

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: P550894

Luminaire Tested: **FCC-X-2-LD4-1LO-50-UNV-81-87-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: P550894  
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-81-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

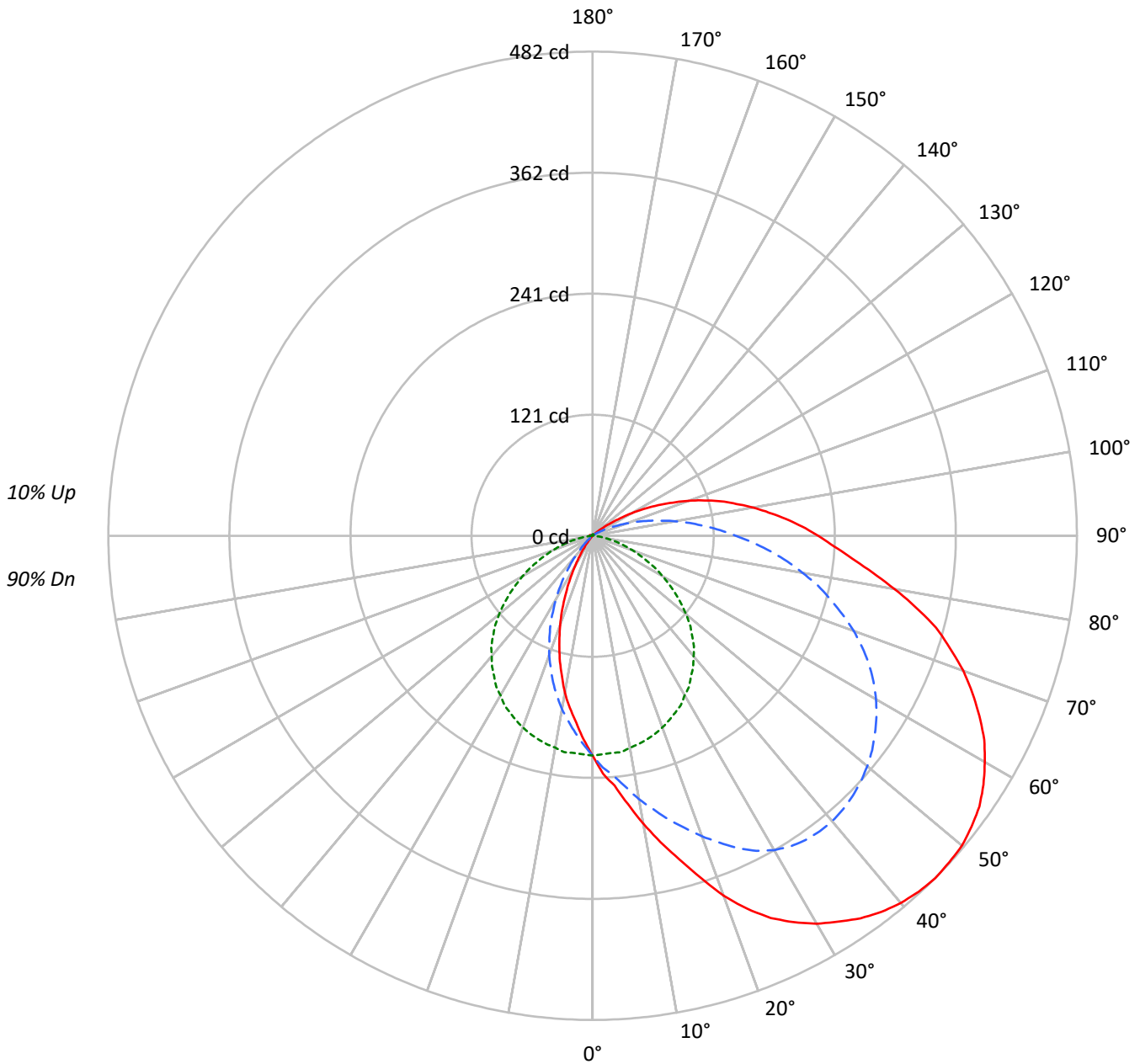
Lumens per Lamp: N/A  
Luminaire Lumens: 1080.9 lumens  
Efficiency: N/A  
Efficacy: 92.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 11.7  
Input Voltage (V): NR  
Input Current (Ain): 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-81-87-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2354	2354	2354
5°	2584	2319	1935
10°	2924	2291	1595
15°	3276	2261	1243
20°	3695	2225	915
25°	4043	2182	601
30°	4302	2125	339
35°	4525	2064	149
40°	4724	1988	36
45°	4894	1892	0
50°	5036	1766	0
55°	5145	1605	0
60°	5200	1419	0
65°	5221	1209	0
70°	5204	986	0
75°	5137	726	4
80°	4929	446	23
85°	4764	214	31



