

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: P550623

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-80-88-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: P550623  
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-50-UNV-80-88-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

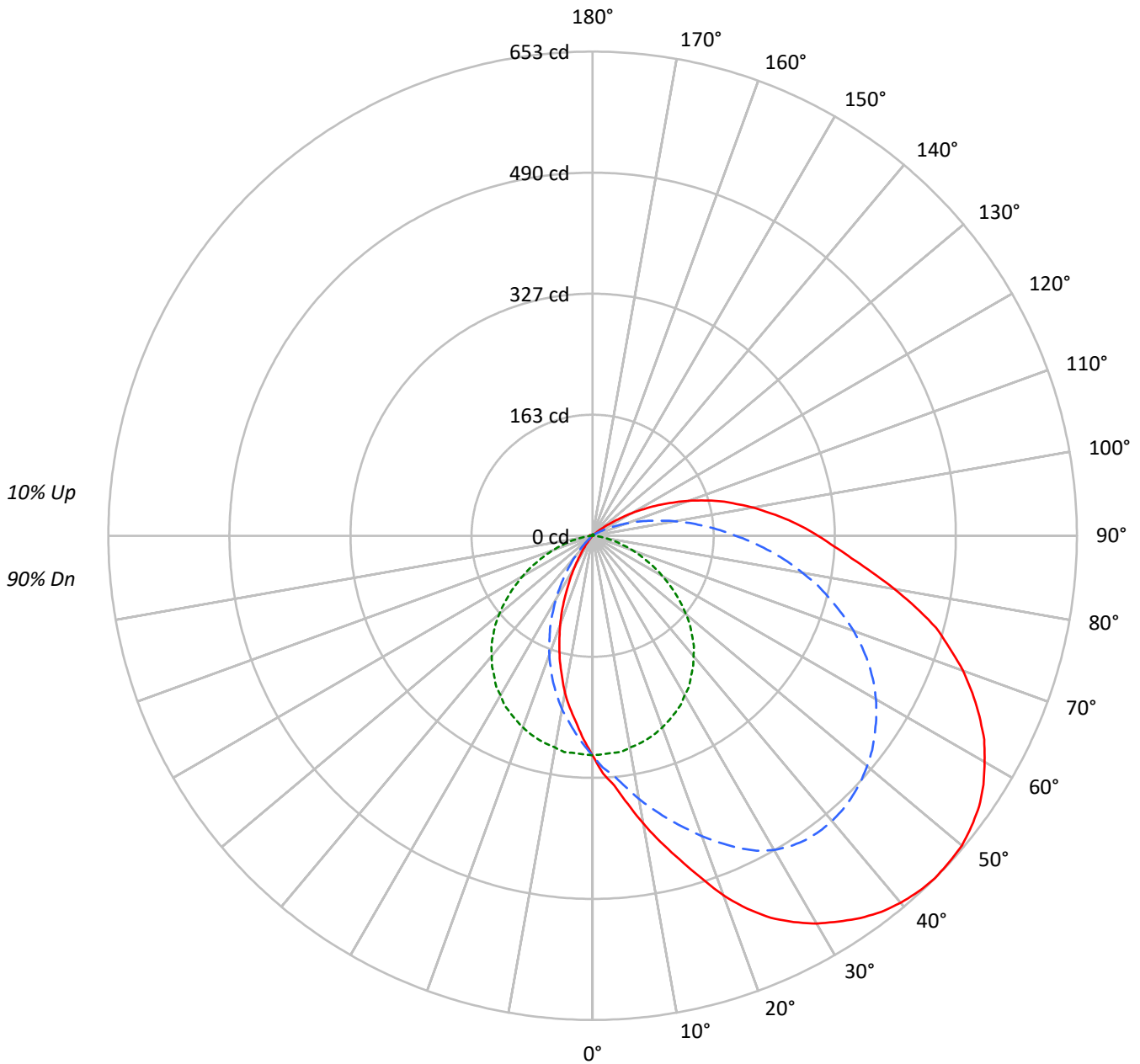
Lumens per Lamp: N/A  
Luminaire Lumens: 1464.0 lumens  
Efficiency: N/A  
Efficacy: 67.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 21.7  
Input Voltage (V): NR  
Input Current (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°	3187	3187	3187
5°	3499	3141	2620
10°	3960	3102	2160
15°	4438	3063	1683
20°	5004	3013	1239
25°	5475	2955	814
30°	5825	2877	458
35°	6128	2794	201
40°	6396	2691	49
45°	6627	2563	0
50°	6821	2392	0
55°	6968	2175	0
60°	7042	1922	0
65°	7071	1637	0
70°	7047	1335	0
75°	6958	984	6
80°	6676	602	31
85°	6452	290	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.4	1.9
10°-20°	84.9	5.8
20°-30°	137.5	9.4
30°-40°	176.7	12.1
40°-50°	200.0	13.7
50°-60°	207.2	14.2
60°-70°	195.4	13.3
70°-80°	163.8	11.2
80°-90°	118.7	8.1
90°-100°	78.0	5.3
100°-110°	45.1	3.1
110°-120°	19.9	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	250.8	17.1
0°-40°	427.5	29.2
0°-60°	834.7	57.0
0°-90°	1312.6	89.7
90°-120°	142.9	9.8
90°-150°	150.3	10.3
90°-180°	151.0	10.3
0°-180°	1464.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	296	296	296	296	296	
5°	338	325	294	267	253	34
15°	452	396	284	205	171	130
25°	568	465	263	135	84	263
35°	630	501	231	66	21	395
45°	653	496	189	15	0	504
55°	636	465	137	0	0	568
65°	575	411	82	0	0	569
75°	480	332	35	0	0	503
85°	351	240	6	2	2	300
90°	304	193	2	2	3	167
95°	261	151	1	3	3	205
105°	180	78	1	2	3	189
115°	98	26	1	1	2	98
125°	29	4	2	1	2	29
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°	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1	296.1
2.5°	321.0	320.7	319.5	317.6	315.0	310.5	306.7	303.3	298.8	295.0	287.8
5°	338.0	336.1	334.6	332.7	326.7	322.5	315.7	308.2	301.0	293.9	279.5
