

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: P550923

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-86-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: P550923  
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-50-UNV-93-86-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

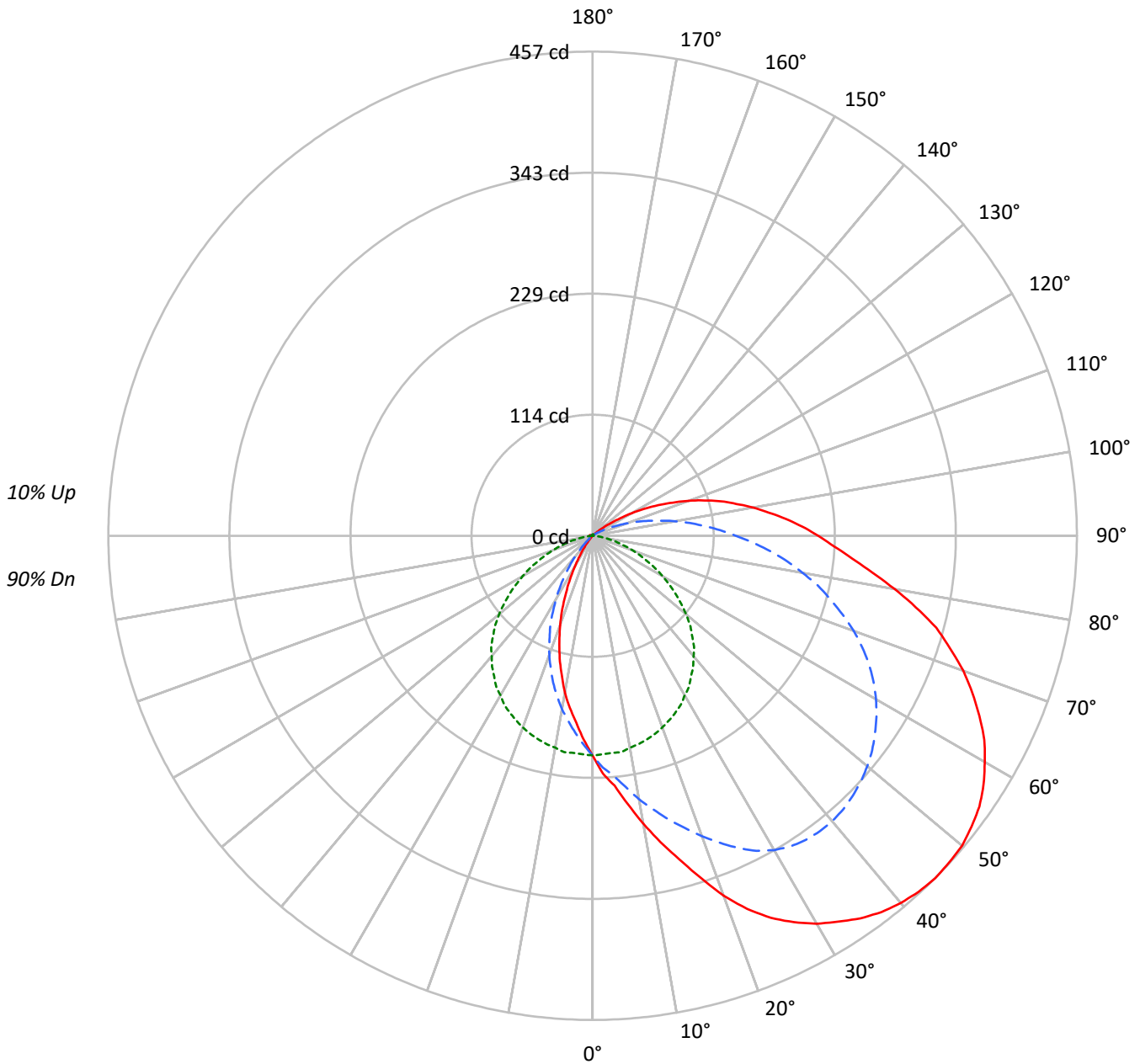
Lumens per Lamp: N/A  
Luminaire Lumens: 1025.1 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-50-UNV-93-86-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°	2231	2231	2231
5°	2450	2199	1834
10°	2772	2172	1512
15°	3106	2145	1178
20°	3504	2109	867
25°	3833	2069	570
30°	4079	2015	321
35°	4290	1956	141
40°	4478	1885	34
45°	4640	1794	0
50°	4775	1675	0
55°	4879	1522	0
60°	4930	1347	0
65°	4951	1145	0
70°	4933	935	0
75°	4871	689	4
80°	4674	421	21
85°	4517	203	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.9	1.9
10°-20°	59.5	5.8
20°-30°	96.3	9.4
30°-40°	123.7	12.1
40°-50°	140.0	13.7
50°-60°	145.1	14.2
60°-70°	136.8	13.3
70°-80°	114.7	11.2
80°-90°	83.1	8.1
90°-100°	54.6	5.3
100°-110°	31.5	3.1
110°-120°	13.9	1.4
120°-130°	3.8	0.4
130°-140°	0.9	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°	175.6	17.1
0°-40°	299.3	29.2
0°-60°	584.4	57.0
0°-90°	919.0	89.7
90°-120°	100.1	9.8
90°-150°	105.3	10.3
90°-180°	106.0	10.3
0°-180°	1025.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	207	207	207	207	207	
5°	237	227	206	187	177	24
15°	316	277	199	144	120	91
25°	398	325	184	95	59	184
35°	441	351	162	46	14	276
45°	457	347	133	11	0	353
55°	446	325	96	0	0	398
65°	403	288	57	0	0	399
75°	336	232	24	0	0	352
85°	246	168	4	1	2	210
90°	213	135	1	2	2	117
95°	183	106	0	2	2	143
105°	126	54	0	1	2	133
115°	68	18	1	1	1	69
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°	207.3	207.3	207.3	207.3	207.3	207.3	207.3	207.3	207.3	207.3	207.3
2.5°	224.8	224.5	223.7	222.4	220.5	217.4	214.7	212.4	209.2	206.5	201.5
5°	236.7	235.3	234.3	233.0	228.7	225.8	221.1	215.8	210.8	205.7	195.7
7.5°	255.7	253.6	252.0	248.3	242.5	235.9	228.5	223.4	220.0	206.0	188.8
10°	276.0	274.2	271.0	264.4	257.3	247.7	237.2	225.3	214.7	203.1	182.8
12.5°	296.1	293.4	288.9	280.5	270.5	258.6	244.0	230.0	215.0	201.3	175.6
15°	316.1	313.2	308.5	298.2	285.0	269.4	251.7	234.0	216.3	198.9	168.2
17.5°	338.1	334.1	327.0	315.4	298.7	279.4	258.6	237.2	215.8	196.0	160.3
