

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: P551114

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-85-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: P551114  
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-LD4-1STD-40-UNV-93-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

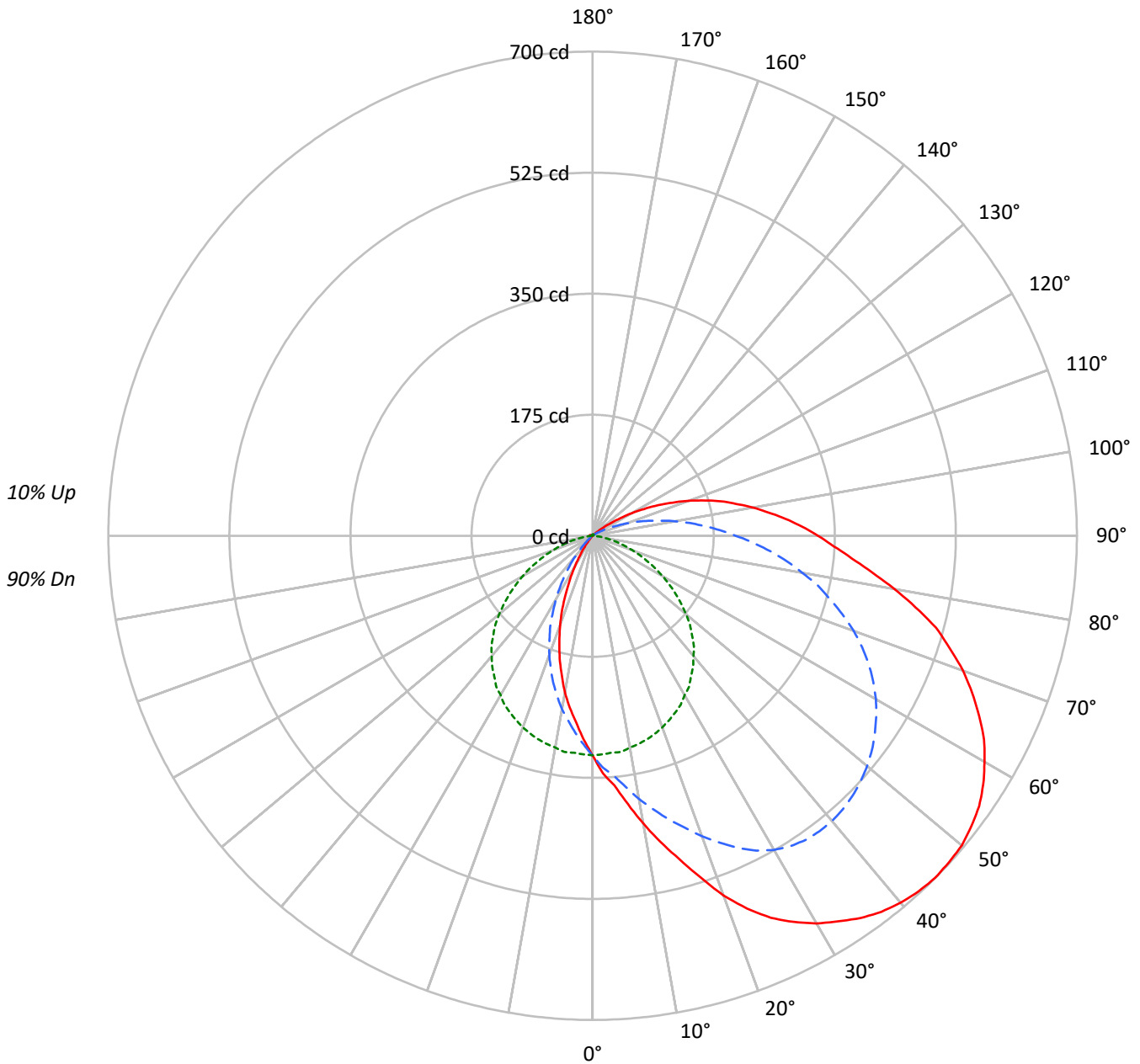
Lumens per Lamp: N/A  
Luminaire Lumens: 1568.9 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 16.7  
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

