Test Report Of ANSI/IES LM-79-19

APPROVED METHOD FOR OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS

Report Number	:	N02A23090145L00601
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LSXY-1000-L27-DF-I-2, LSXY-1000-L27-DF-I-4 LSXY-1000-L27-DF-I-6, LSXY-1000-L27-DF-I-10 LSXY-1000-L27-DF-I-15
Brand Name	:	N/A
Testing Laboratory	:	Guangdong Meide Testing Technology Co., Ltd.
Address	:	1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road,Songshan Lake Hi-tech Industrial Development Zone,Dongguan City,Guangdong Pr., China.
Testing Location	:	As above
Date of receipt	:	Sep. 28, 2023
Date of test	:	Sep. 28, 2023 – Oct. 18, 2023
Date of report	:	Oct. 19, 2023

Tested by:	**Checked by:**	**Approved by:**
Jarvis Zhang	Sandy Chen	
Jarvis Zhang/ Test Engineer	Sandy Chen/ Project Engineer	Jessie Li/ Technical Manager

Note 1: The test data was only valid for the test sample(s).This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Guangdong Meide Testing Technology Co., Ltd. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP,NIST, or any agency of the Federal Government.
Note 2: This report does not imply product certification, approval, or endorsement by NVLAP, NIST,or any agency of the Federal Government.
Note 3: This report contains data that are not covered by the NVLAP accreditation. It is marked * in the title.

1. Product Description for Equipment under Test (EUT)

Representative (Tested) Model:	LSXY-1000-L27-DF-I-2, LSXY-1000-L27-DF-I-4 LSXY-1000-L27-DF-I-6, LSXY-1000-L27-DF-I-10 LSXY-1000-L27-DF-I-15
Manufacturer:	
Product Type:	SHIN silux
Rated Voltage/Frequency:	DC24V
Rated Power:	2W, 4W, 6W, 10W, 15W
Rated luminous flux:	/
Nominal CCT:	2700K

2. Standards Used

- ANSI/IES LM-79-19:APPROVED METHOD:OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS
- IES TM-30-18 IES Method for Evaluating Light Source Color Rendition (This Method is not in Nvlap accreditation scope)

3. Test equipment list

Test Equipment	Serial No.	Model No.	Calibration due date
Full-field Speed Goniophotometer	MD-E028	GO-R5000	2024/09/17
Digital Power Meter	MD-E001	PF2010	2024/09/17
AC Testing Power Source	MD-E002	DPS1060	2024/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2024/10/13
Integrating Sphere System	MD-E029	2M	2024/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2024/09/17
Digital Power Meter	MD-E008	PF310	2024/09/17
AC Testing Power Source	MD-E010	DPS1010	2024/09/17
Standard Lamp	MD-E036	D204	2024/10/13

Statement of Traceability: Guangdong Meide Testing Technology Co., Ltd. attested that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit(SI).

4. Test Method

Requirements of Ambient Condition
Product was tested with no seasoning. All stabilization and measurements were made in compliance with ANSI/IES LM-79-19. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at 25°C±1.2°C during measurement. And relative humidity between 10% and 65%.

Goniophotometer System
The sample was tested according to the ANSI/IES LM-79-19.

Photometric paramters were measured using a type C goniophotometer and software. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at 1° vertical intervals and 22.5°horizontal intervals.Photometric distance was more than five times of the Largest dimension of the test SSL product.

Integrating Sphere System
The sample was tested according to the ANSI/IES LM-79-19.

The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. Coating reflectance of the integrating sphere was 90% to 98%. Photometric measurement conditions was using 4π geometry. The self-absorption factor is applied in the final test result. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Fidelity Index (R_f) and Gamut Index (R_g) Calculation
The R_f, R_g was calculated according to IES TM-30-18 by using calculation tools. The calculation was based on the measured SPD from 380nm to 780nm with 1nm intervals. All the colors in this report is for reference only.

5. Integrating Sphere Test Results for LSXY-1000-L27-DF-I-2

5.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.1℃	Test orientation	Downward
Operate time(Min.)	30	stabilization time(Min.)	0

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.0901	23.998	2.1622	152.39	0.4629	0.4063	0.2664	0.5262	2624	94.4
1	00h00m10s	0.0901	23.998	2.1622	152.22	0.4629	0.4058	0.2666	0.526	2621	94.4
2	00h00m20s	0.0901	23.998	2.1622	152.32	0.4629	0.4059	0.2666	0.526	2622	94.4
3	00h00m30s	0.0902	23.998	2.1646	152.32	0.4628	0.406	0.2665	0.526	2624	94.4
4	00h00m40s	0.0902	23.998	2.1646	152.27	0.4629	0.406	0.2666	0.5261	2623	94.4
5	00h00m50s	0.0902	23.998	2.1646	152.24	0.4631	0.406	0.2667	0.5261	2620	94.4
6	00h01m00s	0.0902	23.998	2.1646	152.33	0.463	0.4061	0.2666	0.5261	2622	94.4
7	00h01m10s	0.0902	23.998	2.1646	152.25	0.463	0.4059	0.2667	0.526	2620	94.3
8	00h01m20s	0.0902	23.998	2.1646	152.29	0.463	0.4059	0.2667	0.526	2621	94.4
9	00h01m30s	0.0902	23.998	2.1646	152.31	0.4629	0.406	0.2666	0.526	2622	94.4
10	00h01m40s	0.0902	23.998	2.1646	152.24	0.4628	0.4059	0.2665	0.526	2623	94.4
11	00h01m50s	0.0902	23.998	2.1646	152.32	0.4629	0.406	0.2666	0.526	2622	94.4
12	00h02m00s	0.0902	23.998	2.1646	152.31	0.463	0.4061	0.2666	0.5261	2622	94.4
13	00h02m10s	0.0902	23.998	2.1646	152.23	0.4629	0.4058	0.2667	0.526	2620	94.3
14	00h02m20s	0.0902	23.998	2.1646	152.36	0.4628	0.4059	0.2666	0.526	2622	94.4
15	00h02m30s	0.0902	23.998	2.1646	152.25	0.463	0.4059	0.2667	0.526	2620	94.4
16	00h02m40s	0.0902	23.998	2.1646	152.34	0.4629	0.4059	0.2666	0.526	2622	94.4
17	00h02m50s	0.0902	23.998	2.1646	152.29	0.4631	0.4059	0.2667	0.526	2619	94.3
18	00h03m00s	0.0902	23.998	2.1646	152.33	0.4628	0.4057	0.2666	0.5259	2622	94.3
19	00h03m10s	0.0902	23.998	2.1646	152.31	0.4631	0.4059	0.2667	0.526	2620	94.3
20	00h03m20s	0.0902	23.998	2.1646	152.32	0.4629	0.4057	0.2667	0.5259	2621	94.4
21	00h03m30s	0.0903	23.998	2.167	152.33	0.463	0.4059	0.2667	0.526	2621	94.4

22	00h03m40s	0.0903	23.998	2.167	152.34	0.4629	0.4059	0.2666	0.526	2622	94.4
23	00h03m50s	0.0903	23.998	2.167	152.4	0.4631	0.4059	0.2667	0.526	2619	94.4
24	00h04m00s	0.0903	23.998	2.167	152.33	0.4631	0.406	0.2667	0.5261	2620	94.3
25	00h04m10s	0.0903	23.998	2.167	152.33	0.4631	0.4061	0.2666	0.5261	2621	94.4
26	00h04m20s	0.0903	23.998	2.167	152.34	0.463	0.4058	0.2667	0.526	2620	94.4
27	00h04m30s	0.0903	23.998	2.167	152.33	0.463	0.4058	0.2667	0.526	2620	94.3
28	00h04m40s	0.0903	23.998	2.167	152.34	0.4629	0.4058	0.2666	0.526	2621	94.4
29	00h04m50s	0.0903	23.998	2.167	152.36	0.463	0.406	0.2666	0.526	2621	94.4
30	00h05m00s	0.0903	23.998	2.167	152.38	0.463	0.406	0.2666	0.526	2621	94.4
31	00h05m10s	0.0903	23.998	2.167	152.31	0.4631	0.4061	0.2667	0.5261	2620	94.4
32	00h05m20s	0.0903	23.998	2.167	152.24	0.4629	0.4057	0.2667	0.5259	2620	94.4
33	00h05m30s	0.0903	23.998	2.167	152.27	0.4629	0.406	0.2666	0.526	2622	94.4
34	00h05m40s	0.0903	23.998	2.167	152.33	0.4629	0.4058	0.2666	0.526	2621	94.4
35	00h05m50s	0.0903	23.998	2.167	152.27	0.4631	0.406	0.2667	0.5261	2620	94.4
36	00h06m00s	0.0903	23.998	2.167	152.26	0.4629	0.4057	0.2667	0.5259	2621	94.4
37	00h06m10s	0.0903	23.998	2.167	152.19	0.4629	0.4058	0.2667	0.526	2621	94.4
38	00h06m20s	0.0903	23.998	2.167	152.38	0.463	0.4057	0.2667	0.526	2620	94.3
39	00h06m30s	0.0903	23.998	2.167	152.29	0.4631	0.406	0.2667	0.5261	2620	94.3
40	00h06m40s	0.0903	23.998	2.167	152.36	0.4628	0.4059	0.2666	0.526	2623	94.3
41	00h06m50s	0.0903	23.998	2.167	152.35	0.463	0.406	0.2666	0.5261	2621	94.4
42	00h07m00s	0.0903	23.998	2.167	152.33	0.4629	0.4059	0.2666	0.526	2622	94.3
43	00h07m10s	0.0903	23.998	2.167	152.35	0.4631	0.406	0.2667	0.5261	2620	94.3
44	00h07m20s	0.0903	23.998	2.167	152.32	0.4629	0.406	0.2666	0.526	2622	94.4
45	00h07m30s	0.0903	23.998	2.167	152.44	0.4629	0.4061	0.2666	0.5261	2622	94.4
46	00h07m40s	0.0903	23.998	2.167	152.36	0.4631	0.4061	0.2667	0.5261	2620	94.3
47	00h07m50s	0.0903	23.998	2.167	152.31	0.4629	0.406	0.2666	0.526	2622	94.4
48	00h08m00s	0.0903	23.998	2.167	152.38	0.463	0.4059	0.2667	0.526	2620	94.4
49	00h08m10s	0.0903	23.998	2.167	152.44	0.4628	0.406	0.2665	0.526	2624	94.4
50	00h08m20s	0.0903	23.998	2.167	152.35	0.4631	0.406	0.2667	0.5261	2620	94.3
51	00h08m30s	0.0903	23.998	2.167	152.37	0.4631	0.4061	0.2667	0.5261	2620	94.4
52	00h08m40s	0.0903	23.998	2.167	152.31	0.4629	0.4058	0.2667	0.526	2621	94.4

53	00h08m50s	0.0903	23.998	2.167	152.4	0.4631	0.4061	0.2666	0.5261	2621	94.3
54	00h09m00s	0.0903	23.998	2.167	152.25	0.4631	0.406	0.2667	0.5261	2620	94.3
55	00h09m10s	0.0903	23.998	2.167	152.36	0.4631	0.4061	0.2666	0.5261	2621	94.3
56	00h09m20s	0.0903	23.998	2.167	152.31	0.4631	0.4059	0.2667	0.5261	2619	94.3
57	00h09m30s	0.0903	23.998	2.167	152.38	0.4631	0.4061	0.2667	0.5261	2620	94.4
58	00h09m40s	0.0903	23.998	2.167	152.32	0.4631	0.4059	0.2667	0.526	2619	94.3
59	00h09m50s	0.0903	23.998	2.167	152.48	0.4629	0.406	0.2665	0.526	2623	94.4
60	00h10m00s	0.0903	23.998	2.167	152.44	0.4629	0.406	0.2666	0.526	2622	94.4
61	00h10m10s	0.0903	23.998	2.167	152.31	0.463	0.406	0.2666	0.5261	2622	94.3
62	00h10m20s	0.0903	23.998	2.167	152.36	0.463	0.4059	0.2667	0.526	2620	94.3
63	00h10m30s	0.0903	23.998	2.167	152.37	0.4631	0.4059	0.2667	0.526	2619	94.3
64	00h10m40s	0.0903	23.998	2.167	152.31	0.463	0.4061	0.2666	0.5261	2621	94.4
65	00h10m50s	0.0903	23.998	2.167	152.16	0.463	0.4057	0.2668	0.5259	2618	94.4
66	00h11m00s	0.0903	23.998	2.167	152.44	0.463	0.406	0.2667	0.5261	2620	94.3
67	00h11m10s	0.0903	23.998	2.167	152.45	0.4628	0.406	0.2665	0.526	2624	94.4
68	00h11m20s	0.0903	23.998	2.167	152.32	0.463	0.4059	0.2667	0.526	2620	94.3
69	00h11m30s	0.0903	23.998	2.167	152.3	0.4629	0.4058	0.2666	0.526	2622	94.4
70	00h11m40s	0.0903	23.998	2.167	152.32	0.4631	0.406	0.2667	0.5261	2620	94.3
71	00h11m50s	0.0903	23.998	2.167	152.27	0.463	0.4059	0.2667	0.526	2620	94.3
72	00h12m00s	0.0903	23.998	2.167	152.34	0.463	0.406	0.2667	0.5261	2621	94.3
73	00h12m10s	0.0903	23.998	2.167	152.35	0.463	0.4058	0.2667	0.526	2620	94.3
74	00h12m20s	0.0903	23.998	2.167	152.39	0.4629	0.4059	0.2666	0.526	2621	94.3
75	00h12m30s	0.0903	23.998	2.167	152.4	0.463	0.4061	0.2666	0.5261	2622	94.4
76	00h12m40s	0.0903	23.998	2.167	152.38	0.463	0.4059	0.2667	0.526	2620	94.3
77	00h12m50s	0.0903	23.998	2.167	152.34	0.4631	0.4061	0.2667	0.5261	2621	94.4
78	00h13m00s	0.0903	23.998	2.167	152.25	0.463	0.406	0.2666	0.5261	2621	94.4
79	00h13m10s	0.0903	23.998	2.167	152.35	0.4631	0.406	0.2667	0.5261	2619	94.4
80	00h13m20s	0.0903	23.998	2.167	152.36	0.4629	0.406	0.2666	0.526	2622	94.4
81	00h13m30s	0.0903	23.998	2.167	152.43	0.4631	0.4061	0.2667	0.5261	2620	94.3
82	00h13m40s	0.0903	23.998	2.167	152.36	0.4631	0.406	0.2667	0.5261	2620	94.4
83	00h13m50s	0.0903	23.998	2.167	152.27	0.4629	0.406	0.2666	0.5261	2622	94.4

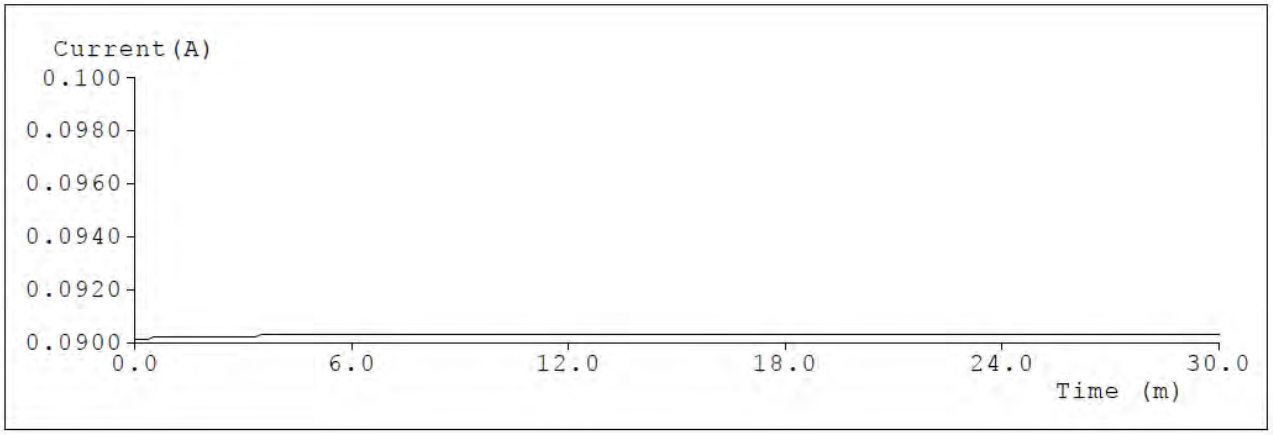
84	00h14m00s	0.0903	23.998	2.167	152.4	0.4631	0.406	0.2666	0.5261	2621	94.4
85	00h14m10s	0.0903	23.998	2.167	152.39	0.4631	0.4059	0.2667	0.5261	2620	94.4
86	00h14m20s	0.0903	23.998	2.167	152.42	0.463	0.406	0.2666	0.5261	2622	94.4
87	00h14m30s	0.0903	23.998	2.167	152.39	0.4631	0.406	0.2667	0.5261	2620	94.4
88	00h14m40s	0.0903	23.998	2.167	152.36	0.463	0.406	0.2666	0.5261	2622	94.3
89	00h14m50s	0.0903	23.998	2.167	152.38	0.4631	0.4059	0.2667	0.526	2619	94.3
90	00h15m00s	0.0903	23.998	2.167	152.43	0.4629	0.406	0.2666	0.526	2622	94.4
91	00h15m10s	0.0903	23.998	2.167	152.45	0.463	0.406	0.2666	0.5261	2621	94.3
92	00h15m20s	0.0903	23.998	2.167	152.32	0.4631	0.4061	0.2667	0.5261	2620	94.4
93	00h15m30s	0.0903	23.998	2.167	152.33	0.463	0.406	0.2666	0.5261	2621	94.3
94	00h15m40s	0.0903	23.998	2.167	152.31	0.4631	0.4058	0.2668	0.526	2618	94.4
95	00h15m50s	0.0903	23.998	2.167	152.43	0.463	0.4059	0.2667	0.526	2620	94.3
96	00h16m00s	0.0903	23.998	2.167	152.32	0.4631	0.4059	0.2667	0.526	2619	94.3
97	00h16m10s	0.0903	23.998	2.167	152.38	0.463	0.4059	0.2667	0.526	2620	94.3
98	00h16m20s	0.0903	23.998	2.167	152.37	0.4632	0.4061	0.2668	0.5261	2618	94.3
99	00h16m30s	0.0903	23.998	2.167	152.26	0.4632	0.406	0.2668	0.5261	2618	94.3
100	00h16m40s	0.0903	23.998	2.167	152.37	0.4631	0.406	0.2667	0.5261	2619	94.3
101	00h16m50s	0.0903	23.998	2.167	152.27	0.463	0.4058	0.2668	0.526	2619	94.3
102	00h17m00s	0.0903	23.998	2.167	152.4	0.4631	0.406	0.2667	0.5261	2619	94.3
103	00h17m10s	0.0903	23.998	2.167	152.34	0.4632	0.4061	0.2667	0.5261	2620	94.4
104	00h17m20s	0.0903	23.998	2.167	152.37	0.4632	0.4061	0.2667	0.5261	2619	94.3
105	00h17m30s	0.0903	23.998	2.167	152.35	0.4633	0.4062	0.2668	0.5262	2618	94.3
106	00h17m40s	0.0903	23.998	2.167	152.34	0.4632	0.4059	0.2668	0.5261	2618	94.3
107	00h17m50s	0.0903	23.998	2.167	152.35	0.4631	0.4058	0.2668	0.526	2618	94.3
108	00h18m00s	0.0903	23.998	2.167	152.41	0.4631	0.406	0.2667	0.5261	2619	94.4
109	00h18m10s	0.0903	23.998	2.167	152.42	0.463	0.4061	0.2666	0.5261	2622	94.4
110	00h18m20s	0.0903	23.998	2.167	152.35	0.4632	0.406	0.2667	0.5261	2619	94.3
111	00h18m30s	0.0903	23.998	2.167	152.42	0.4631	0.406	0.2667	0.5261	2619	94.3
112	00h18m40s	0.0903	23.998	2.167	152.33	0.4631	0.406	0.2667	0.5261	2620	94.3
113	00h18m50s	0.0903	23.998	2.167	152.41	0.4632	0.4062	0.2667	0.5262	2619	94.3
114	00h19m00s	0.0903	23.998	2.167	152.45	0.4632	0.4062	0.2666	0.5262	2620	94.3

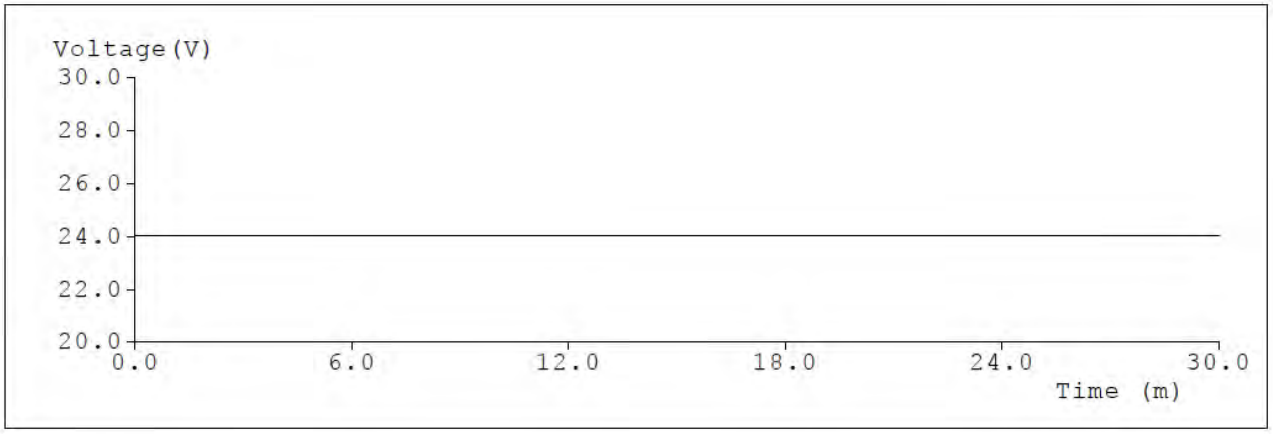
115	00h19m10s	0.0903	23.998	2.167	152.37	0.4631	0.4061	0.2667	0.5261	2620	94.4
116	00h19m20s	0.0903	23.998	2.167	152.32	0.4631	0.4058	0.2667	0.526	2619	94.3
117	00h19m30s	0.0903	23.998	2.167	152.41	0.463	0.4062	0.2666	0.5261	2622	94.4
118	00h19m40s	0.0903	23.998	2.167	152.45	0.4629	0.406	0.2666	0.526	2623	94.4
119	00h19m50s	0.0903	23.998	2.167	152.43	0.4632	0.406	0.2667	0.5261	2619	94.4
120	00h20m00s	0.0903	23.998	2.167	152.39	0.4631	0.4061	0.2667	0.5261	2620	94.4
121	00h20m10s	0.0903	23.998	2.167	152.33	0.4631	0.4059	0.2667	0.526	2619	94.4
122	00h20m20s	0.0903	23.998	2.167	152.43	0.4631	0.4059	0.2668	0.526	2618	94.3
123	00h20m30s	0.0903	23.998	2.167	152.3	0.4632	0.4062	0.2667	0.5261	2620	94.3
124	00h20m40s	0.0903	23.998	2.167	152.44	0.4631	0.4061	0.2666	0.5261	2621	94.4
125	00h20m50s	0.0903	23.998	2.167	152.35	0.4631	0.4063	0.2666	0.5262	2621	94.4
126	00h21m00s	0.0903	23.998	2.167	152.39	0.4631	0.4061	0.2666	0.5261	2621	94.4
127	00h21m10s	0.0903	23.998	2.167	152.33	0.4632	0.4061	0.2667	0.5261	2620	94.4
128	00h21m20s	0.0903	23.998	2.167	152.4	0.4631	0.4061	0.2667	0.5261	2620	94.4
129	00h21m30s	0.0903	23.998	2.167	152.4	0.463	0.4059	0.2667	0.526	2620	94.3
130	00h21m40s	0.0903	23.998	2.167	152.35	0.4632	0.4062	0.2667	0.5262	2620	94.4
131	00h21m50s	0.0903	23.998	2.167	152.29	0.4632	0.4062	0.2667	0.5262	2620	94.4
132	00h22m00s	0.0903	23.998	2.167	152.4	0.4631	0.406	0.2667	0.5261	2620	94.4
133	00h22m10s	0.0903	23.998	2.167	152.33	0.4632	0.4061	0.2667	0.5261	2619	94.4
134	00h22m20s	0.0903	23.998	2.167	152.27	0.4631	0.406	0.2667	0.5261	2619	94.4
135	00h22m30s	0.0903	23.998	2.167	152.47	0.4631	0.4061	0.2667	0.5261	2620	94.3
136	00h22m40s	0.0903	23.998	2.167	152.34	0.4631	0.406	0.2667	0.5261	2620	94.3
137	00h22m50s	0.0903	23.998	2.167	152.37	0.4632	0.4062	0.2667	0.5262	2620	94.3
138	00h23m00s	0.0903	23.998	2.167	152.47	0.4632	0.4062	0.2666	0.5262	2620	94.3
139	00h23m10s	0.0903	23.998	2.167	152.32	0.463	0.406	0.2666	0.5261	2621	94.4
140	00h23m20s	0.0903	23.998	2.167	152.37	0.4631	0.4061	0.2667	0.5261	2620	94.4
141	00h23m30s	0.0903	23.998	2.167	152.3	0.4632	0.4061	0.2667	0.5261	2619	94.4
142	00h23m40s	0.0903	23.998	2.167	152.44	0.4631	0.4061	0.2667	0.5261	2620	94.3
143	00h23m50s	0.0903	23.998	2.167	152.32	0.4632	0.4062	0.2667	0.5262	2620	94.4
144	00h24m00s	0.0903	23.998	2.167	152.3	0.4631	0.4059	0.2668	0.5261	2619	94.4
145	00h24m10s	0.0903	23.998	2.167	152.38	0.4633	0.4061	0.2668	0.5261	2618	94.3

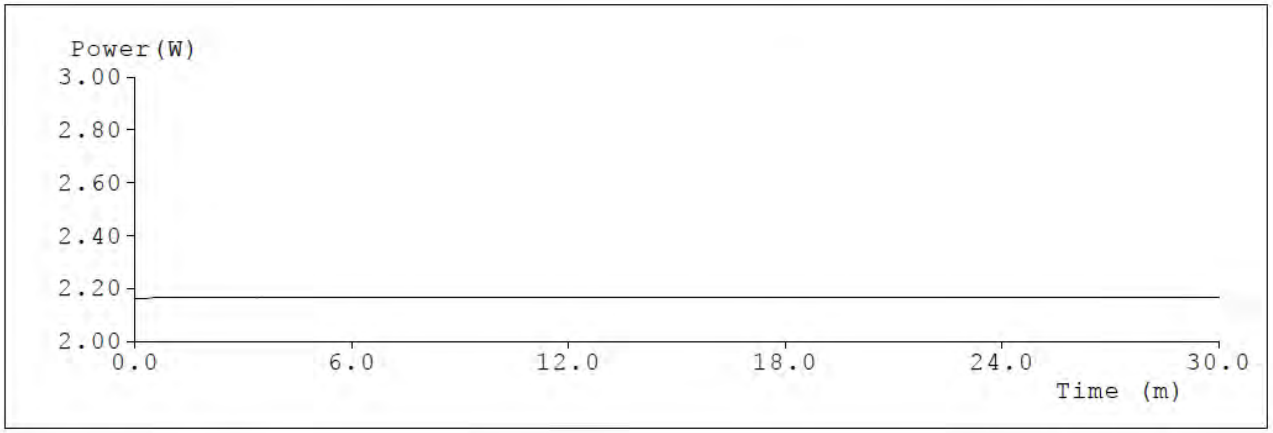
146	00h24m20s	0.0903	23.998	2.167	152.35	0.4631	0.406	0.2667	0.5261	2619	94.3
147	00h24m30s	0.0903	23.998	2.167	152.31	0.4631	0.406	0.2667	0.5261	2620	94.4
148	00h24m40s	0.0903	23.998	2.167	152.39	0.4632	0.406	0.2668	0.5261	2619	94.3
149	00h24m50s	0.0903	23.998	2.167	152.3	0.4632	0.4061	0.2667	0.5261	2619	94.4
150	00h25m00s	0.0903	23.998	2.167	152.37	0.4631	0.406	0.2667	0.5261	2620	94.3
151	00h25m10s	0.0903	23.998	2.167	152.38	0.4633	0.4061	0.2667	0.5261	2618	94.4
152	00h25m20s	0.0903	23.998	2.167	152.34	0.4631	0.4061	0.2667	0.5261	2620	94.4
153	00h25m30s	0.0903	23.998	2.167	152.37	0.4631	0.4061	0.2667	0.5261	2620	94.4
154	00h25m40s	0.0903	23.998	2.167	152.47	0.4632	0.4061	0.2667	0.5261	2619	94.3
155	00h25m50s	0.0903	23.998	2.167	152.37	0.4631	0.4061	0.2667	0.5261	2620	94.4
156	00h26m00s	0.0903	23.998	2.167	152.4	0.4632	0.4059	0.2668	0.5261	2618	94.3
157	00h26m10s	0.0903	23.998	2.167	152.3	0.4631	0.406	0.2667	0.5261	2620	94.4
158	00h26m20s	0.0903	23.998	2.167	152.37	0.4632	0.4063	0.2666	0.5262	2621	94.4
159	00h26m30s	0.0903	23.998	2.167	152.43	0.4633	0.4062	0.2667	0.5262	2619	94.3
160	00h26m40s	0.0903	23.998	2.167	152.31	0.4631	0.4059	0.2668	0.526	2619	94.3
161	00h26m50s	0.0903	23.998	2.167	152.38	0.4633	0.4062	0.2668	0.5262	2618	94.3
162	00h27m00s	0.0903	23.998	2.167	152.25	0.4632	0.4061	0.2668	0.5261	2618	94.4
163	00h27m10s	0.0903	23.998	2.167	152.24	0.4633	0.406	0.2668	0.5261	2617	94.3
164	00h27m20s	0.0903	23.998	2.167	152.29	0.4632	0.406	0.2668	0.5261	2618	94.4
165	00h27m30s	0.0903	23.998	2.167	152.38	0.4631	0.406	0.2667	0.5261	2620	94.4
166	00h27m40s	0.0903	23.998	2.167	152.24	0.4631	0.4061	0.2667	0.5261	2620	94.4
167	00h27m50s	0.0903	23.998	2.167	152.35	0.4632	0.406	0.2667	0.5261	2619	94.4
168	00h28m00s	0.0903	23.998	2.167	152.34	0.463	0.406	0.2666	0.5261	2621	94.3
169	00h28m10s	0.0903	23.998	2.167	152.4	0.4632	0.406	0.2667	0.5261	2619	94.4
170	00h28m20s	0.0903	23.998	2.167	152.3	0.4632	0.4063	0.2667	0.5262	2620	94.4
171	00h28m30s	0.0903	23.998	2.167	152.35	0.4632	0.4061	0.2667	0.5261	2619	94.4
172	00h28m40s	0.0903	23.998	2.167	152.3	0.4631	0.4062	0.2666	0.5262	2621	94.4
173	00h28m50s	0.0903	23.998	2.167	152.31	0.4632	0.406	0.2667	0.5261	2619	94.3
174	00h29m00s	0.0903	23.998	2.167	152.34	0.4633	0.406	0.2668	0.5261	2618	94.3
175	00h29m10s	0.0903	23.998	2.167	152.41	0.4631	0.4061	0.2667	0.5261	2621	94.3
176	00h29m20s	0.0903	23.998	2.167	152.33	0.4633	0.4061	0.2668	0.5261	2618	94.3

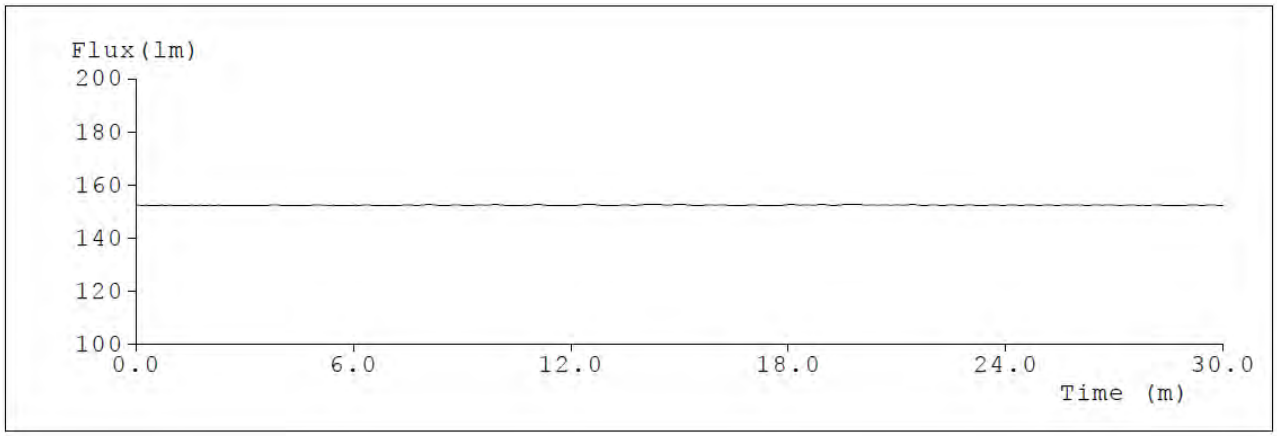
177	00h29m30s	0.0903	23.998	2.167	152.36	0.4634	0.4062	0.2668	0.5262	2617	94.3
178	00h29m40s	0.0903	23.998	2.167	152.49	0.4632	0.4064	0.2666	0.5263	2621	94.4
179	00h29m50s	0.0903	23.998	2.167	152.29	0.4632	0.4059	0.2668	0.526	2618	94.4
180	00h30m00s	0.0903	23.998	2.167	152.35	0.4631	0.406	0.2667	0.5261	2620	94.4

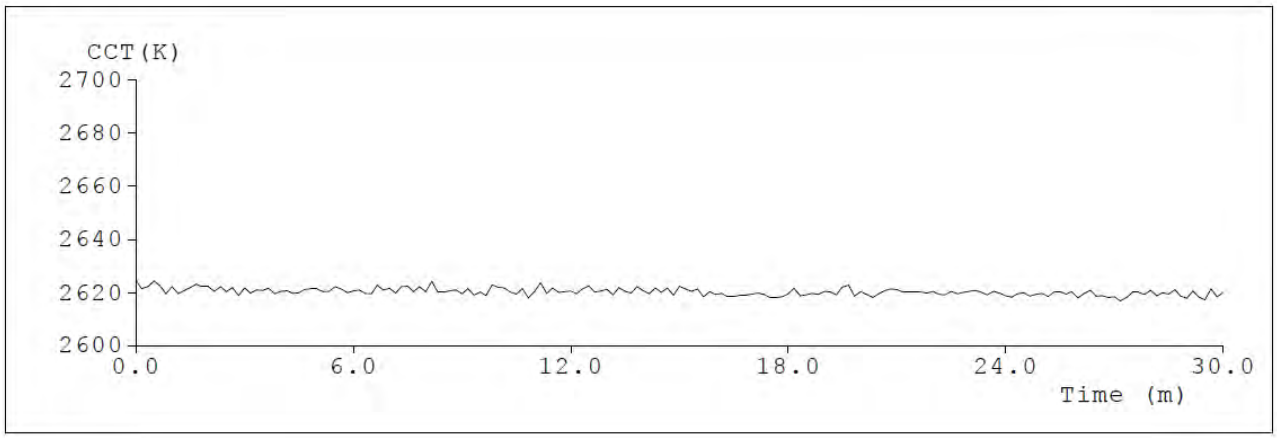
Test curves

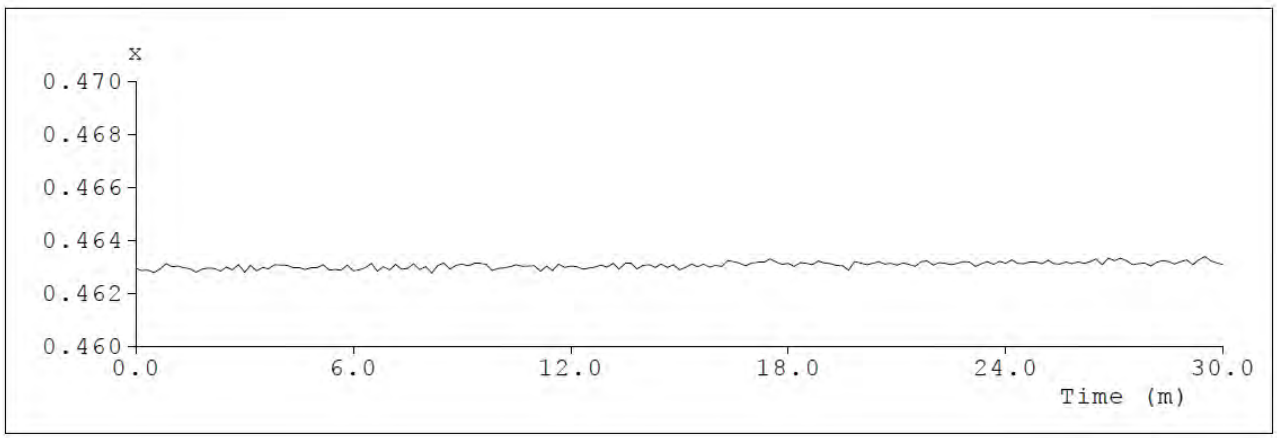


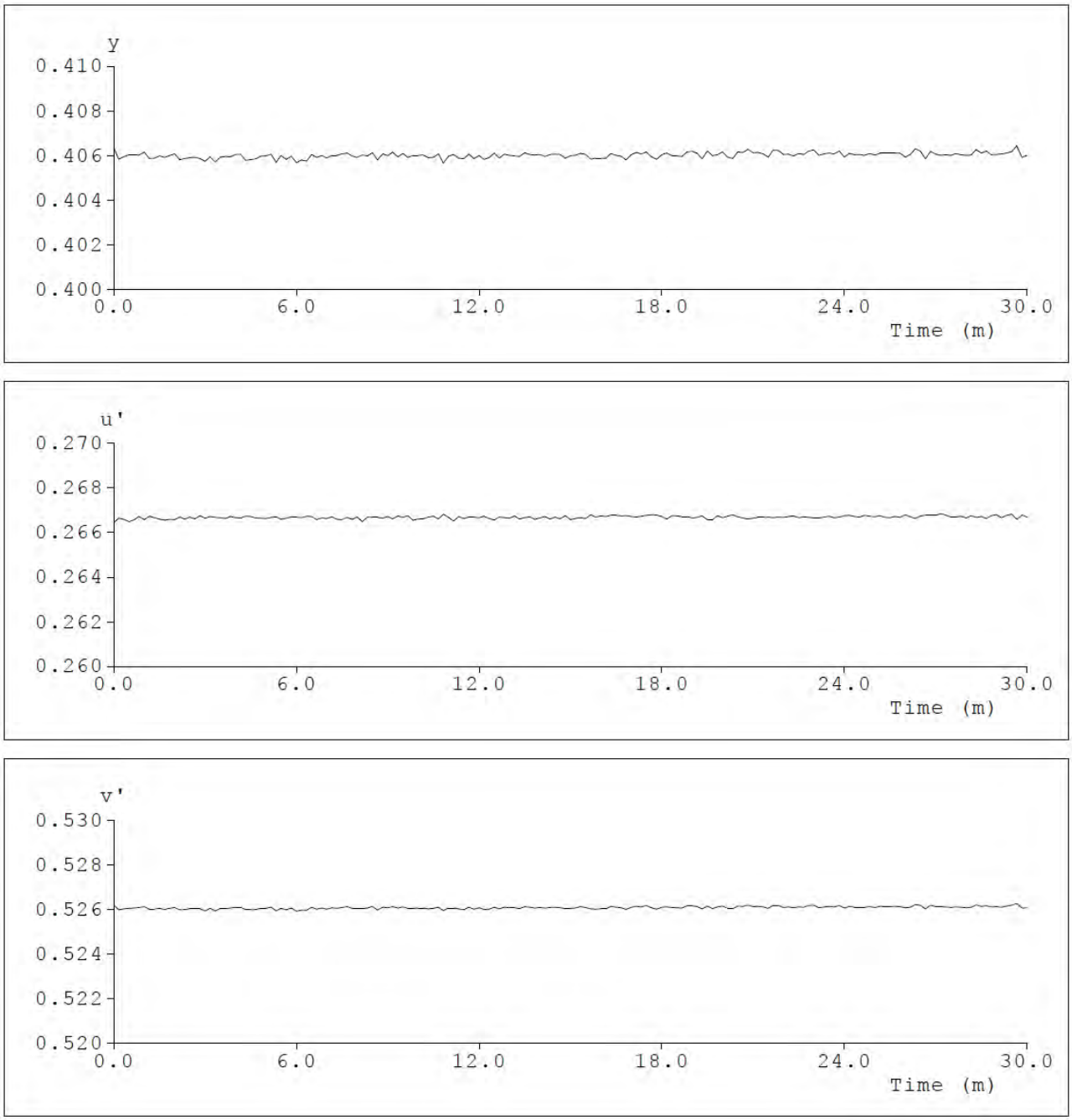





Flux(lm)
200
180
160
140
120
100
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

