Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23090145L00901
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFUY-1000-L27-DF-I-6, LFUY-1000-L27-DF-I-10 LFUY-1000-L27-DF-I-15, LFUY-1000-L27-DF-I-20 LFUY-1000-L27-DF-O-5, LFUY-1000-L27-DF-O-9 LFUY-1000-L27-DF-O-14, LFUY-1000-L27-DF-O-19
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. 18, 2023
Date of test	:	Sep. 18, 2023 – Sep. 26, 2023
Date of report	:	Sep. 26, 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:	LFUY-1000-L27-DF-I-6, LFUY-1000-L27-DF-I-10 LFUY-1000-L27-DF-I-15, LFUY-1000-L27-DF-I-20 LFUY-1000-L27-DF-O-5, LFUY-1000-L27-DF-O-9 LFUY-1000-L27-DF-O-14, LFUY-1000-L27-DF-O-19
Manufacturer:	
Product Type:	SHIN UQ FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	5W, 6W, 9W, 10W, 14W, 15W, 19W, 20W
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	2023/10/13
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	2023/10/13

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 LFUY-1000-L27-DF-I-6

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	0.2515	23.998	6.0355	615.83	0.4678	0.41	0.2679	0.5283	2588	94.2
1	00h00m10s	0.2517	23.998	6.0403	615.48	0.4679	0.4101	0.268	0.5284	2587	94.2
2	00h00m20s	0.2518	23.998	6.0427	615.86	0.4679	0.4103	0.2679	0.5284	2588	94.2
3	00h00m30s	0.252	23.998	6.0475	615.33	0.468	0.4102	0.268	0.5285	2587	94.2
4	00h00m40s	0.2521	23.998	6.0499	615.78	0.4679	0.4101	0.2679	0.5284	2587	94.2
5	00h00m50s	0.2521	23.998	6.0499	615.69	0.4679	0.4099	0.2681	0.5283	2585	94.2
6	00h01m00s	0.2522	23.998	6.0523	615.24	0.4679	0.4099	0.268	0.5283	2586	94.2
7	00h01m10s	0.2523	23.998	6.0547	615.56	0.468	0.4098	0.2681	0.5283	2584	94.1
8	00h01m20s	0.2524	23.998	6.0571	615.3	0.4681	0.4099	0.2681	0.5283	2584	94.2
9	00h01m30s	0.2524	23.998	6.0571	615.62	0.4678	0.4099	0.268	0.5283	2587	94.2
10	00h01m40s	0.2525	23.998	6.0595	615.42	0.4681	0.4098	0.2682	0.5283	2583	94.1
11	00h01m50s	0.2525	23.998	6.0595	615.28	0.468	0.4098	0.2681	0.5283	2584	94.2
12	00h02m00s	0.2526	23.998	6.0619	615.77	0.4681	0.41	0.2681	0.5283	2584	94.2
13	00h02m10s	0.2526	23.998	6.0619	615.42	0.468	0.41	0.2681	0.5284	2585	94.1
14	00h02m20s	0.2526	23.998	6.0619	615.31	0.4681	0.4099	0.2682	0.5283	2583	94.2
15	00h02m30s	0.2527	23.998	6.0643	615.44	0.468	0.4099	0.2681	0.5283	2584	94.2
16	00h02m40s	0.2527	23.998	6.0643	615.24	0.468	0.4096	0.2682	0.5282	2583	94.2
17	00h02m50s	0.2528	23.998	6.0667	615.63	0.4679	0.4097	0.2681	0.5282	2584	94.2
18	00h03m00s	0.2528	23.998	6.0667	615.75	0.468	0.4097	0.2681	0.5282	2584	94.1
19	00h03m10s	0.2528	23.998	6.0667	615.49	0.4678	0.4096	0.2681	0.5282	2585	94.2
20	00h03m20s	0.2528	23.998	6.0667	615.61	0.4682	0.4098	0.2683	0.5283	2581	94.1
21	00h03m30s	0.2529	23.998	6.0691	615.53	0.4682	0.4099	0.2682	0.5283	2583	94.2

22	00h03m40s	0.2529	23.998	6.0691	615.74	0.468	0.41	0.2681	0.5284	2585	94.1
23	00h03m50s	0.2529	23.998	6.0691	615.21	0.4681	0.4099	0.2682	0.5283	2584	94.2
24	00h04m00s	0.2529	23.998	6.0691	615.4	0.4679	0.4097	0.2682	0.5282	2584	94.1
25	00h04m10s	0.253	23.998	6.0715	615.28	0.4682	0.4098	0.2683	0.5283	2581	94.1
26	00h04m20s	0.253	23.998	6.0715	615.2	0.468	0.4096	0.2682	0.5282	2582	94.1
27	00h04m30s	0.253	23.998	6.0715	615.19	0.4682	0.4096	0.2683	0.5282	2580	94.1
28	00h04m40s	0.253	23.998	6.0715	615.38	0.4681	0.4098	0.2682	0.5283	2582	94.1
29	00h04m50s	0.2531	23.998	6.0739	615.47	0.4679	0.4098	0.268	0.5283	2586	94.2
30	00h05m00s	0.2531	23.998	6.0739	615.1	0.468	0.4096	0.2682	0.5282	2582	94.2
31	00h05m10s	0.2531	23.998	6.0739	615.24	0.4682	0.4099	0.2683	0.5283	2582	94.1
32	00h05m20s	0.2531	23.998	6.0739	614.96	0.4682	0.4097	0.2683	0.5283	2581	94.2
33	00h05m30s	0.2531	23.998	6.0739	615.99	0.4681	0.4098	0.2682	0.5283	2583	94.1
34	00h05m40s	0.2531	23.998	6.0739	615.28	0.468	0.4096	0.2682	0.5282	2583	94.1
35	00h05m50s	0.2532	23.998	6.0763	615.29	0.4682	0.4098	0.2683	0.5283	2582	94.1
36	00h06m00s	0.2532	23.998	6.0763	614.94	0.4681	0.4095	0.2683	0.5282	2580	94.1
37	00h06m10s	0.2532	23.998	6.0763	615.25	0.468	0.4096	0.2682	0.5282	2583	94.2
38	00h06m20s	0.2532	23.998	6.0763	615.43	0.4681	0.4098	0.2682	0.5283	2583	94.2
39	00h06m30s	0.2532	23.998	6.0763	614.74	0.4681	0.4096	0.2683	0.5282	2582	94.2
40	00h06m40s	0.2532	23.998	6.0763	614.92	0.4682	0.4096	0.2683	0.5282	2580	94.2
41	00h06m50s	0.2533	23.998	6.0787	614.85	0.468	0.4096	0.2682	0.5282	2583	94.2
42	00h07m00s	0.2533	23.998	6.0787	615.34	0.468	0.4096	0.2682	0.5282	2583	94.1
43	00h07m10s	0.2533	23.998	6.0787	615	0.468	0.4095	0.2683	0.5282	2582	94.1
44	00h07m20s	0.2533	23.998	6.0787	615.44	0.4681	0.4098	0.2682	0.5283	2583	94.1
45	00h07m30s	0.2533	23.998	6.0787	615.47	0.4682	0.4099	0.2682	0.5284	2582	94.1
46	00h07m40s	0.2533	23.998	6.0787	615.22	0.4682	0.4098	0.2683	0.5283	2581	94.2
47	00h07m50s	0.2533	23.998	6.0787	614.86	0.4681	0.4095	0.2683	0.5282	2580	94.1
48	00h08m00s	0.2533	23.998	6.0787	614.94	0.4681	0.4095	0.2683	0.5282	2582	94.1
49	00h08m10s	0.2534	23.998	6.0811	615.09	0.468	0.4097	0.2682	0.5282	2583	94.1
50	00h08m20s	0.2534	23.998	6.0811	614.78	0.4681	0.4094	0.2684	0.5282	2580	94.1
51	00h08m30s	0.2534	23.998	6.0811	615.08	0.468	0.4096	0.2683	0.5282	2582	94.2
52	00h08m40s	0.2534	23.998	6.0811	614.94	0.468	0.4095	0.2683	0.5282	2582	94.1

53	00h08m50s	0.2534	23.998	6.0811	614.65	0.4682	0.4096	0.2684	0.5282	2580	94.2
54	00h09m00s	0.2534	23.998	6.0811	615.12	0.4681	0.4096	0.2683	0.5282	2581	94.2
55	00h09m10s	0.2534	23.998	6.0811	615.14	0.4681	0.4097	0.2682	0.5283	2582	94.2
56	00h09m20s	0.2534	23.998	6.0811	615.16	0.4681	0.4097	0.2683	0.5283	2581	94.2
57	00h09m30s	0.2534	23.998	6.0811	615.19	0.4681	0.4096	0.2683	0.5282	2582	94.1
58	00h09m40s	0.2534	23.998	6.0811	615.18	0.4679	0.4096	0.2682	0.5282	2584	94.1
59	00h09m50s	0.2535	23.998	6.0835	614.95	0.4682	0.4095	0.2684	0.5282	2579	94.1
60	00h10m00s	0.2535	23.998	6.0835	614.82	0.4683	0.4097	0.2684	0.5283	2579	94.1
61	00h10m10s	0.2535	23.998	6.0835	615.19	0.4682	0.4097	0.2683	0.5283	2580	94.1
62	00h10m20s	0.2535	23.998	6.0835	615.23	0.4682	0.4096	0.2684	0.5282	2580	94.1
63	00h10m30s	0.2535	23.998	6.0835	614.97	0.4682	0.4097	0.2683	0.5282	2581	94.1
64	00h10m40s	0.2535	23.998	6.0835	615.07	0.4682	0.4096	0.2684	0.5282	2579	94.1
65	00h10m50s	0.2535	23.998	6.0835	614.86	0.4682	0.4095	0.2684	0.5282	2579	94.1
66	00h11m00s	0.2535	23.998	6.0835	614.91	0.4682	0.4096	0.2683	0.5282	2580	94.2
67	00h11m10s	0.2535	23.998	6.0835	614.86	0.4682	0.4096	0.2684	0.5282	2580	94.1
68	00h11m20s	0.2535	23.998	6.0835	614.52	0.4682	0.4096	0.2684	0.5282	2580	94.1
69	00h11m30s	0.2535	23.998	6.0835	614.8	0.4682	0.4096	0.2684	0.5282	2580	94.1
70	00h11m40s	0.2535	23.998	6.0835	614.85	0.468	0.4095	0.2683	0.5282	2581	94.2
71	00h11m50s	0.2536	23.998	6.0859	614.67	0.4681	0.4095	0.2684	0.5282	2580	94.1
72	00h12m00s	0.2536	23.998	6.0859	615.06	0.4682	0.4095	0.2684	0.5282	2580	94.1
73	00h12m10s	0.2536	23.998	6.0859	615.15	0.4681	0.4096	0.2683	0.5282	2581	94.2
74	00h12m20s	0.2536	23.998	6.0859	614.77	0.4682	0.4096	0.2684	0.5282	2580	94.1
75	00h12m30s	0.2536	23.998	6.0859	614.87	0.4682	0.4096	0.2684	0.5282	2580	94.1
76	00h12m40s	0.2536	23.998	6.0859	615.28	0.4681	0.4096	0.2683	0.5282	2581	94.1
77	00h12m50s	0.2536	23.998	6.0859	614.56	0.4681	0.4095	0.2683	0.5282	2581	94.1
78	00h13m00s	0.2536	23.998	6.0859	614.53	0.4682	0.4095	0.2684	0.5282	2580	94.2
79	00h13m10s	0.2536	23.998	6.0859	615.1	0.4683	0.4096	0.2684	0.5282	2578	94.1
80	00h13m20s	0.2536	23.998	6.0859	614.76	0.4682	0.4096	0.2683	0.5282	2581	94.2
81	00h13m30s	0.2536	23.998	6.0859	614.65	0.4683	0.4095	0.2685	0.5282	2578	94.1
82	00h13m40s	0.2536	23.998	6.0859	615.08	0.4682	0.4096	0.2684	0.5282	2580	94.1
83	00h13m50s	0.2536	23.998	6.0859	614.44	0.4681	0.4095	0.2684	0.5282	2580	94.1

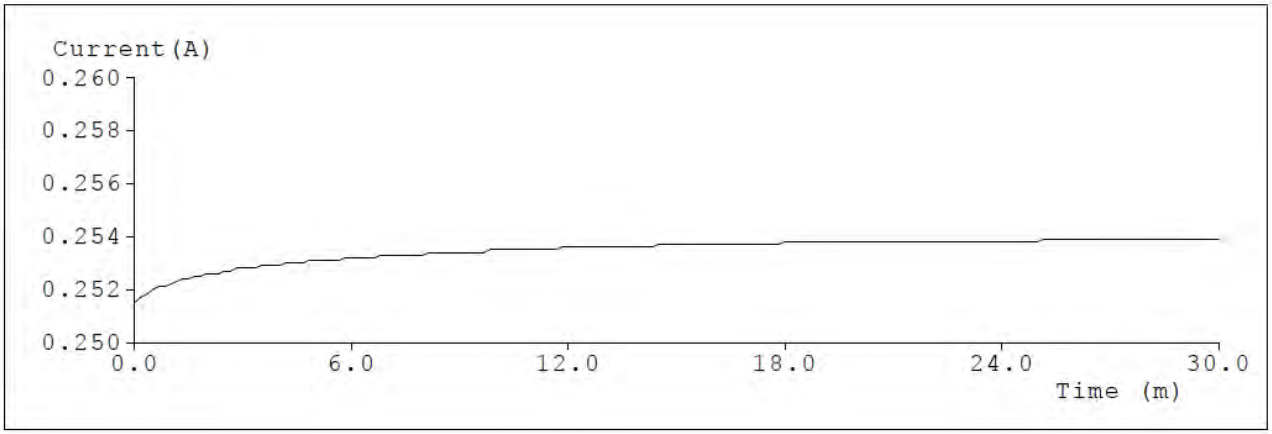
84	00h14m00s	0.2536	23.998	6.0859	614.86	0.4682	0.4096	0.2683	0.5282	2580	94.2
85	00h14m10s	0.2536	23.998	6.0859	614.92	0.4681	0.4095	0.2684	0.5282	2580	94.2
86	00h14m20s	0.2536	23.998	6.0859	614.85	0.4682	0.4095	0.2684	0.5282	2579	94.1
87	00h14m30s	0.2537	23.998	6.0883	614.91	0.4683	0.4096	0.2685	0.5282	2578	94.1
88	00h14m40s	0.2537	23.998	6.0883	614.89	0.4682	0.4094	0.2684	0.5282	2579	94.1
89	00h14m50s	0.2537	23.998	6.0883	614.67	0.4683	0.4095	0.2685	0.5282	2577	94.1
90	00h15m00s	0.2537	23.998	6.0883	614.82	0.4681	0.4094	0.2684	0.5281	2579	94.1
91	00h15m10s	0.2537	23.998	6.0883	614.8	0.4682	0.4095	0.2684	0.5282	2580	94.1
92	00h15m20s	0.2537	23.998	6.0883	614.76	0.4682	0.4095	0.2684	0.5282	2579	94.1
93	00h15m30s	0.2537	23.998	6.0883	615.13	0.4682	0.4096	0.2684	0.5282	2580	94.1
94	00h15m40s	0.2537	23.998	6.0883	614.93	0.4682	0.4096	0.2683	0.5282	2580	94.2
95	00h15m50s	0.2537	23.998	6.0883	615.31	0.4682	0.4097	0.2683	0.5283	2581	94.2
96	00h16m00s	0.2537	23.998	6.0883	615	0.4684	0.4097	0.2685	0.5283	2578	94.1
97	00h16m10s	0.2537	23.998	6.0883	614.96	0.4682	0.4095	0.2684	0.5282	2579	94.1
98	00h16m20s	0.2537	23.998	6.0883	614.87	0.4683	0.4097	0.2684	0.5283	2580	94.2
99	00h16m30s	0.2537	23.998	6.0883	614.91	0.4683	0.4094	0.2685	0.5282	2578	94.1
100	00h16m40s	0.2537	23.998	6.0883	614.91	0.4681	0.4095	0.2684	0.5282	2580	94.1
101	00h16m50s	0.2537	23.998	6.0883	615.34	0.4682	0.4097	0.2683	0.5282	2581	94.1
102	00h17m00s	0.2537	23.998	6.0883	614.73	0.4681	0.4094	0.2684	0.5281	2580	94.1
103	00h17m10s	0.2537	23.998	6.0883	615	0.4683	0.4094	0.2685	0.5282	2577	94.1
104	00h17m20s	0.2537	23.998	6.0883	615.21	0.4681	0.4096	0.2683	0.5282	2581	94.1
105	00h17m30s	0.2537	23.998	6.0883	614.91	0.4683	0.4096	0.2685	0.5282	2578	94.1
106	00h17m40s	0.2537	23.998	6.0883	615.33	0.4681	0.4096	0.2683	0.5282	2581	94.1
107	00h17m50s	0.2537	23.998	6.0883	614.55	0.4682	0.4094	0.2684	0.5282	2579	94.1
108	00h18m00s	0.2538	23.998	6.0907	614.88	0.468	0.4093	0.2684	0.5281	2580	94.2
109	00h18m10s	0.2538	23.998	6.0907	615.12	0.4682	0.4097	0.2683	0.5283	2580	94.2
110	00h18m20s	0.2538	23.998	6.0907	614.87	0.4683	0.4095	0.2684	0.5282	2578	94.1
111	00h18m30s	0.2538	23.998	6.0907	614.85	0.4681	0.4096	0.2683	0.5282	2581	94.2
112	00h18m40s	0.2538	23.998	6.0907	614.82	0.4683	0.4097	0.2684	0.5283	2579	94.1
113	00h18m50s	0.2538	23.998	6.0907	614.42	0.4684	0.4094	0.2686	0.5282	2576	94.1
114	00h19m00s	0.2538	23.998	6.0907	615.17	0.4682	0.4094	0.2684	0.5282	2579	94.1

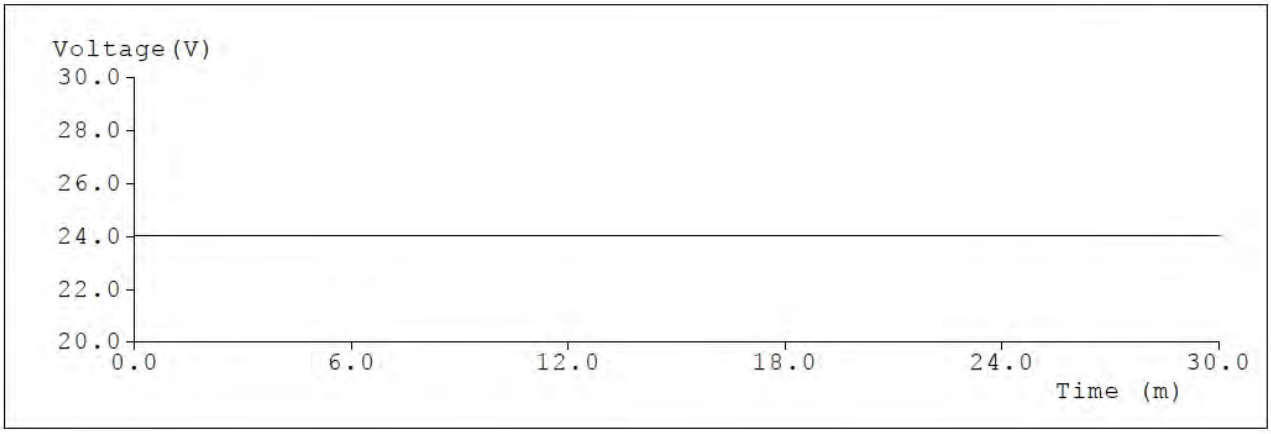
115	00h19m10s	0.2538	23.998	6.0907	615	0.4682	0.4096	0.2684	0.5282	2580	94.1
116	00h19m20s	0.2538	23.998	6.0907	615.07	0.4681	0.4094	0.2683	0.5281	2581	94.1
117	00h19m30s	0.2538	23.998	6.0907	615.07	0.4683	0.4096	0.2684	0.5283	2579	94.1
118	00h19m40s	0.2538	23.998	6.0907	614.53	0.4682	0.4094	0.2684	0.5282	2579	94.1
119	00h19m50s	0.2538	23.998	6.0907	615.12	0.4682	0.4096	0.2684	0.5282	2580	94.1
120	00h20m00s	0.2538	23.998	6.0907	614.96	0.4683	0.4097	0.2684	0.5283	2580	94.1
121	00h20m10s	0.2538	23.998	6.0907	614.8	0.4682	0.4095	0.2684	0.5282	2579	94.1
122	00h20m20s	0.2538	23.998	6.0907	614.69	0.4682	0.4095	0.2684	0.5282	2579	94.1
123	00h20m30s	0.2538	23.998	6.0907	614.85	0.4681	0.4095	0.2683	0.5282	2581	94.1
124	00h20m40s	0.2538	23.998	6.0907	615.18	0.4683	0.4095	0.2685	0.5282	2578	94.1
125	00h20m50s	0.2538	23.998	6.0907	615.1	0.4682	0.4096	0.2684	0.5282	2579	94.1
126	00h21m00s	0.2538	23.998	6.0907	614.61	0.4681	0.4095	0.2683	0.5282	2581	94.2
127	00h21m10s	0.2538	23.998	6.0907	614.9	0.4684	0.4096	0.2685	0.5282	2578	94.1
128	00h21m20s	0.2538	23.998	6.0907	615.04	0.4685	0.4096	0.2685	0.5283	2576	94.1
129	00h21m30s	0.2538	23.998	6.0907	615.05	0.4684	0.4095	0.2686	0.5282	2576	94.1
130	00h21m40s	0.2538	23.998	6.0907	615.28	0.4682	0.4096	0.2683	0.5282	2580	94.1
131	00h21m50s	0.2538	23.998	6.0907	615.07	0.4682	0.4095	0.2684	0.5282	2579	94.2
132	00h22m00s	0.2538	23.998	6.0907	615.22	0.4682	0.4095	0.2684	0.5282	2579	94.1
133	00h22m10s	0.2538	23.998	6.0907	615.19	0.4682	0.4095	0.2684	0.5282	2579	94.1
134	00h22m20s	0.2538	23.998	6.0907	614.6	0.4682	0.4094	0.2685	0.5282	2578	94.1
135	00h22m30s	0.2538	23.998	6.0907	615	0.4682	0.4095	0.2684	0.5282	2579	94.1
136	00h22m40s	0.2538	23.998	6.0907	615.23	0.4683	0.4096	0.2684	0.5283	2579	94.1
137	00h22m50s	0.2538	23.998	6.0907	614.89	0.4682	0.4095	0.2684	0.5282	2579	94.2
138	00h23m00s	0.2538	23.998	6.0907	614.86	0.4682	0.4096	0.2683	0.5282	2580	94.2
139	00h23m10s	0.2538	23.998	6.0907	614.9	0.4683	0.4096	0.2685	0.5282	2578	94.2
140	00h23m20s	0.2538	23.998	6.0907	614.56	0.4684	0.4095	0.2685	0.5282	2577	94.1
141	00h23m30s	0.2538	23.998	6.0907	615.14	0.4682	0.4095	0.2684	0.5282	2579	94.1
142	00h23m40s	0.2538	23.998	6.0907	614.9	0.4683	0.4095	0.2685	0.5282	2577	94.2
143	00h23m50s	0.2538	23.998	6.0907	614.98	0.4682	0.4095	0.2684	0.5282	2579	94.1
144	00h24m00s	0.2538	23.998	6.0907	615.12	0.4684	0.4096	0.2685	0.5282	2577	94.1
145	00h24m10s	0.2538	23.998	6.0907	614.94	0.4683	0.4096	0.2684	0.5282	2580	94.2

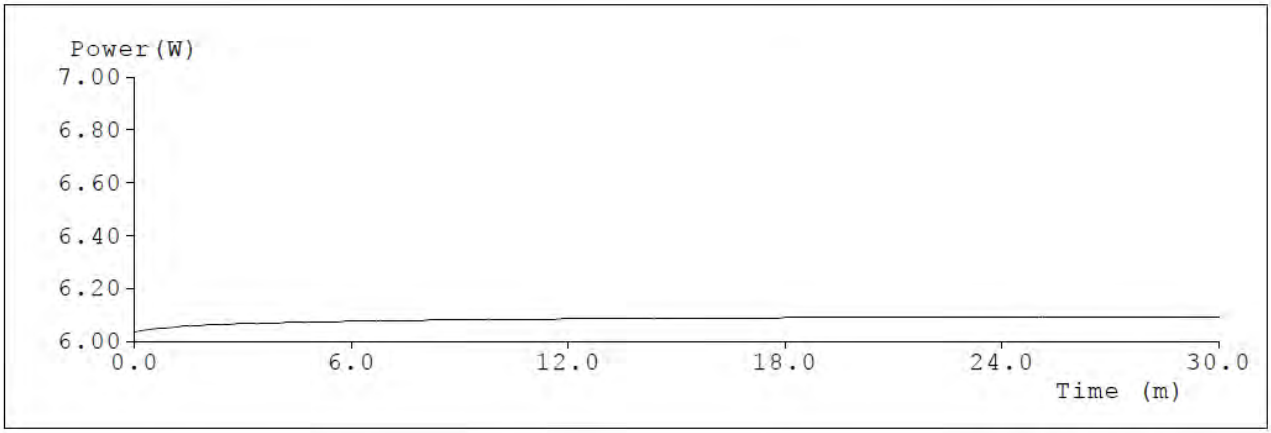
146	00h24m20s	0.2538	23.998	6.0907	615.04	0.4683	0.4096	0.2684	0.5282	2579	94.2
147	00h24m30s	0.2538	23.998	6.0907	615.13	0.4682	0.4096	0.2684	0.5282	2580	94.1
148	00h24m40s	0.2538	23.998	6.0907	614.94	0.4683	0.4096	0.2685	0.5282	2578	94.1
149	00h24m50s	0.2538	23.998	6.0907	615.2	0.4682	0.4096	0.2684	0.5282	2580	94.1
150	00h25m00s	0.2538	23.998	6.0907	614.95	0.4683	0.4097	0.2684	0.5283	2579	94.2
151	00h25m10s	0.2539	23.998	6.0931	615.21	0.4683	0.4097	0.2684	0.5283	2580	94.2
152	00h25m20s	0.2539	23.998	6.0931	615.06	0.4683	0.4095	0.2684	0.5282	2579	94.1
153	00h25m30s	0.2539	23.998	6.0931	614.81	0.4683	0.4094	0.2685	0.5282	2578	94.1
154	00h25m40s	0.2539	23.998	6.0931	614.92	0.4682	0.4094	0.2684	0.5282	2579	94.2
155	00h25m50s	0.2539	23.998	6.0931	614.81	0.4682	0.4095	0.2684	0.5282	2579	94.2
156	00h26m00s	0.2539	23.998	6.0931	614.49	0.4683	0.4095	0.2684	0.5282	2579	94.1
157	00h26m10s	0.2539	23.998	6.0931	615.31	0.4682	0.4093	0.2685	0.5281	2579	94.1
158	00h26m20s	0.2539	23.998	6.0931	614.91	0.4683	0.4095	0.2685	0.5282	2578	94.1
159	00h26m30s	0.2539	23.998	6.0931	614.85	0.4681	0.4094	0.2684	0.5281	2579	94.1
160	00h26m40s	0.2539	23.998	6.0931	614.8	0.4681	0.4096	0.2683	0.5282	2581	94.1
161	00h26m50s	0.2539	23.998	6.0931	615.1	0.4683	0.4096	0.2684	0.5283	2579	94.2
162	00h27m00s	0.2539	23.998	6.0931	615.16	0.4683	0.4095	0.2685	0.5282	2578	94.1
163	00h27m10s	0.2539	23.998	6.0931	615.16	0.4684	0.4096	0.2685	0.5283	2578	94.1
164	00h27m20s	0.2539	23.998	6.0931	614.96	0.4683	0.4096	0.2684	0.5282	2578	94.1
165	00h27m30s	0.2539	23.998	6.0931	614.89	0.4683	0.4096	0.2684	0.5283	2579	94.1
166	00h27m40s	0.2539	23.998	6.0931	615.52	0.4683	0.4094	0.2685	0.5282	2577	94.1
167	00h27m50s	0.2539	23.998	6.0931	614.94	0.4684	0.4096	0.2685	0.5282	2578	94.1
168	00h28m00s	0.2539	23.998	6.0931	615.01	0.4682	0.4095	0.2684	0.5282	2579	94.1
169	00h28m10s	0.2539	23.998	6.0931	615.06	0.4682	0.4094	0.2685	0.5282	2578	94.1
170	00h28m20s	0.2539	23.998	6.0931	614.75	0.4682	0.4094	0.2684	0.5282	2579	94.1
171	00h28m30s	0.2539	23.998	6.0931	615.01	0.4682	0.4096	0.2684	0.5282	2579	94.1
172	00h28m40s	0.2539	23.998	6.0931	615.25	0.4682	0.4095	0.2684	0.5282	2579	94.1
173	00h28m50s	0.2539	23.998	6.0931	614.96	0.4683	0.4096	0.2684	0.5282	2579	94.1
174	00h29m00s	0.2539	23.998	6.0931	615.31	0.4683	0.4096	0.2684	0.5282	2579	94.1
175	00h29m10s	0.2539	23.998	6.0931	614.88	0.4684	0.4096	0.2685	0.5283	2577	94.1
176	00h29m20s	0.2539	23.998	6.0931	615.32	0.4682	0.4096	0.2684	0.5282	2580	94.1

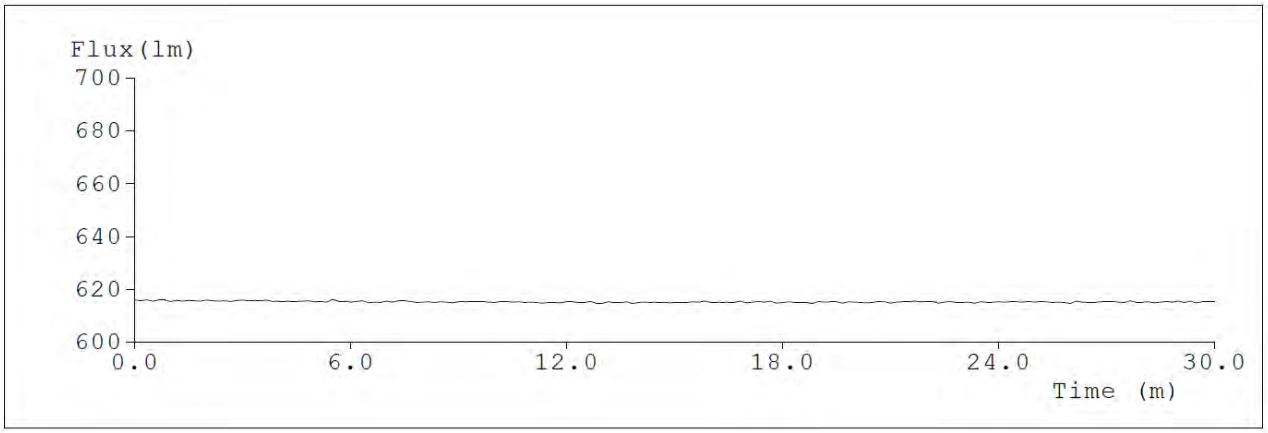
177	00h29m30s	0.2539	23.998	6.0931	614.67	0.4684	0.4096	0.2685	0.5283	2577	94.1
178	00h29m40s	0.2539	23.998	6.0931	615.14	0.4683	0.4097	0.2684	0.5283	2579	94.2
179	00h29m50s	0.2539	23.998	6.0931	615.13	0.4683	0.4096	0.2684	0.5283	2578	94.1
180	00h30m00s	0.2539	23.998	6.0931	615.13	0.4684	0.4097	0.2685	0.5283	2578	94.1

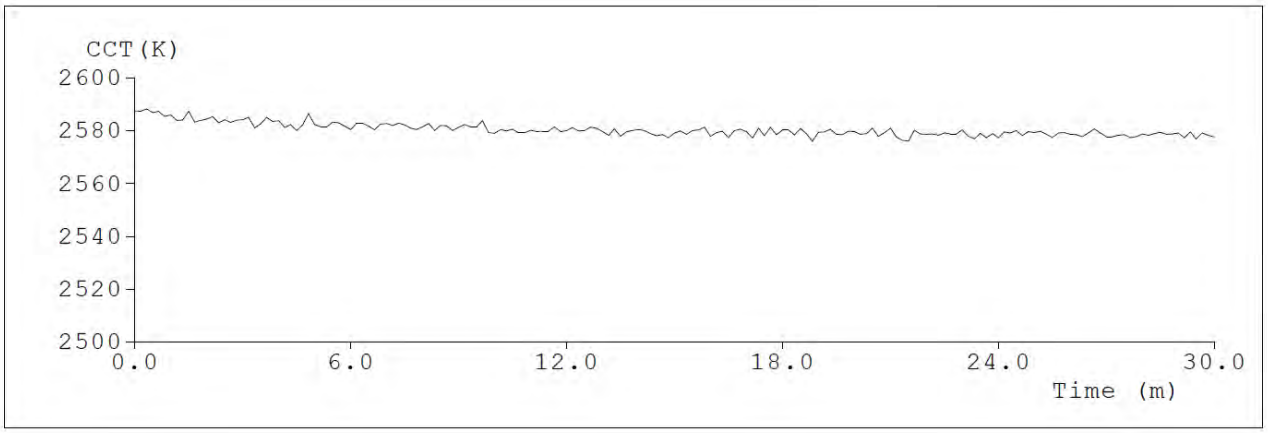
Test curves

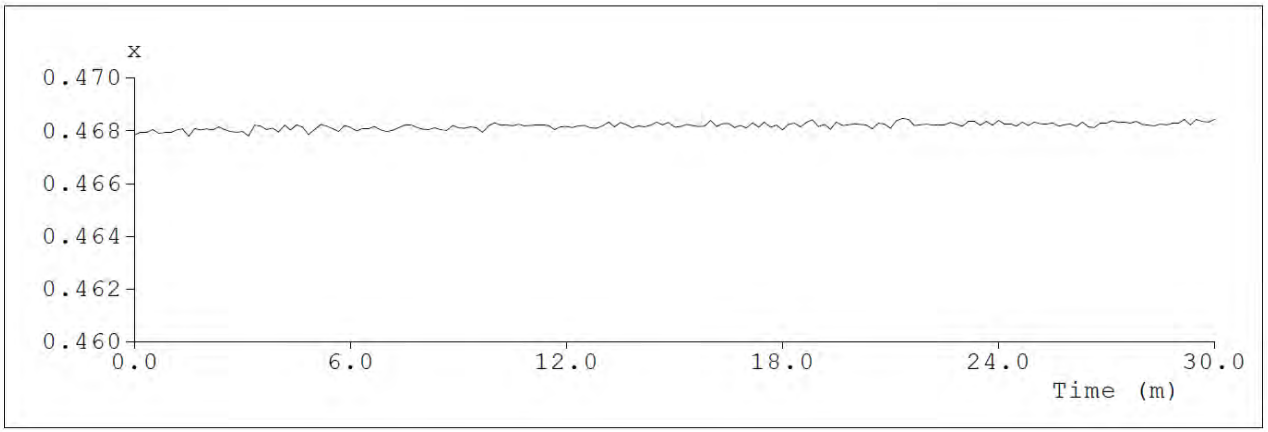


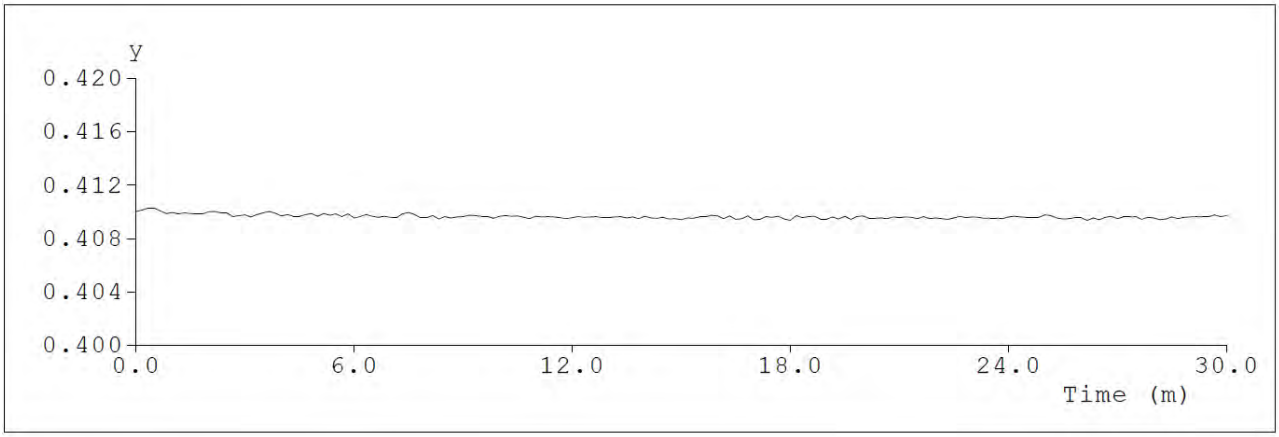


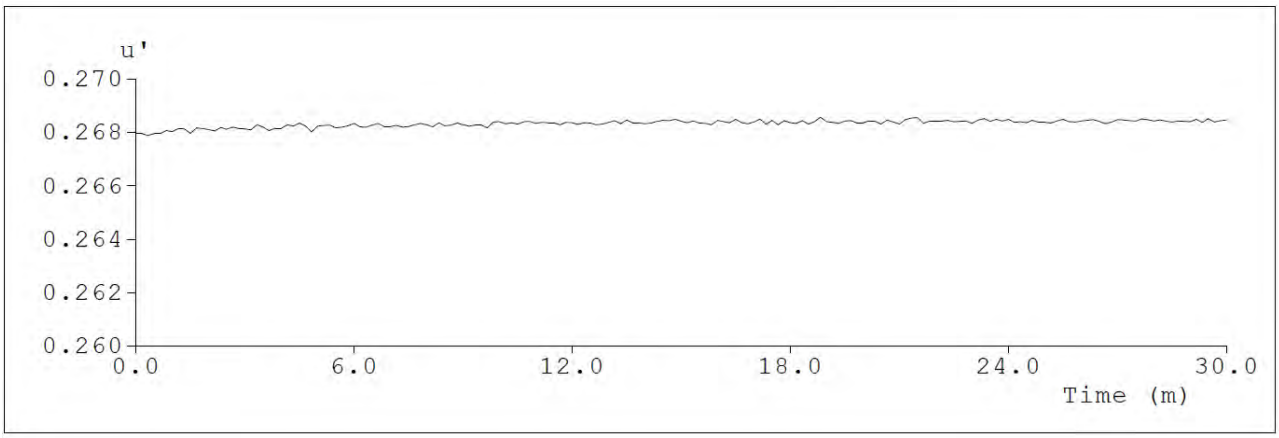


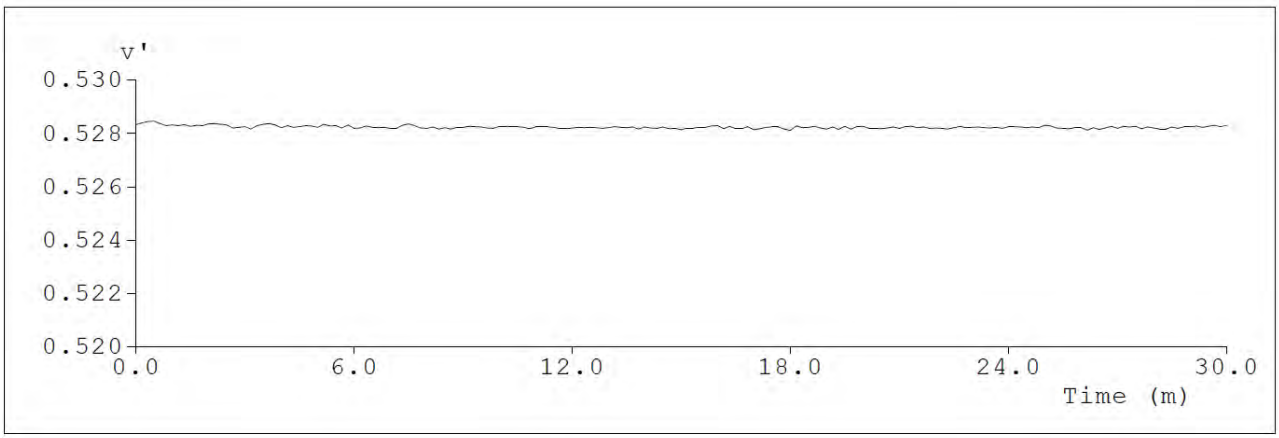

Flux(lm)
700
680
660
640
620
600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2600
2580
2560
2540
2520
2500
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
0.420
0.416
0.412
0.408
0.404
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)

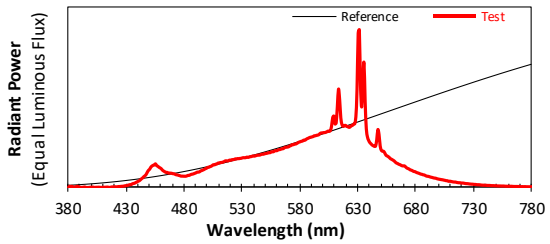

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

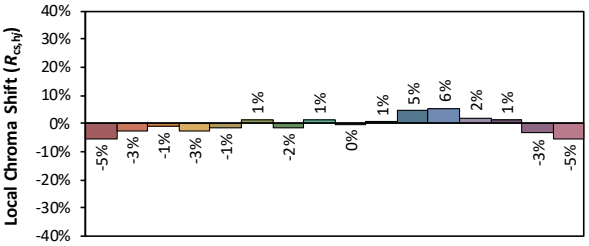
*5.2 ANSI/IES TM-30-18 Color Rendition Report

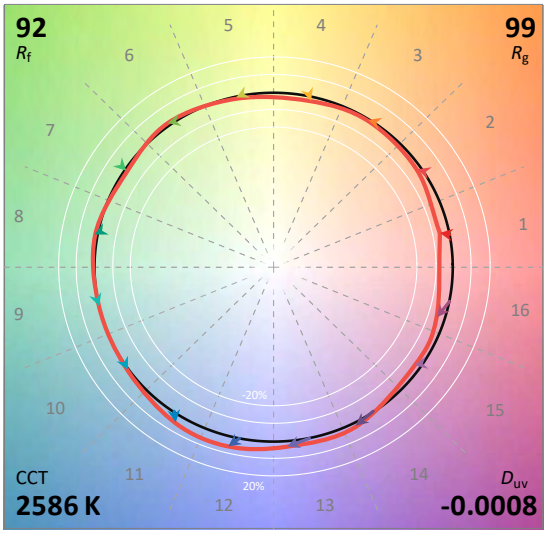
ANSI/IES TM-30-18 Color Rendition Report

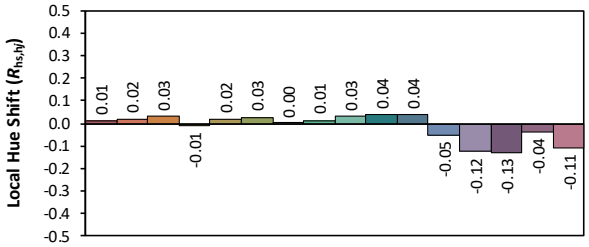
Source: Manufacturer:

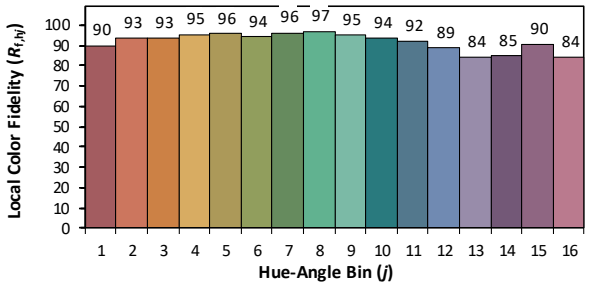
Date: 2023/9/26 Model: LFUY-1000-L27-DF-I-6

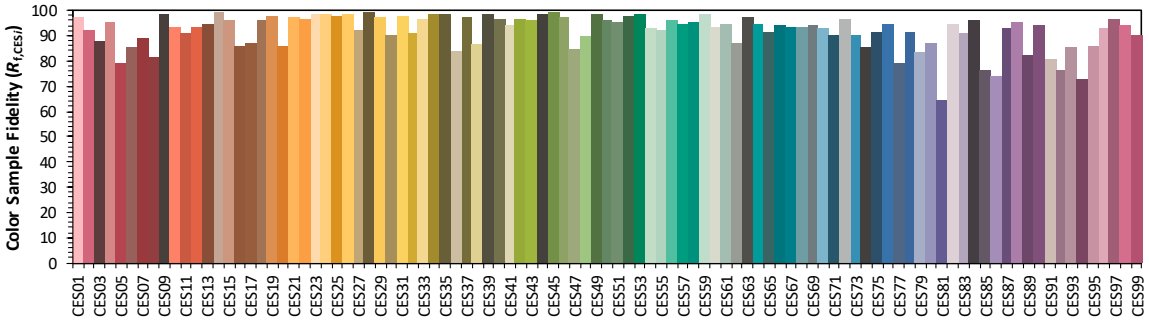












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

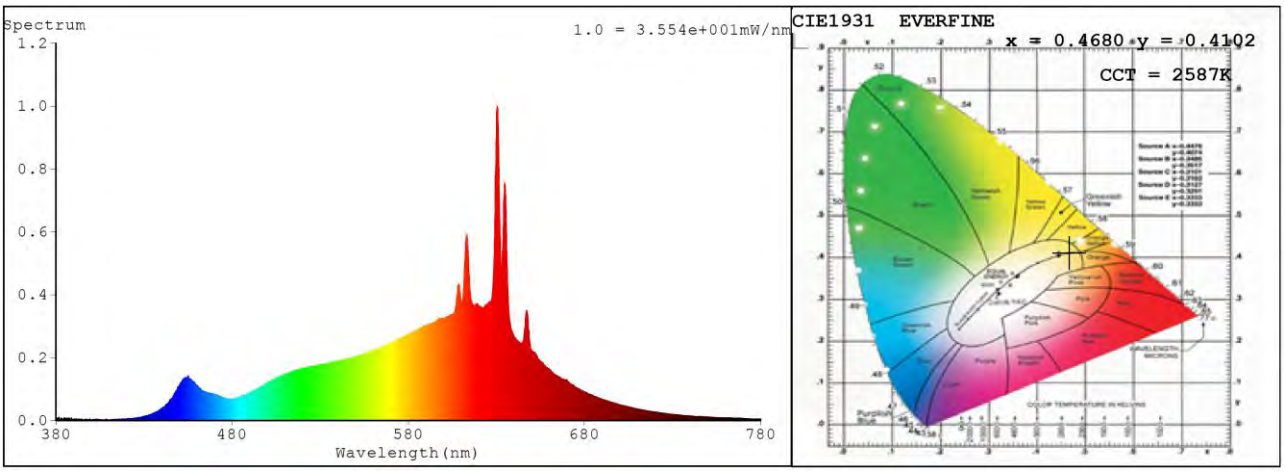
x	0.4681
y	0.4102
u'	0.2680
v'	0.5284

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.

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0023	414	0.0026	448	0.092	482	0.069	516	0.1589
381	0.0081	415	0.0008	449	0.1025	483	0.0721	517	0.1579
382	0.004	416	0.0017	450	0.1093	484	0.0725	518	0.1595
383	0.0077	417	0.0034	451	0.1211	485	0.0755	519	0.1631
384	0	418	0.004	452	0.1277	486	0.0788	520	0.1619
385	0.0023	419	0.0038	453	0.1322	487	0.0798	521	0.1655
386	0.0045	420	0.0048	454	0.1342	488	0.0821	522	0.1659
387	0.0065	421	0.0044	455	0.141	489	0.0849	523	0.1674
388	0.007	422	0.0047	456	0.1307	490	0.0877	524	0.1704
389	0.0023	423	0.0059	457	0.1268	491	0.0914	525	0.1702
390	0.0025	424	0.0061	458	0.1209	492	0.0919	526	0.172
391	0.0005	425	0.0071	459	0.1167	493	0.0936	527	0.1716
392	0.0016	426	0.0076	460	0.1118	494	0.0988	528	0.1731
393	0.0026	427	0.008	461	0.1037	495	0.1012	529	0.1738
394	0.0034	428	0.0094	462	0.0984	496	0.1043	530	0.1762
395	0.0009	429	0.011	463	0.0943	497	0.1075	531	0.1775
396	0.0001	430	0.0118	464	0.0903	498	0.1118	532	0.177
397	0.0008	431	0.0133	465	0.0901	499	0.1144	533	0.1779
398	0.0008	432	0.0155	466	0.0868	500	0.1197	534	0.1808
399	0.0028	433	0.0174	467	0.0862	501	0.1206	535	0.1791
400	0.001	434	0.0179	468	0.0854	502	0.124	536	0.1815
401	0.0031	435	0.022	469	0.0847	503	0.1264	537	0.1834
402	0.0013	436	0.0244	470	0.0826	504	0.1309	538	0.1844
403	0.0013	437	0.0259	471	0.0818	505	0.1358	539	0.1877
404	0.0019	438	0.0301	472	0.0787	506	0.1349	540	0.1866
405	0.0018	439	0.0331	473	0.0758	507	0.139	541	0.1877
406	0.0024	440	0.0376	474	0.075	508	0.14	542	0.1902
407	0.0015	441	0.0405	475	0.0725	509	0.1453	543	0.1919
408	0.001	442	0.0462	476	0.0707	510	0.146	544	0.1925
409	0.0012	443	0.0525	477	0.0681	511	0.1486	545	0.1929
410	0.002	444	0.0578	478	0.068	512	0.1488	546	0.1956
411	0.0018	445	0.0651	479	0.0676	513	0.1509	547	0.1981
412	0.0022	446	0.0706	480	0.0674	514	0.1531	548	0.1979
413	0.0028	447	0.0787	481	0.0673	515	0.1575	549	0.2

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.202	599	0.3244	648	0.314	697	0.0553	746	0.0115
551	0.2033	600	0.3261	649	0.2462	698	0.0527	747	0.0115
552	0.2051	601	0.3261	650	0.2213	699	0.0509	748	0.0107
553	0.2074	602	0.3284	651	0.216	700	0.0495	749	0.0108
554	0.2071	603	0.331	652	0.2153	701	0.0482	750	0.01
555	0.2122	604	0.3355	653	0.2044	702	0.047	751	0.0098
556	0.2123	605	0.3338	654	0.1921	703	0.046	752	0.0096
557	0.2132	606	0.3384	655	0.1876	704	0.0442	753	0.0095
558	0.2184	607	0.3641	656	0.1834	705	0.0429	754	0.0091
559	0.2189	608	0.4145	657	0.1774	706	0.041	755	0.0093
560	0.2194	609	0.424	658	0.1709	707	0.0406	756	0.009
561	0.2241	610	0.3773	659	0.1673	708	0.0372	757	0.0082
562	0.2251	611	0.3841	660	0.1629	709	0.0378	758	0.008
563	0.2268	612	0.4802	661	0.1584	710	0.0367	759	0.0077
564	0.2301	613	0.5841	662	0.1515	711	0.035	760	0.0081
565	0.2304	614	0.5207	663	0.1458	712	0.0337	761	0.0074
566	0.2345	615	0.4134	664	0.1429	713	0.0329	762	0.0079
567	0.2391	616	0.3742	665	0.1386	714	0.0327	763	0.0074
568	0.2394	617	0.3633	666	0.1362	715	0.0307	764	0.0068
569	0.2406	618	0.3667	667	0.1324	716	0.0295	765	0.0066
570	0.2424	619	0.3698	668	0.1293	717	0.0286	766	0.0066
571	0.2471	620	0.3631	669	0.1287	718	0.0286	767	0.0066
572	0.2495	621	0.3621	670	0.1285	719	0.027	768	0.0063
573	0.255	622	0.3575	671	0.1223	720	0.0269	769	0.0062
574	0.2542	623	0.3598	672	0.1162	721	0.0263	770	0.0058
575	0.2582	624	0.3669	673	0.113	722	0.0248	771	0.0054
576	0.2585	625	0.3688	674	0.1098	723	0.0237	772	0.0057
577	0.2619	626	0.3761	675	0.1048	724	0.0233	773	0.0052
578	0.2662	627	0.3787	676	0.103	725	0.0227	774	0.0057
579	0.27	628	0.4192	677	0.0993	726	0.0215	775	0.005
580	0.2719	629	0.5836	678	0.0957	727	0.0209	776	0.0049
581	0.275	630	0.9153	679	0.0946	728	0.0202	777	0.0048
582	0.276	631	0.9351	680	0.0909	729	0.02	778	0.0047
583	0.282	632	0.6061	681	0.088	730	0.0187	779	0.005
584	0.2809	633	0.478	682	0.0858	731	0.0188	780	0.0051
585	0.2859	634	0.6307	683	0.0831	732	0.0177		
586	0.2905	635	0.7421	684	0.08	733	0.017		
587	0.2931	636	0.5112	685	0.0787	734	0.017		
588	0.297	637	0.3499	686	0.076	735	0.0165		
589	0.2989	638	0.3004	687	0.0749	736	0.0153		
590	0.3007	639	0.2805	688	0.0715	737	0.0145		
591	0.3026	640	0.2675	689	0.0682	738	0.0143		
592	0.3074	641	0.2603	690	0.0671	739	0.0138		
593	0.3073	642	0.2529	691	0.0658	740	0.0138		
594	0.3101	643	0.2486	692	0.0632	741	0.0133		
595	0.3114	644	0.2447	693	0.0614	742	0.0126		
596	0.3137	645	0.2461	694	0.0599	743	0.0129		
597	0.3206	646	0.2827	695	0.0576	744	0.0123		
598	0.324	647	0.3439	696	0.0563	745	0.0116		

6. Goniophotometer Test results for LFUY-1000-L27-DF-I-6

6.1 Test Data

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

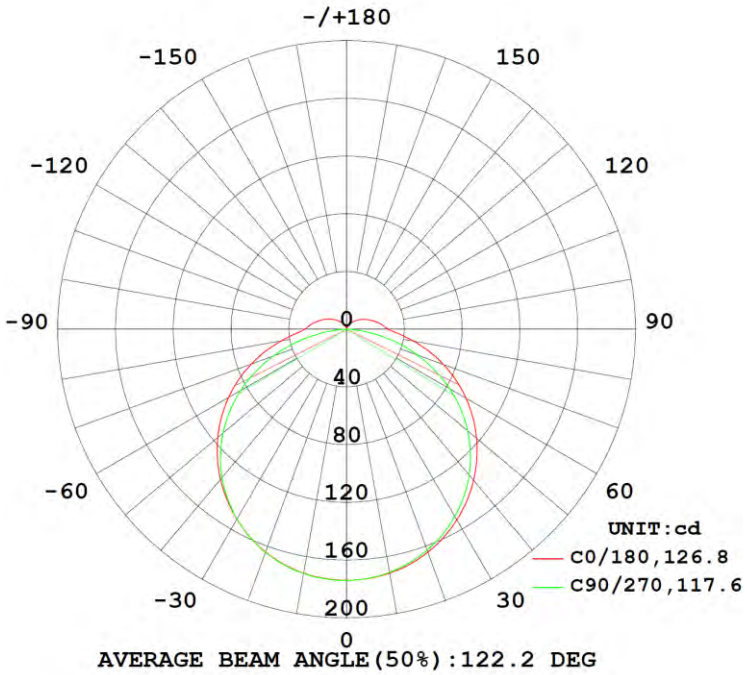
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
23.996	--	0.26453	1.0000	6.3476

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
625.369	98.52	174.1	8.3	91.7

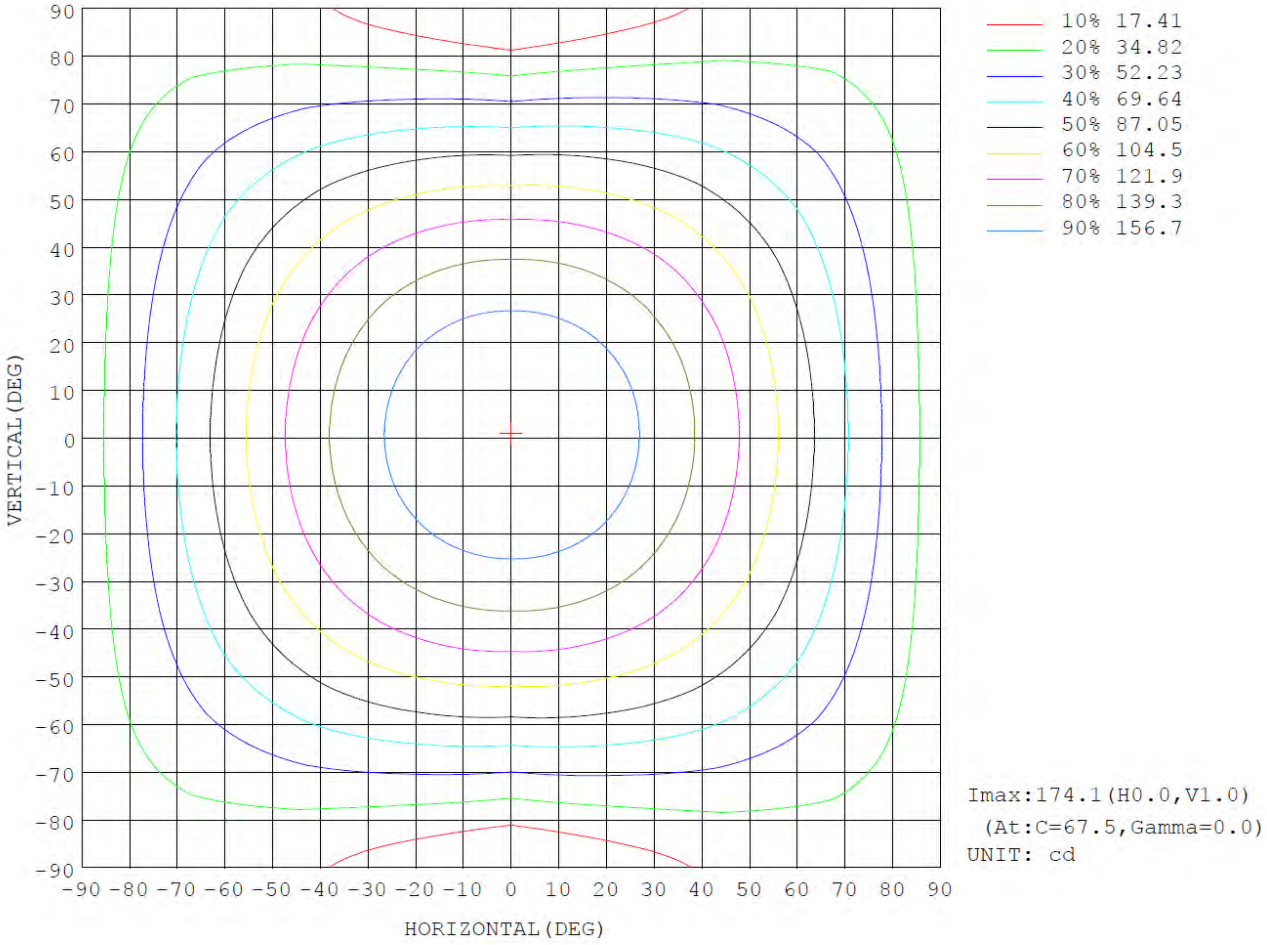
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	171.6	171.4	171.1	171.2	171.5	171.9	171.9	171.8	0- 10	16.49	16.49	2.64,2.64
20	164.4	163.8	163.0	163.5	164.2	164.7	164.5	164.8	10- 20	47.57	64.07	10.2,10.2
30	152.5	151.4	149.8	150.9	152.1	152.5	151.9	152.9	20- 30	73.10	137.2	21.9,21.9
40	136.7	134.8	131.9	134.2	135.9	135.9	134.3	136.6	30- 40	90.10	227.3	36.3,36.3
50	117.5	114.6	109.3	113.7	116.5	115.4	111.8	116.4	40- 50	96.62	323.9	51.8,51.8
60	95.50	91.11	82.46	90.05	94.40	91.67	84.67	92.94	50- 60	91.92	415.8	66.5,66.5
70	71.43	65.30	52.01	64.08	70.23	65.47	53.83	66.94	60- 70	76.57	492.4	78.7,78.7
80	46.84	39.06	20.69	37.99	45.84	38.95	21.13	40.34	70- 80	52.99	545.4	87.2,87.2
90	28.75	20.52	1.231	20.48	29.09	20.82	0.9756	20.89	80- 90	28.39	573.8	91.7,91.7
100	23.52	15.58	0.0700	15.66	23.84	15.91	0.0865	15.85	90-100	17.49	591.3	94.5,94.5
110	18.27	11.54	0.0973	11.67	18.80	11.90	0.1052	11.67	100-110	12.94	604.2	96.6,96.6
120	13.84	8.172	0.1325	8.408	14.37	8.613	0.1170	8.284	110-120	9.048	613.2	98.1,98.1
130	9.974	5.693	0.1639	5.341	10.41	5.807	0.1470	5.782	120-130	5.891	619.1	99,99
140	6.724	3.717	0.1808	3.563	6.701	3.739	0.2026	3.679	130-140	3.482	622.6	99.6,99.6
150	3.923	2.195	0.1987	2.250	4.041	2.727	0.2504	1.906	140-150	1.781	624.4	99.8,99.8
160	1.895	0.9530	0.2239	0.8541	2.141	1.645	0.2865	0.5836	150-160	0.7457	625.1	100,100
170	0.5372	0.3206	0.2613	0.2947	0.3606	0.3295	0.3152	0.3222	160-170	0.1925	625.3	100,100
180	0.2965	0.3077	0.2988	0.3091	0.3008	0.3191	0.3004	0.2982	170-180	0.0304	625.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

