

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: P551496

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-84-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: P551496  
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-93-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

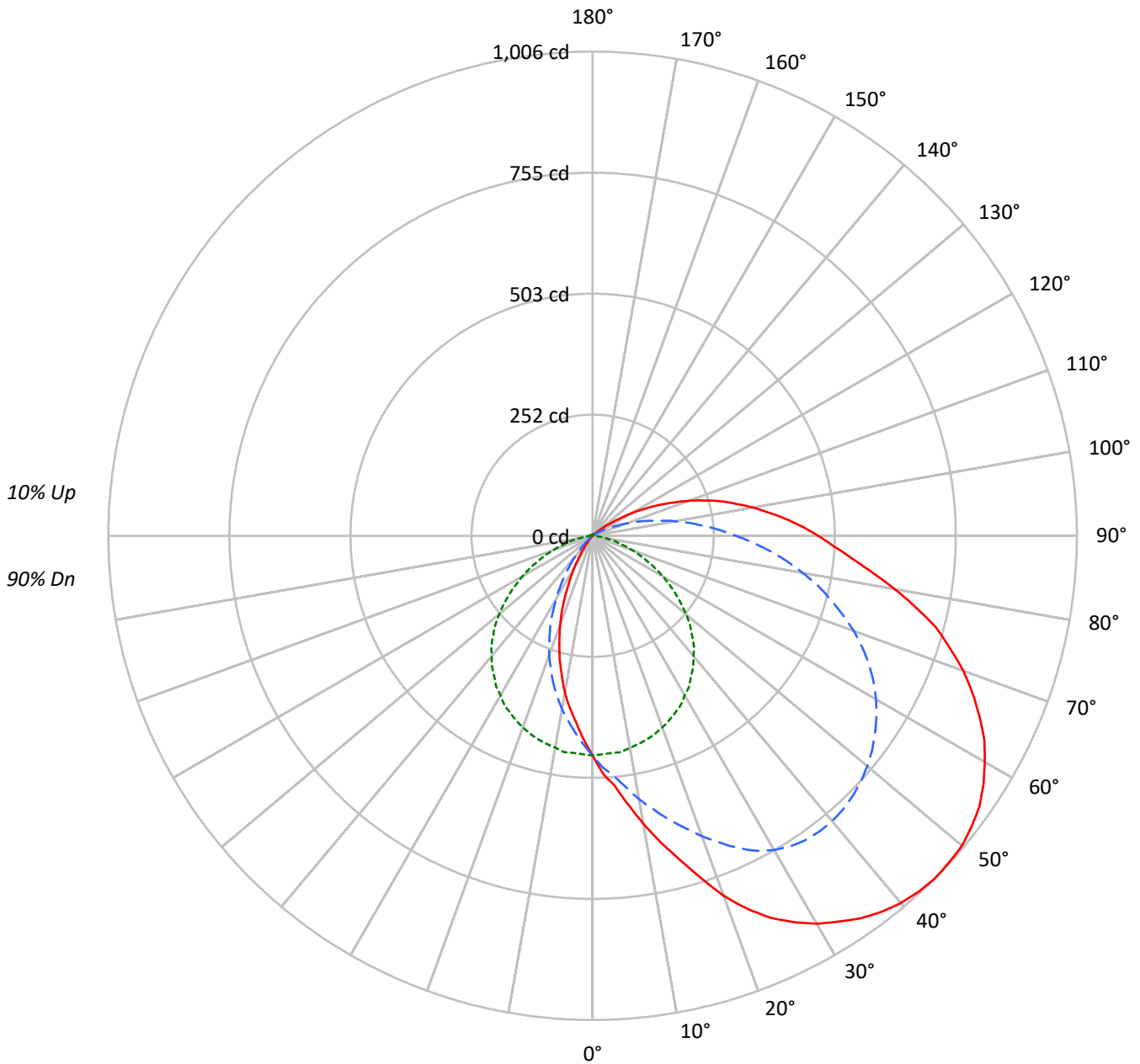
Lumens per Lamp: N/A  
Luminaire Lumens: 2255.9 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 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-30-UNV-93-84-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°	4912	4912	4912
5°	5392	4840	4038
10°	6102	4780	3329
15°	6838	4719	2593
20°	7712	4643	1910
25°	8437	4554	1254
30°	8976	4434	706
35°	9443	4305	311
40°	9857	4147	75
45°	10212	3948	0
50°	10510	3686	0
55°	10737	3350	0
60°	10851	2962	0
65°	10896	2523	0
70°	10860	2057	0
75°	10722	1517	9
80°	10286	929	47
85°	9943	442	64



