

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: P550864

Luminaire Tested: **FCC-X-2-LD4-1LO-40-UNV-93-88-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: P550864  
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-93-88-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

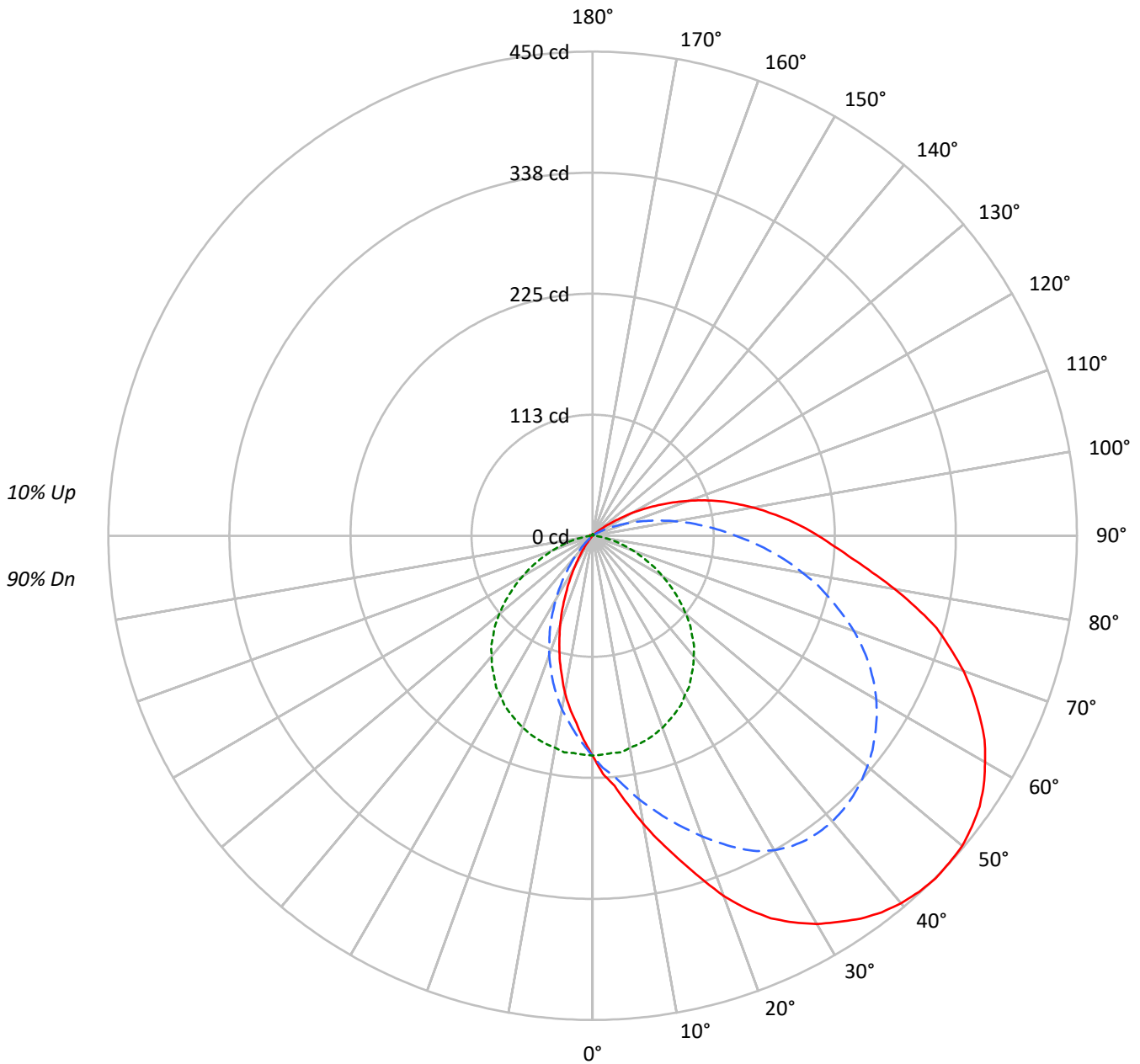
Lumens per Lamp: N/A  
Luminaire Lumens: 1010.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-93-88-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°	2199	2199	2199
5°	2414	2166	1807
10°	2732	2140	1490
15°	3061	2113	1162
20°	3453	2078	855
25°	3777	2039	561
30°	4019	1985	316
35°	4228	1927	139
40°	4413	1857	34
45°	4572	1767	0
50°	4705	1650	0
55°	4806	1500	0
60°	4858	1327	0
65°	4878	1129	0
70°	4862	921	0
75°	4800	678	4
80°	4606	417	21
85°	4451	198	29



