

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: P550577

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-94-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: P550577  
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-40-UNV-81-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

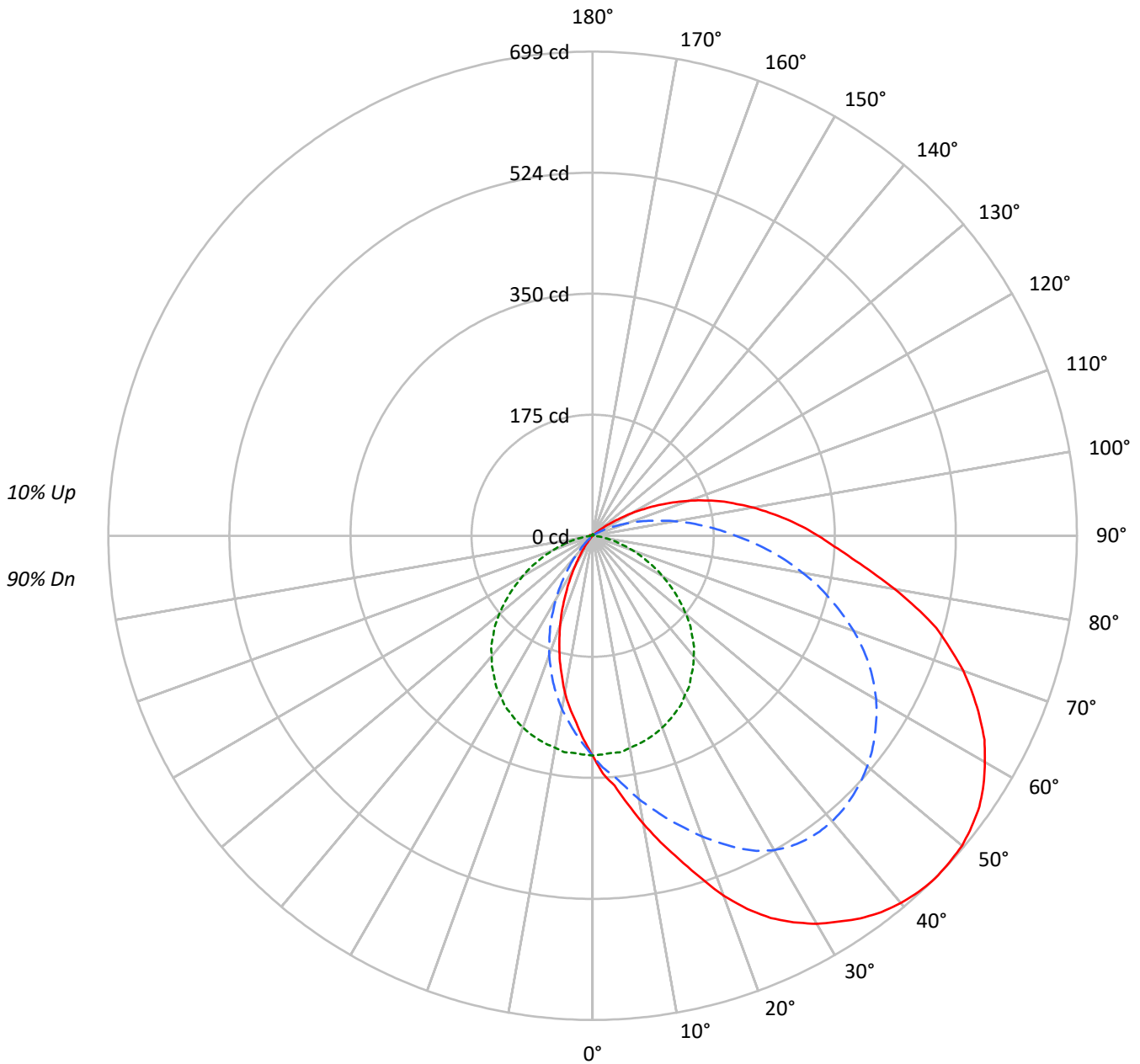
Lumens per Lamp: N/A  
Luminaire Lumens: 1567.9 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-94-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°	3414	3414	3414
5°	3747	3364	2806
10°	4241	3323	2313
15°	4752	3280	1802
20°	5360	3227	1328
25°	5864	3165	872
30°	6239	3082	491
35°	6563	2993	216
40°	6851	2883	52
45°	7098	2744	0
50°	7305	2562	0
55°	7462	2330	0
60°	7542	2060	0
65°	7574	1753	0
70°	7548	1429	0
75°	7451	1055	6
80°	7150	646	32
85°	6912	310	44