20°	361.6	356.0	348.4	332.8	313.2	290.5	265.4	240.3	215.5	192.5	151.3
22.5°	381.1	375.6	367.1	351.0	327.5	299.8	271.2	242.5	214.5	188.6	142.9
25°	398.0	393.5	384.3	365.8	341.0	309.5	276.8	244.0	212.9	184.4	133.9
27.5°	411.2	407.0	396.7	377.7	352.3	318.3	281.0	244.8	210.8	180.1	124.7
30°	422.9	418.6	406.2	386.7	360.0	325.1	285.2	245.1	208.1	173.8	114.6
32.5°	431.8	427.9	415.2	394.3	365.3	329.9	287.6	244.8	204.7	169.3	103.8
35°	440.8	436.9	422.1	399.9	369.2	332.0	289.5	243.5	200.5	161.9	93.5
37.5°	447.7	443.2	428.1	403.6	371.1	332.5	289.2	241.7	196.0	155.8	83.2
40°	452.4	447.7	431.6	405.7	371.6	331.7	287.1	238.5	190.7	148.2	72.4
42.5°	455.6	450.3	433.2	408.9	370.6	329.6	283.9	234.5	184.9	141.6	62.1
45°	457.2	451.6	433.4	406.2	368.7	325.7	279.2	229.5	178.5	132.6	51.8
47.5°	456.4	450.3	432.1	403.3	365.3	321.4	273.9	223.4	170.9	124.7	42.0
50°	455.1	448.7	429.2	399.6	360.5	316.1	268.1	216.0	163.0	114.9	33.3
52.5°	450.8	444.5	426.0	394.3	355.0	310.1	260.2	208.4	154.5	105.4	25.4
55°	445.6	439.8	420.5	389.6	347.8	302.7	252.8	200.2	146.3	95.6	18.2
57.5°	437.4	432.1	413.6	381.9	340.7	294.5	244.6	191.2	136.0	85.8	12.7
60°	427.3	422.1	404.1	373.2	332.5	285.2	235.6	182.0	126.8	76.1	7.9
62.5°	416.8	411.8	393.0	362.4	322.2	275.5	225.8	172.7	117.0	67.1	4.8
65°	402.8	398.0	381.1	349.4	310.9	264.9	215.0	161.6	107.0	57.0	2.6
67.5°	388.0	383.8	366.6	337.5	297.7	253.3	203.9	150.8	96.4	48.3	1.3
70°	372.1	366.9	351.0	321.4	284.2	240.1	191.7	139.7	86.4	39.9	0.0
72.5°	353.7	349.7	334.4	306.4	268.6	226.1	179.3	127.6	75.3	31.7	0.3
75°	335.7	330.7	316.7	290.3	253.3	211.3	165.6	116.2	64.4	24.3	0.3
77.5°	312.5	310.9	297.7	272.0	238.8	197.0	150.5	102.5	54.1	17.4	0.3
80°	289.2	287.6	277.3	253.8	221.9	180.1	136.5	89.5	44.1	11.6	0.3
82.5°	266.2	264.1	254.3	234.8	204.7	165.9	122.0	76.6	34.9	7.1	0.3
85°	245.6	243.0	232.4	214.5	187.0	149.8	107.0	63.9	25.9	4.0	0.5
87.5°	227.9	226.1	214.5	196.0	169.0	134.7	93.8	51.8	18.2	1.8	0.8
90°	212.9	208.9	198.6	179.1	152.1	118.1	79.8	41.5	12.1	1.1	1.1
92.5°	198.1	194.7	183.3	163.2	137.1	103.8	66.3	31.7	7.7	0.5	1.3
95°	182.8	179.1	168.0	149.5	121.8	89.3	54.4	23.2	4.2	0.5	1.3
97.5°	167.7	164.3	152.7	134.2	108.0	76.6	43.1	16.4	2.1	0.5	1.1
100°	153.7	149.8	139.2	120.7	94.3	63.9	33.3	10.6	1.3	0.5	1.1
102.5°	138.9	135.8	124.9	107.0	80.0	52.0	24.8	6.6	0.5	0.5	0.8
105°	125.7	121.8	111.2	92.7	68.1	40.9	17.4	4.0	0.5	0.5	0.8