γ (DEG) \ C (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	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174			
5	173	173	173	173	173	173	173	173	173	173	174	174	174	174	174	173			
10	172	171	171	171	171	171	171	171	172	172	172	172	172	172	172	172			
15	169	168	168	168	168	168	168	168	169	169	169	169	169	169	169	169			
20	164	164	164	163	163	163	164	164	164	164	165	165	164	165	165	165			
25	159	159	158	158	157	157	158	158	159	159	159	159	159	159	159	159			
30	153	152	151	151	150	150	151	152	152	152	152	152	152	152	153	153			
35	145	145	144	142	141	142	143	144	144	145	145	144	144	144	145	145			
40	137	136	135	133	132	133	134	135	136	136	136	135	134	135	137	137			
45	127	127	125	123	121	122	124	126	127	127	126	125	124	125	127	128			
50	117	117	115	112	109	111	114	115	116	116	115	113	112	114	116	118			
55	107	106	103	99.4	96.4	98.7	102	105	106	106	104	101	98.7	102	105	107			
60	95.5	94.2	91.1	86.3	82.5	85.6	90.0	93.0	94.4	93.9	91.7	87.8	84.7	88.5	92.9	95.3			
65	83.6	82.1	78.4	72.5	67.5	71.7	77.3	80.8	82.5	81.8	78.8	73.7	69.6	74.5	80.2	83.3			
70	71.4	69.7	65.3	58.2	52.0	57.3	64.1	68.3	70.2	69.2	65.5	59.1	53.8	60.0	66.9	70.8			
75	59.0	57.1	52.0	43.6	36.2	42.8	50.8	55.7	57.8	56.5	52.0	44.3	37.6	45.2	53.5	58.1			
80	46.8	44.7	39.1	29.7	20.7	28.9	38.0	43.5	45.8	44.3	38.9	30.0	21.1	31.0	40.3	45.7			
85	36.0	33.8	27.8	17.8	6.83	17.3	27.0	33.1	35.5	33.6	27.9	17.9	7.38	18.5	28.7	34.6			
90	28.8	26.6	20.5	10.7	1.23	10.5	20.5	26.8	29.1	27.1	20.8	10.8	0.98	10.9	20.9	27.3			
95	25.8	23.8	18.0	8.47	0.06	8.32	18.0	24.3	26.5	24.5	18.4	8.50	0.08	8.56	18.2	24.0			
100	23.5	21.4	15.6	6.87	0.07	6.71	15.7	21.6	23.8	21.9	15.9	6.84	0.09	6.84	15.8	21.7			
105	20.8	18.8	13.4	5.48	0.08	5.43	13.6	19.2	21.2	19.3	13.8	5.57	0.10	5.56	13.6	19.0			
110	18.3	16.5	11.5	4.63	0.10	4.20	11.7	16.9	18.8	17.0	11.9	4.55	0.11	4.62	11.7	16.6			
115	16.0	14.4	9.90	3.83	0.12	3.15	9.97	14.8	16.5	14.9	10.2	3.63	0.11	3.78	9.66	14.4			
120	13.8	12.3	8.17	3.13	0.13	2.68	8.41	12.7	14.4	12.8	8.61	2.80	0.12	3.08	8.28	12.5			
125	11.8	10.5	6.62	2.56	0.15	2.31	6.75	10.8	12.3	10.9	7.16	2.23	0.13	2.52	7.00	10.1			
130	9.97	8.86	5.69	2.10	0.16	1.97	5.34	9.02	10.4	9.19	5.81	1.99	0.15	2.06	5.78	8.71			
135	8.29	7.32	4.66	1.69	0.17	1.56	4.37	7.05	8.47	7.42	4.66	1.69	0.17	1.65	4.69	7.27			
140	6.72	5.66	3.72	1.34	0.18	1.21	3.56	5.63	6.70	5.98	3.74	1.43	0.20	1.27	3.68	5.84			
145	5.28	4.44	2.89	1.02	0.19	0.79	2.91	4.43	5.27	4.73	3.13	1.24	0.23	0.88	2.75	4.50			
150	3.92	3.39	2.19	0.74	0.20	0.45	2.25	3.45	4.04	3.73	2.73	1.01	0.25	0.49	1.91	3.31			
155	2.84	2.47	1.57	0.49	0.21	0.26	1.56	2.65	3.13	3.00	2.20	0.83	0.27	0.30	1.11	2.27			
160	1.90	1.67	0.95	0.32	0.22	0.26	0.85	1.74	2.14	2.10	1.65	0.62	0.29	0.29	0.58	1.37			
165	1.13	0.94	0.52	0.27	0.24	0.27	0.29	0.84	1.18	1.18	0.84	0.33	0.29	0.29	0.36	0.69			
170	0.54	0.43	0.32	0.27	0.26	0.28	0.29	0.31	0.36	0.36	0.33	0.34	0.32	0.31	0.32	0.38			
175	0.31	0.31	0.30	0.28	0.28	0.29	0.31	0.32	0.34	0.34	0.34	0.33	0.31	0.31	0.31	0.32			
180	0.30	0.32	0.31	0.30	0.30	0.30	0.31	0.32	0.30	0.31	0.32	0.31	0.30	0.30	0.30	0.31			

7. Integrating Sphere Test Results for LFUY-1000-L27-DF-I-10

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	0.4026	23.998	9.6616	972.22	0.4685	0.411	0.2679	0.5288	2587	94
1	00h00m10s	0.4031	23.998	9.6736	973.05	0.4685	0.4111	0.2678	0.5288	2588	94
2	00h00m20s	0.4034	23.998	9.6808	971.81	0.4685	0.411	0.2679	0.5288	2586	94
3	00h00m30s	0.4037	23.998	9.688	972.34	0.4686	0.411	0.268	0.5288	2586	94
4	00h00m40s	0.4039	23.998	9.6928	972.38	0.4685	0.4109	0.268	0.5288	2586	94
5	00h00m50s	0.4041	23.998	9.6976	972.35	0.4685	0.411	0.2679	0.5288	2587	94
6	00h01m00s	0.4043	23.998	9.7024	972.36	0.4685	0.4108	0.268	0.5287	2585	94
7	00h01m10s	0.4044	23.998	9.7048	972.51	0.4685	0.4109	0.268	0.5288	2585	94
8	00h01m20s	0.4046	23.998	9.7096	972.12	0.4683	0.4107	0.268	0.5287	2586	94
9	00h01m30s	0.4047	23.998	9.712	971.92	0.4685	0.4106	0.2681	0.5287	2584	94
10	00h01m40s	0.4048	23.998	9.7144	971.38	0.4686	0.4106	0.2682	0.5287	2582	93.9
11	00h01m50s	0.405	23.998	9.7192	972.7	0.4685	0.4106	0.2681	0.5286	2584	94
12	00h02m00s	0.4051	23.998	9.7216	971.62	0.4685	0.4106	0.2681	0.5286	2584	94
13	00h02m10s	0.4052	23.998	9.724	972.03	0.4685	0.4105	0.2681	0.5286	2584	94
14	00h02m20s	0.4053	23.998	9.7264	972.62	0.4686	0.4108	0.268	0.5288	2585	94
15	00h02m30s	0.4054	23.998	9.7288	971.64	0.4686	0.4106	0.2682	0.5287	2582	94
16	00h02m40s	0.4055	23.998	9.7312	971.8	0.4687	0.4106	0.2682	0.5287	2581	93.9
17	00h02m50s	0.4055	23.998	9.7312	972.02	0.4687	0.4106	0.2682	0.5287	2582	94
18	00h03m00s	0.4056	23.998	9.7336	972.67	0.4686	0.4106	0.2682	0.5287	2582	94
19	00h03m10s	0.4057	23.998	9.736	971.73	0.4687	0.4104	0.2683	0.5286	2580	94
20	00h03m20s	0.4058	23.998	9.7384	972.05	0.4685	0.4104	0.2682	0.5286	2582	94
21	00h03m30s	0.4058	23.998	9.7384	971.91	0.4687	0.4106	0.2683	0.5287	2581	94

22	00h03m40s	0.4059	23.998	9.7408	971.89	0.4687	0.4106	0.2682	0.5287	2582	94
23	00h03m50s	0.406	23.998	9.7432	971.74	0.4686	0.4106	0.2682	0.5287	2582	94
24	00h04m00s	0.406	23.998	9.7432	971.77	0.4686	0.4104	0.2683	0.5286	2581	94
25	00h04m10s	0.4061	23.998	9.7456	971	0.4687	0.4106	0.2682	0.5287	2581	94.1
26	00h04m20s	0.4061	23.998	9.7456	971.76	0.4685	0.4105	0.2681	0.5286	2583	94
27	00h04m30s	0.4062	23.998	9.748	971.62	0.4687	0.4106	0.2682	0.5287	2581	94
28	00h04m40s	0.4063	23.998	9.7504	971.77	0.4688	0.4106	0.2683	0.5287	2580	94
29	00h04m50s	0.4063	23.998	9.7504	971.41	0.4689	0.4106	0.2683	0.5287	2579	94
30	00h05m00s	0.4064	23.998	9.7528	971.12	0.4688	0.4105	0.2683	0.5286	2579	94
31	00h05m10s	0.4064	23.998	9.7528	971.53	0.4689	0.4105	0.2684	0.5287	2578	94
32	00h05m20s	0.4065	23.998	9.7552	971.19	0.4686	0.4105	0.2682	0.5286	2581	94
33	00h05m30s	0.4065	23.998	9.7552	970.93	0.4688	0.4104	0.2683	0.5286	2579	94
34	00h05m40s	0.4066	23.998	9.7576	971.51	0.4687	0.4105	0.2683	0.5287	2580	94
35	00h05m50s	0.4066	23.998	9.7576	971.54	0.4687	0.4106	0.2682	0.5287	2581	94
36	00h06m00s	0.4066	23.998	9.7576	971.58	0.4689	0.4105	0.2684	0.5287	2578	93.9
37	00h06m10s	0.4067	23.998	9.76	971.28	0.4688	0.4104	0.2684	0.5286	2579	94
38	00h06m20s	0.4067	23.998	9.76	971.38	0.4687	0.4102	0.2684	0.5285	2578	94
39	00h06m30s	0.4068	23.998	9.7624	971.05	0.4688	0.4104	0.2684	0.5286	2579	93.9
40	00h06m40s	0.4068	23.998	9.7624	970.93	0.4685	0.4102	0.2683	0.5285	2581	94
41	00h06m50s	0.4068	23.998	9.7624	971.11	0.4687	0.4104	0.2683	0.5286	2579	94
42	00h07m00s	0.4069	23.998	9.7648	971.15	0.4687	0.4103	0.2684	0.5286	2578	94
43	00h07m10s	0.4069	23.998	9.7648	971.6	0.4688	0.4105	0.2683	0.5287	2579	94
44	00h07m20s	0.4069	23.998	9.7648	971.09	0.4688	0.4104	0.2684	0.5286	2578	94
45	00h07m30s	0.407	23.998	9.7672	971.6	0.4688	0.4105	0.2683	0.5287	2580	93.9
46	00h07m40s	0.407	23.998	9.7672	971.3	0.4687	0.4105	0.2683	0.5286	2580	94
47	00h07m50s	0.407	23.998	9.7672	971.38	0.4687	0.4103	0.2684	0.5286	2579	94
48	00h08m00s	0.4071	23.998	9.7696	970.82	0.4689	0.4102	0.2685	0.5286	2576	94
49	00h08m10s	0.4071	23.998	9.7696	971.74	0.4689	0.4104	0.2684	0.5287	2578	94
50	00h08m20s	0.4071	23.998	9.7696	970.82	0.4687	0.4102	0.2684	0.5285	2578	93.9
51	00h08m30s	0.4072	23.998	9.772	970.99	0.469	0.4104	0.2685	0.5287	2576	93.9
52	00h08m40s	0.4072	23.998	9.772	970.95	0.4688	0.4104	0.2683	0.5286	2579	94

53	00h08m50s	0.4072	23.998	9.772	970.6	0.4689	0.4105	0.2684	0.5287	2577	94
54	00h09m00s	0.4073	23.998	9.7744	970.92	0.4689	0.4104	0.2684	0.5286	2577	94
55	00h09m10s	0.4073	23.998	9.7744	970.93	0.4688	0.4104	0.2684	0.5286	2578	94
56	00h09m20s	0.4073	23.998	9.7744	970.62	0.4688	0.4102	0.2684	0.5286	2577	94
57	00h09m30s	0.4073	23.998	9.7744	971.32	0.4688	0.4104	0.2684	0.5286	2578	93.9
58	00h09m40s	0.4074	23.998	9.7768	970.78	0.4689	0.4104	0.2684	0.5286	2577	94
59	00h09m50s	0.4074	23.998	9.7768	970.91	0.4687	0.4103	0.2684	0.5286	2579	94
60	00h10m00s	0.4074	23.998	9.7768	970.05	0.469	0.4103	0.2686	0.5286	2575	93.9
61	00h10m10s	0.4074	23.998	9.7768	970.94	0.469	0.4104	0.2685	0.5287	2576	94
62	00h10m20s	0.4075	23.998	9.7792	970.3	0.469	0.4104	0.2685	0.5287	2576	93.9
63	00h10m30s	0.4075	23.998	9.7792	970.83	0.4689	0.4105	0.2684	0.5287	2578	94
64	00h10m40s	0.4075	23.998	9.7792	970.49	0.469	0.4103	0.2686	0.5286	2575	94
65	00h10m50s	0.4075	23.998	9.7792	970.69	0.469	0.4103	0.2685	0.5286	2575	94
66	00h11m00s	0.4075	23.998	9.7792	971.21	0.4689	0.4103	0.2685	0.5286	2577	94
67	00h11m10s	0.4075	23.998	9.7792	970.49	0.4689	0.4103	0.2685	0.5286	2577	94
68	00h11m20s	0.4076	23.998	9.7816	970.68	0.4688	0.4104	0.2684	0.5286	2578	94
69	00h11m30s	0.4076	23.998	9.7816	970.88	0.4689	0.4103	0.2685	0.5286	2576	94
70	00h11m40s	0.4076	23.998	9.7816	970.33	0.4689	0.4102	0.2685	0.5286	2576	93.9
71	00h11m50s	0.4076	23.998	9.7816	970.42	0.4689	0.4103	0.2685	0.5286	2576	93.9
72	00h12m00s	0.4077	23.998	9.784	971.06	0.469	0.4103	0.2685	0.5286	2575	94
73	00h12m10s	0.4077	23.998	9.784	970.04	0.4687	0.4102	0.2684	0.5285	2578	94
74	00h12m20s	0.4077	23.998	9.784	970.19	0.4689	0.4102	0.2685	0.5286	2576	94
75	00h12m30s	0.4077	23.998	9.784	970.16	0.4689	0.4102	0.2685	0.5286	2576	94
76	00h12m40s	0.4077	23.998	9.784	971.01	0.4688	0.4103	0.2685	0.5286	2577	94
77	00h12m50s	0.4077	23.998	9.784	970.91	0.4688	0.4102	0.2684	0.5285	2577	94
78	00h13m00s	0.4078	23.998	9.7864	970.42	0.4689	0.4103	0.2685	0.5286	2577	94
79	00h13m10s	0.4078	23.998	9.7864	970.51	0.4689	0.4102	0.2685	0.5286	2576	94
80	00h13m20s	0.4078	23.998	9.7864	970.6	0.4689	0.4102	0.2685	0.5285	2575	94
81	00h13m30s	0.4078	23.998	9.7864	970.13	0.469	0.4102	0.2686	0.5286	2574	94
82	00h13m40s	0.4078	23.998	9.7864	970.27	0.4689	0.4102	0.2685	0.5286	2576	94
83	00h13m50s	0.4078	23.998	9.7864	970.62	0.4688	0.4101	0.2685	0.5285	2577	94

84	00h14m00s	0.4078	23.998	9.7864	971.33	0.4688	0.4103	0.2684	0.5286	2578	93.9
85	00h14m10s	0.4079	23.998	9.7888	970.73	0.4689	0.4104	0.2685	0.5286	2577	94
86	00h14m20s	0.4079	23.998	9.7888	970.02	0.4689	0.4102	0.2686	0.5285	2575	94
87	00h14m30s	0.4079	23.998	9.7888	970.81	0.4688	0.4103	0.2684	0.5286	2578	94
88	00h14m40s	0.4079	23.998	9.7888	970.26	0.469	0.4103	0.2685	0.5286	2575	93.9
89	00h14m50s	0.4079	23.998	9.7888	970.42	0.469	0.4103	0.2685	0.5286	2575	94
90	00h15m00s	0.4079	23.998	9.7888	970.22	0.4689	0.4101	0.2686	0.5285	2575	93.9
91	00h15m10s	0.4079	23.998	9.7888	970.36	0.4689	0.4103	0.2685	0.5286	2576	94
92	00h15m20s	0.4079	23.998	9.7888	970.48	0.469	0.4102	0.2686	0.5286	2574	93.9
93	00h15m30s	0.4079	23.998	9.7888	970.17	0.4689	0.4102	0.2685	0.5286	2576	94
94	00h15m40s	0.408	23.998	9.7912	969.56	0.4689	0.4103	0.2685	0.5286	2576	94
95	00h15m50s	0.408	23.998	9.7912	970.68	0.4689	0.4102	0.2685	0.5286	2575	93.9
96	00h16m00s	0.408	23.998	9.7912	970.4	0.469	0.4101	0.2686	0.5286	2574	93.9
97	00h16m10s	0.408	23.998	9.7912	970.21	0.4689	0.4102	0.2685	0.5286	2575	94
98	00h16m20s	0.408	23.998	9.7912	971.08	0.469	0.4103	0.2685	0.5286	2575	93.9
99	00h16m30s	0.408	23.998	9.7912	970.67	0.469	0.4103	0.2685	0.5286	2576	93.9
100	00h16m40s	0.408	23.998	9.7912	969.73	0.4689	0.4103	0.2685	0.5286	2576	93.9
101	00h16m50s	0.408	23.998	9.7912	970.19	0.4688	0.4103	0.2685	0.5286	2577	94
102	00h17m00s	0.408	23.998	9.7912	969.94	0.4691	0.4102	0.2686	0.5286	2574	94
103	00h17m10s	0.408	23.998	9.7912	970.04	0.4692	0.4103	0.2687	0.5286	2573	94
104	00h17m20s	0.4081	23.998	9.7936	970.42	0.4688	0.4101	0.2685	0.5285	2575	93.9
105	00h17m30s	0.4081	23.998	9.7936	970.09	0.4689	0.4103	0.2685	0.5286	2575	94
106	00h17m40s	0.4081	23.998	9.7936	970.19	0.469	0.4103	0.2686	0.5286	2575	93.9
107	00h17m50s	0.4081	23.998	9.7936	970.09	0.4689	0.4102	0.2686	0.5286	2575	94
108	00h18m00s	0.4081	23.998	9.7936	970.78	0.469	0.4104	0.2685	0.5287	2576	93.9
109	00h18m10s	0.4081	23.998	9.7936	970	0.4689	0.4102	0.2685	0.5286	2576	94
110	00h18m20s	0.4081	23.998	9.7936	971.15	0.469	0.4102	0.2686	0.5286	2574	93.9
111	00h18m30s	0.4081	23.998	9.7936	970.39	0.4689	0.4104	0.2685	0.5286	2577	94
112	00h18m40s	0.4081	23.998	9.7936	970.16	0.469	0.4103	0.2686	0.5286	2575	93.9
113	00h18m50s	0.4081	23.998	9.7936	969.32	0.469	0.4103	0.2686	0.5286	2575	94
114	00h19m00s	0.4081	23.998	9.7936	970.22	0.4689	0.4102	0.2685	0.5286	2576	94

115	00h19m10s	0.4081	23.998	9.7936	970.28	0.469	0.4102	0.2686	0.5286	2574	93.9
116	00h19m20s	0.4081	23.998	9.7936	970.29	0.4689	0.4103	0.2685	0.5286	2576	94
117	00h19m30s	0.4082	23.998	9.796	970.17	0.469	0.4102	0.2686	0.5286	2574	93.9
118	00h19m40s	0.4082	23.998	9.796	970.37	0.469	0.4102	0.2686	0.5286	2575	94
119	00h19m50s	0.4082	23.998	9.796	969.77	0.4689	0.4101	0.2686	0.5285	2575	94
120	00h20m00s	0.4082	23.998	9.796	969.91	0.469	0.4102	0.2686	0.5286	2575	94
121	00h20m10s	0.4082	23.998	9.796	970.01	0.4691	0.4102	0.2686	0.5286	2573	94
122	00h20m20s	0.4082	23.998	9.796	969.57	0.4692	0.4103	0.2687	0.5286	2572	93.9
123	00h20m30s	0.4082	23.998	9.796	970.48	0.469	0.4102	0.2686	0.5286	2575	93.9
124	00h20m40s	0.4082	23.998	9.796	970.17	0.469	0.4103	0.2685	0.5286	2575	93.9
125	00h20m50s	0.4082	23.998	9.796	969.73	0.469	0.4103	0.2685	0.5286	2575	94
126	00h21m00s	0.4082	23.998	9.796	969.8	0.4691	0.4102	0.2687	0.5286	2573	94
127	00h21m10s	0.4082	23.998	9.796	969.7	0.469	0.4101	0.2686	0.5285	2574	93.9
128	00h21m20s	0.4082	23.998	9.796	970.16	0.4691	0.4102	0.2686	0.5286	2573	94
129	00h21m30s	0.4082	23.998	9.796	970.49	0.469	0.4102	0.2686	0.5286	2574	93.9
130	00h21m40s	0.4082	23.998	9.796	969.65	0.469	0.41	0.2687	0.5285	2573	93.9
131	00h21m50s	0.4082	23.998	9.796	969.67	0.469	0.4102	0.2686	0.5286	2575	94
132	00h22m00s	0.4083	23.998	9.7984	970.77	0.4689	0.4103	0.2685	0.5286	2576	94
133	00h22m10s	0.4083	23.998	9.7984	970.23	0.469	0.4103	0.2686	0.5286	2575	93.9
134	00h22m20s	0.4083	23.998	9.7984	970.56	0.4691	0.4102	0.2686	0.5286	2574	93.9
135	00h22m30s	0.4083	23.998	9.7984	969.91	0.4689	0.4101	0.2686	0.5285	2575	93.9
136	00h22m40s	0.4083	23.998	9.7984	970.35	0.469	0.4103	0.2686	0.5286	2575	94
137	00h22m50s	0.4083	23.998	9.7984	970.69	0.469	0.4103	0.2685	0.5286	2575	93.9
138	00h23m00s	0.4083	23.998	9.7984	970.32	0.469	0.4103	0.2686	0.5286	2575	94
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145	00h24m10s	0.4083	23.998	9.7984	970.34	0.469	0.4102	0.2686	0.5286	2574	94

146	00h24m20s	0.4083	23.998	9.7984	970.27	0.4693	0.4104	0.2687	0.5287	2572	94
147	00h24m30s	0.4083	23.998	9.7984	970.03	0.4692	0.4103	0.2687	0.5286	2573	94
148	00h24m40s	0.4083	23.998	9.7984	969.75	0.4692	0.4102	0.2687	0.5286	2572	93.9
149	00h24m50s	0.4083	23.998	9.7984	970.04	0.469	0.4101	0.2686	0.5285	2574	93.9
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151	00h25m10s	0.4083	23.998	9.7984	969.78	0.469	0.4101	0.2687	0.5285	2573	93.9
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157	00h26m10s	0.4084	23.998	9.8008	970.52	0.4691	0.4103	0.2686	0.5286	2574	94
158	00h26m20s	0.4084	23.998	9.8008	970.12	0.4691	0.4101	0.2687	0.5286	2572	93.9
159	00h26m30s	0.4084	23.998	9.8008	970.41	0.4691	0.4103	0.2686	0.5286	2574	93.9
160	00h26m40s	0.4084	23.998	9.8008	969.97	0.4688	0.4101	0.2685	0.5285	2575	94
161	00h26m50s	0.4084	23.998	9.8008	970.4	0.469	0.41	0.2687	0.5285	2573	93.9
162	00h27m00s	0.4084	23.998	9.8008	970.03	0.4691	0.4103	0.2686	0.5286	2574	93.9
163	00h27m10s	0.4084	23.998	9.8008	970.68	0.4689	0.4102	0.2685	0.5286	2575	93.9
164	00h27m20s	0.4084	23.998	9.8008	970.47	0.4689	0.4101	0.2686	0.5285	2575	93.9
165	00h27m30s	0.4084	23.998	9.8008	970.06	0.4691	0.4101	0.2687	0.5285	2572	93.9
166	00h27m40s	0.4084	23.998	9.8008	969.94	0.469	0.4102	0.2686	0.5286	2574	93.9
167	00h27m50s	0.4084	23.998	9.8008	969.75	0.4691	0.4104	0.2686	0.5287	2575	94
168	00h28m00s	0.4084	23.998	9.8008	970.32	0.4691	0.4103	0.2686	0.5286	2573	93.9
169	00h28m10s	0.4084	23.998	9.8008	970.33	0.4691	0.4102	0.2686	0.5286	2573	93.9
170	00h28m20s	0.4084	23.998	9.8008	969.67	0.4692	0.4103	0.2687	0.5287	2573	93.9
171	00h28m30s	0.4084	23.998	9.8008	969.77	0.469	0.4102	0.2686	0.5286	2575	93.9
172	00h28m40s	0.4084	23.998	9.8008	970.48	0.469	0.4101	0.2686	0.5286	2574	93.9
173	00h28m50s	0.4084	23.998	9.8008	970.14	0.469	0.4101	0.2686	0.5285	2574	93.9
174	00h29m00s	0.4084	23.998	9.8008	970.3	0.469	0.4103	0.2686	0.5286	2574	94
175	00h29m10s	0.4084	23.998	9.8008	970.36	0.4691	0.4102	0.2686	0.5286	2573	94
176	00h29m20s	0.4084	23.998	9.8008	971.03	0.4688	0.4102	0.2685	0.5285	2576	94

177	00h29m30s	0.4084	23.998	9.8008	970.56	0.4691	0.4103	0.2686	0.5286	2574	93.9
178	00h29m40s	0.4084	23.998	9.8008	970.38	0.469	0.4102	0.2686	0.5286	2575	94
179	00h29m50s	0.4084	23.998	9.8008	969.86	0.4691	0.4101	0.2687	0.5286	2572	93.9
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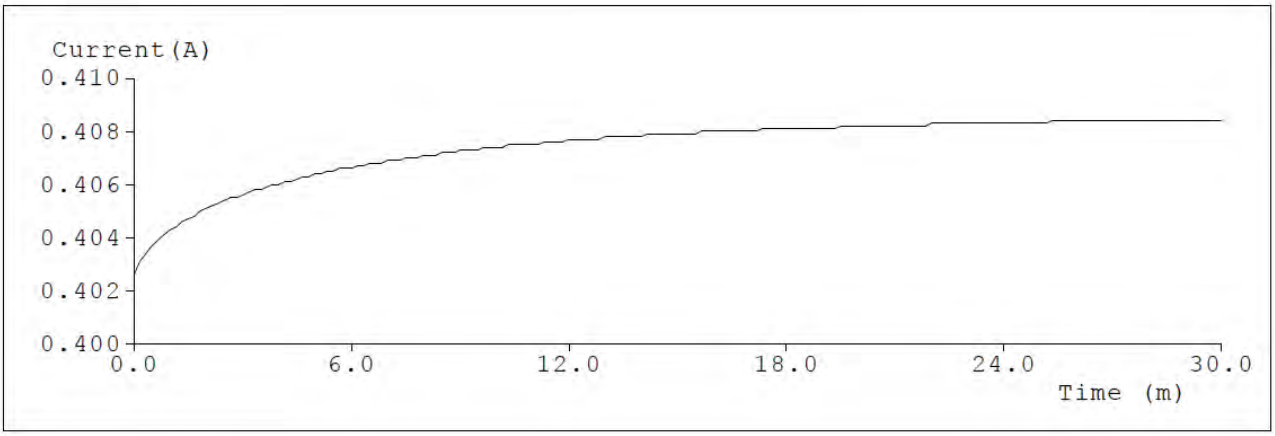
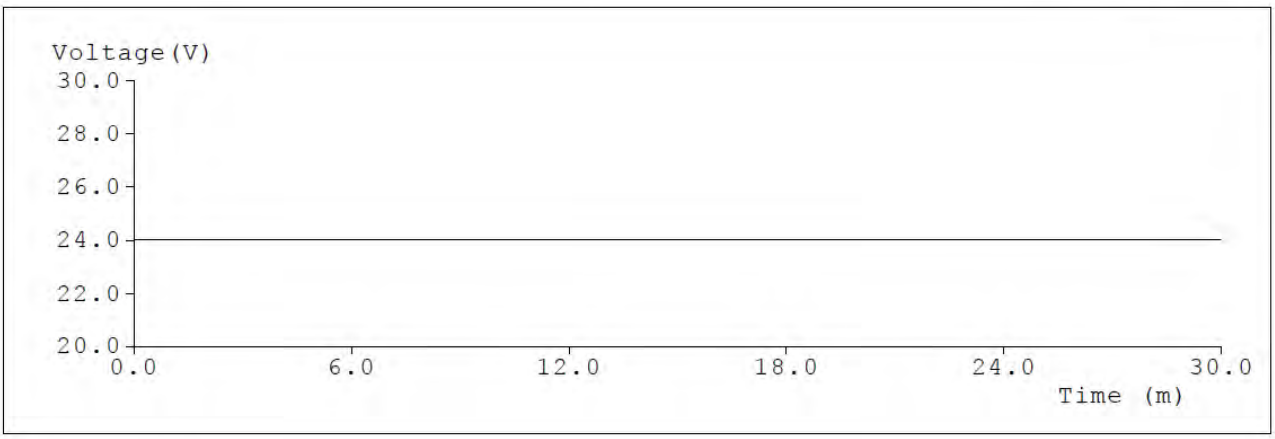
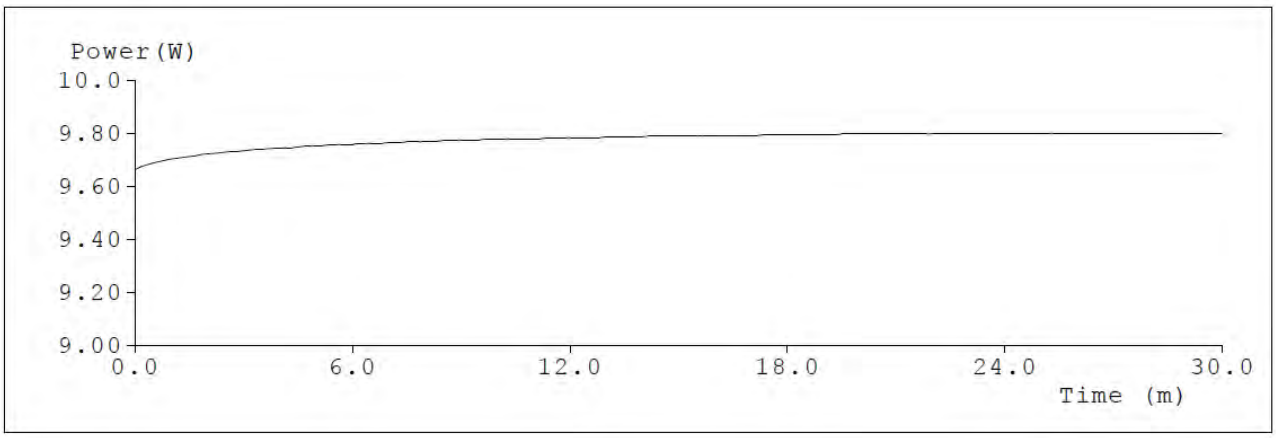
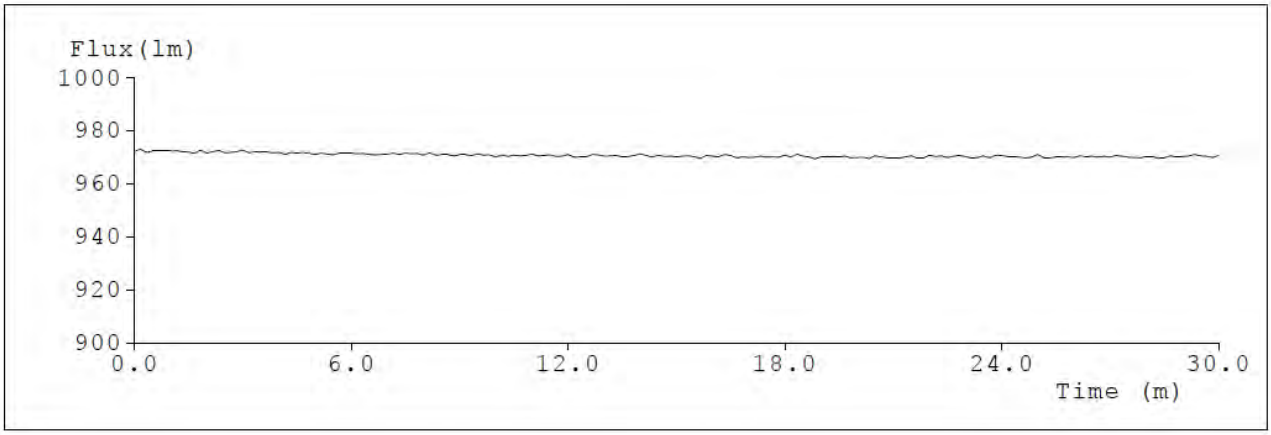
Test curves





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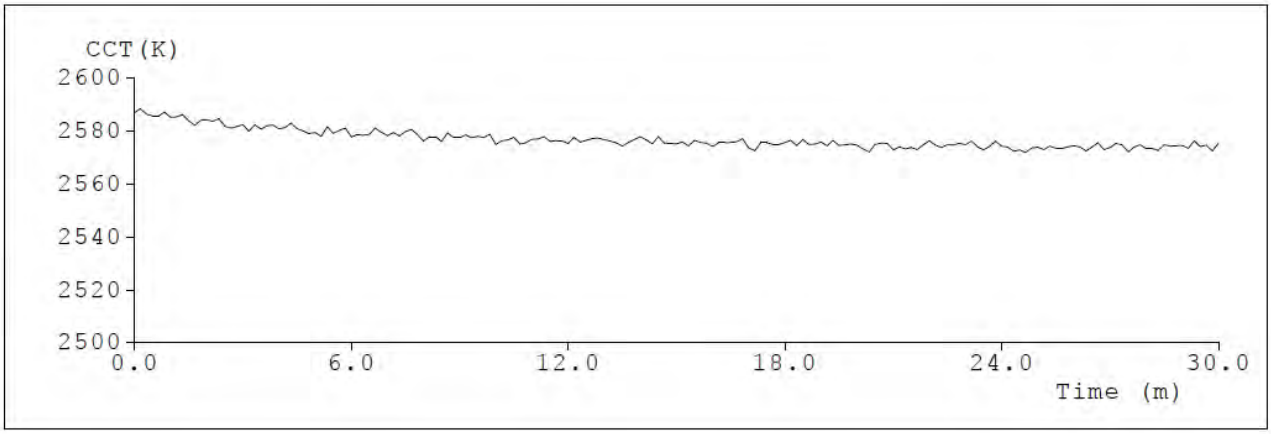
Time (m)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6.0
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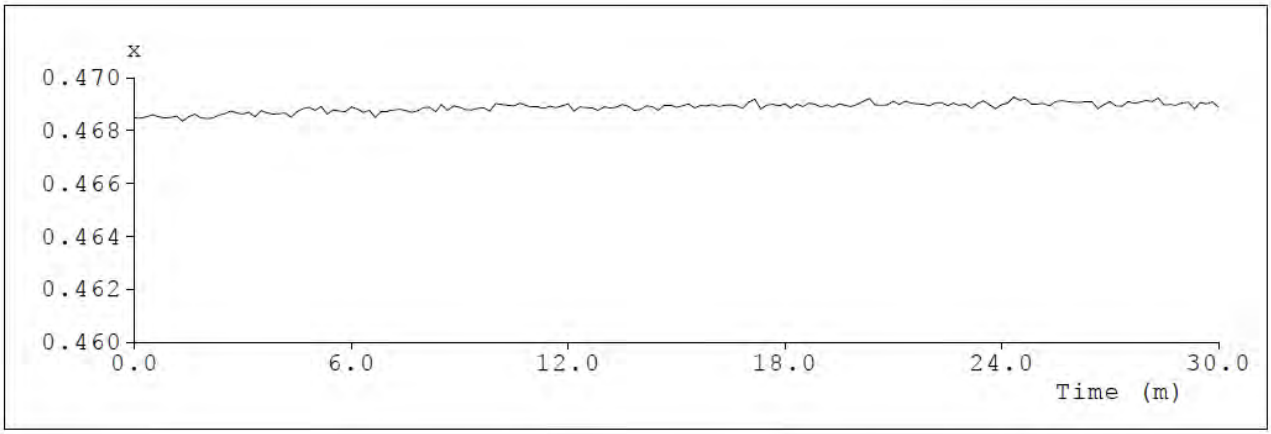
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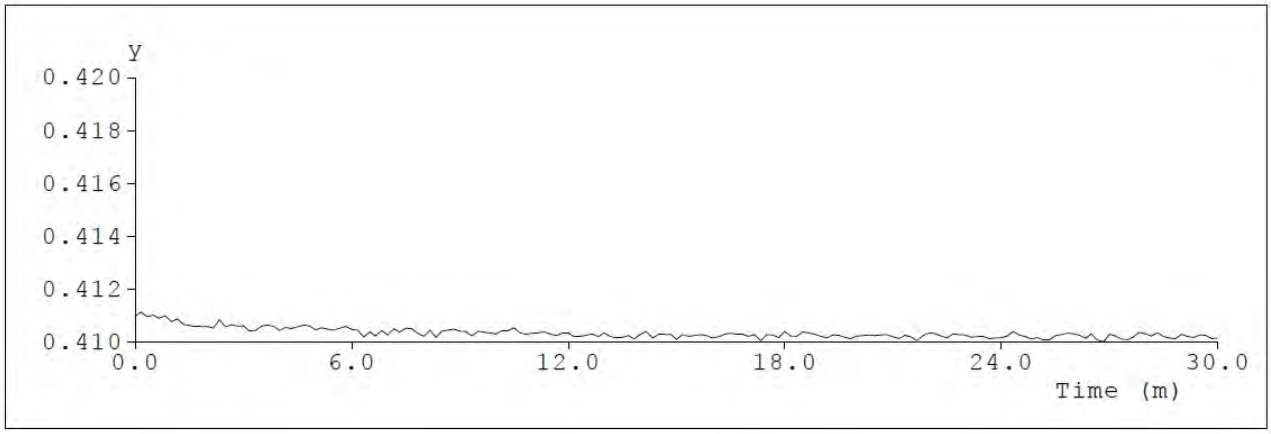
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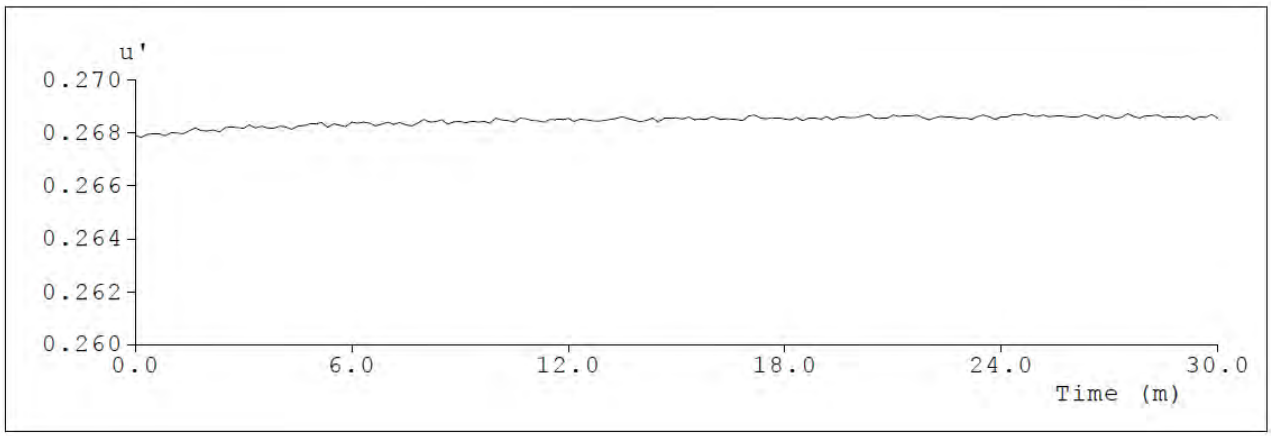
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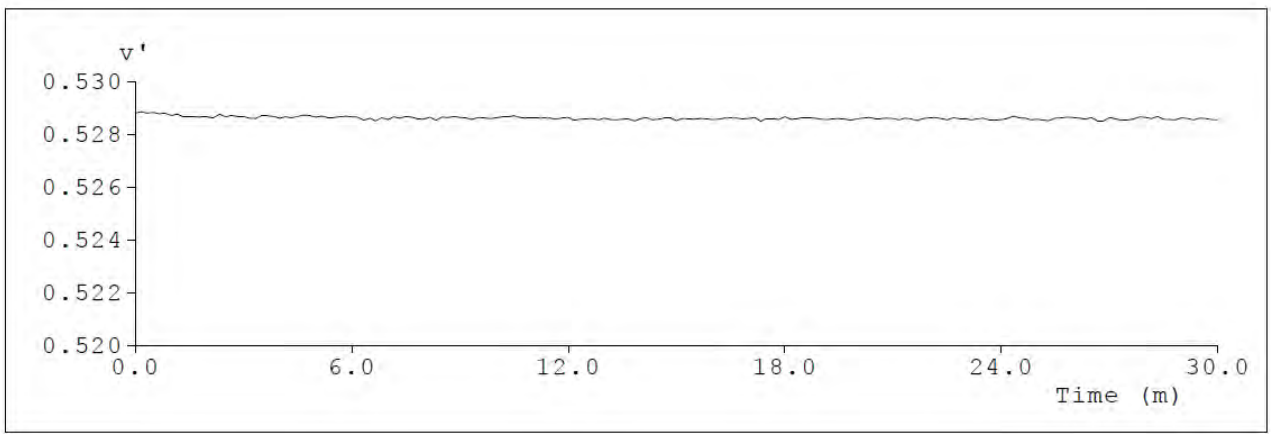
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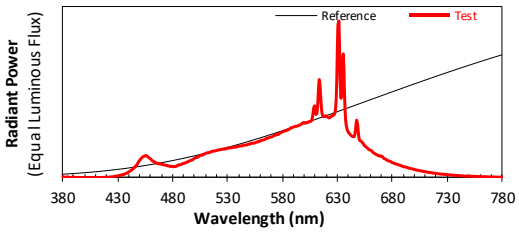
Time (m)

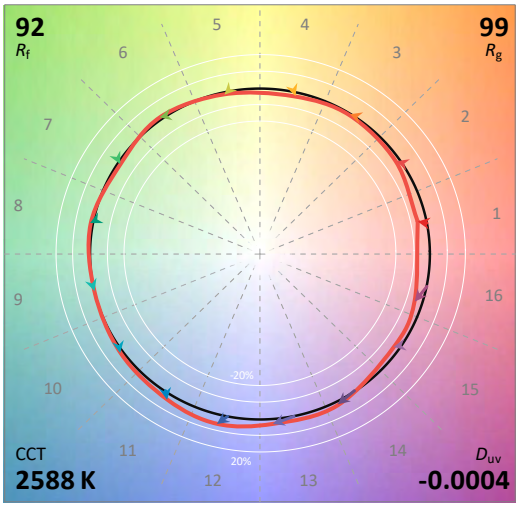
*7.2 ANSI/IES TM-30-18 Color Rendition Report

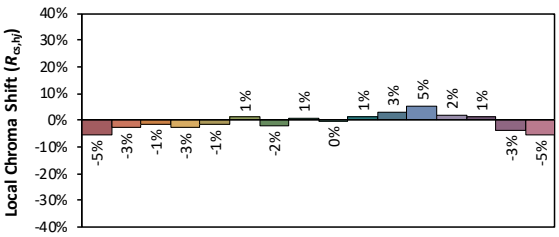
ANSI/IES TM-30-18 Color Rendition Report

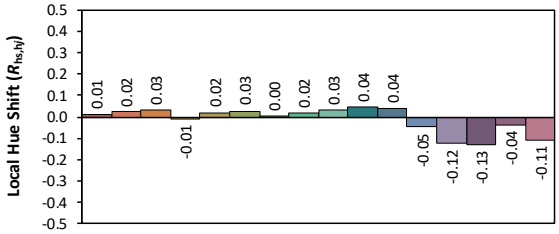
Source: Manufacturer:

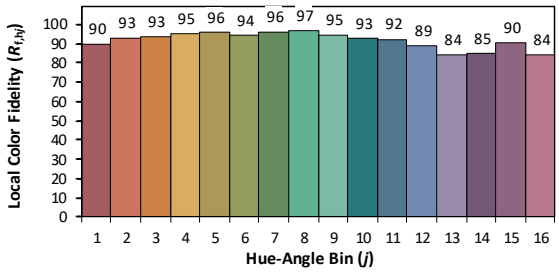
Date: 2023/9/26 Model: LFUY-1000-L27-DF-I-10

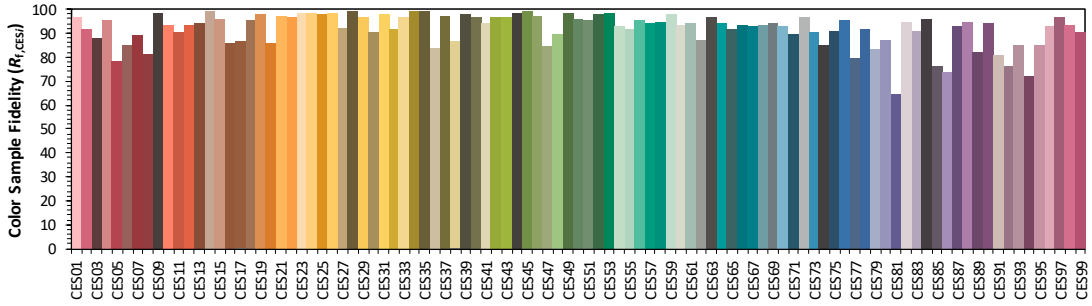












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

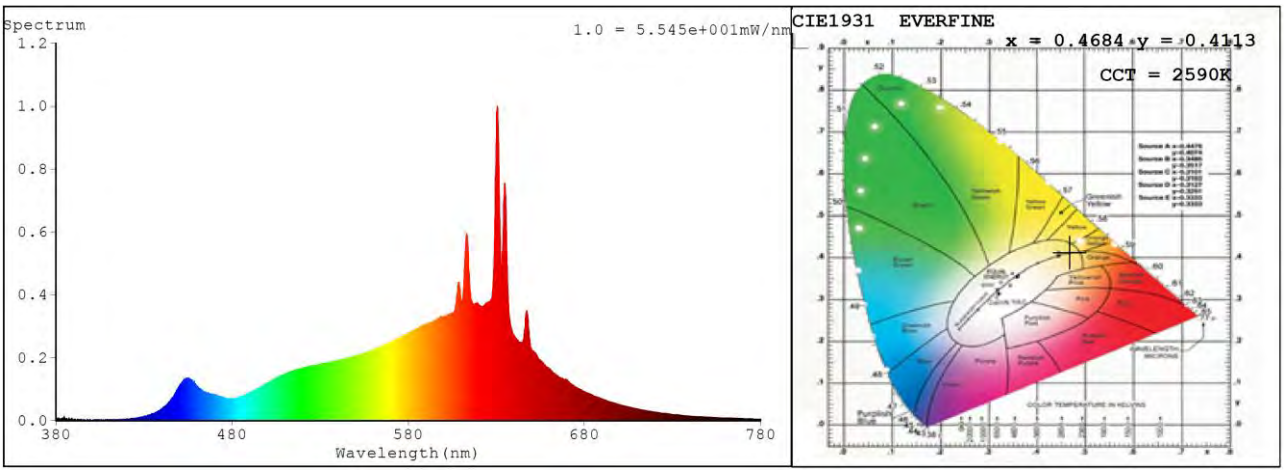
x	0.4685
y	0.4112
u'	0.2678
v'	0.5289

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.

7.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0078	414	0.0019	448	0.0896	482	0.069	516	0.1595
381	0.0029	415	0.0017	449	0.1005	483	0.0704	517	0.1629
382	0.0055	416	0.0035	450	0.1089	484	0.0752	518	0.162
383	0.0023	417	0.0028	451	0.1166	485	0.078	519	0.1638
384	0.0074	418	0.0041	452	0.1244	486	0.0783	520	0.1657
385	0.0038	419	0.0034	453	0.1286	487	0.0805	521	0.1675
386	0.0028	420	0.0048	454	0.1311	488	0.0837	522	0.1687
387	0.0027	421	0.0041	455	0.134	489	0.0856	523	0.1701
388	0.0015	422	0.0055	456	0.1327	490	0.0886	524	0.1716
389	0.0078	423	0.0063	457	0.1277	491	0.0903	525	0.1726
390	0.0018	424	0.0062	458	0.1214	492	0.0923	526	0.1746
391	0.0037	425	0.0073	459	0.1174	493	0.0965	527	0.173
392	0.0033	426	0.0077	460	0.1114	494	0.0987	528	0.1757
393	0.0018	427	0.0105	461	0.1041	495	0.1021	529	0.1773
394	0.0033	428	0.011	462	0.0996	496	0.1054	530	0.1799
395	0.0017	429	0.0112	463	0.0968	497	0.1075	531	0.1799
396	0.002	430	0.0128	464	0.0919	498	0.1106	532	0.1801
397	0	431	0.0135	465	0.0893	499	0.116	533	0.1822
398	0.001	432	0.0164	466	0.0882	500	0.12	534	0.1821
399	0.0021	433	0.0175	467	0.0843	501	0.1222	535	0.1849
400	0.0006	434	0.0199	468	0.0851	502	0.1241	536	0.1852
401	0.0016	435	0.0204	469	0.0852	503	0.128	537	0.1849
402	0.0012	436	0.0237	470	0.0808	504	0.1323	538	0.187
403	0.0033	437	0.0265	471	0.0801	505	0.1354	539	0.1895
404	0.0025	438	0.0299	472	0.0782	506	0.1367	540	0.1905
405	0.0014	439	0.0331	473	0.0762	507	0.138	541	0.1923
406	0.002	440	0.0375	474	0.0763	508	0.1426	542	0.1918
407	0.0006	441	0.042	475	0.0734	509	0.1448	543	0.1936
408	0.0028	442	0.0459	476	0.072	510	0.1495	544	0.1969
409	0.004	443	0.0516	477	0.0705	511	0.1498	545	0.1976
410	0.003	444	0.0579	478	0.0693	512	0.1527	546	0.1979
411	0.0024	445	0.0639	479	0.0699	513	0.1517	547	0.1982
412	0.0013	446	0.0713	480	0.0681	514	0.1552	548	0.2016
413	0.0025	447	0.0783	481	0.0679	515	0.1594	549	0.2036

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2033	599	0.3323	648	0.3171	697	0.0557	746	0.0115
551	0.2082	600	0.328	649	0.2496	698	0.0538	747	0.0114
552	0.2089	601	0.3333	650	0.2247	699	0.0525	748	0.0109
553	0.2088	602	0.3326	651	0.2213	700	0.0501	749	0.0106
554	0.2093	603	0.3337	652	0.2147	701	0.0488	750	0.0111
555	0.2128	604	0.3398	653	0.2073	702	0.047	751	0.01
556	0.2155	605	0.3398	654	0.1959	703	0.046	752	0.0101
557	0.2161	606	0.3439	655	0.1909	704	0.0438	753	0.0095
558	0.2209	607	0.3699	656	0.184	705	0.0428	754	0.01
559	0.2209	608	0.4193	657	0.1794	706	0.0422	755	0.0093
560	0.225	609	0.4322	658	0.1722	707	0.0406	756	0.0088
561	0.227	610	0.3821	659	0.1685	708	0.039	757	0.0086
562	0.228	611	0.3905	660	0.166	709	0.0378	758	0.0084
563	0.2293	612	0.4831	661	0.1603	710	0.0369	759	0.008
564	0.2335	613	0.5899	662	0.153	711	0.0356	760	0.0079
565	0.2382	614	0.5296	663	0.1488	712	0.0342	761	0.0075
566	0.239	615	0.4216	664	0.1442	713	0.0335	762	0.0075
567	0.2417	616	0.3767	665	0.1411	714	0.0327	763	0.0076
568	0.2439	617	0.3689	666	0.1376	715	0.0314	764	0.0074
569	0.2462	618	0.3701	667	0.1336	716	0.0304	765	0.0075
570	0.2473	619	0.374	668	0.1331	717	0.0289	766	0.0067
571	0.2515	620	0.3688	669	0.1296	718	0.0288	767	0.0066
572	0.2553	621	0.3651	670	0.1309	719	0.0279	768	0.0061
573	0.2561	622	0.3604	671	0.1243	720	0.0264	769	0.0062
574	0.2593	623	0.3651	672	0.1168	721	0.0258	770	0.0063
575	0.2604	624	0.3713	673	0.1144	722	0.0248	771	0.0057
576	0.2616	625	0.3724	674	0.1104	723	0.024	772	0.006
577	0.2696	626	0.3781	675	0.1059	724	0.0231	773	0.0054
578	0.2718	627	0.3844	676	0.1027	725	0.0227	774	0.0051
579	0.2747	628	0.4216	677	0.1011	726	0.0223	775	0.0051
580	0.2784	629	0.583	678	0.0982	727	0.0216	776	0.0052
581	0.2814	630	0.9086	679	0.0936	728	0.0205	777	0.0049
582	0.2826	631	0.9398	680	0.0919	729	0.0203	778	0.0048
583	0.2859	632	0.6131	681	0.0885	730	0.0199	779	0.0049
584	0.2872	633	0.4785	682	0.0861	731	0.0189	780	0.0049
585	0.2916	634	0.6278	683	0.0837	732	0.0178		
586	0.2936	635	0.7428	684	0.0818	733	0.0181		
587	0.3002	636	0.5163	685	0.0792	734	0.017		
588	0.3017	637	0.3529	686	0.0779	735	0.0165		
589	0.3046	638	0.3048	687	0.0746	736	0.0159		
590	0.3069	639	0.2818	688	0.073	737	0.0155		
591	0.309	640	0.271	689	0.0684	738	0.0143		
592	0.3107	641	0.2632	690	0.0678	739	0.0144		
593	0.3118	642	0.2556	691	0.0661	740	0.0136		
594	0.3149	643	0.2503	692	0.0647	741	0.0136		
595	0.3171	644	0.2486	693	0.063	742	0.0128		
596	0.3199	645	0.2494	694	0.0608	743	0.0126		
597	0.3248	646	0.2848	695	0.0585	744	0.0122		
598	0.3306	647	0.3461	696	0.0564	745	0.0121		

8. Goniophotometer Test results for LFUY-1000-L27-DF-I-10

8.1 Test Data

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

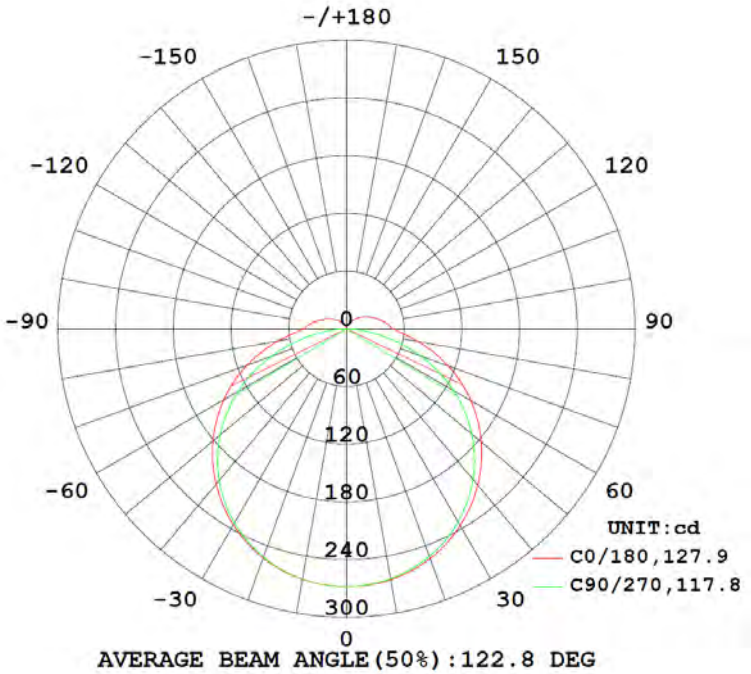
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
23.994	--	0.42063	1.0000	10.093

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
975.083	96.61	268.1	8.6	91.4

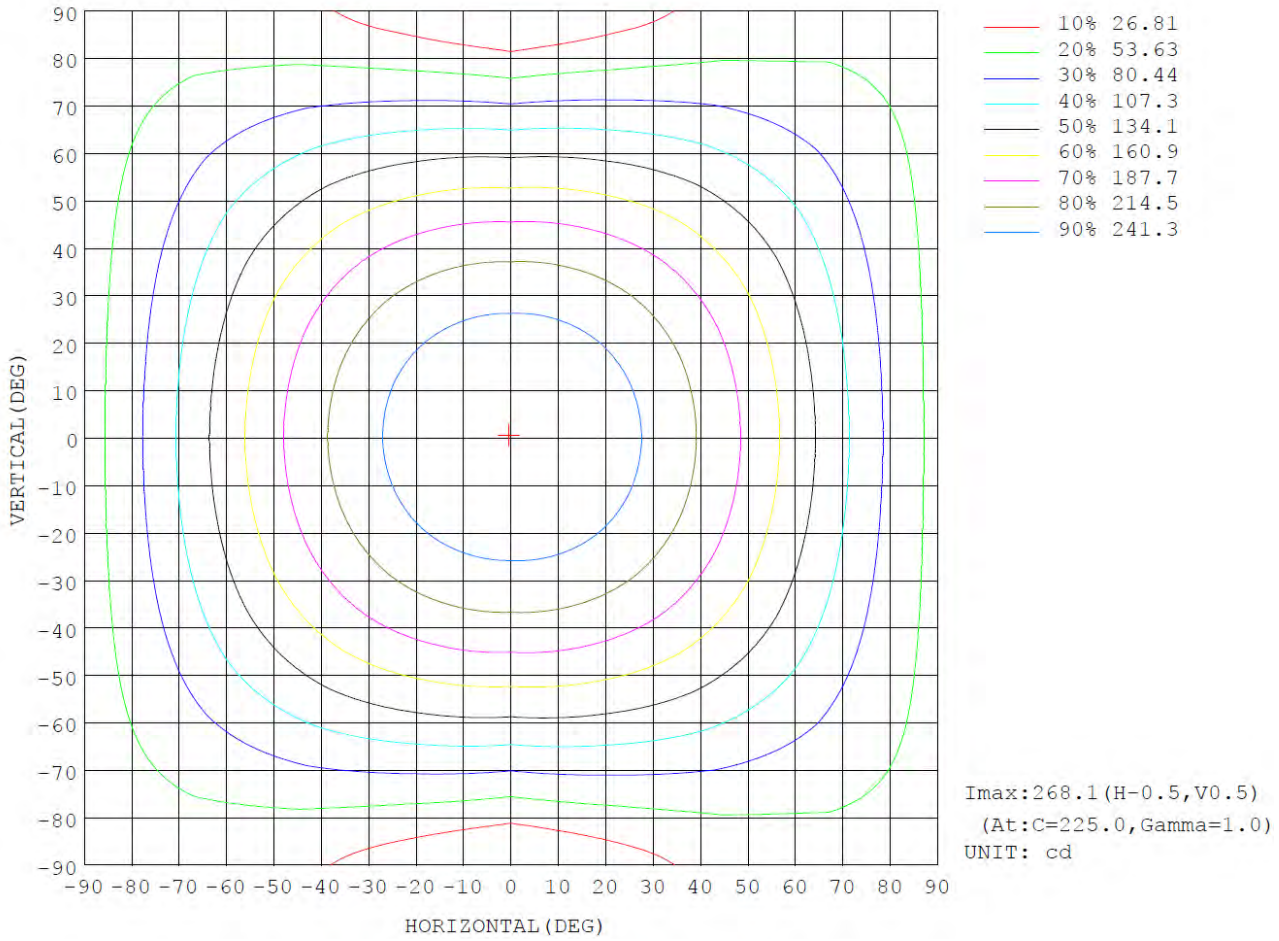
8.2 Luminous Intensity Distribution



8.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	264.9	264.5	263.9	264.1	264.6	264.5	264.3	264.7	0- 10	25.42	25.42	2.61,2.61
20	254.2	253.3	251.8	252.7	253.5	253.4	252.6	253.8	10- 20	73.37	98.78	10.1,10.1
30	236.3	234.9	232.0	233.9	235.4	234.9	233.1	235.5	20- 30	112.9	211.7	21.7,21.7
40	212.2	209.8	204.6	208.4	210.9	209.7	206.0	210.5	30- 40	139.3	351.0	36,36
50	182.9	178.7	169.9	177.1	181.2	178.5	171.5	179.6	40- 50	149.7	500.7	51.4,51.4
60	149.4	142.7	128.4	140.8	147.3	142.3	130.0	143.6	50- 60	142.8	643.5	66,66
70	112.5	102.9	81.11	100.6	110.0	102.1	82.52	103.7	60- 70	119.3	762.9	78.2,78.2
80	75.03	62.61	32.29	59.69	71.90	61.18	33.46	63.16	70- 80	83.06	845.9	86.8,86.8
90	48.39	34.57	1.770	31.51	44.65	32.22	1.559	34.82	80- 90	45.17	891.1	91.4,91.4
100	40.37	27.04	0.1482	23.68	36.26	24.03	0.1461	27.50	90-100	28.18	919.3	94.3,94.3
110	32.22	20.57	0.1830	17.33	28.22	17.36	0.1787	20.61	100-110	21.02	940.3	96.4,96.4
120	24.76	14.73	0.2512	12.30	20.71	12.20	0.2026	14.81	110-120	14.68	955.0	97.9,97.9
130	18.19	10.56	0.3000	8.286	14.90	8.370	0.2448	10.64	120-130	9.597	964.6	98.9,98.9
140	12.52	7.277	0.3174	5.177	9.925	5.663	0.3221	7.172	130-140	5.803	970.4	99.5,99.5
150	7.625	4.471	0.3296	3.028	5.911	3.799	0.4130	3.906	140-150	3.040	973.4	99.8,99.8
160	3.918	2.190	0.3561	1.263	3.065	2.366	0.4595	1.115	150-160	1.268	974.7	100,100
170	1.052	0.5395	0.4179	0.4530	0.7509	0.6467	0.4752	0.5199	160-170	0.3396	975.0	100,100
180	0.4713	0.4760	0.4628	0.4813	0.4756	0.4921	0.4639	0.4647	170-180	0.0490	975.1	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	268	268	268	268	268	268	268	268	268	268	268	268	268	268	268	268			
5	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267			
10	265	265	265	264	264	264	264	264	265	265	265	264	264	264	265	265			
15	261	260	260	259	259	259	259	260	260	260	260	260	259	260	260	260			
20	254	254	253	253	252	252	253	253	254	254	253	253	253	253	254	254			
25	246	246	245	244	243	243	244	245	245	245	245	244	244	245	246	246			
30	236	236	235	233	232	233	234	235	235	235	235	234	233	234	236	236			
35	225	224	223	221	219	220	222	223	224	224	223	222	221	222	224	225			
40	212	211	210	207	205	206	208	210	211	211	210	208	206	208	211	212			
45	198	197	195	191	188	190	194	195	197	196	195	192	190	192	196	198			
50	183	182	179	174	170	173	177	180	181	181	179	175	171	175	180	182			
55	167	165	161	155	150	154	160	163	165	164	161	156	152	156	162	166			
60	149	148	143	135	128	134	141	145	147	146	142	135	130	136	144	148			
65	131	129	123	113	105	112	121	126	129	128	123	114	107	115	124	130			
70	112	110	103	91.1	81.1	89.9	101	107	110	108	102	91.6	82.5	92.3	104	111			
75	93.5	90.6	82.4	68.6	56.3	67.2	79.7	87.4	90.7	88.7	81.3	68.9	57.7	69.6	83.2	91.3			
80	75.0	71.9	62.6	47.0	32.3	45.5	59.7	68.3	71.9	69.5	61.2	47.0	33.5	47.8	63.2	72.5			
85	58.9	55.5	45.4	28.6	11.3	27.0	42.3	51.7	55.4	52.7	43.5	28.4	12.4	29.5	45.8	56.0			
90	48.4	44.9	34.6	17.8	1.77	16.2	31.5	41.1	44.6	41.7	32.2	16.6	1.56	18.0	34.8	45.2			
95	44.1	40.7	30.6	14.4	0.13	12.6	27.5	36.9	40.3	37.3	28.0	12.9	0.13	14.5	30.8	40.9			
100	40.4	36.9	27.0	11.8	0.15	10.1	23.7	32.8	36.3	33.3	24.0	10.2	0.15	11.9	27.5	37.3			
105	36.4	33.0	23.6	9.34	0.17	8.07	20.4	28.7	32.0	29.2	20.7	7.73	0.17	9.69	23.8	33.5			
110	32.2	29.1	20.6	8.19	0.18	6.35	17.3	25.2	28.2	25.4	17.4	6.30	0.18	8.08	20.6	29.4			
115	28.4	25.6	17.8	6.92	0.22	5.05	14.6	21.6	24.4	21.8	14.3	5.20	0.19	6.72	17.2	25.7			
120	24.8	22.2	14.7	5.85	0.25	4.01	12.3	18.3	20.7	18.3	12.2	4.35	0.20	5.65	14.8	22.3			
125	21.4	19.1	12.1	4.95	0.28	3.10	10.2	15.7	17.5	15.6	10.1	3.53	0.22	4.79	12.7	18.3			
130	18.2	16.2	10.6	4.12	0.30	2.52	8.29	13.0	14.9	13.1	8.37	2.88	0.24	4.03	10.6	15.8			
135	15.3	13.5	8.85	3.42	0.31	2.12	6.60	10.6	12.3	10.7	6.93	2.44	0.28	3.29	8.85	13.3			
140	12.5	10.6	7.28	2.82	0.32	1.74	5.18	8.48	9.93	8.75	5.66	2.09	0.32	2.62	7.17	10.9			
145	10.1	8.54	5.83	2.27	0.32	1.17	3.89	6.57	7.81	7.03	4.58	1.80	0.37	1.95	5.51	8.71			
150	7.62	6.77	4.47	1.72	0.33	0.80	3.03	4.83	5.91	5.45	3.80	1.40	0.41	0.98	3.91	6.61			
155	5.81	5.02	3.37	0.92	0.35	0.54	2.26	3.56	4.27	4.13	3.12	1.22	0.44	0.54	2.46	4.61			
160	3.92	3.52	2.19	0.58	0.36	0.42	1.26	2.51	3.07	3.02	2.37	0.98	0.46	0.46	1.11	2.94			
165	2.55	2.21	1.00	0.44	0.38	0.39	0.68	1.25	1.65	1.65	1.26	0.68	0.47	0.46	0.68	1.38			
170	1.05	0.78	0.54	0.45	0.42	0.41	0.45	0.57	0.75	0.76	0.65	0.52	0.48	0.49	0.52	0.75			
175	0.51	0.50	0.48	0.45	0.44	0.44	0.45	0.47	0.50	0.50	0.51	0.49	0.47	0.48	0.49	0.52			
180	0.47	0.49	0.48	0.47	0.46	0.47	0.48	0.49	0.48	0.47	0.49	0.48	0.46	0.46	0.46	0.48			

