

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: P550929

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-93-94-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: P550929  
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-93-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,  
AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

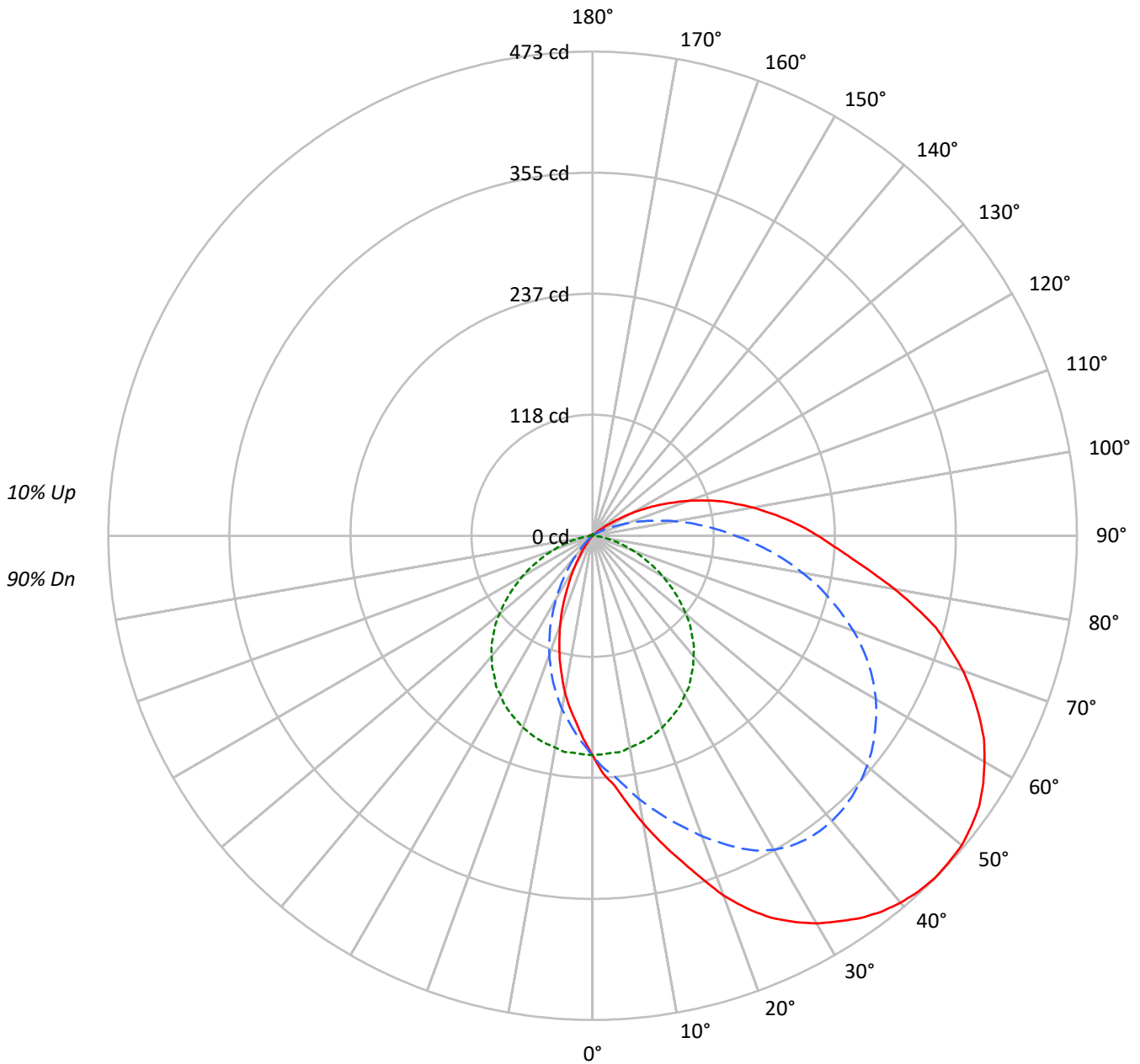
Lumens per Lamp: N/A  
Luminaire Lumens: 1060.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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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### 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°	2308	2308	2308
5°	2533	2274	1898
10°	2867	2246	1564
15°	3212	2218	1219
20°	3623	2181	897
25°	3964	2139	589
30°	4218	2083	332
35°	4437	2023	146
40°	4631	1948	36
45°	4798	1855	0
50°	4938	1731	0
55°	5045	1575	0
60°	5098	1393	0
65°	5119	1185	0
70°	5103	965	0
75°	5038	712	4
80°	4834	435	23
85°	4672	208	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.5	1.9
10°-20°	61.5	5.8
20°-30°	99.6	9.4
30°-40°	127.9	12.1
40°-50°	144.8	13.7
50°-60°	150.0	14.2
60°-70°	141.5	13.3
70°-80°	118.6	11.2
80°-90°	85.9	8.1
90°-100°	56.5	5.3
100°-110°	32.6	3.1
110°-120°	14.4	1.4
120°-130°	3.9	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°	181.6	17.1
0°-40°	309.5	29.2
0°-60°	604.4	57.0
0°-90°	950.4	89.7
90°-120°	103.5	9.8
90°-150°	108.9	10.3
90°-180°	110.0	10.4
0°-180°	1060.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	214	214	214	214	214	
5°	245	235	213	193	183	25
15°	327	287	206	149	124	94
25°	412	336	191	98	61	190
35°	456	363	167	48	15	286
45°	473	359	137	11	0	365
55°	461	336	99	0	0	411
65°	416	298	59	0	0	412
75°	347	240	25	0	0	364
85°	254	174	4	1	2	217
90°	220	140	1	2	2	121
95°	189	109	0	2	2	148
105°	130	56	0	1	2	137
115°	71	19	1	1	1	71
125°	21	3	1	1	1	21
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°	214.4	214.4	214.4	214.4	214.4	214.4	214.4	214.4	214.4	214.4	214.4
2.5°	232.4	232.2	231.3	230.0	228.1	224.8	222.1	219.6	216.3	213.6	208.4
5°	244.7	243.4	242.3	240.9	236.5	233.5	228.6	223.2	218.0	212.8	202.4
7.5°	264.4	262.2	260.6	256.7	250.7	243.9	236.3	231.1	227.5	213.0	195.3
10°	285.4	283.5	280.2	273.4	266.0	256.2	245.3	233.0	222.1	210.0	189.0