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.4	1.9
10°-20°	91.0	5.8
20°-30°	147.3	9.4
30°-40°	189.2	12.1
40°-50°	214.2	13.7
50°-60°	221.9	14.2
60°-70°	209.3	13.3
70°-80°	175.4	11.2
80°-90°	127.1	8.1
90°-100°	83.6	5.3
100°-110°	48.2	3.1
110°-120°	21.3	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	268.7	17.1
0°-40°	457.9	29.2
0°-60°	894.0	57.0
0°-90°	1405.8	89.7
90°-120°	153.1	9.8
90°-150°	161.0	10.3
90°-180°	162.0	10.3
0°-180°	1567.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	317	317	317	317	317	
5°	362	348	315	286	271	36
15°	484	424	304	220	183	139
25°	609	498	282	145	90	281
35°	674	536	248	70	22	423
45°	699	531	203	16	0	540
55°	682	498	146	0	0	609
65°	616	440	87	0	0	610
75°	514	355	37	0	0	539
85°	376	258	6	2	2	321
90°	326	207	2	2	3	179
95°	280	161	1	3	4	219
105°	192	83	1	2	3	203
115°	105	28	1	1	2	105
125°	31	4	2	1	2	31
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°	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2	317.2
2.5°	343.8	343.4	342.2	340.2	337.4	332.5	328.5	324.8	320.0	316.0	308.3
5°	362.0	360.0	358.4	356.4	349.9	345.5	338.2	330.1	322.4	314.7	299.4
7.5°	391.1	387.9	385.5	379.8	370.9	360.8	349.5	341.8	336.6	315.1	288.9
10°	422.2	419.4	414.5	404.4	393.5	379.0	362.8	344.6	328.5	310.7	279.6
12.5°	452.9	448.9	442.0	429.1	413.7	395.6	373.3	351.9	328.9	307.9	268.7
15°	483.6	479.2	471.9	456.2	436.0	412.1	385.0	358.0	330.9	304.2	257.4
17.5°	517.2	511.1	500.2	482.4	457.0	427.5	395.6	362.8	330.1	299.8	245.3
20°	553.1	544.6	532.9	509.1	479.2	444.4	406.1	367.7	329.7	294.5	231.5
22.5°	583.0	574.5	561.6	537.0	501.0	458.6	414.9	370.9	328.1	288.5	218.6
25°	608.9	602.0	587.9	559.6	521.6	473.5	423.4	373.3	325.7	282.0	204.8
27.5°	629.1	622.6	606.9	577.8	539.0	486.9	429.9	374.5	322.4	275.6	190.7
30°	646.9	640.4	621.4	591.5	550.7	497.4	436.4	374.9	318.4	265.9	175.4
32.5°	660.6	654.5	635.1	603.2	558.8	504.6	440.0	374.5	313.1	259.0	158.8
35°	674.3	668.3	645.7	611.7	564.8	507.9	442.8	372.5	306.7	247.7	143.0
37.5°	684.8	678.0	654.9	617.4	567.7	508.7	442.4	369.7	299.8	238.4	127.3
40°	692.1	684.8	660.2	620.6	568.5	507.5	439.2	364.8	291.7	226.7	110.7
42.5°	697.0	688.9	662.6	625.4	566.9	504.2	434.3	358.8	282.8	216.6	94.9
45°	699.4	690.9	663.0	621.4	564.0	498.2	427.1	351.1	273.1	202.8	79.2
47.5°	698.2	688.9	661.0	617.0	558.8	491.7	419.0	341.8	261.4	190.7	64.2
50°	696.2	686.5	656.6	611.3	551.5	483.6	410.1	330.5	249.3	175.8	50.9
52.5°	689.7	680.0	651.7	603.2	543.0	474.3	398.0	318.8	236.4	161.2	38.8
55°	681.6	672.7	643.2	596.0	532.1	463.0	386.7	306.3	223.8	146.3	27.9
57.5°	669.1	661.0	632.7	584.2	521.2	450.5	374.1	292.5	208.1	131.3	19.4