9. Integrating Sphere Test Results for LFUY-1000-L27-DF-I-15

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	0.5575	23.998	13.379	1341.9	0.4683	0.4108	0.2679	0.5287	2588	94
1	00h00m10s	0.5586	23.998	13.405	1342.8	0.4685	0.411	0.2679	0.5288	2587	94
2	00h00m20s	0.5591	23.998	13.417	1343.2	0.4684	0.411	0.2678	0.5288	2588	94
3	00h00m30s	0.5597	23.998	13.432	1343	0.4685	0.4107	0.268	0.5287	2585	93.9
4	00h00m40s	0.5601	23.998	13.441	1343	0.4686	0.4108	0.268	0.5288	2584	94
5	00h00m50s	0.5604	23.998	13.448	1344	0.4686	0.4109	0.268	0.5288	2585	93.9
6	00h01m00s	0.5608	23.998	13.458	1342.9	0.4685	0.4107	0.268	0.5287	2584	94
7	00h01m10s	0.5611	23.998	13.465	1343.6	0.4685	0.4108	0.268	0.5287	2586	94
8	00h01m20s	0.5614	23.998	13.472	1343.4	0.4684	0.4106	0.268	0.5287	2586	94
9	00h01m30s	0.5617	23.998	13.48	1344.6	0.4684	0.4105	0.2681	0.5286	2584	93.9
10	00h01m40s	0.5619	23.998	13.484	1344	0.4684	0.4106	0.2681	0.5286	2584	94
11	00h01m50s	0.5621	23.998	13.489	1343.7	0.4685	0.4106	0.2681	0.5287	2584	94
12	00h02m00s	0.5623	23.998	13.494	1344.1	0.4684	0.4105	0.2681	0.5286	2584	94
13	00h02m10s	0.5626	23.998	13.501	1343.8	0.4685	0.4105	0.2681	0.5286	2583	94
14	00h02m20s	0.5628	23.998	13.506	1344.2	0.4685	0.4104	0.2681	0.5286	2583	93.9
15	00h02m30s	0.5629	23.998	13.508	1344.7	0.4686	0.4105	0.2682	0.5286	2581	93.9
16	00h02m40s	0.5631	23.998	13.513	1343.7	0.4686	0.4105	0.2682	0.5286	2581	94
17	00h02m50s	0.5633	23.998	13.518	1343.8	0.4684	0.4103	0.2682	0.5285	2582	94
18	00h03m00s	0.5634	23.998	13.52	1344.1	0.4684	0.4103	0.2682	0.5285	2582	93.9
19	00h03m10s	0.5636	23.998	13.525	1343.3	0.4687	0.4103	0.2683	0.5286	2579	93.9
20	00h03m20s	0.5637	23.998	13.528	1343.7	0.4687	0.4104	0.2683	0.5286	2580	93.9
21	00h03m30s	0.5639	23.998	13.532	1344.5	0.4688	0.4106	0.2683	0.5287	2579	93.9

22	00h03m40s	0.564	23.998	13.535	1343.9	0.4687	0.4104	0.2683	0.5286	2579	93.9
23	00h03m50s	0.5641	23.998	13.537	1343.7	0.4688	0.4105	0.2683	0.5286	2579	94
24	00h04m00s	0.5643	23.998	13.542	1343.4	0.4686	0.4102	0.2684	0.5285	2579	93.9
25	00h04m10s	0.5644	23.998	13.544	1344.3	0.4686	0.4103	0.2683	0.5285	2580	93.9
26	00h04m20s	0.5645	23.998	13.547	1343.9	0.4686	0.4105	0.2682	0.5286	2581	94
27	00h04m30s	0.5646	23.998	13.549	1343.9	0.4687	0.4103	0.2684	0.5286	2579	93.9
28	00h04m40s	0.5647	23.998	13.552	1343.5	0.4688	0.4104	0.2684	0.5286	2578	93.9
29	00h04m50s	0.5648	23.998	13.554	1342.8	0.4687	0.4102	0.2684	0.5285	2579	94
30	00h05m00s	0.5649	23.998	13.556	1343.8	0.4687	0.4103	0.2683	0.5286	2579	94
31	00h05m10s	0.565	23.998	13.559	1343.6	0.4688	0.4102	0.2685	0.5285	2577	93.9
32	00h05m20s	0.5651	23.998	13.561	1344	0.4686	0.4101	0.2684	0.5285	2579	94
33	00h05m30s	0.5652	23.998	13.564	1343.3	0.4687	0.4102	0.2684	0.5286	2578	93.9
34	00h05m40s	0.5653	23.998	13.566	1343.6	0.4688	0.4103	0.2685	0.5286	2577	93.9
35	00h05m50s	0.5654	23.998	13.568	1342.5	0.4687	0.4101	0.2684	0.5285	2578	93.9
36	00h06m00s	0.5655	23.998	13.571	1343.2	0.4688	0.4101	0.2685	0.5285	2577	93.9
37	00h06m10s	0.5655	23.998	13.571	1344	0.4686	0.4102	0.2683	0.5285	2579	94
38	00h06m20s	0.5656	23.998	13.573	1344.1	0.4688	0.4102	0.2685	0.5286	2577	93.9
39	00h06m30s	0.5657	23.998	13.576	1342.9	0.4689	0.4102	0.2685	0.5286	2575	93.9
40	00h06m40s	0.5658	23.998	13.578	1343.2	0.4688	0.4102	0.2685	0.5285	2577	93.9
41	00h06m50s	0.5658	23.998	13.578	1344.5	0.4687	0.4103	0.2684	0.5286	2579	93.9
42	00h07m00s	0.5659	23.998	13.58	1343.5	0.4687	0.41	0.2685	0.5284	2576	93.9
43	00h07m10s	0.566	23.998	13.583	1344.1	0.4688	0.4103	0.2684	0.5286	2578	94
44	00h07m20s	0.5661	23.998	13.585	1343.6	0.4687	0.4099	0.2685	0.5284	2576	93.9
45	00h07m30s	0.5661	23.998	13.585	1343.1	0.4689	0.4101	0.2686	0.5285	2575	94
46	00h07m40s	0.5662	23.998	13.588	1342.8	0.4689	0.41	0.2686	0.5285	2574	93.9
47	00h07m50s	0.5662	23.998	13.588	1343.3	0.4689	0.4101	0.2686	0.5285	2575	93.9
48	00h08m00s	0.5663	23.998	13.59	1343.4	0.4689	0.4103	0.2685	0.5286	2576	94
49	00h08m10s	0.5664	23.998	13.592	1344.5	0.4688	0.4102	0.2685	0.5285	2577	93.9
50	00h08m20s	0.5664	23.998	13.592	1343.1	0.4689	0.4101	0.2686	0.5285	2575	93.9
51	00h08m30s	0.5665	23.998	13.595	1343.2	0.4688	0.4099	0.2686	0.5284	2574	93.9
52	00h08m40s	0.5665	23.998	13.595	1343.2	0.4688	0.4101	0.2685	0.5285	2576	93.9

53	00h08m50s	0.5666	23.998	13.597	1343.1	0.4689	0.4101	0.2686	0.5285	2575	93.9
54	00h09m00s	0.5667	23.998	13.6	1344.7	0.4689	0.4101	0.2685	0.5285	2576	93.9
55	00h09m10s	0.5667	23.998	13.6	1342.3	0.4688	0.4099	0.2686	0.5284	2575	93.9
56	00h09m20s	0.5668	23.998	13.602	1342.8	0.4687	0.4098	0.2686	0.5284	2575	93.9
57	00h09m30s	0.5668	23.998	13.602	1343	0.4687	0.41	0.2685	0.5285	2577	93.9
58	00h09m40s	0.5669	23.998	13.604	1343.5	0.4689	0.41	0.2686	0.5285	2574	93.9
59	00h09m50s	0.5669	23.998	13.604	1342.9	0.4689	0.4099	0.2687	0.5284	2573	93.9
60	00h10m00s	0.567	23.998	13.607	1343.3	0.4688	0.4102	0.2685	0.5285	2576	94
61	00h10m10s	0.567	23.998	13.607	1343.3	0.4687	0.4099	0.2686	0.5284	2576	93.9
62	00h10m20s	0.5671	23.998	13.609	1343.5	0.4688	0.4099	0.2686	0.5284	2574	93.9
63	00h10m30s	0.5671	23.998	13.609	1341.7	0.4689	0.41	0.2686	0.5285	2574	93.9
64	00h10m40s	0.5671	23.998	13.609	1343.5	0.4688	0.41	0.2686	0.5285	2575	94
65	00h10m50s	0.5672	23.998	13.612	1342.6	0.4688	0.4099	0.2686	0.5284	2574	93.9
66	00h11m00s	0.5672	23.998	13.612	1343	0.4688	0.4101	0.2685	0.5285	2575	94
67	00h11m10s	0.5673	23.998	13.614	1343.5	0.4689	0.41	0.2687	0.5285	2574	93.9
68	00h11m20s	0.5673	23.998	13.614	1343	0.4688	0.41	0.2686	0.5285	2575	94
69	00h11m30s	0.5673	23.998	13.614	1342.6	0.4689	0.41	0.2686	0.5285	2574	93.9
70	00h11m40s	0.5674	23.998	13.616	1343	0.4689	0.41	0.2686	0.5285	2574	93.9
71	00h11m50s	0.5674	23.998	13.616	1342.9	0.4689	0.4099	0.2686	0.5284	2574	93.9
72	00h12m00s	0.5675	23.998	13.619	1342.8	0.4688	0.4098	0.2687	0.5284	2573	93.9
73	00h12m10s	0.5675	23.998	13.619	1342.4	0.4688	0.4098	0.2687	0.5284	2573	93.9
74	00h12m20s	0.5675	23.998	13.619	1342.9	0.4688	0.41	0.2686	0.5285	2575	94
75	00h12m30s	0.5676	23.998	13.621	1343.4	0.4689	0.41	0.2686	0.5285	2574	93.9
76	00h12m40s	0.5676	23.998	13.621	1342.8	0.4689	0.4099	0.2687	0.5285	2573	93.9
77	00h12m50s	0.5676	23.998	13.621	1343.1	0.4688	0.4098	0.2687	0.5284	2573	93.9
78	00h13m00s	0.5677	23.998	13.624	1343.3	0.4688	0.4099	0.2686	0.5284	2574	93.9
79	00h13m10s	0.5677	23.998	13.624	1343	0.4688	0.4099	0.2686	0.5284	2574	93.9
80	00h13m20s	0.5677	23.998	13.624	1343.1	0.4689	0.4098	0.2687	0.5284	2572	93.9
81	00h13m30s	0.5678	23.998	13.626	1342.7	0.469	0.4098	0.2687	0.5284	2572	93.9
82	00h13m40s	0.5678	23.998	13.626	1343	0.4687	0.4098	0.2686	0.5284	2575	94
83	00h13m50s	0.5678	23.998	13.626	1343.2	0.4689	0.4098	0.2687	0.5284	2573	93.9

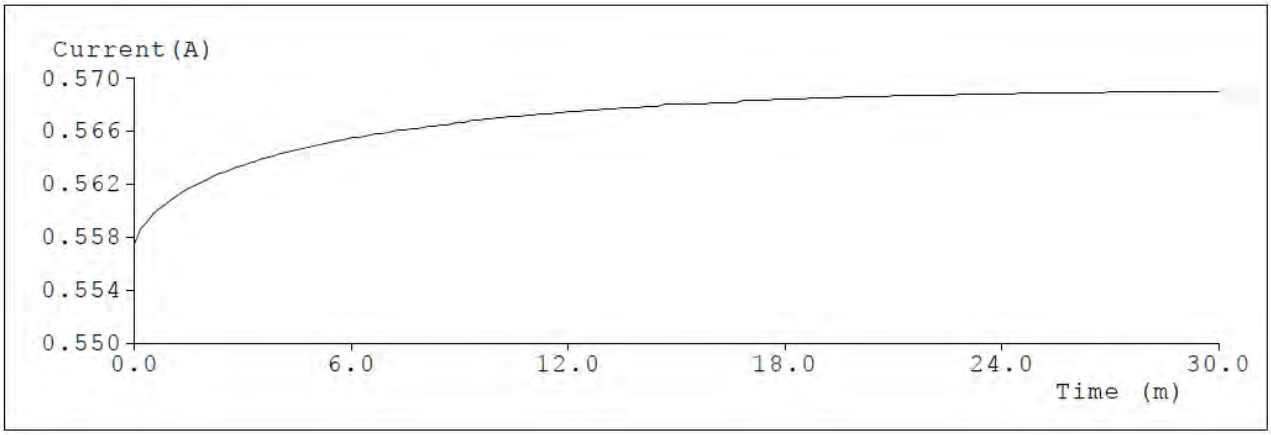
84	00h14m00s	0.5678	23.998	13.626	1343.1	0.4689	0.4098	0.2687	0.5284	2573	93.9
85	00h14m10s	0.5679	23.998	13.628	1342.2	0.469	0.4099	0.2687	0.5284	2572	93.9
86	00h14m20s	0.5679	23.998	13.628	1343.5	0.4687	0.41	0.2685	0.5284	2576	93.9
87	00h14m30s	0.5679	23.998	13.628	1343	0.4689	0.4098	0.2687	0.5284	2572	93.9
88	00h14m40s	0.568	23.998	13.631	1342.6	0.4689	0.4098	0.2687	0.5284	2572	93.9
89	00h14m50s	0.568	23.998	13.631	1342.2	0.4691	0.4098	0.2688	0.5285	2571	93.9
90	00h15m00s	0.568	23.998	13.631	1342.9	0.4689	0.4099	0.2687	0.5284	2573	93.9
91	00h15m10s	0.568	23.998	13.631	1342.8	0.469	0.4099	0.2687	0.5285	2572	93.9
92	00h15m20s	0.5681	23.998	13.633	1342.9	0.4688	0.41	0.2686	0.5285	2575	93.9
93	00h15m30s	0.5681	23.998	13.633	1342.8	0.4687	0.4097	0.2686	0.5283	2574	93.9
94	00h15m40s	0.5681	23.998	13.633	1343	0.4688	0.4099	0.2686	0.5284	2575	93.9
95	00h15m50s	0.5681	23.998	13.633	1342.7	0.469	0.4098	0.2688	0.5284	2572	93.9
96	00h16m00s	0.5682	23.998	13.636	1343.1	0.4689	0.4098	0.2687	0.5284	2573	93.9
97	00h16m10s	0.5682	23.998	13.636	1343.9	0.4689	0.41	0.2686	0.5285	2574	93.9
98	00h16m20s	0.5682	23.998	13.636	1342.8	0.4687	0.4097	0.2686	0.5284	2574	93.9
99	00h16m30s	0.5682	23.998	13.636	1343.1	0.4688	0.4097	0.2687	0.5284	2573	93.9
100	00h16m40s	0.5682	23.998	13.636	1343.1	0.4689	0.4098	0.2688	0.5284	2572	93.9
101	00h16m50s	0.5683	23.998	13.638	1342.8	0.4689	0.4097	0.2687	0.5284	2572	93.9
102	00h17m00s	0.5683	23.998	13.638	1342.9	0.4689	0.4096	0.2688	0.5283	2571	93.9
103	00h17m10s	0.5683	23.998	13.638	1342.6	0.4689	0.4098	0.2687	0.5284	2573	93.9
104	00h17m20s	0.5683	23.998	13.638	1342.5	0.4689	0.4099	0.2687	0.5284	2573	93.9
105	00h17m30s	0.5683	23.998	13.638	1342.5	0.4689	0.4098	0.2687	0.5284	2572	93.9
106	00h17m40s	0.5684	23.998	13.64	1342.4	0.469	0.4098	0.2687	0.5284	2572	93.9
107	00h17m50s	0.5684	23.998	13.64	1342.4	0.4689	0.4098	0.2687	0.5284	2573	93.9
108	00h18m00s	0.5684	23.998	13.64	1342.8	0.4689	0.4098	0.2687	0.5284	2573	93.9
109	00h18m10s	0.5684	23.998	13.64	1343.2	0.4688	0.4097	0.2687	0.5284	2573	93.9
110	00h18m20s	0.5684	23.998	13.64	1343	0.4688	0.4096	0.2687	0.5283	2572	93.9
111	00h18m30s	0.5684	23.998	13.64	1342.4	0.4689	0.4098	0.2687	0.5284	2572	93.9
112	00h18m40s	0.5685	23.998	13.643	1343.5	0.4689	0.4098	0.2687	0.5284	2572	93.9
113	00h18m50s	0.5685	23.998	13.643	1342.5	0.4689	0.4098	0.2687	0.5284	2572	93.9
114	00h19m00s	0.5685	23.998	13.643	1341.9	0.4688	0.4097	0.2687	0.5283	2573	93.9

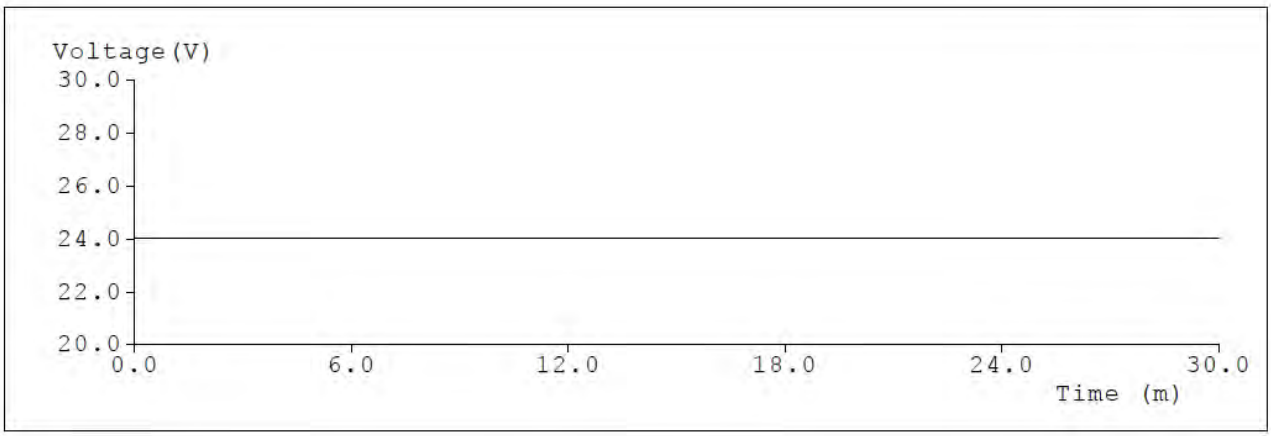
115	00h19m10s	0.5685	23.998	13.643	1342.7	0.4688	0.4097	0.2687	0.5284	2573	93.9
116	00h19m20s	0.5685	23.998	13.643	1342.5	0.4689	0.4097	0.2687	0.5284	2572	93.9
117	00h19m30s	0.5685	23.998	13.643	1342.6	0.4688	0.4095	0.2688	0.5283	2572	93.9
118	00h19m40s	0.5686	23.998	13.645	1342.5	0.469	0.4097	0.2689	0.5284	2570	93.9
119	00h19m50s	0.5686	23.998	13.645	1343	0.4687	0.4095	0.2687	0.5283	2573	93.9
120	00h20m00s	0.5686	23.998	13.645	1343.5	0.4689	0.4098	0.2687	0.5284	2573	93.9
121	00h20m10s	0.5686	23.998	13.645	1343.4	0.4688	0.4096	0.2688	0.5283	2571	93.9
122	00h20m20s	0.5686	23.998	13.645	1343.2	0.4688	0.4096	0.2687	0.5283	2573	93.9
123	00h20m30s	0.5686	23.998	13.645	1343.9	0.4688	0.4097	0.2687	0.5284	2573	93.9
124	00h20m40s	0.5686	23.998	13.645	1342.4	0.4689	0.4097	0.2688	0.5284	2571	93.9
125	00h20m50s	0.5686	23.998	13.645	1343	0.4689	0.4098	0.2687	0.5284	2572	93.9
126	00h21m00s	0.5687	23.998	13.648	1343.5	0.469	0.4098	0.2688	0.5284	2572	93.9
127	00h21m10s	0.5687	23.998	13.648	1343	0.4688	0.4096	0.2687	0.5283	2573	93.9
128	00h21m20s	0.5687	23.998	13.648	1343	0.4689	0.4097	0.2687	0.5284	2572	93.9
129	00h21m30s	0.5687	23.998	13.648	1342.1	0.4689	0.4096	0.2688	0.5283	2571	93.9
130	00h21m40s	0.5687	23.998	13.648	1342.3	0.4688	0.4096	0.2687	0.5283	2573	93.9
131	00h21m50s	0.5687	23.998	13.648	1343.1	0.4688	0.4098	0.2687	0.5284	2573	93.9
132	00h22m00s	0.5687	23.998	13.648	1343.1	0.4688	0.4097	0.2687	0.5284	2574	93.9
133	00h22m10s	0.5687	23.998	13.648	1342.7	0.4689	0.4098	0.2687	0.5284	2573	93.9
134	00h22m20s	0.5687	23.998	13.648	1343.4	0.4689	0.4098	0.2687	0.5284	2573	93.9
135	00h22m30s	0.5687	23.998	13.648	1343.7	0.4688	0.4098	0.2687	0.5284	2573	93.9
136	00h22m40s	0.5687	23.998	13.648	1344.2	0.4688	0.4098	0.2687	0.5284	2574	93.9
137	00h22m50s	0.5688	23.998	13.65	1342.3	0.4689	0.4098	0.2687	0.5284	2573	93.9
138	00h23m00s	0.5688	23.998	13.65	1343.8	0.4688	0.4097	0.2687	0.5283	2573	93.9
139	00h23m10s	0.5688	23.998	13.65	1343	0.4688	0.4097	0.2687	0.5283	2572	93.9
140	00h23m20s	0.5688	23.998	13.65	1342.7	0.4688	0.4097	0.2687	0.5284	2573	93.9
141	00h23m30s	0.5688	23.998	13.65	1343.7	0.4688	0.4097	0.2687	0.5284	2573	93.9
142	00h23m40s	0.5688	23.998	13.65	1343	0.4689	0.4097	0.2688	0.5284	2571	94
143	00h23m50s	0.5688	23.998	13.65	1342.9	0.4688	0.4096	0.2688	0.5283	2572	93.9
144	00h24m00s	0.5688	23.998	13.65	1342.8	0.4688	0.4096	0.2687	0.5283	2572	93.9
145	00h24m10s	0.5688	23.998	13.65	1343.5	0.4689	0.4098	0.2687	0.5284	2572	93.9

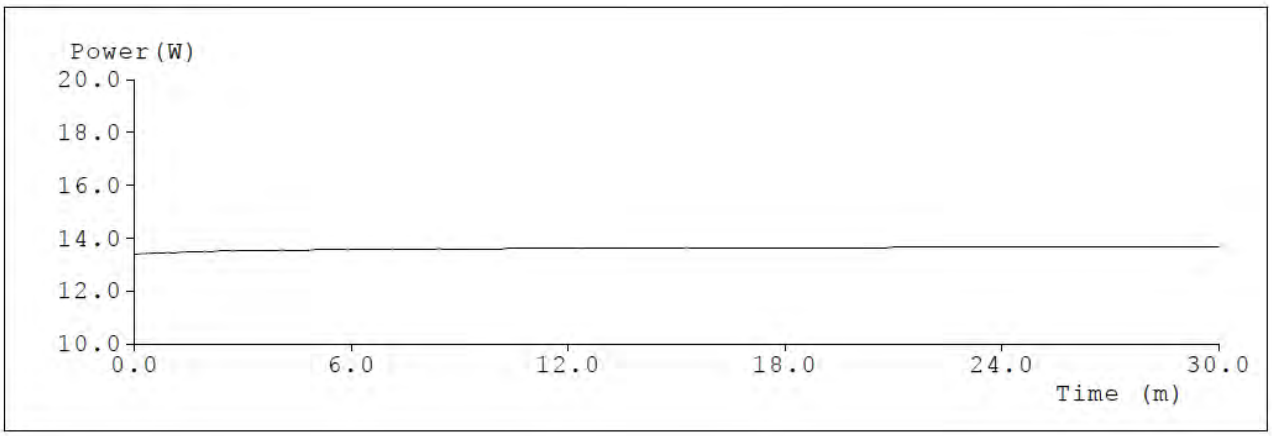
146	00h24m20s	0.5688	23.998	13.65	1343.7	0.4689	0.4098	0.2687	0.5284	2573	93.9
147	00h24m30s	0.5689	23.998	13.652	1343.7	0.4689	0.4098	0.2687	0.5284	2573	93.9
148	00h24m40s	0.5689	23.998	13.652	1342.9	0.4688	0.4095	0.2688	0.5283	2572	93.9
149	00h24m50s	0.5689	23.998	13.652	1342.9	0.4689	0.4098	0.2688	0.5284	2572	93.9
150	00h25m00s	0.5689	23.998	13.652	1342.8	0.4689	0.4098	0.2687	0.5284	2573	93.9
151	00h25m10s	0.5689	23.998	13.652	1343.8	0.4688	0.4096	0.2687	0.5283	2573	93.9
152	00h25m20s	0.5689	23.998	13.652	1343.9	0.4691	0.4098	0.2689	0.5285	2570	93.9
153	00h25m30s	0.5689	23.998	13.652	1343.1	0.4689	0.4099	0.2687	0.5284	2573	93.9
154	00h25m40s	0.5689	23.998	13.652	1342.7	0.4689	0.4097	0.2688	0.5284	2571	93.9
155	00h25m50s	0.5689	23.998	13.652	1344.2	0.4689	0.4097	0.2688	0.5284	2572	93.9
156	00h26m00s	0.5689	23.998	13.652	1343.1	0.4689	0.4097	0.2687	0.5284	2572	93.9
157	00h26m10s	0.5689	23.998	13.652	1342.8	0.4687	0.4095	0.2687	0.5283	2573	93.9
158	00h26m20s	0.5689	23.998	13.652	1343.9	0.4688	0.4097	0.2687	0.5284	2573	93.9
159	00h26m30s	0.5689	23.998	13.652	1343	0.4687	0.4095	0.2687	0.5283	2573	93.9
160	00h26m40s	0.5689	23.998	13.652	1343.5	0.469	0.4098	0.2688	0.5284	2571	93.9
161	00h26m50s	0.5689	23.998	13.652	1343.9	0.4688	0.4099	0.2686	0.5284	2574	94
162	00h27m00s	0.569	23.998	13.655	1343.8	0.4689	0.4098	0.2687	0.5284	2573	93.9
163	00h27m10s	0.569	23.998	13.655	1343.5	0.4688	0.4095	0.2688	0.5283	2572	93.9
164	00h27m20s	0.569	23.998	13.655	1343	0.469	0.4097	0.2688	0.5284	2570	93.8
165	00h27m30s	0.569	23.998	13.655	1343	0.4688	0.4095	0.2688	0.5283	2572	93.9
166	00h27m40s	0.569	23.998	13.655	1342.8	0.4689	0.4096	0.2688	0.5283	2571	93.9
167	00h27m50s	0.569	23.998	13.655	1343.8	0.4689	0.4098	0.2687	0.5284	2573	94
168	00h28m00s	0.569	23.998	13.655	1343.8	0.4688	0.4096	0.2687	0.5283	2572	93.9
169	00h28m10s	0.569	23.998	13.655	1343.9	0.4689	0.4098	0.2687	0.5284	2573	93.9
170	00h28m20s	0.569	23.998	13.655	1342.9	0.469	0.4097	0.2688	0.5284	2571	93.9
171	00h28m30s	0.569	23.998	13.655	1343.3	0.4689	0.4096	0.2688	0.5283	2570	93.9
172	00h28m40s	0.569	23.998	13.655	1343.4	0.4688	0.4095	0.2688	0.5283	2571	93.9
173	00h28m50s	0.569	23.998	13.655	1344	0.4689	0.4097	0.2688	0.5284	2571	93.9
174	00h29m00s	0.569	23.998	13.655	1343.2	0.4688	0.4096	0.2688	0.5283	2572	93.9
175	00h29m10s	0.569	23.998	13.655	1344	0.4689	0.4097	0.2688	0.5284	2572	93.9
176	00h29m20s	0.569	23.998	13.655	1343.1	0.469	0.4098	0.2688	0.5284	2572	93.8

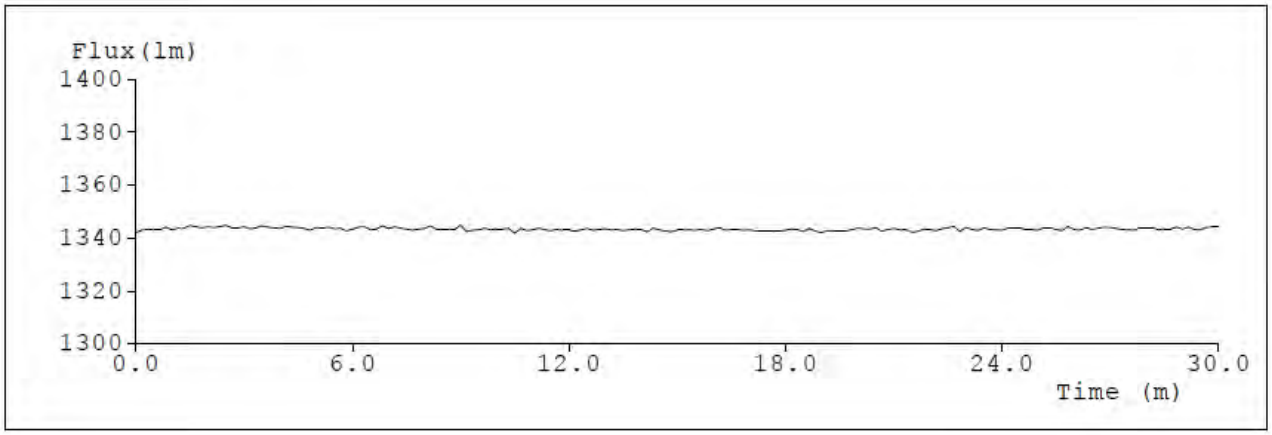
177	00h29m30s	0.569	23.998	13.655	1343	0.4687	0.4095	0.2687	0.5283	2573	93.9
178	00h29m40s	0.569	23.998	13.655	1343.9	0.4687	0.4095	0.2687	0.5283	2573	93.9
179	00h29m50s	0.569	23.998	13.655	1344.1	0.4687	0.4096	0.2687	0.5283	2573	93.9
180	00h30m00s	0.569	23.998	13.655	1344.1	0.4687	0.4096	0.2687	0.5283	2574	93.9

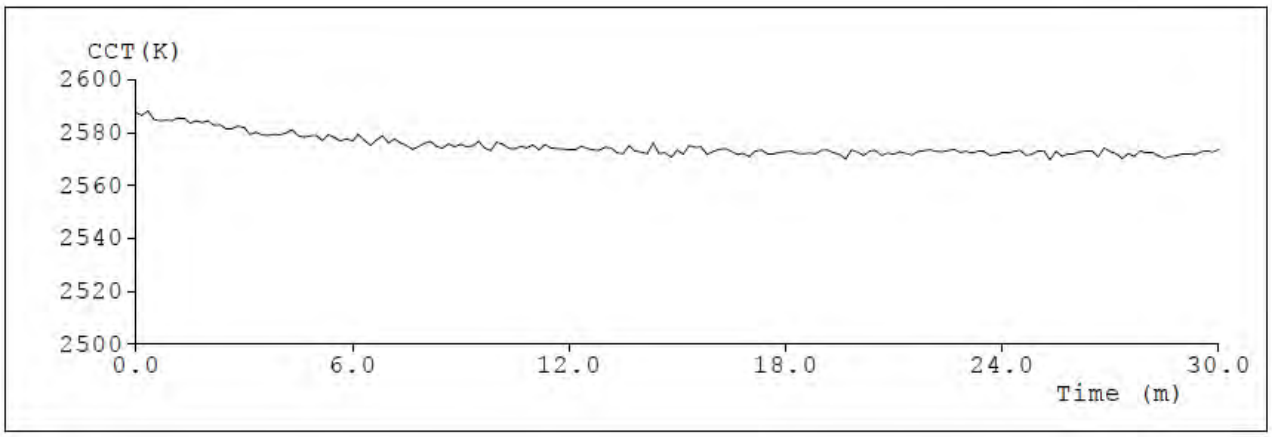
Test curves

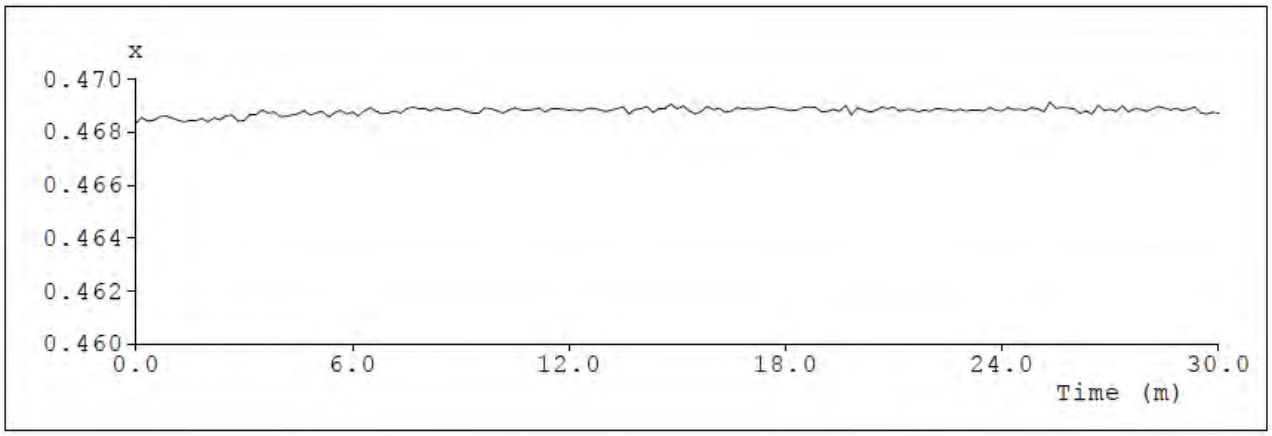


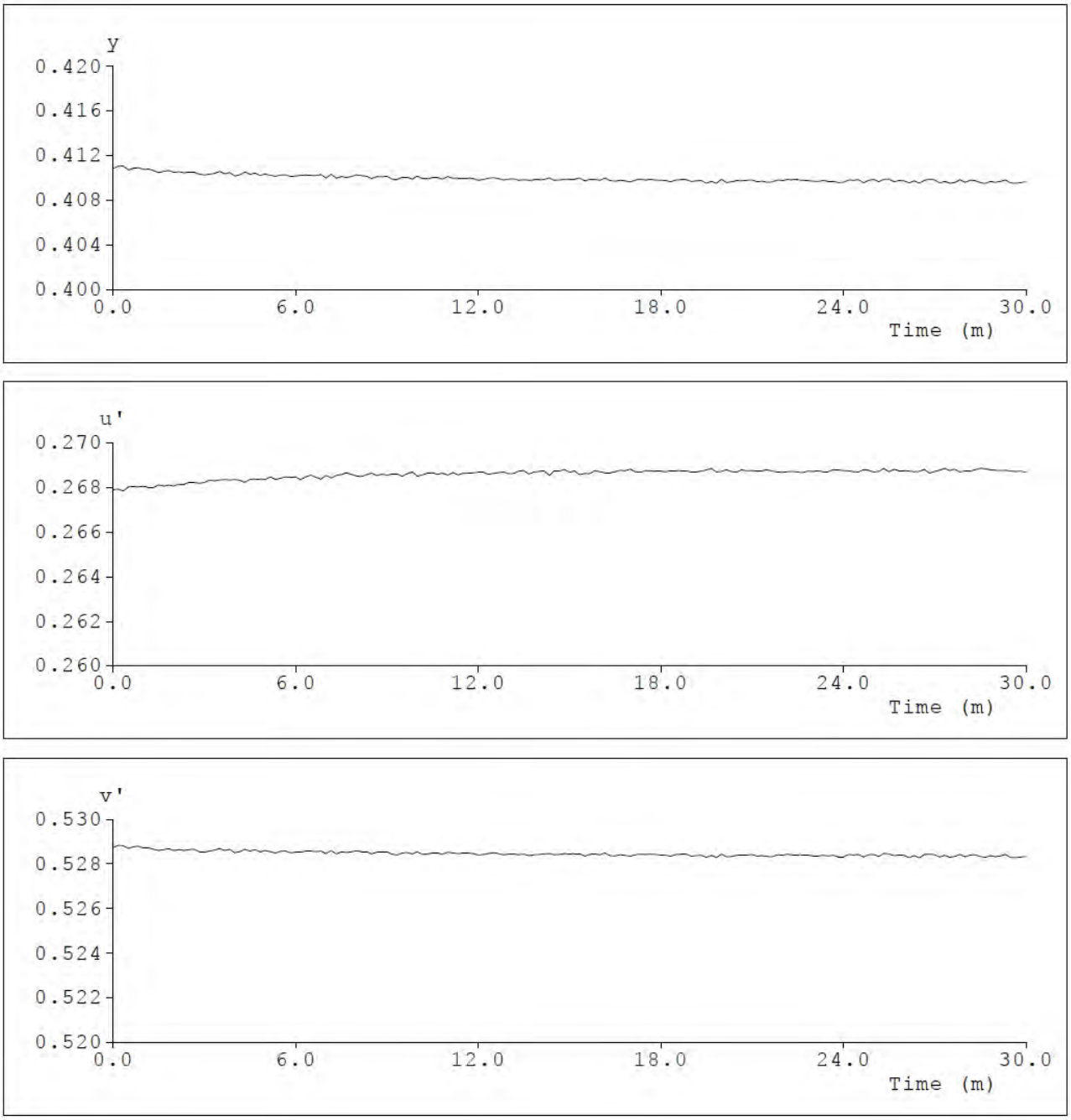





Flux(lm)
1400
1380
1360
1340
1320
1300
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2600
2580
2560
2540
2520
2500
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)

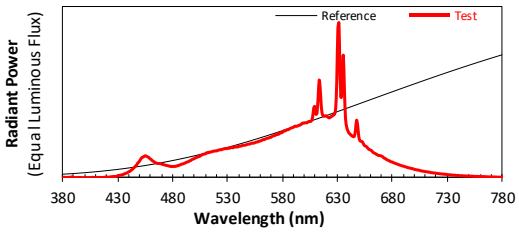

y
0.420
0.416
0.412
0.408
0.404
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

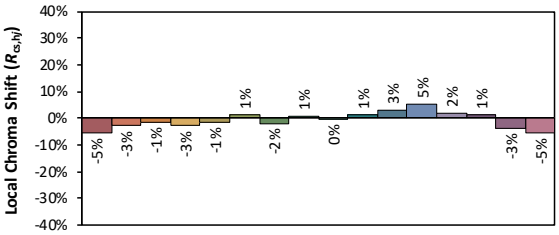
*9.2 ANSI/IES TM-30-18 Color Rendition Report

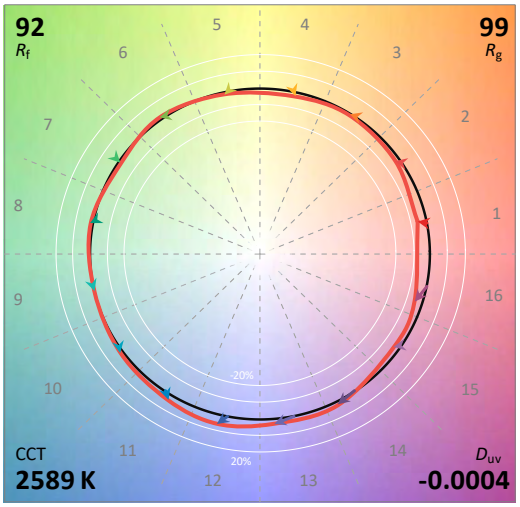
ANSI/IES TM-30-18 Color Rendition Report

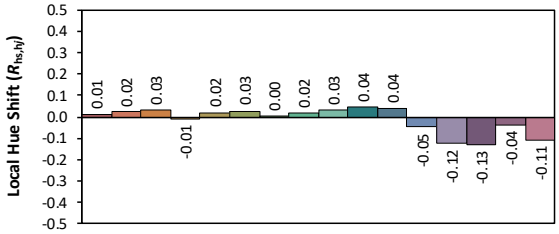
Source: Manufacturer:

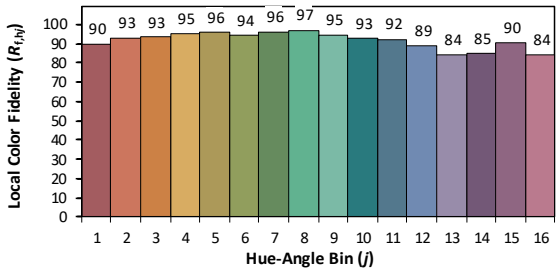
Date: 2023/9/26 Model: LFUY-1000-L27-DF-I-15

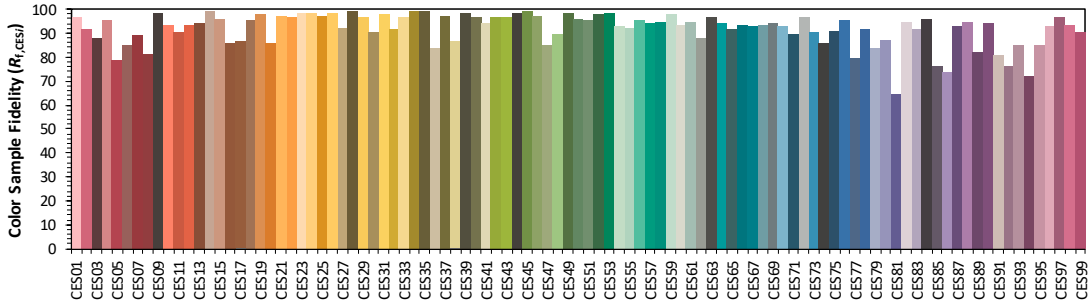












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

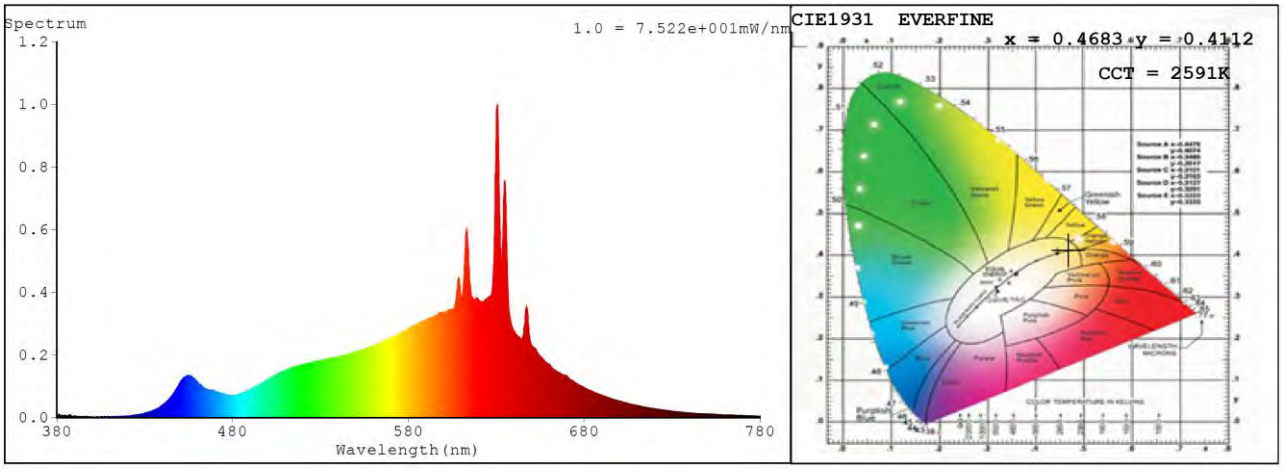
x	0.4684
y	0.4112
u'	0.2678
v'	0.5289

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.

9.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0012	414	0.0027	448	0.0921	482	0.0707	516	0.1628
381	0.005	415	0.0032	449	0.0982	483	0.0723	517	0.163
382	0.0001	416	0.0017	450	0.1088	484	0.075	518	0.1653
383	0.0034	417	0.0035	451	0.1194	485	0.076	519	0.1652
384	0.0031	418	0.0046	452	0.1264	486	0.0795	520	0.166
385	0.0039	419	0.0042	453	0.1279	487	0.0814	521	0.1699
386	0.0038	420	0.0053	454	0.1337	488	0.0851	522	0.1708
387	0.0049	421	0.0053	455	0.1353	489	0.0858	523	0.1728
388	0.0068	422	0.0048	456	0.132	490	0.0886	524	0.1725
389	0.0035	423	0.0065	457	0.1283	491	0.0913	525	0.1757
390	0.0021	424	0.0077	458	0.1249	492	0.0955	526	0.1775
391	0.0012	425	0.0081	459	0.1175	493	0.0977	527	0.1793
392	0.0025	426	0.0089	460	0.1135	494	0.0994	528	0.1795
393	0.0019	427	0.0094	461	0.1062	495	0.1044	529	0.1796
394	0.003	428	0.0087	462	0.1026	496	0.1062	530	0.1815
395	0.0029	429	0.0107	463	0.0972	497	0.1112	531	0.1815
396	0.0025	430	0.0146	464	0.0931	498	0.1154	532	0.1836
397	0.0022	431	0.0152	465	0.0909	499	0.1169	533	0.1874
398	0.0004	432	0.0167	466	0.0884	500	0.1212	534	0.1852
399	0.0012	433	0.0188	467	0.0886	501	0.1251	535	0.1861
400	0.0015	434	0.0195	468	0.0881	502	0.1266	536	0.1907
401	0.0015	435	0.0228	469	0.0876	503	0.1306	537	0.1895
402	0.0008	436	0.0257	470	0.0835	504	0.1311	538	0.1901
403	0.0018	437	0.0283	471	0.0822	505	0.1363	539	0.1896
404	0.0012	438	0.0304	472	0.0804	506	0.1399	540	0.194
405	0.0023	439	0.035	473	0.0781	507	0.1436	541	0.1942
406	0.003	440	0.0387	474	0.0769	508	0.1452	542	0.1954
407	0.0042	441	0.0418	475	0.0753	509	0.1471	543	0.1983
408	0.002	442	0.0478	476	0.0738	510	0.1503	544	0.1997
409	0.0012	443	0.0531	477	0.0714	511	0.1551	545	0.1999
410	0.002	444	0.0596	478	0.0705	512	0.1532	546	0.2013
411	0.0024	445	0.0662	479	0.0705	513	0.1576	547	0.2033
412	0.0032	446	0.0735	480	0.0697	514	0.1577	548	0.2061
413	0.0032	447	0.0814	481	0.0708	515	0.16	549	0.2067

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.208	599	0.3353	648	0.3215	697	0.0576	746	0.0123
551	0.2111	600	0.3377	649	0.2544	698	0.0569	747	0.0123
552	0.2127	601	0.3368	650	0.2292	699	0.0543	748	0.0114
553	0.2127	602	0.3374	651	0.2243	700	0.0517	749	0.0116
554	0.2138	603	0.3435	652	0.2222	701	0.0508	750	0.0111
555	0.2178	604	0.345	653	0.2126	702	0.0489	751	0.0113
556	0.2194	605	0.3451	654	0.1999	703	0.0487	752	0.011
557	0.2199	606	0.3504	655	0.1954	704	0.0467	753	0.0101
558	0.2248	607	0.3714	656	0.1913	705	0.0447	754	0.0099
559	0.2252	608	0.4252	657	0.1843	706	0.043	755	0.009
560	0.2276	609	0.4371	658	0.1762	707	0.0418	756	0.0093
561	0.2311	610	0.389	659	0.173	708	0.0412	757	0.0095
562	0.2346	611	0.3957	660	0.1696	709	0.0392	758	0.009
563	0.2341	612	0.4878	661	0.1648	710	0.0386	759	0.0084
564	0.2385	613	0.5977	662	0.1565	711	0.0379	760	0.008
565	0.2407	614	0.5385	663	0.1526	712	0.0361	761	0.0081
566	0.2432	615	0.4311	664	0.1494	713	0.0357	762	0.0085
567	0.2438	616	0.3873	665	0.1448	714	0.0341	763	0.0081
568	0.2482	617	0.3779	666	0.1413	715	0.0324	764	0.0077
569	0.2486	618	0.3778	667	0.137	716	0.0319	765	0.0077
570	0.2531	619	0.3807	668	0.1375	717	0.0305	766	0.0069
571	0.2576	620	0.3762	669	0.1352	718	0.0305	767	0.0067
572	0.258	621	0.3719	670	0.1329	719	0.0287	768	0.0065
573	0.2612	622	0.3675	671	0.1282	720	0.0285	769	0.0063
574	0.2645	623	0.3697	672	0.1216	721	0.0269	770	0.0068
575	0.2703	624	0.3768	673	0.1197	722	0.0268	771	0.006
576	0.267	625	0.3785	674	0.1138	723	0.0252	772	0.0062
577	0.2727	626	0.3849	675	0.11	724	0.0248	773	0.006
578	0.2769	627	0.3903	676	0.1076	725	0.0243	774	0.0057
579	0.2762	628	0.4249	677	0.104	726	0.0231	775	0.0052
580	0.2829	629	0.5903	678	0.0998	727	0.0226	776	0.005
581	0.288	630	0.9112	679	0.0984	728	0.0226	777	0.005
582	0.2872	631	0.9461	680	0.0957	729	0.021	778	0.0052
583	0.2929	632	0.6235	681	0.092	730	0.0205	779	0.0052
584	0.2944	633	0.4914	682	0.0904	731	0.0197	780	0.0052
585	0.2959	634	0.6327	683	0.0868	732	0.0191		
586	0.3003	635	0.7487	684	0.085	733	0.0187		
587	0.3042	636	0.5286	685	0.0824	734	0.0176		
588	0.3064	637	0.3598	686	0.0793	735	0.017		
589	0.3083	638	0.3124	687	0.0777	736	0.0168		
590	0.3123	639	0.29	688	0.0747	737	0.0163		
591	0.3168	640	0.2755	689	0.073	738	0.0151		
592	0.3155	641	0.2693	690	0.0717	739	0.0152		
593	0.317	642	0.2613	691	0.0684	740	0.0146		
594	0.3197	643	0.2576	692	0.0673	741	0.0137		
595	0.3233	644	0.2523	693	0.0649	742	0.014		
596	0.3242	645	0.2552	694	0.0624	743	0.0139		
597	0.3306	646	0.2904	695	0.0618	744	0.0129		
598	0.3356	647	0.3522	696	0.0596	745	0.0126		

10. Goniophotometer Test results for LFUY-1000-L27-DF-I-15

10.1 Test Data

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

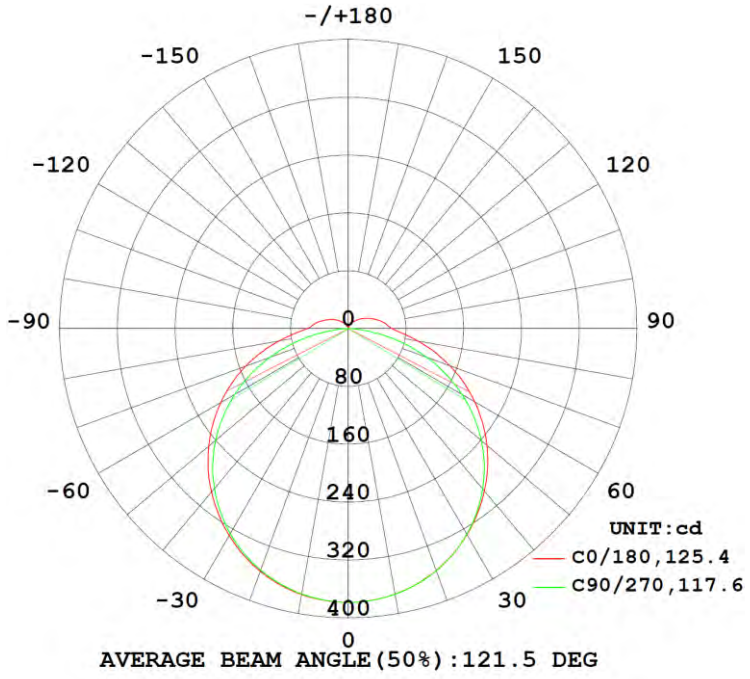
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.003	--	0.57606	1.0000	13.827

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1337.88	96.76	378.6	7.6	92.4

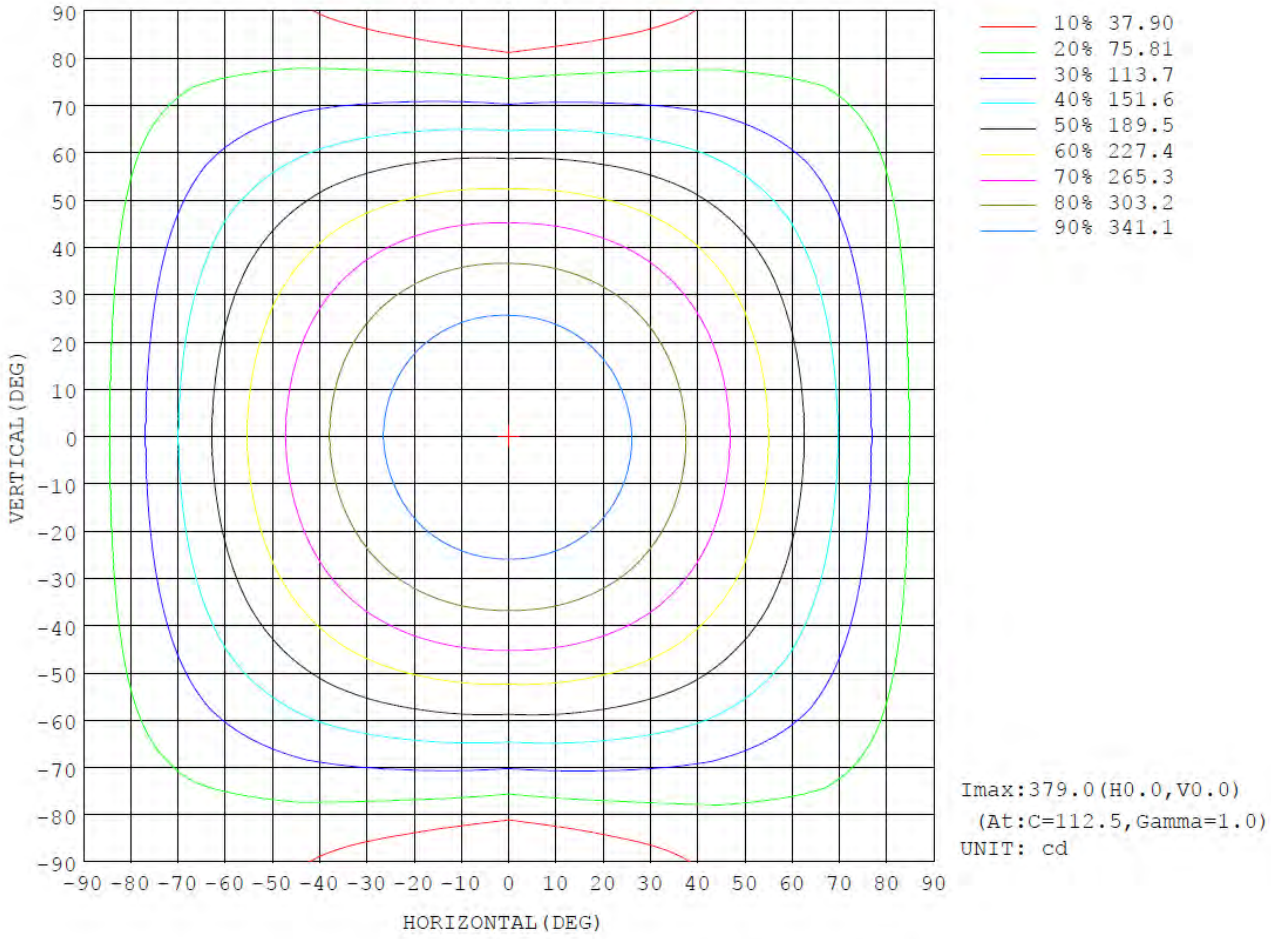
10.2 Luminous Intensity Distribution



10.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	372.8	373.0	373.1	373.4	373.4	373.1	372.6	372.6	0- 10	35.87	35.87	2.68,2.68
20	356.0	356.5	356.3	357.1	357.1	356.6	355.6	355.7	10- 20	103.4	139.2	10.4,10.4
30	328.9	329.4	328.5	330.0	330.4	329.6	327.4	328.2	20- 30	158.6	297.9	22.3,22.3
40	293.3	292.9	289.7	293.3	295.1	293.4	288.7	291.7	30- 40	195.2	493.0	36.9,36.9
50	250.6	248.3	240.7	248.4	252.7	249.0	240.1	247.2	40- 50	209.0	702.0	52.5,52.5
60	202.3	196.7	181.8	196.4	204.0	197.5	181.5	195.7	50- 60	198.2	900.2	67.3,67.3
70	149.7	140.1	115.3	139.2	151.1	140.8	115.2	139.0	60- 70	164.4	1065	79.6,79.6
80	97.24	83.23	45.59	81.34	97.20	83.11	45.75	81.86	70- 80	112.9	1178	88,88
90	60.83	44.10	2.458	40.39	57.38	41.14	2.032	43.19	80- 90	59.21	1237	92.4,92.4
100	50.15	33.62	0.1547	29.83	45.72	30.16	0.2172	33.23	90-100	35.24	1272	95.1,95.1
110	38.82	24.68	0.1988	20.93	34.73	21.41	0.2890	24.07	100-110	25.75	1298	97,97
120	29.12	16.96	0.2809	14.50	25.65	14.54	0.3008	16.72	110-120	17.52	1315	98.3,98.3
130	20.84	12.00	0.3634	8.731	17.65	8.950	0.3617	11.83	120-130	11.14	1326	99.1,99.1
140	14.06	7.863	0.4046	5.481	10.72	5.966	0.4633	7.628	130-140	6.436	1333	99.6,99.6
150	8.248	4.775	0.4298	3.067	6.370	3.919	0.5495	4.113	140-150	3.260	1336	99.9,99.9
160	4.200	2.279	0.4768	1.311	3.029	2.249	0.6342	1.367	150-160	1.343	1337	100,100
170	1.271	0.7328	0.5699	0.6000	0.8801	0.7815	0.6646	0.6941	160-170	0.3742	1338	100,100
180	0.6435	0.6565	0.6368	0.6617	0.6474	0.6791	0.6399	0.6398	170-180	0.0657	1338	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	379	379	379	379	379	379	379	379	379	379	379	379	379	379	379	379
5	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377
10	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373
15	366	366	366	366	366	366	367	367	367	367	366	366	365	365	365	366
20	356	356	356	356	356	357	357	357	357	357	357	356	356	356	356	356
25	344	344	344	344	344	344	345	345	345	345	344	344	343	343	343	344
30	329	329	329	329	328	329	330	330	330	330	330	329	327	328	328	329
35	312	312	312	311	310	312	313	313	314	313	312	311	309	310	311	312
40	293	293	293	291	290	291	293	294	295	295	293	291	289	290	292	293
45	273	273	272	269	266	269	272	274	275	274	272	269	266	268	271	273
50	251	250	248	244	241	244	248	251	253	252	249	244	240	243	247	250
55	227	226	223	217	212	217	223	227	229	228	224	217	212	216	222	226
60	202	201	197	188	182	188	196	202	204	203	197	189	182	187	196	201
65	176	175	169	158	149	157	168	175	178	176	170	158	149	157	168	175
70	150	148	140	126	115	126	139	147	151	149	141	127	115	126	139	148
75	123	121	111	94.8	80.3	93.9	110	120	124	121	112	95.3	80.4	93.8	110	120
80	97.2	94.1	83.2	64.2	45.6	62.9	81.3	92.6	97.2	94.1	83.1	64.5	45.7	63.3	81.9	93.6
85	74.9	71.3	59.1	38.3	14.7	36.5	56.4	68.6	73.5	70.0	58.0	37.9	15.3	37.5	57.8	70.8
90	60.8	56.9	44.1	22.9	2.46	20.7	40.4	52.7	57.4	53.4	41.1	21.2	2.03	22.1	43.2	56.5
95	54.7	50.8	38.5	18.2	0.11	15.9	34.5	46.2	50.5	46.5	34.8	16.1	0.22	17.5	37.8	50.5
100	50.2	46.2	33.6	14.5	0.15	12.1	29.8	41.6	45.7	41.9	30.2	12.5	0.22	13.9	33.2	46.1
105	44.4	40.5	28.9	11.6	0.18	9.57	24.9	36.0	40.2	36.3	25.4	9.81	0.27	10.9	28.3	40.5
110	38.8	35.3	24.7	9.65	0.20	7.26	20.9	30.8	34.7	31.2	21.4	7.35	0.29	9.05	24.1	35.2
115	33.8	30.5	21.0	7.98	0.24	5.34	17.6	26.4	30.0	26.8	17.9	5.27	0.29	7.51	19.6	30.4
120	29.1	26.2	17.0	6.56	0.28	4.21	14.5	22.4	25.6	22.7	14.5	4.40	0.30	6.20	16.7	26.0
125	24.8	22.2	14.2	5.41	0.33	3.47	11.3	18.7	21.6	18.9	11.7	3.55	0.32	5.14	14.2	21.0
130	20.8	18.6	12.0	4.49	0.36	2.76	8.73	15.1	17.6	15.2	8.95	2.88	0.36	4.30	11.8	18.0
135	17.3	15.4	9.82	3.71	0.39	2.17	6.89	11.7	14.0	12.2	7.06	2.35	0.41	3.55	9.65	15.0
140	14.1	12.2	7.86	3.03	0.40	1.60	5.48	8.88	10.7	9.23	5.97	1.95	0.46	2.83	7.63	12.1
145	11.0	9.38	6.19	2.42	0.42	1.18	4.18	6.99	8.27	7.51	4.85	1.69	0.51	2.09	5.79	9.36
150	8.25	7.22	4.78	1.87	0.43	0.83	3.07	5.23	6.37	5.86	3.92	1.52	0.55	1.15	4.11	6.93
155	6.10	5.34	3.56	1.11	0.45	0.60	2.12	3.67	4.55	4.33	3.09	1.33	0.60	0.68	2.53	4.87
160	4.20	3.76	2.28	0.72	0.48	0.53	1.31	2.39	3.03	2.98	2.25	1.10	0.63	0.64	1.37	3.05
165	2.69	2.32	1.25	0.58	0.51	0.54	0.76	1.32	1.75	1.75	1.37	0.80	0.65	0.64	0.83	1.62
170	1.27	0.98	0.73	0.60	0.57	0.56	0.60	0.71	0.88	0.89	0.78	0.71	0.66	0.66	0.69	0.88
175	0.69	0.69	0.66	0.63	0.61	0.62	0.63	0.67	0.70	0.70	0.72	0.68	0.66	0.65	0.67	0.70
180	0.64	0.68	0.66	0.64	0.64	0.64	0.66	0.67	0.65	0.65	0.68	0.66	0.64	0.63	0.64	0.66

