

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: P550791

Luminaire Tested: **FCC-X-2-LD4-1LO-35-UNV-93-84-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: P550791  
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-LD4-1LO-35-UNV-93-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

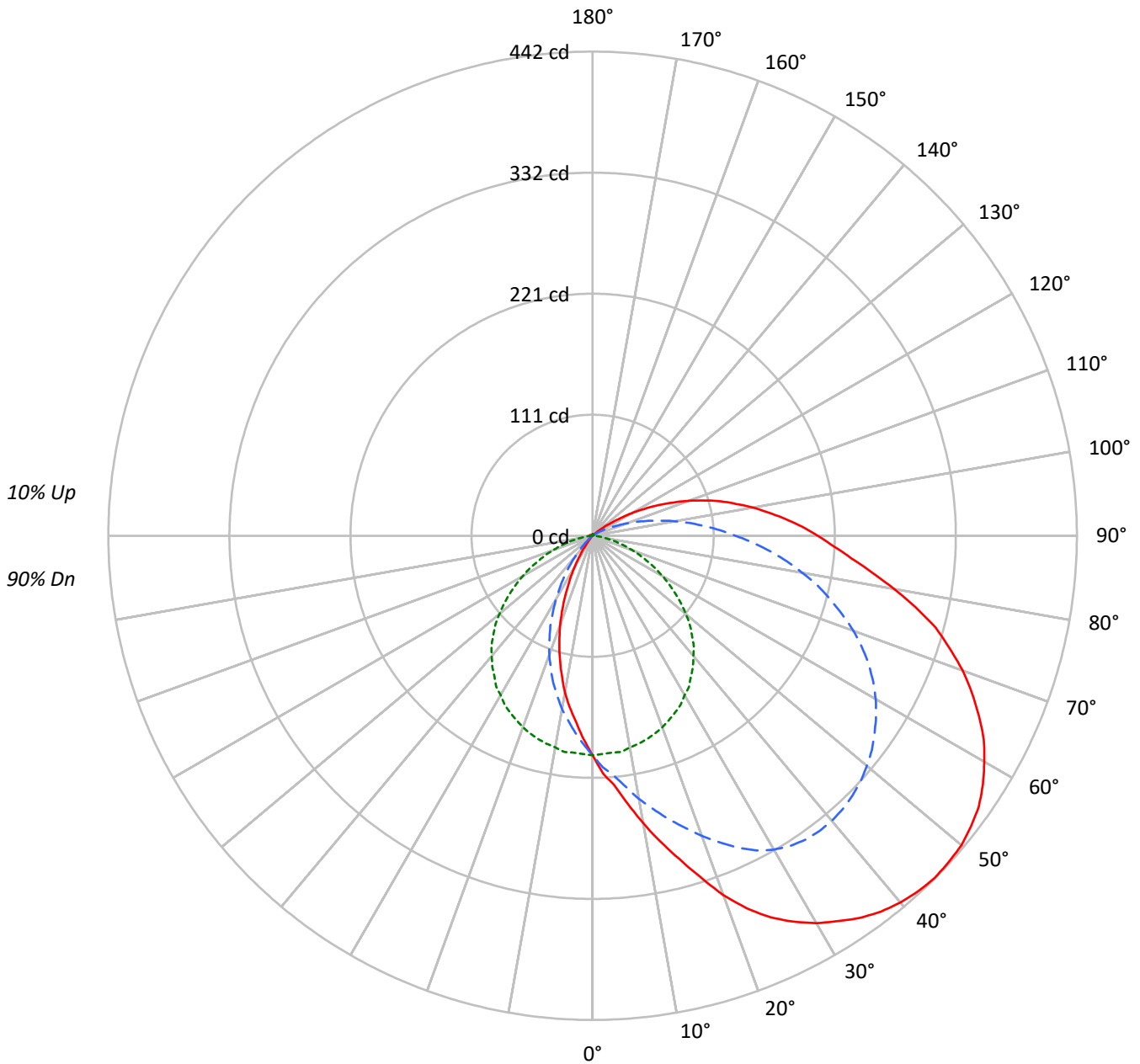
Lumens per Lamp: N/A  
Luminaire Lumens: 990.0 lumens  
Efficiency: N/A  
Efficacy: 84.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
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-LD4-1LO-35-UNV-93-84-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°	2156	2156	2156
5°	2367	2124	1772
10°	2678	2098	1460
15°	3001	2071	1138
20°	3384	2038	838
25°	3702	1999	550
30°	3939	1946	310
35°	4144	1890	136
40°	4326	1820	33
45°	4481	1733	0
50°	4612	1618	0
55°	4712	1470	0
60°	4762	1301	0
65°	4781	1107	0
70°	4765	902	0
75°	4704	666	4
80°	4514	406	21
85°	4363	193	28