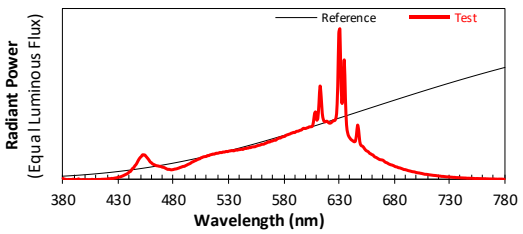

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

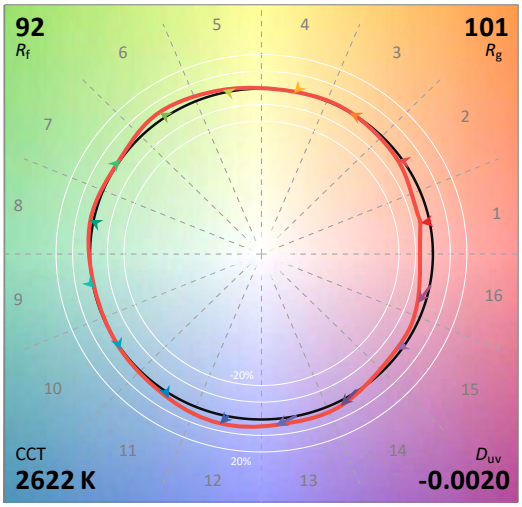
*5.2 ANSI/IES TM-30-18 Color Rendition Report

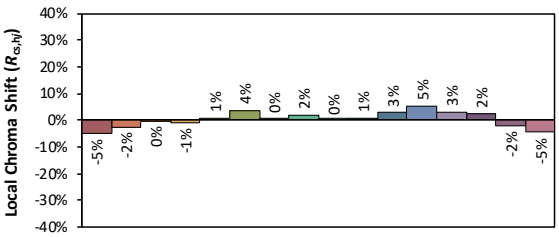
ANSI/IES TM-30-18 Color Rendition Report

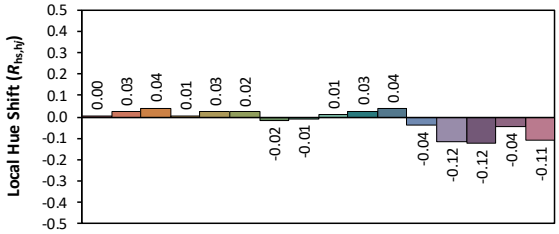
Source: Manufacturer:

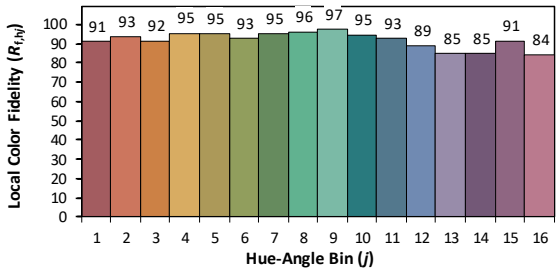
Date: 2023/10/19 Model: LSXY-1000-L27-DF-I-2

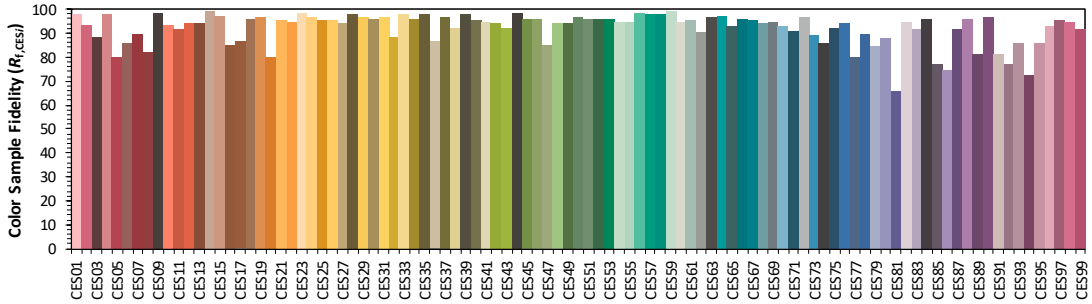












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

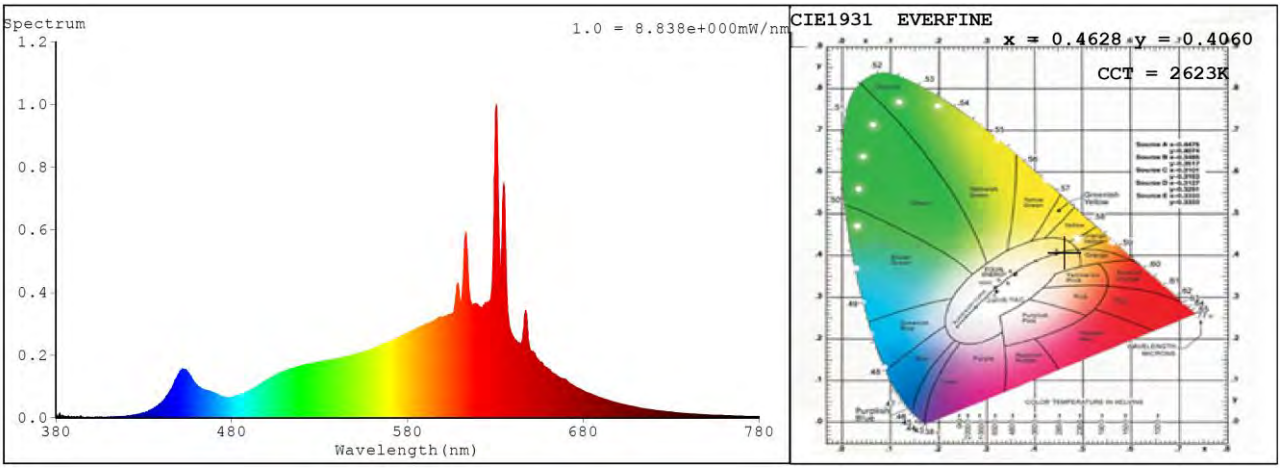
x	0.4629
y	0.4059
u'	0.2666
v'	0.5260

CIE 13.3-1995 (CRI)

R_a	94
R_9	61

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0089	414	0.0025	448	0.1192	482	0.0675	516	0.1603
381	0.0044	415	0.0034	449	0.1304	483	0.0688	517	0.1597
382	0.0037	416	0.0036	450	0.1394	484	0.0712	518	0.1631
383	0.001	417	0.0039	451	0.1461	485	0.0735	519	0.1653
384	0	418	0.0042	452	0.1559	486	0.0766	520	0.1653
385	0.003	419	0.0043	453	0.1543	487	0.0786	521	0.1665
386	0.0001	420	0.003	454	0.1546	488	0.0815	522	0.1696
387	0.0022	421	0.0082	455	0.147	489	0.0835	523	0.1694
388	0.0008	422	0.0061	456	0.1388	490	0.084	524	0.1698
389	0.0048	423	0.0075	457	0.1306	491	0.0882	525	0.1729
390	0.0008	424	0.009	458	0.1213	492	0.0912	526	0.1725
391	0.0012	425	0.0085	459	0.111	493	0.0953	527	0.1742
392	0.0025	426	0.0097	460	0.1064	494	0.0981	528	0.1766
393	0.0018	427	0.0111	461	0.0997	495	0.1013	529	0.1753
394	0.0064	428	0.0123	462	0.096	496	0.1056	530	0.1776
395	0.0002	429	0.0136	463	0.0928	497	0.1108	531	0.1796
396	0	430	0.016	464	0.0894	498	0.1128	532	0.1801
397	0.0006	431	0.0173	465	0.0875	499	0.1173	533	0.1823
398	0.0019	432	0.019	466	0.0865	500	0.1194	534	0.1806
399	0.0011	433	0.0216	467	0.0845	501	0.1232	535	0.1808
400	0.0015	434	0.0244	468	0.0836	502	0.1264	536	0.1837
401	0	435	0.0276	469	0.0818	503	0.1293	537	0.1855
402	0.0013	436	0.0312	470	0.0785	504	0.1313	538	0.1843
403	0.0001	437	0.0344	471	0.0777	505	0.1367	539	0.1875
404	0.0011	438	0.0377	472	0.0749	506	0.1387	540	0.1875
405	0.0004	439	0.0429	473	0.0713	507	0.1423	541	0.189
406	0.0031	440	0.049	474	0.0677	508	0.1438	542	0.1902
407	0.0021	441	0.052	475	0.0649	509	0.1448	543	0.1889
408	0.0014	442	0.0616	476	0.0656	510	0.1459	544	0.1928
409	0.0016	443	0.0706	477	0.0638	511	0.1514	545	0.1952
410	0.0015	444	0.076	478	0.0624	512	0.15	546	0.1948
411	0.0022	445	0.0867	479	0.0631	513	0.1543	547	0.1974
412	0.0027	446	0.0944	480	0.0643	514	0.1563	548	0.1975
413	0.0025	447	0.1057	481	0.0665	515	0.1584	549	0.2013

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.1999	599	0.3192	648	0.3078	697	0.0505	746	0.0103
551	0.2041	600	0.3194	649	0.2389	698	0.05	747	0.0099
552	0.2045	601	0.3225	650	0.2154	699	0.0485	748	0.0102
553	0.2055	602	0.3245	651	0.2105	700	0.046	749	0.0095
554	0.2058	603	0.3286	652	0.2061	701	0.0446	750	0.01
555	0.2092	604	0.3294	653	0.1966	702	0.0433	751	0.0092
556	0.2116	605	0.3304	654	0.1874	703	0.0427	752	0.0088
557	0.2138	606	0.3334	655	0.1809	704	0.0409	753	0.0083
558	0.2151	607	0.3596	656	0.1775	705	0.0399	754	0.0077
559	0.2172	608	0.4114	657	0.1727	706	0.0381	755	0.0082
560	0.2204	609	0.4211	658	0.1644	707	0.0364	756	0.008
561	0.2212	610	0.3709	659	0.1616	708	0.0346	757	0.0078
562	0.2218	611	0.3828	660	0.1565	709	0.0344	758	0.0075
563	0.2257	612	0.4749	661	0.1543	710	0.0338	759	0.0075
564	0.2281	613	0.5832	662	0.1462	711	0.0327	760	0.0069
565	0.2315	614	0.5181	663	0.1413	712	0.0313	761	0.0071
566	0.2363	615	0.4136	664	0.1386	713	0.0305	762	0.0067
567	0.2347	616	0.3744	665	0.1342	714	0.0296	763	0.007
568	0.238	617	0.3613	666	0.1301	715	0.0286	764	0.006
569	0.2406	618	0.3613	667	0.1262	716	0.0277	765	0.0062
570	0.2418	619	0.3648	668	0.1249	717	0.0272	766	0.0057
571	0.2464	620	0.3602	669	0.1237	718	0.0266	767	0.0055
572	0.246	621	0.3537	670	0.122	719	0.0256	768	0.0056
573	0.2471	622	0.3521	671	0.1167	720	0.0244	769	0.0051
574	0.2536	623	0.3549	672	0.1105	721	0.0234	770	0.0057
575	0.2568	624	0.3614	673	0.1074	722	0.0233	771	0.0055
576	0.2602	625	0.3679	674	0.1048	723	0.0217	772	0.0047
577	0.2598	626	0.3676	675	0.1	724	0.0214	773	0.0048
578	0.2645	627	0.3754	676	0.0969	725	0.0212	774	0.0041
579	0.2666	628	0.411	677	0.0939	726	0.02	775	0.0047
580	0.2692	629	0.5805	678	0.0924	727	0.0194	776	0.0047
581	0.2703	630	0.9109	679	0.0899	728	0.0183	777	0.0045
582	0.276	631	0.936	680	0.087	729	0.0185	778	0.0047
583	0.2791	632	0.6025	681	0.0828	730	0.0183	779	0.0037
584	0.2809	633	0.4743	682	0.0809	731	0.0173	780	0.0037
585	0.2839	634	0.6252	683	0.0794	732	0.0167		
586	0.286	635	0.7428	684	0.0755	733	0.0162		
587	0.2903	636	0.5073	685	0.0747	734	0.0153		
588	0.2915	637	0.3423	686	0.0726	735	0.0155		
589	0.2952	638	0.2927	687	0.07	736	0.0145		
590	0.2934	639	0.2712	688	0.0674	737	0.0139		
591	0.2989	640	0.2604	689	0.0641	738	0.0139		
592	0.3018	641	0.2511	690	0.0637	739	0.0134		
593	0.3022	642	0.2458	691	0.0619	740	0.0128		
594	0.305	643	0.241	692	0.0597	741	0.0122		
595	0.3082	644	0.2366	693	0.0572	742	0.012		
596	0.3097	645	0.2403	694	0.0558	743	0.0116		
597	0.3157	646	0.2771	695	0.0541	744	0.0113		
598	0.3202	647	0.3394	696	0.0522	745	0.0112		

6. Goniophotometer Test results for LSXY-1000-L27-DF-I-2

6.1 Test Data

Test Ambient Temperature	25.2℃	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

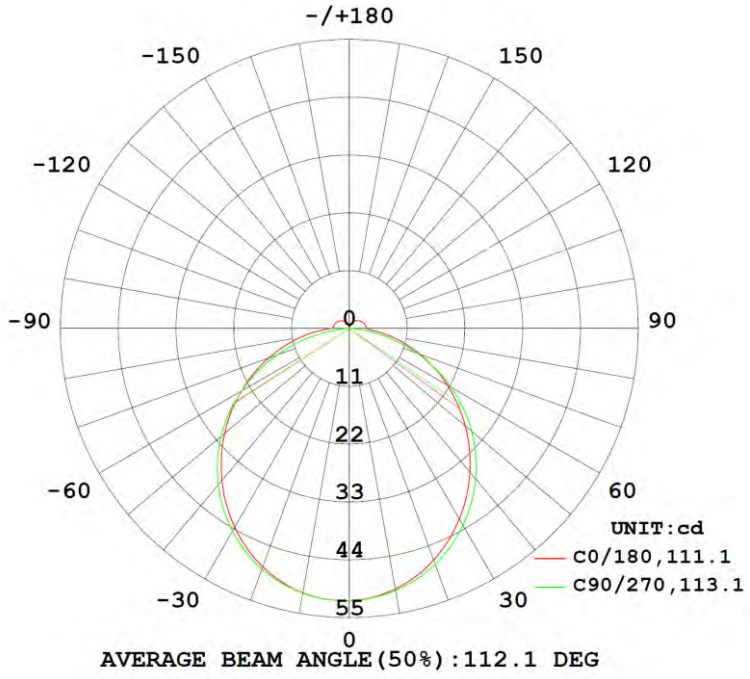
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.003	--	0.09486	1.0000	2.2769

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
159.809	70.19	51.82	5.7	94.3

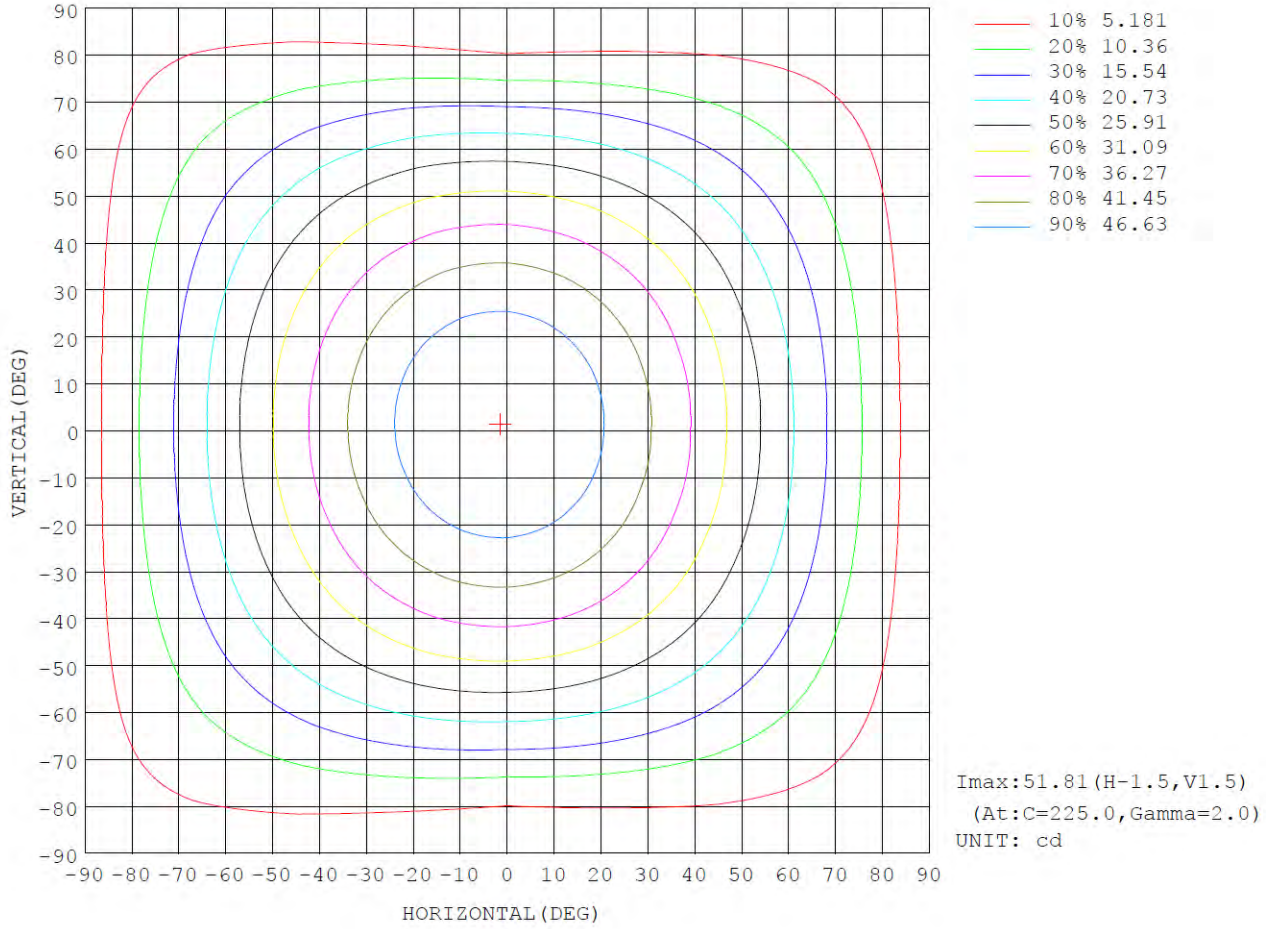
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	50.31	50.34	50.62	50.83	51.05	51.21	51.12	50.70	0- 10	4.894	4.894	3.06,3.06
20	46.89	47.12	47.72	47.97	48.24	48.72	48.67	47.73	10- 20	13.98	18.87	11.8,11.8
30	41.85	42.34	43.24	43.43	43.65	44.50	44.53	43.11	20- 30	21.10	39.98	25,25
40	35.69	36.36	37.39	37.59	37.76	38.83	38.87	37.19	30- 40	25.36	65.34	40.9,40.9
50	28.82	29.46	30.37	30.76	31.01	32.06	31.88	30.26	40- 50	26.33	91.67	57.4,57.4
60	21.55	21.94	22.37	23.24	23.70	24.41	23.65	22.55	50- 60	23.99	115.7	72.4,72.4
70	14.29	14.16	13.63	15.38	16.34	16.38	14.62	14.61	60- 70	18.76	134.4	84.1,84.1
80	7.525	6.874	5.061	7.891	9.330	8.619	5.475	7.112	70- 80	11.66	146.1	91.4,91.4
90	3.320	2.337	0.1317	2.347	3.561	2.547	0.1526	2.430	80- 90	4.593	150.7	94.3,94.3
100	3.150	2.186	0	2.116	3.048	2.195	0.0083	2.287	90-100	2.180	152.8	95.6,95.6
110	2.957	2.014	0.0039	1.969	2.877	2.045	0.0117	2.124	100-110	1.976	154.8	96.9,96.9
120	2.689	1.820	0.0135	1.776	2.628	1.845	0.0152	1.908	110-120	1.703	156.5	97.9,97.9
130	2.344	1.583	0.0252	1.541	2.308	1.602	0.0235	1.647	120-130	1.364	157.9	98.8,98.8
140	1.932	1.242	0.0304	1.273	1.926	1.350	0.0387	1.282	130-140	0.9904	158.9	99.4,99.4
150	1.395	0.8221	0.0374	0.9752	1.493	1.129	0.0574	0.7059	140-150	0.5947	159.5	99.8,99.8
160	0.7563	0.0876	0.0456	0.2662	0.9731	0.6652	0.0687	0.0691	150-160	0.2744	159.8	100,100
170	0.0657	0.0582	0.0565	0.0613	0.0783	0.0778	0.0695	0.0691	160-170	0.0502	159.8	100,100
180	0.0696	0.0674	0.0648	0.0691	0.0735	0.0704	0.0652	0.0656	170-180	0.0065	159.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
5	51.3	51.3	51.3	51.3	51.4	51.5	51.6	51.6	51.7	51.7	51.7	51.7	51.7	51.6	51.5	51.4
10	50.3	50.3	50.3	50.5	50.6	50.7	50.8	50.9	51.1	51.1	51.2	51.2	51.1	50.9	50.7	50.5
15	48.8	48.8	48.9	49.1	49.4	49.5	49.6	49.7	49.9	50.1	50.2	50.2	50.1	49.8	49.4	49.1
20	46.9	46.9	47.1	47.4	47.7	47.9	48.0	48.1	48.2	48.5	48.7	48.8	48.7	48.3	47.7	47.2
25	44.5	44.6	44.9	45.3	45.7	45.8	45.9	45.9	46.1	46.5	46.8	47.0	46.8	46.3	45.6	44.9
30	41.8	41.9	42.3	42.9	43.2	43.4	43.4	43.4	43.7	44.1	44.5	44.7	44.5	43.9	43.1	42.3
35	38.9	39.0	39.5	40.1	40.5	40.7	40.6	40.6	40.8	41.3	41.8	42.1	41.9	41.2	40.3	39.4
40	35.7	35.8	36.4	37.0	37.4	37.6	37.6	37.5	37.8	38.3	38.8	39.1	38.9	38.2	37.2	36.2
45	32.3	32.4	33.0	33.6	34.0	34.3	34.3	34.2	34.5	35.0	35.6	35.9	35.5	34.9	33.8	32.9
50	28.8	28.9	29.5	30.0	30.4	30.7	30.8	30.7	31.0	31.5	32.1	32.3	31.9	31.2	30.3	29.3
55	25.2	25.3	25.8	26.2	26.5	26.9	27.1	27.1	27.4	27.9	28.4	28.5	27.9	27.4	26.5	25.7
60	21.6	21.6	21.9	22.2	22.4	22.9	23.2	23.4	23.7	24.1	24.4	24.3	23.7	23.2	22.6	21.9
65	17.9	17.9	18.0	18.1	18.1	18.8	19.3	19.6	20.0	20.3	20.4	20.1	19.2	19.0	18.6	18.2
70	14.3	14.2	14.2	13.9	13.6	14.5	15.4	15.9	16.3	16.5	16.4	15.7	14.6	14.6	14.6	14.5
75	10.8	10.7	10.4	9.74	9.21	10.4	11.5	12.3	12.8	12.8	12.4	11.3	9.99	10.3	10.7	10.9
80	7.52	7.35	6.87	5.92	5.06	6.45	7.89	8.81	9.33	9.29	8.62	7.18	5.47	6.29	7.11	7.50
85	4.53	4.33	3.74	2.68	1.38	3.09	4.58	5.56	6.10	5.98	5.15	3.58	1.58	2.88	3.85	4.41
90	3.32	3.06	2.34	1.21	0.13	1.18	2.35	3.17	3.56	3.35	2.55	1.26	0.15	1.29	2.43	3.12
95	3.22	2.96	2.26	1.14	0.00	1.10	2.18	2.86	3.11	2.91	2.26	1.16	0.01	1.22	2.35	3.02
100	3.15	2.89	2.19	1.08	0.00	1.05	2.12	2.79	3.05	2.85	2.19	1.10	0.01	1.17	2.29	2.95
105	3.07	2.81	2.10	1.03	0.00	1.00	2.05	2.72	2.97	2.77	2.13	1.06	0.01	1.11	2.21	2.87
110	2.96	2.70	2.01	0.98	0.00	0.94	1.97	2.63	2.88	2.68	2.04	1.01	0.01	1.05	2.12	2.77
115	2.83	2.58	1.92	0.93	0.01	0.89	1.88	2.52	2.76	2.57	1.95	0.95	0.01	0.99	2.02	2.65
120	2.69	2.45	1.82	0.86	0.01	0.85	1.78	2.39	2.63	2.44	1.84	0.90	0.02	0.89	1.91	2.51
125	2.53	2.30	1.71	0.77	0.02	0.80	1.66	2.25	2.48	2.29	1.73	0.84	0.02	0.83	1.78	2.36
130	2.34	2.14	1.58	0.66	0.03	0.75	1.54	2.09	2.31	2.13	1.60	0.79	0.02	0.70	1.65	2.19
135	2.14	1.95	1.44	0.56	0.03	0.67	1.41	1.92	2.12	1.96	1.47	0.74	0.03	0.62	1.47	2.00
140	1.93	1.76	1.24	0.34	0.03	0.43	1.27	1.73	1.93	1.79	1.35	0.61	0.04	0.24	1.28	1.78
145	1.68	1.52	1.06	0.10	0.03	0.22	1.13	1.53	1.71	1.61	1.24	0.49	0.05	0.06	1.07	1.52
150	1.40	1.27	0.82	0.05	0.04	0.08	0.98	1.33	1.49	1.42	1.13	0.40	0.06	0.06	0.71	1.25
155	1.12	1.00	0.48	0.05	0.04	0.05	0.66	1.12	1.19	1.18	0.96	0.28	0.06	0.06	0.12	0.93
160	0.76	0.55	0.09	0.05	0.05	0.05	0.27	0.78	0.97	0.95	0.67	0.15	0.07	0.07	0.07	0.21
165	0.10	0.08	0.05	0.05	0.05	0.05	0.06	0.27	0.41	0.42	0.25	0.07	0.07	0.07	0.07	0.07
170	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07
175	0.07	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07
180	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07

7. Integrating Sphere Test Results for LSXY-1000-L27-DF-I-4

7.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.1℃	Test orientation	Downward
Operate time(Min.)	30	stabilization time(Min.)	0

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.173	23.998	4.1517	295.47	0.4628	0.4065	0.2663	0.5262	2628	94.3
1	00h00m10s	0.1731	23.998	4.1541	296.03	0.4628	0.4066	0.2662	0.5263	2629	94.3
2	00h00m20s	0.1731	23.998	4.1541	296.2	0.4627	0.4065	0.2662	0.5262	2629	94.2
3	00h00m30s	0.1732	23.998	4.1565	296.6	0.4629	0.4069	0.2661	0.5264	2630	94.3
4	00h00m40s	0.1732	23.998	4.1565	296.07	0.4627	0.4065	0.2662	0.5262	2628	94.3
5	00h00m50s	0.1733	23.998	4.1589	296.02	0.4629	0.4067	0.2663	0.5263	2627	94.3
6	00h01m00s	0.1733	23.998	4.1589	295.96	0.4625	0.4064	0.2662	0.5261	2630	94.4
7	00h01m10s	0.1733	23.998	4.1589	295.72	0.4625	0.4061	0.2663	0.526	2629	94.3
8	00h01m20s	0.1734	23.998	4.1613	296.21	0.4631	0.4066	0.2664	0.5263	2625	94.3
9	00h01m30s	0.1734	23.998	4.1613	295.76	0.4626	0.4061	0.2663	0.526	2627	94.3
10	00h01m40s	0.1734	23.998	4.1613	295.86	0.4627	0.4061	0.2664	0.5261	2626	94.4
11	00h01m50s	0.1734	23.998	4.1613	296.24	0.4624	0.4063	0.2661	0.5261	2631	94.3
12	00h02m00s	0.1735	23.998	4.1637	296.05	0.4626	0.4061	0.2663	0.526	2627	94.3
13	00h02m10s	0.1735	23.998	4.1637	295.89	0.4627	0.4061	0.2664	0.5261	2626	94.2
14	00h02m20s	0.1735	23.998	4.1637	295.9	0.4629	0.4065	0.2664	0.5262	2626	94.3
15	00h02m30s	0.1735	23.998	4.1637	295.82	0.4626	0.4062	0.2663	0.5261	2628	94.3
16	00h02m40s	0.1736	23.998	4.1661	295.78	0.4629	0.4064	0.2664	0.5262	2625	94.3
17	00h02m50s	0.1736	23.998	4.1661	296.21	0.4627	0.4063	0.2663	0.5261	2627	94.3
18	00h03m00s	0.1736	23.998	4.1661	296.24	0.4628	0.4066	0.2662	0.5263	2628	94.3
19	00h03m10s	0.1736	23.998	4.1661	295.8	0.4627	0.4061	0.2664	0.526	2626	94.3
20	00h03m20s	0.1736	23.998	4.1661	295.93	0.4628	0.4061	0.2664	0.5261	2625	94.2
21	00h03m30s	0.1736	23.998	4.1661	295.94	0.463	0.4064	0.2664	0.5262	2624	94.3

22	00h03m40s	0.1736	23.998	4.1661	295.97	0.4629	0.4062	0.2664	0.5261	2625	94.3
23	00h03m50s	0.1737	23.998	4.1685	295.71	0.4629	0.4061	0.2665	0.5261	2624	94.3
24	00h04m00s	0.1737	23.998	4.1685	295.56	0.4627	0.4059	0.2665	0.526	2624	94.3
25	00h04m10s	0.1737	23.998	4.1685	295.91	0.4629	0.4064	0.2664	0.5262	2626	94.3
26	00h04m20s	0.1737	23.998	4.1685	295.96	0.4627	0.4061	0.2664	0.526	2625	94.3
27	00h04m30s	0.1737	23.998	4.1685	296.14	0.4626	0.4062	0.2663	0.5261	2628	94.3
28	00h04m40s	0.1737	23.998	4.1685	296.17	0.4624	0.4058	0.2663	0.5259	2627	94.3
29	00h04m50s	0.1737	23.998	4.1685	295.92	0.4628	0.4062	0.2664	0.5261	2626	94.3
30	00h05m00s	0.1737	23.998	4.1685	296.14	0.4628	0.4061	0.2665	0.5261	2624	94.3
31	00h05m10s	0.1737	23.998	4.1685	295.97	0.4626	0.4059	0.2664	0.526	2625	94.2
32	00h05m20s	0.1737	23.998	4.1685	295.71	0.4626	0.4064	0.2662	0.5262	2630	94.4
33	00h05m30s	0.1738	23.998	4.1709	295.9	0.4629	0.4067	0.2662	0.5263	2628	94.4
34	00h05m40s	0.1738	23.998	4.1709	296.3	0.4628	0.4062	0.2664	0.5261	2625	94.3
35	00h05m50s	0.1738	23.998	4.1709	296.11	0.4626	0.4058	0.2664	0.5259	2626	94.3
36	00h06m00s	0.1738	23.998	4.1709	296.17	0.4627	0.4063	0.2663	0.5261	2627	94.3
37	00h06m10s	0.1738	23.998	4.1709	296.09	0.4626	0.406	0.2664	0.526	2626	94.2
38	00h06m20s	0.1738	23.998	4.1709	295.92	0.4629	0.4064	0.2664	0.5262	2626	94.3
39	00h06m30s	0.1738	23.998	4.1709	296.35	0.463	0.4065	0.2664	0.5263	2624	94.3
40	00h06m40s	0.1738	23.998	4.1709	295.89	0.4627	0.4059	0.2665	0.526	2624	94.3
41	00h06m50s	0.1738	23.998	4.1709	295.67	0.4628	0.4063	0.2663	0.5261	2627	94.3
42	00h07m00s	0.1738	23.998	4.1709	296.24	0.463	0.4068	0.2663	0.5264	2627	94.3
43	00h07m10s	0.1738	23.998	4.1709	295.96	0.463	0.4063	0.2665	0.5262	2623	94.3
44	00h07m20s	0.1738	23.998	4.1709	296.51	0.4628	0.4065	0.2663	0.5262	2627	94.2
45	00h07m30s	0.1738	23.998	4.1709	295.54	0.4626	0.4056	0.2665	0.5259	2624	94.3
46	00h07m40s	0.1738	23.998	4.1709	295.92	0.463	0.4064	0.2665	0.5262	2623	94.3
47	00h07m50s	0.1738	23.998	4.1709	295.97	0.4628	0.4061	0.2664	0.5261	2625	94.3
48	00h08m00s	0.1738	23.998	4.1709	296.06	0.4631	0.4062	0.2666	0.5262	2622	94.3
49	00h08m10s	0.1738	23.998	4.1709	295.96	0.4629	0.4062	0.2665	0.5261	2624	94.3
50	00h08m20s	0.1738	23.998	4.1709	295.75	0.4629	0.4062	0.2665	0.5261	2624	94.3
51	00h08m30s	0.1738	23.998	4.1709	295.81	0.4629	0.4059	0.2666	0.526	2622	94.2
52	00h08m40s	0.1739	23.998	4.1733	295.93	0.4628	0.4062	0.2664	0.5261	2625	94.3

53	00h08m50s	0.1739	23.998	4.1733	295.6	0.463	0.406	0.2666	0.5261	2622	94.3
54	00h09m00s	0.1739	23.998	4.1733	296.23	0.4627	0.4059	0.2664	0.526	2625	94.3
55	00h09m10s	0.1739	23.998	4.1733	296.1	0.463	0.406	0.2666	0.526	2621	94.2
56	00h09m20s	0.1739	23.998	4.1733	296	0.4629	0.4065	0.2663	0.5262	2626	94.4
57	00h09m30s	0.1739	23.998	4.1733	296.52	0.4626	0.4063	0.2662	0.5261	2629	94.1
58	00h09m40s	0.1739	23.998	4.1733	295.87	0.4629	0.4064	0.2664	0.5262	2625	94.2
59	00h09m50s	0.1739	23.998	4.1733	295.76	0.4632	0.4062	0.2666	0.5262	2620	94.2
60	00h10m00s	0.1739	23.998	4.1733	296	0.4629	0.406	0.2665	0.5261	2623	94.3
61	00h10m10s	0.1739	23.998	4.1733	296.25	0.4631	0.4062	0.2666	0.5262	2622	94.3
62	00h10m20s	0.1739	23.998	4.1733	295.77	0.463	0.4063	0.2665	0.5262	2623	94.3
63	00h10m30s	0.1739	23.998	4.1733	296.03	0.4629	0.4061	0.2665	0.5261	2624	94.3
64	00h10m40s	0.1739	23.998	4.1733	296.09	0.4627	0.4062	0.2663	0.5261	2627	94.3
65	00h10m50s	0.1739	23.998	4.1733	295.91	0.4629	0.4061	0.2665	0.5261	2624	94.3
66	00h11m00s	0.1739	23.998	4.1733	295.66	0.4627	0.4058	0.2665	0.5259	2624	94.3
67	00h11m10s	0.1739	23.998	4.1733	296	0.4631	0.4062	0.2666	0.5261	2621	94.2
68	00h11m20s	0.1739	23.998	4.1733	295.89	0.4628	0.4061	0.2665	0.5261	2624	94.3
69	00h11m30s	0.1739	23.998	4.1733	295.85	0.4633	0.4065	0.2666	0.5263	2621	94.3
70	00h11m40s	0.1739	23.998	4.1733	295.82	0.4631	0.4062	0.2666	0.5261	2622	94.3
71	00h11m50s	0.1739	23.998	4.1733	296.03	0.463	0.4063	0.2665	0.5262	2624	94.3
72	00h12m00s	0.1739	23.998	4.1733	296.06	0.4629	0.4063	0.2665	0.5262	2624	94.2
73	00h12m10s	0.1739	23.998	4.1733	296.26	0.463	0.4064	0.2664	0.5262	2625	94.3
74	00h12m20s	0.1739	23.998	4.1733	296.33	0.4627	0.4061	0.2664	0.5261	2626	94.3
75	00h12m30s	0.1739	23.998	4.1733	295.76	0.4628	0.4059	0.2665	0.526	2623	94.3
76	00h12m40s	0.1739	23.998	4.1733	295.9	0.4631	0.4062	0.2666	0.5262	2622	94.3
77	00h12m50s	0.1739	23.998	4.1733	295.85	0.463	0.4064	0.2665	0.5262	2624	94.3
78	00h13m00s	0.1739	23.998	4.1733	296.3	0.4631	0.4063	0.2666	0.5262	2622	94.3
79	00h13m10s	0.1739	23.998	4.1733	295.66	0.4631	0.4063	0.2666	0.5262	2622	94.2
80	00h13m20s	0.1739	23.998	4.1733	295.97	0.4631	0.4064	0.2665	0.5262	2623	94.3
81	00h13m30s	0.1739	23.998	4.1733	296.19	0.4626	0.406	0.2663	0.526	2627	94.3
82	00h13m40s	0.1739	23.998	4.1733	295.99	0.463	0.4061	0.2666	0.5261	2623	94.3
83	00h13m50s	0.1739	23.998	4.1733	296.46	0.4629	0.4066	0.2663	0.5263	2627	94.4

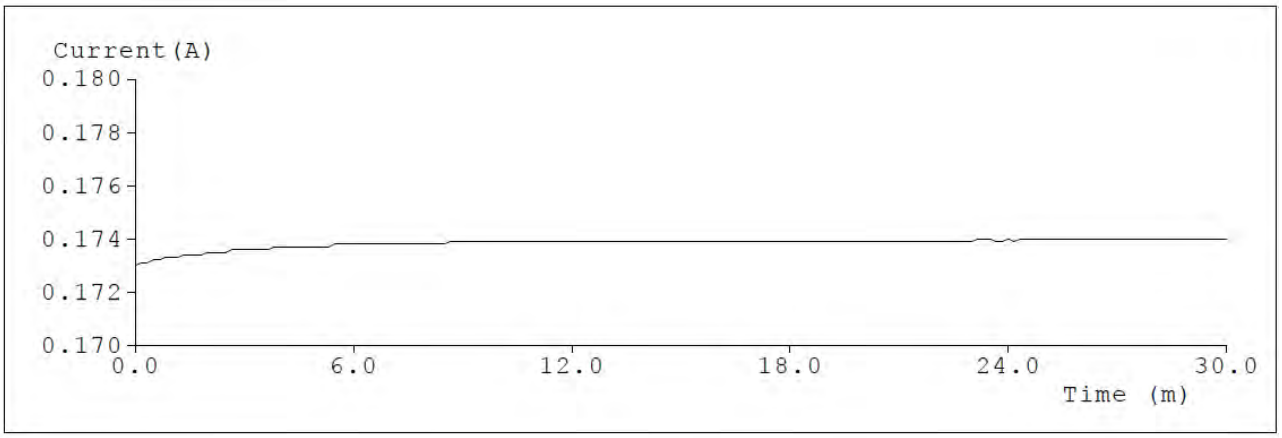
84	00h14m00s	0.1739	23.998	4.1733	295.93	0.463	0.4063	0.2665	0.5262	2624	94.3
85	00h14m10s	0.1739	23.998	4.1733	295.98	0.4633	0.4062	0.2667	0.5262	2619	94.3
86	00h14m20s	0.1739	23.998	4.1733	296.43	0.4629	0.4064	0.2664	0.5262	2625	94.3
87	00h14m30s	0.1739	23.998	4.1733	296.07	0.463	0.4064	0.2665	0.5262	2624	94.3
88	00h14m40s	0.1739	23.998	4.1733	296.09	0.4629	0.4061	0.2665	0.5261	2624	94.2
89	00h14m50s	0.1739	23.998	4.1733	295.84	0.4629	0.4062	0.2665	0.5261	2624	94.2
90	00h15m00s	0.1739	23.998	4.1733	295.89	0.4631	0.4062	0.2666	0.5261	2622	94.3
91	00h15m10s	0.1739	23.998	4.1733	296.25	0.4631	0.4066	0.2664	0.5263	2624	94.4
92	00h15m20s	0.1739	23.998	4.1733	295.62	0.4626	0.406	0.2664	0.526	2627	94.3
93	00h15m30s	0.1739	23.998	4.1733	295.87	0.4632	0.4064	0.2666	0.5262	2621	94.3
94	00h15m40s	0.1739	23.998	4.1733	295.88	0.4631	0.4063	0.2666	0.5262	2622	94.2
95	00h15m50s	0.1739	23.998	4.1733	295.92	0.4629	0.4063	0.2664	0.5262	2625	94.3
96	00h16m00s	0.1739	23.998	4.1733	295.97	0.4633	0.4065	0.2666	0.5263	2621	94.3
97	00h16m10s	0.1739	23.998	4.1733	296.11	0.4629	0.4063	0.2664	0.5262	2625	94.3
98	00h16m20s	0.1739	23.998	4.1733	295.98	0.4631	0.4067	0.2664	0.5263	2625	94.3
99	00h16m30s	0.1739	23.998	4.1733	296.08	0.4631	0.4058	0.2668	0.526	2619	94.2
100	00h16m40s	0.1739	23.998	4.1733	295.87	0.4628	0.4062	0.2664	0.5261	2626	94.3
101	00h16m50s	0.1739	23.998	4.1733	295.97	0.4629	0.4062	0.2665	0.5261	2624	94.3
102	00h17m00s	0.1739	23.998	4.1733	296.22	0.4628	0.4063	0.2664	0.5261	2626	94.2
103	00h17m10s	0.1739	23.998	4.1733	296.08	0.463	0.4061	0.2666	0.5261	2622	94.2
104	00h17m20s	0.1739	23.998	4.1733	295.75	0.4631	0.4063	0.2666	0.5262	2622	94.2
105	00h17m30s	0.1739	23.998	4.1733	296.02	0.4632	0.4062	0.2666	0.5262	2621	94.3
106	00h17m40s	0.1739	23.998	4.1733	296.02	0.463	0.4061	0.2666	0.5261	2622	94.2
107	00h17m50s	0.1739	23.998	4.1733	295.79	0.4631	0.4061	0.2667	0.5261	2620	94.2
108	00h18m00s	0.1739	23.998	4.1733	296.22	0.4632	0.4066	0.2665	0.5263	2623	94.2
109	00h18m10s	0.1739	23.998	4.1733	296.18	0.4627	0.406	0.2664	0.526	2625	94.3
110	00h18m20s	0.1739	23.998	4.1733	295.86	0.4632	0.4061	0.2667	0.5261	2620	94.3
111	00h18m30s	0.1739	23.998	4.1733	296.08	0.4628	0.4062	0.2664	0.5261	2626	94.3
112	00h18m40s	0.1739	23.998	4.1733	296	0.4628	0.4064	0.2663	0.5262	2627	94.3
113	00h18m50s	0.1739	23.998	4.1733	295.98	0.4628	0.4064	0.2663	0.5262	2626	94.3
114	00h19m00s	0.1739	23.998	4.1733	295.95	0.4632	0.4062	0.2666	0.5262	2620	94.2

