

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: P551489

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-94-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: P551489  
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-30-UNV-82-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

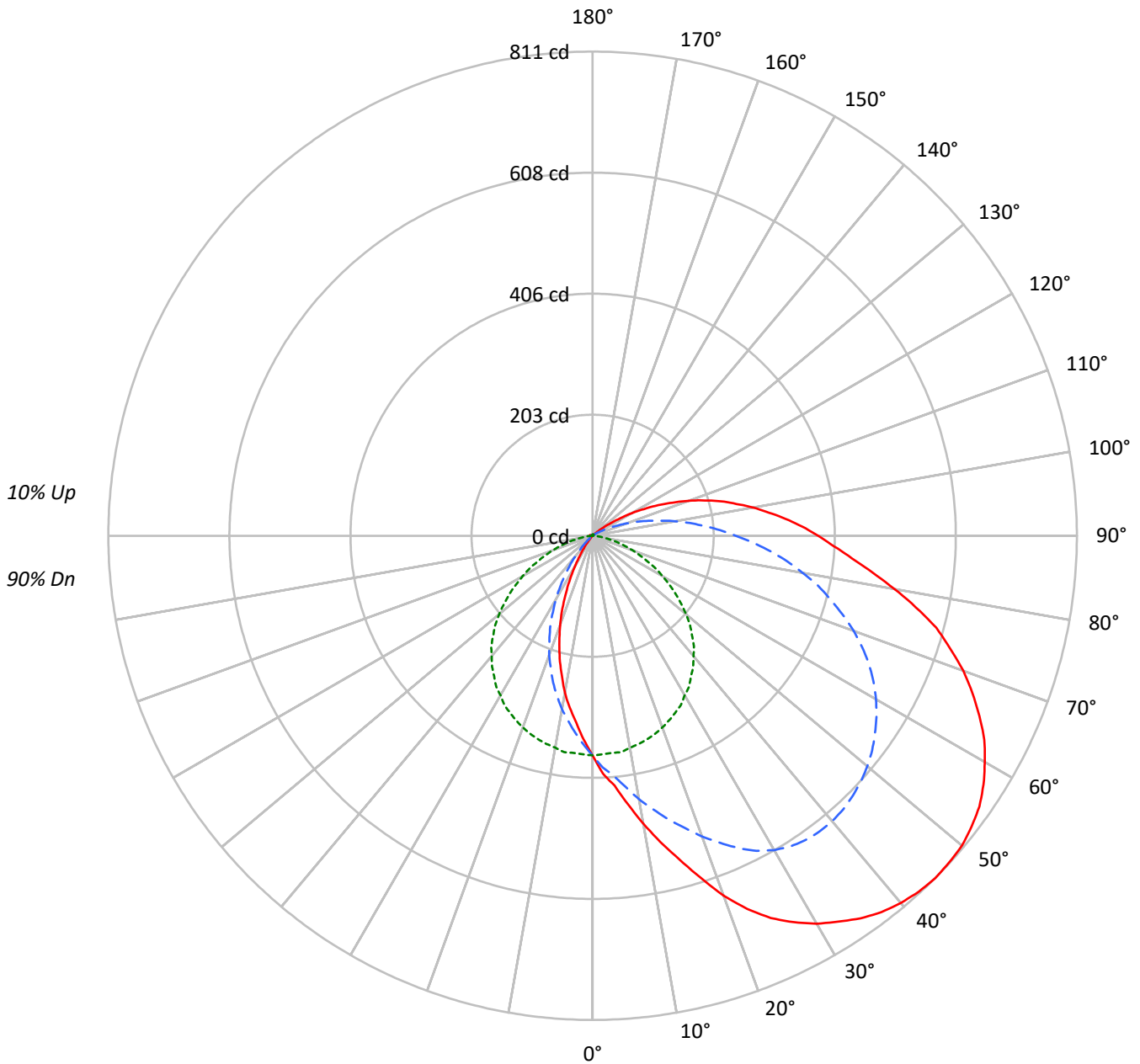
Lumens per Lamp: N/A  
Luminaire Lumens: 1819.0 lumens  
Efficiency: N/A  
Efficacy: 77.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-30-UNV-82-94-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°	3960	3960	3960
5°	4348	3902	3256
10°	4920	3854	2684
15°	5513	3805	2091
20°	6219	3744	1540
25°	6803	3672	1011
30°	7238	3575	570
35°	7614	3471	251
40°	7947	3343	60
45°	8233	3184	0
50°	8474	2972	0
55°	8657	2702	0
60°	8749	2389	0
65°	8785	2033	0
70°	8756	1659	0
75°	8644	1222	7
80°	8294	747	37
85°	8017	356	51