60°	653.7	645.7	618.2	570.9	508.7	436.4	360.4	278.4	193.9	116.4	12.1
62.5°	637.6	629.9	601.2	554.3	492.9	421.4	345.5	264.2	179.0	102.6	7.3
65°	616.2	608.9	583.0	534.5	475.6	405.2	328.9	247.3	163.6	87.3	4.0
67.5°	593.5	587.1	560.8	516.4	455.3	387.5	311.9	230.7	147.5	73.9	2.0
70°	569.3	561.2	537.0	491.7	434.7	367.3	293.3	213.7	132.1	61.0	0.0
72.5°	541.0	534.9	511.5	468.7	410.9	345.9	274.3	195.1	115.2	48.5	0.4
75°	513.5	505.9	484.4	444.0	387.5	323.2	253.3	177.8	98.6	37.2	0.4
77.5°	478.0	475.6	455.3	416.2	365.2	301.4	230.3	156.8	82.8	26.7	0.4
80°	442.4	440.0	424.2	388.3	339.4	275.6	208.9	137.0	67.5	17.8	0.4
82.5°	407.3	404.0	389.1	359.2	313.1	253.7	186.7	117.2	53.3	10.9	0.4
85°	375.8	371.7	355.6	328.1	286.1	229.1	163.6	97.8	39.6	6.1	0.8
87.5°	348.7	345.9	328.1	299.8	258.6	206.1	143.4	79.2	27.9	2.8	1.2
90°	325.7	319.6	303.8	273.9	232.7	180.6	122.0	63.4	18.6	1.6	1.6
92.5°	303.0	297.8	280.4	249.7	209.7	158.8	101.4	48.5	11.7	0.8	2.0
95°	279.6	273.9	257.0	228.7	186.3	136.6	83.2	35.6	6.5	0.8	2.0
97.5°	256.6	251.3	233.5	205.3	165.3	117.2	65.9	25.1	3.2	0.8	1.6
100°	235.1	229.1	212.9	184.6	144.2	97.8	50.9	16.2	2.0	0.8	1.6
102.5°	212.5	207.7	191.1	163.6	122.4	79.6	38.0	10.1	0.8	0.8	1.2
105°	192.3	186.3	170.1	141.8	104.2	62.6	26.7	6.1	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°	125.3	120.4	106.3	82.4	52.9	24.6	7.3	1.2	1.2	1.2	1.2
115°	104.6	97.4	84.8	63.8	39.2	16.2	3.6	1.2	1.2	1.2	1.2
117.5°	83.6	77.6	68.7	48.5	25.9	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.5	59.8	49.7	33.5	17.4	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	46.9	42.4	33.5	21.8	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.1	28.7	22.2	13.3	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.2	18.2	12.9	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.3	10.1	7.7	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
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°	317.2	317.2	317.2
2.5°	301.8	296.2	294.5
5°	285.7	276.4	271.1
7.5°	269.5	257.0	250.9
10°	254.5	236.8	230.3
12.5°	236.8	216.2	206.1
15°	219.8	193.1	183.4
17.5°	200.8	170.9	159.6
20°	183.0	148.7	137.0
22.5°	162.8	126.9	113.9
25°	144.6	105.0	90.5
27.5°	124.4	82.8	70.3
30°	105.5	63.4	50.9
32.5°	87.3	46.5	35.2
35°	70.3	31.5	22.2
37.5°	54.1	19.4	11.3
40°	39.2	10.1	5.3
42.5°	26.3	4.8	2.8
45°	16.2	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.8	0.0	0.0
52.5°	2.0	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	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	169.7	164.8	148.7	122.0	85.3	47.7	17.8	3.2	0.8	1.2	1.2
110°	147.9	143.8	127.3	101.4	68.7	35.6	11.7	2.0	1.2	1.2	1.2







107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)