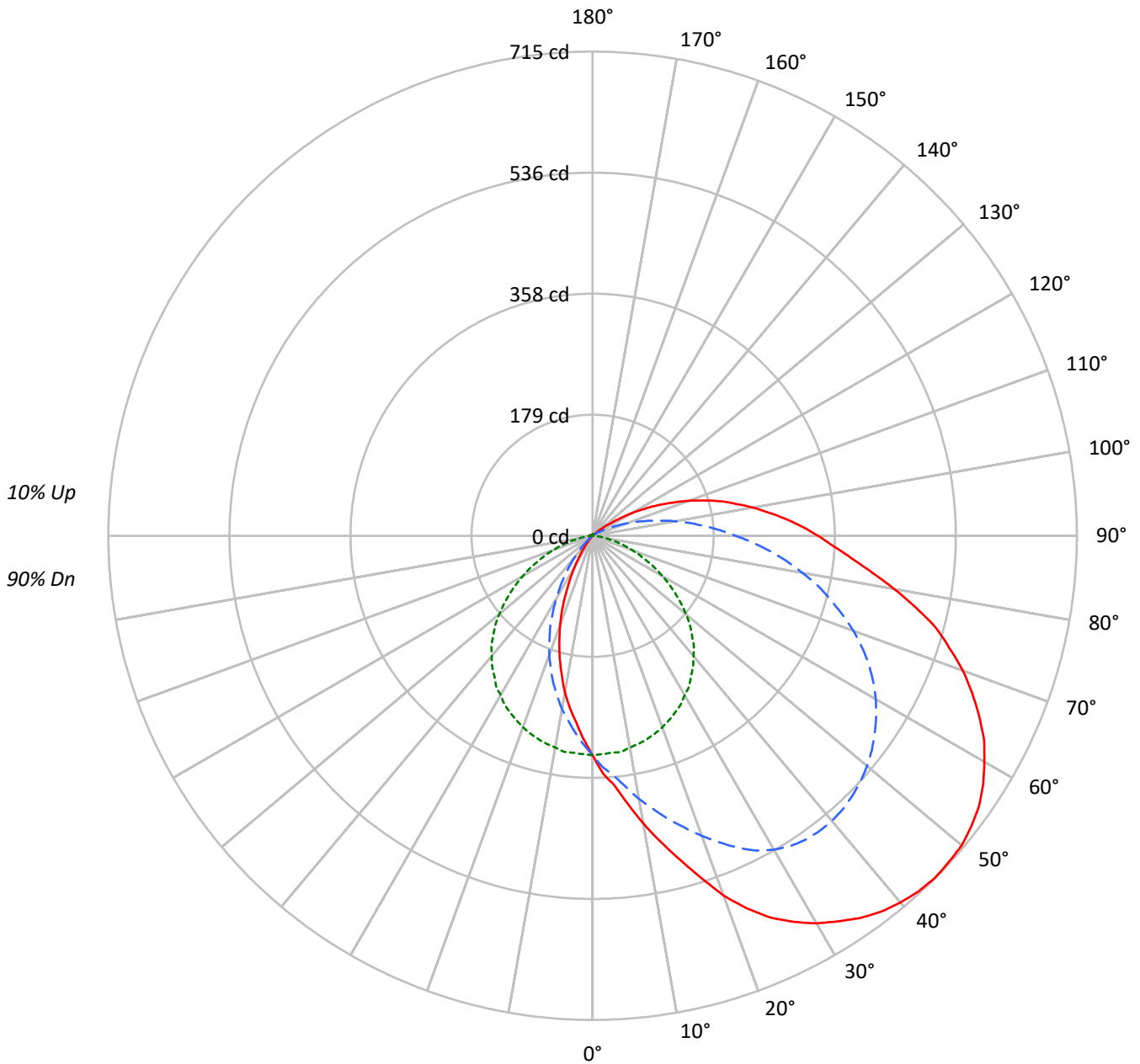
Lumens per Lamp: N/A  
Luminaire Lumens: 1602.0 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
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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### 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°	3488	3488	3488
5°	3829	3437	2868
10°	4333	3394	2363
15°	4856	3351	1842
20°	5476	3297	1356
25°	5992	3233	891
30°	6374	3149	502
35°	6706	3057	221
40°	6999	2945	53
45°	7252	2804	0
50°	7464	2618	0
55°	7624	2379	0
60°	7705	2104	0
65°	7737	1792	0
70°	7711	1459	0
75°	7614	1078	6
80°	7305	660	34
85°	7061	315	46



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.0	1.9
10°-20°	92.9	5.8
20°-30°	150.5	9.4
30°-40°	193.3	12.1
40°-50°	218.9	13.7
50°-60°	226.7	14.2
60°-70°	213.8	13.3
70°-80°	179.2	11.2
80°-90°	129.9	8.1
90°-100°	85.4	5.3
100°-110°	49.3	3.1
110°-120°	21.8	1.4
120°-130°	5.9	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	274.5	17.1
0°-40°	467.8	29.2
0°-60°	913.4	57.0
0°-90°	1436.3	89.7
90°-120°	156.4	9.8
90°-150°	164.6	10.3
90°-180°	166.0	10.4
0°-180°	1602.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	324	324	324	324	324	
5°	370	355	322	292	277	37
15°	494	433	311	225	187	142
25°	622	508	288	148	92	288
35°	689	548	253	72	23	432
45°	715	543	207	16	0	552
55°	696	508	149	0	0	622
65°	630	450	89	0	0	623
75°	525	363	38	0	0	550
85°	384	263	6	2	2	328
90°	333	211	2	2	3	182
95°	286	165	1	3	4	224
105°	196	85	1	2	3	207
115°	107	28	1	1	2	107
125°	32	4	2	1	2	32
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	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°	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0	324.0
2.5°	351.3	350.9	349.6	347.6	344.7	339.7	335.6	331.9	326.9	322.8	315.0
5°	369.9	367.8	366.2	364.1	357.5	352.9	345.5	337.3	329.4	321.6	305.9
7.5°	399.6	396.3	393.8	388.0	378.9	368.6	357.1	349.2	343.9	322.0	295.2
10°	431.4	428.5	423.5	413.2	402.1	387.2	370.7	352.1	335.6	317.4	285.7
