

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: P551044

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-96-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: P551044  
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-35-UNV-82-96-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

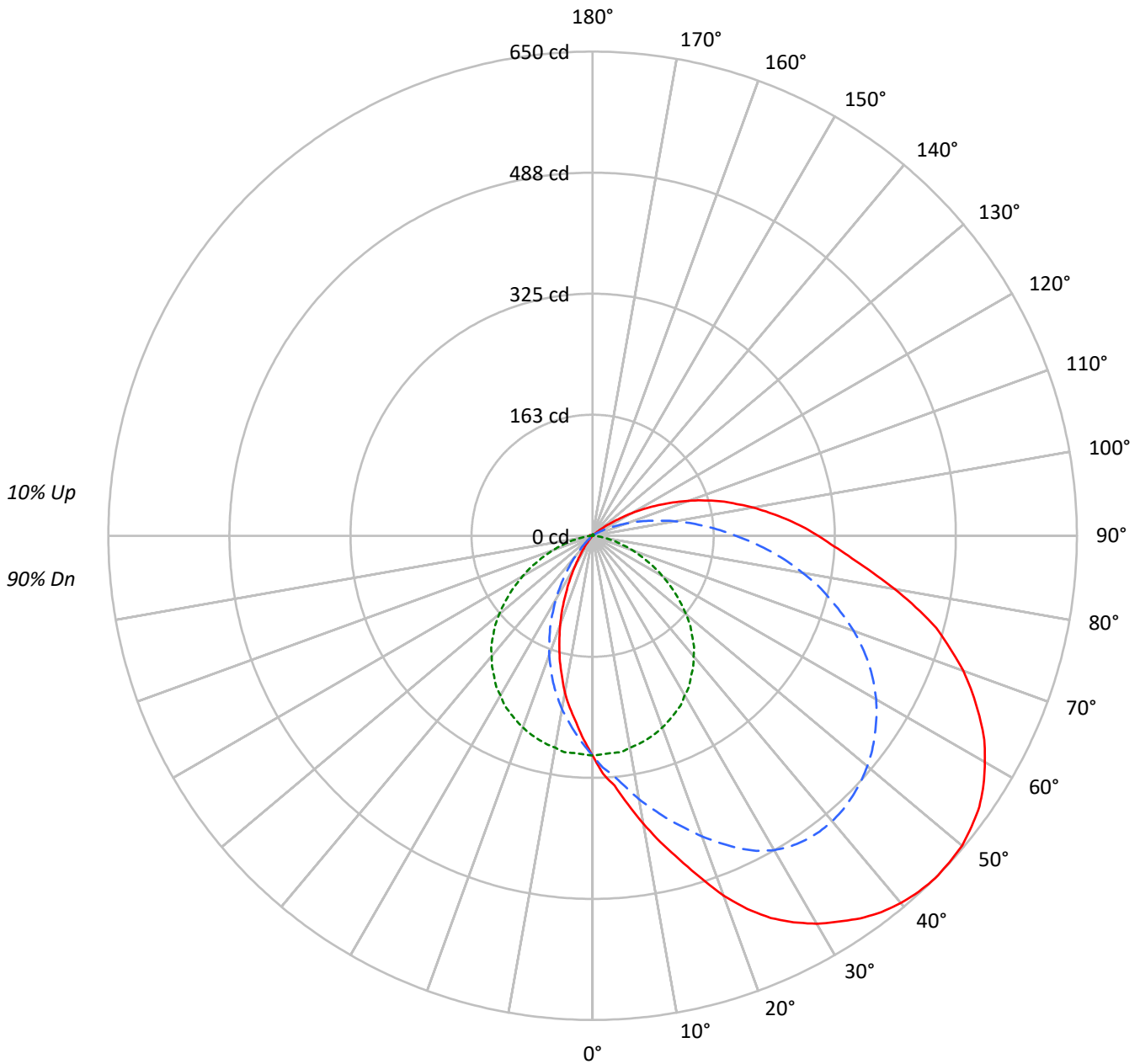
Lumens per Lamp: N/A  
Luminaire Lumens: 1458.0 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-35-UNV-82-96-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°	3174	3174	3174
5°	3485	3128	2610
10°	3943	3090	2151
15°	4419	3050	1676
20°	4984	3001	1235
25°	5453	2943	811
30°	5801	2866	456
35°	6102	2783	201
40°	6371	2681	49
45°	6599	2552	0
50°	6792	2381	0
55°	6939	2166	0
60°	7013	1915	0
65°	7041	1629	0
70°	7019	1328	0
75°	6929	981	6
80°	6649	599	31
85°	6426	285	42