TEST NUMBER: P551114

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551114

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D

**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°	3416	3416	3416
5°	3750	3366	2809
10°	4244	3325	2314
15°	4755	3282	1803
20°	5364	3229	1329
25°	5868	3167	873
30°	6243	3084	491
35°	6568	2994	216
40°	6856	2884	52
45°	7102	2747	0
50°	7309	2564	0
55°	7467	2331	0
60°	7546	2060	0
65°	7577	1753	0
70°	7553	1429	0
75°	7457	1055	6
80°	7154	646	32
85°	6915	310	44



TEST NUMBER: P551114

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.4	1.9
10°-20°	91.0	5.8
20°-30°	147.4	9.4
30°-40°	189.4	12.1
40°-50°	214.3	13.7
50°-60°	222.1	14.2
60°-70°	209.4	13.3
70°-80°	175.5	11.2
80°-90°	127.2	8.1
90°-100°	83.6	5.3
100°-110°	48.3	3.1
110°-120°	21.3	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	268.8	17.1
0°-40°	458.2	29.2
0°-60°	894.6	57.0
0°-90°	1406.7	89.7
90°-120°	153.2	9.8
90°-150°	161.1	10.3
90°-180°	162.0	10.3
0°-180°	1568.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	317	317	317	317	317	
5°	362	348	315	286	271	37
15°	484	424	304	220	184	140
25°	609	498	282	145	91	282
35°	675	537	248	70	22	423
45°	700	531	203	16	0	540
55°	682	498	146	0	0	609
65°	616	441	87	0	0	610
75°	514	356	37	0	0	539
85°	376	258	6	2	2	321
90°	326	207	2	2	3	179
95°	280	162	1	3	4	219
105°	192	84	1	2	3	203
115°	105	28	1	1	2	105
125°	31	4	2	1	2	31
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551114

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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	317.4	317.4	317.4	317.4	317.4	317.4	317.4	317.4	317.4	317.4	317.4
2.5°	344.1	343.7	342.4	340.4	337.6	332.7	328.7	325.1	320.2	316.2	308.5
5°	362.2	360.2	358.6	356.6	350.1	345.7	338.4	330.3	322.6	314.9	299.6
7.5°	391.4	388.1	385.7	380.0	371.1	361.0	349.7	342.0	336.8	315.3	289.1
10°	422.5	419.7	414.8	404.7	393.8	379.2	363.1	344.9	328.7	310.9	279.8
12.5°	453.2	449.2	442.3	429.4	414.0	395.8	373.6	352.1	329.1	308.1	268.9
15°	483.9	479.5	472.2	456.4	436.2	412.4	385.3	358.2	331.1	304.4	257.5
17.5°	517.5	511.4	500.5	482.7	457.3	427.7	395.8	363.1	330.3	300.0	245.4
20°	553.5	545.0	533.3	509.4	479.5	444.7	406.3	367.9	329.9	294.7	231.7
22.5°	583.4	574.9	562.0	537.3	501.3	458.9	415.2	371.1	328.3	288.7	218.7
25°	609.3	602.4	588.2	559.9	521.9	473.8	423.7	373.6	325.9	282.2	205.0
27.5°	629.5	623.0	607.3	578.1	539.3	487.2	430.2	374.8	322.6	275.7	190.8
30°	647.3	640.8	621.8	591.9	551.1	497.7	436.6	375.2	318.6	266.0	175.5
32.5°	661.0	655.0	635.6	603.6	559.1	505.0	440.3	374.8	313.3	259.2	158.9
35°	674.8	668.7	646.1	612.1	565.2	508.2	443.1	372.8	306.9	247.8	143.1
37.5°	685.3	678.4	655.4	617.8	568.0	509.0	442.7	369.9	300.0	238.5	127.4
40°	692.6	685.3	660.6	621.0	568.8	507.8	439.5	365.1	291.9	226.8	110.8
42.5°	697.4	689.3	663.0	625.8	567.2	504.6	434.6	359.0	283.0	216.7	95.0
45°	699.8	691.3	663.4	621.8	564.4	498.5	427.3	351.3	273.3	203.0	79.2
47.5°	698.6	689.3	661.4	617.4	559.1	492.0	419.3	342.0	261.6	190.8	64.3
50°	696.6	686.9	657.0	611.7	551.9	483.9	410.4	330.7	249.4	175.9	50.9
52.5°	690.1	680.4	652.1	603.6	543.4	474.6	398.2	319.0	236.5	161.3	38.8
55°	682.0	673.2	643.6	596.3	532.5	463.3	386.9	306.5	224.0	146.4	27.9
57.5°	669.5	661.4	633.1	584.6	521.5	450.8	374.4	292.7	208.2	131.4	19.4
60°	654.1	646.1	618.6	571.3	509.0	436.6	360.6	278.6	194.1	116.4	12.1
62.5°	638.0	630.3	601.6	554.7	493.2	421.7	345.7	264.4	179.1	102.7	7.3
65°	616.5	609.3	583.4	534.9	475.9	405.5	329.1	247.4	163.7	87.3	4.0
67.5°	593.9	587.4	561.2	516.7	455.6	387.7	312.1	230.9	147.6	74.0	2.0
70°	569.7	561.6	537.3	492.0	435.0	367.5	293.5	213.9	132.2	61.0	0.0
72.5°	541.4	535.3	511.8	469.0	411.2	346.1	274.5	195.3	115.2	48.5	0.4
75°	513.9	506.2	484.7	444.3	387.7	323.4	253.5	177.9	98.6	37.2	0.4
77.5°	478.3	475.9	455.6	416.4	365.5	301.6	230.4	156.9	82.9	26.7	0.4
80°	442.7	440.3	424.5	388.5	339.6	275.7	209.0	137.1	67.5	17.8	0.4
82.5°	407.5	404.3	389.3	359.4	313.3	253.9	186.8	117.2	53.4	10.9	0.4
85°	376.0	372.0	355.8	328.3	286.2	229.2	163.7	97.8	39.6	6.1	0.8
87.5°	348.9	346.1	328.3	300.0	258.7	206.2	143.5	79.2	27.9	2.8	1.2
90°	325.9	319.8	304.0	274.1	232.9	180.7	122.1	63.5	18.6	1.6	1.6
92.5°	303.2	298.0	280.6	249.9	209.8	158.9	101.5	48.5	11.7	0.8	2.0
95°	279.8	274.1	257.1	228.8	186.4	136.7	83.3	35.6	6.5	0.8	2.0
97.5°	256.7	251.5	233.7	205.4	165.4	117.2	65.9	25.1	3.2	0.8	1.6
100°	235.3	229.2	213.1	184.8	144.3	97.8	50.9	16.2	2.0	0.8	1.6
102.5°	212.7	207.8	191.2	163.7	122.5	79.6	38.0	10.1	0.8	0.8	1.2
105°	192.4	186.4	170.2	141.9	104.3	62.7	26.7	6.1	0.8	0.8	1.2