12.5°	462.7	458.6	451.6	438.4	422.7	404.1	381.4	359.5	336.0	314.6	274.5
15°	494.1	489.6	482.1	466.0	445.4	421.1	393.4	365.7	338.1	310.8	263.0
17.5°	528.4	522.2	511.0	492.9	466.9	436.7	404.1	370.7	337.3	306.3	250.6
20°	565.1	556.5	544.5	520.1	489.6	454.1	414.9	375.6	336.8	300.9	236.5
22.5°	595.7	587.0	573.8	548.6	511.9	468.5	423.9	378.9	335.2	294.7	223.3
25°	622.1	615.1	600.6	571.7	532.9	483.8	432.6	381.4	332.7	288.1	209.3
27.5°	642.7	636.1	620.0	590.3	550.7	497.4	439.2	382.7	329.4	281.5	194.8
30°	660.9	654.3	634.9	604.3	562.6	508.2	445.8	383.1	325.3	271.6	179.2
32.5°	674.9	668.7	648.9	616.3	570.9	515.6	449.5	382.7	319.9	264.6	162.2
35°	689.0	682.8	659.7	625.0	577.1	518.9	452.4	380.6	313.3	253.0	146.1
37.5°	699.7	692.7	669.1	630.8	580.0	519.7	452.0	377.7	306.3	243.6	130.0
40°	707.1	699.7	674.5	634.1	580.8	518.5	448.7	372.8	298.0	231.6	113.1
42.5°	712.1	703.8	677.0	639.0	579.2	515.2	443.8	366.6	289.0	221.3	97.0
45°	714.6	705.9	677.4	634.9	576.3	509.0	436.3	358.7	279.1	207.2	80.9
47.5°	713.3	703.8	675.3	630.3	570.9	502.4	428.1	349.2	267.1	194.8	65.6
50°	711.3	701.3	670.8	624.6	563.5	494.1	419.0	337.7	254.7	179.6	52.0
52.5°	704.6	694.7	665.8	616.3	554.8	484.6	406.6	325.7	241.5	164.7	39.6
55°	696.4	687.3	657.2	608.9	543.7	473.1	395.0	312.9	228.7	149.4	28.5
57.5°	683.6	675.3	646.4	596.9	532.5	460.3	382.3	298.9	212.6	134.2	19.8
60°	667.9	659.7	631.6	583.3	519.7	445.8	368.2	284.4	198.1	118.9	12.4
62.5°	651.4	643.6	614.2	566.4	503.6	430.5	352.9	270.0	182.9	104.9	7.4
65°	629.5	622.1	595.7	546.1	485.9	414.0	336.0	252.6	167.2	89.2	4.1
67.5°	606.4	599.8	573.0	527.6	465.2	395.9	318.7	235.7	150.7	75.5	2.1
70°	581.6	573.4	548.6	502.4	444.2	375.2	299.7	218.4	135.0	62.3	0.0
72.5°	552.7	546.5	522.6	478.8	419.8	353.4	280.3	199.4	117.6	49.5	0.4
75°	524.7	516.8	494.9	453.7	395.9	330.2	258.8	181.6	100.7	38.0	0.4
77.5°	488.3	485.9	465.2	425.2	373.2	307.9	235.3	160.2	84.6	27.2	0.4
80°	452.0	449.5	433.4	396.7	346.8	281.5	213.4	139.9	68.9	18.2	0.4