11. Integrating Sphere Test Results for LFUY-1000-L27-DF-I-20

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	0.7541	23.998	18.097	1808.6	0.4671	0.412	0.2666	0.529	2612	93.9
1	00h00m10s	0.7561	23.998	18.145	1809.2	0.4673	0.4117	0.2668	0.5289	2609	93.8
2	00h00m20s	0.7576	23.998	18.181	1809.4	0.4672	0.4117	0.2668	0.5289	2609	93.8
3	00h00m30s	0.7588	23.998	18.21	1809	0.4674	0.4116	0.2669	0.5289	2606	93.8
4	00h00m40s	0.7599	23.998	18.236	1808.6	0.4674	0.4115	0.267	0.5288	2604	93.8
5	00h00m50s	0.7608	23.998	18.258	1808.8	0.4674	0.4114	0.267	0.5288	2604	93.8
6	00h01m00s	0.7616	23.998	18.277	1809.2	0.4675	0.4114	0.2671	0.5288	2603	93.8
7	00h01m10s	0.7624	23.998	18.296	1809.4	0.4675	0.4113	0.2671	0.5288	2602	93.8
8	00h01m20s	0.7631	23.998	18.313	1809.8	0.4674	0.4113	0.2671	0.5287	2603	93.8
9	00h01m30s	0.7637	23.998	18.327	1808.7	0.4676	0.4112	0.2672	0.5288	2600	93.8
10	00h01m40s	0.7643	23.998	18.342	1808.2	0.4675	0.411	0.2673	0.5287	2599	93.8
11	00h01m50s	0.7649	23.998	18.356	1808.4	0.4677	0.4111	0.2673	0.5287	2598	93.8
12	00h02m00s	0.7654	23.998	18.368	1808.5	0.4676	0.4111	0.2673	0.5287	2599	93.8
13	00h02m10s	0.7659	23.998	18.38	1808.6	0.4676	0.411	0.2673	0.5287	2598	93.8
14	00h02m20s	0.7663	23.998	18.39	1809	0.4679	0.4111	0.2675	0.5288	2595	93.8
15	00h02m30s	0.7667	23.998	18.399	1808.2	0.4677	0.4109	0.2674	0.5287	2596	93.8
16	00h02m40s	0.7672	23.998	18.411	1808.1	0.4676	0.4109	0.2674	0.5286	2597	93.8
17	00h02m50s	0.7675	23.998	18.418	1807	0.4677	0.4108	0.2675	0.5286	2595	93.8
18	00h03m00s	0.7679	23.998	18.428	1807.2	0.4676	0.4107	0.2675	0.5286	2596	93.8
19	00h03m10s	0.7683	23.998	18.438	1806.7	0.4678	0.4107	0.2676	0.5286	2594	93.8
20	00h03m20s	0.7686	23.998	18.445	1807.4	0.4679	0.4109	0.2676	0.5287	2594	93.8
21	00h03m30s	0.769	23.998	18.454	1806.8	0.4678	0.4107	0.2676	0.5286	2593	93.8

22	00h03m40s	0.7692	23.998	18.459	1807	0.4677	0.4106	0.2675	0.5285	2595	93.8
23	00h03m50s	0.7696	23.998	18.469	1807.1	0.4678	0.4107	0.2676	0.5286	2594	93.8
24	00h04m00s	0.7698	23.998	18.474	1806.3	0.4678	0.4106	0.2676	0.5286	2593	93.8
25	00h04m10s	0.7701	23.998	18.481	1807	0.4679	0.4106	0.2677	0.5286	2592	93.7
26	00h04m20s	0.7704	23.998	18.488	1805.2	0.468	0.4105	0.2678	0.5285	2590	93.8
27	00h04m30s	0.7706	23.998	18.493	1806.3	0.4678	0.4106	0.2676	0.5286	2593	93.8
28	00h04m40s	0.7709	23.998	18.5	1805.9	0.4679	0.4105	0.2677	0.5285	2592	93.7
29	00h04m50s	0.7711	23.998	18.505	1805.8	0.468	0.4105	0.2678	0.5286	2590	93.7
30	00h05m00s	0.7714	23.998	18.512	1805.6	0.4679	0.4106	0.2677	0.5285	2592	93.8
31	00h05m10s	0.7716	23.998	18.517	1806	0.4679	0.4104	0.2678	0.5285	2590	93.7
32	00h05m20s	0.7718	23.998	18.522	1805.8	0.4679	0.4107	0.2677	0.5286	2592	93.8
33	00h05m30s	0.772	23.998	18.526	1805.4	0.4679	0.4106	0.2677	0.5286	2591	93.8
34	00h05m40s	0.7722	23.998	18.531	1805.2	0.468	0.4105	0.2678	0.5285	2589	93.8
35	00h05m50s	0.7724	23.998	18.536	1804.5	0.4679	0.4104	0.2678	0.5285	2591	93.8
36	00h06m00s	0.7726	23.998	18.541	1804.4	0.468	0.4104	0.2679	0.5285	2589	93.7
37	00h06m10s	0.7728	23.998	18.546	1804.9	0.468	0.4105	0.2678	0.5285	2589	93.7
38	00h06m20s	0.773	23.998	18.55	1805	0.4678	0.4102	0.2678	0.5284	2590	93.8
39	00h06m30s	0.7732	23.998	18.555	1803.7	0.4681	0.4104	0.2679	0.5285	2588	93.7
40	00h06m40s	0.7733	23.998	18.558	1804.4	0.4681	0.4105	0.2679	0.5286	2588	93.8
41	00h06m50s	0.7735	23.998	18.562	1804.7	0.468	0.4104	0.2679	0.5285	2589	93.7
42	00h07m00s	0.7737	23.998	18.567	1802.9	0.4678	0.4102	0.2678	0.5284	2589	93.8
43	00h07m10s	0.7738	23.998	18.57	1804.4	0.4681	0.4103	0.268	0.5285	2587	93.7
44	00h07m20s	0.774	23.998	18.574	1803.5	0.468	0.4103	0.2679	0.5285	2588	93.7
45	00h07m30s	0.7741	23.998	18.577	1804	0.468	0.4103	0.2679	0.5285	2588	93.7
46	00h07m40s	0.7743	23.998	18.582	1803.3	0.4682	0.4103	0.268	0.5285	2585	93.7
47	00h07m50s	0.7744	23.998	18.584	1803.6	0.468	0.4102	0.268	0.5284	2587	93.7
48	00h08m00s	0.7745	23.998	18.586	1803.9	0.4681	0.4103	0.268	0.5285	2586	93.8
49	00h08m10s	0.7747	23.998	18.591	1802.1	0.4681	0.4102	0.268	0.5284	2586	93.7
50	00h08m20s	0.7748	23.998	18.594	1803.7	0.468	0.4101	0.268	0.5284	2587	93.8
51	00h08m30s	0.7749	23.998	18.596	1803.1	0.4681	0.4103	0.268	0.5285	2587	93.7
52	00h08m40s	0.775	23.998	18.598	1802.5	0.4681	0.4103	0.268	0.5285	2586	93.8

53	00h08m50s	0.7751	23.998	18.601	1802.5	0.4683	0.4104	0.2681	0.5285	2584	93.7
54	00h09m00s	0.7752	23.998	18.603	1802.4	0.468	0.4104	0.2679	0.5285	2588	93.8
55	00h09m10s	0.7754	23.998	18.608	1803.1	0.4681	0.4102	0.268	0.5285	2586	93.8
56	00h09m20s	0.7755	23.998	18.61	1803.6	0.468	0.4102	0.268	0.5284	2587	93.7
57	00h09m30s	0.7756	23.998	18.613	1802.2	0.4682	0.4103	0.2681	0.5285	2584	93.7
58	00h09m40s	0.7757	23.998	18.615	1802	0.4683	0.4103	0.2681	0.5285	2584	93.8
59	00h09m50s	0.7758	23.998	18.618	1801.6	0.468	0.4103	0.2679	0.5285	2588	93.7
60	00h10m00s	0.7759	23.998	18.62	1802.6	0.4681	0.4102	0.268	0.5285	2587	93.7
61	00h10m10s	0.776	23.998	18.622	1802	0.4681	0.4103	0.268	0.5285	2587	93.7
62	00h10m20s	0.7761	23.998	18.625	1801.5	0.4682	0.4102	0.268	0.5285	2585	93.7
63	00h10m30s	0.7761	23.998	18.625	1802.3	0.4682	0.4102	0.2681	0.5284	2585	93.7
64	00h10m40s	0.7762	23.998	18.627	1801.7	0.4681	0.4101	0.268	0.5284	2585	93.7
65	00h10m50s	0.7763	23.998	18.63	1801.6	0.4683	0.4101	0.2681	0.5284	2583	93.8
66	00h11m00s	0.7764	23.998	18.632	1801.7	0.4683	0.4101	0.2682	0.5284	2583	93.7
67	00h11m10s	0.7765	23.998	18.634	1802	0.468	0.4099	0.2681	0.5283	2585	93.7
68	00h11m20s	0.7766	23.998	18.637	1801.7	0.4682	0.4102	0.268	0.5285	2585	93.8
69	00h11m30s	0.7766	23.998	18.637	1800.7	0.4681	0.41	0.2681	0.5284	2584	93.8
70	00h11m40s	0.7767	23.998	18.639	1801.7	0.4683	0.41	0.2682	0.5284	2582	93.7
71	00h11m50s	0.7768	23.998	18.642	1801.6	0.4682	0.41	0.2682	0.5284	2583	93.7
72	00h12m00s	0.7769	23.998	18.644	1800.2	0.4683	0.4101	0.2682	0.5284	2583	93.8
73	00h12m10s	0.7769	23.998	18.644	1801.6	0.4681	0.4101	0.2681	0.5284	2585	93.8
74	00h12m20s	0.777	23.998	18.646	1800.5	0.4682	0.41	0.2682	0.5284	2583	93.7
75	00h12m30s	0.777	23.998	18.646	1800.9	0.4682	0.4102	0.2681	0.5284	2584	93.7
76	00h12m40s	0.7771	23.998	18.649	1800.5	0.4682	0.41	0.2682	0.5284	2583	93.7
77	00h12m50s	0.7772	23.998	18.651	1800.1	0.4683	0.41	0.2683	0.5284	2581	93.7
78	00h13m00s	0.7772	23.998	18.651	1800.9	0.4681	0.4098	0.2682	0.5283	2583	93.7
79	00h13m10s	0.7773	23.998	18.654	1800.7	0.4684	0.41	0.2683	0.5284	2581	93.7
80	00h13m20s	0.7773	23.998	18.654	1801.5	0.4681	0.4099	0.2682	0.5283	2583	93.7
81	00h13m30s	0.7774	23.998	18.656	1799.7	0.4683	0.4101	0.2682	0.5284	2582	93.7
82	00h13m40s	0.7774	23.998	18.656	1799.4	0.4682	0.4099	0.2682	0.5283	2582	93.7
83	00h13m50s	0.7775	23.998	18.658	1800.6	0.4683	0.4102	0.2682	0.5285	2583	93.7

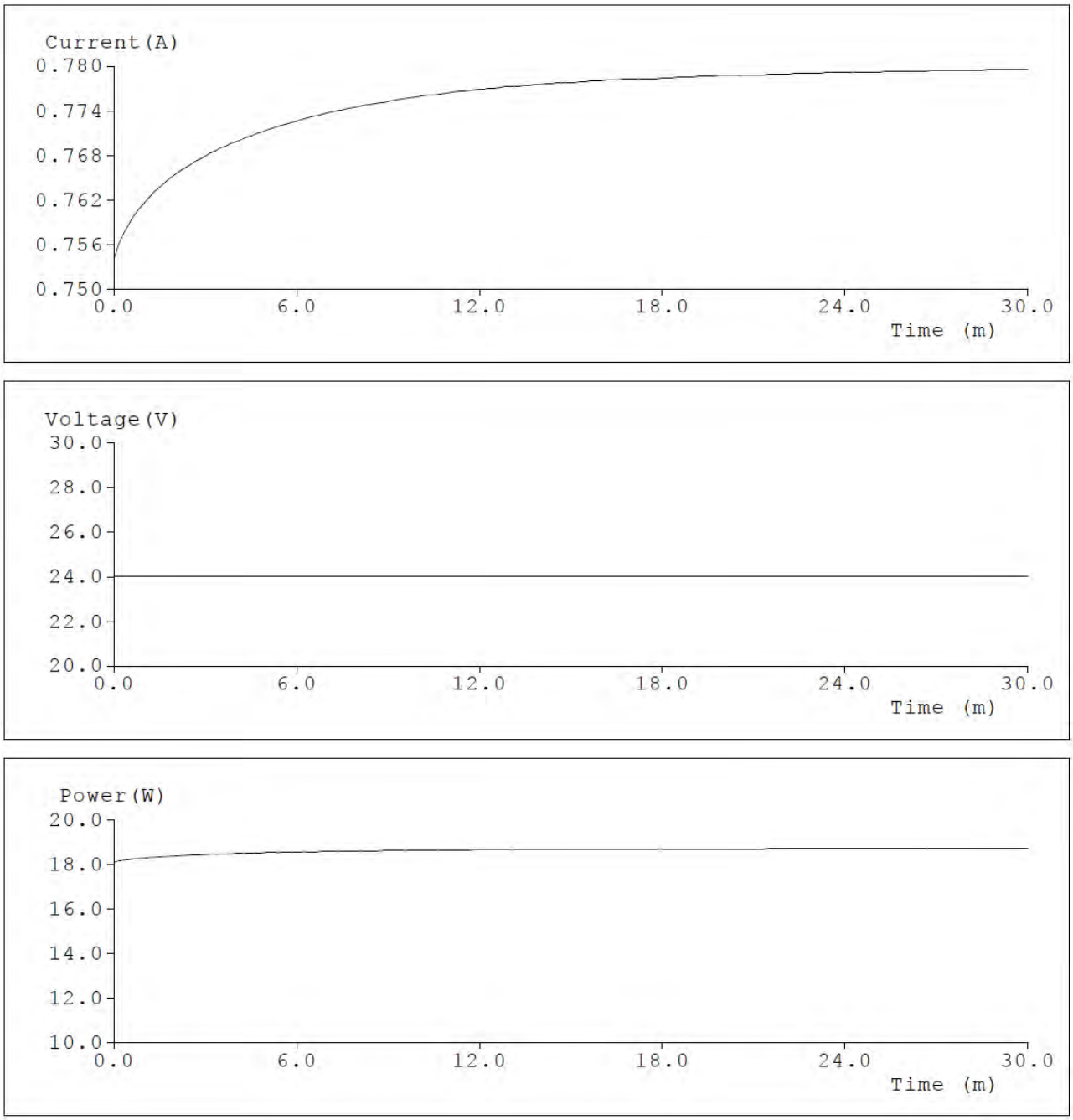
84	00h14m00s	0.7775	23.998	18.658	1800.4	0.4682	0.4101	0.2681	0.5284	2583	93.7
85	00h14m10s	0.7776	23.998	18.661	1801.1	0.4683	0.4101	0.2682	0.5284	2583	93.7
86	00h14m20s	0.7776	23.998	18.661	1800	0.4684	0.4101	0.2683	0.5284	2580	93.7
87	00h14m30s	0.7777	23.998	18.663	1800.7	0.4682	0.4101	0.2681	0.5284	2584	93.8
88	00h14m40s	0.7777	23.998	18.663	1799.6	0.4684	0.4101	0.2682	0.5284	2581	93.8
89	00h14m50s	0.7778	23.998	18.666	1801.2	0.4682	0.4102	0.2681	0.5284	2584	93.8
90	00h15m00s	0.7778	23.998	18.666	1799.4	0.4683	0.4099	0.2683	0.5283	2580	93.7
91	00h15m10s	0.7778	23.998	18.666	1800.2	0.4682	0.4099	0.2682	0.5283	2583	93.7
92	00h15m20s	0.7779	23.998	18.668	1799.8	0.4685	0.4101	0.2683	0.5285	2580	93.7
93	00h15m30s	0.7779	23.998	18.668	1800.8	0.4683	0.4101	0.2682	0.5284	2582	93.7
94	00h15m40s	0.778	23.998	18.67	1799.6	0.4684	0.41	0.2683	0.5284	2581	93.7
95	00h15m50s	0.778	23.998	18.67	1799.1	0.4683	0.41	0.2682	0.5284	2582	93.8
96	00h16m00s	0.778	23.998	18.67	1799.2	0.4684	0.41	0.2683	0.5284	2581	93.7
97	00h16m10s	0.7781	23.998	18.673	1798.7	0.4683	0.4099	0.2683	0.5284	2582	93.7
98	00h16m20s	0.7781	23.998	18.673	1800.5	0.4684	0.4102	0.2682	0.5285	2582	93.7
99	00h16m30s	0.7781	23.998	18.673	1799.6	0.4683	0.41	0.2682	0.5284	2581	93.7
100	00h16m40s	0.7782	23.998	18.675	1800.3	0.4683	0.41	0.2683	0.5284	2581	93.7
101	00h16m50s	0.7782	23.998	18.675	1800.2	0.4682	0.4099	0.2682	0.5284	2583	93.8
102	00h17m00s	0.7782	23.998	18.675	1800.1	0.4683	0.41	0.2683	0.5284	2581	93.7
103	00h17m10s	0.7782	23.998	18.675	1799.3	0.4682	0.4101	0.2682	0.5284	2583	93.8
104	00h17m20s	0.7783	23.998	18.678	1799	0.4684	0.41	0.2683	0.5284	2581	93.7
105	00h17m30s	0.7783	23.998	18.678	1799.9	0.4685	0.4101	0.2683	0.5285	2580	93.7
106	00h17m40s	0.7783	23.998	18.678	1800	0.4684	0.4099	0.2683	0.5284	2580	93.7
107	00h17m50s	0.7783	23.998	18.678	1800.1	0.4682	0.4099	0.2682	0.5284	2583	93.7
108	00h18m00s	0.7784	23.998	18.68	1799.8	0.4682	0.4099	0.2682	0.5283	2582	93.7
109	00h18m10s	0.7784	23.998	18.68	1799.4	0.4684	0.41	0.2683	0.5284	2581	93.7
110	00h18m20s	0.7784	23.998	18.68	1798.4	0.4683	0.41	0.2683	0.5284	2582	93.7
111	00h18m30s	0.7785	23.998	18.682	1799.5	0.4682	0.4099	0.2682	0.5283	2582	93.8
112	00h18m40s	0.7785	23.998	18.682	1799.1	0.4684	0.4101	0.2682	0.5284	2582	93.7
113	00h18m50s	0.7785	23.998	18.682	1800	0.4683	0.4099	0.2683	0.5283	2580	93.7
114	00h19m00s	0.7785	23.998	18.682	1798.8	0.4682	0.4099	0.2682	0.5283	2583	93.8

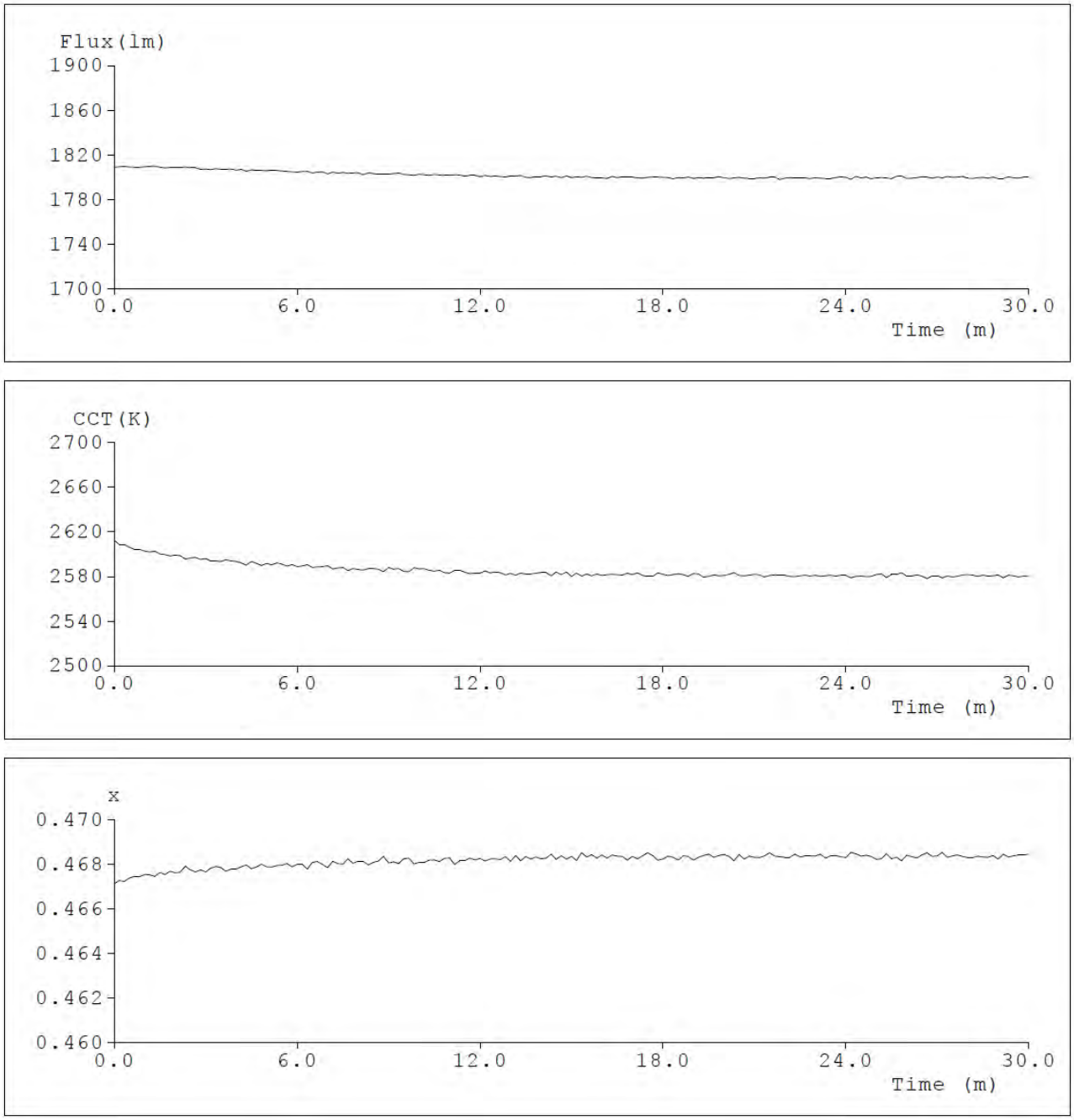
115	00h19m10s	0.7786	23.998	18.685	1799.5	0.4683	0.41	0.2682	0.5284	2582	93.8
116	00h19m20s	0.7786	23.998	18.685	1799	0.4684	0.4098	0.2684	0.5283	2579	93.7
117	00h19m30s	0.7786	23.998	18.685	1799.5	0.4684	0.41	0.2683	0.5284	2580	93.7
118	00h19m40s	0.7786	23.998	18.685	1799.5	0.4683	0.4099	0.2683	0.5284	2581	93.7
119	00h19m50s	0.7787	23.998	18.687	1800.2	0.4684	0.41	0.2683	0.5284	2581	93.7
120	00h20m00s	0.7787	23.998	18.687	1799.6	0.4684	0.4101	0.2683	0.5284	2581	93.7
121	00h20m10s	0.7787	23.998	18.687	1798.6	0.4683	0.4101	0.2682	0.5284	2582	93.7
122	00h20m20s	0.7787	23.998	18.687	1799.3	0.4681	0.4099	0.2682	0.5284	2583	93.7
123	00h20m30s	0.7787	23.998	18.687	1799.8	0.4684	0.4101	0.2683	0.5284	2581	93.7
124	00h20m40s	0.7788	23.998	18.69	1798.9	0.4682	0.4097	0.2683	0.5283	2580	93.7
125	00h20m50s	0.7788	23.998	18.69	1798.7	0.4684	0.41	0.2683	0.5284	2581	93.7
126	00h21m00s	0.7788	23.998	18.69	1798.8	0.4683	0.41	0.2682	0.5284	2582	93.7
127	00h21m10s	0.7788	23.998	18.69	1799.3	0.4683	0.4099	0.2683	0.5284	2581	93.7
128	00h21m20s	0.7788	23.998	18.69	1799	0.4684	0.4098	0.2684	0.5283	2579	93.7
129	00h21m30s	0.7789	23.998	18.692	1799.9	0.4685	0.4102	0.2683	0.5285	2581	93.7
130	00h21m40s	0.7789	23.998	18.692	1800.3	0.4683	0.41	0.2683	0.5284	2581	93.7
131	00h21m50s	0.7789	23.998	18.692	1797.8	0.4683	0.41	0.2683	0.5284	2581	93.8
132	00h22m00s	0.7789	23.998	18.692	1799	0.4683	0.4099	0.2683	0.5284	2581	93.7
133	00h22m10s	0.7789	23.998	18.692	1799.6	0.4683	0.4098	0.2683	0.5283	2580	93.7
134	00h22m20s	0.779	23.998	18.694	1799.2	0.4684	0.41	0.2683	0.5284	2580	93.7
135	00h22m30s	0.779	23.998	18.694	1799.3	0.4683	0.4099	0.2683	0.5283	2581	93.7
136	00h22m40s	0.779	23.998	18.694	1799.3	0.4684	0.41	0.2683	0.5284	2581	93.7
137	00h22m50s	0.779	23.998	18.694	1798.7	0.4684	0.4099	0.2683	0.5284	2580	93.7
138	00h23m00s	0.779	23.998	18.694	1799.3	0.4684	0.41	0.2683	0.5284	2581	93.7
139	00h23m10s	0.779	23.998	18.694	1799	0.4684	0.41	0.2683	0.5284	2580	93.7
140	00h23m20s	0.7791	23.998	18.697	1798.7	0.4683	0.4098	0.2683	0.5283	2581	93.7
141	00h23m30s	0.7791	23.998	18.697	1798.8	0.4684	0.41	0.2683	0.5284	2581	93.7
142	00h23m40s	0.7791	23.998	18.697	1799.4	0.4684	0.4099	0.2683	0.5284	2580	93.7
143	00h23m50s	0.7791	23.998	18.697	1800.2	0.4683	0.4099	0.2683	0.5284	2581	93.7
144	00h24m00s	0.7791	23.998	18.697	1799.8	0.4683	0.4099	0.2683	0.5283	2581	93.7
145	00h24m10s	0.7791	23.998	18.697	1798	0.4685	0.41	0.2684	0.5284	2579	93.7

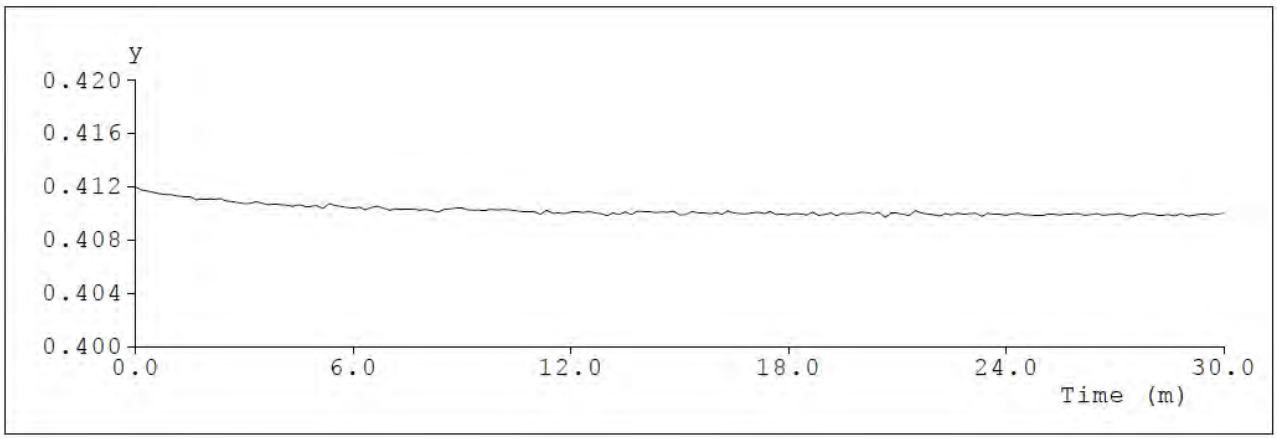
146	00h24m20s	0.7792	23.998	18.699	1800.4	0.4684	0.41	0.2683	0.5284	2580	93.7
147	00h24m30s	0.7792	23.998	18.699	1799.3	0.4683	0.4099	0.2683	0.5284	2580	93.7
148	00h24m40s	0.7792	23.998	18.699	1800	0.4684	0.4099	0.2684	0.5284	2580	93.7
149	00h24m50s	0.7792	23.998	18.699	1798.4	0.4683	0.4098	0.2683	0.5283	2580	93.7
150	00h25m00s	0.7792	23.998	18.699	1799.2	0.4682	0.4098	0.2683	0.5283	2582	93.8
151	00h25m10s	0.7792	23.998	18.699	1799.4	0.4682	0.4099	0.2682	0.5284	2582	93.7
152	00h25m20s	0.7793	23.998	18.702	1799.2	0.4685	0.4099	0.2684	0.5284	2579	93.7
153	00h25m30s	0.7793	23.998	18.702	1798.4	0.4682	0.4099	0.2683	0.5283	2582	93.7
154	00h25m40s	0.7793	23.998	18.702	1800.8	0.4683	0.41	0.2683	0.5284	2582	93.8
155	00h25m50s	0.7793	23.998	18.702	1801	0.4681	0.4099	0.2682	0.5284	2583	93.7
156	00h26m00s	0.7793	23.998	18.702	1798.8	0.4684	0.41	0.2683	0.5284	2580	93.7
157	00h26m10s	0.7793	23.998	18.702	1798.9	0.4683	0.4099	0.2683	0.5283	2580	93.7
158	00h26m20s	0.7793	23.998	18.702	1799.4	0.4683	0.4099	0.2683	0.5284	2581	93.7
159	00h26m30s	0.7793	23.998	18.702	1800.3	0.4684	0.41	0.2683	0.5284	2580	93.7
160	00h26m40s	0.7793	23.998	18.702	1799.9	0.4685	0.4098	0.2684	0.5284	2578	93.7
161	00h26m50s	0.7794	23.998	18.704	1798.9	0.4683	0.4099	0.2683	0.5284	2580	93.7
162	00h27m00s	0.7794	23.998	18.704	1799.9	0.4684	0.4099	0.2683	0.5284	2580	93.7
163	00h27m10s	0.7794	23.998	18.704	1799.1	0.4685	0.41	0.2684	0.5284	2579	93.7
164	00h27m20s	0.7794	23.998	18.704	1800.5	0.4683	0.4098	0.2683	0.5283	2580	93.7
165	00h27m30s	0.7794	23.998	18.704	1799.6	0.4684	0.4098	0.2684	0.5283	2579	93.7
166	00h27m40s	0.7794	23.998	18.704	1799.9	0.4684	0.4099	0.2683	0.5284	2580	93.7
167	00h27m50s	0.7794	23.998	18.704	1800.4	0.4683	0.41	0.2683	0.5284	2581	93.7
168	00h28m00s	0.7794	23.998	18.704	1798.9	0.4683	0.4099	0.2683	0.5284	2581	93.7
169	00h28m10s	0.7794	23.998	18.704	1798.8	0.4683	0.4099	0.2683	0.5283	2581	93.7
170	00h28m20s	0.7794	23.998	18.704	1799.4	0.4684	0.4099	0.2683	0.5284	2580	93.7
171	00h28m30s	0.7794	23.998	18.704	1799.8	0.4683	0.4099	0.2683	0.5284	2581	93.7
172	00h28m40s	0.7795	23.998	18.706	1798.9	0.4683	0.4098	0.2683	0.5283	2580	93.7
173	00h28m50s	0.7795	23.998	18.706	1799.9	0.4684	0.41	0.2683	0.5284	2581	93.7
174	00h29m00s	0.7795	23.998	18.706	1798.6	0.4682	0.4098	0.2683	0.5283	2581	93.7
175	00h29m10s	0.7795	23.998	18.706	1798.8	0.4684	0.4098	0.2684	0.5284	2579	93.7
176	00h29m20s	0.7795	23.998	18.706	1800.3	0.4683	0.4099	0.2683	0.5284	2581	93.7

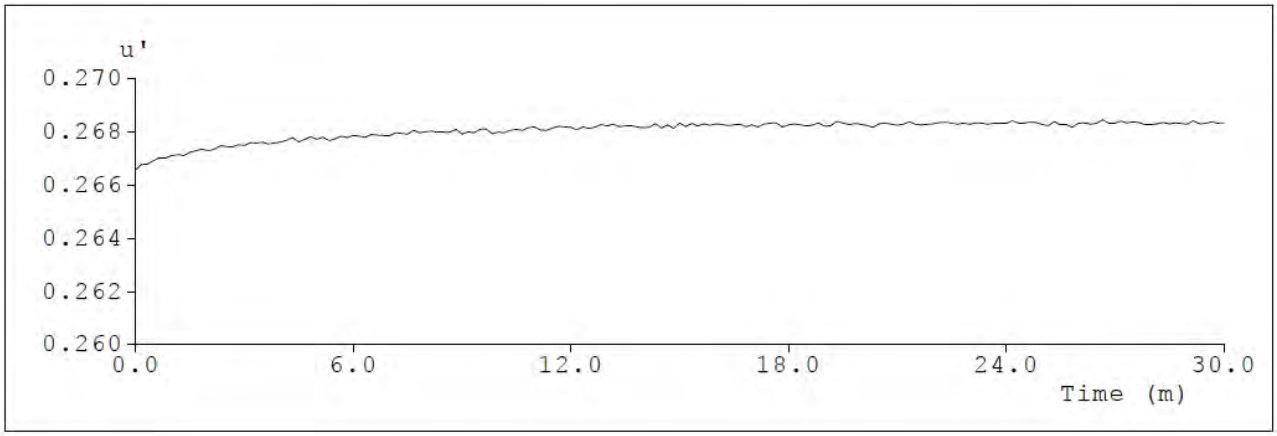
177	00h29m30s	0.7795	23.998	18.706	1799.3	0.4684	0.41	0.2683	0.5284	2581	93.7
178	00h29m40s	0.7795	23.998	18.706	1799.1	0.4684	0.4099	0.2684	0.5284	2579	93.7
179	00h29m50s	0.7795	23.998	18.706	1800.1	0.4684	0.41	0.2683	0.5284	2580	93.7
180	00h30m00s	0.7795	23.998	18.706	1800	0.4684	0.41	0.2683	0.5284	2580	93.7

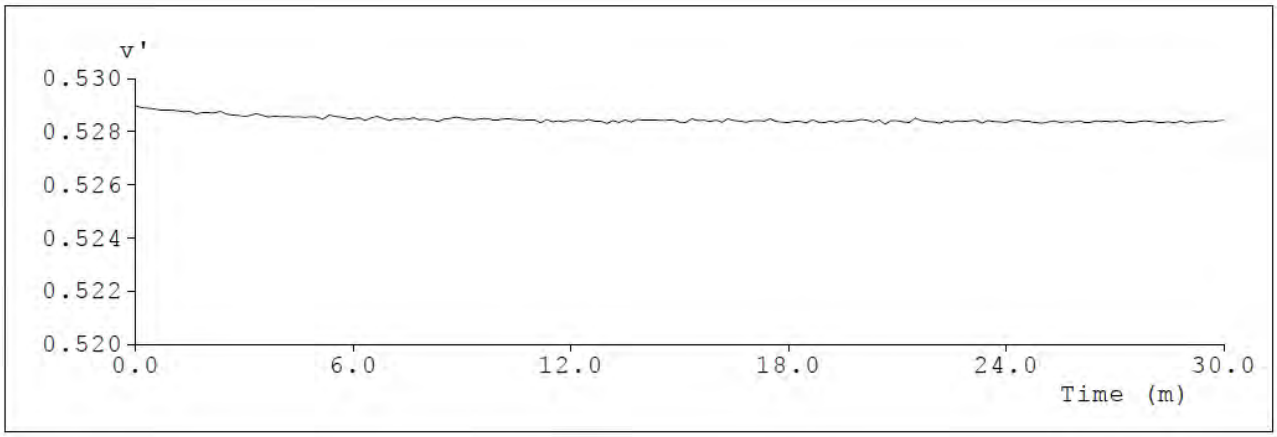
Test curves




Flux(lm)
1900
1860
1820
1780
1740
1700
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
CCT(K)
2700
2660
2620
2580
2540
2500
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
0.420
0.416
0.412
0.408
0.404
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)

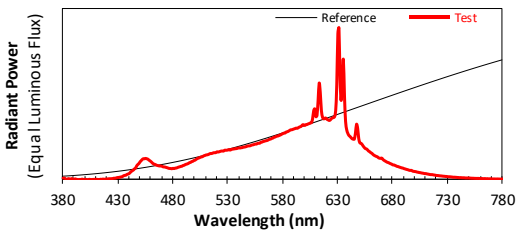

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

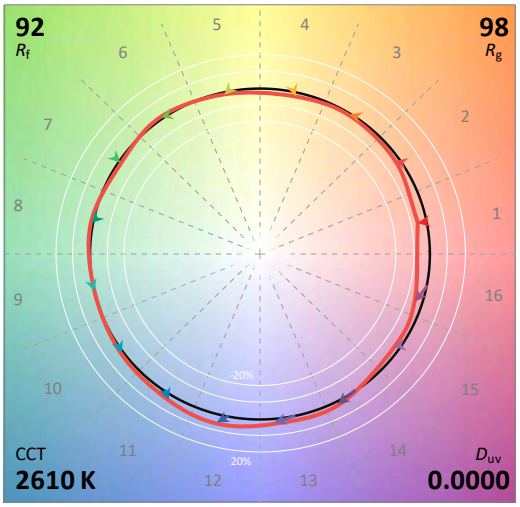
*11.2 ANSI/IES TM-30-18 Color Rendition Report

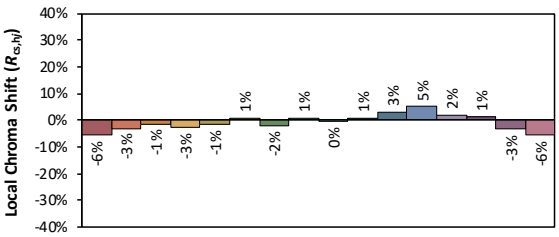
ANSI/IES TM-30-18 Color Rendition Report

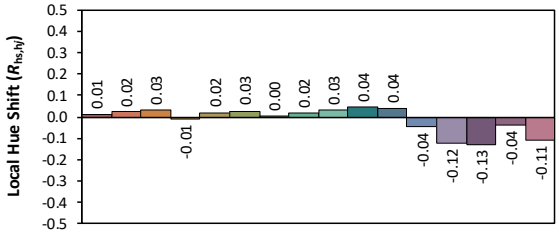
Source: Manufacturer:

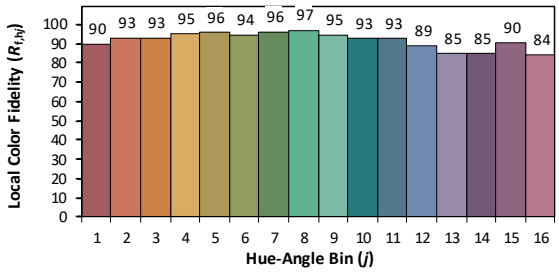
Date: 2023/9/26 Model: LFUY-1000-L27-DF-I-20

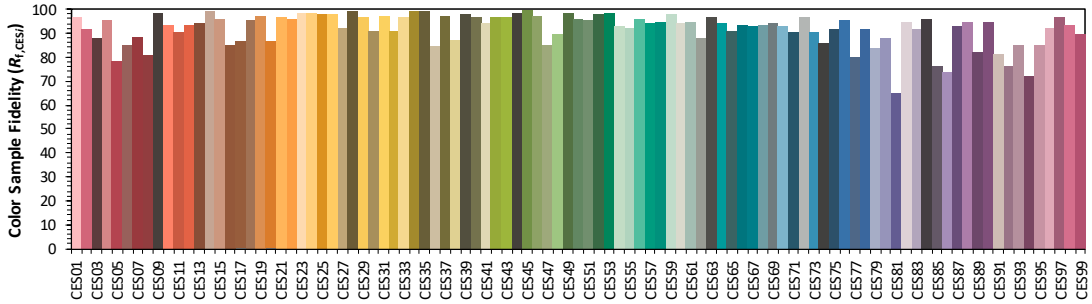












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

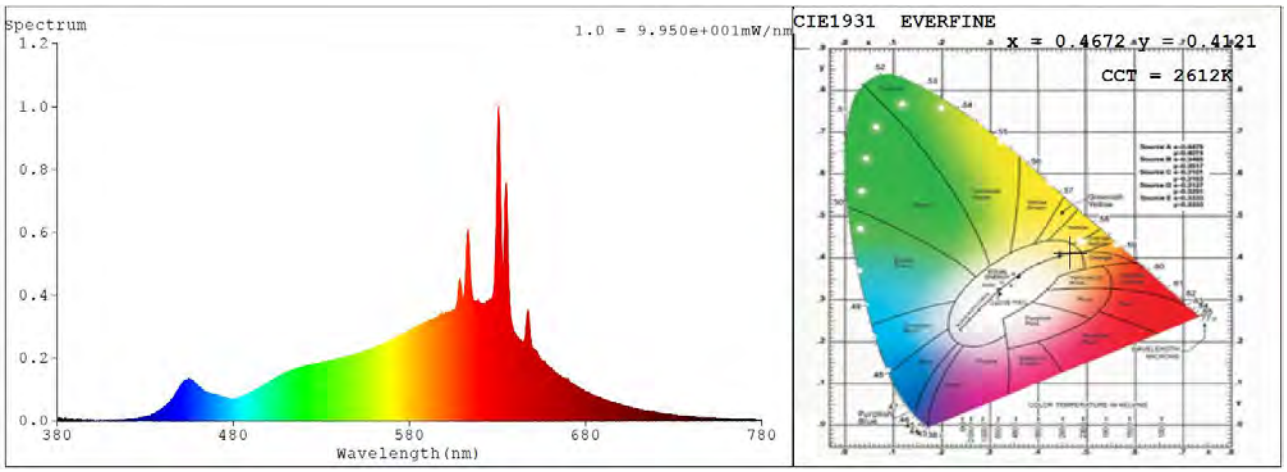
x	0.4673
y	0.4120
u'	0.2666
v'	0.5290

CIE 13.3-1995 (CRI)

R_a	94
R_9	56

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	0.0108	414	0.004	448	0.0957	482	0.0731	516	0.1662
381	0.0108	415	0.0029	449	0.1022	483	0.0738	517	0.1688
382	0.0074	416	0.0047	450	0.1122	484	0.0764	518	0.169
383	0.0005	417	0.0044	451	0.1195	485	0.0793	519	0.1698
384	0.004	418	0.0038	452	0.1269	486	0.0811	520	0.1745
385	0.0083	419	0.005	453	0.1316	487	0.0837	521	0.1735
386	0.0038	420	0.0055	454	0.1312	488	0.0847	522	0.1749
387	0.0045	421	0.0063	455	0.1335	489	0.089	523	0.1774
388	0.0079	422	0.0069	456	0.1314	490	0.0907	524	0.1793
389	0	423	0.0071	457	0.1292	491	0.0946	525	0.1796
390	0.0037	424	0.0075	458	0.1235	492	0.0974	526	0.1793
391	0.0061	425	0.008	459	0.1186	493	0.0993	527	0.1845
392	0.0036	426	0.0101	460	0.1132	494	0.1026	528	0.1845
393	0.0025	427	0.0102	461	0.1065	495	0.1071	529	0.1846
394	0	428	0.0114	462	0.1006	496	0.1091	530	0.1863
395	0.0028	429	0.0137	463	0.0973	497	0.1138	531	0.1884
396	0.0017	430	0.0146	464	0.095	498	0.1157	532	0.1852
397	0.0043	431	0.0157	465	0.0911	499	0.1206	533	0.1894
398	0.0035	432	0.0173	466	0.0893	500	0.1226	534	0.1909
399	0.0012	433	0.0188	467	0.0875	501	0.1278	535	0.192
400	0.003	434	0.021	468	0.0865	502	0.132	536	0.1931
401	0.0026	435	0.0255	469	0.0863	503	0.1353	537	0.1943
402	0.0002	436	0.0279	470	0.0845	504	0.1375	538	0.195
403	0.002	437	0.029	471	0.0811	505	0.1412	539	0.1975
404	0.0035	438	0.0335	472	0.0805	506	0.1429	540	0.199
405	0.0017	439	0.0363	473	0.0792	507	0.1452	541	0.1984
406	0.0019	440	0.039	474	0.0769	508	0.1497	542	0.2
407	0.0027	441	0.0458	475	0.075	509	0.1519	543	0.2009
408	0.0029	442	0.0522	476	0.072	510	0.1547	544	0.2034
409	0.0034	443	0.0574	477	0.071	511	0.1559	545	0.2043
410	0.0035	444	0.0617	478	0.0705	512	0.1577	546	0.2058
411	0.003	445	0.0692	479	0.0694	513	0.161	547	0.2082
412	0.0023	446	0.0746	480	0.0719	514	0.164	548	0.2107
413	0.0022	447	0.0878	481	0.0703	515	0.1638	549	0.2116

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2119	599	0.3421	648	0.3206	697	0.059	746	0.0119
551	0.2148	600	0.3387	649	0.257	698	0.0546	747	0.0117
552	0.2175	601	0.3438	650	0.2306	699	0.053	748	0.0118
553	0.2184	602	0.345	651	0.2277	700	0.0519	749	0.0116
554	0.221	603	0.3482	652	0.2211	701	0.0509	750	0.0109
555	0.223	604	0.3508	653	0.2107	702	0.0487	751	0.0109
556	0.223	605	0.3544	654	0.202	703	0.0474	752	0.0101
557	0.227	606	0.3567	655	0.1949	704	0.0457	753	0.0102
558	0.228	607	0.3805	656	0.1926	705	0.045	754	0.0096
559	0.2285	608	0.4297	657	0.1866	706	0.0431	755	0.0094
560	0.2345	609	0.4416	658	0.1792	707	0.0419	756	0.0091
561	0.2352	610	0.3931	659	0.1751	708	0.0407	757	0.0091
562	0.2388	611	0.4008	660	0.1689	709	0.039	758	0.0092
563	0.2402	612	0.4927	661	0.165	710	0.0391	759	0.0084
564	0.2428	613	0.6019	662	0.158	711	0.0373	760	0.0081
565	0.2441	614	0.5422	663	0.1529	712	0.036	761	0.0083
566	0.2461	615	0.4324	664	0.1492	713	0.0345	762	0.0076
567	0.2499	616	0.391	665	0.1458	714	0.0332	763	0.0075
568	0.2527	617	0.3796	666	0.1432	715	0.0327	764	0.0079
569	0.2546	618	0.3826	667	0.1375	716	0.0325	765	0.0067
570	0.2584	619	0.3852	668	0.1348	717	0.0309	766	0.0075
571	0.2606	620	0.3774	669	0.1341	718	0.0299	767	0.0065
572	0.2656	621	0.3741	670	0.1355	719	0.0285	768	0.0066
573	0.2669	622	0.3699	671	0.1272	720	0.0273	769	0.0068
574	0.2713	623	0.3724	672	0.1217	721	0.0269	770	0.006
575	0.2724	624	0.3803	673	0.1174	722	0.0259	771	0.0059
576	0.2745	625	0.3853	674	0.1133	723	0.025	772	0.0057
577	0.2776	626	0.3878	675	0.1094	724	0.0245	773	0.0057
578	0.2805	627	0.3928	676	0.1074	725	0.0236	774	0.0052
579	0.2847	628	0.4288	677	0.1038	726	0.0227	775	0.0057
580	0.288	629	0.5917	678	0.1005	727	0.0222	776	0.0055
581	0.2911	630	0.9098	679	0.0978	728	0.0213	777	0.0052
582	0.2917	631	0.9442	680	0.0933	729	0.0211	778	0.0051
583	0.2978	632	0.6253	681	0.0928	730	0.0198	779	0.0048
584	0.2995	633	0.4941	682	0.09	731	0.0194	780	0.0049
585	0.3027	634	0.6309	683	0.0869	732	0.0191		
586	0.3071	635	0.7496	684	0.0837	733	0.0184		
587	0.3112	636	0.527	685	0.0824	734	0.0176		
588	0.3119	637	0.3644	686	0.0793	735	0.0165		
589	0.3142	638	0.3132	687	0.0774	736	0.0166		
590	0.3168	639	0.2907	688	0.0746	737	0.0161		
591	0.3191	640	0.2771	689	0.0736	738	0.0155		
592	0.322	641	0.2706	690	0.0705	739	0.0148		
593	0.3209	642	0.263	691	0.0686	740	0.0137		
594	0.3246	643	0.2561	692	0.0662	741	0.0139		
595	0.3288	644	0.2534	693	0.0644	742	0.0138		
596	0.3313	645	0.2539	694	0.0624	743	0.0131		
597	0.3357	646	0.2908	695	0.0597	744	0.013		
598	0.343	647	0.346	696	0.0588	745	0.0129		

12. Goniophotometer Test results for LFUY-1000-L27-DF-I-20

12.1 Test Data

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

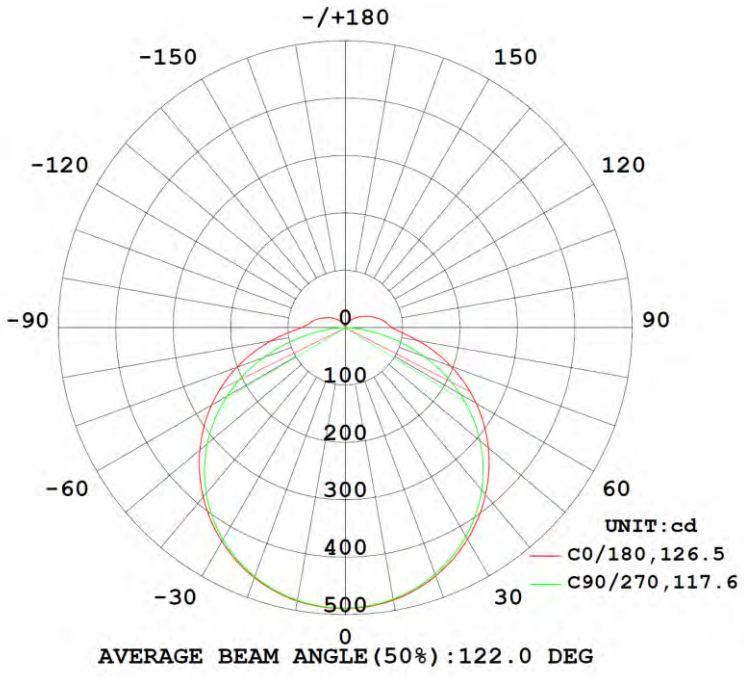
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
23.993	--	0.77769	1.0000	18.659

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1747.74	93.67	489.3	8	92

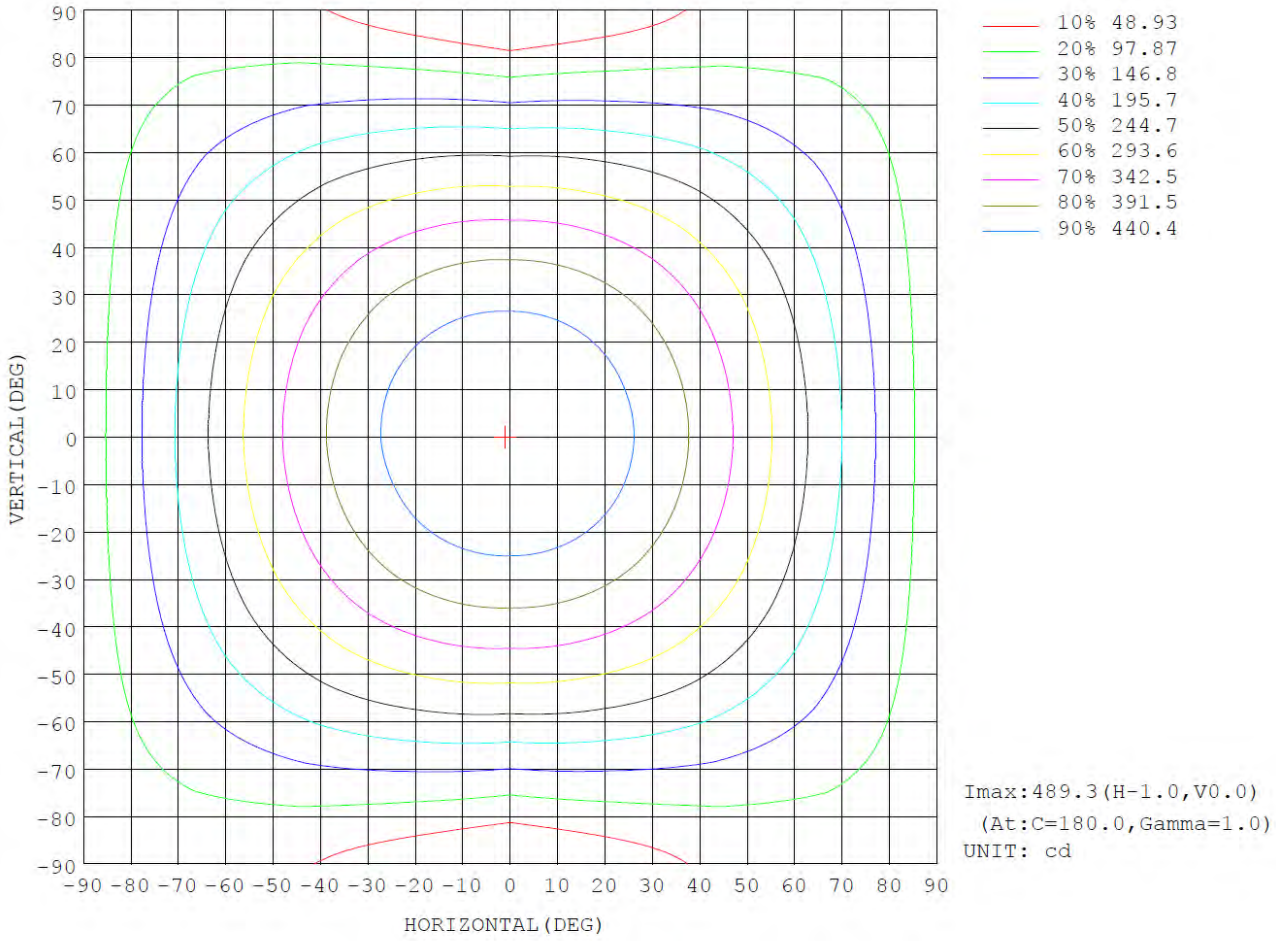
12.2 Luminous Intensity Distribution



12.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	481.9	480.6	480.0	480.6	483.5	483.3	482.4	481.3	0- 10	46.31	46.31	2.65,2.65
20	460.4	458.3	456.9	459.4	463.5	463.9	461.6	460.7	10- 20	133.5	179.8	10.3,10.3
30	425.7	422.9	420.2	424.7	430.2	430.3	426.6	426.2	20- 30	205.1	385.0	22,22
40	380.0	375.6	369.6	377.9	385.4	384.6	377.1	379.6	30- 40	252.7	637.7	36.5,36.5
50	325.5	318.0	306.3	320.6	331.1	327.7	314.0	322.3	40- 50	270.9	908.6	52,52
60	263.3	251.8	231.0	254.5	269.3	261.7	238.1	256.1	50- 60	257.6	1166	66.7,66.7
70	195.7	179.6	145.9	181.5	201.1	188.1	151.1	182.8	60- 70	214.5	1381	79,79
80	128.0	107.0	59.01	107.6	131.0	112.8	61.17	108.7	70- 80	148.3	1529	87.5,87.5
90	81.98	58.32	3.462	53.02	76.85	56.57	2.925	59.21	80- 90	79.15	1608	92,92
100	68.27	45.68	0.2477	38.89	60.40	41.65	0.2691	45.86	90-100	47.34	1655	94.7,94.7
110	54.04	33.82	0.3382	28.47	47.44	30.34	0.3369	34.01	100-110	35.36	1691	96.7,96.7
120	40.61	23.82	0.4399	20.35	35.60	21.51	0.3826	24.03	110-120	24.49	1715	98.1,98.1
130	29.39	16.73	0.5500	13.25	25.46	14.13	0.4631	16.87	120-130	15.85	1731	99,99
140	19.87	11.15	0.5970	8.070	16.39	8.630	0.5995	10.99	130-140	9.351	1740	99.6,99.6
150	11.69	6.870	0.6199	4.611	9.174	5.719	0.7199	5.968	140-150	4.712	1745	99.9,99.9
160	6.040	3.231	0.6831	1.574	4.641	3.414	0.8304	1.985	150-160	1.935	1747	100,100
170	2.007	1.176	0.7683	0.7935	1.022	0.9599	0.8725	0.9369	160-170	0.5175	1748	100,100
180	0.8365	0.8890	0.8644	0.9003	0.8825	0.9086	0.8617	0.8643	170-180	0.0892	1748	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	489	489	489	489	489	488	488	488	489	489	489	489	489	488	488	488			
5	487	487	486	486	486	486	486	486	488	488	488	488	487	487	486	486			
10	482	481	481	480	480	480	481	481	484	484	483	483	482	482	481	481			
15	473	472	471	471	470	471	472	473	475	476	475	475	474	473	473	472			
20	460	459	458	458	457	458	459	461	464	464	464	463	462	461	461	460			
25	445	443	442	441	441	442	444	445	448	449	449	448	446	446	445	444			
30	426	424	423	421	420	422	425	427	430	431	430	429	427	426	426	425			
35	404	403	401	398	397	399	403	406	409	410	409	406	404	404	404	404			
40	380	378	376	372	370	373	378	382	385	386	385	381	377	378	380	380			
45	354	352	348	343	340	344	350	355	359	360	357	352	347	349	352	354			
50	325	323	318	311	306	312	321	326	331	331	328	321	314	318	322	325			
55	295	292	286	277	270	278	288	296	301	301	296	286	278	282	290	294			
60	263	260	252	240	231	241	254	263	269	268	262	249	238	246	256	262			
65	230	226	216	201	189	202	219	229	236	234	226	210	196	206	220	228			
70	196	191	180	161	146	162	182	194	201	199	188	169	151	165	183	193			
75	161	156	143	121	102	122	144	159	166	163	150	127	106	123	145	158			
80	128	122	107	82.0	59.0	82.2	108	123	131	128	113	86.7	61.2	83.6	109	124			
85	99.3	93.3	76.6	49.4	22.2	48.4	74.8	91.9	99.5	95.6	79.5	51.9	24.1	50.0	77.7	94.4			
90	82.0	75.7	58.3	30.5	3.46	27.2	53.0	70.1	76.9	72.6	56.6	29.8	2.92	30.7	59.2	76.6			
95	74.6	68.6	51.6	24.6	0.22	20.1	43.1	59.4	66.1	62.3	47.5	22.5	0.23	24.3	52.3	69.3			
100	68.3	62.4	45.7	20.0	0.25	16.5	38.9	53.6	60.4	56.3	41.6	17.9	0.27	19.5	45.9	62.8			
105	61.3	55.7	39.5	15.4	0.29	13.3	33.4	48.2	54.5	50.0	35.6	14.4	0.32	15.9	39.8	56.0			
110	54.0	48.6	33.8	13.3	0.34	10.6	28.5	41.7	47.4	43.3	30.3	11.5	0.34	13.2	34.0	49.0			
115	47.0	42.1	28.9	11.0	0.39	8.00	24.2	36.0	41.2	37.4	25.7	8.95	0.36	10.9	28.1	42.5			
120	40.6	36.2	23.8	9.16	0.44	6.39	20.3	30.9	35.6	32.1	21.5	6.69	0.38	9.04	24.0	36.5			
125	34.8	30.9	19.3	7.64	0.49	5.08	16.9	26.2	30.3	27.1	17.7	5.26	0.41	7.50	20.3	29.6			
130	29.4	26.0	16.7	6.39	0.55	4.14	13.2	21.9	25.5	22.5	14.1	4.27	0.46	6.25	16.9	25.5			
135	24.4	21.6	13.8	5.31	0.58	3.33	10.4	17.7	20.8	18.3	11.1	3.71	0.52	5.14	13.8	21.2			
140	19.9	17.3	11.2	4.34	0.60	2.53	8.07	13.5	16.4	14.3	8.63	3.02	0.60	4.04	11.0	17.1			
145	15.7	13.3	8.84	3.44	0.59	1.52	6.08	10.3	12.5	11.1	6.92	2.48	0.66	2.88	8.34	13.4			
150	11.7	10.3	6.87	2.61	0.62	0.95	4.61	7.47	9.17	8.39	5.72	1.87	0.72	1.77	5.97	10.00			
155	8.69	7.65	5.12	1.83	0.65	0.71	3.25	5.41	6.59	6.31	4.73	1.51	0.78	0.98	3.68	7.02			
160	6.04	5.37	3.23	1.29	0.68	0.69	1.57	3.63	4.64	4.56	3.41	1.18	0.83	0.85	1.99	4.44			
165	3.81	3.19	1.95	0.91	0.71	0.73	0.85	1.52	2.20	2.20	1.57	0.93	0.84	0.84	1.20	2.32			
170	2.01	1.63	1.18	0.81	0.77	0.76	0.79	0.85	1.02	1.03	0.96	0.91	0.87	0.89	0.94	1.31			
175	0.95	0.93	0.87	0.84	0.83	0.82	0.84	0.88	0.92	0.92	0.94	0.90	0.87	0.88	0.90	0.94			
180	0.84	0.91	0.89	0.87	0.86	0.87	0.90	0.91	0.88	0.88	0.91	0.88	0.86	0.86	0.86	0.89			

