

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: P551110

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-82-97-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: P551110  
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-LD4-1STD-40-UNV-82-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 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**

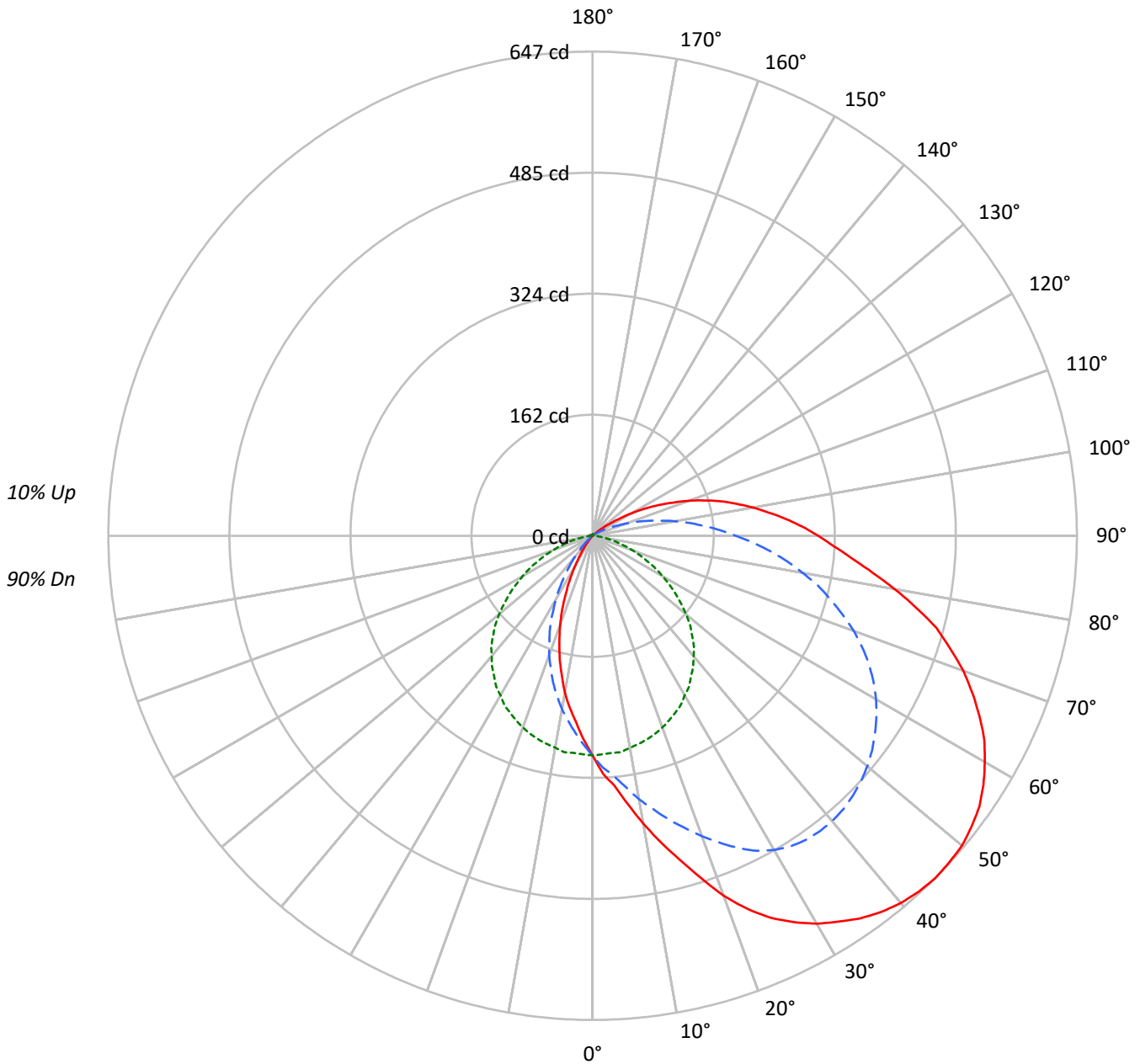
Lumens per Lamp: N/A  
Luminaire Lumens: 1451.0 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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-LD4-1STD-40-UNV-82-97-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°	3159	3159	3159
5°	3468	3113	2597
10°	3924	3075	2140
15°	4398	3035	1668
20°	4961	2987	1228
25°	5426	2929	807
30°	5773	2852	454
35°	6073	2769	200
40°	6340	2668	49
45°	6568	2540	0
50°	6760	2370	0
55°	6905	2154	0
60°	6980	1906	0
65°	7008	1623	0
70°	6984	1324	0
75°	6896	976	6
80°	6616	599	31
85°	6395	285	40



