Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23030808L00501
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY7-T1000W-L27-CL-I-2
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	:	Mar. 27, 2023
Date of test	:	Mar. 27, 2023 - Apr. 04, 2023
Date of report	:	Apr. 04, 2023

Tested by: Jarvis Zhang

Jarvis Zhang/ Test Engineer

Checked by: Sandy Chen

Sandy Chen/ Project Engineer

Approved by:

Jessie Lu/ 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.
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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:	LFY7-T1000W-L27-CL-I-2
Manufacturer:	
Product Type:	N/A
Rated Voltage/Frequency:	DC24V
Rated Power:	/
Rated luminous flux:	/
Nominal CCT:	/

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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.0915	23.998	2.1958	326.16	0.4612	0.4093	0.2639	0.527	2672	94
1	00h00m10s	0.0916	23.998	2.1982	326.17	0.4611	0.4092	0.2639	0.527	2672	94.1
2	00h00m20s	0.0916	23.998	2.1982	326.11	0.4611	0.4091	0.2639	0.527	2672	94
3	00h00m30s	0.0917	23.998	2.2006	326.23	0.4611	0.4093	0.2639	0.527	2673	94.1
4	00h00m40s	0.0917	23.998	2.2006	326.09	0.461	0.4091	0.2639	0.5269	2673	94
5	00h00m50s	0.0917	23.998	2.2006	325.94	0.4609	0.4092	0.2638	0.527	2674	94
6	00h01m00s	0.0917	23.998	2.2006	325.93	0.4609	0.4092	0.2638	0.527	2674	94
7	00h01m10s	0.0918	23.998	2.203	325.71	0.461	0.409	0.264	0.5269	2671	94
8	00h01m20s	0.0918	23.998	2.203	325.81	0.4611	0.409	0.264	0.5269	2671	94
9	00h01m30s	0.0918	23.998	2.203	325.97	0.4612	0.409	0.264	0.527	2670	94
10	00h01m40s	0.0918	23.998	2.203	326.1	0.4613	0.4091	0.2641	0.527	2669	94
11	00h01m50s	0.0918	23.998	2.203	326.04	0.4612	0.409	0.2641	0.527	2669	94
12	00h02m00s	0.0918	23.998	2.203	325.97	0.4611	0.4089	0.264	0.5269	2670	94
13	00h02m10s	0.0918	23.998	2.203	326.09	0.4611	0.4087	0.2641	0.5268	2669	93.9
14	00h02m20s	0.0919	23.998	2.2054	326.17	0.4613	0.4091	0.2641	0.527	2669	94
15	00h02m30s	0.0919	23.998	2.2054	326.16	0.4611	0.4092	0.264	0.527	2671	94
16	00h02m40s	0.0919	23.998	2.2054	326.12	0.4611	0.4091	0.264	0.5269	2671	94
17	00h02m50s	0.0919	23.998	2.2054	325.88	0.4612	0.4089	0.2641	0.5269	2669	94
18	00h03m00s	0.0919	23.998	2.2054	326.06	0.4611	0.4088	0.2641	0.5269	2669	94
19	00h03m10s	0.0919	23.998	2.2054	326.08	0.4612	0.409	0.2641	0.527	2669	93.9
20	00h03m20s	0.0919	23.998	2.2054	326.09	0.4612	0.4089	0.2641	0.5269	2668	93.9
21	00h03m30s	0.0919	23.998	2.2054	326.04	0.4612	0.409	0.2641	0.5269	2669	94

22	00h03m40s	0.0919	23.998	2.2054	326.06	0.4613	0.4088	0.2642	0.5269	2667	93.9
23	00h03m50s	0.092	23.998	2.2078	326.15	0.4612	0.4088	0.2642	0.5269	2668	93.9
24	00h04m00s	0.092	23.998	2.2078	326.17	0.4611	0.4089	0.2641	0.5269	2669	94
25	00h04m10s	0.092	23.998	2.2078	325.97	0.461	0.4087	0.2641	0.5268	2669	94
26	00h04m20s	0.092	23.998	2.2078	326.12	0.4611	0.4089	0.2641	0.5269	2669	94
27	00h04m30s	0.092	23.998	2.2078	325.88	0.4612	0.4089	0.2642	0.5269	2668	93.9
28	00h04m40s	0.092	23.998	2.2078	326.02	0.4613	0.409	0.2642	0.5269	2667	94
29	00h04m50s	0.092	23.998	2.2078	325.93	0.4612	0.4089	0.2642	0.5269	2668	94
30	00h05m00s	0.092	23.998	2.2078	325.87	0.4612	0.4088	0.2642	0.5269	2668	94
31	00h05m10s	0.092	23.998	2.2078	326.13	0.4612	0.4088	0.2642	0.5269	2667	94
32	00h05m20s	0.092	23.998	2.2078	325.97	0.4612	0.409	0.2641	0.527	2669	94
33	00h05m30s	0.092	23.998	2.2078	325.86	0.4612	0.4088	0.2642	0.5269	2668	94
34	00h05m40s	0.092	23.998	2.2078	326.05	0.4613	0.409	0.2641	0.5269	2668	93.9
35	00h05m50s	0.092	23.998	2.2078	326.03	0.461	0.4088	0.264	0.5268	2671	94
36	00h06m00s	0.092	23.998	2.2078	326	0.4611	0.4087	0.2641	0.5268	2669	94
37	00h06m10s	0.092	23.998	2.2078	325.92	0.4611	0.4088	0.2641	0.5269	2668	94
38	00h06m20s	0.092	23.998	2.2078	326.09	0.461	0.4089	0.2641	0.5269	2670	94
39	00h06m30s	0.092	23.998	2.2078	325.95	0.4614	0.4089	0.2642	0.5269	2666	93.9
40	00h06m40s	0.092	23.998	2.2078	326	0.4612	0.4088	0.2642	0.5269	2667	93.9
41	00h06m50s	0.092	23.998	2.2078	326.02	0.4611	0.4088	0.2641	0.5268	2668	94
42	00h07m00s	0.092	23.998	2.2078	325.97	0.4612	0.4088	0.2642	0.5269	2667	93.9
43	00h07m10s	0.092	23.998	2.2078	325.82	0.4612	0.4087	0.2642	0.5268	2667	94
44	00h07m20s	0.092	23.998	2.2078	326.1	0.4611	0.4088	0.2641	0.5269	2670	94
45	00h07m30s	0.092	23.998	2.2078	326.04	0.4612	0.409	0.2641	0.5269	2669	94
46	00h07m40s	0.092	23.998	2.2078	325.99	0.4611	0.4089	0.2641	0.5269	2669	94
47	00h07m50s	0.092	23.998	2.2078	326	0.4612	0.4089	0.2641	0.5269	2669	94
48	00h08m00s	0.092	23.998	2.2078	325.87	0.4612	0.4089	0.2641	0.5269	2668	94
49	00h08m10s	0.092	23.998	2.2078	325.76	0.4611	0.4088	0.2641	0.5268	2669	94
50	00h08m20s	0.092	23.998	2.2078	325.96	0.4613	0.4089	0.2642	0.5269	2667	94
51	00h08m30s	0.092	23.998	2.2078	325.87	0.4613	0.4087	0.2643	0.5269	2666	94
52	00h08m40s	0.092	23.998	2.2078	325.85	0.4614	0.4089	0.2643	0.5269	2666	93.9

53	00h08m50s	0.092	23.998	2.2078	325.77	0.4613	0.4089	0.2642	0.5269	2668	94
54	00h09m00s	0.092	23.998	2.2078	326.05	0.4612	0.409	0.2641	0.5269	2668	94
55	00h09m10s	0.092	23.998	2.2078	325.93	0.4611	0.4088	0.2641	0.5268	2668	94
56	00h09m20s	0.092	23.998	2.2078	326.03	0.461	0.4087	0.2641	0.5268	2669	94
57	00h09m30s	0.092	23.998	2.2078	326.13	0.4611	0.409	0.2641	0.5269	2670	94
58	00h09m40s	0.092	23.998	2.2078	326.01	0.4611	0.4088	0.2641	0.5269	2669	93.9
59	00h09m50s	0.092	23.998	2.2078	325.77	0.4613	0.4088	0.2642	0.5269	2666	94
60	00h10m00s	0.0921	23.998	2.2102	326.04	0.461	0.4087	0.2641	0.5268	2669	93.9
61	00h10m10s	0.0921	23.998	2.2102	325.94	0.4612	0.409	0.2641	0.527	2669	94
62	00h10m20s	0.0921	23.998	2.2102	325.86	0.4613	0.409	0.2642	0.5269	2667	94
63	00h10m30s	0.0921	23.998	2.2102	325.91	0.4611	0.4087	0.2641	0.5268	2668	94
64	00h10m40s	0.0921	23.998	2.2102	325.96	0.4611	0.4088	0.2641	0.5269	2668	94
65	00h10m50s	0.0921	23.998	2.2102	325.81	0.4612	0.4087	0.2642	0.5268	2666	93.9
66	00h11m00s	0.0921	23.998	2.2102	325.91	0.461	0.4088	0.2641	0.5268	2669	94
67	00h11m10s	0.0921	23.998	2.2102	325.97	0.4612	0.4088	0.2642	0.5269	2667	94
68	00h11m20s	0.0921	23.998	2.2102	325.94	0.4611	0.4088	0.2641	0.5268	2669	94
69	00h11m30s	0.0921	23.998	2.2102	325.94	0.4613	0.4089	0.2642	0.5269	2667	94
70	00h11m40s	0.0921	23.998	2.2102	325.82	0.4613	0.4088	0.2642	0.5269	2667	94
71	00h11m50s	0.0921	23.998	2.2102	325.79	0.461	0.4086	0.2641	0.5268	2669	94
72	00h12m00s	0.0921	23.998	2.2102	325.72	0.461	0.4086	0.2641	0.5268	2669	94
73	00h12m10s	0.0921	23.998	2.2102	325.75	0.4613	0.4087	0.2643	0.5268	2666	94
74	00h12m20s	0.0921	23.998	2.2102	325.97	0.4613	0.409	0.2641	0.527	2668	94
75	00h12m30s	0.0921	23.998	2.2102	325.8	0.461	0.4087	0.2641	0.5268	2669	94
76	00h12m40s	0.0921	23.998	2.2102	325.81	0.4613	0.4089	0.2642	0.5269	2667	94
77	00h12m50s	0.0921	23.998	2.2102	326.04	0.4613	0.4091	0.2641	0.527	2669	94
78	00h13m00s	0.0921	23.998	2.2102	326.14	0.4612	0.409	0.2641	0.5269	2669	94
79	00h13m10s	0.0921	23.998	2.2102	325.99	0.4613	0.4089	0.2642	0.5269	2666	94
80	00h13m20s	0.0921	23.998	2.2102	325.92	0.4611	0.4089	0.2641	0.5269	2669	94
81	00h13m30s	0.0921	23.998	2.2102	325.87	0.4613	0.4089	0.2642	0.5269	2667	94
82	00h13m40s	0.0921	23.998	2.2102	325.87	0.4611	0.4087	0.2642	0.5268	2668	94
83	00h13m50s	0.0921	23.998	2.2102	325.93	0.461	0.4088	0.2641	0.5268	2670	94

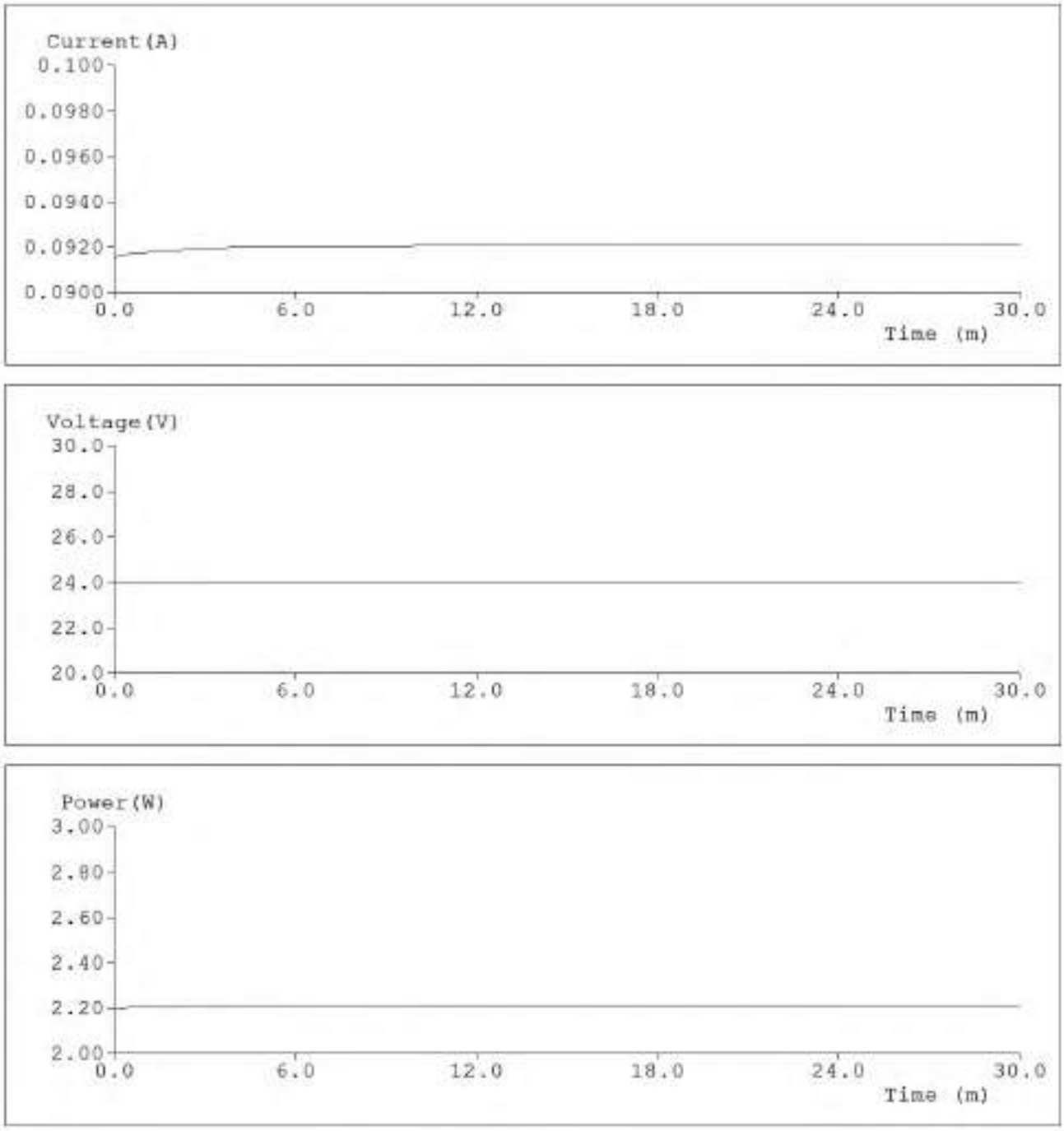
84	00h14m00s	0.0921	23.998	2.2102	325.86	0.4612	0.4088	0.2642	0.5269	2667	93.9
85	00h14m10s	0.0921	23.998	2.2102	325.92	0.4612	0.4088	0.2642	0.5268	2668	94
86	00h14m20s	0.0921	23.998	2.2102	325.84	0.4612	0.4087	0.2642	0.5268	2668	94
87	00h14m30s	0.0921	23.998	2.2102	326.03	0.4613	0.4091	0.2641	0.527	2668	94
88	00h14m40s	0.0921	23.998	2.2102	325.81	0.4612	0.4087	0.2642	0.5268	2667	93.9
89	00h14m50s	0.0921	23.998	2.2102	325.92	0.4613	0.409	0.2641	0.5269	2668	94
90	00h15m00s	0.0921	23.998	2.2102	325.61	0.4613	0.4088	0.2642	0.5269	2667	93.9
91	00h15m10s	0.0921	23.998	2.2102	326.03	0.4611	0.4088	0.2641	0.5269	2670	94
92	00h15m20s	0.0921	23.998	2.2102	325.89	0.4611	0.4088	0.2641	0.5268	2669	94
93	00h15m30s	0.0921	23.998	2.2102	325.78	0.4611	0.4087	0.2642	0.5268	2668	94
94	00h15m40s	0.0921	23.998	2.2102	325.77	0.4611	0.4089	0.2641	0.5269	2669	94
95	00h15m50s	0.0921	23.998	2.2102	326.02	0.4612	0.4089	0.2641	0.5269	2668	94
96	00h16m00s	0.0921	23.998	2.2102	325.85	0.4612	0.4087	0.2642	0.5268	2667	93.9
97	00h16m10s	0.0921	23.998	2.2102	325.94	0.4613	0.4089	0.2642	0.5269	2667	93.9
98	00h16m20s	0.0921	23.998	2.2102	325.9	0.4613	0.4088	0.2642	0.5269	2667	93.9
99	00h16m30s	0.0921	23.998	2.2102	326.04	0.4612	0.409	0.2641	0.5269	2669	94
100	00h16m40s	0.0921	23.998	2.2102	326.24	0.4612	0.409	0.2641	0.5269	2669	94
101	00h16m50s	0.0921	23.998	2.2102	325.58	0.4612	0.4088	0.2642	0.5269	2667	94
102	00h17m00s	0.0921	23.998	2.2102	325.92	0.4612	0.4088	0.2642	0.5269	2668	93.9
103	00h17m10s	0.0921	23.998	2.2102	325.87	0.461	0.4086	0.2641	0.5268	2669	94
104	00h17m20s	0.0921	23.998	2.2102	325.87	0.4613	0.4089	0.2642	0.5269	2668	94
105	00h17m30s	0.0921	23.998	2.2102	325.87	0.461	0.4088	0.2641	0.5268	2670	94
106	00h17m40s	0.0921	23.998	2.2102	325.9	0.4611	0.4088	0.2641	0.5268	2669	94
107	00h17m50s	0.0921	23.998	2.2102	325.98	0.4613	0.4089	0.2642	0.5269	2667	94
108	00h18m00s	0.0921	23.998	2.2102	325.92	0.4612	0.4089	0.2642	0.5269	2668	94
109	00h18m10s	0.0921	23.998	2.2102	325.78	0.4611	0.4087	0.2642	0.5268	2668	94
110	00h18m20s	0.0921	23.998	2.2102	326.01	0.4612	0.4089	0.2641	0.5269	2669	94
111	00h18m30s	0.0921	23.998	2.2102	325.7	0.4612	0.4089	0.2641	0.5269	2668	94
112	00h18m40s	0.0921	23.998	2.2102	325.9	0.4611	0.4088	0.2641	0.5269	2668	94
113	00h18m50s	0.0921	23.998	2.2102	325.83	0.4611	0.409	0.264	0.5269	2670	94
114	00h19m00s	0.0921	23.998	2.2102	325.78	0.4612	0.409	0.2641	0.5269	2669	94

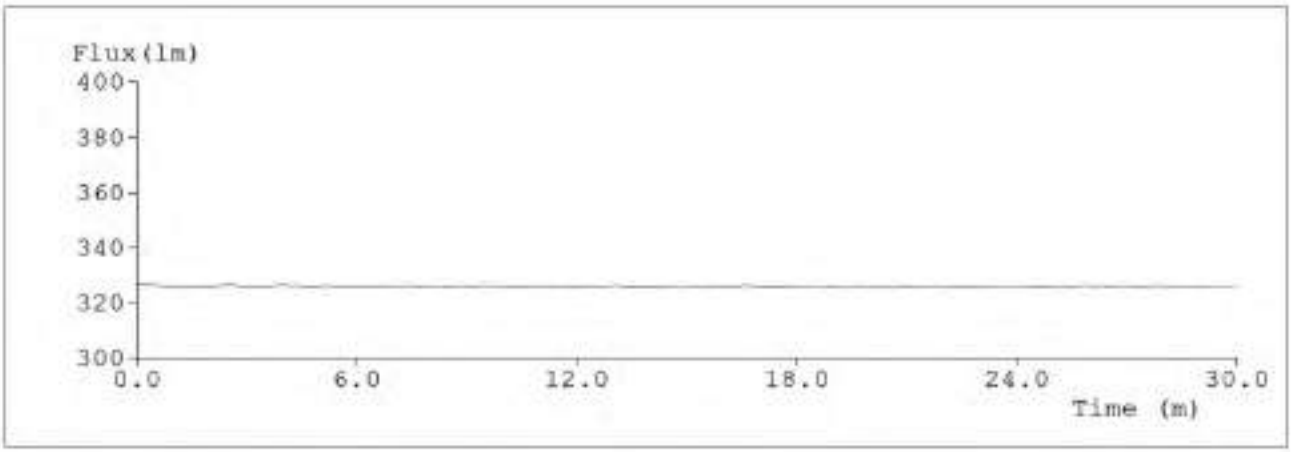
115	00h19m10s	0.0921	23.998	2.2102	325.8	0.4611	0.4088	0.2641	0.5268	2668	94
116	00h19m20s	0.0921	23.998	2.2102	325.84	0.4612	0.4088	0.2642	0.5269	2667	94
117	00h19m30s	0.0921	23.998	2.2102	325.78	0.461	0.4087	0.2641	0.5268	2669	94
118	00h19m40s	0.0921	23.998	2.2102	325.97	0.4613	0.4088	0.2642	0.5269	2666	94
119	00h19m50s	0.0921	23.998	2.2102	325.84	0.4612	0.4089	0.2641	0.5269	2668	94
120	00h20m00s	0.0921	23.998	2.2102	325.78	0.4611	0.4087	0.2642	0.5268	2668	94
121	00h20m10s	0.0921	23.998	2.2102	325.82	0.4612	0.4089	0.2641	0.5269	2668	94
122	00h20m20s	0.0921	23.998	2.2102	326.08	0.4613	0.409	0.2642	0.527	2667	94
123	00h20m30s	0.0921	23.998	2.2102	325.79	0.461	0.4088	0.2641	0.5268	2670	94
124	00h20m40s	0.0921	23.998	2.2102	325.94	0.4612	0.4088	0.2642	0.5269	2668	93.9
125	00h20m50s	0.0921	23.998	2.2102	325.97	0.4612	0.4089	0.2641	0.5269	2669	94
126	00h21m00s	0.0921	23.998	2.2102	325.9	0.4611	0.4089	0.2641	0.5269	2670	94
127	00h21m10s	0.0921	23.998	2.2102	325.83	0.4611	0.4086	0.2642	0.5268	2667	94
128	00h21m20s	0.0921	23.998	2.2102	325.84	0.4614	0.4089	0.2643	0.5269	2666	93.9
129	00h21m30s	0.0921	23.998	2.2102	325.68	0.4613	0.4085	0.2644	0.5268	2664	93.9
130	00h21m40s	0.0921	23.998	2.2102	326.09	0.4612	0.4088	0.2642	0.5269	2668	93.9
131	00h21m50s	0.0921	23.998	2.2102	325.65	0.4612	0.4087	0.2642	0.5268	2667	94
132	00h22m00s	0.0921	23.998	2.2102	325.83	0.4612	0.4088	0.2642	0.5269	2668	94
133	00h22m10s	0.0921	23.998	2.2102	325.64	0.4612	0.4087	0.2642	0.5268	2667	94
134	00h22m20s	0.0921	23.998	2.2102	325.61	0.4611	0.4087	0.2641	0.5268	2669	94
135	00h22m30s	0.0921	23.998	2.2102	325.82	0.4612	0.4089	0.2641	0.5269	2669	94
136	00h22m40s	0.0921	23.998	2.2102	325.7	0.4613	0.4089	0.2642	0.5269	2667	94
137	00h22m50s	0.0921	23.998	2.2102	325.81	0.461	0.4089	0.264	0.5269	2670	94
138	00h23m00s	0.0921	23.998	2.2102	325.8	0.4611	0.4087	0.2642	0.5268	2667	94
139	00h23m10s	0.0921	23.998	2.2102	326	0.4611	0.4088	0.2641	0.5269	2669	94
140	00h23m20s	0.0921	23.998	2.2102	325.86	0.4611	0.4088	0.2641	0.5268	2669	94
141	00h23m30s	0.0921	23.998	2.2102	325.79	0.4611	0.4088	0.2642	0.5268	2668	94
142	00h23m40s	0.0921	23.998	2.2102	325.96	0.4612	0.4087	0.2642	0.5268	2667	93.9
143	00h23m50s	0.0921	23.998	2.2102	325.75	0.4611	0.4089	0.2641	0.5269	2669	94
144	00h24m00s	0.0921	23.998	2.2102	325.95	0.4613	0.4087	0.2643	0.5269	2666	93.9
145	00h24m10s	0.0921	23.998	2.2102	325.78	0.4611	0.4089	0.2641	0.5269	2669	93.9

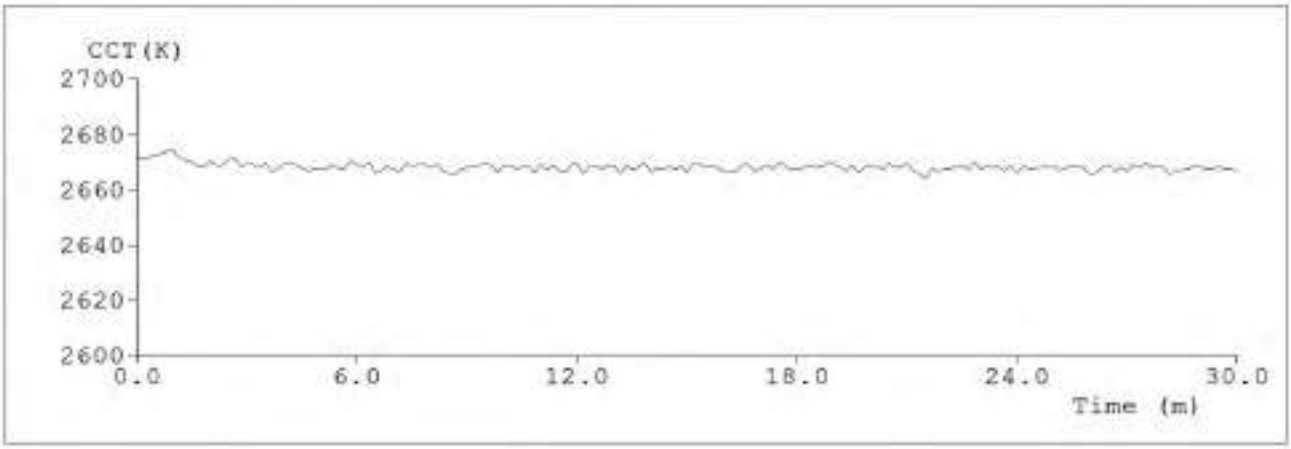
146	00h24m20s	0.0921	23.998	2.2102	325.76	0.4612	0.4088	0.2642	0.5268	2667	94
147	00h24m30s	0.0921	23.998	2.2102	325.73	0.4612	0.4088	0.2642	0.5268	2668	94
148	00h24m40s	0.0921	23.998	2.2102	325.71	0.4612	0.4088	0.2642	0.5269	2668	94
149	00h24m50s	0.0921	23.998	2.2102	325.76	0.4612	0.4089	0.2641	0.5269	2669	94
150	00h25m00s	0.0921	23.998	2.2102	325.72	0.4611	0.4089	0.2641	0.5269	2669	94
151	00h25m10s	0.0921	23.998	2.2102	325.66	0.4613	0.4088	0.2642	0.5269	2667	94
152	00h25m20s	0.0921	23.998	2.2102	325.81	0.4611	0.4087	0.2642	0.5268	2668	94
153	00h25m30s	0.0921	23.998	2.2102	325.81	0.4611	0.4088	0.2641	0.5268	2669	94
154	00h25m40s	0.0921	23.998	2.2102	326	0.4612	0.4088	0.2641	0.5269	2668	94
155	00h25m50s	0.0921	23.998	2.2102	326.12	0.4613	0.4089	0.2642	0.5269	2668	93.9
156	00h26m00s	0.0921	23.998	2.2102	326.04	0.4613	0.4088	0.2643	0.5269	2665	93.9
157	00h26m10s	0.0921	23.998	2.2102	325.74	0.4613	0.4088	0.2642	0.5269	2666	94
158	00h26m20s	0.0921	23.998	2.2102	325.95	0.4613	0.409	0.2641	0.527	2668	94
159	00h26m30s	0.0921	23.998	2.2102	325.84	0.4611	0.4089	0.2641	0.5269	2669	94
160	00h26m40s	0.0921	23.998	2.2102	325.83	0.4613	0.4088	0.2642	0.5269	2667	94
161	00h26m50s	0.0921	23.998	2.2102	325.82	0.4612	0.4089	0.2641	0.5269	2668	94
162	00h27m00s	0.0921	23.998	2.2102	325.89	0.4613	0.4088	0.2642	0.5269	2667	94
163	00h27m10s	0.0921	23.998	2.2102	326.05	0.4612	0.409	0.2641	0.5269	2669	94
164	00h27m20s	0.0921	23.998	2.2102	325.85	0.4612	0.4089	0.2642	0.5269	2668	94
165	00h27m30s	0.0921	23.998	2.2102	325.95	0.4611	0.409	0.264	0.5269	2670	94
166	00h27m40s	0.0921	23.998	2.2102	325.81	0.4613	0.409	0.2641	0.5269	2668	94
167	00h27m50s	0.0921	23.998	2.2102	326.14	0.4611	0.4088	0.2641	0.5269	2669	94
168	00h28m00s	0.0921	23.998	2.2102	325.86	0.4611	0.4087	0.2642	0.5268	2668	93.9
169	00h28m10s	0.0921	23.998	2.2102	325.75	0.4614	0.4089	0.2643	0.5269	2666	93.9
170	00h28m20s	0.0921	23.998	2.2102	325.72	0.4612	0.4088	0.2642	0.5269	2667	93.9
171	00h28m30s	0.0921	23.998	2.2102	325.63	0.4612	0.4087	0.2642	0.5268	2667	94
172	00h28m40s	0.0921	23.998	2.2102	325.82	0.4612	0.4088	0.2642	0.5269	2668	93.9
173	00h28m50s	0.0921	23.998	2.2102	325.97	0.4611	0.4087	0.2641	0.5268	2669	94
174	00h29m00s	0.0921	23.998	2.2102	325.69	0.4612	0.4088	0.2641	0.5269	2668	94
175	00h29m10s	0.0921	23.998	2.2102	325.63	0.4611	0.4086	0.2642	0.5268	2667	94
176	00h29m20s	0.0921	23.998	2.2102	325.74	0.4612	0.4089	0.2642	0.5269	2668	94

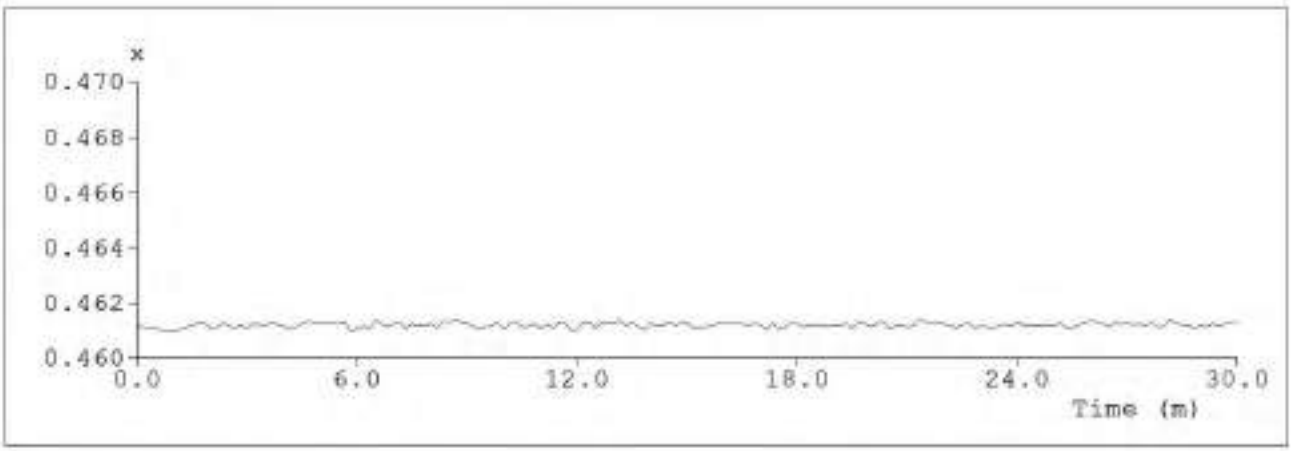
177	00h29m30s	0.0921	23.998	2.2102	325.94	0.4611	0.4088	0.2641	0.5269	2668	94
178	00h29m40s	0.0921	23.998	2.2102	325.74	0.4612	0.4088	0.2642	0.5269	2667	93.9
179	00h29m50s	0.0921	23.998	2.2102	325.91	0.4613	0.409	0.2642	0.5269	2667	94
180	00h30m00s	0.0921	23.998	2.2102	325.75	0.4613	0.4088	0.2642	0.5269	2667	94

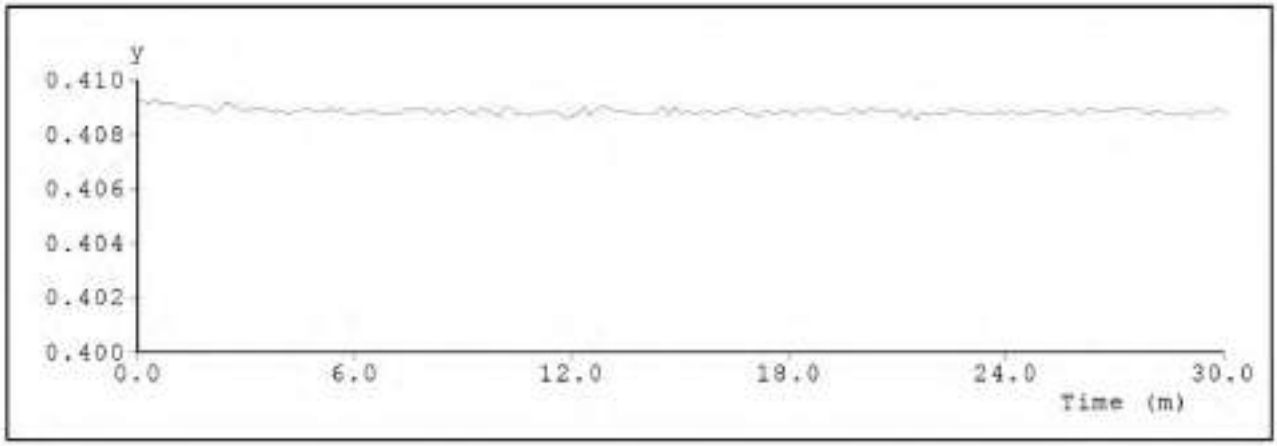
Test curves

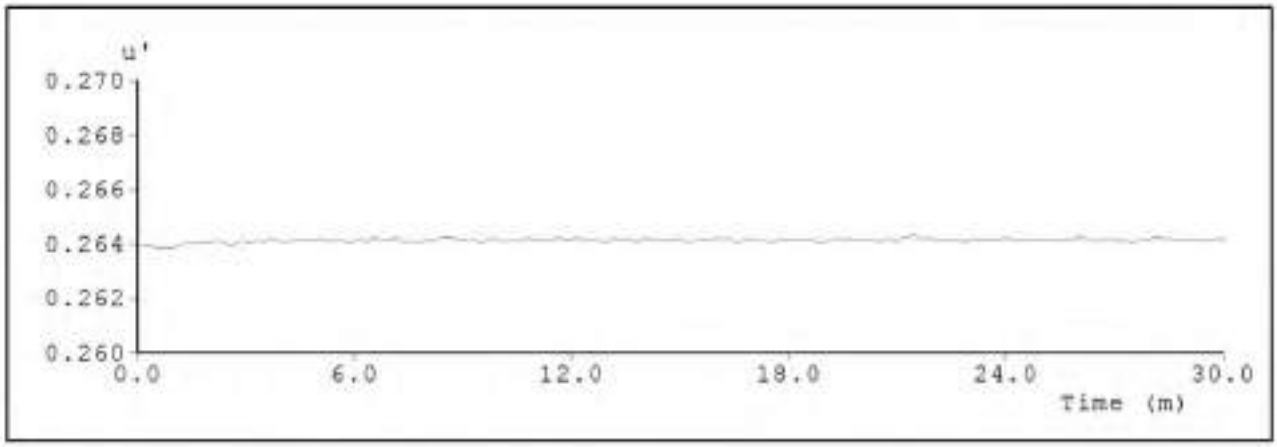


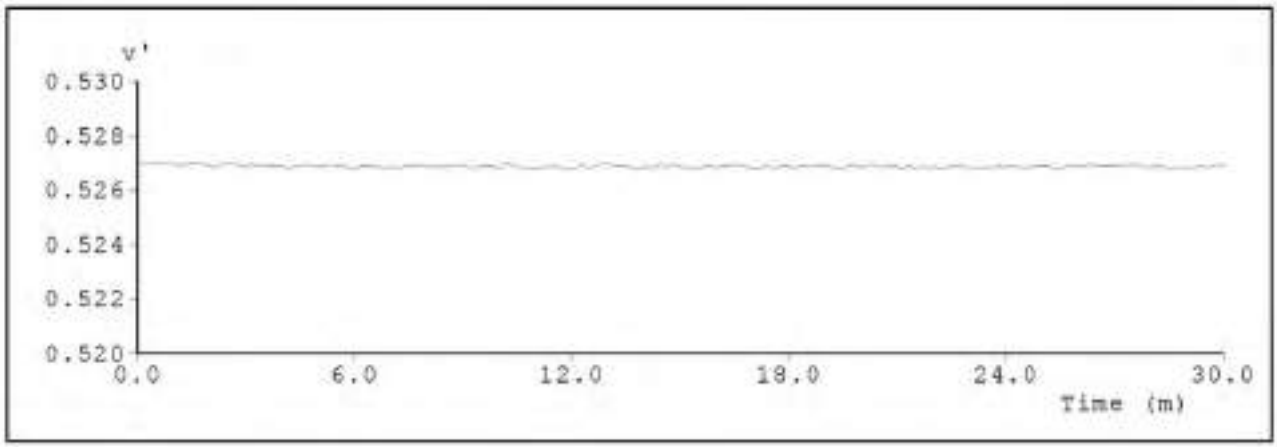

Flux(lm)
400
380
360
340
320
300
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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


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


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


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

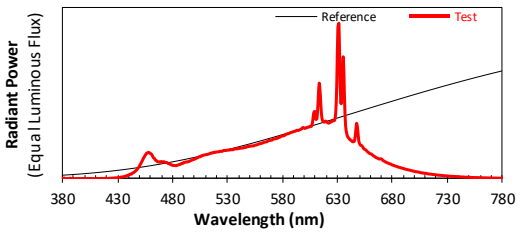

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

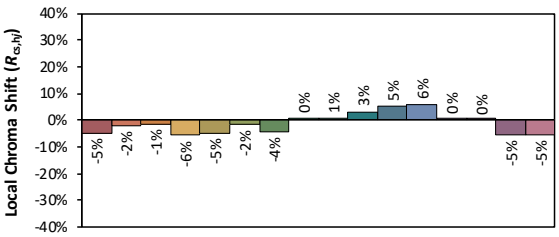
*5.2 ANSI/IES TM-30-18 Color Rendition Report

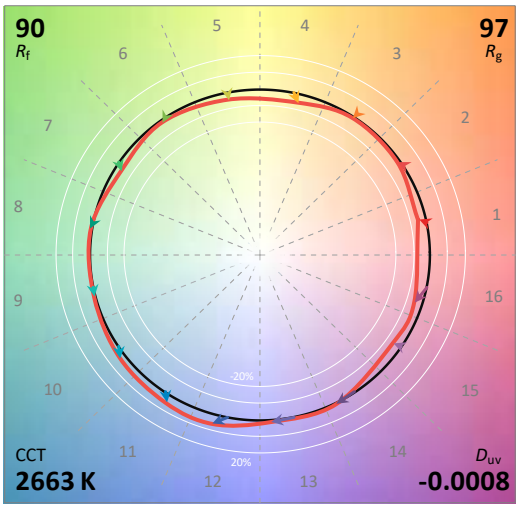
ANSI/IES TM-30-18 Color Rendition Report

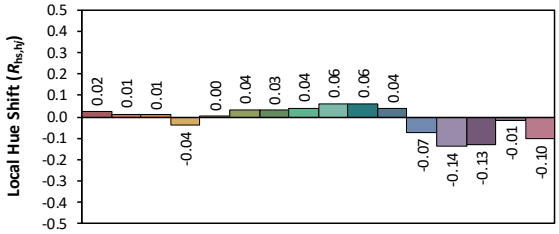
Source: Manufacturer:

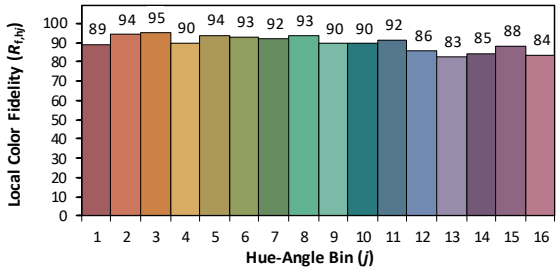
Date: 2023/4/11 Model: LFY7-T1000W-L27-CL-I-2

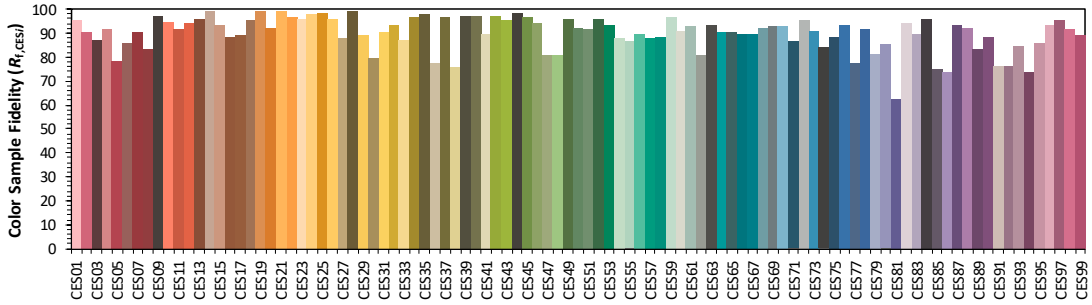












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

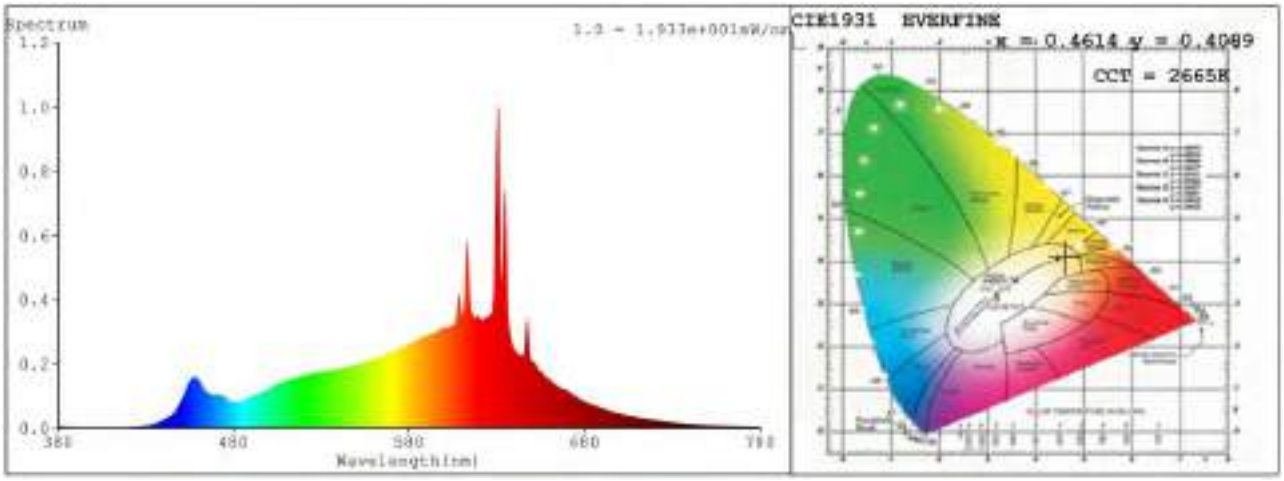
x	0.4615
y	0.4088
u'	0.2644
v'	0.5269

CIE 13.3-1995 (CRI)

R_a	94
R_9	64

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	0.0035	414	0.0015	448	0.0637	482	0.0806	516	0.1572
381	0.005	415	0.0029	449	0.0723	483	0.0798	517	0.1612
382	0	416	0.0009	450	0.0851	484	0.0838	518	0.1604
383	0	417	0.0022	451	0.0966	485	0.0844	519	0.1627
384	0	418	0.0028	452	0.1095	486	0.0874	520	0.1628
385	0.0015	419	0.0019	453	0.1243	487	0.0895	521	0.1647
386	0.0033	420	0.002	454	0.135	488	0.0943	522	0.1645
387	0.0032	421	0.0025	455	0.1464	489	0.0935	523	0.1672
388	0	422	0.0033	456	0.1554	490	0.1006	524	0.1669
389	0.0017	423	0.0036	457	0.1584	491	0.1003	525	0.1675
390	0	424	0.0043	458	0.1605	492	0.1031	526	0.1725
391	0	425	0.0046	459	0.1547	493	0.1022	527	0.1717
392	0.0001	426	0.0047	460	0.1517	494	0.1048	528	0.172
393	0.0007	427	0.0056	461	0.1433	495	0.107	529	0.1736
394	0.0016	428	0.0062	462	0.1296	496	0.1102	530	0.1745
395	0.0002	429	0.0058	463	0.1244	497	0.1131	531	0.1744
396	0	430	0.0074	464	0.1132	498	0.1161	532	0.1764
397	0	431	0.0083	465	0.11	499	0.1182	533	0.1768
398	0.0023	432	0.0093	466	0.1032	500	0.1204	534	0.1768
399	0.001	433	0.0113	467	0.1031	501	0.1244	535	0.1779
400	0.0009	434	0.0111	468	0.1014	502	0.1268	536	0.182
401	0	435	0.0129	469	0.1053	503	0.1308	537	0.182
402	0.0008	436	0.0148	470	0.1017	504	0.1346	538	0.1822
403	0.0008	437	0.016	471	0.1035	505	0.1341	539	0.1827
404	0.002	438	0.0196	472	0.1033	506	0.1406	540	0.1855
405	0.0015	439	0.0219	473	0.0992	507	0.1411	541	0.1848
406	0.0016	440	0.0246	474	0.0993	508	0.1442	542	0.1873
407	0.0003	441	0.0284	475	0.0967	509	0.1455	543	0.1868
408	0.0001	442	0.0279	476	0.0914	510	0.1471	544	0.1881
409	0.0007	443	0.0349	477	0.0915	511	0.1476	545	0.1906
410	0.0017	444	0.0373	478	0.0858	512	0.1496	546	0.1912
411	0.0007	445	0.0428	479	0.0839	513	0.1521	547	0.1925
412	0.0014	446	0.0485	480	0.0811	514	0.1549	548	0.1985
413	0.002	447	0.0549	481	0.0817	515	0.1569	549	0.1956

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.1994	599	0.3096	648	0.3011	697	0.0497	746	0.0102
551	0.1985	600	0.3057	649	0.2325	698	0.0478	747	0.0098
552	0.2001	601	0.3103	650	0.2099	699	0.0471	748	0.0101
553	0.2	602	0.311	651	0.203	700	0.044	749	0.0098
554	0.2022	603	0.3145	652	0.2004	701	0.043	750	0.0091
555	0.2053	604	0.3151	653	0.1886	702	0.0429	751	0.0087
556	0.2058	605	0.3195	654	0.1804	703	0.0414	752	0.0084
557	0.2085	606	0.3195	655	0.1774	704	0.04	753	0.0082
558	0.2119	607	0.3455	656	0.1715	705	0.0379	754	0.0076
559	0.2131	608	0.3993	657	0.1641	706	0.0369	755	0.0077
560	0.2147	609	0.4087	658	0.1592	707	0.0351	756	0.0076
561	0.2165	610	0.3612	659	0.1535	708	0.0353	757	0.0076
562	0.2193	611	0.3663	660	0.1516	709	0.0327	758	0.0071
563	0.2217	612	0.4681	661	0.1476	710	0.0336	759	0.007
564	0.2235	613	0.5808	662	0.1418	711	0.032	760	0.0071
565	0.2248	614	0.5104	663	0.1375	712	0.0301	761	0.0065
566	0.2269	615	0.3992	664	0.1326	713	0.0294	762	0.0065
567	0.2329	616	0.3545	665	0.1279	714	0.0287	763	0.0059
568	0.2325	617	0.3455	666	0.1263	715	0.028	764	0.0061
569	0.2346	618	0.3453	667	0.1212	716	0.0267	765	0.0059
570	0.235	619	0.3509	668	0.1205	717	0.0262	766	0.0058
571	0.2397	620	0.3442	669	0.122	718	0.0257	767	0.0054
572	0.2417	621	0.3398	670	0.1189	719	0.0246	768	0.0053
573	0.2436	622	0.3385	671	0.1117	720	0.0236	769	0.0056
574	0.2449	623	0.3434	672	0.1084	721	0.0227	770	0.0051
575	0.2461	624	0.3463	673	0.1035	722	0.0221	771	0.0049
576	0.2505	625	0.3503	674	0.1007	723	0.0216	772	0.0046
577	0.2521	626	0.3531	675	0.0972	724	0.0209	773	0.0048
578	0.257	627	0.355	676	0.0946	725	0.0204	774	0.0047
579	0.2589	628	0.3964	677	0.0913	726	0.0196	775	0.0043
580	0.2608	629	0.5727	678	0.0901	727	0.0185	776	0.0044
581	0.2622	630	0.9145	679	0.0859	728	0.0187	777	0.0042
582	0.266	631	0.9413	680	0.0829	729	0.0173	778	0.0041
583	0.2712	632	0.5945	681	0.0811	730	0.0177	779	0.0045
584	0.2724	633	0.4562	682	0.078	731	0.0165	780	0.0045
585	0.2744	634	0.6185	683	0.0763	732	0.0159		
586	0.2775	635	0.7382	684	0.0739	733	0.0158		
587	0.2803	636	0.4969	685	0.0711	734	0.0154		
588	0.2827	637	0.3245	686	0.0698	735	0.0147		
589	0.2848	638	0.2772	687	0.0674	736	0.0142		
590	0.2881	639	0.2551	688	0.0654	737	0.0139		
591	0.2884	640	0.2467	689	0.0641	738	0.0133		
592	0.2925	641	0.2371	690	0.0621	739	0.013		
593	0.2951	642	0.2345	691	0.0591	740	0.0134		
594	0.2935	643	0.2271	692	0.0584	741	0.0119		
595	0.2966	644	0.2249	693	0.056	742	0.0116		
596	0.3001	645	0.2298	694	0.0549	743	0.0108		
597	0.3037	646	0.2675	695	0.053	744	0.0114		
598	0.3113	647	0.3359	696	0.0514	745	0.0104		

6. Goniophotometer Test results

6.1 Test Data

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

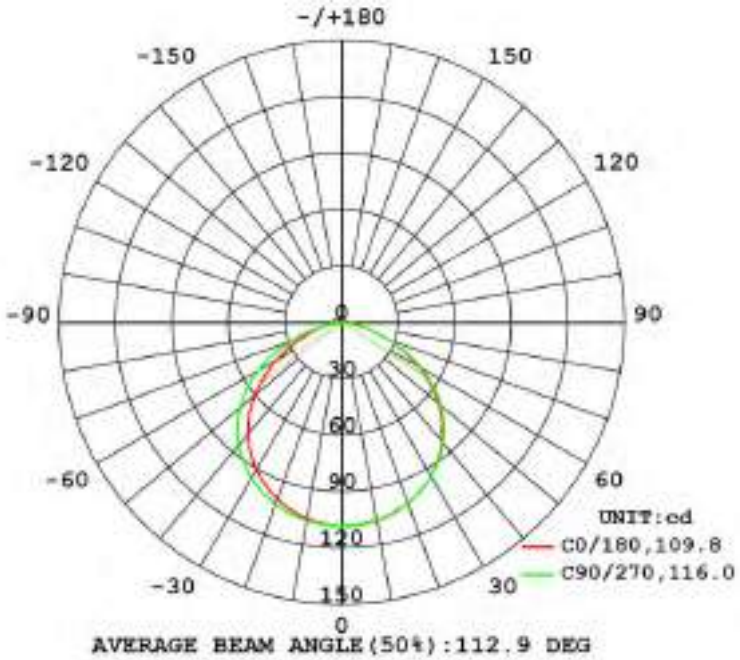
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.0927	1.0000	2.226

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
312.046	140.18	108.3	2	98

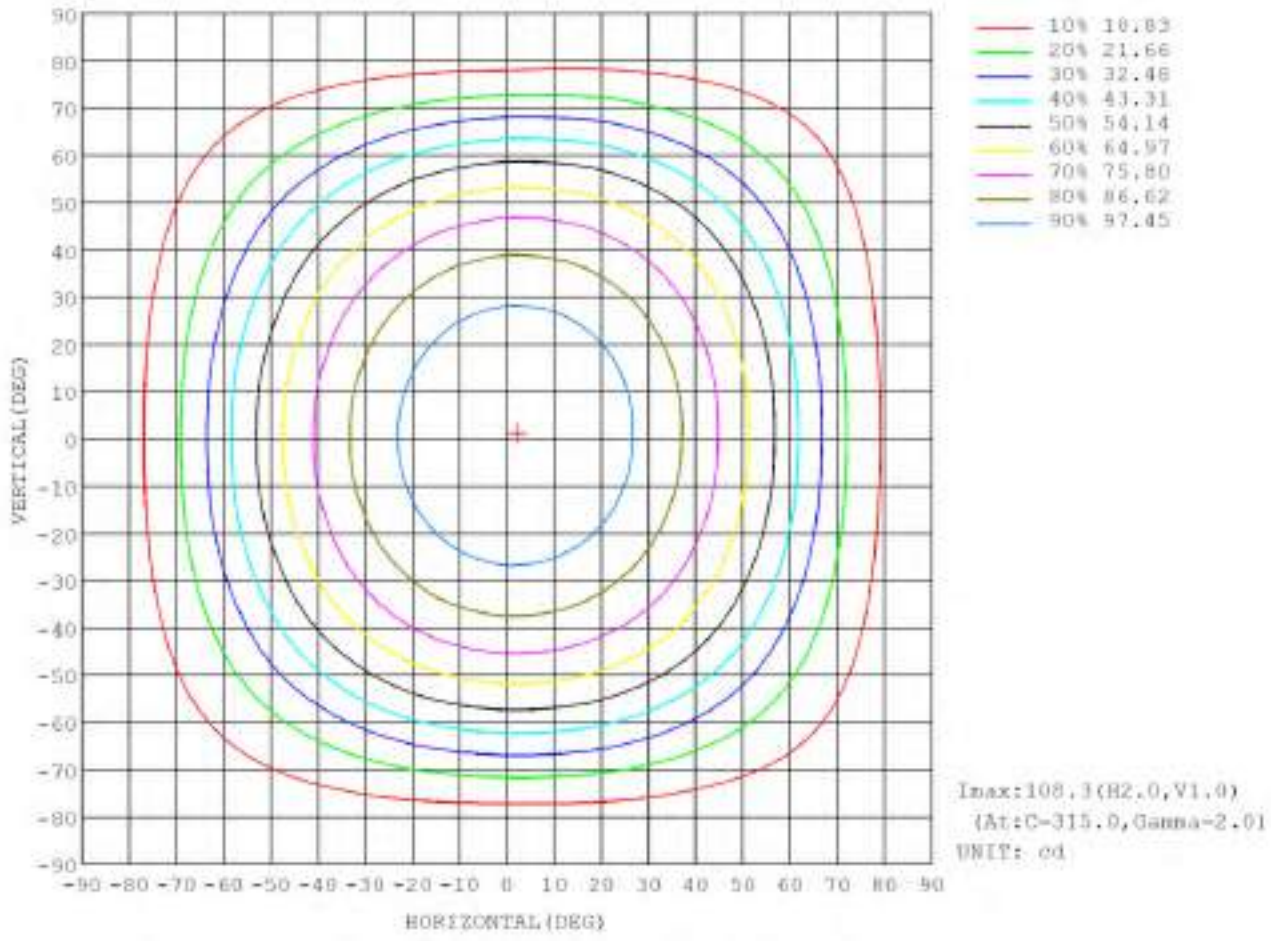
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Ylum,Lavg
10	107.1	106.9	106.6	106.1	105.9	106.3	107.0	107.1	0- 10	10.26	10.26	3.39,3.29
20	102.5	102.5	102.2	100.9	100.0	101.2	102.0	103.1	10- 20	33.51	30.82	12.8,12.8
30	96.40	96.78	96.66	92.23	90.53	92.70	95.79	95.81	20- 30	43.20	43.15	27.3,27.2
40	82.80	83.43	83.61	80.04	77.38	80.61	83.18	85.01	30- 40	53.37	148.5	45,45
50	67.01	68.19	68.47	63.74	60.13	64.33	70.51	70.34	40- 50	57.78	198.5	63.5,63.5
60	47.15	48.32	48.59	43.49	39.84	43.96	51.29	50.98	50- 60	59.83	249.2	79.9,79.9
70	25.47	25.57	25.57	22.16	20.22	22.60	27.87	28.38	60- 70	61.27	284.5	91.2,91.2
80	9.775	9.508	6.437	7.639	7.523	7.980	1.446	10.01	70- 80	54.60	301.1	96.5,96.5
90	2.755	2.447	0.1857	3.738	3.372	3.487	0.1086	3.058	80- 90	6.839	305.9	98,98
100	2.271	1.772	0.0387	3.633	4.038	3.698	0.0404	1.983	90-100	2.548	308.5	98.8,98.8
110	1.486	0.6307	0.0337	2.549	4.029	2.555	0.0525	0.5248	100-110	1.082	309.4	99.1,99.1
120	0.4279	0.1404	0.0561	0.6247	2.265	0.6810	0.0606	0.1818	110-120	0.9179	310.3	99.4,99.4
130	0.1570	0.0938	0.0819	0.2986	1.488	0.2963	0.0830	0.0903	120-130	0.3256	310.6	99.5,99.5
140	0.1229	0.1063	0.0983	0.1646	0.8889	0.1846	0.1185	0.1226	130-140	0.1785	311.2	99.7,99.7
150	0.1387	0.1195	0.1087	0.1575	0.2381	0.2030	0.1547	0.1536	140-150	0.1580	311.7	99.8,99.8
160	0.1505	0.1343	0.1253	0.1574	0.2259	0.2113	0.1770	0.1666	150-160	0.0730	312.0	99.9,99.9
170	0.1659	0.1514	0.1486	0.1675	0.2111	0.2075	0.1746	0.1705	160-170	0.0486	312.0	99.9,99.9
180	0.1783	0.1743	0.1684	0.1778	0.1978	0.1964	0.1702	0.1698	170-180	0.0119	312.0	99.9,99.9
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	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
5	108	108	108	108	108	108	108	107	108	108	108	108	108	108	108	108
10	107	107	107	107	107	106	106	106	106	106	106	107	107	107	107	107
15	105	105	105	105	105	104	104	103	103	104	104	105	105	106	106	105
20	102	102	102	102	102	102	101	100	100	100	101	102	103	103	103	103
25	98.9	98.8	99.0	99.1	98.9	98.1	97.0	96.0	95.7	96.2	97.4	98.8	99.8	100	99.9	99.3
30	94.4	94.4	94.7	94.9	94.7	93.7	92.2	90.9	90.5	91.2	92.7	94.5	95.8	96.2	95.8	95.1
35	89.1	89.1	89.5	89.9	89.6	88.5	86.6	84.9	84.5	85.2	87.1	89.4	91.0	91.4	90.9	89.9
40	82.8	82.9	83.4	83.9	83.6	82.2	80.0	78.0	77.4	78.3	80.6	83.3	85.2	85.7	85.0	83.9
45	75.4	75.5	76.4	76.9	76.6	75.0	72.4	70.0	69.3	70.3	73.0	76.2	78.4	79.0	78.2	76.7
50	67.0	67.2	68.2	68.8	68.5	66.7	63.7	61.0	60.1	61.3	64.3	68.0	70.5	71.3	70.3	68.5
55	57.6	57.7	58.8	59.6	59.1	57.2	54.0	51.2	50.3	51.4	54.6	58.7	61.4	62.3	61.2	59.2
60	47.1	47.2	48.3	49.2	48.6	46.7	43.5	40.6	39.8	40.9	44.0	48.1	51.1	52.2	50.9	48.8
65	36.1	36.1	36.9	37.8	37.2	35.5	32.5	30.1	29.6	30.3	32.9	36.8	39.7	41.0	39.7	37.8
70	25.7	25.3	25.6	26.2	25.6	24.3	22.2	20.6	20.2	20.9	22.6	25.5	27.9	29.2	28.3	27.0
75	16.2	15.8	15.6	15.5	14.7	14.5	13.8	13.2	13.1	13.5	14.1	15.3	16.5	18.1	17.9	17.2
80	9.77	9.33	8.51	7.81	6.44	7.43	7.84	7.61	7.52	7.81	7.99	7.90	7.49	9.31	10.0	10.3
85	5.25	4.90	4.44	3.37	1.71	3.42	4.06	3.68	3.53	3.77	4.18	3.60	2.09	4.20	5.25	5.53
90	2.75	2.75	2.65	1.36	0.11	1.95	3.74	3.69	3.37	3.64	3.69	2.07	0.11	1.62	3.06	3.02
95	2.50	2.58	2.05	1.15	0.02	1.86	3.73	4.11	3.90	4.10	3.67	2.00	0.03	1.24	2.39	2.76
100	2.27	2.13	1.77	0.63	0.02	1.44	3.63	4.08	4.04	4.09	3.69	1.64	0.04	0.41	1.98	2.29
105	1.99	1.85	1.25	0.29	0.03	0.58	3.44	3.97	4.01	4.03	3.65	0.71	0.05	0.10	1.25	2.00
110	1.49	1.21	0.63	0.19	0.03	0.36	2.35	3.60	4.02	3.81	2.56	0.30	0.05	0.06	0.52	1.24
115	0.82	0.73	0.25	0.05	0.04	0.15	1.09	2.71	3.12	2.86	1.28	0.13	0.06	0.05	0.18	0.67
120	0.43	0.34	0.14	0.06	0.06	0.10	0.62	1.60	2.26	1.72	0.68	0.10	0.06	0.06	0.10	0.29
125	0.23	0.20	0.10	0.07	0.07	0.10	0.44	0.99	1.24	1.02	0.50	0.10	0.07	0.07	0.09	0.16
130	0.16	0.14	0.09	0.08	0.08	0.15	0.29	0.85	1.09	0.90	0.30	0.11	0.08	0.08	0.09	0.12
135	0.12	0.11	0.10	0.09	0.09	0.13	0.20	0.57	0.86	0.62	0.20	0.13	0.10	0.10	0.10	0.11
140	0.12	0.11	0.11	0.10	0.10	0.12	0.17	0.31	0.49	0.34	0.19	0.14	0.12	0.11	0.12	0.13
145	0.13	0.12	0.11	0.10	0.10	0.12	0.16	0.20	0.28	0.24	0.19	0.16	0.14	0.13	0.14	0.15
150	0.13	0.13	0.12	0.11	0.11	0.13	0.16	0.18	0.24	0.23	0.20	0.17	0.16	0.15	0.15	0.16
155	0.14	0.14	0.13	0.12	0.12	0.14	0.16	0.18	0.23	0.23	0.21	0.19	0.17	0.16	0.16	0.17
160	0.15	0.14	0.13	0.13	0.13	0.14	0.16	0.18	0.23	0.23	0.21	0.19	0.18	0.16	0.17	0.17
165	0.16	0.15	0.14	0.14	0.13	0.15	0.16	0.18	0.22	0.22	0.21	0.19	0.18	0.17	0.17	0.18
170	0.17	0.16	0.15	0.15	0.15	0.16	0.17	0.18	0.21	0.21	0.21	0.19	0.18	0.17	0.17	0.18
175	0.18	0.17	0.16	0.16	0.16	0.17	0.17	0.19	0.20	0.21	0.20	0.19	0.18	0.17	0.17	0.18
180	0.18	0.18	0.17	0.17	0.17	0.17	0.18	0.19	0.19	0.19	0.19	0.18	0.17	0.17	0.17	0.18

7. Photo of sample

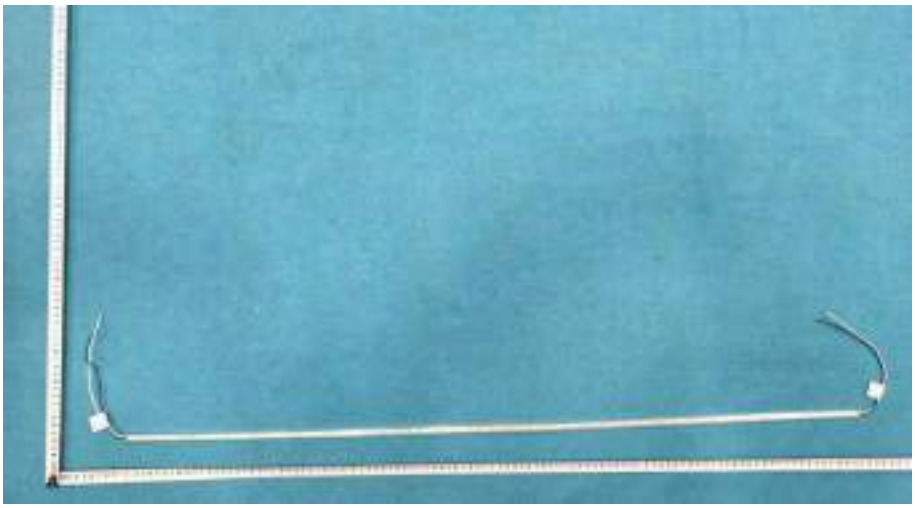


Figure 1 Overview

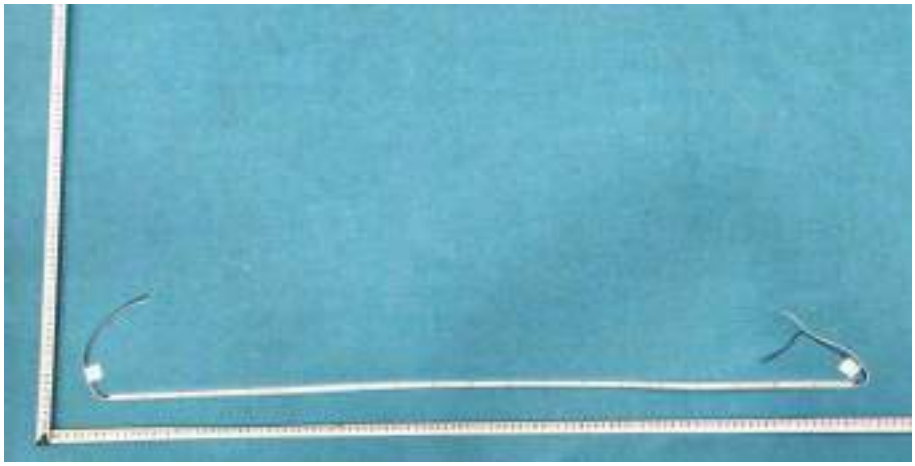


Figure 2 Overview

---End of Report---

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23030808L00401
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY7-T1000W-L27-CL-I-4
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	:	Mar. 27, 2023
Date of test	:	Mar. 27, 2023 - Apr. 04, 2023
Date of report	:	Apr. 04, 2023

Tested by: Jarvis Zhang

Jarvis Zhang/ Test Engineer

Checked by: Sandy Chen

Sandy Chen/ Project Engineer

Approved by:

Jessie Lu/ 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:	LFY7-T1000W-L27-CL-I-4
Manufacturer:	
Product Type:	N/A
Rated Voltage/Frequency:	DC24V
Rated Power:	/
Rated luminous flux:	/
Nominal CCT:	/

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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.1746	23.998	4.1901	582.73	0.4614	0.4098	0.2639	0.5273	2672	94
1	00h00m10s	0.1751	23.998	4.202	582.48	0.4616	0.4098	0.264	0.5273	2670	94
2	00h00m20s	0.1753	23.998	4.2068	582.37	0.4615	0.4098	0.264	0.5273	2670	94
3	00h00m30s	0.1755	23.998	4.2116	582.87	0.4615	0.4097	0.264	0.5272	2669	94
4	00h00m40s	0.1756	23.998	4.214	582.55	0.4615	0.4095	0.2641	0.5272	2669	94
5	00h00m50s	0.1758	23.998	4.2188	582.95	0.4615	0.4095	0.2641	0.5272	2668	94
6	00h01m00s	0.1759	23.998	4.2212	582.86	0.4616	0.4094	0.2641	0.5272	2667	94
7	00h01m10s	0.176	23.998	4.2236	582.46	0.4615	0.4095	0.264	0.5272	2669	94
8	00h01m20s	0.1761	23.998	4.226	582.86	0.4616	0.4094	0.2642	0.5272	2666	94
9	00h01m30s	0.1761	23.998	4.226	582.98	0.4615	0.4094	0.2641	0.5271	2667	94
10	00h01m40s	0.1762	23.998	4.2284	583.35	0.4613	0.4092	0.2641	0.527	2669	94
11	00h01m50s	0.1763	23.998	4.2308	582.96	0.4615	0.4093	0.2641	0.5271	2668	94
12	00h02m00s	0.1763	23.998	4.2308	583.54	0.4614	0.4095	0.264	0.5272	2670	94
13	00h02m10s	0.1764	23.998	4.2332	583.18	0.4615	0.4092	0.2642	0.5271	2667	94
14	00h02m20s	0.1764	23.998	4.2332	583.13	0.4614	0.4089	0.2642	0.5269	2666	93.9
15	00h02m30s	0.1765	23.998	4.2356	582.87	0.4616	0.4092	0.2643	0.5271	2665	93.9
16	00h02m40s	0.1765	23.998	4.2356	583.57	0.4614	0.4092	0.2641	0.5271	2668	94
17	00h02m50s	0.1765	23.998	4.2356	582.95	0.4614	0.4092	0.2641	0.527	2668	94
18	00h03m00s	0.1766	23.998	4.238	582.7	0.4613	0.4091	0.2641	0.527	2668	94
19	00h03m10s	0.1766	23.998	4.238	583.66	0.4614	0.4092	0.2641	0.527	2668	94
20	00h03m20s	0.1766	23.998	4.238	583.23	0.4615	0.4093	0.2641	0.5271	2667	94
21	00h03m30s	0.1767	23.998	4.2404	583.34	0.4615	0.4093	0.2641	0.5271	2667	94