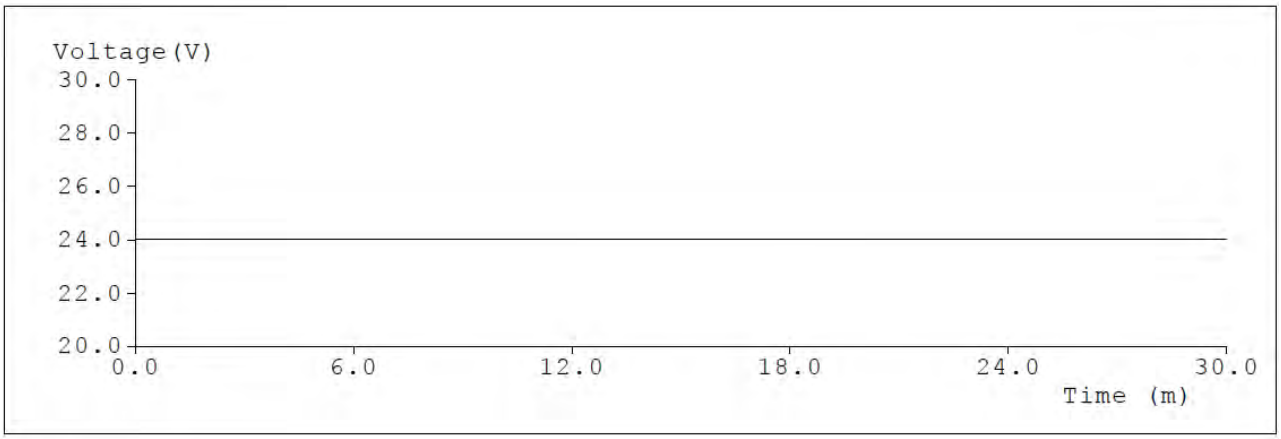
115	00h19m10s	0.1739	23.998	4.1733	295.55	0.463	0.4063	0.2665	0.5262	2624	94.4
116	00h19m20s	0.1739	23.998	4.1733	295.87	0.4633	0.4065	0.2666	0.5263	2621	94.3
117	00h19m30s	0.1739	23.998	4.1733	295.76	0.4631	0.4061	0.2667	0.5261	2620	94.3
118	00h19m40s	0.1739	23.998	4.1733	295.74	0.4629	0.4062	0.2665	0.5261	2624	94.3
119	00h19m50s	0.1739	23.998	4.1733	295.6	0.463	0.4063	0.2665	0.5262	2622	94.3
120	00h20m00s	0.1739	23.998	4.1733	296.02	0.4629	0.4061	0.2665	0.5261	2623	94.2
121	00h20m10s	0.1739	23.998	4.1733	296.05	0.4628	0.4061	0.2665	0.5261	2624	94.3
122	00h20m20s	0.1739	23.998	4.1733	296.2	0.4631	0.4064	0.2665	0.5262	2622	94.3
123	00h20m30s	0.1739	23.998	4.1733	295.84	0.4631	0.4062	0.2666	0.5262	2621	94.2
124	00h20m40s	0.1739	23.998	4.1733	296.03	0.4632	0.4064	0.2666	0.5262	2622	94.2
125	00h20m50s	0.1739	23.998	4.1733	295.82	0.463	0.4064	0.2665	0.5262	2624	94.3
126	00h21m00s	0.1739	23.998	4.1733	295.8	0.4631	0.4061	0.2666	0.5261	2621	94.2
127	00h21m10s	0.1739	23.998	4.1733	295.95	0.4633	0.4062	0.2667	0.5262	2619	94.2
128	00h21m20s	0.1739	23.998	4.1733	296.02	0.463	0.4064	0.2664	0.5262	2625	94.2
129	00h21m30s	0.1739	23.998	4.1733	296.22	0.463	0.4061	0.2666	0.5261	2622	94.3
130	00h21m40s	0.1739	23.998	4.1733	295.77	0.463	0.4067	0.2663	0.5263	2626	94.3
131	00h21m50s	0.1739	23.998	4.1733	295.86	0.4633	0.4065	0.2666	0.5263	2621	94.3
132	00h22m00s	0.1739	23.998	4.1733	296.2	0.4628	0.4063	0.2664	0.5261	2626	94.3
133	00h22m10s	0.1739	23.998	4.1733	296.01	0.4629	0.4062	0.2664	0.5261	2625	94.3
134	00h22m20s	0.1739	23.998	4.1733	295.94	0.4631	0.4064	0.2665	0.5262	2623	94.3
135	00h22m30s	0.1739	23.998	4.1733	296.66	0.4633	0.407	0.2664	0.5265	2624	94.3
136	00h22m40s	0.1739	23.998	4.1733	296.07	0.4633	0.4063	0.2667	0.5262	2619	94.2
137	00h22m50s	0.1739	23.998	4.1733	295.87	0.4631	0.4066	0.2664	0.5263	2625	94.3
138	00h23m00s	0.1739	23.998	4.1733	295.89	0.463	0.4064	0.2664	0.5262	2624	94.3
139	00h23m10s	0.174	23.998	4.1757	295.92	0.463	0.4063	0.2665	0.5262	2623	94.3
140	00h23m20s	0.174	23.998	4.1757	295.9	0.4633	0.4063	0.2667	0.5262	2620	94.2
141	00h23m30s	0.174	23.998	4.1757	295.76	0.4631	0.4064	0.2665	0.5262	2623	94.3
142	00h23m40s	0.1739	23.998	4.1733	296.01	0.4634	0.4063	0.2667	0.5262	2618	94.2
143	00h23m50s	0.1739	23.998	4.1733	295.89	0.4628	0.4061	0.2665	0.5261	2624	94.3
144	00h24m00s	0.174	23.998	4.1757	296.04	0.4633	0.4062	0.2668	0.5262	2618	94.2
145	00h24m10s	0.1739	23.998	4.1733	296.06	0.4632	0.4064	0.2666	0.5263	2622	94.3

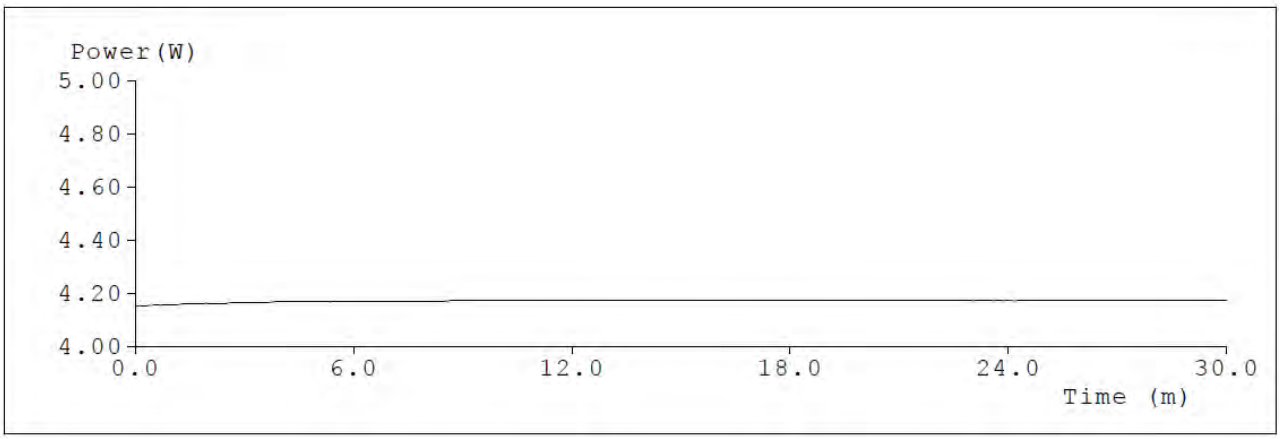
146	00h24m20s	0.174	23.998	4.1757	296.05	0.4633	0.4069	0.2664	0.5264	2624	94.3
147	00h24m30s	0.174	23.998	4.1757	296.36	0.4633	0.4065	0.2666	0.5263	2621	94.3
148	00h24m40s	0.174	23.998	4.1757	296.19	0.4634	0.4066	0.2666	0.5263	2621	94.3
149	00h24m50s	0.174	23.998	4.1757	296.24	0.4631	0.4063	0.2665	0.5262	2622	94.3
150	00h25m00s	0.174	23.998	4.1757	296.17	0.463	0.4064	0.2665	0.5262	2624	94.2
151	00h25m10s	0.174	23.998	4.1757	295.99	0.4627	0.4061	0.2664	0.5261	2626	94.3
152	00h25m20s	0.174	23.998	4.1757	295.75	0.4633	0.4066	0.2666	0.5263	2621	94.3
153	00h25m30s	0.174	23.998	4.1757	295.99	0.4626	0.4064	0.2662	0.5262	2630	94.3
154	00h25m40s	0.174	23.998	4.1757	295.81	0.4631	0.4063	0.2665	0.5262	2623	94.3
155	00h25m50s	0.174	23.998	4.1757	295.82	0.4634	0.4066	0.2666	0.5264	2621	94.3
156	00h26m00s	0.174	23.998	4.1757	295.7	0.4629	0.4062	0.2665	0.5261	2624	94.3
157	00h26m10s	0.174	23.998	4.1757	295.72	0.4631	0.4063	0.2666	0.5262	2622	94.2
158	00h26m20s	0.174	23.998	4.1757	296.02	0.4629	0.4064	0.2664	0.5262	2625	94.3
159	00h26m30s	0.174	23.998	4.1757	296.36	0.4629	0.4067	0.2663	0.5263	2628	94.3
160	00h26m40s	0.174	23.998	4.1757	295.95	0.4632	0.4064	0.2666	0.5262	2621	94.3
161	00h26m50s	0.174	23.998	4.1757	296.31	0.4634	0.4069	0.2665	0.5265	2623	94.3
162	00h27m00s	0.174	23.998	4.1757	296.08	0.4631	0.4064	0.2665	0.5263	2623	94.3
163	00h27m10s	0.174	23.998	4.1757	295.91	0.4631	0.4064	0.2665	0.5262	2622	94.2
164	00h27m20s	0.174	23.998	4.1757	295.63	0.4634	0.4066	0.2666	0.5263	2621	94.3
165	00h27m30s	0.174	23.998	4.1757	295.85	0.4631	0.4063	0.2665	0.5262	2622	94.2
166	00h27m40s	0.174	23.998	4.1757	295.93	0.4631	0.4066	0.2664	0.5263	2625	94.2
167	00h27m50s	0.174	23.998	4.1757	295.63	0.463	0.4062	0.2665	0.5262	2623	94.3
168	00h28m00s	0.174	23.998	4.1757	295.85	0.4633	0.4062	0.2668	0.5262	2618	94.2
169	00h28m10s	0.174	23.998	4.1757	295.9	0.4632	0.4063	0.2666	0.5262	2621	94.3
170	00h28m20s	0.174	23.998	4.1757	295.42	0.463	0.4064	0.2665	0.5262	2624	94.3
171	00h28m30s	0.174	23.998	4.1757	295.4	0.4635	0.4064	0.2668	0.5263	2617	94.3
172	00h28m40s	0.174	23.998	4.1757	296.21	0.4633	0.4067	0.2665	0.5264	2623	94.2
173	00h28m50s	0.174	23.998	4.1757	295.66	0.4632	0.4064	0.2666	0.5262	2621	94.3
174	00h29m00s	0.174	23.998	4.1757	295.55	0.463	0.4062	0.2665	0.5261	2623	94.3
175	00h29m10s	0.174	23.998	4.1757	295.96	0.4629	0.406	0.2666	0.5261	2622	94.3
176	00h29m20s	0.174	23.998	4.1757	295.77	0.463	0.4064	0.2665	0.5262	2624	94.3

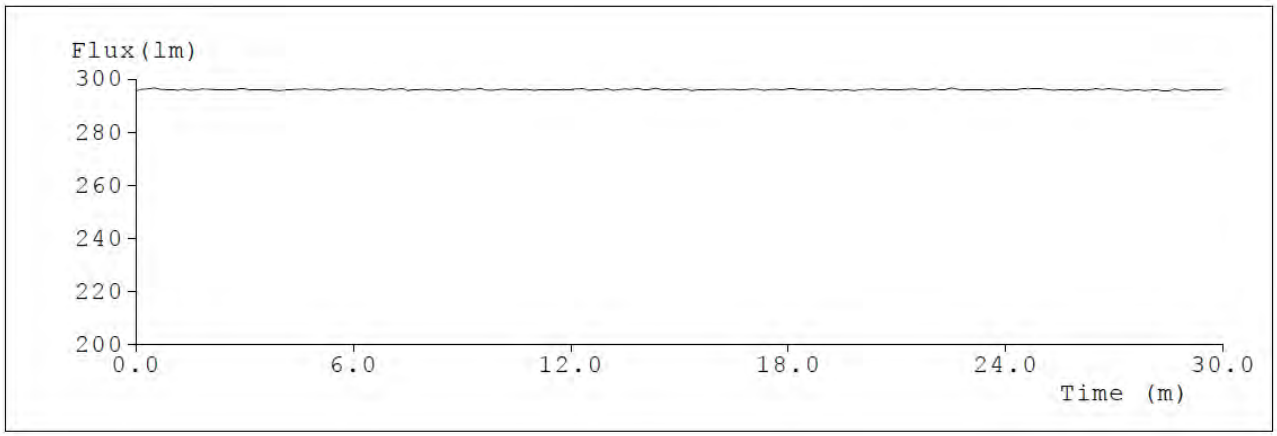
177	00h29m30s	0.174	23.998	4.1757	295.83	0.4632	0.4064	0.2666	0.5262	2621	94.2
178	00h29m40s	0.174	23.998	4.1757	296.01	0.4634	0.4065	0.2667	0.5263	2620	94.2
179	00h29m50s	0.174	23.998	4.1757	295.85	0.4633	0.4065	0.2666	0.5263	2621	94.2
180	00h30m00s	0.174	23.998	4.1757	296.12	0.4634	0.4064	0.2667	0.5263	2619	94.3

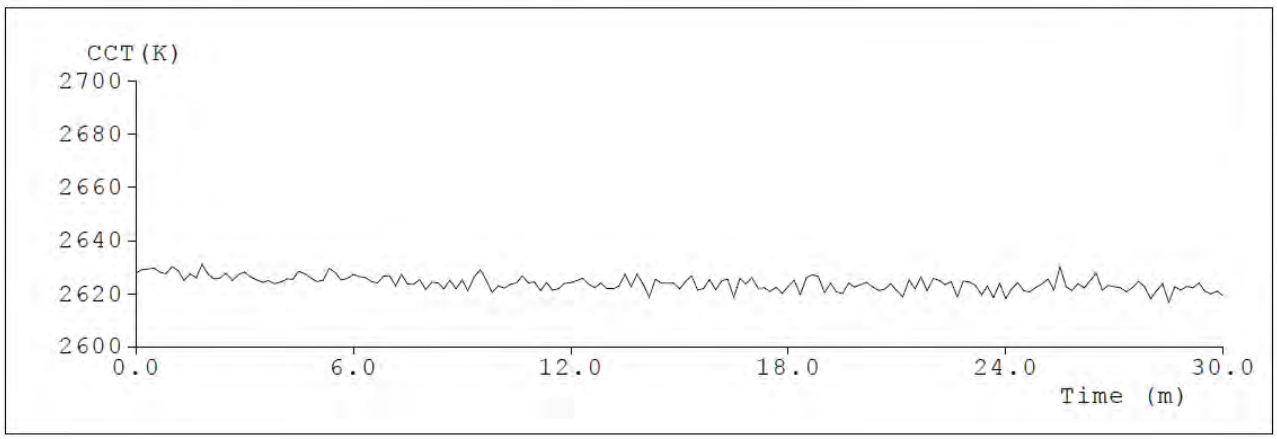
Test curves

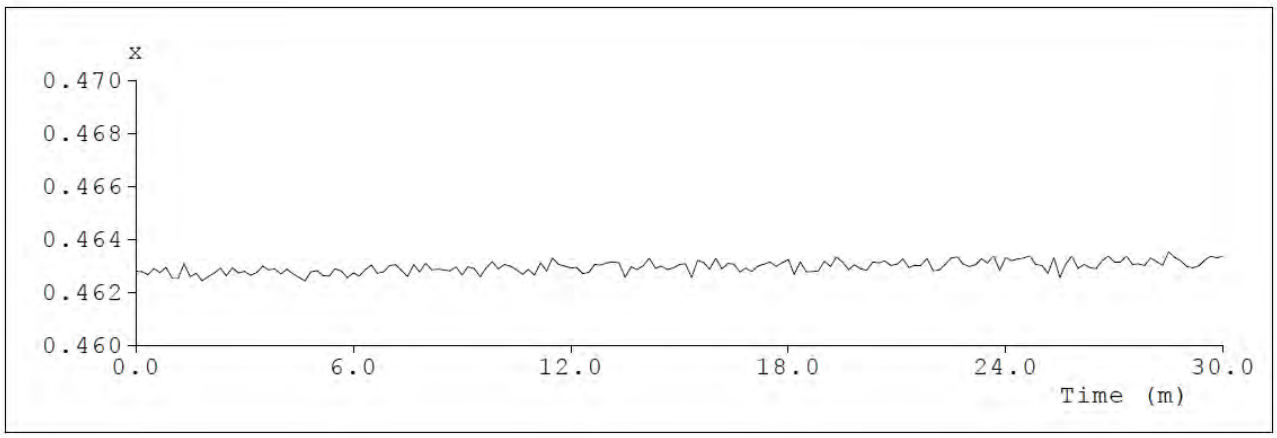


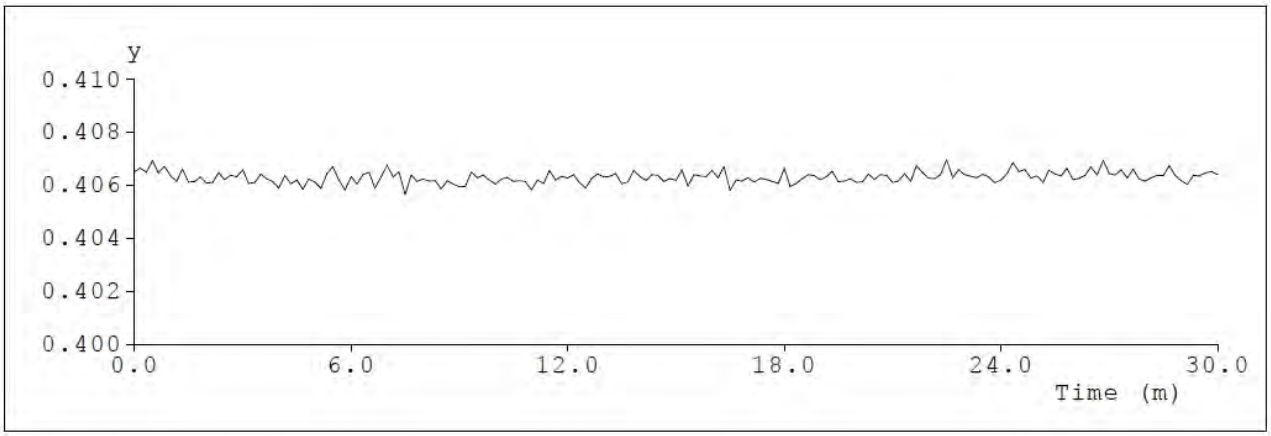


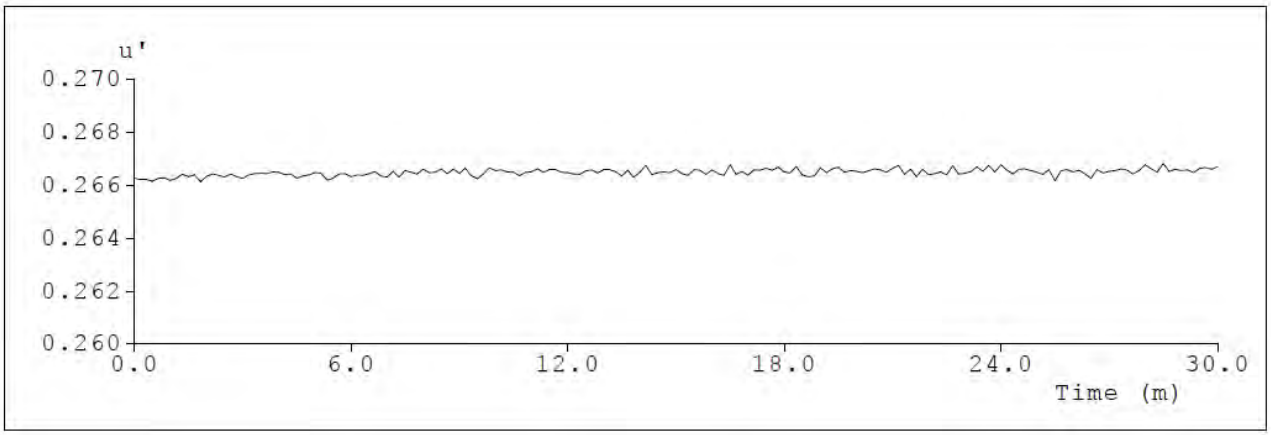


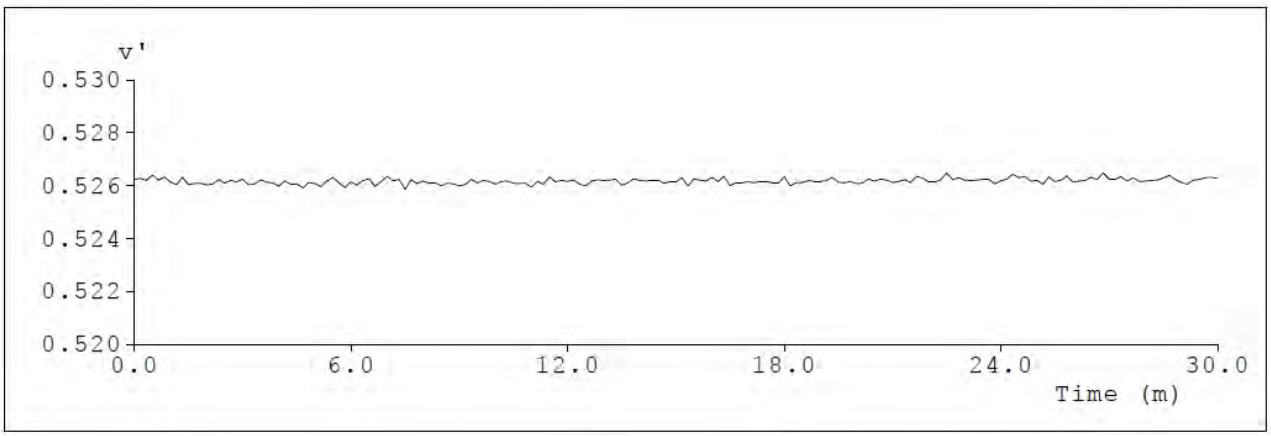

Flux(lm)
300
280
260
240
220
200
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

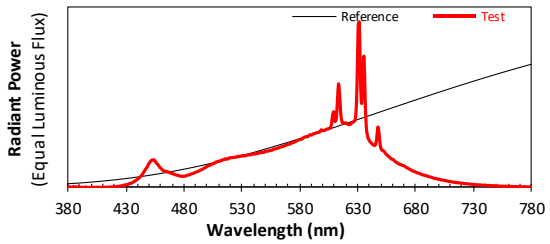

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

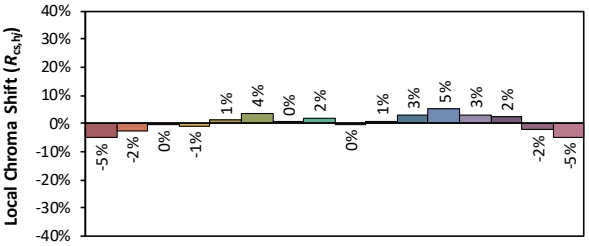
*7.2 ANSI/IES TM-30-18 Color Rendition Report

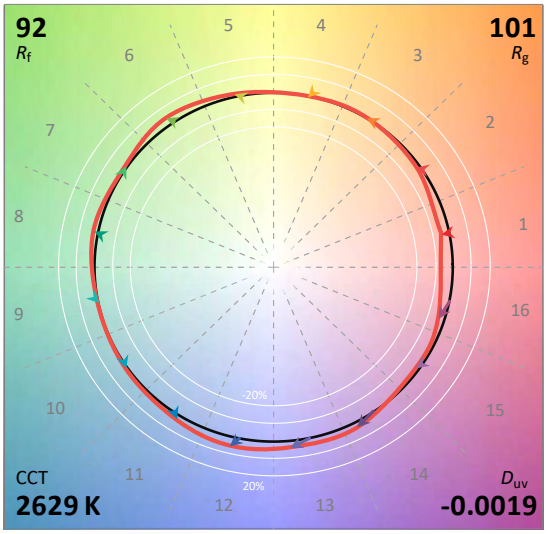
ANSI/IES TM-30-18 Color Rendition Report

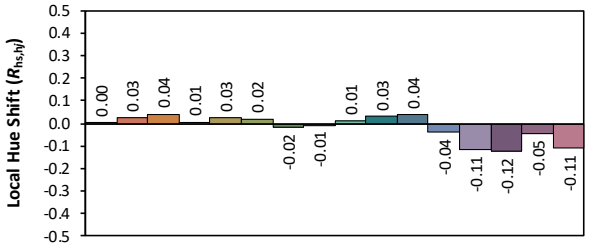
Source: Manufacturer:

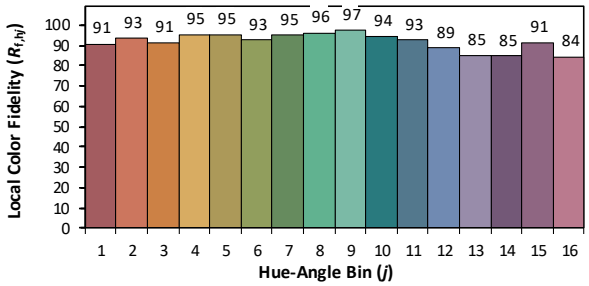
Date: 2023/10/19 Model: LSXY-1000-L27-DF-I-4

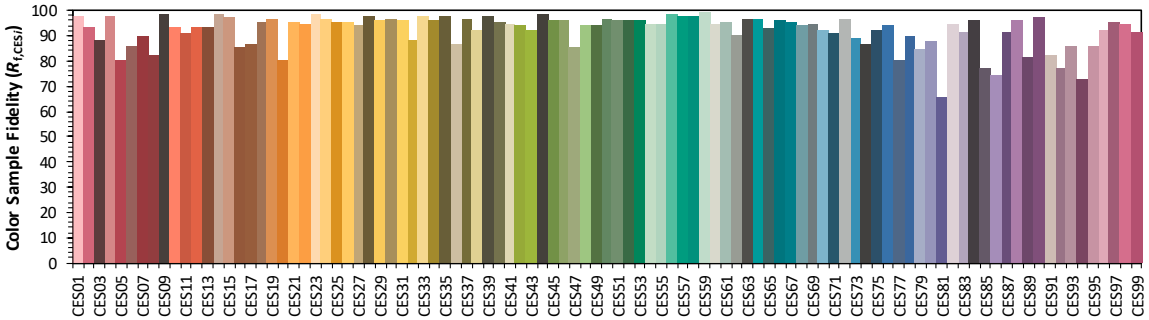












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

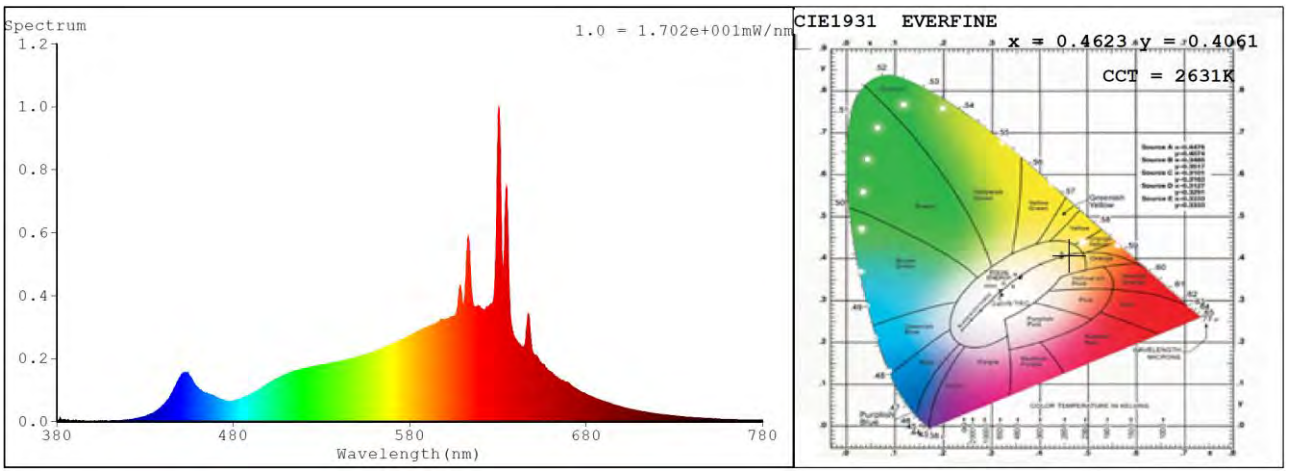
x	0.4624
y	0.4060
u'	0.2662
v'	0.5259

CIE 13.3-1995 (CRI)

R_a	94
R_9	60

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

7.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0054	414	0.002	448	0.1178	482	0.0688	516	0.1633
381	0.0044	415	0.003	449	0.1321	483	0.0709	517	0.1608
382	0	416	0.0036	450	0.1428	484	0.0716	518	0.1641
383	0.0008	417	0.0038	451	0.1499	485	0.0746	519	0.1685
384	0.0061	418	0.0046	452	0.1562	486	0.0778	520	0.1688
385	0.0037	419	0.005	453	0.1559	487	0.0792	521	0.1692
386	0.0048	420	0.005	454	0.1564	488	0.0811	522	0.17
387	0.0022	421	0.0063	455	0.1459	489	0.0851	523	0.1716
388	0.0036	422	0.0065	456	0.1377	490	0.0876	524	0.1712
389	0.0033	423	0.0075	457	0.1303	491	0.0904	525	0.1733
390	0.0026	424	0.0078	458	0.1219	492	0.0924	526	0.1768
391	0.0021	425	0.0096	459	0.1131	493	0.0959	527	0.1745
392	0.0012	426	0.0101	460	0.107	494	0.0993	528	0.1782
393	0.0017	427	0.0114	461	0.1005	495	0.1028	529	0.1778
394	0	428	0.0147	462	0.0951	496	0.1059	530	0.1807
395	0.0044	429	0.0155	463	0.0939	497	0.1099	531	0.1784
396	0	430	0.0164	464	0.0892	498	0.1134	532	0.1813
397	0.001	431	0.0176	465	0.091	499	0.1175	533	0.1803
398	0.0004	432	0.0203	466	0.0872	500	0.1213	534	0.1842
399	0.0014	433	0.0241	467	0.0867	501	0.1254	535	0.1842
400	0.0021	434	0.025	468	0.0817	502	0.1264	536	0.1848
401	0.0018	435	0.0281	469	0.0823	503	0.1296	537	0.1861
402	0.0019	436	0.0319	470	0.0772	504	0.1328	538	0.1871
403	0.001	437	0.0366	471	0.0764	505	0.1361	539	0.1902
404	0.0026	438	0.0397	472	0.0727	506	0.138	540	0.1896
405	0.0019	439	0.0451	473	0.0712	507	0.1444	541	0.19
406	0.0011	440	0.0501	474	0.0695	508	0.1447	542	0.1925
407	0.0017	441	0.0555	475	0.0685	509	0.1484	543	0.1918
408	0.0012	442	0.0627	476	0.0649	510	0.1476	544	0.1967
409	0.0022	443	0.0684	477	0.0645	511	0.1522	545	0.1988
410	0.0016	444	0.078	478	0.0638	512	0.1531	546	0.1967
411	0.0025	445	0.0892	479	0.0643	513	0.1566	547	0.199
412	0.0018	446	0.0981	480	0.0648	514	0.1588	548	0.2006
413	0.0028	447	0.1097	481	0.0655	515	0.1619	549	0.1994

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2048	599	0.3239	648	0.3081	697	0.0518	746	0.0111
551	0.2056	600	0.3224	649	0.2405	698	0.0497	747	0.0104
552	0.2062	601	0.3233	650	0.2163	699	0.0474	748	0.0105
553	0.2089	602	0.3276	651	0.21	700	0.048	749	0.01
554	0.2098	603	0.3312	652	0.2068	701	0.0444	750	0.0098
555	0.2106	604	0.3315	653	0.1995	702	0.0431	751	0.0091
556	0.2128	605	0.3345	654	0.1895	703	0.0427	752	0.0089
557	0.2183	606	0.3369	655	0.1833	704	0.0411	753	0.0085
558	0.2179	607	0.3619	656	0.1774	705	0.0397	754	0.0079
559	0.2199	608	0.4133	657	0.1723	706	0.039	755	0.008
560	0.2222	609	0.4275	658	0.1658	707	0.037	756	0.0079
561	0.2237	610	0.3739	659	0.1603	708	0.0349	757	0.0079
562	0.2268	611	0.3842	660	0.1603	709	0.0348	758	0.0076
563	0.229	612	0.48	661	0.1526	710	0.0337	759	0.0075
564	0.2311	613	0.5856	662	0.1479	711	0.0327	760	0.0069
565	0.2319	614	0.521	663	0.1419	712	0.0309	761	0.0068
566	0.2363	615	0.4142	664	0.1395	713	0.0303	762	0.0066
567	0.2375	616	0.3733	665	0.1347	714	0.029	763	0.0065
568	0.2399	617	0.3631	666	0.1312	715	0.0281	764	0.0064
569	0.2449	618	0.3644	667	0.1304	716	0.0273	765	0.0064
570	0.2453	619	0.3664	668	0.1255	717	0.027	766	0.0058
571	0.2459	620	0.3627	669	0.1244	718	0.0264	767	0.0056
572	0.2509	621	0.3576	670	0.1222	719	0.0252	768	0.0055
573	0.2539	622	0.3561	671	0.1154	720	0.0252	769	0.0056
574	0.2543	623	0.3567	672	0.1135	721	0.0236	770	0.0052
575	0.2588	624	0.3627	673	0.1089	722	0.0231	771	0.0048
576	0.261	625	0.3674	674	0.1057	723	0.0221	772	0.0051
577	0.2649	626	0.3726	675	0.1019	724	0.0216	773	0.0048
578	0.2671	627	0.3766	676	0.0982	725	0.0208	774	0.0049
579	0.2699	628	0.4144	677	0.0942	726	0.0204	775	0.0047
580	0.2727	629	0.5826	678	0.0931	727	0.0196	776	0.0043
581	0.2736	630	0.9136	679	0.0894	728	0.0189	777	0.0044
582	0.2769	631	0.9346	680	0.0864	729	0.0188	778	0.0044
583	0.2837	632	0.6006	681	0.0838	730	0.0177	779	0.0044
584	0.2857	633	0.4753	682	0.0821	731	0.0171	780	0.0045
585	0.2883	634	0.6287	683	0.0794	732	0.0165		
586	0.2874	635	0.7403	684	0.0768	733	0.0159		
587	0.2911	636	0.5048	685	0.0739	734	0.0151		
588	0.297	637	0.3419	686	0.0718	735	0.0152		
589	0.2983	638	0.295	687	0.07	736	0.0149		
590	0.2971	639	0.2734	688	0.0683	737	0.014		
591	0.3033	640	0.2614	689	0.0671	738	0.014		
592	0.3041	641	0.2544	690	0.0641	739	0.0136		
593	0.308	642	0.247	691	0.0622	740	0.0133		
594	0.3086	643	0.2417	692	0.06	741	0.0121		
595	0.3122	644	0.2381	693	0.0592	742	0.012		
596	0.3128	645	0.242	694	0.0565	743	0.0119		
597	0.3169	646	0.2792	695	0.0537	744	0.0115		
598	0.3264	647	0.3415	696	0.0519	745	0.0112		

8. Goniophotometer Test results for LSXY-1000-L27-DF-I-4

8.1 Test Data

Test Ambient Temperature	25.2℃	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

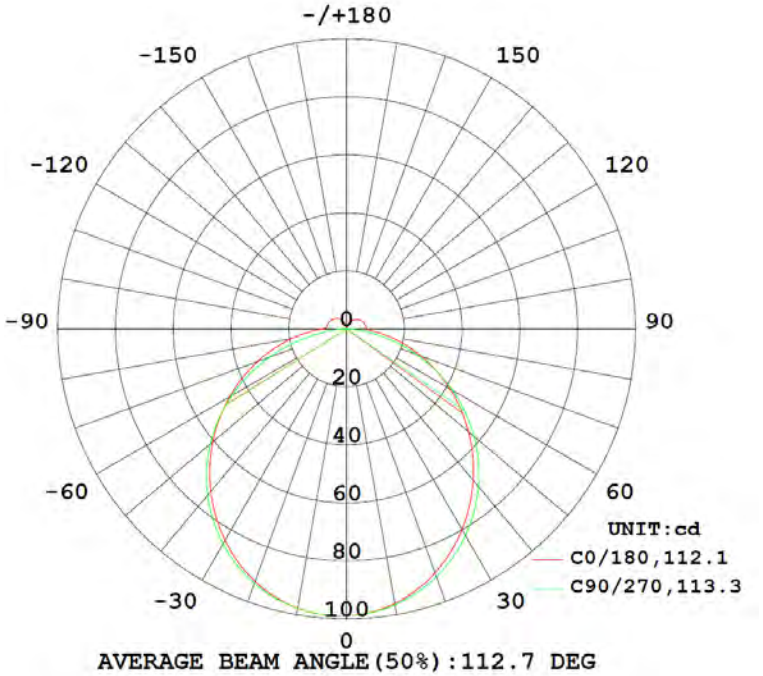
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.18203	1.0000	4.3691

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
311.038	71.19	99.06	6.6	93.4