7.5°	365.2	362.1	359.9	354.6	346.3	336.9	326.3	319.1	314.2	294.2	269.7
10°	394.2	391.6	387.0	377.6	367.4	353.8	338.8	321.8	306.7	290.1	261.0
12.5°	422.9	419.1	412.7	400.6	386.3	369.3	348.6	328.6	307.1	287.5	250.9
15°	451.6	447.4	440.6	425.9	407.0	384.8	359.5	334.2	309.0	284.1	240.3
17.5°	482.9	477.2	467.0	450.4	426.7	399.1	369.3	338.8	308.2	279.9	229.0
20°	516.4	508.5	497.6	475.3	447.4	415.0	379.1	343.3	307.8	275.0	216.2
22.5°	544.4	536.4	524.4	501.3	467.8	428.2	387.4	346.3	306.3	269.3	204.1
25°	568.5	562.1	548.9	522.5	487.0	442.1	395.3	348.6	304.1	263.3	191.3
27.5°	587.4	581.3	566.6	539.5	503.2	454.6	401.4	349.7	301.0	257.3	178.1
30°	604.0	597.9	580.2	552.3	514.2	464.4	407.4	350.1	297.3	248.2	163.7
32.5°	616.8	611.1	593.0	563.2	521.7	471.2	410.8	349.7	292.4	241.8	148.3
35°	629.6	624.0	602.8	571.1	527.4	474.2	413.5	347.8	286.3	231.2	133.5
37.5°	639.4	633.0	611.5	576.4	530.0	474.9	413.1	345.2	279.9	222.6	118.8
40°	646.2	639.4	616.4	579.4	530.8	473.8	410.1	340.6	272.4	211.6	103.4
42.5°	650.7	643.2	618.7	584.0	529.3	470.8	405.5	335.0	264.1	202.2	88.7
45°	653.0	645.1	619.0	580.2	526.6	465.1	398.7	327.8	255.0	189.4	73.9
47.5°	651.9	643.2	617.2	576.0	521.7	459.1	391.2	319.1	244.1	178.1	60.0
50°	650.0	640.9	613.0	570.8	514.9	451.6	382.9	308.6	232.8	164.1	47.5
52.5°	643.9	634.9	608.5	563.2	507.0	442.9	371.6	297.6	220.7	150.5	36.2
55°	636.4	628.1	600.6	556.4	496.8	432.3	361.0	285.9	209.0	136.6	26.0
57.5°	624.7	617.2	590.8	545.5	486.6	420.6	349.3	273.1	194.3	122.6	18.1
60°	610.4	602.8	577.2	533.0	474.9	407.4	336.5	259.9	181.1	108.6	11.3
62.5°	595.3	588.1	561.3	517.6	460.2	393.5	322.5	246.7	167.1	95.8	6.8
65°	575.3	568.5	544.4	499.1	444.0	378.4	307.1	230.9	152.8	81.5	3.8
67.5°	554.2	548.1	523.6	482.1	425.1	361.8	291.2	215.4	137.7	69.0	1.9
70°	531.5	524.0	501.3	459.1	405.9	342.9	273.9	199.6	123.4	57.0	0.0
72.5°	505.1	499.5	477.6	437.6	383.7	322.9	256.1	182.2	107.5	45.3	0.4
75°	479.5	472.3	452.3	414.6	361.8	301.8	236.5	166.0	92.0	34.7	0.4
77.5°	446.3	444.0	425.1	388.6	341.0	281.4	215.0	146.4	77.3	24.9	0.4