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.6	1.9
10°-20°	58.6	5.8
20°-30°	94.9	9.4
30°-40°	121.9	12.1
40°-50°	138.0	13.7
50°-60°	142.9	14.2
60°-70°	134.8	13.3
70°-80°	113.0	11.2
80°-90°	81.9	8.1
90°-100°	53.8	5.3
100°-110°	31.1	3.1
110°-120°	13.7	1.4
120°-130°	3.7	0.4
130°-140°	0.8	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°	173.1	17.1
0°-40°	294.9	29.2
0°-60°	575.9	57.0
0°-90°	905.6	89.7
90°-120°	98.6	9.8
90°-150°	103.7	10.3
90°-180°	104.0	10.3
0°-180°	1010.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	204	204	204	204	204	
5°	233	224	203	184	175	24
15°	312	273	196	142	118	90
25°	392	320	182	93	58	181
35°	434	345	160	45	14	272
45°	450	342	131	10	0	348
55°	439	321	94	0	0	392
65°	397	284	56	0	0	393
75°	331	229	24	0	0	347
85°	242	166	4	1	2	207
90°	210	133	1	2	2	115
95°	180	104	0	2	2	141
105°	124	54	0	1	2	131
115°	67	18	1	1	1	68
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°	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3	204.3
2.5°	221.5	221.2	220.4	219.1	217.3	214.2	211.6	209.2	206.1	203.5	198.6
5°	233.2	231.9	230.8	229.5	225.4	222.5	217.8	212.6	207.7	202.7	192.8
7.5°	251.9	249.8	248.3	244.6	238.9	232.4	225.1	220.2	216.8	203.0	186.1
10°	272.0	270.1	267.0	260.5	253.5	244.1	233.7	222.0	211.6	200.1	180.1
12.5°	291.7	289.1	284.7	276.4	266.5	254.8	240.5	226.7	211.8	198.3	173.1
15°	311.5	308.7	304.0	293.8	280.8	265.5	248.0	230.6	213.1	196.0	165.8
17.5°	333.1	329.2	322.2	310.7	294.3	275.3	254.8	233.7	212.6	193.1	158.0
20°	356.3	350.8	343.3	327.9	308.7	286.3	261.6	236.8	212.4	189.7	149.1
22.5°	375.5	370.1	361.8	345.9	322.7	295.4	267.3	238.9	211.3	185.8	140.8
25°	392.2	387.8	378.7	360.5	336.0	305.0	272.7	240.5	209.8	181.7	131.9
27.5°	405.2	401.1	390.9	372.2	347.2	313.6	276.9	241.3	207.7	177.5	122.8
30°	416.7	412.5	400.3	381.0	354.7	320.4	281.1	241.5	205.1	171.2	112.9
32.5°	425.5	421.6	409.1	388.6	359.9	325.1	283.4	241.3	201.7	166.8	102.3
35°	434.4	430.5	415.9	394.0	363.8	327.1	285.2	240.0	197.5	159.5	92.1
37.5°	441.1	436.7	421.9	397.7	365.7	327.7	285.0	238.1	193.1	153.5	82.0
40°	445.8	441.1	425.3	399.7	366.2	326.9	282.9	235.0	187.9	146.0	71.3
42.5°	448.9	443.7	426.8	402.9	365.1	324.8	279.8	231.1	182.2	139.5	61.2
45°	450.5	445.0	427.1	400.3	363.3	320.9	275.1	226.2	175.9	130.6	51.0
47.5°	449.7	443.7	425.8	397.4	359.9	316.7	269.9	220.2	168.4	122.8	41.4
50°	448.4	442.2	422.9	393.8	355.2	311.5	264.2	212.9	160.6	113.2	32.8
52.5°	444.3	438.0	419.8	388.6	349.8	305.5	256.3	205.3	152.2	103.8	25.0
55°	439.0	433.3	414.3	383.9	342.8	298.3	249.1	197.3	144.2	94.2	18.0
57.5°	431.0	425.8	407.6	376.3	335.7	290.2	241.0	188.4	134.0	84.6	12.5
60°	421.1	415.9	398.2	367.7	327.7	281.1	232.1	179.3	124.9	75.0	7.8
62.5°	410.7	405.7	387.3	357.1	317.5	271.4	222.5	170.2	115.3	66.1	4.7
65°	396.9	392.2	375.5	344.3	306.3	261.0	211.8	159.3	105.4	56.2	2.6
67.5°	382.3	378.1	361.2	332.6	293.3	249.6	200.9	148.6	95.0	47.6	1.3
70°	366.7	361.5	345.9	316.7	280.0	236.6	188.9	137.7	85.1	39.3	0.0
72.5°	348.5	344.6	329.5	301.9	264.7	222.8	176.7	125.7	74.2	31.2	0.3
75°	330.8	325.8	312.0	286.0	249.6	208.2	163.2	114.5	63.5	23.9	0.3
77.5°	307.9	306.3	293.3	268.1	235.3	194.1	148.3	101.0	53.4	17.2	0.3
80°	285.0	283.4	273.3	250.1	218.6	177.5	134.6	88.2	43.5	11.5	0.3