22	00h03m40s	0.1767	23.998	4.2404	582.96	0.4617	0.4092	0.2643	0.5271	2664	93.9
23	00h03m50s	0.1767	23.998	4.2404	583.24	0.4612	0.409	0.2641	0.527	2669	94
24	00h04m00s	0.1768	23.998	4.2428	583.34	0.4616	0.4093	0.2642	0.5271	2666	94
25	00h04m10s	0.1768	23.998	4.2428	583.07	0.4614	0.4091	0.2642	0.527	2667	93.9
26	00h04m20s	0.1768	23.998	4.2428	583.08	0.4614	0.409	0.2642	0.527	2667	94
27	00h04m30s	0.1768	23.998	4.2428	582.96	0.4614	0.409	0.2642	0.527	2666	93.9
28	00h04m40s	0.1768	23.998	4.2428	583.11	0.4616	0.4091	0.2643	0.527	2665	93.9
29	00h04m50s	0.1768	23.998	4.2428	582.9	0.4614	0.409	0.2643	0.527	2666	93.9
30	00h05m00s	0.1769	23.998	4.2452	583.13	0.4614	0.4089	0.2643	0.5269	2665	94
31	00h05m10s	0.1769	23.998	4.2452	582.52	0.4616	0.4089	0.2644	0.527	2663	93.9
32	00h05m20s	0.1769	23.998	4.2452	582.85	0.4615	0.409	0.2643	0.527	2665	94
33	00h05m30s	0.1769	23.998	4.2452	582.97	0.4614	0.4088	0.2643	0.5269	2665	93.9
34	00h05m40s	0.1769	23.998	4.2452	583.09	0.4614	0.409	0.2642	0.527	2666	94
35	00h05m50s	0.1769	23.998	4.2452	583.06	0.4613	0.4091	0.2641	0.527	2668	94
36	00h06m00s	0.1769	23.998	4.2452	583	0.4616	0.4091	0.2643	0.527	2665	93.9
37	00h06m10s	0.177	23.998	4.2476	583.18	0.4615	0.409	0.2643	0.527	2665	93.9
38	00h06m20s	0.177	23.998	4.2476	583	0.4613	0.4088	0.2643	0.5269	2666	93.9
39	00h06m30s	0.177	23.998	4.2476	583.03	0.4613	0.4088	0.2642	0.5269	2667	93.9
40	00h06m40s	0.177	23.998	4.2476	582.85	0.4615	0.4089	0.2643	0.5269	2665	93.9
41	00h06m50s	0.177	23.998	4.2476	582.76	0.4615	0.4089	0.2643	0.5269	2664	93.9
42	00h07m00s	0.177	23.998	4.2476	582.6	0.4613	0.4089	0.2642	0.5269	2666	94
43	00h07m10s	0.177	23.998	4.2476	582.82	0.4615	0.409	0.2643	0.527	2664	93.9
44	00h07m20s	0.177	23.998	4.2476	583	0.4615	0.409	0.2642	0.527	2666	93.9
45	00h07m30s	0.177	23.998	4.2476	582.87	0.4614	0.409	0.2642	0.527	2666	93.9
46	00h07m40s	0.177	23.998	4.2476	582.79	0.4612	0.4088	0.2642	0.5269	2667	94
47	00h07m50s	0.177	23.998	4.2476	582.8	0.4614	0.4089	0.2642	0.5269	2666	94
48	00h08m00s	0.177	23.998	4.2476	583.09	0.4612	0.4088	0.2642	0.5269	2667	94
49	00h08m10s	0.177	23.998	4.2476	582.99	0.4612	0.4089	0.2641	0.5269	2668	94
50	00h08m20s	0.177	23.998	4.2476	582.85	0.4614	0.409	0.2642	0.527	2666	93.9
51	00h08m30s	0.1771	23.998	4.25	582.87	0.4615	0.4089	0.2644	0.5269	2664	93.9
52	00h08m40s	0.1771	23.998	4.25	582.46	0.4615	0.4088	0.2644	0.5269	2663	93.9

53	00h08m50s	0.1771	23.998	4.25	583.08	0.4613	0.4089	0.2642	0.5269	2667	94
54	00h09m00s	0.1771	23.998	4.25	583.07	0.4612	0.4088	0.2642	0.5269	2668	94
55	00h09m10s	0.1771	23.998	4.25	582.98	0.4612	0.4087	0.2642	0.5268	2666	93.9
56	00h09m20s	0.1771	23.998	4.25	582.93	0.4615	0.4091	0.2643	0.527	2665	93.9
57	00h09m30s	0.1771	23.998	4.25	582.82	0.4613	0.4088	0.2642	0.5269	2666	93.9
58	00h09m40s	0.1771	23.998	4.25	583.21	0.4614	0.4089	0.2643	0.527	2665	93.9
59	00h09m50s	0.1771	23.998	4.25	582.86	0.4615	0.4089	0.2643	0.527	2665	94
60	00h10m00s	0.1771	23.998	4.25	583.06	0.4614	0.4092	0.2641	0.5271	2667	94
61	00h10m10s	0.1771	23.998	4.25	583.33	0.4614	0.4089	0.2642	0.5269	2666	93.9
62	00h10m20s	0.1771	23.998	4.25	583	0.4615	0.409	0.2643	0.527	2665	93.9
63	00h10m30s	0.1771	23.998	4.25	583	0.4613	0.4089	0.2642	0.5269	2666	93.9
64	00h10m40s	0.1771	23.998	4.25	582.71	0.4614	0.4088	0.2643	0.5269	2665	93.9
65	00h10m50s	0.1771	23.998	4.25	582.96	0.4612	0.4088	0.2642	0.5269	2668	94
66	00h11m00s	0.1771	23.998	4.25	582.93	0.4613	0.409	0.2641	0.527	2668	94
67	00h11m10s	0.1771	23.998	4.25	582.65	0.4614	0.409	0.2643	0.527	2666	94
68	00h11m20s	0.1771	23.998	4.25	582.64	0.4614	0.4088	0.2643	0.5269	2666	93.9
69	00h11m30s	0.1771	23.998	4.25	582.38	0.4615	0.409	0.2643	0.527	2665	93.9
70	00h11m40s	0.1771	23.998	4.25	583.02	0.4613	0.4089	0.2642	0.5269	2667	94
71	00h11m50s	0.1771	23.998	4.25	583.31	0.4612	0.4088	0.2641	0.5269	2668	94
72	00h12m00s	0.1771	23.998	4.25	583.1	0.4615	0.409	0.2643	0.527	2665	93.9
73	00h12m10s	0.1771	23.998	4.25	582.63	0.4613	0.4089	0.2642	0.5269	2667	94
74	00h12m20s	0.1771	23.998	4.25	582.88	0.4614	0.4089	0.2643	0.5269	2665	93.9
75	00h12m30s	0.1771	23.998	4.25	582.69	0.4614	0.409	0.2642	0.527	2666	94
76	00h12m40s	0.1771	23.998	4.25	582.4	0.4613	0.4089	0.2642	0.5269	2666	93.9
77	00h12m50s	0.1771	23.998	4.25	582.81	0.4616	0.4091	0.2643	0.527	2664	94
78	00h13m00s	0.1771	23.998	4.25	582.64	0.4614	0.4088	0.2643	0.5269	2664	93.9
79	00h13m10s	0.1771	23.998	4.25	583.04	0.4615	0.4088	0.2643	0.5269	2664	93.9
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81	00h13m30s	0.1771	23.998	4.25	582.67	0.4616	0.409	0.2643	0.527	2664	93.9
82	00h13m40s	0.1771	23.998	4.25	583.25	0.4615	0.409	0.2643	0.527	2666	93.9
83	00h13m50s	0.1771	23.998	4.25	582.48	0.4614	0.4087	0.2643	0.5269	2665	93.9

84	00h14m00s	0.1771	23.998	4.25	582.7	0.4613	0.4089	0.2642	0.5269	2667	93.9
85	00h14m10s	0.1771	23.998	4.25	582.54	0.4613	0.4087	0.2642	0.5269	2666	93.9
86	00h14m20s	0.1771	23.998	4.25	582.7	0.4615	0.409	0.2643	0.527	2665	94
87	00h14m30s	0.1771	23.998	4.25	582.95	0.4615	0.409	0.2643	0.527	2665	93.9
88	00h14m40s	0.1771	23.998	4.25	583.03	0.4614	0.4089	0.2643	0.5269	2665	93.9
89	00h14m50s	0.1771	23.998	4.25	582.91	0.4615	0.409	0.2643	0.527	2664	93.9
90	00h15m00s	0.1771	23.998	4.25	582.58	0.4615	0.4089	0.2643	0.527	2665	93.9
91	00h15m10s	0.1771	23.998	4.25	583.21	0.4614	0.409	0.2643	0.527	2666	93.9
92	00h15m20s	0.1771	23.998	4.25	582.89	0.4616	0.4089	0.2644	0.527	2663	93.9
93	00h15m30s	0.1771	23.998	4.25	582.99	0.4614	0.4087	0.2644	0.5269	2663	93.9
94	00h15m40s	0.1771	23.998	4.25	582.59	0.4613	0.4088	0.2642	0.5269	2666	94
95	00h15m50s	0.1771	23.998	4.25	582.88	0.4616	0.4089	0.2644	0.527	2663	93.9
96	00h16m00s	0.1771	23.998	4.25	583.15	0.4614	0.409	0.2642	0.527	2667	93.9
97	00h16m10s	0.1771	23.998	4.25	582.89	0.4615	0.4089	0.2643	0.527	2665	93.9
98	00h16m20s	0.1771	23.998	4.25	582.77	0.4613	0.4089	0.2642	0.5269	2666	94
99	00h16m30s	0.1771	23.998	4.25	582.96	0.4616	0.4091	0.2643	0.527	2664	94
100	00h16m40s	0.1771	23.998	4.25	583.49	0.4617	0.4089	0.2644	0.527	2662	93.9
101	00h16m50s	0.1771	23.998	4.25	583.01	0.4614	0.4089	0.2643	0.5269	2665	93.9
102	00h17m00s	0.1771	23.998	4.25	583.3	0.4616	0.4092	0.2643	0.5271	2664	93.9
103	00h17m10s	0.1771	23.998	4.25	583.08	0.4615	0.409	0.2643	0.527	2665	93.9
104	00h17m20s	0.1771	23.998	4.25	583.06	0.4615	0.409	0.2643	0.527	2664	93.9
105	00h17m30s	0.1771	23.998	4.25	583.29	0.4614	0.4091	0.2642	0.527	2667	93.9
106	00h17m40s	0.1772	23.998	4.2524	583.33	0.4614	0.409	0.2643	0.527	2665	94
107	00h17m50s	0.1771	23.998	4.25	583.08	0.4616	0.4089	0.2644	0.527	2663	93.9
108	00h18m00s	0.1771	23.998	4.25	583.16	0.4617	0.4091	0.2644	0.527	2663	94
109	00h18m10s	0.1771	23.998	4.25	583.26	0.4616	0.4091	0.2643	0.527	2665	93.9
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112	00h18m40s	0.1772	23.998	4.2524	582.92	0.4615	0.4089	0.2643	0.527	2664	93.9
113	00h18m50s	0.1772	23.998	4.2524	582.57	0.4615	0.4089	0.2643	0.527	2664	93.9
114	00h19m00s	0.1772	23.998	4.2524	582.83	0.4614	0.4088	0.2643	0.5269	2666	93.9

115	00h19m10s	0.1772	23.998	4.2524	583.16	0.4616	0.4089	0.2644	0.527	2663	93.9
116	00h19m20s	0.1772	23.998	4.2524	582.98	0.4616	0.409	0.2644	0.527	2663	94
117	00h19m30s	0.1771	23.998	4.25	582.91	0.4616	0.409	0.2643	0.527	2663	93.9
118	00h19m40s	0.1772	23.998	4.2524	583.27	0.4616	0.4091	0.2643	0.527	2664	93.9
119	00h19m50s	0.1772	23.998	4.2524	583.01	0.4615	0.4089	0.2643	0.527	2665	93.9
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122	00h20m20s	0.1772	23.998	4.2524	583.03	0.4614	0.4089	0.2643	0.527	2665	94
123	00h20m30s	0.1772	23.998	4.2524	583.48	0.4616	0.4089	0.2644	0.527	2663	93.9
124	00h20m40s	0.1772	23.998	4.2524	582.74	0.4615	0.4088	0.2644	0.5269	2664	93.9
125	00h20m50s	0.1772	23.998	4.2524	582.73	0.4616	0.4089	0.2644	0.527	2663	93.9
126	00h21m00s	0.1772	23.998	4.2524	583.03	0.4617	0.409	0.2644	0.527	2662	94
127	00h21m10s	0.1772	23.998	4.2524	583.11	0.4615	0.4089	0.2643	0.5269	2664	93.9
128	00h21m20s	0.1772	23.998	4.2524	582.71	0.4617	0.4087	0.2645	0.5269	2661	93.9
129	00h21m30s	0.1772	23.998	4.2524	583.1	0.4615	0.4091	0.2643	0.527	2665	94
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131	00h21m50s	0.1772	23.998	4.2524	582.9	0.4615	0.4091	0.2643	0.527	2665	94
132	00h22m00s	0.1772	23.998	4.2524	583.65	0.4615	0.4088	0.2643	0.5269	2664	93.9
133	00h22m10s	0.1772	23.998	4.2524	583.21	0.4616	0.409	0.2644	0.527	2663	94
134	00h22m20s	0.1772	23.998	4.2524	583.03	0.4617	0.4089	0.2644	0.527	2662	93.9
135	00h22m30s	0.1772	23.998	4.2524	583.04	0.4615	0.4089	0.2644	0.5269	2664	93.9
136	00h22m40s	0.1772	23.998	4.2524	583.07	0.4616	0.4089	0.2644	0.527	2662	93.9
137	00h22m50s	0.1772	23.998	4.2524	583.1	0.4616	0.4089	0.2644	0.527	2662	93.9
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146	00h24m20s	0.1772	23.998	4.2524	583.5	0.4616	0.409	0.2643	0.527	2664	94
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153	00h25m30s	0.1772	23.998	4.2524	583.41	0.4617	0.409	0.2644	0.527	2662	93.9
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155	00h25m50s	0.1772	23.998	4.2524	583.25	0.4618	0.4091	0.2644	0.527	2662	93.9
156	00h26m00s	0.1772	23.998	4.2524	583.02	0.4615	0.4089	0.2643	0.527	2664	94
157	00h26m10s	0.1772	23.998	4.2524	583.32	0.4616	0.409	0.2644	0.527	2663	93.9
158	00h26m20s	0.1772	23.998	4.2524	583.2	0.4616	0.4089	0.2644	0.527	2663	93.9
159	00h26m30s	0.1772	23.998	4.2524	583.3	0.4618	0.4091	0.2644	0.5271	2662	93.9
160	00h26m40s	0.1772	23.998	4.2524	583.16	0.4616	0.4089	0.2644	0.527	2662	93.9
161	00h26m50s	0.1772	23.998	4.2524	583.36	0.4615	0.4089	0.2643	0.527	2664	94
162	00h27m00s	0.1772	23.998	4.2524	583.09	0.4616	0.4089	0.2644	0.527	2663	93.9
163	00h27m10s	0.1772	23.998	4.2524	583.04	0.4616	0.4089	0.2644	0.527	2663	93.9
164	00h27m20s	0.1772	23.998	4.2524	583.29	0.4617	0.409	0.2644	0.527	2662	93.9
165	00h27m30s	0.1772	23.998	4.2524	583.4	0.4616	0.409	0.2643	0.527	2664	94
166	00h27m40s	0.1772	23.998	4.2524	582.96	0.4617	0.4091	0.2643	0.527	2664	94
167	00h27m50s	0.1772	23.998	4.2524	583.49	0.4617	0.4089	0.2644	0.527	2662	93.9
168	00h28m00s	0.1772	23.998	4.2524	582.88	0.4619	0.409	0.2645	0.527	2660	93.9
169	00h28m10s	0.1772	23.998	4.2524	583.33	0.4616	0.4089	0.2644	0.527	2663	93.9
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171	00h28m30s	0.1772	23.998	4.2524	583.06	0.4616	0.4088	0.2645	0.5269	2661	93.9
172	00h28m40s	0.1772	23.998	4.2524	583.4	0.4618	0.409	0.2645	0.527	2661	93.9
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175	00h29m10s	0.1772	23.998	4.2524	583.14	0.4616	0.409	0.2644	0.527	2663	93.9
176	00h29m20s	0.1772	23.998	4.2524	583.52	0.4617	0.4089	0.2644	0.527	2662	93.9

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178	00h29m40s	0.1772	23.998	4.2524	582.91	0.4617	0.4089	0.2644	0.527	2662	93.9
179	00h29m50s	0.1772	23.998	4.2524	583.18	0.4618	0.409	0.2645	0.5271	2661	93.9
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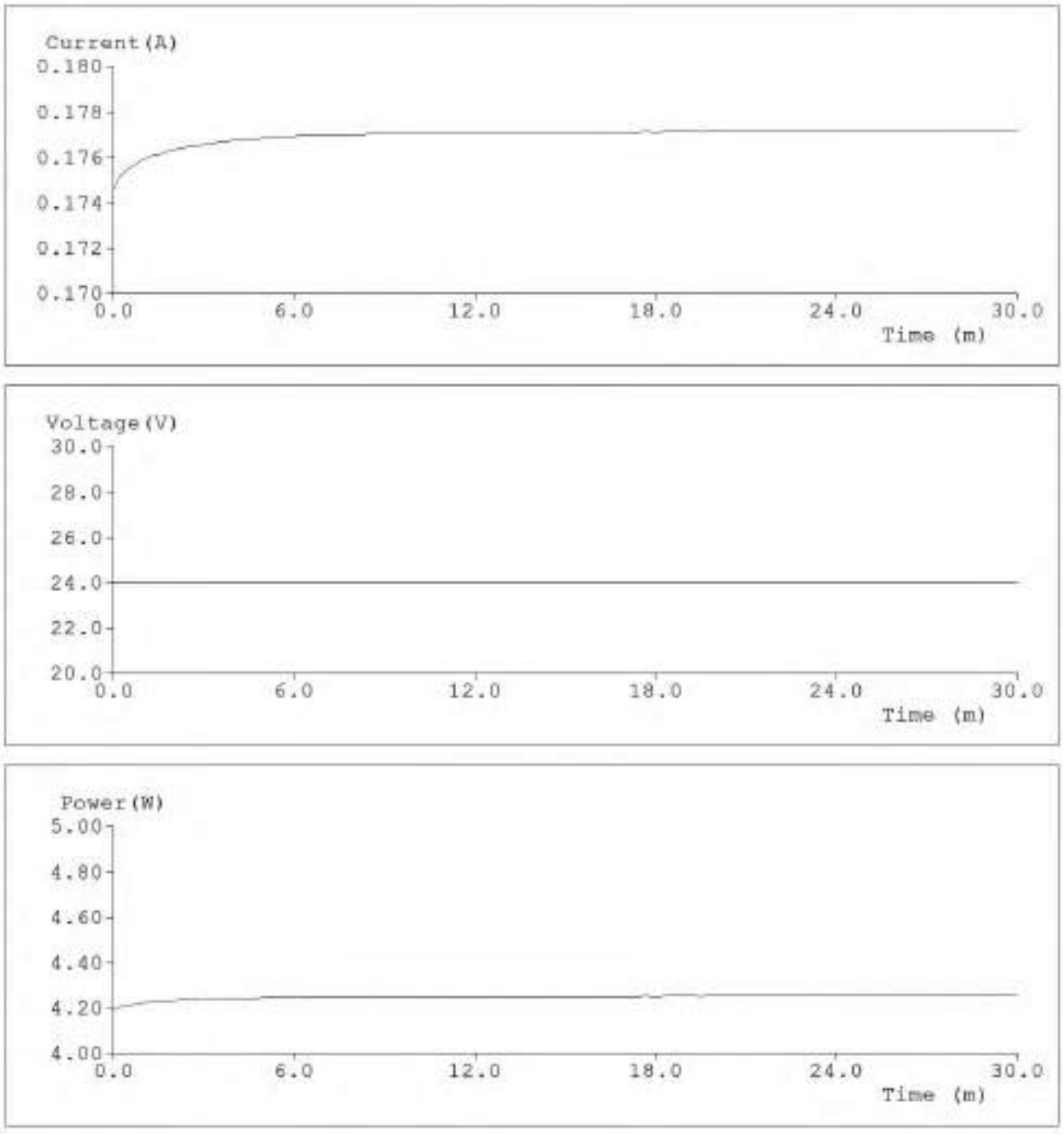
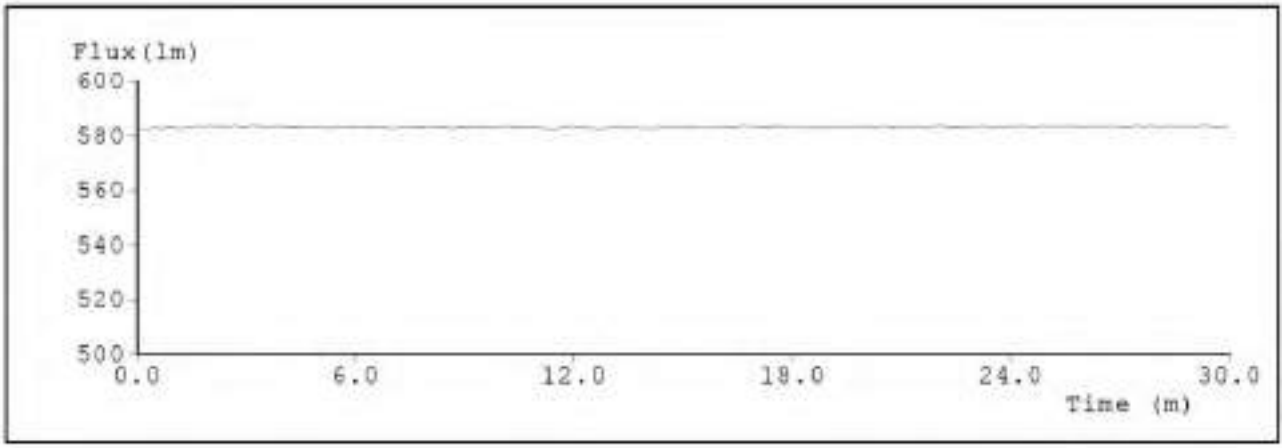
Test curves

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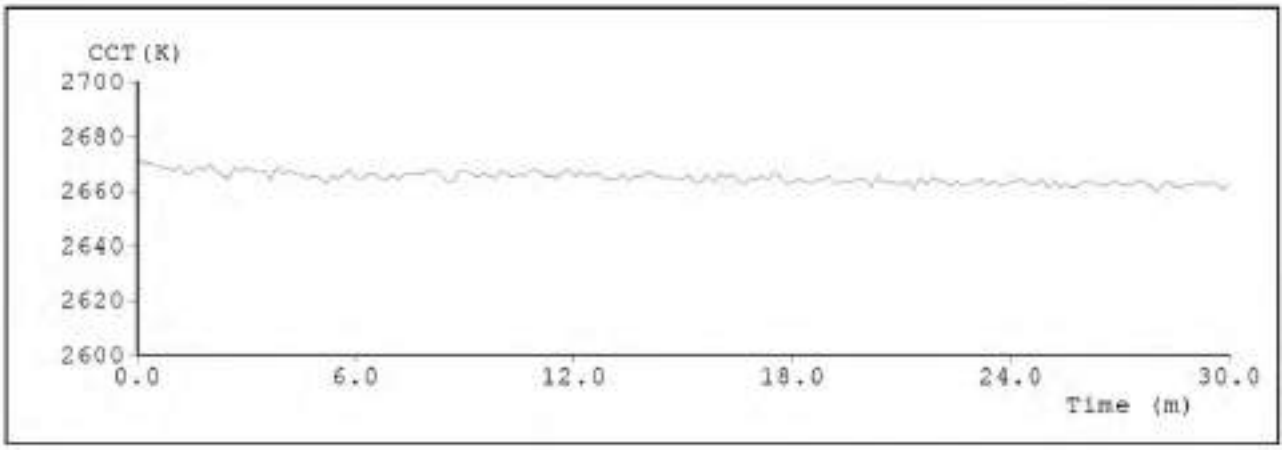
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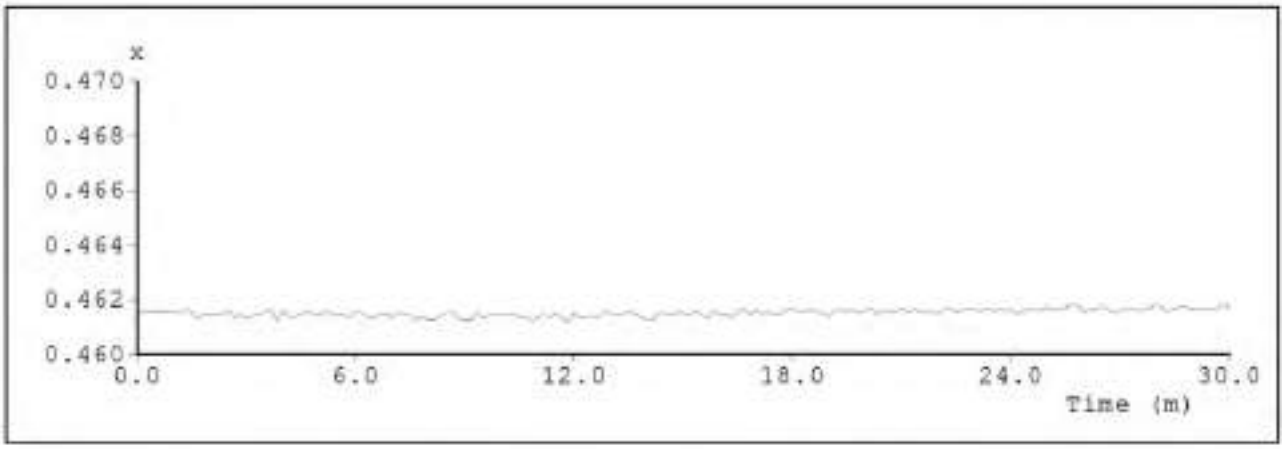
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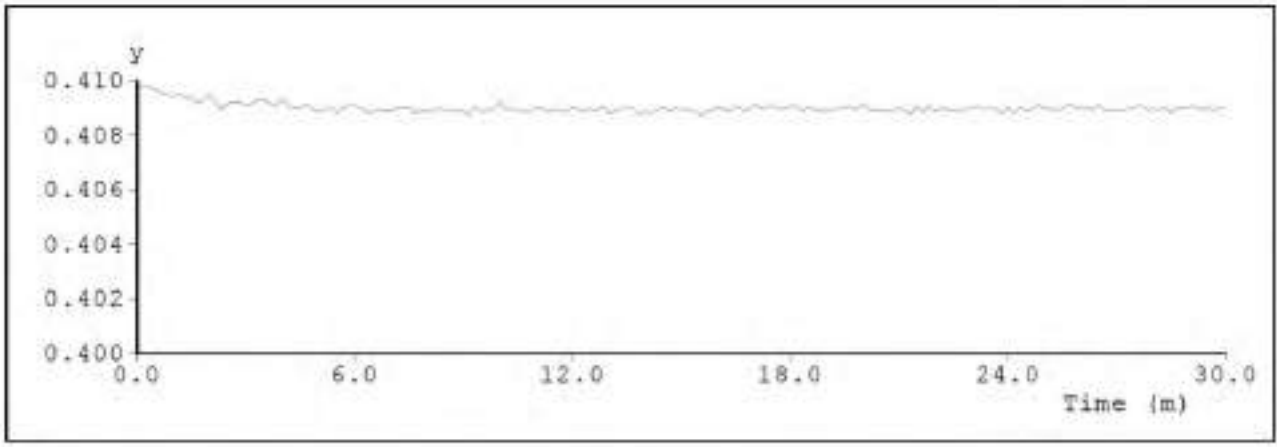
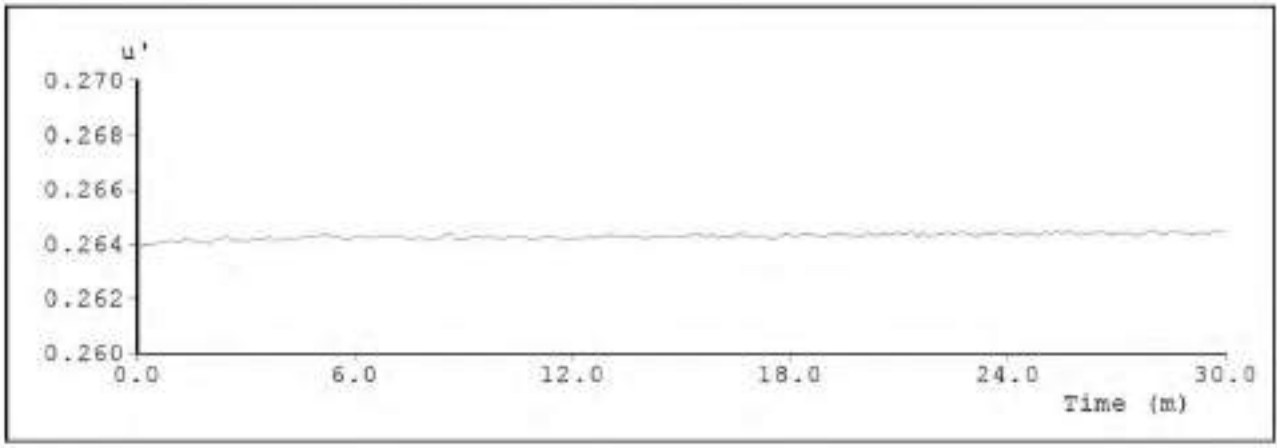
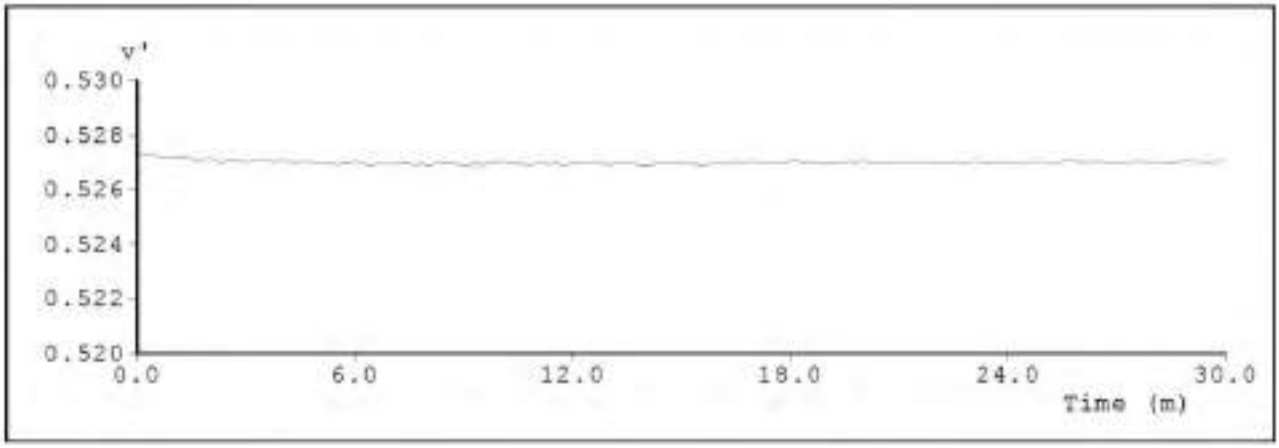
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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

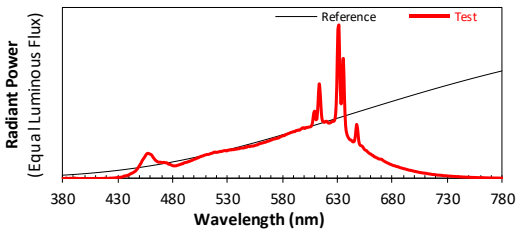

u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

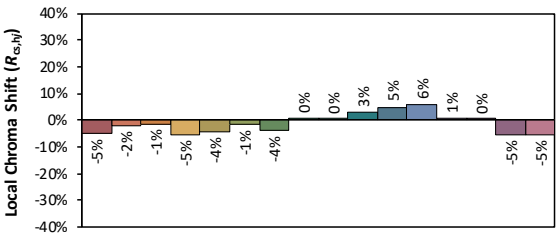

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

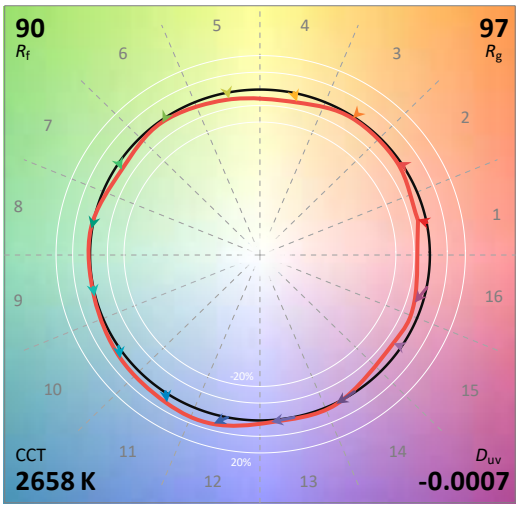
*5.2 ANSI/IES TM-30-18 Color Rendition Report

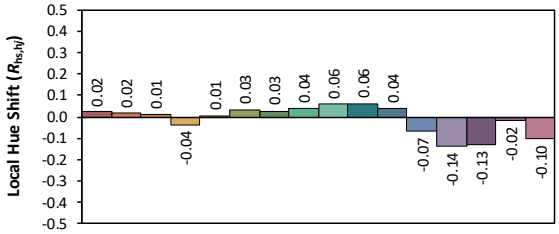
ANSI/IES TM-30-18 Color Rendition Report

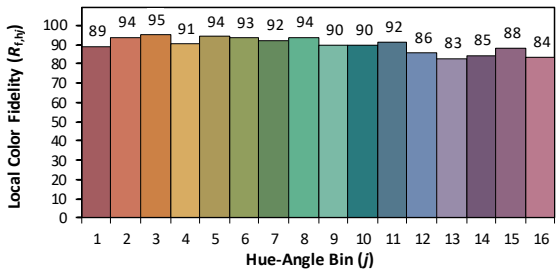
Source:		Manufacturer:	
Date:	2023/4/11	Model:	LFY7-T1000W-L27-CL-I-4

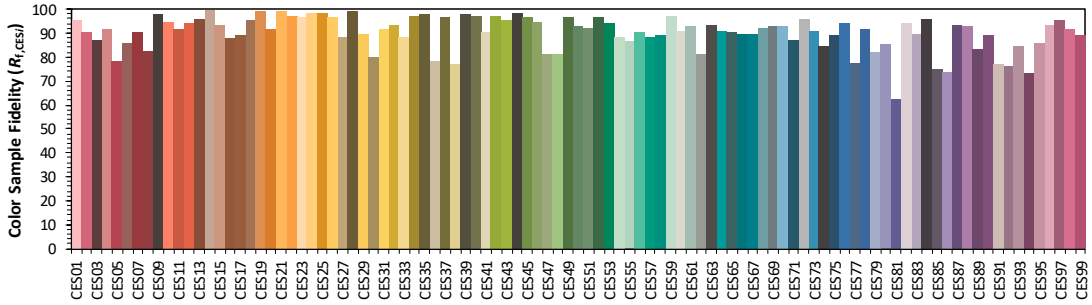












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

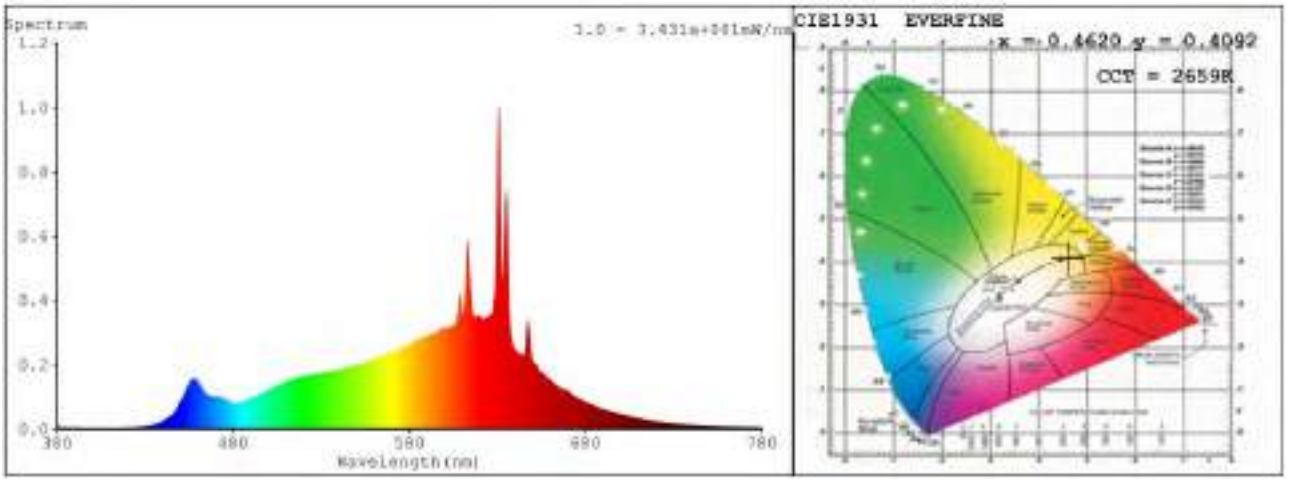
x	0.4621
y	0.4091
u'	0.2646
v'	0.5271

CIE 13.3-1995 (CRI)

R_a	94
R_9	63

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	0.0034	414	0.0012	448	0.0657	482	0.0799	516	0.158
381	0	415	0.0028	449	0.0759	483	0.0803	517	0.1626
382	0.0012	416	0.0021	450	0.0878	484	0.0831	518	0.1639
383	0.0055	417	0.0027	451	0.0978	485	0.0849	519	0.1633
384	0	418	0.0037	452	0.1123	486	0.0871	520	0.1623
385	0	419	0.0035	453	0.1225	487	0.0891	521	0.1651
386	0.0039	420	0.0028	454	0.1327	488	0.0924	522	0.1652
387	0.0024	421	0.0026	455	0.1429	489	0.0928	523	0.1688
388	0.0029	422	0.0035	456	0.1527	490	0.0979	524	0.1678
389	0.0003	423	0.0044	457	0.1563	491	0.0999	525	0.1699
390	0.0038	424	0.0042	458	0.1553	492	0.1013	526	0.1724
391	0.0046	425	0.0042	459	0.1514	493	0.1025	527	0.1731
392	0.0007	426	0.0056	460	0.1495	494	0.1061	528	0.1733
393	0.0028	427	0.005	461	0.1414	495	0.1072	529	0.1712
394	0.0023	428	0.0069	462	0.1308	496	0.1108	530	0.176
395	0.0002	429	0.0073	463	0.1224	497	0.1125	531	0.1761
396	0.0015	430	0.009	464	0.1139	498	0.1161	532	0.178
397	0.002	431	0.0088	465	0.109	499	0.1198	533	0.1775
398	0.0014	432	0.0101	466	0.1043	500	0.1215	534	0.1798
399	0.0019	433	0.0094	467	0.1024	501	0.1236	535	0.1789
400	0.0006	434	0.0124	468	0.1023	502	0.1281	536	0.1808
401	0	435	0.015	469	0.1014	503	0.1289	537	0.1817
402	0.0023	436	0.0182	470	0.0998	504	0.134	538	0.1823
403	0	437	0.0178	471	0.1003	505	0.1354	539	0.1853
404	0.0013	438	0.0202	472	0.1012	506	0.1395	540	0.1846
405	0.0015	439	0.0222	473	0.0983	507	0.1403	541	0.1874
406	0.0014	440	0.0245	474	0.0988	508	0.1433	542	0.1897
407	0.002	441	0.0302	475	0.0949	509	0.1462	543	0.189
408	0.0014	442	0.0322	476	0.0893	510	0.1476	544	0.1897
409	0.0032	443	0.0356	477	0.0901	511	0.1498	545	0.1913
410	0.0008	444	0.0394	478	0.0857	512	0.1497	546	0.1961
411	0.0022	445	0.0436	479	0.0832	513	0.1514	547	0.1935
412	0.002	446	0.0491	480	0.0803	514	0.1545	548	0.1988
413	0.0019	447	0.0571	481	0.0794	515	0.1566	549	0.1992

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.1977	599	0.3127	648	0.304	697	0.0512	746	0.0106
551	0.2018	600	0.3087	649	0.2339	698	0.0487	747	0.0099
552	0.2014	601	0.3162	650	0.2089	699	0.0472	748	0.0101
553	0.2012	602	0.3146	651	0.2036	700	0.0459	749	0.0096
554	0.2037	603	0.3172	652	0.2014	701	0.0443	750	0.0088
555	0.2057	604	0.3184	653	0.1926	702	0.0432	751	0.0095
556	0.2084	605	0.3197	654	0.1819	703	0.0412	752	0.0081
557	0.2086	606	0.3255	655	0.1764	704	0.0396	753	0.0088
558	0.2148	607	0.3487	656	0.1733	705	0.0386	754	0.0085
559	0.2159	608	0.4015	657	0.1659	706	0.0376	755	0.0077
560	0.2179	609	0.4148	658	0.1601	707	0.0362	756	0.0081
561	0.2196	610	0.3632	659	0.1545	708	0.0356	757	0.0074
562	0.2214	611	0.3697	660	0.1521	709	0.0345	758	0.007
563	0.2239	612	0.4716	661	0.1456	710	0.034	759	0.0071
564	0.2249	613	0.5825	662	0.1434	711	0.0325	760	0.0074
565	0.2275	614	0.5184	663	0.1358	712	0.0312	761	0.0069
566	0.2309	615	0.4033	664	0.1343	713	0.0301	762	0.0074
567	0.2315	616	0.3555	665	0.1294	714	0.0295	763	0.0062
568	0.2348	617	0.3492	666	0.1276	715	0.028	764	0.0065
569	0.2372	618	0.3474	667	0.1227	716	0.0266	765	0.0059
570	0.2398	619	0.3532	668	0.1213	717	0.0266	766	0.006
571	0.2435	620	0.3526	669	0.1205	718	0.0258	767	0.0055
572	0.2448	621	0.3443	670	0.1198	719	0.0252	768	0.0056
573	0.2455	622	0.3425	671	0.113	720	0.0235	769	0.0052
574	0.2483	623	0.344	672	0.1092	721	0.0224	770	0.0051
575	0.2495	624	0.3479	673	0.1048	722	0.0227	771	0.0051
576	0.2509	625	0.3538	674	0.1015	723	0.0222	772	0.0052
577	0.2554	626	0.353	675	0.0978	724	0.0212	773	0.005
578	0.2586	627	0.3591	676	0.0954	725	0.0211	774	0.0048
579	0.2619	628	0.3997	677	0.091	726	0.0191	775	0.0049
580	0.2647	629	0.5717	678	0.0892	727	0.0187	776	0.0047
581	0.2648	630	0.9122	679	0.0859	728	0.0191	777	0.0045
582	0.2686	631	0.9422	680	0.083	729	0.0181	778	0.0043
583	0.2725	632	0.5992	681	0.0806	730	0.0172	779	0.0043
584	0.2751	633	0.4602	682	0.0796	731	0.0169	780	0.0043
585	0.2782	634	0.6144	683	0.0764	732	0.0166		
586	0.2804	635	0.7373	684	0.0747	733	0.0162		
587	0.2843	636	0.5029	685	0.0739	734	0.0152		
588	0.2856	637	0.331	686	0.07	735	0.0151		
589	0.2883	638	0.2807	687	0.0681	736	0.0148		
590	0.2906	639	0.2607	688	0.0662	737	0.014		
591	0.29	640	0.2479	689	0.0643	738	0.0133		
592	0.297	641	0.2401	690	0.0621	739	0.0135		
593	0.2967	642	0.2385	691	0.061	740	0.0126		
594	0.2999	643	0.2309	692	0.0593	741	0.0127		
595	0.2984	644	0.2266	693	0.0567	742	0.0117		
596	0.3034	645	0.2319	694	0.055	743	0.0119		
597	0.3088	646	0.2685	695	0.0531	744	0.0108		
598	0.3136	647	0.333	696	0.0519	745	0.0109		

6. Goniophotometer Test results

6.1 Test Data

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

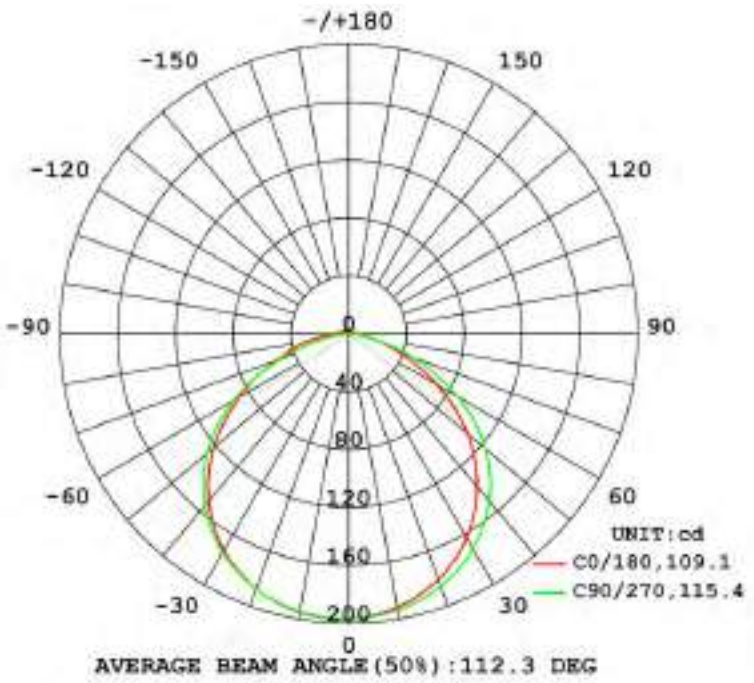
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.1791	1.0000	4.298

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
569.42	132.48	197.1	1.9	98.1

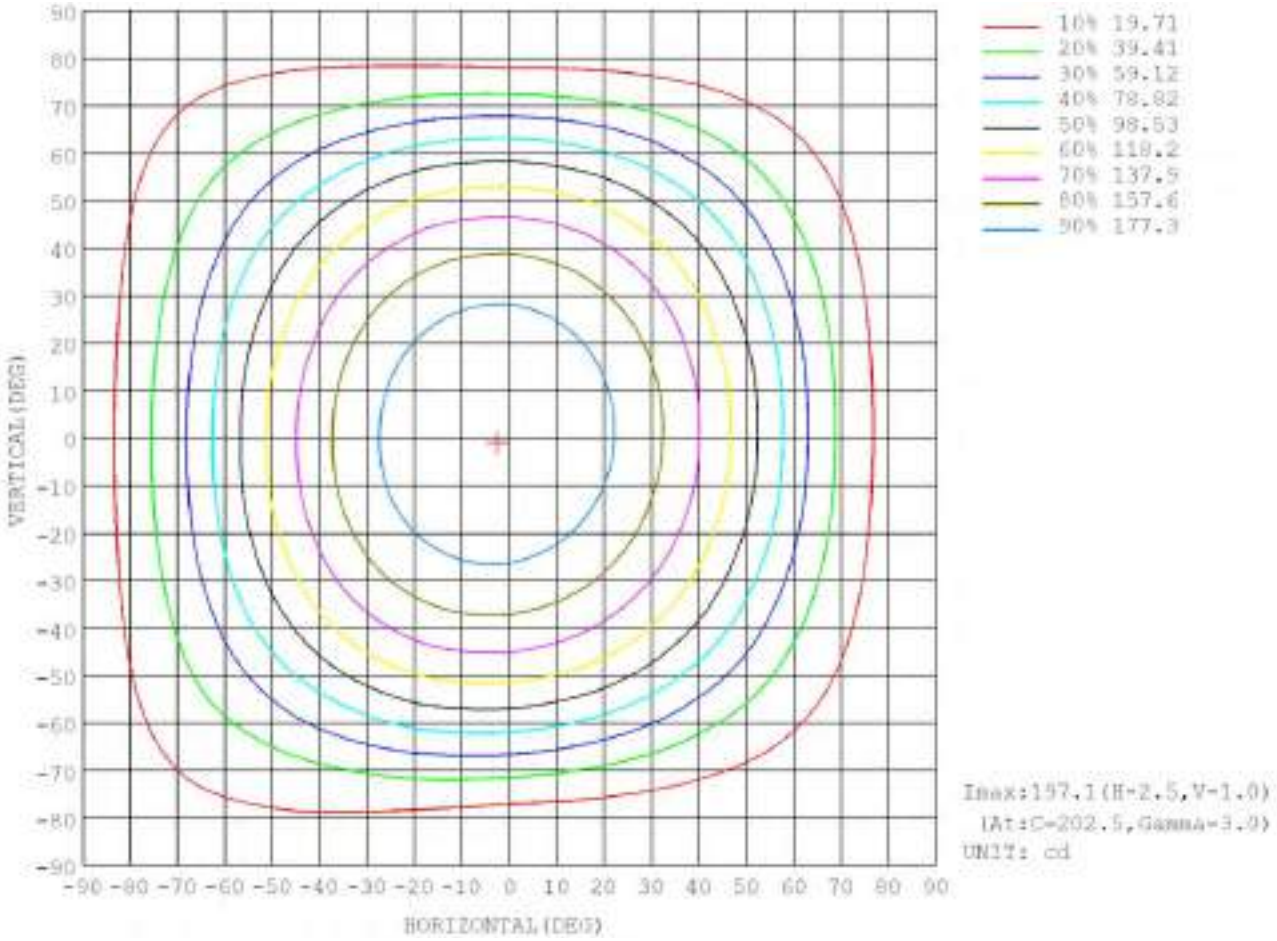
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	191.8	192.1	193.4	196.5	195.3	195.5	194.5	193.6	0~10	18.44	18.44	3.27,3.27
20	186.6	181.6	185.4	187.4	187.4	188.1	187.5	183.6	10~20	53.73	72.08	12.7,12.7
30	162.8	165.1	171.4	173.9	172.9	174.5	174.5	159.4	20~30	82.33	154.7	27.2,27.2
40	138.3	141.6	151.1	155.7	151.8	154.2	155.0	146.6	30~40	100.4	255.1	44.9,44.9
50	106.5	111.1	123.2	125.5	122.2	125.3	127.5	117.6	40~50	[illegible]	[illegible]	[illegible]
60	70.24	73.41	86.80	90.89	88.31	89.69	91.59	81.32	50~60	[illegible]	[illegible]	[illegible]
70	36.08	36.21	45.27	53.25	52.78	51.88	49.64	42.47	60~70	[illegible]	[illegible]	[illegible]
80	18.33	13.09	11.52	24.73	28.72	22.49	18.72	15.47	70~80	[illegible]	[illegible]	[illegible]
90	6.685	4.556	0.1477	8.281	8.786	7.330	0.2277	6.079	80~90	[illegible]	[illegible]	[illegible]
100	4.134	3.763	0.0379	5.498	7.369	5.123	0.0684	4.310	90~100	[illegible]	[illegible]	99.99
110	3.235	1.513	0.0601	4.020	5.104	4.204	0.0052	1.376	100~110	[illegible]	[illegible]	[illegible]
120	0.9670	0.1331	0.1588	0.6521	3.385	0.7839	0.0976	0.1823	110~120	[illegible]	[illegible]	[illegible]
130	0.2716	0.2769	0.1435	0.2165	0.6647	0.2246	0.1356	0.1636	120~130	[illegible]	[illegible]	[illegible]
140	0.2238	0.1965	0.1691	0.2054	0.3193	0.2322	0.2390	0.2189	130~140	[illegible]	[illegible]	[illegible]
150	0.2366	0.2157	0.1913	0.2530	0.3232	0.2943	0.2642	0.2752	140~150	[illegible]	[illegible]	100,100
160	0.2869	0.2422	0.2219	0.2445	0.3505	0.3485	0.3025	0.3004	150~160	[illegible]	[illegible]	100,100
170	0.2963	0.2742	0.2693	0.2780	0.3500	0.3529	0.3123	0.3092	160~170	[illegible]	[illegible]	100,100
180	0.3261	0.3121	0.2973	0.3083	0.3313	0.3296	0.3021	0.2987	170~180	[illegible]	[illegible]	100,100
DEG	LUMINOUS INTENSITY(cd)									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C(DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
5	195	195	195	196	196	196	197	197	197	197	197	197	196	196	196	195
10	192	192	192	193	194	194	195	195	195	195	195	195	195	194	193	192
15	187	187	188	189	190	191	192	192	192	192	193	192	192	191	189	188
20	181	180	182	183	185	187	187	188	187	188	188	188	187	186	184	182
25	173	173	174	177	179	181	181	181	181	181	182	182	182	180	177	174
30	163	163	165	168	171	173	174	174	173	173	175	175	174	172	168	165
35	151	152	154	158	162	164	165	164	163	164	165	166	166	163	158	154
40	138	138	142	147	151	154	154	152	151	152	154	156	155	152	147	141
45	123	124	127	133	138	141	141	139	137	138	141	143	142	139	133	127
50	107	107	111	118	123	127	126	124	122	123	126	128	128	124	117	111
55	89.0	88.8	92.9	100.0	106	110	109	107	105	106	109	112	111	107	100	93.0
60	70.2	69.9	73.6	80.4	86.8	91.0	90.4	88.7	88.3	87.6	89.7	92.7	91.9	88.3	81.3	74.3
65	52.1	51.2	54.1	59.9	66.1	70.8	71.1	71.8	71.0	70.4	70.3	72.0	71.1	67.9	61.7	55.5
70	36.1	35.1	36.2	40.3	45.3	50.5	53.3	53.7	52.8	52.1	51.9	51.3	49.6	47.5	43.1	38.7
75	23.3	22.4	22.2	23.6	26.2	32.2	36.4	39.7	40.6	38.4	34.9	32.3	29.8	29.3	27.3	25.1
80	14.3	13.7	13.1	12.3	11.8	17.9	24.7	28.7	28.7	26.6	22.5	17.9	13.7	15.4	15.7	15.2
85	8.28	7.74	7.10	5.69	2.97	8.57	13.4	15.4	15.7	14.2	12.1	8.75	3.82	7.13	8.59	8.84
90	4.68	4.56	4.56	2.89	0.15	3.86	8.28	9.01	8.78	8.41	7.93	3.67	0.23	3.28	4.98	4.97
95	4.01	4.29	4.10	2.51	0.03	3.31	6.83	8.13	7.75	7.88	6.48	3.28	0.05	2.82	4.57	4.30
100	4.13	4.08	3.76	1.51	0.04	2.53	5.41	7.28	7.37	7.08	5.13	2.89	0.07	1.04	4.31	4.28
105	4.08	3.93	2.67	0.35	0.05	0.89	4.80	5.53	5.71	5.46	4.79	1.23	0.08	0.21	2.77	4.19
110	3.34	2.78	1.52	0.10	0.06	0.25	4.03	5.17	5.19	5.09	4.28	0.32	0.09	0.10	1.38	2.91
115	2.07	1.73	0.54	0.09	0.09	0.13	1.92	4.60	4.92	4.67	2.09	0.29	0.09	0.10	0.43	1.67
120	0.97	0.74	0.23	0.11	0.10	0.12	0.69	2.55	3.39	2.66	0.78	0.12	0.10	0.10	0.18	0.68
125	0.46	0.36	0.18	0.13	0.12	0.13	0.36	1.20	1.86	1.29	0.36	0.13	0.11	0.12	0.15	0.31
130	0.27	0.25	0.18	0.15	0.14	0.15	0.22	0.62	0.86	0.60	0.22	0.15	0.14	0.14	0.16	0.21
135	0.23	0.21	0.19	0.17	0.16	0.16	0.21	0.35	0.51	0.37	0.21	0.17	0.16	0.17	0.19	0.21
140	0.22	0.21	0.20	0.18	0.17	0.18	0.21	0.26	0.32	0.28	0.23	0.21	0.20	0.20	0.22	0.24
145	0.23	0.22	0.20	0.19	0.18	0.19	0.21	0.25	0.31	0.29	0.26	0.24	0.23	0.24	0.25	0.27
150	0.24	0.23	0.22	0.20	0.19	0.20	0.21	0.24	0.32	0.32	0.29	0.27	0.26	0.26	0.28	0.29
155	0.25	0.25	0.23	0.21	0.21	0.21	0.23	0.25	0.34	0.34	0.32	0.30	0.29	0.29	0.29	0.31
160	0.27	0.26	0.24	0.23	0.22	0.23	0.24	0.27	0.35	0.35	0.34	0.32	0.30	0.29	0.30	0.31
165	0.28	0.28	0.26	0.25	0.24	0.25	0.26	0.28	0.35	0.36	0.35	0.33	0.31	0.30	0.30	0.31
170	0.30	0.29	0.27	0.26	0.26	0.27	0.28	0.30	0.35	0.35	0.35	0.33	0.31	0.31	0.31	0.31
175	0.31	0.31	0.30	0.29	0.28	0.29	0.30	0.32	0.35	0.35	0.35	0.33	0.31	0.30	0.30	0.31
180	0.33	0.33	0.31	0.30	0.30	0.30	0.31	0.32	0.33	0.33	0.33	0.31	0.30	0.30	0.30	0.31

7. Photo of sample

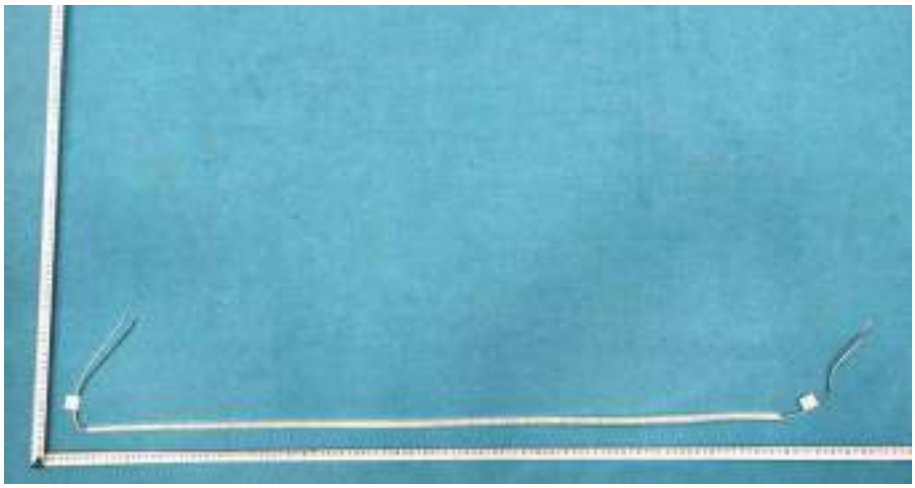


Figure 1 Overview

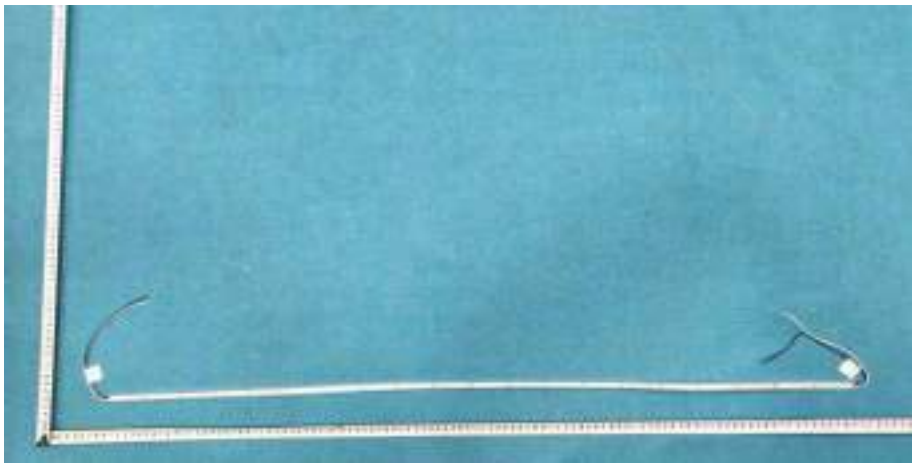


Figure 2 Overview

---End of Report---

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23030808L00301
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY7-T1000W-L27-CL-I-6
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	:	Mar. 27, 2023
Date of test	:	Mar. 27, 2023 - Apr. 04, 2023
Date of report	:	Apr. 04, 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:	LFY7-T1000W-L27-CL-I-6
Manufacturer:	
Product Type:	N/A
Rated Voltage/Frequency:	DC24V
Rated Power:	/
Rated luminous flux:	/
Nominal CCT:	/

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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.2525	23.998	6.0595	841.03	0.4608	0.4099	0.2634	0.5272	2682	94
1	00h00m10s	0.2537	23.998	6.0883	840.73	0.4608	0.4098	0.2634	0.5272	2681	94
2	00h00m20s	0.2542	23.998	6.1003	841.39	0.4609	0.4096	0.2636	0.5271	2679	93.9
3	00h00m30s	0.2546	23.998	6.1099	842.23	0.4608	0.4095	0.2636	0.5271	2679	93.9
4	00h00m40s	0.2549	23.998	6.1171	842.15	0.4609	0.4097	0.2636	0.5272	2678	93.9
5	00h00m50s	0.2552	23.998	6.1243	842.92	0.4608	0.4095	0.2636	0.5271	2679	93.9
6	00h01m00s	0.2554	23.998	6.1291	843.08	0.4609	0.4095	0.2637	0.5271	2676	93.9
7	00h01m10s	0.2556	23.998	6.1339	843.16	0.4608	0.4094	0.2637	0.527	2677	93.9
8	00h01m20s	0.2558	23.998	6.1387	842.09	0.4609	0.4092	0.2638	0.527	2674	93.9
9	00h01m30s	0.256	23.998	6.1435	842.66	0.4608	0.4092	0.2638	0.5269	2676	93.9
10	00h01m40s	0.2562	23.998	6.1483	842.91	0.4608	0.4093	0.2637	0.527	2676	93.9
11	00h01m50s	0.2563	23.998	6.1507	842.39	0.4607	0.409	0.2638	0.5268	2676	93.9
12	00h02m00s	0.2564	23.998	6.1531	842.97	0.4607	0.4091	0.2637	0.5269	2677	93.9
13	00h02m10s	0.2566	23.998	6.1579	843	0.4606	0.4091	0.2637	0.5269	2678	93.9
14	00h02m20s	0.2567	23.998	6.1603	842.6	0.4609	0.409	0.2639	0.5269	2674	93.9
15	00h02m30s	0.2568	23.998	6.1627	843.29	0.4606	0.4088	0.2638	0.5268	2676	93.9
16	00h02m40s	0.2569	23.998	6.1651	843.13	0.4607	0.409	0.2638	0.5268	2676	93.9
17	00h02m50s	0.257	23.998	6.1675	843.1	0.4607	0.4089	0.2638	0.5268	2675	93.9
18	00h03m00s	0.257	23.998	6.1675	843.25	0.4608	0.4088	0.2639	0.5268	2673	93.9
19	00h03m10s	0.2571	23.998	6.1699	843.23	0.4606	0.4088	0.2638	0.5268	2676	93.9
20	00h03m20s	0.2572	23.998	6.1723	842.53	0.4607	0.4087	0.2639	0.5268	2674	93.9
21	00h03m30s	0.2572	23.998	6.1723	843.06	0.4607	0.4087	0.2639	0.5268	2673	93.9

22	00h03m40s	0.2573	23.998	6.1747	843.52	0.4606	0.4088	0.2638	0.5268	2676	93.9
23	00h03m50s	0.2574	23.998	6.1771	843.13	0.4606	0.4087	0.2639	0.5267	2674	93.9
24	00h04m00s	0.2574	23.998	6.1771	842.64	0.4608	0.4087	0.2639	0.5268	2673	93.9
25	00h04m10s	0.2575	23.998	6.1795	843.08	0.4608	0.4089	0.2639	0.5268	2673	93.9
26	00h04m20s	0.2575	23.998	6.1795	842.62	0.4606	0.4088	0.2638	0.5268	2675	93.9
27	00h04m30s	0.2575	23.998	6.1795	843.04	0.4609	0.4089	0.2639	0.5269	2673	93.9
28	00h04m40s	0.2576	23.998	6.1819	842.85	0.4608	0.4088	0.2639	0.5268	2673	93.9
29	00h04m50s	0.2576	23.998	6.1819	843.09	0.4607	0.4088	0.2639	0.5268	2674	93.9
30	00h05m00s	0.2576	23.998	6.1819	843.4	0.4609	0.4088	0.264	0.5268	2671	93.9
31	00h05m10s	0.2577	23.998	6.1843	843.23	0.4607	0.4087	0.2639	0.5268	2674	93.9
32	00h05m20s	0.2577	23.998	6.1843	843.5	0.4608	0.4086	0.264	0.5267	2671	93.8
33	00h05m30s	0.2577	23.998	6.1843	843.95	0.4607	0.4088	0.2639	0.5268	2674	93.9
34	00h05m40s	0.2577	23.998	6.1843	843.61	0.4607	0.4088	0.2639	0.5268	2674	93.9
35	00h05m50s	0.2578	23.998	6.1867	842.93	0.4606	0.4086	0.2639	0.5267	2674	93.9
36	00h06m00s	0.2578	23.998	6.1867	843.53	0.4608	0.4087	0.264	0.5268	2671	93.8
37	00h06m10s	0.2578	23.998	6.1867	843.6	0.4606	0.4086	0.2639	0.5267	2674	93.9
38	00h06m20s	0.2578	23.998	6.1867	843.67	0.4608	0.4087	0.264	0.5268	2672	93.9
39	00h06m30s	0.2578	23.998	6.1867	843.3	0.4608	0.4086	0.264	0.5267	2672	93.9
40	00h06m40s	0.2579	23.998	6.1891	843.18	0.4608	0.4088	0.2639	0.5268	2673	93.9
41	00h06m50s	0.2579	23.998	6.1891	843.47	0.4607	0.4086	0.264	0.5267	2673	93.9
42	00h07m00s	0.2579	23.998	6.1891	843.52	0.4607	0.4087	0.2639	0.5268	2674	93.9
43	00h07m10s	0.2579	23.998	6.1891	842.87	0.4608	0.4085	0.264	0.5267	2671	93.9
44	00h07m20s	0.2579	23.998	6.1891	843.07	0.4607	0.4085	0.264	0.5267	2672	93.9
45	00h07m30s	0.2579	23.998	6.1891	843.12	0.4608	0.4087	0.264	0.5268	2672	93.9
46	00h07m40s	0.2579	23.998	6.1891	842.82	0.4608	0.4086	0.264	0.5267	2672	93.8
47	00h07m50s	0.258	23.998	6.1915	842.93	0.4608	0.4086	0.264	0.5267	2672	93.9
48	00h08m00s	0.258	23.998	6.1915	843.52	0.4608	0.4088	0.2639	0.5268	2673	93.9
49	00h08m10s	0.258	23.998	6.1915	843.61	0.4608	0.4087	0.264	0.5268	2672	93.9
50	00h08m20s	0.258	23.998	6.1915	842.95	0.4607	0.4085	0.264	0.5267	2672	93.9
51	00h08m30s	0.258	23.998	6.1915	843.16	0.4608	0.4086	0.264	0.5267	2672	93.9
52	00h08m40s	0.258	23.998	6.1915	843.79	0.4607	0.4086	0.2639	0.5267	2673	93.9

53	00h08m50s	0.258	23.998	6.1915	843.61	0.4608	0.4087	0.264	0.5267	2672	93.9
54	00h09m00s	0.258	23.998	6.1915	843.17	0.4608	0.4086	0.264	0.5267	2672	93.9
55	00h09m10s	0.258	23.998	6.1915	843.1	0.4609	0.4086	0.2641	0.5267	2670	93.8
56	00h09m20s	0.258	23.998	6.1915	843.96	0.4606	0.4088	0.2638	0.5268	2675	93.9
57	00h09m30s	0.258	23.998	6.1915	843.61	0.4606	0.4085	0.2639	0.5267	2673	93.9
58	00h09m40s	0.258	23.998	6.1915	843.39	0.4609	0.4087	0.264	0.5268	2671	93.9
59	00h09m50s	0.258	23.998	6.1915	843.57	0.4607	0.4087	0.2639	0.5267	2674	93.9
60	00h10m00s	0.258	23.998	6.1915	842.74	0.4608	0.4085	0.264	0.5267	2671	93.9
61	00h10m10s	0.258	23.998	6.1915	843.33	0.4607	0.4086	0.264	0.5267	2673	93.9
62	00h10m20s	0.258	23.998	6.1915	843.49	0.4606	0.4085	0.2639	0.5267	2673	93.9
63	00h10m30s	0.2581	23.998	6.1939	843.46	0.4607	0.4085	0.264	0.5267	2672	93.9
64	00h10m40s	0.2581	23.998	6.1939	843.44	0.4608	0.4087	0.264	0.5268	2672	93.9
65	00h10m50s	0.2581	23.998	6.1939	843.68	0.4608	0.4086	0.264	0.5267	2672	93.9
66	00h11m00s	0.2581	23.998	6.1939	842.54	0.4608	0.4085	0.264	0.5267	2671	93.9
67	00h11m10s	0.2581	23.998	6.1939	843.28	0.4609	0.4086	0.2641	0.5267	2670	93.8
68	00h11m20s	0.2581	23.998	6.1939	843.1	0.461	0.4086	0.2641	0.5268	2669	93.8
69	00h11m30s	0.2581	23.998	6.1939	843.05	0.4607	0.4087	0.2639	0.5267	2673	93.9
70	00h11m40s	0.2581	23.998	6.1939	843.48	0.4608	0.4086	0.264	0.5267	2672	93.9
71	00h11m50s	0.2581	23.998	6.1939	843.38	0.4608	0.4086	0.264	0.5267	2672	93.8
72	00h12m00s	0.2581	23.998	6.1939	843.5	0.4607	0.4086	0.264	0.5267	2672	93.8
73	00h12m10s	0.2581	23.998	6.1939	843.77	0.4609	0.4087	0.264	0.5268	2671	93.9
74	00h12m20s	0.2581	23.998	6.1939	843.33	0.4608	0.4085	0.264	0.5267	2671	93.9
75	00h12m30s	0.2581	23.998	6.1939	843.03	0.4609	0.4085	0.2641	0.5267	2670	93.8
76	00h12m40s	0.2581	23.998	6.1939	843.18	0.4608	0.4088	0.2639	0.5268	2673	93.8
77	00h12m50s	0.2581	23.998	6.1939	843.52	0.4607	0.4086	0.2639	0.5267	2673	93.9
78	00h13m00s	0.2581	23.998	6.1939	843.63	0.4606	0.4084	0.264	0.5266	2673	93.9
79	00h13m10s	0.2581	23.998	6.1939	843.35	0.4608	0.4087	0.264	0.5268	2672	93.9
80	00h13m20s	0.2581	23.998	6.1939	843.32	0.4609	0.4088	0.264	0.5268	2671	93.9
81	00h13m30s	0.2581	23.998	6.1939	843.35	0.4608	0.4087	0.2639	0.5267	2673	93.9
82	00h13m40s	0.2581	23.998	6.1939	843.42	0.4607	0.4085	0.264	0.5267	2673	93.9
83	00h13m50s	0.2581	23.998	6.1939	842.84	0.4608	0.4085	0.2641	0.5267	2670	93.9