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.1	1.9
10°-20°	84.2	5.8
20°-30°	136.3	9.4
30°-40°	175.1	12.1
40°-50°	198.2	13.7
50°-60°	205.4	14.2
60°-70°	193.7	13.3
70°-80°	162.3	11.2
80°-90°	117.6	8.1
90°-100°	77.3	5.3
100°-110°	44.6	3.1
110°-120°	19.7	1.4
120°-130°	5.3	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	248.6	17.1
0°-40°	423.7	29.2
0°-60°	827.3	57.0
0°-90°	1301.0	89.7
90°-120°	141.7	9.8
90°-150°	149.0	10.3
90°-180°	150.0	10.3
0°-180°	1451.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	294	294	294	294	294	
5°	335	322	291	264	251	34
15°	448	392	282	203	170	129
25°	563	460	261	134	84	260
35°	624	496	229	65	21	391
45°	647	491	188	15	0	500
55°	631	460	135	0	0	563
65°	570	408	81	0	0	564
75°	475	329	34	0	0	498
85°	348	238	6	2	2	297
90°	301	191	2	2	3	165
95°	259	149	1	3	3	203
105°	178	77	1	2	3	188
115°	97	26	1	1	2	97
125°	29	4	2	1	2	29
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°	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5	293.5
2.5°	318.2	317.8	316.7	314.8	312.2	307.7	304.0	300.6	296.1	292.4	285.3
5°	335.0	333.1	331.6	329.8	323.8	319.7	312.9	305.5	298.4	291.3	277.1
7.5°	361.9	358.9	356.7	351.5	343.2	333.9	323.4	316.3	311.4	291.6	267.3
10°	390.7	388.1	383.6	374.3	364.2	350.7	335.8	318.9	304.0	287.5	258.7
12.5°	419.1	415.4	409.0	397.1	382.9	366.0	345.5	325.7	304.3	284.9	248.6
15°	447.5	443.4	436.7	422.1	403.4	381.4	356.3	331.3	306.2	281.5	238.2
17.5°	478.6	473.0	462.9	446.4	422.9	395.6	366.0	335.8	305.5	277.4	227.0
20°	511.9	504.0	493.2	471.1	443.4	411.3	375.8	340.2	305.1	272.6	214.2
22.5°	539.5	531.7	519.7	496.9	463.6	424.4	384.0	343.2	303.6	267.0	202.3
25°	563.4	557.1	544.0	517.8	482.7	438.2	391.8	345.5	301.4	261.0	189.6
27.5°	582.1	576.2	561.6	534.7	498.8	450.5	397.8	346.6	298.4	255.0	176.5
30°	598.6	592.6	575.0	547.4	509.6	460.3	403.8	347.0	294.6	246.0	162.3
32.5°	611.3	605.7	587.8	558.2	517.1	467.0	407.2	346.6	289.8	239.7	146.9
35°	624.0	618.4	597.5	566.1	522.7	470.0	409.8	344.7	283.8	229.2	132.4
37.5°	633.7	627.4	606.1	571.3	525.3	470.7	409.4	342.1	277.4	220.6	117.8
40°	640.5	633.7	610.9	574.3	526.1	469.6	406.4	337.6	269.9	209.8	102.4
42.5°	645.0	637.5	613.2	578.8	524.6	466.6	401.9	332.0	261.7	200.4	87.9
45°	647.2	639.3	613.6	575.0	521.9	461.0	395.2	324.9	252.7	187.7	73.3
47.5°	646.1	637.5	611.7	570.9	517.1	455.0	387.7	316.3	241.9	176.5	59.4
50°	644.2	635.2	607.6	565.7	510.4	447.5	379.5	305.8	230.7	162.6	47.1
52.5°	638.2	629.3	603.1	558.2	502.5	438.9	368.3	295.0	218.7	149.2	35.9
55°	630.7	622.5	595.2	551.5	492.4	428.5	357.8	283.4	207.1	135.3	25.8
57.5°	619.2	611.7	585.5	540.6	482.3	416.9	346.2	270.7	192.6	121.5	17.9