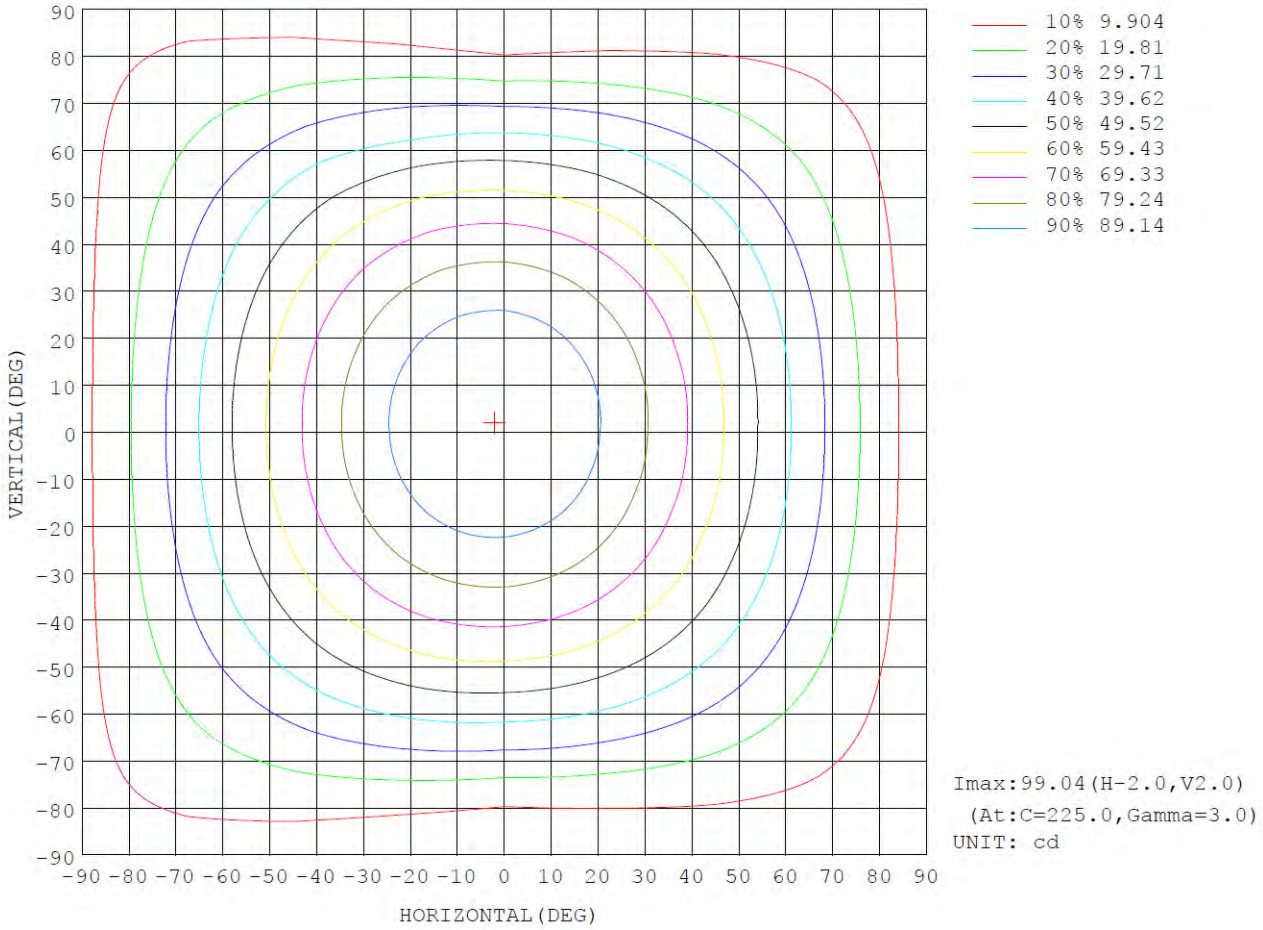
8.2 Luminous Intensity Distribution



8.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	96.09	96.01	96.54	97.15	97.71	98.07	97.83	96.91	0- 10	9.352	9.352	3.01,3.01
20	89.52	89.69	90.88	91.80	92.63	93.52	93.31	91.35	10- 20	26.73	36.08	11.6,11.6
30	79.90	80.46	82.25	83.36	84.17	85.70	85.55	82.63	20- 30	40.39	76.48	24.6,24.6
40	68.18	68.93	71.03	72.42	73.17	75.09	74.86	71.43	30- 40	48.63	125.1	40.2,40.2
50	55.09	55.75	57.60	59.56	60.47	62.29	61.58	58.29	40- 50	50.59	175.7	56.5,56.5
60	41.29	41.39	42.32	45.36	46.80	47.96	45.92	43.74	50- 60	46.25	221.9	71.4,71.4
70	27.49	26.61	25.71	30.46	32.76	32.54	28.50	28.53	60- 70	36.33	258.3	83,83
80	14.67	12.85	9.438	16.17	19.30	17.55	10.41	14.09	70- 80	22.84	281.1	90.4,90.4
90	7.000	4.816	0.2600	5.264	8.040	5.738	0.3393	5.180	80- 90	9.388	290.5	93.4,93.4
100	6.737	4.619	0.0148	4.776	6.908	5.027	0.0309	4.952	90-100	4.775	295.3	94.9,94.9
110	6.370	4.347	0.0256	4.568	6.610	4.791	0.0361	4.642	100-110	4.405	299.7	96.3,96.3
120	5.809	3.956	0.0461	4.234	6.124	4.405	0.0409	4.180	110-120	3.851	303.5	97.6,97.6
130	5.079	3.435	0.0657	3.772	5.474	3.904	0.0596	3.605	120-130	3.111	306.6	98.6,98.6
140	4.186	2.774	0.0778	3.000	4.659	3.270	0.0904	2.906	130-140	2.280	308.9	99.3,99.3
150	3.138	1.868	0.0865	2.233	3.532	2.596	0.1230	1.507	140-150	1.375	310.3	99.8,99.8
160	1.496	0.1320	0.1030	0.5927	2.305	1.746	0.1443	0.1491	150-160	0.6176	310.9	100,100
170	0.1414	0.1291	0.1260	0.1334	0.1618	0.1635	0.1486	0.1504	160-170	0.1121	311.0	100,100
180	0.1483	0.1505	0.1430	0.1482	0.1540	0.1522	0.1434	0.1434	170-180	0.0140	311.0	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

8.4 Isocandela Diagram



8.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C(DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
5	98.0	97.9	97.9	98.0	98.2	98.3	98.5	98.7	98.8	98.9	99.0	98.9	98.8	98.6	98.4	98.1
10	96.1	95.9	96.0	96.2	96.5	96.9	97.2	97.4	97.7	97.9	98.1	98.0	97.8	97.4	96.9	96.4
15	93.2	93.1	93.2	93.6	94.1	94.5	94.9	95.2	95.6	96.0	96.2	96.3	96.0	95.4	94.5	93.8
20	89.5	89.3	89.7	90.3	90.9	91.4	91.8	92.2	92.6	93.1	93.5	93.7	93.3	92.5	91.4	90.3
25	85.0	84.9	85.4	86.2	86.9	87.5	88.0	88.3	88.8	89.4	90.0	90.2	89.8	88.8	87.4	86.0
30	79.9	79.8	80.5	81.4	82.2	82.9	83.4	83.6	84.2	84.9	85.7	86.0	85.6	84.4	82.6	81.0
35	74.2	74.1	74.9	76.0	76.9	77.7	78.2	78.4	78.9	79.8	80.7	81.1	80.6	79.3	77.3	75.4
40	68.2	68.1	68.9	70.1	71.0	71.9	72.4	72.6	73.2	74.1	75.1	75.5	74.9	73.5	71.4	69.4
45	61.8	61.7	62.5	63.6	64.6	65.6	66.2	66.4	67.0	67.9	68.9	69.3	68.5	67.2	65.1	63.0
50	55.1	55.0	55.7	56.7	57.6	58.8	59.6	59.9	60.5	61.4	62.3	62.5	61.6	60.3	58.3	56.4
55	48.2	48.0	48.7	49.5	50.2	51.6	52.6	53.0	53.7	54.5	55.3	55.1	54.0	53.0	51.2	49.4
60	41.3	41.0	41.4	41.8	42.3	44.0	45.4	46.0	46.8	47.5	48.0	47.0	45.9	45.2	43.7	42.3
65	34.3	34.0	34.0	33.9	34.1	36.1	37.9	38.9	39.8	40.2	40.3	37.7	37.4	37.0	36.1	35.1
70	27.5	27.0	26.6	26.0	25.7	28.1	30.5	31.8	32.8	33.0	32.5	30.7	28.5	28.7	28.5	28.1
75	20.9	20.3	19.5	18.1	17.3	20.2	23.1	24.8	25.9	25.9	24.8	22.4	19.3	20.3	21.0	21.2
80	14.7	14.0	12.9	10.9	9.44	12.8	16.2	18.2	19.3	19.1	17.6	14.4	10.4	12.5	14.1	14.8
85	9.05	8.38	6.98	4.88	2.49	6.34	9.83	12.1	13.1	12.7	10.9	7.46	3.13	5.92	7.86	8.96
90	7.00	6.37	4.82	2.48	0.26	2.57	5.26	7.16	8.04	7.54	5.74	2.86	0.34	2.77	5.18	6.62
95	6.86	6.24	4.71	2.40	0.01	2.46	4.85	6.41	7.02	6.58	5.11	2.64	0.02	2.67	5.05	6.47
100	6.74	6.13	4.62	2.33	0.01	2.42	4.78	6.31	6.91	6.46	5.03	2.59	0.03	2.59	4.95	6.36
105	6.58	5.99	4.50	2.25	0.02	2.37	4.69	6.19	6.78	6.34	4.93	2.52	0.03	2.48	4.82	6.21
110	6.37	5.80	4.35	2.15	0.03	2.30	4.57	6.04	6.61	6.18	4.79	2.44	0.04	2.35	4.64	6.00
115	6.11	5.56	4.16	2.03	0.04	2.22	4.42	5.84	6.39	5.97	4.62	2.36	0.04	2.21	4.43	5.74
120	5.81	5.29	3.96	1.86	0.05	2.06	4.23	5.60	6.12	5.72	4.41	2.24	0.04	2.07	4.18	5.45
125	5.47	4.98	3.71	1.75	0.06	1.81	4.02	5.32	5.82	5.42	4.17	2.05	0.05	1.93	3.91	5.12
130	5.08	4.63	3.43	1.52	0.07	1.65	3.77	5.00	5.47	5.09	3.90	1.89	0.06	1.68	3.61	4.75
135	4.65	4.23	3.11	1.25	0.07	1.57	3.48	4.63	5.09	4.74	3.63	1.79	0.07	1.36	3.27	4.34
140	4.19	3.80	2.77	0.57	0.08	1.25	3.00	4.23	4.66	4.36	3.27	1.56	0.09	0.49	2.91	3.89
145	3.67	3.32	2.41	0.17	0.08	0.56	2.56	3.75	4.19	3.94	2.90	1.21	0.11	0.12	2.45	3.38
150	3.14	2.85	1.87	0.10	0.09	0.10	2.23	3.07	3.53	3.33	2.60	0.87	0.12	0.13	1.51	2.84
155	2.55	2.26	0.79	0.10	0.09	0.10	1.75	2.53	2.66	2.67	2.28	0.51	0.14	0.14	0.24	2.07
160	1.50	0.98	0.13	0.11	0.10	0.11	0.59	1.97	2.31	2.27	1.75	0.16	0.14	0.14	0.15	0.42
165	0.18	0.13	0.12	0.12	0.12	0.12	0.12	0.51	1.06	1.06	0.47	0.15	0.15	0.15	0.15	0.16
170	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.14	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.16
175	0.14	0.15	0.14	0.14	0.14	0.14	0.14	0.15	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
180	0.15	0.15	0.15	0.14	0.14	0.14	0.15	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.15

9. Integrating Sphere Test Results for LSXY-1000-L27-DF-I-6

9.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.1℃	Test orientation	Downward
Operate time(Min.)	30	stabilization time(Min.)	0

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.25	23.998	5.9995	425.97	0.4625	0.4069	0.2659	0.5263	2636	94.2
1	00h00m10s	0.2502	23.998	6.0043	426.05	0.4625	0.4069	0.2659	0.5263	2636	94.2
2	00h00m20s	0.2503	23.998	6.0067	426.4	0.4621	0.4069	0.2656	0.5263	2640	94.3
3	00h00m30s	0.2504	23.998	6.0091	426.62	0.4621	0.4068	0.2657	0.5262	2639	94.2
4	00h00m40s	0.2505	23.998	6.0115	426.36	0.4624	0.4069	0.2658	0.5263	2636	94.3
5	00h00m50s	0.2506	23.998	6.0139	426.37	0.4623	0.4067	0.2659	0.5262	2635	94.2
6	00h01m00s	0.2507	23.998	6.0163	426.26	0.462	0.4062	0.2658	0.526	2637	94.3
7	00h01m10s	0.2507	23.998	6.0163	426.45	0.4625	0.4068	0.266	0.5263	2634	94.2
8	00h01m20s	0.2508	23.998	6.0187	425.84	0.4626	0.4064	0.2662	0.5262	2630	94.3
9	00h01m30s	0.2509	23.998	6.0211	426.6	0.4626	0.4067	0.2661	0.5263	2632	94.2
10	00h01m40s	0.2509	23.998	6.0211	426.56	0.4624	0.4065	0.266	0.5262	2634	94.3
11	00h01m50s	0.251	23.998	6.0235	426.45	0.4625	0.4066	0.266	0.5262	2632	94.3
12	00h02m00s	0.251	23.998	6.0235	426.31	0.4626	0.4065	0.2662	0.5262	2630	94.2
13	00h02m10s	0.2511	23.998	6.0259	426.42	0.4624	0.4065	0.266	0.5262	2634	94.3
14	00h02m20s	0.2511	23.998	6.0259	426.34	0.4622	0.4065	0.2659	0.5261	2635	94.2
15	00h02m30s	0.2512	23.998	6.0283	427.11	0.4625	0.4066	0.266	0.5262	2632	94.2
16	00h02m40s	0.2512	23.998	6.0283	426.44	0.4625	0.4064	0.2662	0.5261	2630	94.2
17	00h02m50s	0.2512	23.998	6.0283	426.55	0.4625	0.4065	0.2661	0.5262	2632	94.3
18	00h03m00s	0.2513	23.998	6.0307	426.66	0.4625	0.4066	0.2661	0.5262	2632	94.2
19	00h03m10s	0.2513	23.998	6.0307	426.31	0.4625	0.4063	0.2662	0.5261	2630	94.2
20	00h03m20s	0.2513	23.998	6.0307	427.05	0.4623	0.4064	0.266	0.5261	2633	94.2
21	00h03m30s	0.2514	23.998	6.0331	426.75	0.4622	0.4065	0.2659	0.5261	2636	94.3

22	00h03m40s	0.2514	23.998	6.0331	426.91	0.4626	0.4065	0.2661	0.5262	2631	94.3
23	00h03m50s	0.2514	23.998	6.0331	426.58	0.4624	0.4065	0.266	0.5262	2633	94.2
24	00h04m00s	0.2515	23.998	6.0355	426.77	0.4627	0.4065	0.2662	0.5262	2630	94.3
25	00h04m10s	0.2515	23.998	6.0355	426.87	0.4625	0.4065	0.266	0.5262	2632	94.2
26	00h04m20s	0.2515	23.998	6.0355	427	0.4625	0.4064	0.2661	0.5261	2631	94.2
27	00h04m30s	0.2515	23.998	6.0355	426.82	0.4625	0.4062	0.2662	0.5261	2630	94.2
28	00h04m40s	0.2515	23.998	6.0355	426.64	0.4625	0.4063	0.2662	0.5261	2630	94.1
29	00h04m50s	0.2516	23.998	6.0379	427.31	0.4623	0.4064	0.266	0.5261	2634	94.3
30	00h05m00s	0.2516	23.998	6.0379	426.63	0.4625	0.4065	0.2661	0.5262	2632	94.2
31	00h05m10s	0.2516	23.998	6.0379	426.85	0.4626	0.4065	0.2661	0.5262	2630	94.2
32	00h05m20s	0.2516	23.998	6.0379	426.75	0.4624	0.4064	0.2661	0.5261	2632	94.3
33	00h05m30s	0.2516	23.998	6.0379	426.99	0.4625	0.4065	0.266	0.5262	2633	94.2
34	00h05m40s	0.2516	23.998	6.0379	426.88	0.4624	0.4063	0.2661	0.5261	2632	94.2
35	00h05m50s	0.2516	23.998	6.0379	427.17	0.4624	0.4063	0.2661	0.5261	2633	94.3
36	00h06m00s	0.2517	23.998	6.0403	427.07	0.4626	0.4065	0.2661	0.5262	2631	94.2
37	00h06m10s	0.2517	23.998	6.0403	427.03	0.4623	0.4062	0.2661	0.526	2632	94.2
38	00h06m20s	0.2517	23.998	6.0403	426.44	0.4627	0.4066	0.2662	0.5262	2630	94.2
39	00h06m30s	0.2517	23.998	6.0403	426.99	0.4623	0.4063	0.266	0.5261	2633	94.3
40	00h06m40s	0.2517	23.998	6.0403	426.79	0.4626	0.4065	0.2661	0.5262	2631	94.2
41	00h06m50s	0.2517	23.998	6.0403	426.32	0.4628	0.4065	0.2662	0.5262	2628	94.2
42	00h07m00s	0.2517	23.998	6.0403	426.69	0.4625	0.4064	0.2661	0.5261	2631	94.3
43	00h07m10s	0.2517	23.998	6.0403	426.51	0.4625	0.4064	0.2661	0.5261	2631	94.2
44	00h07m20s	0.2517	23.998	6.0403	426.57	0.4624	0.4061	0.2662	0.526	2630	94.2
45	00h07m30s	0.2517	23.998	6.0403	426.53	0.4626	0.4064	0.2662	0.5262	2630	94.2
46	00h07m40s	0.2518	23.998	6.0427	427.29	0.4623	0.4064	0.266	0.5261	2633	94.2
47	00h07m50s	0.2518	23.998	6.0427	426.86	0.4623	0.4063	0.2661	0.5261	2632	94.2
48	00h08m00s	0.2518	23.998	6.0427	427.04	0.4624	0.4063	0.2661	0.5261	2631	94.3
49	00h08m10s	0.2518	23.998	6.0427	426.45	0.4625	0.406	0.2663	0.526	2628	94.2
50	00h08m20s	0.2518	23.998	6.0427	426.87	0.4625	0.4064	0.2661	0.5261	2631	94.2
51	00h08m30s	0.2518	23.998	6.0427	427.23	0.4626	0.4066	0.2661	0.5262	2632	94.2
52	00h08m40s	0.2518	23.998	6.0427	427.27	0.4628	0.4066	0.2662	0.5262	2628	94.1

53	00h08m50s	0.2518	23.998	6.0427	427.45	0.4625	0.4064	0.2661	0.5261	2631	94.1
54	00h09m00s	0.2518	23.998	6.0427	426.86	0.4625	0.4065	0.2661	0.5262	2631	94.3
55	00h09m10s	0.2518	23.998	6.0427	427.09	0.4625	0.4064	0.2661	0.5261	2631	94.3
56	00h09m20s	0.2518	23.998	6.0427	427.04	0.4625	0.4064	0.2661	0.5261	2631	94.1
57	00h09m30s	0.2518	23.998	6.0427	427.06	0.4625	0.4061	0.2663	0.526	2628	94.2
58	00h09m40s	0.2518	23.998	6.0427	426.85	0.4627	0.4065	0.2662	0.5262	2629	94.2
59	00h09m50s	0.2518	23.998	6.0427	427.36	0.4625	0.4065	0.2661	0.5262	2632	94.2
60	00h10m00s	0.2518	23.998	6.0427	426.6	0.4625	0.4063	0.2662	0.5261	2630	94.3
61	00h10m10s	0.2518	23.998	6.0427	426.77	0.4627	0.4067	0.2661	0.5263	2631	94.2
62	00h10m20s	0.2518	23.998	6.0427	426.67	0.4628	0.4064	0.2663	0.5262	2627	94.2
63	00h10m30s	0.2518	23.998	6.0427	426.77	0.4625	0.4064	0.2662	0.5261	2630	94.2
64	00h10m40s	0.2518	23.998	6.0427	426.73	0.4627	0.4062	0.2664	0.5261	2626	94.2
65	00h10m50s	0.2519	23.998	6.0451	426.72	0.4626	0.4063	0.2662	0.5261	2629	94.2
66	00h11m00s	0.2519	23.998	6.0451	427.24	0.4623	0.4063	0.2661	0.5261	2632	94.2
67	00h11m10s	0.2519	23.998	6.0451	426.99	0.4626	0.4066	0.2661	0.5262	2631	94.2
68	00h11m20s	0.2519	23.998	6.0451	426.64	0.4623	0.4064	0.266	0.5261	2633	94.3
69	00h11m30s	0.2519	23.998	6.0451	426.95	0.4627	0.4062	0.2663	0.5261	2627	94.2
70	00h11m40s	0.2519	23.998	6.0451	426.98	0.4627	0.4063	0.2663	0.5261	2628	94.2
71	00h11m50s	0.2519	23.998	6.0451	426.4	0.4626	0.4063	0.2663	0.5261	2628	94.1
72	00h12m00s	0.2519	23.998	6.0451	426.72	0.4626	0.4064	0.2662	0.5261	2630	94.2
73	00h12m10s	0.2519	23.998	6.0451	426.4	0.4625	0.4063	0.2661	0.5261	2631	94.2
74	00h12m20s	0.2519	23.998	6.0451	426.82	0.4626	0.4061	0.2663	0.5261	2627	94.1
75	00h12m30s	0.2519	23.998	6.0451	427.41	0.4624	0.4063	0.2661	0.5261	2633	94.2
76	00h12m40s	0.2519	23.998	6.0451	426.78	0.4623	0.4059	0.2663	0.5259	2629	94.1
77	00h12m50s	0.2519	23.998	6.0451	427.02	0.4627	0.4064	0.2663	0.5262	2628	94.1
78	00h13m00s	0.2519	23.998	6.0451	426.94	0.4627	0.4062	0.2664	0.5261	2626	94.2
79	00h13m10s	0.2519	23.998	6.0451	426.93	0.4624	0.4062	0.2661	0.526	2631	94.2
80	00h13m20s	0.2519	23.998	6.0451	426.67	0.4626	0.4066	0.2661	0.5262	2631	94.3
81	00h13m30s	0.2519	23.998	6.0451	426.75	0.4626	0.4061	0.2663	0.5261	2627	94.2
82	00h13m40s	0.2519	23.998	6.0451	426.74	0.4625	0.406	0.2663	0.526	2628	94.1
83	00h13m50s	0.2519	23.998	6.0451	427.07	0.4624	0.4063	0.2661	0.5261	2632	94.2

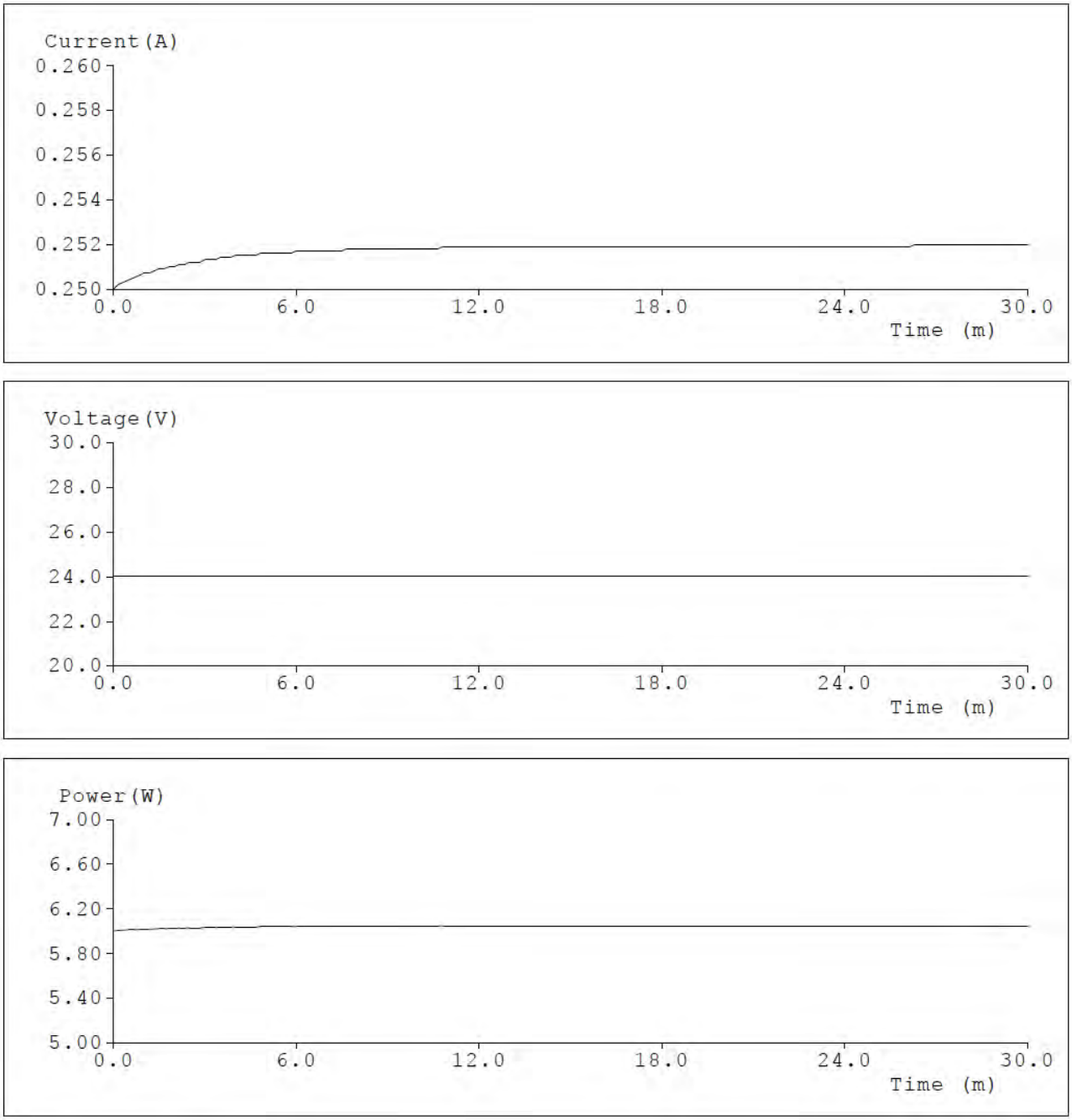
84	00h14m00s	0.2519	23.998	6.0451	426.83	0.4627	0.4064	0.2662	0.5262	2629	94.2
85	00h14m10s	0.2519	23.998	6.0451	427.1	0.4626	0.4064	0.2662	0.5262	2629	94.2
86	00h14m20s	0.2519	23.998	6.0451	426.95	0.4629	0.4066	0.2663	0.5263	2627	94.2
87	00h14m30s	0.2519	23.998	6.0451	426.68	0.4628	0.4064	0.2663	0.5262	2628	94.2
88	00h14m40s	0.2519	23.998	6.0451	426.9	0.4626	0.4064	0.2662	0.5262	2629	94.3
89	00h14m50s	0.2519	23.998	6.0451	427.08	0.4628	0.4066	0.2662	0.5263	2629	94.2
90	00h15m00s	0.2519	23.998	6.0451	426.81	0.4625	0.4062	0.2662	0.5261	2630	94.2
91	00h15m10s	0.2519	23.998	6.0451	426.85	0.4625	0.4063	0.2662	0.5261	2630	94.2
92	00h15m20s	0.2519	23.998	6.0451	426.62	0.4625	0.4064	0.2661	0.5261	2631	94.1
93	00h15m30s	0.2519	23.998	6.0451	426.79	0.4624	0.4063	0.2661	0.5261	2631	94.2
94	00h15m40s	0.2519	23.998	6.0451	426.92	0.4625	0.4064	0.2661	0.5261	2632	94.3
95	00h15m50s	0.2519	23.998	6.0451	426.99	0.4629	0.4066	0.2663	0.5263	2627	94.2
96	00h16m00s	0.2519	23.998	6.0451	426.92	0.4625	0.4062	0.2662	0.526	2629	94.2
97	00h16m10s	0.2519	23.998	6.0451	427.03	0.4625	0.4064	0.2661	0.5261	2631	94.2
98	00h16m20s	0.2519	23.998	6.0451	426.75	0.4626	0.4065	0.2662	0.5262	2630	94.3
99	00h16m30s	0.2519	23.998	6.0451	427.01	0.4627	0.4063	0.2663	0.5261	2628	94.2
100	00h16m40s	0.2519	23.998	6.0451	426.33	0.4628	0.4062	0.2664	0.5261	2626	94.2
101	00h16m50s	0.2519	23.998	6.0451	426.12	0.4626	0.4061	0.2663	0.526	2627	94.2
102	00h17m00s	0.2519	23.998	6.0451	426.63	0.4626	0.4062	0.2663	0.5261	2629	94.2
103	00h17m10s	0.2519	23.998	6.0451	426.86	0.4625	0.4064	0.2661	0.5261	2631	94.3
104	00h17m20s	0.2519	23.998	6.0451	427.4	0.4625	0.4065	0.2661	0.5262	2631	94.3
105	00h17m30s	0.2519	23.998	6.0451	427.12	0.4627	0.4065	0.2662	0.5262	2629	94.2
106	00h17m40s	0.2519	23.998	6.0451	426.94	0.4626	0.4063	0.2662	0.5261	2629	94.2
107	00h17m50s	0.2519	23.998	6.0451	426.7	0.4627	0.4065	0.2662	0.5262	2629	94.2
108	00h18m00s	0.2519	23.998	6.0451	426.69	0.4626	0.4063	0.2662	0.5261	2629	94.2
109	00h18m10s	0.2519	23.998	6.0451	426.6	0.4624	0.4063	0.266	0.5261	2633	94.3
110	00h18m20s	0.2519	23.998	6.0451	426.38	0.4627	0.4063	0.2663	0.5261	2628	94.2
111	00h18m30s	0.2519	23.998	6.0451	427.28	0.4626	0.4064	0.2662	0.5261	2630	94.2
112	00h18m40s	0.2519	23.998	6.0451	427.1	0.4626	0.4063	0.2662	0.5261	2629	94.2
113	00h18m50s	0.2519	23.998	6.0451	426.74	0.4627	0.4063	0.2663	0.5261	2628	94.2
114	00h19m00s	0.2519	23.998	6.0451	426.44	0.4625	0.4064	0.2661	0.5261	2631	94.2

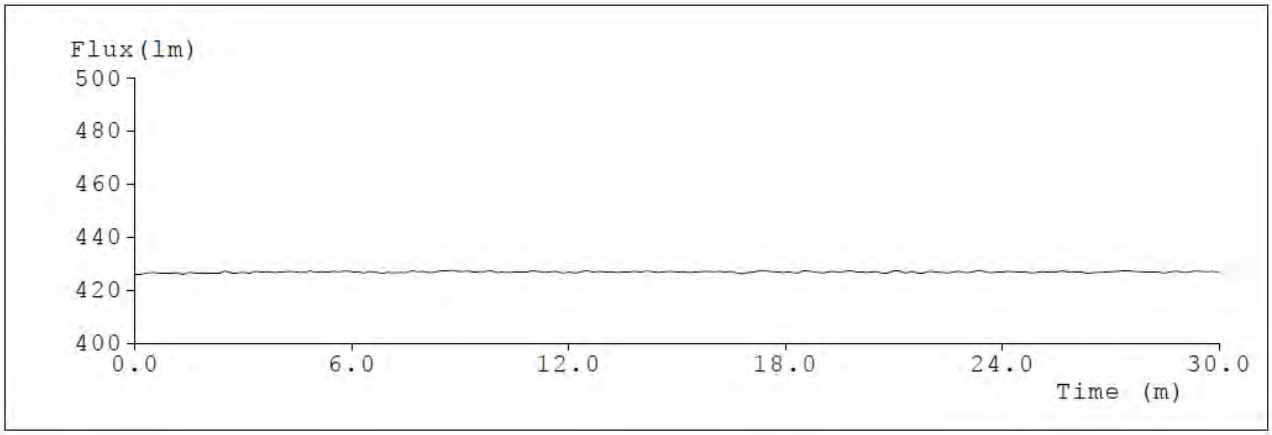
115	00h19m10s	0.2519	23.998	6.0451	426.83	0.4625	0.4066	0.2661	0.5262	2632	94.2
116	00h19m20s	0.2519	23.998	6.0451	427.06	0.4624	0.4062	0.2662	0.5261	2630	94.2
117	00h19m30s	0.2519	23.998	6.0451	426.7	0.4627	0.4064	0.2662	0.5262	2629	94.2
118	00h19m40s	0.2519	23.998	6.0451	427.2	0.463	0.4064	0.2664	0.5262	2625	94.2
119	00h19m50s	0.2519	23.998	6.0451	427.22	0.4625	0.4062	0.2662	0.5261	2629	94.2
120	00h20m00s	0.2519	23.998	6.0451	426.63	0.4627	0.4064	0.2662	0.5262	2628	94.2
121	00h20m10s	0.2519	23.998	6.0451	426.59	0.4626	0.4063	0.2662	0.5261	2629	94.2
122	00h20m20s	0.2519	23.998	6.0451	426.82	0.4626	0.4067	0.2661	0.5263	2632	94.2
123	00h20m30s	0.2519	23.998	6.0451	426.91	0.4625	0.4064	0.2661	0.5261	2631	94.2
124	00h20m40s	0.2519	23.998	6.0451	426.56	0.4624	0.4063	0.2661	0.5261	2631	94.2
125	00h20m50s	0.2519	23.998	6.0451	426.54	0.4625	0.4061	0.2663	0.526	2629	94.2
126	00h21m00s	0.2519	23.998	6.0451	427.11	0.4626	0.4064	0.2662	0.5262	2630	94.2
127	00h21m10s	0.2519	23.998	6.0451	427.15	0.4626	0.4064	0.2662	0.5262	2630	94.2
128	00h21m20s	0.2519	23.998	6.0451	426.38	0.4628	0.4064	0.2663	0.5262	2628	94.3
129	00h21m30s	0.2519	23.998	6.0451	427	0.4625	0.4064	0.2662	0.5261	2630	94.2
130	00h21m40s	0.2519	23.998	6.0451	426.54	0.4625	0.4061	0.2663	0.526	2628	94.2
131	00h21m50s	0.2519	23.998	6.0451	426.47	0.4626	0.4064	0.2662	0.5261	2630	94.3
132	00h22m00s	0.2519	23.998	6.0451	427.03	0.4627	0.4064	0.2663	0.5262	2628	94.2
133	00h22m10s	0.2519	23.998	6.0451	426.8	0.4627	0.4063	0.2663	0.5261	2627	94.2
134	00h22m20s	0.2519	23.998	6.0451	426.58	0.4626	0.4065	0.2661	0.5262	2630	94.2
135	00h22m30s	0.2519	23.998	6.0451	426.43	0.4628	0.4065	0.2663	0.5262	2628	94.2
136	00h22m40s	0.2519	23.998	6.0451	426.88	0.4626	0.4066	0.2661	0.5262	2631	94.2
137	00h22m50s	0.2519	23.998	6.0451	426.99	0.4629	0.4064	0.2664	0.5262	2625	94.2
138	00h23m00s	0.2519	23.998	6.0451	426.57	0.4626	0.4065	0.2662	0.5262	2630	94.2
139	00h23m10s	0.2519	23.998	6.0451	426.81	0.4626	0.4064	0.2661	0.5262	2631	94.3
140	00h23m20s	0.2519	23.998	6.0451	427.45	0.4626	0.4064	0.2662	0.5261	2630	94.2
141	00h23m30s	0.2519	23.998	6.0451	427.05	0.4625	0.4063	0.2662	0.5261	2630	94.2
142	00h23m40s	0.2519	23.998	6.0451	426.56	0.4623	0.406	0.2662	0.5259	2630	94.2
143	00h23m50s	0.2519	23.998	6.0451	426.76	0.4624	0.4063	0.2661	0.5261	2631	94.2
144	00h24m00s	0.2519	23.998	6.0451	426.75	0.4628	0.4064	0.2663	0.5262	2627	94.2
145	00h24m10s	0.2519	23.998	6.0451	427.03	0.4627	0.4066	0.2662	0.5262	2630	94.2

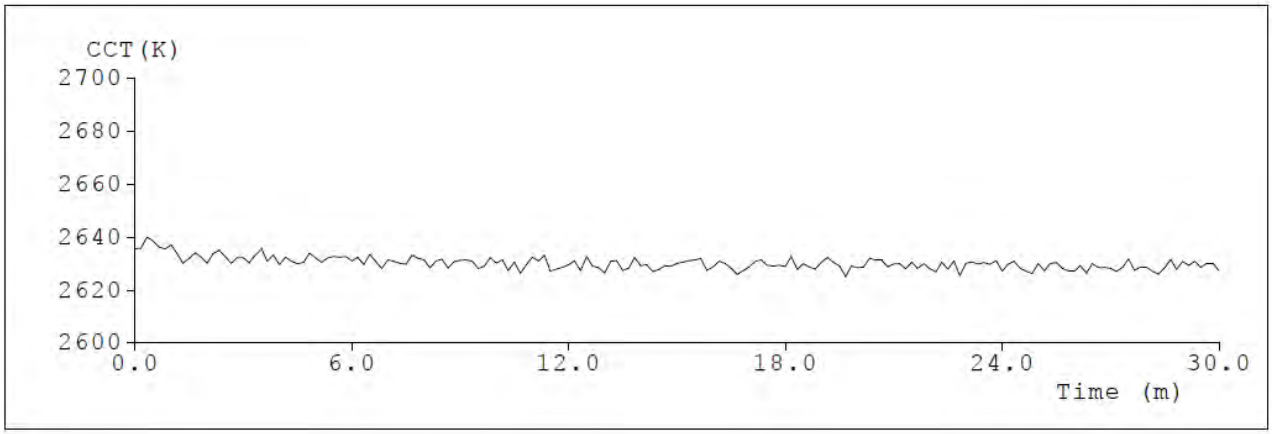
146	00h24m20s	0.2519	23.998	6.0451	426.86	0.4626	0.4065	0.2661	0.5262	2631	94.2
147	00h24m30s	0.2519	23.998	6.0451	426.81	0.4628	0.4066	0.2662	0.5262	2628	94.2
148	00h24m40s	0.2519	23.998	6.0451	426.91	0.4628	0.4063	0.2663	0.5262	2627	94.2
149	00h24m50s	0.2519	23.998	6.0451	426.43	0.4629	0.4064	0.2663	0.5262	2626	94.3
150	00h25m00s	0.2519	23.998	6.0451	426.78	0.4627	0.4067	0.2662	0.5263	2630	94.3
151	00h25m10s	0.2519	23.998	6.0451	426.85	0.4627	0.4063	0.2663	0.5261	2627	94.2
152	00h25m20s	0.2519	23.998	6.0451	426.95	0.4625	0.4063	0.2662	0.5261	2630	94.2
153	00h25m30s	0.2519	23.998	6.0451	426.77	0.4624	0.4062	0.2662	0.526	2630	94.2
154	00h25m40s	0.2519	23.998	6.0451	427.26	0.4628	0.4066	0.2662	0.5263	2628	94.2
155	00h25m50s	0.2519	23.998	6.0451	426.77	0.4628	0.4065	0.2663	0.5262	2627	94.2
156	00h26m00s	0.2519	23.998	6.0451	427.03	0.4629	0.4066	0.2663	0.5263	2627	94.2
157	00h26m10s	0.2519	23.998	6.0451	427.02	0.4628	0.4066	0.2662	0.5263	2629	94.2
158	00h26m20s	0.252	23.998	6.0475	426.31	0.4627	0.4062	0.2664	0.5261	2626	94.2
159	00h26m30s	0.252	23.998	6.0475	426.55	0.4626	0.4064	0.2662	0.5261	2630	94.2
160	00h26m40s	0.252	23.998	6.0475	426.62	0.4626	0.4062	0.2663	0.5261	2628	94.2
161	00h26m50s	0.252	23.998	6.0475	426.79	0.4628	0.4066	0.2662	0.5263	2628	94.1
162	00h27m00s	0.252	23.998	6.0475	426.89	0.4629	0.4066	0.2662	0.5263	2628	94.2
163	00h27m10s	0.252	23.998	6.0475	427.04	0.4627	0.4063	0.2663	0.5261	2627	94.2
164	00h27m20s	0.252	23.998	6.0475	427.24	0.4628	0.4066	0.2662	0.5263	2628	94.2
165	00h27m30s	0.252	23.998	6.0475	427.25	0.4624	0.4063	0.2661	0.5261	2632	94.2
166	00h27m40s	0.252	23.998	6.0475	427	0.4628	0.4065	0.2663	0.5262	2627	94.3
167	00h27m50s	0.252	23.998	6.0475	426.84	0.4627	0.4064	0.2662	0.5262	2629	94.2
168	00h28m00s	0.252	23.998	6.0475	426.77	0.4627	0.4064	0.2662	0.5262	2628	94.3
169	00h28m10s	0.252	23.998	6.0475	426.79	0.4628	0.4063	0.2663	0.5261	2627	94.2
170	00h28m20s	0.252	23.998	6.0475	426.78	0.4629	0.4065	0.2664	0.5262	2626	94.1
171	00h28m30s	0.252	23.998	6.0475	426.41	0.4628	0.4066	0.2662	0.5263	2628	94.2
172	00h28m40s	0.252	23.998	6.0475	426.96	0.4626	0.4067	0.2661	0.5263	2631	94.3
173	00h28m50s	0.252	23.998	6.0475	427.1	0.4628	0.4064	0.2663	0.5262	2628	94.1
174	00h29m00s	0.252	23.998	6.0475	426.66	0.4625	0.4064	0.2661	0.5261	2631	94.3
175	00h29m10s	0.252	23.998	6.0475	426.75	0.4625	0.4062	0.2662	0.5261	2629	94.2
176	00h29m20s	0.252	23.998	6.0475	427.17	0.4626	0.4065	0.2661	0.5262	2631	94.2