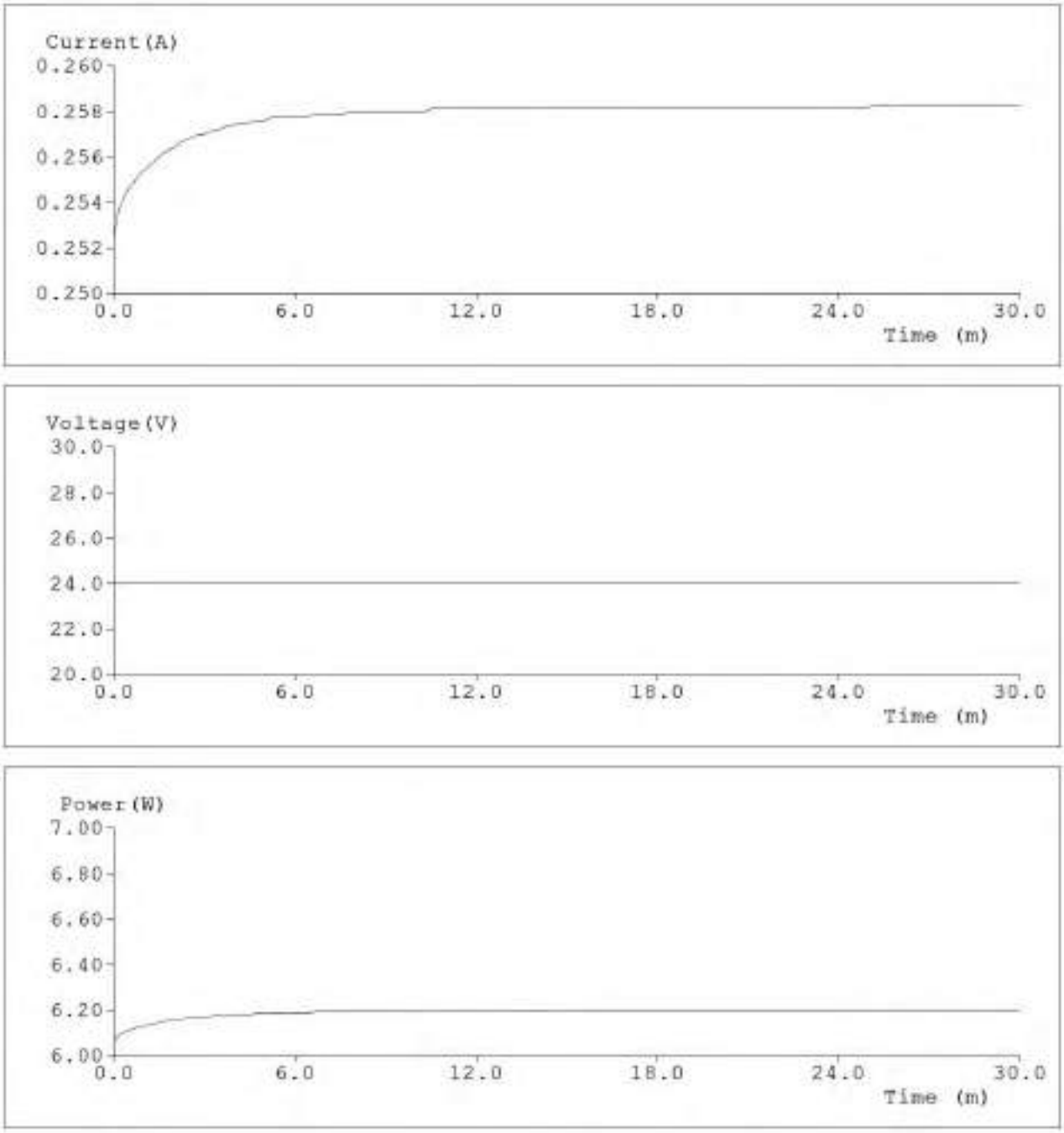
84	00h14m00s	0.2581	23.998	6.1939	843.08	0.4608	0.4086	0.264	0.5267	2671	93.9
85	00h14m10s	0.2581	23.998	6.1939	843.38	0.4608	0.4087	0.264	0.5268	2672	93.9
86	00h14m20s	0.2581	23.998	6.1939	843.65	0.4608	0.4086	0.264	0.5267	2672	93.9
87	00h14m30s	0.2581	23.998	6.1939	843.41	0.4609	0.4087	0.2641	0.5268	2670	93.9
88	00h14m40s	0.2581	23.998	6.1939	843.1	0.4608	0.4086	0.264	0.5267	2672	93.8
89	00h14m50s	0.2582	23.998	6.1963	843.22	0.4608	0.4086	0.2641	0.5267	2671	93.8
90	00h15m00s	0.2582	23.998	6.1963	843.2	0.4607	0.4086	0.264	0.5267	2673	93.9
91	00h15m10s	0.2582	23.998	6.1963	843.69	0.4608	0.4087	0.264	0.5268	2672	93.9
92	00h15m20s	0.2582	23.998	6.1963	843.51	0.4609	0.4087	0.264	0.5268	2672	93.9
93	00h15m30s	0.2582	23.998	6.1963	843.19	0.4608	0.4085	0.2641	0.5267	2671	93.9
94	00h15m40s	0.2582	23.998	6.1963	843.84	0.4608	0.4087	0.264	0.5268	2672	93.9
95	00h15m50s	0.2582	23.998	6.1963	843.77	0.4609	0.4087	0.264	0.5268	2671	93.9
96	00h16m00s	0.2582	23.998	6.1963	843.35	0.4608	0.4086	0.264	0.5267	2671	93.8
97	00h16m10s	0.2582	23.998	6.1963	843.48	0.4608	0.4085	0.2641	0.5267	2670	93.9
98	00h16m20s	0.2582	23.998	6.1963	843.33	0.4608	0.4087	0.264	0.5268	2672	93.9
99	00h16m30s	0.2582	23.998	6.1963	843.29	0.4609	0.4087	0.2641	0.5268	2670	93.9
100	00h16m40s	0.2582	23.998	6.1963	843.02	0.4609	0.4085	0.2641	0.5267	2670	93.9
101	00h16m50s	0.2582	23.998	6.1963	843.48	0.4607	0.4086	0.264	0.5267	2672	93.9
102	00h17m00s	0.2582	23.998	6.1963	842.83	0.4609	0.4086	0.2641	0.5267	2670	93.8
103	00h17m10s	0.2582	23.998	6.1963	843.1	0.4608	0.4085	0.2641	0.5267	2670	93.9
104	00h17m20s	0.2582	23.998	6.1963	843.8	0.4608	0.4087	0.264	0.5268	2672	93.9
105	00h17m30s	0.2582	23.998	6.1963	843.21	0.461	0.4087	0.2641	0.5268	2670	93.8
106	00h17m40s	0.2582	23.998	6.1963	843.46	0.461	0.4086	0.2641	0.5267	2669	93.9
107	00h17m50s	0.2582	23.998	6.1963	843.14	0.4608	0.4085	0.2641	0.5267	2670	93.9
108	00h18m00s	0.2582	23.998	6.1963	843.14	0.461	0.4087	0.2641	0.5268	2670	93.8
109	00h18m10s	0.2582	23.998	6.1963	843.08	0.461	0.4085	0.2642	0.5267	2668	93.8
110	00h18m20s	0.2582	23.998	6.1963	843.11	0.4609	0.4086	0.264	0.5268	2671	93.8
111	00h18m30s	0.2582	23.998	6.1963	843.97	0.4608	0.4088	0.2639	0.5268	2673	93.9
112	00h18m40s	0.2582	23.998	6.1963	843.51	0.461	0.4087	0.2641	0.5268	2669	93.9
113	00h18m50s	0.2582	23.998	6.1963	843.87	0.4608	0.4086	0.2641	0.5267	2671	93.8
114	00h19m00s	0.2582	23.998	6.1963	843.28	0.4608	0.4086	0.264	0.5267	2672	93.9

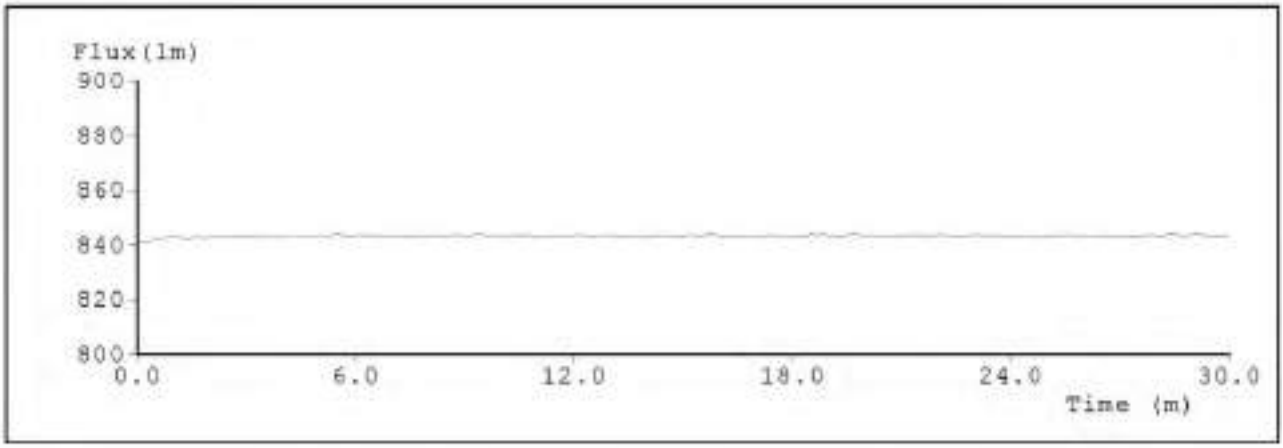
115	00h19m10s	0.2582	23.998	6.1963	843.13	0.4609	0.4086	0.2641	0.5267	2670	93.9
116	00h19m20s	0.2582	23.998	6.1963	843.23	0.4609	0.4086	0.264	0.5267	2671	93.8
117	00h19m30s	0.2582	23.998	6.1963	843.65	0.4608	0.4086	0.264	0.5267	2671	93.9
118	00h19m40s	0.2582	23.998	6.1963	843.85	0.4609	0.4085	0.2641	0.5267	2669	93.8
119	00h19m50s	0.2582	23.998	6.1963	843.6	0.4608	0.4087	0.264	0.5267	2672	93.9
120	00h20m00s	0.2582	23.998	6.1963	843.4	0.4607	0.4086	0.264	0.5267	2672	93.9
121	00h20m10s	0.2582	23.998	6.1963	843.54	0.4609	0.4087	0.264	0.5268	2671	93.9
122	00h20m20s	0.2582	23.998	6.1963	843.15	0.4608	0.4085	0.2641	0.5267	2670	93.9
123	00h20m30s	0.2582	23.998	6.1963	843.42	0.4608	0.4086	0.264	0.5267	2671	93.9
124	00h20m40s	0.2582	23.998	6.1963	843.26	0.4609	0.4087	0.264	0.5268	2671	93.9
125	00h20m50s	0.2582	23.998	6.1963	843.31	0.4608	0.4086	0.264	0.5267	2672	93.9
126	00h21m00s	0.2582	23.998	6.1963	843.3	0.4609	0.4086	0.2641	0.5267	2670	93.8
127	00h21m10s	0.2582	23.998	6.1963	843.58	0.4608	0.4085	0.2641	0.5267	2670	93.8
128	00h21m20s	0.2582	23.998	6.1963	843.47	0.4608	0.4087	0.264	0.5268	2672	93.9
129	00h21m30s	0.2582	23.998	6.1963	843.53	0.4609	0.4087	0.264	0.5268	2671	93.9
130	00h21m40s	0.2582	23.998	6.1963	843.49	0.4607	0.4087	0.2639	0.5267	2673	93.9
131	00h21m50s	0.2582	23.998	6.1963	842.93	0.4607	0.4086	0.264	0.5267	2672	93.8
132	00h22m00s	0.2582	23.998	6.1963	843.84	0.4609	0.4087	0.2641	0.5268	2670	93.9
133	00h22m10s	0.2582	23.998	6.1963	843.47	0.461	0.4087	0.2641	0.5268	2670	93.8
134	00h22m20s	0.2582	23.998	6.1963	843.56	0.4608	0.4087	0.264	0.5268	2672	93.9
135	00h22m30s	0.2582	23.998	6.1963	843.16	0.461	0.4086	0.2641	0.5267	2669	93.9
136	00h22m40s	0.2582	23.998	6.1963	843.54	0.4608	0.4088	0.2639	0.5268	2673	93.8
137	00h22m50s	0.2582	23.998	6.1963	843.2	0.4609	0.4085	0.2641	0.5267	2670	93.8
138	00h23m00s	0.2582	23.998	6.1963	843.69	0.4608	0.4086	0.264	0.5267	2672	93.9
139	00h23m10s	0.2582	23.998	6.1963	843.67	0.4608	0.4086	0.264	0.5267	2671	93.9
140	00h23m20s	0.2582	23.998	6.1963	842.89	0.4609	0.4085	0.2641	0.5267	2669	93.9
141	00h23m30s	0.2582	23.998	6.1963	843.77	0.4611	0.4087	0.2641	0.5268	2669	93.8
142	00h23m40s	0.2582	23.998	6.1963	843.37	0.4609	0.4086	0.2641	0.5268	2670	93.9
143	00h23m50s	0.2582	23.998	6.1963	843.25	0.4608	0.4086	0.264	0.5267	2672	93.9
144	00h24m00s	0.2582	23.998	6.1963	842.74	0.4609	0.4085	0.2641	0.5267	2670	93.9
145	00h24m10s	0.2582	23.998	6.1963	843.3	0.4608	0.4086	0.264	0.5267	2672	93.9

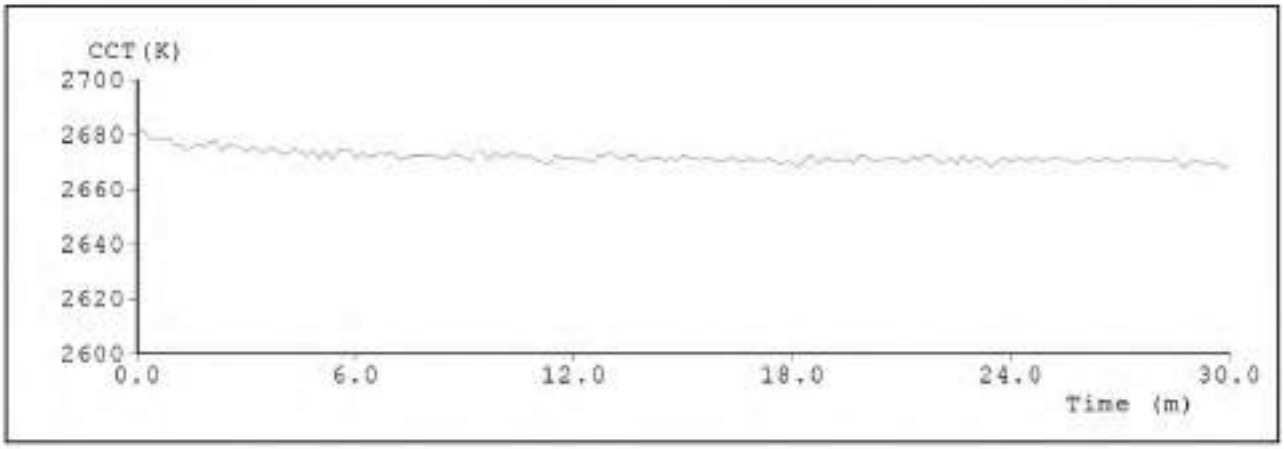
146	00h24m20s	0.2582	23.998	6.1963	843.31	0.4608	0.4085	0.264	0.5267	2671	93.9
147	00h24m30s	0.2582	23.998	6.1963	843.15	0.4608	0.4084	0.2641	0.5266	2670	93.8
148	00h24m40s	0.2582	23.998	6.1963	842.88	0.4608	0.4087	0.264	0.5267	2672	93.9
149	00h24m50s	0.2582	23.998	6.1963	843.41	0.4609	0.4086	0.2641	0.5267	2670	93.8
150	00h25m00s	0.2582	23.998	6.1963	843.27	0.4608	0.4085	0.264	0.5267	2671	93.8
151	00h25m10s	0.2583	23.998	6.1987	843.25	0.4607	0.4085	0.264	0.5267	2672	93.9
152	00h25m20s	0.2583	23.998	6.1987	843.1	0.4609	0.4086	0.264	0.5268	2671	93.9
153	00h25m30s	0.2583	23.998	6.1987	843.88	0.4609	0.4087	0.264	0.5268	2671	93.8
154	00h25m40s	0.2583	23.998	6.1987	843.19	0.4609	0.4086	0.2641	0.5267	2670	93.8
155	00h25m50s	0.2582	23.998	6.1963	843.64	0.4609	0.4085	0.2641	0.5267	2669	93.8
156	00h26m00s	0.2583	23.998	6.1987	843.29	0.4608	0.4086	0.264	0.5267	2671	93.9
157	00h26m10s	0.2583	23.998	6.1987	843.5	0.4608	0.4086	0.264	0.5267	2671	93.9
158	00h26m20s	0.2583	23.998	6.1987	843.06	0.4609	0.4086	0.2641	0.5267	2671	93.9
159	00h26m30s	0.2583	23.998	6.1987	843.43	0.4609	0.4086	0.264	0.5267	2671	93.8
160	00h26m40s	0.2583	23.998	6.1987	843.43	0.4608	0.4087	0.264	0.5268	2672	93.9
161	00h26m50s	0.2583	23.998	6.1987	843.25	0.4609	0.4086	0.2641	0.5268	2670	93.9
162	00h27m00s	0.2583	23.998	6.1987	843.47	0.4609	0.4086	0.2641	0.5268	2670	93.9
163	00h27m10s	0.2583	23.998	6.1987	843.38	0.4608	0.4086	0.264	0.5267	2672	93.9
164	00h27m20s	0.2583	23.998	6.1987	843.41	0.4609	0.4086	0.2641	0.5267	2671	93.9
165	00h27m30s	0.2583	23.998	6.1987	843.38	0.4608	0.4086	0.264	0.5267	2671	93.8
166	00h27m40s	0.2583	23.998	6.1987	843.51	0.4609	0.4086	0.264	0.5267	2671	93.9
167	00h27m50s	0.2583	23.998	6.1987	843.72	0.4609	0.4087	0.264	0.5268	2671	93.9
168	00h28m00s	0.2583	23.998	6.1987	843.4	0.4608	0.4086	0.264	0.5267	2671	93.9
169	00h28m10s	0.2583	23.998	6.1987	843.4	0.461	0.4087	0.2641	0.5268	2670	93.8
170	00h28m20s	0.2583	23.998	6.1987	843.94	0.4608	0.4085	0.2641	0.5267	2670	93.8
171	00h28m30s	0.2583	23.998	6.1987	843.71	0.4608	0.4087	0.264	0.5268	2671	93.9
172	00h28m40s	0.2583	23.998	6.1987	843.58	0.461	0.4086	0.2641	0.5267	2669	93.8
173	00h28m50s	0.2583	23.998	6.1987	843.3	0.461	0.4086	0.2641	0.5268	2669	93.8
174	00h29m00s	0.2583	23.998	6.1987	843.73	0.4608	0.4086	0.264	0.5267	2671	93.9
175	00h29m10s	0.2583	23.998	6.1987	844.01	0.4609	0.4087	0.2641	0.5268	2670	93.9
176	00h29m20s	0.2583	23.998	6.1987	843.24	0.461	0.4085	0.2641	0.5267	2669	93.9

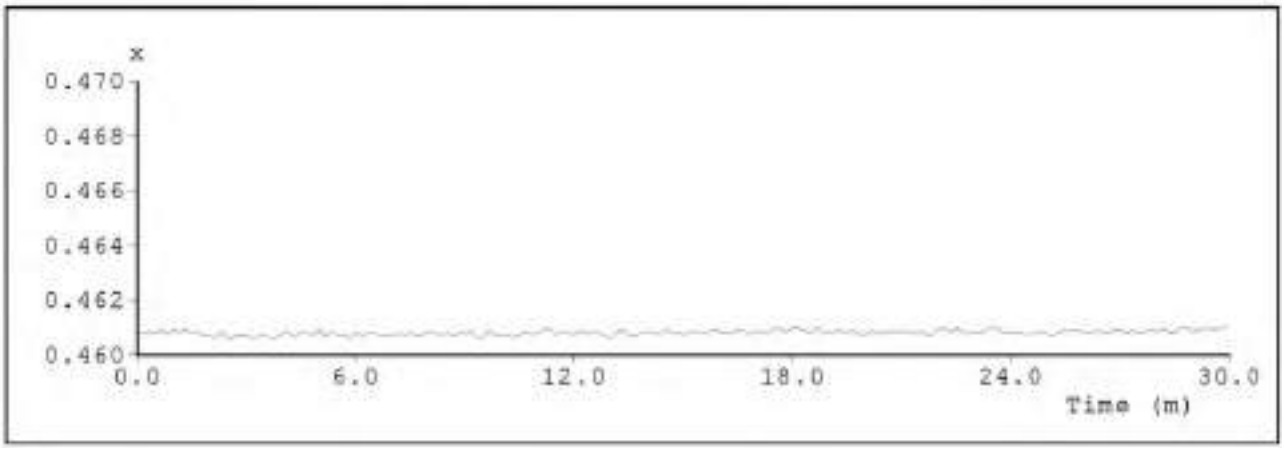
177	00h29m30s	0.2583	23.998	6.1987	843.3	0.4609	0.4086	0.2641	0.5267	2670	93.8
178	00h29m40s	0.2583	23.998	6.1987	843.25	0.4609	0.4086	0.2641	0.5267	2670	93.9
179	00h29m50s	0.2583	23.998	6.1987	843.23	0.461	0.4086	0.2642	0.5267	2668	93.9
180	00h30m00s	0.2583	23.998	6.1987	843.38	0.461	0.4086	0.2641	0.5267	2669	93.8

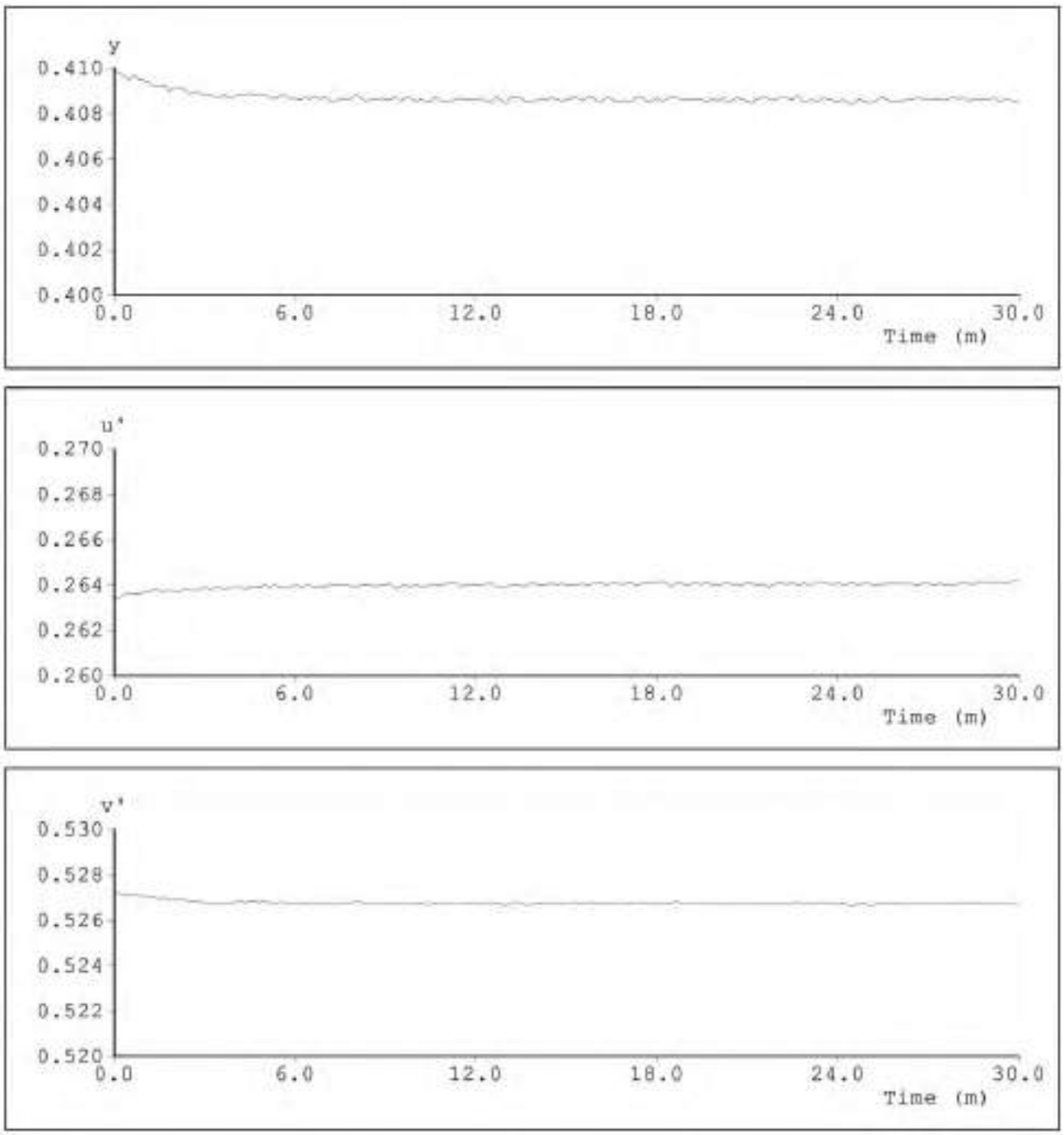
Test curves




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


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


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

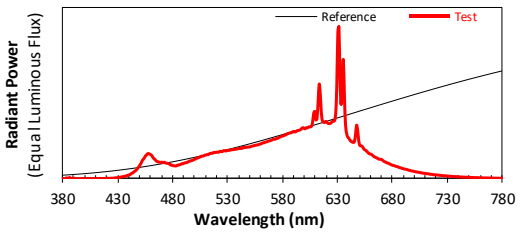

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

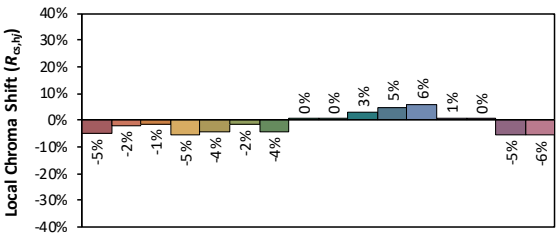
*5.2 ANSI/IES TM-30-18 Color Rendition Report

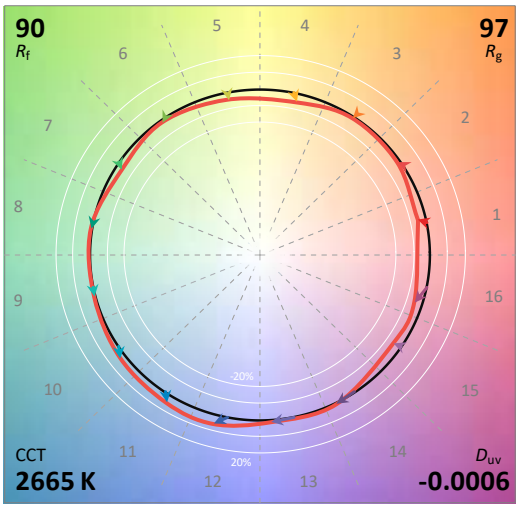
ANSI/IES TM-30-18 Color Rendition Report

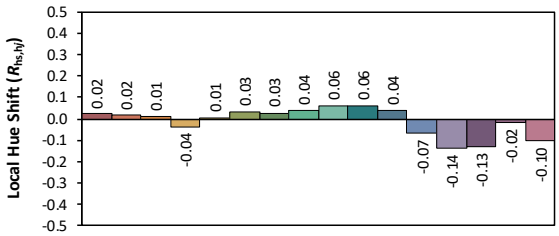
Source: Manufacturer:

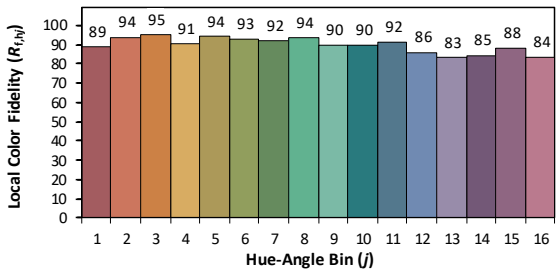
Date: 2023/4/11 Model: LFY7-T1000W-L27-CL-I-6

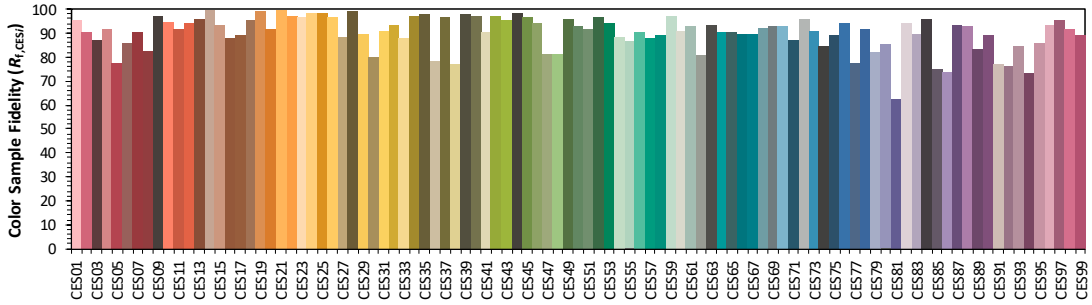












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

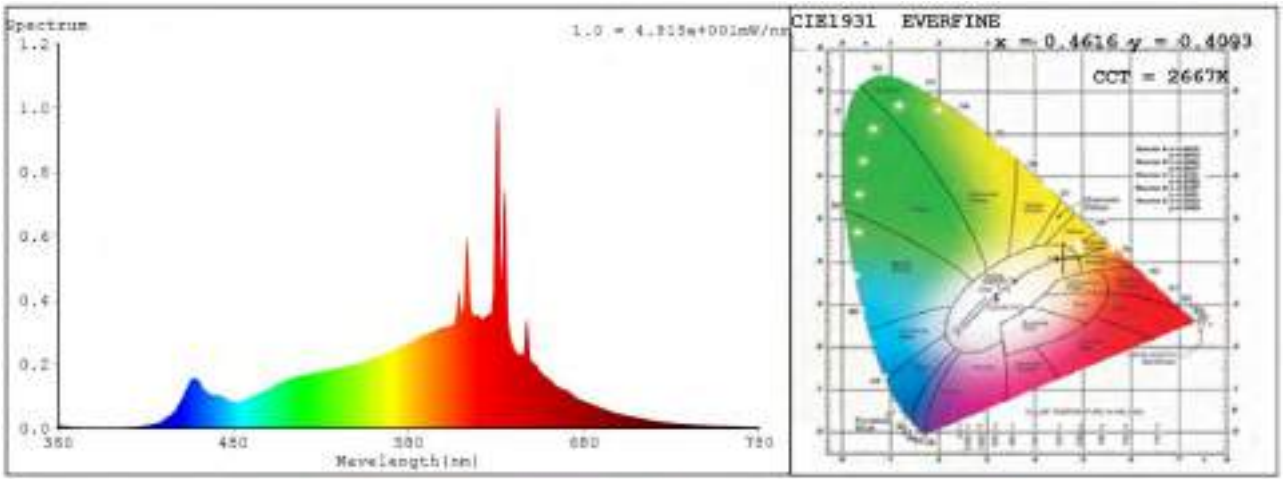
x	0.4616
y	0.4093
u'	0.2642
v'	0.5271

CIE 13.3-1995 (CRI)

R_a	94
R_9	63

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	0.0022	414	0.0025	448	0.0675	482	0.0804	516	0.1592
381	0	415	0.0012	449	0.0765	483	0.0807	517	0.1641
382	0.0011	416	0.0022	450	0.087	484	0.0851	518	0.1637
383	0.0067	417	0.0026	451	0.0985	485	0.0858	519	0.1644
384	0.0044	418	0.0017	452	0.1134	486	0.0878	520	0.166
385	0.003	419	0.003	453	0.1223	487	0.0906	521	0.1648
386	0.0093	420	0.0045	454	0.1315	488	0.0937	522	0.1677
387	0.0015	421	0.0037	455	0.1431	489	0.0942	523	0.1714
388	0.0025	422	0.0037	456	0.1496	490	0.0975	524	0.1685
389	0	423	0.0036	457	0.1566	491	0.1	525	0.1702
390	0.0043	424	0.0047	458	0.1562	492	0.1004	526	0.1752
391	0.0032	425	0.0042	459	0.1531	493	0.1029	527	0.1747
392	0.001	426	0.005	460	0.1487	494	0.1063	528	0.1731
393	0	427	0.0059	461	0.1415	495	0.1101	529	0.1755
394	0.0007	428	0.0074	462	0.1296	496	0.1121	530	0.1773
395	0.0007	429	0.007	463	0.124	497	0.1133	531	0.1766
396	0.0017	430	0.0092	464	0.1163	498	0.1166	532	0.1785
397	0.0013	431	0.01	465	0.1101	499	0.1191	533	0.1801
398	0.0024	432	0.0104	466	0.1064	500	0.1229	534	0.1815
399	0.002	433	0.0122	467	0.1051	501	0.1256	535	0.1816
400	0.0017	434	0.0137	468	0.1024	502	0.1295	536	0.1827
401	0.001	435	0.0145	469	0.1028	503	0.1307	537	0.1844
402	0.0017	436	0.0165	470	0.1038	504	0.1349	538	0.1849
403	0.0012	437	0.0177	471	0.1005	505	0.1367	539	0.1873
404	0.0017	438	0.0201	472	0.1039	506	0.1414	540	0.1881
405	0.0013	439	0.0234	473	0.0994	507	0.1415	541	0.1884
406	0.0003	440	0.0245	474	0.0972	508	0.1436	542	0.1927
407	0.0014	441	0.0277	475	0.0973	509	0.1478	543	0.1892
408	0.0028	442	0.0332	476	0.0938	510	0.1477	544	0.1958
409	0.0025	443	0.0361	477	0.0916	511	0.1511	545	0.1939
410	0.0019	444	0.0407	478	0.0852	512	0.1505	546	0.1971
411	0.0014	445	0.0468	479	0.0861	513	0.1557	547	0.1957
412	0.0014	446	0.0516	480	0.082	514	0.1575	548	0.1977
413	0.0029	447	0.0585	481	0.0813	515	0.1589	549	0.1974

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.1985	599	0.3154	648	0.302	697	0.0501	746	0.0108
551	0.2015	600	0.3106	649	0.236	698	0.0488	747	0.0106
552	0.2035	601	0.3169	650	0.2072	699	0.0471	748	0.0102
553	0.2047	602	0.3158	651	0.2054	700	0.0452	749	0.0098
554	0.2068	603	0.3195	652	0.2026	701	0.0442	750	0.0097
555	0.2084	604	0.3229	653	0.193	702	0.0427	751	0.0089
556	0.2102	605	0.3222	654	0.1829	703	0.0419	752	0.0085
557	0.2108	606	0.3271	655	0.1786	704	0.0403	753	0.0087
558	0.213	607	0.3512	656	0.1733	705	0.039	754	0.0081
559	0.216	608	0.406	657	0.1659	706	0.0381	755	0.0082
560	0.2167	609	0.4177	658	0.1601	707	0.0368	756	0.0078
561	0.221	610	0.3654	659	0.1545	708	0.0351	757	0.0079
562	0.224	611	0.3734	660	0.1539	709	0.0344	758	0.0078
563	0.2244	612	0.4734	661	0.1499	710	0.0335	759	0.0067
564	0.2283	613	0.5871	662	0.1433	711	0.0324	760	0.007
565	0.2292	614	0.5229	663	0.1379	712	0.0318	761	0.007
566	0.2316	615	0.4072	664	0.1346	713	0.0308	762	0.0067
567	0.2352	616	0.3586	665	0.1309	714	0.0288	763	0.0059
568	0.2359	617	0.3509	666	0.1279	715	0.0284	764	0.0062
569	0.2385	618	0.3502	667	0.1229	716	0.0277	765	0.0062
570	0.241	619	0.3566	668	0.1222	717	0.0258	766	0.0058
571	0.2453	620	0.3507	669	0.1213	718	0.0259	767	0.0057
572	0.2463	621	0.3449	670	0.1196	719	0.025	768	0.0055
573	0.2458	622	0.3428	671	0.1139	720	0.0248	769	0.0055
574	0.2497	623	0.3437	672	0.1084	721	0.0232	770	0.0053
575	0.2516	624	0.3487	673	0.1051	722	0.0234	771	0.0055
576	0.2548	625	0.3554	674	0.1024	723	0.0218	772	0.0047
577	0.2587	626	0.3576	675	0.0985	724	0.0217	773	0.0049
578	0.2612	627	0.3604	676	0.0968	725	0.0203	774	0.0043
579	0.2653	628	0.4016	677	0.0935	726	0.0202	775	0.0045
580	0.2659	629	0.5711	678	0.0897	727	0.0198	776	0.0043
581	0.2692	630	0.9102	679	0.0867	728	0.0188	777	0.0042
582	0.2714	631	0.9414	680	0.0839	729	0.0183	778	0.0045
583	0.2744	632	0.6047	681	0.0831	730	0.0176	779	0.0041
584	0.2798	633	0.4608	682	0.08	731	0.0173	780	0.0041
585	0.2817	634	0.6174	683	0.0778	732	0.0165		
586	0.284	635	0.7379	684	0.0764	733	0.0162		
587	0.286	636	0.5026	685	0.0737	734	0.0153		
588	0.2873	637	0.333	686	0.07	735	0.0148		
589	0.2922	638	0.2813	687	0.0693	736	0.0146		
590	0.2942	639	0.2593	688	0.0663	737	0.0142		
591	0.2912	640	0.252	689	0.0645	738	0.014		
592	0.2942	641	0.2398	690	0.062	739	0.0139		
593	0.2982	642	0.2329	691	0.0608	740	0.0128		
594	0.3003	643	0.2291	692	0.0594	741	0.0123		
595	0.3019	644	0.2262	693	0.0579	742	0.012		
596	0.3049	645	0.23	694	0.0552	743	0.0113		
597	0.3114	646	0.268	695	0.0537	744	0.0113		
598	0.3171	647	0.3322	696	0.0511	745	0.0108		

6. Goniophotometer Test results

6.1 Test Data

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

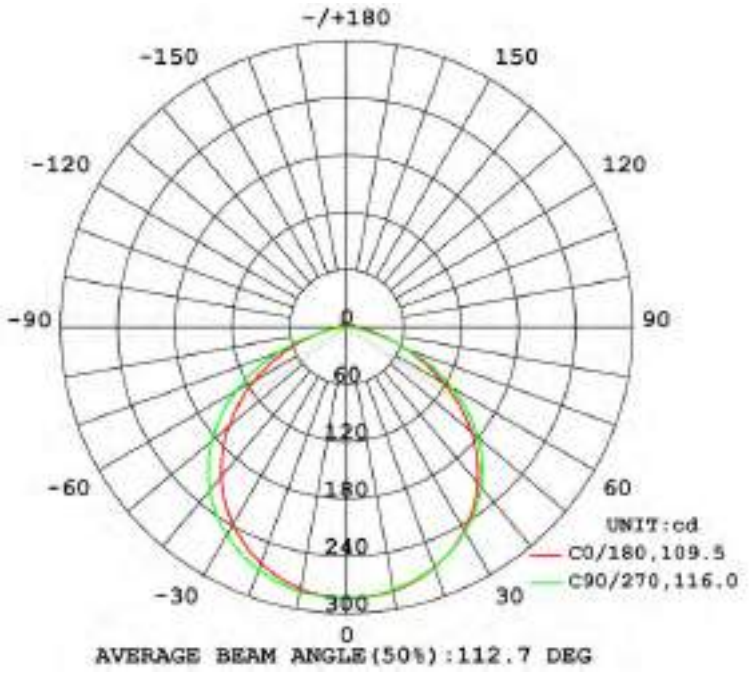
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.2614	1.0000	6.274

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
822.277	131.06	284	2.1	97.9

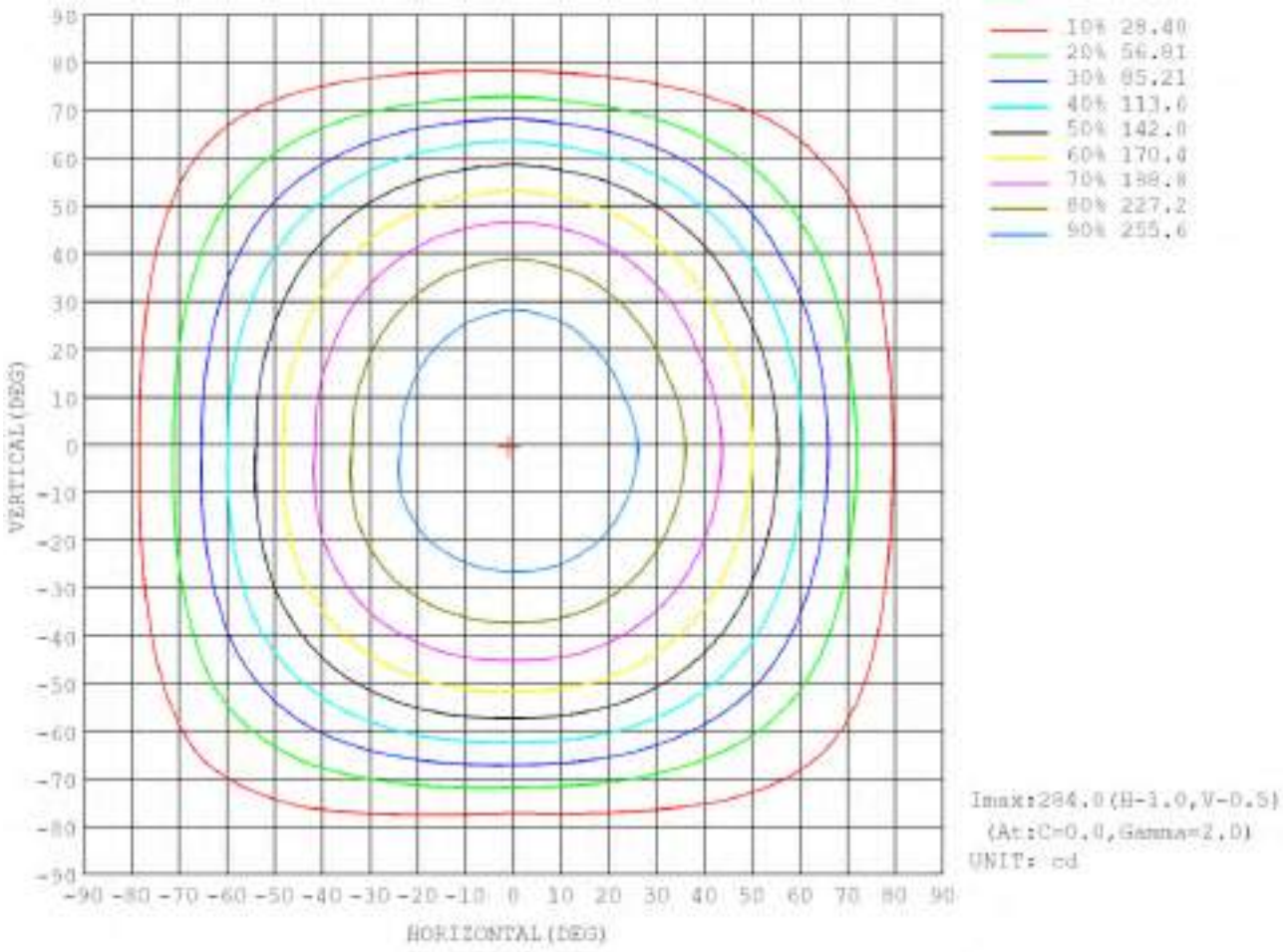
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lamp,Lamp
10	280.7	284.5	278.6	279.9	278.6	278.7	281.5	280.2	0-10	[illegible]	[illegible]	[illegible]
20	268.2	268.9	267.7	267.7	268.3	268.5	270.6	267.6	10-20	77.52	[illegible]	[illegible]
30	246.1	247.7	247.6	247.1	239.8	244.7	251.6	245.3	20-30	[illegible]	[illegible]	[illegible]
40	213.7	217.2	215.5	217.3	204.9	213.6	223.6	217.6	30-40	[illegible]	[illegible]	[illegible]
50	170.5	173.6	176.8	177.4	161.9	172.5	185.5	174.1	40-50	[illegible]	[illegible]	[illegible]
60	117.6	122.7	126.5	128.6	112.4	121.9	134.5	115.5	50-60	[illegible]	[illegible]	[illegible]
70	69.73	65.64	67.45	73.40	62.69	66.68	78.03	58.28	60-70	[illegible]	[illegible]	[illegible]
80	27.19	28.32	16.92	28.15	23.51	24.11	20.28	15.26	70-80	45.51	[illegible]	[illegible]
90	8.443	8.532	0.2029	6.749	7.420	8.279	0.2654	8.781	80-90	[illegible]	[illegible]	[illegible]
100	8.281	7.136	0.0552	6.633	7.420	6.442	0.0933	7.185	90-100	[illegible]	[illegible]	[illegible]
110	5.798	2.758	0.0522	7.074	7.443	6.887	0.1278	2.548	100-110	[illegible]	[illegible]	[illegible]
120	1.947	0.5584	0.1890	4.553	7.429	3.666	0.1491	0.2030	110-120	[illegible]	[illegible]	[illegible]
130	0.6646	0.2929	0.2110	1.914	8.164	1.546	0.2057	0.2510	120-130	[illegible]	[illegible]	[illegible]
140	0.3266	0.2989	0.2469	0.7716	8.245	0.5972	0.3914	0.3387	130-140	[illegible]	[illegible]	[illegible]
150	0.3437	0.3070	0.2751	0.5830	6.8328	0.5789	0.3927	0.4113	140-150	[illegible]	[illegible]	100,100
160	0.3698	0.3679	0.3244	0.4724	0.6619	0.5878	0.4486	0.4395	150-160	0.2152	[illegible]	100,100
170	0.4208	0.3943	0.3941	0.4211	0.3467	0.5231	0.4407	0.4450	160-170	0.1264	[illegible]	100,100
180	0.4739	0.4582	0.4408	0.4639	0.4815	0.4926	0.4428	0.4421	170-180	[illegible]	[illegible]	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C(DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
5	283	283	283	283	283	283	283	283	282	283	283	283	283	283	283	283
10	281	281	281	280	280	280	280	280	279	279	280	281	282	281	280	280
15	276	276	276	275	275	275	275	274	272	273	274	276	277	277	275	274
20	268	268	269	269	268	268	268	266	263	264	267	269	271	270	267	266
25	258	258	259	260	259	259	259	257	252	256	257	260	262	261	258	256
30	246	246	248	248	248	248	247	244	239	241	245	249	252	250	245	243
35	231	232	234	235	234	234	234	230	223	225	230	236	239	236	231	227
40	214	214	217	219	219	219	217	213	205	208	214	220	224	220	213	209
45	193	194	198	201	200	201	199	194	184	187	194	202	206	202	193	188
50	170	172	176	179	179	179	177	172	161	165	172	181	185	180	170	164
55	145	146	151	155	154	156	153	148	137	140	148	157	161	155	144	138
60	118	119	123	127	127	129	127	123	112	115	121	130	134	128	115	109
65	90.6	91.0	93.9	98.1	98.1	101	101	97.5	86.4	88.4	93.7	101	105	97.8	86.0	81.5
70	65.8	65.4	65.6	68.1	67.5	71.3	73.4	71.6	62.7	63.9	66.7	71.7	74.0	67.2	58.4	56.5
75	44.1	43.7	42.9	41.2	38.9	43.9	48.8	48.4	40.1	41.0	42.7	44.0	44.4	40.0	35.4	35.9
80	27.1	26.8	24.9	21.4	16.6	22.8	28.2	28.8	23.5	24.0	24.1	22.6	20.3	20.0	19.2	20.1
85	13.8	13.8	13.2	9.66	4.26	10.4	14.8	15.4	12.4	12.8	12.6	10.2	5.75	9.06	10.6	10.5
90	8.43	8.71	8.53	5.04	0.20	4.66	8.75	8.54	7.41	7.86	8.18	4.63	0.26	5.01	8.76	8.76
95	8.31	8.46	8.01	4.57	0.05	4.24	7.17	7.89	7.56	7.86	6.98	4.22	0.08	4.45	8.21	8.80
100	8.38	8.40	7.84	2.30	0.06	4.14	6.63	7.51	7.42	7.33	6.44	3.99	0.10	1.17	7.19	8.66
105	8.13	7.65	4.84	0.84	0.07	3.46	6.83	6.99	7.07	7.02	6.83	3.28	0.12	0.31	3.15	7.01
110	5.76	4.77	2.76	0.20	0.09	1.92	7.07	7.24	7.44	7.34	6.87	1.63	0.13	0.15	1.54	3.77
115	3.46	3.06	1.29	0.14	0.12	0.98	6.34	7.54	7.69	7.57	5.82	0.76	0.14	0.15	0.61	2.19
120	1.95	1.61	0.56	0.16	0.15	0.65	4.55	7.19	7.43	6.74	3.67	0.38	0.15	0.16	0.30	1.05
125	1.01	0.81	0.36	0.19	0.18	0.62	2.90	5.69	5.95	4.86	2.30	0.31	0.17	0.18	0.24	0.54
130	0.60	0.52	0.26	0.22	0.21	0.56	1.91	3.84	4.16	3.38	1.55	0.31	0.21	0.21	0.25	0.39
135	0.42	0.34	0.27	0.24	0.23	0.50	1.23	2.86	3.13	2.53	0.93	0.33	0.25	0.26	0.29	0.33
140	0.33	0.30	0.28	0.26	0.25	0.43	0.77	1.96	2.24	1.67	0.60	0.37	0.30	0.31	0.34	0.36
145	0.33	0.31	0.29	0.27	0.26	0.39	0.66	1.09	1.26	0.92	0.56	0.41	0.35	0.35	0.38	0.41
150	0.34	0.33	0.31	0.29	0.28	0.38	0.58	0.74	0.83	0.74	0.58	0.45	0.39	0.39	0.41	0.44
155	0.37	0.36	0.33	0.31	0.30	0.36	0.52	0.65	0.74	0.70	0.59	0.48	0.42	0.41	0.43	0.46
160	0.39	0.38	0.35	0.33	0.32	0.37	0.47	0.58	0.66	0.66	0.59	0.50	0.45	0.43	0.44	0.48
165	0.41	0.40	0.37	0.36	0.35	0.37	0.45	0.52	0.59	0.60	0.55	0.49	0.46	0.44	0.45	0.46
170	0.43	0.42	0.39	0.38	0.39	0.39	0.43	0.49	0.55	0.55	0.53	0.49	0.46	0.45	0.45	0.46
175	0.46	0.45	0.43	0.41	0.42	0.43	0.45	0.48	0.51	0.52	0.52	0.48	0.46	0.45	0.44	0.46
180	0.47	0.48	0.46	0.44	0.44	0.45	0.46	0.49	0.48	0.48	0.48	0.46	0.44	0.44	0.44	0.46

7. Photo of sample

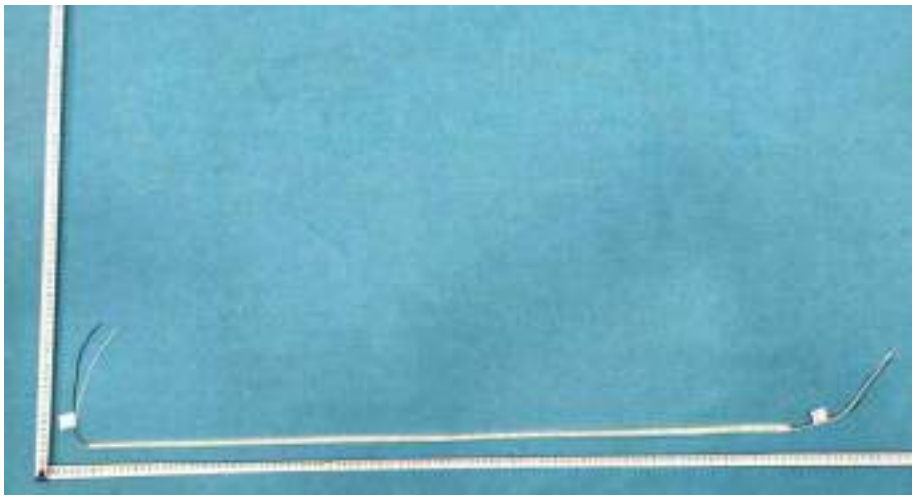


Figure 1 Overview

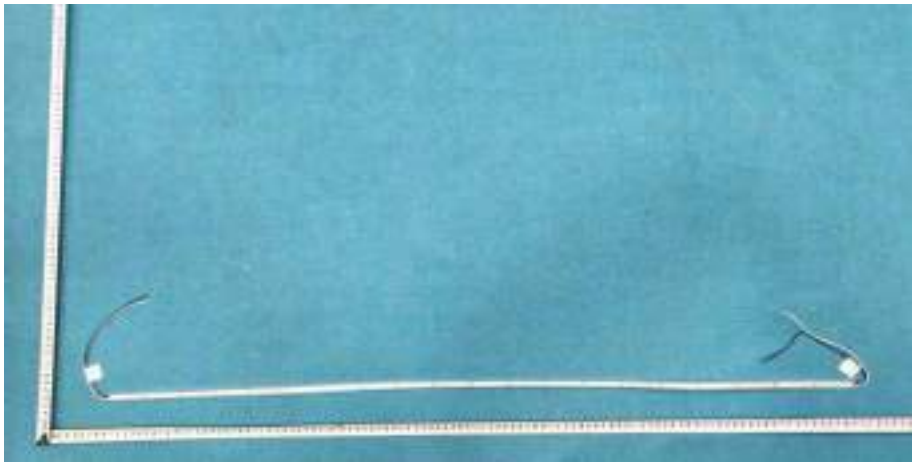


Figure 2 Overview

---End of Report---

NVLAP TESTING NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23030808L00201
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY7-T1000W-L27-CL-I-10
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	:	Mar. 27, 2023
Date of test	:	Mar. 27, 2023 - Apr. 04, 2023
Date of report	:	Apr. 04, 2023

Tested by: Jarvis Zhang

Jarvis Zhang/ Test Engineer

Checked by: Sandy Chen

Sandy Chen/ Project Engineer

Approved by:

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:	LFY7-T1000W-L27-CL-I-10
Manufacturer:	
Product Type:	N/A
Rated Voltage/Frequency:	DC24V
Rated Power:	/
Rated luminous flux:	/
Nominal CCT:	/

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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.4018	23.998	9.6424	1413.1	0.4605	0.4099	0.2632	0.5272	2685	94
1	00h00m10s	0.4048	23.998	9.7144	1414.4	0.4606	0.4099	0.2633	0.5272	2685	94
2	00h00m20s	0.4061	23.998	9.7456	1415.7	0.4606	0.4097	0.2634	0.5271	2682	94
3	00h00m30s	0.4071	23.998	9.7696	1415	0.4608	0.4094	0.2637	0.527	2677	93.9
4	00h00m40s	0.4079	23.998	9.7888	1415.1	0.4606	0.4093	0.2636	0.5269	2680	93.9
5	00h00m50s	0.4086	23.998	9.8056	1414.4	0.4606	0.409	0.2637	0.5269	2677	93.9
6	00h01m00s	0.4092	23.998	9.82	1415.9	0.4605	0.409	0.2637	0.5268	2678	93.9
7	00h01m10s	0.4097	23.998	9.832	1415.8	0.4604	0.4087	0.2637	0.5267	2678	93.9
8	00h01m20s	0.4102	23.998	9.844	1414.8	0.4606	0.4086	0.2639	0.5267	2674	93.9
9	00h01m30s	0.4106	23.998	9.8536	1415.5	0.4606	0.4088	0.2638	0.5268	2676	93.9
10	00h01m40s	0.4111	23.998	9.8656	1415	0.4606	0.4086	0.2639	0.5267	2674	93.9
11	00h01m50s	0.4114	23.998	9.8728	1416.6	0.4604	0.4084	0.2638	0.5266	2676	93.9
12	00h02m00s	0.4117	23.998	9.88	1415.3	0.4608	0.4084	0.2641	0.5266	2671	93.8
13	00h02m10s	0.4121	23.998	9.8896	1416.2	0.4604	0.4084	0.2639	0.5266	2675	93.9
14	00h02m20s	0.4124	23.998	9.8968	1416.2	0.4605	0.4084	0.2639	0.5266	2674	93.8
15	00h02m30s	0.4126	23.998	9.9016	1415.4	0.4605	0.4082	0.264	0.5265	2673	93.8
16	00h02m40s	0.4129	23.998	9.9088	1415.5	0.4606	0.4082	0.2641	0.5266	2671	93.8
17	00h02m50s	0.4131	23.998	9.9136	1415.6	0.4607	0.4084	0.2641	0.5266	2671	93.8
18	00h03m00s	0.4133	23.998	9.9184	1416.1	0.4606	0.4081	0.2641	0.5265	2671	93.8
19	00h03m10s	0.4134	23.998	9.9208	1415.4	0.4606	0.4082	0.264	0.5265	2672	93.8
20	00h03m20s	0.4136	23.998	9.9256	1415.9	0.4606	0.4082	0.2641	0.5265	2671	93.8
21	00h03m30s	0.4138	23.998	9.9304	1416.2	0.4606	0.4083	0.264	0.5266	2672	93.8

22	00h03m40s	0.4139	23.998	9.9328	1416.3	0.4606	0.408	0.2641	0.5265	2670	93.8
23	00h03m50s	0.4141	23.998	9.9376	1415.4	0.4606	0.408	0.2641	0.5265	2670	93.8
24	00h04m00s	0.4142	23.998	9.94	1414.7	0.4603	0.4079	0.264	0.5264	2672	93.8
25	00h04m10s	0.4142	23.998	9.94	1414.8	0.4602	0.408	0.2639	0.5264	2675	93.8
26	00h04m20s	0.4143	23.998	9.9424	1414.9	0.4603	0.408	0.2639	0.5264	2674	93.8
27	00h04m30s	0.4144	23.998	9.9448	1414.8	0.4603	0.4079	0.264	0.5264	2672	93.8
28	00h04m40s	0.4145	23.998	9.9472	1414.1	0.4602	0.408	0.2639	0.5264	2675	93.9
29	00h04m50s	0.4146	23.998	9.9496	1413.8	0.4604	0.4078	0.2641	0.5264	2671	93.8
30	00h05m00s	0.4146	23.998	9.9496	1415.1	0.4602	0.4079	0.2639	0.5263	2675	93.8
31	00h05m10s	0.4147	23.998	9.952	1414.6	0.4604	0.408	0.2641	0.5264	2672	93.8
32	00h05m20s	0.4147	23.998	9.952	1414.7	0.4603	0.4079	0.264	0.5264	2672	93.8
33	00h05m30s	0.4148	23.998	9.9544	1414.9	0.4602	0.4078	0.264	0.5263	2673	93.8
34	00h05m40s	0.4148	23.998	9.9544	1415.2	0.4603	0.4077	0.2641	0.5263	2671	93.7
35	00h05m50s	0.4149	23.998	9.9568	1414.1	0.4602	0.4078	0.264	0.5263	2673	93.8
36	00h06m00s	0.4149	23.998	9.9568	1414.1	0.4603	0.4077	0.2641	0.5263	2671	93.8
37	00h06m10s	0.4149	23.998	9.9568	1413.5	0.4604	0.4077	0.2641	0.5263	2671	93.8
38	00h06m20s	0.415	23.998	9.9592	1414.7	0.4602	0.4078	0.264	0.5263	2674	93.8
39	00h06m30s	0.415	23.998	9.9592	1414.5	0.4604	0.4079	0.2641	0.5264	2671	93.8
40	00h06m40s	0.4151	23.998	9.9616	1413	0.4604	0.4078	0.2641	0.5264	2672	93.8
41	00h06m50s	0.4151	23.998	9.9616	1414.3	0.4603	0.4078	0.264	0.5264	2673	93.8
42	00h07m00s	0.4151	23.998	9.9616	1413.6	0.4602	0.4077	0.264	0.5263	2672	93.8
43	00h07m10s	0.4152	23.998	9.964	1414.6	0.4603	0.4077	0.2641	0.5263	2672	93.8
44	00h07m20s	0.4152	23.998	9.964	1414.2	0.4603	0.4078	0.2641	0.5263	2671	93.8
45	00h07m30s	0.4152	23.998	9.964	1413.6	0.4602	0.4077	0.264	0.5263	2673	93.8
46	00h07m40s	0.4152	23.998	9.964	1414	0.4603	0.4078	0.264	0.5263	2673	93.8
47	00h07m50s	0.4152	23.998	9.964	1414.4	0.4602	0.4077	0.264	0.5263	2673	93.8
48	00h08m00s	0.4153	23.998	9.9664	1414	0.4601	0.4077	0.264	0.5263	2674	93.8
49	00h08m10s	0.4153	23.998	9.9664	1414.4	0.4605	0.4079	0.2641	0.5264	2671	93.8
50	00h08m20s	0.4153	23.998	9.9664	1414.5	0.4603	0.4077	0.2641	0.5263	2672	93.8
51	00h08m30s	0.4153	23.998	9.9664	1413.5	0.4605	0.4078	0.2642	0.5264	2669	93.8
52	00h08m40s	0.4153	23.998	9.9664	1413.8	0.4604	0.4078	0.2641	0.5263	2671	93.8

53	00h08m50s	0.4153	23.998	9.9664	1412.8	0.4605	0.4078	0.2642	0.5264	2669	93.8
54	00h09m00s	0.4153	23.998	9.9664	1414	0.4603	0.4078	0.2641	0.5263	2671	93.8
55	00h09m10s	0.4153	23.998	9.9664	1413.3	0.4604	0.4078	0.2641	0.5263	2671	93.8
56	00h09m20s	0.4154	23.998	9.9688	1414.2	0.4603	0.4078	0.2641	0.5264	2672	93.8
57	00h09m30s	0.4154	23.998	9.9688	1413.2	0.4605	0.4078	0.2641	0.5264	2670	93.8
58	00h09m40s	0.4154	23.998	9.9688	1414.4	0.4603	0.4077	0.2641	0.5263	2671	93.8
59	00h09m50s	0.4154	23.998	9.9688	1413.6	0.4603	0.4077	0.2641	0.5263	2671	93.8
60	00h10m00s	0.4154	23.998	9.9688	1414.4	0.4603	0.4078	0.2641	0.5263	2671	93.8
61	00h10m10s	0.4154	23.998	9.9688	1413.4	0.4604	0.4078	0.2641	0.5263	2671	93.8
62	00h10m20s	0.4154	23.998	9.9688	1413.4	0.4604	0.4077	0.2641	0.5263	2670	93.8
63	00h10m30s	0.4154	23.998	9.9688	1414.4	0.4603	0.4079	0.264	0.5264	2672	93.8
64	00h10m40s	0.4154	23.998	9.9688	1414.9	0.4604	0.4078	0.2641	0.5264	2671	93.8
65	00h10m50s	0.4154	23.998	9.9688	1414.2	0.4603	0.4078	0.2641	0.5263	2672	93.8
66	00h11m00s	0.4154	23.998	9.9688	1414.1	0.4602	0.4079	0.264	0.5264	2673	93.8
67	00h11m10s	0.4154	23.998	9.9688	1414.1	0.4603	0.4077	0.2641	0.5263	2672	93.8
68	00h11m20s	0.4155	23.998	9.9712	1414.6	0.4604	0.4078	0.2641	0.5264	2670	93.8
69	00h11m30s	0.4155	23.998	9.9712	1413.8	0.4604	0.4077	0.2641	0.5263	2670	93.8
70	00h11m40s	0.4155	23.998	9.9712	1414	0.4604	0.4076	0.2642	0.5263	2670	93.8
71	00h11m50s	0.4155	23.998	9.9712	1414.5	0.4602	0.4078	0.264	0.5263	2673	93.8
72	00h12m00s	0.4155	23.998	9.9712	1414	0.4604	0.4079	0.2641	0.5264	2671	93.8
73	00h12m10s	0.4155	23.998	9.9712	1414.2	0.4604	0.4077	0.2641	0.5263	2671	93.7
74	00h12m20s	0.4155	23.998	9.9712	1413.1	0.4604	0.4078	0.2641	0.5264	2670	93.8
75	00h12m30s	0.4155	23.998	9.9712	1414.3	0.4603	0.4077	0.2641	0.5263	2671	93.8
76	00h12m40s	0.4155	23.998	9.9712	1415	0.4604	0.4078	0.2641	0.5264	2671	93.8
77	00h12m50s	0.4155	23.998	9.9712	1414.1	0.4604	0.4077	0.2641	0.5263	2670	93.8
78	00h13m00s	0.4155	23.998	9.9712	1414	0.4604	0.4078	0.2641	0.5263	2671	93.8
79	00h13m10s	0.4155	23.998	9.9712	1413.4	0.4604	0.4077	0.2641	0.5263	2670	93.8
80	00h13m20s	0.4155	23.998	9.9712	1413.7	0.4603	0.4077	0.2641	0.5263	2671	93.8
81	00h13m30s	0.4155	23.998	9.9712	1412.6	0.4603	0.4076	0.2641	0.5262	2671	93.8
82	00h13m40s	0.4156	23.998	9.9736	1414	0.4604	0.4079	0.2641	0.5264	2672	93.8
83	00h13m50s	0.4156	23.998	9.9736	1413.5	0.4604	0.4077	0.2641	0.5263	2670	93.8

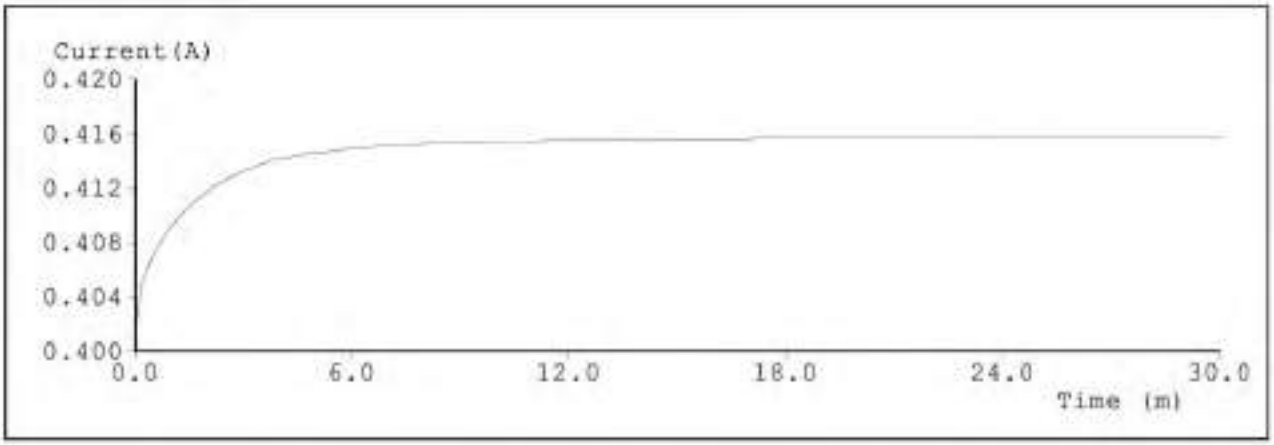
84	00h14m00s	0.4156	23.998	9.9736	1414.2	0.4602	0.4076	0.2641	0.5263	2672	93.8
85	00h14m10s	0.4156	23.998	9.9736	1414.9	0.4604	0.4077	0.2642	0.5263	2670	93.8
86	00h14m20s	0.4156	23.998	9.9736	1414.3	0.4602	0.4077	0.264	0.5263	2673	93.8
87	00h14m30s	0.4156	23.998	9.9736	1413.1	0.4603	0.4077	0.2641	0.5263	2672	93.8
88	00h14m40s	0.4156	23.998	9.9736	1414.1	0.4605	0.4077	0.2642	0.5263	2669	93.8
89	00h14m50s	0.4156	23.998	9.9736	1413.1	0.4605	0.4078	0.2642	0.5264	2670	93.8
90	00h15m00s	0.4156	23.998	9.9736	1414.5	0.4604	0.4078	0.2641	0.5264	2672	93.8
91	00h15m10s	0.4156	23.998	9.9736	1414.3	0.4602	0.4076	0.2641	0.5263	2672	93.7
92	00h15m20s	0.4156	23.998	9.9736	1414	0.4604	0.4077	0.2642	0.5263	2670	93.8
93	00h15m30s	0.4156	23.998	9.9736	1413.1	0.4604	0.4077	0.2642	0.5263	2669	93.8
94	00h15m40s	0.4156	23.998	9.9736	1413.3	0.4602	0.4076	0.2641	0.5262	2671	93.8
95	00h15m50s	0.4156	23.998	9.9736	1413.9	0.4604	0.4079	0.264	0.5264	2672	93.8
96	00h16m00s	0.4156	23.998	9.9736	1414	0.4604	0.4076	0.2642	0.5263	2670	93.8
97	00h16m10s	0.4156	23.998	9.9736	1414.2	0.4604	0.4076	0.2642	0.5263	2670	93.8
98	00h16m20s	0.4156	23.998	9.9736	1413.3	0.4604	0.4076	0.2642	0.5263	2670	93.8
99	00h16m30s	0.4156	23.998	9.9736	1413.2	0.4603	0.4077	0.2641	0.5263	2672	93.8
100	00h16m40s	0.4156	23.998	9.9736	1414	0.4604	0.4079	0.2641	0.5264	2671	93.8
101	00h16m50s	0.4156	23.998	9.9736	1414.4	0.4605	0.4078	0.2642	0.5264	2669	93.7
102	00h17m00s	0.4156	23.998	9.9736	1413.8	0.4603	0.4076	0.2641	0.5263	2671	93.8
103	00h17m10s	0.4157	23.998	9.976	1413.5	0.4604	0.4078	0.2641	0.5263	2670	93.8
104	00h17m20s	0.4157	23.998	9.976	1414.3	0.4605	0.4078	0.2642	0.5264	2670	93.8
105	00h17m30s	0.4157	23.998	9.976	1413	0.4606	0.4078	0.2642	0.5264	2668	93.8
106	00h17m40s	0.4157	23.998	9.976	1414	0.4604	0.4078	0.2641	0.5264	2671	93.8
107	00h17m50s	0.4157	23.998	9.976	1413.8	0.4604	0.4078	0.2642	0.5263	2670	93.8
108	00h18m00s	0.4157	23.998	9.976	1413.4	0.4603	0.4078	0.2641	0.5263	2671	93.8
109	00h18m10s	0.4157	23.998	9.976	1413.7	0.4604	0.4077	0.2642	0.5263	2670	93.8
110	00h18m20s	0.4157	23.998	9.976	1413.9	0.4606	0.4077	0.2642	0.5264	2668	93.8
111	00h18m30s	0.4157	23.998	9.976	1413.9	0.4604	0.4077	0.2642	0.5263	2669	93.8
112	00h18m40s	0.4157	23.998	9.976	1414.1	0.4604	0.4077	0.2642	0.5263	2670	93.8
113	00h18m50s	0.4157	23.998	9.976	1413.8	0.4604	0.4078	0.2641	0.5264	2671	93.8
114	00h19m00s	0.4157	23.998	9.976	1414.3	0.4604	0.4077	0.2642	0.5263	2670	93.8