12.5°	306.2	303.5	298.8	290.1	279.7	267.4	252.4	237.9	222.3	208.1	181.6
15°	326.9	323.9	319.0	308.4	294.7	278.6	260.3	242.0	223.7	205.7	174.0
17.5°	349.6	345.5	338.1	326.1	308.9	289.0	267.4	245.3	223.2	202.7	165.8
20°	373.9	368.2	360.3	344.2	323.9	300.5	274.5	248.6	222.9	199.1	156.5
22.5°	394.1	388.4	379.7	363.0	338.7	310.0	280.5	250.7	221.8	195.0	147.8
25°	411.6	407.0	397.4	378.3	352.6	320.1	286.2	252.4	220.1	190.6	138.5
27.5°	425.3	420.9	410.3	390.6	364.4	329.1	290.6	253.2	218.0	186.3	128.9
30°	437.3	432.9	420.1	399.9	372.3	336.2	295.0	253.5	215.2	179.7	118.5
32.5°	446.6	442.5	429.4	407.8	377.7	341.1	297.4	253.2	211.7	175.1	107.3
35°	455.9	451.8	436.5	413.5	381.8	343.3	299.4	251.8	207.3	167.4	96.7
37.5°	463.0	458.3	442.8	417.4	383.8	343.9	299.1	249.9	202.7	161.2	86.0
40°	467.9	463.0	446.3	419.5	384.3	343.1	296.9	246.6	197.2	153.2	74.8
42.5°	471.2	465.7	447.9	422.8	383.2	340.9	293.6	242.5	191.2	146.4	64.2
45°	472.8	467.1	448.2	420.1	381.3	336.8	288.7	237.4	184.6	137.1	53.5
47.5°	472.0	465.7	446.9	417.1	377.7	332.4	283.2	231.1	176.7	128.9	43.4
50°	470.6	464.1	443.8	413.3	372.8	326.9	277.2	223.4	168.5	118.8	34.4
52.5°	466.2	459.7	440.6	407.8	367.1	320.7	269.0	215.5	159.8	109.0	26.2
55°	460.8	454.8	434.8	402.9	359.7	313.0	261.4	207.0	151.3	98.9	18.8
57.5°	452.3	446.9	427.7	395.0	352.3	304.5	252.9	197.8	140.7	88.8	13.1
60°	441.9	436.5	417.9	385.9	343.9	295.0	243.6	188.2	131.1	78.7	8.2
62.5°	431.0	425.8	406.4	374.7	333.2	284.9	233.5	178.6	121.0	69.4	4.9
65°	416.5	411.6	394.1	361.4	321.5	274.0	222.3	167.2	110.6	59.0	2.7
67.5°	401.2	396.9	379.1	349.1	307.8	261.9	210.9	156.0	99.7	50.0	1.4
70°	384.9	379.4	363.0	332.4	293.9	248.3	198.3	144.5	89.3	41.2	0.0
72.5°	365.7	361.6	345.8	316.8	277.8	233.8	185.5	131.9	77.8	32.8	0.3
75°	347.2	342.0	327.5	300.2	261.9	218.5	171.3	120.2	66.6	25.1	0.3
77.5°	323.1	321.5	307.8	281.3	246.9	203.8	155.7	106.0	56.0	18.0	0.3
80°	299.1	297.4	286.8	262.5	229.4	186.3	141.2	92.6	45.6	12.0	0.3
82.5°	275.3	273.1	263.0	242.8	211.7	171.5	126.2	79.2	36.1	7.4	0.3
85°	254.0	251.3	240.4	221.8	193.4	154.9	110.6	66.1	26.8	4.1	0.5
87.5°	235.7	233.8	221.8	202.7	174.8	139.3	97.0	53.5	18.8	1.9	0.8
90°	220.1	216.1	205.4	185.2	157.3	122.1	82.5	42.9	12.6	1.1	1.1
