

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: P550582

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-97-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: P550582  
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-81-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

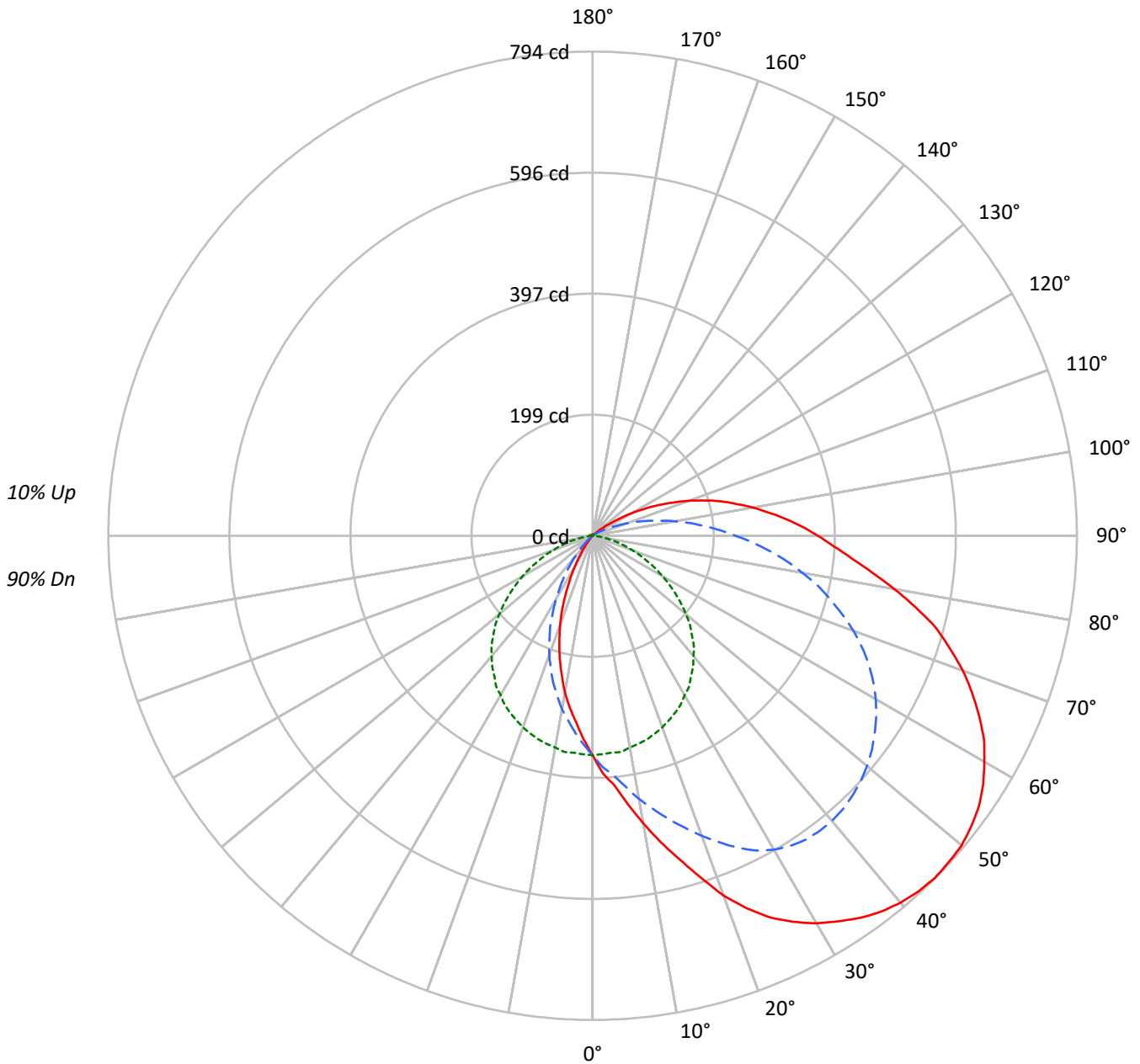
Lumens per Lamp: N/A  
Luminaire Lumens: 1779.0 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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-81-97-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°	3873	3873	3873
5°	4252	3817	3184
10°	4811	3770	2625
15°	5392	3722	2045
20°	6082	3662	1506
25°	6653	3591	989
30°	7078	3496	557
35°	7447	3395	245
40°	7773	3271	59
45°	8053	3114	0
50°	8287	2906	0
55°	8466	2642	0
60°	8557	2336	0
65°	8592	1988	0
70°	8563	1621	0
75°	8454	1197	7
80°	8113	733	37
85°	7840	351	51