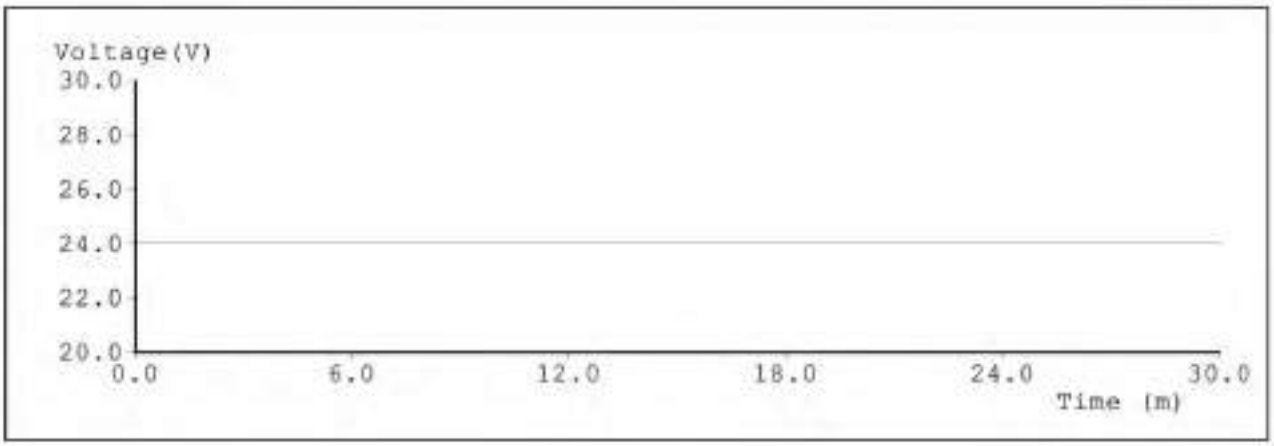
115	00h19m10s	0.4157	23.998	9.976	1413.4	0.4605	0.4078	0.2642	0.5264	2669	93.8
116	00h19m20s	0.4157	23.998	9.976	1413.6	0.4602	0.4077	0.264	0.5263	2673	93.8
117	00h19m30s	0.4157	23.998	9.976	1414.1	0.4605	0.4078	0.2642	0.5264	2669	93.8
118	00h19m40s	0.4157	23.998	9.976	1412.6	0.4605	0.4076	0.2643	0.5263	2668	93.8
119	00h19m50s	0.4157	23.998	9.976	1413.8	0.4606	0.4078	0.2642	0.5264	2668	93.8
120	00h20m00s	0.4157	23.998	9.976	1413.4	0.4605	0.4078	0.2642	0.5264	2670	93.8
121	00h20m10s	0.4157	23.998	9.976	1413.5	0.4603	0.4077	0.2641	0.5263	2671	93.8
122	00h20m20s	0.4157	23.998	9.976	1413.6	0.4605	0.4077	0.2642	0.5263	2669	93.7
123	00h20m30s	0.4157	23.998	9.976	1413.6	0.4606	0.4079	0.2642	0.5264	2668	93.7
124	00h20m40s	0.4157	23.998	9.976	1413.5	0.4603	0.4078	0.2641	0.5263	2671	93.8
125	00h20m50s	0.4157	23.998	9.976	1414.8	0.4603	0.4077	0.2641	0.5263	2671	93.8
126	00h21m00s	0.4157	23.998	9.976	1414.1	0.4604	0.4078	0.2641	0.5263	2671	93.8
127	00h21m10s	0.4157	23.998	9.976	1414	0.4605	0.4077	0.2642	0.5263	2669	93.7
128	00h21m20s	0.4157	23.998	9.976	1414	0.4604	0.4078	0.2641	0.5263	2671	93.8
129	00h21m30s	0.4157	23.998	9.976	1413.4	0.4605	0.4076	0.2642	0.5263	2668	93.8
130	00h21m40s	0.4157	23.998	9.976	1413.9	0.4604	0.4077	0.2642	0.5263	2670	93.8
131	00h21m50s	0.4157	23.998	9.976	1412.8	0.4606	0.4076	0.2643	0.5263	2666	93.7
132	00h22m00s	0.4157	23.998	9.976	1413.2	0.4604	0.4077	0.2642	0.5263	2670	93.8
133	00h22m10s	0.4157	23.998	9.976	1413.4	0.4604	0.4078	0.2641	0.5264	2671	93.8
134	00h22m20s	0.4157	23.998	9.976	1414.1	0.4606	0.4078	0.2642	0.5264	2669	93.8
135	00h22m30s	0.4157	23.998	9.976	1413.3	0.4604	0.4076	0.2642	0.5263	2669	93.7
136	00h22m40s	0.4157	23.998	9.976	1413.5	0.4605	0.4078	0.2642	0.5264	2669	93.8
137	00h22m50s	0.4157	23.998	9.976	1412.3	0.4603	0.4076	0.2641	0.5263	2671	93.8
138	00h23m00s	0.4157	23.998	9.976	1413.2	0.4605	0.4078	0.2642	0.5264	2669	93.8
139	00h23m10s	0.4157	23.998	9.976	1413.8	0.4603	0.4076	0.2641	0.5263	2671	93.8
140	00h23m20s	0.4157	23.998	9.976	1412.8	0.4605	0.4077	0.2642	0.5263	2669	93.8
141	00h23m30s	0.4158	23.998	9.9784	1413.4	0.4605	0.4078	0.2642	0.5264	2669	93.8
142	00h23m40s	0.4158	23.998	9.9784	1413.6	0.4604	0.4077	0.2642	0.5263	2670	93.8
143	00h23m50s	0.4158	23.998	9.9784	1413.7	0.4602	0.4076	0.2641	0.5263	2672	93.8
144	00h24m00s	0.4158	23.998	9.9784	1414.1	0.4605	0.4077	0.2642	0.5263	2669	93.8
145	00h24m10s	0.4158	23.998	9.9784	1414.1	0.4606	0.4076	0.2643	0.5263	2667	93.7

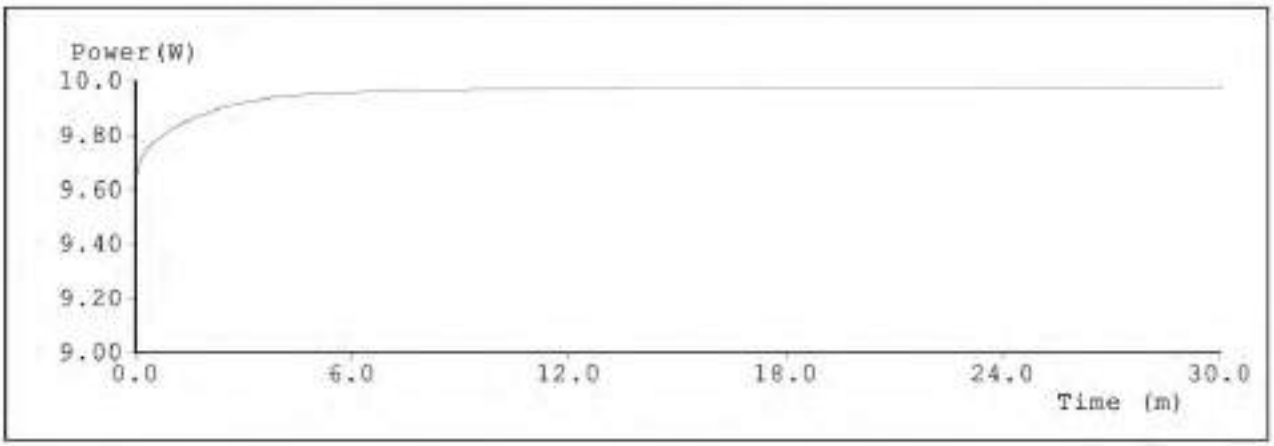
146	00h24m20s	0.4158	23.998	9.9784	1413.1	0.4605	0.4077	0.2642	0.5263	2669	93.8
147	00h24m30s	0.4158	23.998	9.9784	1413.1	0.4605	0.4077	0.2642	0.5264	2669	93.8
148	00h24m40s	0.4158	23.998	9.9784	1414.3	0.4604	0.4078	0.2642	0.5264	2670	93.8
149	00h24m50s	0.4158	23.998	9.9784	1414.3	0.4605	0.4079	0.2641	0.5264	2670	93.8
150	00h25m00s	0.4158	23.998	9.9784	1414	0.4605	0.4077	0.2642	0.5264	2669	93.8
151	00h25m10s	0.4158	23.998	9.9784	1413.8	0.4605	0.4077	0.2642	0.5263	2669	93.8
152	00h25m20s	0.4158	23.998	9.9784	1414.5	0.4606	0.4079	0.2642	0.5264	2668	93.8
153	00h25m30s	0.4158	23.998	9.9784	1413.3	0.4604	0.4078	0.2641	0.5264	2671	93.8
154	00h25m40s	0.4158	23.998	9.9784	1413.4	0.4604	0.4076	0.2642	0.5263	2670	93.7
155	00h25m50s	0.4158	23.998	9.9784	1413.6	0.4604	0.4077	0.2642	0.5263	2669	93.8
156	00h26m00s	0.4158	23.998	9.9784	1412.8	0.4603	0.4077	0.2641	0.5263	2671	93.8
157	00h26m10s	0.4158	23.998	9.9784	1413.1	0.4606	0.4078	0.2642	0.5264	2669	93.8
158	00h26m20s	0.4158	23.998	9.9784	1413.3	0.4604	0.4077	0.2641	0.5263	2670	93.8
159	00h26m30s	0.4158	23.998	9.9784	1413.7	0.4604	0.4077	0.2642	0.5263	2669	93.8
160	00h26m40s	0.4158	23.998	9.9784	1414.3	0.4605	0.4078	0.2642	0.5264	2670	93.8
161	00h26m50s	0.4158	23.998	9.9784	1414.3	0.4605	0.4078	0.2642	0.5264	2669	93.8
162	00h27m00s	0.4158	23.998	9.9784	1413.8	0.4606	0.4077	0.2643	0.5264	2668	93.8
163	00h27m10s	0.4158	23.998	9.9784	1412.8	0.4605	0.4078	0.2642	0.5264	2669	93.8
164	00h27m20s	0.4158	23.998	9.9784	1413.2	0.4605	0.4076	0.2643	0.5263	2668	93.7
165	00h27m30s	0.4158	23.998	9.9784	1413.3	0.4604	0.4076	0.2642	0.5263	2669	93.8
166	00h27m40s	0.4158	23.998	9.9784	1412.7	0.4604	0.4076	0.2642	0.5263	2669	93.8
167	00h27m50s	0.4158	23.998	9.9784	1412.8	0.4606	0.4078	0.2643	0.5264	2667	93.8
168	00h28m00s	0.4158	23.998	9.9784	1413.2	0.4605	0.4076	0.2643	0.5263	2668	93.7
169	00h28m10s	0.4158	23.998	9.9784	1413.3	0.4606	0.4076	0.2644	0.5263	2666	93.7
170	00h28m20s	0.4158	23.998	9.9784	1414.1	0.4605	0.4078	0.2642	0.5264	2669	93.8
171	00h28m30s	0.4158	23.998	9.9784	1413.9	0.4605	0.4078	0.2642	0.5264	2669	93.8
172	00h28m40s	0.4158	23.998	9.9784	1413.7	0.4605	0.4079	0.2641	0.5264	2670	93.8
173	00h28m50s	0.4158	23.998	9.9784	1413.6	0.4605	0.4077	0.2642	0.5263	2668	93.7
174	00h29m00s	0.4158	23.998	9.9784	1413.7	0.4605	0.4078	0.2642	0.5264	2669	93.7
175	00h29m10s	0.4158	23.998	9.9784	1413.5	0.4604	0.4076	0.2642	0.5263	2669	93.7
176	00h29m20s	0.4158	23.998	9.9784	1413.2	0.4606	0.4078	0.2642	0.5264	2669	93.8

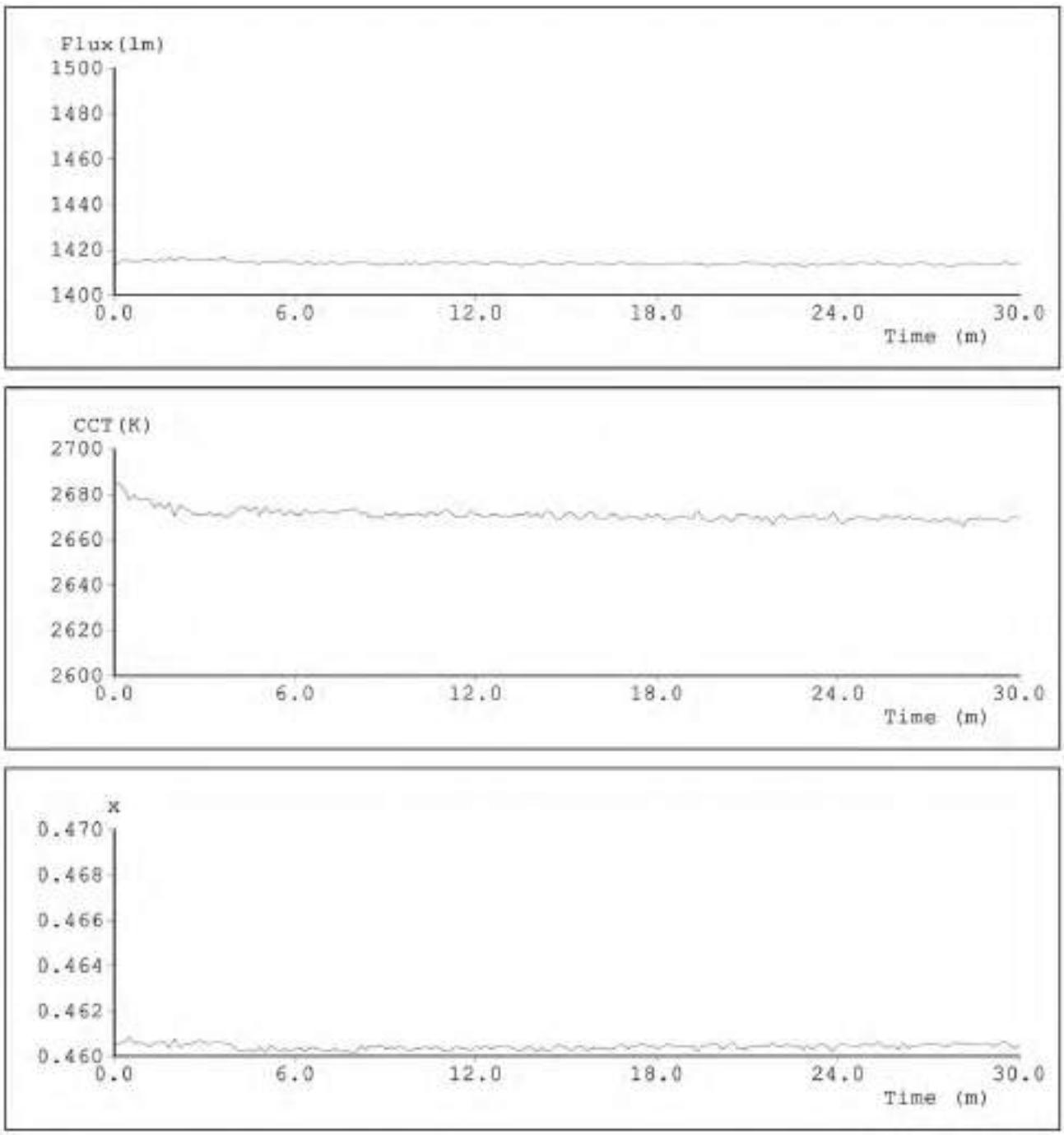
177	00h29m30s	0.4158	23.998	9.9784	1414.3	0.4607	0.4079	0.2643	0.5264	2668	93.7
178	00h29m40s	0.4158	23.998	9.9784	1413.9	0.4605	0.4078	0.2642	0.5264	2669	93.8
179	00h29m50s	0.4158	23.998	9.9784	1413.5	0.4603	0.4076	0.2642	0.5263	2670	93.7
180	00h30m00s	0.4158	23.998	9.9784	1414.1	0.4605	0.4078	0.2642	0.5264	2670	93.7

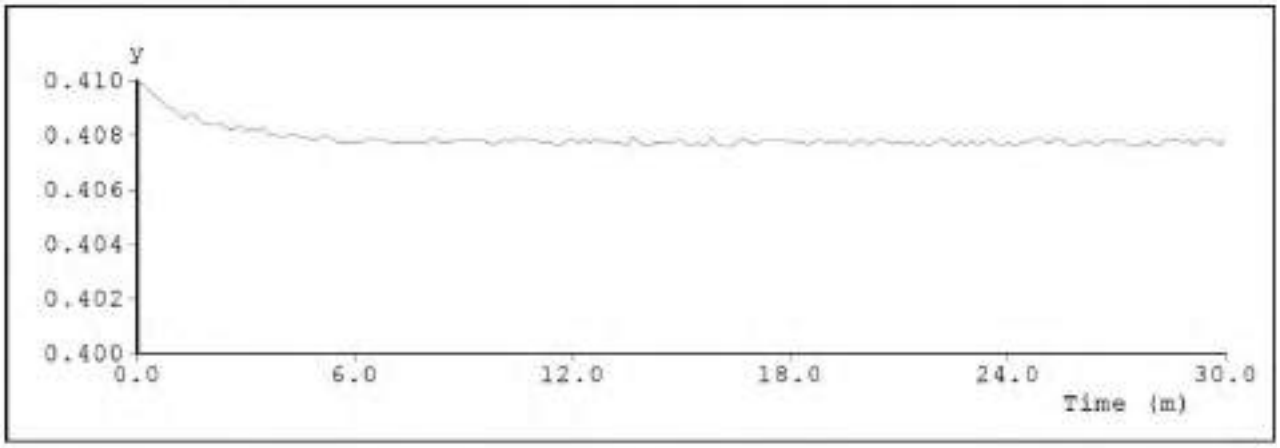
Test curves

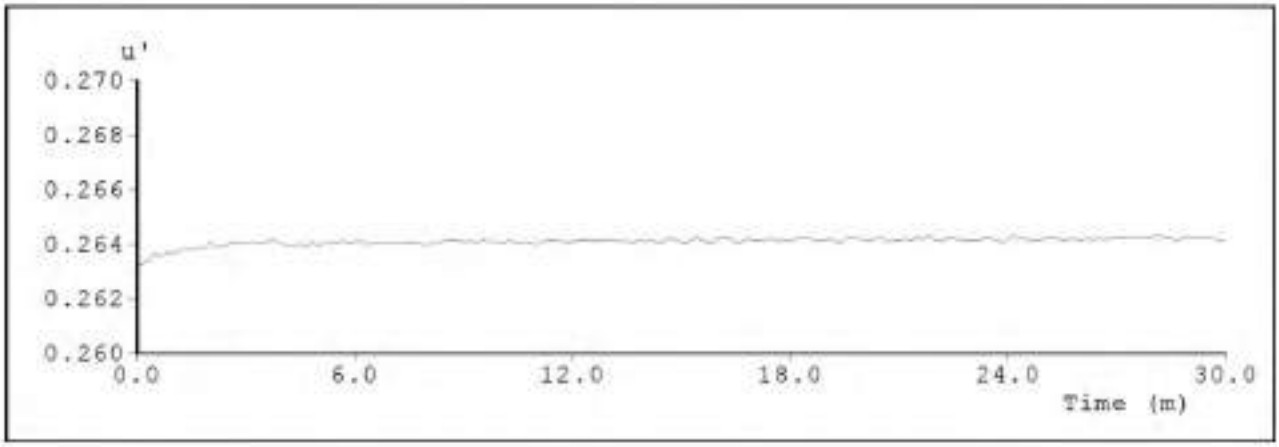


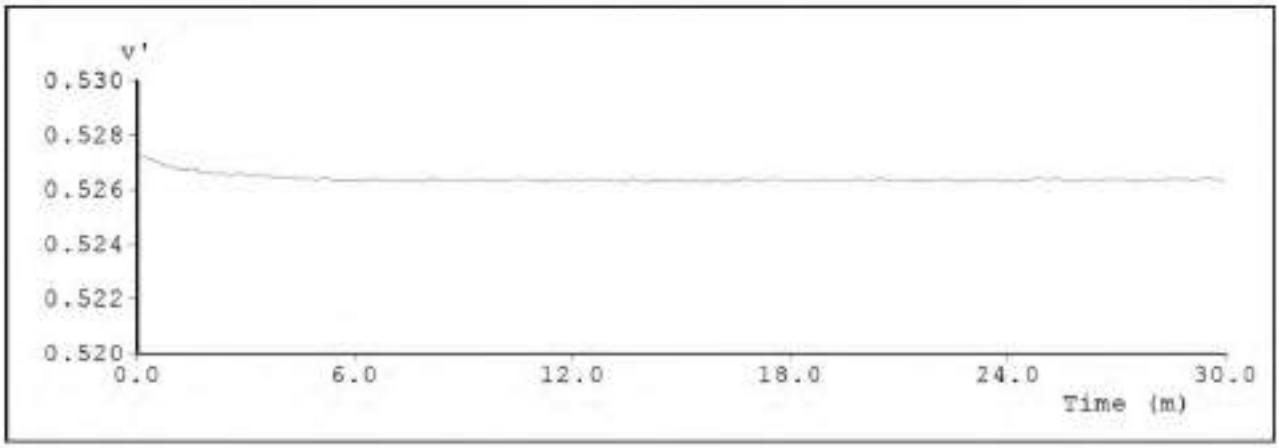





Flux(lm)
1500
1480
1460
1440
1420
1400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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

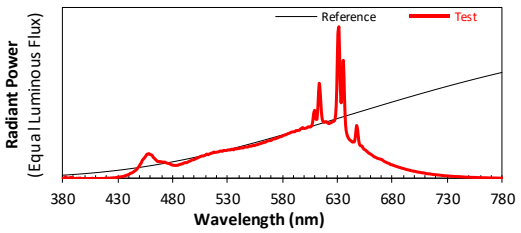

u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

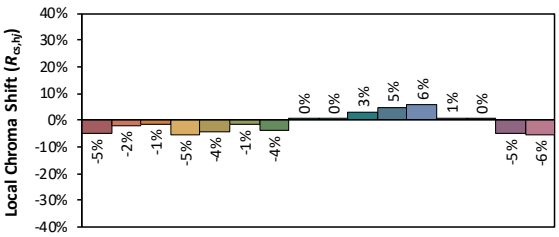

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

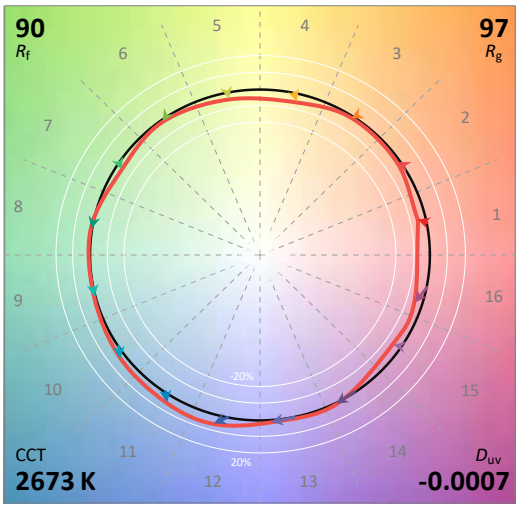
*5.2 ANSI/IES TM-30-18 Color Rendition Report

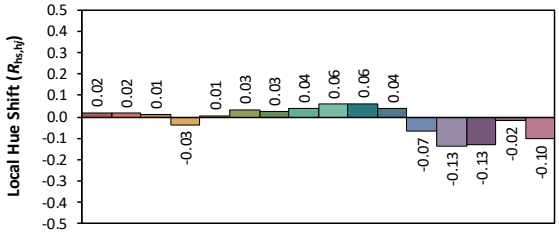
ANSI/IES TM-30-18 Color Rendition Report

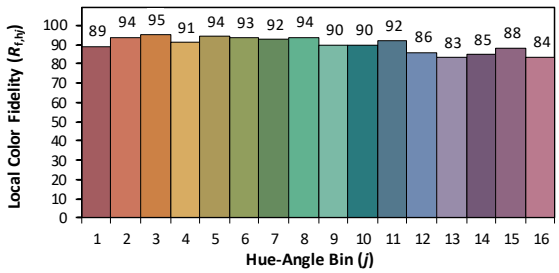
Source:		Manufacturer:	
Date:	2023/4/11	Model:	LFY7-T1000W-L27-CL-I-10

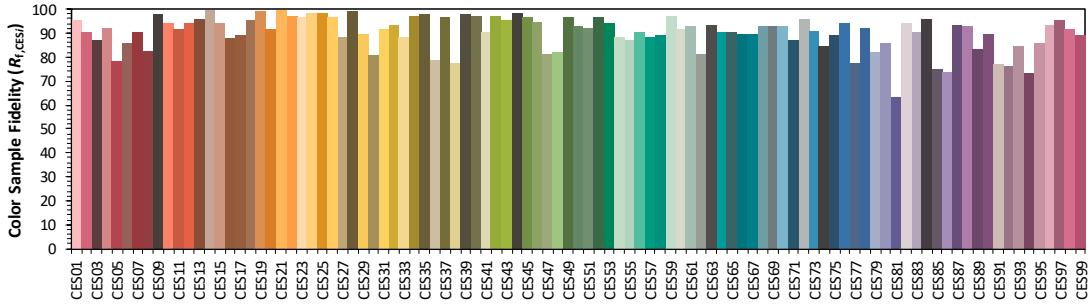












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

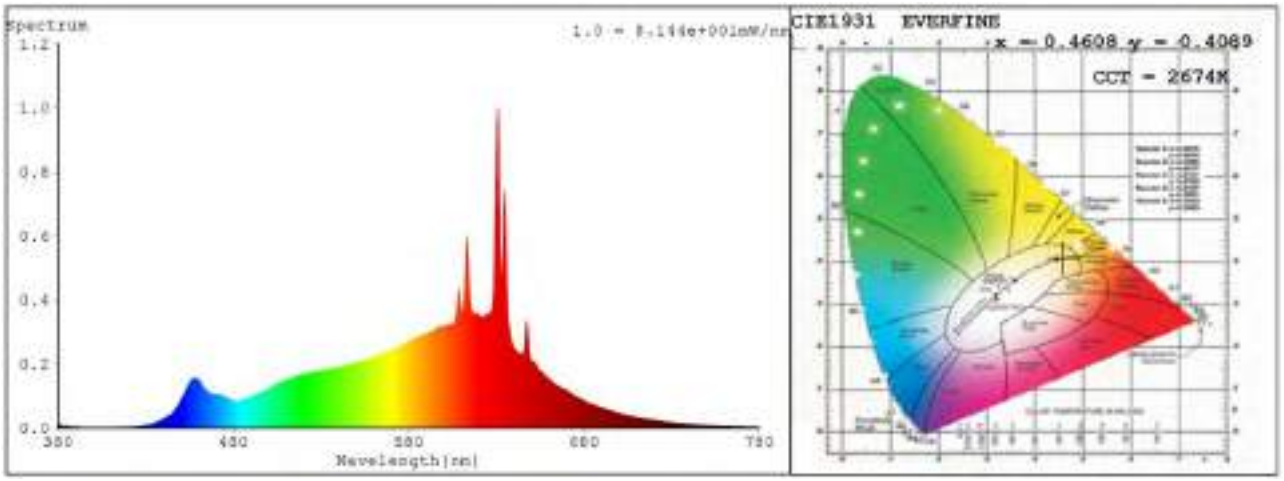
x	0.4608
y	0.4088
u'	0.2639
v'	0.5268

CIE 13.3-1995 (CRI)

R_a	94
R_9	63

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	0.0028	414	0.0023	448	0.0691	482	0.0839	516	0.1619
381	0.0053	415	0.0022	449	0.0768	483	0.0844	517	0.1677
382	0.0137	416	0.0022	450	0.0896	484	0.0843	518	0.1658
383	0.0041	417	0.002	451	0.0988	485	0.0876	519	0.1662
384	0.0041	418	0.0036	452	0.115	486	0.0892	520	0.1673
385	0.0054	419	0.0041	453	0.1234	487	0.0923	521	0.1689
386	0.0022	420	0.0038	454	0.1316	488	0.0932	522	0.1708
387	0.0095	421	0.005	455	0.1402	489	0.0958	523	0.1742
388	0.0011	422	0.0033	456	0.152	490	0.0994	524	0.1737
389	0.0069	423	0.0046	457	0.155	491	0.1016	525	0.1726
390	0	424	0.0054	458	0.1581	492	0.1009	526	0.1782
391	0.0015	425	0.0057	459	0.1526	493	0.1032	527	0.1768
392	0.0035	426	0.007	460	0.1505	494	0.1075	528	0.1775
393	0.0027	427	0.0067	461	0.1472	495	0.1101	529	0.1783
394	0.0036	428	0.0076	462	0.1347	496	0.1132	530	0.181
395	0.0045	429	0.0095	463	0.1289	497	0.1175	531	0.1809
396	0.0039	430	0.0102	464	0.121	498	0.1186	532	0.1811
397	0.0005	431	0.0115	465	0.1151	499	0.121	533	0.1837
398	0.0005	432	0.0124	466	0.1078	500	0.1235	534	0.1863
399	0.0026	433	0.0125	467	0.1094	501	0.1279	535	0.1814
400	0.001	434	0.0146	468	0.1055	502	0.1303	536	0.1863
401	0.0014	435	0.0148	469	0.1077	503	0.1328	537	0.1886
402	0.0009	436	0.0183	470	0.1055	504	0.137	538	0.1873
403	0.0018	437	0.0205	471	0.1038	505	0.1396	539	0.1907
404	0.001	438	0.0224	472	0.1051	506	0.1432	540	0.1894
405	0.002	439	0.0257	473	0.1028	507	0.1428	541	0.192
406	0.0032	440	0.0284	474	0.1001	508	0.1446	542	0.1953
407	0.0031	441	0.0337	475	0.0975	509	0.1466	543	0.1936
408	0.001	442	0.0357	476	0.0957	510	0.1519	544	0.1944
409	0.0019	443	0.0392	477	0.0949	511	0.1551	545	0.198
410	0.0012	444	0.0429	478	0.0895	512	0.1507	546	0.2
411	0.0014	445	0.0491	479	0.0874	513	0.1555	547	0.1992
412	0.0024	446	0.053	480	0.0853	514	0.1579	548	0.1996
413	0.0014	447	0.0597	481	0.0847	515	0.1615	549	0.2027

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2059	599	0.3161	648	0.306	697	0.0508	746	0.0109
551	0.2043	600	0.3159	649	0.24	698	0.0494	747	0.0106
552	0.2068	601	0.3177	650	0.2114	699	0.0476	748	0.01
553	0.2093	602	0.3207	651	0.2068	700	0.0473	749	0.0098
554	0.2083	603	0.3261	652	0.2052	701	0.0451	750	0.0097
555	0.2117	604	0.3255	653	0.192	702	0.0436	751	0.0092
556	0.2138	605	0.3253	654	0.1845	703	0.0419	752	0.009
557	0.2141	606	0.3309	655	0.1809	704	0.041	753	0.0092
558	0.2184	607	0.3529	656	0.1745	705	0.0403	754	0.0089
559	0.2196	608	0.4101	657	0.1686	706	0.0381	755	0.0085
560	0.2219	609	0.428	658	0.1619	707	0.0383	756	0.0079
561	0.224	610	0.3736	659	0.1581	708	0.0366	757	0.0083
562	0.2276	611	0.3743	660	0.1538	709	0.0358	758	0.0074
563	0.2283	612	0.4764	661	0.1491	710	0.0333	759	0.0075
564	0.2296	613	0.5973	662	0.1443	711	0.0324	760	0.0075
565	0.2339	614	0.5357	663	0.1381	712	0.0316	761	0.0067
566	0.2368	615	0.4217	664	0.1354	713	0.0312	762	0.0066
567	0.2394	616	0.3666	665	0.1319	714	0.0306	763	0.0069
568	0.2394	617	0.3563	666	0.1286	715	0.0288	764	0.0066
569	0.24	618	0.3547	667	0.1263	716	0.0281	765	0.0064
570	0.2441	619	0.3589	668	0.1244	717	0.0265	766	0.0062
571	0.2497	620	0.3552	669	0.1222	718	0.0269	767	0.0059
572	0.2495	621	0.3488	670	0.1215	719	0.0255	768	0.0053
573	0.2511	622	0.3459	671	0.1148	720	0.0251	769	0.0058
574	0.2533	623	0.3497	672	0.1107	721	0.024	770	0.0056
575	0.2566	624	0.3526	673	0.1062	722	0.0236	771	0.0051
576	0.2589	625	0.3579	674	0.1033	723	0.0227	772	0.0051
577	0.2619	626	0.3602	675	0.0996	724	0.0218	773	0.0051
578	0.2642	627	0.3657	676	0.0976	725	0.021	774	0.0049
579	0.266	628	0.4013	677	0.0949	726	0.0205	775	0.005
580	0.2704	629	0.569	678	0.0889	727	0.0193	776	0.0048
581	0.2735	630	0.9052	679	0.0885	728	0.019	777	0.0044
582	0.2743	631	0.9487	680	0.0857	729	0.0187	778	0.0044
583	0.2776	632	0.6261	681	0.0834	730	0.0183	779	0.0044
584	0.2814	633	0.4761	682	0.0804	731	0.0177	780	0.0044
585	0.284	634	0.6159	683	0.0785	732	0.0169		
586	0.2864	635	0.7427	684	0.0764	733	0.016		
587	0.2901	636	0.5173	685	0.0736	734	0.0158		
588	0.293	637	0.3392	686	0.0715	735	0.0155		
589	0.2945	638	0.2869	687	0.0701	736	0.0149		
590	0.2946	639	0.2643	688	0.0667	737	0.0141		
591	0.296	640	0.2514	689	0.0657	738	0.0141		
592	0.3026	641	0.2426	690	0.0637	739	0.0131		
593	0.3024	642	0.2383	691	0.0616	740	0.0134		
594	0.3038	643	0.2314	692	0.0592	741	0.0135		
595	0.3046	644	0.231	693	0.0576	742	0.0128		
596	0.312	645	0.2323	694	0.0556	743	0.0123		
597	0.3164	646	0.2674	695	0.0543	744	0.0117		
598	0.3213	647	0.3328	696	0.0525	745	0.0113		

6. Goniophotometer Test results

6.1 Test Data

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

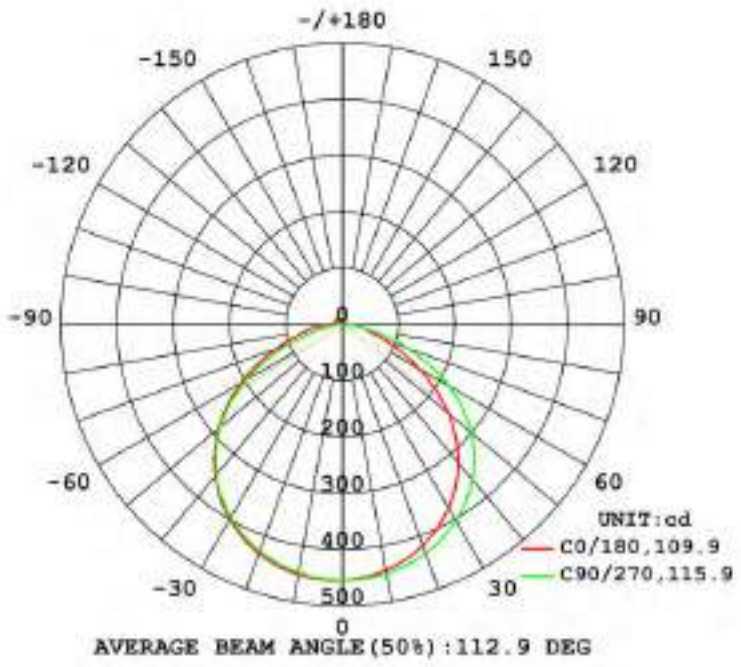
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.4225	1.0000	10.141

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1329.28	131.08	455.3	2.5	97.5

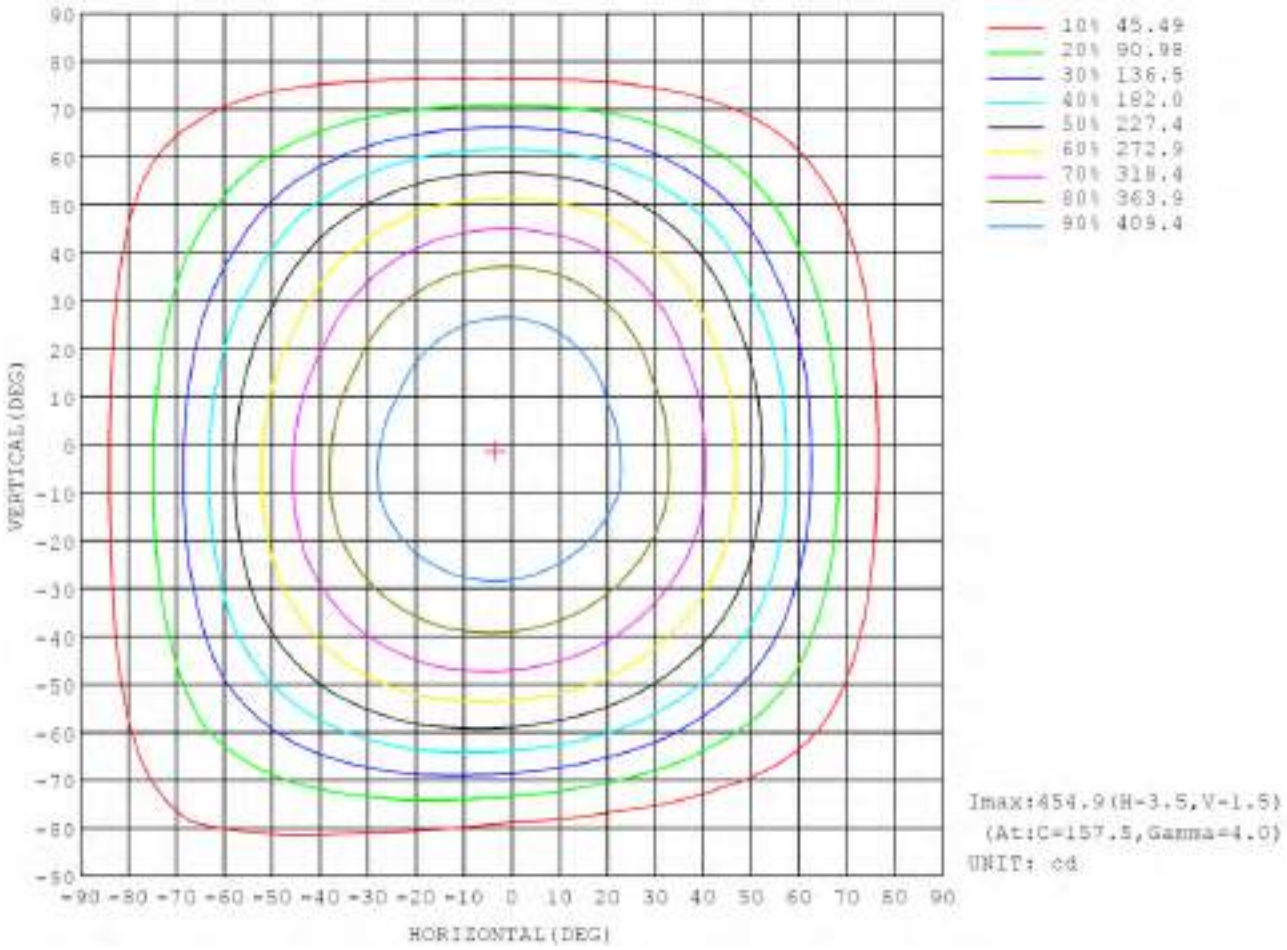
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum.lamp
10	443.1	446.5	449.9	452.0	451.0	448.5	447.5	443.8	0- 10	43.05	43.05	3.24,3.24
20	418.8	425.5	432.7	437.2	435.1	428.6	428.6	420.9	10- 20	134.2	187.2	12.6,12.6
30	377.1	390.4	403.2	409.3	400.0	394.2	396.3	384.0	20- 30	190.4	327.6	24.9,24.9
40	320.3	339.7	359.5	366.7	353.5	348.1	348.7	331.3	30- 40	232.5	560.1	44.4,44.4
50	246.3	271.4	298.2	308.5	287.7	277.1	283.6	261.6	40- 50	242.5	802.6	62.6,62.6
60	157.8	188.6	219.8	232.8	208.4	192.1	197.7	173.5	50- 60	211.7	1088	78.7,78.7
70	78.82	92.39	123.6	144.9	125.9	101.8	98.19	85.91	60- 70	146.9	1190	89.9,89.9
80	33.63	32.58	37.96	66.93	43.26	41.37	32.71	33.24	70- 80	74.62	1210	95.5,95.5
90	11.88	11.79	1.447	21.27	21.56	14.08	0.1219	11.80	80- 90	26.29	1236	97.5,97.5
100	9.209	7.828	0.8865	13.92	13.27	13.96	0.1517	4.518	90-100	16.14	1306	98.3,98.3
110	3.009	1.685	0.1372	14.17	14.68	11.80	0.2383	0.3259	100-110	7.337	1313	98.8,98.8
120	0.4336	0.2710	0.1316	12.98	14.97	11.53	0.2760	0.2664	110-120	5.423	1318	99.2,99.2
130	0.4224	0.3746	0.3828	8.310	13.14	7.259	0.3804	0.3787	120-130	3.867	1321	99.5,99.5
140	0.4858	0.4426	0.4489	6.524	10.31	6.720	0.5646	0.5215	130-140	2.723	1323	99.7,99.7
150	0.5381	0.4092	0.5157	6.032	8.541	6.587	0.6760	0.6460	140-150	1.975	1325	99.9,99.9
160	0.6158	0.5615	0.5961	3.578	8.892	4.348	0.8479	0.6948	150-160	1.250	1326	100,100
170	0.6885	0.6394	0.6832	1.691	1.724	1.891	0.8716	0.7174	160-170	0.6619	1326	100,100
180	0.7903	0.7717	0.7797	0.8525	0.8525	0.7972	0.7669	0.8184	170-180	0.6833	1326	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454	454
5	451	452	452	453	453	454	455	455	454	453	453	453	452	452	451	450
10	443	446	447	448	449	451	452	453	451	448	448	448	448	446	444	442
15	433	437	438	440	442	445	446	447	444	440	440	441	440	438	434	431
20	418	424	426	429	433	436	437	438	433	428	429	429	429	426	421	416
25	400	407	410	415	420	423	425	425	418	411	413	415	414	411	404	397
30	377	386	390	397	403	408	409	408	400	392	394	397	396	392	384	375
35	351	361	367	376	383	388	390	388	378	368	371	375	375	370	360	348
40	320	333	340	350	360	366	367	364	351	340	344	348	349	343	331	318
45	285	300	308	321	332	339	340	336	321	308	313	318	318	312	299	283
50	246	262	271	286	299	308	309	304	288	273	277	283	283	277	262	246
55	203	220	230	247	262	272	273	268	250	232	237	243	243	236	219	200
60	159	174	185	203	219	231	232	228	209	189	192	199	199	191	173	155
65	115	128	137	154	172	186	189	186	166	146	146	149	148	143	127	112
70	78.8	88.8	92.4	106	124	139	145	143	125	105	102	101	98.2	95.4	85.9	75.9
75	50.7	56.0	56.1	63.2	77.0	94.2	103	105	89.9	72.6	66.1	59.6	54.3	55.5	52.3	48.8
80	33.6	35.6	32.2	32.2	37.9	54.7	66.8	72.1	63.3	49.3	41.4	31.3	22.7	28.6	33.2	32.6
85	19.6	20.7	18.0	15.3	13.1	27.4	41.0	48.3	41.4	29.1	22.6	14.4	4.37	12.7	17.5	17.9
90	11.8	12.9	11.8	7.06	1.45	12.5	21.3	26.8	21.6	15.1	14.1	8.17	0.12	6.75	11.8	11.5
95	10.3	10.6	9.35	5.64	0.07	7.88	13.9	14.0	12.5	13.4	13.7	8.00	0.15	2.26	9.61	10.8
100	9.21	9.14	7.43	2.58	0.09	8.25	13.9	13.2	13.3	14.4	13.4	8.24	0.19	0.24	4.51	8.79
105	6.60	7.11	3.94	0.36	0.11	8.68	13.9	14.3	14.5	14.6	13.7	7.46	0.22	0.20	1.11	3.72
110	3.01	3.44	1.49	0.16	0.14	7.57	14.2	14.4	14.7	14.8	13.8	6.13	0.24	0.21	0.33	1.59
115	1.14	1.38	0.36	0.19	0.18	5.99	14.3	14.9	15.2	14.7	13.1	4.75	0.26	0.22	0.25	0.46
120	0.43	0.47	0.27	0.24	0.23	4.47	13.0	14.7	15.0	14.1	11.2	3.72	0.28	0.24	0.27	0.31
125	0.38	0.37	0.32	0.29	0.30	3.32	10.7	13.9	14.1	13.0	8.98	3.35	0.32	0.28	0.31	0.34
130	0.42	0.40	0.37	0.34	0.36	3.12	8.31	12.6	13.1	11.3	7.30	3.17	0.38	0.34	0.37	0.40
135	0.46	0.44	0.42	0.38	0.41	2.87	6.94	10.9	11.8	9.73	6.67	2.93	0.48	0.41	0.44	0.47
140	0.49	0.46	0.44	0.41	0.45	2.55	6.52	9.36	10.3	8.87	6.72	2.75	0.57	0.49	0.52	0.54
145	0.51	0.48	0.47	0.43	0.48	2.18	6.53	8.63	9.54	8.87	6.88	2.70	0.61	0.57	0.59	0.63
150	0.54	0.52	0.49	0.46	0.52	1.81	6.03	8.67	9.54	8.89	6.60	2.70	0.68	0.62	0.65	0.69
155	0.58	0.56	0.53	0.49	0.56	1.40	4.91	8.07	8.88	7.91	5.81	2.65	0.76	0.66	0.68	0.72
160	0.62	0.60	0.56	0.53	0.60	1.02	3.57	6.35	6.89	5.70	4.35	2.14	0.85	0.69	0.69	0.72
165	0.66	0.63	0.60	0.57	0.63	0.92	2.27	4.12	4.32	3.35	2.60	1.16	0.89	0.72	0.70	0.73
170	0.69	0.68	0.64	0.61	0.68	0.87	1.09	2.03	1.72	1.28	1.09	1.02	0.87	0.79	0.72	0.73
175	0.73	0.72	0.68	0.67	0.74	0.83	0.95	1.06	1.06	0.97	0.97	0.90	0.84	0.79	0.76	0.75
180	0.79	0.78	0.77	0.77	0.78	0.81	0.85	0.90	0.85	0.78	0.80	0.78	0.77	0.78	0.81	0.85

7. Photo of sample

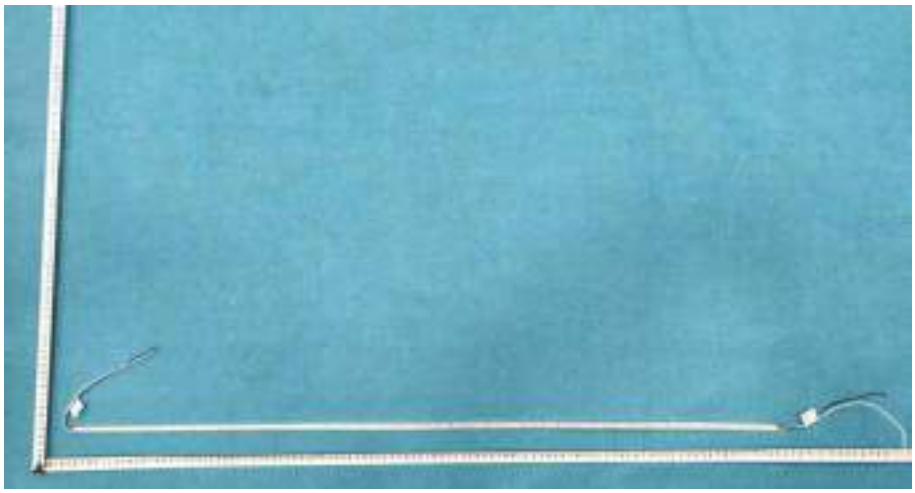


Figure 1 Overview

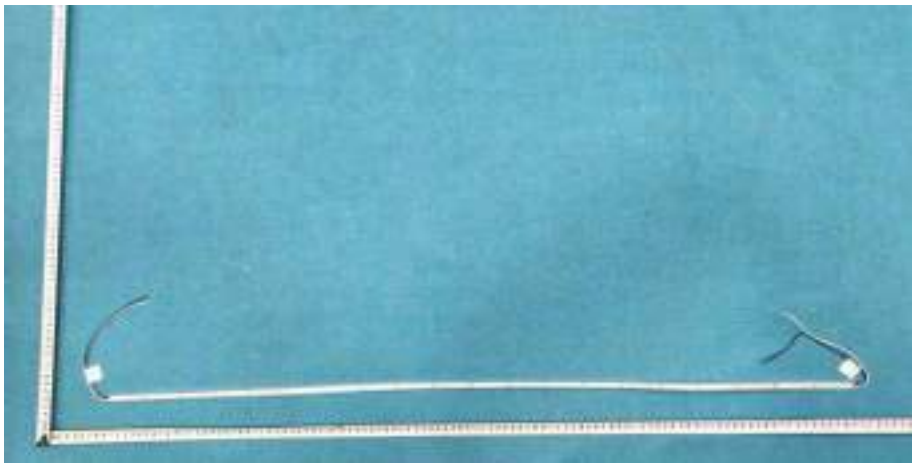


Figure 2 Overview

---End of Report---

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23030808L00101
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY7-T1000W-L27-CL-I-15
Brand Name	:	N/A
Testing Laboratory	:	Guangdong Meide Testing Technology Co., Ltd.
Address	:	1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road,Songshan Lake Hi-tech Industrial Development Zone,Dongguan City,Guangdong Pr., China.
Testing Location	:	As above
Date of receipt	:	Mar. 27, 2023
Date of test	:	Mar. 27, 2023 - Apr. 04, 2023
Date of report	:	Apr. 04, 2023

Tested by:	**Checked by:**	**Approved by:**
Jarvis Zhang	Sandy Chen	
Jarvis Zhang/ Test Engineer	Sandy Chen/ Project Engineer	Jessie Lu/ 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:	LFY7-T1000W-L27-CL-I-15
Manufacturer:	
Product Type:	N/A
Rated Voltage/Frequency:	DC24V
Rated Power:	/
Rated luminous flux:	/
Nominal CCT:	/

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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.5599	23.998	13.436	1810.3	0.4603	0.4104	0.2629	0.5273	2693	94
1	00h00m10s	0.5642	23.998	13.54	1812.6	0.4604	0.4099	0.2631	0.5272	2688	94
2	00h00m20s	0.5666	23.998	13.597	1812.5	0.4604	0.4094	0.2634	0.527	2683	93.9
3	00h00m30s	0.5683	23.998	13.638	1813.6	0.4604	0.4094	0.2634	0.527	2684	93.9
4	00h00m40s	0.5698	23.998	13.674	1814	0.4604	0.4091	0.2635	0.5269	2682	93.8
5	00h00m50s	0.5709	23.998	13.7	1816.1	0.4604	0.4091	0.2635	0.5269	2681	93.9
6	00h01m00s	0.5719	23.998	13.724	1816.8	0.4602	0.4088	0.2635	0.5267	2681	93.8
7	00h01m10s	0.5727	23.998	13.744	1818.4	0.4603	0.409	0.2635	0.5268	2682	93.9
8	00h01m20s	0.5735	23.998	13.763	1817	0.4601	0.4086	0.2636	0.5266	2681	93.8
9	00h01m30s	0.5743	23.998	13.782	1816.9	0.4603	0.4085	0.2637	0.5266	2678	93.7
10	00h01m40s	0.575	23.998	13.799	1817.9	0.4602	0.4086	0.2636	0.5267	2680	93.8
11	00h01m50s	0.5757	23.998	13.816	1817	0.4602	0.4084	0.2637	0.5266	2678	93.8
12	00h02m00s	0.5763	23.998	13.83	1817.8	0.4601	0.4085	0.2636	0.5266	2680	93.8
13	00h02m10s	0.5768	23.998	13.842	1817.6	0.4602	0.4082	0.2638	0.5265	2676	93.7
14	00h02m20s	0.5773	23.998	13.854	1817.3	0.4603	0.4083	0.2638	0.5265	2676	93.8
15	00h02m30s	0.5778	23.998	13.866	1817.2	0.4603	0.408	0.2639	0.5264	2674	93.8
16	00h02m40s	0.5782	23.998	13.876	1818.1	0.4602	0.4081	0.2638	0.5264	2676	93.8
17	00h02m50s	0.5786	23.998	13.885	1815.8	0.4603	0.408	0.2639	0.5264	2674	93.8
18	00h03m00s	0.579	23.998	13.895	1816.6	0.4603	0.4081	0.2639	0.5264	2674	93.8
19	00h03m10s	0.5793	23.998	13.902	1817.2	0.4601	0.4077	0.2639	0.5263	2675	93.7
20	00h03m20s	0.5796	23.998	13.909	1817	0.4602	0.4079	0.2639	0.5264	2675	93.8
21	00h03m30s	0.5799	23.998	13.916	1816.4	0.4602	0.4078	0.264	0.5263	2674	93.7

22	00h03m40s	0.5802	23.998	13.924	1816.3	0.46	0.4077	0.2639	0.5263	2675	93.7
23	00h03m50s	0.5804	23.998	13.928	1815.8	0.4603	0.4079	0.264	0.5264	2673	93.8
24	00h04m00s	0.5807	23.998	13.936	1815.7	0.4602	0.4079	0.264	0.5264	2674	93.8
25	00h04m10s	0.5809	23.998	13.94	1817.4	0.4604	0.4077	0.2641	0.5263	2670	93.7
26	00h04m20s	0.5811	23.998	13.945	1817	0.4603	0.4079	0.264	0.5264	2673	93.7
27	00h04m30s	0.5813	23.998	13.95	1815.2	0.4603	0.4078	0.2641	0.5263	2671	93.7
28	00h04m40s	0.5814	23.998	13.952	1814.8	0.4603	0.4075	0.2642	0.5262	2670	93.7
29	00h04m50s	0.5816	23.998	13.957	1814.7	0.4605	0.4077	0.2642	0.5263	2669	93.7
30	00h05m00s	0.5817	23.998	13.96	1815.3	0.4602	0.4075	0.2641	0.5262	2671	93.7
31	00h05m10s	0.5819	23.998	13.964	1815.4	0.4603	0.4076	0.2641	0.5263	2671	93.7
32	00h05m20s	0.582	23.998	13.967	1813.4	0.4605	0.4076	0.2643	0.5263	2667	93.7
33	00h05m30s	0.5821	23.998	13.969	1813.7	0.4604	0.4077	0.2642	0.5263	2670	93.7
34	00h05m40s	0.5822	23.998	13.972	1814.7	0.4604	0.4076	0.2642	0.5263	2669	93.8
35	00h05m50s	0.5823	23.998	13.974	1814.2	0.4605	0.4076	0.2643	0.5263	2668	93.7
36	00h06m00s	0.5824	23.998	13.976	1813.4	0.4605	0.4076	0.2642	0.5263	2668	93.7
37	00h06m10s	0.5825	23.998	13.979	1814.2	0.4605	0.4076	0.2643	0.5263	2667	93.6
38	00h06m20s	0.5826	23.998	13.981	1813.3	0.4605	0.4075	0.2643	0.5262	2667	93.7
39	00h06m30s	0.5827	23.998	13.984	1813.8	0.4605	0.4075	0.2643	0.5263	2667	93.6
40	00h06m40s	0.5827	23.998	13.984	1814.2	0.4605	0.4077	0.2642	0.5263	2668	93.7
41	00h06m50s	0.5828	23.998	13.986	1812.3	0.4605	0.4077	0.2642	0.5263	2669	93.7
42	00h07m00s	0.5829	23.998	13.988	1813.1	0.4606	0.4076	0.2643	0.5263	2666	93.7
43	00h07m10s	0.5829	23.998	13.988	1813.3	0.4605	0.4075	0.2643	0.5263	2667	93.6
44	00h07m20s	0.583	23.998	13.991	1812.7	0.4605	0.4075	0.2643	0.5263	2666	93.7
45	00h07m30s	0.5831	23.998	13.993	1812.9	0.4606	0.4076	0.2643	0.5263	2667	93.6
46	00h07m40s	0.5831	23.998	13.993	1811.9	0.4604	0.4075	0.2642	0.5263	2669	93.7
47	00h07m50s	0.5832	23.998	13.996	1812.9	0.4605	0.4075	0.2643	0.5263	2667	93.7
48	00h08m00s	0.5832	23.998	13.996	1812.5	0.4605	0.4075	0.2643	0.5262	2667	93.7
49	00h08m10s	0.5832	23.998	13.996	1812	0.4604	0.4077	0.2642	0.5263	2670	93.7
50	00h08m20s	0.5833	23.998	13.998	1812	0.4606	0.4075	0.2644	0.5263	2666	93.7
51	00h08m30s	0.5833	23.998	13.998	1811.9	0.4605	0.4075	0.2643	0.5263	2668	93.7
52	00h08m40s	0.5833	23.998	13.998	1812.3	0.4606	0.4078	0.2643	0.5264	2667	93.7

53	00h08m50s	0.5834	23.998	14	1810.7	0.4606	0.4075	0.2644	0.5263	2665	93.7
54	00h09m00s	0.5834	23.998	14	1811.3	0.4606	0.4075	0.2644	0.5262	2666	93.7
55	00h09m10s	0.5834	23.998	14	1812.5	0.4604	0.4075	0.2643	0.5263	2668	93.7
56	00h09m20s	0.5835	23.998	14.003	1811.8	0.4605	0.4076	0.2643	0.5263	2667	93.7
57	00h09m30s	0.5835	23.998	14.003	1810.9	0.4604	0.4076	0.2643	0.5263	2668	93.7
58	00h09m40s	0.5835	23.998	14.003	1810.8	0.4605	0.4076	0.2643	0.5263	2668	93.7
59	00h09m50s	0.5836	23.998	14.005	1809.8	0.4606	0.4073	0.2644	0.5262	2665	93.6
60	00h10m00s	0.5836	23.998	14.005	1811.5	0.4605	0.4077	0.2643	0.5263	2668	93.7
61	00h10m10s	0.5836	23.998	14.005	1810.9	0.4605	0.4076	0.2643	0.5263	2668	93.7
62	00h10m20s	0.5836	23.998	14.005	1809.8	0.4605	0.4074	0.2644	0.5262	2666	93.7
63	00h10m30s	0.5836	23.998	14.005	1811.4	0.4607	0.4077	0.2644	0.5264	2665	93.7
64	00h10m40s	0.5837	23.998	14.008	1810.2	0.4605	0.4076	0.2642	0.5263	2668	93.7
65	00h10m50s	0.5837	23.998	14.008	1812.2	0.4605	0.4076	0.2643	0.5263	2668	93.7
66	00h11m00s	0.5837	23.998	14.008	1810.2	0.4606	0.4075	0.2643	0.5263	2667	93.7
67	00h11m10s	0.5837	23.998	14.008	1810.7	0.4606	0.4075	0.2644	0.5263	2666	93.7
68	00h11m20s	0.5837	23.998	14.008	1810	0.4606	0.4075	0.2644	0.5263	2665	93.7
69	00h11m30s	0.5838	23.998	14.01	1811.1	0.4606	0.4075	0.2644	0.5263	2666	93.6
70	00h11m40s	0.5838	23.998	14.01	1810.1	0.4606	0.4076	0.2643	0.5263	2667	93.7
71	00h11m50s	0.5838	23.998	14.01	1810.6	0.4605	0.4076	0.2643	0.5263	2667	93.7
72	00h12m00s	0.5838	23.998	14.01	1811.6	0.4606	0.4077	0.2643	0.5263	2667	93.7
73	00h12m10s	0.5838	23.998	14.01	1809	0.4607	0.4076	0.2644	0.5263	2665	93.6
74	00h12m20s	0.5839	23.998	14.012	1809.7	0.4606	0.4075	0.2644	0.5263	2666	93.7
75	00h12m30s	0.5839	23.998	14.012	1810.1	0.4606	0.4074	0.2644	0.5263	2664	93.6
76	00h12m40s	0.5839	23.998	14.012	1810.9	0.4606	0.4075	0.2644	0.5263	2665	93.6
77	00h12m50s	0.5839	23.998	14.012	1810.3	0.4605	0.4077	0.2643	0.5263	2668	93.7
78	00h13m00s	0.5839	23.998	14.012	1809.1	0.4606	0.4074	0.2645	0.5262	2664	93.6
79	00h13m10s	0.5839	23.998	14.012	1811.3	0.4608	0.4076	0.2644	0.5263	2664	93.7
80	00h13m20s	0.584	23.998	14.015	1809.7	0.4606	0.4075	0.2644	0.5263	2666	93.7
81	00h13m30s	0.584	23.998	14.015	1809.7	0.4606	0.4074	0.2644	0.5262	2666	93.6
82	00h13m40s	0.584	23.998	14.015	1809.5	0.4607	0.4075	0.2645	0.5263	2664	93.7
83	00h13m50s	0.584	23.998	14.015	1809.9	0.4607	0.4075	0.2644	0.5263	2665	93.6

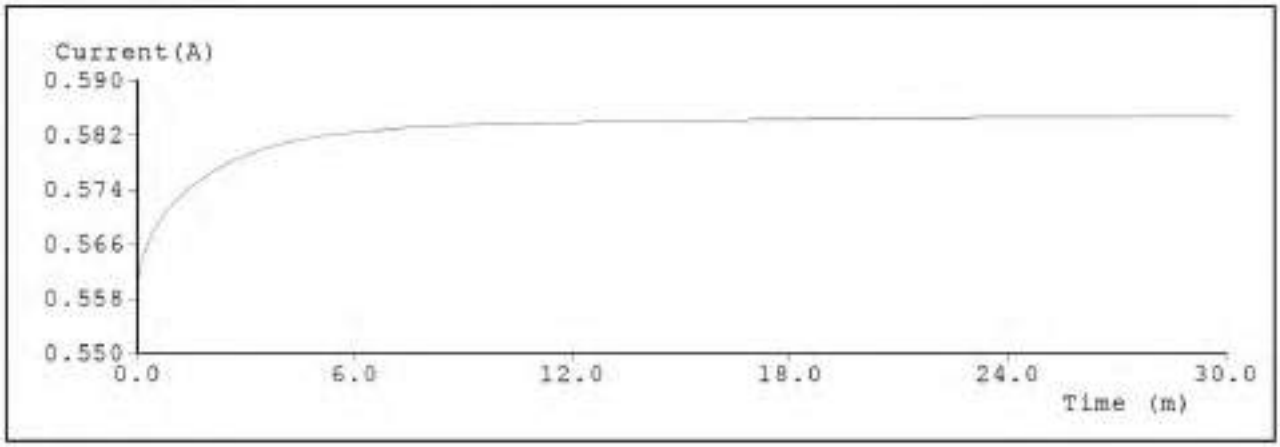
84	00h14m00s	0.584	23.998	14.015	1809.8	0.4608	0.4076	0.2644	0.5263	2664	93.7
85	00h14m10s	0.584	23.998	14.015	1809.9	0.4606	0.4075	0.2644	0.5263	2666	93.6
86	00h14m20s	0.5841	23.998	14.017	1810	0.4608	0.4077	0.2644	0.5264	2665	93.6
87	00h14m30s	0.5841	23.998	14.017	1809.7	0.4606	0.4074	0.2644	0.5262	2665	93.7
88	00h14m40s	0.5841	23.998	14.017	1809.9	0.4608	0.4075	0.2645	0.5263	2664	93.7
89	00h14m50s	0.5841	23.998	14.017	1808.9	0.4606	0.4075	0.2644	0.5263	2665	93.6
90	00h15m00s	0.5841	23.998	14.017	1808.8	0.4607	0.4076	0.2644	0.5263	2664	93.7
91	00h15m10s	0.5841	23.998	14.017	1809	0.4608	0.4076	0.2644	0.5263	2664	93.7
92	00h15m20s	0.5842	23.998	14.02	1808.5	0.4608	0.4074	0.2645	0.5263	2663	93.6
93	00h15m30s	0.5842	23.998	14.02	1809.1	0.4607	0.4075	0.2644	0.5263	2665	93.6
94	00h15m40s	0.5842	23.998	14.02	1808.8	0.4606	0.4075	0.2644	0.5263	2665	93.7
95	00h15m50s	0.5842	23.998	14.02	1808.7	0.4607	0.4076	0.2644	0.5263	2665	93.6
96	00h16m00s	0.5842	23.998	14.02	1808.4	0.4607	0.4075	0.2644	0.5263	2664	93.7
97	00h16m10s	0.5842	23.998	14.02	1806.4	0.4608	0.4075	0.2645	0.5263	2663	93.7
98	00h16m20s	0.5842	23.998	14.02	1808.2	0.4608	0.4075	0.2645	0.5263	2663	93.7
99	00h16m30s	0.5842	23.998	14.02	1807.1	0.4608	0.4075	0.2646	0.5263	2662	93.6
100	00h16m40s	0.5842	23.998	14.02	1809.5	0.4606	0.4074	0.2644	0.5263	2665	93.6
101	00h16m50s	0.5842	23.998	14.02	1808.6	0.4606	0.4074	0.2644	0.5262	2664	93.6
102	00h17m00s	0.5843	23.998	14.022	1808.6	0.4606	0.4075	0.2643	0.5263	2666	93.7
103	00h17m10s	0.5843	23.998	14.022	1809.3	0.4606	0.4074	0.2645	0.5262	2664	93.6
104	00h17m20s	0.5843	23.998	14.022	1807.6	0.4607	0.4076	0.2644	0.5263	2665	93.6
105	00h17m30s	0.5843	23.998	14.022	1808.1	0.4607	0.4075	0.2644	0.5263	2664	93.7
106	00h17m40s	0.5843	23.998	14.022	1808.2	0.4609	0.4075	0.2646	0.5263	2662	93.6
107	00h17m50s	0.5843	23.998	14.022	1807.4	0.4607	0.4075	0.2645	0.5263	2664	93.7
108	00h18m00s	0.5843	23.998	14.022	1808.9	0.4608	0.4075	0.2645	0.5263	2662	93.6
109	00h18m10s	0.5843	23.998	14.022	1808.7	0.4608	0.4075	0.2645	0.5263	2662	93.6
110	00h18m20s	0.5843	23.998	14.022	1807.4	0.4608	0.4075	0.2645	0.5263	2663	93.7
111	00h18m30s	0.5844	23.998	14.024	1806.8	0.461	0.4075	0.2646	0.5263	2661	93.6
112	00h18m40s	0.5844	23.998	14.024	1807.7	0.4608	0.4077	0.2644	0.5264	2665	93.7
113	00h18m50s	0.5844	23.998	14.024	1808.2	0.4609	0.4075	0.2646	0.5263	2662	93.6
114	00h19m00s	0.5844	23.998	14.024	1808.5	0.4609	0.4075	0.2645	0.5263	2662	93.6

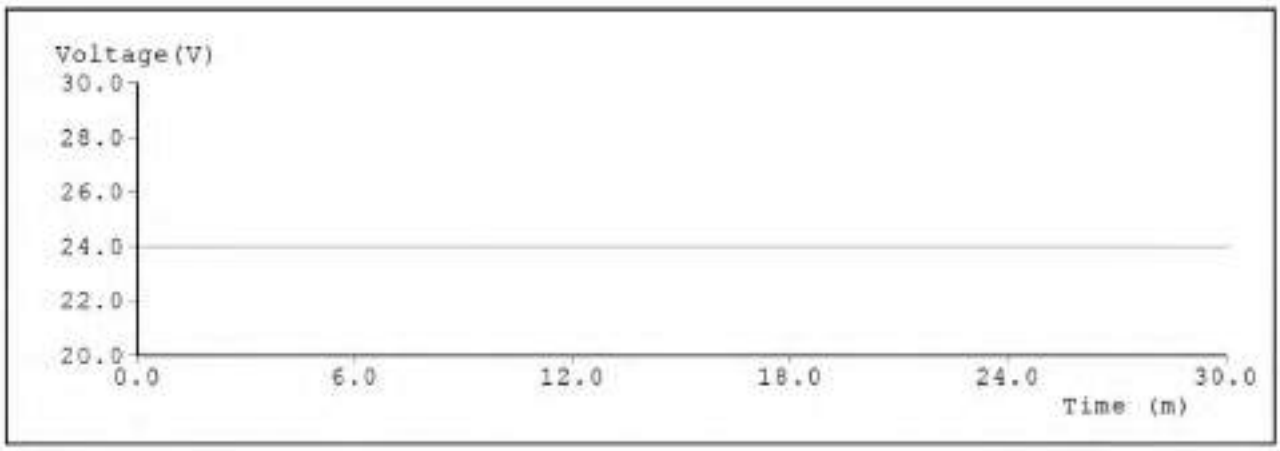
115	00h19m10s	0.5844	23.998	14.024	1807.9	0.4608	0.4075	0.2645	0.5263	2663	93.6
116	00h19m20s	0.5844	23.998	14.024	1807	0.4609	0.4075	0.2645	0.5263	2662	93.7
117	00h19m30s	0.5844	23.998	14.024	1807.8	0.4608	0.4074	0.2645	0.5263	2663	93.6
118	00h19m40s	0.5844	23.998	14.024	1808.3	0.4609	0.4075	0.2645	0.5263	2662	93.7
119	00h19m50s	0.5844	23.998	14.024	1807.5	0.4606	0.4075	0.2644	0.5263	2666	93.7
120	00h20m00s	0.5844	23.998	14.024	1807.5	0.4608	0.4075	0.2645	0.5263	2663	93.6
121	00h20m10s	0.5845	23.998	14.027	1807.3	0.4609	0.4076	0.2646	0.5263	2662	93.6
122	00h20m20s	0.5845	23.998	14.027	1807.3	0.461	0.4077	0.2645	0.5264	2662	93.6
123	00h20m30s	0.5845	23.998	14.027	1806.6	0.4609	0.4073	0.2647	0.5263	2660	93.6
124	00h20m40s	0.5845	23.998	14.027	1807.8	0.4609	0.4076	0.2645	0.5264	2663	93.6
125	00h20m50s	0.5845	23.998	14.027	1807.4	0.4608	0.4076	0.2645	0.5263	2664	93.6
126	00h21m00s	0.5845	23.998	14.027	1807.3	0.4608	0.4075	0.2645	0.5263	2663	93.6
127	00h21m10s	0.5845	23.998	14.027	1807	0.4608	0.4076	0.2644	0.5264	2665	93.6
128	00h21m20s	0.5845	23.998	14.027	1806.3	0.4609	0.4076	0.2645	0.5263	2662	93.7
129	00h21m30s	0.5845	23.998	14.027	1806.7	0.461	0.4076	0.2646	0.5264	2661	93.6
130	00h21m40s	0.5845	23.998	14.027	1806.1	0.4609	0.4076	0.2645	0.5264	2662	93.7
131	00h21m50s	0.5845	23.998	14.027	1807.7	0.4608	0.4075	0.2645	0.5263	2663	93.7
132	00h22m00s	0.5845	23.998	14.027	1806.1	0.4608	0.4074	0.2646	0.5263	2662	93.6
133	00h22m10s	0.5845	23.998	14.027	1808.1	0.4609	0.4077	0.2645	0.5264	2663	93.7
134	00h22m20s	0.5845	23.998	14.027	1806.2	0.4609	0.4076	0.2645	0.5264	2662	93.7
135	00h22m30s	0.5845	23.998	14.027	1807.1	0.461	0.4077	0.2646	0.5264	2661	93.7
136	00h22m40s	0.5845	23.998	14.027	1806.8	0.4612	0.4076	0.2647	0.5264	2658	93.6
137	00h22m50s	0.5845	23.998	14.027	1806.7	0.4609	0.4076	0.2646	0.5263	2662	93.7
138	00h23m00s	0.5845	23.998	14.027	1806.8	0.4609	0.4074	0.2646	0.5263	2661	93.6
139	00h23m10s	0.5846	23.998	14.029	1806.3	0.4609	0.4076	0.2646	0.5263	2661	93.6
140	00h23m20s	0.5846	23.998	14.029	1807	0.461	0.4077	0.2645	0.5264	2662	93.6
141	00h23m30s	0.5846	23.998	14.029	1806.3	0.461	0.4076	0.2646	0.5264	2661	93.6
142	00h23m40s	0.5846	23.998	14.029	1807.6	0.4608	0.4076	0.2645	0.5263	2663	93.6
143	00h23m50s	0.5846	23.998	14.029	1807.5	0.4608	0.4077	0.2645	0.5264	2664	93.7
144	00h24m00s	0.5846	23.998	14.029	1806.9	0.4609	0.4077	0.2645	0.5264	2662	93.7
145	00h24m10s	0.5846	23.998	14.029	1807.3	0.4609	0.4075	0.2646	0.5263	2661	93.6