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.2	1.9
10°-20°	84.6	5.8
20°-30°	137.0	9.4
30°-40°	176.0	12.1
40°-50°	199.2	13.7
50°-60°	206.4	14.2
60°-70°	194.6	13.3
70°-80°	163.1	11.2
80°-90°	118.2	8.1
90°-100°	77.7	5.3
100°-110°	44.9	3.1
110°-120°	19.8	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°	249.8	17.1
0°-40°	425.8	29.2
0°-60°	831.3	57.0
0°-90°	1307.2	89.7
90°-120°	142.4	9.8
90°-150°	149.8	10.3
90°-180°	151.0	10.4
0°-180°	1458.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	295	295	295	295	295	
5°	337	323	293	266	252	34
15°	450	394	283	204	171	130
25°	566	463	262	134	84	262
35°	627	499	230	65	21	393
45°	650	494	189	15	0	502
55°	634	463	136	0	0	566
65°	573	410	81	0	0	567
75°	478	330	35	0	0	501
85°	349	240	6	2	2	298
90°	303	192	2	2	3	166
95°	260	150	1	3	3	204
105°	179	78	1	2	3	189
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°	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9	294.9
2.5°	319.7	319.3	318.2	316.3	313.7	309.2	305.4	302.1	297.5	293.8	286.7
5°	336.6	334.7	333.2	331.4	325.3	321.2	314.5	306.9	299.8	292.7	278.4
7.5°	363.7	360.7	358.4	353.2	344.9	335.5	325.0	317.8	313.0	293.0	268.6
10°	392.6	390.0	385.5	376.1	365.9	352.4	337.4	320.5	305.4	288.9	260.0
12.5°	421.2	417.4	411.0	399.0	384.7	367.8	347.1	327.2	305.8	286.3	249.8
15°	449.7	445.6	438.8	424.2	405.4	383.2	358.0	332.9	307.7	282.9	239.3
17.5°	480.9	475.3	465.1	448.6	424.9	397.5	367.8	337.4	306.9	278.8	228.0
20°	514.3	506.4	495.5	473.4	445.6	413.3	377.6	341.9	306.6	273.9	215.3
22.5°	542.1	534.2	522.2	499.3	465.9	426.4	385.8	344.9	305.1	268.2	203.2
25°	566.2	559.8	546.6	520.3	485.0	440.3	393.7	347.1	302.8	262.2	190.5
27.5°	585.0	578.9	564.3	537.2	501.2	452.7	399.7	348.3	299.8	256.2	177.3
30°	601.5	595.5	577.8	550.0	512.1	462.5	405.7	348.6	296.0	247.2	163.1
32.5°	614.3	608.6	590.6	560.9	519.6	469.2	409.1	348.3	291.2	240.8	147.6
35°	627.0	621.4	600.4	568.8	525.2	472.2	411.8	346.4	285.2	230.3	133.0
37.5°	636.8	630.4	609.0	574.1	527.8	473.0	411.4	343.8	278.8	221.7	118.3
40°	643.6	636.8	613.9	577.1	528.6	471.9	408.4	339.3	271.2	210.8	102.9
42.5°	648.1	640.6	616.1	581.6	527.1	468.9	403.9	333.6	263.0	201.4	88.3
45°	650.3	642.4	616.5	577.8	524.5	463.2	397.1	326.5	254.0	188.6	73.6
47.5°	649.2	640.6	614.6	573.7	519.6	457.2	389.6	317.8	243.1	177.3	59.7
50°	647.3	638.3	610.5	568.4	512.8	449.7	381.3	307.3	231.8	163.4	47.3
52.5°	641.3	632.3	606.0	560.9	504.9	441.1	370.1	296.4	219.8	149.9	36.1
55°	633.8	625.5	598.1	554.1	494.8	430.5	359.5	284.8	208.1	136.0	25.9
57.5°	622.1	614.6	588.3	543.3	484.6	418.9	347.9	272.0	193.5	122.1	18.0
60°	607.9	600.4	574.8	530.9	473.0	405.7	335.1	258.9	180.3	108.2	11.3
62.5°	592.8	585.7	559.0	515.4	458.3	391.8	321.2	245.7	166.4	95.4	6.8