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.9	1.9
10°-20°	62.7	5.8
20°-30°	101.6	9.4
30°-40°	130.5	12.1
40°-50°	147.7	13.7
50°-60°	153.0	14.2
60°-70°	144.3	13.3
70°-80°	120.9	11.2
80°-90°	87.6	8.1
90°-100°	57.6	5.3
100°-110°	33.3	3.1
110°-120°	14.7	1.4
120°-130°	4.0	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°	185.2	17.1
0°-40°	315.7	29.2
0°-60°	616.3	57.0
0°-90°	969.2	89.7
90°-120°	105.5	9.8
90°-150°	111.0	10.3
90°-180°	112.0	10.4
0°-180°	1080.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	219	219	219	219	219	
5°	250	240	217	197	187	25
15°	333	292	210	152	126	96
25°	420	343	194	100	62	194
35°	465	370	171	48	15	292
45°	482	366	140	11	0	372
55°	470	343	101	0	0	420
65°	425	304	60	0	0	420
75°	354	245	26	0	0	371
85°	259	178	4	1	2	221
90°	224	142	1	2	2	123
95°	193	111	1	2	2	151
105°	133	58	1	1	2	140
115°	72	19	1	1	1	72
125°	21	3	1	1	1	21
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	1	0	0
175°	1	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°	218.7	218.7	218.7	218.7	218.7	218.7	218.7	218.7	218.7	218.7	218.7
2.5°	237.0	236.8	235.9	234.5	232.6	229.2	226.5	224.0	220.6	217.8	212.5
5°	249.6	248.2	247.1	245.7	241.2	238.2	233.1	227.6	222.3	217.0	206.4
7.5°	269.6	267.4	265.7	261.8	255.7	248.7	240.9	235.7	232.0	217.3	199.2
10°	291.1	289.1	285.8	278.8	271.3	261.3	250.1	237.6	226.5	214.2	192.8
12.5°	312.3	309.5	304.7	295.8	285.2	272.7	257.4	242.6	226.7	212.3	185.2
15°	333.4	330.4	325.3	314.5	300.6	284.1	265.5	246.8	228.1	209.7	177.4
17.5°	356.5	352.4	344.8	332.6	315.0	294.7	272.7	250.1	227.6	206.7	169.1
20°	381.3	375.5	367.4	351.0	330.4	306.4	279.9	253.5	227.3	203.1	159.6
22.5°	401.9	396.1	387.2	370.2	345.4	316.2	286.1	255.7	226.2	198.9	150.7
25°	419.8	415.0	405.3	385.8	359.6	326.5	291.9	257.4	224.5	194.4	141.2
27.5°	433.7	429.2	418.4	398.3	371.6	335.7	296.4	258.2	222.3	190.0	131.5
30°	446.0	441.5	428.4	407.8	379.7	342.9	300.8	258.5	219.5	183.3	120.9
32.5°	455.4	451.2	437.9	415.9	385.2	347.9	303.3	258.2	215.9	178.5	109.5
35°	464.9	460.7	445.1	421.7	389.4	350.1	305.3	256.8	211.4	170.8	98.6
37.5°	472.1	467.4	451.5	425.6	391.4	350.7	305.0	254.9	206.7	164.3	87.7
40°	477.2	472.1	455.1	427.9	391.9	349.9	302.8	251.5	201.1	156.3	76.3
42.5°	480.5	474.9	456.8	431.2	390.8	347.6	299.4	247.4	195.0	149.3	65.5
45°	482.2	476.3	457.1	428.4	388.9	343.4	294.4	242.1	188.3	139.8	54.6
47.5°	481.3	474.9	455.7	425.3	385.2	339.0	288.9	235.7	180.2	131.5	44.3
50°	479.9	473.3	452.6	421.4	380.2	333.4	282.7	227.9	171.9	121.2	35.1
52.5°	475.5	468.8	449.3	415.9	374.4	327.0	274.4	219.8	163.0	111.1	26.7
55°	469.9	463.8	443.4	410.9	366.8	319.2	266.6	211.1	154.3	100.8	19.2
57.5°	461.3	455.7	436.2	402.8	359.3	310.6	257.9	201.7	143.5	90.5	13.4
60°	450.7	445.1	426.2	393.6	350.7	300.8	248.5	191.9	133.7	80.2	8.4
62.5°	439.5	434.3	414.5	382.2	339.8	290.5	238.2	182.2	123.4	70.8	5.0
65°	424.8	419.8	401.9	368.5	327.9	279.4	226.7	170.5	112.8	60.2	2.8
67.5°	409.2	404.7	386.6	356.0	313.9	267.1	215.0	159.1	101.7	51.0	1.4
70°	392.5	386.9	370.2	339.0	299.7	253.2	202.2	147.4	91.1	42.1	0.0
72.5°	373.0	368.8	352.6	323.1	283.3	238.4	189.1	134.5	79.4	33.4	0.3
75°	354.0	348.7	334.0	306.1	267.1	222.8	174.6	122.6	68.0	25.6	0.3
77.5°	329.5	327.9	313.9	286.9	251.8	207.8	158.8	108.1	57.1	18.4	0.3