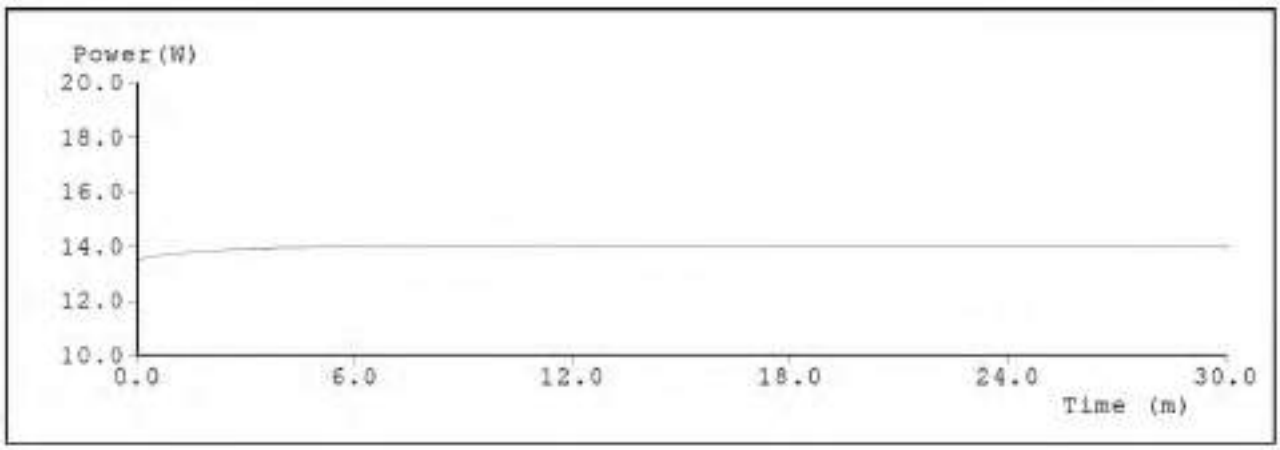
146	00h24m20s	0.5846	23.998	14.029	1807.4	0.4611	0.4078	0.2646	0.5264	2661	93.6
147	00h24m30s	0.5846	23.998	14.029	1806.8	0.461	0.4076	0.2646	0.5264	2661	93.7
148	00h24m40s	0.5846	23.998	14.029	1807.3	0.4609	0.4077	0.2645	0.5264	2664	93.7
149	00h24m50s	0.5846	23.998	14.029	1805.9	0.4609	0.4075	0.2646	0.5263	2662	93.6
150	00h25m00s	0.5846	23.998	14.029	1806.9	0.4611	0.4076	0.2646	0.5264	2660	93.6
151	00h25m10s	0.5846	23.998	14.029	1806.2	0.4611	0.4076	0.2646	0.5264	2660	93.6
152	00h25m20s	0.5846	23.998	14.029	1806.2	0.461	0.4076	0.2646	0.5264	2661	93.7
153	00h25m30s	0.5846	23.998	14.029	1807.4	0.4609	0.4076	0.2646	0.5263	2662	93.6
154	00h25m40s	0.5846	23.998	14.029	1806.7	0.4609	0.4075	0.2646	0.5263	2661	93.6
155	00h25m50s	0.5846	23.998	14.029	1807.1	0.461	0.4076	0.2646	0.5264	2662	93.7
156	00h26m00s	0.5846	23.998	14.029	1807.2	0.4609	0.4077	0.2644	0.5264	2664	93.6
157	00h26m10s	0.5846	23.998	14.029	1806.7	0.461	0.4077	0.2646	0.5264	2661	93.6
158	00h26m20s	0.5846	23.998	14.029	1806.9	0.4611	0.4075	0.2647	0.5263	2659	93.6
159	00h26m30s	0.5846	23.998	14.029	1806.2	0.4611	0.4077	0.2646	0.5264	2660	93.6
160	00h26m40s	0.5846	23.998	14.029	1805.8	0.4611	0.4078	0.2646	0.5265	2661	93.7
161	00h26m50s	0.5846	23.998	14.029	1807.6	0.461	0.4076	0.2646	0.5264	2661	93.6
162	00h27m00s	0.5846	23.998	14.029	1807	0.4609	0.4075	0.2646	0.5263	2662	93.6
163	00h27m10s	0.5846	23.998	14.029	1806	0.4609	0.4077	0.2645	0.5264	2662	93.7
164	00h27m20s	0.5846	23.998	14.029	1805.3	0.461	0.4077	0.2646	0.5264	2661	93.7
165	00h27m30s	0.5846	23.998	14.029	1806.9	0.4611	0.4076	0.2646	0.5264	2660	93.6
166	00h27m40s	0.5847	23.998	14.032	1806.5	0.461	0.4078	0.2645	0.5265	2663	93.7
167	00h27m50s	0.5847	23.998	14.032	1805.7	0.4611	0.4076	0.2647	0.5264	2659	93.6
168	00h28m00s	0.5847	23.998	14.032	1805.7	0.461	0.4075	0.2646	0.5263	2660	93.6
169	00h28m10s	0.5847	23.998	14.032	1805.7	0.4608	0.4076	0.2645	0.5263	2664	93.7
170	00h28m20s	0.5847	23.998	14.032	1806.4	0.461	0.4076	0.2646	0.5264	2661	93.6
171	00h28m30s	0.5847	23.998	14.032	1807.3	0.4609	0.4076	0.2645	0.5264	2662	93.6
172	00h28m40s	0.5847	23.998	14.032	1807.1	0.4611	0.4077	0.2646	0.5264	2660	93.6
173	00h28m50s	0.5847	23.998	14.032	1806.1	0.461	0.4078	0.2645	0.5265	2662	93.7
174	00h29m00s	0.5847	23.998	14.032	1806.5	0.461	0.4076	0.2646	0.5264	2660	93.6
175	00h29m10s	0.5847	23.998	14.032	1805.2	0.461	0.4075	0.2646	0.5263	2661	93.7
176	00h29m20s	0.5847	23.998	14.032	1805.7	0.4609	0.4075	0.2645	0.5263	2662	93.6

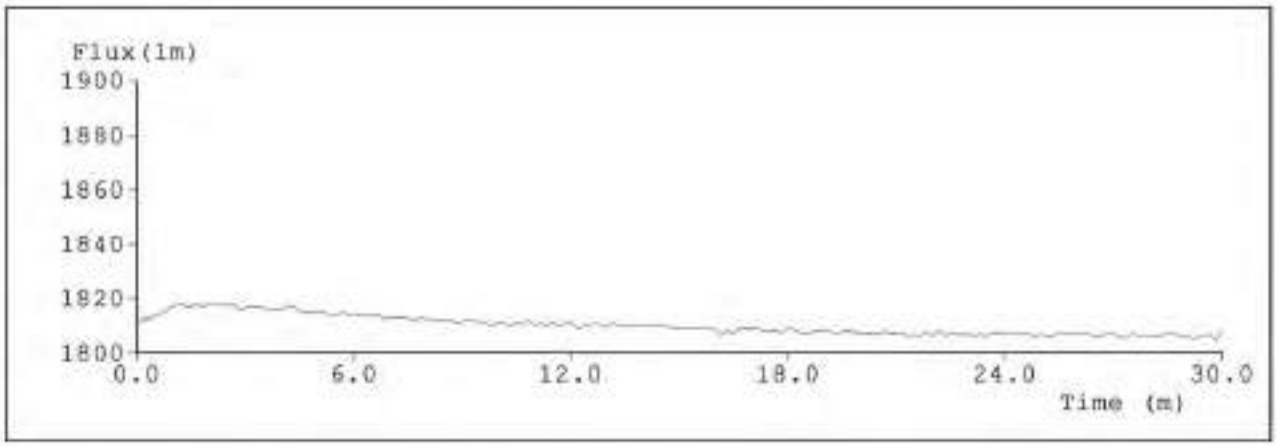
177	00h29m30s	0.5847	23.998	14.032	1806.3	0.4612	0.4078	0.2646	0.5265	2660	93.6
178	00h29m40s	0.5847	23.998	14.032	1806.8	0.4609	0.4075	0.2646	0.5263	2662	93.6
179	00h29m50s	0.5847	23.998	14.032	1804.5	0.4611	0.4076	0.2647	0.5264	2659	93.6
180	00h30m00s	0.5847	23.998	14.032	1807.9	0.4611	0.4078	0.2646	0.5265	2661	93.6

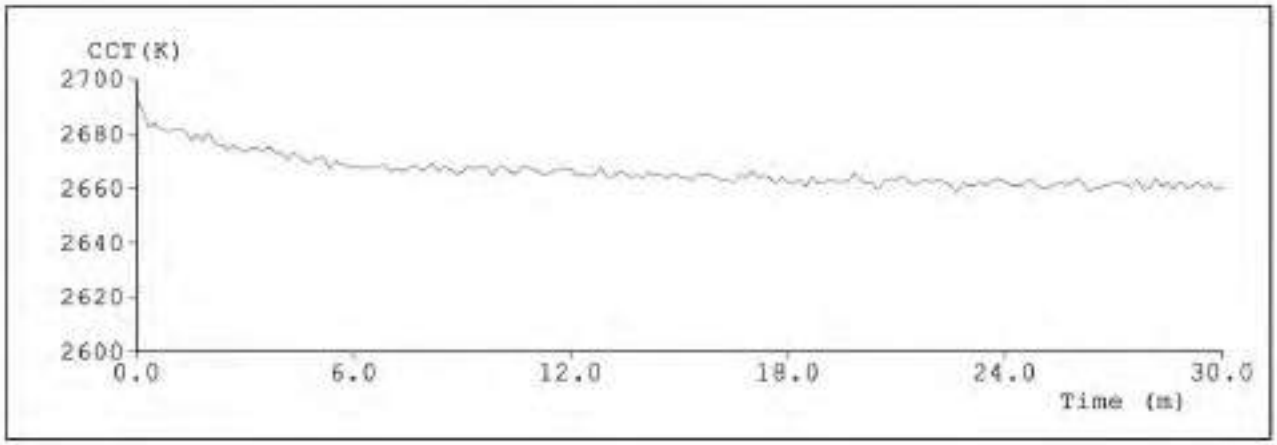
Test curves

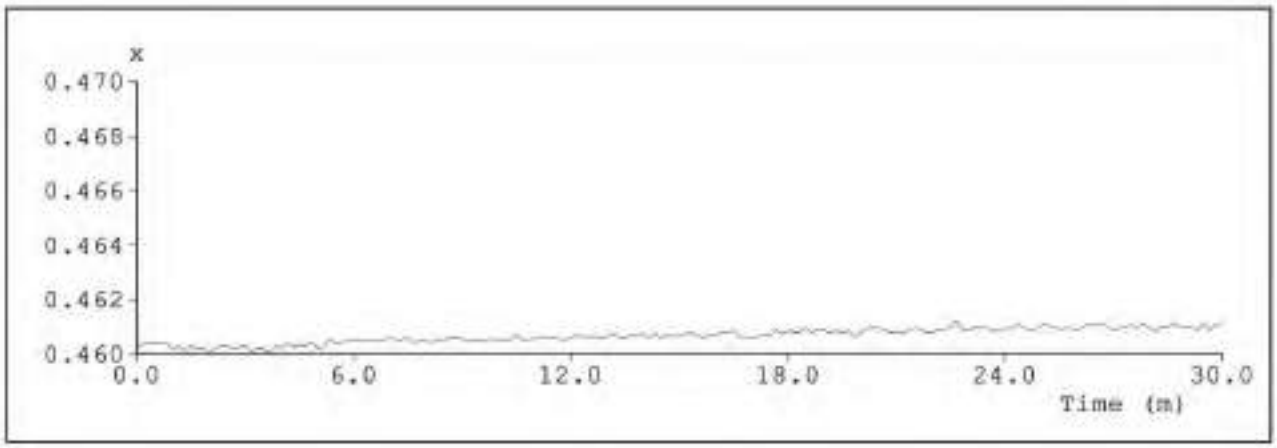


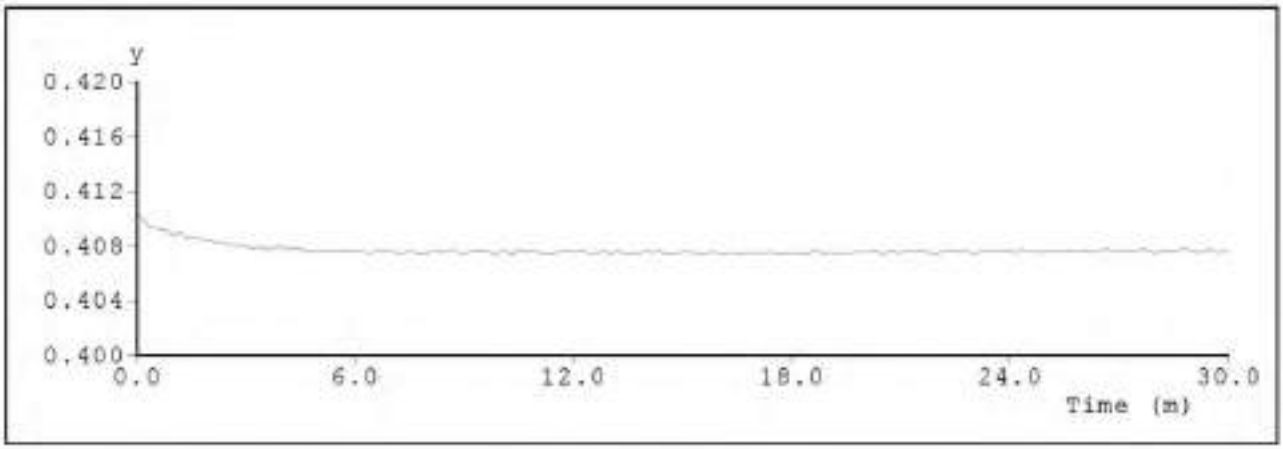


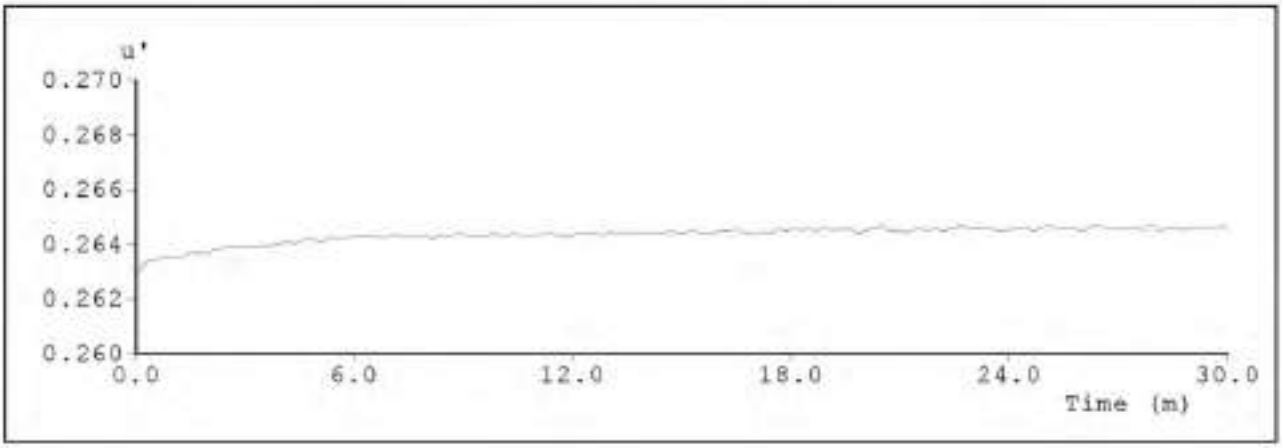


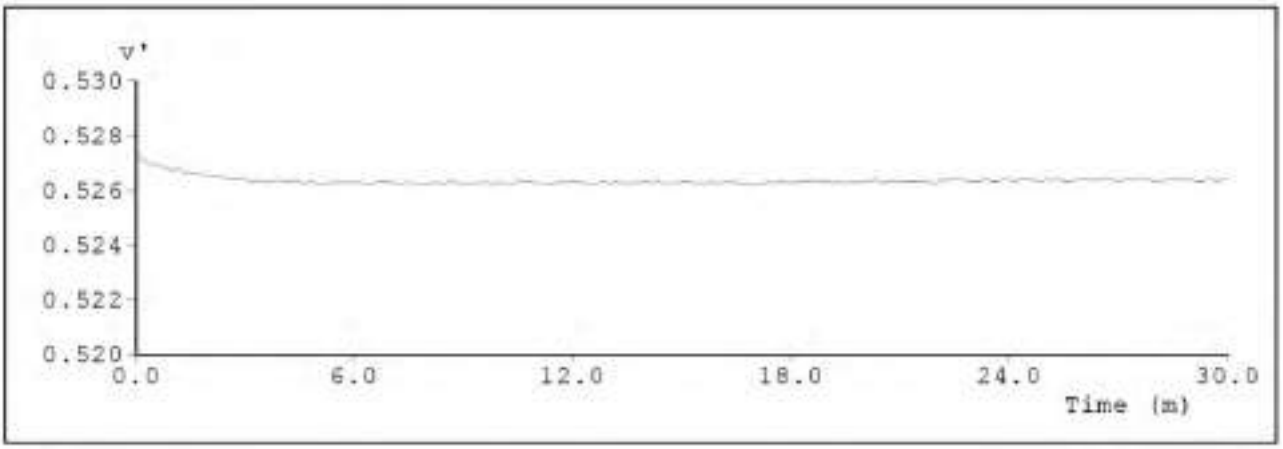

Flux(lm)
1900
1880
1860
1840
1820
1800
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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


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


y
0.420
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)

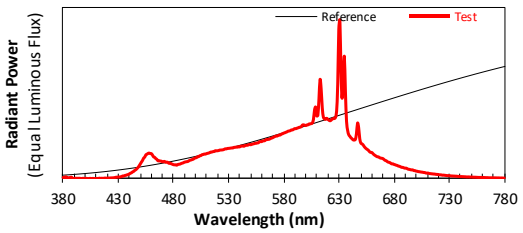

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

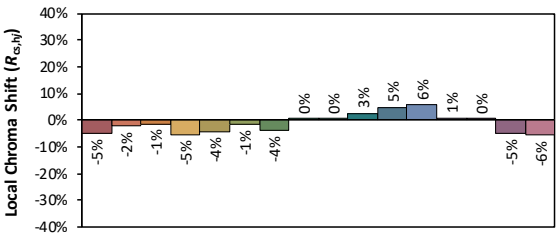
*5.2 ANSI/IES TM-30-18 Color Rendition Report

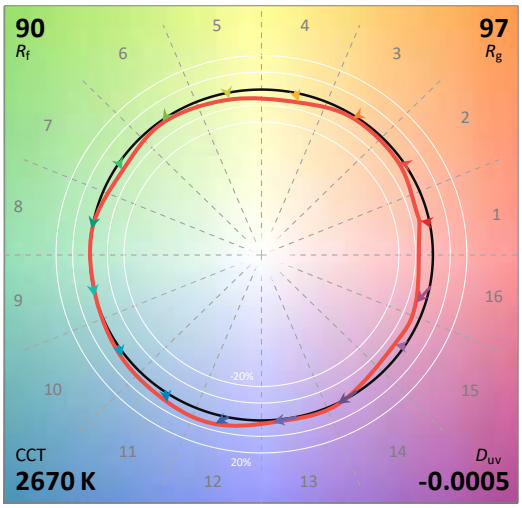
ANSI/IES TM-30-18 Color Rendition Report

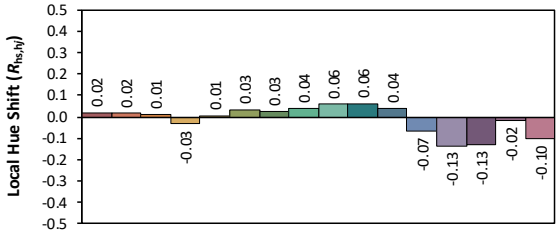
Source: Manufacturer:

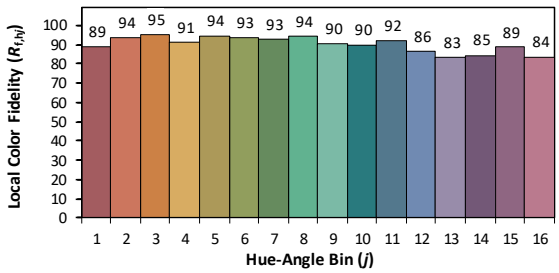
Date: 2023/4/11 Model: LFY7-T1000W-L27-CL-I-15

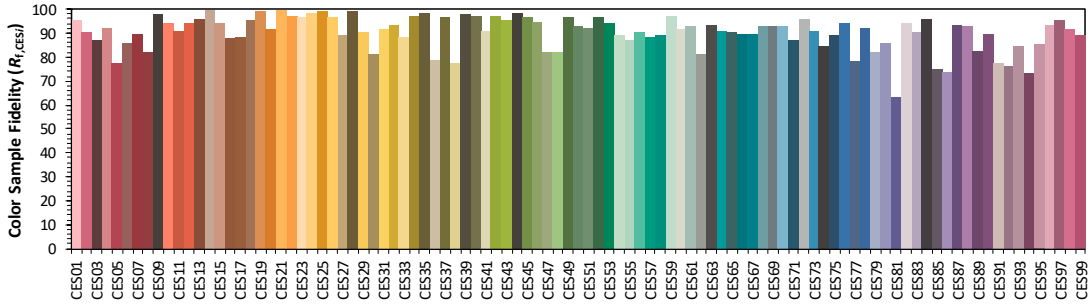












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

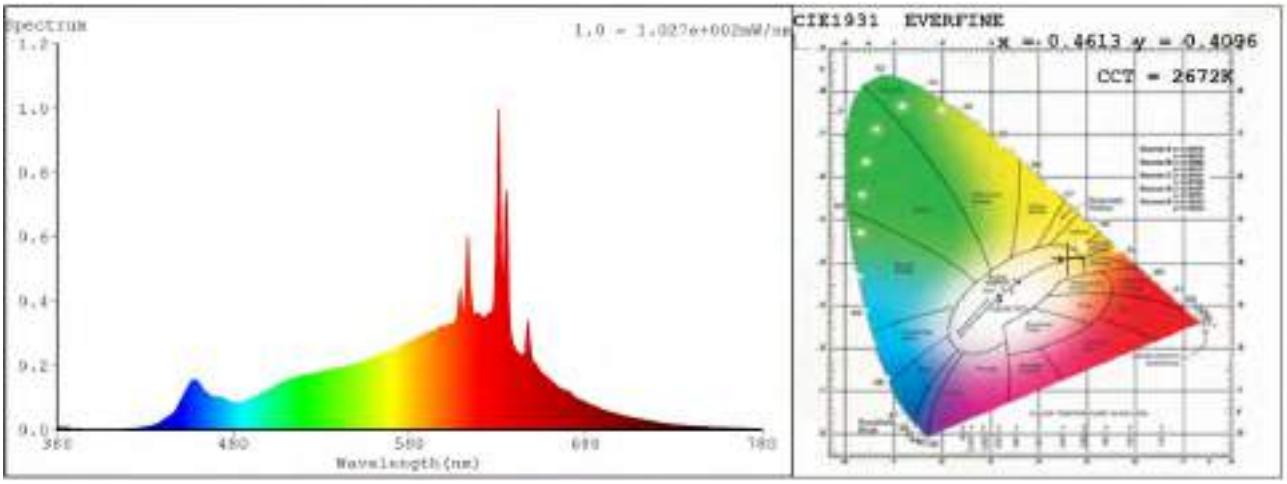
x	0.4614
y	0.4095
u'	0.2640
v'	0.5271

CIE 13.3-1995 (CRI)

R_a	94
R_9	61

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

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0079	414	0.0018	448	0.0691	482	0.0843	516	0.1641
381	0.0056	415	0.0032	449	0.0791	483	0.0819	517	0.1655
382	0.0112	416	0.0024	450	0.0898	484	0.0862	518	0.1692
383	0.0098	417	0.0032	451	0.1007	485	0.0876	519	0.1689
384	0.0003	418	0.0042	452	0.1109	486	0.0888	520	0.1692
385	0.0061	419	0.0035	453	0.1247	487	0.092	521	0.1706
386	0.0067	420	0.0039	454	0.131	488	0.0944	522	0.1732
387	0.0092	421	0.0046	455	0.1444	489	0.0966	523	0.1736
388	0.0076	422	0.0042	456	0.1484	490	0.1002	524	0.1742
389	0	423	0.0049	457	0.153	491	0.1017	525	0.1751
390	0	424	0.0052	458	0.1551	492	0.1033	526	0.1776
391	0.0035	425	0.0056	459	0.152	493	0.1042	527	0.1809
392	0.0029	426	0.0061	460	0.1519	494	0.1081	528	0.1805
393	0.0028	427	0.0075	461	0.1433	495	0.1119	529	0.1829
394	0.0028	428	0.0092	462	0.1323	496	0.1135	530	0.1835
395	0.0029	429	0.0095	463	0.1295	497	0.1162	531	0.1843
396	0.0017	430	0.0102	464	0.1218	498	0.1184	532	0.1854
397	0.0017	431	0.0104	465	0.1173	499	0.1234	533	0.1862
398	0.0028	432	0.0119	466	0.1082	500	0.1262	534	0.1864
399	0.0019	433	0.0133	467	0.1092	501	0.128	535	0.1896
400	0.0024	434	0.0167	468	0.1071	502	0.1331	536	0.1901
401	0.0025	435	0.0168	469	0.1064	503	0.1342	537	0.1913
402	0.0009	436	0.0198	470	0.1028	504	0.1394	538	0.1911
403	0.0005	437	0.0212	471	0.1037	505	0.1403	539	0.1937
404	0.0023	438	0.0238	472	0.1046	506	0.1456	540	0.1923
405	0.0019	439	0.0257	473	0.0994	507	0.1465	541	0.1964
406	0.0004	440	0.0292	474	0.1004	508	0.1494	542	0.1972
407	0.0025	441	0.0333	475	0.0986	509	0.149	543	0.1982
408	0.0004	442	0.0363	476	0.0928	510	0.1518	544	0.1964
409	0.0012	443	0.0415	477	0.0946	511	0.1539	545	0.2007
410	0.0018	444	0.0449	478	0.0909	512	0.1552	546	0.2022
411	0.0018	445	0.0511	479	0.0881	513	0.1584	547	0.2025
412	0.002	446	0.0551	480	0.0853	514	0.1614	548	0.2046
413	0.0036	447	0.0619	481	0.0842	515	0.1619	549	0.2073

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2056	599	0.3237	648	0.3084	697	0.0535	746	0.0109
551	0.2078	600	0.3217	649	0.2413	698	0.0499	747	0.011
552	0.21	601	0.3252	650	0.2157	699	0.0491	748	0.0111
553	0.2115	602	0.3256	651	0.2108	700	0.0465	749	0.0102
554	0.214	603	0.3311	652	0.2051	701	0.0454	750	0.0104
555	0.2143	604	0.3316	653	0.1949	702	0.0434	751	0.01
556	0.2165	605	0.3334	654	0.1871	703	0.0427	752	0.0095
557	0.2173	606	0.3377	655	0.181	704	0.0413	753	0.0093
558	0.2232	607	0.3581	656	0.1764	705	0.0403	754	0.0092
559	0.2248	608	0.4158	657	0.1707	706	0.0394	755	0.0087
560	0.2244	609	0.4331	658	0.1629	707	0.0379	756	0.0083
561	0.2283	610	0.3796	659	0.1593	708	0.0374	757	0.008
562	0.2293	611	0.3834	660	0.1586	709	0.0346	758	0.008
563	0.2306	612	0.4823	661	0.1515	710	0.0343	759	0.0079
564	0.2368	613	0.5999	662	0.1452	711	0.0341	760	0.0075
565	0.2369	614	0.5417	663	0.1406	712	0.0319	761	0.0078
566	0.2381	615	0.4292	664	0.1362	713	0.0311	762	0.0072
567	0.2392	616	0.3724	665	0.1328	714	0.0301	763	0.0069
568	0.243	617	0.3619	666	0.1321	715	0.0294	764	0.0066
569	0.2457	618	0.3593	667	0.1274	716	0.0286	765	0.0066
570	0.2481	619	0.3655	668	0.1249	717	0.0282	766	0.0059
571	0.2519	620	0.3595	669	0.1237	718	0.0268	767	0.0059
572	0.2551	621	0.3542	670	0.1217	719	0.0263	768	0.0059
573	0.258	622	0.3504	671	0.1163	720	0.0257	769	0.0059
574	0.2581	623	0.3541	672	0.1111	721	0.0242	770	0.0058
575	0.2616	624	0.3605	673	0.1088	722	0.0238	771	0.0056
576	0.2637	625	0.3635	674	0.1036	723	0.0232	772	0.0055
577	0.265	626	0.3641	675	0.1	724	0.0215	773	0.0053
578	0.2701	627	0.3707	676	0.0986	725	0.022	774	0.005
579	0.2721	628	0.4078	677	0.0943	726	0.0209	775	0.0052
580	0.2758	629	0.5699	678	0.09	727	0.0202	776	0.0047
581	0.2779	630	0.9027	679	0.0901	728	0.0192	777	0.0046
582	0.2809	631	0.9571	680	0.0868	729	0.0188	778	0.0048
583	0.2835	632	0.639	681	0.0848	730	0.0186	779	0.0041
584	0.2876	633	0.4862	682	0.082	731	0.018	780	0.0041
585	0.2887	634	0.6156	683	0.0803	732	0.017		
586	0.2908	635	0.7412	684	0.0767	733	0.0168		
587	0.2952	636	0.5257	685	0.0753	734	0.0163		
588	0.295	637	0.347	686	0.0723	735	0.016		
589	0.2989	638	0.2924	687	0.069	736	0.0155		
590	0.303	639	0.2664	688	0.0689	737	0.0153		
591	0.3026	640	0.257	689	0.066	738	0.0142		
592	0.3054	641	0.2477	690	0.064	739	0.0139		
593	0.3076	642	0.2418	691	0.0641	740	0.0128		
594	0.3108	643	0.2351	692	0.0611	741	0.0132		
595	0.3121	644	0.2341	693	0.0576	742	0.0127		
596	0.3152	645	0.2373	694	0.0568	743	0.0125		
597	0.3243	646	0.2718	695	0.0547	744	0.012		
598	0.3258	647	0.3363	696	0.0535	745	0.0117		

6. Goniophotometer Test results

6.1 Test Data

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

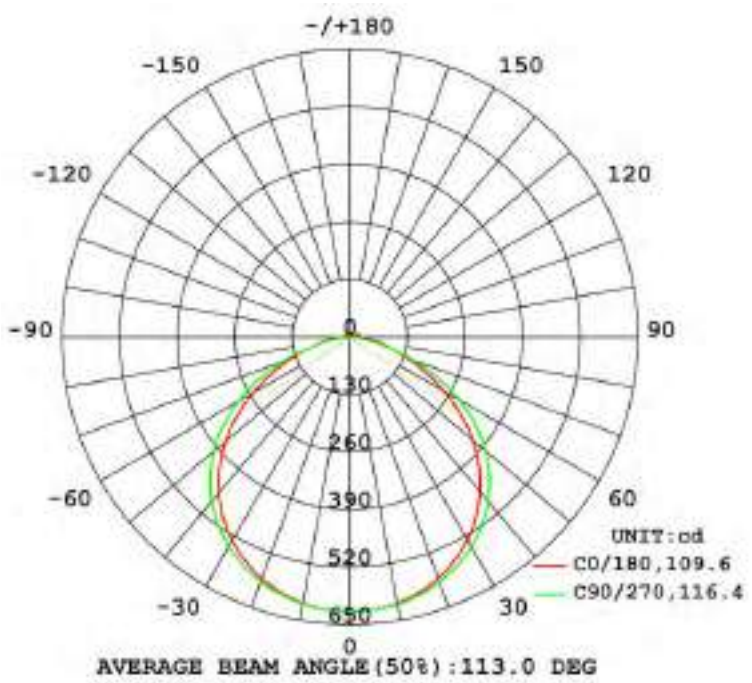
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.5965	1.0000	14.317

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1802.43	125.89	621.2	1.9	98.1

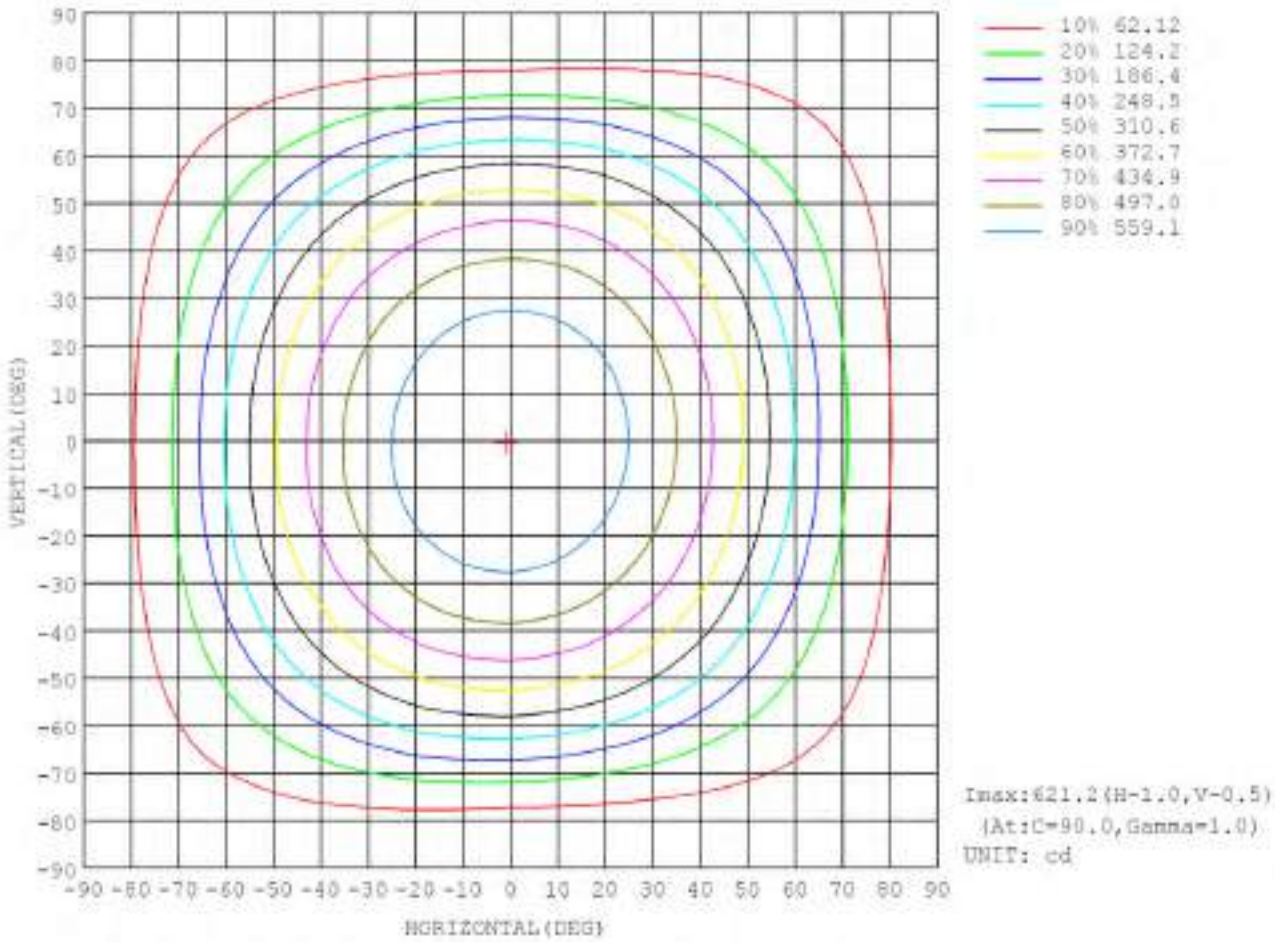
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	klm/lamp
10	611.2	612.1	613.6	613.1	611.2	612.0	612.9	611.9	0- 10	38.07	38.07	3.27/3.27
20	581.0	584.3	586.7	587.4	581.3	584.4	586.6	585.0	10- 20	185.7	223.8	15.7/19.1
30	538.4	538.9	547.6	548.1	531.5	537.9	546.7	539.6	20- 30	260.0	483.8	22.1/41.1
40	457.4	467.9	485.8	479.6	460.6	471.3	485.2	473.6	30- 40	318.1	801.8	26.9/68.0
50	381.4	374.5	389.6	390.6	366.8	381.3	401.0	385.0	40- 50	331.7	1133	28.2/96.2
60	285.7	256.8	285.5	277.3	252.5	267.1	291.0	272.9	50- 60	292.7	1426	24.8/121.0
70	133.1	131.0	149.2	153.5	138.0	139.9	159.1	150.8	60- 70	211.9	1638	18.0/139.0
80	63.62	50.61	37.58	60.09	58.58	50.78	42.40	64.33	70- 80	110.2	1748	9.35/148.3
90	18.40	19.83	0.6819	17.79	18.03	16.61	0.5723	18.02	80- 90	31.29	1779	2.65/151.0
100	21.52	21.19	0.1251	12.71	14.45	11.69	0.2139	20.46	90-100	14.37	1793	1.22/152.2
110	21.48	21.18	0.1868	6.822	13.94	8.315	0.2748	8.530	100-110	11.82	1804	1.00/153.2
120	7.313	2.144	0.3262	1.518	8.239	1.948	0.3192	1.449	110-120	5.301	1815	0.45/154.1
130	2.626	0.6972	0.4679	0.5910	2.304	0.5921	0.4390	0.6094	120-130	1.522	1821	0.13/154.6
140	0.6289	0.5816	0.5493	0.6186	0.5928	0.7408	0.6408	0.7413	130-140	0.6308	1821	0.05/154.7
150	0.6876	0.7262	0.6178	0.6021	1.027	0.9462	0.8365	0.9307	140-150	0.8774	1822	0.07/154.8
160	0.8951	0.8023	0.7143	0.7814	1.125	1.091	0.9584	0.9816	150-160	0.9819	1822	0.08/154.9
170	0.9728	0.8901	0.8367	0.8057	1.128	1.124	0.9965	0.9603	160-170	0.9872	1822	0.08/155.0
180	1.059	1.013	0.9550	0.9868	1.061	1.069	0.9729	0.9556	170-180	0.9747	1823	0.08/155.0
DES	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	621	621	621	621	621	621	621	621	621	621	621	621	621	621	621	621			
5	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	618			
10	611	611	612	613	614	614	613	612	611	611	612	613	613	613	612	611			
15	599	599	601	603	604	604	602	601	599	599	600	602	603	602	601	599			
20	581	582	584	587	590	590	587	584	581	582	584	587	589	588	585	582			
25	558	559	563	568	571	571	568	563	559	560	563	568	570	569	565	560			
30	530	531	537	544	548	548	543	537	532	533	538	544	547	545	540	532			
35	497	498	505	514	519	520	514	505	499	501	507	515	519	517	509	500			
40	457	459	468	479	486	486	479	469	461	463	471	480	485	483	474	463			
45	413	414	425	438	446	446	438	426	416	419	430	440	446	444	432	419			
50	361	363	374	390	400	400	391	377	367	369	381	394	401	398	385	369			
55	305	306	318	335	346	348	337	322	311	314	327	342	349	346	332	314			
60	246	245	256	273	286	289	277	263	252	256	267	283	291	288	273	257			
65	186	184	192	206	219	224	215	202	192	192	203	219	227	225	211	197			
70	133	129	131	140	149	158	153	146	138	136	140	151	159	160	151	142			
75	93.7	87.2	83.4	82.8	86.4	97.4	101	98.4	91.3	88.3	87.2	90.1	94.5	101	100	97.3			
80	63.6	56.9	50.0	42.7	37.6	51.5	60.1	62.8	58.6	55.2	50.8	45.8	42.4	55.6	64.3	66.2			
85	34.1	30.6	26.7	20.4	9.84	23.3	32.9	35.9	33.5	31.0	27.9	21.2	11.7	26.5	34.7	36.8			
90	18.4	18.8	19.8	12.7	0.48	9.62	17.8	19.4	18.0	17.2	16.6	9.12	0.57	12.6	19.0	19.3			
95	18.6	20.5	20.6	12.8	0.10	7.38	15.0	14.4	13.6	14.8	13.9	7.53	0.17	11.2	19.6	18.6			
100	21.5	22.7	21.2	10.1	0.12	4.47	12.7	14.7	14.5	14.6	11.7	5.97	0.21	7.53	20.5	21.3			
105	22.6	23.1	20.5	2.98	0.16	1.54	10.2	13.2	13.5	12.8	10.8	2.26	0.25	1.63	18.5	22.2			
110	21.5	20.3	11.1	1.01	0.20	0.57	6.82	10.9	11.9	11.3	8.32	0.75	0.27	0.56	8.53	19.5			
115	14.4	11.8	4.26	0.36	0.26	0.35	3.39	8.58	10.4	9.25	3.67	0.37	0.30	0.36	3.61	10.8			
120	7.31	5.52	2.24	0.40	0.33	0.37	1.82	4.55	6.29	4.77	1.95	0.38	0.32	0.37	1.45	5.22			
125	3.69	3.13	1.55	0.46	0.40	0.42	0.83	2.71	3.60	2.81	0.92	0.41	0.37	0.41	0.90	2.49			
130	2.63	2.44	0.69	0.52	0.47	0.48	0.59	1.56	2.30	1.62	0.59	0.48	0.44	0.47	0.61	1.77			
135	1.72	1.14	0.66	0.56	0.52	0.53	0.59	0.83	1.21	0.88	0.65	0.57	0.53	0.56	0.66	1.66			
140	0.83	0.76	0.68	0.59	0.55	0.56	0.62	0.73	0.89	0.83	0.74	0.67	0.64	0.66	0.74	0.82			
145	0.81	0.76	0.70	0.62	0.58	0.60	0.65	0.73	0.95	0.92	0.85	0.79	0.75	0.76	0.83	0.90			
150	0.82	0.79	0.73	0.66	0.62	0.63	0.68	0.76	1.03	1.01	0.95	0.88	0.84	0.84	0.90	0.97			
155	0.86	0.84	0.77	0.71	0.67	0.69	0.73	0.81	1.09	1.09	1.03	0.95	0.91	0.90	0.94	1.02			
160	0.90	0.87	0.80	0.74	0.71	0.73	0.78	0.85	1.13	1.13	1.09	1.01	0.96	0.93	0.96	1.02			
165	0.94	0.92	0.85	0.80	0.78	0.79	0.83	0.90	1.13	1.14	1.11	1.04	0.98	0.95	0.97	1.02			
170	0.97	0.96	0.89	0.85	0.84	0.85	0.89	0.95	1.13	1.13	1.12	1.05	1.00	0.97	0.97	1.01			
175	1.02	1.02	0.95	0.92	0.91	0.92	0.96	1.02	1.11	1.11	1.13	1.05	0.99	0.97	0.97	1.00			
180	1.06	1.07	1.01	0.97	0.96	0.96	0.99	1.03	1.06	1.06	1.07	1.01	0.97	0.95	0.96	0.99			

7. Photo of sample

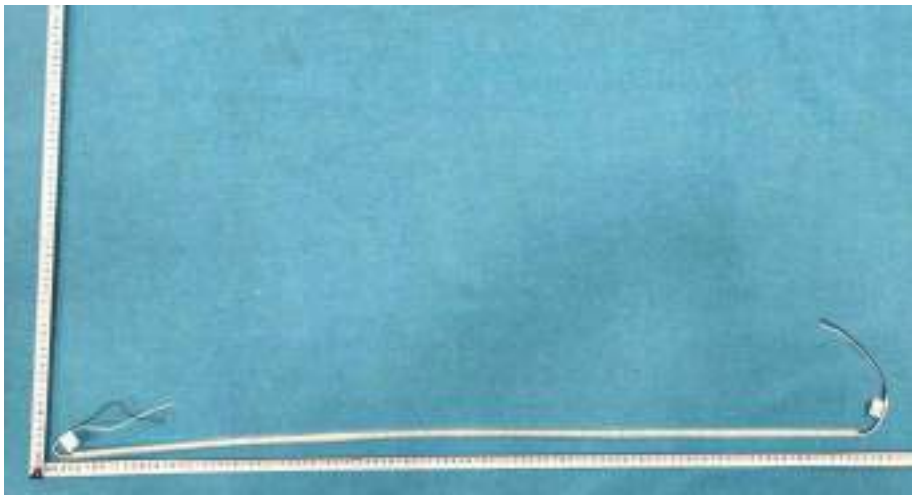


Figure 1 Overview

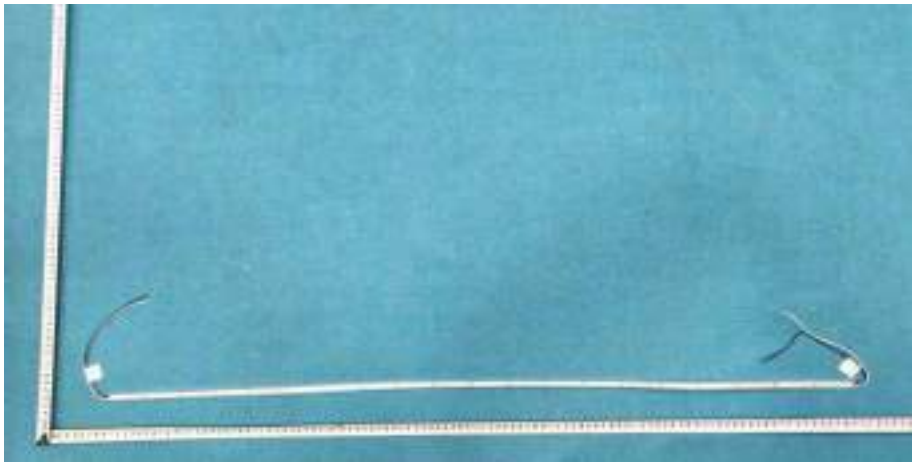


Figure 2 Overview

---End of Report---

NVLAP TESTING NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23060187L00501
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY18-0500-L27-CL-I-2
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	:	June. 08, 2023
Date of test	:	June. 08, 2023 - June. 13, 2023
Date of report	:	June. 13, 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:	LFY18-0500-L27-CL-I-2
Manufacturer:	
Product Type:	SHIN FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	1W
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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.0599	23.998	1.4375	200.58	0.4614	0.4075	0.2649	0.5264	2654	94.5
1	00h00m10s	0.0599	23.998	1.4375	200.75	0.4612	0.4074	0.2648	0.5263	2657	94.4
2	00h00m20s	0.06	23.998	1.4399	200.72	0.4614	0.4074	0.265	0.5264	2654	94.5
3	00h00m30s	0.06	23.998	1.4399	200.73	0.4615	0.4074	0.265	0.5264	2653	94.5
4	00h00m40s	0.06	23.998	1.4399	200.74	0.4615	0.4074	0.265	0.5264	2653	94.4
5	00h00m50s	0.06	23.998	1.4399	200.76	0.4615	0.4072	0.2651	0.5263	2652	94.4
6	00h01m00s	0.0601	23.998	1.4423	200.87	0.4615	0.4074	0.265	0.5263	2653	94.4
7	00h01m10s	0.0601	23.998	1.4423	200.93	0.4615	0.4075	0.265	0.5264	2653	94.5
8	00h01m20s	0.0601	23.998	1.4423	200.88	0.4616	0.4071	0.2652	0.5263	2650	94.4
9	00h01m30s	0.0601	23.998	1.4423	200.98	0.4617	0.4075	0.2651	0.5264	2650	94.4
10	00h01m40s	0.0601	23.998	1.4423	200.93	0.4616	0.4075	0.265	0.5264	2652	94.4
11	00h01m50s	0.0601	23.998	1.4423	200.98	0.4615	0.4072	0.2651	0.5263	2651	94.4
12	00h02m00s	0.0601	23.998	1.4423	200.97	0.4613	0.4071	0.265	0.5262	2653	94.5
13	00h02m10s	0.0601	23.998	1.4423	200.98	0.4615	0.4072	0.2651	0.5263	2651	94.4
14	00h02m20s	0.0601	23.998	1.4423	200.97	0.4616	0.4073	0.2651	0.5264	2650	94.4
15	00h02m30s	0.0601	23.998	1.4423	201.02	0.4616	0.4073	0.2651	0.5264	2651	94.5
16	00h02m40s	0.0601	23.998	1.4423	201.02	0.4615	0.4071	0.2651	0.5262	2650	94.4
17	00h02m50s	0.0601	23.998	1.4423	201.09	0.4615	0.407	0.2651	0.5262	2650	94.4
18	00h03m00s	0.0601	23.998	1.4423	201.13	0.4617	0.4074	0.2651	0.5264	2650	94.4
19	00h03m10s	0.0602	23.998	1.4447	201.07	0.4615	0.4071	0.2652	0.5263	2650	94.4
20	00h03m20s	0.0602	23.998	1.4447	201.26	0.4617	0.4073	0.2652	0.5264	2649	94.4
21	00h03m30s	0.0602	23.998	1.4447	201.15	0.4615	0.4072	0.2651	0.5263	2650	94.4

22	00h03m40s	0.0602	23.998	1.4447	200.98	0.4615	0.4071	0.2651	0.5262	2650	94.4
23	00h03m50s	0.0602	23.998	1.4447	201.21	0.4617	0.4074	0.2652	0.5264	2649	94.5
24	00h04m00s	0.0602	23.998	1.4447	201.28	0.4615	0.4073	0.2651	0.5263	2651	94.4
25	00h04m10s	0.0602	23.998	1.4447	201.06	0.4616	0.4071	0.2652	0.5263	2649	94.4
26	00h04m20s	0.0602	23.998	1.4447	201.28	0.4615	0.4072	0.2651	0.5263	2651	94.4
27	00h04m30s	0.0602	23.998	1.4447	201.12	0.4616	0.4072	0.2652	0.5263	2649	94.4
28	00h04m40s	0.0602	23.998	1.4447	201.13	0.4616	0.4072	0.2652	0.5263	2650	94.4
29	00h04m50s	0.0602	23.998	1.4447	201.28	0.4616	0.4073	0.2651	0.5264	2650	94.4
30	00h05m00s	0.0602	23.998	1.4447	201.21	0.4615	0.4072	0.2651	0.5263	2651	94.4
31	00h05m10s	0.0602	23.998	1.4447	201.24	0.4615	0.4073	0.2651	0.5263	2651	94.5
32	00h05m20s	0.0602	23.998	1.4447	201.3	0.4615	0.4071	0.2651	0.5263	2651	94.4
33	00h05m30s	0.0602	23.998	1.4447	201.27	0.4615	0.4071	0.2652	0.5262	2650	94.4
34	00h05m40s	0.0602	23.998	1.4447	201.3	0.4616	0.4073	0.2651	0.5264	2650	94.4
35	00h05m50s	0.0602	23.998	1.4447	201.19	0.4618	0.4074	0.2652	0.5264	2649	94.5
36	00h06m00s	0.0602	23.998	1.4447	201.41	0.4617	0.4072	0.2652	0.5263	2648	94.4
37	00h06m10s	0.0602	23.998	1.4447	201.28	0.4618	0.4072	0.2653	0.5264	2647	94.4
38	00h06m20s	0.0602	23.998	1.4447	201.34	0.4617	0.4074	0.2651	0.5264	2650	94.4
39	00h06m30s	0.0602	23.998	1.4447	201.52	0.4618	0.4073	0.2652	0.5264	2648	94.4
40	00h06m40s	0.0602	23.998	1.4447	201.42	0.4618	0.4072	0.2653	0.5264	2647	94.4
41	00h06m50s	0.0602	23.998	1.4447	201.49	0.4618	0.4073	0.2653	0.5264	2647	94.4
42	00h07m00s	0.0602	23.998	1.4447	201.44	0.4617	0.4072	0.2652	0.5263	2648	94.4
43	00h07m10s	0.0602	23.998	1.4447	201.38	0.4617	0.4074	0.2652	0.5264	2649	94.4
44	00h07m20s	0.0602	23.998	1.4447	201.39	0.4617	0.4072	0.2652	0.5263	2648	94.4
45	00h07m30s	0.0602	23.998	1.4447	201.4	0.4618	0.4073	0.2652	0.5264	2648	94.4
46	00h07m40s	0.0602	23.998	1.4447	201.46	0.4617	0.4073	0.2652	0.5264	2649	94.4
47	00h07m50s	0.0602	23.998	1.4447	201.39	0.4618	0.4074	0.2652	0.5264	2648	94.4
48	00h08m00s	0.0602	23.998	1.4447	201.55	0.4619	0.4073	0.2653	0.5264	2647	94.4
49	00h08m10s	0.0602	23.998	1.4447	201.63	0.4618	0.4072	0.2653	0.5263	2646	94.3
50	00h08m20s	0.0602	23.998	1.4447	201.43	0.4618	0.4074	0.2652	0.5264	2648	94.4
51	00h08m30s	0.0602	23.998	1.4447	201.5	0.4617	0.4073	0.2652	0.5263	2649	94.4
52	00h08m40s	0.0602	23.998	1.4447	201.53	0.4618	0.4073	0.2652	0.5264	2648	94.4

53	00h08m50s	0.0602	23.998	1.4447	201.49	0.4618	0.4073	0.2652	0.5264	2648	94.4
54	00h09m00s	0.0602	23.998	1.4447	201.55	0.4617	0.4072	0.2653	0.5263	2648	94.4
55	00h09m10s	0.0602	23.998	1.4447	201.52	0.4617	0.4072	0.2652	0.5263	2648	94.5
56	00h09m20s	0.0602	23.998	1.4447	201.5	0.4616	0.407	0.2652	0.5262	2649	94.4
57	00h09m30s	0.0602	23.998	1.4447	201.5	0.4616	0.4072	0.2651	0.5263	2650	94.4
58	00h09m40s	0.0602	23.998	1.4447	201.53	0.4617	0.4073	0.2652	0.5264	2649	94.4
59	00h09m50s	0.0602	23.998	1.4447	201.58	0.4618	0.4074	0.2652	0.5264	2648	94.4
60	00h10m00s	0.0602	23.998	1.4447	201.72	0.4618	0.4073	0.2652	0.5264	2648	94.4
61	00h10m10s	0.0602	23.998	1.4447	201.6	0.4619	0.4073	0.2653	0.5264	2647	94.4
62	00h10m20s	0.0602	23.998	1.4447	201.45	0.4617	0.4072	0.2652	0.5263	2649	94.4
63	00h10m30s	0.0602	23.998	1.4447	201.59	0.4617	0.4072	0.2652	0.5263	2648	94.4
64	00h10m40s	0.0602	23.998	1.4447	201.49	0.4617	0.4071	0.2653	0.5263	2648	94.4
65	00h10m50s	0.0602	23.998	1.4447	201.52	0.4618	0.4072	0.2653	0.5264	2647	94.4
66	00h11m00s	0.0602	23.998	1.4447	201.64	0.4618	0.4074	0.2652	0.5264	2648	94.4
67	00h11m10s	0.0602	23.998	1.4447	201.44	0.4617	0.4072	0.2652	0.5263	2649	94.4
68	00h11m20s	0.0602	23.998	1.4447	201.44	0.4618	0.4072	0.2653	0.5264	2647	94.4
69	00h11m30s	0.0602	23.998	1.4447	201.55	0.4618	0.4072	0.2653	0.5263	2646	94.4
70	00h11m40s	0.0602	23.998	1.4447	201.57	0.4617	0.4073	0.2652	0.5264	2649	94.4
71	00h11m50s	0.0602	23.998	1.4447	201.65	0.4616	0.4073	0.2651	0.5263	2650	94.4
72	00h12m00s	0.0602	23.998	1.4447	201.67	0.4616	0.4074	0.2651	0.5264	2650	94.5
73	00h12m10s	0.0602	23.998	1.4447	201.63	0.4619	0.4074	0.2653	0.5264	2647	94.4
74	00h12m20s	0.0602	23.998	1.4447	201.67	0.4617	0.4073	0.2652	0.5264	2648	94.4
75	00h12m30s	0.0602	23.998	1.4447	201.62	0.4617	0.4073	0.2652	0.5264	2649	94.4
76	00h12m40s	0.0602	23.998	1.4447	201.51	0.4617	0.4071	0.2653	0.5263	2648	94.4
77	00h12m50s	0.0602	23.998	1.4447	201.53	0.4619	0.4073	0.2653	0.5264	2647	94.4
78	00h13m00s	0.0602	23.998	1.4447	201.58	0.4618	0.4073	0.2652	0.5264	2649	94.4
79	00h13m10s	0.0602	23.998	1.4447	201.53	0.4618	0.4074	0.2652	0.5264	2649	94.4
80	00h13m20s	0.0602	23.998	1.4447	201.55	0.4617	0.4073	0.2652	0.5264	2649	94.4
81	00h13m30s	0.0602	23.998	1.4447	201.62	0.4618	0.4073	0.2653	0.5264	2647	94.4
82	00h13m40s	0.0602	23.998	1.4447	201.73	0.4617	0.4073	0.2652	0.5264	2649	94.4
83	00h13m50s	0.0602	23.998	1.4447	201.76	0.4617	0.4073	0.2652	0.5264	2648	94.4

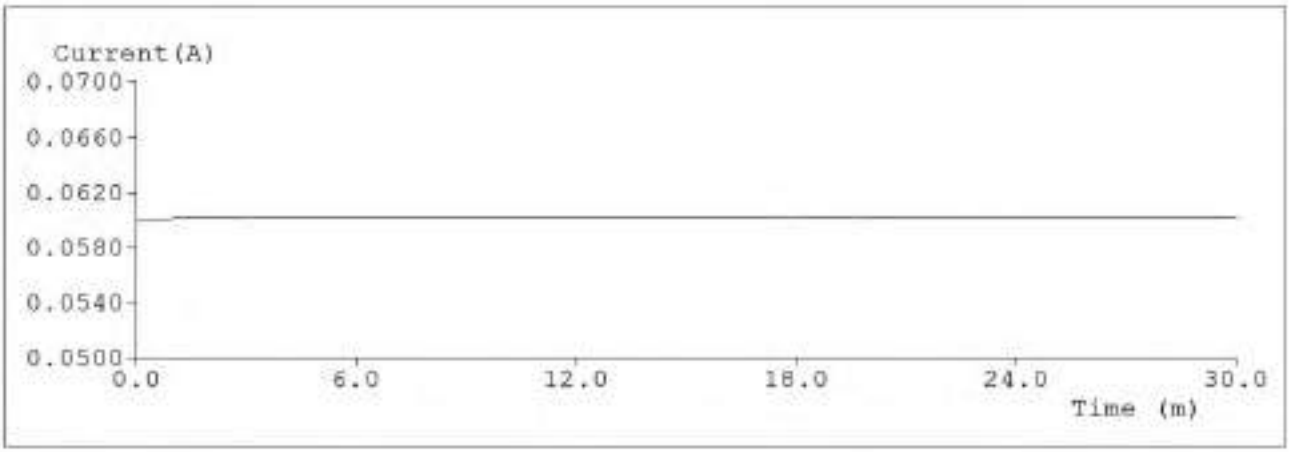
84	00h14m00s	0.0602	23.998	1.4447	201.63	0.4617	0.4074	0.2652	0.5264	2650	94.4
85	00h14m10s	0.0602	23.998	1.4447	201.53	0.4618	0.4072	0.2653	0.5263	2647	94.4
86	00h14m20s	0.0602	23.998	1.4447	201.74	0.4617	0.4074	0.2652	0.5264	2649	94.4
87	00h14m30s	0.0602	23.998	1.4447	201.58	0.4619	0.4074	0.2653	0.5264	2647	94.4
88	00h14m40s	0.0602	23.998	1.4447	201.62	0.4617	0.4073	0.2652	0.5264	2648	94.4
89	00h14m50s	0.0602	23.998	1.4447	201.52	0.4618	0.4073	0.2653	0.5264	2647	94.4
90	00h15m00s	0.0602	23.998	1.4447	201.52	0.4617	0.4074	0.2651	0.5264	2650	94.4
91	00h15m10s	0.0602	23.998	1.4447	201.6	0.4617	0.4072	0.2652	0.5263	2648	94.5
92	00h15m20s	0.0602	23.998	1.4447	201.61	0.4619	0.4073	0.2653	0.5264	2646	94.3
93	00h15m30s	0.0602	23.998	1.4447	201.55	0.4619	0.4073	0.2653	0.5264	2646	94.4
94	00h15m40s	0.0602	23.998	1.4447	201.67	0.4618	0.4074	0.2652	0.5264	2648	94.4
95	00h15m50s	0.0602	23.998	1.4447	201.69	0.4616	0.4073	0.2651	0.5263	2651	94.4
96	00h16m00s	0.0602	23.998	1.4447	201.58	0.4618	0.4073	0.2652	0.5264	2648	94.4
97	00h16m10s	0.0602	23.998	1.4447	201.72	0.4618	0.4073	0.2652	0.5264	2648	94.4
98	00h16m20s	0.0602	23.998	1.4447	201.6	0.4617	0.4073	0.2652	0.5264	2649	94.4
99	00h16m30s	0.0602	23.998	1.4447	201.54	0.4617	0.4071	0.2653	0.5263	2647	94.4
100	00h16m40s	0.0602	23.998	1.4447	201.67	0.4617	0.4072	0.2653	0.5263	2648	94.4
101	00h16m50s	0.0602	23.998	1.4447	201.82	0.4618	0.4073	0.2652	0.5264	2648	94.4
102	00h17m00s	0.0602	23.998	1.4447	201.79	0.4617	0.4074	0.2652	0.5264	2649	94.4
103	00h17m10s	0.0602	23.998	1.4447	201.75	0.4619	0.4074	0.2653	0.5264	2647	94.4
104	00h17m20s	0.0602	23.998	1.4447	201.75	0.4616	0.4071	0.2652	0.5263	2648	94.4
105	00h17m30s	0.0601	23.998	1.4423	201.68	0.4617	0.4072	0.2653	0.5263	2647	94.4
106	00h17m40s	0.0601	23.998	1.4423	201.77	0.4619	0.4074	0.2653	0.5264	2647	94.4
107	00h17m50s	0.0602	23.998	1.4447	201.59	0.4619	0.4073	0.2653	0.5264	2646	94.4
108	00h18m00s	0.0602	23.998	1.4447	201.6	0.4618	0.4072	0.2653	0.5264	2647	94.5
109	00h18m10s	0.0601	23.998	1.4423	201.63	0.4617	0.4073	0.2652	0.5264	2648	94.4
110	00h18m20s	0.0601	23.998	1.4423	201.51	0.4616	0.4071	0.2653	0.5263	2648	94.4
111	00h18m30s	0.0601	23.998	1.4423	201.72	0.4618	0.4073	0.2652	0.5264	2648	94.4
112	00h18m40s	0.0601	23.998	1.4423	201.68	0.462	0.4074	0.2653	0.5265	2646	94.4
113	00h18m50s	0.0601	23.998	1.4423	201.74	0.4619	0.4075	0.2652	0.5265	2647	94.4
114	00h19m00s	0.0601	23.998	1.4423	201.66	0.4617	0.4073	0.2652	0.5264	2649	94.4

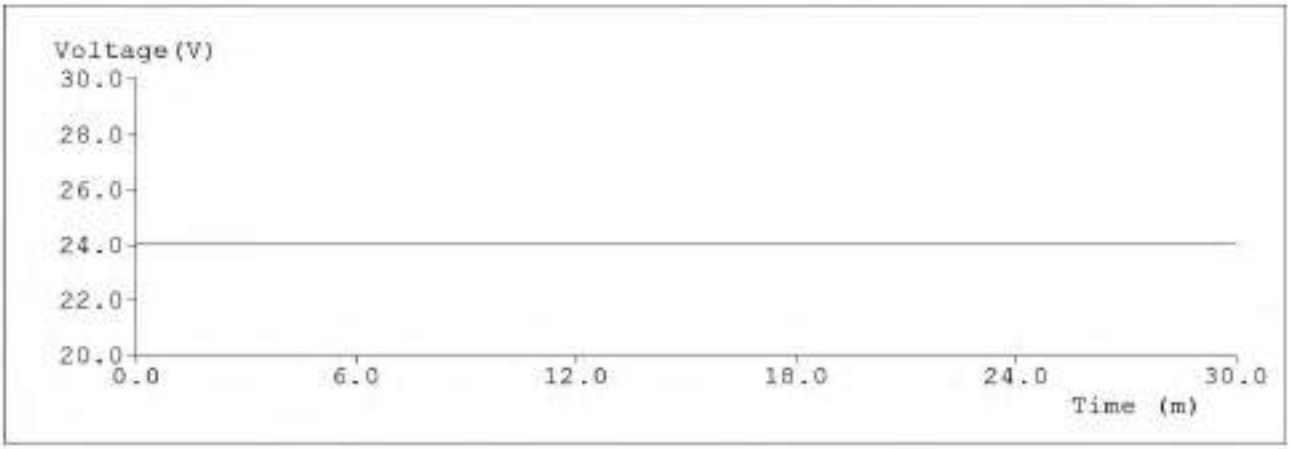
115	00h19m10s	0.0601	23.998	1.4423	201.45	0.4618	0.4071	0.2653	0.5263	2647	94.4
116	00h19m20s	0.0601	23.998	1.4423	201.6	0.4618	0.4073	0.2653	0.5264	2647	94.4
117	00h19m30s	0.0601	23.998	1.4423	201.73	0.4618	0.4073	0.2652	0.5264	2648	94.4
118	00h19m40s	0.0602	23.998	1.4447	201.71	0.4617	0.4074	0.2651	0.5264	2650	94.4
119	00h19m50s	0.0601	23.998	1.4423	201.69	0.4618	0.4073	0.2652	0.5264	2648	94.4
120	00h20m00s	0.0601	23.998	1.4423	201.76	0.4617	0.4073	0.2652	0.5264	2649	94.4
121	00h20m10s	0.0601	23.998	1.4423	201.64	0.4618	0.4073	0.2652	0.5264	2648	94.4
122	00h20m20s	0.0601	23.998	1.4423	201.59	0.4618	0.4073	0.2652	0.5264	2648	94.4
123	00h20m30s	0.0601	23.998	1.4423	201.64	0.4618	0.4074	0.2652	0.5264	2648	94.4
124	00h20m40s	0.0601	23.998	1.4423	201.7	0.4617	0.4073	0.2652	0.5264	2648	94.4
125	00h20m50s	0.0601	23.998	1.4423	201.65	0.4618	0.4074	0.2652	0.5264	2649	94.5
126	00h21m00s	0.0601	23.998	1.4423	201.58	0.4618	0.4073	0.2653	0.5264	2647	94.4
127	00h21m10s	0.0601	23.998	1.4423	201.69	0.4618	0.4073	0.2652	0.5264	2648	94.4
128	00h21m20s	0.0601	23.998	1.4423	201.74	0.4617	0.4073	0.2652	0.5264	2649	94.4
129	00h21m30s	0.0601	23.998	1.4423	201.75	0.4617	0.4072	0.2652	0.5263	2649	94.4
130	00h21m40s	0.0601	23.998	1.4423	201.64	0.4619	0.4074	0.2653	0.5264	2647	94.4
131	00h21m50s	0.0601	23.998	1.4423	201.71	0.4616	0.4072	0.2652	0.5263	2650	94.4
132	00h22m00s	0.0601	23.998	1.4423	201.64	0.4618	0.4073	0.2652	0.5264	2648	94.4
133	00h22m10s	0.0601	23.998	1.4423	201.73	0.4619	0.4073	0.2653	0.5264	2647	94.4
134	00h22m20s	0.0601	23.998	1.4423	201.6	0.4619	0.4072	0.2654	0.5264	2645	94.4
135	00h22m30s	0.0601	23.998	1.4423	201.58	0.4617	0.4071	0.2653	0.5263	2648	94.4
136	00h22m40s	0.0601	23.998	1.4423	201.72	0.4616	0.4073	0.2651	0.5263	2650	94.4
137	00h22m50s	0.0601	23.998	1.4423	201.66	0.4617	0.4071	0.2652	0.5263	2648	94.4
138	00h23m00s	0.0601	23.998	1.4423	201.65	0.4617	0.4074	0.2651	0.5264	2650	94.5
139	00h23m10s	0.0601	23.998	1.4423	201.69	0.4616	0.4074	0.2651	0.5264	2651	94.4
140	00h23m20s	0.0601	23.998	1.4423	201.66	0.4618	0.4073	0.2652	0.5264	2648	94.4
141	00h23m30s	0.0601	23.998	1.4423	201.66	0.4618	0.4072	0.2653	0.5263	2646	94.3
142	00h23m40s	0.0601	23.998	1.4423	201.76	0.4618	0.4072	0.2653	0.5263	2647	94.4
143	00h23m50s	0.0601	23.998	1.4423	201.81	0.4617	0.4074	0.2652	0.5264	2649	94.5
144	00h24m00s	0.0601	23.998	1.4423	201.77	0.4617	0.4073	0.2652	0.5264	2649	94.4
145	00h24m10s	0.0601	23.998	1.4423	201.73	0.462	0.4072	0.2654	0.5264	2645	94.4

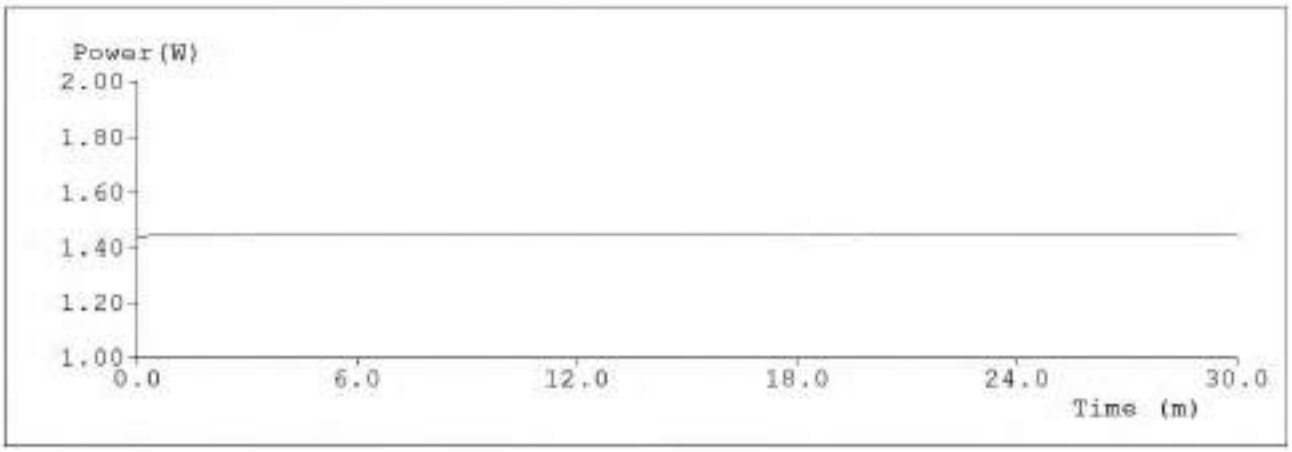
146	00h24m20s	0.0601	23.998	1.4423	201.66	0.4617	0.4072	0.2653	0.5263	2648	94.4
147	00h24m30s	0.0601	23.998	1.4423	201.59	0.4616	0.4072	0.2652	0.5263	2650	94.4
148	00h24m40s	0.0601	23.998	1.4423	201.59	0.4619	0.4074	0.2653	0.5264	2647	94.4
149	00h24m50s	0.0601	23.998	1.4423	201.74	0.4618	0.4072	0.2653	0.5264	2647	94.4
150	00h25m00s	0.0601	23.998	1.4423	201.83	0.4617	0.4074	0.2652	0.5264	2649	94.4
151	00h25m10s	0.0601	23.998	1.4423	201.7	0.4615	0.4073	0.2651	0.5263	2651	94.4
152	00h25m20s	0.0601	23.998	1.4423	201.65	0.4617	0.4073	0.2652	0.5264	2649	94.5
153	00h25m30s	0.0601	23.998	1.4423	201.76	0.4617	0.4072	0.2652	0.5263	2649	94.4
154	00h25m40s	0.0601	23.998	1.4423	201.64	0.4618	0.4072	0.2653	0.5263	2647	94.4
155	00h25m50s	0.0601	23.998	1.4423	201.77	0.4615	0.4072	0.2651	0.5263	2651	94.5
156	00h26m00s	0.0601	23.998	1.4423	201.83	0.4618	0.4075	0.2652	0.5264	2649	94.4
157	00h26m10s	0.0601	23.998	1.4423	201.7	0.4618	0.4074	0.2652	0.5264	2648	94.4
158	00h26m20s	0.0601	23.998	1.4423	201.72	0.4616	0.4071	0.2652	0.5263	2649	94.4
159	00h26m30s	0.0601	23.998	1.4423	201.69	0.4616	0.4071	0.2652	0.5263	2649	94.4
160	00h26m40s	0.0601	23.998	1.4423	201.72	0.4618	0.4074	0.2652	0.5264	2648	94.4
161	00h26m50s	0.0601	23.998	1.4423	201.82	0.4617	0.4073	0.2652	0.5264	2648	94.4
162	00h27m00s	0.0601	23.998	1.4423	201.75	0.4618	0.4074	0.2652	0.5264	2649	94.5
163	00h27m10s	0.0601	23.998	1.4423	201.66	0.4617	0.4074	0.2652	0.5264	2649	94.4
164	00h27m20s	0.0601	23.998	1.4423	201.84	0.4618	0.4075	0.2651	0.5264	2649	94.4
165	00h27m30s	0.0601	23.998	1.4423	201.84	0.4617	0.4072	0.2652	0.5263	2648	94.4
166	00h27m40s	0.0601	23.998	1.4423	201.61	0.462	0.4075	0.2653	0.5265	2647	94.4
167	00h27m50s	0.0601	23.998	1.4423	201.7	0.4618	0.4073	0.2653	0.5264	2647	94.4
168	00h28m00s	0.0601	23.998	1.4423	201.96	0.4617	0.4073	0.2651	0.5264	2650	94.4
169	00h28m10s	0.0601	23.998	1.4423	201.62	0.4618	0.4072	0.2653	0.5263	2648	94.4
170	00h28m20s	0.0601	23.998	1.4423	201.77	0.4616	0.4073	0.2652	0.5263	2650	94.4
171	00h28m30s	0.0601	23.998	1.4423	201.79	0.4617	0.4071	0.2652	0.5263	2648	94.4
172	00h28m40s	0.0601	23.998	1.4423	201.72	0.4618	0.4073	0.2652	0.5264	2648	94.4
173	00h28m50s	0.0601	23.998	1.4423	201.71	0.4618	0.4073	0.2652	0.5264	2648	94.4
174	00h29m00s	0.0601	23.998	1.4423	201.68	0.4618	0.4074	0.2652	0.5264	2649	94.4
175	00h29m10s	0.0601	23.998	1.4423	201.67	0.4617	0.4072	0.2652	0.5263	2648	94.4
176	00h29m20s	0.0601	23.998	1.4423	201.73	0.4617	0.4072	0.2652	0.5263	2648	94.4

