

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: P550838

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-81-97-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: P550838  
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-40-UNV-81-97-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

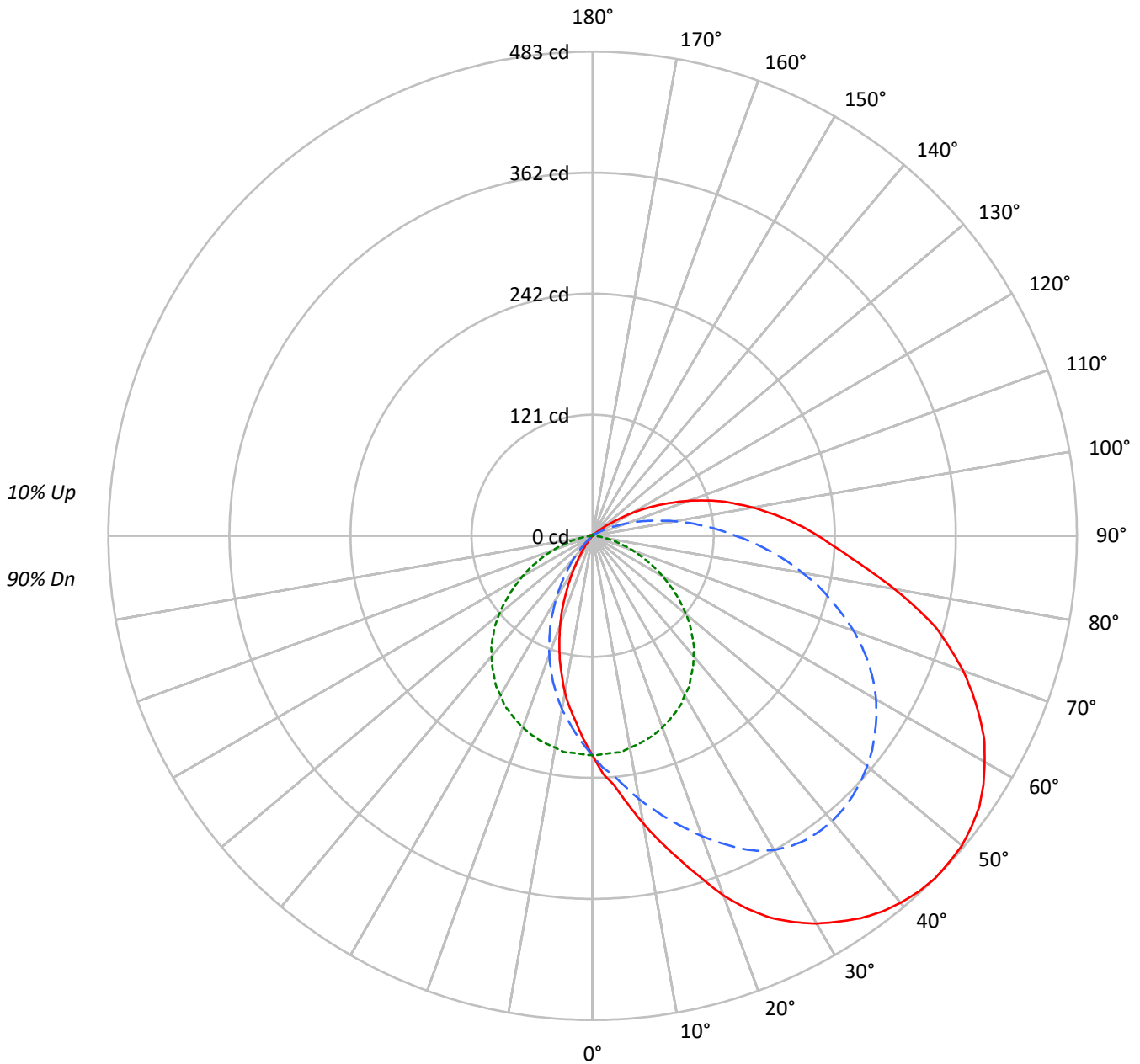
Lumens per Lamp: N/A  
Luminaire Lumens: 1083.0 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-40-UNV-81-97-ED1D