82.5°	262.3	260.3	250.6	231.4	201.7	163.4	120.2	75.5	34.4	7.0	0.3
85°	242.0	239.4	229.0	211.3	184.3	147.6	105.4	63.0	25.5	3.9	0.5
87.5°	224.6	222.8	211.3	193.1	166.6	132.7	92.4	51.0	18.0	1.8	0.8
90°	209.8	205.9	195.7	176.5	149.9	116.3	78.6	40.9	12.0	1.0	1.0
92.5°	195.2	191.8	180.6	160.8	135.1	102.3	65.3	31.2	7.5	0.5	1.3
95°	180.1	176.5	165.5	147.3	120.0	88.0	53.6	22.9	4.2	0.5	1.3
97.5°	165.3	161.9	150.4	132.2	106.4	75.5	42.4	16.1	2.1	0.5	1.0
100°	151.5	147.6	137.2	118.9	92.9	63.0	32.8	10.4	1.3	0.5	1.0
102.5°	136.9	133.8	123.1	105.4	78.9	51.3	24.5	6.5	0.5	0.5	0.8
105°	123.9	120.0	109.6	91.3	67.1	40.3	17.2	3.9	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°	80.7	77.6	68.4	53.1	34.1	15.9	4.7	0.8	0.8	0.8	0.8
115°	67.4	62.7	54.7	41.1	25.2	10.4	2.3	0.8	0.8	0.8	0.8
117.5°	53.9	50.0	44.2	31.2	16.7	6.8	1.3	0.8	0.8	0.8	0.8
120°	42.2	38.5	32.0	21.6	11.2	3.9	0.5	0.8	0.8	0.8	0.8
122.5°	30.2	27.3	21.6	14.1	6.8	1.8	0.8	0.8	1.0	1.0	0.8
125°	20.0	18.5	14.3	8.6	4.2	0.8	0.8	0.8	1.0	1.0	0.8
127.5°	13.0	11.7	8.3	4.9	1.8	0.8	0.8	1.0	1.0	1.0	0.8
130°	7.3	6.5	4.9	2.9	0.8	0.8	0.8	1.0	1.0	1.0	0.8
132.5°	4.2	3.9	2.6	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0
135°	1.0	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.0	1.3	1.3	1.3	1.0
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.0
142.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
145°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.0	1.0	1.0
147.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.0	1.0
150°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
152.5°	0.3	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.0
155°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
157.5°	0.5	0.5	0.5	0.8	1.0	1.0	1.0	1.3	1.0	1.0	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.0	1.0	1.0
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.0	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.0
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°	204.3	204.3	204.3
2.5°	194.4	190.8	189.7
5°	184.0	178.0	174.6
7.5°	173.6	165.5	161.6
10°	164.0	152.5	148.3
12.5°	152.5	139.2	132.7
15°	141.6	124.4	118.2
17.5°	129.3	110.1	102.8
20°	117.9	95.8	88.2
22.5°	104.9	81.7	73.4
25°	93.2	67.7	58.3
27.5°	80.2	53.4	45.3
30°	67.9	40.9	32.8
32.5°	56.2	29.9	22.6
35°	45.3	20.3	14.3
37.5°	34.9	12.5	7.3
40°	25.2	6.5	3.4
42.5°	16.9	3.1	1.8
45°	10.4	1.6	0.0
47.5°	6.0	0.0	0.0
50°	3.1	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	1.0	1.3
82.5°	1.0	1.3	1.3
85°	1.0	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	2.3
97.5°	2.1	2.3	2.3
100°	1.8	2.3	2.6
102.5°	1.6	2.3	2.3
105°	1.3	1.8	2.1





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.0	1.3	1.3
115°	0.8	1.0	1.3
117.5°	0.8	1.0	1.0
120°	0.8	0.8	1.0
122.5°	0.8	0.8	1.0
125°	0.8	0.8	1.0
127.5°	1.0	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.0	0.8	0.8
135°	1.0	0.8	0.8
137.5°	1.0	0.8	0.8
140°	1.0	0.8	0.8
142.5°	1.0	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°	1.0	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°	109.3	106.2	95.8	78.6	54.9	30.7	11.5	2.1	0.5	0.8	0.8
110°	95.3	92.7	82.0	65.3	44.2	22.9	7.5	1.3	0.8	0.8	0.8







107.5°	1.0	1.6	1.8
110°	1.0	1.3	1.6



(END OF REPORT)