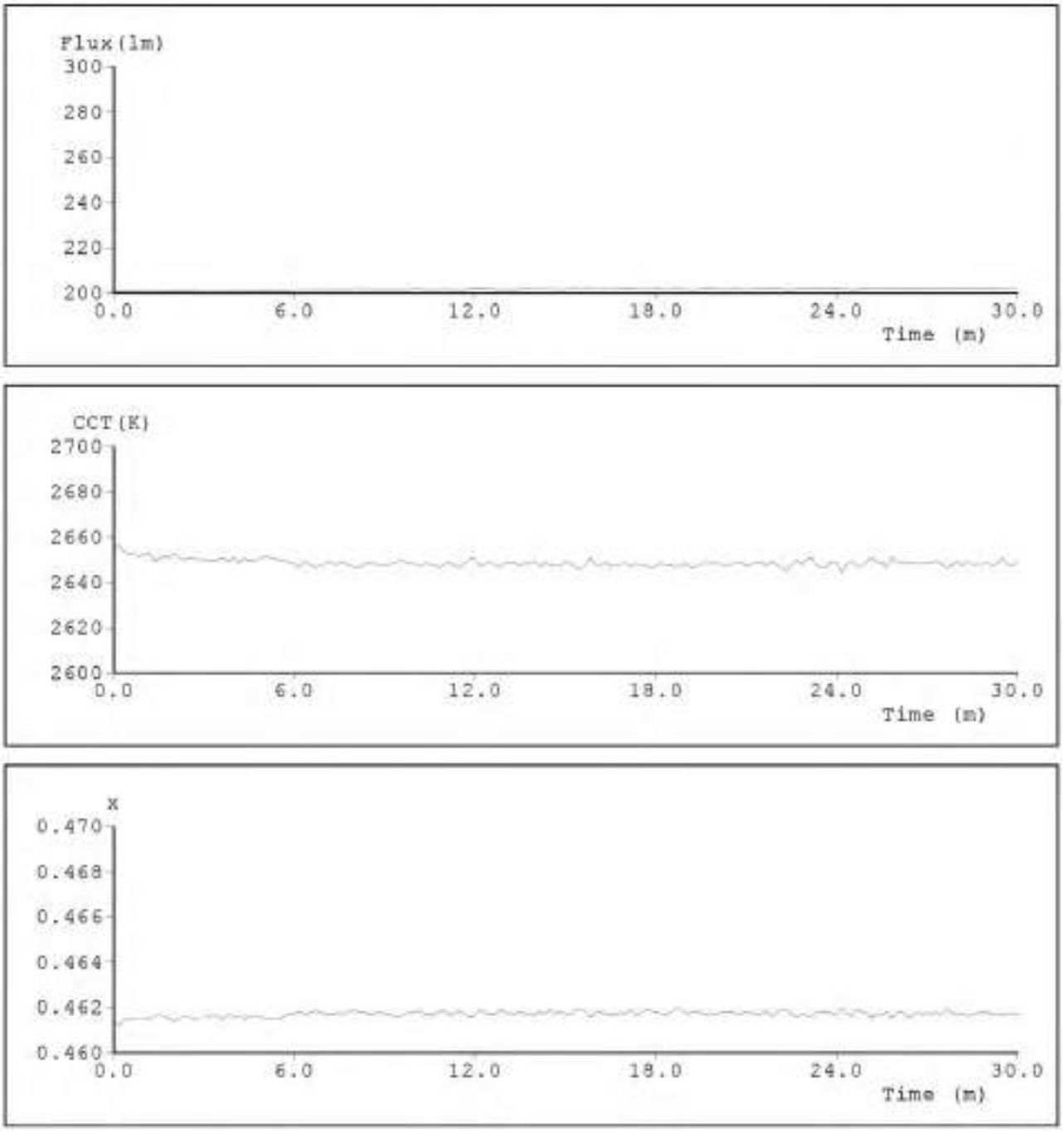
177	00h29m30s	0.0601	23.998	1.4423	201.75	0.4617	0.4074	0.2651	0.5264	2651	94.4
178	00h29m40s	0.0601	23.998	1.4423	201.69	0.4618	0.4073	0.2652	0.5264	2648	94.4
179	00h29m50s	0.0601	23.998	1.4423	201.6	0.4617	0.4071	0.2653	0.5263	2647	94.4
180	00h30m00s	0.0601	23.998	1.4423	201.77	0.4617	0.4073	0.2651	0.5264	2650	94.5

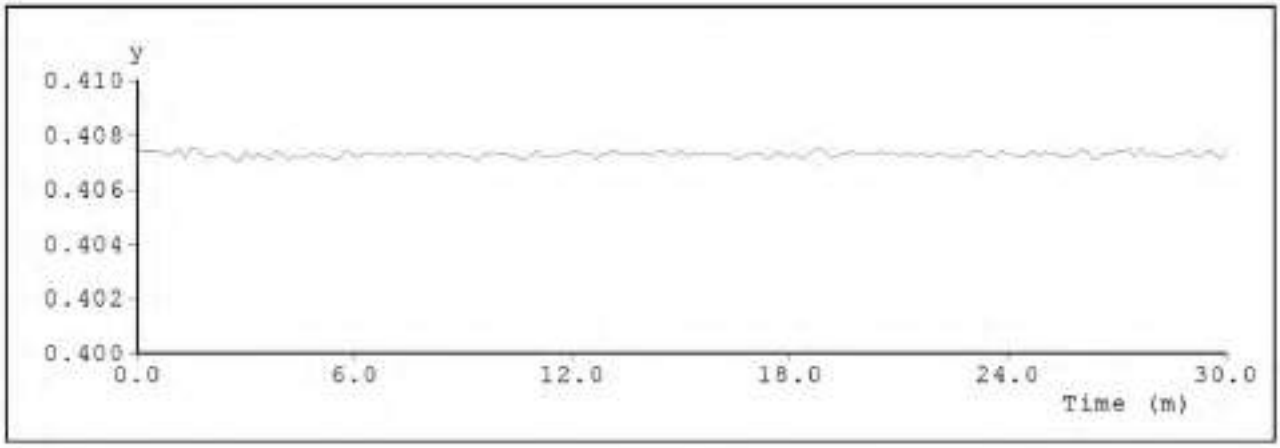
Test curves

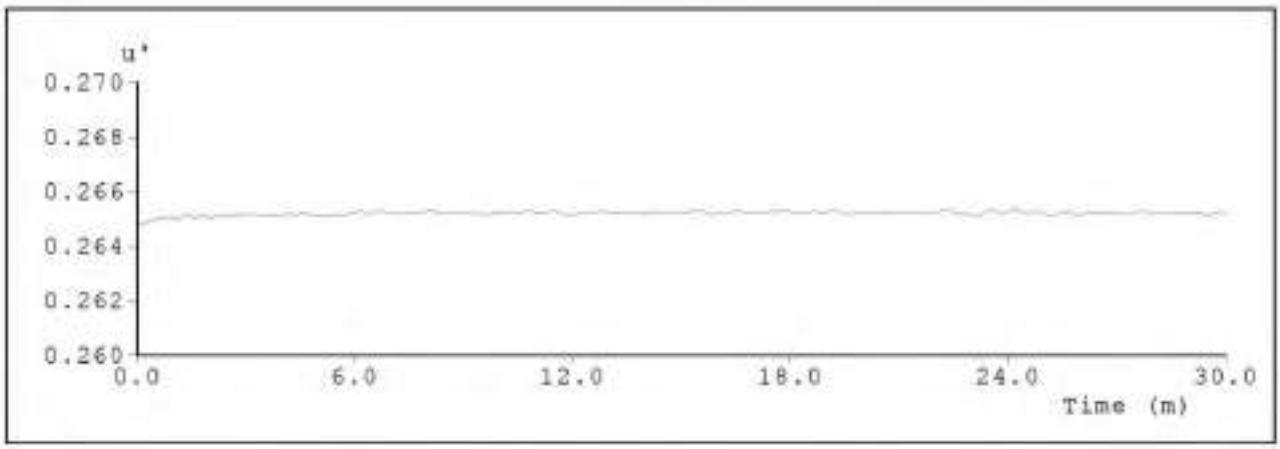


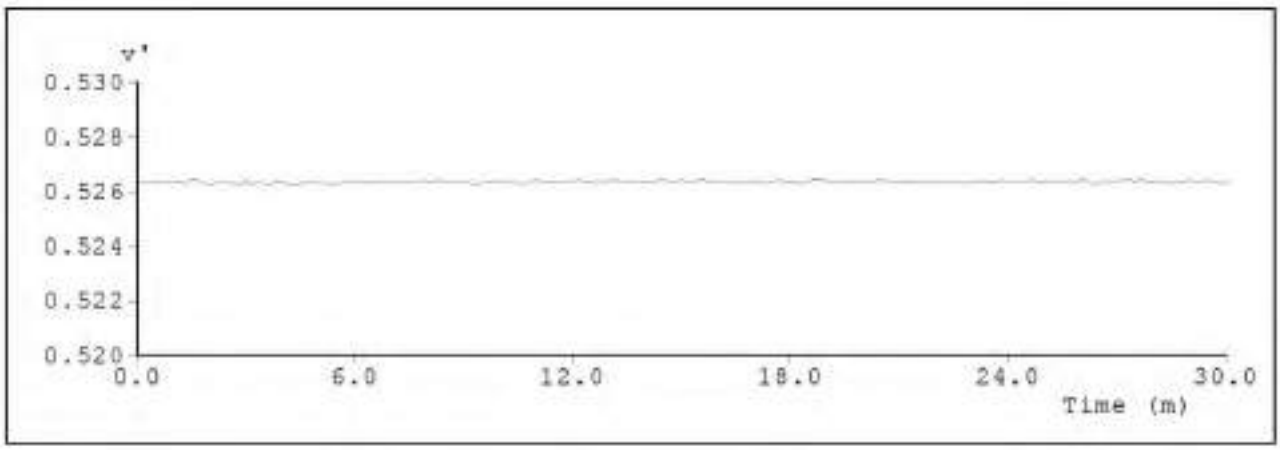





Flux(lm)
300
280
260
240
220
200
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
CCT(K)
2700
2680
2660
2640
2620
2600
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
x
0.470
0.468
0.466
0.464
0.462
0.460
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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


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

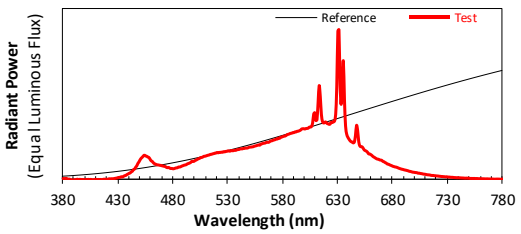

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

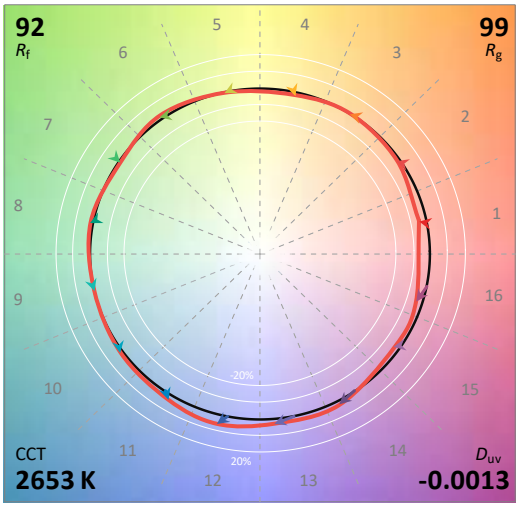
*5.2 ANSI/IES TM-30-18 Color Rendition Report

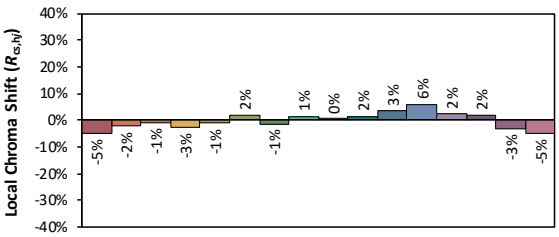
ANSI/IES TM-30-18 Color Rendition Report

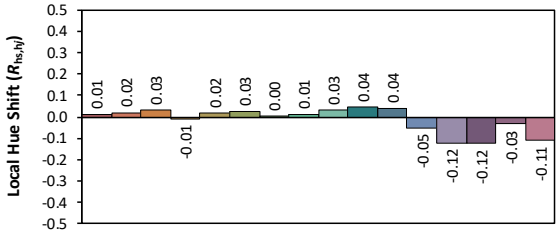
Source: Manufacturer:

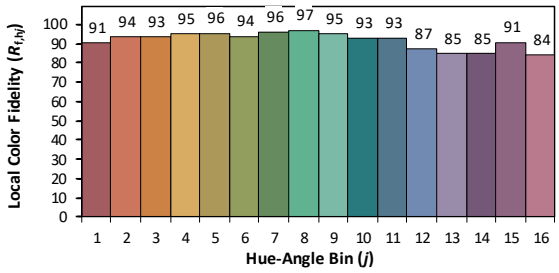
Date: 2023/6/13 Model: LFY18-0500-L27-CL-I-2

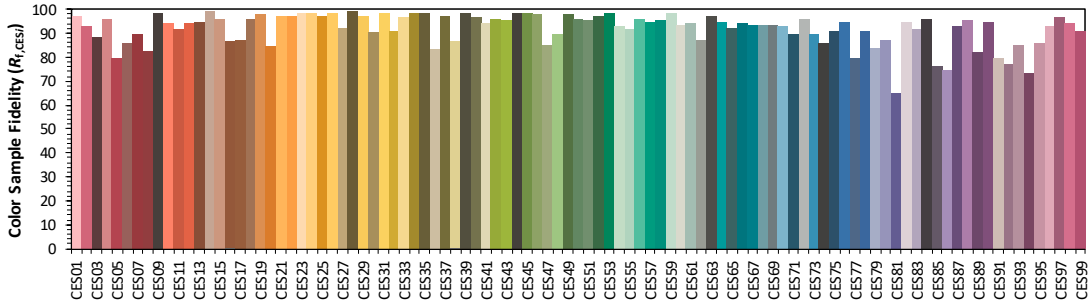












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

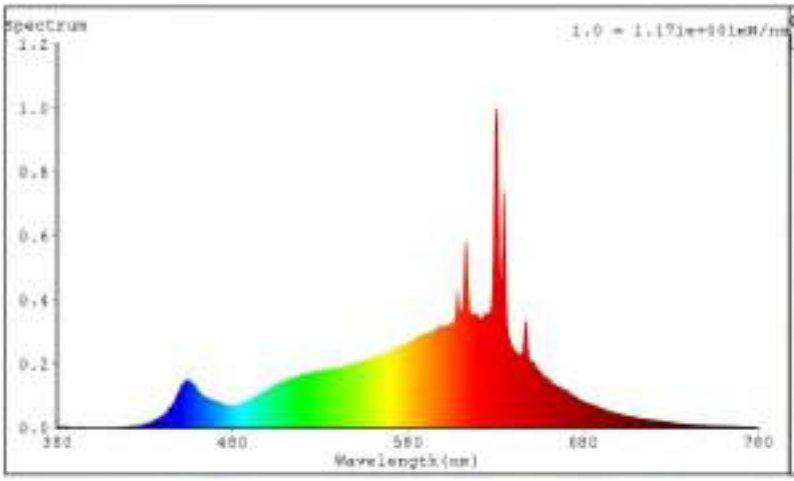
x	0.4615
y	0.4076
u'	0.2650
v'	0.5264

CIE 13.3-1995 (CRI)

R_a	95
R_9	61

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

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.008	414	0.0027	448	0.1012	482	0.0721	516	0.1607
381	0.0083	415	0.0006	449	0.1111	483	0.0741	517	0.1622
382	0.0014	416	0.0023	450	0.1238	484	0.0749	518	0.1649
383	0.0092	417	0.004	451	0.1333	485	0.0793	519	0.1655
384	0.0024	418	0.0039	452	0.1398	486	0.0793	520	0.1693
385	0.0046	419	0.0032	453	0.1476	487	0.0815	521	0.167
386	0.0043	420	0.0032	454	0.1526	488	0.0852	522	0.1697
387	0	421	0.005	455	0.1476	489	0.0876	523	0.1694
388	0	422	0.0066	456	0.1461	490	0.0904	524	0.1712
389	0	423	0.0062	457	0.141	491	0.092	525	0.1706
390	0	424	0.0069	458	0.1385	492	0.094	526	0.1744
391	0.0012	425	0.0068	459	0.1287	493	0.0986	527	0.173
392	0.002	426	0.0075	460	0.1183	494	0.1011	528	0.1758
393	0.0042	427	0.009	461	0.1145	495	0.1038	529	0.1763
394	0.0014	428	0.0102	462	0.1064	496	0.1074	530	0.1794
395	0.0033	429	0.0117	463	0.1004	497	0.1141	531	0.1779
396	0.0023	430	0.0135	464	0.0973	498	0.1141	532	0.1779
397	0.0022	431	0.0152	465	0.0941	499	0.1144	533	0.1813
398	0.002	432	0.0163	466	0.0927	500	0.1193	534	0.18
399	0.0015	433	0.0194	467	0.0916	501	0.1224	535	0.1807
400	0.0003	434	0.0182	468	0.0899	502	0.1263	536	0.1829
401	0.0026	435	0.022	469	0.089	503	0.1301	537	0.1824
402	0.0019	436	0.0259	470	0.0869	504	0.1325	538	0.1855
403	0.0031	437	0.0275	471	0.0854	505	0.1371	539	0.1872
404	0.0017	438	0.0327	472	0.0836	506	0.1385	540	0.1878
405	0.0029	439	0.036	473	0.0821	507	0.141	541	0.1908
406	0.0014	440	0.0403	474	0.0774	508	0.1452	542	0.1917
407	0.0001	441	0.0429	475	0.0755	509	0.1461	543	0.1916
408	0.001	442	0.0495	476	0.0767	510	0.1479	544	0.1941
409	0.0031	443	0.0535	477	0.0726	511	0.1505	545	0.1943
410	0.0024	444	0.0634	478	0.0703	512	0.1524	546	0.1969
411	0.0015	445	0.0667	479	0.0705	513	0.1541	547	0.1962
412	0.0027	446	0.078	480	0.0685	514	0.1574	548	0.1975
413	0.0014	447	0.0867	481	0.0696	515	0.1581	549	0.2007

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2025	599	0.316	648	0.3037	697	0.05	746	0.0104
551	0.2027	600	0.3144	649	0.2364	698	0.0478	747	0.0109
552	0.204	601	0.3171	650	0.2095	699	0.0471	748	0.0105
553	0.2049	602	0.318	651	0.205	700	0.0459	749	0.0103
554	0.2081	603	0.3195	652	0.2044	701	0.045	750	0.0091
555	0.2097	604	0.3258	653	0.1957	702	0.0442	751	0.0086
556	0.2117	605	0.3266	654	0.185	703	0.0413	752	0.0089
557	0.2141	606	0.3297	655	0.1807	704	0.0414	753	0.0084
558	0.2159	607	0.3505	656	0.1769	705	0.0396	754	0.0089
559	0.2144	608	0.4058	657	0.1706	706	0.0386	755	0.0081
560	0.2213	609	0.4143	658	0.1607	707	0.0372	756	0.0083
561	0.223	610	0.3666	659	0.1599	708	0.0355	757	0.0081
562	0.2255	611	0.3723	660	0.1558	709	0.0349	758	0.0073
563	0.2266	612	0.4769	661	0.1508	710	0.0336	759	0.0073
564	0.2281	613	0.5829	662	0.1441	711	0.032	760	0.0073
565	0.2319	614	0.5145	663	0.1401	712	0.0312	761	0.007
566	0.2322	615	0.4051	664	0.1356	713	0.0307	762	0.0067
567	0.2321	616	0.3608	665	0.1314	714	0.0296	763	0.0066
568	0.2364	617	0.3512	666	0.1283	715	0.0277	764	0.0061
569	0.2406	618	0.3551	667	0.1273	716	0.0272	765	0.0061
570	0.2415	619	0.3581	668	0.1235	717	0.027	766	0.0064
571	0.2446	620	0.3494	669	0.1221	718	0.0256	767	0.0058
572	0.2466	621	0.3468	670	0.1204	719	0.0253	768	0.0056
573	0.2489	622	0.3434	671	0.1141	720	0.0241	769	0.0054
574	0.2526	623	0.3452	672	0.1119	721	0.024	770	0.0053
575	0.2524	624	0.3563	673	0.107	722	0.0226	771	0.0053
576	0.2582	625	0.3551	674	0.1037	723	0.0221	772	0.0045
577	0.2566	626	0.3584	675	0.0981	724	0.021	773	0.0044
578	0.2628	627	0.3637	676	0.0967	725	0.0207	774	0.0047
579	0.2648	628	0.4032	677	0.0933	726	0.0199	775	0.0049
580	0.2676	629	0.5776	678	0.0902	727	0.0194	776	0.0048
581	0.2699	630	0.9174	679	0.0876	728	0.0184	777	0.0047
582	0.271	631	0.9273	680	0.0841	729	0.0191	778	0.004
583	0.275	632	0.5919	681	0.0822	730	0.0175	779	0.0043
584	0.2797	633	0.4665	682	0.0799	731	0.0173	780	0.0043
585	0.2817	634	0.6218	683	0.0788	732	0.0167		
586	0.2844	635	0.7339	684	0.0765	733	0.0157		
587	0.2874	636	0.4962	685	0.0735	734	0.0159		
588	0.2884	637	0.3328	686	0.0707	735	0.0151		
589	0.2919	638	0.2833	687	0.0685	736	0.0142		
590	0.2919	639	0.2646	688	0.0662	737	0.014		
591	0.2965	640	0.253	689	0.0648	738	0.0133		
592	0.2962	641	0.2428	690	0.0627	739	0.013		
593	0.3004	642	0.2365	691	0.0609	740	0.0132		
594	0.3008	643	0.2337	692	0.0596	741	0.0126		
595	0.3039	644	0.2285	693	0.0577	742	0.0121		
596	0.3072	645	0.2339	694	0.0558	743	0.0117		
597	0.314	646	0.2731	695	0.0531	744	0.0115		
598	0.3157	647	0.3365	696	0.0519	745	0.0109		

6. Goniophotometer Test results

6.1 Test Data

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

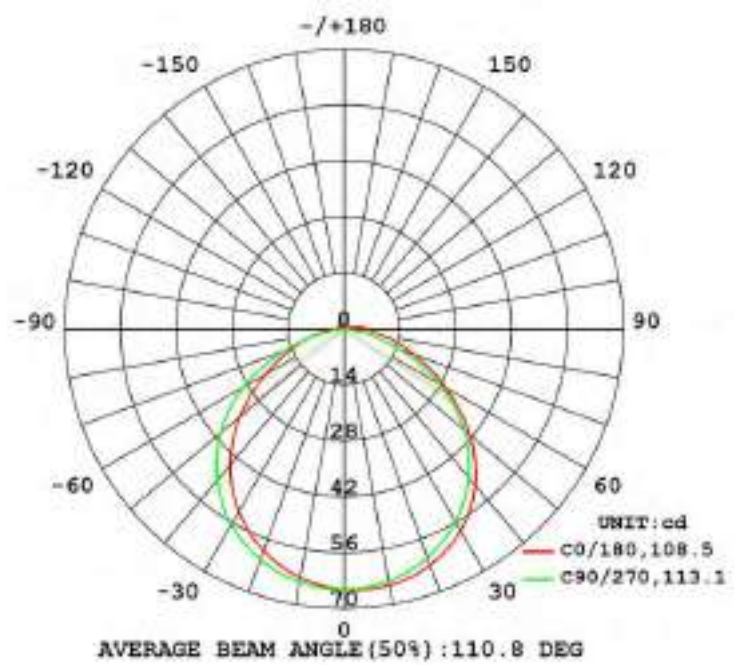
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.061	1.0000	1.464

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
187.811	128.29	65.41	2.3	97.7

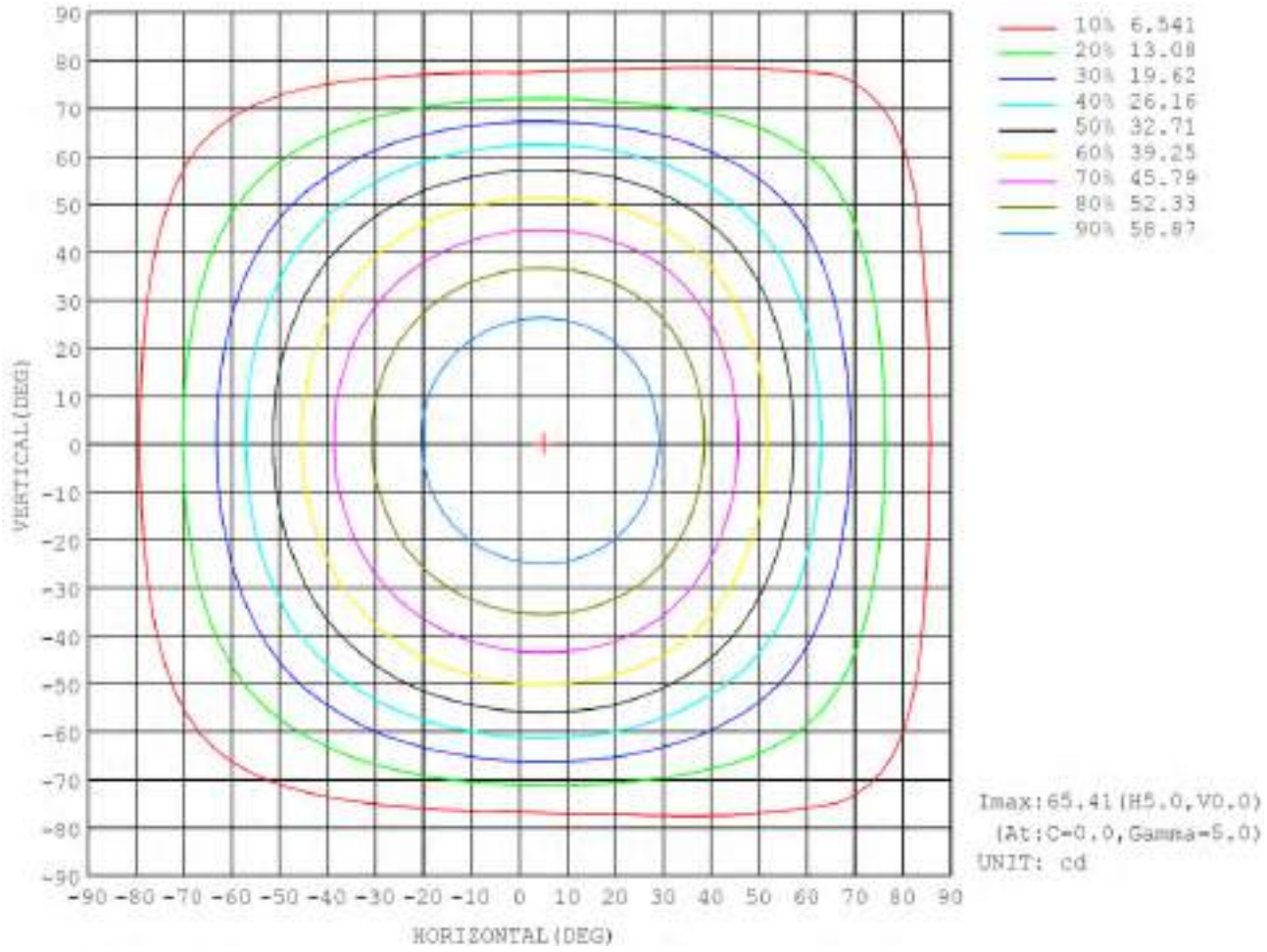
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	65.13	64.76	64.05	63.38	63.21	63.59	64.28	64.37	5~ 10	6.173	6.173	3.29,3.29
20	62.91	62.29	60.98	59.60	59.38	60.02	61.45	62.09	15~ 20	17.70	23.88	12.7,12.7
30	58.35	57.02	55.84	53.72	52.80	54.34	56.54	58.10	25~ 30	27.18	51.05	27.2,27.2
40	51.11	50.66	48.43	45.77	44.50	46.63	49.52	51.20	35~ 40	32.28	83.66	44.7,44.7
50	41.07	40.98	39.28	35.73	34.21	36.66	40.43	41.86	45~ 50	33.84	117.7	62.7,62.7
60	29.48	28.72	27.65	23.98	22.81	25.08	29.37	29.79	55~ 60	29.55	147.3	78.4,78.4
70	18.67	16.50	14.88	12.01	13.22	13.72	15.88	17.44	65~ 70	20.89	168.2	89.5,89.5
80	9.454	7.355	3.866	5.103	6.042	5.724	4.181	7.617	75~ 80	11.07	179.2	95.4,95.4
90	5.573	3.819	0.0317	1.782	2.238	1.592	0.0810	3.898	85~ 90	4.118	183.4	97.7,97.7
100	2.419	1.458	0.0450	1.411	1.499	1.521	0.0016	1.306	95~100	2.108	185.5	98.8,98.8
110	0.4870	1.9792	0.0548	1.347	1.472	1.383	0.0329	0.1111	105~110	0.3771	186.5	99.3,99.3
120	0.0915	1.9569	0.0398	1.255	1.519	1.322	0.0278	0.0882	115~120	0.5830	187.0	99.6,99.6
130	0.0492	1.9452	0.0436	0.5537	1.414	0.3559	0.0413	0.0512	125~130	0.3860	187.4	99.8,99.8
140	0.0510	1.8538	0.0515	0.2881	0.6899	0.3189	0.0628	0.3738	135~140	0.2075	187.6	99.9,99.9
150	0.0674	1.2037	0.0596	0.1486	0.4708	0.2804	0.0652	0.0922	145~150	0.3080	187.7	100,100
160	0.0791	1.0691	0.0664	0.0857	0.1738	0.1324	0.0981	0.0988	155~160	0.1856	187.8	100,100
170	0.0841	1.3784	0.0788	0.0811	0.1017	0.1620	0.0889	0.0886	165~170	0.1264	187.9	100,100
180	0.2742	1.2742	0.0779	0.0779	0.0779	0.0779	0.2742	0.2742	175~180	0.1089	187.9	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2			
5	65.4	65.3	65.2	65.0	64.8	64.7	64.5	64.4	64.4	64.5	64.6	64.8	65.0	65.2	65.3	65.4			
10	65.1	65.0	64.8	64.4	64.1	63.7	63.4	63.2	63.2	63.3	63.6	63.9	64.3	64.7	65.0	65.1			
15	64.3	64.1	63.8	63.3	62.8	62.2	61.8	61.4	61.4	61.6	62.1	62.6	63.1	63.7	64.1	64.3			
20	62.9	62.7	62.3	61.7	61.0	60.3	59.6	59.1	59.1	59.4	60.0	60.7	61.4	62.1	62.7	62.9			
25	60.9	60.7	60.2	59.5	58.6	57.8	56.9	56.3	56.2	56.7	57.4	58.4	59.3	60.1	60.7	61.0			
30	58.3	58.1	57.6	56.8	55.8	54.8	53.7	52.9	52.8	53.4	54.3	55.5	56.5	57.5	58.2	58.5			
35	55.1	54.9	54.5	53.6	52.5	51.2	50.0	49.1	48.9	49.6	50.7	52.1	53.3	54.4	55.1	55.3			
40	51.1	50.9	50.7	49.9	48.6	47.2	45.8	44.7	44.5	45.2	46.6	48.1	49.5	50.7	51.3	51.5			
45	46.6	46.3	46.2	45.5	44.2	42.7	41.0	39.7	39.5	40.4	41.9	43.7	45.3	46.4	47.0	46.8			
50	41.1	40.8	41.0	40.5	39.3	37.6	35.7	34.4	34.2	35.1	36.7	38.7	40.4	41.5	41.9	41.5			
55	35.3	35.1	35.1	34.9	33.7	32.1	30.0	28.6	28.4	29.4	31.0	33.3	35.1	36.1	36.1	35.7			
60	29.5	29.0	28.7	28.7	27.6	26.0	24.0	22.8	22.8	23.6	25.0	27.3	29.2	30.0	29.8	29.7			
65	23.8	23.2	22.4	22.2	21.2	19.7	18.1	17.6	17.7	18.2	19.1	21.0	22.6	23.4	23.4	23.9			
70	18.7	17.8	16.5	15.5	14.5	13.5	12.8	12.9	13.2	13.4	13.7	14.7	15.6	16.3	17.4	18.7			
75	14.3	13.2	11.6	9.56	8.31	8.24	8.51	9.00	9.42	9.57	9.26	9.13	9.14	10.2	12.3	14.0			
80	9.85	9.02	7.35	5.24	3.59	4.25	5.12	5.67	6.04	6.13	5.72	4.86	4.13	5.72	7.82	9.55			
85	6.83	6.12	4.59	2.66	0.98	1.93	2.84	3.33	3.63	3.69	3.33	2.24	1.28	2.98	4.84	6.46			
90	5.57	5.26	3.82	1.70	0.03	1.00	1.78	2.02	2.13	2.22	1.99	1.09	0.09	1.77	3.88	5.22			
95	4.80	4.40	3.05	1.11	0.03	0.89	1.47	1.66	1.46	1.55	1.57	0.96	0.00	0.94	3.17	4.54			
100	2.82	2.49	1.66	0.21	0.04	0.84	1.41	1.55	1.50	1.60	1.52	0.95	0.00	0.20	1.31	2.69			
105	1.29	1.08	0.35	0.04	0.05	0.76	1.38	1.46	1.47	1.52	1.44	0.86	0.02	0.04	0.34	1.24			
110	0.49	0.36	0.08	0.02	0.05	0.59	1.35	1.46	1.47	1.50	1.38	0.73	0.02	0.03	0.11	0.60			
115	0.19	0.11	0.04	0.03	0.05	0.42	1.30	1.50	1.48	1.52	1.38	0.48	0.03	0.03	0.04	0.15			
120	0.08	0.06	0.04	0.03	0.04	0.29	1.25	1.48	1.54	1.49	1.32	0.34	0.03	0.03	0.04	0.06			
125	0.05	0.04	0.04	0.04	0.04	0.18	0.87	1.40	1.51	1.44	0.96	0.21	0.03	0.04	0.04	0.05			
130	0.05	0.05	0.05	0.04	0.05	0.13	0.55	1.23	1.41	1.20	0.60	0.15	0.06	0.05	0.05	0.05			
135	0.05	0.05	0.05	0.05	0.05	0.11	0.38	0.77	1.05	0.80	0.43	0.13	0.05	0.06	0.06	0.06			
140	0.06	0.05	0.05	0.05	0.05	0.10	0.29	0.53	0.69	0.55	0.31	0.11	0.06	0.07	0.07	0.08			
145	0.06	0.06	0.06	0.06	0.05	0.08	0.21	0.45	0.54	0.47	0.25	0.10	0.07	0.08	0.08	0.09			
150	0.07	0.07	0.06	0.06	0.06	0.07	0.15	0.31	0.47	0.35	0.20	0.11	0.09	0.09	0.09	0.10			
155	0.07	0.07	0.07	0.07	0.07	0.07	0.11	0.19	0.27	0.23	0.17	0.11	0.09	0.09	0.10	0.10			
160	0.08	0.08	0.07	0.07	0.07	0.07	0.09	0.13	0.17	0.17	0.13	0.10	0.10	0.10	0.10	0.10			
165	0.08	0.08	0.07	0.07	0.07	0.07	0.08	0.09	0.12	0.11	0.10	0.10	0.10	0.10	0.10	0.10			
170	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10			
175	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.09			
180	0.27	0.27	0.27	0.27	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.27	0.27	0.27	0.27			

7. Photo of sample

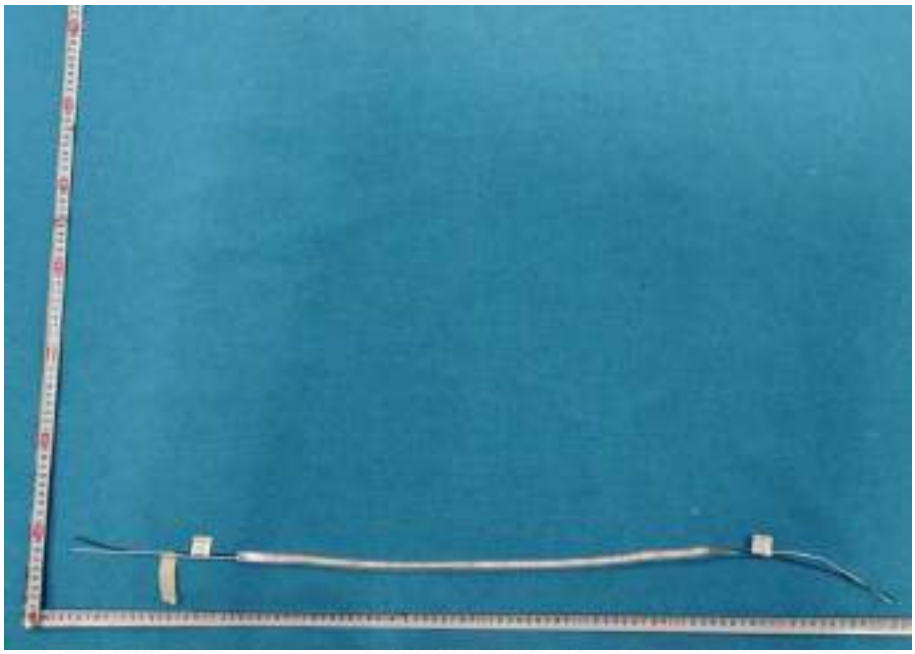


Figure 1 Overview

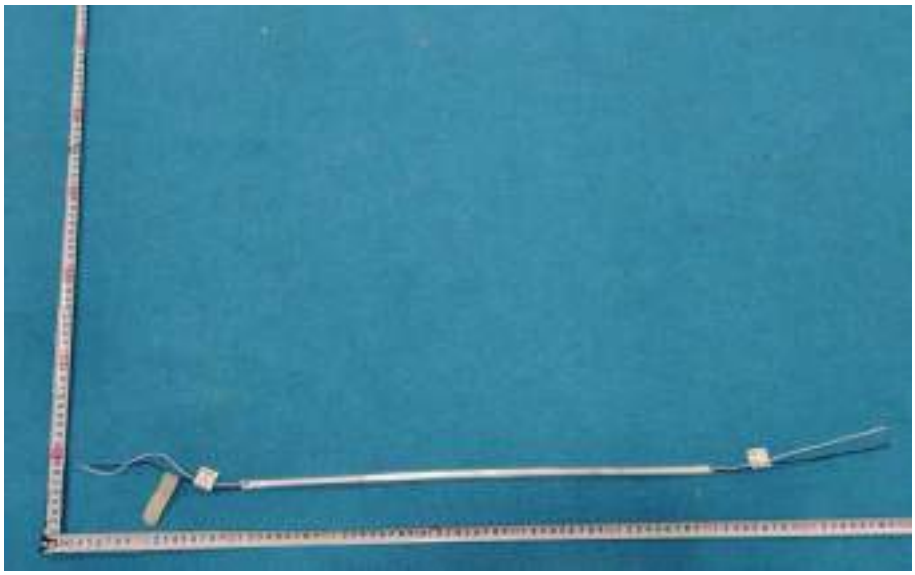


Figure 2 Overview

---End of Report---

NVLAP TESTING NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23060187L00401
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY18-0500-L27-CL-I-4
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	:	June. 08, 2023
Date of test	:	June. 08, 2023 - June. 13, 2023
Date of report	:	June. 13, 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:	LFY18-0500-L27-CL-I-4
Manufacturer:	
Product Type:	SHIN FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	2W
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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.1052	23.998	2.5246	348.35	0.4606	0.4083	0.264	0.5266	2672	94.3
1	00h00m10s	0.1054	23.998	2.5294	348.31	0.4607	0.4084	0.264	0.5266	2672	94.3
2	00h00m20s	0.1055	23.998	2.5318	348.47	0.4605	0.4082	0.264	0.5265	2672	94.3
3	00h00m30s	0.1056	23.998	2.5342	348.53	0.4607	0.4082	0.2641	0.5266	2670	94.3
4	00h00m40s	0.1056	23.998	2.5342	348.41	0.4605	0.4081	0.2641	0.5265	2671	94.3
5	00h00m50s	0.1057	23.998	2.5366	348.62	0.4607	0.4083	0.2641	0.5266	2670	94.3
6	00h01m00s	0.1057	23.998	2.5366	349.13	0.4606	0.4082	0.264	0.5265	2672	94.3
7	00h01m10s	0.1058	23.998	2.539	348.91	0.4607	0.4082	0.2641	0.5265	2670	94.3
8	00h01m20s	0.1058	23.998	2.539	348.98	0.4608	0.4081	0.2642	0.5265	2668	94.3
9	00h01m30s	0.1059	23.998	2.5414	349.14	0.4605	0.4081	0.264	0.5265	2672	94.3
10	00h01m40s	0.1059	23.998	2.5414	349.13	0.4605	0.4079	0.2641	0.5264	2671	94.3
11	00h01m50s	0.1059	23.998	2.5414	349.35	0.4607	0.4081	0.2641	0.5265	2670	94.3
12	00h02m00s	0.1059	23.998	2.5414	349.21	0.4607	0.4081	0.2642	0.5265	2668	94.2
13	00h02m10s	0.106	23.998	2.5438	349.25	0.4608	0.4081	0.2643	0.5265	2667	94.3
14	00h02m20s	0.106	23.998	2.5438	349.29	0.4608	0.4081	0.2642	0.5265	2668	94.3
15	00h02m30s	0.106	23.998	2.5438	349.41	0.4607	0.4081	0.2642	0.5265	2668	94.3
16	00h02m40s	0.106	23.998	2.5438	349.31	0.4606	0.408	0.2642	0.5265	2669	94.3
17	00h02m50s	0.106	23.998	2.5438	349.35	0.4607	0.4079	0.2643	0.5265	2668	94.3
18	00h03m00s	0.1061	23.998	2.5462	349.43	0.4608	0.4079	0.2643	0.5265	2666	94.2
19	00h03m10s	0.1061	23.998	2.5462	349.53	0.4607	0.4081	0.2642	0.5265	2668	94.3
20	00h03m20s	0.1061	23.998	2.5462	349.41	0.4608	0.408	0.2643	0.5265	2667	94.2
21	00h03m30s	0.1061	23.998	2.5462	349.53	0.4608	0.4077	0.2644	0.5264	2665	94.2

22	00h03m40s	0.1061	23.998	2.5462	349.75	0.4609	0.4082	0.2643	0.5266	2667	94.2
23	00h03m50s	0.1061	23.998	2.5462	349.64	0.4609	0.408	0.2644	0.5265	2665	94.3
24	00h04m00s	0.1061	23.998	2.5462	349.63	0.4609	0.4081	0.2643	0.5265	2666	94.2
25	00h04m10s	0.1061	23.998	2.5462	349.32	0.4606	0.4079	0.2642	0.5264	2668	94.3
26	00h04m20s	0.1061	23.998	2.5462	349.68	0.4608	0.4079	0.2644	0.5265	2665	94.3
27	00h04m30s	0.1061	23.998	2.5462	349.77	0.4608	0.4081	0.2642	0.5265	2668	94.3
28	00h04m40s	0.1062	23.998	2.5486	349.59	0.4609	0.4079	0.2644	0.5265	2665	94.2
29	00h04m50s	0.1062	23.998	2.5486	349.63	0.4608	0.4079	0.2643	0.5265	2666	94.2
30	00h05m00s	0.1062	23.998	2.5486	349.87	0.4607	0.408	0.2643	0.5265	2667	94.2
31	00h05m10s	0.1062	23.998	2.5486	349.67	0.4609	0.4079	0.2644	0.5265	2664	94.2
32	00h05m20s	0.1062	23.998	2.5486	349.75	0.4608	0.408	0.2643	0.5265	2667	94.3
33	00h05m30s	0.1062	23.998	2.5486	349.64	0.4608	0.408	0.2643	0.5265	2666	94.3
34	00h05m40s	0.1062	23.998	2.5486	349.65	0.4609	0.4078	0.2644	0.5264	2664	94.2
35	00h05m50s	0.1062	23.998	2.5486	349.82	0.4608	0.4079	0.2643	0.5265	2667	94.2
36	00h06m00s	0.1062	23.998	2.5486	349.64	0.461	0.4077	0.2645	0.5264	2662	94.2
37	00h06m10s	0.1062	23.998	2.5486	349.65	0.4608	0.4077	0.2645	0.5264	2664	94.2
38	00h06m20s	0.1062	23.998	2.5486	349.8	0.4609	0.408	0.2643	0.5265	2666	94.3
39	00h06m30s	0.1062	23.998	2.5486	349.75	0.4609	0.4081	0.2643	0.5265	2666	94.3
40	00h06m40s	0.1062	23.998	2.5486	349.98	0.461	0.408	0.2644	0.5265	2665	94.2
41	00h06m50s	0.1062	23.998	2.5486	349.6	0.4608	0.4078	0.2644	0.5264	2666	94.2
42	00h07m00s	0.1062	23.998	2.5486	349.89	0.4608	0.408	0.2643	0.5265	2667	94.3
43	00h07m10s	0.1062	23.998	2.5486	349.83	0.4609	0.4079	0.2644	0.5265	2665	94.3
44	00h07m20s	0.1062	23.998	2.5486	349.87	0.4608	0.4079	0.2643	0.5265	2666	94.3
45	00h07m30s	0.1062	23.998	2.5486	349.96	0.4608	0.4078	0.2643	0.5264	2666	94.3
46	00h07m40s	0.1062	23.998	2.5486	350.09	0.4609	0.4078	0.2644	0.5264	2665	94.2
47	00h07m50s	0.1062	23.998	2.5486	349.82	0.4608	0.4079	0.2643	0.5265	2666	94.3
48	00h08m00s	0.1062	23.998	2.5486	350.15	0.4609	0.408	0.2643	0.5265	2666	94.3
49	00h08m10s	0.1062	23.998	2.5486	349.94	0.4609	0.4078	0.2644	0.5264	2664	94.3
50	00h08m20s	0.1062	23.998	2.5486	349.91	0.4606	0.4077	0.2643	0.5264	2667	94.2
51	00h08m30s	0.1062	23.998	2.5486	350	0.4608	0.4079	0.2643	0.5264	2666	94.3
52	00h08m40s	0.1062	23.998	2.5486	350.12	0.4609	0.4079	0.2644	0.5265	2665	94.2

53	00h08m50s	0.1062	23.998	2.5486	349.86	0.4608	0.4078	0.2644	0.5264	2664	94.2
54	00h09m00s	0.1062	23.998	2.5486	350.19	0.4608	0.408	0.2643	0.5265	2667	94.2
55	00h09m10s	0.1062	23.998	2.5486	349.87	0.4609	0.4078	0.2645	0.5264	2663	94.2
56	00h09m20s	0.1062	23.998	2.5486	349.77	0.461	0.408	0.2644	0.5265	2664	94.2
57	00h09m30s	0.1062	23.998	2.5486	350.01	0.4609	0.4079	0.2644	0.5265	2665	94.3
58	00h09m40s	0.1062	23.998	2.5486	349.89	0.4609	0.4079	0.2644	0.5265	2665	94.2
59	00h09m50s	0.1062	23.998	2.5486	349.78	0.461	0.4079	0.2644	0.5265	2664	94.2
60	00h10m00s	0.1062	23.998	2.5486	349.96	0.4611	0.4081	0.2645	0.5266	2663	94.3
61	00h10m10s	0.1062	23.998	2.5486	350.11	0.4607	0.4078	0.2643	0.5264	2666	94.2
62	00h10m20s	0.1062	23.998	2.5486	349.89	0.4608	0.4077	0.2644	0.5264	2664	94.2
63	00h10m30s	0.1062	23.998	2.5486	349.99	0.461	0.4079	0.2644	0.5265	2664	94.2
64	00h10m40s	0.1063	23.998	2.551	350.02	0.4609	0.4079	0.2644	0.5265	2665	94.2
65	00h10m50s	0.1063	23.998	2.551	350.01	0.4609	0.4079	0.2644	0.5265	2664	94.2
66	00h11m00s	0.1063	23.998	2.551	349.83	0.4609	0.4078	0.2644	0.5264	2664	94.2
67	00h11m10s	0.1063	23.998	2.551	349.98	0.4609	0.4079	0.2644	0.5265	2664	94.2
68	00h11m20s	0.1063	23.998	2.551	350	0.461	0.4078	0.2645	0.5265	2663	94.2
69	00h11m30s	0.1063	23.998	2.551	350.07	0.4609	0.4078	0.2644	0.5264	2665	94.3
70	00h11m40s	0.1063	23.998	2.551	349.76	0.4609	0.4077	0.2645	0.5264	2663	94.2
71	00h11m50s	0.1063	23.998	2.551	349.78	0.461	0.408	0.2644	0.5265	2665	94.3
72	00h12m00s	0.1063	23.998	2.551	350	0.4609	0.4079	0.2644	0.5265	2665	94.2
73	00h12m10s	0.1063	23.998	2.551	350.03	0.461	0.4079	0.2645	0.5265	2663	94.3
74	00h12m20s	0.1063	23.998	2.551	349.97	0.461	0.408	0.2644	0.5265	2665	94.3
75	00h12m30s	0.1063	23.998	2.551	350.02	0.4609	0.4079	0.2644	0.5265	2665	94.2
76	00h12m40s	0.1063	23.998	2.551	350.01	0.461	0.4079	0.2645	0.5265	2663	94.2
77	00h12m50s	0.1063	23.998	2.551	349.94	0.4609	0.408	0.2644	0.5265	2665	94.2
78	00h13m00s	0.1063	23.998	2.551	350.05	0.4609	0.408	0.2644	0.5265	2665	94.3
79	00h13m10s	0.1063	23.998	2.551	349.95	0.4608	0.4078	0.2644	0.5264	2665	94.2
80	00h13m20s	0.1063	23.998	2.551	350.17	0.4609	0.4079	0.2644	0.5265	2665	94.2
81	00h13m30s	0.1063	23.998	2.551	350.09	0.4607	0.4077	0.2644	0.5264	2665	94.2
82	00h13m40s	0.1063	23.998	2.551	350.02	0.461	0.408	0.2644	0.5265	2664	94.2
83	00h13m50s	0.1063	23.998	2.551	349.91	0.4609	0.4079	0.2644	0.5265	2665	94.3

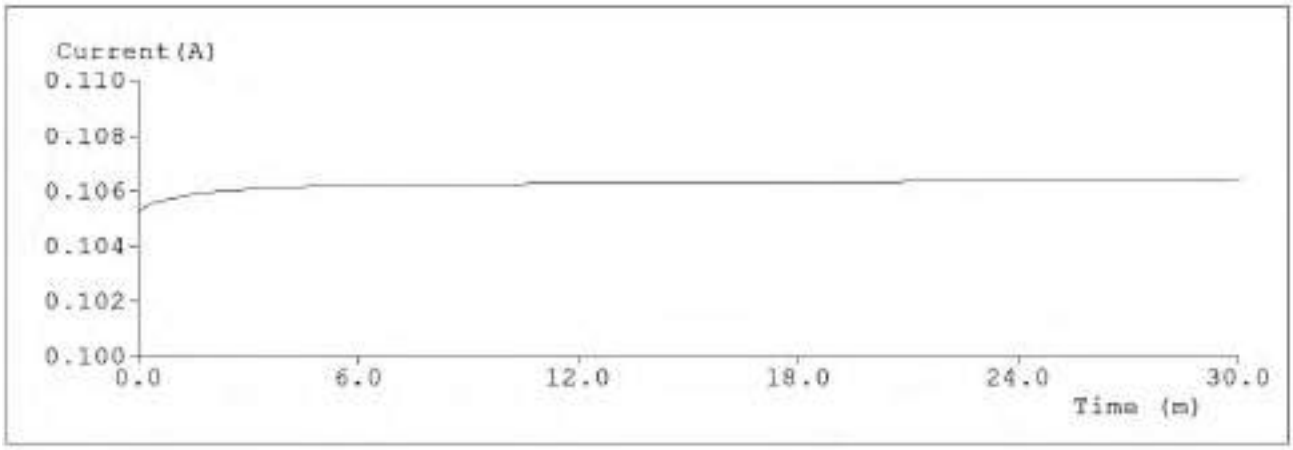
84	00h14m00s	0.1063	23.998	2.551	350.25	0.461	0.408	0.2644	0.5265	2664	94.2
85	00h14m10s	0.1063	23.998	2.551	350.09	0.4609	0.4079	0.2644	0.5265	2665	94.2
86	00h14m20s	0.1063	23.998	2.551	350.08	0.4607	0.4078	0.2644	0.5264	2666	94.3
87	00h14m30s	0.1063	23.998	2.551	350.25	0.4609	0.4079	0.2644	0.5265	2664	94.2
88	00h14m40s	0.1063	23.998	2.551	350.25	0.4608	0.4078	0.2643	0.5264	2666	94.3
89	00h14m50s	0.1063	23.998	2.551	350.25	0.461	0.4079	0.2644	0.5265	2663	94.2
90	00h15m00s	0.1063	23.998	2.551	350.07	0.461	0.4079	0.2644	0.5265	2664	94.2
91	00h15m10s	0.1063	23.998	2.551	350.06	0.461	0.4078	0.2645	0.5264	2663	94.2
92	00h15m20s	0.1063	23.998	2.551	350.3	0.4609	0.408	0.2644	0.5265	2665	94.2
93	00h15m30s	0.1063	23.998	2.551	350.21	0.4608	0.4077	0.2644	0.5264	2665	94.3
94	00h15m40s	0.1063	23.998	2.551	350.28	0.4609	0.4079	0.2644	0.5265	2665	94.2
95	00h15m50s	0.1063	23.998	2.551	350.27	0.461	0.4078	0.2645	0.5265	2663	94.2
96	00h16m00s	0.1063	23.998	2.551	350.27	0.4611	0.4079	0.2645	0.5265	2662	94.2
97	00h16m10s	0.1063	23.998	2.551	350.28	0.4609	0.4079	0.2644	0.5265	2664	94.2
98	00h16m20s	0.1063	23.998	2.551	350.48	0.4609	0.4079	0.2644	0.5265	2665	94.2
99	00h16m30s	0.1063	23.998	2.551	350.12	0.461	0.4078	0.2645	0.5265	2663	94.2
100	00h16m40s	0.1063	23.998	2.551	350.25	0.461	0.4079	0.2644	0.5265	2664	94.2
101	00h16m50s	0.1063	23.998	2.551	350.55	0.461	0.4079	0.2645	0.5265	2663	94.2
102	00h17m00s	0.1063	23.998	2.551	350.35	0.461	0.4077	0.2645	0.5264	2662	94.2
103	00h17m10s	0.1063	23.998	2.551	350.58	0.461	0.4079	0.2645	0.5265	2663	94.2
104	00h17m20s	0.1063	23.998	2.551	350.66	0.4609	0.4079	0.2644	0.5265	2665	94.2
105	00h17m30s	0.1063	23.998	2.551	350.28	0.4608	0.4077	0.2644	0.5264	2665	94.2
106	00h17m40s	0.1063	23.998	2.551	350.03	0.4608	0.4077	0.2644	0.5264	2664	94.2
107	00h17m50s	0.1063	23.998	2.551	350.39	0.4609	0.4078	0.2644	0.5264	2665	94.2
108	00h18m00s	0.1063	23.998	2.551	350.34	0.461	0.4079	0.2645	0.5265	2663	94.2
109	00h18m10s	0.1063	23.998	2.551	350.33	0.4609	0.4078	0.2645	0.5264	2663	94.2
110	00h18m20s	0.1063	23.998	2.551	350.51	0.4609	0.408	0.2644	0.5265	2665	94.3
111	00h18m30s	0.1063	23.998	2.551	350.48	0.4607	0.4078	0.2643	0.5264	2666	94.3
112	00h18m40s	0.1063	23.998	2.551	350.38	0.461	0.4078	0.2645	0.5265	2662	94.3
113	00h18m50s	0.1063	23.998	2.551	350.12	0.4609	0.4078	0.2644	0.5265	2664	94.3
114	00h19m00s	0.1063	23.998	2.551	350.01	0.461	0.4078	0.2645	0.5264	2662	94.2

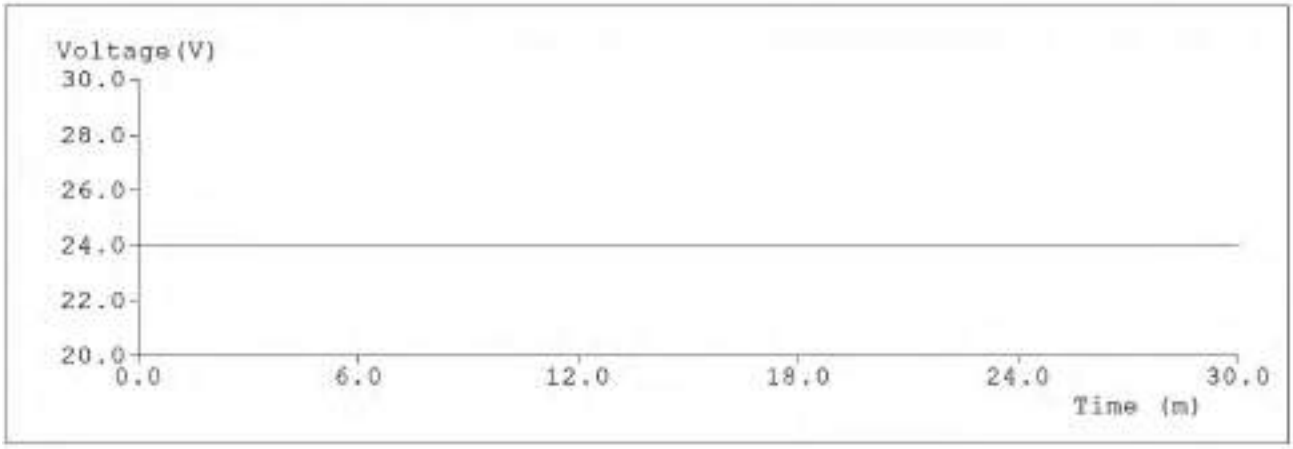
115	00h19m10s	0.1063	23.998	2.551	350.51	0.4611	0.4079	0.2645	0.5265	2663	94.2
116	00h19m20s	0.1063	23.998	2.551	350.62	0.4611	0.408	0.2644	0.5265	2663	94.2
117	00h19m30s	0.1063	23.998	2.551	350.48	0.4609	0.4079	0.2644	0.5265	2664	94.2
118	00h19m40s	0.1063	23.998	2.551	350.34	0.4609	0.4078	0.2645	0.5264	2663	94.2
119	00h19m50s	0.1063	23.998	2.551	350.45	0.461	0.4079	0.2644	0.5265	2664	94.2
120	00h20m00s	0.1063	23.998	2.551	350.43	0.4608	0.4079	0.2643	0.5265	2666	94.3
121	00h20m10s	0.1063	23.998	2.551	350.43	0.4608	0.4077	0.2644	0.5264	2664	94.2
122	00h20m20s	0.1063	23.998	2.551	350.41	0.461	0.4079	0.2644	0.5265	2664	94.2
123	00h20m30s	0.1063	23.998	2.551	350.24	0.4609	0.4078	0.2644	0.5264	2664	94.3
124	00h20m40s	0.1063	23.998	2.551	350.5	0.461	0.4077	0.2645	0.5264	2662	94.2
125	00h20m50s	0.1063	23.998	2.551	350.24	0.461	0.4078	0.2645	0.5265	2663	94.2
126	00h21m00s	0.1064	23.998	2.5534	350.46	0.461	0.4078	0.2645	0.5264	2662	94.2
127	00h21m10s	0.1064	23.998	2.5534	350.64	0.461	0.4078	0.2645	0.5265	2663	94.2
128	00h21m20s	0.1064	23.998	2.5534	350.32	0.4609	0.4078	0.2645	0.5264	2663	94.3
129	00h21m30s	0.1064	23.998	2.5534	350.45	0.461	0.408	0.2644	0.5265	2664	94.2
130	00h21m40s	0.1064	23.998	2.5534	350.3	0.4608	0.4078	0.2644	0.5264	2665	94.2
131	00h21m50s	0.1064	23.998	2.5534	350.16	0.4609	0.4077	0.2645	0.5264	2662	94.3
132	00h22m00s	0.1064	23.998	2.5534	350.5	0.4608	0.4078	0.2644	0.5264	2664	94.2
133	00h22m10s	0.1064	23.998	2.5534	350.48	0.4609	0.4077	0.2645	0.5264	2662	94.2
134	00h22m20s	0.1064	23.998	2.5534	350.28	0.4609	0.4079	0.2644	0.5265	2664	94.2
135	00h22m30s	0.1064	23.998	2.5534	350.26	0.4609	0.4077	0.2645	0.5264	2663	94.2
136	00h22m40s	0.1064	23.998	2.5534	350.53	0.4609	0.4078	0.2645	0.5264	2664	94.3
137	00h22m50s	0.1064	23.998	2.5534	350.28	0.461	0.4078	0.2645	0.5264	2662	94.3
138	00h23m00s	0.1064	23.998	2.5534	350.56	0.4608	0.4078	0.2644	0.5264	2665	94.2
139	00h23m10s	0.1064	23.998	2.5534	350.78	0.461	0.4078	0.2645	0.5265	2662	94.2
140	00h23m20s	0.1064	23.998	2.5534	350.53	0.461	0.4079	0.2644	0.5265	2664	94.2
141	00h23m30s	0.1064	23.998	2.5534	350.51	0.461	0.408	0.2644	0.5265	2663	94.2
142	00h23m40s	0.1064	23.998	2.5534	350.28	0.461	0.4078	0.2645	0.5264	2663	94.3
143	00h23m50s	0.1064	23.998	2.5534	350.57	0.4608	0.4078	0.2644	0.5264	2665	94.2
144	00h24m00s	0.1064	23.998	2.5534	350.59	0.461	0.4078	0.2645	0.5265	2663	94.2
145	00h24m10s	0.1064	23.998	2.5534	350.63	0.4611	0.408	0.2645	0.5265	2663	94.2

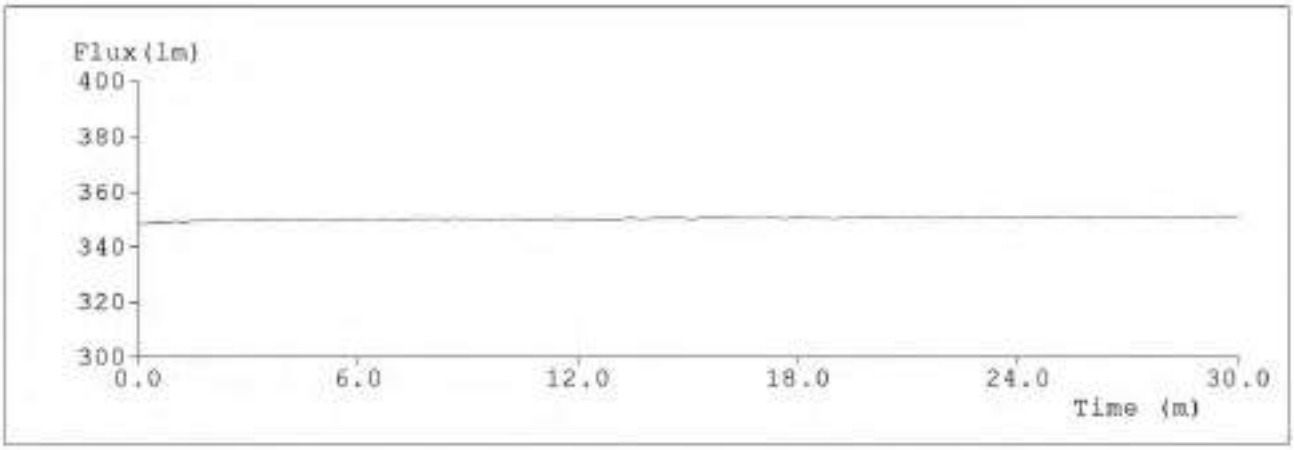
146	00h24m20s	0.1064	23.998	2.5534	350.53	0.461	0.4078	0.2645	0.5264	2663	94.2
147	00h24m30s	0.1064	23.998	2.5534	350.53	0.4612	0.408	0.2645	0.5265	2662	94.2
148	00h24m40s	0.1064	23.998	2.5534	350.73	0.461	0.4079	0.2645	0.5265	2663	94.2
149	00h24m50s	0.1064	23.998	2.5534	350.64	0.4609	0.4077	0.2645	0.5264	2663	94.2
150	00h25m00s	0.1064	23.998	2.5534	350.67	0.461	0.4078	0.2645	0.5265	2662	94.2
151	00h25m10s	0.1064	23.998	2.5534	350.74	0.4611	0.4079	0.2645	0.5265	2663	94.2
152	00h25m20s	0.1064	23.998	2.5534	350.69	0.461	0.408	0.2644	0.5265	2664	94.2
153	00h25m30s	0.1064	23.998	2.5534	350.6	0.4609	0.4078	0.2645	0.5264	2663	94.2
154	00h25m40s	0.1064	23.998	2.5534	350.5	0.4611	0.4078	0.2646	0.5264	2661	94.2
155	00h25m50s	0.1064	23.998	2.5534	350.36	0.4609	0.4078	0.2644	0.5264	2664	94.2
156	00h26m00s	0.1064	23.998	2.5534	350.45	0.4611	0.4079	0.2645	0.5265	2663	94.2
157	00h26m10s	0.1064	23.998	2.5534	350.62	0.461	0.4079	0.2645	0.5265	2663	94.2
158	00h26m20s	0.1064	23.998	2.5534	350.52	0.4612	0.4079	0.2646	0.5265	2660	94.2
159	00h26m30s	0.1064	23.998	2.5534	350.51	0.4609	0.4078	0.2645	0.5264	2663	94.2
160	00h26m40s	0.1064	23.998	2.5534	350.71	0.4612	0.4081	0.2644	0.5266	2663	94.3
161	00h26m50s	0.1064	23.998	2.5534	350.8	0.461	0.4081	0.2644	0.5265	2665	94.2
162	00h27m00s	0.1064	23.998	2.5534	350.79	0.4609	0.4077	0.2645	0.5264	2663	94.2
163	00h27m10s	0.1064	23.998	2.5534	350.63	0.4609	0.4079	0.2644	0.5265	2664	94.2
164	00h27m20s	0.1064	23.998	2.5534	350.5	0.4611	0.408	0.2645	0.5266	2662	94.3
165	00h27m30s	0.1064	23.998	2.5534	350.49	0.4612	0.4079	0.2646	0.5265	2661	94.2
166	00h27m40s	0.1064	23.998	2.5534	350.53	0.4609	0.4078	0.2645	0.5264	2663	94.3
167	00h27m50s	0.1064	23.998	2.5534	350.6	0.4608	0.4078	0.2644	0.5264	2665	94.3
168	00h28m00s	0.1064	23.998	2.5534	350.37	0.461	0.4078	0.2645	0.5264	2663	94.2
169	00h28m10s	0.1064	23.998	2.5534	350.62	0.461	0.4078	0.2645	0.5264	2663	94.2
170	00h28m20s	0.1064	23.998	2.5534	350.63	0.4609	0.4078	0.2644	0.5264	2664	94.2
171	00h28m30s	0.1064	23.998	2.5534	350.79	0.461	0.4078	0.2645	0.5264	2662	94.2
172	00h28m40s	0.1064	23.998	2.5534	350.81	0.4609	0.4078	0.2644	0.5264	2664	94.3
173	00h28m50s	0.1064	23.998	2.5534	350.56	0.4609	0.4078	0.2645	0.5264	2664	94.3
174	00h29m00s	0.1064	23.998	2.5534	350.83	0.4609	0.4079	0.2644	0.5265	2665	94.3
175	00h29m10s	0.1064	23.998	2.5534	350.74	0.461	0.4078	0.2645	0.5265	2663	94.2
176	00h29m20s	0.1064	23.998	2.5534	350.87	0.461	0.4078	0.2645	0.5264	2663	94.2

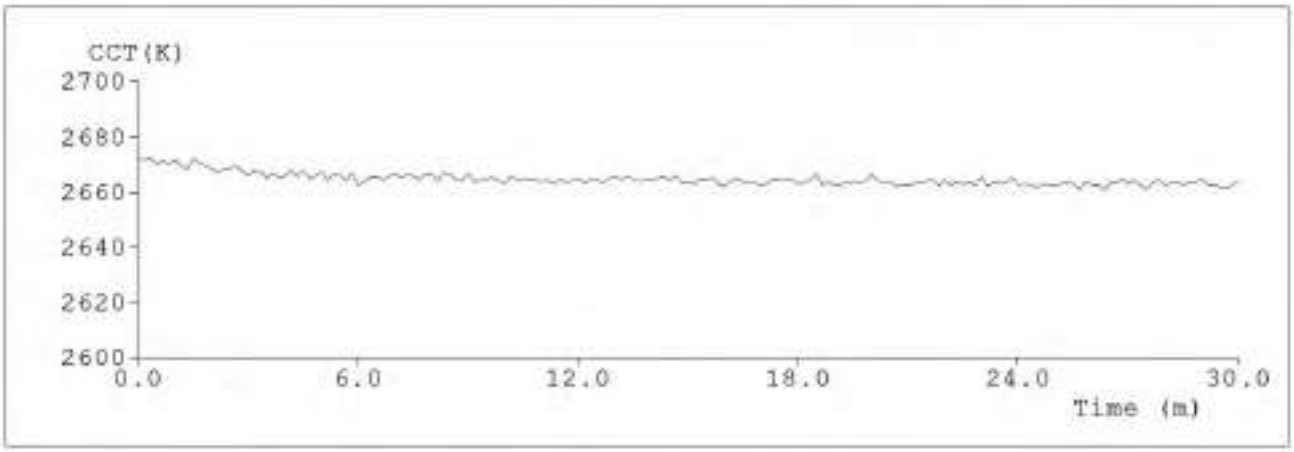
177	00h29m30s	0.1064	23.998	2.5534	350.64	0.461	0.4077	0.2645	0.5264	2662	94.2
178	00h29m40s	0.1064	23.998	2.5534	350.82	0.4611	0.4079	0.2646	0.5265	2661	94.2
179	00h29m50s	0.1064	23.998	2.5534	350.76	0.461	0.4078	0.2645	0.5265	2663	94.2
180	00h30m00s	0.1064	23.998	2.5534	350.59	0.461	0.4079	0.2644	0.5265	2664	94.2