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	1.9
10°-20°	130.9	5.8
20°-30°	211.9	9.4
30°-40°	272.3	12.1
40°-50°	308.2	13.7
50°-60°	319.3	14.2
60°-70°	301.1	13.3
70°-80°	252.4	11.2
80°-90°	182.9	8.1
90°-100°	120.2	5.3
100°-110°	69.4	3.1
110°-120°	30.6	1.4
120°-130°	8.3	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	386.5	17.1
0°-40°	658.8	29.2
0°-60°	1286.3	57.0
0°-90°	2022.7	89.7
90°-120°	220.3	9.8
90°-150°	231.7	10.3
90°-180°	233.0	10.3
0°-180°	2255.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	456	456	456	456	456	
5°	521	500	453	411	390	53
15°	696	610	438	316	264	201
25°	876	716	406	208	130	405
35°	970	772	356	101	32	608
45°	1006	764	292	23	0	777
55°	981	716	210	0	0	876
65°	886	634	126	0	0	877
75°	739	511	54	1	1	775
85°	541	371	9	2	4	462
90°	468	297	2	4	4	257
95°	402	232	1	4	5	316
105°	277	120	1	3	5	292
115°	151	40	2	2	3	151
125°	45	6	2	2	2	45
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	456.3	456.3	456.3	456.3	456.3	456.3	456.3	456.3	456.3	456.3	456.3
2.5°	494.7	494.1	492.4	489.5	485.4	478.4	472.6	467.4	460.4	454.6	443.5
5°	520.9	518.0	515.6	512.7	503.4	497.0	486.6	474.9	463.9	452.8	430.8
7.5°	562.7	558.1	554.6	546.4	533.6	519.1	502.8	491.8	484.2	453.4	415.6
10°	607.5	603.4	596.4	581.9	566.2	545.3	522.0	495.9	472.6	447.0	402.3
12.5°	651.7	645.8	636.0	617.4	595.3	569.1	537.1	506.3	473.2	443.0	386.6
15°	695.8	689.4	679.0	656.3	627.2	592.9	554.0	515.0	476.1	437.7	370.3
17.5°	744.1	735.4	719.7	694.1	657.5	615.0	569.1	522.0	474.9	431.3	352.9
20°	795.8	783.6	766.8	732.5	689.4	639.4	584.2	529.0	474.4	423.8	333.1
22.5°	838.8	826.6	808.0	772.6	720.8	659.8	597.0	533.6	472.0	415.1	314.5
25°	876.0	866.2	845.8	805.1	750.5	681.3	609.2	537.1	468.5	405.8	294.7
27.5°	905.1	895.8	873.1	831.3	775.5	700.5	618.5	538.9	463.9	396.5	274.4
30°	930.7	921.4	894.1	851.0	792.3	715.6	627.8	539.5	458.1	382.5	252.3
32.5°	950.5	941.7	913.8	867.9	804.0	726.1	633.1	538.9	450.5	372.6	228.5
35°	970.2	961.5	928.9	880.1	812.7	730.7	637.1	536.0	441.2	356.3	205.8
37.5°	985.3	975.5	942.3	888.3	816.8	731.9	636.5	531.9	431.3	343.0	183.1
40°	995.8	985.3	949.9	892.9	817.9	730.1	631.9	524.9	419.7	326.1	159.3
42.5°	1002.8	991.1	953.4	899.9	815.6	725.5	624.9	516.2	406.9	311.6	136.6
45°	1006.3	994.1	953.9	894.1	811.5	716.8	614.5	505.2	393.0	291.8	113.9
47.5°	1004.5	991.1	951.0	887.7	804.0	707.5	602.8	491.8	376.1	274.4	92.4
50°	1001.6	987.7	944.6	879.5	793.5	695.8	590.0	475.5	358.7	252.9	73.2
52.5°	992.3	978.4	937.7	867.9	781.3	682.5	572.6	458.7	340.1	231.9	55.8
55°	980.7	967.9	925.5	857.4	765.6	666.2	556.3	440.6	322.1	210.4	40.1
57.5°	962.7	951.0	910.3	840.6	749.9	648.2	538.3	420.9	299.4	188.9	27.9
60°	940.6	928.9	889.4	821.4	731.9	627.8	518.5	400.5	279.0	167.4	17.4
62.5°	917.3	906.3	865.0	797.6	709.2	606.3	497.0	380.2	257.5	147.7	10.5
65°	886.5	876.0	838.8	769.1	684.2	583.1	473.2	355.8	235.4	125.6	5.8
67.5°	854.0	844.7	806.9	742.9	655.1	557.5	448.8	331.9	212.2	106.4	2.9
70°	819.1	807.5	772.6	707.5	625.5	528.4	422.0	307.5	190.1	87.8	0.0
72.5°	778.4	769.7	735.9	674.3	591.2	497.6	394.7	280.8	165.7	69.8	0.6
75°	738.9	727.8	697.0	638.9	557.5	465.1	364.5	255.8	141.8	53.5	0.6
77.5°	687.7	684.2	655.1	598.8	525.5	433.7	331.4	225.6	119.2	38.4	0.6
80°	636.5	633.1	610.4	558.6	488.3	396.5	300.5	197.1	97.1	25.6	0.6
82.5°	586.0	581.3	559.8	516.8	450.5	365.1	268.6	168.6	76.7	15.7	0.6
85°	540.6	534.8	511.6	472.0	411.6	329.6	235.4	140.7	57.0	8.7	1.2
87.5°	501.7	497.6	472.0	431.3	372.0	296.5	206.4	113.9	40.1	4.1	1.7
90°	468.5	459.8	437.2	394.1	334.8	259.8	175.6	91.3	26.7	2.3	2.3
92.5°	436.0	428.4	403.4	359.3	301.7	228.5	145.9	69.8	16.9	1.2	2.9
95°	402.3	394.1	369.7	329.0	268.0	196.5	119.8	51.2	9.3	1.2	2.9
97.5°	369.1	361.6	336.0	295.3	237.8	168.6	94.8	36.0	4.7	1.2	2.3
100°	338.3	329.6	306.4	265.7	207.5	140.7	73.2	23.3	2.9	1.2	2.3
102.5°	305.8	298.8	275.0	235.4	176.1	114.5	54.6	14.5	1.2	1.2	1.7
105°	276.7	268.0	244.7	204.0	150.0	90.1	38.4	8.7	1.2	1.2	1.7