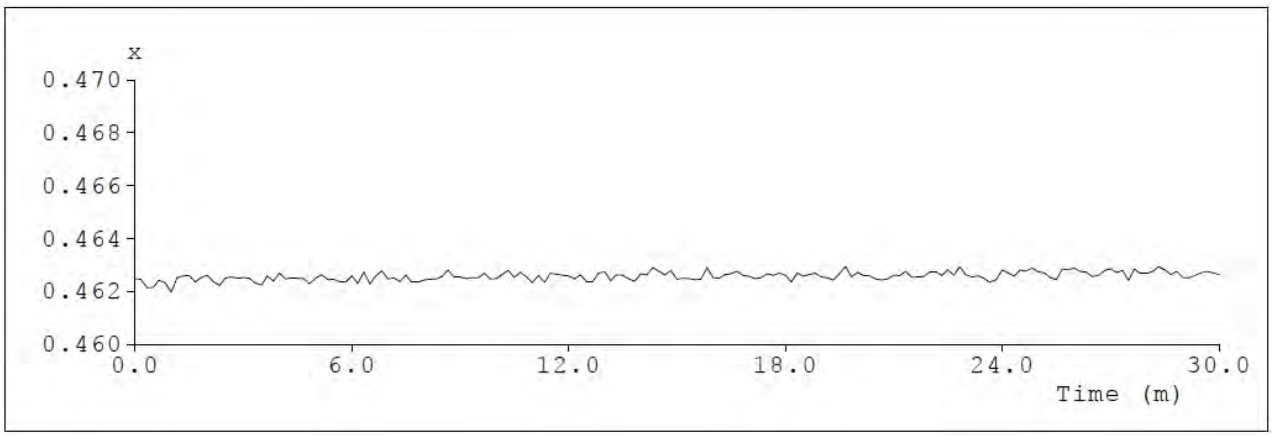
177	00h29m30s	0.252	23.998	6.0475	427.08	0.4627	0.4064	0.2662	0.5262	2628	94.2
178	00h29m40s	0.252	23.998	6.0475	426.9	0.4628	0.4067	0.2661	0.5263	2630	94.2
179	00h29m50s	0.252	23.998	6.0475	426.99	0.4627	0.4066	0.2661	0.5263	2630	94.1
180	00h30m00s	0.252	23.998	6.0475	426.7	0.4626	0.4061	0.2663	0.5261	2627	94.2

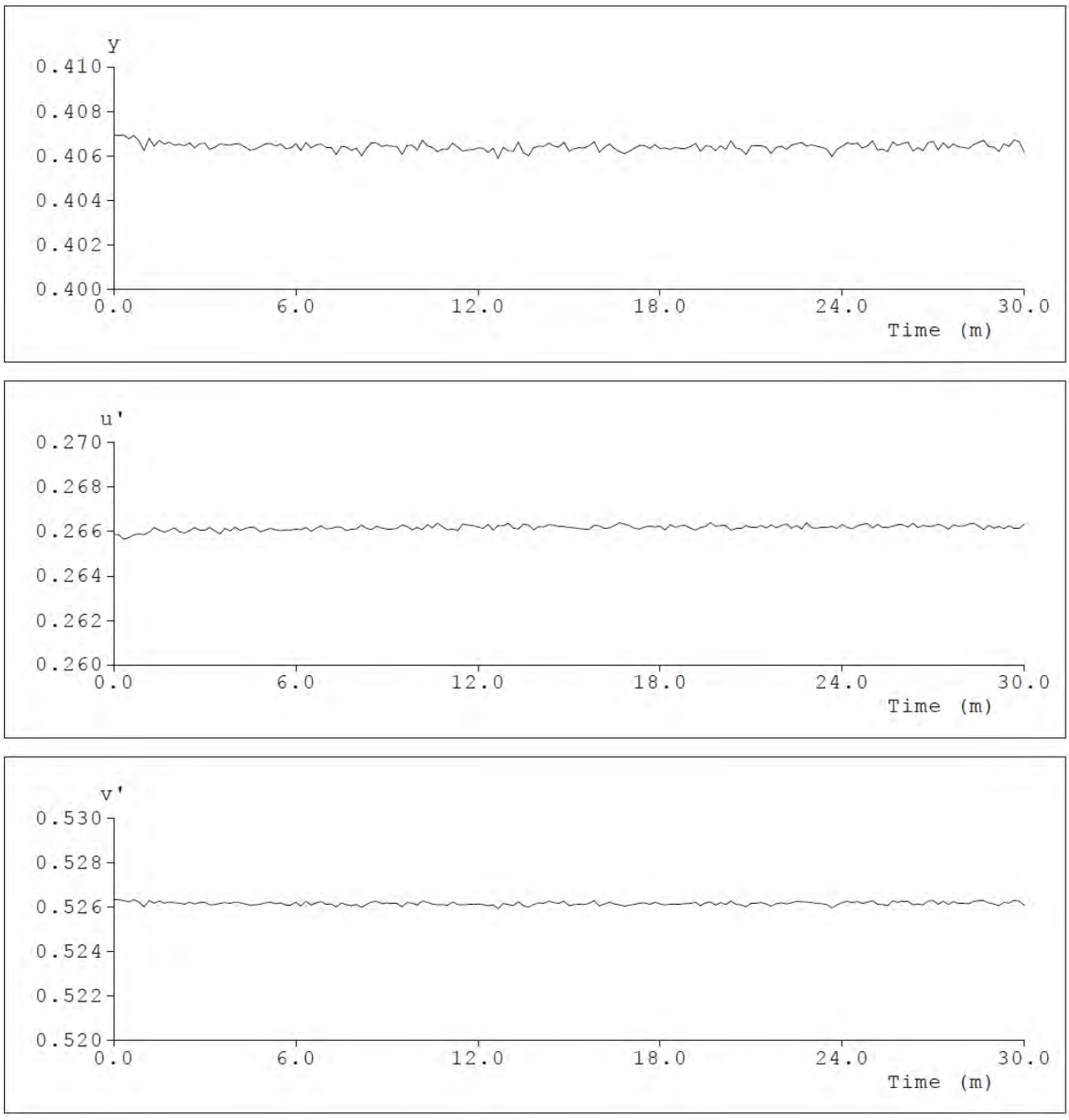
Test curves




Flux(lm)
500
480
460
440
420
400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

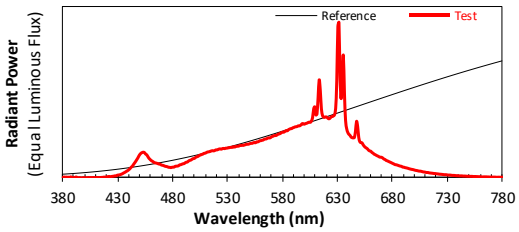

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

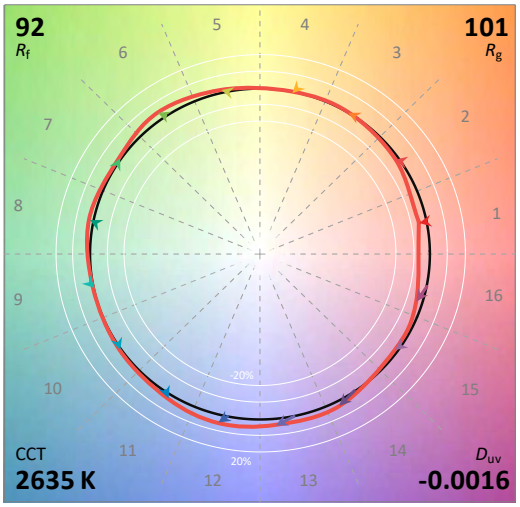
*9.2 ANSI/IES TM-30-18 Color Rendition Report

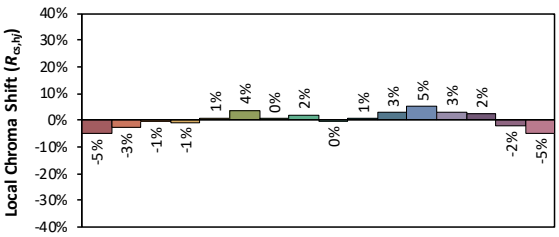
ANSI/IES TM-30-18 Color Rendition Report

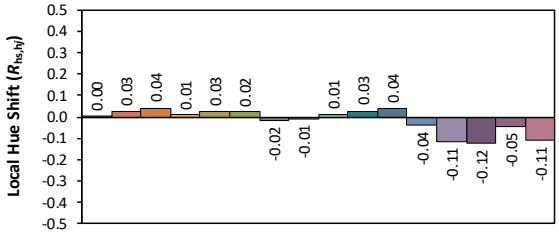
Source: Manufacturer:

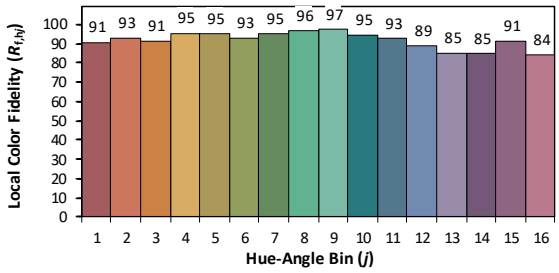
Date: 2023/10/19 Model: LSXY-1000-L27-DF-I-6

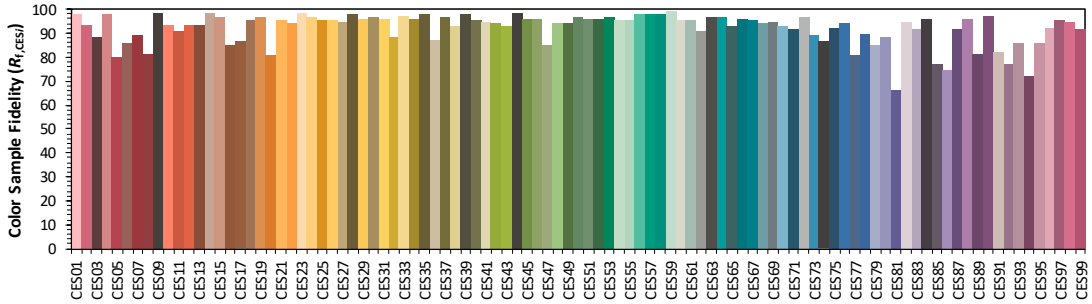












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

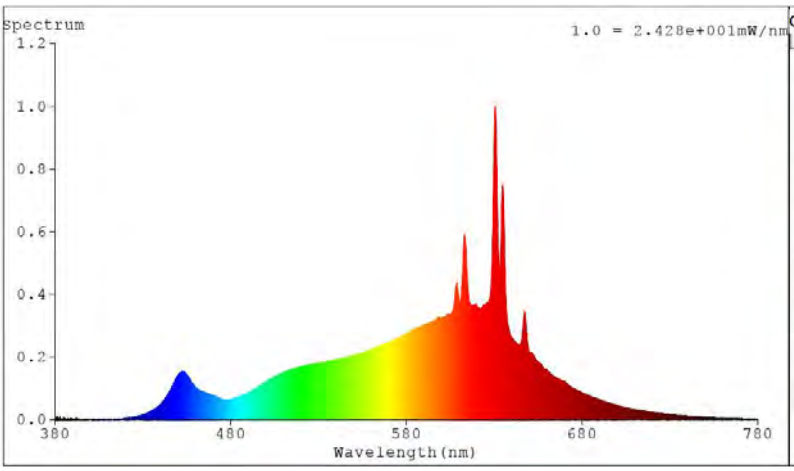
x	0.4623
y	0.4067
u'	0.2659
v'	0.5262

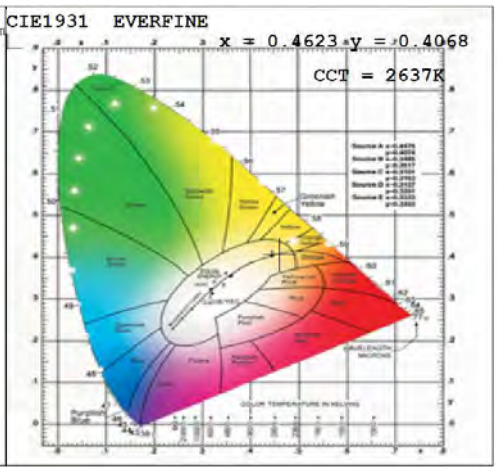
CIE 13.3-1995 (CRI)

R_a	94
R_9	59

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

9.3 Relative Spectral Power Distribution





nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0037	414	0.0026	448	0.1204	482	0.0698	516	0.1639
381	0.0058	415	0.0032	449	0.1332	483	0.0708	517	0.1627
382	0.0026	416	0.0036	450	0.1428	484	0.0715	518	0.1651
383	0.0058	417	0.0049	451	0.1493	485	0.0734	519	0.1688
384	0.0022	418	0.0049	452	0.1529	486	0.0784	520	0.1686
385	0.0054	419	0.0052	453	0.1547	487	0.0797	521	0.1713
386	0.0018	420	0.0068	454	0.1523	488	0.0824	522	0.174
387	0.0068	421	0.0082	455	0.1439	489	0.0851	523	0.1744
388	0.0021	422	0.0087	456	0.1394	490	0.0862	524	0.173
389	0.0028	423	0.0076	457	0.1295	491	0.0907	525	0.1765
390	0	424	0.0088	458	0.119	492	0.0943	526	0.1774
391	0.004	425	0.0098	459	0.1122	493	0.0956	527	0.1763
392	0.0055	426	0.0106	460	0.1054	494	0.1009	528	0.179
393	0.0021	427	0.0125	461	0.1013	495	0.1053	529	0.1792
394	0.0003	428	0.0122	462	0.0969	496	0.1069	530	0.1808
395	0.0021	429	0.0157	463	0.0922	497	0.111	531	0.1819
396	0.0003	430	0.0173	464	0.0905	498	0.1156	532	0.1835
397	0	431	0.0182	465	0.0887	499	0.1167	533	0.1839
398	0.0016	432	0.02	466	0.0868	500	0.1202	534	0.1843
399	0.002	433	0.0227	467	0.0838	501	0.1262	535	0.1883
400	0.0017	434	0.0256	468	0.0838	502	0.1278	536	0.1856
401	0.0012	435	0.0298	469	0.0793	503	0.1308	537	0.1886
402	0.0002	436	0.0331	470	0.0766	504	0.1359	538	0.1902
403	0.0028	437	0.0372	471	0.0753	505	0.1379	539	0.1907
404	0.0011	438	0.0413	472	0.0725	506	0.1412	540	0.192
405	0.0023	439	0.0455	473	0.0698	507	0.1429	541	0.1955
406	0.0019	440	0.0509	474	0.0688	508	0.1474	542	0.1953
407	0.0024	441	0.0575	475	0.0669	509	0.1486	543	0.1965
408	0.0026	442	0.0649	476	0.0641	510	0.1512	544	0.1959
409	0.0013	443	0.0709	477	0.0638	511	0.1551	545	0.1984
410	0.0031	444	0.0807	478	0.0623	512	0.1566	546	0.2001
411	0.0022	445	0.09	479	0.0641	513	0.1578	547	0.2027
412	0.0026	446	0.0994	480	0.065	514	0.1605	548	0.2024
413	0.0023	447	0.11	481	0.0656	515	0.1626	549	0.2038

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2064	599	0.3233	648	0.309	697	0.0518	746	0.0112
551	0.2081	600	0.3249	649	0.2437	698	0.0507	747	0.0106
552	0.2081	601	0.3278	650	0.2176	699	0.0491	748	0.0101
553	0.2114	602	0.3297	651	0.2125	700	0.0469	749	0.01
554	0.2129	603	0.3335	652	0.211	701	0.0453	750	0.0097
555	0.2113	604	0.3353	653	0.1995	702	0.0444	751	0.0094
556	0.2168	605	0.3346	654	0.1906	703	0.0426	752	0.0097
557	0.2169	606	0.343	655	0.184	704	0.0411	753	0.0088
558	0.2194	607	0.3634	656	0.1796	705	0.0409	754	0.0085
559	0.224	608	0.4151	657	0.1743	706	0.0395	755	0.0087
560	0.2242	609	0.4272	658	0.1666	707	0.0376	756	0.0083
561	0.2265	610	0.3786	659	0.1624	708	0.0361	757	0.008
562	0.2279	611	0.3849	660	0.1606	709	0.0354	758	0.0075
563	0.2324	612	0.4828	661	0.1531	710	0.0337	759	0.0075
564	0.2341	613	0.5901	662	0.1492	711	0.0327	760	0.0072
565	0.235	614	0.5269	663	0.143	712	0.0327	761	0.0063
566	0.2391	615	0.4169	664	0.14	713	0.0308	762	0.0063
567	0.2413	616	0.3761	665	0.1359	714	0.0298	763	0.0068
568	0.2405	617	0.3657	666	0.1327	715	0.029	764	0.0066
569	0.2438	618	0.3646	667	0.1295	716	0.0283	765	0.0067
570	0.2491	619	0.3672	668	0.1255	717	0.0272	766	0.0061
571	0.2507	620	0.3647	669	0.1248	718	0.0265	767	0.0061
572	0.2544	621	0.3585	670	0.1235	719	0.0261	768	0.0055
573	0.2549	622	0.3557	671	0.1189	720	0.0247	769	0.0053
574	0.256	623	0.3604	672	0.1133	721	0.0244	770	0.0052
575	0.2604	624	0.3682	673	0.1107	722	0.023	771	0.0054
576	0.2637	625	0.3694	674	0.1051	723	0.0225	772	0.005
577	0.2656	626	0.3732	675	0.103	724	0.022	773	0.0052
578	0.2689	627	0.3803	676	0.0996	725	0.0212	774	0.0044
579	0.274	628	0.4181	677	0.0966	726	0.0203	775	0.0042
580	0.275	629	0.584	678	0.0936	727	0.0195	776	0.0046
581	0.2757	630	0.9088	679	0.0903	728	0.0196	777	0.0045
582	0.2808	631	0.9334	680	0.087	729	0.019	778	0.0043
583	0.2846	632	0.6027	681	0.084	730	0.0177	779	0.0044
584	0.2832	633	0.4767	682	0.0803	731	0.0172	780	0.0044
585	0.2898	634	0.6285	683	0.0794	732	0.0174		
586	0.2934	635	0.7368	684	0.0775	733	0.0165		
587	0.2963	636	0.5078	685	0.0751	734	0.0154		
588	0.2968	637	0.3456	686	0.0727	735	0.0153		
589	0.3017	638	0.2969	687	0.0709	736	0.0151		
590	0.3036	639	0.2742	688	0.0695	737	0.0143		
591	0.3069	640	0.2629	689	0.0652	738	0.0137		
592	0.3079	641	0.2565	690	0.0648	739	0.0134		
593	0.3095	642	0.2463	691	0.0623	740	0.0129		
594	0.3134	643	0.2422	692	0.0609	741	0.0125		
595	0.3131	644	0.241	693	0.0594	742	0.0124		
596	0.3164	645	0.2429	694	0.0575	743	0.0124		
597	0.3229	646	0.2792	695	0.0551	744	0.0113		
598	0.3276	647	0.34	696	0.0535	745	0.0114		

10. Goniophotometer Test results for LSXY-1000-L27-DF-I-6

10.1 Test Data

Test Ambient Temperature	25.2℃	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

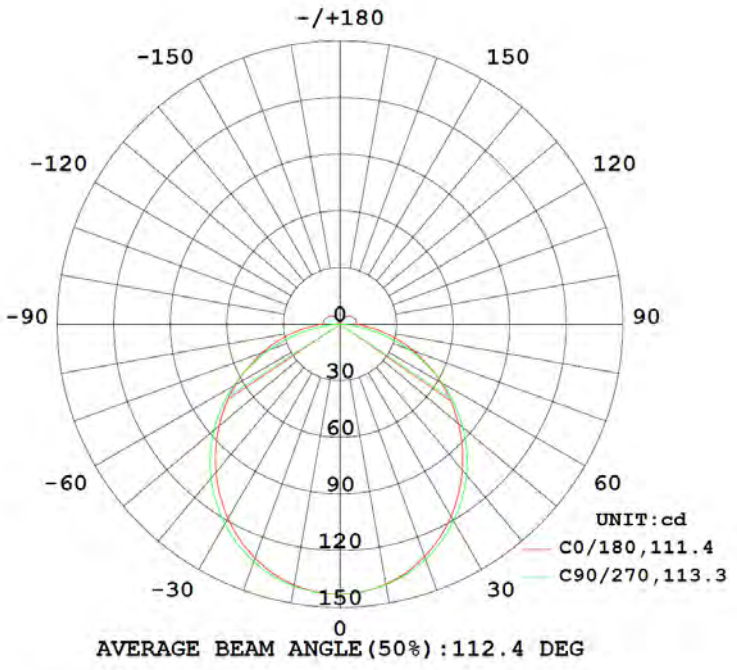
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.26228	1.0000	6.2952

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
443.365	70.43	143.1	5.9	94.1

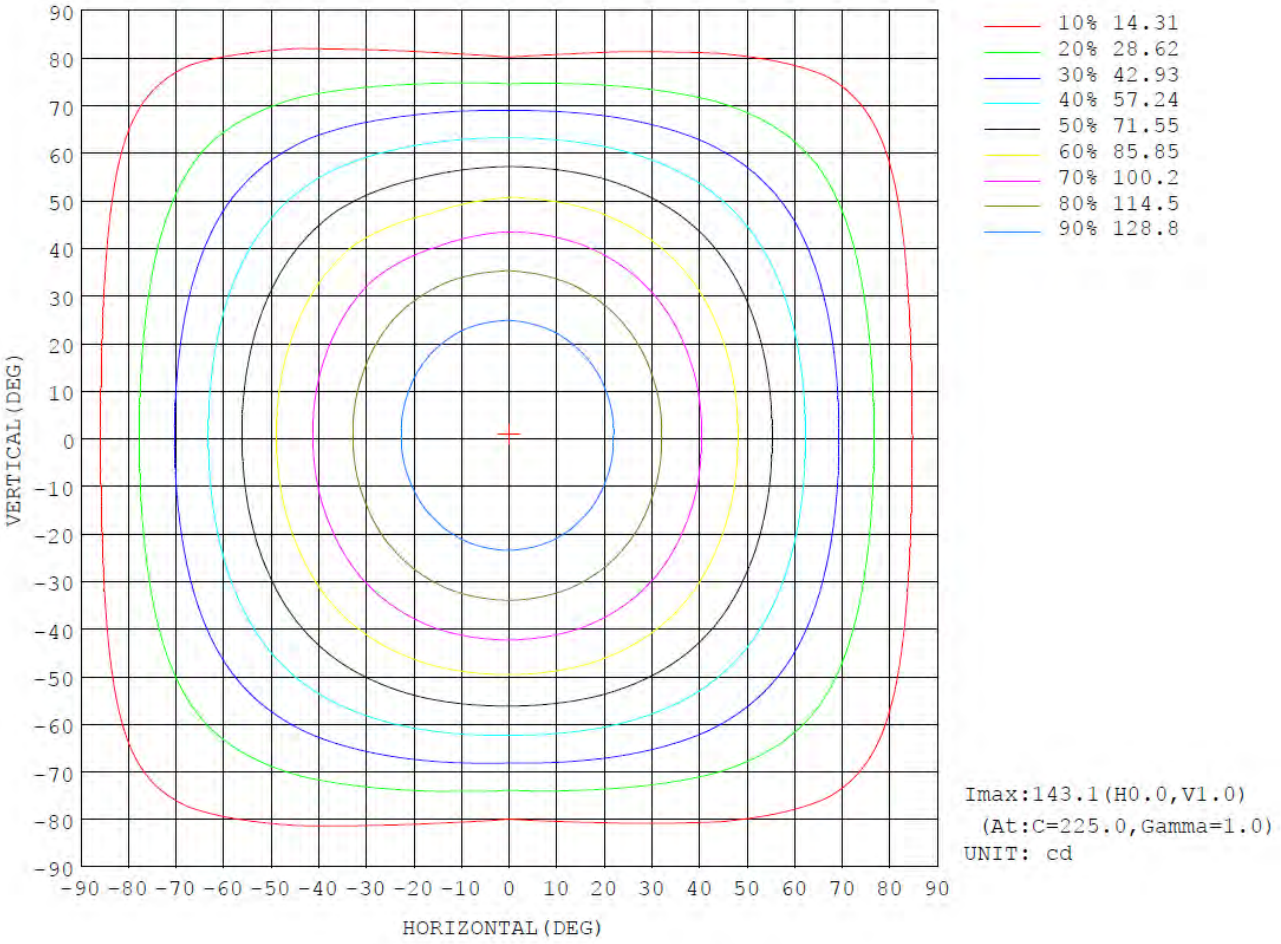
10.2 Luminous Intensity Distribution



10.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	139.8	139.9	140.2	140.2	140.3	140.7	140.9	140.4	0- 10	13.52	13.52	3.05,3.05
20	131.1	131.7	132.5	132.1	132.0	133.2	133.8	132.5	10- 20	38.63	52.16	11.8,11.8
30	117.7	119.0	120.4	119.5	118.9	121.1	122.2	120.0	20- 30	58.34	110.5	24.9,24.9
40	100.9	102.7	104.3	103.3	102.5	105.2	106.6	103.8	30- 40	70.16	180.7	40.7,40.7
50	81.99	83.73	84.94	84.43	83.77	86.49	87.31	84.83	40- 50	72.78	253.4	57.2,57.2
60	61.85	62.78	62.71	63.63	63.85	65.63	64.97	63.82	50- 60	66.40	319.8	72.1,72.1
70	41.54	40.89	38.35	41.94	43.65	43.64	40.24	41.83	60- 70	52.09	371.9	83.9,83.9
80	22.49	20.24	14.26	21.32	24.42	22.42	14.83	20.92	70- 80	32.43	404.4	91.2,91.2
90	9.261	6.502	0.5094	6.895	9.798	6.859	0.4325	6.832	80- 90	12.78	417.1	94.1,94.1
100	8.742	6.111	0.0574	6.423	8.974	6.288	0.0535	6.441	90-100	6.220	423.4	95.5,95.5
110	8.281	5.735	0.0674	5.913	8.473	5.873	0.0630	6.031	100-110	5.695	429.0	96.8,96.8
120	7.592	5.232	0.0969	5.339	7.694	5.300	0.0734	5.469	110-120	4.914	434.0	97.9,97.9
130	6.677	4.581	0.1239	4.331	6.755	4.493	0.0990	4.770	120-130	3.944	437.9	98.8,98.8
140	5.551	3.804	0.1404	3.463	5.423	3.694	0.1408	3.919	130-140	2.813	440.7	99.4,99.4
150	4.276	2.809	0.1343	1.794	4.081	2.747	0.1859	2.516	140-150	1.721	442.4	99.8,99.8
160	2.838	1.399	0.1591	0.2078	1.396	0.6245	0.2142	0.3910	150-160	0.7586	443.2	100,100
170	0.4717	0.2070	0.1987	0.2100	0.2531	0.2496	0.2251	0.2260	160-170	0.1454	443.3	100,100
180	0.2244	0.2292	0.2186	0.2295	0.2270	0.2370	0.2204	0.2221	170-180	0.0220	443.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

10.4 Isocandela Diagram



10.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143			
5	142	142	142	142	142	142	142	142	142	142	143	143	143	142	142	142			
10	140	140	140	140	140	140	140	140	140	140	141	141	141	141	140	140			
15	136	136	136	137	137	137	137	137	137	137	138	138	138	138	137	136			
20	131	131	132	132	132	132	132	132	132	132	133	134	134	133	132	132			
25	125	125	126	127	127	127	126	126	126	127	128	128	129	128	127	126			
30	118	118	119	120	120	120	119	119	119	120	121	122	122	121	120	118			
35	110	110	111	112	113	113	112	111	111	112	114	115	115	114	112	111			
40	101	101	103	104	104	104	103	102	102	103	105	106	107	106	104	102			
45	91.6	92.1	93.6	94.8	95.0	95.0	94.2	93.1	93.3	94.4	96.2	95.1	97.4	96.5	94.6	92.7			
50	82.0	82.4	83.7	84.8	84.9	85.1	84.4	83.5	83.8	84.8	86.5	84.7	87.3	86.6	84.8	83.0			
55	72.0	72.4	73.4	74.2	74.2	74.6	74.2	73.6	73.9	74.9	76.3	75.2	76.5	76.0	74.5	73.0			
60	61.8	62.1	62.8	63.0	62.7	63.5	63.6	63.4	63.8	64.6	65.6	65.0	65.0	64.8	63.8	62.7			
65	51.6	51.7	51.8	51.5	50.7	52.0	52.8	53.0	53.7	54.2	54.7	53.5	52.8	53.1	52.9	52.2			
70	41.5	41.4	40.9	39.6	38.3	40.3	41.9	42.8	43.6	43.9	43.6	41.6	40.2	41.2	41.8	41.9			
75	31.7	31.4	30.2	28.0	25.9	28.7	31.3	32.8	33.9	33.8	32.8	29.9	27.6	29.4	31.1	31.9			
80	22.5	21.9	20.2	17.1	14.3	17.8	21.3	23.4	24.4	24.2	22.4	18.7	14.8	18.2	20.9	22.3			
85	13.8	13.3	11.4	7.90	3.59	8.53	12.3	14.5	15.7	15.2	13.1	8.99	4.29	8.70	11.8	13.6			
90	9.26	8.51	6.50	3.37	0.51	3.65	6.90	8.97	9.80	9.07	6.86	3.32	0.43	3.68	6.83	8.73			
95	8.91	8.19	6.26	3.21	0.04	3.48	6.59	8.50	9.15	8.44	6.42	3.13	0.05	3.51	6.59	8.40			
100	8.74	8.03	6.11	3.08	0.06	3.27	6.42	8.32	8.97	8.28	6.29	3.03	0.05	3.39	6.44	8.24			
105	8.54	7.84	5.94	2.97	0.06	3.11	6.21	8.11	8.75	8.06	6.11	2.93	0.06	3.25	6.26	8.04			
110	8.28	7.60	5.74	2.85	0.07	2.89	5.91	7.82	8.47	7.79	5.87	2.80	0.06	3.09	6.03	7.78			
115	7.97	7.30	5.50	2.71	0.08	2.52	5.65	7.45	8.11	7.45	5.61	2.61	0.07	2.93	5.77	7.48			
120	7.59	6.96	5.23	2.58	0.10	2.27	5.34	7.08	7.69	7.07	5.30	2.44	0.07	2.77	5.47	7.11			
125	7.16	6.56	4.92	2.33	0.11	2.16	4.92	6.66	7.25	6.65	4.93	2.26	0.08	2.62	5.13	6.70			
130	6.68	6.11	4.58	2.22	0.12	1.78	4.33	6.18	6.76	6.18	4.49	1.92	0.10	2.19	4.77	6.24			
135	6.14	5.62	4.20	2.06	0.13	0.94	3.95	5.46	6.15	5.56	4.09	1.23	0.12	2.20	4.37	5.74			
140	5.55	5.08	3.80	1.76	0.14	0.39	3.46	4.90	5.42	5.03	3.69	0.64	0.14	1.77	3.92	5.18			
145	4.93	4.51	3.38	1.32	0.13	0.18	3.02	4.19	4.78	4.42	3.38	0.33	0.17	0.97	3.39	4.56			
150	4.28	3.92	2.81	0.92	0.13	0.16	1.79	3.65	4.08	3.90	2.75	0.24	0.19	0.37	2.52	3.89			
155	3.59	3.29	2.23	0.49	0.15	0.17	0.62	2.47	3.10	2.95	1.56	0.22	0.20	0.21	1.43	3.15			
160	2.84	2.52	1.40	0.19	0.16	0.18	0.21	0.80	1.40	1.34	0.62	0.23	0.21	0.21	0.39	1.78			
165	1.54	1.31	0.65	0.19	0.17	0.19	0.19	0.22	0.32	0.31	0.24	0.23	0.22	0.22	0.23	0.58			
170	0.47	0.37	0.21	0.20	0.20	0.20	0.21	0.21	0.25	0.25	0.25	0.24	0.23	0.23	0.23	0.24			
175	0.22	0.23	0.22	0.21	0.21	0.21	0.22	0.24	0.25	0.25	0.25	0.23	0.22	0.22	0.22	0.23			
180	0.22	0.24	0.23	0.22	0.22	0.22	0.23	0.24	0.23	0.23	0.24	0.23	0.22	0.22	0.22	0.23			

11. Integrating Sphere Test Results for LSXY-1000-L27-DF-I-10

11.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.1℃	Test orientation	Downward
Operate time(Min.)	30	stabilization time(Min.)	0

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.4003	23.998	9.6064	681.68	0.4621	0.4073	0.2655	0.5264	2643	94.1
1	00h00m10s	0.4007	23.998	9.616	681.54	0.462	0.4072	0.2654	0.5264	2644	94.2
2	00h00m20s	0.4009	23.998	9.6208	681.72	0.4621	0.407	0.2655	0.5263	2642	94.1
3	00h00m30s	0.4012	23.998	9.628	681.49	0.4622	0.4071	0.2656	0.5263	2640	94.1
4	00h00m40s	0.4014	23.998	9.6328	681.87	0.4622	0.407	0.2656	0.5263	2640	94.1
5	00h00m50s	0.4017	23.998	9.64	682.04	0.4621	0.4071	0.2656	0.5263	2641	94.2
6	00h01m00s	0.4019	23.998	9.6448	682.12	0.4622	0.407	0.2657	0.5263	2639	94.1
7	00h01m10s	0.4021	23.998	9.6496	682.37	0.4622	0.4069	0.2657	0.5263	2639	94.1
8	00h01m20s	0.4022	23.998	9.652	682.5	0.4621	0.4069	0.2656	0.5263	2640	94.2
9	00h01m30s	0.4024	23.998	9.6568	682.32	0.4621	0.4068	0.2656	0.5262	2640	94.1
10	00h01m40s	0.4026	23.998	9.6616	682.63	0.4621	0.4069	0.2656	0.5263	2640	94.1
11	00h01m50s	0.4027	23.998	9.664	683.03	0.4621	0.4069	0.2657	0.5263	2639	94.1
12	00h02m00s	0.4029	23.998	9.6688	682.54	0.4622	0.4067	0.2658	0.5262	2637	94.1
13	00h02m10s	0.403	23.998	9.6712	682.63	0.462	0.4066	0.2657	0.5261	2639	94.1
14	00h02m20s	0.4031	23.998	9.6736	682.5	0.4622	0.4066	0.2658	0.5262	2637	94.1
15	00h02m30s	0.4032	23.998	9.676	682.53	0.4622	0.4066	0.2658	0.5262	2637	94.1
16	00h02m40s	0.4033	23.998	9.6784	682.92	0.4622	0.4067	0.2658	0.5262	2637	94.1
17	00h02m50s	0.4035	23.998	9.6832	682.78	0.4623	0.4068	0.2658	0.5263	2637	94.1
18	00h03m00s	0.4036	23.998	9.6856	682.4	0.4622	0.4065	0.2659	0.5261	2636	94.1
19	00h03m10s	0.4036	23.998	9.6856	682.67	0.4622	0.4065	0.2659	0.5261	2635	94.1
20	00h03m20s	0.4037	23.998	9.688	683	0.4623	0.4065	0.2659	0.5261	2635	94.1
21	00h03m30s	0.4038	23.998	9.6904	682.77	0.4623	0.4064	0.266	0.5261	2634	94

22	00h03m40s	0.4039	23.998	9.6928	682.39	0.462	0.4064	0.2658	0.5261	2638	94.1
23	00h03m50s	0.404	23.998	9.6952	682.88	0.4624	0.4066	0.266	0.5262	2634	94.1
24	00h04m00s	0.404	23.998	9.6952	683.03	0.4622	0.4067	0.2658	0.5262	2637	94.1
25	00h04m10s	0.4041	23.998	9.6976	682.76	0.4621	0.4065	0.2658	0.5261	2637	94.1
26	00h04m20s	0.4042	23.998	9.7	682.82	0.4621	0.4063	0.2659	0.526	2636	94.1
27	00h04m30s	0.4042	23.998	9.7	682.82	0.4623	0.4066	0.2659	0.5262	2635	94.1
28	00h04m40s	0.4043	23.998	9.7024	682.99	0.4622	0.4065	0.2659	0.5261	2636	94.2
29	00h04m50s	0.4044	23.998	9.7048	683.01	0.4623	0.4066	0.2659	0.5262	2635	94.2
30	00h05m00s	0.4044	23.998	9.7048	683.13	0.4621	0.4063	0.2659	0.5261	2635	94.1
31	00h05m10s	0.4045	23.998	9.7072	683.11	0.4623	0.4064	0.266	0.5261	2634	94.1
32	00h05m20s	0.4045	23.998	9.7072	682.94	0.4621	0.4064	0.2659	0.5261	2636	94.1
33	00h05m30s	0.4046	23.998	9.7096	683.19	0.4622	0.4064	0.2659	0.5261	2635	94.1
34	00h05m40s	0.4046	23.998	9.7096	683.35	0.4621	0.4064	0.2659	0.5261	2636	94.1
35	00h05m50s	0.4046	23.998	9.7096	682.91	0.4622	0.4063	0.2659	0.5261	2635	94.1
36	00h06m00s	0.4047	23.998	9.712	682.75	0.4624	0.4064	0.2661	0.5261	2632	94.1
37	00h06m10s	0.4047	23.998	9.712	682.88	0.4623	0.4064	0.266	0.5261	2634	94.1
38	00h06m20s	0.4048	23.998	9.7144	682.93	0.4624	0.4065	0.266	0.5261	2633	94.1
39	00h06m30s	0.4048	23.998	9.7144	682.87	0.4621	0.4063	0.2659	0.5261	2635	94.1
40	00h06m40s	0.4048	23.998	9.7144	683.36	0.4623	0.4064	0.266	0.5261	2634	94.1
41	00h06m50s	0.4049	23.998	9.7168	683.16	0.4621	0.4063	0.2659	0.5261	2635	94.1
42	00h07m00s	0.4049	23.998	9.7168	682.87	0.4624	0.4062	0.2661	0.5261	2632	94.1
43	00h07m10s	0.4049	23.998	9.7168	683.25	0.4623	0.4064	0.266	0.5261	2634	94.1
44	00h07m20s	0.405	23.998	9.7192	683.23	0.4623	0.4064	0.266	0.5261	2634	94.1
45	00h07m30s	0.405	23.998	9.7192	683.17	0.4622	0.4063	0.266	0.5261	2634	94.1
46	00h07m40s	0.405	23.998	9.7192	683.07	0.4623	0.4063	0.266	0.5261	2633	94.1
47	00h07m50s	0.405	23.998	9.7192	683.12	0.4623	0.4062	0.266	0.526	2633	94.1
48	00h08m00s	0.4051	23.998	9.7216	683	0.4622	0.4064	0.2659	0.5261	2636	94.1
49	00h08m10s	0.4051	23.998	9.7216	683.2	0.4621	0.4063	0.2659	0.526	2635	94.1
50	00h08m20s	0.4051	23.998	9.7216	683.06	0.4621	0.4062	0.266	0.526	2635	94.1
51	00h08m30s	0.4051	23.998	9.7216	683.14	0.4622	0.4063	0.266	0.526	2635	94.1
52	00h08m40s	0.4051	23.998	9.7216	683.25	0.4621	0.4062	0.266	0.526	2634	94.1