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.2	1.9
10°-20°	105.5	5.8
20°-30°	170.9	9.4
30°-40°	219.5	12.1
40°-50°	248.5	13.7
50°-60°	257.4	14.2
60°-70°	242.8	13.3
70°-80°	203.5	11.2
80°-90°	147.5	8.1
90°-100°	96.9	5.3
100°-110°	56.0	3.1
110°-120°	24.7	1.4
120°-130°	6.7	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°	311.7	17.1
0°-40°	531.2	29.2
0°-60°	1037.1	57.0
0°-90°	1630.9	89.7
90°-120°	177.6	9.8
90°-150°	186.8	10.3
90°-180°	188.0	10.3
0°-180°	1819.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	368	368	368	368	368	
5°	420	403	365	331	314	42
15°	561	492	353	255	213	162
25°	706	577	327	168	105	326
35°	782	622	287	82	26	491
45°	811	616	235	19	0	626
55°	791	577	170	0	0	706
65°	715	511	101	0	0	707
75°	596	412	43	0	0	625
85°	436	299	7	2	3	372
90°	378	240	2	3	3	207
95°	324	187	1	3	4	254
105°	223	97	1	2	4	235
115°	121	32	1	1	2	122
125°	36	4	2	1	2	36
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°	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9
2.5°	398.9	398.4	397.0	394.7	391.4	385.8	381.1	376.8	371.2	366.5	357.6
5°	420.0	417.6	415.7	413.4	405.9	400.7	392.3	382.9	374.0	365.1	347.3
7.5°	453.7	450.0	447.2	440.6	430.3	418.6	405.4	396.5	390.4	365.6	335.1
10°	489.8	486.5	480.9	469.2	456.5	439.7	420.9	399.8	381.1	360.4	324.3
12.5°	525.4	520.7	512.8	497.8	480.0	458.9	433.1	408.2	381.5	357.2	311.7
15°	561.0	555.9	547.5	529.2	505.7	478.1	446.7	415.3	383.9	352.9	298.6
17.5°	600.0	592.9	580.3	559.6	530.1	495.9	458.9	420.9	382.9	347.8	284.5
20°	641.7	631.8	618.2	590.6	555.9	515.6	471.1	426.5	382.5	341.7	268.6
22.5°	676.4	666.5	651.5	622.9	581.2	532.0	481.4	430.3	380.6	334.7	253.6
25°	706.4	698.4	682.0	649.2	605.1	549.3	491.2	433.1	377.8	327.2	237.6
27.5°	729.8	722.3	704.0	670.3	625.3	564.8	498.7	434.5	374.0	319.7	221.2
30°	750.4	742.9	720.9	686.2	638.9	577.0	506.2	435.0	369.3	308.4	203.4
32.5°	766.3	759.3	736.8	699.8	648.2	585.4	510.4	434.5	363.3	300.4	184.2
35°	782.3	775.3	749.0	709.6	655.3	589.2	513.7	432.2	355.8	287.3	165.9
37.5°	794.5	786.5	759.8	716.2	658.5	590.1	513.2	428.9	347.8	276.5	147.6
40°	802.9	794.5	765.9	719.9	659.5	588.7	509.5	423.2	338.4	262.9	128.4
42.5°	808.5	799.2	768.7	725.6	657.6	585.0	503.9	416.2	328.1	251.2	110.1
45°	811.3	801.5	769.2	720.9	654.3	577.9	495.4	407.3	316.9	235.3	91.9
47.5°	809.9	799.2	766.8	715.7	648.2	570.4	486.1	396.5	303.3	221.2	74.5
50°	807.6	796.3	761.7	709.2	639.8	561.0	475.7	383.4	289.2	203.9	59.1
52.5°	800.1	788.8	756.0	699.8	630.0	550.3	461.7	369.8	274.2	187.0	45.0
55°	790.7	780.4	746.2	691.4	617.3	537.1	448.6	355.3	259.7	169.7	32.3
57.5°	776.2	766.8	734.0	677.8	604.6	522.6	434.0	339.3	241.4	152.3	22.5
60°	758.4	749.0	717.1	662.3	590.1	506.2	418.1	322.9	225.0	135.0	14.1
62.5°	739.6	730.7	697.4	643.1	571.8	488.9	400.7	306.5	207.6	119.1	8.4
65°	714.8	706.4	676.4	620.1	551.7	470.1	381.5	286.9	189.8	101.2	4.7
67.5°	688.5	681.0	650.6	599.0	528.2	449.5	361.8	267.6	171.1	85.8	2.3
70°	660.4	651.0	622.9	570.4	504.3	426.1	340.3	247.9	153.3	70.8	0.0
72.5°	627.6	620.6	593.4	543.7	476.7	401.2	318.3	226.4	133.6	56.2	0.5
75°	595.7	586.8	562.0	515.1	449.5	375.0	293.9	206.2	114.4	43.1	0.5