80°	305.0	303.3	292.5	267.7	234.0	190.0	144.0	94.4	46.5	12.3	0.3
82.5°	280.8	278.5	268.2	247.6	215.9	174.9	128.7	80.8	36.8	7.5	0.3
85°	259.0	256.3	245.1	226.2	197.2	157.9	112.8	67.4	27.3	4.2	0.6
87.5°	240.4	238.4	226.2	206.7	178.3	142.1	98.9	54.6	19.2	1.9	0.8
90°	224.5	220.3	209.5	188.9	160.4	124.5	84.1	43.7	12.8	1.1	1.1
92.5°	208.9	205.3	193.3	172.1	144.6	109.5	69.9	33.4	8.1	0.6	1.4
95°	192.8	188.9	177.2	157.7	128.4	94.1	57.4	24.5	4.5	0.6	1.4
97.5°	176.9	173.3	161.0	141.5	113.9	80.8	45.4	17.3	2.2	0.6	1.1
100°	162.1	157.9	146.8	127.3	99.4	67.4	35.1	11.1	1.4	0.6	1.1
102.5°	146.5	143.2	131.8	112.8	84.4	54.9	26.2	7.0	0.6	0.6	0.8
105°	132.6	128.4	117.3	97.8	71.9	43.2	18.4	4.2	0.6	0.6	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	86.3	83.0	73.3	56.8	36.5	17.0	5.0	0.8	0.8	0.8	0.8
115°	72.1	67.1	58.5	44.0	27.0	11.1	2.5	0.8	0.8	0.8	0.8
117.5°	57.7	53.5	47.4	33.4	17.8	7.2	1.4	0.8	0.8	0.8	0.8
120°	45.1	41.2	34.3	23.1	12.0	4.2	0.6	0.8	0.8	0.8	0.8
122.5°	32.3	29.2	23.1	15.0	7.2	1.9	0.8	0.8	1.1	1.1	0.8
125°	21.4	19.8	15.3	9.2	4.5	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.9	12.5	8.9	5.3	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.8	7.0	5.3	3.1	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.5	4.2	2.8	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1
137.5°	0.3	0.3	0.6	0.6	0.8	0.8	1.1	1.4	1.4	1.4	1.1
140°	0.3	0.3	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.1
142.5°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
145°	0.3	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.1	1.1	1.1
147.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.1	1.1
150°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
152.5°	0.3	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.1
155°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
157.5°	0.6	0.6	0.6	0.8	1.1	1.1	1.1	1.4	1.1	1.1	1.4
160°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.6	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.6	0.6	0.6	0.8	0.8	0.8	1.1	1.4	1.4	1.4	1.4
172.5°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
175°	0.6	0.6	0.6	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4
177.5°	0.3	0.6	0.6	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°	218.7	218.7	218.7
2.5°	208.1	204.2	203.1
5°	196.9	190.5	186.9
7.5°	185.8	177.2	173.0
10°	175.5	163.2	158.8
12.5°	163.2	149.0	142.1
15°	151.5	133.1	126.5
17.5°	138.4	117.8	110.0
20°	126.2	102.5	94.4
22.5°	112.3	87.5	78.6
25°	99.7	72.4	62.4
27.5°	85.8	57.1	48.5
30°	72.7	43.7	35.1
32.5°	60.2	32.0	24.2
35°	48.5	21.7	15.3
37.5°	37.3	13.4	7.8
40°	27.0	7.0	3.6
42.5°	18.1	3.3	1.9
45°	11.1	1.7	0.0
47.5°	6.4	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	0.6	0.8
80°	0.6	1.1	1.4
82.5°	1.1	1.4	1.4
85°	1.1	1.4	1.7
87.5°	1.4	1.7	1.9
90°	1.7	1.9	1.9
92.5°	1.7	2.2	2.2
95°	1.9	2.2	2.5
97.5°	2.2	2.5	2.5
100°	1.9	2.5	2.8
102.5°	1.7	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	0.6
152.5°	0.8	0.6	0.6
155°	0.8	0.6	0.3
157.5°	1.1	0.6	0.3
160°	0.8	0.6	0.3
162.5°	0.8	0.6	0.3
165°	0.8	0.6	0.0
167.5°	0.8	0.6	0.3
170°	0.8	0.6	0.3
172.5°	0.8	0.6	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°	117.0	113.6	102.5	84.1	58.8	32.9	12.3	2.2	0.6	0.8	0.8
110°	101.9	99.2	87.7	69.9	47.4	24.5	8.1	1.4	0.8	0.8	0.8







107.5°	1.1	1.7	1.9
110°	1.1	1.4	1.7



(END OF REPORT)