### 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°	2358	2358	2358
5°	2588	2324	1939
10°	2929	2295	1598
15°	3282	2265	1245
20°	3702	2229	917
25°	4050	2186	602
30°	4309	2128	339
35°	4534	2067	149
40°	4731	1992	36
45°	4903	1896	0
50°	5045	1769	0
55°	5154	1608	0
60°	5209	1423	0
65°	5231	1211	0
70°	5213	986	0
75°	5147	729	4
80°	4939	446	23
85°	4773	214	31



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.0	1.9
10°-20°	62.8	5.8
20°-30°	101.7	9.4
30°-40°	130.7	12.1
40°-50°	148.0	13.7
50°-60°	153.3	14.2
60°-70°	144.6	13.3
70°-80°	121.2	11.2
80°-90°	87.8	8.1
90°-100°	57.7	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°	185.6	17.1
0°-40°	316.3	29.2
0°-60°	617.5	57.0
0°-90°	971.0	89.7
90°-120°	105.7	9.8
90°-150°	111.2	10.3
90°-180°	112.0	10.3
0°-180°	1083.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	219	219	219	219	219	
5°	250	240	217	197	187	25
15°	334	293	210	152	127	96
25°	420	344	195	100	62	194
35°	466	370	171	49	15	292
45°	483	367	140	11	0	373
55°	471	344	101	0	0	420
65°	426	304	60	0	0	421
75°	355	245	26	0	0	372
85°	260	178	4	1	2	222
90°	225	143	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°	22	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°	219.1	219.1	219.1	219.1	219.1	219.1	219.1	219.1	219.1	219.1	219.1
2.5°	237.5	237.2	236.4	235.0	233.0	229.7	226.9	224.4	221.0	218.2	212.9
5°	250.0	248.6	247.5	246.1	241.7	238.6	233.6	228.0	222.7	217.4	206.8
7.5°	270.1	267.9	266.2	262.3	256.2	249.2	241.4	236.1	232.5	217.7	199.5
10°	291.6	289.7	286.3	279.3	271.8	261.8	250.6	238.0	226.9	214.6	193.1
12.5°	312.8	310.0	305.3	296.4	285.8	273.2	257.9	243.1	227.2	212.6	185.6
15°	334.0	331.0	325.9	315.1	301.1	284.6	265.9	247.3	228.6	210.1	177.8
17.5°	357.2	353.0	345.5	333.2	315.6	295.2	273.2	250.6	228.0	207.1	169.4
20°	382.0	376.2	368.1	351.6	331.0	307.0	280.5	253.9	227.7	203.4	159.9
22.5°	402.7	396.8	387.9	370.9	346.0	316.7	286.6	256.2	226.6	199.3	151.0
25°	420.5	415.8	406.0	386.5	360.3	327.1	292.5	257.9	224.9	194.8	141.5
27.5°	434.5	430.0	419.2	399.1	372.3	336.3	296.9	258.7	222.7	190.3	131.7
30°	446.8	442.3	429.2	408.5	380.4	343.5	301.4	259.0	219.9	183.6	121.1
32.5°	456.3	452.1	438.7	416.6	385.9	348.6	303.9	258.7	216.3	178.9	109.7
35°	465.8	461.6	445.9	422.5	390.1	350.8	305.9	257.3	211.8	171.1	98.8
37.5°	473.0	468.3	452.4	426.4	392.1	351.3	305.6	255.3	207.1	164.6	87.9
40°	478.0	473.0	456.0	428.6	392.6	350.5	303.3	252.0	201.5	156.6	76.5
42.5°	481.4	475.8	457.7	432.0	391.5	348.3	300.0	247.8	195.3	149.6	65.6
45°	483.1	477.2	457.9	429.2	389.6	344.1	295.0	242.5	188.6	140.1	54.7
47.5°	482.2	475.8	456.5	426.1	385.9	339.6	289.4	236.1	180.6	131.7	44.4
50°	480.8	474.1	453.5	422.2	380.9	334.0	283.2	228.3	172.2	121.4	35.2