TEST NUMBER: P550923

CATALOG NUMBER: FCC-X-2-LD4-1LO-50-UNV-93-86-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	81.9	78.7	69.5	53.9	34.6	16.1	4.8	0.8	0.8	0.8	0.8
115°	68.4	63.7	55.5	41.7	25.6	10.6	2.4	0.8	0.8	0.8	0.8
117.5°	54.7	50.7	44.9	31.7	16.9	6.9	1.3	0.8	0.8	0.8	0.8
120°	42.8	39.1	32.5	21.9	11.4	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	30.6	27.7	21.9	14.3	6.9	1.8	0.8	0.8	1.1	1.1	0.8
125°	20.3	18.8	14.5	8.7	4.2	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.2	11.9	8.5	5.0	1.8	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.4	6.6	5.0	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.2	4.0	2.6	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
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°	207.3	207.3	207.3
2.5°	197.3	193.6	192.5
5°	186.7	180.7	177.2
7.5°	176.2	168.0	164.0
10°	166.4	154.8	150.5
12.5°	154.8	141.3	134.7
15°	143.7	126.2	119.9
17.5°	131.3	111.7	104.3
20°	119.6	97.2	89.5
22.5°	106.4	82.9	74.5
25°	94.6	68.7	59.2
27.5°	81.3	54.1	46.0
30°	68.9	41.5	33.3
32.5°	57.0	30.4	23.0
35°	46.0	20.6	14.5
37.5°	35.4	12.7	7.4
40°	25.6	6.6	3.4
42.5°	17.2	3.2	1.8
45°	10.6	1.6	0.0
47.5°	6.1	0.0	0.0
50°	3.2	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	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.8
90°	1.6	1.8	1.8
92.5°	1.6	2.1	2.1
95°	1.8	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.8	2.4	2.6
102.5°	1.6	2.4	2.4
105°	1.3	1.8	2.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	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°	1.1	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°	110.9	107.8	97.2	79.8	55.7	31.2	11.6	2.1	0.5	0.8	0.8
110°	96.7	94.0	83.2	66.3	44.9	23.2	7.7	1.3	0.8	0.8	0.8







107.5°	1.1	1.6	1.8
110°	1.1	1.3	1.6



(END OF REPORT)