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.2	1.9
10°-20°	57.4	5.8
20°-30°	93.0	9.4
30°-40°	119.5	12.1
40°-50°	135.2	13.7
50°-60°	140.1	14.2
60°-70°	132.1	13.3
70°-80°	110.8	11.2
80°-90°	80.3	8.1
90°-100°	52.8	5.3
100°-110°	30.5	3.1
110°-120°	13.5	1.4
120°-130°	3.7	0.4
130°-140°	0.8	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	169.6	17.1
0°-40°	289.1	29.2
0°-60°	564.5	57.0
0°-90°	887.6	89.7
90°-120°	96.7	9.8
90°-150°	101.7	10.3
90°-180°	102.0	10.3
0°-180°	990.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	200	200	200	200	200	
5°	229	220	199	180	171	23
15°	305	268	192	139	116	88
25°	384	314	178	91	57	178
35°	426	339	156	44	14	267
45°	442	335	128	10	0	341
55°	430	314	92	0	0	384
65°	389	278	55	0	0	385
75°	324	224	24	0	0	340
85°	237	163	4	1	2	203
90°	206	130	1	2	2	113
95°	176	102	0	2	2	138
105°	121	53	0	1	2	128
115°	66	17	1	1	1	66
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	200.3	200.3	200.3	200.3	200.3	200.3	200.3	200.3	200.3	200.3	200.3
2.5°	217.1	216.8	216.1	214.8	213.0	209.9	207.4	205.1	202.0	199.5	194.6
5°	228.6	227.3	226.3	225.0	220.9	218.1	213.5	208.4	203.6	198.7	189.0
7.5°	246.9	244.9	243.4	239.8	234.2	227.8	220.7	215.8	212.5	199.0	182.4
10°	266.6	264.8	261.7	255.4	248.5	239.3	229.1	217.6	207.4	196.2	176.5
12.5°	286.0	283.4	279.1	270.9	261.2	249.7	235.7	222.2	207.7	194.4	169.6
15°	305.4	302.5	298.0	288.0	275.3	260.2	243.1	226.0	208.9	192.1	162.5
17.5°	326.5	322.7	315.8	304.6	288.5	269.9	249.7	229.1	208.4	189.3	154.8
20°	349.2	343.9	336.5	321.4	302.5	280.6	256.4	232.1	208.2	186.0	146.2
22.5°	368.1	362.8	354.6	339.0	316.3	289.5	262.0	234.2	207.1	182.1	138.0
25°	384.4	380.1	371.2	353.3	329.3	299.0	267.3	235.7	205.6	178.1	129.3
27.5°	397.2	393.1	383.2	364.8	340.3	307.4	271.4	236.5	203.6	174.0	120.4
30°	408.4	404.3	392.3	373.5	347.7	314.0	275.5	236.7	201.0	167.9	110.7
32.5°	417.1	413.3	401.0	380.9	352.8	318.6	277.8	236.5	197.7	163.5	100.3
35°	425.8	421.9	407.6	386.2	356.6	320.7	279.6	235.2	193.6	156.4	90.3
37.5°	432.4	428.1	413.5	389.8	358.4	321.2	279.3	233.4	189.3	150.5	80.4
40°	437.0	432.4	416.8	391.8	358.9	320.4	277.3	230.4	184.2	143.1	69.9
42.5°	440.0	434.9	418.4	394.9	357.9	318.4	274.2	226.5	178.6	136.7	59.9
45°	441.6	436.2	418.6	392.3	356.1	314.5	269.6	221.7	172.4	128.1	50.0
47.5°	440.8	434.9	417.3	389.5	352.8	310.5	264.5	215.8	165.0	120.4	40.6
50°	439.5	433.4	414.5	386.0	348.2	305.4	258.9	208.7	157.4	111.0	32.1
52.5°	435.5	429.3	411.5	380.9	342.9	299.5	251.3	201.3	149.2	101.8	24.5
55°	430.4	424.7	406.1	376.3	336.0	292.3	244.1	193.4	141.3	92.3	17.6
57.5°	422.4	417.3	399.5	368.9	329.1	284.4	236.2	184.7	131.4	82.9	12.2
60°	412.8	407.6	390.3	360.5	321.2	275.5	227.5	175.8	122.4	73.5	7.7
62.5°	402.5	397.7	379.6	350.0	311.2	266.1	218.1	166.8	113.0	64.8	4.6