52.5°	476.4	469.7	450.1	416.6	375.1	327.6	274.9	220.2	163.3	111.3	26.8
55°	470.8	464.6	444.3	411.6	367.5	319.8	267.1	211.5	154.6	101.0	19.3
57.5°	462.1	456.5	437.0	403.5	360.0	311.2	258.4	202.0	143.7	90.7	13.4
60°	451.5	445.9	427.0	394.3	351.3	301.4	248.9	192.3	134.0	80.4	8.4
62.5°	440.4	435.1	415.2	382.9	340.5	291.1	238.6	182.5	123.6	70.9	5.0
65°	425.6	420.5	402.7	369.2	328.5	279.9	227.2	170.8	113.0	60.3	2.8
67.5°	409.9	405.5	387.3	356.6	314.5	267.6	215.4	159.3	101.9	51.1	1.4
70°	393.2	387.6	370.9	339.6	300.3	253.7	202.6	147.6	91.3	42.1	0.0
72.5°	373.7	369.5	353.3	323.7	283.8	238.9	189.5	134.8	79.5	33.5	0.3
75°	354.7	349.4	334.6	306.7	267.6	223.3	175.0	122.8	68.1	25.7	0.3
77.5°	330.1	328.5	314.5	287.4	252.3	208.2	159.1	108.3	57.2	18.4	0.3
80°	305.6	303.9	293.0	268.2	234.4	190.3	144.3	94.6	46.6	12.3	0.3
82.5°	281.3	279.1	268.7	248.1	216.3	175.3	128.9	80.9	36.8	7.5	0.3
85°	259.5	256.7	245.6	226.6	197.6	158.2	113.0	67.5	27.3	4.2	0.6
87.5°	240.8	238.9	226.6	207.1	178.6	142.3	99.1	54.7	19.3	2.0	0.8
90°	224.9	220.7	209.9	189.2	160.7	124.7	84.3	43.8	12.8	1.1	1.1
92.5°	209.3	205.7	193.7	172.5	144.8	109.7	70.0	33.5	8.1	0.6	1.4
95°	193.1	189.2	177.5	157.9	128.6	94.3	57.5	24.6	4.5	0.6	1.4
97.5°	177.2	173.6	161.3	141.8	114.1	80.9	45.5	17.3	2.2	0.6	1.1
100°	162.4	158.2	147.1	127.5	99.6	67.5	35.2	11.2	1.4	0.6	1.1
102.5°	146.8	143.4	132.0	113.0	84.6	55.0	26.2	7.0	0.6	0.6	0.8
105°	132.8	128.6	117.5	98.0	72.0	43.3	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°	86.5	83.2	73.4	56.9	36.6	17.0	5.0	0.8	0.8	0.8	0.8
115°	72.3	67.3	58.6	44.1	27.1	11.2	2.5	0.8	0.8	0.8	0.8
117.5°	57.8	53.6	47.4	33.5	17.9	7.3	1.4	0.8	0.8	0.8	0.8
120°	45.2	41.3	34.3	23.2	12.0	4.2	0.6	0.8	0.8	0.8	0.8
122.5°	32.4	29.3	23.2	15.1	7.3	2.0	0.8	0.8	1.1	1.1	0.8
125°	21.5	19.8	15.3	9.2	4.5	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	14.0	12.6	8.9	5.3	2.0	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°	219.1	219.1	219.1
2.5°	208.5	204.6	203.4
5°	197.3	190.9	187.3
7.5°	186.1	177.5	173.3
10°	175.8	163.5	159.1
12.5°	163.5	149.3	142.3
15°	151.8	133.4	126.7
17.5°	138.7	118.0	110.2
20°	126.4	102.7	94.6
22.5°	112.5	87.6	78.7
25°	99.9	72.6	62.5
27.5°	86.0	57.2	48.6
30°	72.8	43.8	35.2
32.5°	60.3	32.1	24.3
35°	48.6	21.8	15.3
37.5°	37.4	13.4	7.8
40°	27.1	7.0	3.6
42.5°	18.1	3.3	2.0
45°	11.2	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	2.0
90°	1.7	2.0	2.0
92.5°	1.7	2.2	2.2
95°	2.0	2.2	2.5
97.5°	2.2	2.5	2.5
100°	2.0	2.5	2.8
102.5°	1.7	2.5	2.5
105°	1.4	2.0	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°	117.2	113.9	102.7	84.3	58.9	32.9	12.3	2.2	0.6	0.8	0.8
110°	102.1	99.3	87.9	70.0	47.4	24.6	8.1	1.4	0.8	0.8	0.8







107.5°	1.1	1.7	2.0
110°	1.1	1.4	1.7



(END OF REPORT)