

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: P551549

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-82-87-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: P551549  
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-35-UNV-82-87-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

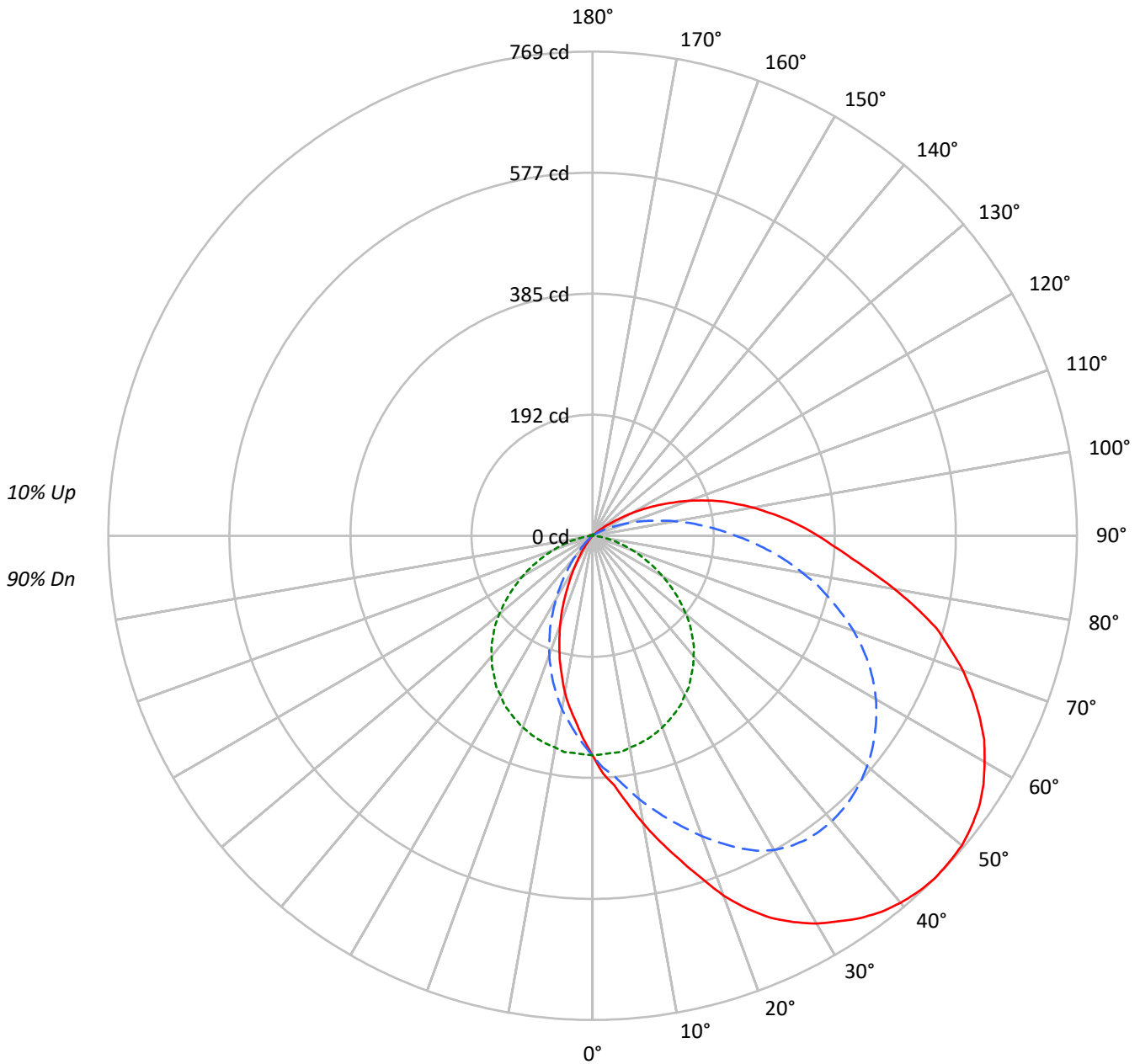
Lumens per Lamp: N/A  
Luminaire Lumens: 1724.0 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (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-LD4-2LO-35-UNV-82-87-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°	3753	3753	3753
5°	4120	3699	3086
10°	4663	3653	2543
15°	5225	3607	1982
20°	5894	3548	1459
25°	6448	3480	958
30°	6859	3388	540
35°	7216	3290	237
40°	7533	3169	57
45°	7804	3017	0
50°	8031	2816	0
55°	8205	2561	0
60°	8293	2263	0
65°	8327	1928	0
70°	8298	1572	0
75°	8193	1160	6
80°	7861	707	36
85°	7598	341	50