80°	413.1	410.8	396.1	362.5	316.9	257.3	195.0	127.9	63.0	16.6	0.4
82.5°	380.3	377.2	363.3	335.4	292.4	236.9	174.3	109.4	49.8	10.2	0.4
85°	350.8	347.1	332.0	306.3	267.1	213.9	152.8	91.3	37.0	5.7	0.8
87.5°	325.6	322.9	306.3	279.9	241.4	192.4	133.9	73.9	26.0	2.6	1.1
90°	304.1	298.4	283.7	255.8	217.3	168.6	113.9	59.2	17.4	1.5	1.5
92.5°	282.9	278.0	261.8	233.1	195.8	148.3	94.7	45.3	10.9	0.8	1.9
95°	261.0	255.8	239.9	213.5	173.9	127.5	77.7	33.2	6.0	0.8	1.9
97.5°	239.5	234.6	218.0	191.6	154.3	109.4	61.5	23.4	3.0	0.8	1.5
100°	219.6	213.9	198.8	172.4	134.7	91.3	47.5	15.1	1.9	0.8	1.5
102.5°	198.4	193.9	178.4	152.8	114.3	74.3	35.5	9.4	0.8	0.8	1.1
105°	179.6	173.9	158.8	132.4	97.3	58.5	24.9	5.7	0.8	0.8	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.9	112.4	99.2	77.0	49.4	23.0	6.8	1.1	1.1	1.1	1.1
115°	97.7	90.9	79.2	59.6	36.6	15.1	3.4	1.1	1.1	1.1	1.1
117.5°	78.1	72.4	64.1	45.3	24.1	9.8	1.9	1.1	1.1	1.1	1.1
120°	61.1	55.8	46.4	31.3	16.2	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	43.8	39.6	31.3	20.4	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	29.0	26.8	20.7	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.9	17.0	12.1	7.2	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.6	9.4	7.2	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	296.1	296.1	296.1
2.5°	281.8	276.5	275.0
5°	266.7	258.0	253.1
7.5°	251.6	239.9	234.3
10°	237.7	221.1	215.0
12.5°	221.1	201.8	192.4
15°	205.2	180.3	171.3
17.5°	187.5	159.6	149.0
20°	170.9	138.8	127.9
22.5°	152.0	118.5	106.4
25°	135.1	98.1	84.5
27.5°	116.2	77.3	65.6
30°	98.5	59.2	47.5
32.5°	81.5	43.4	32.8
35°	65.6	29.4	20.7
37.5°	50.5	18.1	10.6
40°	36.6	9.4	4.9
42.5°	24.5	4.5	2.6
45°	15.1	2.3	0.0
47.5°	8.7	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.6	3.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	158.4	153.9	138.8	113.9	79.6	44.5	16.6	3.0	0.8	1.1	1.1
110°	138.1	134.3	118.8	94.7	64.1	33.2	10.9	1.9	1.1	1.1	1.1







107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)