82.5°	416.1	412.8	397.5	367.0	319.9	259.2	190.7	119.7	54.5	11.1	0.4
85°	383.9	379.8	363.3	335.2	292.3	234.1	167.2	99.9	40.5	6.2	0.8
87.5°	356.2	353.4	335.2	306.3	264.2	210.5	146.5	80.9	28.5	2.9	1.2
90°	332.7	326.5	310.4	279.9	237.8	184.5	124.7	64.8	19.0	1.7	1.7
92.5°	309.6	304.2	286.5	255.1	214.2	162.2	103.6	49.5	12.0	0.8	2.1
95°	285.7	279.9	262.5	233.6	190.3	139.5	85.0	36.3	6.6	0.8	2.1
97.5°	262.1	256.8	238.6	209.7	168.8	119.7	67.3	25.6	3.3	0.8	1.7
100°	240.2	234.1	217.5	188.6	147.4	99.9	52.0	16.5	2.1	0.8	1.7
102.5°	217.1	212.2	195.3	167.2	125.1	81.3	38.8	10.3	0.8	0.8	1.2
105°	196.5	190.3	173.8	144.9	106.5	64.0	27.2	6.2	0.8	0.8	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.0	123.0	108.6	84.2	54.1	25.2	7.4	1.2	1.2	1.2	1.2
115°	106.9	99.5	86.7	65.2	40.0	16.5	3.7	1.2	1.2	1.2	1.2
117.5°	85.4	79.3	70.2	49.5	26.4	10.7	2.1	1.2	1.2	1.2	1.2
120°	66.9	61.1	50.8	34.3	17.8	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	47.9	43.3	34.3	22.3	10.7	2.9	1.2	1.2	1.7	1.7	1.2
125°	31.8	29.3	22.7	13.6	6.6	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.6	18.6	13.2	7.8	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.3	7.8	4.5	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.6	6.2	4.1	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	324.0	324.0	324.0
2.5°	308.4	302.6	300.9
5°	291.8	282.4	277.0
7.5°	275.3	262.5	256.3
10°	260.1	241.9	235.3
12.5°	241.9	220.8	210.5
15°	224.6	197.3	187.4
17.5°	205.2	174.6	163.1
20°	187.0	151.9	139.9
22.5°	166.4	129.6	116.4
25°	147.8	107.3	92.5
27.5°	127.1	84.6	71.8
30°	107.7	64.8	52.0
32.5°	89.2	47.5	35.9
35°	71.8	32.2	22.7
37.5°	55.3	19.8	11.6
40°	40.0	10.3	5.4
42.5°	26.8	5.0	2.9
45°	16.5	2.5	0.0
47.5°	9.5	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.5	3.7	3.7
105°	2.1	2.9	3.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	173.4	168.4	151.9	124.7	87.1	48.7	18.2	3.3	0.8	1.2	1.2
110°	151.1	147.0	130.0	103.6	70.2	36.3	12.0	2.1	1.2	1.2	1.2







107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)