77.5°	554.5	551.7	528.2	482.8	423.7	349.7	267.2	181.9	96.1	30.9	0.5
80°	513.2	510.4	492.1	450.4	393.7	319.7	242.3	158.9	78.3	20.6	0.5
82.5°	472.5	468.7	451.4	416.7	363.3	294.4	216.5	135.9	61.9	12.7	0.5
85°	435.9	431.2	412.5	380.6	331.8	265.8	189.8	113.4	45.9	7.0	0.9
87.5°	404.5	401.2	380.6	347.8	300.0	239.0	166.4	91.9	32.3	3.3	1.4
90°	377.8	370.8	352.5	317.8	270.0	209.5	141.6	73.6	21.6	1.9	1.9
92.5°	351.5	345.4	325.3	289.7	243.3	184.2	117.6	56.2	13.6	0.9	2.3
95°	324.3	317.8	298.1	265.3	216.1	158.4	96.6	41.2	7.5	0.9	2.3
97.5°	297.6	291.5	270.9	238.1	191.7	135.9	76.4	29.1	3.7	0.9	1.9
100°	272.8	265.8	247.0	214.2	167.3	113.4	59.1	18.7	2.3	0.9	1.9
102.5°	246.5	240.9	221.7	189.8	142.0	92.3	44.1	11.7	0.9	0.9	1.4
105°	223.1	216.1	197.3	164.5	120.9	72.7	30.9	7.0	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°	145.3	139.7	123.3	95.6	61.4	28.6	8.4	1.4	1.4	1.4	1.4
115°	121.4	113.0	98.4	74.1	45.5	18.7	4.2	1.4	1.4	1.4	1.4
117.5°	97.0	90.0	79.7	56.2	30.0	12.2	2.3	1.4	1.4	1.4	1.4
120°	75.9	69.4	57.7	38.9	20.2	7.0	0.9	1.4	1.4	1.4	1.4
122.5°	54.4	49.2	38.9	25.3	12.2	3.3	1.4	1.4	1.9	1.9	1.4
125°	36.1	33.3	25.8	15.5	7.5	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	23.4	21.1	15.0	8.9	3.3	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.1	11.7	8.9	5.2	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.5	7.0	4.7	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.9	2.3	2.3	2.3	1.9
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	1.9
142.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
145°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	1.9	1.9	1.9
147.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	1.9	1.9
150°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
152.5°	0.5	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	1.9
155°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
157.5°	0.9	0.9	0.9	1.4	1.9	1.9	1.9	2.3	1.9	1.9	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.9	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.9	1.9	2.3	2.3	2.3	1.9
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°	367.9	367.9	367.9
2.5°	350.1	343.6	341.7
5°	331.4	320.6	314.5
7.5°	312.6	298.1	291.1
10°	295.3	274.7	267.2
12.5°	274.7	250.8	239.0
15°	255.0	224.0	212.8
17.5°	233.0	198.3	185.1
20°	212.3	172.5	158.9
22.5°	188.9	147.2	132.2
25°	167.8	121.9	105.0
27.5°	144.4	96.1	81.6
30°	122.3	73.6	59.1
32.5°	101.2	53.9	40.8
35°	81.6	36.6	25.8
37.5°	62.8	22.5	13.1
40°	45.5	11.7	6.1
42.5°	30.5	5.6	3.3
45°	18.7	2.8	0.0
47.5°	10.8	0.0	0.0
50°	5.6	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	1.9	2.3
82.5°	1.9	2.3	2.3
85°	1.9	2.3	2.8
87.5°	2.3	2.8	3.3
90°	2.8	3.3	3.3
92.5°	2.8	3.7	3.7
95°	3.3	3.7	4.2
97.5°	3.7	4.2	4.2
100°	3.3	4.2	4.7
102.5°	2.8	4.2	4.2
105°	2.3	3.3	3.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.3	2.3
115°	1.4	1.9	2.3
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	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°	1.9	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°	196.9	191.2	172.5	141.6	98.9	55.3	20.6	3.7	0.9	1.4	1.4
110°	171.5	166.9	147.6	117.6	79.7	41.2	13.6	2.3	1.4	1.4	1.4







107.5°	1.9	2.8	3.3
110°	1.9	2.3	2.8



(END OF REPORT)