92.5°	204.9	201.3	189.6	168.8	141.8	107.3	68.6	32.8	7.9	0.5	1.4
95°	189.0	185.2	173.7	154.6	125.9	92.3	56.3	24.0	4.4	0.5	1.4
97.5°	173.4	169.9	157.9	138.8	111.7	79.2	44.5	16.9	2.2	0.5	1.1
100°	159.0	154.9	143.9	124.8	97.5	66.1	34.4	10.9	1.4	0.5	1.1
102.5°	143.7	140.4	129.2	110.6	82.8	53.8	25.7	6.8	0.5	0.5	0.8
105°	130.0	125.9	115.0	95.9	70.5	42.3	18.0	4.1	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°	84.7	81.4	71.8	55.7	35.8	16.7	4.9	0.8	0.8	0.8	0.8
115°	70.7	65.8	57.4	43.2	26.5	10.9	2.5	0.8	0.8	0.8	0.8
117.5°	56.5	52.4	46.4	32.8	17.5	7.1	1.4	0.8	0.8	0.8	0.8
120°	44.2	40.4	33.6	22.7	11.7	4.1	0.5	0.8	0.8	0.8	0.8
122.5°	31.7	28.7	22.7	14.7	7.1	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.0	19.4	15.0	9.0	4.4	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.7	12.3	8.7	5.2	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.6	6.8	5.2	3.0	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.4	4.1	2.7	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	1.4	1.4	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
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	1.4	1.4	1.4	1.4
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.4	1.4	1.4	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°	214.4	214.4	214.4
2.5°	204.0	200.2	199.1
5°	193.1	186.8	183.3
7.5°	182.2	173.7	169.6
10°	172.1	160.1	155.7
12.5°	160.1	146.1	139.3
15°	148.6	130.6	124.0
17.5°	135.7	115.5	107.9
20°	123.7	100.5	92.6
22.5°	110.1	85.8	77.0
25°	97.8	71.0	61.2
27.5°	84.1	56.0	47.5
30°	71.3	42.9	34.4
32.5°	59.0	31.4	23.8
35°	47.5	21.3	15.0
37.5°	36.6	13.1	7.6
40°	26.5	6.8	3.6
42.5°	17.8	3.3	1.9
45°	10.9	1.6	0.0
47.5°	6.3	0.0	0.0
50°	3.3	0.0	0.0
52.5°	1.4	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	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.6
87.5°	1.4	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.7
102.5°	1.6	2.5	2.5
105°	1.4	1.9	2.2





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.1	1.4	1.4
115°	0.8	1.1	1.4
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°	114.7	111.4	100.5	82.5	57.6	32.2	12.0	2.2	0.5	0.8	0.8
110°	100.0	97.2	86.0	68.6	46.4	24.0	7.9	1.4	0.8	0.8	0.8







107.5°	1.1	1.6	1.9
110°	1.1	1.4	1.6



(END OF REPORT)