13. Integrating Sphere Test Results for LFUY-1000-L27-DF-O-5

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	0.257	23.997	6.1672	493.41	0.4721	0.4121	0.2697	0.5298	2550	94.3
1	00h00m10s	0.2572	23.997	6.172	493.77	0.4722	0.4121	0.2698	0.5298	2548	94.3
2	00h00m20s	0.2573	23.997	6.1744	492.95	0.4721	0.412	0.2698	0.5298	2548	94.3
3	00h00m30s	0.2574	23.997	6.1768	492.97	0.4722	0.412	0.2699	0.5297	2547	94.2
4	00h00m40s	0.2574	23.997	6.1768	492.87	0.4722	0.412	0.2699	0.5297	2546	94.3
5	00h00m50s	0.2575	23.997	6.1792	492.63	0.4722	0.412	0.2699	0.5297	2547	94.3
6	00h01m00s	0.2576	23.997	6.1816	492.67	0.4723	0.4119	0.2699	0.5297	2546	94.2
7	00h01m10s	0.2576	23.997	6.1816	492.91	0.4721	0.4119	0.2698	0.5297	2547	94.3
8	00h01m20s	0.2576	23.997	6.1816	492.51	0.4722	0.412	0.2699	0.5297	2546	94.3
9	00h01m30s	0.2577	23.997	6.184	492.39	0.4723	0.4118	0.27	0.5297	2544	94.2
10	00h01m40s	0.2578	23.997	6.1864	492.12	0.4718	0.4115	0.2698	0.5295	2548	94.2
11	00h01m50s	0.2578	23.997	6.1864	492.13	0.4722	0.4119	0.2699	0.5297	2545	94.3
12	00h02m00s	0.2577	23.997	6.184	492.34	0.4721	0.4119	0.2699	0.5297	2547	94.2
13	00h02m10s	0.2578	23.997	6.1864	491.91	0.4721	0.4117	0.2699	0.5296	2546	94.3
14	00h02m20s	0.2579	23.997	6.1888	491.99	0.4723	0.412	0.2699	0.5298	2545	94.3
15	00h02m30s	0.2579	23.997	6.1888	491.96	0.4724	0.4119	0.27	0.5297	2544	94.2
16	00h02m40s	0.2579	23.997	6.1888	491.75	0.4723	0.4117	0.2701	0.5296	2543	94.2
17	00h02m50s	0.2579	23.997	6.1888	491.74	0.4722	0.4116	0.27	0.5296	2544	94.2
18	00h03m00s	0.2579	23.997	6.1888	491.66	0.4724	0.4117	0.2701	0.5297	2543	94.2
19	00h03m10s	0.258	23.997	6.1912	491.81	0.4722	0.4117	0.27	0.5296	2544	94.2
20	00h03m20s	0.258	23.997	6.1912	491.51	0.4721	0.4117	0.2699	0.5296	2546	94.2
21	00h03m30s	0.258	23.997	6.1912	491.8	0.4723	0.4118	0.27	0.5297	2544	94.2

22	00h03m40s	0.258	23.997	6.1912	491.71	0.4723	0.4119	0.27	0.5297	2544	94.3
23	00h03m50s	0.2581	23.997	6.1936	491.49	0.4722	0.4117	0.27	0.5296	2545	94.2
24	00h04m00s	0.2581	23.997	6.1936	491.44	0.4722	0.4116	0.27	0.5296	2544	94.2
25	00h04m10s	0.2581	23.997	6.1936	491.51	0.4722	0.4117	0.27	0.5296	2545	94.2
26	00h04m20s	0.2581	23.997	6.1936	491.7	0.4722	0.4116	0.27	0.5296	2544	94.2
27	00h04m30s	0.2581	23.997	6.1936	491.1	0.4722	0.4117	0.27	0.5296	2544	94.3
28	00h04m40s	0.2582	23.997	6.196	491.35	0.4724	0.4116	0.2702	0.5296	2542	94.2
29	00h04m50s	0.2582	23.997	6.196	491.14	0.4722	0.4116	0.27	0.5296	2545	94.3
30	00h05m00s	0.2582	23.997	6.196	491.09	0.4722	0.4115	0.27	0.5296	2544	94.2
31	00h05m10s	0.2582	23.997	6.196	491.39	0.4724	0.4119	0.27	0.5297	2543	94.3
32	00h05m20s	0.2582	23.997	6.196	491.49	0.4721	0.4117	0.2699	0.5296	2546	94.2
33	00h05m30s	0.2582	23.997	6.196	491.01	0.4723	0.4116	0.2701	0.5296	2543	94.2
34	00h05m40s	0.2583	23.997	6.1984	490.97	0.4723	0.4117	0.2701	0.5297	2543	94.2
35	00h05m50s	0.2583	23.997	6.1984	490.91	0.4723	0.4116	0.2701	0.5296	2542	94.2
36	00h06m00s	0.2583	23.997	6.1984	491.33	0.4722	0.4117	0.27	0.5296	2545	94.2
37	00h06m10s	0.2583	23.997	6.1984	490.9	0.4723	0.4117	0.27	0.5296	2544	94.2
38	00h06m20s	0.2583	23.997	6.1984	491.05	0.4724	0.4117	0.2701	0.5297	2543	94.2
39	00h06m30s	0.2583	23.997	6.1984	490.88	0.4723	0.4117	0.27	0.5296	2544	94.3
40	00h06m40s	0.2583	23.997	6.1984	490.56	0.4724	0.4116	0.2702	0.5296	2542	94.2
41	00h06m50s	0.2584	23.997	6.2008	490.68	0.4724	0.4117	0.2701	0.5297	2542	94.2
42	00h07m00s	0.2584	23.997	6.2008	490.46	0.4723	0.4115	0.2701	0.5296	2542	94.2
43	00h07m10s	0.2584	23.997	6.2008	490.57	0.4723	0.4116	0.2701	0.5296	2542	94.2
44	00h07m20s	0.2584	23.997	6.2008	490.48	0.4723	0.4116	0.2701	0.5296	2543	94.3
45	00h07m30s	0.2584	23.997	6.2008	490.59	0.4723	0.4116	0.2701	0.5296	2543	94.2
46	00h07m40s	0.2584	23.997	6.2008	490.68	0.4723	0.4116	0.2701	0.5296	2543	94.2
47	00h07m50s	0.2584	23.997	6.2008	490.09	0.4725	0.4115	0.2702	0.5296	2540	94.2
48	00h08m00s	0.2584	23.997	6.2008	490.4	0.4723	0.4116	0.2701	0.5296	2543	94.3
49	00h08m10s	0.2584	23.997	6.2008	490.64	0.4723	0.4116	0.2701	0.5296	2543	94.2
50	00h08m20s	0.2584	23.997	6.2008	490.23	0.4721	0.4115	0.27	0.5295	2544	94.3
51	00h08m30s	0.2584	23.997	6.2008	489.98	0.4722	0.4114	0.2701	0.5295	2543	94.2
52	00h08m40s	0.2584	23.997	6.2008	489.99	0.4723	0.4116	0.2701	0.5296	2542	94.2

53	00h08m50s	0.2585	23.997	6.2032	490.26	0.4724	0.4116	0.2702	0.5296	2541	94.2
54	00h09m00s	0.2584	23.997	6.2008	490.04	0.4723	0.4115	0.2701	0.5296	2542	94.2
55	00h09m10s	0.2585	23.997	6.2032	490.01	0.4724	0.4117	0.2701	0.5297	2542	94.3
56	00h09m20s	0.2585	23.997	6.2032	490.2	0.4723	0.4115	0.2702	0.5296	2542	94.2
57	00h09m30s	0.2585	23.997	6.2032	490.08	0.4723	0.4116	0.2701	0.5296	2542	94.3
58	00h09m40s	0.2585	23.997	6.2032	489.71	0.4723	0.4115	0.2701	0.5296	2542	94.2
59	00h09m50s	0.2584	23.997	6.2008	489.84	0.4725	0.4115	0.2703	0.5296	2540	94.2
60	00h10m00s	0.2585	23.997	6.2032	489.65	0.4724	0.4115	0.2702	0.5296	2541	94.3
61	00h10m10s	0.2585	23.997	6.2032	489.56	0.4724	0.4114	0.2702	0.5295	2541	94.2
62	00h10m20s	0.2585	23.997	6.2032	489.59	0.4723	0.4115	0.2702	0.5296	2541	94.2
63	00h10m30s	0.2585	23.997	6.2032	489.56	0.4723	0.4114	0.2702	0.5295	2542	94.2
64	00h10m40s	0.2585	23.997	6.2032	489.78	0.4725	0.4116	0.2702	0.5296	2540	94.2
65	00h10m50s	0.2585	23.997	6.2032	489.35	0.4723	0.4115	0.2702	0.5296	2541	94.2
66	00h11m00s	0.2585	23.997	6.2032	489.51	0.4726	0.4116	0.2703	0.5297	2540	94.2
67	00h11m10s	0.2585	23.997	6.2032	489.26	0.4723	0.4114	0.2702	0.5295	2541	94.2
68	00h11m20s	0.2585	23.997	6.2032	489.67	0.4723	0.4115	0.2702	0.5296	2542	94.2
69	00h11m30s	0.2585	23.997	6.2032	489.38	0.4724	0.4115	0.2702	0.5296	2540	94.2
70	00h11m40s	0.2585	23.997	6.2032	489.77	0.4723	0.4115	0.2701	0.5296	2542	94.3
71	00h11m50s	0.2585	23.997	6.2032	489.56	0.4723	0.4115	0.2701	0.5296	2542	94.2
72	00h12m00s	0.2585	23.997	6.2032	489.27	0.4724	0.4115	0.2702	0.5296	2541	94.2
73	00h12m10s	0.2585	23.997	6.2032	489.42	0.4723	0.4115	0.2701	0.5296	2542	94.2
74	00h12m20s	0.2585	23.997	6.2032	489.8	0.4721	0.4115	0.2701	0.5295	2544	94.2
75	00h12m30s	0.2585	23.997	6.2032	489.04	0.4724	0.4114	0.2702	0.5296	2540	94.2
76	00h12m40s	0.2585	23.997	6.2032	489.46	0.4723	0.4116	0.2701	0.5296	2543	94.2
77	00h12m50s	0.2585	23.997	6.2032	489.19	0.4724	0.4116	0.2702	0.5296	2541	94.3
78	00h13m00s	0.2585	23.997	6.2032	489.49	0.4723	0.4114	0.2702	0.5295	2541	94.2
79	00h13m10s	0.2585	23.997	6.2032	488.85	0.4724	0.4115	0.2702	0.5296	2540	94.2
80	00h13m20s	0.2585	23.997	6.2032	489.6	0.4724	0.4116	0.2702	0.5296	2542	94.2
81	00h13m30s	0.2585	23.997	6.2032	489.01	0.4724	0.4115	0.2702	0.5296	2541	94.2
82	00h13m40s	0.2585	23.997	6.2032	489.33	0.4723	0.4115	0.2702	0.5296	2541	94.2
83	00h13m50s	0.2585	23.997	6.2032	489.46	0.4724	0.4116	0.2702	0.5296	2541	94.2

84	00h14m00s	0.2585	23.997	6.2032	489.01	0.4724	0.4115	0.2702	0.5296	2541	94.2
85	00h14m10s	0.2585	23.997	6.2032	488.98	0.4722	0.4114	0.2702	0.5295	2542	94.2
86	00h14m20s	0.2585	23.997	6.2032	488.99	0.4723	0.4111	0.2703	0.5294	2540	94.2
87	00h14m30s	0.2585	23.997	6.2032	488.6	0.4725	0.4115	0.2703	0.5296	2539	94.3
88	00h14m40s	0.2585	23.997	6.2032	488.6	0.4724	0.4114	0.2703	0.5296	2540	94.2
89	00h14m50s	0.2585	23.997	6.2032	488.47	0.4723	0.4114	0.2702	0.5295	2541	94.2
90	00h15m00s	0.2585	23.997	6.2032	488.67	0.4725	0.4115	0.2703	0.5296	2539	94.2
91	00h15m10s	0.2585	23.997	6.2032	488.82	0.4725	0.4114	0.2703	0.5296	2539	94.2
92	00h15m20s	0.2585	23.997	6.2032	488.9	0.4723	0.4113	0.2702	0.5295	2540	94.2
93	00h15m30s	0.2585	23.997	6.2032	488.65	0.4724	0.4113	0.2703	0.5295	2540	94.2
94	00h15m40s	0.2585	23.997	6.2032	488.68	0.4723	0.4114	0.2702	0.5295	2541	94.2
95	00h15m50s	0.2585	23.997	6.2032	488.79	0.4724	0.4114	0.2703	0.5295	2539	94.2
96	00h16m00s	0.2585	23.997	6.2032	488.75	0.4725	0.4114	0.2703	0.5295	2539	94.2
97	00h16m10s	0.2585	23.997	6.2032	488.85	0.4725	0.4116	0.2702	0.5296	2540	94.3
98	00h16m20s	0.2585	23.997	6.2032	488.76	0.4724	0.4114	0.2702	0.5296	2540	94.2
99	00h16m30s	0.2585	23.997	6.2032	488.83	0.4724	0.4115	0.2702	0.5296	2541	94.2
100	00h16m40s	0.2585	23.997	6.2032	488.53	0.4725	0.4116	0.2702	0.5296	2540	94.2
101	00h16m50s	0.2585	23.997	6.2032	488.43	0.4725	0.4114	0.2703	0.5295	2539	94.2
102	00h17m00s	0.2585	23.997	6.2032	488.43	0.4723	0.4113	0.2702	0.5295	2540	94.2
103	00h17m10s	0.2585	23.997	6.2032	488.2	0.4724	0.4113	0.2703	0.5295	2539	94.2
104	00h17m20s	0.2585	23.997	6.2032	488.55	0.4724	0.4115	0.2702	0.5296	2541	94.2
105	00h17m30s	0.2585	23.997	6.2032	488.13	0.4724	0.4114	0.2703	0.5296	2539	94.2
106	00h17m40s	0.2585	23.997	6.2032	487.98	0.4723	0.4113	0.2702	0.5295	2540	94.2
107	00h17m50s	0.2585	23.997	6.2032	488.42	0.4725	0.4115	0.2703	0.5296	2540	94.2
108	00h18m00s	0.2585	23.997	6.2032	488.09	0.4723	0.4113	0.2702	0.5295	2540	94.2
109	00h18m10s	0.2585	23.997	6.2032	487.96	0.4724	0.4114	0.2703	0.5295	2540	94.2
110	00h18m20s	0.2584	23.997	6.2008	488.08	0.4724	0.4113	0.2703	0.5295	2540	94.2
111	00h18m30s	0.2585	23.997	6.2032	488.04	0.4724	0.4112	0.2703	0.5295	2539	94.2
112	00h18m40s	0.2585	23.997	6.2032	487.75	0.4724	0.4113	0.2703	0.5295	2539	94.2
113	00h18m50s	0.2584	23.997	6.2008	488.02	0.4725	0.4114	0.2703	0.5296	2539	94.2
114	00h19m00s	0.2585	23.997	6.2032	488.23	0.4725	0.4116	0.2702	0.5296	2540	94.2

115	00h19m10s	0.2585	23.997	6.2032	487.92	0.4725	0.4114	0.2703	0.5296	2539	94.2
116	00h19m20s	0.2584	23.997	6.2008	488.12	0.4725	0.4115	0.2703	0.5296	2539	94.2
117	00h19m30s	0.2585	23.997	6.2032	487.91	0.4725	0.4114	0.2703	0.5296	2539	94.2
118	00h19m40s	0.2584	23.997	6.2008	487.97	0.4724	0.4114	0.2702	0.5296	2541	94.2
119	00h19m50s	0.2584	23.997	6.2008	487.65	0.4724	0.4115	0.2702	0.5296	2541	94.2
120	00h20m00s	0.2584	23.997	6.2008	487.73	0.4726	0.4114	0.2704	0.5296	2538	94.2
121	00h20m10s	0.2584	23.997	6.2008	487.9	0.4725	0.4115	0.2703	0.5296	2539	94.2
122	00h20m20s	0.2584	23.997	6.2008	488.31	0.4724	0.4114	0.2703	0.5296	2540	94.2
123	00h20m30s	0.2584	23.997	6.2008	487.67	0.4724	0.4114	0.2703	0.5295	2540	94.2
124	00h20m40s	0.2585	23.997	6.2032	487.66	0.4725	0.4113	0.2703	0.5295	2538	94.2
125	00h20m50s	0.2585	23.997	6.2032	487.79	0.4724	0.4113	0.2703	0.5295	2540	94.2
126	00h21m00s	0.2585	23.997	6.2032	487.74	0.4723	0.4113	0.2703	0.5295	2540	94.3
127	00h21m10s	0.2584	23.997	6.2008	487.78	0.4726	0.4115	0.2703	0.5296	2538	94.2
128	00h21m20s	0.2585	23.997	6.2032	487.45	0.4725	0.4113	0.2704	0.5295	2538	94.2
129	00h21m30s	0.2584	23.997	6.2008	487.7	0.4723	0.4113	0.2703	0.5295	2540	94.2
130	00h21m40s	0.2584	23.997	6.2008	487.65	0.4725	0.4114	0.2703	0.5296	2538	94.2
131	00h21m50s	0.2585	23.997	6.2032	487.54	0.4724	0.4113	0.2703	0.5295	2540	94.2
132	00h22m00s	0.2584	23.997	6.2008	487.73	0.4724	0.4114	0.2703	0.5295	2540	94.2
133	00h22m10s	0.2584	23.997	6.2008	487.56	0.4725	0.4115	0.2703	0.5296	2539	94.2
134	00h22m20s	0.2584	23.997	6.2008	487.58	0.4724	0.4115	0.2702	0.5296	2540	94.3
135	00h22m30s	0.2585	23.997	6.2032	488.1	0.4726	0.4116	0.2703	0.5297	2539	94.2
136	00h22m40s	0.2585	23.997	6.2032	487.69	0.4726	0.4114	0.2704	0.5296	2538	94.2
137	00h22m50s	0.2585	23.997	6.2032	487.64	0.4724	0.4114	0.2703	0.5296	2540	94.2
138	00h23m00s	0.2584	23.997	6.2008	487.72	0.4725	0.4115	0.2703	0.5296	2539	94.2
139	00h23m10s	0.2584	23.997	6.2008	487.42	0.4724	0.4112	0.2703	0.5295	2539	94.2
140	00h23m20s	0.2584	23.997	6.2008	487.31	0.4724	0.4113	0.2703	0.5295	2539	94.2
141	00h23m30s	0.2584	23.997	6.2008	487.32	0.4724	0.4112	0.2703	0.5295	2539	94.2
142	00h23m40s	0.2584	23.997	6.2008	487.55	0.4726	0.4115	0.2703	0.5296	2539	94.2
143	00h23m50s	0.2584	23.997	6.2008	487.59	0.4725	0.4114	0.2703	0.5296	2539	94.2
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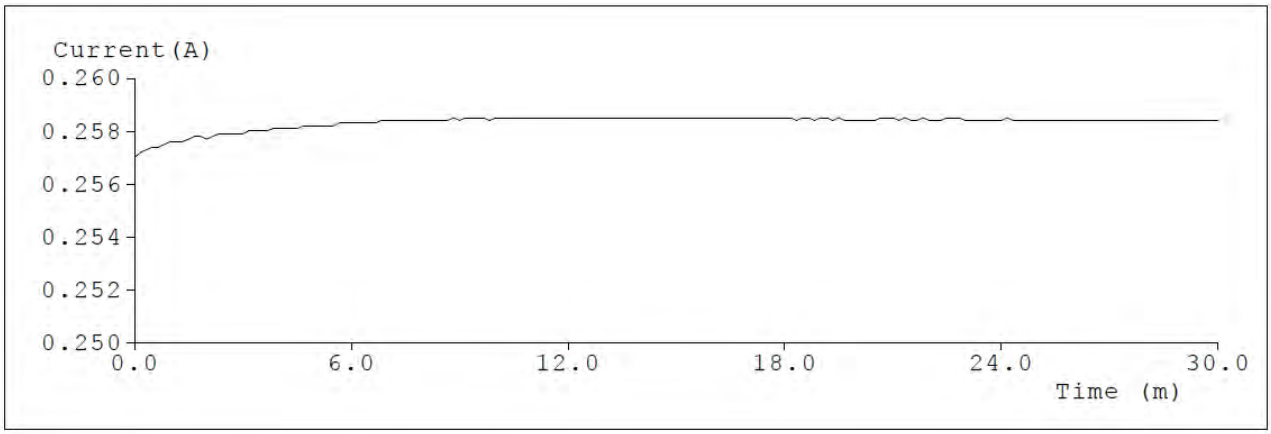
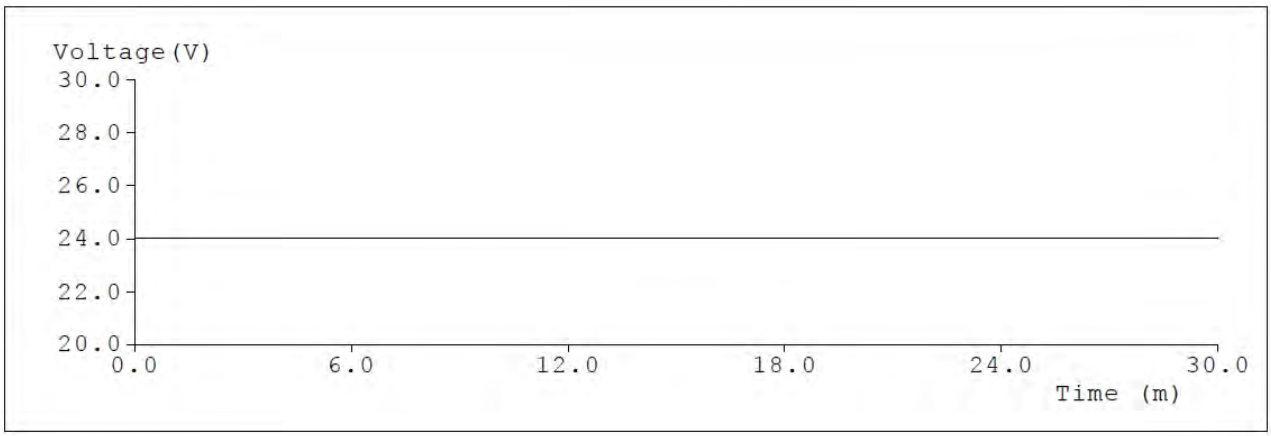
145	00h24m10s	0.2585	23.997	6.2032	487.17	0.4726	0.4113	0.2704	0.5296	2537	94.2

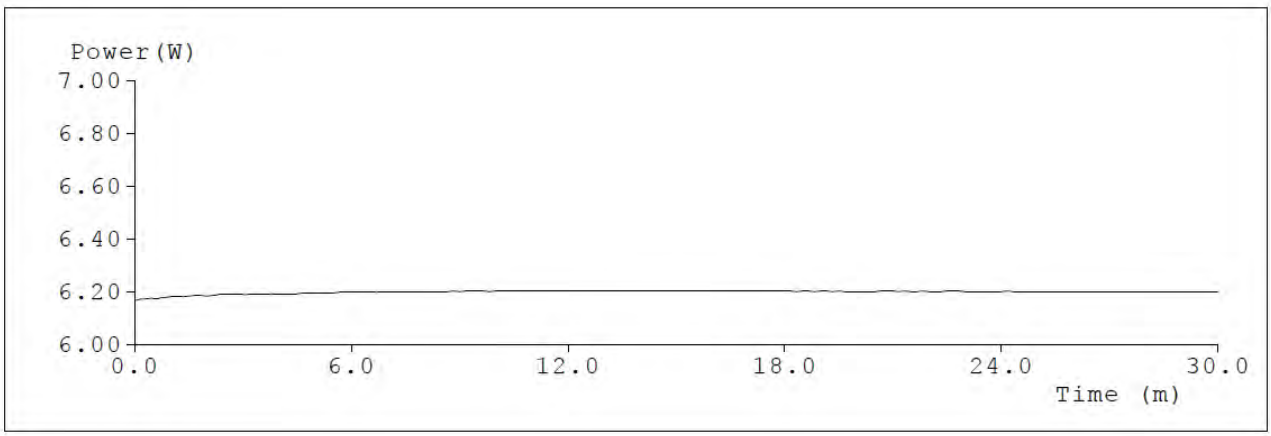
146	00h24m20s	0.2584	23.997	6.2008	486.73	0.4724	0.4111	0.2704	0.5294	2537	94.2
147	00h24m30s	0.2584	23.997	6.2008	487.27	0.4725	0.4114	0.2703	0.5296	2539	94.2
148	00h24m40s	0.2584	23.997	6.2008	487.41	0.4724	0.4114	0.2703	0.5295	2539	94.2
149	00h24m50s	0.2584	23.997	6.2008	487.19	0.4726	0.4114	0.2704	0.5296	2537	94.2
150	00h25m00s	0.2584	23.997	6.2008	487.1	0.4725	0.4113	0.2704	0.5295	2538	94.2
151	00h25m10s	0.2584	23.997	6.2008	487.35	0.4724	0.4114	0.2703	0.5295	2540	94.2
152	00h25m20s	0.2584	23.997	6.2008	486.98	0.4725	0.4114	0.2704	0.5296	2538	94.2
153	00h25m30s	0.2584	23.997	6.2008	487.37	0.4726	0.4113	0.2704	0.5295	2537	94.2
154	00h25m40s	0.2584	23.997	6.2008	487.24	0.4724	0.4112	0.2703	0.5295	2539	94.2
155	00h25m50s	0.2584	23.997	6.2008	487.23	0.4726	0.4113	0.2704	0.5295	2537	94.2
156	00h26m00s	0.2584	23.997	6.2008	487.44	0.4725	0.4113	0.2704	0.5295	2538	94.2
157	00h26m10s	0.2584	23.997	6.2008	487.1	0.4724	0.4112	0.2703	0.5295	2539	94.2
158	00h26m20s	0.2584	23.997	6.2008	487.31	0.4724	0.4113	0.2703	0.5295	2539	94.2
159	00h26m30s	0.2584	23.997	6.2008	486.93	0.4725	0.4113	0.2704	0.5295	2538	94.2
160	00h26m40s	0.2584	23.997	6.2008	487.16	0.4725	0.4113	0.2704	0.5295	2538	94.2
161	00h26m50s	0.2584	23.997	6.2008	487.21	0.4726	0.4113	0.2704	0.5296	2537	94.2
162	00h27m00s	0.2584	23.997	6.2008	487.39	0.4725	0.4113	0.2703	0.5295	2538	94.2
163	00h27m10s	0.2584	23.997	6.2008	487.17	0.4724	0.4114	0.2703	0.5295	2540	94.3
164	00h27m20s	0.2584	23.997	6.2008	487	0.4726	0.4113	0.2704	0.5295	2537	94.2
165	00h27m30s	0.2584	23.997	6.2008	486.83	0.4727	0.4113	0.2705	0.5296	2536	94.1
166	00h27m40s	0.2584	23.997	6.2008	487.06	0.4726	0.4113	0.2704	0.5295	2536	94.2
167	00h27m50s	0.2584	23.997	6.2008	487.08	0.4725	0.4115	0.2703	0.5296	2539	94.2
168	00h28m00s	0.2584	23.997	6.2008	486.88	0.4725	0.4113	0.2704	0.5295	2538	94.2
169	00h28m10s	0.2584	23.997	6.2008	487.11	0.4726	0.4115	0.2703	0.5296	2539	94.2
170	00h28m20s	0.2584	23.997	6.2008	486.53	0.4723	0.4113	0.2703	0.5295	2540	94.2
171	00h28m30s	0.2584	23.997	6.2008	487.33	0.4724	0.4115	0.2702	0.5296	2540	94.2
172	00h28m40s	0.2584	23.997	6.2008	487.24	0.4724	0.4114	0.2702	0.5295	2541	94.2
173	00h28m50s	0.2584	23.997	6.2008	487.13	0.4725	0.4112	0.2704	0.5295	2538	94.2
174	00h29m00s	0.2584	23.997	6.2008	487.01	0.4725	0.4114	0.2704	0.5296	2538	94.2
175	00h29m10s	0.2584	23.997	6.2008	487.11	0.4725	0.4113	0.2704	0.5295	2538	94.2
176	00h29m20s	0.2584	23.997	6.2008	486.83	0.4725	0.4115	0.2703	0.5296	2539	94.2

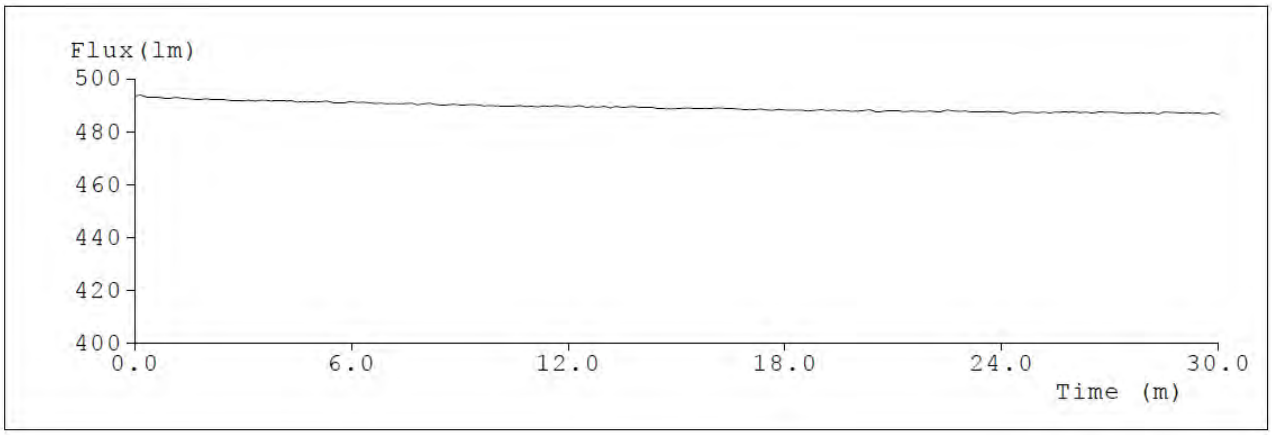
177	00h29m30s	0.2584	23.997	6.2008	486.81	0.4726	0.4112	0.2705	0.5295	2536	94.2
178	00h29m40s	0.2584	23.997	6.2008	486.75	0.4726	0.4114	0.2704	0.5296	2537	94.2
179	00h29m50s	0.2584	23.997	6.2008	487.16	0.4725	0.4114	0.2703	0.5296	2538	94.2
180	00h30m00s	0.2584	23.997	6.2008	486.52	0.4725	0.4113	0.2704	0.5295	2537	94.2

Test curves





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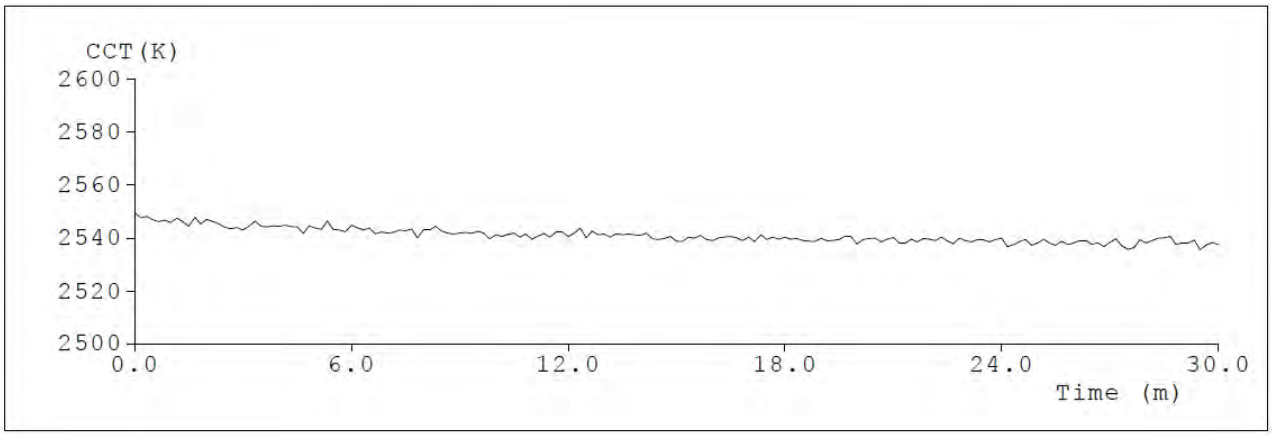
440
420
400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
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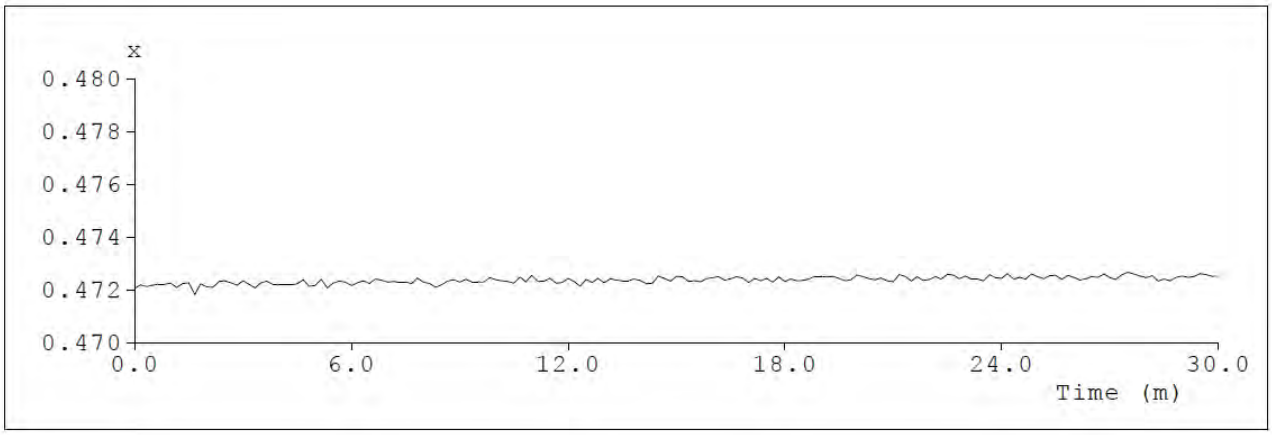
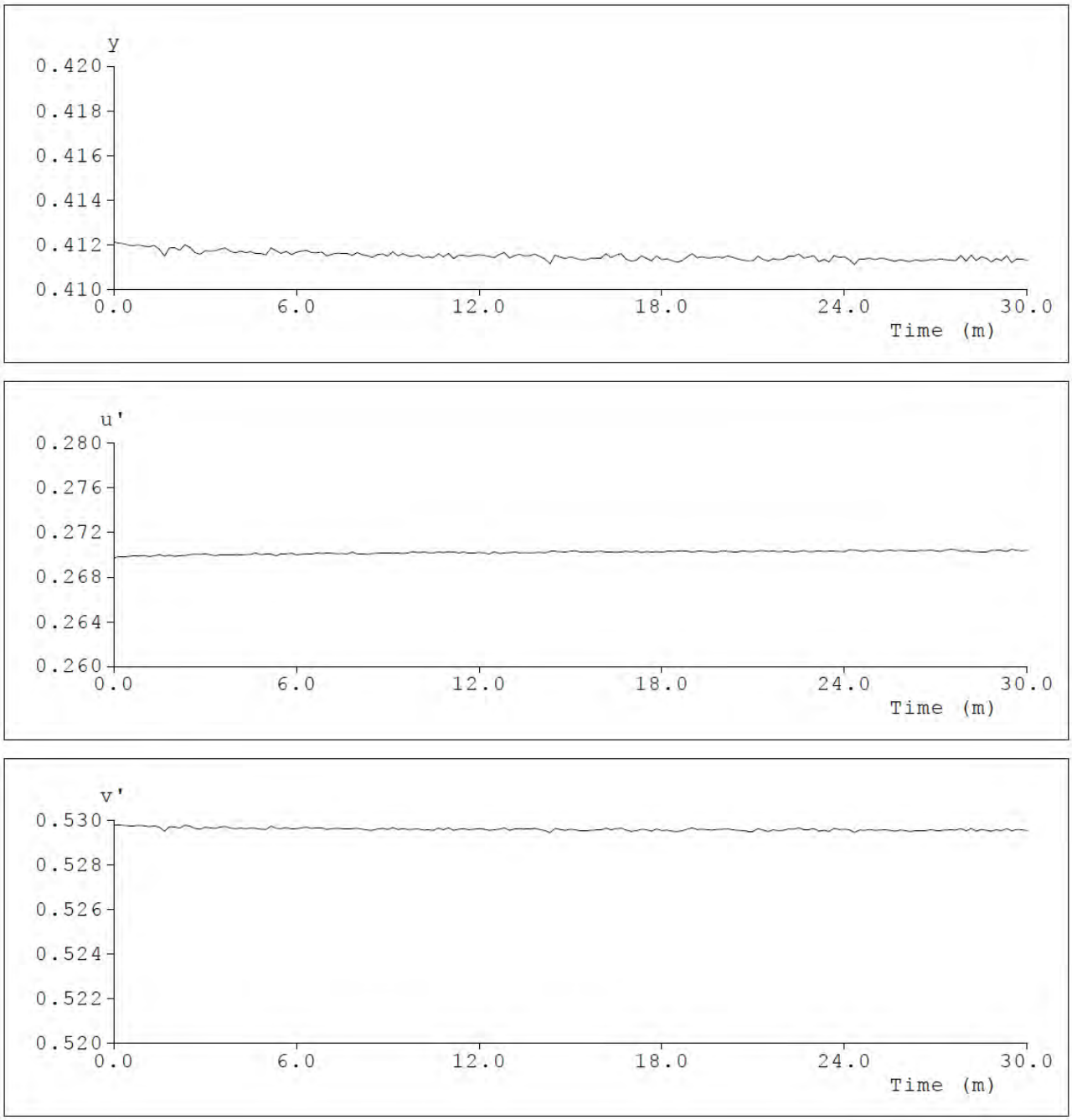
2580
2560
2540
2520
2500
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.480
0.478
0.476
0.474
0.472
0.470
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

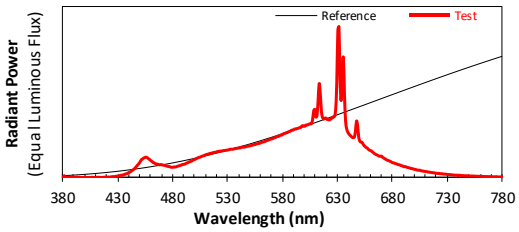

y
0.420
0.418
0.416
0.414
0.412
0.410
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.280
0.276
0.272
0.268
0.264
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

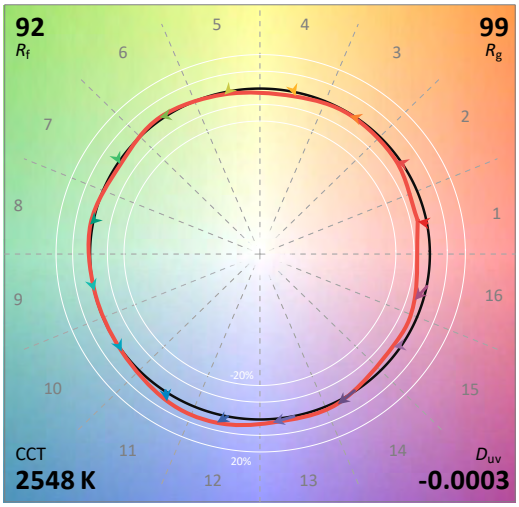
*13.2 ANSI/IES TM-30-18 Color Rendition Report

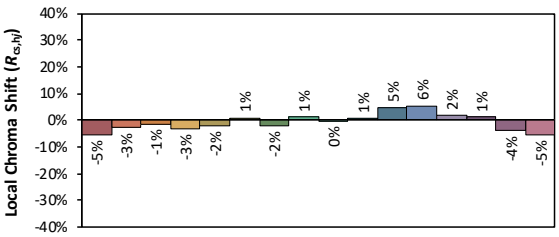
ANSI/IES TM-30-18 Color Rendition Report

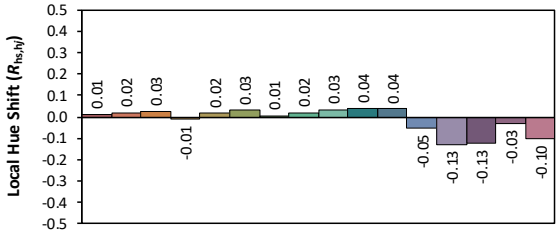
Source: Manufacturer:

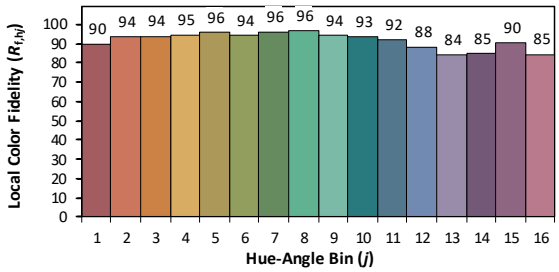
Date: 2023/9/26 Model: LFUY-1000-L27-DF-0-5

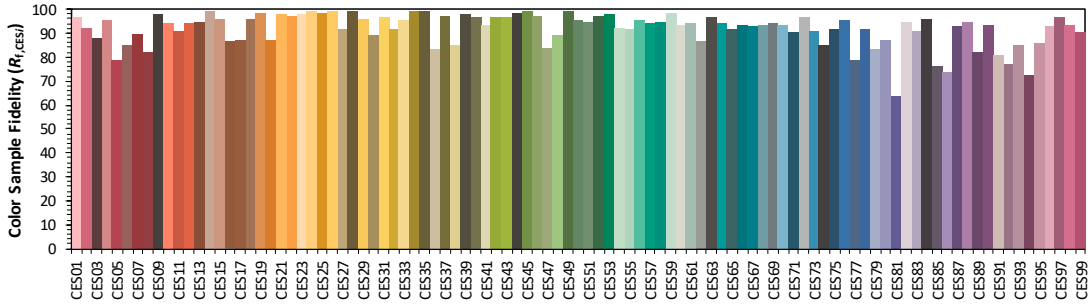












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

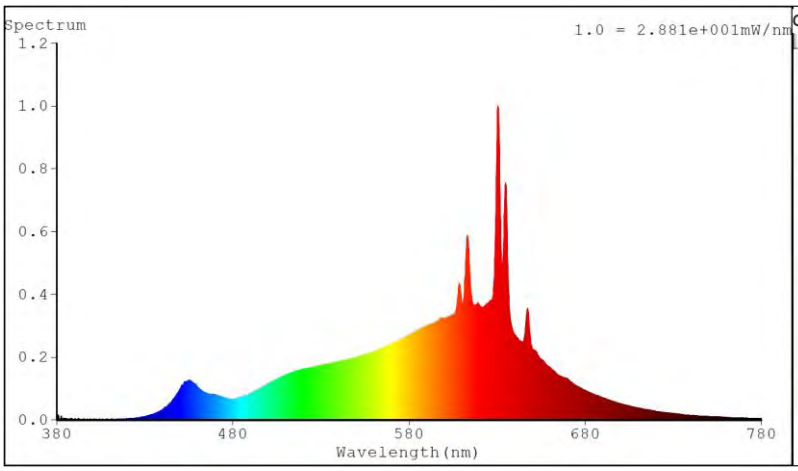
x	0.4722
y	0.4121
u'	0.2698
v'	0.5298

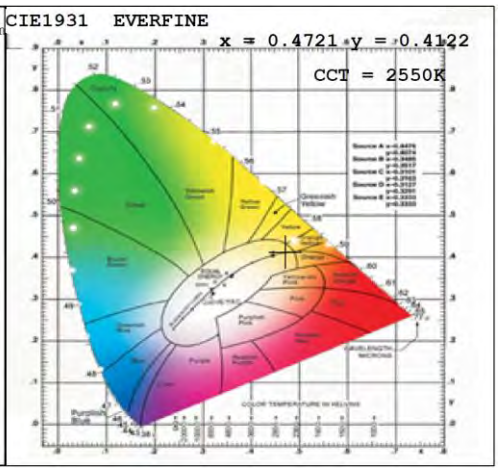
CIE 13.3-1995 (CRI)

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.

13.3 Relative Spectral Power Distribution





nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0032	414	0.0017	448	0.0804	482	0.0667	516	0.1544
381	0.0128	415	0.0003	449	0.0882	483	0.0678	517	0.1563
382	0	416	0.0021	450	0.0981	484	0.071	518	0.1575
383	0.003	417	0.0028	451	0.1104	485	0.0728	519	0.1584
384	0.0039	418	0.0036	452	0.1146	486	0.0748	520	0.1612
385	0.0014	419	0.004	453	0.1212	487	0.0774	521	0.1626
386	0.0016	420	0.0032	454	0.1234	488	0.0799	522	0.1639
387	0.0005	421	0.0045	455	0.1274	489	0.0827	523	0.1649
388	0.0051	422	0.0037	456	0.1258	490	0.0829	524	0.1655
389	0.0025	423	0.0042	457	0.1219	491	0.0856	525	0.1663
390	0.0014	424	0.0059	458	0.1158	492	0.0896	526	0.1684
391	0	425	0.0068	459	0.111	493	0.0919	527	0.1687
392	0.0029	426	0.007	460	0.1046	494	0.0953	528	0.17
393	0.0036	427	0.0068	461	0.1	495	0.0985	529	0.171
394	0	428	0.0092	462	0.094	496	0.1008	530	0.1717
395	0.0037	429	0.0092	463	0.0915	497	0.1041	531	0.174
396	0	430	0.0095	464	0.0871	498	0.1078	532	0.176
397	0.001	431	0.0113	465	0.0851	499	0.1117	533	0.1769
398	0.0012	432	0.0141	466	0.0838	500	0.1138	534	0.1763
399	0.0026	433	0.0158	467	0.0813	501	0.1185	535	0.1775
400	0.0019	434	0.0152	468	0.0799	502	0.1206	536	0.1802
401	0.0008	435	0.019	469	0.0823	503	0.125	537	0.182
402	0.0011	436	0.0205	470	0.0791	504	0.1265	538	0.1817
403	0.0008	437	0.0238	471	0.0783	505	0.1288	539	0.1838
404	0.0008	438	0.0254	472	0.0766	506	0.1323	540	0.1847
405	0.0013	439	0.0291	473	0.0755	507	0.1345	541	0.1846
406	0.0025	440	0.0328	474	0.0725	508	0.1367	542	0.1879
407	0.0022	441	0.0356	475	0.0708	509	0.1401	543	0.1896
408	0.001	442	0.0408	476	0.0699	510	0.1428	544	0.1894
409	0.0026	443	0.0455	477	0.0683	511	0.1452	545	0.19
410	0.0009	444	0.0508	478	0.0651	512	0.1457	546	0.1916
411	0.0023	445	0.0567	479	0.0649	513	0.1492	547	0.1939
412	0.0029	446	0.0644	480	0.065	514	0.1509	548	0.1953
413	0.0021	447	0.0719	481	0.0666	515	0.152	549	0.1963

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.198	599	0.3201	648	0.3216	697	0.0575	746	0.012
551	0.1997	600	0.3197	649	0.2504	698	0.0557	747	0.0122
552	0.2017	601	0.3271	650	0.2266	699	0.0535	748	0.0116
553	0.2029	602	0.3271	651	0.2208	700	0.0514	749	0.0114
554	0.2062	603	0.3291	652	0.2201	701	0.0507	750	0.0108
555	0.2065	604	0.3335	653	0.2076	702	0.0475	751	0.0104
556	0.2097	605	0.3341	654	0.1984	703	0.0468	752	0.011
557	0.2109	606	0.3354	655	0.192	704	0.0463	753	0.0103
558	0.2124	607	0.36	656	0.1869	705	0.0458	754	0.01
559	0.2137	608	0.4138	657	0.1823	706	0.0427	755	0.0097
560	0.2178	609	0.4235	658	0.1746	707	0.0418	756	0.0093
561	0.2203	610	0.3758	659	0.1703	708	0.0403	757	0.0092
562	0.2219	611	0.3844	660	0.1679	709	0.0392	758	0.0087
563	0.2236	612	0.4766	661	0.1622	710	0.0383	759	0.0087
564	0.2259	613	0.5839	662	0.1574	711	0.0371	760	0.0088
565	0.23	614	0.5208	663	0.1512	712	0.036	761	0.0078
566	0.2313	615	0.4127	664	0.1467	713	0.0349	762	0.0082
567	0.2337	616	0.3748	665	0.1432	714	0.0336	763	0.0074
568	0.2368	617	0.3639	666	0.1399	715	0.0325	764	0.0074
569	0.2399	618	0.3672	667	0.1361	716	0.0316	765	0.007
570	0.2414	619	0.3706	668	0.1331	717	0.0309	766	0.0071
571	0.2438	620	0.3631	669	0.1335	718	0.0294	767	0.007
572	0.2478	621	0.3602	670	0.133	719	0.0288	768	0.0062
573	0.249	622	0.3583	671	0.1248	720	0.0274	769	0.0069
574	0.2533	623	0.361	672	0.1215	721	0.0266	770	0.0065
575	0.257	624	0.3701	673	0.1164	722	0.0263	771	0.006
576	0.2561	625	0.3701	674	0.1124	723	0.0251	772	0.0054
577	0.2611	626	0.3777	675	0.1087	724	0.0247	773	0.0062
578	0.2648	627	0.3805	676	0.1064	725	0.0242	774	0.0061
579	0.2641	628	0.4213	677	0.1031	726	0.0225	775	0.006
580	0.2699	629	0.5867	678	0.1005	727	0.0225	776	0.0051
581	0.274	630	0.9136	679	0.0961	728	0.0223	777	0.0049
582	0.2751	631	0.9349	680	0.0925	729	0.0206	778	0.0049
583	0.2794	632	0.6122	681	0.0919	730	0.02	779	0.0056
584	0.2796	633	0.4787	682	0.0883	731	0.0196	780	0.0057
585	0.2848	634	0.6343	683	0.087	732	0.0188		
586	0.2866	635	0.7467	684	0.0841	733	0.0188		
587	0.2903	636	0.5181	685	0.0812	734	0.0178		
588	0.295	637	0.3527	686	0.08	735	0.0172		
589	0.2952	638	0.3039	687	0.0771	736	0.016		
590	0.2991	639	0.2836	688	0.0745	737	0.0159		
591	0.3028	640	0.2723	689	0.0727	738	0.0158		
592	0.3025	641	0.2633	690	0.0686	739	0.0155		
593	0.3054	642	0.2575	691	0.0689	740	0.0148		
594	0.3068	643	0.2507	692	0.0672	741	0.0154		
595	0.31	644	0.2485	693	0.0648	742	0.014		
596	0.3103	645	0.2519	694	0.0625	743	0.0132		
597	0.3186	646	0.288	695	0.061	744	0.013		
598	0.3229	647	0.3513	696	0.0582	745	0.0124		

14. Goniophotometer Test results for LFUY-1000-L27-DF-O-5

14.1 Test Data

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

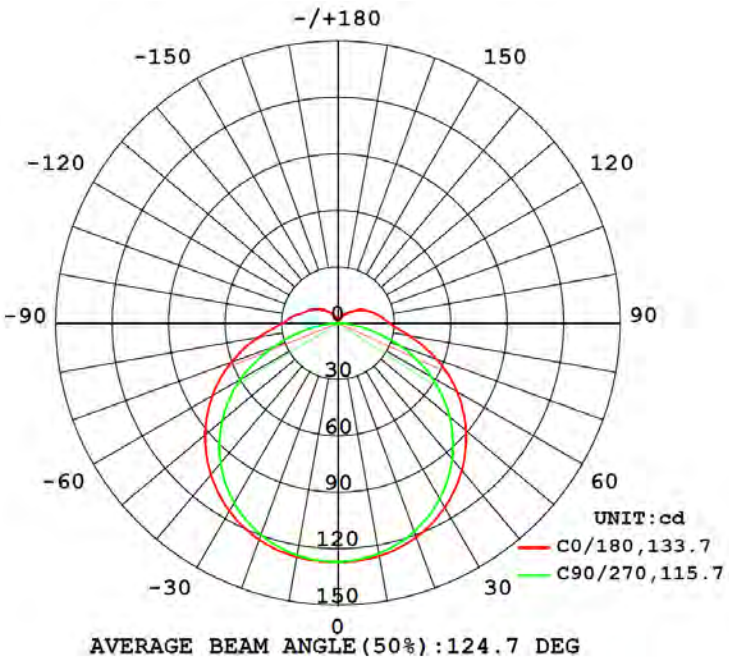
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.003	--	0.25395	1.0000	6.0954

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
487.079	79.91	127.1	10.8	89.2

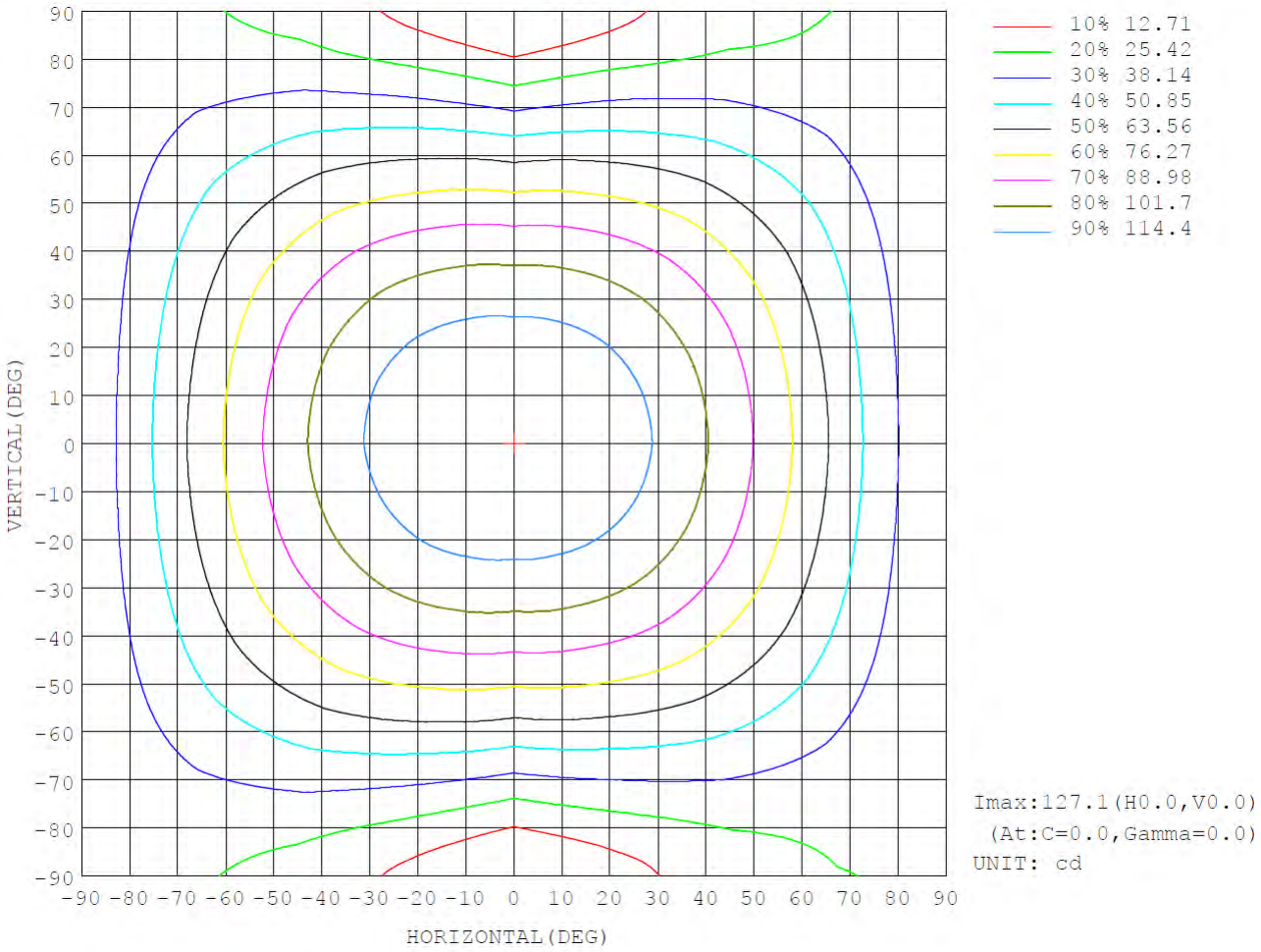
14.2 Luminous Intensity Distribution



14.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	125.8	124.9	124.4	125.0	126.3	126.0	125.3	125.3	0- 10	12.04	12.04	2.47,2.47
20	121.2	119.6	118.1	120.3	122.6	121.8	119.8	120.7	10- 20	34.85	46.89	9.63,9.63
30	113.3	110.8	108.0	112.2	115.5	114.1	110.5	112.5	20- 30	53.84	100.7	20.7,20.7
40	102.3	98.92	94.39	100.9	105.2	103.0	97.24	100.9	30- 40	66.76	167.5	34.4,34.4
50	88.74	84.28	77.45	86.79	92.28	88.90	80.44	86.50	40- 50	72.09	239.6	49.2,49.2
60	73.08	67.34	57.54	70.33	77.14	72.26	60.11	69.62	50- 60	69.26	308.8	63.4,63.4
70	55.71	48.78	34.68	52.16	60.23	53.78	35.99	50.97	60- 70	58.57	367.4	75.4,75.4
80	38.36	30.30	12.32	33.73	42.71	34.73	13.45	32.13	70- 80	41.89	409.3	84,84
90	27.28	18.94	0.7690	20.77	29.60	20.88	0.8359	20.00	80- 90	25.07	434.4	89.2,89.2
100	22.60	14.94	0.0965	14.90	23.75	14.35	0.1369	15.79	90-100	16.95	451.3	92.7,92.7
110	18.28	11.56	0.1125	11.99	18.40	12.05	0.1378	12.27	100-110	12.76	464.1	95.3,95.3
120	14.23	8.008	0.1474	9.222	14.75	9.158	0.1530	8.762	110-120	9.333	473.4	97.2,97.2
130	9.823	5.650	0.1704	6.861	11.14	6.826	0.1727	6.218	120-130	6.273	479.7	98.5,98.5
140	6.828	3.899	0.1813	4.940	8.023	5.020	0.2079	3.844	130-140	3.905	483.6	99.3,99.3
150	4.348	2.524	0.1743	3.302	5.395	3.738	0.2295	2.339	140-150	2.186	485.8	99.7,99.7
160	2.422	1.293	0.1904	1.682	3.179	2.560	0.2504	0.9089	150-160	0.9906	486.8	99.9,99.9
170	0.9110	0.4137	0.2412	0.2661	0.4365	0.3325	0.2730	0.2965	160-170	0.2770	487.1	100,100
180	0.2278	0.2764	0.2674	0.2748	0.2361	0.2765	0.2730	0.2700	170-180	0.0292	487.1	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	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127			
5	127	127	126	126	126	126	126	126	127	127	127	127	127	126	126	126			
10	126	125	125	125	124	125	125	125	126	126	126	126	125	125	125	125			
15	124	123	123	122	122	122	123	124	125	125	124	124	123	123	123	124			
20	121	121	120	119	118	119	120	121	123	123	122	121	120	120	121	121			
25	118	117	116	114	114	115	117	118	119	119	118	117	116	116	117	117			
30	113	112	111	109	108	110	112	114	116	115	114	112	110	111	112	113			
35	108	107	105	103	102	104	107	109	111	110	109	106	104	105	107	108			
40	102	101	98.9	96.1	94.4	97.2	101	103	105	105	103	99.7	97.2	98.8	101	102			
45	95.8	94.5	91.9	88.5	86.3	89.8	94.2	97.2	99.0	98.6	96.3	92.4	89.3	91.4	94.0	95.5			
50	88.7	87.3	84.3	80.2	77.4	81.6	86.8	90.3	92.3	91.6	88.9	84.2	80.4	83.2	86.5	88.3			
55	81.1	79.5	76.1	71.2	67.8	72.8	78.8	82.8	85.0	84.2	80.9	75.3	70.8	74.2	78.4	80.7			
60	73.1	71.3	67.3	61.6	57.5	63.4	70.3	74.9	77.1	76.2	72.3	65.7	60.1	64.6	69.6	72.5			
65	64.6	62.6	58.2	51.5	46.6	53.5	61.4	66.5	68.9	67.7	63.2	55.6	48.1	54.4	60.5	63.8			
70	55.7	53.7	48.8	41.2	34.7	43.4	52.2	57.7	60.2	58.9	53.8	45.1	36.0	44.0	51.0	54.9			
75	46.8	44.6	39.3	30.9	22.8	33.1	42.8	48.8	51.4	49.8	44.1	34.5	24.0	33.4	41.3	45.8			
80	38.4	36.1	30.3	21.2	12.3	23.4	33.7	40.1	42.7	40.9	34.7	24.2	13.4	23.3	32.1	37.1			
85	31.4	29.1	23.0	13.5	4.34	15.2	25.8	32.4	35.0	33.0	26.6	15.5	5.12	15.0	24.4	30.0			
90	27.3	25.0	18.9	9.35	0.77	10.4	20.8	27.2	29.6	27.5	20.9	10.2	0.84	10.5	20.0	25.7			
95	24.8	22.7	16.8	7.74	0.10	7.35	17.9	24.4	26.6	24.4	17.6	6.68	0.14	8.71	17.8	23.2			
100	22.6	20.5	14.9	6.51	0.10	6.82	14.9	21.5	23.7	21.1	14.4	6.49	0.14	7.35	15.8	21.0			
105	20.4	18.4	13.2	5.18	0.10	5.88	13.4	18.2	20.3	18.4	13.6	5.66	0.13	6.16	14.0	18.9			
110	18.3	16.4	11.6	4.14	0.11	5.09	12.0	16.8	18.4	16.9	12.0	4.88	0.14	4.96	12.3	16.8			
115	16.2	14.5	9.82	3.38	0.13	4.43	10.6	15.0	16.7	15.1	10.5	4.18	0.15	3.89	10.6	14.9			
120	14.2	12.6	8.01	3.00	0.15	3.86	9.22	13.2	14.8	13.3	9.16	3.66	0.15	3.28	8.76	13.0			
125	12.0	10.3	6.64	2.60	0.16	3.37	8.00	11.5	12.9	11.5	7.93	3.07	0.16	2.73	7.31	10.8			
130	9.82	8.55	5.65	2.25	0.17	2.92	6.86	9.90	11.1	9.96	6.83	2.64	0.17	2.51	6.22	8.92			
135	8.22	7.31	4.63	1.86	0.18	2.52	5.84	8.45	9.51	8.51	5.85	2.37	0.19	2.14	4.69	7.56			
140	6.83	6.02	3.90	1.64	0.18	2.15	4.94	7.09	8.02	7.23	5.02	2.13	0.21	1.72	3.84	6.18			
145	5.53	4.88	3.19	1.38	0.17	1.67	4.07	5.86	6.66	6.10	4.33	1.93	0.22	1.34	3.16	4.67			
150	4.35	3.82	2.52	1.03	0.17	0.96	3.30	4.74	5.39	5.06	3.74	1.69	0.23	0.87	2.34	3.63			
155	3.24	2.94	1.94	0.73	0.18	0.35	2.60	3.70	4.23	4.07	3.18	1.36	0.24	0.35	1.56	2.70			
160	2.42	2.17	1.29	0.44	0.19	0.25	1.68	2.77	3.18	3.13	2.56	0.87	0.25	0.24	0.91	1.84			
165	1.64	1.37	0.82	0.29	0.20	0.24	0.46	1.55	2.11	2.10	1.43	0.34	0.25	0.24	0.43	1.04			
170	0.91	0.61	0.41	0.26	0.24	0.25	0.27	0.29	0.44	0.45	0.33	0.28	0.27	0.28	0.30	0.52			
175	0.29	0.30	0.28	0.26	0.26	0.26	0.27	0.27	0.29	0.29	0.29	0.28	0.27	0.27	0.27	0.29			
180	0.23	0.28	0.28	0.27	0.27	0.27	0.27	0.27	0.24	0.24	0.28	0.28	0.27	0.27	0.27	0.27			