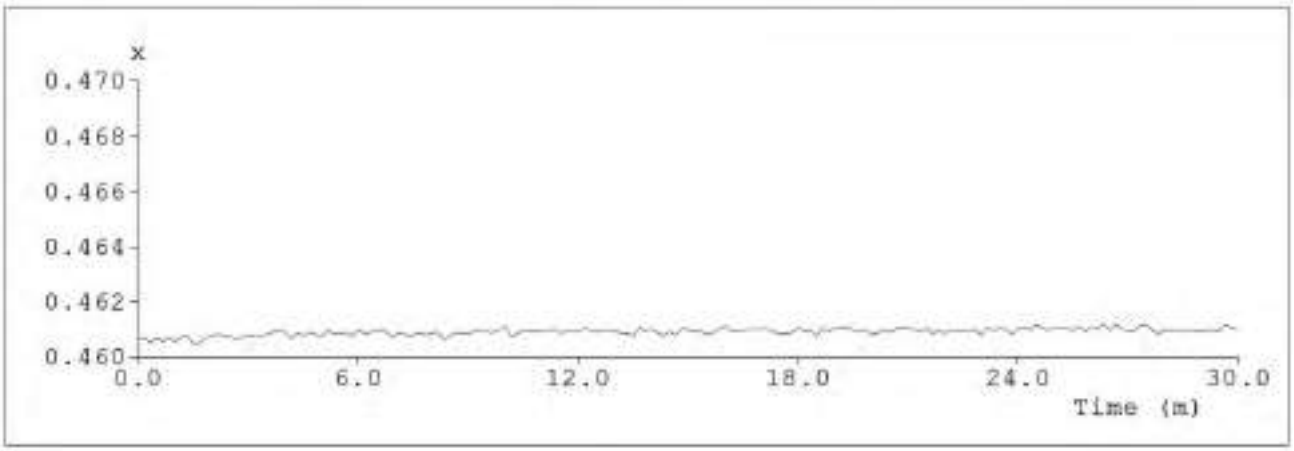
Test curves

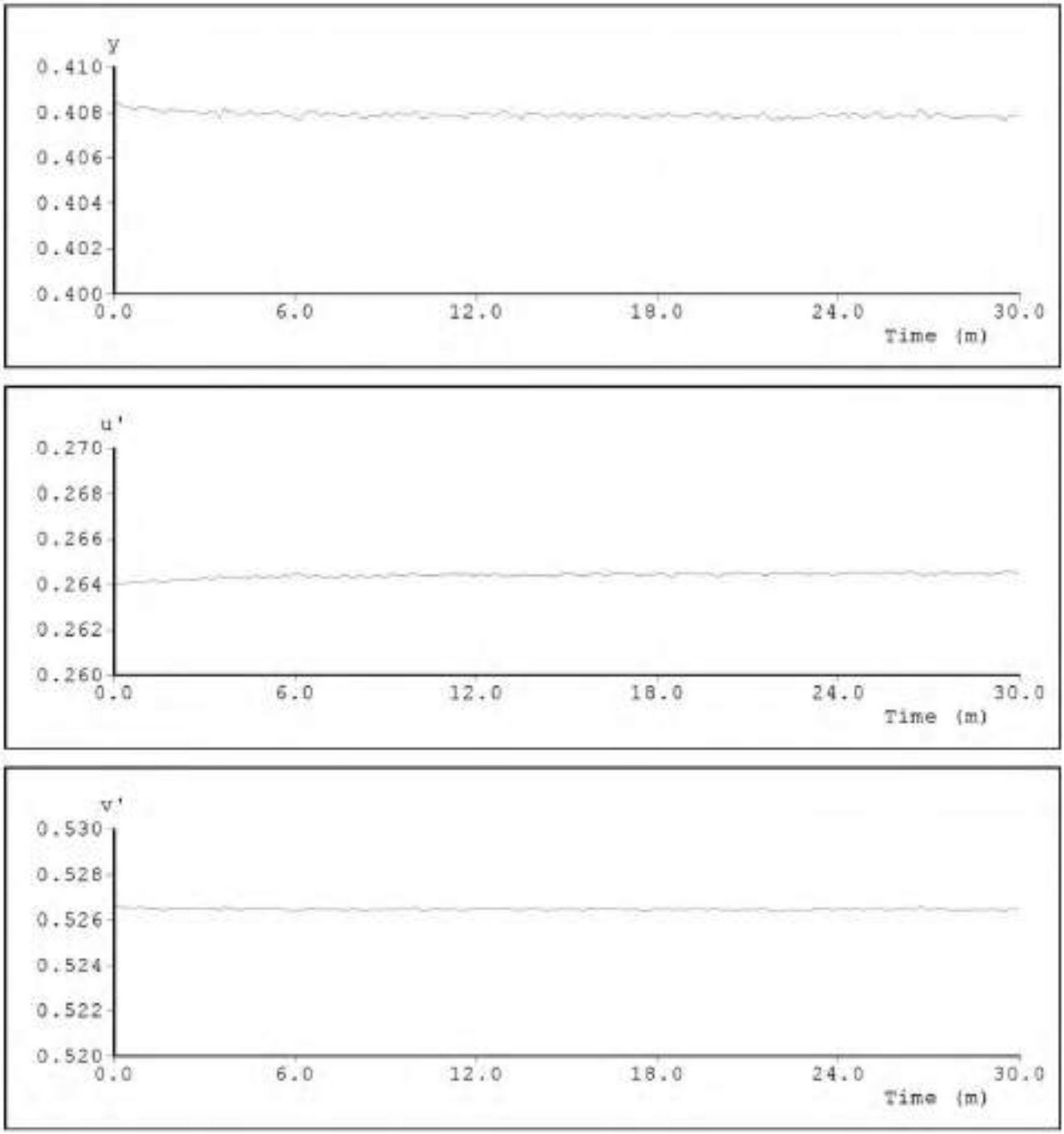





Flux(lm)
400
380
360
340
320
300
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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


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

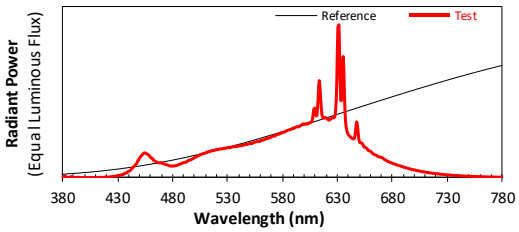

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

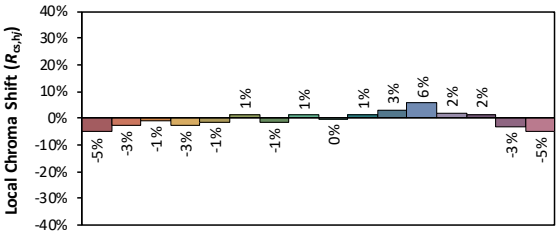
*5.2 ANSI/IES TM-30-18 Color Rendition Report

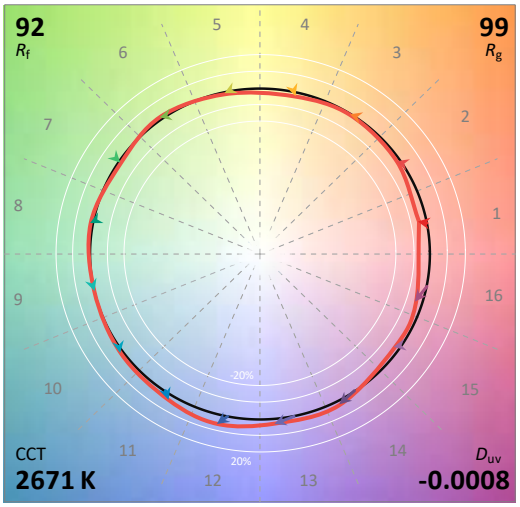
ANSI/IES TM-30-18 Color Rendition Report

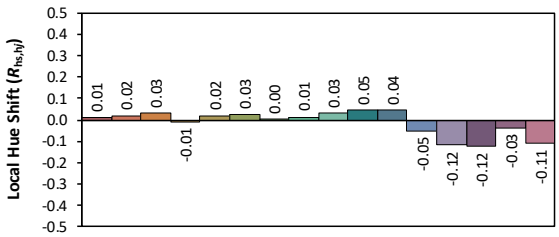
Source: Manufacturer:

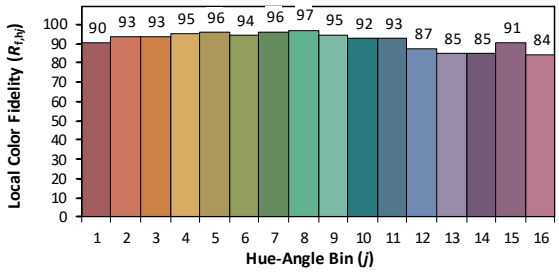
Date: 2023/6/13 Model: LFY18-0500-L27-CL-I-4

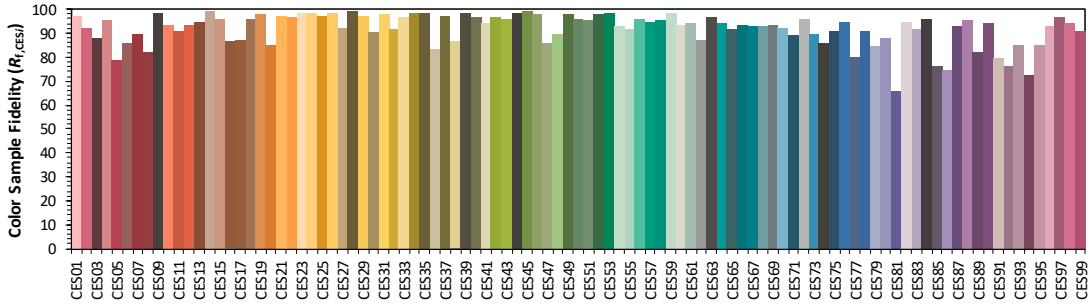












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

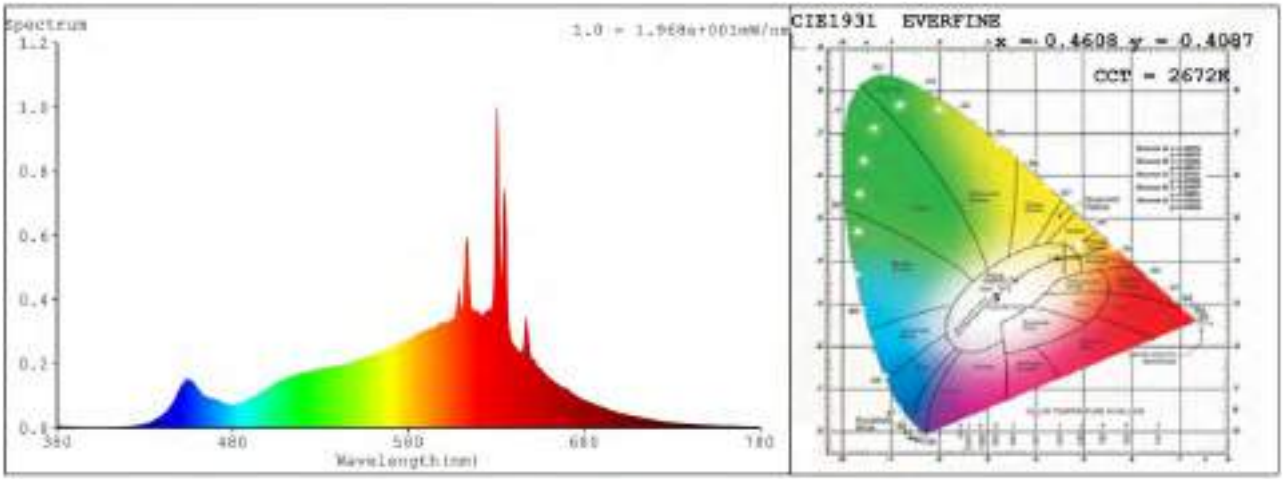
x	0.4608
y	0.4086
u'	0.2640
v'	0.5267

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.

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0067	414	0.0043	448	0.1046	482	0.0742	516	0.1668
381	0.0092	415	0.0017	449	0.1126	483	0.0758	517	0.1662
382	0.0107	416	0.0023	450	0.1263	484	0.0763	518	0.1705
383	0.0048	417	0.0036	451	0.1341	485	0.0817	519	0.17
384	0	418	0.0044	452	0.1402	486	0.0826	520	0.1743
385	0.0032	419	0.0043	453	0.1486	487	0.0842	521	0.172
386	0.0021	420	0.0045	454	0.1524	488	0.0891	522	0.1758
387	0.0084	421	0.0044	455	0.1513	489	0.092	523	0.1766
388	0.0047	422	0.006	456	0.1469	490	0.0931	524	0.176
389	0.0004	423	0.007	457	0.1426	491	0.0954	525	0.1778
390	0	424	0.0074	458	0.139	492	0.0961	526	0.1803
391	0.0018	425	0.0084	459	0.1296	493	0.1025	527	0.1807
392	0.0021	426	0.0087	460	0.1215	494	0.1058	528	0.1816
393	0.0038	427	0.0102	461	0.1204	495	0.1086	529	0.1822
394	0.0033	428	0.0114	462	0.1102	496	0.1098	530	0.1865
395	0.0032	429	0.0113	463	0.1042	497	0.1138	531	0.1848
396	0.0006	430	0.0162	464	0.1009	498	0.1171	532	0.1839
397	0.001	431	0.0156	465	0.0966	499	0.1206	533	0.1878
398	0.0008	432	0.017	466	0.0932	500	0.1245	534	0.1892
399	0.0023	433	0.0187	467	0.0927	501	0.1275	535	0.189
400	0.0035	434	0.0209	468	0.092	502	0.1321	536	0.193
401	0.0015	435	0.0222	469	0.094	503	0.1354	537	0.1917
402	0.0004	436	0.0277	470	0.0884	504	0.1382	538	0.1911
403	0	437	0.0292	471	0.0883	505	0.1427	539	0.1946
404	0.0007	438	0.0322	472	0.0853	506	0.1437	540	0.1949
405	0.0028	439	0.038	473	0.0826	507	0.1474	541	0.1971
406	0.0014	440	0.0404	474	0.0807	508	0.149	542	0.1959
407	0.0023	441	0.0456	475	0.0782	509	0.1514	543	0.1988
408	0.0016	442	0.0526	476	0.0761	510	0.1537	544	0.1995
409	0	443	0.0592	477	0.0732	511	0.1557	545	0.201
410	0.0016	444	0.0673	478	0.073	512	0.1603	546	0.2043
411	0.0017	445	0.0725	479	0.0713	513	0.1594	547	0.2036
412	0.0024	446	0.0817	480	0.0727	514	0.1621	548	0.2057
413	0.003	447	0.0887	481	0.0734	515	0.1664	549	0.2086

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2092	599	0.3286	648	0.3103	697	0.0514	746	0.0111
551	0.2115	600	0.3264	649	0.2415	698	0.0505	747	0.0106
552	0.2091	601	0.3306	650	0.2155	699	0.0491	748	0.0105
553	0.215	602	0.3277	651	0.2136	700	0.0491	749	0.0105
554	0.2167	603	0.3316	652	0.2112	701	0.0459	750	0.0098
555	0.219	604	0.3348	653	0.2012	702	0.0448	751	0.0095
556	0.2205	605	0.3384	654	0.1874	703	0.0435	752	0.0093
557	0.2234	606	0.3403	655	0.1857	704	0.0429	753	0.0089
558	0.2232	607	0.361	656	0.1819	705	0.0407	754	0.0089
559	0.2222	608	0.4159	657	0.1738	706	0.0391	755	0.0086
560	0.229	609	0.4242	658	0.1661	707	0.0383	756	0.0086
561	0.2294	610	0.3787	659	0.164	708	0.037	757	0.008
562	0.2317	611	0.3832	660	0.1611	709	0.0363	758	0.008
563	0.2327	612	0.4854	661	0.1532	710	0.0352	759	0.0077
564	0.2358	613	0.5925	662	0.1475	711	0.033	760	0.0075
565	0.2404	614	0.5244	663	0.1429	712	0.0329	761	0.0071
566	0.2403	615	0.4183	664	0.1398	713	0.0314	762	0.007
567	0.2448	616	0.3719	665	0.1378	714	0.03	763	0.0068
568	0.2449	617	0.3644	666	0.133	715	0.03	764	0.0068
569	0.2478	618	0.3662	667	0.1295	716	0.0288	765	0.0066
570	0.2514	619	0.3679	668	0.1267	717	0.0273	766	0.006
571	0.2556	620	0.3606	669	0.1268	718	0.0267	767	0.006
572	0.2547	621	0.3566	670	0.1238	719	0.0268	768	0.0057
573	0.2569	622	0.3513	671	0.12	720	0.0253	769	0.0058
574	0.2635	623	0.3563	672	0.1139	721	0.0246	770	0.0057
575	0.2638	624	0.3621	673	0.11	722	0.024	771	0.0053
576	0.269	625	0.3675	674	0.1067	723	0.0228	772	0.0053
577	0.2678	626	0.3661	675	0.1019	724	0.0223	773	0.0048
578	0.2749	627	0.3707	676	0.1001	725	0.0221	774	0.0051
579	0.2737	628	0.4115	677	0.0956	726	0.0208	775	0.0049
580	0.2769	629	0.581	678	0.0943	727	0.0203	776	0.0045
581	0.28	630	0.9147	679	0.0907	728	0.0196	777	0.0046
582	0.2802	631	0.9306	680	0.0879	729	0.0192	778	0.0045
583	0.286	632	0.5983	681	0.0855	730	0.0184	779	0.004
584	0.2893	633	0.4691	682	0.0831	731	0.0184	780	0.0041
585	0.2914	634	0.6277	683	0.0812	732	0.0171		
586	0.2939	635	0.7366	684	0.0789	733	0.0172		
587	0.2955	636	0.5041	685	0.0761	734	0.016		
588	0.2976	637	0.3429	686	0.0743	735	0.0159		
589	0.3039	638	0.2937	687	0.073	736	0.0147		
590	0.301	639	0.2717	688	0.0691	737	0.0145		
591	0.3071	640	0.2592	689	0.0684	738	0.0148		
592	0.3098	641	0.2529	690	0.0647	739	0.0142		
593	0.3126	642	0.2453	691	0.0645	740	0.0129		
594	0.3105	643	0.2414	692	0.0615	741	0.013		
595	0.3139	644	0.238	693	0.0603	742	0.0126		
596	0.3192	645	0.2402	694	0.0573	743	0.0124		
597	0.3225	646	0.2788	695	0.0562	744	0.0117		
598	0.3285	647	0.3402	696	0.0545	745	0.0115		

6. Goniophotometer Test results

6.1 Test Data

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

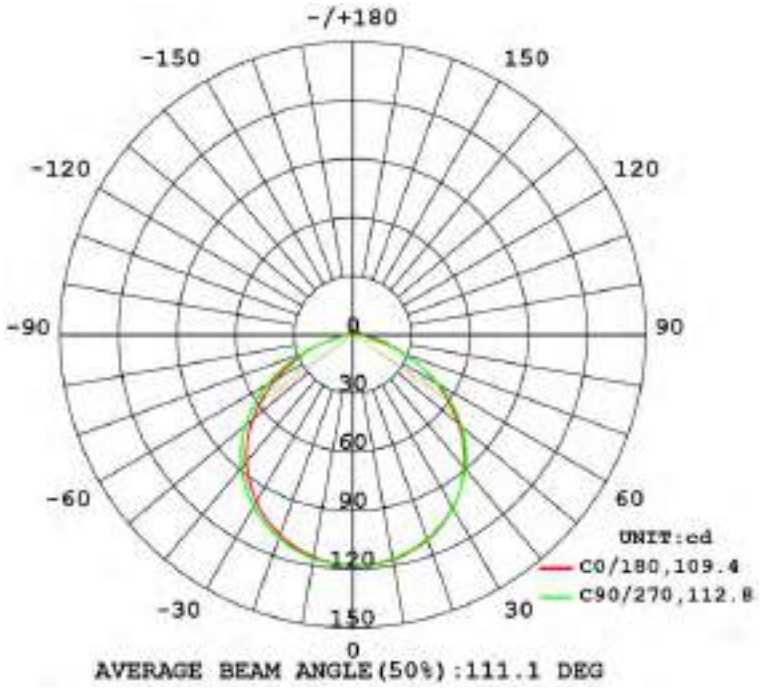
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.109	1.0000	2.616

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
333.835	127.61	118.1	1.9	98.1

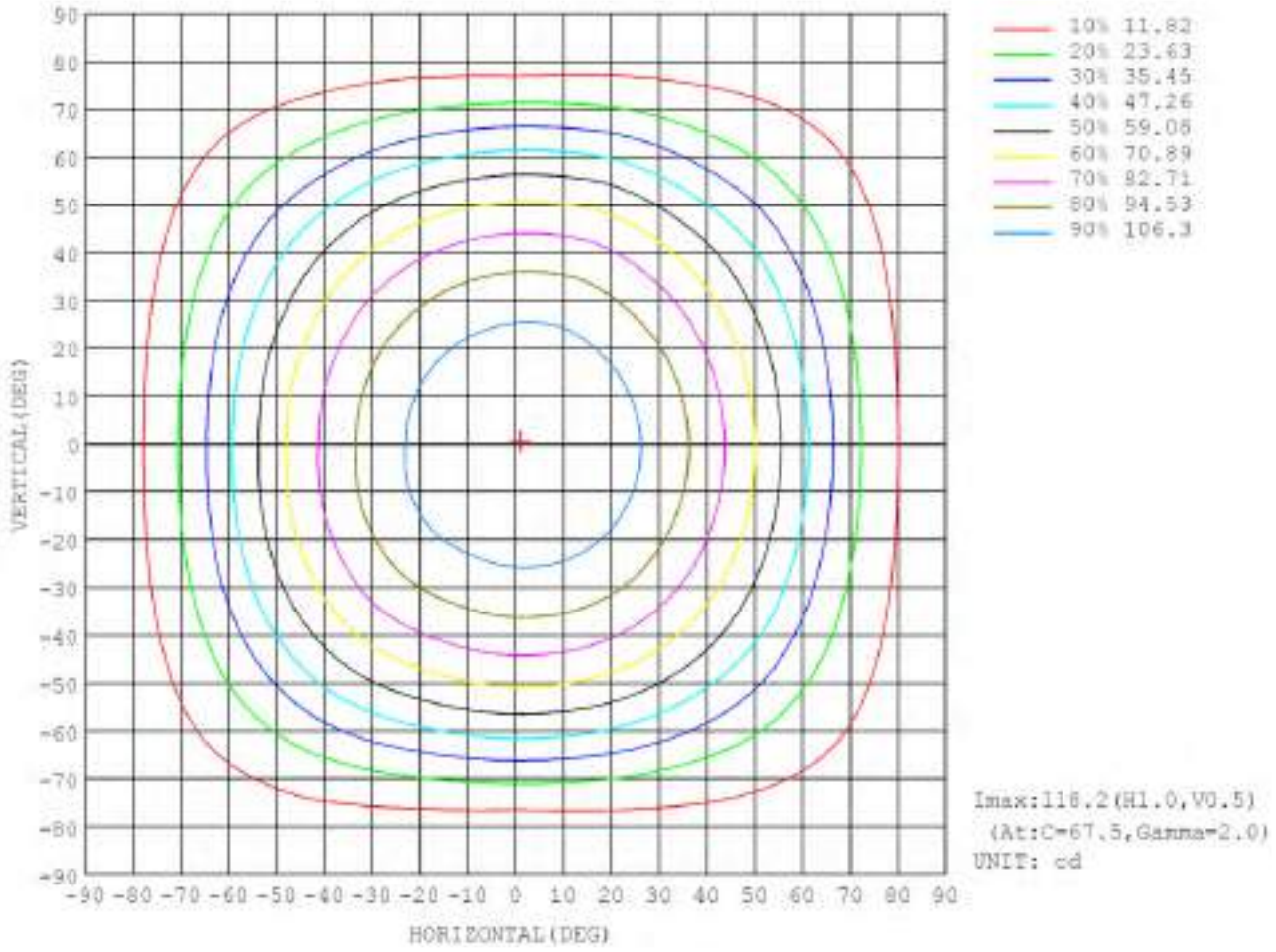
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Ylum,lamp
10	114.9	114.9	114.9	114.2	113.3	113.9	114.2	114.4	0- 10	11.19	11.19	1.36,1.36
20	111.7	111.8	111.3	110.4	109.5	109.4	110.6	110.9	10- 20	32.15	43.33	13.13
30	102.5	102.6	102.1	101.5	98.85	98.66	101.6	101.6	20- 30	49.37	92.40	27.7,27.7
40	86.86	89.78	89.42	88.39	84.93	86.06	88.78	88.45	30- 40	59.24	151.9	45.5,45.5
50	70.80	72.05	72.48	71.26	67.02	68.39	71.08	70.49	40- 50	61.24	213.5	63.9,63.9
60	50.50	48.99	51.12	50.12	45.88	46.89	50.99	49.20	50- 60	53.79	267.2	80,80
70	27.69	27.39	26.42	27.27	25.14	26.54	26.48	25.53	60- 70	37.14	304.3	91.2,91.2
80	11.83	10.23	8.197	9.883	9.252	8.483	8.582	8.731	70- 80	17.80	322.1	96.5,96.5
90	3.446	3.037	0.0565	2.906	2.644	2.555	0.0824	4.034	80- 90	5.267	327.4	98.1,98.1
100	3.578	3.736	0.0141	1.944	2.508	1.925	0.0332	3.752	90-100	2.554	330.0	98.9,98.9
110	4.076	2.183	0.0284	1.982	2.491	1.774	0.0439	1.538	100-110	2.087	332.1	99.5,99.5
120	1.735	0.3694	0.0486	0.3692	1.571	0.3481	0.0611	0.2231	110-120	1.142	333.2	99.8,99.8
130	0.4899	0.0818	0.0755	0.0969	0.4353	0.0844	0.0745	0.0818	120-130	0.5054	333.7	99.9,99.9
140	0.0885	0.0983	0.0462	0.0959	0.1042	0.1174	0.1120	0.1183	130-140	0.0903	333.8	99.9,99.9
150	0.1134	0.1092	0.1076	0.1082	0.1091	0.1077	0.1017	0.1064	140-150	0.0752	333.7	100,100
160	0.1309	0.1291	0.1297	0.1274	0.1306	0.1926	0.1781	0.1721	150-160	0.0944	333.8	100,100
170	0.1585	0.1487	0.1474	0.1490	0.1521	0.1854	0.1785	0.1781	160-170	0.0450	333.8	100,100
180	0.1727	0.1704	0.1708	0.1691	0.1769	0.1735	0.1692	0.1686	170-180	0.0161	333.8	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	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118			
5	118	118	118	118	118	117	117	117	117	117	117	117	118	118	118	118			
10	117	117	117	117	116	116	116	116	115	115	115	116	116	116	116	116			
15	115	115	115	115	114	114	114	113	113	113	113	113	114	114	114	114			
20	112	112	112	112	111	110	110	110	109	109	109	110	111	111	111	111			
25	108	108	108	108	107	106	106	106	105	105	105	106	107	107	107	107			
30	102	103	103	103	102	101	101	100	98.9	99.0	99.7	101	102	103	102	102			
35	96.3	96.5	96.8	96.9	96.3	95.3	95.3	94.0	92.4	92.5	93.4	94.6	95.7	96.6	95.6	95.5			
40	88.9	89.1	89.8	90.0	89.4	88.4	88.4	86.7	84.9	85.0	86.1	87.6	88.8	89.8	88.4	88.1			
45	80.4	80.8	81.6	82.0	81.5	80.4	80.4	78.6	76.5	76.6	77.8	79.6	80.9	81.9	80.1	79.6			
50	70.9	71.2	72.0	72.8	72.5	71.4	71.3	69.4	67.0	67.2	68.4	70.5	71.9	72.9	70.5	69.8			
55	60.2	60.5	61.5	62.5	62.4	61.1	61.1	59.2	56.6	56.8	58.1	60.3	61.8	62.7	59.8	59.0			
60	50.5	50.8	50.9	51.1	51.1	50.0	50.1	48.2	45.6	45.8	46.9	49.0	50.6	51.3	48.2	48.6			
65	38.7	38.3	38.4	38.9	38.9	38.1	38.4	36.8	34.9	34.8	35.2	37.1	38.5	39.2	36.8	36.9			
70	27.7	27.2	27.1	26.8	26.4	26.3	27.3	26.3	25.1	24.8	24.5	25.6	26.5	27.3	25.5	26.0			
75	18.9	18.2	17.4	16.1	16.8	15.7	17.4	17.1	16.2	16.0	15.5	15.6	15.3	16.7	16.3	17.6			
80	11.8	11.3	10.2	8.44	6.20	8.02	9.88	10.1	9.25	9.18	8.68	8.09	6.58	8.63	9.73	10.8			
85	5.36	5.11	4.82	4.00	1.55	3.49	5.26	5.42	4.88	4.89	4.69	3.66	1.83	4.01	4.83	4.83			
90	3.45	3.64	3.84	2.10	0.06	1.52	2.91	2.82	2.54	2.67	2.55	1.56	0.08	2.08	4.03	4.02			
95	3.91	3.99	3.16	2.26	0.01	1.39	2.13	2.44	2.34	2.38	2.01	1.26	0.03	2.18	3.50	3.87			
100	3.58	3.71	3.74	1.89	0.01	1.14	1.94	2.22	2.21	2.07	1.92	1.15	0.03	1.48	3.75	4.04			
105	4.17	4.17	3.72	0.41	0.02	0.40	2.29	2.04	1.99	2.17	2.12	0.50	0.04	0.27	3.19	4.33			
110	4.08	4.10	2.18	0.09	0.03	0.10	1.98	2.37	2.49	2.48	1.77	0.14	0.04	0.07	1.54	3.71			
115	3.28	2.67	0.80	0.04	0.04	0.04	0.94	2.17	2.26	2.04	0.88	0.05	0.05	0.05	0.53	2.22			
120	1.73	1.21	0.37	0.05	0.05	0.05	0.37	1.29	1.57	1.24	0.37	0.05	0.05	0.05	0.22	0.92			
125	0.94	0.69	0.13	0.06	0.06	0.07	0.16	0.59	0.77	0.54	0.17	0.06	0.06	0.06	0.08	0.51			
130	0.49	0.26	0.08	0.08	0.08	0.08	0.09	0.35	0.44	0.33	0.08	0.08	0.07	0.07	0.08	0.21			
135	0.13	0.10	0.09	0.09	0.09	0.09	0.09	0.16	0.22	0.15	0.10	0.09	0.09	0.09	0.10	0.10			
140	0.10	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.13	0.12	0.12	0.11	0.11	0.11	0.12	0.12			
145	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.14	0.14	0.14	0.14	0.13	0.13	0.14	0.14			
150	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.16	0.16	0.16	0.15	0.15	0.15	0.16	0.16			
155	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17			
160	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.18			
165	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18			
170	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.18	0.18	0.19	0.18	0.18	0.18	0.18	0.18			
175	0.16	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18			
180	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17			

7. Photo of sample

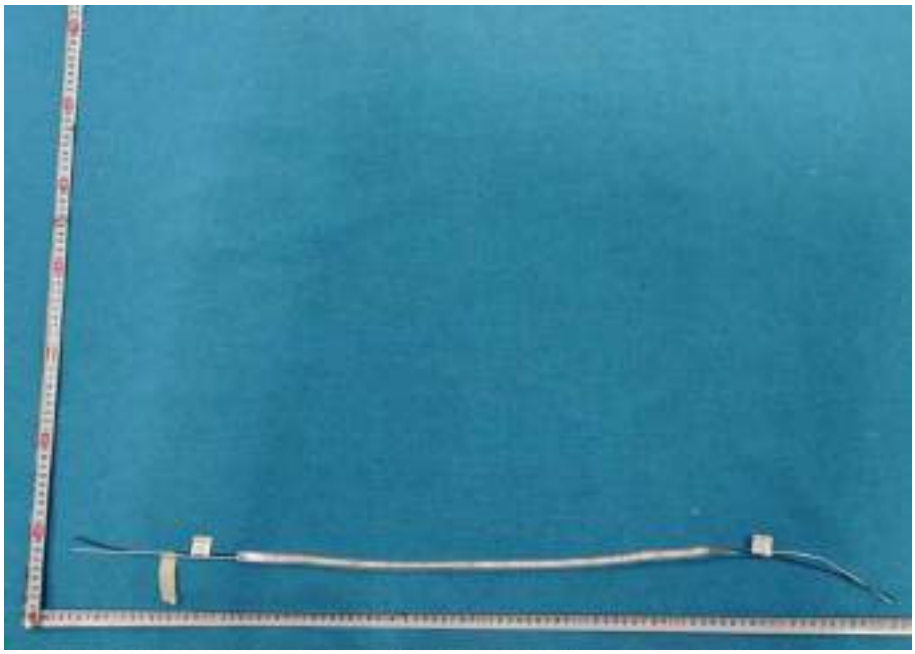


Figure 1 Overview

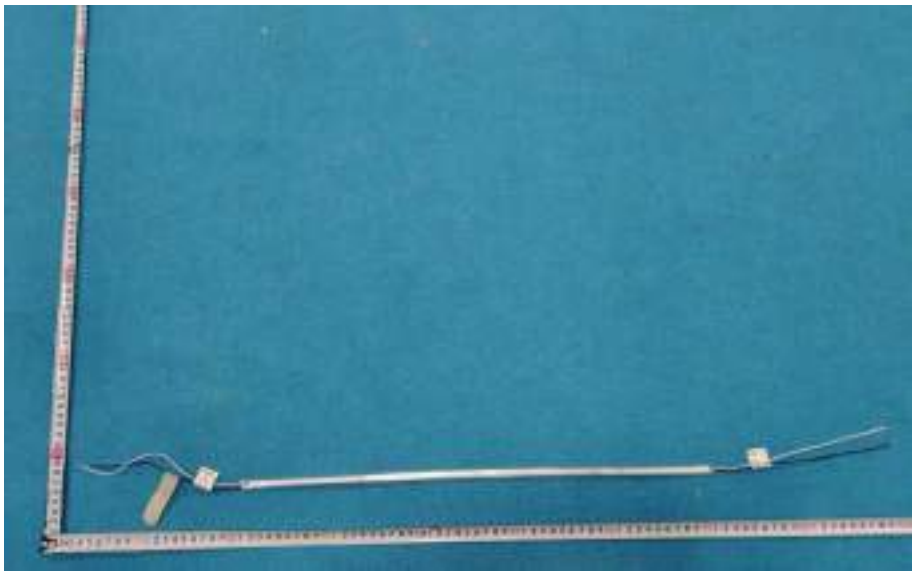


Figure 2 Overview

---End of Report---

NVLAP TESTING NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23060187L00301
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY18-0500-L27-CL-I-6
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	:	June. 08, 2023
Date of test	:	June. 08, 2023 - June. 13, 2023
Date of report	:	June. 13, 2023

Tested by:	**Checked by:**	**Approved by:**
Jarvis Zhang	Sandy Chen	Jessie Li
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:	LFY18-0500-L27-CL-I-6
Manufacturer:	
Product Type:	SHIN FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	3W
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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.1419	23.998	3.4053	462.06	0.4606	0.4087	0.2639	0.5267	2675	94.2
1	00h00m10s	0.1423	23.998	3.4149	462.38	0.4604	0.4087	0.2637	0.5267	2677	94.2
2	00h00m20s	0.1425	23.998	3.4197	461.95	0.4601	0.4084	0.2637	0.5265	2679	94.2
3	00h00m30s	0.1427	23.998	3.4245	462.27	0.4603	0.4084	0.2638	0.5266	2677	94.1
4	00h00m40s	0.1428	23.998	3.4269	462.28	0.4602	0.4083	0.2638	0.5265	2677	94.2
5	00h00m50s	0.1429	23.998	3.4293	462.37	0.4604	0.4082	0.2639	0.5265	2674	94.1
6	00h01m00s	0.143	23.998	3.4317	462.39	0.4604	0.4083	0.2639	0.5265	2674	94.2
7	00h01m10s	0.1431	23.998	3.4341	462.88	0.4603	0.4083	0.2638	0.5265	2676	94.1
8	00h01m20s	0.1431	23.998	3.4341	462.87	0.4605	0.4084	0.2639	0.5266	2675	94.2
9	00h01m30s	0.1432	23.998	3.4365	463.01	0.4602	0.4081	0.2639	0.5265	2676	94.1
10	00h01m40s	0.1433	23.998	3.4389	462.92	0.4603	0.4079	0.264	0.5264	2672	94.1
11	00h01m50s	0.1433	23.998	3.4389	463.15	0.4603	0.4081	0.2639	0.5265	2674	94.2
12	00h02m00s	0.1434	23.998	3.4413	463.23	0.4604	0.4079	0.2641	0.5264	2672	94.1
13	00h02m10s	0.1434	23.998	3.4413	463.1	0.4605	0.4081	0.264	0.5265	2672	94.1
14	00h02m20s	0.1434	23.998	3.4413	463.34	0.4604	0.4081	0.264	0.5265	2673	94.2
15	00h02m30s	0.1435	23.998	3.4437	463.47	0.4604	0.4079	0.264	0.5264	2672	94.1
16	00h02m40s	0.1435	23.998	3.4437	463.46	0.4602	0.408	0.2639	0.5264	2675	94.2
17	00h02m50s	0.1435	23.998	3.4437	463.6	0.4604	0.408	0.264	0.5265	2672	94.1
18	00h03m00s	0.1436	23.998	3.4461	463.28	0.4604	0.4078	0.2641	0.5264	2671	94.1
19	00h03m10s	0.1436	23.998	3.4461	463.55	0.4604	0.408	0.264	0.5264	2672	94.1
20	00h03m20s	0.1436	23.998	3.4461	463.17	0.4604	0.4078	0.2641	0.5264	2671	94.2
21	00h03m30s	0.1436	23.998	3.4461	463.61	0.4602	0.4079	0.2639	0.5264	2674	94.2

22	00h03m40s	0.1437	23.998	3.4485	463.71	0.4605	0.4079	0.2641	0.5264	2671	94.1
23	00h03m50s	0.1437	23.998	3.4485	463.62	0.4606	0.408	0.2641	0.5265	2671	94.1
24	00h04m00s	0.1437	23.998	3.4485	463.43	0.4605	0.4079	0.2641	0.5264	2670	94.1
25	00h04m10s	0.1437	23.998	3.4485	463.98	0.4604	0.408	0.264	0.5264	2673	94.1
26	00h04m20s	0.1437	23.998	3.4485	463.51	0.4603	0.4079	0.264	0.5264	2673	94.1
27	00h04m30s	0.1437	23.998	3.4485	463.7	0.4603	0.4077	0.2641	0.5263	2672	94.1
28	00h04m40s	0.1437	23.998	3.4485	463.5	0.4606	0.4078	0.2642	0.5264	2669	94.1
29	00h04m50s	0.1438	23.998	3.4509	463.87	0.4605	0.4081	0.264	0.5265	2672	94.2
30	00h05m00s	0.1438	23.998	3.4509	463.45	0.4603	0.4079	0.264	0.5264	2672	94.2
31	00h05m10s	0.1438	23.998	3.4509	464.13	0.4605	0.408	0.2641	0.5265	2671	94.1
32	00h05m20s	0.1438	23.998	3.4509	463.83	0.4604	0.4081	0.264	0.5265	2673	94.2
33	00h05m30s	0.1438	23.998	3.4509	464	0.4605	0.408	0.2641	0.5265	2671	94.1
34	00h05m40s	0.1438	23.998	3.4509	464.03	0.4606	0.4079	0.2642	0.5264	2670	94.1
35	00h05m50s	0.1438	23.998	3.4509	464.03	0.4603	0.4078	0.264	0.5263	2673	94.1
36	00h06m00s	0.1438	23.998	3.4509	464.12	0.4604	0.4079	0.2641	0.5264	2671	94.2
37	00h06m10s	0.1438	23.998	3.4509	463.83	0.4604	0.4078	0.2641	0.5264	2671	94.2
38	00h06m20s	0.1438	23.998	3.4509	463.86	0.4603	0.4078	0.2641	0.5263	2672	94.2
39	00h06m30s	0.1438	23.998	3.4509	464.01	0.4605	0.4079	0.2641	0.5264	2670	94.1
40	00h06m40s	0.1438	23.998	3.4509	464.14	0.4604	0.4079	0.2641	0.5264	2672	94.1
41	00h06m50s	0.1438	23.998	3.4509	464.13	0.4603	0.4078	0.264	0.5264	2672	94.1
42	00h07m00s	0.1439	23.998	3.4533	464.04	0.4604	0.4079	0.2641	0.5264	2671	94.2
43	00h07m10s	0.1439	23.998	3.4533	463.82	0.4603	0.4078	0.264	0.5263	2672	94.2
44	00h07m20s	0.1439	23.998	3.4533	463.88	0.4604	0.4077	0.2642	0.5263	2670	94.1
45	00h07m30s	0.1439	23.998	3.4533	463.94	0.4603	0.4078	0.2641	0.5263	2672	94.2
46	00h07m40s	0.1439	23.998	3.4533	464.24	0.4604	0.408	0.264	0.5264	2673	94.2
47	00h07m50s	0.1439	23.998	3.4533	463.94	0.4602	0.4077	0.264	0.5263	2672	94.1
48	00h08m00s	0.1439	23.998	3.4533	463.95	0.4604	0.4077	0.2641	0.5263	2670	94.1
49	00h08m10s	0.1439	23.998	3.4533	464	0.4603	0.4078	0.2641	0.5263	2672	94.1
50	00h08m20s	0.1439	23.998	3.4533	463.88	0.4604	0.4079	0.2641	0.5264	2671	94.2
51	00h08m30s	0.1439	23.998	3.4533	463.94	0.4604	0.4078	0.2641	0.5264	2671	94.1
52	00h08m40s	0.1439	23.998	3.4533	463.95	0.4603	0.4077	0.2641	0.5263	2671	94.1

53	00h08m50s	0.1439	23.998	3.4533	463.88	0.4604	0.4077	0.2642	0.5263	2670	94.1
54	00h09m00s	0.1439	23.998	3.4533	463.82	0.4602	0.4075	0.2641	0.5262	2671	94.2
55	00h09m10s	0.1439	23.998	3.4533	464.06	0.4603	0.4079	0.264	0.5264	2672	94.2
56	00h09m20s	0.1439	23.998	3.4533	464.5	0.4604	0.4078	0.2641	0.5263	2671	94.1
57	00h09m30s	0.1439	23.998	3.4533	463.91	0.4605	0.408	0.2641	0.5264	2671	94.1
58	00h09m40s	0.1439	23.998	3.4533	464.12	0.4604	0.4079	0.2641	0.5264	2671	94.2
59	00h09m50s	0.1439	23.998	3.4533	464.15	0.4604	0.4078	0.2641	0.5264	2671	94.2
60	00h10m00s	0.1439	23.998	3.4533	464.04	0.4604	0.4078	0.2641	0.5263	2671	94.1
61	00h10m10s	0.1439	23.998	3.4533	464.35	0.4604	0.4079	0.2641	0.5264	2671	94.1
62	00h10m20s	0.1439	23.998	3.4533	464.02	0.4603	0.4077	0.2641	0.5263	2671	94.1
63	00h10m30s	0.1439	23.998	3.4533	464.29	0.4603	0.4078	0.2641	0.5263	2672	94.1
64	00h10m40s	0.1439	23.998	3.4533	464.06	0.4604	0.4079	0.2641	0.5264	2671	94.2
65	00h10m50s	0.1439	23.998	3.4533	464.32	0.4603	0.4078	0.2641	0.5263	2671	94.1
66	00h11m00s	0.1439	23.998	3.4533	464.27	0.4604	0.4078	0.2641	0.5264	2670	94.2
67	00h11m10s	0.1439	23.998	3.4533	464.44	0.4603	0.4078	0.264	0.5263	2673	94.1
68	00h11m20s	0.1439	23.998	3.4533	464.12	0.4604	0.4078	0.2641	0.5264	2671	94.1
69	00h11m30s	0.1439	23.998	3.4533	464.28	0.4602	0.4078	0.264	0.5263	2673	94.2
70	00h11m40s	0.1439	23.998	3.4533	464.17	0.4604	0.4079	0.2641	0.5264	2671	94.1
71	00h11m50s	0.1439	23.998	3.4533	464.18	0.4605	0.408	0.2641	0.5264	2670	94.1
72	00h12m00s	0.1439	23.998	3.4533	464.35	0.4603	0.4078	0.2641	0.5264	2672	94.1
73	00h12m10s	0.1439	23.998	3.4533	464.09	0.4604	0.4078	0.2641	0.5264	2670	94.1
74	00h12m20s	0.1439	23.998	3.4533	464.29	0.4604	0.4078	0.2641	0.5264	2672	94.1
75	00h12m30s	0.1439	23.998	3.4533	464	0.4603	0.4078	0.264	0.5263	2672	94.2
76	00h12m40s	0.1439	23.998	3.4533	463.9	0.4603	0.4078	0.2641	0.5263	2672	94.2
77	00h12m50s	0.1439	23.998	3.4533	464.32	0.4604	0.4079	0.264	0.5264	2672	94.2
78	00h13m00s	0.1439	23.998	3.4533	464.36	0.4605	0.4078	0.2642	0.5264	2670	94.2
79	00h13m10s	0.1439	23.998	3.4533	464.35	0.4603	0.4078	0.2641	0.5263	2671	94.1
80	00h13m20s	0.1439	23.998	3.4533	464.53	0.4604	0.4079	0.2641	0.5264	2672	94.1
81	00h13m30s	0.1439	23.998	3.4533	464.54	0.4604	0.4079	0.2641	0.5264	2672	94.1
82	00h13m40s	0.1439	23.998	3.4533	464.44	0.4603	0.4078	0.264	0.5263	2672	94.1
83	00h13m50s	0.1439	23.998	3.4533	463.83	0.4603	0.4077	0.2641	0.5263	2672	94.2

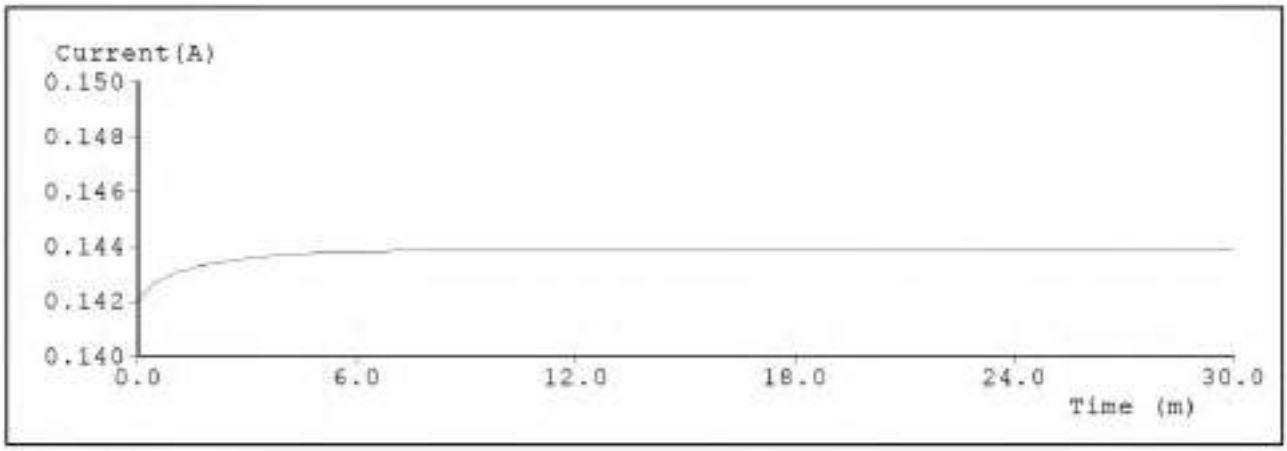
84	00h14m00s	0.1439	23.998	3.4533	464.09	0.4603	0.4077	0.2641	0.5263	2670	94.2
85	00h14m10s	0.1439	23.998	3.4533	464.2	0.4604	0.4078	0.2641	0.5264	2671	94.2
86	00h14m20s	0.1439	23.998	3.4533	464.39	0.4603	0.4078	0.2641	0.5263	2672	94.1
87	00h14m30s	0.1439	23.998	3.4533	464.19	0.4604	0.4078	0.2641	0.5264	2671	94.1
88	00h14m40s	0.1439	23.998	3.4533	464.4	0.4604	0.4079	0.264	0.5264	2672	94.1
89	00h14m50s	0.1439	23.998	3.4533	464.16	0.4604	0.4078	0.2641	0.5264	2671	94.1
90	00h15m00s	0.1439	23.998	3.4533	464.31	0.4605	0.4079	0.2641	0.5264	2670	94.1
91	00h15m10s	0.1439	23.998	3.4533	464.21	0.4603	0.4077	0.2641	0.5263	2671	94.1
92	00h15m20s	0.1439	23.998	3.4533	464.22	0.4604	0.4078	0.2641	0.5264	2670	94.1
93	00h15m30s	0.1439	23.998	3.4533	464.14	0.4604	0.4078	0.2641	0.5264	2671	94.1
94	00h15m40s	0.1439	23.998	3.4533	464.23	0.4605	0.4079	0.2641	0.5264	2670	94.2
95	00h15m50s	0.1439	23.998	3.4533	464.09	0.4605	0.4078	0.2641	0.5264	2670	94.1
96	00h16m00s	0.1439	23.998	3.4533	464.46	0.4603	0.4077	0.2641	0.5263	2670	94.1
97	00h16m10s	0.1439	23.998	3.4533	464.2	0.4604	0.4078	0.2641	0.5264	2670	94.1
98	00h16m20s	0.1439	23.998	3.4533	464.45	0.4604	0.4079	0.2641	0.5264	2671	94.2
99	00h16m30s	0.1439	23.998	3.4533	464.19	0.4604	0.4078	0.2641	0.5263	2671	94.1
100	00h16m40s	0.1439	23.998	3.4533	464.39	0.4603	0.4076	0.2641	0.5263	2671	94.1
101	00h16m50s	0.1439	23.998	3.4533	464.43	0.4603	0.408	0.264	0.5264	2674	94.2
102	00h17m00s	0.1439	23.998	3.4533	464.43	0.4604	0.4078	0.2641	0.5264	2670	94.1
103	00h17m10s	0.1439	23.998	3.4533	464.45	0.4605	0.408	0.2641	0.5264	2671	94.1
104	00h17m20s	0.1439	23.998	3.4533	464.42	0.4603	0.408	0.2639	0.5264	2674	94.2
105	00h17m30s	0.1439	23.998	3.4533	464.4	0.4604	0.4079	0.2641	0.5264	2672	94.1
106	00h17m40s	0.1439	23.998	3.4533	464.3	0.4603	0.4077	0.2641	0.5263	2671	94.2
107	00h17m50s	0.1439	23.998	3.4533	464.44	0.4602	0.4078	0.264	0.5263	2673	94.1
108	00h18m00s	0.1439	23.998	3.4533	464.41	0.4603	0.4079	0.264	0.5264	2673	94.2
109	00h18m10s	0.1439	23.998	3.4533	464.21	0.4603	0.4078	0.264	0.5263	2672	94.1
110	00h18m20s	0.1439	23.998	3.4533	464.1	0.4603	0.4078	0.2641	0.5264	2672	94.1
111	00h18m30s	0.1439	23.998	3.4533	464.56	0.4603	0.4077	0.264	0.5263	2672	94.1
112	00h18m40s	0.1439	23.998	3.4533	464.62	0.4604	0.408	0.264	0.5264	2672	94.2
113	00h18m50s	0.1439	23.998	3.4533	464.38	0.4603	0.4078	0.264	0.5263	2672	94.2
114	00h19m00s	0.1439	23.998	3.4533	464.61	0.4603	0.4079	0.264	0.5264	2673	94.1

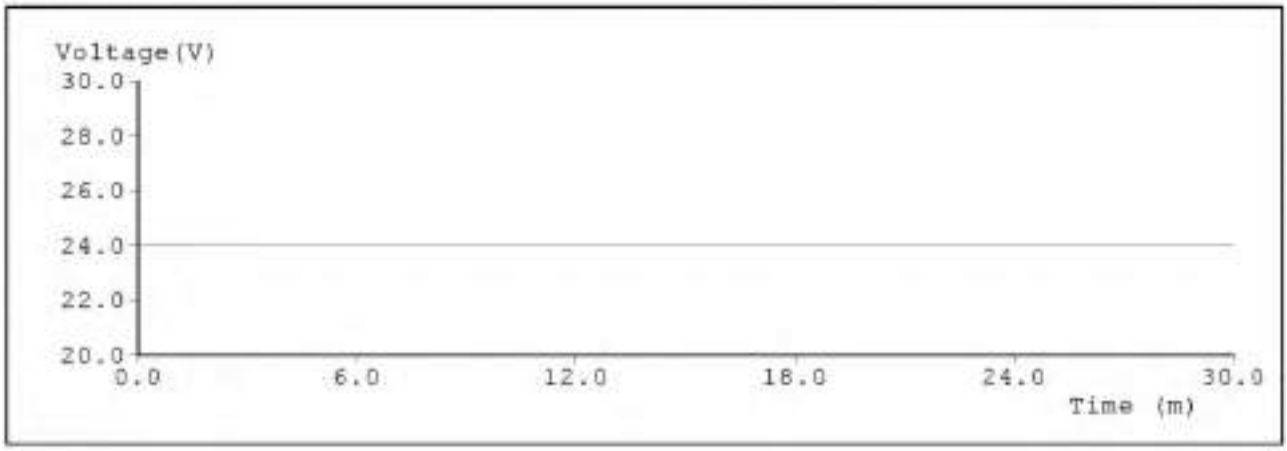
115	00h19m10s	0.1439	23.998	3.4533	464.42	0.4604	0.4078	0.2641	0.5264	2671	94.2
116	00h19m20s	0.1439	23.998	3.4533	464.2	0.4604	0.4078	0.2641	0.5263	2671	94.2
117	00h19m30s	0.1439	23.998	3.4533	464.36	0.4603	0.4079	0.264	0.5264	2673	94.2
118	00h19m40s	0.1439	23.998	3.4533	464.44	0.4604	0.4079	0.264	0.5264	2672	94.1
119	00h19m50s	0.1439	23.998	3.4533	464.62	0.4603	0.4078	0.264	0.5263	2672	94.1
120	00h20m00s	0.1439	23.998	3.4533	464.49	0.4603	0.4077	0.2641	0.5263	2671	94.1
121	00h20m10s	0.1439	23.998	3.4533	464.55	0.4604	0.408	0.264	0.5264	2673	94.1
122	00h20m20s	0.1439	23.998	3.4533	464.35	0.4603	0.4078	0.264	0.5263	2672	94.1
123	00h20m30s	0.1439	23.998	3.4533	464.58	0.4604	0.4078	0.2641	0.5264	2671	94.2
124	00h20m40s	0.1439	23.998	3.4533	464.97	0.4603	0.408	0.2639	0.5264	2674	94.2
125	00h20m50s	0.1439	23.998	3.4533	464.09	0.4603	0.4077	0.2641	0.5263	2671	94.2
126	00h21m00s	0.1439	23.998	3.4533	464.3	0.4604	0.4078	0.2641	0.5264	2671	94.2
127	00h21m10s	0.1439	23.998	3.4533	464.72	0.4603	0.4078	0.264	0.5264	2672	94.1
128	00h21m20s	0.1439	23.998	3.4533	464.3	0.4602	0.4078	0.264	0.5263	2673	94.1
129	00h21m30s	0.1439	23.998	3.4533	464.37	0.4605	0.4079	0.2641	0.5264	2671	94.1
130	00h21m40s	0.1439	23.998	3.4533	464.55	0.4602	0.4078	0.264	0.5263	2673	94.2
131	00h21m50s	0.1439	23.998	3.4533	464.5	0.4603	0.4078	0.2641	0.5263	2671	94.1
132	00h22m00s	0.1439	23.998	3.4533	464.43	0.4604	0.408	0.264	0.5264	2672	94.1
133	00h22m10s	0.1439	23.998	3.4533	464.22	0.4604	0.4078	0.2641	0.5264	2670	94.1
134	00h22m20s	0.1439	23.998	3.4533	464.46	0.4602	0.4079	0.2639	0.5264	2674	94.1
135	00h22m30s	0.1439	23.998	3.4533	464.54	0.4603	0.4077	0.2641	0.5263	2671	94.2
136	00h22m40s	0.1439	23.998	3.4533	464.18	0.4604	0.4077	0.2642	0.5263	2670	94.1
137	00h22m50s	0.1439	23.998	3.4533	464.66	0.4603	0.4079	0.264	0.5264	2673	94.2
138	00h23m00s	0.1439	23.998	3.4533	464.24	0.4604	0.4078	0.2641	0.5264	2671	94.2
139	00h23m10s	0.1439	23.998	3.4533	464.6	0.4603	0.4079	0.264	0.5264	2672	94.1
140	00h23m20s	0.1439	23.998	3.4533	464.5	0.4602	0.4079	0.2639	0.5264	2674	94.2
141	00h23m30s	0.1439	23.998	3.4533	464.32	0.4605	0.4078	0.2642	0.5264	2669	94.1
142	00h23m40s	0.1439	23.998	3.4533	464.54	0.4603	0.4077	0.264	0.5263	2672	94.2
143	00h23m50s	0.1439	23.998	3.4533	464.54	0.4602	0.4078	0.264	0.5263	2673	94.2
144	00h24m00s	0.1439	23.998	3.4533	464.26	0.4603	0.4077	0.2641	0.5263	2672	94.2
145	00h24m10s	0.1439	23.998	3.4533	464.49	0.4603	0.4079	0.264	0.5264	2674	94.2

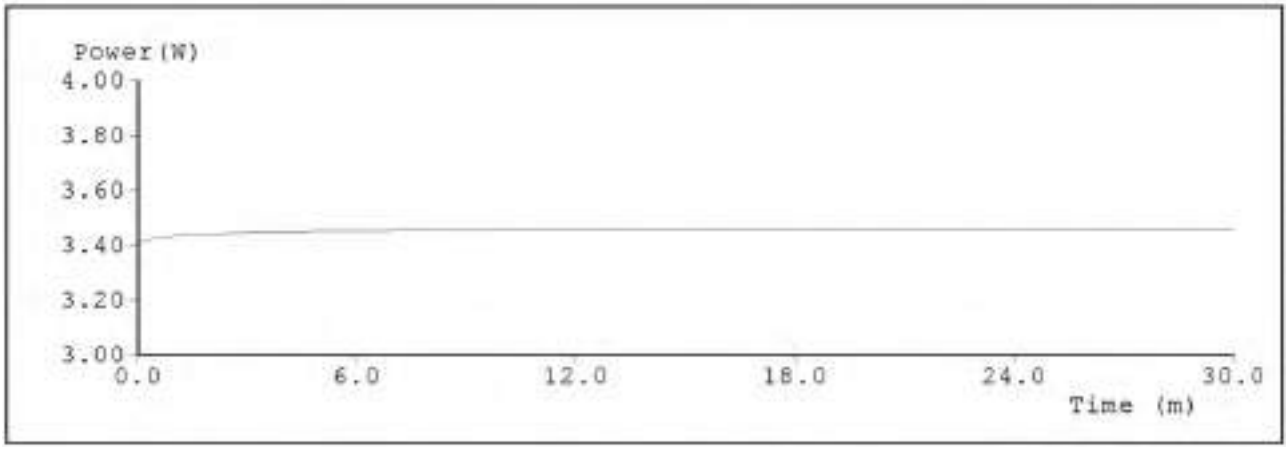
146	00h24m20s	0.1439	23.998	3.4533	464.46	0.4603	0.4078	0.2641	0.5264	2672	94.2
147	00h24m30s	0.1439	23.998	3.4533	464.34	0.4603	0.4079	0.264	0.5264	2673	94.2
148	00h24m40s	0.1439	23.998	3.4533	464.28	0.4603	0.4078	0.2641	0.5264	2672	94.2
149	00h24m50s	0.1439	23.998	3.4533	464.32	0.4603	0.4077	0.2641	0.5263	2671	94.1
150	00h25m00s	0.1439	23.998	3.4533	464.41	0.4603	0.4078	0.264	0.5263	2672	94.1
151	00h25m10s	0.1439	23.998	3.4533	464.66	0.4603	0.4079	0.264	0.5264	2672	94.1
152	00h25m20s	0.1439	23.998	3.4533	464.85	0.4602	0.4078	0.264	0.5263	2673	94.1
153	00h25m30s	0.1439	23.998	3.4533	464.63	0.4602	0.4078	0.264	0.5263	2673	94.2
154	00h25m40s	0.1439	23.998	3.4533	464.8	0.4603	0.4078	0.264	0.5264	2673	94.1
155	00h25m50s	0.1439	23.998	3.4533	464.21	0.4604	0.4078	0.2641	0.5264	2672	94.2
156	00h26m00s	0.1439	23.998	3.4533	464.69	0.4604	0.4078	0.2641	0.5264	2671	94.1
157	00h26m10s	0.1439	23.998	3.4533	464.44	0.4603	0.4077	0.2641	0.5263	2672	94.1
158	00h26m20s	0.1439	23.998	3.4533	464.23	0.4604	0.4078	0.2641	0.5264	2671	94.1
159	00h26m30s	0.1439	23.998	3.4533	464.5	0.4602	0.4078	0.264	0.5263	2673	94.2
160	00h26m40s	0.1439	23.998	3.4533	464.59	0.4603	0.4078	0.264	0.5263	2672	94.1
161	00h26m50s	0.1439	23.998	3.4533	464.41	0.4603	0.4077	0.2641	0.5263	2672	94.1
162	00h27m00s	0.1439	23.998	3.4533	464.22	0.4603	0.4079	0.264	0.5264	2672	94.2
163	00h27m10s	0.1439	23.998	3.4533	464.28	0.4603	0.4076	0.2642	0.5263	2670	94.1
164	00h27m20s	0.1439	23.998	3.4533	464.47	0.4603	0.4079	0.264	0.5264	2672	94.1
165	00h27m30s	0.1439	23.998	3.4533	464.83	0.4603	0.4079	0.264	0.5264	2673	94.2
166	00h27m40s	0.1439	23.998	3.4533	464.49	0.4603	0.4078	0.2641	0.5263	2672	94.1
167	00h27m50s	0.1439	23.998	3.4533	464.34	0.4603	0.4077	0.2641	0.5263	2672	94.2
168	00h28m00s	0.1439	23.998	3.4533	464.26	0.4603	0.4079	0.264	0.5264	2672	94.2
169	00h28m10s	0.1439	23.998	3.4533	464.36	0.4604	0.4078	0.2641	0.5263	2671	94.1
170	00h28m20s	0.1439	23.998	3.4533	464.47	0.4603	0.4078	0.264	0.5264	2673	94.2
171	00h28m30s	0.1439	23.998	3.4533	464.55	0.4603	0.4079	0.264	0.5264	2672	94.1
172	00h28m40s	0.1439	23.998	3.4533	464.6	0.4603	0.4078	0.2641	0.5263	2671	94.1
173	00h28m50s	0.1439	23.998	3.4533	464.54	0.4605	0.4079	0.2641	0.5264	2670	94.2
174	00h29m00s	0.1439	23.998	3.4533	464.69	0.4603	0.4079	0.264	0.5264	2673	94.2
175	00h29m10s	0.1439	23.998	3.4533	464.53	0.4603	0.4078	0.264	0.5263	2673	94.2
176	00h29m20s	0.1439	23.998	3.4533	464.42	0.4604	0.4079	0.264	0.5264	2672	94.2

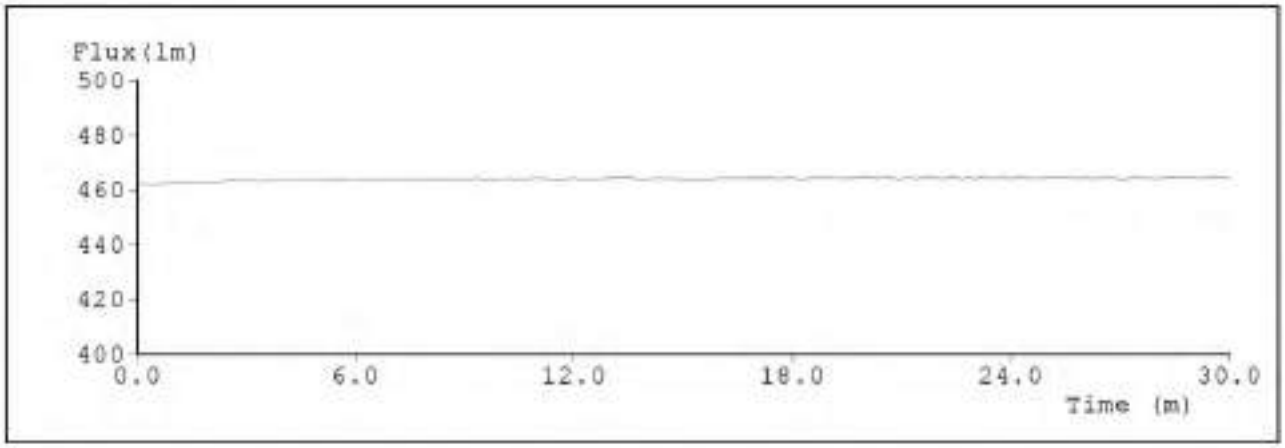
177	00h29m30s	0.1439	23.998	3.4533	464.74	0.4604	0.4078	0.2641	0.5263	2671	94.1
178	00h29m40s	0.1439	23.998	3.4533	464.5	0.4603	0.4079	0.264	0.5264	2673	94.2
179	00h29m50s	0.1439	23.998	3.4533	464.67	0.4601	0.4077	0.264	0.5263	2674	94.2
180	00h30m00s	0.1439	23.998	3.4533	464.8	0.4602	0.4077	0.264	0.5263	2673	94.2

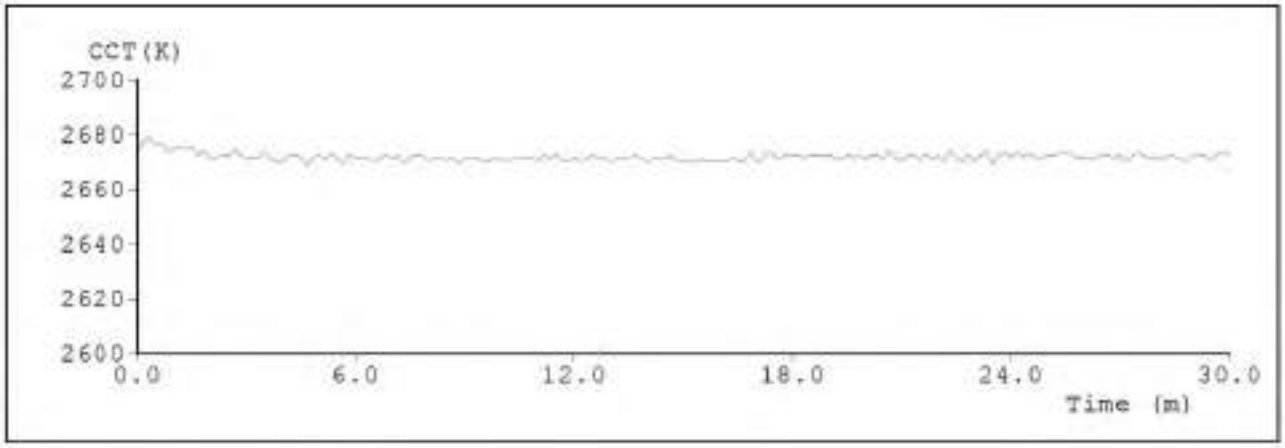
Test curves

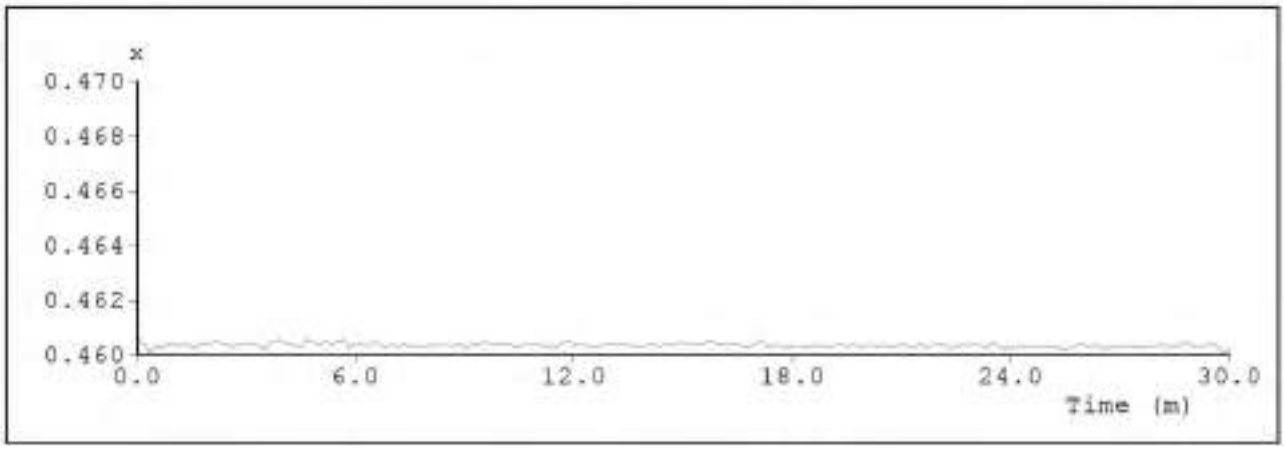


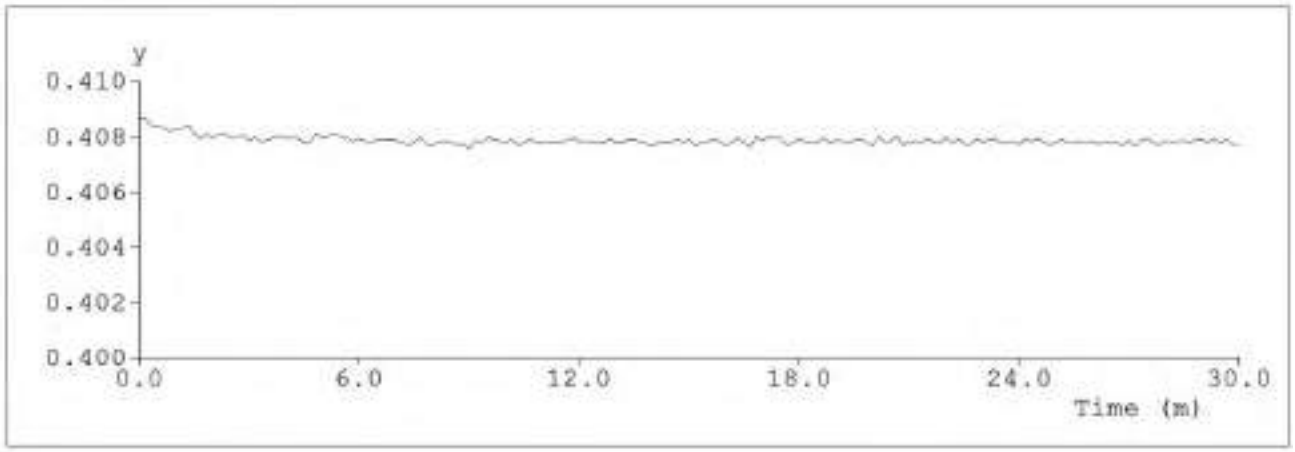


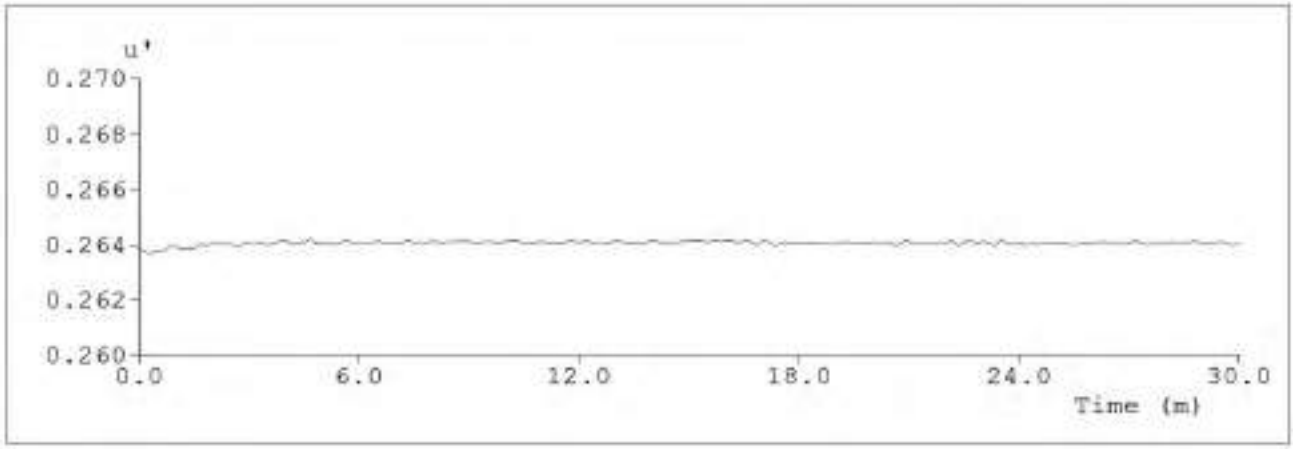


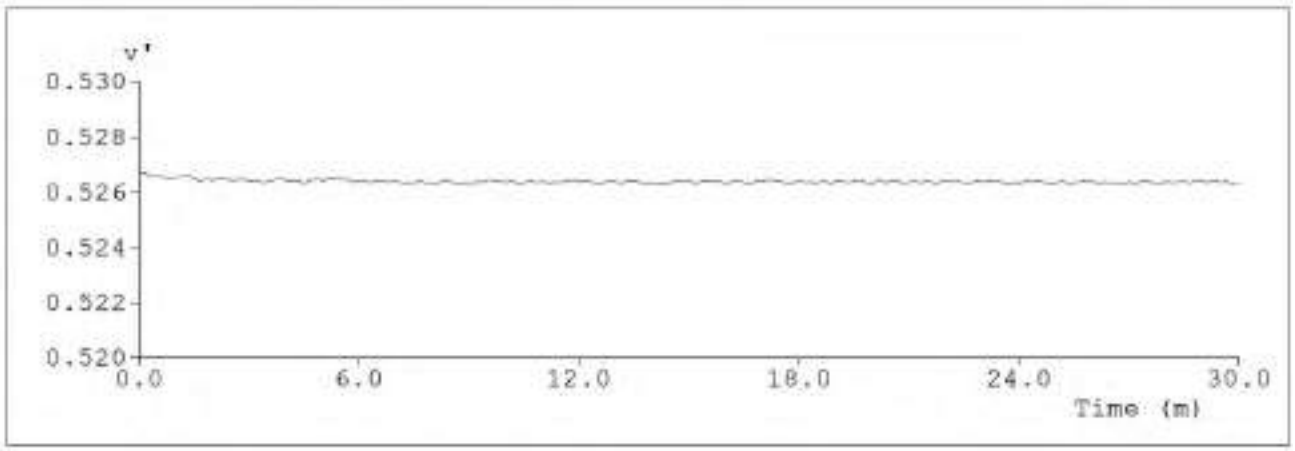

Flux(lm)
500
480
460
440
420
400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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


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


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


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

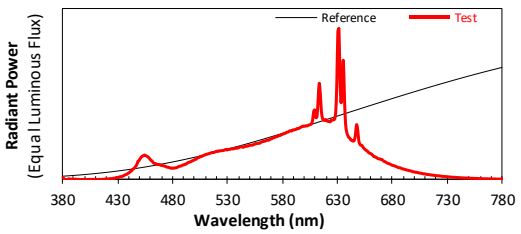

v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

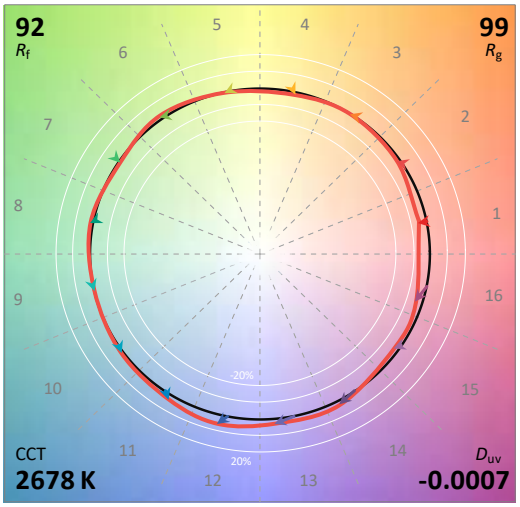
*5.2 ANSI/IES TM-30-18 Color Rendition Report

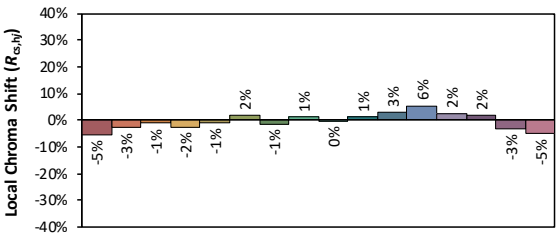
ANSI/IES TM-30-18 Color Rendition Report

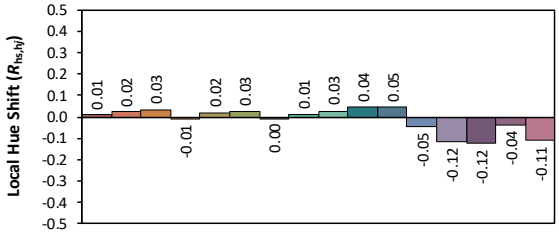
Source: Manufacturer:

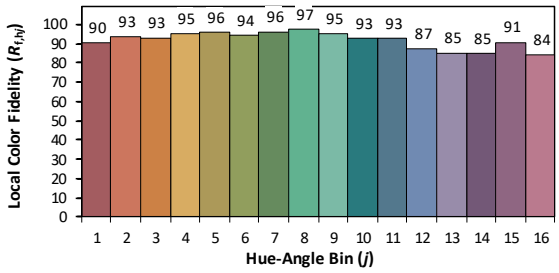
Date: 2023/6/13 Model: LFY18-0500-L27-CL-I-6

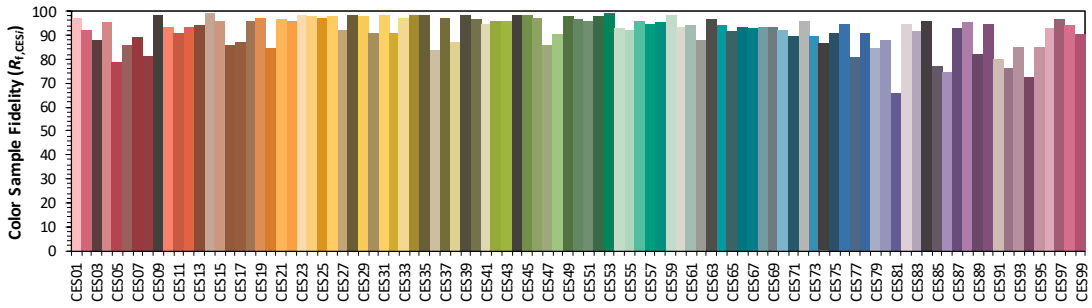












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

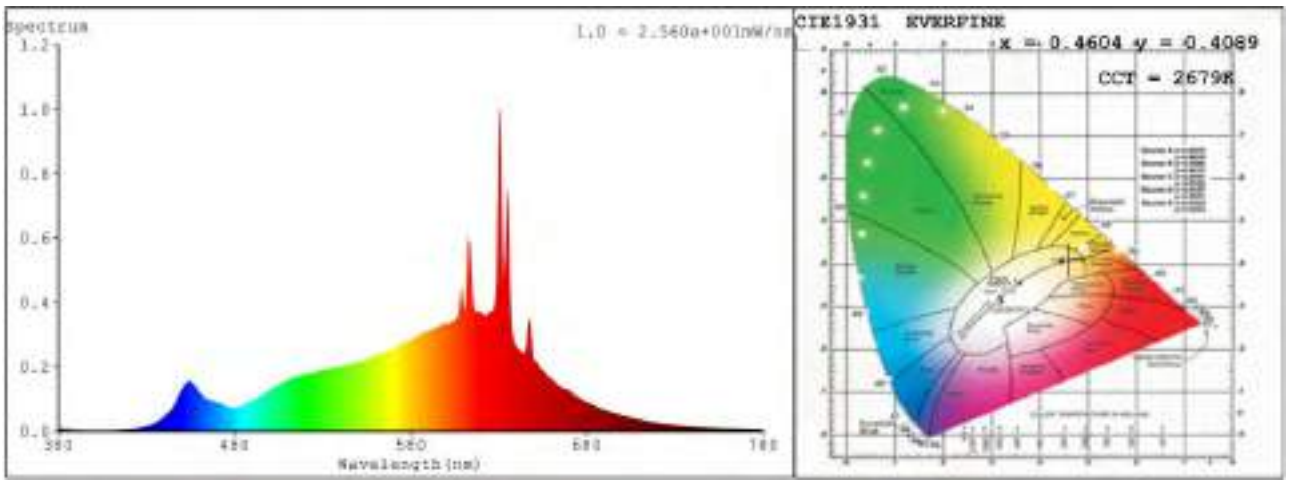
x	0.4605
y	0.4088
u'	0.2637
v'	0.5268

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.