TEST NUMBER: P551496

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	180.2	173.2	152.9	118.6	76.2	35.5	10.5	1.7	1.7	1.7	1.7
115°	150.6	140.1	122.1	91.8	56.4	23.3	5.2	1.7	1.7	1.7	1.7
117.5°	120.3	111.6	98.8	69.8	37.2	15.1	2.9	1.7	1.7	1.7	1.7
120°	94.2	86.0	71.5	48.2	25.0	8.7	1.2	1.7	1.7	1.7	1.7
122.5°	67.4	61.0	48.2	31.4	15.1	4.1	1.7	1.7	2.3	2.3	1.7
125°	44.8	41.3	32.0	19.2	9.3	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	29.1	26.2	18.6	11.0	4.1	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.3	14.5	11.0	6.4	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.3	8.7	5.8	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3
137.5°	0.6	0.6	1.2	1.2	1.7	1.7	2.3	2.9	2.9	2.9	2.3
140°	0.6	0.6	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.3
142.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
145°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.3	2.3	2.3
147.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.3	2.3
150°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
152.5°	0.6	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.3
155°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
157.5°	1.2	1.2	1.2	1.7	2.3	2.3	2.3	2.9	2.3	2.3	2.9
160°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.2	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.2	1.2	1.2	1.7	1.7	1.7	2.3	2.9	2.9	2.9	2.9
172.5°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
175°	1.2	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9
177.5°	0.6	1.2	1.2	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	456.3	456.3	456.3
2.5°	434.2	426.1	423.8
5°	411.0	397.6	390.1
7.5°	387.7	369.7	361.0
10°	366.2	340.7	331.4
12.5°	340.7	311.0	296.5
15°	316.2	277.9	263.9
17.5°	288.9	245.9	229.6
20°	263.3	213.9	197.1
22.5°	234.3	182.5	163.9
25°	208.1	151.1	130.2
27.5°	179.0	119.2	101.1
30°	151.7	91.3	73.2
32.5°	125.6	66.9	50.6
35°	101.1	45.3	32.0
37.5°	77.9	27.9	16.3
40°	56.4	14.5	7.6
42.5°	37.8	7.0	4.1
45°	23.3	3.5	0.0
47.5°	13.4	0.0	0.0
50°	7.0	0.0	0.0
52.5°	2.9	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.7
80°	1.2	2.3	2.9
82.5°	2.3	2.9	2.9
85°	2.3	2.9	3.5
87.5°	2.9	3.5	4.1
90°	3.5	4.1	4.1
92.5°	3.5	4.7	4.7
95°	4.1	4.7	5.2
97.5°	4.7	5.2	5.2
100°	4.1	5.2	5.8
102.5°	3.5	5.2	5.2
105°	2.9	4.1	4.7





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	2.3	2.9	2.9
115°	1.7	2.3	2.9
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.2
152.5°	1.7	1.2	1.2
155°	1.7	1.2	0.6
157.5°	2.3	1.2	0.6
160°	1.7	1.2	0.6
162.5°	1.7	1.2	0.6
165°	1.7	1.2	0.0
167.5°	1.7	1.2	0.6
170°	1.7	1.2	0.6
172.5°	1.7	1.2	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	244.2	237.2	213.9	175.6	122.7	68.6	25.6	4.7	1.2	1.7	1.7
110°	212.8	206.9	183.1	145.9	98.8	51.2	16.9	2.9	1.7	1.7	1.7







107.5°	2.3	3.5	4.1
110°	2.3	2.9	3.5



(END OF REPORT)