

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: P550905

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-82-85-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: P550905  
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-82-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

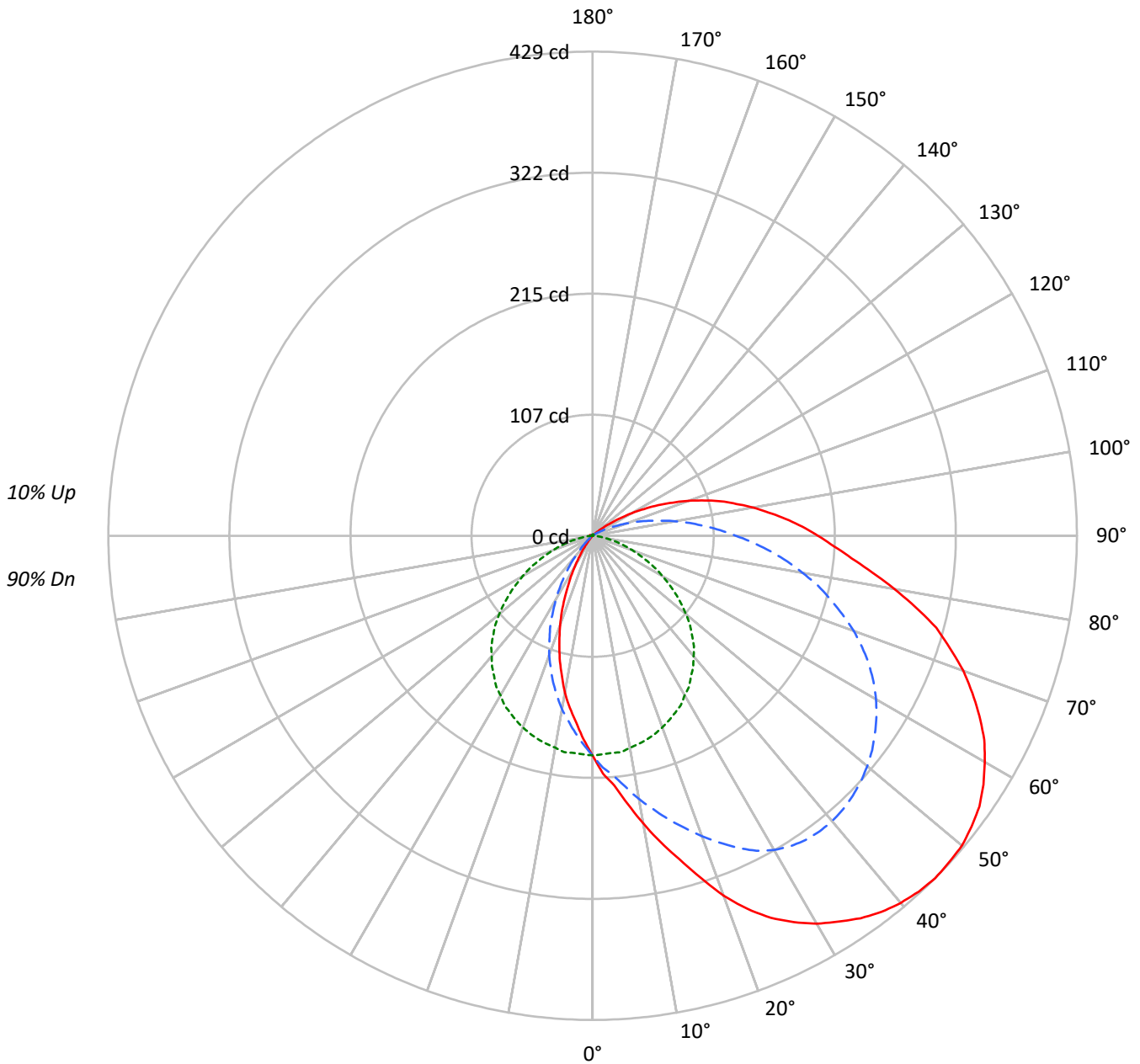
Lumens per Lamp: N/A  
Luminaire Lumens: 961.9 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-82-85-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°	2095	2095	2095
5°	2299	2064	1722
10°	2602	2038	1419
15°	2916	2013	1106
20°	3289	1980	814
25°	3598	1941	535
30°	3828	1891	301
35°	4026	1837	132
40°	4203	1769	32
45°	4355	1683	0
50°	4482	1571	0
55°	4579	1428	0
60°	4627	1264	0
65°	4646	1075	0
70°	4631	876	0
75°	4572	647	3
80°	4386	395	19
85°	4239	188	28