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.4	1.9
10°-20°	100.0	5.8
20°-30°	162.0	9.4
30°-40°	208.1	12.1
40°-50°	235.5	13.7
50°-60°	244.0	14.2
60°-70°	230.1	13.3
70°-80°	192.8	11.2
80°-90°	139.8	8.1
90°-100°	91.9	5.3
100°-110°	53.1	3.1
110°-120°	23.4	1.4
120°-130°	6.3	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	295.4	17.1
0°-40°	503.4	29.2
0°-60°	983.0	57.0
0°-90°	1545.7	89.7
90°-120°	168.3	9.8
90°-150°	177.1	10.3
90°-180°	178.0	10.3
0°-180°	1724.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	349	349	349	349	349	
5°	398	382	346	314	298	40
15°	532	466	334	242	202	153
25°	670	547	310	159	100	309
35°	741	590	272	77	24	465
45°	769	584	223	18	0	594
55°	749	547	161	0	0	669
65°	678	484	96	0	0	670
75°	565	391	41	0	0	592
85°	413	283	7	2	3	353
90°	358	227	2	3	3	196
95°	307	178	1	3	4	241
105°	212	92	1	2	4	223
115°	115	30	1	1	2	115
125°	34	4	2	1	2	34
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°	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7	348.7
2.5°	378.0	377.6	376.3	374.0	370.9	365.6	361.2	357.2	351.8	347.4	339.0
5°	398.0	395.8	394.0	391.8	384.7	379.8	371.8	362.9	354.5	346.1	329.2
7.5°	430.0	426.5	423.8	417.6	407.8	396.7	384.3	375.8	370.0	346.5	317.6
10°	464.2	461.1	455.8	444.7	432.7	416.7	398.9	378.9	361.2	341.6	307.4
12.5°	498.0	493.5	486.0	471.8	454.9	434.9	410.5	386.9	361.6	338.5	295.4
15°	531.7	526.9	518.9	501.5	479.3	453.1	423.4	393.6	363.8	334.5	283.0
17.5°	568.6	562.0	550.0	530.4	502.4	470.0	434.9	398.9	362.9	329.6	269.7
20°	608.2	598.8	585.9	559.7	526.9	488.7	446.5	404.3	362.5	323.8	254.5
22.5°	641.0	631.7	617.5	590.4	550.9	504.2	456.2	407.8	360.7	317.2	240.3
25°	669.5	661.9	646.4	615.3	573.5	520.6	465.6	410.5	358.1	310.1	225.2
27.5°	691.7	684.6	667.2	635.3	592.6	535.3	472.7	411.8	354.5	303.0	209.7
30°	711.2	704.1	683.2	650.4	605.5	546.9	479.8	412.2	350.1	292.3	192.8
32.5°	726.3	719.7	698.3	663.2	614.4	554.8	483.8	411.8	344.3	284.8	174.6
35°	741.4	734.8	709.9	672.6	621.0	558.4	486.9	409.6	337.2	272.3	157.3
37.5°	753.0	745.4	720.1	678.8	624.1	559.3	486.4	406.5	329.6	262.1	139.9
40°	761.0	753.0	725.9	682.3	625.0	558.0	482.9	401.1	320.7	249.2	121.7
42.5°	766.3	757.4	728.5	687.7	623.3	554.4	477.6	394.5	311.0	238.1	104.4
45°	769.0	759.6	729.0	683.2	620.2	547.7	469.6	386.0	300.3	223.0	87.1
47.5°	767.6	757.4	726.8	678.3	614.4	540.6	460.7	375.8	287.4	209.7	70.6
50°	765.4	754.8	721.9	672.1	606.4	531.7	450.9	363.4	274.1	193.2	56.0
52.5°	758.3	747.6	716.5	663.2	597.1	521.5	437.6	350.5	259.9	177.2	42.6
55°	749.4	739.6	707.2	655.2	585.1	509.1	425.1	336.7	246.1	160.8	30.7
57.5°	735.7	726.8	695.7	642.4	573.1	495.3	411.4	321.6	228.8	144.4	21.3
60°	718.8	709.9	679.7	627.7	559.3	479.8	396.3	306.1	213.2	127.9	13.3
62.5°	701.0	692.6	661.0	609.5	542.0	463.3	379.8	290.5	196.8	112.8	8.0
65°	677.5	669.5	641.0	587.7	522.9	445.6	361.6	271.9	179.9	96.0	4.4
67.5°	652.6	645.5	616.6	567.7	500.7	426.0	342.9	253.7	162.1	81.3	2.2
70°	625.9	617.0	590.4	540.6	478.0	403.8	322.5	235.0	145.3	67.1	0.0
72.5°	594.8	588.2	562.4	515.3	451.8	380.3	301.6	214.6	126.6	53.3	0.4
75°	564.6	556.2	532.6	488.2	426.0	355.4	278.5	195.5	108.4	40.9	0.4
77.5°	525.5	522.9	500.7	457.6	401.6	331.4	253.2	172.4	91.1	29.3	0.4
80°	486.4	483.8	466.4	426.9	373.2	303.0	229.7	150.6	74.2	19.5	0.4
82.5°	447.8	444.2	427.8	394.9	344.3	279.0	205.2	128.8	58.6	12.0	0.4
85°	413.1	408.7	390.9	360.7	314.5	251.9	179.9	107.5	43.5	6.7	0.9