53	00h08m50s	0.4052	23.998	9.724	683.16	0.4624	0.4063	0.2661	0.5261	2632	94.1
54	00h09m00s	0.4052	23.998	9.724	683.55	0.462	0.406	0.2659	0.5259	2635	94.1
55	00h09m10s	0.4052	23.998	9.724	683.24	0.4622	0.4062	0.266	0.526	2634	94.1
56	00h09m20s	0.4052	23.998	9.724	683.24	0.4623	0.4063	0.2661	0.5261	2632	94.1
57	00h09m30s	0.4052	23.998	9.724	683.33	0.4622	0.4062	0.266	0.526	2633	94.1
58	00h09m40s	0.4053	23.998	9.7264	683.12	0.4622	0.4062	0.266	0.526	2634	94.1
59	00h09m50s	0.4053	23.998	9.7264	683.13	0.4623	0.4063	0.266	0.5261	2633	94.1
60	00h10m00s	0.4053	23.998	9.7264	682.95	0.4622	0.4061	0.2661	0.526	2632	94.1
61	00h10m10s	0.4053	23.998	9.7264	683.17	0.4623	0.4062	0.2661	0.526	2632	94.1
62	00h10m20s	0.4053	23.998	9.7264	682.62	0.4622	0.406	0.2661	0.5259	2632	94.1
63	00h10m30s	0.4053	23.998	9.7264	683.21	0.4623	0.4063	0.266	0.5261	2634	94.1
64	00h10m40s	0.4053	23.998	9.7264	682.91	0.4623	0.4062	0.266	0.526	2633	94.1
65	00h10m50s	0.4054	23.998	9.7288	683.32	0.4624	0.4063	0.2661	0.5261	2632	94.1
66	00h11m00s	0.4054	23.998	9.7288	683.42	0.4622	0.4062	0.2661	0.526	2633	94.1
67	00h11m10s	0.4054	23.998	9.7288	683.41	0.4622	0.4062	0.266	0.526	2634	94.1
68	00h11m20s	0.4054	23.998	9.7288	683.43	0.4623	0.4063	0.266	0.526	2633	94.1
69	00h11m30s	0.4054	23.998	9.7288	683.15	0.4623	0.4061	0.2661	0.526	2631	94.1
70	00h11m40s	0.4054	23.998	9.7288	683.12	0.4622	0.4061	0.266	0.526	2633	94.1
71	00h11m50s	0.4054	23.998	9.7288	683.29	0.4623	0.4064	0.266	0.5261	2633	94.1
72	00h12m00s	0.4054	23.998	9.7288	683.16	0.4622	0.4061	0.2661	0.526	2632	94.1
73	00h12m10s	0.4054	23.998	9.7288	683.09	0.4622	0.4063	0.266	0.526	2634	94.1
74	00h12m20s	0.4054	23.998	9.7288	683.39	0.4622	0.4062	0.266	0.526	2633	94.1
75	00h12m30s	0.4055	23.998	9.7312	683.03	0.4622	0.4062	0.266	0.526	2634	94.1
76	00h12m40s	0.4055	23.998	9.7312	683.36	0.4622	0.4062	0.266	0.526	2634	94.1
77	00h12m50s	0.4055	23.998	9.7312	683.44	0.4622	0.4062	0.266	0.526	2634	94.1
78	00h13m00s	0.4055	23.998	9.7312	683.28	0.4623	0.4063	0.2661	0.5261	2632	94.1
79	00h13m10s	0.4055	23.998	9.7312	683.5	0.4622	0.4062	0.266	0.526	2633	94.1
80	00h13m20s	0.4055	23.998	9.7312	683.06	0.4623	0.4061	0.2661	0.526	2632	94.1
81	00h13m30s	0.4055	23.998	9.7312	682.95	0.4624	0.4064	0.2661	0.5261	2632	94.1
82	00h13m40s	0.4055	23.998	9.7312	683.12	0.4622	0.406	0.2661	0.5259	2632	94.1
83	00h13m50s	0.4055	23.998	9.7312	683.12	0.4624	0.4062	0.2661	0.5261	2631	94.1

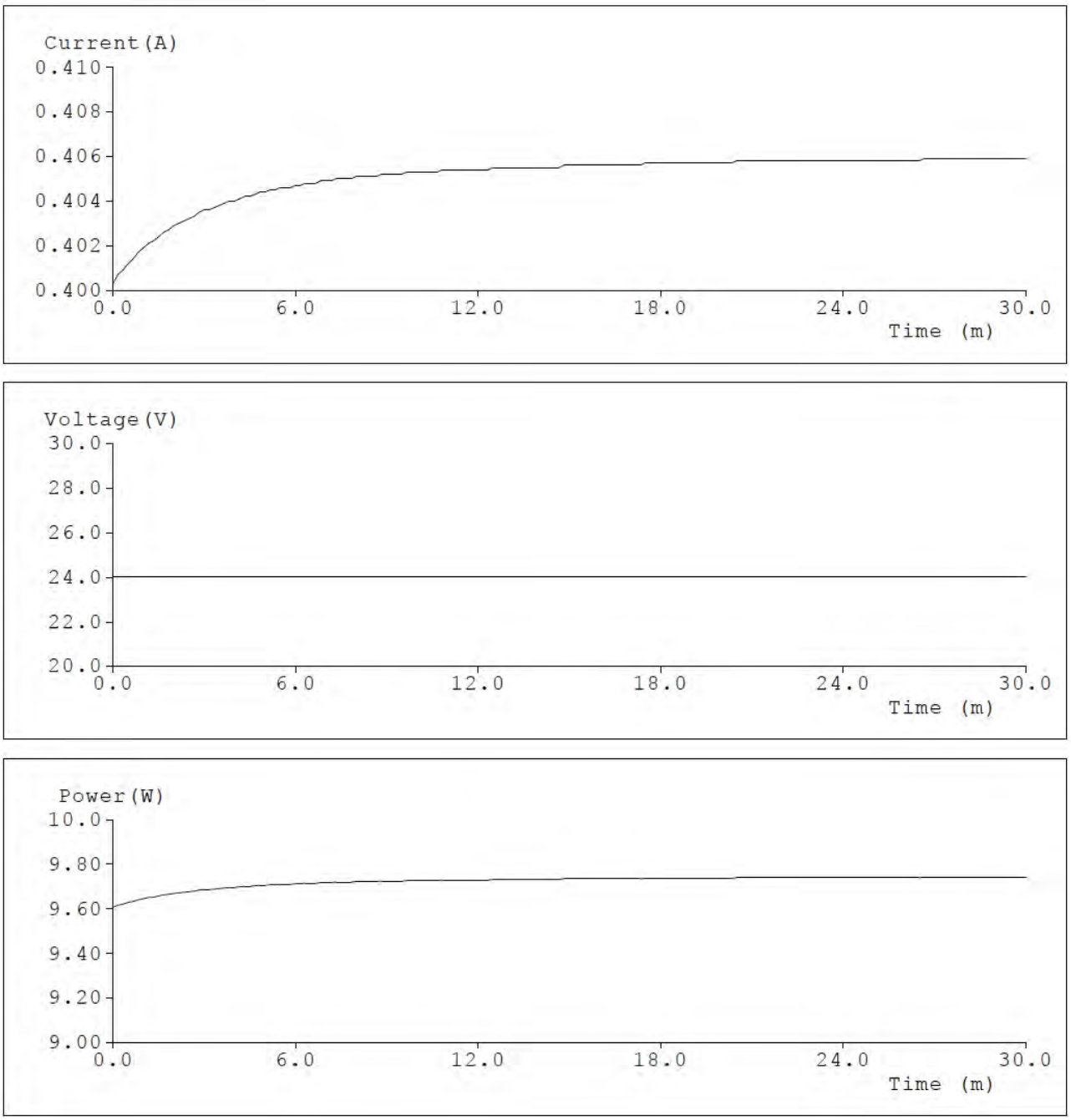
84	00h14m00s	0.4055	23.998	9.7312	683.38	0.4623	0.4061	0.2661	0.526	2631	94.1
85	00h14m10s	0.4055	23.998	9.7312	683.11	0.4622	0.4061	0.2661	0.526	2632	94.1
86	00h14m20s	0.4055	23.998	9.7312	683.35	0.4623	0.4062	0.2661	0.526	2632	94.1
87	00h14m30s	0.4055	23.998	9.7312	683.11	0.4623	0.4061	0.2661	0.526	2632	94.1
88	00h14m40s	0.4055	23.998	9.7312	683.13	0.4622	0.4061	0.2661	0.526	2633	94.1
89	00h14m50s	0.4056	23.998	9.7336	683.13	0.4623	0.4061	0.2661	0.526	2632	94.1
90	00h15m00s	0.4056	23.998	9.7336	683.35	0.4623	0.4061	0.2661	0.526	2631	94
91	00h15m10s	0.4056	23.998	9.7336	683.19	0.4622	0.4061	0.2661	0.526	2632	94.1
92	00h15m20s	0.4056	23.998	9.7336	682.98	0.4624	0.4063	0.2661	0.5261	2632	94.1
93	00h15m30s	0.4056	23.998	9.7336	683.44	0.4623	0.4062	0.2661	0.526	2632	94.1
94	00h15m40s	0.4056	23.998	9.7336	682.91	0.4625	0.4062	0.2662	0.5261	2630	94.1
95	00h15m50s	0.4056	23.998	9.7336	683.41	0.4622	0.4062	0.266	0.526	2634	94.1
96	00h16m00s	0.4056	23.998	9.7336	683.26	0.4622	0.406	0.2661	0.5259	2632	94
97	00h16m10s	0.4056	23.998	9.7336	682.88	0.4624	0.4063	0.2661	0.5261	2632	94.1
98	00h16m20s	0.4056	23.998	9.7336	683.19	0.4622	0.4061	0.2661	0.526	2633	94.1
99	00h16m30s	0.4056	23.998	9.7336	683.33	0.4622	0.4061	0.2661	0.526	2633	94
100	00h16m40s	0.4056	23.998	9.7336	683.3	0.462	0.406	0.266	0.5259	2635	94.1
101	00h16m50s	0.4056	23.998	9.7336	683.49	0.4623	0.4061	0.2661	0.526	2632	94.1
102	00h17m00s	0.4056	23.998	9.7336	683.24	0.4622	0.4061	0.266	0.526	2633	94.1
103	00h17m10s	0.4056	23.998	9.7336	683.46	0.4624	0.4063	0.2661	0.5261	2632	94.1
104	00h17m20s	0.4056	23.998	9.7336	683.29	0.4622	0.4061	0.2661	0.526	2632	94.1
105	00h17m30s	0.4057	23.998	9.736	683.23	0.4622	0.4063	0.266	0.526	2634	94.1
106	00h17m40s	0.4057	23.998	9.736	682.39	0.4622	0.406	0.2661	0.5259	2632	94.1
107	00h17m50s	0.4057	23.998	9.736	683.31	0.4622	0.406	0.2661	0.5259	2633	94.1
108	00h18m00s	0.4057	23.998	9.736	682.72	0.4624	0.406	0.2662	0.526	2630	94
109	00h18m10s	0.4057	23.998	9.736	683.32	0.4622	0.4061	0.266	0.526	2633	94.1
110	00h18m20s	0.4057	23.998	9.736	683.32	0.4622	0.4062	0.266	0.526	2634	94.1
111	00h18m30s	0.4057	23.998	9.736	683.24	0.4624	0.4061	0.2662	0.526	2631	94.1
112	00h18m40s	0.4057	23.998	9.736	683.12	0.4622	0.4061	0.266	0.526	2633	94.1
113	00h18m50s	0.4057	23.998	9.736	683.14	0.4622	0.4061	0.2661	0.526	2633	94.1
114	00h19m00s	0.4057	23.998	9.736	683.46	0.4622	0.4062	0.266	0.526	2633	94.1

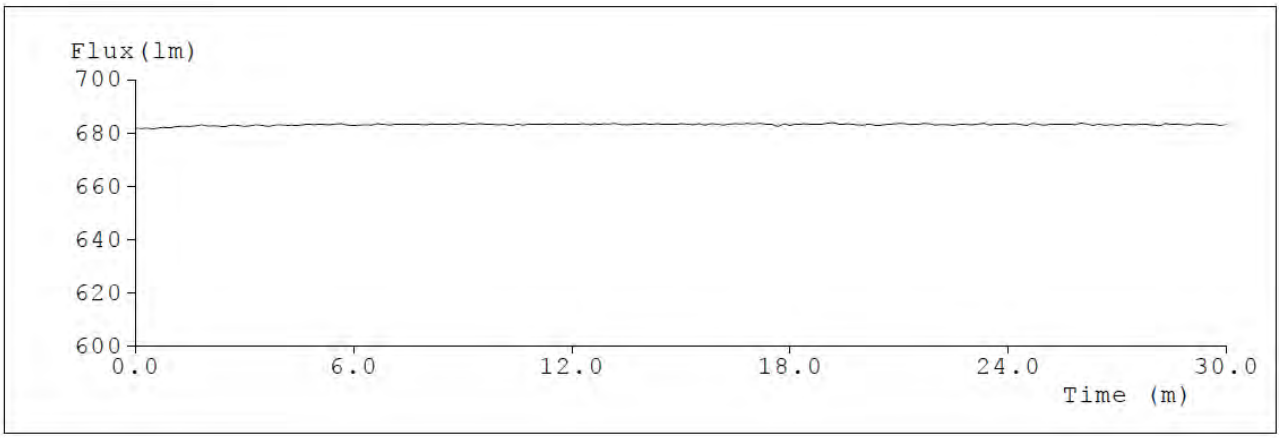
115	00h19m10s	0.4057	23.998	9.736	683.8	0.4623	0.4062	0.2661	0.526	2632	94.1
116	00h19m20s	0.4057	23.998	9.736	683.37	0.4622	0.406	0.2661	0.526	2632	94.1
117	00h19m30s	0.4057	23.998	9.736	683.41	0.4622	0.406	0.2661	0.526	2632	94.1
118	00h19m40s	0.4057	23.998	9.736	683.2	0.4623	0.4063	0.2661	0.5261	2632	94.1
119	00h19m50s	0.4057	23.998	9.736	682.98	0.4622	0.4061	0.2661	0.526	2632	94.1
120	00h20m00s	0.4057	23.998	9.736	682.85	0.4623	0.4061	0.2661	0.526	2632	94.1
121	00h20m10s	0.4057	23.998	9.736	683.21	0.4623	0.406	0.2661	0.526	2631	94.1
122	00h20m20s	0.4057	23.998	9.736	682.85	0.4623	0.4061	0.2661	0.526	2632	94.1
123	00h20m30s	0.4058	23.998	9.7384	682.84	0.4622	0.4061	0.2661	0.526	2632	94.1
124	00h20m40s	0.4058	23.998	9.7384	683.16	0.4624	0.4062	0.2661	0.5261	2631	94.1
125	00h20m50s	0.4058	23.998	9.7384	683.28	0.4624	0.4061	0.2662	0.526	2631	94.1
126	00h21m00s	0.4058	23.998	9.7384	683.54	0.4623	0.4062	0.2661	0.526	2632	94.1
127	00h21m10s	0.4058	23.998	9.7384	683.32	0.4622	0.4061	0.2661	0.526	2632	94.1
128	00h21m20s	0.4058	23.998	9.7384	682.94	0.4624	0.4062	0.2662	0.526	2630	94.1
129	00h21m30s	0.4058	23.998	9.7384	682.96	0.4623	0.406	0.2662	0.526	2631	94.1
130	00h21m40s	0.4058	23.998	9.7384	683.5	0.4624	0.4062	0.2661	0.5261	2631	94.1
131	00h21m50s	0.4058	23.998	9.7384	683.38	0.4622	0.4062	0.266	0.526	2633	94.1
132	00h22m00s	0.4058	23.998	9.7384	682.82	0.4621	0.406	0.2661	0.5259	2632	94.1
133	00h22m10s	0.4058	23.998	9.7384	683.17	0.4623	0.4061	0.2661	0.526	2631	94
134	00h22m20s	0.4058	23.998	9.7384	682.98	0.4624	0.4061	0.2662	0.526	2631	94.1
135	00h22m30s	0.4058	23.998	9.7384	682.71	0.4622	0.406	0.2661	0.5259	2631	94.1
136	00h22m40s	0.4058	23.998	9.7384	683.19	0.4623	0.4061	0.2661	0.526	2632	94.1
137	00h22m50s	0.4058	23.998	9.7384	683.07	0.4622	0.406	0.2661	0.5259	2632	94.1
138	00h23m00s	0.4058	23.998	9.7384	682.93	0.4623	0.4059	0.2662	0.5259	2630	94.1
139	00h23m10s	0.4058	23.998	9.7384	683.26	0.4624	0.406	0.2662	0.526	2630	94
140	00h23m20s	0.4058	23.998	9.7384	683.56	0.4624	0.4061	0.2662	0.526	2630	94
141	00h23m30s	0.4058	23.998	9.7384	682.83	0.4624	0.4061	0.2662	0.526	2630	94.1
142	00h23m40s	0.4058	23.998	9.7384	683.24	0.4622	0.4059	0.2661	0.5259	2632	94
143	00h23m50s	0.4058	23.998	9.7384	683.25	0.4624	0.4061	0.2661	0.526	2631	94.1
144	00h24m00s	0.4058	23.998	9.7384	683.24	0.4621	0.4061	0.266	0.5259	2634	94.1
145	00h24m10s	0.4058	23.998	9.7384	683.42	0.4622	0.406	0.2661	0.5259	2631	94.1

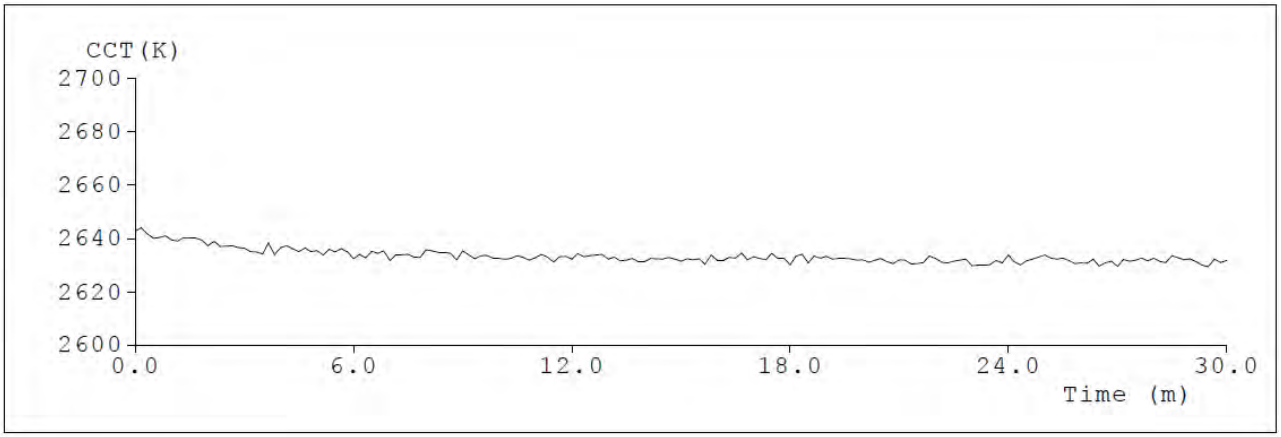
146	00h24m20s	0.4058	23.998	9.7384	683.17	0.4624	0.4061	0.2662	0.526	2630	94
147	00h24m30s	0.4058	23.998	9.7384	682.68	0.4623	0.4061	0.2661	0.526	2632	94.1
148	00h24m40s	0.4058	23.998	9.7384	683.49	0.4623	0.4062	0.2661	0.526	2632	94.1
149	00h24m50s	0.4058	23.998	9.7384	683.17	0.4623	0.4063	0.266	0.526	2633	94.1
150	00h25m00s	0.4058	23.998	9.7384	682.88	0.4621	0.4061	0.266	0.526	2634	94.1
151	00h25m10s	0.4058	23.998	9.7384	683.28	0.4622	0.4062	0.2661	0.526	2633	94.1
152	00h25m20s	0.4058	23.998	9.7384	683.13	0.4623	0.4061	0.2661	0.526	2632	94.1
153	00h25m30s	0.4058	23.998	9.7384	683.28	0.4623	0.4062	0.2661	0.526	2633	94.1
154	00h25m40s	0.4058	23.998	9.7384	683.28	0.4622	0.4059	0.2661	0.5259	2632	94.1
155	00h25m50s	0.4058	23.998	9.7384	683.02	0.4623	0.406	0.2662	0.526	2631	94.1
156	00h26m00s	0.4058	23.998	9.7384	683.66	0.4624	0.4062	0.2662	0.526	2631	94
157	00h26m10s	0.4058	23.998	9.7384	683.21	0.4624	0.4061	0.2662	0.526	2631	94.1
158	00h26m20s	0.4058	23.998	9.7384	682.79	0.4622	0.4061	0.2661	0.526	2632	94.1
159	00h26m30s	0.4058	23.998	9.7384	683.31	0.4624	0.4061	0.2662	0.526	2630	94
160	00h26m40s	0.4059	23.998	9.7408	682.75	0.4623	0.406	0.2662	0.5259	2631	94.1
161	00h26m50s	0.4059	23.998	9.7408	683.07	0.4624	0.4062	0.2661	0.5261	2631	94.1
162	00h27m00s	0.4059	23.998	9.7408	682.69	0.4623	0.4058	0.2662	0.5259	2630	94.1
163	00h27m10s	0.4059	23.998	9.7408	683.09	0.4623	0.4062	0.2661	0.526	2632	94.1
164	00h27m20s	0.4059	23.998	9.7408	683.12	0.4624	0.4062	0.2661	0.526	2631	94.1
165	00h27m30s	0.4059	23.998	9.7408	683.01	0.4623	0.4061	0.2661	0.526	2632	94.1
166	00h27m40s	0.4059	23.998	9.7408	683.23	0.4623	0.4062	0.2661	0.526	2633	94.1
167	00h27m50s	0.4059	23.998	9.7408	683.1	0.4622	0.4059	0.2661	0.5259	2632	94.1
168	00h28m00s	0.4059	23.998	9.7408	682.86	0.4621	0.406	0.2661	0.5259	2633	94.1
169	00h28m10s	0.4059	23.998	9.7408	682.58	0.4622	0.4059	0.2661	0.5259	2631	94.1
170	00h28m20s	0.4059	23.998	9.7408	683.49	0.4623	0.406	0.2662	0.5259	2631	94.1
171	00h28m30s	0.4059	23.998	9.7408	683.1	0.4621	0.406	0.266	0.5259	2634	94.1
172	00h28m40s	0.4059	23.998	9.7408	683.23	0.4622	0.4061	0.2661	0.526	2633	94.1
173	00h28m50s	0.4059	23.998	9.7408	683.05	0.4622	0.4059	0.2661	0.5259	2632	94.1
174	00h29m00s	0.4059	23.998	9.7408	682.91	0.4622	0.4061	0.2661	0.526	2632	94.1
175	00h29m10s	0.4059	23.998	9.7408	683.44	0.4623	0.406	0.2661	0.526	2631	94.1
176	00h29m20s	0.4059	23.998	9.7408	683.31	0.4624	0.4061	0.2662	0.526	2630	94.1

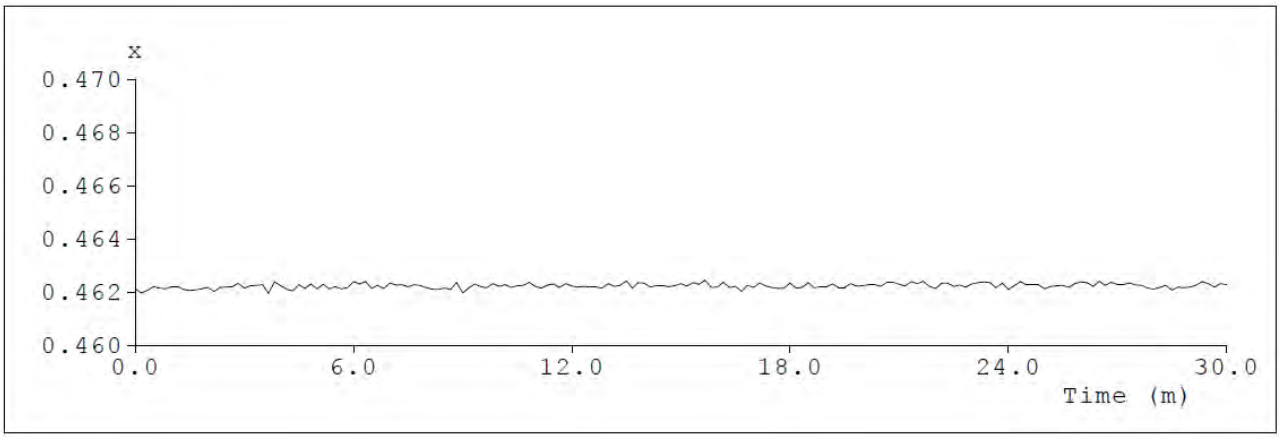
177	00h29m30s	0.4059	23.998	9.7408	683.17	0.4623	0.4059	0.2662	0.5259	2629	94.1
178	00h29m40s	0.4059	23.998	9.7408	683.09	0.4622	0.406	0.2661	0.5259	2632	94.1
179	00h29m50s	0.4059	23.998	9.7408	682.7	0.4623	0.4061	0.2661	0.526	2631	94.1
180	00h30m00s	0.4059	23.998	9.7408	683.07	0.4623	0.4061	0.2661	0.526	2632	94.1

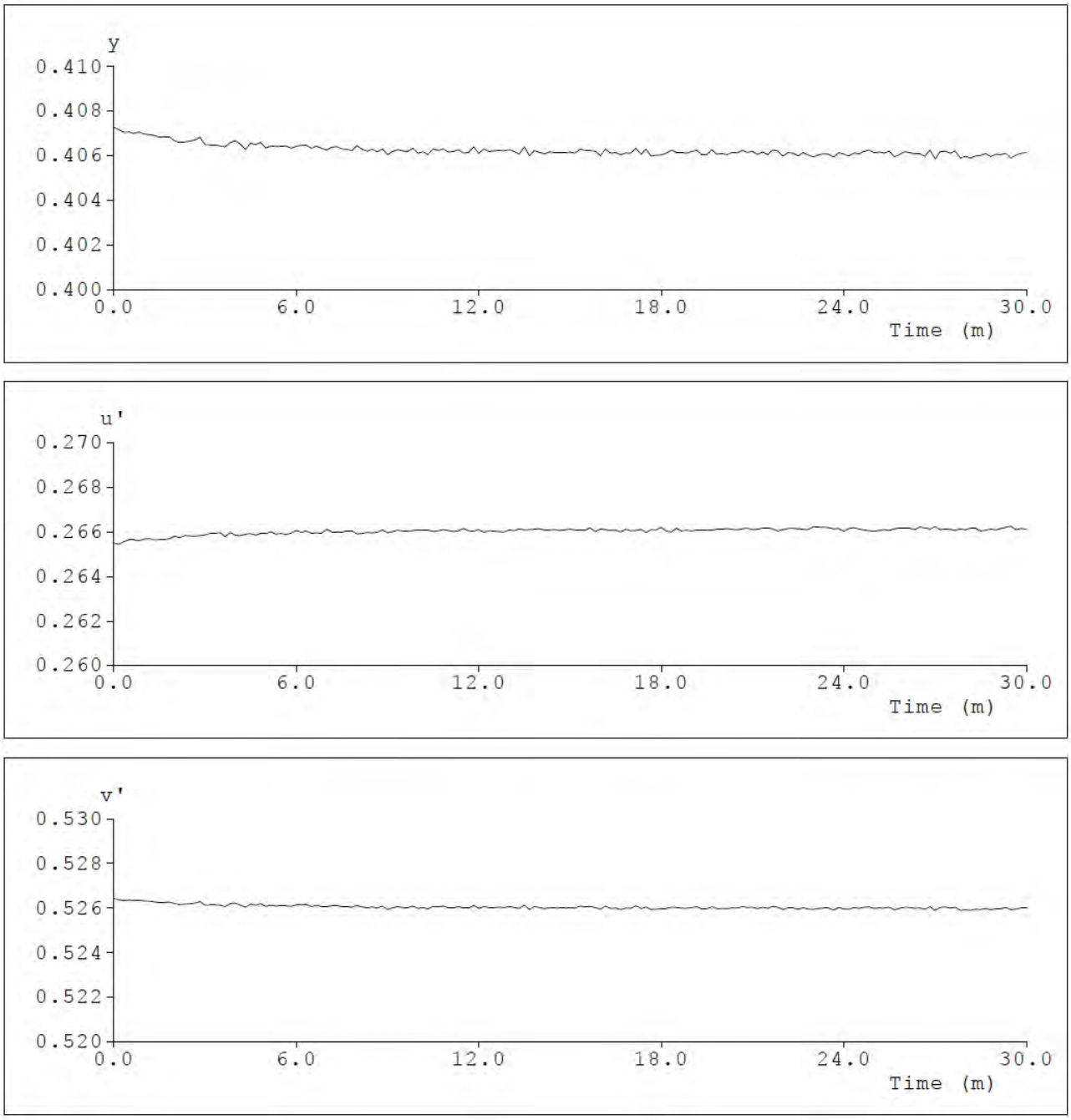
Test curves




Flux(lm)
700
680
660
640
620
600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

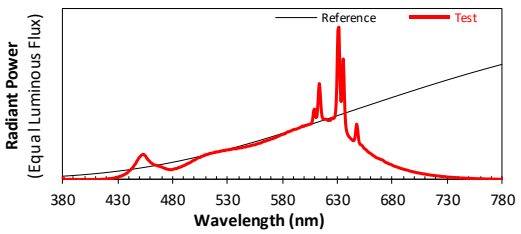

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

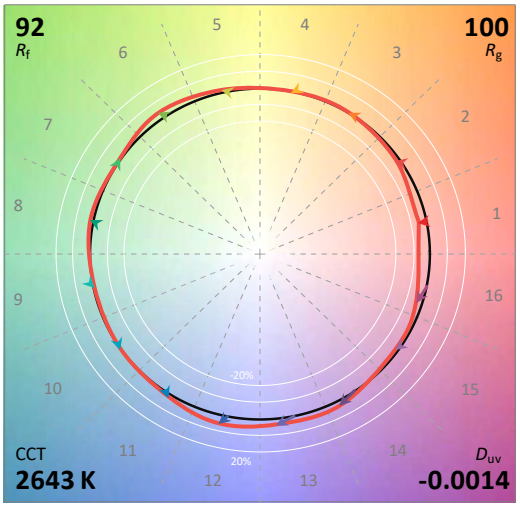
*11.2 ANSI/IES TM-30-18 Color Rendition Report

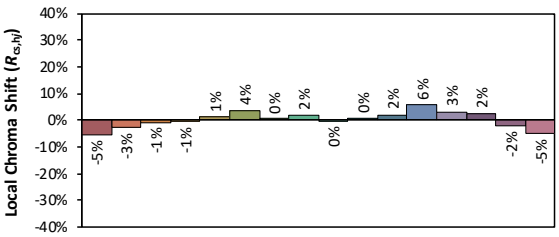
ANSI/IES TM-30-18 Color Rendition Report

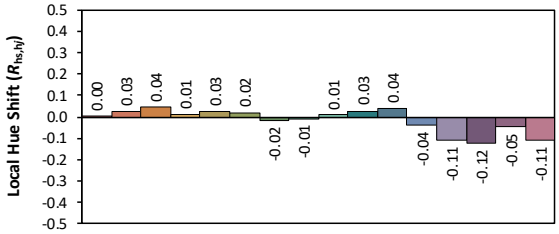
Source: Manufacturer:

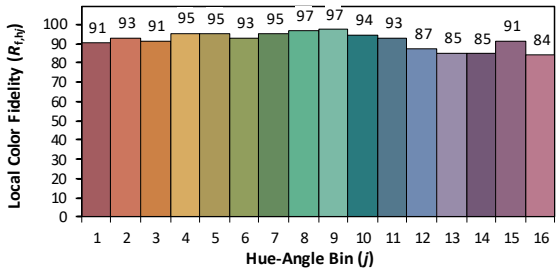
Date: 2023/10/19 Model: LSXY-1000-L27-DF-I-10

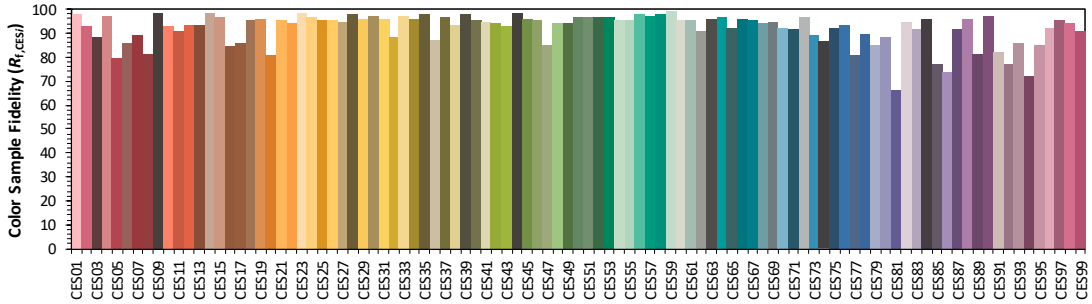












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

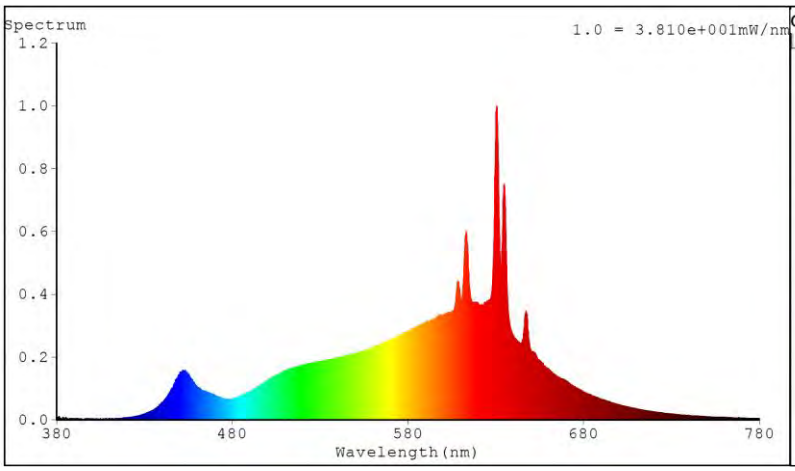
x	0.4621
y	0.4072
u'	0.2655
v'	0.5264

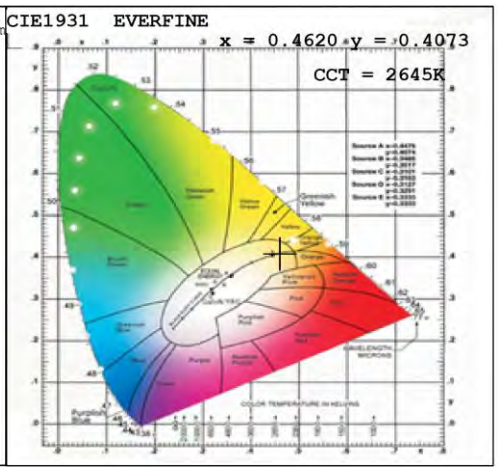
CIE 13.3-1995 (CRI)

R_a	94
R_9	58

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

11.3 Relative Spectral Power Distribution





nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0132	414	0.003	448	0.1243	482	0.0697	516	0.1664
381	0.0072	415	0.005	449	0.1368	483	0.07	517	0.1683
382	0.0025	416	0.0038	450	0.1435	484	0.072	518	0.1687
383	0	417	0.0047	451	0.1511	485	0.0767	519	0.1735
384	0.0019	418	0.0053	452	0.1548	486	0.0773	520	0.1717
385	0.0033	419	0.0052	453	0.1581	487	0.0798	521	0.1735
386	0.0046	420	0.0061	454	0.153	488	0.0831	522	0.1743
387	0.0034	421	0.0073	455	0.1468	489	0.0866	523	0.1784
388	0.0023	422	0.0088	456	0.1361	490	0.0889	524	0.1772
389	0.0018	423	0.0077	457	0.126	491	0.0921	525	0.1793
390	0.0014	424	0.0095	458	0.12	492	0.0955	526	0.1815
391	0.0017	425	0.0102	459	0.1125	493	0.0999	527	0.1797
392	0.0043	426	0.0109	460	0.1052	494	0.1024	528	0.1841
393	0.0021	427	0.0129	461	0.1017	495	0.1054	529	0.1848
394	0.0023	428	0.0161	462	0.0955	496	0.1087	530	0.1847
395	0.0002	429	0.0164	463	0.0928	497	0.1138	531	0.1855
396	0.0031	430	0.0184	464	0.0915	498	0.1184	532	0.1887
397	0.0024	431	0.0206	465	0.0901	499	0.1212	533	0.1877
398	0.0036	432	0.0229	466	0.0867	500	0.1235	534	0.1905
399	0.002	433	0.0238	467	0.0856	501	0.1285	535	0.1924
400	0.0013	434	0.0283	468	0.0826	502	0.1333	536	0.1915
401	0.0015	435	0.0299	469	0.0806	503	0.1372	537	0.1918
402	0.0012	436	0.0352	470	0.0793	504	0.1385	538	0.1924
403	0.0031	437	0.0378	471	0.0752	505	0.1398	539	0.1956
404	0.001	438	0.0422	472	0.0723	506	0.1445	540	0.196
405	0.002	439	0.0486	473	0.0709	507	0.1475	541	0.1981
406	0.0021	440	0.0553	474	0.0668	508	0.1487	542	0.1978
407	0.0027	441	0.0602	475	0.0667	509	0.1552	543	0.1989
408	0.0012	442	0.0663	476	0.064	510	0.1537	544	0.2025
409	0.0027	443	0.0748	477	0.064	511	0.1575	545	0.203
410	0.0037	444	0.082	478	0.0631	512	0.1574	546	0.2029
411	0.0024	445	0.0935	479	0.0639	513	0.1625	547	0.2057
412	0.0017	446	0.1007	480	0.066	514	0.1638	548	0.2089
413	0.0021	447	0.115	481	0.0676	515	0.1646	549	0.2079

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2095	599	0.3297	648	0.3117	697	0.0529	746	0.0112
551	0.2123	600	0.3346	649	0.2465	698	0.0508	747	0.0109
552	0.2132	601	0.3355	650	0.2208	699	0.049	748	0.0099
553	0.2164	602	0.3385	651	0.2173	700	0.0481	749	0.0103
554	0.2159	603	0.3396	652	0.2121	701	0.0461	750	0.0096
555	0.2171	604	0.3424	653	0.2037	702	0.0447	751	0.0096
556	0.2219	605	0.3439	654	0.1932	703	0.0441	752	0.0097
557	0.2221	606	0.3483	655	0.1896	704	0.0415	753	0.0091
558	0.2255	607	0.3699	656	0.1833	705	0.0416	754	0.0086
559	0.2268	608	0.4265	657	0.1766	706	0.0393	755	0.0085
560	0.2273	609	0.4354	658	0.17	707	0.0387	756	0.008
561	0.2327	610	0.3844	659	0.1663	708	0.0372	757	0.0079
562	0.2349	611	0.3926	660	0.1615	709	0.0368	758	0.0079
563	0.2386	612	0.4878	661	0.1566	710	0.0352	759	0.0075
564	0.2382	613	0.5931	662	0.1508	711	0.0335	760	0.0075
565	0.2419	614	0.5302	663	0.1472	712	0.0328	761	0.0072
566	0.2433	615	0.4227	664	0.1418	713	0.0319	762	0.0072
567	0.2469	616	0.3825	665	0.1374	714	0.0303	763	0.0068
568	0.2473	617	0.3726	666	0.1346	715	0.0297	764	0.0064
569	0.2519	618	0.3729	667	0.1326	716	0.0289	765	0.006
570	0.2531	619	0.3745	668	0.1294	717	0.0279	766	0.0062
571	0.2547	620	0.3707	669	0.1265	718	0.0272	767	0.0058
572	0.2596	621	0.3654	670	0.1247	719	0.026	768	0.006
573	0.2593	622	0.3674	671	0.1216	720	0.0253	769	0.0058
574	0.2638	623	0.3664	672	0.1161	721	0.0245	770	0.0056
575	0.2669	624	0.3734	673	0.11	722	0.0242	771	0.0054
576	0.2689	625	0.379	674	0.1068	723	0.0227	772	0.0051
577	0.2731	626	0.3786	675	0.105	724	0.0219	773	0.0056
578	0.2764	627	0.3842	676	0.1006	725	0.0215	774	0.0048
579	0.2788	628	0.4232	677	0.0977	726	0.0208	775	0.0049
580	0.2811	629	0.5833	678	0.0961	727	0.0208	776	0.0046
581	0.2826	630	0.914	679	0.0931	728	0.0195	777	0.0042
582	0.2853	631	0.9377	680	0.0891	729	0.0186	778	0.0041
583	0.2898	632	0.6099	681	0.0862	730	0.0182	779	0.004
584	0.2959	633	0.4824	682	0.0834	731	0.0173	780	0.004
585	0.2956	634	0.6245	683	0.0815	732	0.0172		
586	0.2986	635	0.7426	684	0.0796	733	0.0166		
587	0.3016	636	0.5147	685	0.0761	734	0.0162		
588	0.304	637	0.35	686	0.0751	735	0.0156		
589	0.3082	638	0.3013	687	0.0714	736	0.0152		
590	0.3106	639	0.2802	688	0.07	737	0.0149		
591	0.3117	640	0.2674	689	0.0678	738	0.0143		
592	0.3122	641	0.2599	690	0.0654	739	0.0136		
593	0.315	642	0.2521	691	0.0639	740	0.0137		
594	0.3182	643	0.2469	692	0.0623	741	0.0127		
595	0.3212	644	0.2414	693	0.0607	742	0.0121		
596	0.3238	645	0.2467	694	0.0589	743	0.0125		
597	0.3278	646	0.2819	695	0.0557	744	0.012		
598	0.3326	647	0.3425	696	0.0536	745	0.0113		