15. Integrating Sphere Test Results for LFUY-1000-L27-DF-O-9

15.1 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	0.4405	24	10.572	824.07	0.4693	0.4116	0.2682	0.5291	2581	94.1
1	00h00m10s	0.4409	24	10.582	823.71	0.4692	0.4116	0.2681	0.5291	2582	94.2
2	00h00m20s	0.4411	24	10.586	823.9	0.4695	0.4117	0.2682	0.5292	2579	94.1
3	00h00m30s	0.4413	24	10.591	822.65	0.4693	0.4114	0.2683	0.5291	2579	94.2
4	00h00m40s	0.4415	24	10.596	823.01	0.4693	0.4114	0.2683	0.5291	2579	94.2
5	00h00m50s	0.4417	24	10.601	822.15	0.4694	0.4114	0.2683	0.5291	2578	94.2
6	00h01m00s	0.4418	24	10.603	821.86	0.4695	0.4114	0.2684	0.5291	2577	94.2
7	00h01m10s	0.442	24	10.608	821.55	0.4695	0.4114	0.2684	0.5291	2577	94.1
8	00h01m20s	0.4421	24	10.61	821.41	0.4694	0.4114	0.2683	0.5291	2578	94.1
9	00h01m30s	0.4422	24	10.613	821.05	0.4695	0.4113	0.2684	0.529	2576	94.1
10	00h01m40s	0.4424	24	10.618	821.07	0.4695	0.4114	0.2684	0.5291	2577	94.2
11	00h01m50s	0.4425	24	10.62	821.05	0.4695	0.4113	0.2684	0.5291	2576	94.1
12	00h02m00s	0.4426	24	10.622	820.82	0.4696	0.4115	0.2684	0.5291	2577	94.1
13	00h02m10s	0.4427	24	10.625	820.77	0.4695	0.4114	0.2684	0.5291	2577	94.1
14	00h02m20s	0.4428	24	10.627	820.09	0.4693	0.4113	0.2683	0.5291	2578	94.2
15	00h02m30s	0.4429	23.999	10.629	820.82	0.4694	0.4113	0.2684	0.529	2577	94.1
16	00h02m40s	0.443	24	10.632	819.89	0.4696	0.4113	0.2685	0.5291	2575	94.1
17	00h02m50s	0.4432	23.999	10.636	819.75	0.4694	0.4112	0.2684	0.529	2576	94.1
18	00h03m00s	0.4432	23.999	10.636	820.21	0.4694	0.4113	0.2683	0.5291	2578	94.1
19	00h03m10s	0.4433	23.999	10.639	819.25	0.4695	0.4112	0.2685	0.529	2575	94.2
20	00h03m20s	0.4434	23.999	10.641	819.38	0.4697	0.4113	0.2686	0.5291	2573	94.2
21	00h03m30s	0.4435	23.999	10.644	819.24	0.4696	0.4111	0.2686	0.529	2573	94.1

22	00h03m40s	0.4435	23.999	10.644	818.84	0.4695	0.4109	0.2686	0.5289	2573	94.1
23	00h03m50s	0.4436	23.999	10.646	818.66	0.4695	0.411	0.2685	0.529	2575	94.1
24	00h04m00s	0.4437	23.999	10.648	818.44	0.4695	0.4111	0.2685	0.529	2574	94.1
25	00h04m10s	0.4437	23.999	10.648	819.08	0.4695	0.4111	0.2685	0.529	2574	94.1
26	00h04m20s	0.4438	23.999	10.651	818.45	0.4695	0.4111	0.2685	0.529	2574	94.1
27	00h04m30s	0.4438	23.999	10.651	818.24	0.4697	0.4112	0.2686	0.5291	2573	94.1
28	00h04m40s	0.4439	23.999	10.653	817.71	0.4696	0.411	0.2686	0.529	2573	94.1
29	00h04m50s	0.4439	23.999	10.653	817.88	0.4697	0.411	0.2687	0.529	2571	94.1
30	00h05m00s	0.444	23.999	10.656	818.5	0.4696	0.411	0.2686	0.529	2572	94.2
31	00h05m10s	0.444	23.999	10.656	817.63	0.4697	0.4112	0.2686	0.529	2573	94.2
32	00h05m20s	0.4441	23.999	10.658	817.99	0.4697	0.4112	0.2686	0.529	2573	94.1
33	00h05m30s	0.4441	23.999	10.658	817.93	0.4696	0.4112	0.2685	0.5291	2574	94.1
34	00h05m40s	0.4442	23.999	10.66	817.9	0.4695	0.411	0.2686	0.5289	2573	94.1
35	00h05m50s	0.4442	23.999	10.66	817.13	0.4696	0.411	0.2686	0.529	2573	94.1
36	00h06m00s	0.4442	23.999	10.66	816.67	0.4697	0.4109	0.2687	0.529	2570	94.1
37	00h06m10s	0.4442	23.999	10.66	817.25	0.4698	0.411	0.2688	0.529	2570	94.1
38	00h06m20s	0.4443	23.999	10.663	816.92	0.4698	0.4109	0.2688	0.529	2569	94.1
39	00h06m30s	0.4443	23.999	10.663	816.59	0.4697	0.4109	0.2687	0.529	2571	94.1
40	00h06m40s	0.4443	23.999	10.663	816.81	0.4697	0.411	0.2687	0.529	2571	94.1
41	00h06m50s	0.4444	23.999	10.665	816.9	0.4697	0.4109	0.2687	0.529	2571	94.1
42	00h07m00s	0.4444	23.999	10.665	816.84	0.4696	0.4109	0.2686	0.5289	2572	94.1
43	00h07m10s	0.4444	23.999	10.665	816.52	0.4696	0.4109	0.2687	0.5289	2571	94.1
44	00h07m20s	0.4444	23.999	10.665	816.54	0.4696	0.4108	0.2687	0.5289	2571	94.1
45	00h07m30s	0.4445	23.999	10.668	816.32	0.4699	0.411	0.2688	0.529	2569	94.1
46	00h07m40s	0.4446	23.999	10.67	815.93	0.4697	0.4109	0.2687	0.5289	2571	94.1
47	00h07m50s	0.4445	23.999	10.668	815.94	0.4697	0.4108	0.2688	0.5289	2570	94.1
48	00h08m00s	0.4446	23.999	10.67	816.06	0.4697	0.4109	0.2687	0.529	2571	94.1
49	00h08m10s	0.4445	23.999	10.668	816.36	0.4696	0.4108	0.2687	0.5289	2571	94.1
50	00h08m20s	0.4446	23.999	10.67	815.53	0.4696	0.4108	0.2687	0.5289	2571	94.1
51	00h08m30s	0.4446	23.999	10.67	815.65	0.4697	0.4108	0.2688	0.5289	2570	94.1
52	00h08m40s	0.4447	23.999	10.672	815.99	0.4697	0.4109	0.2687	0.529	2570	94.1

53	00h08m50s	0.4447	23.999	10.672	815.58	0.4697	0.4108	0.2688	0.5289	2570	94.1
54	00h09m00s	0.4447	23.999	10.672	815.35	0.4696	0.4109	0.2687	0.5289	2572	94.1
55	00h09m10s	0.4447	23.999	10.672	814.75	0.4699	0.4109	0.2688	0.529	2568	94.1
56	00h09m20s	0.4447	23.999	10.672	815.04	0.4697	0.4109	0.2688	0.5289	2570	94.1
57	00h09m30s	0.4448	23.999	10.675	815.06	0.4695	0.4107	0.2687	0.5289	2571	94.1
58	00h09m40s	0.4448	23.999	10.675	815.58	0.47	0.411	0.2689	0.5291	2567	94
59	00h09m50s	0.4448	23.999	10.675	815.29	0.4698	0.4108	0.2688	0.5289	2569	94.1
60	00h10m00s	0.4448	23.999	10.675	815.39	0.4695	0.4107	0.2687	0.5288	2571	94.1
61	00h10m10s	0.4448	23.999	10.675	815.38	0.4695	0.4108	0.2687	0.5289	2572	94.2
62	00h10m20s	0.4448	23.999	10.675	815.32	0.4697	0.4109	0.2688	0.5289	2570	94
63	00h10m30s	0.4448	23.999	10.675	814.8	0.4698	0.4108	0.2688	0.5289	2569	94.1
64	00h10m40s	0.4448	23.999	10.675	814.72	0.4696	0.4107	0.2687	0.5289	2571	94.1
65	00h10m50s	0.4448	23.999	10.675	814.99	0.4698	0.4107	0.2689	0.5289	2568	94
66	00h11m00s	0.4449	23.999	10.677	815.36	0.4697	0.4109	0.2687	0.529	2571	94.1
67	00h11m10s	0.4449	23.999	10.677	814.58	0.4697	0.4108	0.2688	0.5289	2569	94.1
68	00h11m20s	0.445	23.999	10.68	814.28	0.4699	0.4108	0.2689	0.529	2568	94.1
69	00h11m30s	0.4449	23.999	10.677	814.66	0.4697	0.4109	0.2688	0.5289	2570	94.1
70	00h11m40s	0.4449	23.999	10.677	813.78	0.4698	0.4107	0.2689	0.5289	2568	94.1
71	00h11m50s	0.4447	23.999	10.672	814.18	0.4698	0.4108	0.2688	0.5289	2569	94.1
72	00h12m00s	0.445	23.999	10.68	814.65	0.4696	0.4109	0.2687	0.5289	2571	94.2
73	00h12m10s	0.445	23.999	10.68	814.1	0.4699	0.4108	0.2689	0.5289	2567	94.1
74	00h12m20s	0.445	23.999	10.68	814.06	0.4698	0.4108	0.2688	0.5289	2569	94.1
75	00h12m30s	0.445	23.999	10.68	813.82	0.4698	0.4109	0.2688	0.529	2569	94.1
76	00h12m40s	0.445	23.999	10.68	813.7	0.4699	0.4108	0.2689	0.5289	2568	94.1
77	00h12m50s	0.445	23.999	10.68	814.49	0.4697	0.4108	0.2688	0.5289	2569	94.1
78	00h13m00s	0.445	23.999	10.68	814.2	0.4698	0.4107	0.2689	0.5289	2568	94.1
79	00h13m10s	0.445	23.999	10.68	814.26	0.4698	0.4109	0.2688	0.5289	2570	94.2
80	00h13m20s	0.445	23.999	10.68	814.01	0.4697	0.4109	0.2687	0.5289	2570	94.1
81	00h13m30s	0.445	23.999	10.68	814.27	0.4696	0.4106	0.2688	0.5288	2570	94.1
82	00h13m40s	0.4449	23.999	10.677	813.79	0.4697	0.4107	0.2688	0.5289	2569	94.1
83	00h13m50s	0.4451	23.999	10.682	814.16	0.4697	0.4107	0.2688	0.5289	2570	94.1

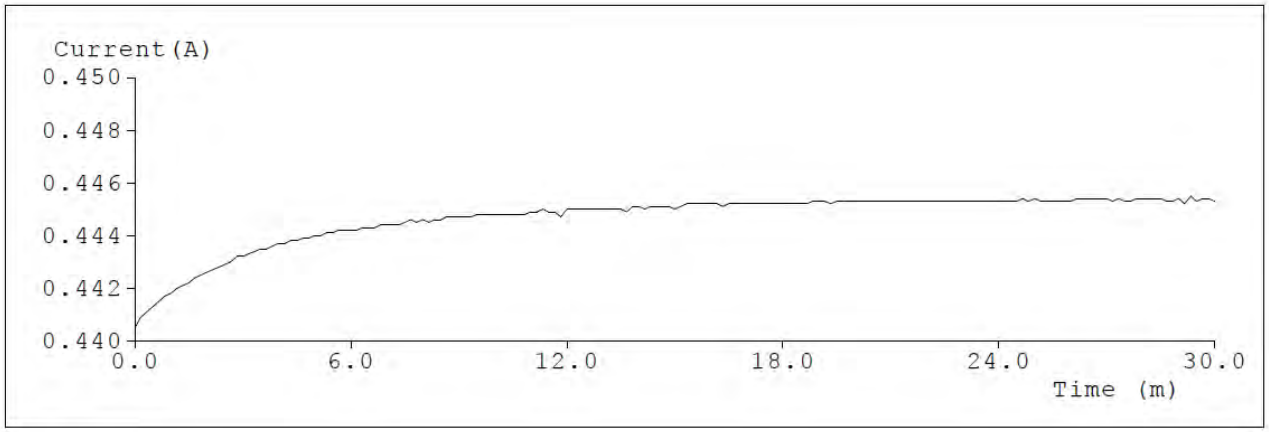
84	00h14m00s	0.4451	23.999	10.682	814.34	0.4698	0.411	0.2688	0.529	2570	94.1
85	00h14m10s	0.445	23.999	10.68	813.72	0.4696	0.4106	0.2688	0.5288	2570	94.1
86	00h14m20s	0.4451	23.999	10.682	813.87	0.4699	0.4109	0.2689	0.529	2567	94.1
87	00h14m30s	0.4451	23.999	10.682	814.18	0.4697	0.4108	0.2688	0.5289	2570	94.1
88	00h14m40s	0.4451	23.999	10.682	813.69	0.4698	0.4109	0.2688	0.529	2570	94.1
89	00h14m50s	0.4451	23.999	10.682	813.68	0.4697	0.4106	0.2689	0.5288	2568	94
90	00h15m00s	0.445	23.999	10.68	813.32	0.4696	0.4106	0.2688	0.5288	2569	94.1
91	00h15m10s	0.4451	23.999	10.682	814.33	0.4697	0.4109	0.2688	0.5289	2570	94.1
92	00h15m20s	0.4452	23.999	10.684	813.72	0.4698	0.4107	0.2689	0.5289	2568	94.1
93	00h15m30s	0.4452	23.999	10.684	813.2	0.4698	0.4107	0.2689	0.5289	2567	94.1
94	00h15m40s	0.4452	23.999	10.684	813.73	0.4696	0.4107	0.2688	0.5289	2570	94.1
95	00h15m50s	0.4452	23.999	10.684	813.61	0.4697	0.4107	0.2688	0.5289	2569	94.1
96	00h16m00s	0.4452	23.999	10.684	813.5	0.4698	0.4108	0.2688	0.5289	2569	94.1
97	00h16m10s	0.4452	23.999	10.684	813.46	0.4696	0.4107	0.2688	0.5288	2570	94.1
98	00h16m20s	0.4451	23.999	10.682	813.6	0.4698	0.4109	0.2688	0.529	2569	94.1
99	00h16m30s	0.4452	23.999	10.684	813.3	0.4696	0.4107	0.2687	0.5289	2571	94.1
100	00h16m40s	0.4452	23.999	10.684	813.47	0.4698	0.4107	0.2689	0.5289	2568	94.1
101	00h16m50s	0.4452	23.999	10.684	812.97	0.4699	0.4106	0.269	0.5289	2566	94.1
102	00h17m00s	0.4452	23.999	10.684	813.46	0.4698	0.4106	0.2689	0.5289	2567	94
103	00h17m10s	0.4452	23.999	10.684	813.63	0.4697	0.4106	0.2688	0.5288	2569	94.1
104	00h17m20s	0.4452	23.999	10.684	813.03	0.4698	0.4106	0.2689	0.5289	2567	94
105	00h17m30s	0.4452	23.999	10.684	813.3	0.4697	0.4107	0.2688	0.5289	2569	94.1
106	00h17m40s	0.4452	23.999	10.684	812.97	0.4698	0.4108	0.2688	0.5289	2569	94.1
107	00h17m50s	0.4452	23.999	10.684	813.1	0.4699	0.4108	0.2689	0.5289	2568	94.1
108	00h18m00s	0.4452	23.999	10.684	813.23	0.4698	0.4107	0.2689	0.5289	2568	94
109	00h18m10s	0.4452	23.999	10.684	813.33	0.4698	0.4108	0.2689	0.5289	2568	94.1
110	00h18m20s	0.4452	23.999	10.684	812.82	0.4697	0.4106	0.2688	0.5288	2569	94.1
111	00h18m30s	0.4452	23.999	10.684	813.4	0.4697	0.4109	0.2688	0.529	2570	94.1
112	00h18m40s	0.4452	23.999	10.684	813.09	0.4698	0.4107	0.2689	0.5289	2568	94.1
113	00h18m50s	0.4453	23.999	10.687	813.23	0.4697	0.4106	0.2688	0.5288	2569	94.1
114	00h19m00s	0.4453	23.999	10.687	813.34	0.4698	0.4107	0.2689	0.5289	2568	94.1

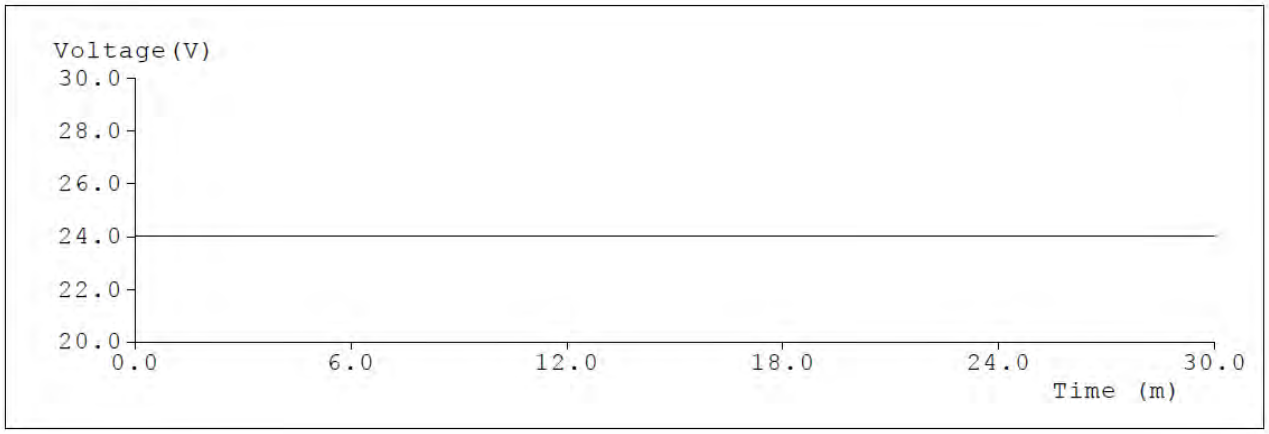
115	00h19m10s	0.4453	23.999	10.687	813.37	0.4697	0.4108	0.2688	0.5289	2570	94.1
116	00h19m20s	0.4452	23.999	10.684	812.77	0.4698	0.4108	0.2688	0.5289	2569	94.1
117	00h19m30s	0.4453	23.999	10.687	812.9	0.4696	0.4107	0.2688	0.5288	2570	94.1
118	00h19m40s	0.4453	23.999	10.687	812.61	0.4696	0.4107	0.2688	0.5288	2570	94.1
119	00h19m50s	0.4453	23.999	10.687	812.66	0.4697	0.4105	0.2689	0.5288	2568	94.1
120	00h20m00s	0.4453	23.999	10.687	813.08	0.4698	0.4107	0.2689	0.5289	2568	94
121	00h20m10s	0.4453	23.999	10.687	812.91	0.4698	0.4106	0.269	0.5288	2567	94.1
122	00h20m20s	0.4453	23.999	10.687	812.94	0.4696	0.4107	0.2688	0.5289	2570	94.1
123	00h20m30s	0.4453	23.999	10.687	812.88	0.4698	0.4107	0.2689	0.5289	2568	94.1
124	00h20m40s	0.4453	23.999	10.687	813.25	0.4698	0.4107	0.2689	0.5289	2568	94.1
125	00h20m50s	0.4453	23.999	10.687	812.91	0.4696	0.4106	0.2688	0.5288	2569	94.1
126	00h21m00s	0.4453	23.999	10.687	813.23	0.4696	0.4108	0.2687	0.5289	2571	94.1
127	00h21m10s	0.4453	23.999	10.687	813.41	0.4697	0.4108	0.2688	0.5289	2570	94.1
128	00h21m20s	0.4453	23.999	10.687	813.09	0.4697	0.4108	0.2688	0.5289	2569	94.1
129	00h21m30s	0.4453	23.999	10.687	813.06	0.4698	0.4108	0.2688	0.5289	2569	94.1
130	00h21m40s	0.4453	23.999	10.687	813.11	0.4697	0.4108	0.2688	0.5289	2570	94.1
131	00h21m50s	0.4453	23.999	10.687	812.89	0.4696	0.4107	0.2688	0.5289	2570	94.1
132	00h22m00s	0.4453	23.999	10.687	813.11	0.4697	0.4106	0.2688	0.5288	2569	94.1
133	00h22m10s	0.4453	23.999	10.687	812.9	0.4698	0.4108	0.2689	0.5289	2568	94.1
134	00h22m20s	0.4453	23.999	10.687	812.72	0.4699	0.4106	0.269	0.5289	2565	94.1
135	00h22m30s	0.4453	23.999	10.687	812.64	0.4698	0.4108	0.2688	0.5289	2568	94.1
136	00h22m40s	0.4453	23.999	10.687	812.45	0.4698	0.4107	0.2689	0.5289	2568	94.1
137	00h22m50s	0.4453	23.999	10.687	812.77	0.4697	0.4107	0.2688	0.5289	2569	94.1
138	00h23m00s	0.4453	23.999	10.687	812.97	0.4698	0.4107	0.2689	0.5289	2567	94.1
139	00h23m10s	0.4453	23.999	10.687	812.79	0.4698	0.4108	0.2689	0.5289	2568	94.1
140	00h23m20s	0.4453	23.999	10.687	812.83	0.4695	0.4106	0.2688	0.5288	2570	94.1
141	00h23m30s	0.4453	23.999	10.687	812.86	0.4697	0.4108	0.2688	0.5289	2569	94.1
142	00h23m40s	0.4453	23.999	10.687	813.28	0.4698	0.4108	0.2688	0.5289	2569	94.1
143	00h23m50s	0.4453	23.999	10.687	812.77	0.4697	0.4105	0.2689	0.5288	2568	94.1
144	00h24m00s	0.4453	23.999	10.687	812.44	0.4697	0.4106	0.2688	0.5288	2569	94.1
145	00h24m10s	0.4453	23.999	10.687	812.75	0.4699	0.4108	0.2689	0.5289	2568	94.1

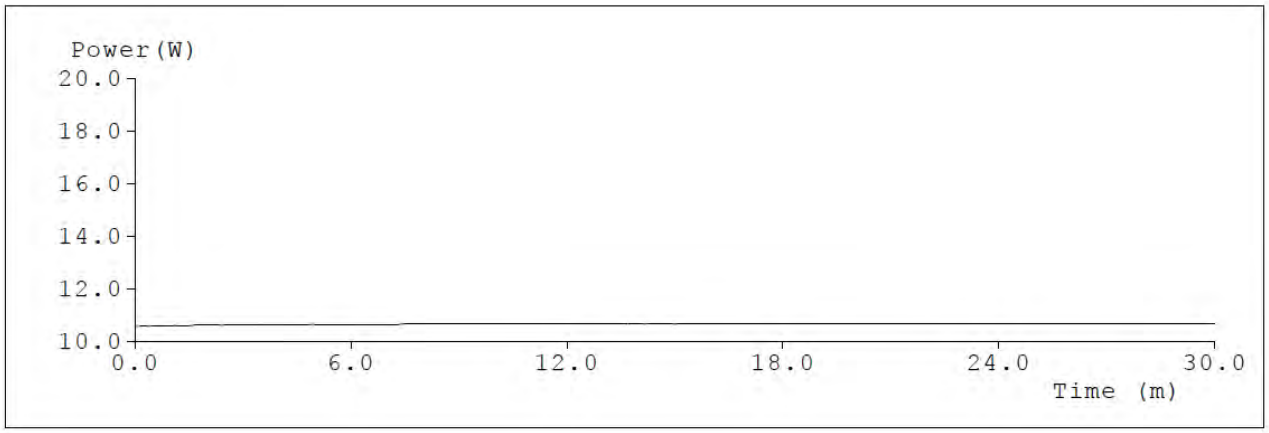
146	00h24m20s	0.4453	23.999	10.687	812.8	0.4698	0.4107	0.2689	0.5289	2568	94.1
147	00h24m30s	0.4453	23.999	10.687	812.93	0.4697	0.4106	0.2689	0.5288	2568	94.1
148	00h24m40s	0.4454	23.999	10.689	812.94	0.4698	0.4107	0.2689	0.5289	2568	94.1
149	00h24m50s	0.4453	23.999	10.687	812.57	0.4696	0.4106	0.2688	0.5288	2570	94.2
150	00h25m00s	0.4454	23.999	10.689	813.21	0.4695	0.4107	0.2687	0.5289	2571	94.1
151	00h25m10s	0.4453	23.999	10.687	812.87	0.4697	0.4108	0.2688	0.5289	2570	94.1
152	00h25m20s	0.4453	23.999	10.687	812.36	0.4696	0.4106	0.2688	0.5288	2570	94.1
153	00h25m30s	0.4453	23.999	10.687	812.2	0.4697	0.4106	0.2689	0.5288	2568	94.1
154	00h25m40s	0.4453	23.999	10.687	812.62	0.4698	0.4107	0.2689	0.5289	2568	94
155	00h25m50s	0.4453	23.999	10.687	812.01	0.4698	0.4104	0.269	0.5288	2566	94
156	00h26m00s	0.4453	23.999	10.687	812.99	0.4695	0.4106	0.2688	0.5288	2570	94.1
157	00h26m10s	0.4454	23.999	10.689	812.95	0.4697	0.4107	0.2688	0.5289	2569	94.1
158	00h26m20s	0.4454	23.999	10.689	813.14	0.4697	0.4107	0.2688	0.5289	2569	94.1
159	00h26m30s	0.4454	23.999	10.689	812.75	0.4695	0.4105	0.2688	0.5288	2570	94.1
160	00h26m40s	0.4454	23.999	10.689	812.43	0.4698	0.4108	0.2688	0.5289	2569	94.1
161	00h26m50s	0.4454	23.999	10.689	813.11	0.4697	0.4107	0.2688	0.5289	2569	94.1
162	00h27m00s	0.4454	23.999	10.689	812.29	0.4697	0.4106	0.2689	0.5288	2568	94.1
163	00h27m10s	0.4453	23.999	10.687	811.95	0.4697	0.4106	0.2689	0.5289	2568	94.1
164	00h27m20s	0.4454	23.999	10.689	812.71	0.4697	0.4105	0.2689	0.5288	2567	94.1
165	00h27m30s	0.4453	23.999	10.687	812.38	0.4698	0.4106	0.269	0.5289	2567	94.1
166	00h27m40s	0.4453	23.999	10.687	812.23	0.4697	0.4106	0.2689	0.5288	2568	94.1
167	00h27m50s	0.4454	23.999	10.689	812.7	0.4698	0.4107	0.2689	0.5289	2567	94.1
168	00h28m00s	0.4454	23.999	10.689	812.51	0.4698	0.4106	0.2689	0.5288	2567	94.1
169	00h28m10s	0.4454	23.999	10.689	812.11	0.4698	0.4106	0.2689	0.5288	2567	94.1
170	00h28m20s	0.4454	23.999	10.689	812.79	0.4698	0.4106	0.2689	0.5289	2568	94.1
171	00h28m30s	0.4454	23.999	10.689	812.28	0.4698	0.4105	0.2689	0.5288	2567	94.1
172	00h28m40s	0.4453	23.999	10.687	812.28	0.4696	0.4105	0.2688	0.5288	2569	94.1
173	00h28m50s	0.4453	23.999	10.687	812.83	0.4696	0.4107	0.2687	0.5289	2571	94.1
174	00h29m00s	0.4454	23.999	10.689	812.44	0.4697	0.4107	0.2689	0.5289	2568	94.1
175	00h29m10s	0.4452	23.999	10.684	812.91	0.4698	0.4107	0.2689	0.5289	2567	94.1
176	00h29m20s	0.4455	23.999	10.692	812.41	0.4698	0.4106	0.2689	0.5289	2567	94.1

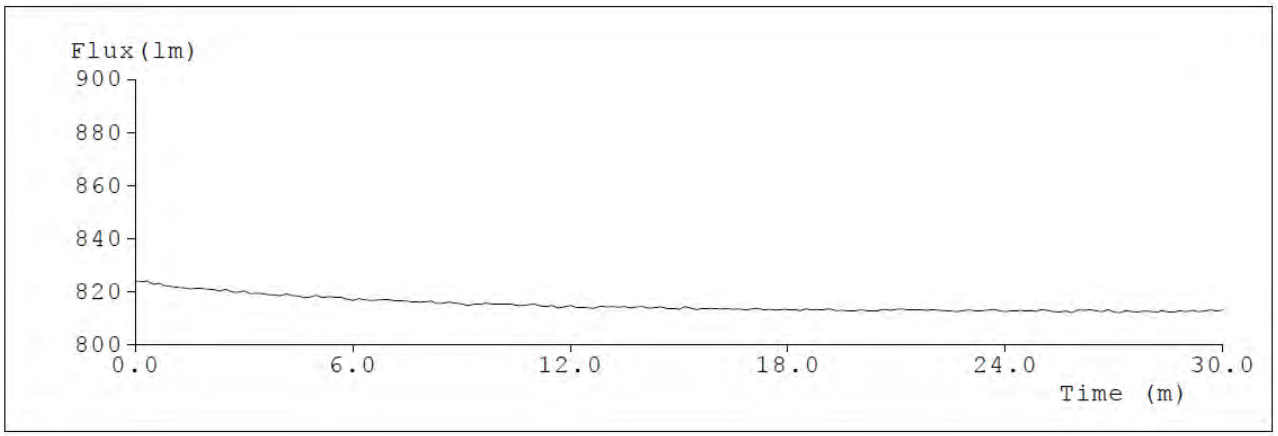
177	00h29m30s	0.4453	23.999	10.687	812.71	0.4698	0.4107	0.2689	0.5289	2568	94.1
178	00h29m40s	0.4454	23.999	10.689	813	0.4698	0.4107	0.2689	0.5289	2567	94.1
179	00h29m50s	0.4454	23.999	10.689	812.65	0.4696	0.4106	0.2688	0.5288	2569	94.1
180	00h30m00s	0.4453	23.999	10.687	813.03	0.4696	0.4106	0.2688	0.5288	2569	94.1

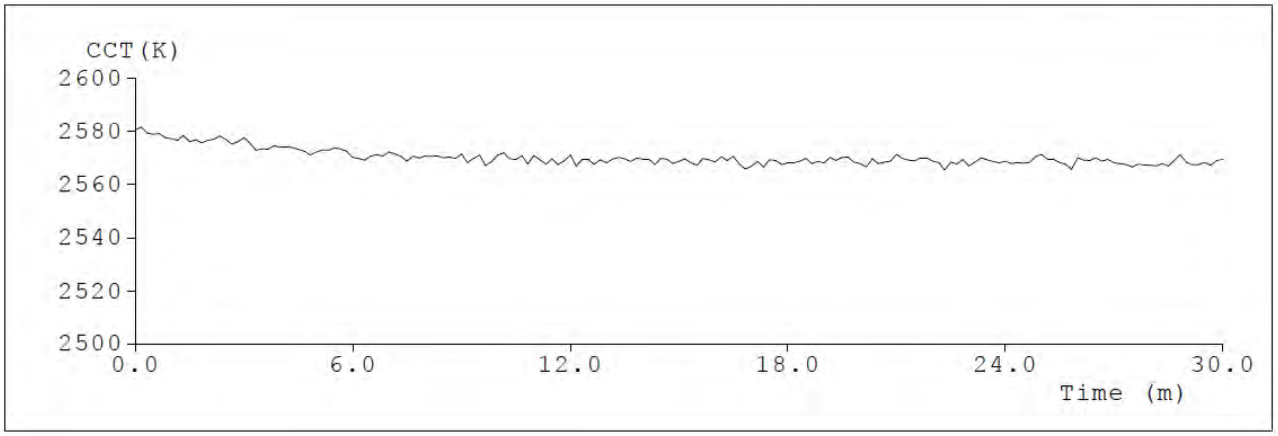
Test curves

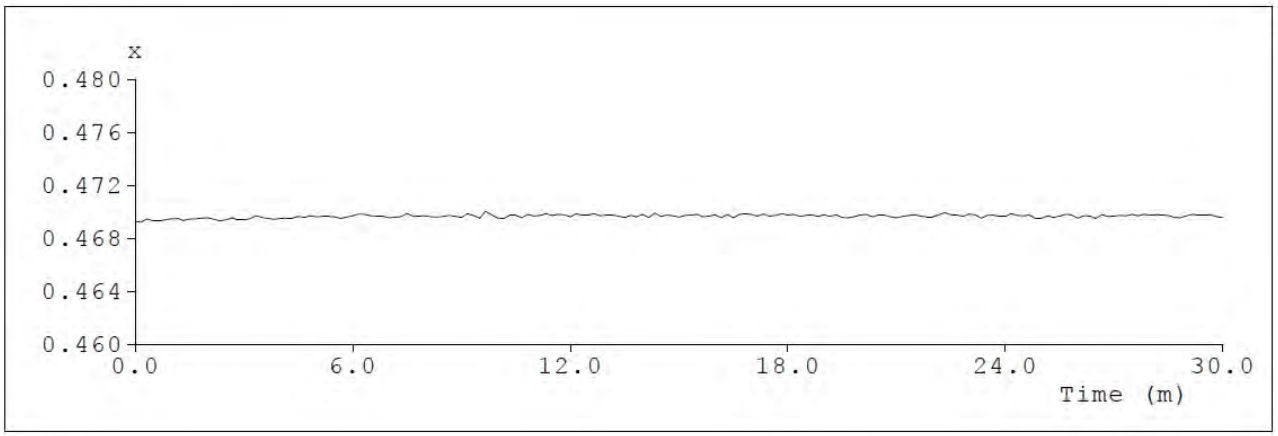


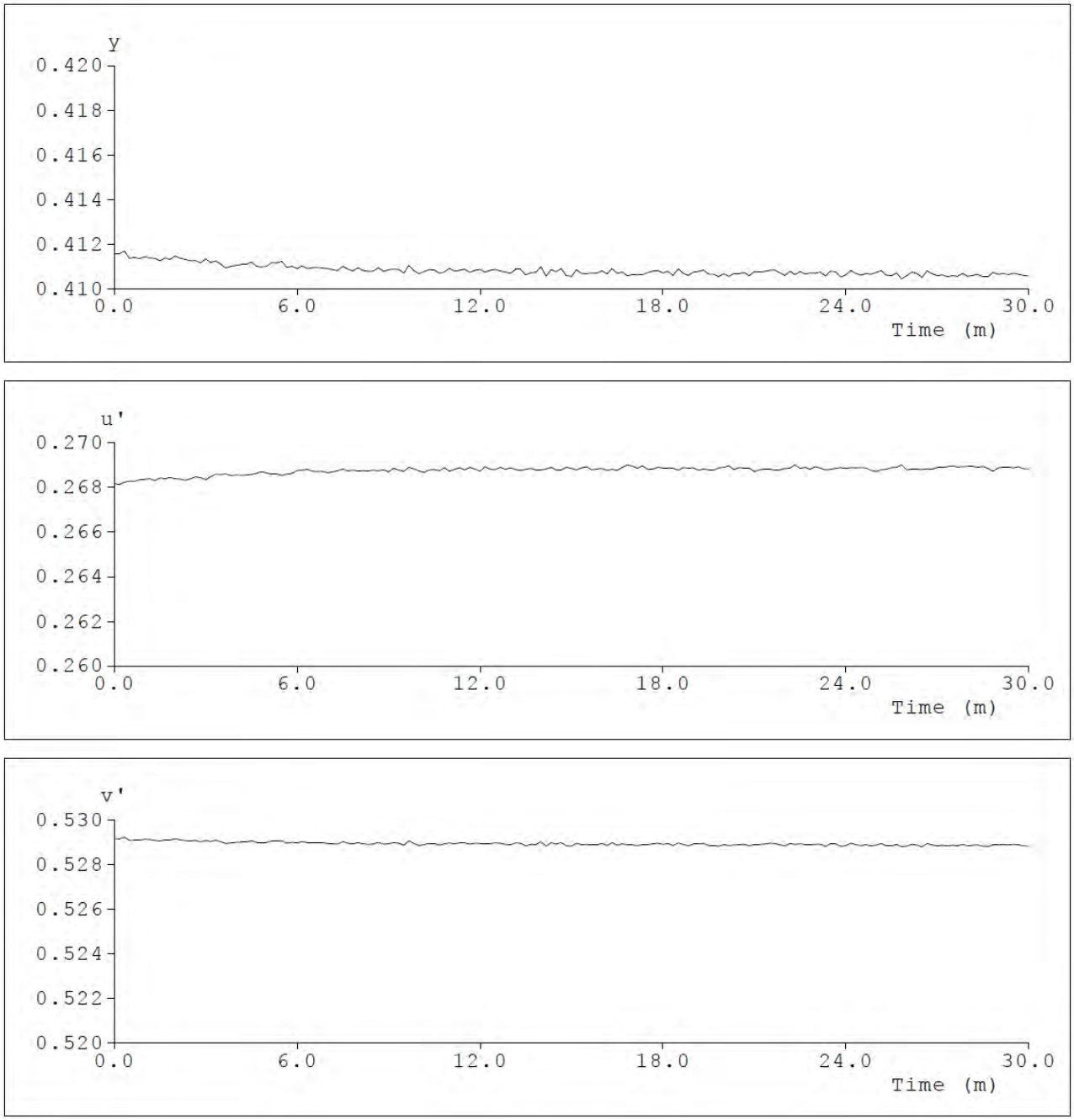





Flux(lm)
900
880
860
840
820
800
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2600
2580
2560
2540
2520
2500
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.480
0.476
0.472
0.468
0.464
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

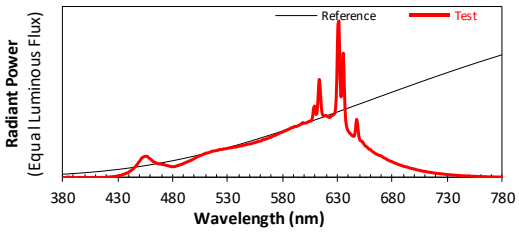

y
0.420
0.418
0.416
0.414
0.412
0.410
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

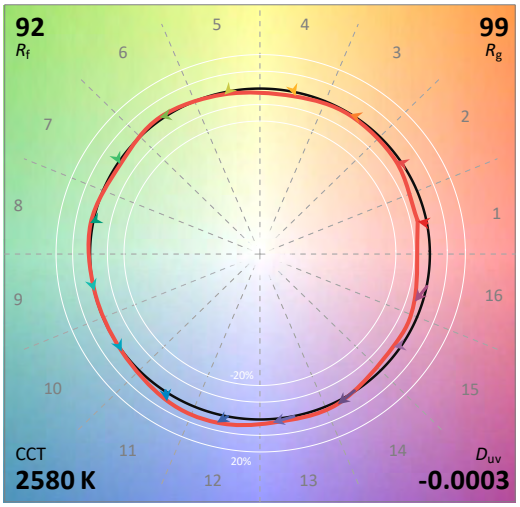
*15.2 ANSI/IES TM-30-18 Color Rendition Report

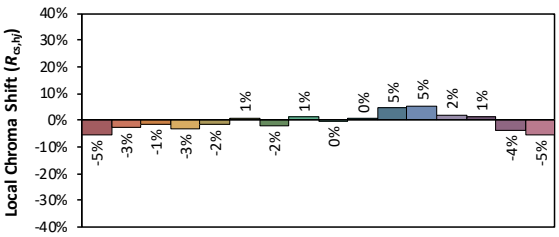
ANSI/IES TM-30-18 Color Rendition Report

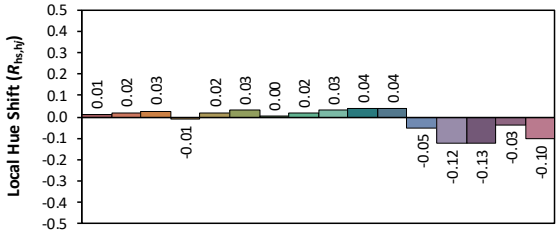
Source: Manufacturer:

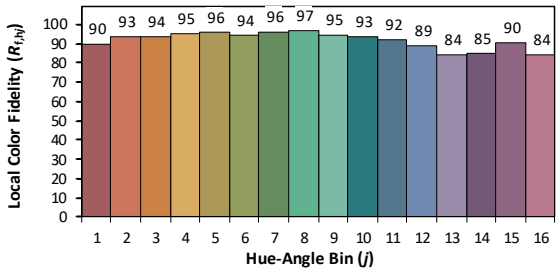
Date: 2023/9/26 Model: LFUY-1000-L27-DF-0-9

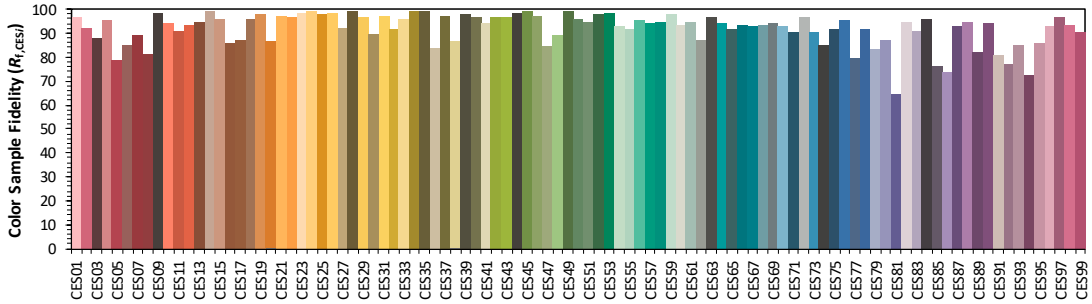












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

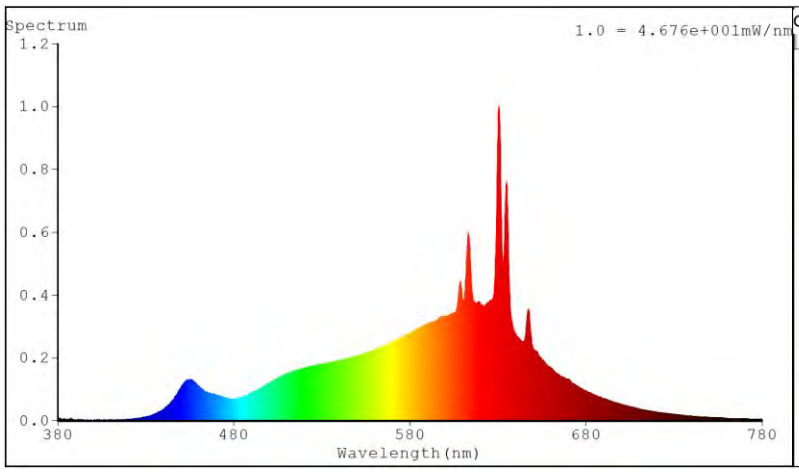
x	0.4694
y	0.4117
u'	0.2682
v'	0.5292

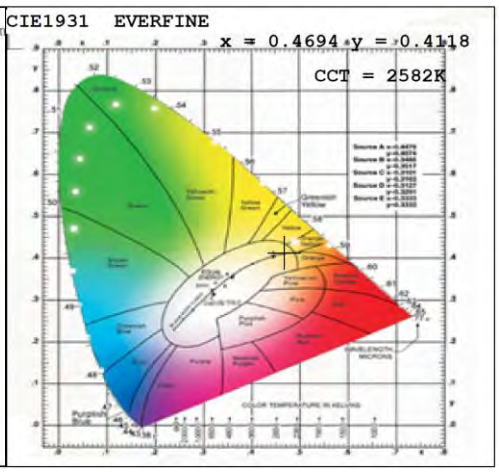
CIE 13.3-1995 (CRI)

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.

15.3 Relative Spectral Power Distribution





nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0005	414	0.0024	448	0.0863	482	0.0694	516	0.1615
381	0.0025	415	0.0038	449	0.0971	483	0.0719	517	0.1617
382	0.0011	416	0.0029	450	0.1036	484	0.0739	518	0.1638
383	0.0009	417	0.0028	451	0.1155	485	0.0757	519	0.1642
384	0.0062	418	0.0031	452	0.1226	486	0.0778	520	0.1666
385	0.003	419	0.0045	453	0.1257	487	0.0811	521	0.1669
386	0.0052	420	0.005	454	0.1293	488	0.0817	522	0.1709
387	0.0025	421	0.0052	455	0.1307	489	0.086	523	0.172
388	0.0004	422	0.0056	456	0.1308	490	0.0878	524	0.1721
389	0.0014	423	0.0063	457	0.1273	491	0.0922	525	0.1722
390	0.0018	424	0.0066	458	0.1208	492	0.0938	526	0.1749
391	0	425	0.0076	459	0.1157	493	0.0974	527	0.1751
392	0.0017	426	0.0086	460	0.111	494	0.0998	528	0.1763
393	0	427	0.0081	461	0.1044	495	0.1035	529	0.1779
394	0.0022	428	0.0106	462	0.0987	496	0.1044	530	0.1784
395	0.0034	429	0.0107	463	0.0958	497	0.108	531	0.1803
396	0.0013	430	0.0121	464	0.0927	498	0.1127	532	0.1818
397	0.0021	431	0.0145	465	0.0891	499	0.1146	533	0.1818
398	0.0009	432	0.0149	466	0.0876	500	0.1204	534	0.183
399	0.0004	433	0.0169	467	0.0837	501	0.1225	535	0.1868
400	0.0001	434	0.02	468	0.0855	502	0.1272	536	0.1855
401	0.003	435	0.0219	469	0.084	503	0.1296	537	0.1865
402	0.0032	436	0.0238	470	0.0811	504	0.1329	538	0.1867
403	0.0021	437	0.0276	471	0.081	505	0.1345	539	0.1899
404	0.0012	438	0.0299	472	0.08	506	0.1375	540	0.1923
405	0.001	439	0.0318	473	0.0773	507	0.1399	541	0.1919
406	0.0022	440	0.0363	474	0.0749	508	0.1441	542	0.1948
407	0.0043	441	0.0414	475	0.0746	509	0.1464	543	0.1943
408	0.0013	442	0.045	476	0.0727	510	0.1499	544	0.1986
409	0.0012	443	0.0505	477	0.0705	511	0.1499	545	0.1993
410	0.0018	444	0.0564	478	0.0695	512	0.1517	546	0.1988
411	0.002	445	0.0639	479	0.0673	513	0.1535	547	0.2016
412	0.0018	446	0.0688	480	0.0686	514	0.1566	548	0.2025
413	0.0024	447	0.0796	481	0.0679	515	0.1595	549	0.2048

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2054	599	0.3314	648	0.3215	697	0.0572	746	0.0122
551	0.2058	600	0.3307	649	0.2568	698	0.0561	747	0.012
552	0.2094	601	0.3316	650	0.2295	699	0.0551	748	0.0114
553	0.2107	602	0.3343	651	0.2224	700	0.0525	749	0.0115
554	0.2129	603	0.3385	652	0.2217	701	0.0505	750	0.0106
555	0.214	604	0.3411	653	0.2108	702	0.0486	751	0.0108
556	0.2167	605	0.3433	654	0.2015	703	0.0481	752	0.0106
557	0.2184	606	0.3452	655	0.1925	704	0.0457	753	0.0102
558	0.2222	607	0.3697	656	0.1886	705	0.0445	754	0.01
559	0.2216	608	0.4228	657	0.1839	706	0.0431	755	0.009
560	0.2232	609	0.4327	658	0.175	707	0.0417	756	0.0091
561	0.2282	610	0.3833	659	0.173	708	0.0398	757	0.0094
562	0.2307	611	0.3916	660	0.1684	709	0.0395	758	0.0086
563	0.2311	612	0.4862	661	0.1614	710	0.0381	759	0.0086
564	0.2343	613	0.5934	662	0.157	711	0.0369	760	0.0085
565	0.2366	614	0.5308	663	0.1527	712	0.0353	761	0.0078
566	0.2371	615	0.4231	664	0.1479	713	0.0345	762	0.0082
567	0.2422	616	0.3827	665	0.1441	714	0.0338	763	0.0075
568	0.2454	617	0.3746	666	0.1408	715	0.0326	764	0.0076
569	0.2447	618	0.3735	667	0.1372	716	0.0311	765	0.0075
570	0.249	619	0.3776	668	0.1359	717	0.0304	766	0.0069
571	0.2534	620	0.3732	669	0.1341	718	0.0296	767	0.0065
572	0.2549	621	0.3679	670	0.1303	719	0.0287	768	0.0067
573	0.2566	622	0.3661	671	0.1256	720	0.0275	769	0.0064
574	0.262	623	0.3656	672	0.1212	721	0.027	770	0.0063
575	0.2635	624	0.3733	673	0.1185	722	0.026	771	0.0066
576	0.2659	625	0.3765	674	0.1141	723	0.0255	772	0.0062
577	0.2705	626	0.3827	675	0.11	724	0.0248	773	0.006
578	0.2731	627	0.387	676	0.1071	725	0.0239	774	0.0056
579	0.2752	628	0.4251	677	0.1029	726	0.023	775	0.0056
580	0.2777	629	0.5889	678	0.1008	727	0.0226	776	0.0057
581	0.282	630	0.9126	679	0.098	728	0.0215	777	0.0054
582	0.2837	631	0.9436	680	0.096	729	0.021	778	0.0049
583	0.2881	632	0.6189	681	0.0915	730	0.0204	779	0.0053
584	0.2888	633	0.4887	682	0.0895	731	0.0196	780	0.0053
585	0.2943	634	0.6338	683	0.0873	732	0.0191		
586	0.2956	635	0.75	684	0.0842	733	0.0185		
587	0.3001	636	0.5214	685	0.0814	734	0.0186		
588	0.3035	637	0.3586	686	0.0798	735	0.0172		
589	0.303	638	0.3101	687	0.0763	736	0.0167		
590	0.3079	639	0.2881	688	0.076	737	0.0164		
591	0.3115	640	0.2778	689	0.0721	738	0.0158		
592	0.3096	641	0.2678	690	0.0698	739	0.0147		
593	0.3122	642	0.2631	691	0.0679	740	0.0153		
594	0.3161	643	0.2549	692	0.067	741	0.0144		
595	0.3182	644	0.2517	693	0.0656	742	0.014		
596	0.3225	645	0.2532	694	0.0627	743	0.0129		
597	0.3278	646	0.2908	695	0.061	744	0.0128		
598	0.3336	647	0.352	696	0.0587	745	0.0129		

16. Goniophotometer Test results for LFUY-1000-L27-DF-O-9

16.1 Test Data

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

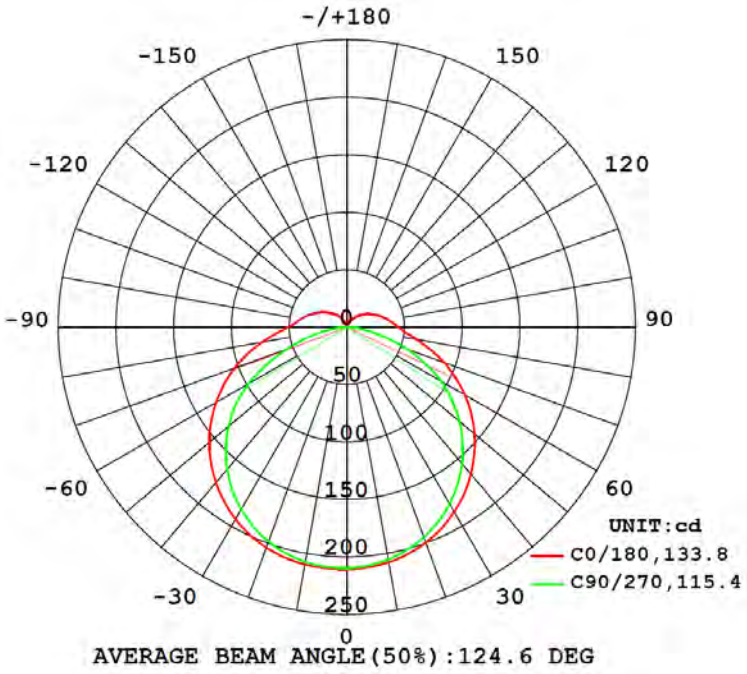
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.42516	1.0000	10.205

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
807.872	79.16	210.6	11.1	88.9

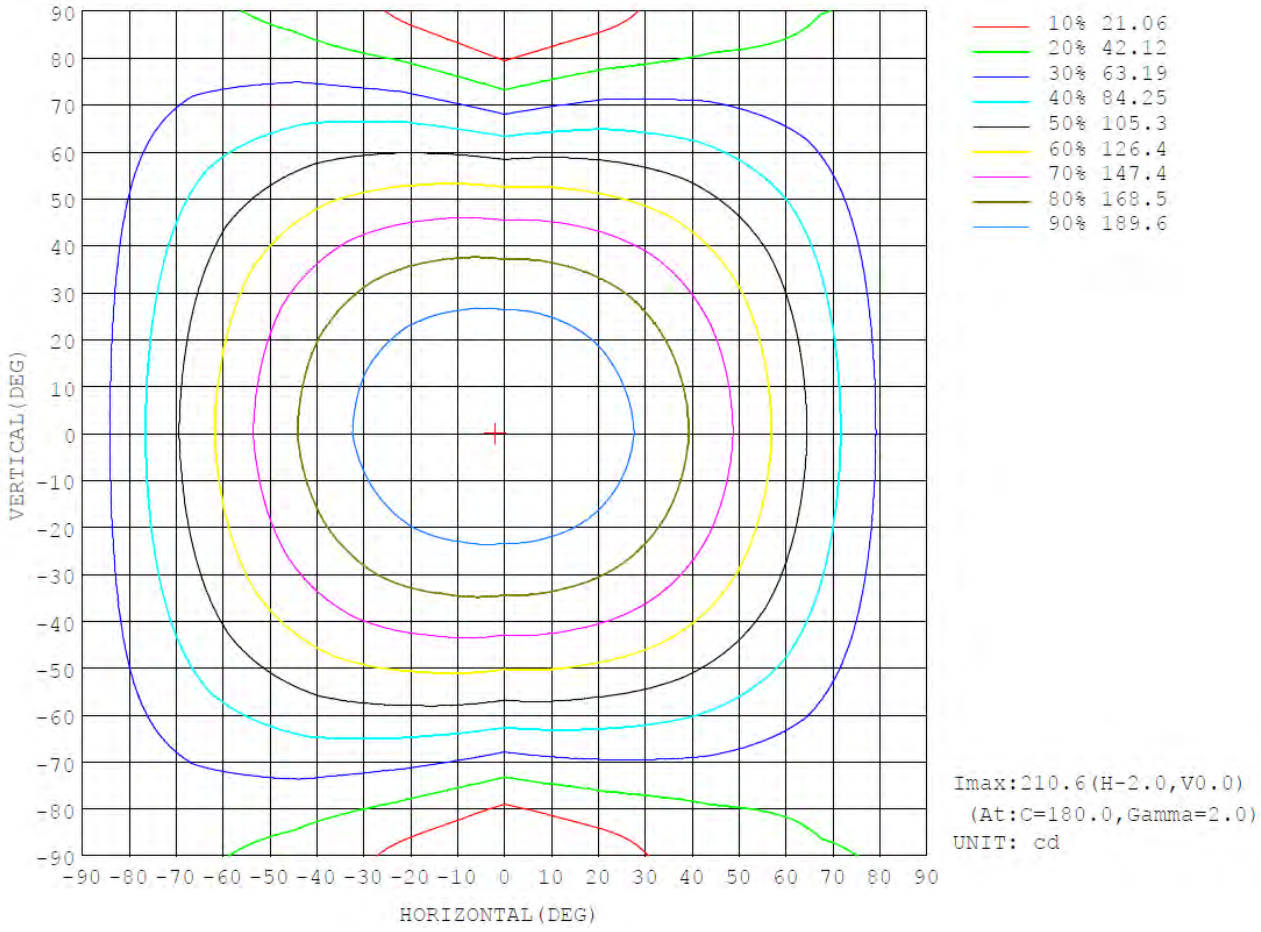
16.2 Luminous Intensity Distribution



16.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	207.7	206.1	205.3	206.5	209.6	208.8	207.3	206.8	0- 10	19.90	19.90	2.46,2.46
20	199.6	196.7	194.7	198.9	204.2	202.4	198.5	198.7	10- 20	57.60	77.49	9.59,9.59
30	185.8	181.6	177.8	185.8	193.1	190.2	183.2	184.9	20- 30	88.97	166.5	20.6,20.6
40	167.1	161.2	155.2	167.6	176.7	172.4	161.6	165.7	30- 40	110.3	276.8	34.3,34.3
50	144.3	136.6	127.2	144.7	155.8	149.6	134.0	141.6	40- 50	119.2	396.0	49,49
60	118.0	108.3	94.31	118.1	131.2	122.6	98.50	113.6	50- 60	114.5	510.5	63.2,63.2
70	89.24	77.58	54.88	88.56	103.4	92.14	54.78	82.57	60- 70	96.67	607.2	75.2,75.2
80	61.18	47.75	17.95	58.17	74.44	60.63	19.38	51.67	70- 80	69.18	676.4	83.7,83.7
90	44.62	30.88	0.9814	35.18	51.21	36.76	1.357	32.62	80- 90	41.98	718.4	88.9,88.9
100	36.92	24.29	0.2009	26.83	41.16	28.04	0.2430	25.65	90-100	28.64	747.0	92.5,92.5
110	29.73	17.98	0.2331	20.39	33.44	21.34	0.2509	19.75	100-110	21.78	768.8	95.2,95.2
120	23.08	13.84	0.2639	15.77	26.13	16.34	0.2469	13.69	110-120	15.85	784.6	97.1,97.1
130	17.15	9.837	0.2961	11.79	19.59	12.19	0.2656	10.59	120-130	10.81	795.4	98.5,98.5
140	11.75	6.961	0.3047	8.436	14.11	8.951	0.3069	7.003	130-140	6.725	802.2	99.3,99.3
150	7.340	4.452	0.2830	4.652	9.503	6.080	0.3417	4.033	140-150	3.698	805.9	99.8,99.8
160	3.988	2.108	0.3000	2.028	4.272	3.113	0.3769	1.510	150-160	1.575	807.4	99.9,99.9
170	1.390	0.5645	0.3644	0.3504	0.5561	0.4293	0.4039	0.4809	160-170	0.3950	807.8	100,100
180	0.3587	0.4169	0.4035	0.4106	0.3695	0.4121	0.4021	0.4039	170-180	0.0431	807.9	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

16.4 Isocandela Diagram



16.5 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	211	210	210	210	210	209	209	209	211	210	210	210	210	209	209	209			
5	210	209	209	208	208	208	208	209	210	210	210	210	209	209	209	208			
10	208	207	206	206	205	206	206	207	210	209	209	208	207	207	207	206			
15	204	203	202	201	201	202	203	205	208	207	206	205	204	204	203	203			
20	200	198	197	195	195	196	199	201	204	204	202	200	199	198	199	199			
25	193	192	190	188	187	189	193	196	199	199	197	194	192	192	193	193			
30	186	184	182	179	178	181	186	190	193	193	190	186	183	184	185	185			
35	177	175	172	169	167	171	177	182	185	185	182	177	173	174	176	176			
40	167	165	161	157	155	160	168	173	177	176	172	166	162	163	166	167			
45	156	154	149	145	142	148	157	163	167	166	162	154	149	151	154	156			
50	144	141	137	131	127	135	145	151	156	155	150	141	134	137	142	144			
55	132	128	123	116	111	120	132	139	144	142	137	127	118	122	128	131			
60	118	115	108	99.9	94.3	105	118	126	131	129	123	111	98.5	106	114	117			
65	104	100	93.1	83.3	74.5	89.0	104	113	118	115	108	94.4	76.5	89.5	98.3	103			
70	89.2	85.4	77.6	66.3	54.9	72.4	88.6	98.5	103	101	92.1	77.1	54.8	72.0	82.6	88.2			
75	74.7	70.7	62.1	49.5	35.4	55.7	73.2	83.9	88.8	86.0	76.3	59.6	35.4	54.5	66.7	73.3			
80	61.2	57.2	47.7	33.8	17.9	39.6	58.2	69.4	74.4	71.2	60.6	42.6	19.4	37.8	51.7	59.5			
85	50.7	46.7	36.7	21.4	6.92	25.8	44.7	56.3	61.2	57.7	46.6	28.2	8.41	24.1	39.4	48.3			
90	44.6	40.8	30.9	15.5	0.98	17.3	35.2	46.5	51.2	47.7	36.8	18.7	1.36	16.8	32.6	41.9			
95	40.7	37.0	27.4	12.7	0.20	13.5	30.4	41.0	45.4	42.1	31.8	14.7	0.20	13.8	29.0	38.0			
100	36.9	33.4	24.3	9.74	0.20	10.9	26.8	37.0	41.2	38.1	28.0	11.7	0.24	11.6	25.6	34.3			
105	33.3	30.0	21.4	8.35	0.22	9.46	23.3	33.3	37.2	34.2	24.4	10.0	0.25	9.30	22.6	30.8			
110	29.7	26.7	18.0	7.52	0.23	8.36	20.4	29.6	33.4	30.5	21.3	8.77	0.25	8.16	19.8	27.4			
115	26.3	23.5	15.9	6.47	0.25	7.29	17.9	26.1	29.7	26.9	18.7	7.67	0.24	6.61	17.2	24.1			
120	23.1	19.8	13.8	5.56	0.26	6.39	15.8	22.9	26.1	23.5	16.3	6.77	0.25	5.76	13.7	21.0			
125	20.0	17.0	11.9	4.77	0.28	5.58	13.7	20.0	22.7	20.4	14.2	5.87	0.25	4.97	12.4	18.2			
130	17.1	14.8	9.84	4.07	0.30	4.10	11.8	17.3	19.6	17.6	12.2	4.73	0.27	4.34	10.6	15.5			
135	14.5	12.6	8.38	3.44	0.30	2.89	10.0	14.7	16.7	15.1	10.4	3.75	0.28	3.63	8.38	12.7			
140	11.8	10.4	6.96	2.85	0.30	2.23	8.44	12.3	14.1	12.8	8.95	2.73	0.31	2.92	7.00	10.6			
145	9.19	8.49	5.65	2.26	0.28	1.80	6.55	10.2	11.7	10.8	7.56	2.39	0.32	2.13	5.47	7.96			
150	7.34	6.72	4.45	1.79	0.28	1.20	4.65	8.10	9.50	8.91	6.08	2.19	0.34	1.32	4.03	6.38			
155	5.57	5.04	3.30	1.17	0.29	0.37	2.94	5.59	6.91	6.60	4.69	1.98	0.36	0.60	2.65	4.63			
160	3.99	3.61	2.11	0.58	0.30	0.31	2.03	3.29	4.27	4.18	3.11	1.53	0.38	0.43	1.51	3.05			
165	2.62	2.25	1.20	0.41	0.32	0.33	0.58	2.03	2.48	2.47	2.05	0.48	0.39	0.40	0.71	1.76			
170	1.39	0.89	0.56	0.43	0.36	0.35	0.35	0.36	0.56	0.58	0.43	0.41	0.40	0.41	0.48	0.78			
175	0.49	0.46	0.45	0.42	0.38	0.38	0.38	0.39	0.40	0.40	0.42	0.41	0.41	0.41	0.44	0.48			
180	0.36	0.41	0.42	0.40	0.40	0.41	0.41	0.42	0.37	0.37	0.41	0.41	0.40	0.40	0.40	0.41			