TEST NUMBER: P551114

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	125.3	120.5	106.3	82.5	53.0	24.7	7.3	1.2	1.2	1.2	1.2
115°	104.7	97.4	84.9	63.9	39.2	16.2	3.6	1.2	1.2	1.2	1.2
117.5°	83.7	77.6	68.7	48.5	25.9	10.5	2.0	1.2	1.2	1.2	1.2
120°	65.5	59.8	49.7	33.6	17.4	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	46.9	42.5	33.6	21.8	10.5	2.8	1.2	1.2	1.6	1.6	1.2
125°	31.1	28.7	22.2	13.3	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.2	18.2	12.9	7.7	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.3	10.1	7.7	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.5	6.1	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	317.4	317.4	317.4
2.5°	302.0	296.3	294.7
5°	285.8	276.5	271.3
7.5°	269.7	257.1	251.1
10°	254.7	236.9	230.4
12.5°	236.9	216.3	206.2
15°	219.9	193.3	183.5
17.5°	200.9	171.0	159.7
20°	183.1	148.8	137.1
22.5°	162.9	126.9	114.0
25°	144.7	105.1	90.6
27.5°	124.5	82.9	70.3
30°	105.5	63.5	50.9
32.5°	87.3	46.5	35.2
35°	70.3	31.5	22.2
37.5°	54.2	19.4	11.3
40°	39.2	10.1	5.3
42.5°	26.3	4.9	2.8
45°	16.2	2.4	0.0
47.5°	9.3	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2





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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	169.8	165.0	148.8	122.1	85.3	47.7	17.8	3.2	0.8	1.2	1.2
110°	148.0	143.9	127.4	101.5	68.7	35.6	11.7	2.0	1.2	1.2	1.2







107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)