87.5°	383.4	380.3	360.7	329.6	284.3	226.6	157.7	87.1	30.7	3.1	1.3
90°	358.1	351.4	334.1	301.2	255.9	198.6	134.2	69.7	20.4	1.8	1.8
92.5°	333.2	327.4	308.3	274.5	230.6	174.6	111.5	53.3	12.9	0.9	2.2
95°	307.4	301.2	282.5	251.4	204.8	150.2	91.5	39.1	7.1	0.9	2.2
97.5°	282.1	276.3	256.8	225.7	181.7	128.8	72.4	27.5	3.6	0.9	1.8
100°	258.5	251.9	234.1	203.0	158.6	107.5	56.0	17.8	2.2	0.9	1.8
102.5°	233.7	228.3	210.1	179.9	134.6	87.5	41.8	11.1	0.9	0.9	1.3
105°	211.5	204.8	187.0	155.9	114.6	68.9	29.3	6.7	0.9	0.9	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	137.7	132.4	116.8	90.6	58.2	27.1	8.0	1.3	1.3	1.3	1.3
115°	115.1	107.1	93.3	70.2	43.1	17.8	4.0	1.3	1.3	1.3	1.3
117.5°	92.0	85.3	75.5	53.3	28.4	11.6	2.2	1.3	1.3	1.3	1.3
120°	72.0	65.7	54.6	36.9	19.1	6.7	0.9	1.3	1.3	1.3	1.3
122.5°	51.5	46.6	36.9	24.0	11.6	3.1	1.3	1.3	1.8	1.8	1.3
125°	34.2	31.5	24.4	14.7	7.1	1.3	1.3	1.3	1.8	1.8	1.3
127.5°	22.2	20.0	14.2	8.4	3.1	1.3	1.3	1.8	1.8	1.8	1.3
130°	12.4	11.1	8.4	4.9	1.3	1.3	1.3	1.8	1.8	1.8	1.3
132.5°	7.1	6.7	4.4	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8
137.5°	0.4	0.4	0.9	0.9	1.3	1.3	1.8	2.2	2.2	2.2	1.8
140°	0.4	0.4	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	1.8
142.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
145°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	1.8	1.8
150°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
152.5°	0.4	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
157.5°	0.9	0.9	0.9	1.3	1.8	1.8	1.8	2.2	1.8	1.8	2.2
160°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.3	1.3	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.3	1.3	1.3	1.8	2.2	2.2	2.2	2.2
172.5°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
175°	0.9	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	2.2
177.5°	0.4	0.9	0.9	1.3	1.3	1.8	1.8	2.2	2.2	2.2	1.8
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	348.7	348.7	348.7
2.5°	331.8	325.6	323.8
5°	314.1	303.9	298.1
7.5°	296.3	282.5	275.9
10°	279.9	260.3	253.2
12.5°	260.3	237.7	226.6
15°	241.7	212.3	201.7
17.5°	220.8	187.9	175.5
20°	201.2	163.5	150.6
22.5°	179.0	139.5	125.3
25°	159.0	115.5	99.5
27.5°	136.8	91.1	77.3
30°	115.9	69.7	56.0
32.5°	96.0	51.1	38.6
35°	77.3	34.7	24.4
37.5°	59.5	21.3	12.4
40°	43.1	11.1	5.8
42.5°	28.9	5.3	3.1
45°	17.8	2.7	0.0
47.5°	10.2	0.0	0.0
50°	5.3	0.0	0.0
52.5°	2.2	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	0.9	1.3
80°	0.9	1.8	2.2
82.5°	1.8	2.2	2.2
85°	1.8	2.2	2.7
87.5°	2.2	2.7	3.1
90°	2.7	3.1	3.1
92.5°	2.7	3.6	3.6
95°	3.1	3.6	4.0
97.5°	3.6	4.0	4.0
100°	3.1	4.0	4.4
102.5°	2.7	4.0	4.0
105°	2.2	3.1	3.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.8	2.2	2.2
115°	1.3	1.8	2.2
117.5°	1.3	1.8	1.8
120°	1.3	1.3	1.8
122.5°	1.3	1.3	1.8
125°	1.3	1.3	1.8
127.5°	1.8	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.8	1.3	1.3
135°	1.8	1.3	1.3
137.5°	1.8	1.3	1.3
140°	1.8	1.3	1.3
142.5°	1.8	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.9
152.5°	1.3	0.9	0.9
155°	1.3	0.9	0.4
157.5°	1.8	0.9	0.4
160°	1.3	0.9	0.4
162.5°	1.3	0.9	0.4
165°	1.3	0.9	0.0
167.5°	1.3	0.9	0.4
170°	1.3	0.9	0.4
172.5°	1.3	0.9	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	186.6	181.2	163.5	134.2	93.7	52.4	19.5	3.6	0.9	1.3	1.3
110°	162.6	158.1	139.9	111.5	75.5	39.1	12.9	2.2	1.3	1.3	1.3







107.5°	1.8	2.7	3.1
110°	1.8	2.2	2.7



(END OF REPORT)