17. Integrating Sphere Test Results for LFUY-1000-L27-DF-O-14

17.1 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	0.6641	24	15.938	1220	0.4691	0.4113	0.2681	0.529	2582	94.2
1	00h00m10s	0.6651	23.999	15.962	1216	0.4691	0.4111	0.2682	0.5289	2580	94.1
2	00h00m20s	0.6656	23.999	15.974	1214.6	0.4691	0.4109	0.2683	0.5289	2578	94.2
3	00h00m30s	0.666	23.999	15.983	1212	0.4692	0.4108	0.2685	0.5288	2576	94.1
4	00h00m40s	0.6664	23.999	15.993	1210.2	0.4693	0.4108	0.2685	0.5289	2574	94.1
5	00h00m50s	0.6667	23.999	16	1209.4	0.4693	0.4107	0.2685	0.5288	2574	94.2
6	00h01m00s	0.6671	23.999	16.01	1208.6	0.4692	0.4106	0.2686	0.5287	2574	94.1
7	00h01m10s	0.6673	23.999	16.015	1207.6	0.4693	0.4105	0.2687	0.5288	2573	94.1
8	00h01m20s	0.6677	23.999	16.024	1207.9	0.4694	0.4105	0.2687	0.5288	2571	94.1
9	00h01m30s	0.6679	23.999	16.029	1206.9	0.4694	0.4105	0.2687	0.5287	2571	94.1
10	00h01m40s	0.6682	23.999	16.036	1205.5	0.4693	0.4104	0.2687	0.5287	2572	94.1
11	00h01m50s	0.6683	23.999	16.039	1206.1	0.4694	0.4105	0.2687	0.5288	2571	94.2
12	00h02m00s	0.6685	23.999	16.043	1204.8	0.4693	0.4103	0.2687	0.5287	2571	94.1
13	00h02m10s	0.6687	23.999	16.048	1204.5	0.4696	0.4103	0.2689	0.5287	2567	94
14	00h02m20s	0.6688	23.999	16.051	1203.2	0.4694	0.4101	0.2689	0.5286	2568	94.1
15	00h02m30s	0.6689	23.999	16.053	1202.8	0.4694	0.4103	0.2688	0.5287	2570	94.1
16	00h02m40s	0.6691	23.999	16.058	1202.7	0.4695	0.4102	0.2689	0.5287	2568	94.1
17	00h02m50s	0.6692	23.999	16.06	1202.4	0.4694	0.4103	0.2688	0.5287	2570	94.1
18	00h03m00s	0.6693	23.999	16.063	1201.7	0.4695	0.4103	0.2689	0.5287	2569	94.1
19	00h03m10s	0.6694	23.999	16.065	1201.4	0.4694	0.4103	0.2689	0.5287	2569	94.1
20	00h03m20s	0.6695	23.999	16.067	1200.3	0.4695	0.4102	0.269	0.5286	2567	94.1
21	00h03m30s	0.6696	23.999	16.07	1199.8	0.4695	0.4101	0.269	0.5286	2566	94.1

22	00h03m40s	0.6697	23.999	16.072	1199.4	0.4697	0.4102	0.2691	0.5287	2565	94.1
23	00h03m50s	0.6698	23.999	16.075	1200.1	0.4696	0.4099	0.2691	0.5286	2565	94
24	00h04m00s	0.6697	23.999	16.072	1198.6	0.4695	0.41	0.269	0.5286	2566	94.1
25	00h04m10s	0.6699	23.999	16.077	1198.8	0.4696	0.4103	0.269	0.5287	2566	94.1
26	00h04m20s	0.6699	23.998	16.076	1198	0.4695	0.41	0.269	0.5286	2567	94.1
27	00h04m30s	0.67	23.998	16.079	1198.3	0.4696	0.4101	0.269	0.5286	2566	94.1
28	00h04m40s	0.67	23.998	16.079	1198	0.4696	0.4101	0.269	0.5286	2566	94.1
29	00h04m50s	0.6701	23.998	16.081	1197.1	0.4696	0.4102	0.269	0.5286	2566	94.1
30	00h05m00s	0.6701	23.998	16.081	1198	0.4695	0.4102	0.269	0.5286	2567	94.1
31	00h05m10s	0.6702	23.998	16.083	1196.8	0.4696	0.41	0.2691	0.5286	2565	94.1
32	00h05m20s	0.6702	23.998	16.083	1196.5	0.4697	0.4101	0.2691	0.5286	2565	94.1
33	00h05m30s	0.6703	23.998	16.086	1196	0.4698	0.41	0.2692	0.5286	2563	94.1
34	00h05m40s	0.6703	23.998	16.086	1195.8	0.4695	0.4099	0.2691	0.5285	2565	94
35	00h05m50s	0.6704	23.998	16.088	1195.8	0.4696	0.4099	0.2691	0.5285	2564	94.1
36	00h06m00s	0.6704	23.998	16.088	1196.3	0.4696	0.4101	0.269	0.5286	2566	94.1
37	00h06m10s	0.6705	23.998	16.091	1194.7	0.4696	0.4099	0.2691	0.5286	2564	94.1
38	00h06m20s	0.6705	23.998	16.091	1194.2	0.4696	0.4098	0.2692	0.5285	2563	94.1
39	00h06m30s	0.6705	23.998	16.091	1193.7	0.4697	0.41	0.2692	0.5286	2563	94.1
40	00h06m40s	0.6706	23.998	16.093	1194.3	0.4696	0.4099	0.2691	0.5286	2564	94.1
41	00h06m50s	0.6706	23.998	16.093	1194.4	0.4696	0.4099	0.2691	0.5285	2564	94
42	00h07m00s	0.6706	23.998	16.093	1193.5	0.4696	0.4098	0.2692	0.5285	2563	94.1
43	00h07m10s	0.6707	23.998	16.095	1194.2	0.4697	0.4102	0.2691	0.5287	2565	94.1
44	00h07m20s	0.6707	23.998	16.095	1193.8	0.4695	0.4098	0.2691	0.5285	2565	94.1
45	00h07m30s	0.6707	23.998	16.095	1193.2	0.4697	0.4098	0.2692	0.5285	2563	94
46	00h07m40s	0.6708	23.998	16.098	1193.3	0.4695	0.4099	0.2691	0.5285	2565	94.1
47	00h07m50s	0.6708	23.998	16.098	1192.1	0.4696	0.4099	0.2691	0.5286	2564	94.1
48	00h08m00s	0.6708	23.998	16.098	1190.9	0.4696	0.4096	0.2693	0.5284	2562	94.1
49	00h08m10s	0.6709	23.998	16.1	1192.5	0.4697	0.4098	0.2692	0.5285	2563	94.1
50	00h08m20s	0.6709	23.998	16.1	1191.8	0.4697	0.4098	0.2693	0.5285	2562	94
51	00h08m30s	0.671	23.998	16.103	1191.7	0.4697	0.4098	0.2692	0.5285	2562	94.1
52	00h08m40s	0.671	23.998	16.103	1191.5	0.4698	0.4099	0.2693	0.5286	2561	94

53	00h08m50s	0.671	23.998	16.103	1191.5	0.4697	0.4098	0.2693	0.5285	2562	94.1
54	00h09m00s	0.671	23.998	16.103	1192.3	0.4697	0.4099	0.2692	0.5286	2563	94.1
55	00h09m10s	0.671	23.998	16.103	1190.9	0.4698	0.4099	0.2692	0.5286	2562	94.1
56	00h09m20s	0.671	23.998	16.103	1190.4	0.4697	0.4097	0.2693	0.5285	2561	94.1
57	00h09m30s	0.6711	23.998	16.105	1191.1	0.4697	0.4099	0.2692	0.5286	2562	94.1
58	00h09m40s	0.6711	23.998	16.105	1190.7	0.4698	0.4098	0.2693	0.5286	2561	94
59	00h09m50s	0.6712	23.998	16.107	1189.9	0.4699	0.4097	0.2694	0.5285	2559	94
60	00h10m00s	0.6711	23.998	16.105	1190.4	0.4697	0.4098	0.2693	0.5285	2562	94
61	00h10m10s	0.6711	23.998	16.105	1190.4	0.4698	0.4097	0.2693	0.5285	2561	94.1
62	00h10m20s	0.6711	23.998	16.105	1189.4	0.4697	0.4097	0.2693	0.5285	2561	94.1
63	00h10m30s	0.6712	23.998	16.107	1189	0.4697	0.4096	0.2693	0.5285	2561	94
64	00h10m40s	0.6712	23.998	16.107	1190.1	0.4697	0.4098	0.2692	0.5285	2562	94.1
65	00h10m50s	0.6712	23.998	16.107	1189.6	0.4697	0.4096	0.2694	0.5285	2560	94
66	00h11m00s	0.6713	23.998	16.11	1188.7	0.4699	0.4098	0.2693	0.5286	2560	94
67	00h11m10s	0.6713	23.998	16.11	1189.9	0.4698	0.4097	0.2693	0.5285	2561	94.1
68	00h11m20s	0.6713	23.998	16.11	1189	0.4699	0.4098	0.2694	0.5285	2560	94.1
69	00h11m30s	0.6714	23.998	16.112	1189.3	0.4697	0.4098	0.2693	0.5285	2562	94.1
70	00h11m40s	0.6714	23.998	16.112	1189.7	0.4697	0.4097	0.2693	0.5285	2562	94
71	00h11m50s	0.6713	23.998	16.11	1188.6	0.4697	0.4097	0.2693	0.5285	2562	94.1
72	00h12m00s	0.6714	23.998	16.112	1188.3	0.4698	0.4096	0.2694	0.5285	2560	94
73	00h12m10s	0.6714	23.998	16.112	1188.1	0.4697	0.4097	0.2693	0.5285	2561	94.1
74	00h12m20s	0.6714	23.998	16.112	1188.2	0.4698	0.4096	0.2694	0.5285	2559	94.1
75	00h12m30s	0.6715	23.998	16.115	1188.1	0.4697	0.4097	0.2693	0.5285	2561	94.1
76	00h12m40s	0.6715	23.998	16.115	1187.5	0.47	0.4097	0.2695	0.5286	2558	94
77	00h12m50s	0.6716	23.998	16.117	1188.4	0.4698	0.4097	0.2694	0.5285	2559	94.1
78	00h13m00s	0.6715	23.998	16.115	1188.6	0.4699	0.4098	0.2694	0.5285	2560	94.1
79	00h13m10s	0.6715	23.998	16.115	1188.1	0.4699	0.4096	0.2694	0.5285	2558	94
80	00h13m20s	0.6716	23.998	16.117	1187.6	0.4699	0.4096	0.2695	0.5285	2558	94.1
81	00h13m30s	0.6716	23.998	16.117	1187.4	0.4699	0.4098	0.2694	0.5285	2559	94.1
82	00h13m40s	0.6716	23.998	16.117	1187.4	0.4699	0.4098	0.2694	0.5285	2560	94.1
83	00h13m50s	0.6716	23.998	16.117	1187.2	0.4699	0.4096	0.2695	0.5285	2558	94

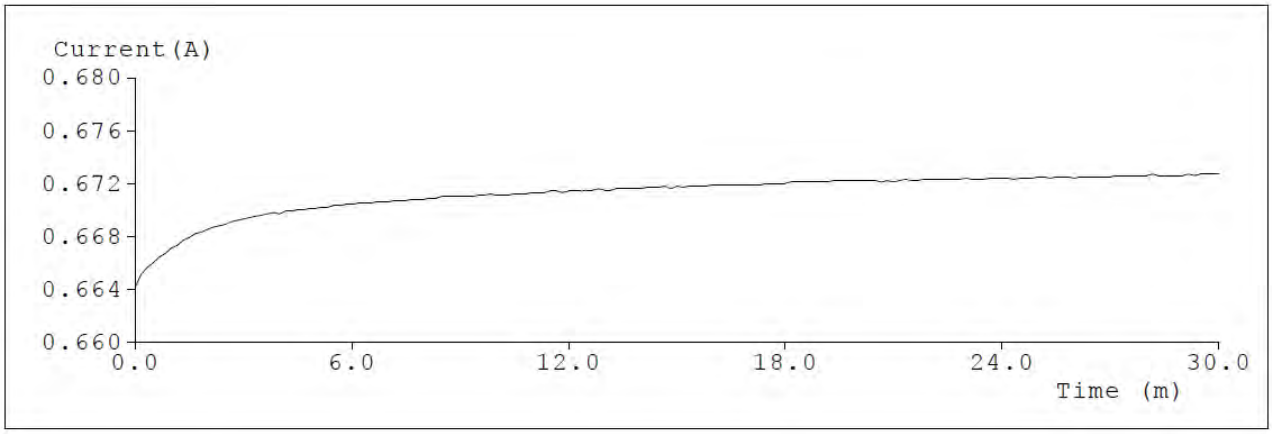
84	00h14m00s	0.6716	23.998	16.117	1187.9	0.4698	0.4096	0.2694	0.5285	2560	94.1
85	00h14m10s	0.6717	23.998	16.119	1187.3	0.4699	0.4097	0.2694	0.5285	2559	94.1
86	00h14m20s	0.6717	23.998	16.119	1187.2	0.4698	0.4096	0.2694	0.5285	2559	94.1
87	00h14m30s	0.6717	23.998	16.119	1187.2	0.4699	0.4096	0.2694	0.5285	2559	94
88	00h14m40s	0.6718	23.998	16.122	1186.7	0.4698	0.4096	0.2694	0.5285	2559	94.1
89	00h14m50s	0.6716	23.998	16.117	1187	0.4698	0.4097	0.2693	0.5285	2560	94.1
90	00h15m00s	0.6718	23.998	16.122	1186.4	0.4699	0.4097	0.2694	0.5285	2559	94
91	00h15m10s	0.6717	23.998	16.119	1185.9	0.4698	0.4096	0.2694	0.5285	2559	94.1
92	00h15m20s	0.6718	23.998	16.122	1186.6	0.4697	0.4097	0.2693	0.5285	2561	94.1
93	00h15m30s	0.6718	23.998	16.122	1186	0.4697	0.4094	0.2694	0.5284	2559	94.1
94	00h15m40s	0.6718	23.998	16.122	1186.3	0.4698	0.4096	0.2694	0.5285	2559	94.1
95	00h15m50s	0.6718	23.998	16.122	1186.8	0.4697	0.4097	0.2693	0.5285	2561	94.1
96	00h16m00s	0.6719	23.998	16.124	1186.3	0.4699	0.4096	0.2695	0.5285	2558	94
97	00h16m10s	0.6719	23.998	16.124	1186.2	0.4697	0.4095	0.2693	0.5284	2560	94.1
98	00h16m20s	0.6719	23.998	16.124	1186	0.4699	0.4096	0.2695	0.5285	2558	94
99	00h16m30s	0.6719	23.998	16.124	1185.2	0.4699	0.4096	0.2695	0.5285	2558	94.1
100	00h16m40s	0.6719	23.998	16.124	1185.8	0.47	0.4095	0.2695	0.5285	2557	94
101	00h16m50s	0.6719	23.998	16.124	1185.5	0.4699	0.4095	0.2695	0.5285	2558	94.1
102	00h17m00s	0.6719	23.998	16.124	1185.4	0.4698	0.4095	0.2694	0.5284	2559	94.1
103	00h17m10s	0.6719	23.998	16.124	1185	0.4699	0.4095	0.2695	0.5285	2557	94.1
104	00h17m20s	0.6719	23.998	16.124	1185.7	0.4699	0.4095	0.2695	0.5284	2557	94
105	00h17m30s	0.672	23.998	16.127	1185.2	0.4699	0.4095	0.2695	0.5284	2557	94
106	00h17m40s	0.672	23.998	16.127	1185.5	0.4698	0.4096	0.2694	0.5285	2560	94.1
107	00h17m50s	0.672	23.998	16.127	1185.5	0.47	0.4095	0.2696	0.5285	2556	94
108	00h18m00s	0.672	23.998	16.127	1185.4	0.4699	0.4095	0.2695	0.5284	2558	94
109	00h18m10s	0.6721	23.998	16.129	1185.6	0.4699	0.4095	0.2695	0.5284	2557	94
110	00h18m20s	0.6721	23.998	16.129	1185.6	0.4698	0.4095	0.2694	0.5284	2559	94
111	00h18m30s	0.6721	23.998	16.129	1185.7	0.4698	0.4095	0.2695	0.5284	2558	94.1
112	00h18m40s	0.6721	23.998	16.129	1184.6	0.4699	0.4096	0.2695	0.5285	2558	94.1
113	00h18m50s	0.6721	23.998	16.129	1184.8	0.4699	0.4095	0.2695	0.5284	2557	94
114	00h19m00s	0.6721	23.998	16.129	1184.2	0.4698	0.4095	0.2695	0.5284	2558	94.1

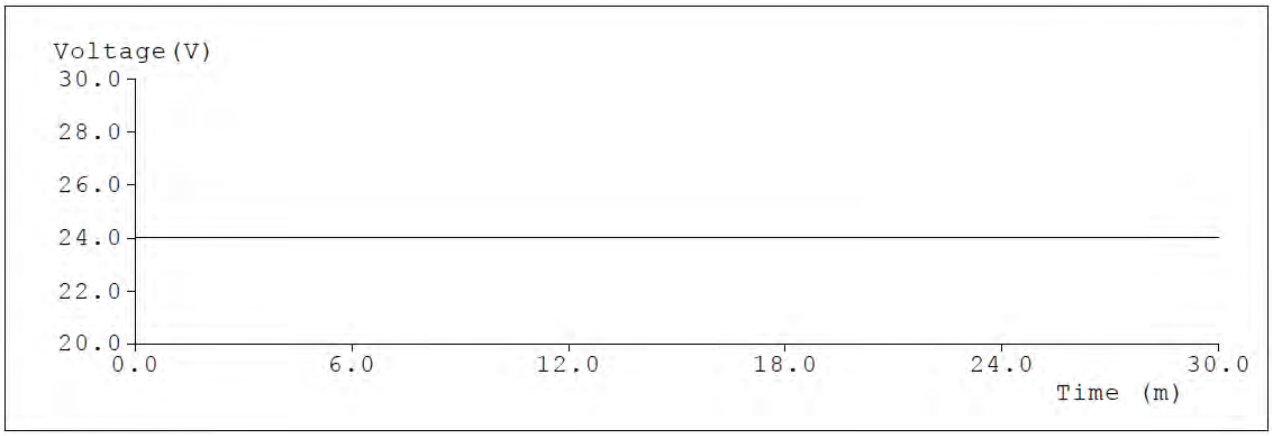
115	00h19m10s	0.6721	23.998	16.129	1184.8	0.4698	0.4094	0.2694	0.5284	2559	94
116	00h19m20s	0.6722	23.998	16.131	1184.8	0.4699	0.4096	0.2695	0.5285	2558	94
117	00h19m30s	0.6722	23.998	16.131	1184.8	0.4698	0.4095	0.2695	0.5284	2558	94
118	00h19m40s	0.6722	23.998	16.131	1184.4	0.4699	0.4095	0.2695	0.5284	2557	94
119	00h19m50s	0.6722	23.998	16.131	1185.1	0.4697	0.4095	0.2693	0.5284	2561	94.1
120	00h20m00s	0.6722	23.998	16.131	1184.2	0.4699	0.4095	0.2695	0.5285	2558	94.1
121	00h20m10s	0.6722	23.998	16.131	1184.7	0.4699	0.4093	0.2696	0.5284	2556	94
122	00h20m20s	0.6722	23.998	16.131	1184.1	0.4697	0.4095	0.2694	0.5284	2559	94.1
123	00h20m30s	0.6722	23.998	16.131	1186.4	0.4697	0.4098	0.2693	0.5285	2561	94.1
124	00h20m40s	0.6721	23.998	16.129	1184.5	0.4701	0.4095	0.2696	0.5285	2555	94
125	00h20m50s	0.6722	23.998	16.131	1184.8	0.4698	0.4096	0.2694	0.5285	2560	94.1
126	00h21m00s	0.6721	23.998	16.129	1184.9	0.4698	0.4096	0.2694	0.5285	2559	94.1
127	00h21m10s	0.6722	23.998	16.131	1184	0.4699	0.4094	0.2695	0.5284	2557	94
128	00h21m20s	0.6723	23.998	16.134	1184.4	0.4697	0.4093	0.2695	0.5284	2558	94
129	00h21m30s	0.6722	23.998	16.131	1184.8	0.4699	0.4095	0.2695	0.5284	2558	94
130	00h21m40s	0.6722	23.998	16.131	1183.7	0.4699	0.4094	0.2696	0.5284	2556	94
131	00h21m50s	0.6723	23.998	16.134	1184.3	0.47	0.4095	0.2696	0.5285	2556	94
132	00h22m00s	0.6723	23.998	16.134	1184.6	0.4699	0.4096	0.2695	0.5285	2558	94
133	00h22m10s	0.6723	23.998	16.134	1183.4	0.4698	0.4094	0.2695	0.5284	2558	94.1
134	00h22m20s	0.6723	23.998	16.134	1183.7	0.4699	0.4094	0.2696	0.5284	2556	94
135	00h22m30s	0.6723	23.998	16.134	1184.2	0.47	0.4097	0.2695	0.5285	2558	94.1
136	00h22m40s	0.6723	23.998	16.134	1183.6	0.47	0.4095	0.2695	0.5285	2557	94
137	00h22m50s	0.6723	23.998	16.134	1184.4	0.47	0.4097	0.2695	0.5285	2557	94.1
138	00h23m00s	0.6724	23.998	16.136	1183.6	0.47	0.4096	0.2695	0.5285	2557	94
139	00h23m10s	0.6723	23.998	16.134	1184.1	0.47	0.4095	0.2696	0.5285	2556	94
140	00h23m20s	0.6723	23.998	16.134	1183.6	0.4699	0.4096	0.2694	0.5285	2558	94.1
141	00h23m30s	0.6723	23.998	16.134	1184.2	0.4699	0.4096	0.2695	0.5285	2558	94
142	00h23m40s	0.6724	23.998	16.136	1183.1	0.47	0.4095	0.2696	0.5284	2556	94
143	00h23m50s	0.6724	23.998	16.136	1183	0.4699	0.4094	0.2695	0.5284	2557	94.1
144	00h24m00s	0.6724	23.998	16.136	1184	0.4698	0.4094	0.2695	0.5284	2558	94.1
145	00h24m10s	0.6724	23.998	16.136	1184	0.4699	0.4096	0.2694	0.5285	2558	94

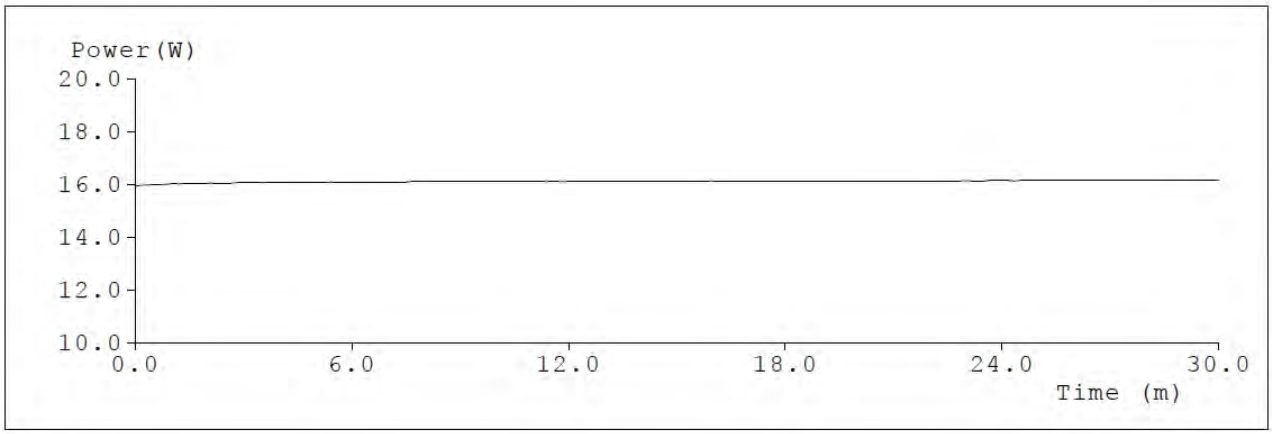
146	00h24m20s	0.6723	23.998	16.134	1183.4	0.47	0.4094	0.2696	0.5284	2556	94
147	00h24m30s	0.6724	23.998	16.136	1183.3	0.4698	0.4094	0.2695	0.5284	2558	94.1
148	00h24m40s	0.6724	23.998	16.136	1183.7	0.4699	0.4095	0.2695	0.5284	2558	94
149	00h24m50s	0.6724	23.998	16.136	1183.2	0.4698	0.4095	0.2695	0.5284	2558	94
150	00h25m00s	0.6725	23.998	16.139	1184.7	0.4699	0.4096	0.2695	0.5285	2558	94.1
151	00h25m10s	0.6725	23.998	16.139	1182.8	0.4699	0.4094	0.2695	0.5284	2557	94
152	00h25m20s	0.6724	23.998	16.136	1183.5	0.47	0.4096	0.2695	0.5285	2557	94
153	00h25m30s	0.6725	23.998	16.139	1182.4	0.4699	0.4095	0.2695	0.5284	2557	94.1
154	00h25m40s	0.6725	23.998	16.139	1182.8	0.4698	0.4093	0.2696	0.5284	2557	94
155	00h25m50s	0.6725	23.998	16.139	1182.9	0.4697	0.4093	0.2694	0.5283	2559	94.1
156	00h26m00s	0.6724	23.998	16.136	1183.3	0.4699	0.4094	0.2696	0.5284	2556	94.1
157	00h26m10s	0.6725	23.998	16.139	1183.3	0.47	0.4095	0.2695	0.5285	2557	94
158	00h26m20s	0.6725	23.998	16.139	1183.5	0.4698	0.4094	0.2695	0.5284	2558	94
159	00h26m30s	0.6725	23.998	16.139	1182.7	0.4698	0.4092	0.2696	0.5283	2557	94.1
160	00h26m40s	0.6725	23.998	16.139	1183	0.4698	0.4093	0.2695	0.5284	2557	94
161	00h26m50s	0.6725	23.998	16.139	1183.1	0.4699	0.4095	0.2695	0.5284	2558	94
162	00h27m00s	0.6725	23.998	16.139	1182.8	0.47	0.4096	0.2695	0.5285	2557	94.1
163	00h27m10s	0.6726	23.998	16.141	1183	0.4699	0.4095	0.2695	0.5285	2557	94.1
164	00h27m20s	0.6726	23.998	16.141	1183.5	0.4698	0.4096	0.2694	0.5285	2559	94
165	00h27m30s	0.6726	23.998	16.141	1183.2	0.4698	0.4094	0.2695	0.5284	2558	94.1
166	00h27m40s	0.6726	23.998	16.141	1183.3	0.4698	0.4094	0.2695	0.5284	2557	94.1
167	00h27m50s	0.6726	23.998	16.141	1183.3	0.4699	0.4095	0.2695	0.5285	2557	94.1
168	00h28m00s	0.6726	23.998	16.141	1181.7	0.47	0.4094	0.2696	0.5284	2555	94
169	00h28m10s	0.6727	23.998	16.143	1182.8	0.4699	0.4095	0.2695	0.5285	2558	94
170	00h28m20s	0.6726	23.998	16.141	1182.2	0.4699	0.4094	0.2695	0.5284	2557	94
171	00h28m30s	0.6726	23.998	16.141	1182.3	0.4699	0.4094	0.2696	0.5284	2557	94
172	00h28m40s	0.6726	23.998	16.141	1182.5	0.4699	0.4094	0.2695	0.5284	2557	94
173	00h28m50s	0.6726	23.998	16.141	1181.9	0.4698	0.4093	0.2696	0.5284	2557	94.1
174	00h29m00s	0.6726	23.998	16.141	1182.6	0.4698	0.4093	0.2695	0.5284	2557	94
175	00h29m10s	0.6727	23.998	16.143	1182.6	0.4699	0.4094	0.2696	0.5284	2556	94
176	00h29m20s	0.6726	23.998	16.141	1182.9	0.4697	0.4094	0.2694	0.5284	2559	94.1

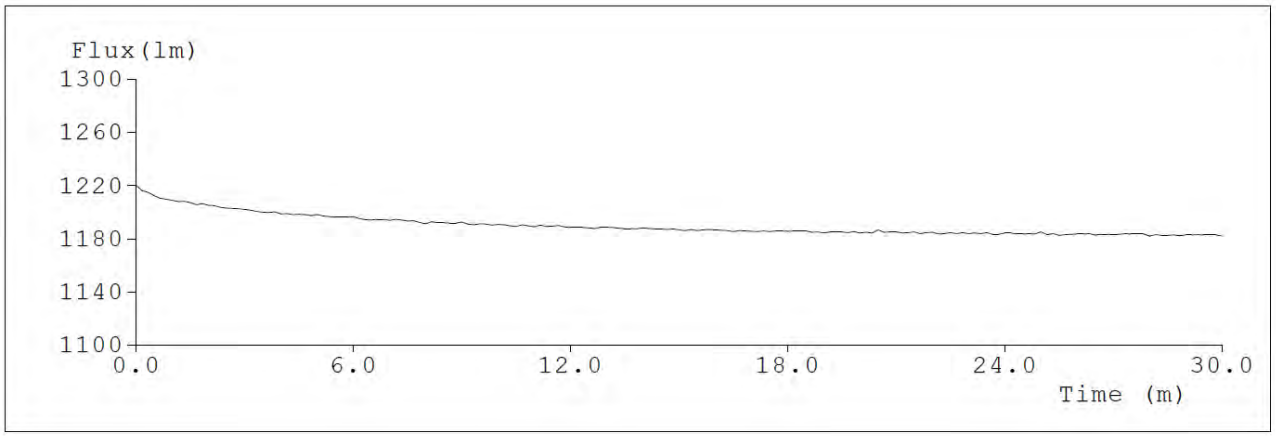
177	00h29m30s	0.6727	23.998	16.143	1182.5	0.47	0.4094	0.2696	0.5284	2556	94.1
178	00h29m40s	0.6727	23.998	16.143	1182.5	0.47	0.4095	0.2696	0.5285	2556	94
179	00h29m50s	0.6727	23.998	16.143	1182.6	0.4699	0.4094	0.2695	0.5284	2557	94
180	00h30m00s	0.6727	23.998	16.143	1181.7	0.47	0.4095	0.2696	0.5285	2556	94.1

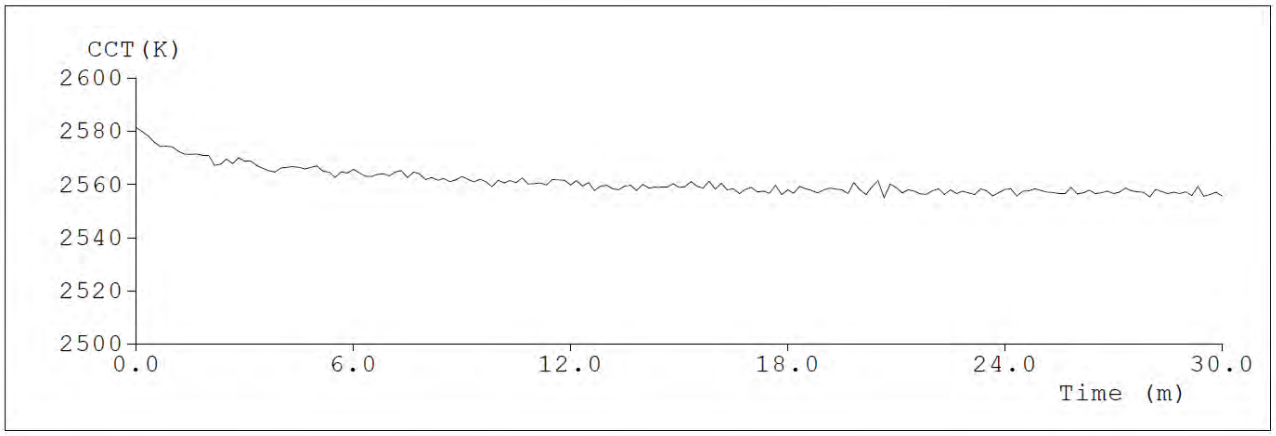
Test curves

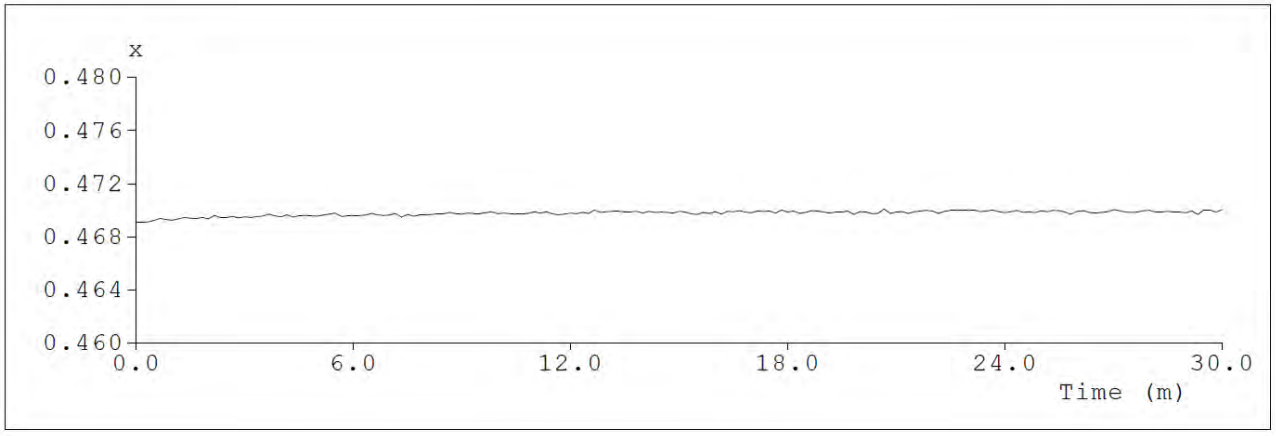


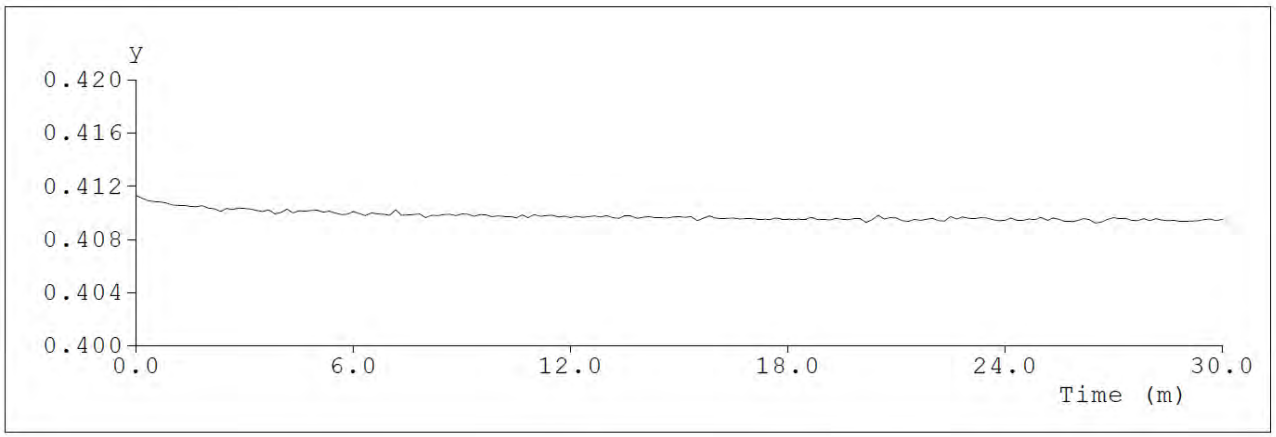


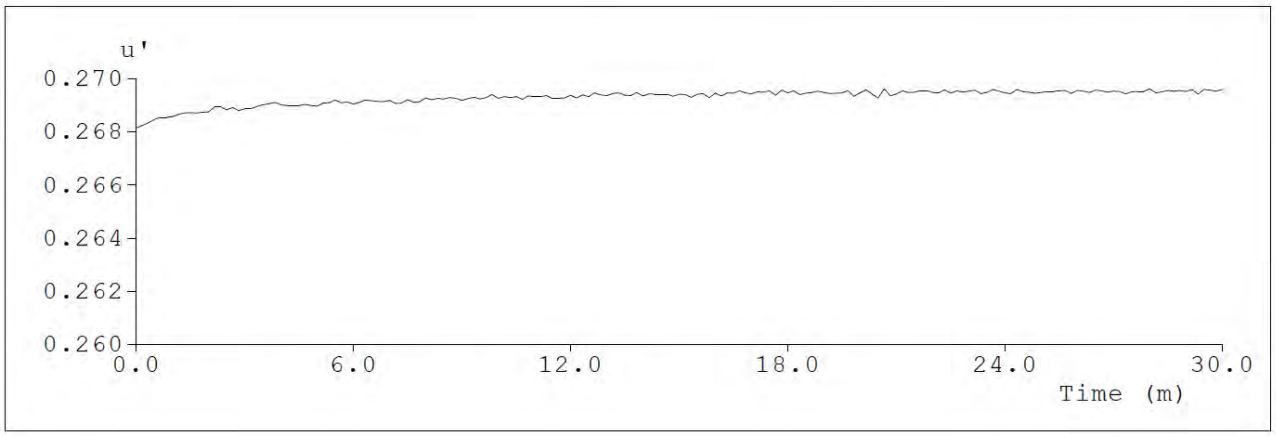


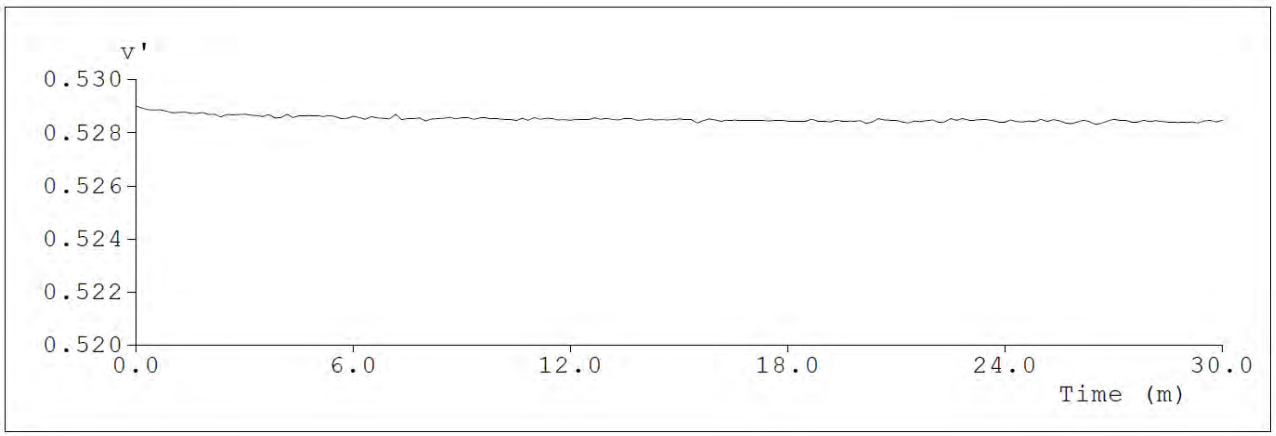

Flux(lm)
1300
1260
1220
1180
1140
1100
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


CCT(K)
2600
2580
2560
2540
2520
2500
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


x
0.480
0.476
0.472
0.468
0.464
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


y
0.420
0.416
0.412
0.408
0.404
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)

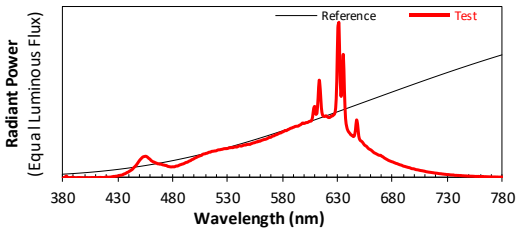

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

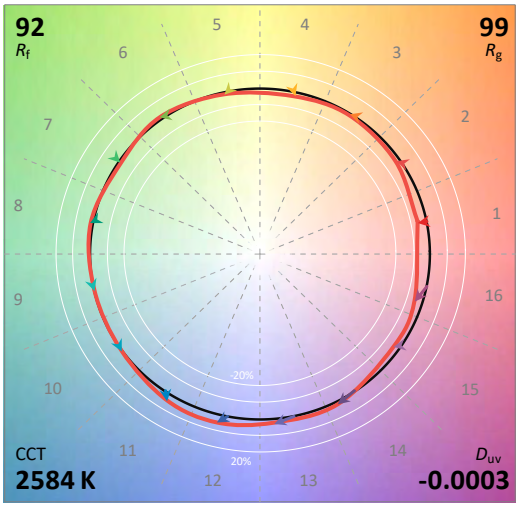
*17.2 ANSI/IES TM-30-18 Color Rendition Report

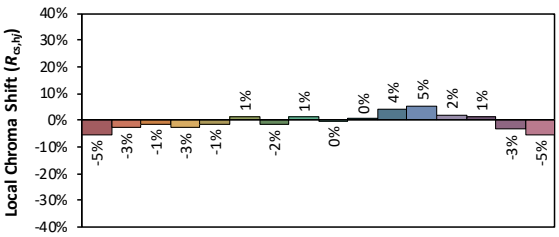
ANSI/IES TM-30-18 Color Rendition Report

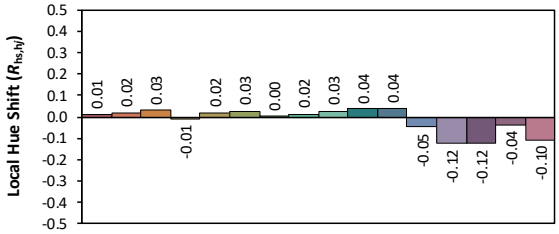
Source: Manufacturer:

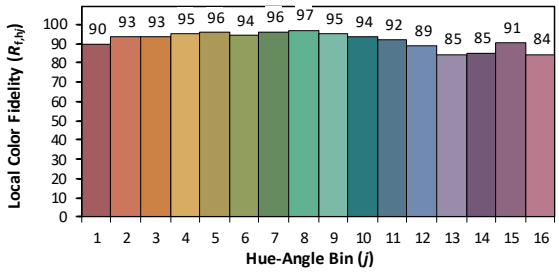
Date: 2023/9/26 Model: LFUY-1000-L27-DF-0-14

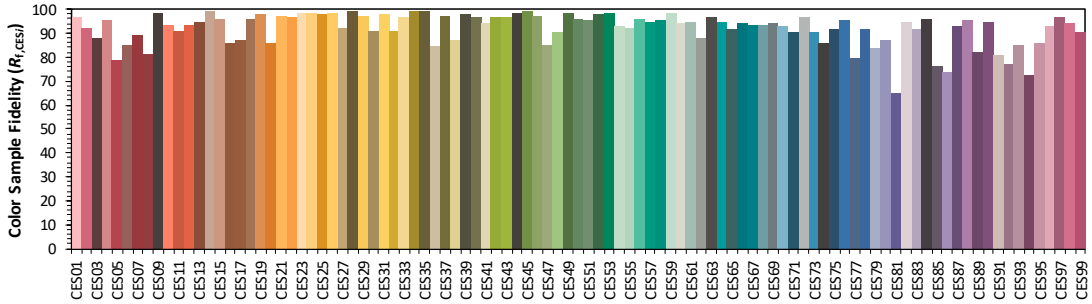












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

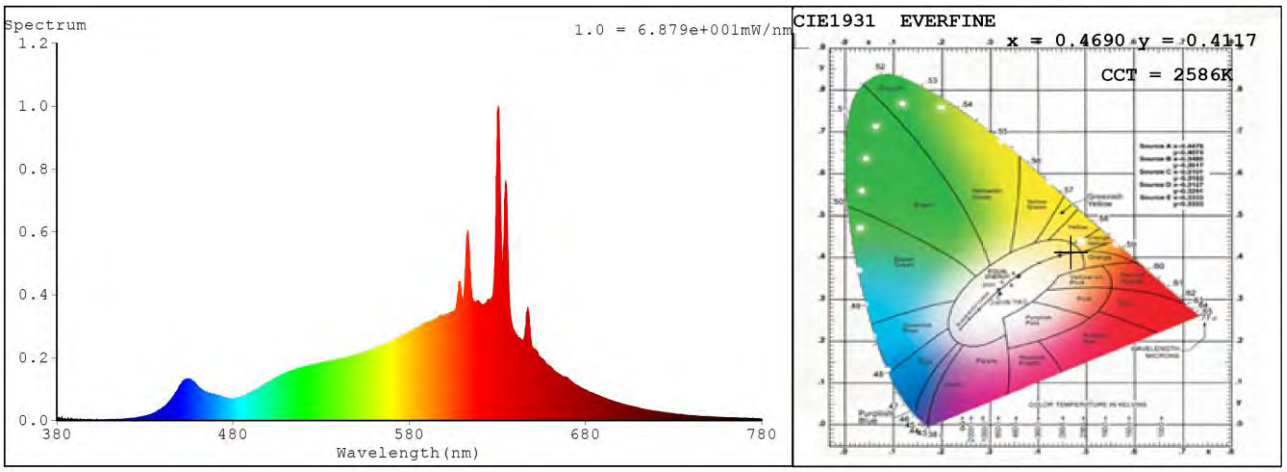
x	0.4691
y	0.4117
u'	0.2680
v'	0.5291

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.

9.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0	414	0.0034	448	0.0921	482	0.0699	516	0.1624
381	0.0035	415	0.0026	449	0.1019	483	0.0729	517	0.1633
382	0.0067	416	0.0025	450	0.1108	484	0.0726	518	0.1646
383	0.0116	417	0.0021	451	0.1178	485	0.0755	519	0.165
384	0.0035	418	0.004	452	0.1247	486	0.0791	520	0.1678
385	0.0022	419	0.0051	453	0.1292	487	0.0811	521	0.1708
386	0	420	0.0059	454	0.1306	488	0.0837	522	0.1714
387	0.0027	421	0.0039	455	0.1323	489	0.0854	523	0.1723
388	0.0037	422	0.005	456	0.13	490	0.088	524	0.174
389	0.004	423	0.0052	457	0.1252	491	0.0917	525	0.1749
390	0.0025	424	0.0066	458	0.1189	492	0.0948	526	0.1777
391	0.0008	425	0.0078	459	0.1145	493	0.0958	527	0.1784
392	0	426	0.0094	460	0.1065	494	0.1	528	0.1786
393	0.0019	427	0.0093	461	0.1022	495	0.1036	529	0.1789
394	0.0027	428	0.0107	462	0.0979	496	0.1058	530	0.1805
395	0.0026	429	0.0111	463	0.0962	497	0.1111	531	0.1833
396	0.0008	430	0.0126	464	0.092	498	0.1136	532	0.184
397	0.0016	431	0.0145	465	0.0905	499	0.1173	533	0.1852
398	0.0008	432	0.0164	466	0.0861	500	0.1215	534	0.1845
399	0	433	0.0169	467	0.0864	501	0.1243	535	0.1859
400	0.0015	434	0.0191	468	0.0838	502	0.1276	536	0.1887
401	0.0016	435	0.023	469	0.0846	503	0.1312	537	0.1887
402	0.0018	436	0.0253	470	0.0815	504	0.1332	538	0.1885
403	0	437	0.0282	471	0.0794	505	0.1362	539	0.1912
404	0.0015	438	0.0328	472	0.0782	506	0.1379	540	0.1952
405	0.0009	439	0.0351	473	0.0762	507	0.1438	541	0.1954
406	0.0024	440	0.0396	474	0.0756	508	0.1463	542	0.194
407	0.002	441	0.0436	475	0.0713	509	0.1469	543	0.1961
408	0.0018	442	0.0481	476	0.0696	510	0.1498	544	0.1986
409	0.0029	443	0.0527	477	0.0683	511	0.1508	545	0.2018
410	0.0013	444	0.0606	478	0.0673	512	0.1543	546	0.2001
411	0.001	445	0.0673	479	0.0675	513	0.1571	547	0.2036
412	0.0028	446	0.0742	480	0.0682	514	0.1571	548	0.2039
413	0.003	447	0.0825	481	0.0677	515	0.1615	549	0.2059

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2041	599	0.3322	648	0.3236	697	0.0573	746	0.0125
551	0.2087	600	0.3335	649	0.2563	698	0.0563	747	0.0124
552	0.2106	601	0.3373	650	0.2328	699	0.0558	748	0.0113
553	0.2138	602	0.3373	651	0.2257	700	0.0534	749	0.0114
554	0.2143	603	0.3399	652	0.2209	701	0.0509	750	0.011
555	0.217	604	0.3445	653	0.2122	702	0.05	751	0.0108
556	0.22	605	0.3457	654	0.2025	703	0.049	752	0.0107
557	0.2199	606	0.3487	655	0.1968	704	0.0473	753	0.0104
558	0.2255	607	0.3727	656	0.1929	705	0.0457	754	0.01
559	0.2237	608	0.4231	657	0.1851	706	0.0446	755	0.0092
560	0.2271	609	0.4352	658	0.1783	707	0.0436	756	0.0094
561	0.2299	610	0.3878	659	0.1744	708	0.0422	757	0.009
562	0.2322	611	0.3953	660	0.1708	709	0.041	758	0.0096
563	0.2345	612	0.4869	661	0.1654	710	0.0386	759	0.0087
564	0.2354	613	0.5948	662	0.1592	711	0.0375	760	0.0083
565	0.2377	614	0.5364	663	0.1535	712	0.0362	761	0.0083
566	0.2409	615	0.4283	664	0.1504	713	0.0352	762	0.0092
567	0.2454	616	0.3847	665	0.1469	714	0.0344	763	0.0077
568	0.2472	617	0.3761	666	0.1432	715	0.0335	764	0.0079
569	0.2479	618	0.3746	667	0.1395	716	0.0323	765	0.0076
570	0.2528	619	0.3788	668	0.1377	717	0.0316	766	0.0073
571	0.2555	620	0.3754	669	0.1379	718	0.0302	767	0.0071
572	0.2571	621	0.3696	670	0.1316	719	0.0295	768	0.0068
573	0.2617	622	0.368	671	0.1291	720	0.0289	769	0.0066
574	0.2633	623	0.3702	672	0.1231	721	0.0278	770	0.0066
575	0.2663	624	0.3775	673	0.1191	722	0.0265	771	0.0062
576	0.2698	625	0.3774	674	0.115	723	0.0258	772	0.0058
577	0.2735	626	0.3838	675	0.1114	724	0.0255	773	0.0063
578	0.2741	627	0.3902	676	0.1073	725	0.0241	774	0.0056
579	0.2783	628	0.4256	677	0.1044	726	0.0235	775	0.0059
580	0.281	629	0.5879	678	0.1018	727	0.0225	776	0.0053
581	0.2846	630	0.9145	679	0.0991	728	0.022	777	0.0051
582	0.2893	631	0.9446	680	0.0974	729	0.0207	778	0.0055
583	0.2876	632	0.6251	681	0.0941	730	0.0208	779	0.0052
584	0.2921	633	0.4967	682	0.0915	731	0.0202	780	0.0052
585	0.2952	634	0.6367	683	0.0885	732	0.0191		
586	0.2988	635	0.7504	684	0.0871	733	0.0187		
587	0.3027	636	0.5274	685	0.084	734	0.018		
588	0.3041	637	0.3618	686	0.0815	735	0.0184		
589	0.3076	638	0.3139	687	0.0791	736	0.0165		
590	0.3096	639	0.2907	688	0.0777	737	0.0158		
591	0.3134	640	0.2792	689	0.0739	738	0.0159		
592	0.3146	641	0.271	690	0.0715	739	0.0153		
593	0.3154	642	0.2616	691	0.0701	740	0.0153		
594	0.3162	643	0.26	692	0.068	741	0.0145		
595	0.3211	644	0.2522	693	0.0661	742	0.0148		
596	0.3241	645	0.2574	694	0.0641	743	0.0135		
597	0.3292	646	0.2914	695	0.0629	744	0.0135		
598	0.3352	647	0.3527	696	0.0606	745	0.0128		

18. Goniophotometer Test results for LFUY-1000-L27-DF-O-14

18.1 Test Data

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

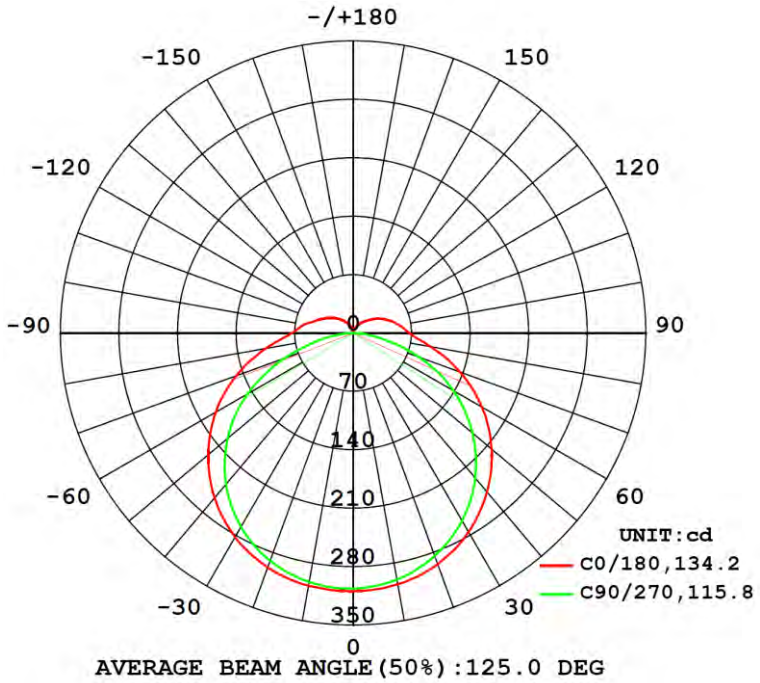
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.002	--	0.63543	1.0000	15.252

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1186.36	77.78	309.3	11	89

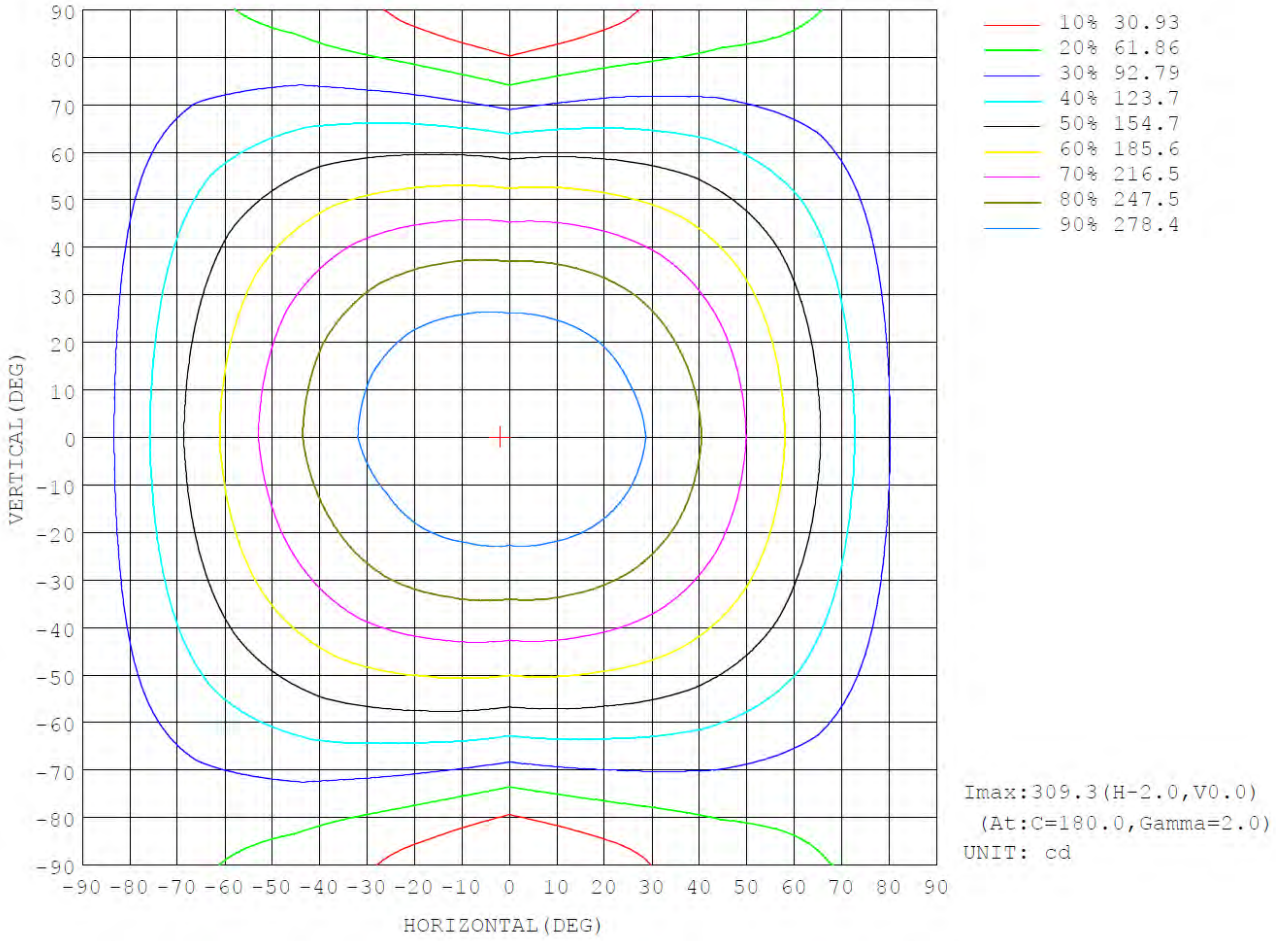
18.2 Luminous Intensity Distribution



18.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	305.8	302.4	299.9	300.9	307.4	305.5	303.0	302.0	0- 10	29.10	29.10	2.45,2.45
20	294.8	289.2	284.5	289.6	299.1	296.0	290.5	291.4	10- 20	84.29	113.4	9.56,9.56
30	275.6	268.1	260.0	270.2	282.7	278.5	268.5	272.1	20- 30	130.4	243.8	20.5,20.5
40	248.9	239.2	227.1	243.1	257.9	251.9	236.7	244.5	30- 40	161.9	405.7	34.2,34.2
50	216.1	203.7	186.2	209.2	226.7	218.2	196.2	209.9	40- 50	175.0	580.6	48.9,48.9
60	177.9	162.9	138.4	169.8	190.0	178.0	146.2	169.1	50- 60	168.3	749.0	63.1,63.1
70	135.7	118.4	82.84	126.9	148.8	133.0	86.15	123.8	60- 70	142.6	891.6	75.2,75.2
80	93.86	73.97	28.22	81.98	106.0	86.54	31.76	78.08	70- 80	102.2	993.8	83.8,83.8
90	67.39	46.69	1.790	50.31	73.56	52.54	1.852	49.15	80- 90	61.59	1055	89,89
100	56.00	36.98	0.2865	36.96	59.82	36.38	0.3404	38.89	90-100	41.93	1097	92.5,92.5
110	45.34	28.73	0.3186	28.41	46.41	30.24	0.3786	30.20	100-110	31.71	1129	95.2,95.2
120	35.35	20.20	0.3860	22.79	36.80	23.39	0.3878	21.68	110-120	23.05	1152	97.1,97.1
130	24.73	14.22	0.4400	17.08	28.32	17.41	0.4261	13.95	120-130	15.72	1168	98.4,98.4
140	17.04	9.816	0.4686	12.18	20.49	12.82	0.5199	9.972	130-140	9.768	1178	99.3,99.3
150	10.78	6.248	0.4582	8.202	13.79	9.555	0.5625	5.836	140-150	5.473	1183	99.7,99.7
160	6.042	3.157	0.4982	4.133	8.133	6.263	0.6534	1.707	150-160	2.508	1186	99.9,99.9
170	1.748	0.9753	0.6208	0.8870	2.260	1.718	0.6912	0.8062	160-170	0.7183	1186	100,100
180	0.5695	0.6886	0.6761	0.6669	0.6012	0.6860	0.6752	0.6738	170-180	0.0811	1186	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

18.4 Isocandela Diagram



18.5 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	309	308	308	307	306	306	305	305	309	308	308	307	306	306	305	305
5	308	307	306	305	304	304	304	304	309	308	307	307	306	305	304	304
10	306	304	302	301	300	300	301	302	307	307	306	304	303	302	302	302
15	301	299	297	294	293	294	296	298	304	304	302	299	298	297	298	298
20	295	292	289	286	284	286	290	292	299	298	296	293	290	290	291	291
25	286	283	280	276	273	276	281	285	292	291	288	284	281	281	283	283
30	276	272	268	263	260	264	270	275	283	282	278	273	268	270	272	273
35	263	260	254	248	244	250	257	263	271	270	266	259	254	256	259	261
40	249	245	239	232	227	234	243	250	258	257	252	243	237	240	245	247
45	233	229	222	213	208	216	227	235	243	242	236	226	218	222	228	231
50	216	212	204	193	186	196	209	218	227	225	218	206	196	202	210	214
55	198	193	184	172	163	175	190	200	209	207	199	185	173	181	190	195
60	178	173	163	149	138	153	170	181	190	188	178	161	146	157	169	176
65	157	152	141	125	112	129	148	161	170	167	156	137	116	133	147	155
70	136	130	118	100	82.8	105	127	140	149	146	133	111	86.1	107	124	133
75	114	109	95.6	75.3	54.0	79.9	104	119	127	123	110	85.4	56.7	81.4	100	111
80	93.9	88.1	74.0	52.0	28.2	56.4	82.0	97.7	106	102	86.5	60.4	31.8	56.8	78.1	90.2
85	77.2	71.4	56.4	33.0	11.0	36.6	62.8	79.1	87.1	82.2	66.2	39.0	12.3	36.5	59.6	73.0
90	67.4	61.7	46.7	23.3	1.79	24.8	50.3	66.3	73.6	68.6	52.5	26.2	1.85	25.8	49.1	62.9
95	61.4	56.0	41.5	19.4	0.27	17.9	43.3	59.3	66.1	61.2	45.0	17.1	0.33	21.2	43.7	57.0
100	56.0	50.8	37.0	16.3	0.29	15.2	37.0	52.7	59.8	53.8	36.4	16.6	0.34	17.9	38.9	51.7
105	50.6	45.7	32.7	12.6	0.28	14.2	32.4	46.0	52.0	46.5	34.5	14.5	0.35	15.0	34.4	46.5
110	45.3	40.7	28.7	9.80	0.32	12.3	28.4	40.4	46.4	42.8	30.2	12.5	0.38	10.9	30.2	41.5
115	40.3	36.0	24.5	8.70	0.35	10.8	25.9	35.8	40.7	37.2	26.7	10.7	0.38	9.42	26.1	36.7
120	35.3	31.3	20.2	7.54	0.39	9.31	22.8	32.4	36.8	33.4	23.4	9.43	0.39	7.86	21.7	32.0
125	30.0	25.9	16.8	6.55	0.42	8.14	19.8	28.5	32.5	29.3	20.3	8.23	0.40	6.86	17.9	26.9
130	24.7	21.5	14.2	5.66	0.44	7.10	17.1	24.7	28.3	25.4	17.4	7.19	0.43	6.11	14.0	22.2
135	20.3	18.1	11.8	4.66	0.46	6.13	14.5	21.1	24.2	21.8	14.9	6.33	0.47	5.20	12.0	18.4
140	17.0	14.9	9.82	4.02	0.47	4.93	12.2	17.8	20.5	18.4	12.8	5.50	0.52	4.18	9.97	15.2
145	13.8	12.2	7.77	3.38	0.44	3.83	10.1	14.6	17.0	15.5	11.1	4.93	0.55	3.14	7.77	11.1
150	10.8	9.56	6.25	2.39	0.46	2.76	8.20	11.8	13.8	12.9	9.56	4.51	0.56	1.61	5.84	9.14
155	8.21	7.40	4.88	1.36	0.48	1.72	6.18	9.25	10.8	10.4	8.13	4.08	0.61	0.85	3.83	6.78
160	6.04	5.40	3.16	0.88	0.50	1.00	4.13	6.74	8.13	7.98	6.26	3.25	0.65	0.60	1.71	4.61
165	4.03	3.31	1.40	0.76	0.53	0.65	2.10	3.98	5.14	5.10	4.18	1.97	0.64	0.60	1.00	2.09
170	1.75	1.07	0.98	0.74	0.62	0.62	0.89	1.43	2.26	2.28	1.72	0.93	0.69	0.69	0.81	1.14
175	0.80	0.79	0.74	0.68	0.65	0.64	0.66	0.67	0.71	0.72	0.72	0.70	0.68	0.69	0.72	0.80
180	0.57	0.69	0.69	0.67	0.68	0.67	0.67	0.67	0.60	0.61	0.69	0.69	0.68	0.67	0.67	0.68