60°	605.0	597.5	572.0	528.3	470.7	403.8	333.5	257.6	179.5	107.7	11.2
62.5°	590.0	582.9	556.3	513.0	456.1	390.0	319.7	244.5	165.6	95.0	6.7
65°	570.2	563.4	539.5	494.7	440.1	375.0	304.3	228.8	151.4	80.8	3.7
67.5°	549.2	543.3	519.0	477.8	421.4	358.6	288.6	213.5	136.5	68.4	1.9
70°	526.8	519.3	496.9	455.0	402.3	339.9	271.4	197.8	122.3	56.5	0.0
72.5°	500.6	495.0	473.3	433.7	380.2	320.0	253.9	180.6	106.6	44.9	0.4
75°	475.2	468.1	448.3	410.9	358.6	299.1	234.4	164.5	91.2	34.4	0.4
77.5°	442.3	440.1	421.4	385.1	338.0	278.9	213.1	145.1	76.6	24.7	0.4
80°	409.4	407.2	392.6	359.3	314.1	255.0	193.3	126.7	62.4	16.5	0.4
82.5°	376.9	373.9	360.1	332.4	289.8	234.8	172.7	108.4	49.4	10.1	0.4
85°	347.7	344.0	329.0	303.6	264.7	212.0	151.4	90.5	36.6	5.6	0.7
87.5°	322.7	320.0	303.6	277.4	239.3	190.7	132.7	73.3	25.8	2.6	1.1
90°	301.4	295.7	281.2	253.5	215.4	167.1	112.9	58.7	17.2	1.5	1.5
92.5°	280.4	275.6	259.5	231.1	194.0	146.9	93.8	44.9	10.8	0.7	1.9
95°	258.7	253.5	237.8	211.6	172.4	126.4	77.0	32.9	6.0	0.7	1.9
97.5°	237.4	232.6	216.1	189.9	152.9	108.4	60.9	23.2	3.0	0.7	1.5
100°	217.6	212.0	197.0	170.9	133.5	90.5	47.1	15.0	1.9	0.7	1.5
102.5°	196.7	192.2	176.8	151.4	113.3	73.7	35.1	9.3	0.7	0.7	1.1
105°	178.0	172.4	157.4	131.2	96.5	58.0	24.7	5.6	0.7	0.7	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	115.9	111.4	98.3	76.3	49.0	22.8	6.7	1.1	1.1	1.1	1.1
115°	96.8	90.1	78.5	59.1	36.3	15.0	3.4	1.1	1.1	1.1	1.1
117.5°	77.4	71.8	63.6	44.9	23.9	9.7	1.9	1.1	1.1	1.1	1.1
120°	60.6	55.3	46.0	31.0	16.1	5.6	0.7	1.1	1.1	1.1	1.1
122.5°	43.4	39.3	31.0	20.2	9.7	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.8	26.5	20.6	12.3	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.7	16.8	12.0	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.3	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	293.5	293.5	293.5
2.5°	279.3	274.1	272.6
5°	264.3	255.7	250.9
7.5°	249.4	237.8	232.2
10°	235.5	219.1	213.1
12.5°	219.1	200.0	190.7
15°	203.4	178.7	169.7
17.5°	185.8	158.2	147.7
20°	169.4	137.6	126.7
22.5°	150.7	117.4	105.4
25°	133.9	97.2	83.8
27.5°	115.2	76.6	65.1
30°	97.6	58.7	47.1
32.5°	80.8	43.0	32.5
35°	65.1	29.2	20.6
37.5°	50.1	17.9	10.5
40°	36.3	9.3	4.9
42.5°	24.3	4.5	2.6
45°	15.0	2.2	0.0
47.5°	8.6	0.0	0.0
50°	4.5	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.2
87.5°	1.9	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.7
102.5°	2.2	3.4	3.4
105°	1.9	2.6	3.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	157.0	152.5	137.6	112.9	78.9	44.1	16.5	3.0	0.7	1.1	1.1
110°	136.8	133.1	117.8	93.8	63.6	32.9	10.8	1.9	1.1	1.1	1.1







107.5°	1.5	2.2	2.6
110°	1.5	1.9	2.2



(END OF REPORT)