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.6	1.9
10°-20°	55.8	5.8
20°-30°	90.4	9.4
30°-40°	116.1	12.1
40°-50°	131.4	13.7
50°-60°	136.2	14.2
60°-70°	128.4	13.3
70°-80°	107.6	11.2
80°-90°	78.0	8.1
90°-100°	51.3	5.3
100°-110°	29.6	3.1
110°-120°	13.0	1.4
120°-130°	3.5	0.4
130°-140°	0.8	0.1
140°-150°	0.5	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	164.8	17.1
0°-40°	280.9	29.2
0°-60°	548.5	57.0
0°-90°	862.5	89.7
90°-120°	93.9	9.8
90°-150°	98.7	10.3
90°-180°	99.0	10.3
0°-180°	961.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	195	195	195	195	195	
5°	222	213	193	175	166	22
15°	297	260	187	135	112	86
25°	374	305	173	89	56	173
35°	414	329	152	43	14	259
45°	429	326	124	10	0	331
55°	418	305	90	0	0	373
65°	378	270	54	0	0	374
75°	315	218	23	0	0	330
85°	230	158	4	1	2	197
90°	200	127	1	2	2	110
95°	172	99	0	2	2	135
105°	118	51	0	1	2	125
115°	64	17	1	1	1	64
125°	19	2	1	1	1	19
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°	194.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6	194.6
2.5°	210.9	210.7	210.0	208.7	207.0	204.0	201.5	199.3	196.3	193.8	189.1
5°	222.1	220.9	219.9	218.6	214.7	211.9	207.5	202.5	197.8	193.1	183.7
7.5°	240.0	238.0	236.5	233.0	227.6	221.4	214.4	209.7	206.5	193.4	177.2
10°	259.0	257.3	254.3	248.1	241.4	232.5	222.6	211.4	201.5	190.6	171.5
12.5°	277.9	275.4	271.2	263.3	253.8	242.7	229.0	215.9	201.8	188.9	164.8
15°	296.7	294.0	289.5	279.9	267.5	252.8	236.2	219.6	203.0	186.7	157.9
17.5°	317.3	313.6	306.9	296.0	280.4	262.3	242.7	222.6	202.5	183.9	150.5
20°	339.4	334.1	327.0	312.3	294.0	272.7	249.1	225.6	202.3	180.7	142.0
22.5°	357.7	352.5	344.6	329.4	307.4	281.3	254.6	227.6	201.3	177.0	134.1
25°	373.6	369.3	360.7	343.3	320.0	290.5	259.8	229.0	199.8	173.0	125.7
27.5°	386.0	382.0	372.3	354.5	330.7	298.7	263.7	229.8	197.8	169.1	117.0
30°	396.9	392.9	381.2	362.9	337.9	305.1	267.7	230.0	195.3	163.1	107.6
32.5°	405.3	401.6	389.7	370.1	342.8	309.6	269.9	229.8	192.1	158.9	97.4
35°	413.7	410.0	396.1	375.3	346.5	311.6	271.7	228.5	188.1	152.0	87.8
37.5°	420.2	416.0	401.8	378.8	348.3	312.1	271.4	226.8	183.9	146.3	78.1
40°	424.6	420.2	405.0	380.8	348.8	311.3	269.5	223.8	179.0	139.1	67.9
42.5°	427.6	422.6	406.5	383.7	347.8	309.4	266.5	220.1	173.5	132.9	58.3
45°	429.1	423.9	406.8	381.2	346.0	305.6	262.0	215.4	167.6	124.4	48.6
47.5°	428.3	422.6	405.5	378.5	342.8	301.7	257.1	209.7	160.4	117.0	39.4
50°	427.1	421.2	402.8	375.0	338.4	296.7	251.6	202.8	152.9	107.8	31.2
52.5°	423.1	417.2	399.8	370.1	333.2	291.0	244.2	195.6	145.0	98.9	23.8
55°	418.2	412.7	394.6	365.6	326.5	284.1	237.2	187.9	137.3	89.7	17.1
57.5°	410.5	405.5	388.2	358.4	319.8	276.4	229.5	179.5	127.7	80.6	11.9
60°	401.1	396.1	379.3	350.3	312.1	267.7	221.1	170.8	119.0	71.4	7.4
62.5°	391.2	386.5	368.9	340.1	302.4	258.5	211.9	162.1	109.8	63.0	4.5
65°	378.0	373.6	357.7	328.0	291.8	248.6	201.8	151.7	100.4	53.5	2.5
67.5°	364.1	360.2	344.1	316.8	279.4	237.7	191.4	141.5	90.5	45.4	1.2
70°	349.3	344.3	329.4	301.7	266.7	225.3	180.0	131.1	81.1	37.4	0.0
72.5°	331.9	328.2	313.8	287.5	252.1	212.2	168.3	119.7	70.6	29.7	0.2
75°	315.1	310.4	297.2	272.4	237.7	198.3	155.4	109.1	60.5	22.8	0.2
77.5°	293.2	291.8	279.4	255.3	224.1	184.9	141.3	96.2	50.8	16.4	0.2
80°	271.4	269.9	260.3	238.2	208.2	169.1	128.2	84.0	41.4	10.9	0.2
82.5°	249.9	247.9	238.7	220.4	192.1	155.7	114.5	71.9	32.7	6.7	0.2
85°	230.5	228.1	218.1	201.3	175.5	140.6	100.4	60.0	24.3	3.7	0.5
87.5°	213.9	212.2	201.3	183.9	158.6	126.4	88.0	48.6	17.1	1.7	0.7
90°	199.8	196.1	186.4	168.1	142.8	110.8	74.9	38.9	11.4	1.0	1.0
92.5°	185.9	182.7	172.0	153.2	128.7	97.4	62.2	29.7	7.2	0.5	1.2
95°	171.5	168.1	157.7	140.3	114.3	83.8	51.1	21.8	4.0	0.5	1.2
97.5°	157.4	154.2	143.3	125.9	101.4	71.9	40.4	15.4	2.0	0.5	1.0
100°	144.3	140.6	130.6	113.3	88.5	60.0	31.2	9.9	1.2	0.5	1.0
102.5°	130.4	127.4	117.2	100.4	75.1	48.8	23.3	6.2	0.5	0.5	0.7
105°	118.0	114.3	104.4	87.0	64.0	38.4	16.4	3.7	0.5	0.5	0.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	76.8	73.9	65.2	50.6	32.5	15.1	4.5	0.7	0.7	0.7	0.7
115°	64.2	59.7	52.1	39.2	24.0	9.9	2.2	0.7	0.7	0.7	0.7
117.5°	51.3	47.6	42.1	29.7	15.9	6.4	1.2	0.7	0.7	0.7	0.7
120°	40.2	36.7	30.5	20.6	10.7	3.7	0.5	0.7	0.7	0.7	0.7
122.5°	28.8	26.0	20.6	13.4	6.4	1.7	0.7	0.7	1.0	1.0	0.7
125°	19.1	17.6	13.6	8.2	4.0	0.7	0.7	0.7	1.0	1.0	0.7
127.5°	12.4	11.2	7.9	4.7	1.7	0.7	0.7	1.0	1.0	1.0	0.7
130°	6.9	6.2	4.7	2.7	0.7	0.7	0.7	1.0	1.0	1.0	0.7
132.5°	4.0	3.7	2.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0
137.5°	0.2	0.2	0.5	0.5	0.7	0.7	1.0	1.2	1.2	1.2	1.0
140°	0.2	0.2	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.0
142.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
145°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.0	1.0
150°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
152.5°	0.2	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
157.5°	0.5	0.5	0.5	0.7	1.0	1.0	1.0	1.2	1.0	1.0	1.2
160°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.7	0.7	0.7	1.0	1.2	1.2	1.2	1.2
172.5°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
175°	0.5	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.2
177.5°	0.2	0.5	0.5	0.7	0.7	1.0	1.0	1.2	1.2	1.2	1.0
180°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	194.6	194.6	194.6
2.5°	185.2	181.7	180.7
5°	175.3	169.6	166.3
7.5°	165.3	157.7	153.9
10°	156.2	145.3	141.3
12.5°	145.3	132.6	126.4
15°	134.8	118.5	112.5
17.5°	123.2	104.9	97.9
20°	112.3	91.2	84.0
22.5°	99.9	77.8	69.9
25°	88.7	64.5	55.5
27.5°	76.3	50.8	43.1
30°	64.7	38.9	31.2
32.5°	53.5	28.5	21.6
35°	43.1	19.3	13.6
37.5°	33.2	11.9	6.9
40°	24.0	6.2	3.2
42.5°	16.1	3.0	1.7
45°	9.9	1.5	0.0
47.5°	5.7	0.0	0.0
50°	3.0	0.0	0.0
52.5°	1.2	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°	0.2	0.2	0.2
77.5°	0.2	0.5	0.7
80°	0.5	1.0	1.2
82.5°	1.0	1.2	1.2
85°	1.0	1.2	1.5
87.5°	1.2	1.5	1.7
90°	1.5	1.7	1.7
92.5°	1.5	2.0	2.0
95°	1.7	2.0	2.2
97.5°	2.0	2.2	2.2
100°	1.7	2.2	2.5
102.5°	1.5	2.2	2.2
105°	1.2	1.7	2.0