12. Goniophotometer Test results for LSXY-1000-L27-DF-I-10

12.1 Test Data

Test Ambient Temperature	25.2℃	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

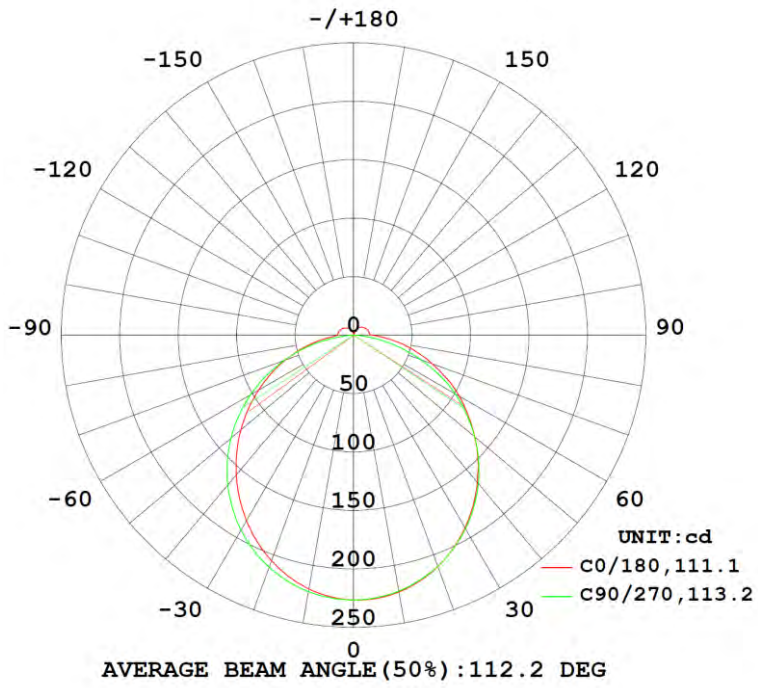
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.41666	1.0000	10.001

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
698.693	69.86	226.7	5.7	94.3

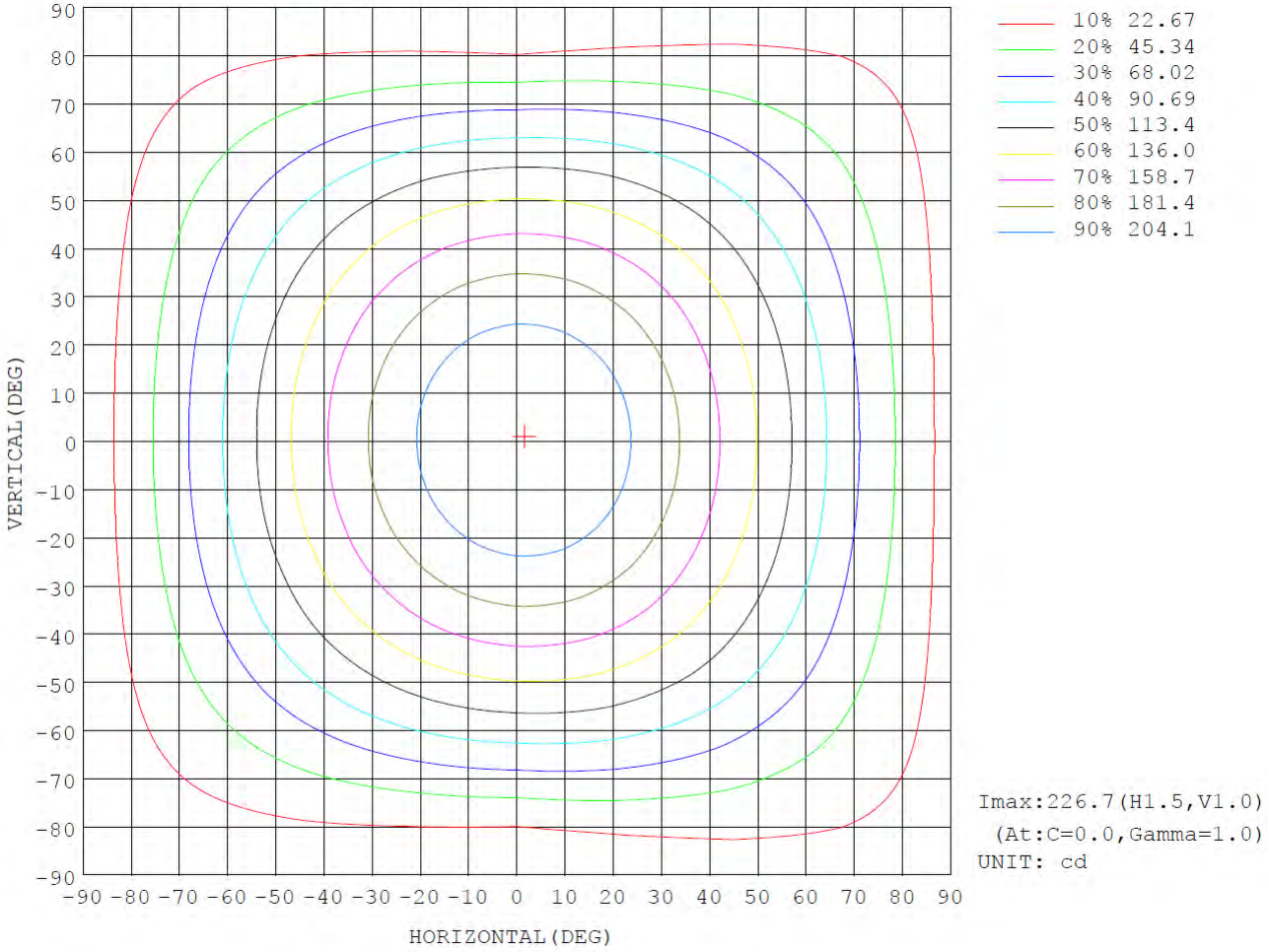
12.2 Luminous Intensity Distribution



12.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	223.1	223.0	222.3	221.0	220.5	221.4	222.8	223.3	0- 10	21.42	21.42	3.07,3.07
20	210.7	211.2	210.4	207.0	205.5	208.0	211.3	211.5	10- 20	61.17	82.58	11.8,11.8
30	190.5	192.2	191.3	186.1	183.3	187.8	192.6	192.2	20- 30	92.29	174.9	25,25
40	164.7	167.0	165.9	159.5	156.2	161.8	167.5	167.0	30- 40	110.9	285.7	40.9,40.9
50	135.3	137.5	135.1	128.9	125.9	131.6	137.0	137.3	40- 50	115.1	400.8	57.4,57.4
60	104.4	105.3	100.4	96.08	93.96	98.43	101.9	104.4	50- 60	104.9	505.7	72.4,72.4
70	71.60	70.10	60.84	60.57	62.04	63.91	63.14	69.78	60- 70	82.25	588.0	84.2,84.2
80	40.98	36.87	22.35	28.24	32.30	31.31	23.71	36.52	70- 80	50.93	638.9	91.4,91.4
90	16.14	11.90	0.6629	9.922	14.09	10.23	0.4637	11.08	80- 90	20.07	659.0	94.3,94.3
100	13.53	9.804	0.1068	9.339	13.37	9.538	0.1124	9.691	90-100	9.531	668.5	95.7,95.7
110	12.94	9.326	0.1815	8.620	12.47	8.740	0.0943	9.080	100-110	8.659	677.2	96.9,96.9
120	11.83	8.450	0.1161	7.452	11.31	7.774	0.1316	8.304	110-120	7.419	684.6	98,98
130	10.47	7.457	0.1609	5.976	9.723	6.506	0.1946	7.343	120-130	5.944	690.5	98.8,98.8
140	8.800	6.275	0.1891	4.912	7.704	5.372	0.2492	6.111	130-140	4.242	694.8	99.4,99.4
150	6.854	4.246	0.2161	3.194	5.855	4.126	0.3089	2.853	140-150	2.572	697.3	99.8,99.8
160	2.613	0.2700	0.2549	1.222	3.456	2.873	0.3476	0.3577	150-160	1.107	698.5	100,100
170	0.3354	0.3096	0.3005	0.3169	0.3980	0.3996	0.3586	0.3608	160-170	0.2071	698.7	100,100
180	0.3637	0.3536	0.3397	0.3560	0.3733	0.3683	0.3390	0.3412	170-180	0.0336	698.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

12.4 Isocandela Diagram



12.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227
5	226	226	226	226	225	225	225	225	225	225	225	225	226	226	226	226
10	223	223	223	223	222	222	221	220	220	221	221	222	223	223	223	223
15	218	218	218	218	217	216	215	214	214	215	216	217	218	218	218	218
20	211	211	211	211	210	209	207	206	205	206	208	210	211	212	211	211
25	201	202	203	203	202	200	197	196	195	196	199	201	203	203	203	202
30	190	191	192	192	191	189	186	184	183	185	188	191	193	193	192	191
35	178	179	180	181	179	177	173	171	170	172	175	179	181	181	180	179
40	165	165	167	167	166	163	160	157	156	158	162	166	168	168	167	165
45	150	151	153	153	151	148	145	142	141	143	147	151	153	154	153	151
50	135	136	137	137	135	132	129	126	126	128	132	135	137	138	137	136
55	120	120	121	121	118	115	112	110	110	112	115	119	120	121	121	120
60	104	105	105	104	100	98.4	96.1	94.5	94.0	95.7	98.4	101	102	104	104	104
65	88.4	88.5	88.1	85.6	81.3	79.9	78.7	78.0	77.8	79.3	81.2	82.5	82.8	85.5	87.1	87.6
70	71.6	71.4	70.1	66.2	60.8	60.3	60.6	61.0	62.0	63.1	63.9	63.8	63.1	66.8	69.8	71.2
75	55.9	55.4	53.0	47.6	41.1	41.8	43.9	45.3	46.7	47.4	47.0	45.2	43.3	48.1	52.8	55.2
80	41.0	40.1	36.9	30.1	22.4	24.7	28.2	30.6	32.3	32.6	31.3	28.0	23.7	30.5	36.5	40.0
85	26.9	25.9	22.1	14.9	5.62	10.7	14.6	17.5	19.3	19.2	17.1	13.0	6.46	15.1	21.6	25.7
90	16.1	15.0	11.9	5.69	0.66	5.14	9.92	12.9	14.1	13.2	10.2	5.41	0.46	5.58	11.1	14.8
95	13.8	12.9	10.0	5.31	0.04	4.82	9.61	12.6	13.7	12.7	9.84	5.13	0.16	5.17	9.93	12.9
100	13.5	12.6	9.80	5.17	0.11	4.61	9.34	12.3	13.4	12.4	9.54	4.84	0.11	4.96	9.69	12.6
105	13.3	12.3	9.58	5.02	0.13	4.35	8.99	11.9	13.0	12.0	9.17	4.56	0.11	4.76	9.42	12.3
110	12.9	12.1	9.33	4.86	0.18	3.95	8.62	11.5	12.5	11.6	8.74	4.23	0.09	4.52	9.08	11.9
115	12.4	11.5	8.86	4.53	0.09	3.38	8.06	10.9	12.0	11.0	8.28	3.86	0.10	4.31	8.72	11.5
120	11.8	11.0	8.45	4.34	0.12	3.31	7.45	10.3	11.3	10.4	7.77	3.62	0.13	4.13	8.30	11.0
125	11.2	10.4	7.98	4.12	0.14	2.95	6.80	9.54	10.6	9.75	7.21	3.36	0.18	3.95	7.87	10.4
130	10.5	9.73	7.46	3.70	0.16	2.36	5.98	8.66	9.72	8.93	6.51	3.04	0.19	3.47	7.34	9.71
135	9.67	8.98	6.89	2.79	0.18	2.20	5.57	7.76	8.79	8.08	5.93	2.75	0.22	2.54	6.77	8.96
140	8.80	8.16	6.27	0.60	0.19	1.89	4.91	6.72	7.70	7.08	5.37	2.53	0.25	0.48	6.11	8.13
145	7.86	7.31	5.55	0.23	0.20	1.16	4.10	6.07	6.84	6.45	4.79	2.13	0.28	0.30	5.25	7.21
150	6.85	6.35	4.25	0.23	0.22	0.32	3.19	5.05	5.86	5.56	4.13	1.70	0.31	0.32	2.85	6.14
155	5.69	5.12	0.90	0.24	0.24	0.24	2.73	3.79	4.39	4.26	3.42	1.04	0.33	0.34	0.36	4.29
160	2.61	1.21	0.27	0.26	0.25	0.26	1.22	3.09	3.46	3.42	2.87	0.47	0.35	0.35	0.36	0.40
165	0.33	0.31	0.29	0.28	0.28	0.29	0.30	1.07	2.01	2.02	0.99	0.37	0.35	0.35	0.36	0.37
170	0.34	0.33	0.31	0.30	0.30	0.30	0.32	0.34	0.40	0.40	0.40	0.37	0.36	0.35	0.36	0.37
175	0.35	0.35	0.33	0.32	0.32	0.33	0.34	0.36	0.39	0.39	0.39	0.37	0.35	0.35	0.35	0.37
180	0.36	0.37	0.35	0.34	0.34	0.35	0.36	0.37	0.37	0.37	0.37	0.35	0.34	0.34	0.34	0.35

13. Integrating Sphere Test Results for LSXY-1000-L27-DF-I-15

13.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.1℃	Test orientation	Downward
Operate time(Min.)	30	stabilization time(Min.)	0

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.5489	23.998	13.173	930.55	0.4612	0.4082	0.2645	0.5266	2662	94.1
1	00h00m10s	0.5496	23.998	13.189	929.78	0.4613	0.4081	0.2645	0.5266	2661	94.1
2	00h00m20s	0.5503	23.998	13.206	929.71	0.4612	0.4078	0.2646	0.5265	2660	94.1
3	00h00m30s	0.5508	23.998	13.218	930.36	0.4612	0.4078	0.2646	0.5265	2660	94
4	00h00m40s	0.5514	23.998	13.232	930.45	0.4613	0.4077	0.2647	0.5265	2658	94.1
5	00h00m50s	0.5519	23.998	13.244	930.76	0.4612	0.4076	0.2647	0.5264	2659	94.1
6	00h01m00s	0.5523	23.998	13.254	930.41	0.461	0.4074	0.2647	0.5263	2659	94.1
7	00h01m10s	0.5528	23.998	13.266	930.63	0.4612	0.4073	0.2649	0.5263	2656	94.1
8	00h01m20s	0.5532	23.998	13.276	930.95	0.4613	0.4074	0.2649	0.5263	2656	94
9	00h01m30s	0.5536	23.998	13.285	931.28	0.4612	0.4071	0.265	0.5262	2654	94
10	00h01m40s	0.5539	23.998	13.292	930.67	0.4612	0.4071	0.2649	0.5262	2654	94
11	00h01m50s	0.5543	23.998	13.302	930.62	0.4614	0.407	0.2651	0.5262	2650	94.1
12	00h02m00s	0.5546	23.998	13.309	931.36	0.4614	0.4072	0.265	0.5263	2653	94.1
13	00h02m10s	0.5548	23.998	13.314	930.32	0.4612	0.4069	0.265	0.5262	2653	94.1
14	00h02m20s	0.5551	23.998	13.321	931.21	0.4613	0.407	0.2651	0.5262	2652	94.1
15	00h02m30s	0.5554	23.998	13.328	930.83	0.4614	0.407	0.2651	0.5262	2651	94.1
16	00h02m40s	0.5556	23.998	13.333	931.11	0.4612	0.4069	0.265	0.5261	2653	94
17	00h02m50s	0.5559	23.998	13.34	931.27	0.4613	0.4069	0.2651	0.5261	2651	94
18	00h03m00s	0.5561	23.998	13.345	931.34	0.4613	0.4068	0.2651	0.5261	2651	94
19	00h03m10s	0.5563	23.998	13.35	930.85	0.4614	0.4067	0.2652	0.5261	2649	94.1
20	00h03m20s	0.5565	23.998	13.355	931.69	0.4613	0.4066	0.2652	0.526	2649	94.1
21	00h03m30s	0.5567	23.998	13.36	930.94	0.4615	0.4068	0.2653	0.5261	2648	94

22	00h03m40s	0.5569	23.998	13.364	932.21	0.4612	0.4067	0.2652	0.5261	2650	94
23	00h03m50s	0.557	23.998	13.367	931.67	0.4615	0.4067	0.2653	0.5261	2648	94.1
24	00h04m00s	0.5572	23.998	13.372	931.98	0.4613	0.4068	0.2652	0.5261	2650	94.1
25	00h04m10s	0.5573	23.998	13.374	931.41	0.4611	0.4065	0.2652	0.526	2651	94.1
26	00h04m20s	0.5575	23.998	13.379	931.49	0.4613	0.4065	0.2653	0.526	2649	94
27	00h04m30s	0.5576	23.998	13.381	931.78	0.4613	0.4065	0.2653	0.526	2649	94.1
28	00h04m40s	0.5578	23.998	13.386	931.7	0.4614	0.4064	0.2654	0.526	2647	94
29	00h04m50s	0.5579	23.998	13.388	932.03	0.4614	0.4067	0.2653	0.5261	2648	94
30	00h05m00s	0.558	23.998	13.391	931.57	0.4614	0.4066	0.2654	0.526	2647	94
31	00h05m10s	0.5581	23.998	13.393	932.2	0.4614	0.4066	0.2653	0.5261	2647	94
32	00h05m20s	0.5582	23.998	13.396	931.94	0.4614	0.4067	0.2653	0.5261	2648	94.1
33	00h05m30s	0.5583	23.998	13.398	931.99	0.4615	0.4066	0.2654	0.5261	2646	94
34	00h05m40s	0.5584	23.998	13.4	931.66	0.4614	0.4066	0.2653	0.526	2648	94.1
35	00h05m50s	0.5585	23.998	13.403	931.5	0.4613	0.4063	0.2654	0.5259	2646	94
36	00h06m00s	0.5586	23.998	13.405	932.23	0.4614	0.4064	0.2654	0.526	2646	94
37	00h06m10s	0.5587	23.998	13.408	931.23	0.4614	0.4064	0.2654	0.526	2647	94
38	00h06m20s	0.5588	23.998	13.41	932.37	0.4614	0.4064	0.2654	0.526	2646	94.1
39	00h06m30s	0.5588	23.998	13.41	931.83	0.4614	0.4063	0.2654	0.5259	2646	94.1
40	00h06m40s	0.5589	23.998	13.412	932.16	0.4614	0.4063	0.2654	0.5259	2645	94
41	00h06m50s	0.559	23.998	13.415	931.87	0.4615	0.4064	0.2655	0.526	2644	94
42	00h07m00s	0.5591	23.998	13.417	931.74	0.4614	0.4064	0.2654	0.5259	2646	94
43	00h07m10s	0.5591	23.998	13.417	931.64	0.4615	0.4064	0.2654	0.526	2645	94
44	00h07m20s	0.5592	23.998	13.42	931.69	0.4616	0.4066	0.2654	0.5261	2645	94.1
45	00h07m30s	0.5592	23.998	13.42	931.64	0.4613	0.4065	0.2653	0.526	2647	94.1
46	00h07m40s	0.5593	23.998	13.422	932.16	0.4614	0.4064	0.2654	0.526	2646	94.1
47	00h07m50s	0.5593	23.998	13.422	931.66	0.4614	0.4064	0.2654	0.526	2646	94
48	00h08m00s	0.5594	23.998	13.424	931.31	0.4614	0.4062	0.2655	0.5259	2645	94.1
49	00h08m10s	0.5594	23.998	13.424	932.72	0.4615	0.4064	0.2655	0.526	2644	94
50	00h08m20s	0.5595	23.998	13.427	932.23	0.4615	0.4065	0.2654	0.526	2645	94.1
51	00h08m30s	0.5595	23.998	13.427	931.79	0.4615	0.4063	0.2655	0.5259	2643	94.1
52	00h08m40s	0.5596	23.998	13.429	932.28	0.4614	0.4065	0.2653	0.526	2647	94

53	00h08m50s	0.5596	23.998	13.429	931.19	0.4614	0.4061	0.2655	0.5258	2644	94
54	00h09m00s	0.5597	23.998	13.432	932.23	0.4615	0.4063	0.2655	0.526	2644	94
55	00h09m10s	0.5597	23.998	13.432	931.68	0.4615	0.4061	0.2656	0.5259	2642	94
56	00h09m20s	0.5597	23.998	13.432	931.64	0.4614	0.4061	0.2655	0.5259	2644	94.1
57	00h09m30s	0.5598	23.998	13.434	932.7	0.4613	0.4063	0.2654	0.5259	2647	94
58	00h09m40s	0.5598	23.998	13.434	931.83	0.4613	0.4063	0.2654	0.5259	2646	94.1
59	00h09m50s	0.5598	23.998	13.434	932.22	0.4614	0.4063	0.2654	0.5259	2645	94
60	00h10m00s	0.5599	23.998	13.436	931.36	0.4614	0.4063	0.2655	0.5259	2645	94.1
61	00h10m10s	0.5599	23.998	13.436	932.23	0.4615	0.4062	0.2655	0.5259	2644	94
62	00h10m20s	0.5599	23.998	13.436	931.89	0.4613	0.4061	0.2655	0.5259	2645	94.1
63	00h10m30s	0.56	23.998	13.439	931.83	0.4614	0.4061	0.2655	0.5259	2644	94
64	00h10m40s	0.56	23.998	13.439	931.78	0.4613	0.4062	0.2655	0.5259	2645	94.1
65	00h10m50s	0.56	23.998	13.439	932.36	0.4613	0.4063	0.2654	0.5259	2646	94.1
66	00h11m00s	0.56	23.998	13.439	932.33	0.4614	0.4062	0.2655	0.5259	2645	94
67	00h11m10s	0.5601	23.998	13.441	932.4	0.4614	0.4064	0.2654	0.526	2647	94.1
68	00h11m20s	0.5601	23.998	13.441	931.84	0.4612	0.4061	0.2654	0.5258	2646	94.1
69	00h11m30s	0.5601	23.998	13.441	932.19	0.4616	0.4064	0.2655	0.526	2643	94
70	00h11m40s	0.5601	23.998	13.441	931.67	0.4615	0.4062	0.2656	0.5259	2643	94.1
71	00h11m50s	0.5601	23.998	13.441	932.3	0.4615	0.4062	0.2656	0.5259	2643	94
72	00h12m00s	0.5601	23.998	13.441	931.72	0.4614	0.4062	0.2655	0.5259	2644	94
73	00h12m10s	0.5602	23.998	13.444	931.63	0.4612	0.4061	0.2654	0.5258	2647	94
74	00h12m20s	0.5602	23.998	13.444	931.81	0.4613	0.4061	0.2655	0.5258	2645	94.1
75	00h12m30s	0.5602	23.998	13.444	931.57	0.4614	0.4061	0.2655	0.5259	2644	94
76	00h12m40s	0.5602	23.998	13.444	931.81	0.4615	0.4062	0.2655	0.5259	2643	94
77	00h12m50s	0.5602	23.998	13.444	931.97	0.4614	0.4062	0.2655	0.5259	2645	94.1
78	00h13m00s	0.5603	23.998	13.446	932.08	0.4615	0.4063	0.2655	0.526	2645	94
79	00h13m10s	0.5603	23.998	13.446	931.55	0.4616	0.4062	0.2656	0.5259	2642	94.1
80	00h13m20s	0.5603	23.998	13.446	932.2	0.4615	0.4061	0.2656	0.5259	2643	94
81	00h13m30s	0.5603	23.998	13.446	931.88	0.4614	0.4063	0.2655	0.5259	2645	94.1
82	00h13m40s	0.5603	23.998	13.446	931.16	0.4615	0.4061	0.2656	0.5259	2643	94
83	00h13m50s	0.5603	23.998	13.446	931.45	0.4615	0.4062	0.2656	0.5259	2643	94

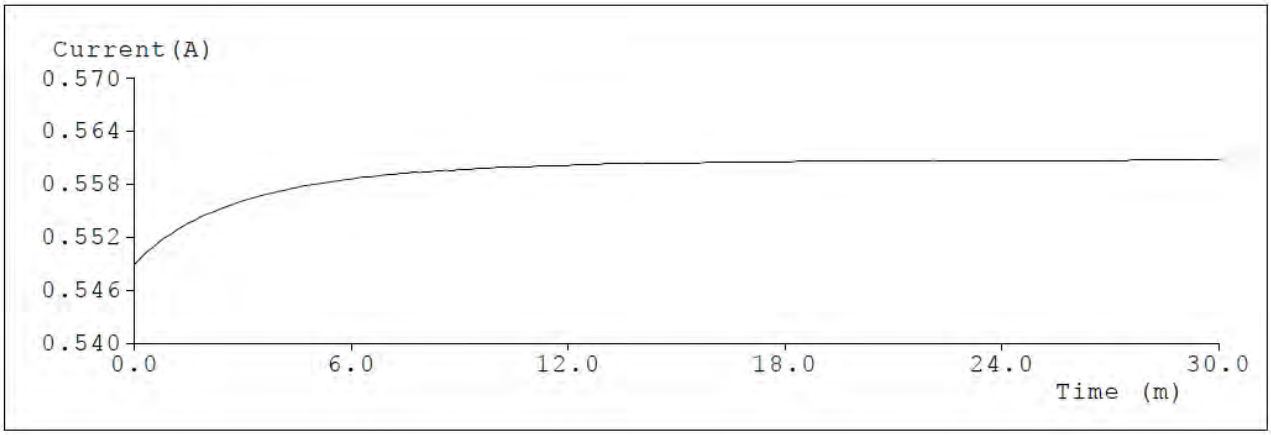
84	00h14m00s	0.5603	23.998	13.446	931.99	0.4615	0.4062	0.2655	0.5259	2643	94
85	00h14m10s	0.5604	23.998	13.448	932.12	0.4615	0.4061	0.2656	0.5259	2643	94
86	00h14m20s	0.5604	23.998	13.448	931.52	0.4615	0.4063	0.2656	0.5259	2643	94.1
87	00h14m30s	0.5604	23.998	13.448	932.29	0.4615	0.4064	0.2655	0.526	2644	94.1
88	00h14m40s	0.5604	23.998	13.448	932.13	0.4614	0.406	0.2656	0.5258	2642	94
89	00h14m50s	0.5604	23.998	13.448	931.83	0.4613	0.4061	0.2654	0.5259	2645	94.1
90	00h15m00s	0.5604	23.998	13.448	932.52	0.4614	0.4062	0.2655	0.5259	2644	94
91	00h15m10s	0.5604	23.998	13.448	932.19	0.4614	0.4061	0.2656	0.5258	2643	94
92	00h15m20s	0.5604	23.998	13.448	931.9	0.4614	0.4063	0.2655	0.5259	2645	94.1
93	00h15m30s	0.5604	23.998	13.448	931.95	0.4615	0.4063	0.2655	0.5259	2644	94
94	00h15m40s	0.5604	23.998	13.448	932.9	0.4613	0.4063	0.2654	0.5259	2646	94.1
95	00h15m50s	0.5605	23.998	13.451	932.05	0.4615	0.4063	0.2655	0.526	2643	94.1
96	00h16m00s	0.5605	23.998	13.451	931.84	0.4614	0.4059	0.2656	0.5258	2642	94.1
97	00h16m10s	0.5605	23.998	13.451	931.74	0.4616	0.4063	0.2656	0.5259	2643	94
98	00h16m20s	0.5605	23.998	13.451	932.11	0.4616	0.4062	0.2656	0.5259	2643	94
99	00h16m30s	0.5605	23.998	13.451	932.46	0.4614	0.4063	0.2655	0.5259	2645	94
100	00h16m40s	0.5605	23.998	13.451	932.49	0.4615	0.4064	0.2655	0.526	2644	94
101	00h16m50s	0.5605	23.998	13.451	932.33	0.4614	0.406	0.2655	0.5258	2644	94
102	00h17m00s	0.5605	23.998	13.451	932.22	0.4614	0.4062	0.2655	0.5259	2644	94
103	00h17m10s	0.5605	23.998	13.451	932.24	0.4613	0.406	0.2655	0.5258	2645	94
104	00h17m20s	0.5605	23.998	13.451	932.53	0.4615	0.4063	0.2655	0.5259	2644	94
105	00h17m30s	0.5605	23.998	13.451	931.6	0.4614	0.4062	0.2655	0.5259	2644	94
106	00h17m40s	0.5605	23.998	13.451	931.75	0.4614	0.406	0.2656	0.5258	2643	94
107	00h17m50s	0.5605	23.998	13.451	931.87	0.4614	0.4059	0.2656	0.5258	2643	94.1
108	00h18m00s	0.5605	23.998	13.451	931.37	0.4614	0.406	0.2656	0.5258	2643	94
109	00h18m10s	0.5605	23.998	13.451	932.09	0.4616	0.406	0.2657	0.5259	2640	94
110	00h18m20s	0.5606	23.998	13.453	931.91	0.4615	0.4061	0.2656	0.5259	2643	94
111	00h18m30s	0.5606	23.998	13.453	931.98	0.4614	0.4061	0.2655	0.5259	2644	94
112	00h18m40s	0.5606	23.998	13.453	931.99	0.4614	0.4061	0.2655	0.5259	2644	94
113	00h18m50s	0.5606	23.998	13.453	931.89	0.4615	0.4062	0.2656	0.5259	2643	94.1
114	00h19m00s	0.5606	23.998	13.453	931.52	0.4615	0.4062	0.2656	0.5259	2643	94

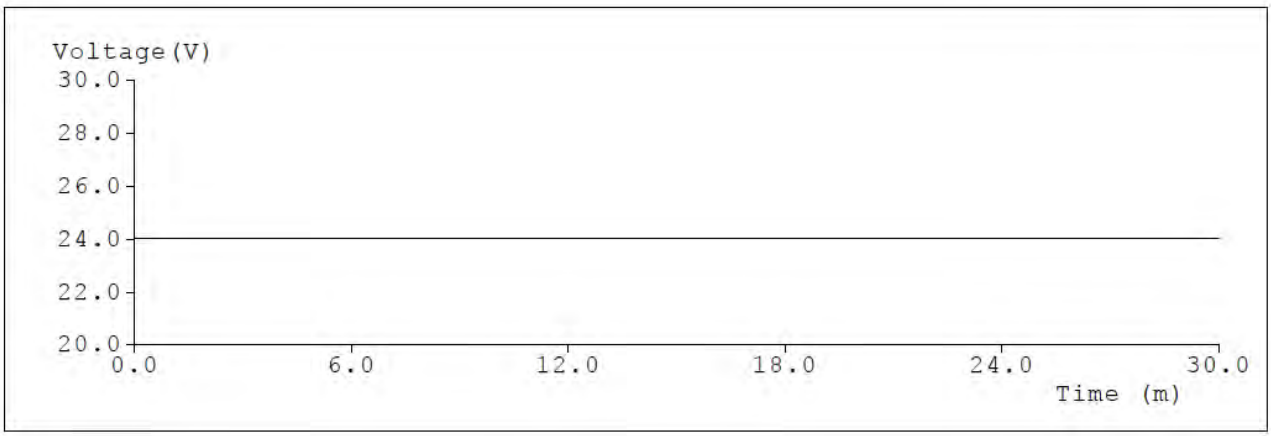
115	00h19m10s	0.5606	23.998	13.453	932.54	0.4615	0.4061	0.2656	0.5259	2643	94
116	00h19m20s	0.5606	23.998	13.453	931.96	0.4615	0.4062	0.2656	0.5259	2643	94
117	00h19m30s	0.5606	23.998	13.453	931.77	0.4615	0.406	0.2656	0.5258	2642	94
118	00h19m40s	0.5606	23.998	13.453	932.07	0.4614	0.4061	0.2655	0.5259	2644	94
119	00h19m50s	0.5606	23.998	13.453	932.2	0.4614	0.4062	0.2655	0.5259	2644	94
120	00h20m00s	0.5606	23.998	13.453	932.26	0.4614	0.4062	0.2655	0.5259	2645	94
121	00h20m10s	0.5606	23.998	13.453	931.57	0.4614	0.4059	0.2656	0.5258	2643	94
122	00h20m20s	0.5606	23.998	13.453	931.94	0.4613	0.4059	0.2656	0.5258	2643	94
123	00h20m30s	0.5606	23.998	13.453	932.15	0.4615	0.4062	0.2655	0.5259	2643	94.1
124	00h20m40s	0.5606	23.998	13.453	931.8	0.4615	0.4062	0.2655	0.5259	2643	94.1
125	00h20m50s	0.5606	23.998	13.453	932.12	0.4615	0.4062	0.2655	0.5259	2644	94
126	00h21m00s	0.5606	23.998	13.453	931.43	0.4613	0.406	0.2656	0.5258	2643	94.1
127	00h21m10s	0.5606	23.998	13.453	931.56	0.4616	0.4062	0.2657	0.5259	2641	94
128	00h21m20s	0.5606	23.998	13.453	931.89	0.4613	0.406	0.2655	0.5258	2644	94.1
129	00h21m30s	0.5606	23.998	13.453	931.64	0.4616	0.406	0.2657	0.5258	2641	94
130	00h21m40s	0.5606	23.998	13.453	932.29	0.4614	0.4061	0.2655	0.5258	2644	94.1
131	00h21m50s	0.5606	23.998	13.453	931.12	0.4615	0.4061	0.2656	0.5259	2642	94.1
132	00h22m00s	0.5606	23.998	13.453	931.57	0.4615	0.4062	0.2656	0.5259	2643	94.1
133	00h22m10s	0.5607	23.998	13.456	931.87	0.4613	0.4061	0.2655	0.5258	2645	94
134	00h22m20s	0.5607	23.998	13.456	932.36	0.4615	0.4062	0.2656	0.5259	2643	94
135	00h22m30s	0.5607	23.998	13.456	931.67	0.4615	0.406	0.2656	0.5258	2642	94.1
136	00h22m40s	0.5607	23.998	13.456	931.92	0.4615	0.4063	0.2655	0.5259	2644	94
137	00h22m50s	0.5607	23.998	13.456	931.81	0.4612	0.4059	0.2655	0.5258	2644	94.1
138	00h23m00s	0.5607	23.998	13.456	931.82	0.4614	0.406	0.2656	0.5258	2642	94
139	00h23m10s	0.5607	23.998	13.456	931.71	0.4615	0.4061	0.2656	0.5259	2643	94.1
140	00h23m20s	0.5607	23.998	13.456	932.32	0.4615	0.4062	0.2656	0.5259	2643	94.1
141	00h23m30s	0.5607	23.998	13.456	931.74	0.4616	0.4062	0.2656	0.5259	2642	94
142	00h23m40s	0.5607	23.998	13.456	932.39	0.4614	0.4062	0.2655	0.5259	2644	94
143	00h23m50s	0.5607	23.998	13.456	931.97	0.4612	0.406	0.2655	0.5258	2645	94.1
144	00h24m00s	0.5607	23.998	13.456	931.9	0.4612	0.4057	0.2656	0.5257	2643	94
145	00h24m10s	0.5607	23.998	13.456	932.07	0.4612	0.4058	0.2656	0.5257	2644	94.1

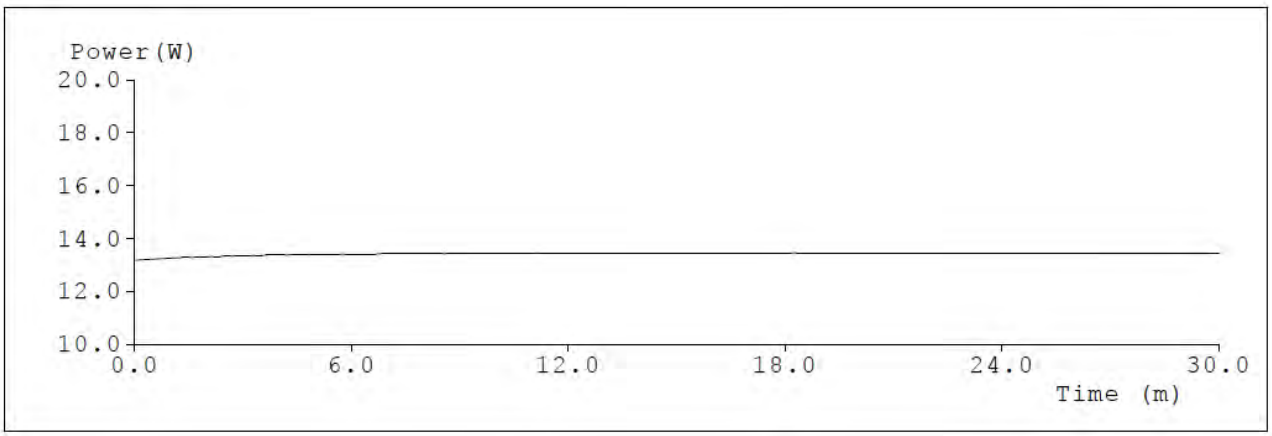
146	00h24m20s	0.5607	23.998	13.456	932.09	0.4613	0.4059	0.2656	0.5258	2643	94
147	00h24m30s	0.5607	23.998	13.456	932.28	0.4615	0.406	0.2657	0.5258	2641	94
148	00h24m40s	0.5607	23.998	13.456	931.61	0.4615	0.4061	0.2656	0.5259	2642	94
149	00h24m50s	0.5607	23.998	13.456	931.79	0.4614	0.4061	0.2655	0.5259	2644	94.1
150	00h25m00s	0.5607	23.998	13.456	932.39	0.4615	0.4062	0.2656	0.5259	2643	94.1
151	00h25m10s	0.5607	23.998	13.456	932.35	0.4612	0.4059	0.2655	0.5257	2644	94.1
152	00h25m20s	0.5607	23.998	13.456	931.66	0.4613	0.406	0.2656	0.5258	2644	94
153	00h25m30s	0.5607	23.998	13.456	932.34	0.4613	0.4059	0.2656	0.5258	2643	94.1
154	00h25m40s	0.5607	23.998	13.456	932.08	0.4614	0.406	0.2656	0.5258	2642	94
155	00h25m50s	0.5607	23.998	13.456	931.71	0.4614	0.4061	0.2655	0.5258	2644	94
156	00h26m00s	0.5607	23.998	13.456	931.69	0.4613	0.4061	0.2655	0.5258	2645	94
157	00h26m10s	0.5607	23.998	13.456	931.81	0.4614	0.4061	0.2655	0.5259	2644	94.1
158	00h26m20s	0.5607	23.998	13.456	932.48	0.4613	0.4061	0.2655	0.5258	2645	94
159	00h26m30s	0.5607	23.998	13.456	932.91	0.4612	0.406	0.2655	0.5258	2645	94
160	00h26m40s	0.5607	23.998	13.456	931.85	0.4614	0.406	0.2656	0.5258	2642	94.1
161	00h26m50s	0.5607	23.998	13.456	931.24	0.4615	0.4061	0.2656	0.5259	2642	94.1
162	00h27m00s	0.5607	23.998	13.456	932.01	0.4613	0.406	0.2655	0.5258	2644	94.1
163	00h27m10s	0.5607	23.998	13.456	931.61	0.4615	0.4061	0.2656	0.5259	2643	94
164	00h27m20s	0.5607	23.998	13.456	931.75	0.4613	0.4061	0.2655	0.5258	2644	94.1
165	00h27m30s	0.5607	23.998	13.456	932.06	0.4614	0.4062	0.2655	0.5259	2645	94
166	00h27m40s	0.5608	23.998	13.458	932.03	0.4613	0.4061	0.2655	0.5259	2645	94
167	00h27m50s	0.5608	23.998	13.458	931.53	0.4614	0.4061	0.2655	0.5259	2643	94.1
168	00h28m00s	0.5608	23.998	13.458	932.94	0.4612	0.406	0.2655	0.5258	2645	94
169	00h28m10s	0.5608	23.998	13.458	932.27	0.4614	0.4062	0.2655	0.5259	2644	94
170	00h28m20s	0.5608	23.998	13.458	931.91	0.4614	0.4061	0.2655	0.5259	2644	94.1
171	00h28m30s	0.5608	23.998	13.458	932.31	0.4614	0.4062	0.2655	0.5259	2645	94.1
172	00h28m40s	0.5608	23.998	13.458	932.3	0.4614	0.4061	0.2655	0.5259	2644	94
173	00h28m50s	0.5608	23.998	13.458	931.44	0.4614	0.4061	0.2655	0.5259	2644	94.1
174	00h29m00s	0.5608	23.998	13.458	931.86	0.4614	0.4061	0.2656	0.5259	2643	94.1
175	00h29m10s	0.5608	23.998	13.458	931.7	0.4615	0.4061	0.2656	0.5259	2643	94
176	00h29m20s	0.5608	23.998	13.458	932.39	0.4614	0.4061	0.2656	0.5259	2643	94