65°	572.9	566.2	542.1	497.0	442.2	376.8	305.8	229.9	152.2	81.1	3.8
67.5°	551.9	545.9	521.5	480.1	423.4	360.3	290.0	214.5	137.1	68.8	1.9
70°	529.4	521.8	499.3	457.2	404.2	341.5	272.8	198.7	122.9	56.7	0.0
72.5°	503.1	497.4	475.6	435.8	382.1	321.6	255.1	181.5	107.1	45.1	0.4
75°	477.5	470.4	450.5	412.9	360.3	300.6	235.6	165.3	91.7	34.6	0.4
77.5°	444.4	442.2	423.4	387.0	339.6	280.3	214.1	145.8	77.0	24.8	0.4
80°	411.4	409.1	394.5	361.0	315.6	256.2	194.2	127.4	62.7	16.5	0.4
82.5°	378.7	375.7	361.8	334.0	291.2	235.9	173.6	109.0	49.6	10.1	0.4
85°	349.4	345.6	330.6	305.1	266.0	213.0	152.2	90.9	36.8	5.6	0.8
87.5°	324.2	321.6	305.1	278.8	240.4	191.6	133.4	73.6	25.9	2.6	1.1
90°	302.8	297.2	282.5	254.7	216.4	167.9	113.5	59.0	17.3	1.5	1.5
92.5°	281.8	276.9	260.7	232.2	195.0	147.6	94.3	45.1	10.9	0.8	1.9
95°	260.0	254.7	238.9	212.6	173.2	127.0	77.4	33.1	6.0	0.8	1.9
97.5°	238.6	233.7	217.2	190.9	153.7	109.0	61.2	23.3	3.0	0.8	1.5
100°	218.7	213.0	198.0	171.7	134.1	90.9	47.3	15.0	1.9	0.8	1.5
102.5°	197.6	193.1	177.7	152.2	113.8	74.0	35.3	9.4	0.8	0.8	1.1
105°	178.8	173.2	158.2	131.9	96.9	58.2	24.8	5.6	0.8	0.8	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-82-96-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	116.5	112.0	98.8	76.6	49.2	22.9	6.8	1.1	1.1	1.1	1.1
115°	97.3	90.5	78.9	59.4	36.4	15.0	3.4	1.1	1.1	1.1	1.1
117.5°	77.8	72.1	63.9	45.1	24.0	9.8	1.9	1.1	1.1	1.1	1.1
120°	60.9	55.6	46.2	31.2	16.2	5.6	0.8	1.1	1.1	1.1	1.1
122.5°	43.6	39.4	31.2	20.3	9.8	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.9	26.7	20.7	12.4	6.0	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.8	16.9	12.0	7.1	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.5	9.4	7.1	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.0	5.6	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	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°	294.9	294.9	294.9
2.5°	280.6	275.4	273.9
5°	265.6	257.0	252.1
7.5°	250.6	238.9	233.3
10°	236.7	220.2	214.1
12.5°	220.2	201.0	191.6
15°	204.4	179.6	170.6
17.5°	186.7	158.9	148.4
20°	170.2	138.3	127.4
22.5°	151.4	118.0	105.9
25°	134.5	97.7	84.2
27.5°	115.7	77.0	65.4
30°	98.1	59.0	47.3
32.5°	81.1	43.2	32.7
35°	65.4	29.3	20.7
37.5°	50.3	18.0	10.5
40°	36.4	9.4	4.9
42.5°	24.4	4.5	2.6
45°	15.0	2.3	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.6
90°	2.3	2.6	2.6
92.5°	2.3	3.0	3.0
95°	2.6	3.0	3.4
97.5°	3.0	3.4	3.4
100°	2.6	3.4	3.8
102.5°	2.3	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	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	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°	157.8	153.3	138.3	113.5	79.3	44.3	16.5	3.0	0.8	1.1	1.1
110°	137.5	133.7	118.3	94.3	63.9	33.1	10.9	1.9	1.1	1.1	1.1







107.5°	1.5	2.3	2.6
110°	1.5	1.9	2.3



(END OF REPORT)