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.0	1.2	1.2
115°	0.7	1.0	1.2
117.5°	0.7	1.0	1.0
120°	0.7	0.7	1.0
122.5°	0.7	0.7	1.0
125°	0.7	0.7	1.0
127.5°	1.0	0.7	0.7
130°	0.7	0.7	0.7
132.5°	1.0	0.7	0.7
135°	1.0	0.7	0.7
137.5°	1.0	0.7	0.7
140°	1.0	0.7	0.7
142.5°	1.0	0.7	0.7
145°	0.7	0.7	0.7
147.5°	0.7	0.7	0.7
150°	0.7	0.7	0.5
152.5°	0.7	0.5	0.5
155°	0.7	0.5	0.2
157.5°	1.0	0.5	0.2
160°	0.7	0.5	0.2
162.5°	0.7	0.5	0.2
165°	0.7	0.5	0.0
167.5°	0.7	0.5	0.2
170°	0.7	0.5	0.2
172.5°	0.7	0.5	0.2
175°	0.7	0.2	0.2
177.5°	0.7	0.2	0.2
180°	0.7	0.7	0.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	104.1	101.1	91.2	74.9	52.3	29.3	10.9	2.0	0.5	0.7	0.7
110°	90.7	88.2	78.1	62.2	42.1	21.8	7.2	1.2	0.7	0.7	0.7







107.5°	1.0	1.5	1.7
110°	1.0	1.2	1.5



(END OF REPORT)