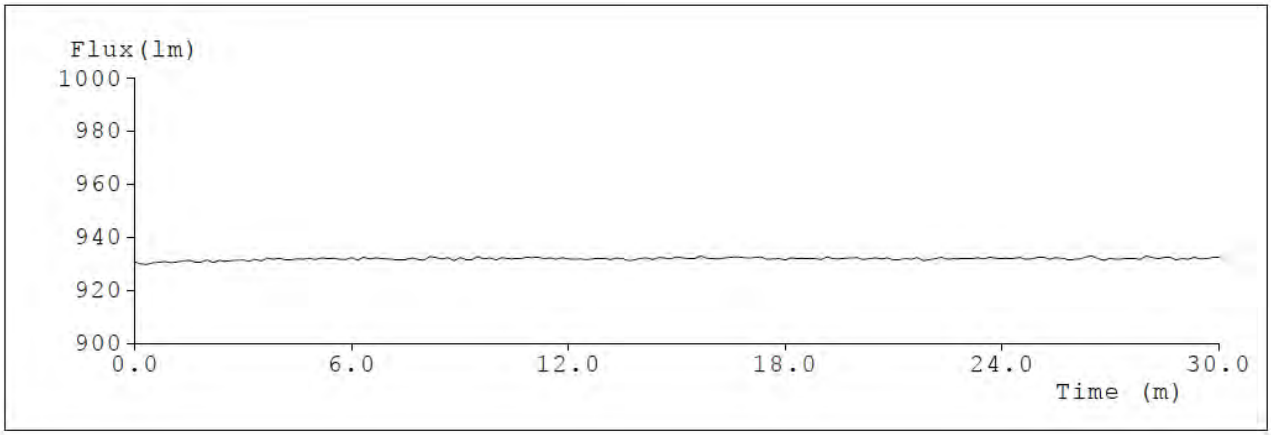
177	00h29m30s	0.5608	23.998	13.458	931.79	0.4615	0.4061	0.2656	0.5259	2643	94
178	00h29m40s	0.5608	23.998	13.458	931.9	0.4613	0.4061	0.2655	0.5258	2644	94
179	00h29m50s	0.5608	23.998	13.458	932.22	0.4615	0.4061	0.2656	0.5259	2642	94.1
180	00h30m00s	0.5608	23.998	13.458	932.23	0.4613	0.4059	0.2656	0.5258	2644	94

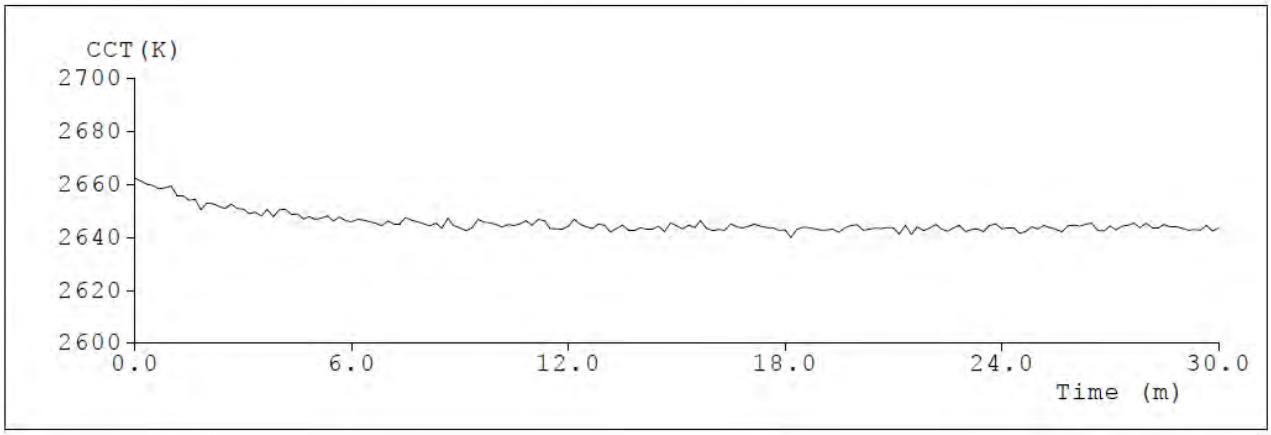
Test curves

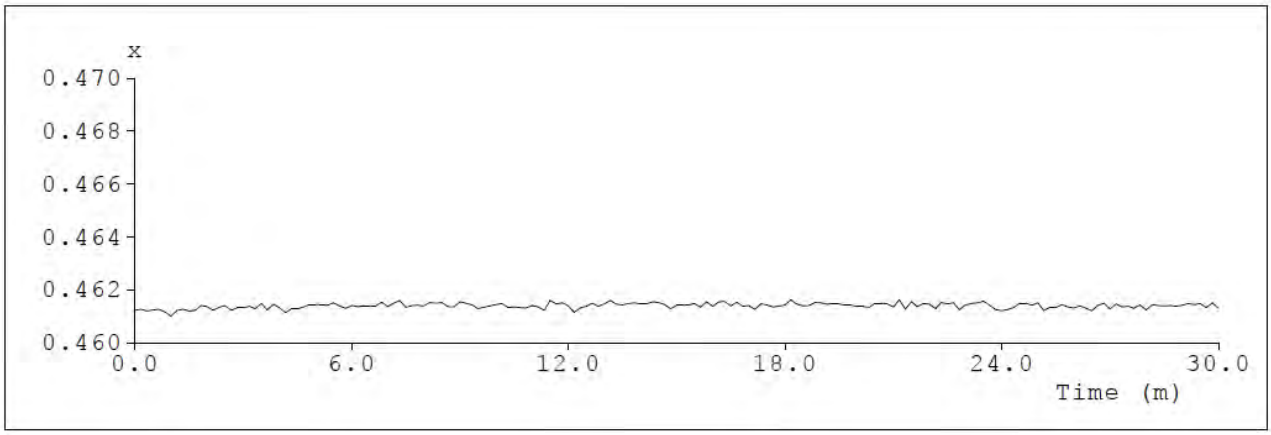


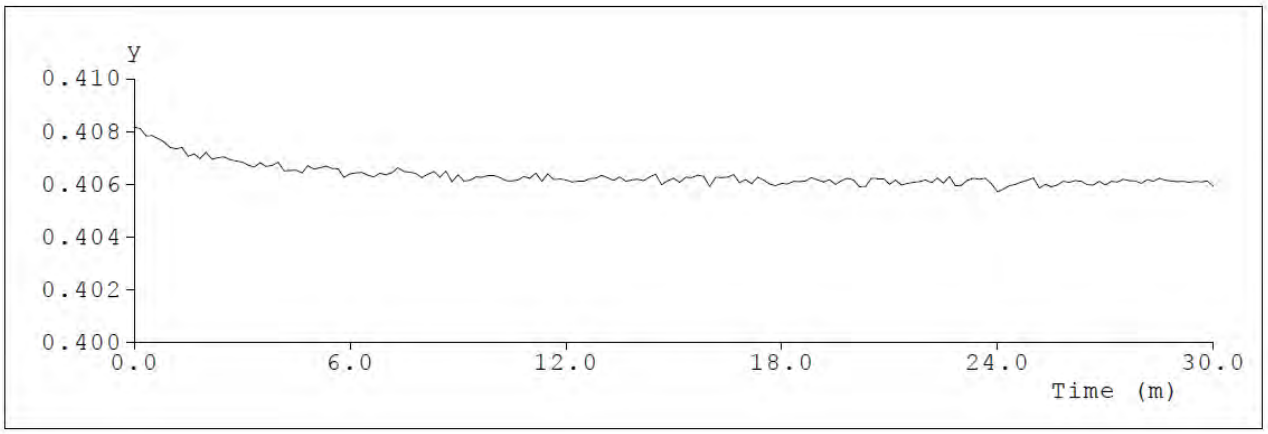


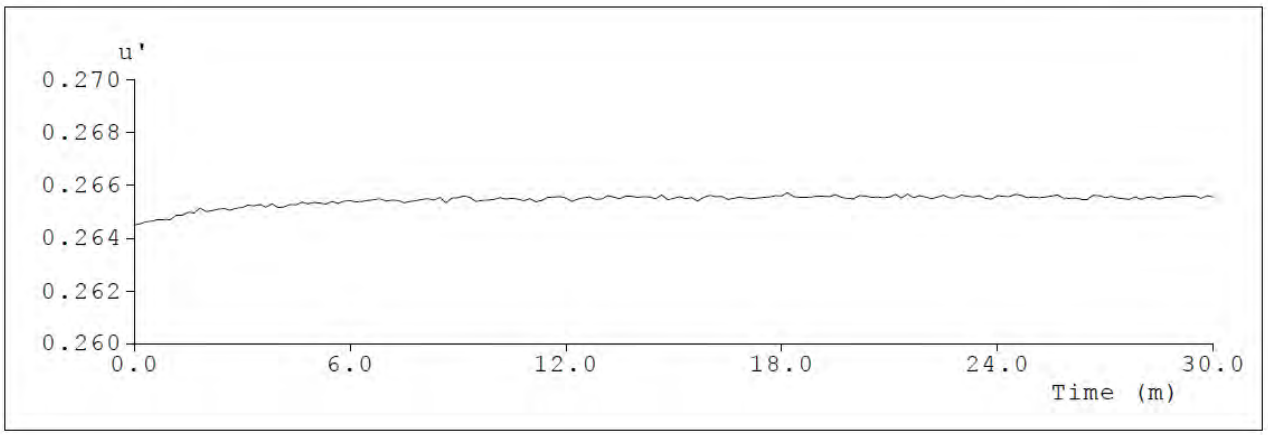


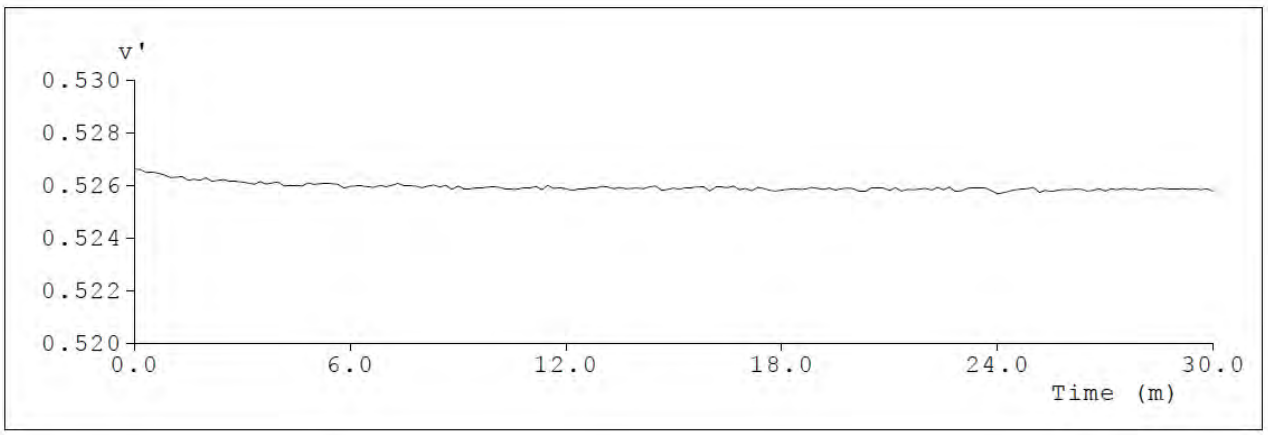

Flux(lm)
1000
980
960
940
920
900
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

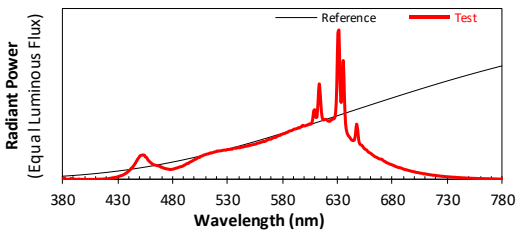

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

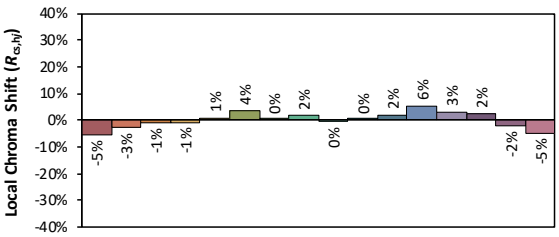
*13.2 ANSI/IES TM-30-18 Color Rendition Report

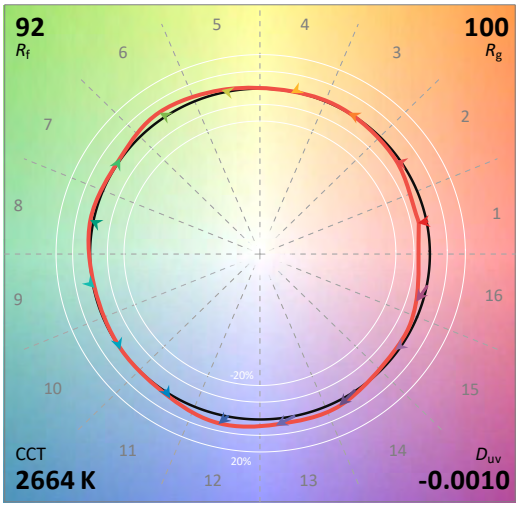
ANSI/IES TM-30-18 Color Rendition Report

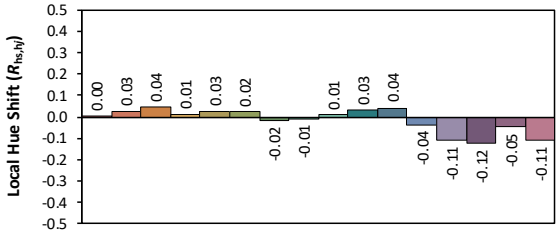
Source: Manufacturer:

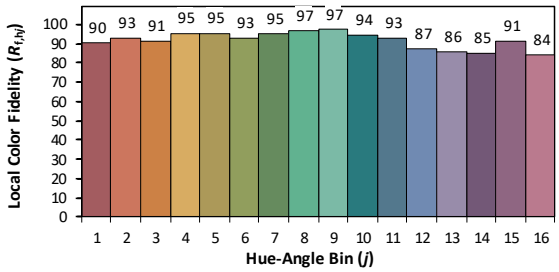
Date: 2023/10/19 Model: LSXY-1000-L27-DF-I-15

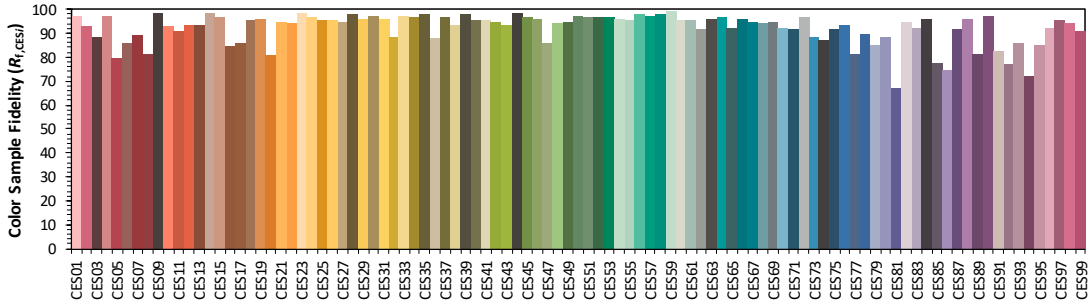












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

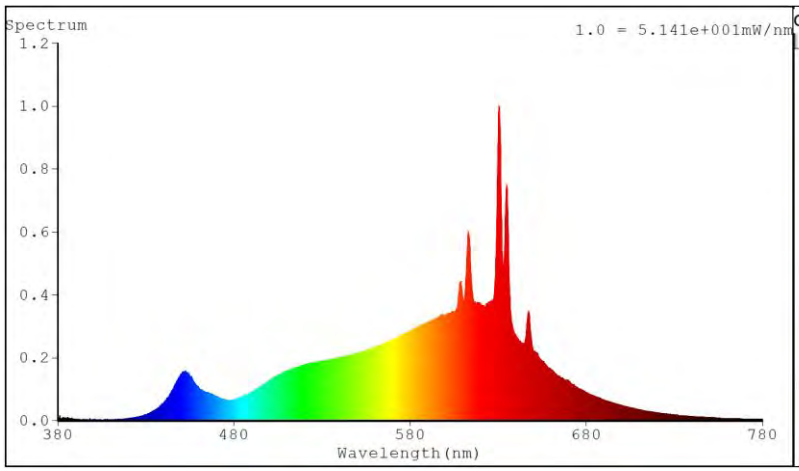
x	0.4610
y	0.4080
u'	0.2644
v'	0.5265

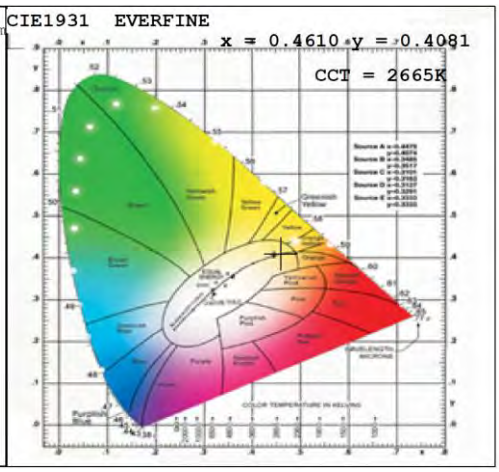
CIE 13.3-1995 (CRI)

R_a	94
R_9	57

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

13.3 Relative Spectral Power Distribution





nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0	414	0.0038	448	0.1301	482	0.0709	516	0.1691
381	0.0123	415	0.0043	449	0.1384	483	0.0725	517	0.1715
382	0	416	0.0039	450	0.1491	484	0.0743	518	0.1733
383	0.0041	417	0.0053	451	0.1518	485	0.0772	519	0.1747
384	0.0016	418	0.006	452	0.1534	486	0.0795	520	0.1789
385	0.0036	419	0.0067	453	0.1541	487	0.0813	521	0.1783
386	0.0024	420	0.0066	454	0.1524	488	0.0825	522	0.1795
387	0.0079	421	0.0058	455	0.141	489	0.0859	523	0.1802
388	0.0032	422	0.0086	456	0.1382	490	0.0901	524	0.1806
389	0.0055	423	0.0096	457	0.1256	491	0.0929	525	0.1829
390	0.0039	424	0.0102	458	0.1176	492	0.0979	526	0.1841
391	0.0037	425	0.0126	459	0.1106	493	0.1009	527	0.1851
392	0	426	0.0101	460	0.1051	494	0.1022	528	0.184
393	0.003	427	0.0148	461	0.0989	495	0.1083	529	0.1875
394	0.0036	428	0.0152	462	0.0952	496	0.1115	530	0.1882
395	0.0039	429	0.0166	463	0.0918	497	0.1149	531	0.1885
396	0.0016	430	0.0199	464	0.0908	498	0.1191	532	0.191
397	0.0028	431	0.021	465	0.089	499	0.1226	533	0.1899
398	0.0017	432	0.0247	466	0.0871	500	0.1269	534	0.1911
399	0.0025	433	0.026	467	0.0856	501	0.1289	535	0.1955
400	0.0027	434	0.028	468	0.0839	502	0.1337	536	0.1964
401	0.0025	435	0.0319	469	0.0778	503	0.1406	537	0.1961
402	0.0005	436	0.036	470	0.0785	504	0.1383	538	0.1971
403	0.0024	437	0.0396	471	0.0737	505	0.1444	539	0.1996
404	0.0023	438	0.0447	472	0.0715	506	0.1477	540	0.1989
405	0.0021	439	0.0513	473	0.0696	507	0.1491	541	0.2
406	0.0028	440	0.0558	474	0.068	508	0.1538	542	0.2018
407	0.0013	441	0.0627	475	0.0669	509	0.1558	543	0.2034
408	0.0019	442	0.0718	476	0.0657	510	0.1582	544	0.2044
409	0.0009	443	0.0765	477	0.0642	511	0.1599	545	0.2071
410	0.0027	444	0.0859	478	0.0638	512	0.1613	546	0.2078
411	0.0033	445	0.0954	479	0.0653	513	0.164	547	0.2114
412	0.0038	446	0.1066	480	0.0659	514	0.1672	548	0.2095
413	0.0038	447	0.1187	481	0.0684	515	0.1664	549	0.2133

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2137	599	0.336	648	0.3124	697	0.053	746	0.0113
551	0.2165	600	0.3352	649	0.2468	698	0.0515	747	0.0107
552	0.2177	601	0.3378	650	0.2223	699	0.0503	748	0.0105
553	0.2187	602	0.3403	651	0.2172	700	0.0488	749	0.0103
554	0.2211	603	0.3423	652	0.2133	701	0.0465	750	0.0097
555	0.2212	604	0.3476	653	0.2035	702	0.0454	751	0.0096
556	0.2245	605	0.3458	654	0.1949	703	0.0445	752	0.0096
557	0.228	606	0.3495	655	0.1892	704	0.0431	753	0.0089
558	0.2286	607	0.3725	656	0.186	705	0.041	754	0.0088
559	0.231	608	0.4276	657	0.1784	706	0.0406	755	0.0084
560	0.233	609	0.4351	658	0.1713	707	0.0392	756	0.0085
561	0.2354	610	0.3877	659	0.1675	708	0.0366	757	0.0074
562	0.2382	611	0.3921	660	0.164	709	0.0378	758	0.0078
563	0.2377	612	0.4892	661	0.158	710	0.0355	759	0.0075
564	0.2396	613	0.5966	662	0.153	711	0.0341	760	0.007
565	0.2441	614	0.5299	663	0.1474	712	0.0336	761	0.0072
566	0.2478	615	0.4272	664	0.1424	713	0.0321	762	0.0071
567	0.2508	616	0.3804	665	0.1405	714	0.0306	763	0.007
568	0.2521	617	0.372	666	0.1364	715	0.0304	764	0.0068
569	0.253	618	0.3749	667	0.1328	716	0.0284	765	0.0065
570	0.2565	619	0.3757	668	0.1294	717	0.0281	766	0.0064
571	0.2613	620	0.3721	669	0.1283	718	0.0281	767	0.0067
572	0.2621	621	0.3649	670	0.1281	719	0.0269	768	0.0059
573	0.2638	622	0.3654	671	0.1215	720	0.0254	769	0.0053
574	0.2659	623	0.3647	672	0.1158	721	0.0251	770	0.0052
575	0.271	624	0.3743	673	0.1138	722	0.024	771	0.006
576	0.2743	625	0.3757	674	0.1072	723	0.0232	772	0.0053
577	0.2758	626	0.3792	675	0.1052	724	0.022	773	0.0051
578	0.2784	627	0.3837	676	0.1018	725	0.0216	774	0.0056
579	0.2828	628	0.4217	677	0.0985	726	0.0215	775	0.0045
580	0.2849	629	0.5844	678	0.0959	727	0.0201	776	0.0047
581	0.2871	630	0.9096	679	0.0941	728	0.0198	777	0.0043
582	0.2889	631	0.9296	680	0.09	729	0.0191	778	0.0046
583	0.2938	632	0.6082	681	0.0885	730	0.0185	779	0.0046
584	0.2944	633	0.4809	682	0.0839	731	0.0179	780	0.0046
585	0.3	634	0.625	683	0.0818	732	0.0176		
586	0.3033	635	0.7392	684	0.079	733	0.0167		
587	0.3048	636	0.5125	685	0.0764	734	0.0166		
588	0.3064	637	0.3503	686	0.0757	735	0.0158		
589	0.3102	638	0.3027	687	0.0741	736	0.0155		
590	0.3142	639	0.2811	688	0.072	737	0.0157		
591	0.3161	640	0.2707	689	0.0678	738	0.0142		
592	0.3171	641	0.2623	690	0.0669	739	0.0133		
593	0.3191	642	0.2515	691	0.0627	740	0.0134		
594	0.3243	643	0.2456	692	0.0629	741	0.0133		
595	0.3227	644	0.2445	693	0.0605	742	0.0128		
596	0.3274	645	0.2469	694	0.0587	743	0.0125		
597	0.332	646	0.2817	695	0.057	744	0.0116		
598	0.3387	647	0.3451	696	0.0546	745	0.0119		

14. Goniophotometer Test results for LSXY-1000-L27-DF-I-15

14.1 Test Data

Test Ambient Temperature	25.2℃	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

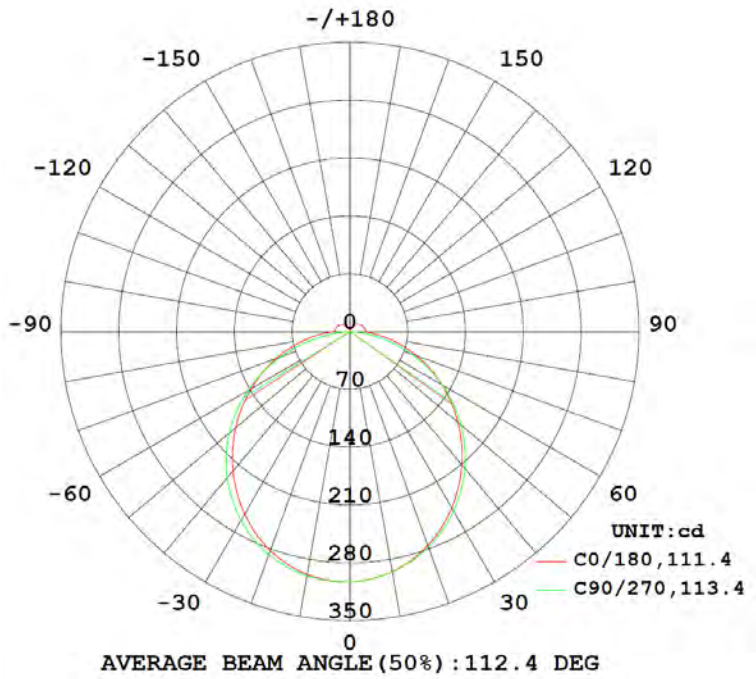
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.56698	1.0000	13.609

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
940.423	69.10	303.4	5.8	94.2

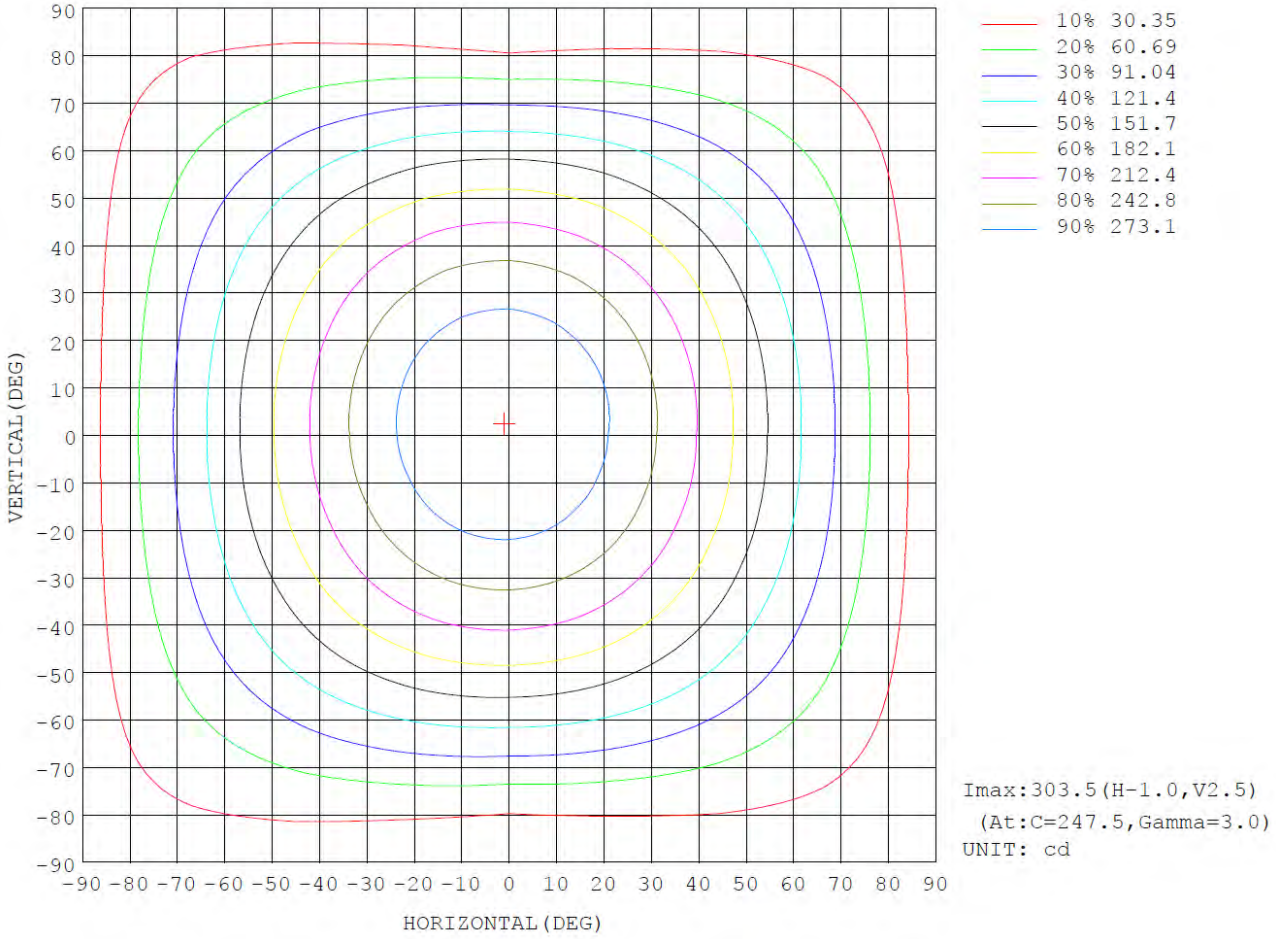
14.2 Luminous Intensity Distribution



14.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	295.0	294.3	295.3	296.6	298.5	300.1	300.2	297.8	0- 10	28.65	28.65	3.05,3.05
20	275.5	275.2	277.5	279.2	282.3	285.9	287.2	281.9	10- 20	81.89	110.5	11.8,11.8
30	246.6	247.2	250.8	252.3	255.1	261.9	264.1	255.7	20- 30	123.7	234.3	24.9,24.9
40	210.8	212.1	216.3	217.9	220.4	228.8	231.4	221.5	30- 40	148.8	383.1	40.7,40.7
50	170.7	171.9	175.3	178.1	180.7	189.0	190.6	181.1	40- 50	154.6	537.8	57.2,57.2
60	128.3	128.1	128.9	134.3	138.1	144.1	142.5	136.2	50- 60	141.1	678.8	72.2,72.2
70	85.86	82.99	78.57	88.93	94.83	96.38	88.72	89.13	60- 70	110.7	789.5	84,84
80	45.93	40.50	29.08	45.56	53.65	50.18	33.18	44.42	70- 80	68.94	858.5	91.3,91.3
90	19.54	13.86	0.9848	14.12	20.16	14.73	0.9023	14.63	80- 90	27.18	885.7	94.2,94.2
100	18.61	12.89	0.0717	12.50	18.07	13.33	0.1126	13.81	90-100	12.97	898.6	95.6,95.6
110	17.60	12.07	0.1039	11.67	17.08	12.35	0.1313	12.89	100-110	11.82	910.5	96.8,96.8
120	16.10	10.97	0.1648	10.56	15.62	11.07	0.1468	11.63	110-120	10.21	920.7	97.9,97.9
130	14.10	9.379	0.2252	9.185	13.71	9.571	0.2015	10.09	120-130	8.197	928.9	98.8,98.8
140	11.61	7.741	0.2591	7.378	11.44	7.935	0.2946	8.258	130-140	6.011	934.9	99.4,99.4
150	8.876	5.651	0.2978	5.498	8.676	6.497	0.3961	5.165	140-150	3.558	938.4	99.8,99.8
160	5.561	0.4474	0.3478	0.5433	5.588	3.439	0.4627	0.4759	150-160	1.676	940.1	100,100
170	0.4482	0.4187	0.4095	0.4336	0.5225	0.5222	0.4846	0.4881	160-170	0.2724	940.4	100,100
180	0.4869	0.4812	0.4670	0.4883	0.4934	0.4948	0.4633	0.4672	170-180	0.0454	940.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

14.4 Isocandela Diagram



14.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303			
5	301	300	300	300	300	301	301	302	302	303	303	303	303	303	302	301			
10	295	294	294	295	295	296	297	297	298	299	300	300	300	299	298	296			
15	287	286	286	287	288	288	289	290	292	293	294	295	295	293	291	289			
20	276	275	275	276	278	278	279	280	282	284	286	288	287	285	282	279			
25	262	261	262	264	265	266	267	267	270	272	275	277	277	274	270	266			
30	247	246	247	249	251	252	252	253	255	258	262	264	264	261	256	251			
35	229	229	230	233	235	236	236	236	239	242	246	249	249	245	239	234			
40	211	210	212	215	216	218	218	218	220	224	229	232	231	228	221	215			
45	191	191	193	195	197	198	199	199	201	205	210	213	212	208	202	196			
50	171	170	172	174	175	177	178	178	181	184	189	192	191	187	181	175			
55	150	149	150	152	153	155	157	157	160	163	167	169	167	164	159	154			
60	128	127	128	129	129	132	134	135	138	141	144	145	143	140	136	132			
65	107	106	106	105	104	108	112	114	116	119	120	120	116	115	113	110			
70	85.9	84.4	83.0	80.5	78.6	83.9	88.9	92.0	94.8	96.3	96.4	93.6	88.7	89.4	89.1	87.9			
75	65.3	63.7	61.0	56.5	53.0	59.7	66.6	70.8	73.8	74.4	72.8	67.5	60.5	63.7	66.1	66.6			
80	45.9	44.1	40.5	34.4	29.1	37.2	45.6	50.6	53.6	53.5	50.2	42.8	33.2	39.6	44.4	46.5			
85	27.8	26.0	22.0	15.6	9.11	17.8	26.3	31.6	34.7	33.9	29.7	21.1	9.43	18.7	24.9	28.2			
90	19.5	17.9	13.9	7.12	0.98	7.01	14.1	18.1	20.2	19.0	14.7	7.70	0.90	8.01	14.6	18.5			
95	19.0	17.4	13.2	6.81	0.06	6.62	12.8	16.9	18.4	17.4	13.7	7.18	0.10	7.64	14.2	17.9			
100	18.6	17.0	12.9	6.52	0.07	6.32	12.5	16.5	18.1	17.0	13.3	6.83	0.11	7.32	13.8	17.6			
105	18.2	16.6	12.5	6.25	0.09	6.04	12.1	16.1	17.6	16.6	12.9	6.48	0.12	7.00	13.4	17.1			
110	17.6	16.1	12.1	5.87	0.10	5.73	11.7	15.6	17.1	16.0	12.4	6.09	0.13	6.61	12.9	16.6			
115	16.9	15.4	11.6	5.43	0.13	5.40	11.2	14.9	16.4	15.3	11.8	5.69	0.14	6.22	12.3	15.9			
120	16.1	14.7	11.0	5.18	0.16	4.98	10.6	14.2	15.6	14.6	11.1	5.30	0.15	5.86	11.6	15.1			
125	15.2	13.8	10.2	4.67	0.20	4.50	9.91	13.4	14.7	13.7	10.3	4.93	0.17	5.52	10.9	14.2			
130	14.1	12.8	9.38	4.40	0.23	4.23	9.19	12.4	13.7	12.7	9.57	4.57	0.20	4.87	10.1	13.2			
135	12.9	11.7	8.67	4.02	0.24	3.85	8.37	11.4	12.6	11.7	8.78	4.24	0.25	4.50	9.22	12.1			
140	11.6	10.5	7.74	2.57	0.26	2.78	7.38	10.3	11.4	10.6	7.93	3.22	0.29	2.92	8.26	10.9			
145	10.3	9.36	6.89	0.50	0.28	0.63	6.47	8.99	10.2	9.49	7.21	1.17	0.35	0.39	7.11	9.58			
150	8.88	8.05	5.65	0.31	0.30	0.32	5.50	7.65	8.68	8.27	6.50	0.60	0.40	0.41	5.17	8.12			
155	7.43	6.73	3.66	0.33	0.32	0.34	4.04	6.33	6.82	6.77	5.49	0.47	0.44	0.44	1.12	6.43			
160	5.56	4.45	0.45	0.35	0.35	0.36	0.54	4.69	5.59	5.49	3.44	0.49	0.46	0.46	0.48	2.21			
165	0.64	0.43	0.39	0.38	0.38	0.39	0.41	0.49	0.92	0.92	0.53	0.49	0.47	0.47	0.48	0.50			
170	0.45	0.44	0.42	0.41	0.41	0.41	0.43	0.46	0.52	0.52	0.52	0.50	0.48	0.48	0.49	0.51			
175	0.47	0.47	0.45	0.44	0.44	0.45	0.47	0.50	0.51	0.52	0.52	0.50	0.48	0.48	0.48	0.50			
180	0.49	0.50	0.48	0.47	0.47	0.47	0.49	0.51	0.49	0.49	0.49	0.48	0.46	0.46	0.47	0.48			

15. Photo of sample

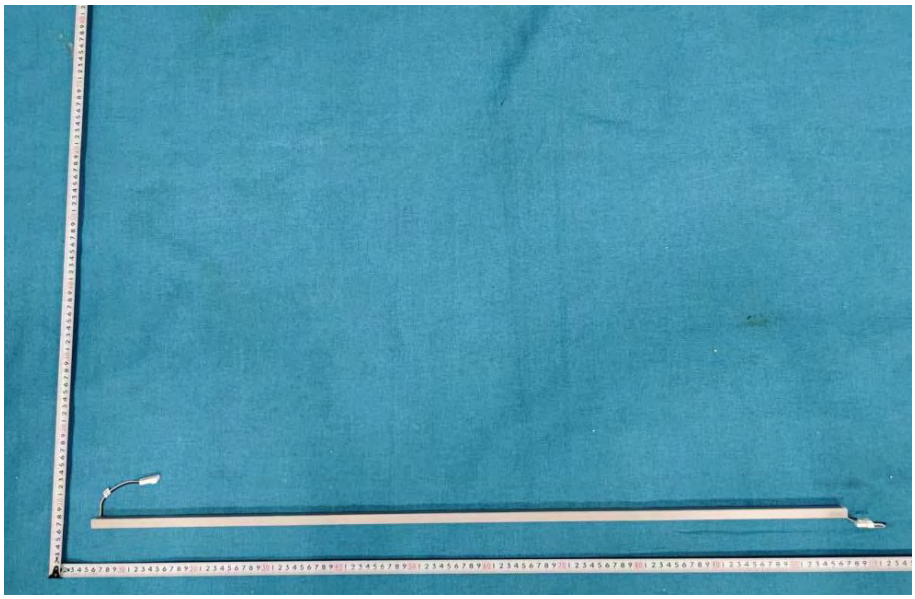


Figure 1 Overview

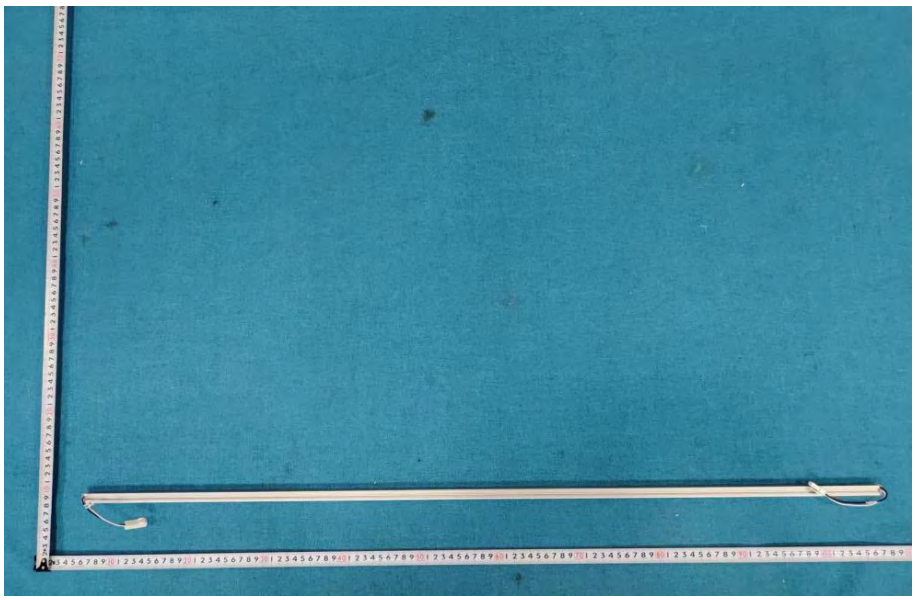


Figure 2 Overview

---End of Report---