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.5	1.9
10°-20°	103.2	5.8
20°-30°	167.1	9.4
30°-40°	214.7	12.1
40°-50°	243.0	13.7
50°-60°	251.8	14.2
60°-70°	237.5	13.3
70°-80°	199.0	11.2
80°-90°	144.2	8.1
90°-100°	94.8	5.3
100°-110°	54.8	3.1
110°-120°	24.2	1.4
120°-130°	6.5	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	304.8	17.1
0°-40°	519.5	29.2
0°-60°	1014.3	57.0
0°-90°	1595.0	89.7
90°-120°	173.7	9.8
90°-150°	182.7	10.3
90°-180°	184.0	10.3
0°-180°	1779.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	360	360	360	360	360	
5°	411	394	357	324	308	41
15°	549	481	345	249	208	158
25°	691	565	320	164	103	319
35°	765	609	281	80	25	480
45°	794	603	230	18	0	613
55°	773	564	166	0	0	691
65°	699	500	99	0	0	692
75°	583	403	42	0	0	611
85°	426	292	7	2	3	364
90°	370	234	2	3	3	203
95°	317	183	1	3	4	249
105°	218	95	1	2	4	230
115°	119	31	1	1	2	119
125°	35	4	2	1	2	35
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8
2.5°	390.1	389.6	388.3	386.0	382.8	377.3	372.7	368.6	363.1	358.5	349.8
5°	410.7	408.4	406.6	404.3	397.0	391.9	383.7	374.5	365.8	357.1	339.7
7.5°	443.7	440.1	437.3	430.9	420.8	409.4	396.5	387.8	381.9	357.6	327.8
10°	479.0	475.8	470.3	458.9	446.5	430.0	411.6	391.0	372.7	352.5	317.2
12.5°	513.9	509.3	501.5	486.8	469.4	448.8	423.6	399.3	373.1	349.3	304.8
15°	548.7	543.7	535.4	517.5	494.6	467.6	436.9	406.1	375.4	345.2	292.0
17.5°	586.8	579.9	567.5	547.3	518.5	485.0	448.8	411.6	374.5	340.1	278.3
20°	627.6	617.9	604.6	577.6	543.7	504.2	460.7	417.1	374.1	334.2	262.7
22.5°	661.5	651.9	637.2	609.2	568.4	520.3	470.8	420.8	372.2	327.3	248.0
25°	690.8	683.0	667.0	634.9	591.8	537.3	480.4	423.6	369.5	320.0	232.4
27.5°	713.7	706.4	688.5	655.5	611.5	552.4	487.7	424.9	365.8	312.6	216.4
30°	733.9	726.6	705.0	671.1	624.8	564.3	495.1	425.4	361.2	301.6	198.9
32.5°	749.5	742.6	720.6	684.4	634.0	572.5	499.2	424.9	355.3	293.8	180.2
35°	765.1	758.2	732.5	694.0	640.9	576.2	502.4	422.7	347.9	281.0	162.3
37.5°	777.0	769.2	743.1	700.4	644.1	577.1	502.0	419.4	340.1	270.5	144.4
40°	785.3	777.0	749.0	704.1	645.0	575.8	498.3	413.9	331.0	257.2	125.6
42.5°	790.8	781.6	751.8	709.6	643.1	572.1	492.8	407.1	320.9	245.7	107.7
45°	793.5	783.9	752.2	705.0	639.9	565.2	484.5	398.4	309.9	230.1	89.8
47.5°	792.1	781.6	750.0	700.0	634.0	557.9	475.4	387.8	296.6	216.4	72.9
50°	789.8	778.8	744.9	693.6	625.7	548.7	465.3	375.0	282.8	199.4	57.8
52.5°	782.5	771.5	739.4	684.4	616.1	538.2	451.5	361.7	268.2	182.9	44.0
55°	773.3	763.2	729.8	676.1	603.7	525.3	438.7	347.5	254.0	165.9	31.6
57.5°	759.1	750.0	717.9	662.9	591.3	511.1	424.5	331.9	236.1	149.0	22.0
60°	741.7	732.5	701.4	647.7	577.1	495.1	408.9	315.8	220.0	132.0	13.8
62.5°	723.4	714.7	682.1	628.9	559.3	478.1	391.9	299.8	203.1	116.4	8.3
65°	699.1	690.8	661.5	606.5	539.5	459.8	373.1	280.5	185.7	99.0	4.6