65°	389.0	384.4	368.1	337.5	300.3	255.9	207.7	156.1	103.3	55.1	2.6
67.5°	374.7	370.7	354.1	326.0	287.5	244.6	196.9	145.7	93.1	46.7	1.3
70°	359.4	354.3	339.0	310.5	274.5	231.9	185.2	134.9	83.4	38.5	0.0
72.5°	341.6	337.8	323.0	295.9	259.4	218.4	173.2	123.2	72.7	30.6	0.3
75°	324.2	319.4	305.9	280.4	244.6	204.1	159.9	112.2	62.2	23.5	0.3
77.5°	301.8	300.3	287.5	262.8	230.6	190.3	145.4	99.0	52.3	16.8	0.3
80°	279.3	277.8	267.9	245.2	214.3	174.0	131.9	86.5	42.6	11.2	0.3
82.5°	257.1	255.1	245.7	226.8	197.7	160.2	117.9	74.0	33.7	6.9	0.3
85°	237.2	234.7	224.5	207.1	180.6	144.6	103.3	61.7	25.0	3.8	0.5
87.5°	220.2	218.4	207.1	189.3	163.3	130.1	90.6	50.0	17.6	1.8	0.8
90°	205.6	201.8	191.8	173.0	146.9	114.0	77.0	40.1	11.7	1.0	1.0
92.5°	191.3	188.0	177.0	157.7	132.4	100.3	64.0	30.6	7.4	0.5	1.3
95°	176.5	173.0	162.2	144.4	117.6	86.2	52.6	22.4	4.1	0.5	1.3
97.5°	162.0	158.7	147.4	129.6	104.3	74.0	41.6	15.8	2.0	0.5	1.0
100°	148.5	144.6	134.4	116.6	91.1	61.7	32.1	10.2	1.3	0.5	1.0
102.5°	134.2	131.1	120.7	103.3	77.3	50.3	24.0	6.4	0.5	0.5	0.8
105°	121.4	117.6	107.4	89.5	65.8	39.5	16.8	3.8	0.5	0.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	79.1	76.0	67.1	52.0	33.4	15.6	4.6	0.8	0.8	0.8	0.8
115°	66.1	61.5	53.6	40.3	24.7	10.2	2.3	0.8	0.8	0.8	0.8
117.5°	52.8	49.0	43.4	30.6	16.3	6.6	1.3	0.8	0.8	0.8	0.8
120°	41.3	37.8	31.4	21.2	11.0	3.8	0.5	0.8	0.8	0.8	0.8
122.5°	29.6	26.8	21.2	13.8	6.6	1.8	0.8	0.8	1.0	1.0	0.8
125°	19.6	18.1	14.0	8.4	4.1	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	12.8	11.5	8.2	4.8	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.1	6.4	4.8	2.8	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.1	3.8	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	200.3	200.3	200.3
2.5°	190.6	187.0	186.0
5°	180.4	174.5	171.2
7.5°	170.2	162.2	158.4
10°	160.7	149.5	145.4
12.5°	149.5	136.5	130.1
15°	138.8	121.9	115.8
17.5°	126.8	107.9	100.8
20°	115.6	93.9	86.5
22.5°	102.8	80.1	71.9
25°	91.3	66.3	57.1
27.5°	78.6	52.3	44.4
30°	66.6	40.1	32.1
32.5°	55.1	29.3	22.2
35°	44.4	19.9	14.0
37.5°	34.2	12.2	7.1
40°	24.7	6.4	3.3
42.5°	16.6	3.1	1.8
45°	10.2	1.5	0.0
47.5°	5.9	0.0	0.0
50°	3.1	0.0	0.0
52.5°	1.3	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°	0.3	0.3	0.3
77.5°	0.3	0.5	0.8
80°	0.5	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	1.3	1.5
87.5°	1.3	1.5	1.8
90°	1.5	1.8	1.8
92.5°	1.5	2.0	2.0
95°	1.8	2.0	2.3
97.5°	2.0	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.5	2.3	2.3
105°	1.3	1.8	2.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.0	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	107.1	104.1	93.9	77.0	53.8	30.1	11.2	2.0	0.5	0.8	0.8
110°	93.4	90.8	80.4	64.0	43.4	22.4	7.4	1.3	0.8	0.8	0.8







107.5°	1.0	1.5	1.8
110°	1.0	1.3	1.5



(END OF REPORT)