19. Integrating Sphere Test Results for LFUY-1000-L27-DF-O-19

19.1 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	0.8794	24	21.106	1608.7	0.4688	0.4114	0.2679	0.529	2586	93.8
1	00h00m10s	0.8801	24	21.122	1608.2	0.4687	0.4112	0.2679	0.5289	2586	93.9
2	00h00m20s	0.8805	23.999	21.131	1605	0.4687	0.4114	0.2679	0.529	2587	93.9
3	00h00m30s	0.8809	23.999	21.141	1602.8	0.4689	0.4112	0.268	0.529	2584	93.9
4	00h00m40s	0.8812	23.999	21.148	1600.2	0.4688	0.4111	0.2681	0.5289	2584	93.9
5	00h00m50s	0.8816	23.999	21.158	1598.9	0.4689	0.4111	0.2681	0.5289	2582	93.9
6	00h01m00s	0.8818	23.999	21.162	1600	0.4688	0.4111	0.2681	0.5289	2584	93.9
7	00h01m10s	0.8821	23.999	21.17	1597.3	0.469	0.4109	0.2683	0.5288	2579	93.9
8	00h01m20s	0.8822	23.999	21.172	1595.6	0.4688	0.4108	0.2682	0.5288	2581	93.8
9	00h01m30s	0.8824	23.999	21.177	1593.4	0.4689	0.4109	0.2682	0.5288	2580	93.9
10	00h01m40s	0.8825	23.999	21.179	1592.9	0.469	0.4108	0.2683	0.5288	2579	93.9
11	00h01m50s	0.8826	23.999	21.182	1592	0.4688	0.4107	0.2682	0.5287	2581	93.8
12	00h02m00s	0.8827	23.999	21.184	1590.5	0.469	0.4107	0.2684	0.5288	2577	93.8
13	00h02m10s	0.8827	23.999	21.184	1589.8	0.4691	0.4106	0.2684	0.5288	2577	93.8
14	00h02m20s	0.8828	23.999	21.186	1587.5	0.4691	0.4106	0.2685	0.5287	2576	93.9
15	00h02m30s	0.8829	23.999	21.189	1587.5	0.4692	0.4108	0.2685	0.5288	2576	93.9
16	00h02m40s	0.8829	23.999	21.189	1586	0.4689	0.4104	0.2684	0.5286	2577	93.9
17	00h02m50s	0.883	23.999	21.191	1586.1	0.469	0.4106	0.2684	0.5287	2577	93.8
18	00h03m00s	0.8831	23.999	21.194	1584.8	0.4691	0.4105	0.2685	0.5287	2575	93.9
19	00h03m10s	0.8831	23.999	21.194	1583.6	0.469	0.4104	0.2685	0.5287	2576	93.9
20	00h03m20s	0.8831	23.999	21.194	1582.4	0.469	0.4105	0.2685	0.5287	2576	93.9
21	00h03m30s	0.8831	23.999	21.194	1581.9	0.4691	0.4103	0.2686	0.5286	2574	93.9

22	00h03m40s	0.8832	23.999	21.196	1580.7	0.4691	0.4104	0.2686	0.5286	2575	93.9
23	00h03m50s	0.8832	23.999	21.196	1580.9	0.4692	0.4105	0.2686	0.5287	2574	93.9
24	00h04m00s	0.8832	23.999	21.196	1578.7	0.4693	0.4103	0.2687	0.5287	2571	93.8
25	00h04m10s	0.8832	23.999	21.196	1579.7	0.4691	0.4102	0.2687	0.5286	2573	93.8
26	00h04m20s	0.8833	23.999	21.198	1577	0.4692	0.4102	0.2687	0.5286	2572	93.8
27	00h04m30s	0.8833	23.999	21.198	1577.4	0.4693	0.4103	0.2687	0.5287	2572	93.8
28	00h04m40s	0.8833	23.999	21.198	1577.2	0.4691	0.4101	0.2687	0.5286	2572	93.8
29	00h04m50s	0.8833	23.999	21.198	1576.7	0.4693	0.4102	0.2688	0.5286	2571	93.8
30	00h05m00s	0.8833	23.999	21.198	1575.9	0.4694	0.4102	0.2688	0.5286	2570	93.8
31	00h05m10s	0.8834	23.999	21.201	1574.6	0.4694	0.4103	0.2688	0.5287	2570	93.9
32	00h05m20s	0.8834	23.999	21.201	1574.1	0.4694	0.4101	0.2689	0.5286	2569	93.8
33	00h05m30s	0.8834	23.999	21.201	1573.9	0.4692	0.4102	0.2688	0.5286	2571	93.8
34	00h05m40s	0.8834	23.999	21.201	1573.5	0.4694	0.4102	0.2688	0.5286	2569	93.8
35	00h05m50s	0.8835	23.999	21.203	1572.3	0.4693	0.4102	0.2688	0.5286	2570	93.8
36	00h06m00s	0.8835	23.999	21.203	1572.1	0.4693	0.4101	0.2688	0.5286	2570	93.8
37	00h06m10s	0.8835	23.999	21.203	1571.1	0.4693	0.41	0.2689	0.5286	2569	93.8
38	00h06m20s	0.8835	23.999	21.203	1570.3	0.4692	0.41	0.2688	0.5285	2570	93.9
39	00h06m30s	0.8835	23.999	21.203	1570.3	0.4695	0.4102	0.2689	0.5287	2568	93.8
40	00h06m40s	0.8835	23.999	21.203	1570.1	0.4694	0.4101	0.2689	0.5286	2568	93.8
41	00h06m50s	0.8835	23.999	21.203	1569.9	0.4695	0.4101	0.2689	0.5286	2568	93.8
42	00h07m00s	0.8835	23.999	21.203	1568.7	0.4694	0.4101	0.2689	0.5286	2568	93.8
43	00h07m10s	0.8835	23.999	21.203	1567.5	0.4694	0.41	0.2689	0.5286	2568	93.8
44	00h07m20s	0.8836	23.999	21.206	1567.6	0.4696	0.4101	0.269	0.5286	2566	93.8
45	00h07m30s	0.8835	23.999	21.203	1568.3	0.4694	0.41	0.2689	0.5286	2568	93.8
46	00h07m40s	0.8836	23.999	21.206	1568	0.4693	0.41	0.2689	0.5285	2569	93.9
47	00h07m50s	0.8837	23.999	21.208	1567	0.4694	0.41	0.269	0.5286	2567	93.8
48	00h08m00s	0.8837	23.999	21.208	1565.9	0.4694	0.4099	0.269	0.5285	2567	93.8
49	00h08m10s	0.8837	23.999	21.208	1564.7	0.4694	0.41	0.269	0.5286	2567	93.8
50	00h08m20s	0.8836	23.998	21.205	1566.7	0.4695	0.4101	0.269	0.5286	2567	93.8
51	00h08m30s	0.8837	23.999	21.208	1565.2	0.4695	0.4099	0.2691	0.5285	2566	93.8
52	00h08m40s	0.8837	23.999	21.208	1565.4	0.4695	0.4101	0.269	0.5286	2566	93.9

53	00h08m50s	0.8837	23.998	21.207	1564.7	0.4694	0.4099	0.269	0.5285	2567	93.8
54	00h09m00s	0.8837	23.999	21.208	1564.5	0.4696	0.41	0.2691	0.5286	2566	93.8
55	00h09m10s	0.8837	23.998	21.207	1564.3	0.4694	0.4101	0.2689	0.5286	2568	93.8
56	00h09m20s	0.8837	23.999	21.208	1563.5	0.4694	0.4098	0.269	0.5285	2566	93.8
57	00h09m30s	0.8838	23.999	21.21	1563.8	0.4695	0.4099	0.269	0.5285	2566	93.9
58	00h09m40s	0.8838	23.998	21.209	1563.1	0.4695	0.41	0.269	0.5286	2566	93.8
59	00h09m50s	0.8838	23.998	21.209	1562.8	0.4695	0.41	0.269	0.5286	2567	93.8
60	00h10m00s	0.8838	23.998	21.209	1562.9	0.4695	0.4099	0.269	0.5286	2566	93.8
61	00h10m10s	0.8838	23.998	21.209	1562.4	0.4695	0.4099	0.269	0.5285	2566	93.8
62	00h10m20s	0.8838	23.998	21.209	1562	0.4695	0.4098	0.2691	0.5285	2564	93.8
63	00h10m30s	0.8838	23.998	21.209	1562.9	0.4695	0.41	0.269	0.5286	2566	93.8
64	00h10m40s	0.8838	23.998	21.209	1561.8	0.4695	0.41	0.269	0.5286	2567	93.8
65	00h10m50s	0.8838	23.998	21.209	1560.3	0.4696	0.4098	0.2692	0.5285	2563	93.8
66	00h11m00s	0.8838	23.998	21.209	1560.5	0.4695	0.4097	0.2692	0.5285	2563	93.8
67	00h11m10s	0.8839	23.998	21.212	1560.3	0.4696	0.4098	0.2692	0.5285	2563	93.9
68	00h11m20s	0.8839	23.998	21.212	1560.9	0.4695	0.4098	0.2691	0.5285	2564	93.8
69	00h11m30s	0.8839	23.998	21.212	1560.8	0.4695	0.4098	0.2691	0.5285	2565	93.8
70	00h11m40s	0.8839	23.998	21.212	1560.8	0.4696	0.4098	0.2691	0.5285	2564	93.8
71	00h11m50s	0.8839	23.998	21.212	1560.7	0.4697	0.41	0.2691	0.5286	2564	93.8
72	00h12m00s	0.8839	23.998	21.212	1560.1	0.4694	0.4098	0.2691	0.5285	2566	93.8
73	00h12m10s	0.8839	23.998	21.212	1558.5	0.4696	0.4098	0.2692	0.5285	2564	93.8
74	00h12m20s	0.8839	23.998	21.212	1560.1	0.4697	0.4098	0.2692	0.5285	2563	93.8
75	00h12m30s	0.8839	23.998	21.212	1560	0.4695	0.41	0.269	0.5286	2566	93.8
76	00h12m40s	0.8839	23.998	21.212	1559.5	0.4696	0.4097	0.2692	0.5285	2563	93.8
77	00h12m50s	0.884	23.998	21.214	1558.9	0.4696	0.4099	0.2691	0.5285	2564	93.9
78	00h13m00s	0.8839	23.998	21.212	1558	0.4695	0.4097	0.2692	0.5285	2563	93.8
79	00h13m10s	0.8839	23.998	21.212	1558.6	0.4694	0.4096	0.2691	0.5284	2564	93.8
80	00h13m20s	0.8839	23.998	21.212	1557.8	0.4696	0.4097	0.2692	0.5285	2562	93.8
81	00h13m30s	0.8839	23.998	21.212	1557.8	0.4696	0.4098	0.2692	0.5285	2564	93.8
82	00h13m40s	0.884	23.998	21.214	1558.2	0.4695	0.4097	0.2692	0.5285	2564	93.8
83	00h13m50s	0.884	23.998	21.214	1557.3	0.4697	0.4098	0.2692	0.5285	2562	93.8

84	00h14m00s	0.884	23.998	21.214	1558.3	0.4695	0.4098	0.2691	0.5285	2564	93.8
85	00h14m10s	0.8839	23.998	21.212	1557.6	0.4696	0.4097	0.2692	0.5285	2563	93.8
86	00h14m20s	0.884	23.998	21.214	1557.1	0.4697	0.4099	0.2692	0.5286	2563	93.8
87	00h14m30s	0.884	23.998	21.214	1557.2	0.4696	0.4097	0.2692	0.5285	2563	93.8
88	00h14m40s	0.884	23.998	21.214	1558.1	0.4695	0.4097	0.2692	0.5284	2564	93.8
89	00h14m50s	0.884	23.998	21.214	1557.7	0.4696	0.4098	0.2692	0.5285	2563	93.8
90	00h15m00s	0.884	23.998	21.214	1556.3	0.4695	0.4097	0.2692	0.5285	2564	93.8
91	00h15m10s	0.884	23.998	21.214	1556.6	0.4697	0.4099	0.2692	0.5286	2563	93.8
92	00h15m20s	0.8841	23.998	21.217	1556	0.4695	0.4097	0.2692	0.5285	2564	93.8
93	00h15m30s	0.8841	23.998	21.217	1555.9	0.4696	0.4096	0.2693	0.5284	2562	93.8
94	00h15m40s	0.8841	23.998	21.217	1557.5	0.4696	0.4098	0.2691	0.5285	2564	93.9
95	00h15m50s	0.8841	23.998	21.217	1557.2	0.4697	0.4098	0.2692	0.5285	2562	93.8
96	00h16m00s	0.884	23.998	21.214	1556.7	0.4696	0.4098	0.2692	0.5285	2563	93.8
97	00h16m10s	0.8841	23.998	21.217	1557	0.4696	0.4098	0.2692	0.5285	2564	93.8
98	00h16m20s	0.8841	23.998	21.217	1556.2	0.4697	0.4098	0.2692	0.5285	2562	93.8
99	00h16m30s	0.8841	23.998	21.217	1555.4	0.4696	0.4096	0.2693	0.5284	2562	93.7
100	00h16m40s	0.8841	23.998	21.217	1556.7	0.4696	0.4098	0.2692	0.5285	2563	93.8
101	00h16m50s	0.8841	23.998	21.217	1556.2	0.4695	0.4096	0.2692	0.5284	2562	93.8
102	00h17m00s	0.8841	23.998	21.217	1555.8	0.4696	0.4097	0.2692	0.5285	2563	93.8
103	00h17m10s	0.8841	23.998	21.217	1555.5	0.4696	0.4096	0.2693	0.5285	2562	93.8
104	00h17m20s	0.8841	23.998	21.217	1556.6	0.4696	0.4098	0.2691	0.5285	2564	93.8
105	00h17m30s	0.8841	23.998	21.217	1556.3	0.4697	0.4098	0.2692	0.5285	2562	93.8
106	00h17m40s	0.8841	23.998	21.217	1554.5	0.4696	0.4097	0.2693	0.5285	2562	93.8
107	00h17m50s	0.8841	23.998	21.217	1556.5	0.4696	0.4097	0.2692	0.5285	2563	93.8
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112	00h18m40s	0.8841	23.998	21.217	1555.9	0.4695	0.4096	0.2692	0.5284	2564	93.8
113	00h18m50s	0.8841	23.998	21.217	1554.7	0.4696	0.4096	0.2692	0.5284	2563	93.8
114	00h19m00s	0.8841	23.998	21.217	1555.6	0.4694	0.4096	0.2691	0.5284	2565	93.8

115	00h19m10s	0.8842	23.998	21.219	1555.8	0.4696	0.4096	0.2693	0.5284	2562	93.8
116	00h19m20s	0.8841	23.998	21.217	1554.3	0.4697	0.4099	0.2692	0.5286	2562	93.8
117	00h19m30s	0.8841	23.998	21.217	1555.1	0.4696	0.4096	0.2692	0.5285	2563	93.8
118	00h19m40s	0.8842	23.998	21.219	1555.2	0.4698	0.4099	0.2692	0.5286	2562	93.8
119	00h19m50s	0.8841	23.998	21.217	1554.1	0.4697	0.4097	0.2693	0.5285	2561	93.8
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123	00h20m30s	0.8841	23.998	21.217	1553.4	0.4697	0.4097	0.2693	0.5285	2561	93.8
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126	00h21m00s	0.8842	23.998	21.219	1554.3	0.4696	0.4096	0.2693	0.5284	2562	93.8
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128	00h21m20s	0.8841	23.998	21.217	1554.6	0.4696	0.4097	0.2692	0.5285	2562	93.8
129	00h21m30s	0.8841	23.998	21.217	1554.8	0.4695	0.4097	0.2692	0.5285	2564	93.8
130	00h21m40s	0.8842	23.998	21.219	1553.6	0.4697	0.4096	0.2693	0.5285	2561	93.8
131	00h21m50s	0.8842	23.998	21.219	1554.4	0.4697	0.4096	0.2694	0.5284	2560	93.8
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133	00h22m10s	0.8842	23.998	21.219	1553.1	0.4696	0.4095	0.2693	0.5284	2562	93.8
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136	00h22m40s	0.8842	23.998	21.219	1553.2	0.4697	0.4096	0.2693	0.5285	2561	93.8
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145	00h24m10s	0.8842	23.998	21.219	1553.6	0.4697	0.4097	0.2693	0.5285	2561	93.8

146	00h24m20s	0.8842	23.998	21.219	1553.5	0.4695	0.4097	0.2691	0.5285	2564	93.8
147	00h24m30s	0.8842	23.998	21.219	1553.6	0.4696	0.4096	0.2692	0.5284	2563	93.8
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153	00h25m30s	0.8842	23.998	21.219	1554	0.4694	0.4095	0.2692	0.5284	2564	93.8
154	00h25m40s	0.8842	23.998	21.219	1553.2	0.4696	0.4096	0.2692	0.5285	2562	93.8
155	00h25m50s	0.8842	23.998	21.219	1553	0.4696	0.4097	0.2692	0.5285	2563	93.8
156	00h26m00s	0.8843	23.998	21.221	1553.7	0.4697	0.4096	0.2694	0.5285	2560	93.8
157	00h26m10s	0.8842	23.998	21.219	1553.1	0.4696	0.4096	0.2693	0.5285	2561	93.8
158	00h26m20s	0.8843	23.998	21.221	1553.8	0.4697	0.4097	0.2693	0.5285	2562	93.9
159	00h26m30s	0.8843	23.998	21.221	1553.7	0.4697	0.4097	0.2693	0.5285	2561	93.8
160	00h26m40s	0.8842	23.998	21.219	1553.1	0.4696	0.4096	0.2693	0.5284	2562	93.8
161	00h26m50s	0.8842	23.998	21.219	1553.2	0.4697	0.4097	0.2693	0.5285	2561	93.8
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165	00h27m30s	0.8843	23.998	21.221	1553.6	0.4698	0.4095	0.2694	0.5284	2560	93.8
166	00h27m40s	0.8843	23.998	21.221	1553.3	0.4696	0.4094	0.2694	0.5284	2560	93.8
167	00h27m50s	0.8843	23.998	21.221	1552.9	0.4696	0.4096	0.2693	0.5285	2562	93.8
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169	00h28m10s	0.8843	23.998	21.221	1552.6	0.4696	0.4097	0.2692	0.5285	2563	93.8
170	00h28m20s	0.8843	23.998	21.221	1554	0.4696	0.4096	0.2693	0.5284	2562	93.8
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172	00h28m40s	0.8843	23.998	21.221	1553	0.4696	0.4097	0.2692	0.5285	2563	93.8
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177	00h29m30s	0.8843	23.998	21.221	1551.8	0.4695	0.4096	0.2692	0.5284	2563	93.8
178	00h29m40s	0.8843	23.998	21.221	1553	0.4697	0.4095	0.2693	0.5284	2561	93.8
179	00h29m50s	0.8842	23.998	21.219	1553.5	0.4697	0.4096	0.2694	0.5285	2560	93.8
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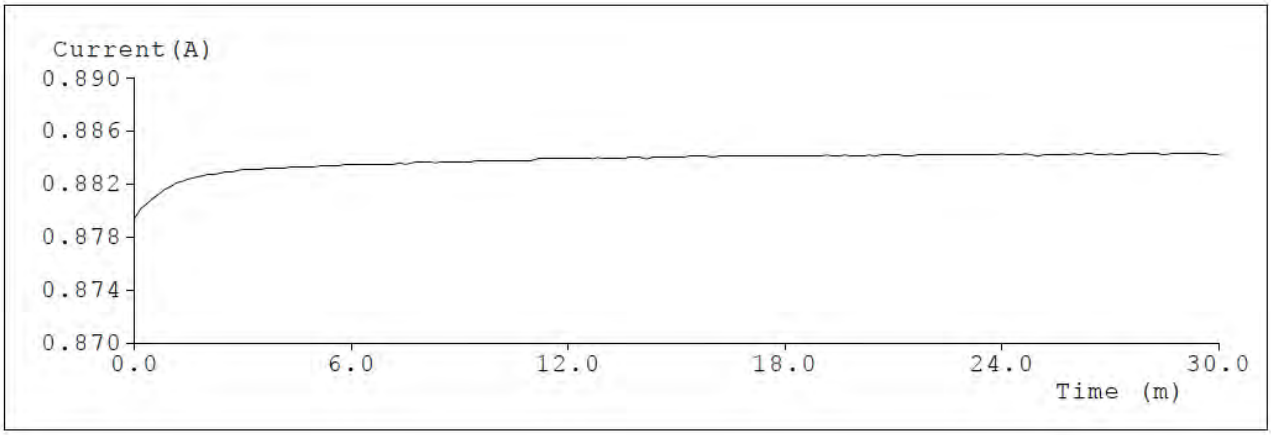
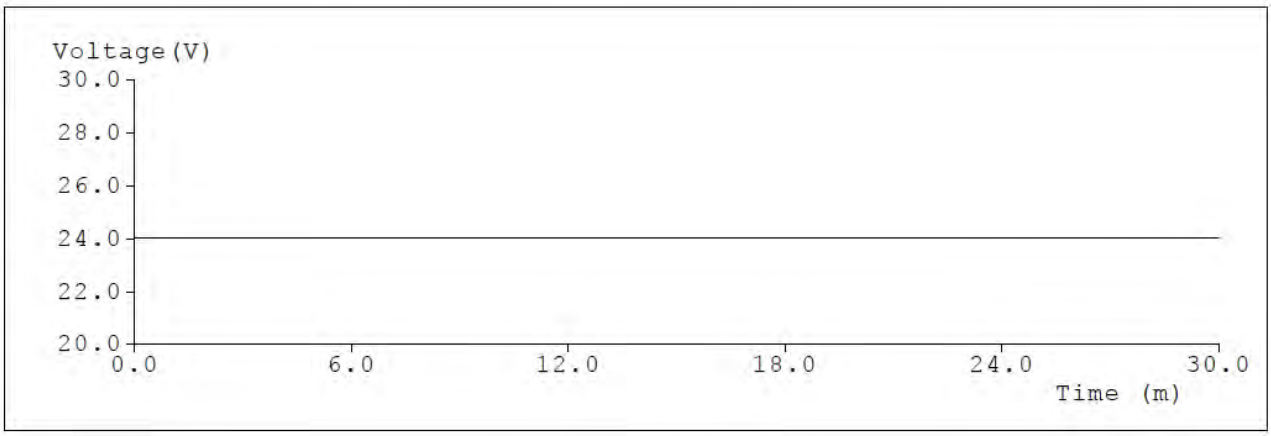
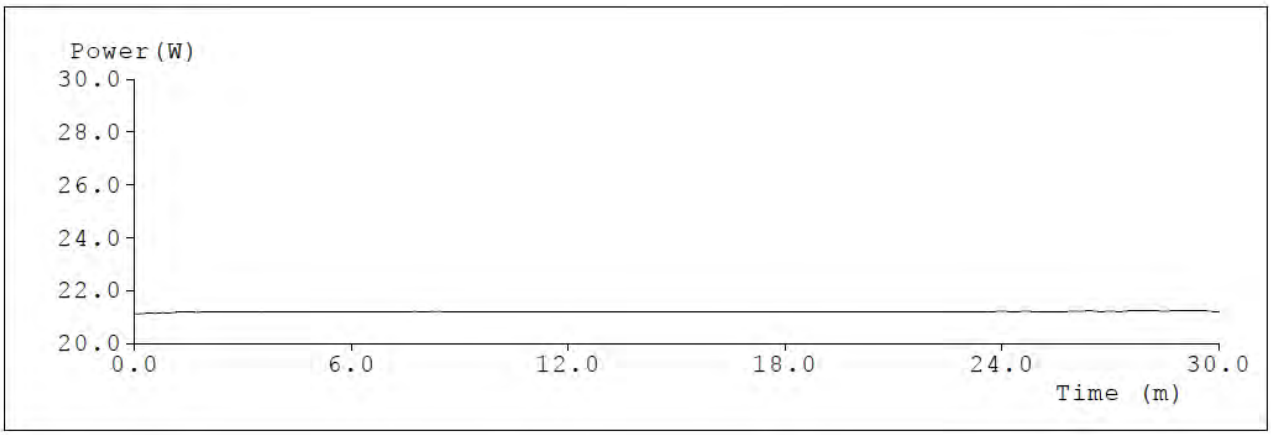
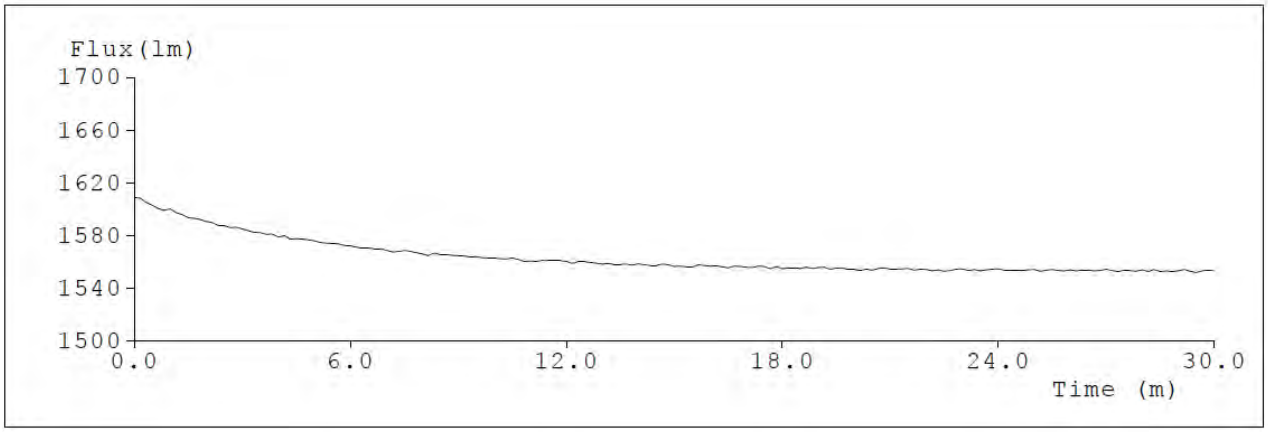
Test curves





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1580
1540
1500
0.0
6.0
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24.0
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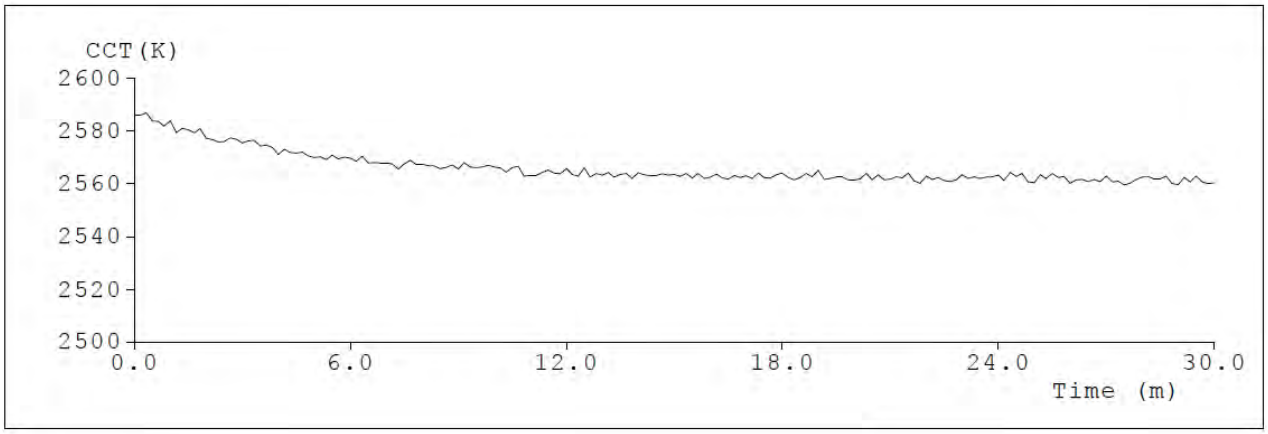
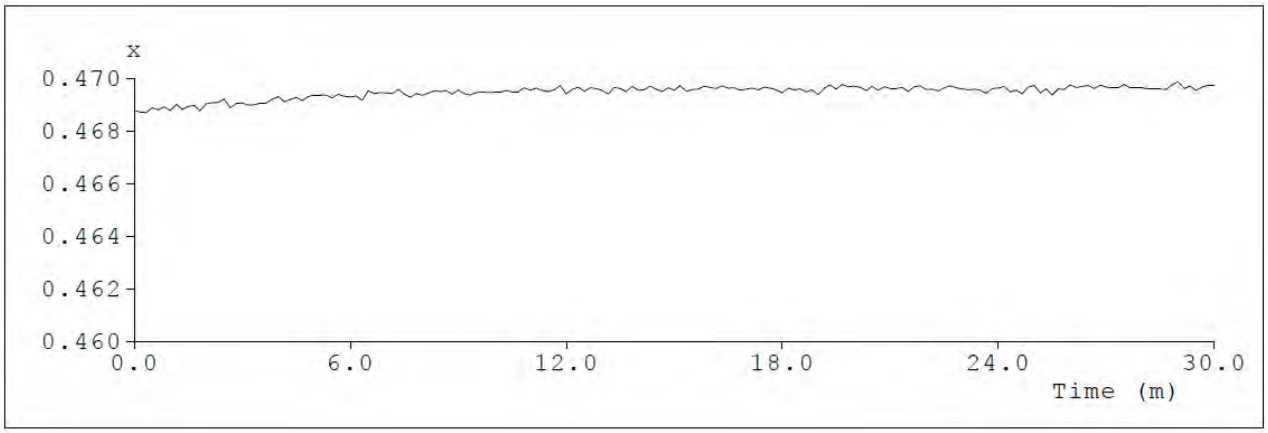
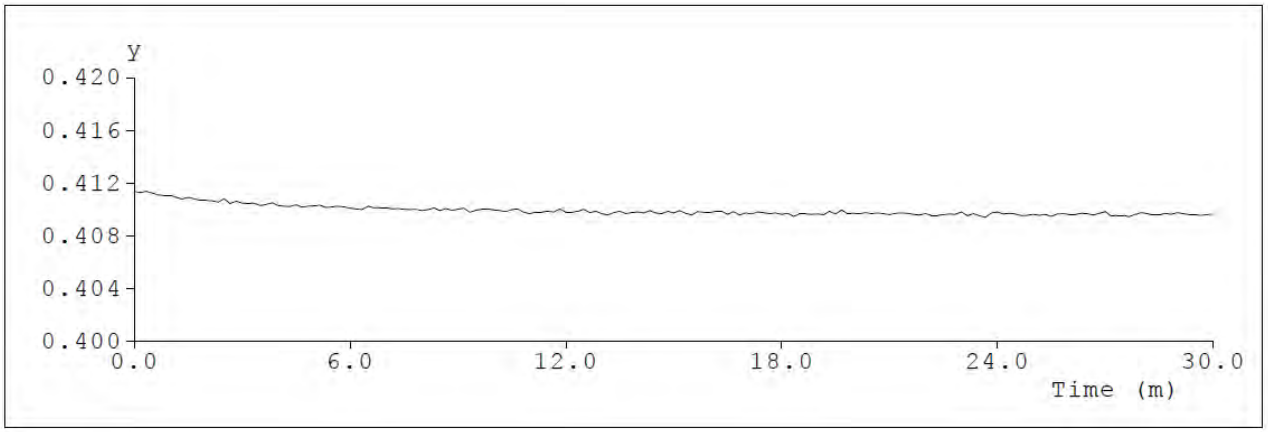
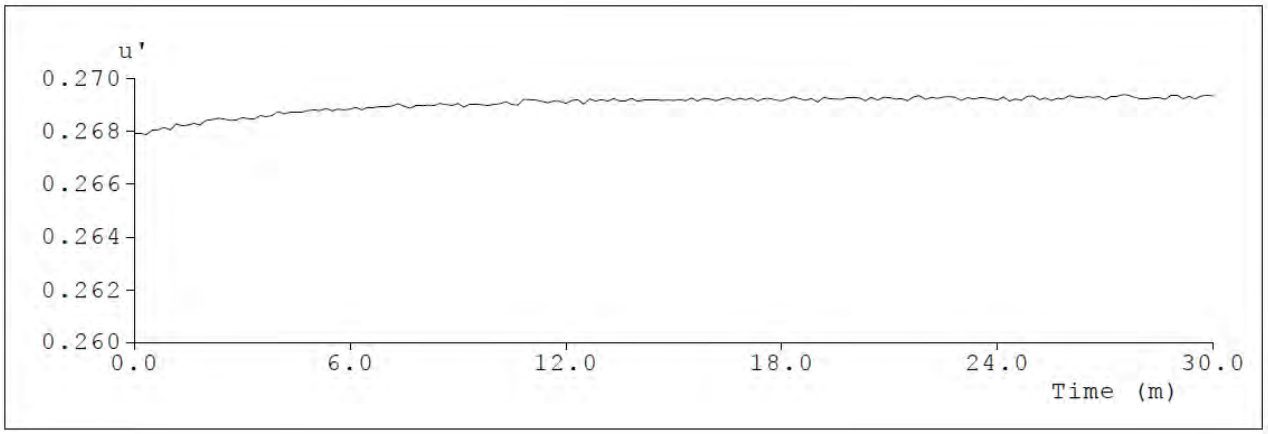
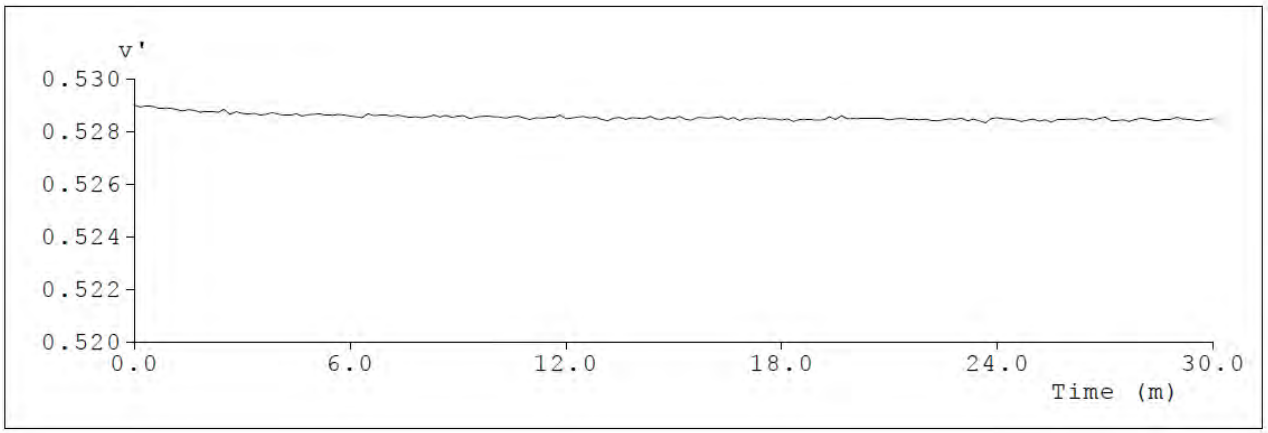
Time (m)


CCT(K)
2600
2580
2560
2540
2520
2500
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
0.420
0.416
0.412
0.408
0.404
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)

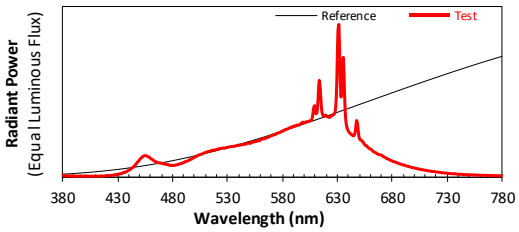

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

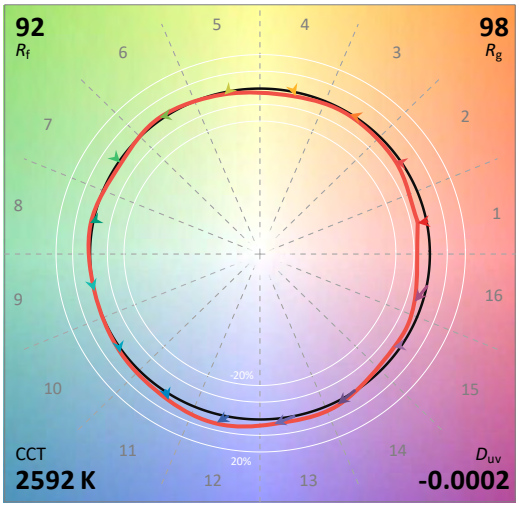
*19.2 ANSI/IES TM-30-18 Color Rendition Report

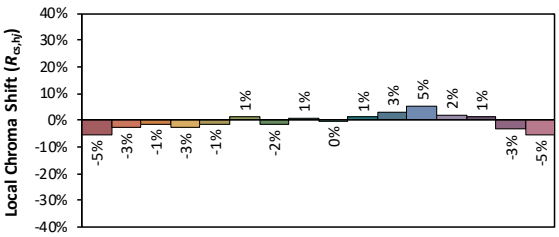
ANSI/IES TM-30-18 Color Rendition Report

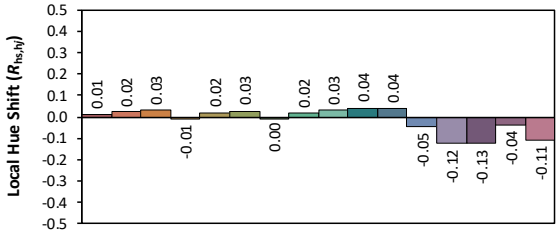
Source: Manufacturer:

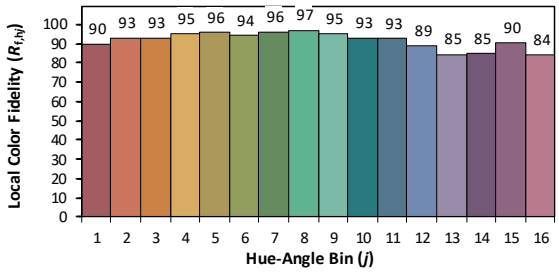
Date: 2023/9/26 Model: LFUY-1000-L27-DF-0-19

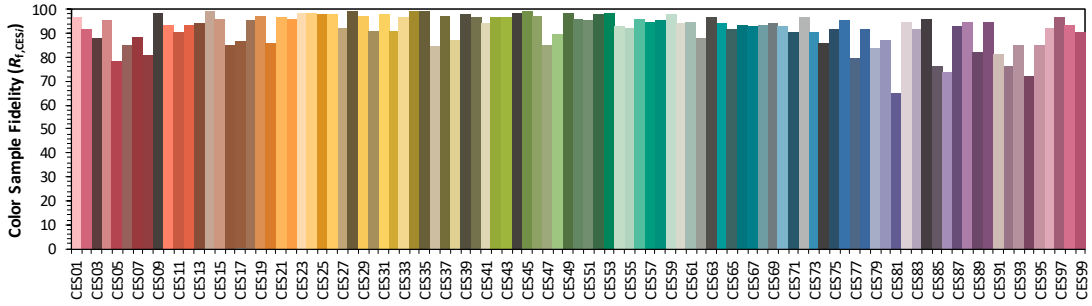












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

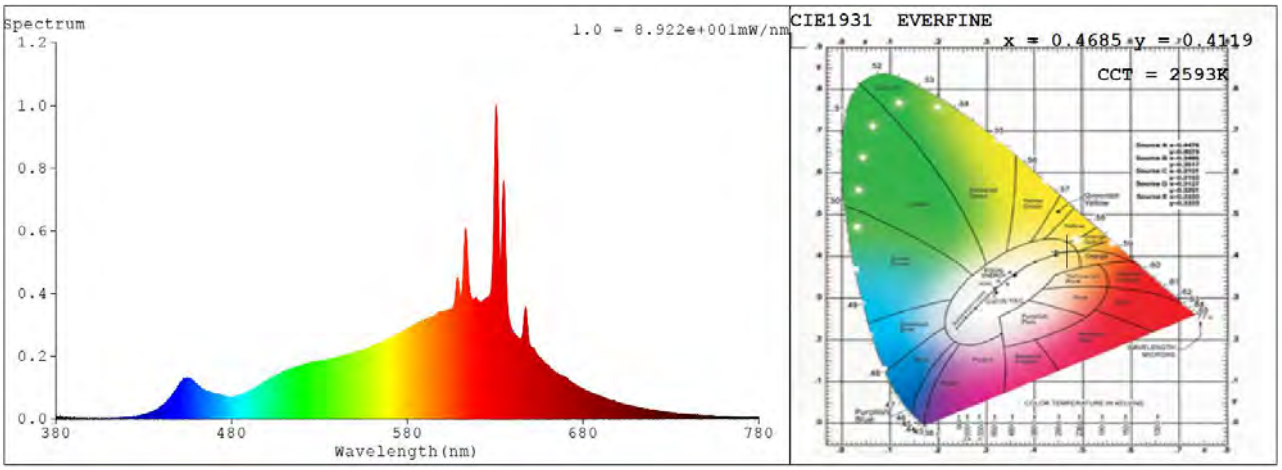
x	0.4686
y	0.4118
u'	0.2676
v'	0.5291

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.

19.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0087	414	0.0035	448	0.093	482	0.072	516	0.1654
381	0.0091	415	0.0046	449	0.1001	483	0.0738	517	0.1665
382	0.0037	416	0.0029	450	0.1096	484	0.0753	518	0.1671
383	0.004	417	0.0032	451	0.1173	485	0.0773	519	0.1689
384	0.004	418	0.0035	452	0.1226	486	0.0796	520	0.1723
385	0.0048	419	0.0052	453	0.1283	487	0.0823	521	0.1716
386	0.0014	420	0.0064	454	0.1316	488	0.0832	522	0.1758
387	0.0046	421	0.0064	455	0.1316	489	0.0871	523	0.1771
388	0.0021	422	0.0059	456	0.1296	490	0.089	524	0.1761
389	0.0033	423	0.0069	457	0.1256	491	0.0936	525	0.1793
390	0.0017	424	0.0075	458	0.1237	492	0.0957	526	0.18
391	0.0038	425	0.0079	459	0.1179	493	0.0974	527	0.1783
392	0.0021	426	0.0092	460	0.112	494	0.101	528	0.1819
393	0.0033	427	0.012	461	0.1085	495	0.1054	529	0.1826
394	0.0018	428	0.0104	462	0.1028	496	0.1095	530	0.1845
395	0.0041	429	0.014	463	0.098	497	0.1098	531	0.187
396	0.0048	430	0.0138	464	0.0939	498	0.1163	532	0.1877
397	0.0015	431	0.0161	465	0.0918	499	0.1191	533	0.1888
398	0.0024	432	0.018	466	0.0883	500	0.1233	534	0.1899
399	0.0015	433	0.0187	467	0.0865	501	0.1263	535	0.189
400	0.0017	434	0.0217	468	0.0866	502	0.13	536	0.1911
401	0.0015	435	0.0252	469	0.0841	503	0.1345	537	0.1936
402	0.0037	436	0.0269	470	0.0839	504	0.1375	538	0.1938
403	0.0025	437	0.0292	471	0.0806	505	0.139	539	0.197
404	0.0022	438	0.0317	472	0.0795	506	0.1415	540	0.1966
405	0.0019	439	0.0378	473	0.0801	507	0.1436	541	0.1989
406	0.0029	440	0.0406	474	0.0752	508	0.1479	542	0.1991
407	0.0009	441	0.0441	475	0.0773	509	0.1503	543	0.2007
408	0.0019	442	0.05	476	0.0733	510	0.1522	544	0.202
409	0.002	443	0.0558	477	0.0719	511	0.1556	545	0.2033
410	0.0022	444	0.061	478	0.0692	512	0.1572	546	0.2051
411	0.0025	445	0.0681	479	0.0714	513	0.159	547	0.2063
412	0.0032	446	0.0764	480	0.0701	514	0.1609	548	0.2104
413	0.0015	447	0.0848	481	0.0699	515	0.1633	549	0.2105

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2086	599	0.3388	648	0.3272	697	0.0589	746	0.0123
551	0.2125	600	0.3399	649	0.2597	698	0.0563	747	0.0124
552	0.217	601	0.3442	650	0.2343	699	0.0552	748	0.0121
553	0.2168	602	0.3455	651	0.2289	700	0.054	749	0.0118
554	0.2183	603	0.3467	652	0.2248	701	0.0518	750	0.0114
555	0.2206	604	0.3496	653	0.2157	702	0.0501	751	0.0109
556	0.2225	605	0.3513	654	0.2049	703	0.0491	752	0.0112
557	0.2248	606	0.3551	655	0.1969	704	0.0469	753	0.0104
558	0.2266	607	0.3803	656	0.1944	705	0.0457	754	0.0104
559	0.2262	608	0.4319	657	0.1867	706	0.0437	755	0.0098
560	0.2346	609	0.4452	658	0.1799	707	0.0436	756	0.0098
561	0.2369	610	0.3958	659	0.1763	708	0.0418	757	0.0095
562	0.2368	611	0.403	660	0.1713	709	0.0407	758	0.009
563	0.2372	612	0.4914	661	0.167	710	0.0398	759	0.0086
564	0.2415	613	0.6044	662	0.1591	711	0.0383	760	0.0085
565	0.2435	614	0.5493	663	0.1537	712	0.0367	761	0.0085
566	0.246	615	0.4375	664	0.1519	713	0.0357	762	0.0082
567	0.2476	616	0.3921	665	0.1478	714	0.0342	763	0.0081
568	0.2531	617	0.3824	666	0.1422	715	0.0338	764	0.008
569	0.2554	618	0.3804	667	0.1399	716	0.032	765	0.0074
570	0.2577	619	0.3871	668	0.1384	717	0.0321	766	0.0077
571	0.2615	620	0.3791	669	0.1365	718	0.0308	767	0.0073
572	0.2632	621	0.3764	670	0.1339	719	0.0297	768	0.0068
573	0.2641	622	0.3721	671	0.1284	720	0.0288	769	0.0066
574	0.2698	623	0.3752	672	0.1238	721	0.0282	770	0.0067
575	0.2723	624	0.3814	673	0.1202	722	0.0271	771	0.0067
576	0.2758	625	0.3862	674	0.1152	723	0.0267	772	0.0063
577	0.277	626	0.3885	675	0.1124	724	0.0252	773	0.0053
578	0.2807	627	0.3983	676	0.1093	725	0.0241	774	0.0057
579	0.2839	628	0.4339	677	0.1057	726	0.024	775	0.0056
580	0.2882	629	0.5895	678	0.1016	727	0.0229	776	0.0057
581	0.2892	630	0.9035	679	0.1	728	0.0224	777	0.0056
582	0.2955	631	0.9524	680	0.0963	729	0.0212	778	0.0056
583	0.297	632	0.6415	681	0.0934	730	0.0207	779	0.0054
584	0.2992	633	0.5003	682	0.0921	731	0.0204	780	0.0054
585	0.3024	634	0.6318	683	0.0884	732	0.0191		
586	0.3059	635	0.75	684	0.0868	733	0.0186		
587	0.3093	636	0.5377	685	0.0842	734	0.0182		
588	0.3132	637	0.3708	686	0.0813	735	0.0175		
589	0.3119	638	0.318	687	0.0793	736	0.0173		
590	0.3173	639	0.2946	688	0.0767	737	0.0175		
591	0.3199	640	0.2813	689	0.0738	738	0.016		
592	0.3195	641	0.2734	690	0.0724	739	0.0158		
593	0.324	642	0.2657	691	0.071	740	0.0143		
594	0.3243	643	0.2618	692	0.0675	741	0.0148		
595	0.3261	644	0.256	693	0.0655	742	0.0144		
596	0.3321	645	0.262	694	0.0645	743	0.0137		
597	0.3354	646	0.29	695	0.0629	744	0.0132		
598	0.3427	647	0.3513	696	0.0597	745	0.0126		

20. Goniophotometer Test results for LFUY-1000-L27-DF-O-19

20.1 Test Data

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

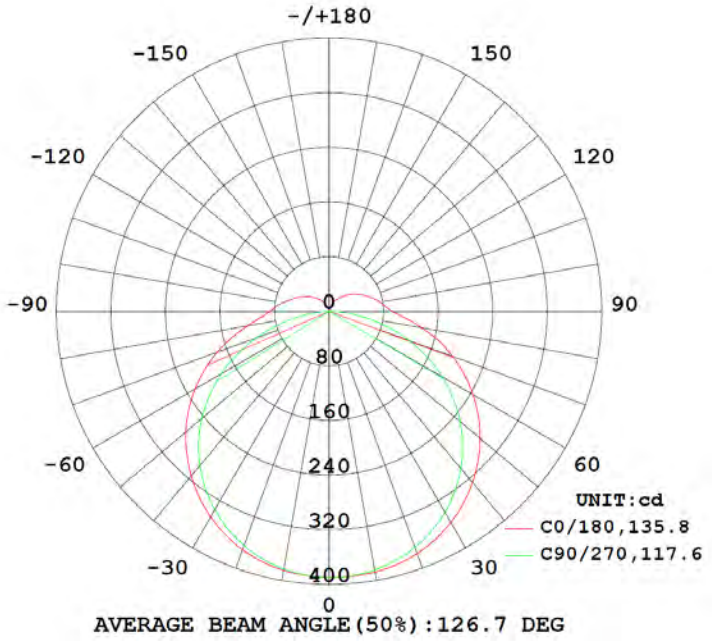
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24.004	--	0.84878	1.0000	20.374

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1531.29	75.16	389.7	11.1	88.9

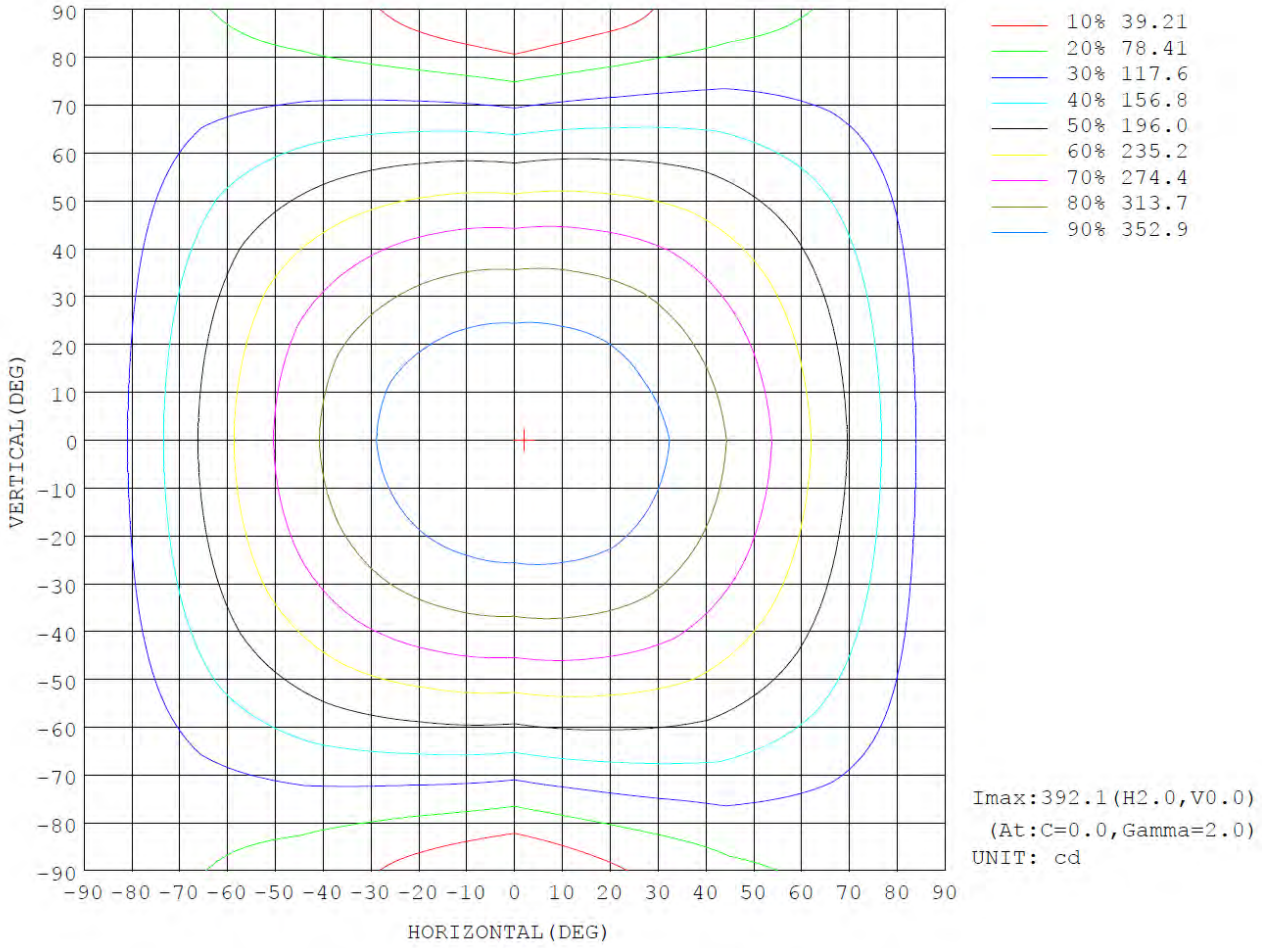
10.2 Luminous Intensity Distribution



20.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	387.5	386.5	384.5	384.9	385.1	383.7	383.1	385.3	0- 10	36.97	36.97	2.41,2.41
20	377.4	374.6	367.7	370.3	371.5	368.0	365.0	371.8	10- 20	107.2	144.1	9.41,9.41
30	357.1	352.5	339.7	345.5	347.5	341.9	335.4	348.3	20- 30	165.9	310.1	20.2,20.2
40	327.1	320.5	300.5	310.9	314.7	306.2	294.9	314.7	30- 40	206.5	516.6	33.7,33.7
50	289.0	279.6	250.8	267.6	274.6	262.3	243.8	272.6	40- 50	224.4	741.0	48.4,48.4
60	243.7	231.1	191.7	216.7	227.1	210.6	182.5	222.3	50- 60	217.2	958.2	62.6,62.6
70	192.5	176.6	124.7	160.1	174.3	153.3	113.3	165.9	60- 70	186.0	1144	74.7,74.7
80	137.4	119.3	54.35	102.5	121.2	96.36	43.32	107.3	70- 80	135.7	1280	83.6,83.6
90	93.13	70.73	4.678	61.96	86.71	61.79	1.877	62.68	80- 90	81.43	1361	88.9,88.9
100	75.87	54.17	0.2899	44.98	69.97	44.54	0.3994	48.39	90-100	53.65	1415	92.4,92.4
110	62.71	43.30	0.2986	34.57	55.27	36.06	0.5206	38.74	100-110	40.88	1456	95.1,95.1
120	49.69	33.51	0.4020	26.80	42.79	27.09	0.5694	29.88	110-120	30.14	1486	97,97
130	37.86	25.22	0.5032	19.63	32.63	19.65	0.6164	22.23	120-130	20.78	1507	98.4,98.4
140	27.29	17.49	0.5494	12.88	23.07	13.62	0.7415	15.65	130-140	13.18	1520	99.3,99.3
150	18.00	12.11	0.5650	8.421	14.07	9.541	0.8226	9.313	140-150	7.237	1527	99.7,99.7
160	10.42	4.849	0.5977	4.814	7.852	6.085	1.042	1.280	150-160	3.195	1530	99.9,99.9
170	1.223	0.7491	0.7445	1.815	3.069	2.326	0.9406	0.8634	160-170	0.8506	1531	100,100
180	0.7092	0.8461	0.8335	0.8669	0.7566	0.8557	0.8393	0.8470	170-180	0.1045	1531	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

20.4 Isocandela Diagram



20.5 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	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
5	389	389	389	389	388	388	388	388	388	388	388	388	388	388	388	389
10	388	387	387	385	385	384	385	386	385	385	384	383	383	384	385	387
15	384	383	382	379	378	378	379	380	380	379	377	376	376	377	380	382
20	377	376	375	370	368	368	370	372	371	371	368	366	365	367	372	375
25	369	367	365	359	355	356	359	362	361	360	356	353	352	355	361	365
30	357	355	353	345	340	341	346	349	348	347	342	338	335	340	348	353
35	343	341	338	328	321	324	329	333	332	332	325	320	316	323	333	339
40	327	324	321	309	300	304	311	316	315	314	306	300	295	303	315	322
45	309	306	301	288	277	282	290	296	295	294	285	277	271	281	295	303
50	289	285	280	264	251	257	268	275	275	273	262	252	244	256	273	283
55	267	263	256	238	222	230	243	252	252	250	237	224	214	229	248	260
60	244	239	231	210	192	202	217	227	227	225	211	195	183	200	222	236
65	219	214	204	181	159	171	189	201	201	199	182	164	149	169	195	210
70	193	187	177	150	125	139	160	174	174	171	153	132	113	137	166	183
75	165	160	148	118	89.4	107	131	146	147	144	124	99.9	77.5	105	136	155
80	137	132	119	87.3	54.4	76.1	103	119	121	117	96.4	69.4	43.3	73.9	107	127
85	112	106	91.2	59.0	21.5	48.8	77.7	96.1	99.7	95.0	74.1	44.8	15.4	46.2	79.4	101
90	93.1	87.4	70.7	37.6	4.68	31.4	62.0	81.3	86.7	81.5	61.8	31.7	1.88	29.8	62.7	83.5
95	83.0	77.5	60.4	30.2	0.39	22.0	53.6	73.1	78.6	72.9	52.0	22.4	0.50	25.6	54.1	74.1
100	75.9	70.5	54.2	26.0	0.29	18.3	45.0	64.8	70.0	63.5	44.5	20.4	0.40	21.9	48.4	65.2
105	69.3	64.0	48.7	22.4	0.28	16.1	39.1	56.2	61.8	56.7	40.7	17.8	0.47	18.9	43.6	60.2
110	62.7	57.8	43.3	19.3	0.30	13.7	34.6	50.1	55.3	51.3	36.1	15.1	0.52	16.3	38.7	54.5
115	56.1	51.5	38.2	16.7	0.36	11.6	30.2	44.5	49.2	45.3	31.0	12.9	0.56	13.4	34.1	48.7
120	49.7	45.5	33.5	13.9	0.40	9.45	26.8	38.6	42.8	39.0	27.1	10.7	0.57	10.7	29.9	43.0
125	43.6	39.8	29.2	12.5	0.46	7.94	23.1	34.2	37.6	34.3	23.1	9.04	0.59	10.5	25.9	37.6
130	37.9	34.5	25.2	9.98	0.50	6.76	19.6	29.5	32.6	29.5	19.6	7.65	0.62	8.87	22.2	32.5
135	32.4	29.5	21.6	9.20	0.53	5.82	16.1	25.0	27.8	25.0	16.4	6.58	0.67	7.63	18.9	27.8
140	27.3	24.8	17.5	8.00	0.55	4.91	12.9	20.7	23.1	20.8	13.6	5.76	0.74	5.56	15.7	23.1
145	22.1	20.4	14.8	5.91	0.55	4.08	10.5	16.6	18.6	17.0	11.3	5.25	0.77	2.90	12.4	18.8
150	18.0	16.5	12.1	3.05	0.57	3.33	8.42	12.9	14.1	13.5	9.54	4.82	0.82	0.79	9.31	14.7
155	13.9	12.9	9.32	1.59	0.59	2.60	6.52	9.84	10.7	10.6	7.85	4.43	0.92	0.75	4.47	10.9
160	10.4	9.44	4.85	0.62	0.60	1.87	4.81	7.26	7.85	7.51	6.08	3.79	1.04	0.77	1.28	5.67
165	4.93	3.74	1.77	0.63	0.62	1.10	3.22	4.94	5.00	5.30	4.24	2.68	0.91	0.79	0.86	1.90
170	1.22	0.76	0.75	0.73	0.74	0.92	1.82	2.87	3.07	3.08	2.33	1.33	0.94	0.87	0.86	0.88
175	0.77	0.81	0.79	0.78	0.80	0.84	1.00	1.18	1.18	1.20	1.06	0.95	0.89	0.86	0.85	0.87
180	0.71	0.85	0.85	0.84	0.83	0.84	0.87	0.85	0.76	0.76	0.86	0.86	0.84	0.84	0.85	0.87

21. Photo of sample

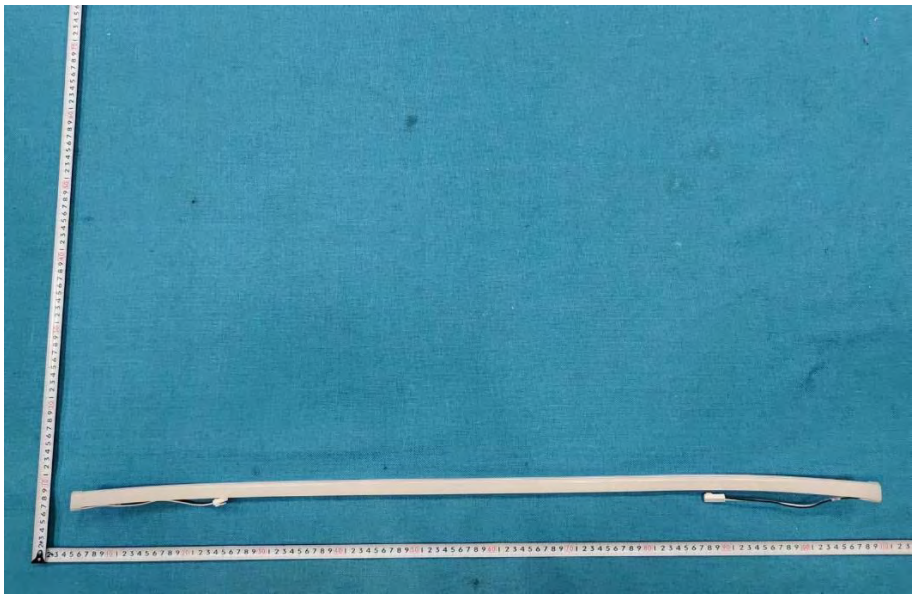


Figure 1 Overview

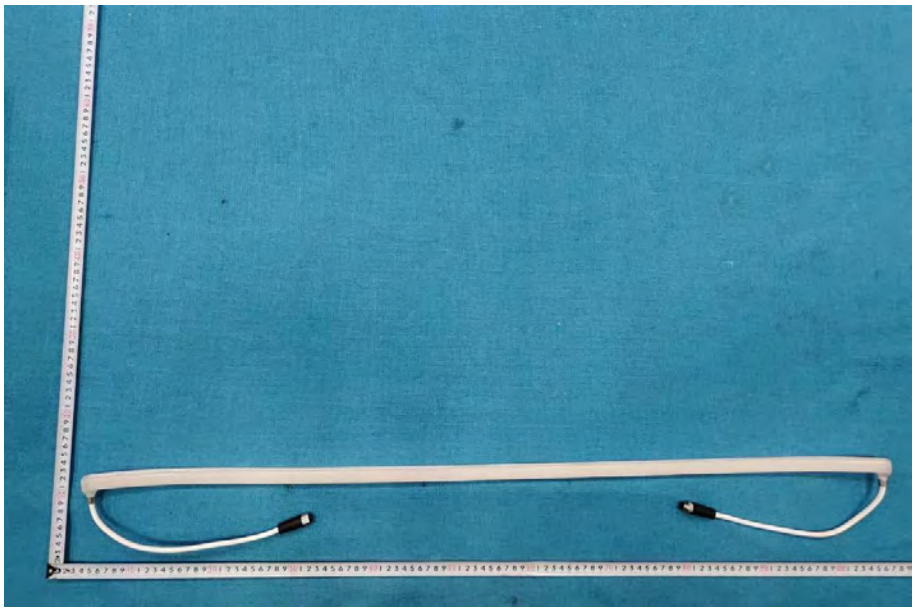


Figure 2 Overview

---End of Report---