67.5°	673.4	666.1	636.3	585.8	516.6	439.6	353.9	261.8	167.3	83.9	2.3
70°	645.9	636.7	609.2	557.9	493.2	416.7	332.8	242.5	149.9	69.2	0.0
72.5°	613.8	606.9	580.3	531.8	466.2	392.4	311.3	221.4	130.6	55.0	0.5
75°	582.6	573.9	549.6	503.8	439.6	366.7	287.4	201.7	111.9	42.2	0.5
77.5°	542.3	539.5	516.6	472.2	414.4	342.0	261.3	177.9	94.0	30.3	0.5
80°	502.0	499.2	481.3	440.5	385.1	312.6	237.0	155.4	76.6	20.2	0.5
82.5°	462.1	458.4	441.4	407.5	355.3	287.9	211.8	132.9	60.5	12.4	0.5
85°	426.3	421.7	403.4	372.2	324.6	259.9	185.7	110.9	44.9	6.9	0.9
87.5°	395.6	392.4	372.2	340.1	293.4	233.8	162.7	89.8	31.6	3.2	1.4
90°	369.5	362.6	344.7	310.8	264.0	204.9	138.4	72.0	21.1	1.8	1.8
92.5°	343.8	337.8	318.1	283.3	237.9	180.2	115.1	55.0	13.3	0.9	2.3
95°	317.2	310.8	291.5	259.5	211.3	154.9	94.4	40.3	7.3	0.9	2.3
97.5°	291.1	285.1	265.0	232.9	187.5	132.9	74.7	28.4	3.7	0.9	1.8
100°	266.8	259.9	241.6	209.5	163.7	110.9	57.8	18.3	2.3	0.9	1.8
102.5°	241.1	235.6	216.8	185.7	138.9	90.3	43.1	11.5	0.9	0.9	1.4
105°	218.2	211.3	193.0	160.9	118.3	71.1	30.3	6.9	0.9	0.9	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	142.1	136.6	120.6	93.5	60.1	28.0	8.3	1.4	1.4	1.4	1.4
115°	118.7	110.5	96.3	72.4	44.5	18.3	4.1	1.4	1.4	1.4	1.4
117.5°	94.9	88.0	77.9	55.0	29.3	11.9	2.3	1.4	1.4	1.4	1.4
120°	74.3	67.8	56.4	38.0	19.7	6.9	0.9	1.4	1.4	1.4	1.4
122.5°	53.2	48.1	38.0	24.8	11.9	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.3	32.5	25.2	15.1	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.9	20.6	14.7	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.5	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.9	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	359.8	359.8	359.8
2.5°	342.4	336.0	334.2
5°	324.1	313.5	307.6
7.5°	305.8	291.5	284.7
10°	288.8	268.6	261.3
12.5°	268.6	245.2	233.8
15°	249.4	219.1	208.1
17.5°	227.8	193.9	181.1
20°	207.7	168.7	155.4
22.5°	184.7	143.9	129.3
25°	164.1	119.2	102.7
27.5°	141.2	94.0	79.8
30°	119.6	72.0	57.8
32.5°	99.0	52.7	39.9
35°	79.8	35.8	25.2
37.5°	61.4	22.0	12.8
40°	44.5	11.5	6.0
42.5°	29.8	5.5	3.2
45°	18.3	2.8	0.0
47.5°	10.5	0.0	0.0
50°	5.5	0.0	0.0
52.5°	2.3	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	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.8
87.5°	2.3	2.8	3.2
90°	2.8	3.2	3.2
92.5°	2.8	3.7	3.7
95°	3.2	3.7	4.1
97.5°	3.7	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.8	4.1	4.1
105°	2.3	3.2	3.7





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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-97-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	192.5	187.0	168.7	138.4	96.7	54.1	20.2	3.7	0.9	1.4	1.4
110°	167.8	163.2	144.4	115.1	77.9	40.3	13.3	2.3	1.4	1.4	1.4







107.5°	1.8	2.8	3.2
110°	1.8	2.3	2.8



(END OF REPORT)