5.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.014	414	0.0016	448	0.1132	482	0.0737	516	0.1698
381	0.0053	415	0.0023	449	0.1197	483	0.0763	517	0.1698
382	0.0013	416	0.0036	450	0.1311	484	0.0778	518	0.1726
383	0.0006	417	0.0032	451	0.1396	485	0.0821	519	0.1754
384	0.0002	418	0.0049	452	0.1471	486	0.0842	520	0.1778
385	0.0068	419	0.0039	453	0.1494	487	0.0856	521	0.176
386	0.0045	420	0.0055	454	0.1533	488	0.0882	522	0.1802
387	0.0048	421	0.0057	455	0.1507	489	0.0924	523	0.1798
388	0.0038	422	0.0064	456	0.1474	490	0.0934	524	0.1804
389	0.0034	423	0.0075	457	0.1429	491	0.0969	525	0.1818
390	0	424	0.008	458	0.1369	492	0.0979	526	0.1827
391	0.0047	425	0.0082	459	0.1284	493	0.1042	527	0.1853
392	0.0038	426	0.0104	460	0.1209	494	0.1078	528	0.1886
393	0.0014	427	0.0101	461	0.1158	495	0.1099	529	0.1847
394	0.003	428	0.0136	462	0.1064	496	0.1125	530	0.1887
395	0.001	429	0.0148	463	0.1023	497	0.1165	531	0.1885
396	0.0014	430	0.0151	464	0.1009	498	0.1188	532	0.1899
397	0	431	0.0175	465	0.0972	499	0.1227	533	0.1919
398	0.0028	432	0.0196	466	0.0949	500	0.1266	534	0.1921
399	0.0015	433	0.0201	467	0.095	501	0.1278	535	0.192
400	0.0023	434	0.0228	468	0.0944	502	0.1341	536	0.1962
401	0.0011	435	0.025	469	0.0892	503	0.1379	537	0.1956
402	0	436	0.0303	470	0.09	504	0.1397	538	0.1966
403	0.0036	437	0.0322	471	0.0878	505	0.146	539	0.1978
404	0.0004	438	0.0353	472	0.0852	506	0.1449	540	0.1996
405	0.0032	439	0.0406	473	0.0842	507	0.1491	541	0.2039
406	0.0024	440	0.0439	474	0.0799	508	0.1518	542	0.2047
407	0.0023	441	0.0506	475	0.0785	509	0.1549	543	0.2025
408	0.003	442	0.0546	476	0.0773	510	0.1574	544	0.2027
409	0.0028	443	0.0628	477	0.0751	511	0.1593	545	0.2051
410	0.002	444	0.0685	478	0.072	512	0.1613	546	0.2093
411	0.0023	445	0.0748	479	0.0731	513	0.1636	547	0.2077
412	0.0027	446	0.0841	480	0.0717	514	0.1664	548	0.2112
413	0.003	447	0.094	481	0.0733	515	0.1677	549	0.211

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2146	599	0.3328	648	0.3133	697	0.0542	746	0.0112
551	0.2157	600	0.3324	649	0.2443	698	0.0505	747	0.0109
552	0.2146	601	0.3358	650	0.2216	699	0.0503	748	0.0114
553	0.2178	602	0.3345	651	0.2148	700	0.0479	749	0.0106
554	0.22	603	0.3378	652	0.2126	701	0.0472	750	0.0104
555	0.2246	604	0.3408	653	0.2014	702	0.0461	751	0.0096
556	0.2244	605	0.3431	654	0.1931	703	0.0442	752	0.0094
557	0.2254	606	0.3482	655	0.1869	704	0.0431	753	0.0097
558	0.2272	607	0.369	656	0.1818	705	0.0414	754	0.0091
559	0.2275	608	0.4241	657	0.1776	706	0.0403	755	0.0089
560	0.2335	609	0.433	658	0.169	707	0.039	756	0.0084
561	0.2356	610	0.3851	659	0.1654	708	0.0373	757	0.0088
562	0.2377	611	0.392	660	0.1621	709	0.037	758	0.008
563	0.2391	612	0.4898	661	0.1574	710	0.0353	759	0.0074
564	0.2412	613	0.5985	662	0.15	711	0.0339	760	0.0074
565	0.2448	614	0.5347	663	0.1436	712	0.0331	761	0.0074
566	0.2467	615	0.4254	664	0.1429	713	0.0323	762	0.007
567	0.2453	616	0.3821	665	0.1384	714	0.0312	763	0.0068
568	0.2504	617	0.3706	666	0.134	715	0.0301	764	0.0064
569	0.2534	618	0.3689	667	0.1302	716	0.0289	765	0.0069
570	0.2554	619	0.374	668	0.1302	717	0.029	766	0.0065
571	0.2604	620	0.3664	669	0.1267	718	0.0271	767	0.006
572	0.2611	621	0.3623	670	0.1263	719	0.0267	768	0.0063
573	0.2655	622	0.363	671	0.1202	720	0.0256	769	0.0059
574	0.2669	623	0.3594	672	0.115	721	0.0252	770	0.0056
575	0.2691	624	0.3702	673	0.1122	722	0.0249	771	0.0054
576	0.2749	625	0.3709	674	0.1083	723	0.0242	772	0.0056
577	0.2736	626	0.3722	675	0.1033	724	0.0229	773	0.0057
578	0.2784	627	0.3757	676	0.1015	725	0.0218	774	0.0048
579	0.2802	628	0.4142	677	0.0993	726	0.0213	775	0.005
580	0.284	629	0.5861	678	0.095	727	0.0207	776	0.0047
581	0.2871	630	0.9183	679	0.0917	728	0.0201	777	0.0052
582	0.2887	631	0.9367	680	0.0893	729	0.0198	778	0.0052
583	0.2929	632	0.6103	681	0.0878	730	0.0189	779	0.0045
584	0.2957	633	0.478	682	0.0853	731	0.0183	780	0.0045
585	0.2976	634	0.6281	683	0.0823	732	0.0174		
586	0.3032	635	0.7389	684	0.0799	733	0.0173		
587	0.3037	636	0.5111	685	0.0763	734	0.0161		
588	0.3028	637	0.3484	686	0.0751	735	0.016		
589	0.3095	638	0.2979	687	0.074	736	0.0157		
590	0.3095	639	0.2763	688	0.0704	737	0.0149		
591	0.3118	640	0.263	689	0.0676	738	0.0149		
592	0.3129	641	0.2572	690	0.0667	739	0.0137		
593	0.3189	642	0.2462	691	0.0646	740	0.0136		
594	0.3169	643	0.2446	692	0.0626	741	0.0134		
595	0.321	644	0.2397	693	0.0604	742	0.0128		
596	0.3257	645	0.2463	694	0.0592	743	0.0124		
597	0.3284	646	0.281	695	0.057	744	0.012		
598	0.3332	647	0.3415	696	0.0558	745	0.0119		

6. Goniophotometer Test results

6.1 Test Data

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

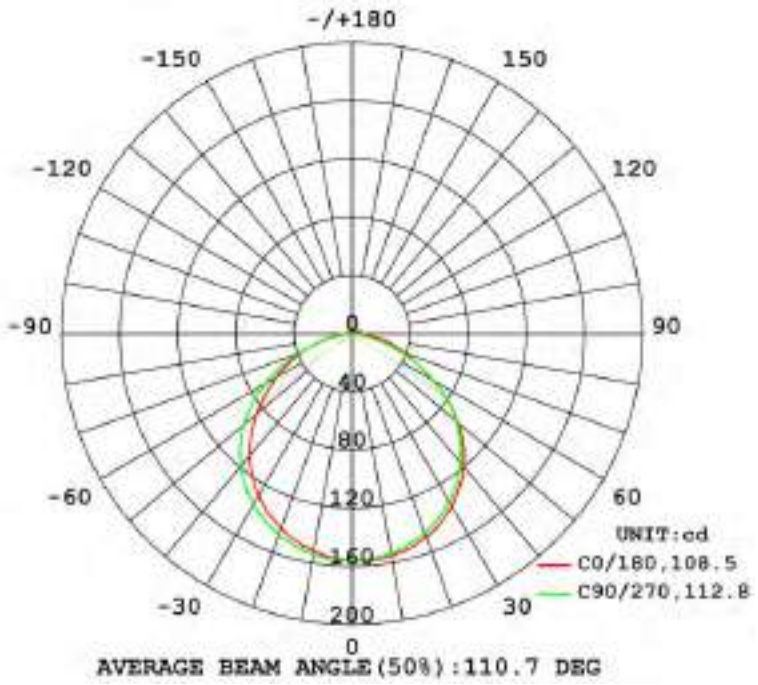
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.148	1.0000	3.552

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
442.583	124.60	156.4	1.8	98.2

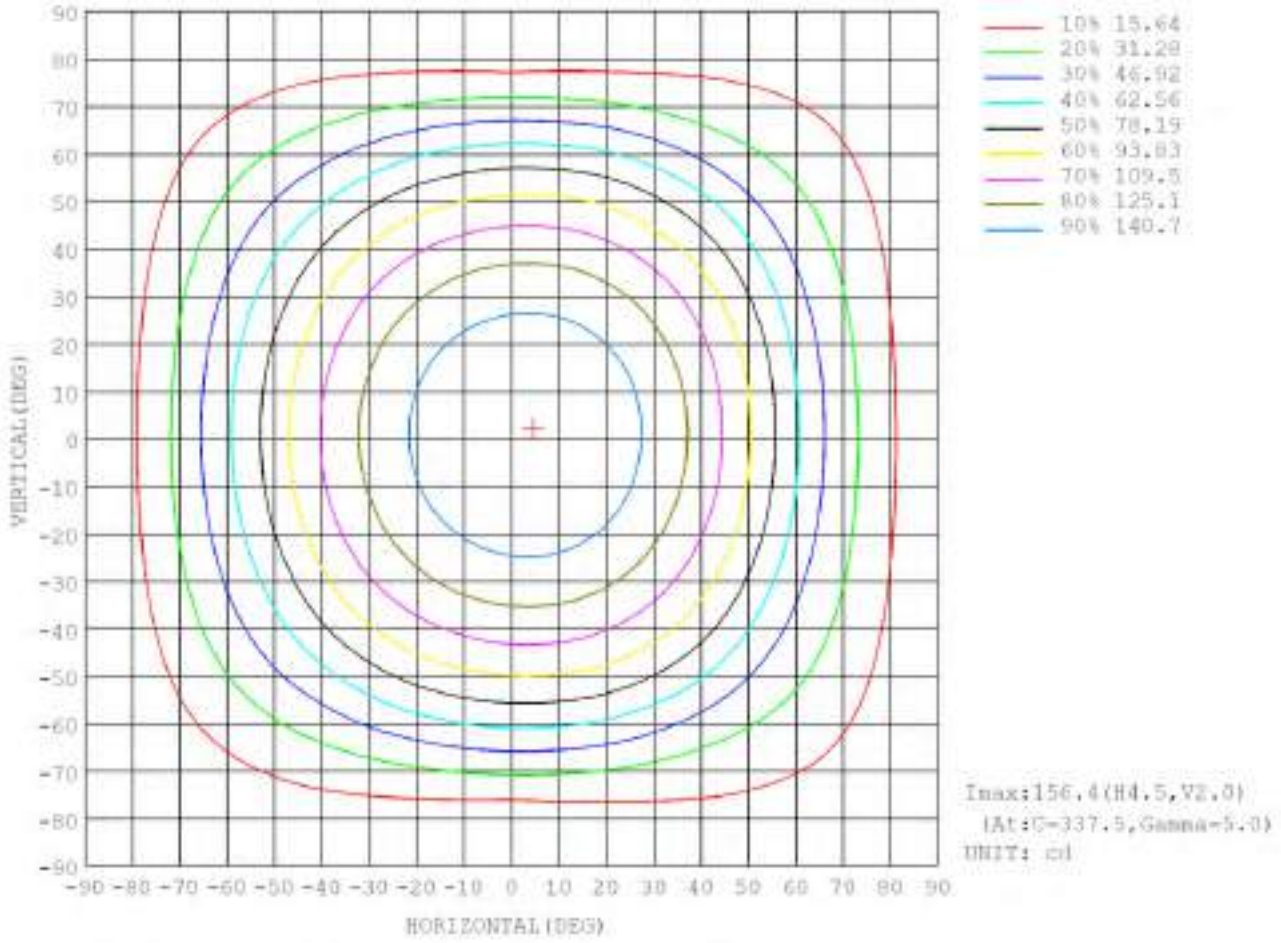
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	155.2	154.5	153.2	152.1	151.9	152.7	154.0	155.0	0- 10	14.73	14.73	3.34,3.34
20	149.9	148.3	145.6	143.3	142.7	144.6	147.3	148.0	10- 20	42.55	57.28	12.9,12.9
30	137.1	136.2	133.5	129.7	128.8	131.6	135.7	137.9	20- 30	64.84	122.1	27.6,27.6
40	120.4	118.9	116.2	111.6	110.0	113.8	119.2	121.1	30- 40	78.63	200.7	45.4,45.4
50	99.11	95.42	93.62	87.80	85.32	91.23	97.21	98.20	40- 50	81.23	281.9	63.7,63.7
60	68.45	65.48	65.49	59.38	60.51	62.90	69.46	68.86	50- 60	70.71	352.7	79.7,79.7
70	37.73	34.41	33.78	32.23	35.37	35.73	37.32	36.59	60- 70	49.22	401.9	90.8,90.8
80	17.47	14.48	6.621	11.90	13.92	16.03	9.140	15.02	70- 80	24.51	426.4	96.4,96.4
90	5.404	5.317	0.8539	3.645	3.736	4.194	0.1260	5.907	80- 90	7.718	434.1	98.2,98.2
100	1.366	4.962	0.0228	2.788	3.112	2.798	0.2430	5.878	90-100	3.887	438.1	99,99
110	5.616	1.293	0.0401	1.757	2.611	1.890	0.3590	1.046	100-110	2.078	440.2	99.6,99.6
120	0.9092	0.1346	0.0490	0.5627	1.010	0.4891	0.0891	0.0999	110-120	1.101	441.9	99.9,99.9
130	0.1198	0.1087	0.1037	0.1375	0.6004	0.1278	0.0981	0.1038	120-130	0.2351	442.0	99.9,99.9
140	0.1321	0.1330	0.1289	0.1355	0.2151	0.1864	0.1900	0.1833	130-140	0.1247	442.3	99.9,99.9
150	0.1482	0.1488	0.1457	0.1522	0.2137	0.2082	0.2016	0.2031	140-150	0.1023	442.4	100,100
160	0.1748	0.1743	0.1588	0.1785	0.2415	0.2421	0.2318	0.2267	150-160	0.0858	442.5	100,100
170	0.2021	0.1982	0.1972	0.2061	0.2447	0.2480	0.2388	0.2411	160-170	0.0608	442.6	100,100
180	0.2252	0.2269	0.2329	0.2323	0.2345	0.2323	0.2284	0.2304	170-180	0.0227	442.6	100,100
CBD	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	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156			
5	156	156	156	156	155	155	155	155	155	155	155	155	156	156	156	156			
10	155	155	154	154	153	153	152	152	152	152	153	153	154	155	155	155			
15	153	153	152	151	150	149	148	148	148	148	149	150	151	152	153	153			
20	149	149	148	147	146	145	143	143	143	143	145	146	147	149	149	149			
25	144	143	143	142	140	139	137	136	136	137	139	140	142	144	144	144			
30	137	137	136	135	133	132	130	129	129	130	132	134	136	137	138	138			
35	129	129	128	127	125	123	121	120	120	121	123	126	128	130	130	130			
40	119	119	119	118	116	114	111	110	110	112	114	117	119	121	121	121			
45	108	108	108	108	106	103	100	98.4	98.4	100	103	106	109	111	110	110			
50	95.0	94.9	95.4	95.5	93.6	90.9	87.9	85.7	85.8	87.5	91.2	94.4	97.2	99.0	98.1	96.9			
55	80.1	80.1	81.1	81.8	80.2	77.4	74.0	72.1	72.4	74.1	77.3	81.2	84.0	85.5	84.1	82.4			
60	64.5	64.3	65.5	66.5	65.5	62.8	59.4	58.9	60.5	61.1	62.8	66.8	69.4	70.5	68.6	66.5			
65	49.6	49.0	49.3	50.3	49.7	47.4	45.8	46.3	48.1	48.6	49.0	51.5	53.6	54.2	52.0	50.6			
70	37.7	36.3	34.4	34.6	33.8	32.4	32.3	33.6	35.6	35.9	35.7	36.4	37.3	37.6	36.6	37.1			
75	27.8	26.7	23.5	20.8	18.2	19.3	21.3	22.7	24.0	24.6	23.9	22.7	22.1	23.0	24.6	27.2			
80	17.7	17.1	14.7	11.2	6.92	9.93	12.0	13.0	13.9	14.4	14.0	12.3	9.14	12.2	15.2	17.4			
85	9.33	9.01	7.70	5.25	1.36	4.37	6.07	6.51	7.02	7.37	7.29	5.49	2.51	5.71	8.13	9.17			
90	5.49	5.49	5.12	2.99	0.05	2.03	3.65	3.63	3.71	4.04	4.19	2.53	0.13	3.34	5.81	5.84			
95	5.19	5.25	4.64	2.92	0.02	1.68	3.26	3.38	3.08	3.48	3.56	1.83	0.03	3.19	5.35	5.64			
100	5.35	5.24	4.96	1.72	0.02	1.28	2.78	3.23	3.15	3.36	2.79	1.56	0.04	1.85	5.38	5.58			
105	5.47	5.52	5.06	0.19	0.03	0.57	2.22	2.74	2.81	2.68	2.45	0.68	0.05	0.21	5.11	5.71			
110	5.63	4.92	1.29	0.05	0.04	0.14	1.76	2.46	2.66	2.60	1.89	0.20	0.06	0.07	1.44	5.08			
115	2.55	1.62	0.41	0.06	0.05	0.07	1.04	2.18	2.44	2.20	1.16	0.08	0.06	0.07	0.44	1.83			
120	0.91	0.66	0.10	0.07	0.07	0.07	0.56	1.46	1.80	1.45	0.49	0.07	0.07	0.07	0.10	0.68			
125	0.39	0.20	0.10	0.09	0.09	0.09	0.25	0.85	1.16	0.86	0.24	0.08	0.08	0.08	0.09	0.22			
130	0.12	0.12	0.11	0.11	0.11	0.11	0.14	0.49	0.70	0.46	0.13	0.10	0.10	0.10	0.10	0.11			
135	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.22	0.39	0.25	0.13	0.13	0.12	0.12	0.13	0.13			
140	0.13	0.13	0.13	0.13	0.13	0.13	0.14	0.15	0.22	0.17	0.16	0.15	0.15	0.15	0.15	0.15			
145	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.18			
150	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.21			
155	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22			
160	0.17	0.18	0.17	0.17	0.17	0.18	0.18	0.18	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.24			
165	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.19	0.24	0.25	0.24	0.24	0.24	0.24	0.24	0.24			
170	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.24	0.24	0.25	0.24	0.24	0.24	0.24	0.24			
175	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24			
180	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23			

7. Photo of sample

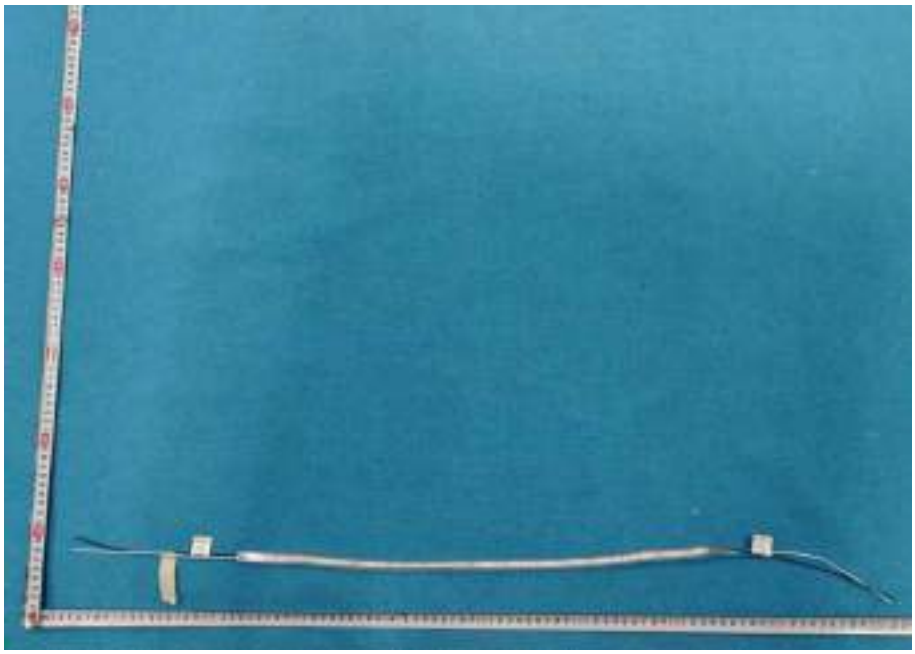


Figure 1 Overview

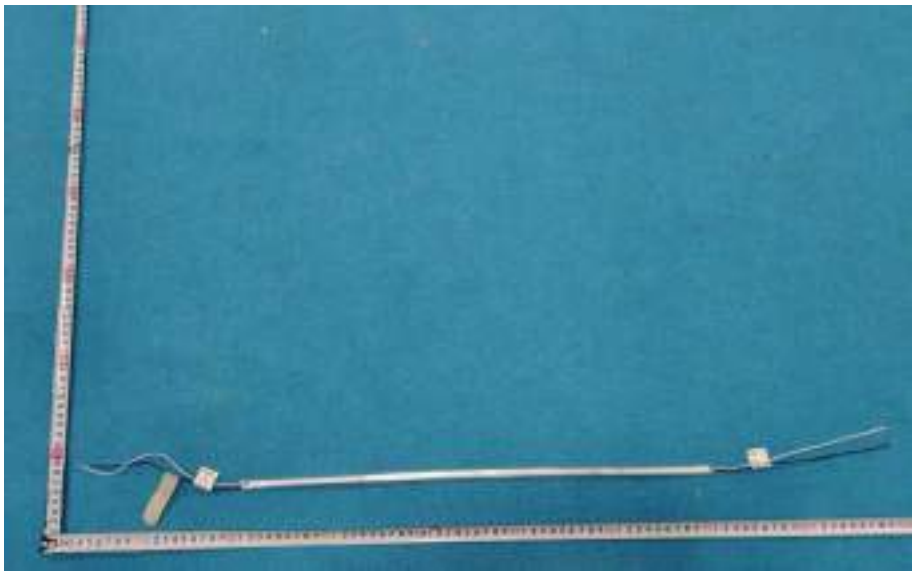


Figure 2 Overview

---End of Report---

NVLAP TESTING
NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number..... : N02A23060187L00201

Client..... : Luci Pte. Ltd.

Address..... : 52A Tanjong Pagar Road, Singapore 088473

Test Model..... : LFY18-0500-L27-CL-I-10

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..... : June. 08, 2023

Date of test ..... : June. 08, 2023 - June. 13, 2023

Date of report..... : June. 13, 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:	LFY18-0500-L27-CL-I-10
Manufacturer:	
Product Type:	SHIN FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	5W
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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.2032	23.998	4.8764	644.32	0.4588	0.4091	0.2625	0.5266	2703	94
1	00h00m10s	0.204	23.998	4.8956	644.51	0.4587	0.4091	0.2624	0.5266	2705	94
2	00h00m20s	0.2045	23.998	4.9076	644.57	0.4589	0.4089	0.2627	0.5266	2700	94
3	00h00m30s	0.2049	23.998	4.9172	645.1	0.4591	0.4091	0.2627	0.5267	2700	94
4	00h00m40s	0.2054	23.998	4.9292	645.95	0.4591	0.4088	0.2628	0.5265	2696	94
5	00h00m50s	0.2057	23.998	4.9364	647.74	0.4593	0.4088	0.263	0.5266	2693	94
6	00h01m00s	0.206	23.998	4.9436	648.12	0.4596	0.4087	0.2632	0.5266	2688	94
7	00h01m10s	0.2061	23.998	4.946	647.84	0.4595	0.4085	0.2632	0.5265	2689	94
8	00h01m20s	0.2063	23.998	4.9508	648.16	0.4595	0.4087	0.2632	0.5266	2690	94
9	00h01m30s	0.2065	23.998	4.9556	647.99	0.4596	0.4085	0.2633	0.5265	2688	94
10	00h01m40s	0.2067	23.998	4.9604	648.5	0.4598	0.4087	0.2633	0.5266	2686	94
11	00h01m50s	0.2072	23.998	4.9724	649.9	0.4596	0.4085	0.2633	0.5265	2687	94
12	00h02m00s	0.2073	23.998	4.9748	649.73	0.4598	0.4083	0.2635	0.5264	2683	93.9
13	00h02m10s	0.2074	23.998	4.9772	649.85	0.4597	0.4084	0.2634	0.5265	2685	94
14	00h02m20s	0.2074	23.998	4.9772	649.65	0.4596	0.4084	0.2633	0.5265	2686	93.9
15	00h02m30s	0.2076	23.998	4.982	649.92	0.4597	0.4083	0.2634	0.5264	2685	94
16	00h02m40s	0.2077	23.998	4.9844	650.29	0.46	0.4085	0.2636	0.5266	2681	93.9
17	00h02m50s	0.2078	23.998	4.9868	650.57	0.4597	0.4083	0.2634	0.5264	2684	94
18	00h03m00s	0.2079	23.998	4.9892	650.73	0.4599	0.4084	0.2636	0.5265	2682	94
19	00h03m10s	0.208	23.998	4.9916	650.57	0.46	0.4083	0.2636	0.5265	2680	93.9
20	00h03m20s	0.2081	23.998	4.994	650.54	0.46	0.4083	0.2636	0.5265	2680	93.9
21	00h03m30s	0.2082	23.998	4.9964	651.31	0.46	0.4082	0.2636	0.5265	2680	93.9

22	00h03m40s	0.2083	23.998	4.9988	651.26	0.4599	0.4081	0.2636	0.5264	2681	93.9
23	00h03m50s	0.2083	23.998	4.9988	651.51	0.4601	0.4083	0.2637	0.5265	2679	93.9
24	00h04m00s	0.2084	23.998	5.0012	650.78	0.4598	0.408	0.2636	0.5264	2680	94
25	00h04m10s	0.2084	23.998	5.0012	651.65	0.46	0.4082	0.2636	0.5264	2680	93.9
26	00h04m20s	0.2085	23.998	5.0036	651.08	0.4601	0.4083	0.2637	0.5265	2678	93.9
27	00h04m30s	0.2085	23.998	5.0036	651.4	0.46	0.4081	0.2637	0.5264	2679	93.9
28	00h04m40s	0.2086	23.998	5.006	651.7	0.46	0.4081	0.2637	0.5264	2679	93.9
29	00h04m50s	0.2086	23.998	5.006	651.37	0.4601	0.4081	0.2637	0.5264	2678	93.9
30	00h05m00s	0.2086	23.998	5.006	651.49	0.46	0.4081	0.2638	0.5264	2678	93.9
31	00h05m10s	0.2086	23.998	5.006	651.79	0.4601	0.4082	0.2637	0.5265	2678	93.9
32	00h05m20s	0.2087	23.998	5.0084	651.78	0.4601	0.408	0.2638	0.5264	2677	93.9
33	00h05m30s	0.2087	23.998	5.0084	651.44	0.4602	0.408	0.2639	0.5264	2675	93.9
34	00h05m40s	0.2087	23.998	5.0084	651.44	0.4602	0.4081	0.2639	0.5264	2676	93.9
35	00h05m50s	0.2087	23.998	5.0084	651.63	0.4601	0.408	0.2638	0.5264	2677	93.9
36	00h06m00s	0.2087	23.998	5.0084	651.66	0.4602	0.4081	0.2638	0.5265	2676	93.9
37	00h06m10s	0.2087	23.998	5.0084	651.22	0.4601	0.408	0.2638	0.5264	2677	93.9
38	00h06m20s	0.2087	23.998	5.0084	651.19	0.46	0.408	0.2638	0.5264	2677	93.9
39	00h06m30s	0.2087	23.998	5.0084	651.29	0.4601	0.4081	0.2638	0.5264	2678	93.9
40	00h06m40s	0.2087	23.998	5.0084	651.42	0.4602	0.4081	0.2639	0.5264	2676	93.9
41	00h06m50s	0.2086	23.998	5.006	650.86	0.46	0.408	0.2638	0.5264	2678	93.9
42	00h07m00s	0.2081	23.998	4.994	649.21	0.4601	0.4082	0.2637	0.5265	2679	93.9
43	00h07m10s	0.208	23.998	4.9916	649.31	0.4602	0.4081	0.2639	0.5264	2675	93.9
44	00h07m20s	0.208	23.998	4.9916	649.07	0.4601	0.4081	0.2638	0.5265	2677	93.9
45	00h07m30s	0.208	23.998	4.9916	649.75	0.4602	0.4081	0.2638	0.5264	2676	93.9
46	00h07m40s	0.2086	23.998	5.006	650.89	0.4601	0.4081	0.2638	0.5264	2676	93.9
47	00h07m50s	0.2086	23.998	5.006	650.97	0.4601	0.408	0.2638	0.5264	2676	93.9
48	00h08m00s	0.208	23.998	4.9916	649.48	0.4601	0.4081	0.2638	0.5264	2677	93.9
49	00h08m10s	0.2078	23.998	4.9868	648.88	0.4601	0.4081	0.2638	0.5264	2677	93.9
50	00h08m20s	0.2077	23.998	4.9844	648.92	0.46	0.408	0.2638	0.5264	2678	93.9
51	00h08m30s	0.2084	23.998	5.0012	648.69	0.4601	0.4081	0.2638	0.5264	2677	93.9
52	00h08m40s	0.2079	23.998	4.9892	648.99	0.4602	0.4082	0.2638	0.5265	2677	93.9

53	00h08m50s	0.2079	23.998	4.9892	648.79	0.4602	0.408	0.2638	0.5264	2676	93.9
54	00h09m00s	0.2079	23.998	4.9892	648.33	0.4601	0.4081	0.2638	0.5264	2677	93.9
55	00h09m10s	0.2078	23.998	4.9868	648.77	0.4601	0.4081	0.2638	0.5264	2677	93.9
56	00h09m20s	0.2077	23.998	4.9844	648.37	0.46	0.4079	0.2638	0.5263	2677	93.9
57	00h09m30s	0.2083	23.998	4.9988	650.11	0.4601	0.4081	0.2638	0.5264	2677	93.9
58	00h09m40s	0.2085	23.998	5.0036	650.65	0.4601	0.4079	0.2639	0.5264	2676	93.9
59	00h09m50s	0.2085	23.998	5.0036	650.74	0.4601	0.4081	0.2638	0.5264	2678	93.9
60	00h10m00s	0.2085	23.998	5.0036	650.53	0.46	0.408	0.2638	0.5264	2677	93.9
61	00h10m10s	0.2085	23.998	5.0036	650.65	0.4598	0.408	0.2636	0.5264	2681	93.9
62	00h10m20s	0.2085	23.998	5.0036	650.9	0.4602	0.4081	0.2638	0.5265	2677	93.9
63	00h10m30s	0.2085	23.998	5.0036	650.59	0.4601	0.4082	0.2638	0.5265	2677	93.9
64	00h10m40s	0.2085	23.998	5.0036	650.7	0.4601	0.408	0.2638	0.5264	2677	93.9
65	00h10m50s	0.2085	23.998	5.0036	650.93	0.46	0.408	0.2638	0.5264	2678	93.9
66	00h11m00s	0.2085	23.998	5.0036	650.74	0.4601	0.4082	0.2637	0.5265	2678	93.9
67	00h11m10s	0.2085	23.998	5.0036	650.77	0.4601	0.4082	0.2637	0.5265	2679	93.9
68	00h11m20s	0.2085	23.998	5.0036	650.47	0.4601	0.408	0.2638	0.5264	2677	93.9
69	00h11m30s	0.2086	23.998	5.006	650.88	0.4599	0.408	0.2637	0.5264	2679	93.9
70	00h11m40s	0.2086	23.998	5.006	650.71	0.46	0.408	0.2637	0.5264	2678	93.9
71	00h11m50s	0.2086	23.998	5.006	650.97	0.4599	0.4079	0.2637	0.5263	2679	93.9
72	00h12m00s	0.2086	23.998	5.006	651.03	0.46	0.408	0.2638	0.5264	2678	93.9
73	00h12m10s	0.2086	23.998	5.006	651.17	0.4601	0.408	0.2638	0.5264	2676	93.9
74	00h12m20s	0.2087	23.998	5.0084	651	0.46	0.408	0.2638	0.5264	2678	93.9
75	00h12m30s	0.2087	23.998	5.0084	651.16	0.4601	0.408	0.2638	0.5264	2677	93.9
76	00h12m40s	0.2087	23.998	5.0084	651.33	0.46	0.4081	0.2637	0.5264	2678	93.9
77	00h12m50s	0.2087	23.998	5.0084	651.43	0.4598	0.4079	0.2637	0.5263	2680	93.9
78	00h13m00s	0.2087	23.998	5.0084	651.08	0.4602	0.4081	0.2638	0.5264	2676	93.9
79	00h13m10s	0.2087	23.998	5.0084	650.53	0.46	0.4079	0.2638	0.5264	2677	93.9
80	00h13m20s	0.2087	23.998	5.0084	651.27	0.46	0.4082	0.2637	0.5264	2679	93.9
81	00h13m30s	0.2087	23.998	5.0084	651.42	0.4599	0.408	0.2637	0.5264	2679	93.9
82	00h13m40s	0.2088	23.998	5.0108	651.3	0.4601	0.408	0.2638	0.5264	2677	93.9
83	00h13m50s	0.2087	23.998	5.0084	651.36	0.46	0.408	0.2638	0.5264	2678	93.9

84	00h14m00s	0.2087	23.998	5.0084	651.48	0.4599	0.408	0.2637	0.5264	2679	93.9
85	00h14m10s	0.2087	23.998	5.0084	651.53	0.46	0.4082	0.2637	0.5264	2679	93.9
86	00h14m20s	0.2087	23.998	5.0084	651.08	0.46	0.408	0.2638	0.5264	2678	93.9
87	00h14m30s	0.2087	23.998	5.0084	651.12	0.46	0.408	0.2638	0.5264	2677	93.9
88	00h14m40s	0.2087	23.998	5.0084	651.46	0.46	0.4081	0.2637	0.5264	2678	93.9
89	00h14m50s	0.2087	23.998	5.0084	650.93	0.4601	0.4081	0.2638	0.5265	2677	93.9
90	00h15m00s	0.2087	23.998	5.0084	650.95	0.4601	0.4081	0.2638	0.5264	2678	93.9
91	00h15m10s	0.2087	23.998	5.0084	651.56	0.4599	0.408	0.2637	0.5264	2680	93.9
92	00h15m20s	0.2087	23.998	5.0084	650.84	0.46	0.408	0.2637	0.5264	2678	93.9
93	00h15m30s	0.2087	23.998	5.0084	651.55	0.4598	0.408	0.2637	0.5263	2680	93.9
94	00h15m40s	0.2087	23.998	5.0084	650.63	0.4599	0.4079	0.2637	0.5263	2679	93.9
95	00h15m50s	0.2087	23.998	5.0084	651.45	0.46	0.4081	0.2637	0.5264	2678	93.9
96	00h16m00s	0.2087	23.998	5.0084	651.19	0.4601	0.4079	0.2639	0.5263	2676	93.9
97	00h16m10s	0.2087	23.998	5.0084	650.95	0.46	0.408	0.2638	0.5264	2678	93.9
98	00h16m20s	0.2087	23.998	5.0084	651.28	0.4599	0.408	0.2637	0.5264	2680	94
99	00h16m30s	0.2087	23.998	5.0084	651.34	0.4598	0.408	0.2637	0.5264	2680	93.9
100	00h16m40s	0.2087	23.998	5.0084	651.12	0.4598	0.408	0.2636	0.5263	2680	93.9
101	00h16m50s	0.2088	23.998	5.0108	651.3	0.4601	0.4081	0.2638	0.5264	2678	93.9
102	00h17m00s	0.2088	23.998	5.0108	651.07	0.4599	0.408	0.2637	0.5264	2679	93.9
103	00h17m10s	0.2088	23.998	5.0108	651.25	0.4599	0.4079	0.2637	0.5263	2679	93.9
104	00h17m20s	0.2088	23.998	5.0108	651.35	0.4599	0.4079	0.2637	0.5263	2679	93.9
105	00h17m30s	0.2088	23.998	5.0108	650.88	0.4599	0.408	0.2637	0.5264	2679	93.9
106	00h17m40s	0.2088	23.998	5.0108	651.35	0.4601	0.4081	0.2638	0.5264	2678	93.9
107	00h17m50s	0.2088	23.998	5.0108	651.02	0.46	0.4081	0.2637	0.5264	2678	93.9
108	00h18m00s	0.2088	23.998	5.0108	651.22	0.4598	0.4079	0.2637	0.5263	2679	93.9
109	00h18m10s	0.2088	23.998	5.0108	651.39	0.4601	0.4082	0.2637	0.5264	2678	93.9
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111	00h18m30s	0.2088	23.998	5.0108	651.07	0.46	0.408	0.2638	0.5264	2677	93.9
112	00h18m40s	0.2088	23.998	5.0108	651.35	0.4601	0.4081	0.2637	0.5264	2678	93.9
113	00h18m50s	0.2088	23.998	5.0108	651.95	0.4599	0.4081	0.2637	0.5264	2679	93.9
114	00h19m00s	0.2088	23.998	5.0108	651.47	0.46	0.4079	0.2638	0.5264	2678	93.9

115	00h19m10s	0.2088	23.998	5.0108	651.45	0.4599	0.4081	0.2637	0.5264	2680	93.9
116	00h19m20s	0.2088	23.998	5.0108	651.45	0.46	0.4079	0.2638	0.5263	2677	93.9
117	00h19m30s	0.2088	23.998	5.0108	651.22	0.4598	0.4078	0.2637	0.5263	2680	93.9
118	00h19m40s	0.2089	23.998	5.0132	651.33	0.4598	0.4079	0.2637	0.5263	2680	93.9
119	00h19m50s	0.2089	23.998	5.0132	651.29	0.4598	0.408	0.2636	0.5263	2680	94
120	00h20m00s	0.2089	23.998	5.0132	651.27	0.4599	0.408	0.2637	0.5263	2679	93.9
121	00h20m10s	0.2089	23.998	5.0132	651.4	0.46	0.4079	0.2638	0.5264	2678	93.9
122	00h20m20s	0.2089	23.998	5.0132	651.14	0.4601	0.408	0.2638	0.5264	2676	93.9
123	00h20m30s	0.2089	23.998	5.0132	651.53	0.4599	0.408	0.2637	0.5263	2680	93.9
124	00h20m40s	0.2089	23.998	5.0132	651.46	0.4599	0.408	0.2637	0.5263	2678	93.9
125	00h20m50s	0.2089	23.998	5.0132	651.28	0.4598	0.4079	0.2637	0.5263	2679	93.9
126	00h21m00s	0.2089	23.998	5.0132	651.74	0.46	0.4082	0.2637	0.5264	2679	94
127	00h21m10s	0.2089	23.998	5.0132	651.94	0.4599	0.4082	0.2636	0.5264	2680	93.9
128	00h21m20s	0.2089	23.998	5.0132	651.52	0.4599	0.4078	0.2638	0.5263	2678	93.9
129	00h21m30s	0.2089	23.998	5.0132	651.8	0.46	0.408	0.2637	0.5264	2678	93.9
130	00h21m40s	0.2089	23.998	5.0132	651.71	0.46	0.408	0.2637	0.5264	2678	93.9
131	00h21m50s	0.2089	23.998	5.0132	651.27	0.4598	0.408	0.2636	0.5264	2681	93.9
132	00h22m00s	0.2089	23.998	5.0132	651.95	0.4599	0.4081	0.2636	0.5264	2680	93.9
133	00h22m10s	0.2089	23.998	5.0132	651.74	0.4598	0.4079	0.2637	0.5263	2680	93.9
134	00h22m20s	0.2089	23.998	5.0132	651.64	0.4599	0.408	0.2637	0.5264	2679	93.9
135	00h22m30s	0.2089	23.998	5.0132	652.01	0.4598	0.408	0.2636	0.5263	2681	93.9
136	00h22m40s	0.2089	23.998	5.0132	651.6	0.4598	0.4079	0.2637	0.5263	2680	94
137	00h22m50s	0.209	23.998	5.0156	651.39	0.4599	0.4078	0.2638	0.5263	2678	93.9
138	00h23m00s	0.209	23.998	5.0156	651.48	0.4597	0.4078	0.2637	0.5263	2680	93.9
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144	00h24m00s	0.209	23.998	5.0156	651.64	0.4598	0.408	0.2636	0.5264	2680	93.9
145	00h24m10s	0.209	23.998	5.0156	651.98	0.4599	0.4078	0.2637	0.5263	2678	93.9

146	00h24m20s	0.209	23.998	5.0156	651.41	0.46	0.408	0.2638	0.5264	2678	93.9
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154	00h25m40s	0.209	23.998	5.0156	651.53	0.4599	0.408	0.2637	0.5263	2679	93.9
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156	00h26m00s	0.209	23.998	5.0156	652.07	0.4597	0.4079	0.2636	0.5263	2681	93.9
157	00h26m10s	0.209	23.998	5.0156	652.17	0.4598	0.4079	0.2637	0.5263	2679	93.9
158	00h26m20s	0.209	23.998	5.0156	652.03	0.4598	0.4078	0.2637	0.5263	2679	93.9
159	00h26m30s	0.209	23.998	5.0156	652.09	0.4599	0.4081	0.2636	0.5264	2680	94
160	00h26m40s	0.209	23.998	5.0156	651.44	0.4597	0.408	0.2636	0.5263	2682	94
161	00h26m50s	0.209	23.998	5.0156	651.7	0.4597	0.4078	0.2636	0.5263	2681	93.9
162	00h27m00s	0.209	23.998	5.0156	652.47	0.4598	0.4079	0.2636	0.5263	2681	93.9
163	00h27m10s	0.209	23.998	5.0156	652.19	0.4598	0.408	0.2636	0.5263	2681	93.9
164	00h27m20s	0.209	23.998	5.0156	651.49	0.4599	0.4078	0.2638	0.5263	2678	93.9
165	00h27m30s	0.209	23.998	5.0156	652.18	0.4597	0.408	0.2636	0.5263	2682	93.9
166	00h27m40s	0.209	23.998	5.0156	651.93	0.4598	0.408	0.2636	0.5263	2681	93.9
167	00h27m50s	0.209	23.998	5.0156	652.43	0.4597	0.4079	0.2636	0.5263	2681	93.9
168	00h28m00s	0.2094	23.998	5.0252	652.82	0.4595	0.4078	0.2636	0.5262	2682	93.9
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171	00h28m30s	0.2094	23.998	5.0252	652.73	0.4597	0.4079	0.2636	0.5263	2681	93.9
172	00h28m40s	0.2094	23.998	5.0252	653.09	0.4598	0.4079	0.2637	0.5263	2680	93.9
173	00h28m50s	0.2093	23.998	5.0228	652.81	0.4597	0.4079	0.2636	0.5263	2682	94
174	00h29m00s	0.2093	23.998	5.0228	652.71	0.4598	0.408	0.2636	0.5263	2681	93.9
175	00h29m10s	0.2093	23.998	5.0228	652.87	0.4596	0.408	0.2635	0.5263	2683	93.9
176	00h29m20s	0.2093	23.998	5.0228	652.63	0.4596	0.408	0.2635	0.5263	2683	94

177	00h29m30s	0.2093	23.998	5.0228	652.62	0.4597	0.4079	0.2636	0.5263	2681	93.9
178	00h29m40s	0.2093	23.998	5.0228	652.53	0.4598	0.4078	0.2637	0.5263	2679	93.8
179	00h29m50s	0.2093	23.998	5.0228	653.15	0.4599	0.408	0.2637	0.5264	2680	93.9
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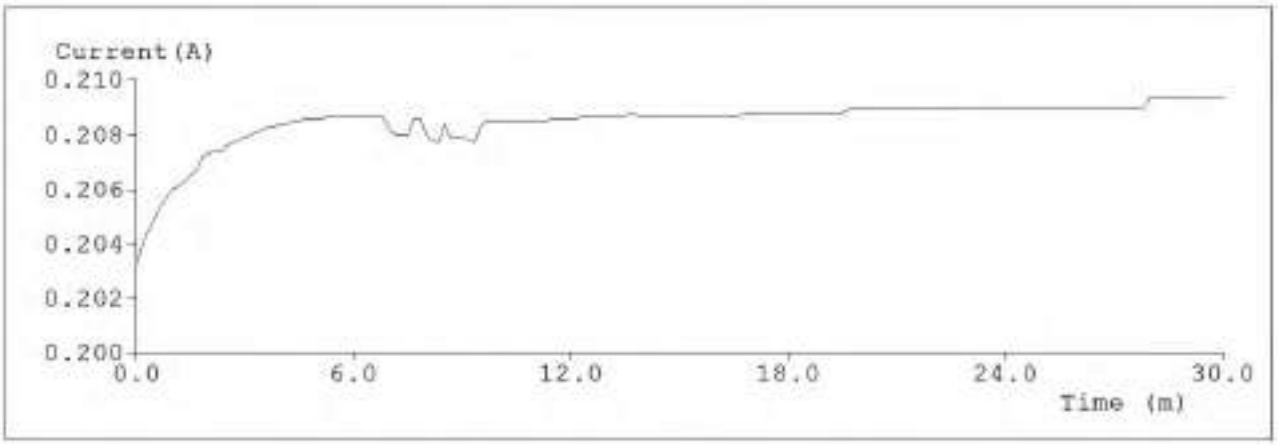
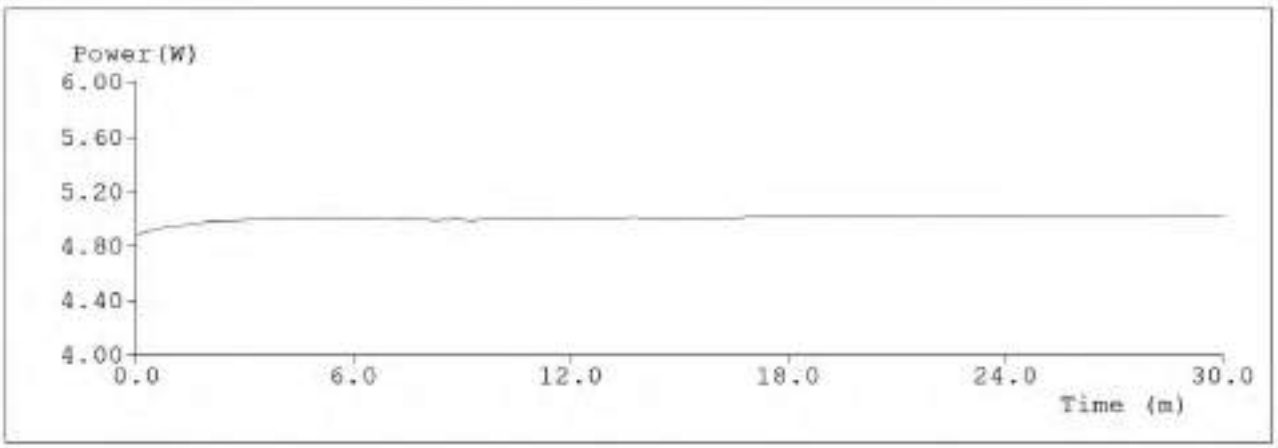
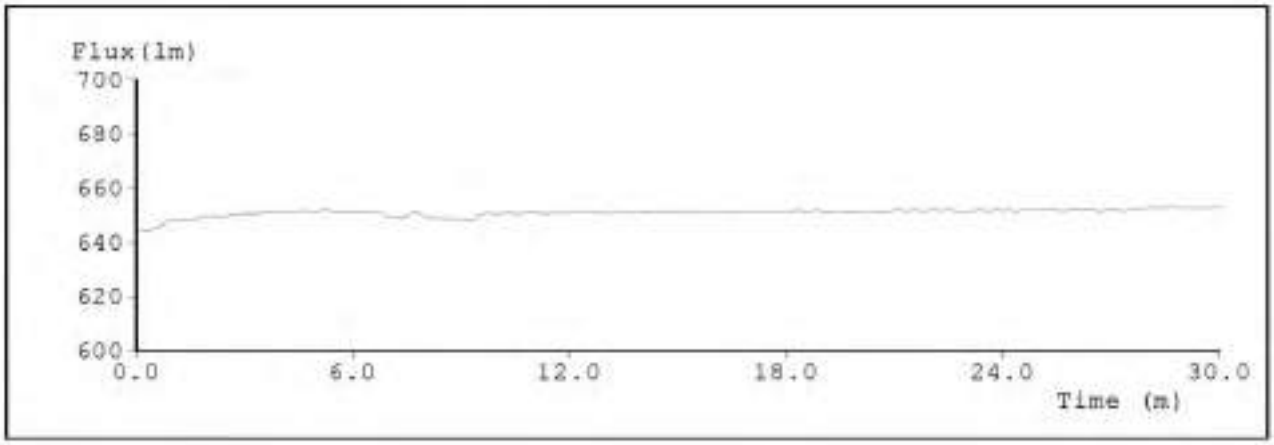
Test curves



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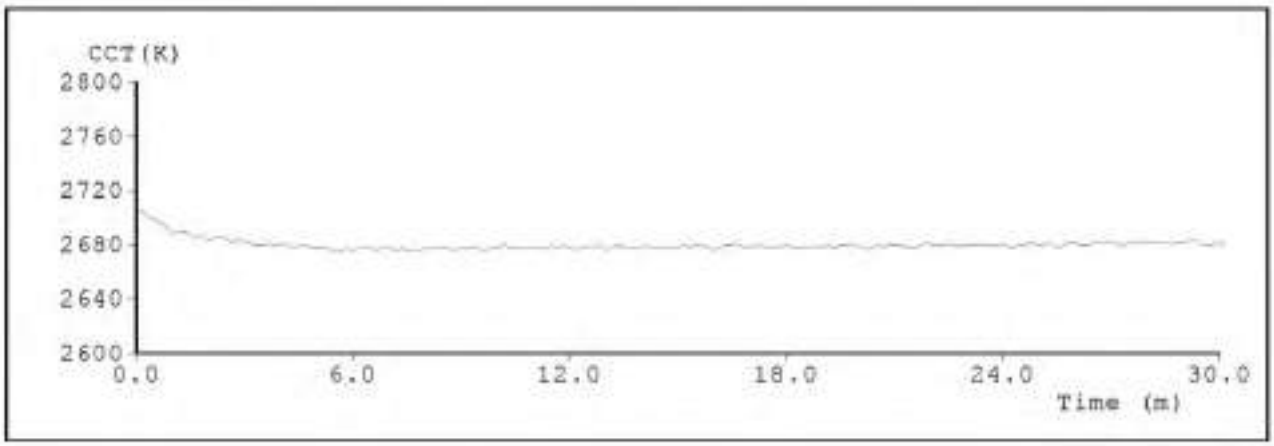
Time (m)


CCT(K)
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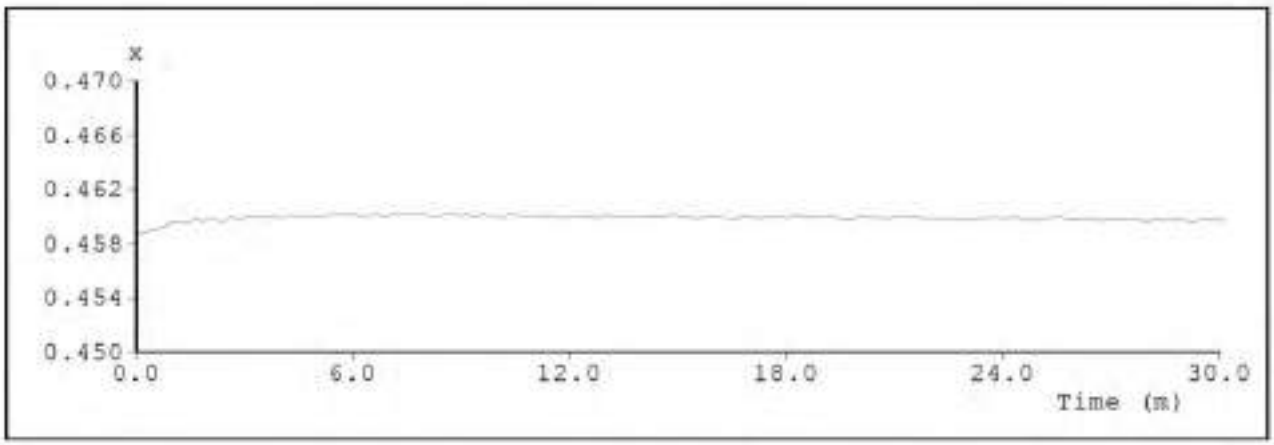
12.0
18.0
24.0
30.0
Time (m)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6.0
12.0
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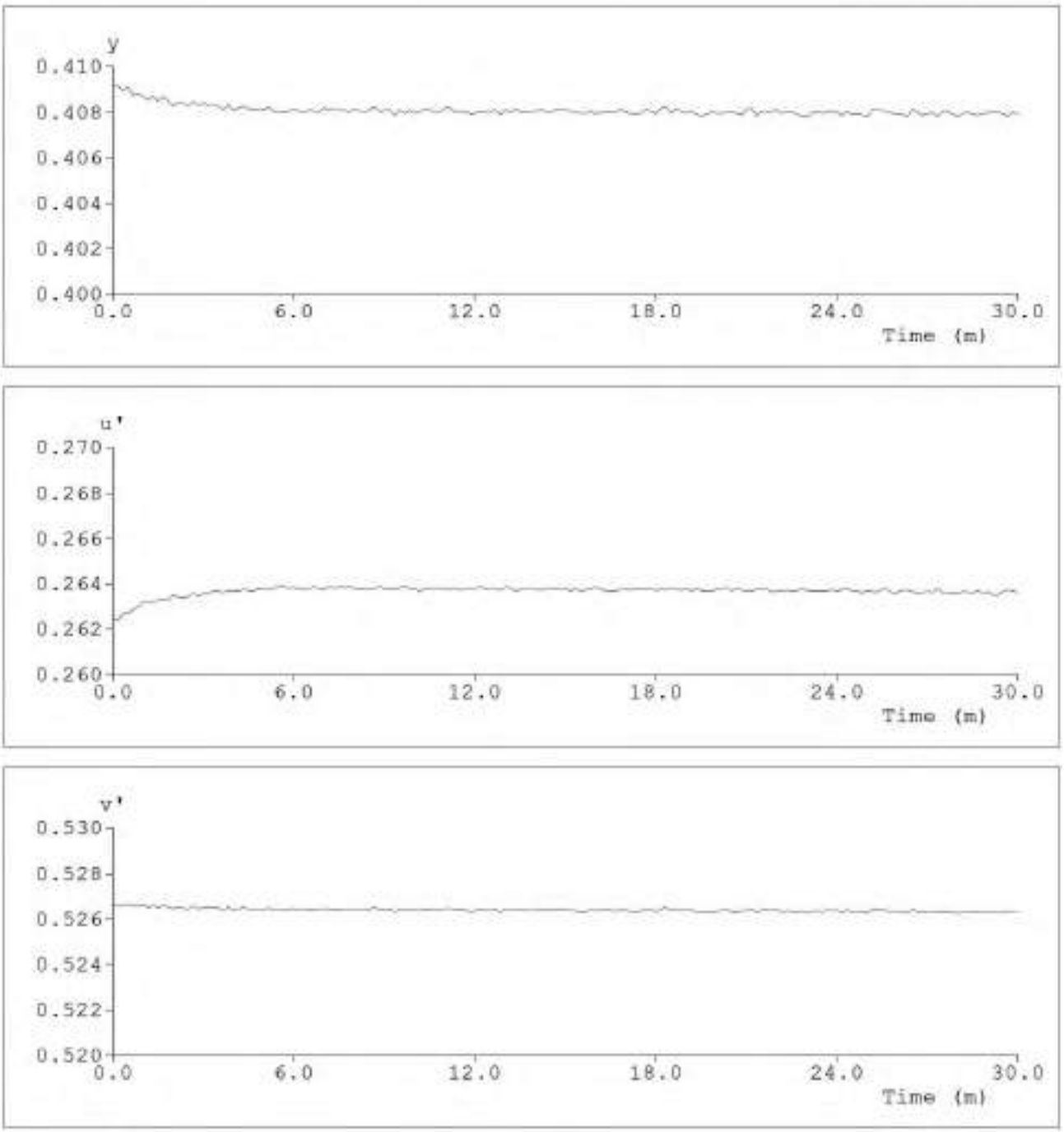
Time (m)


y
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30.0
Time (m)
u'
0.270
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0.266
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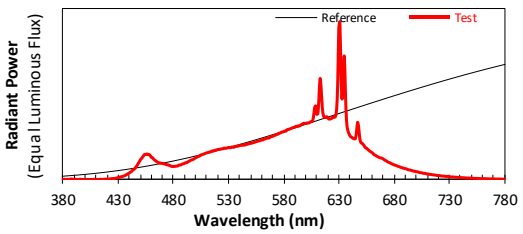
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

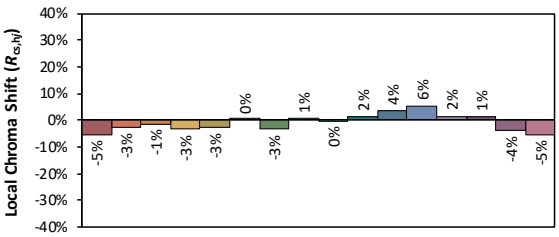
*5.2 ANSI/IES TM-30-18 Color Rendition Report

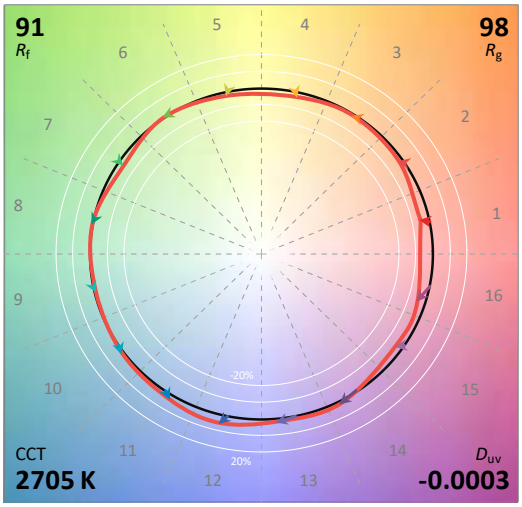
ANSI/IES TM-30-18 Color Rendition Report

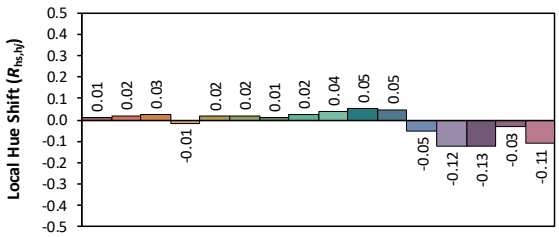
Source: Manufacturer:

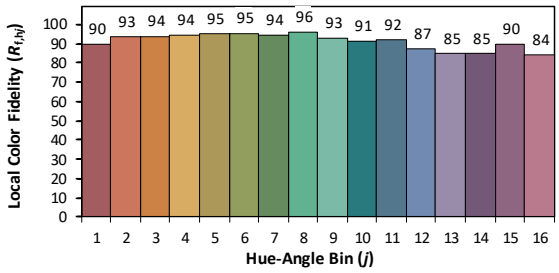
Date: 2023/6/13 Model: LFY18-0500-L27-CL-I-10

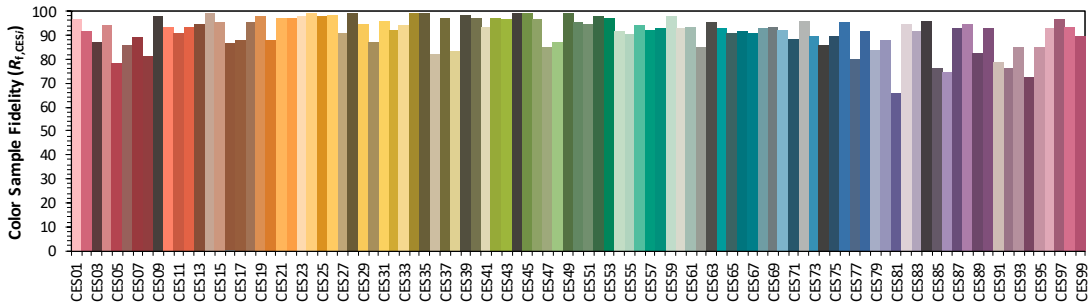












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

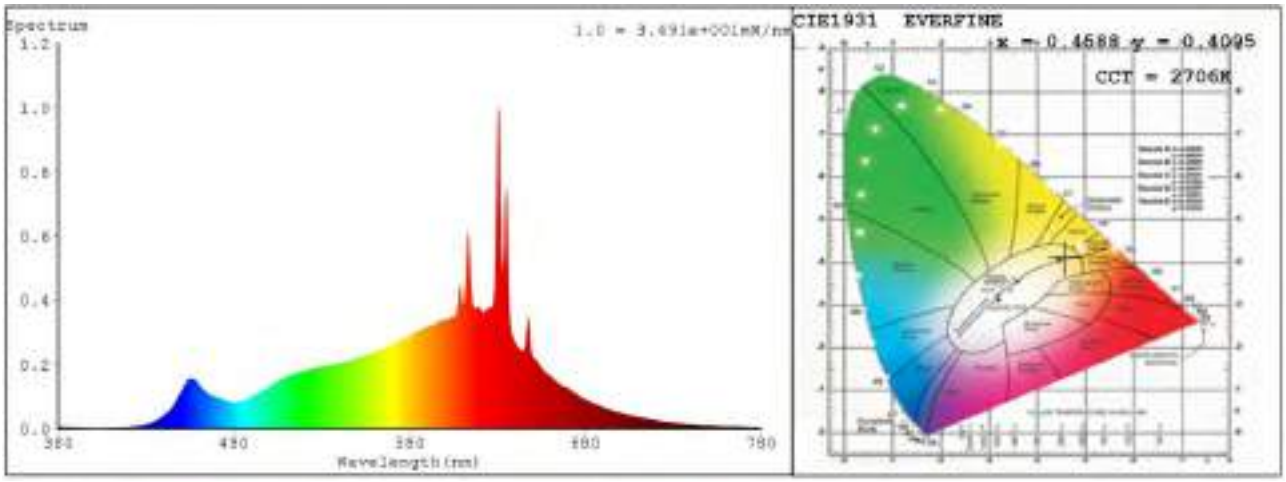
x	0.4589
y	0.4094
u'	0.2624
v'	0.5268

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	0.0022	414	0.0035	448	0.0974	482	0.0818	516	0.1725
381	0.004	415	0.0032	449	0.1081	483	0.0829	517	0.1758
382	0.0019	416	0.0027	450	0.1199	484	0.0841	518	0.1781
383	0.0021	417	0.004	451	0.128	485	0.0888	519	0.1786
384	0.004	418	0.0043	452	0.1366	486	0.0893	520	0.1819
385	0.0004	419	0.0044	453	0.1451	487	0.0907	521	0.1822
386	0.0038	420	0.0056	454	0.1535	488	0.0949	522	0.184
387	0.0051	421	0.0054	455	0.1516	489	0.0967	523	0.1845
388	0.0055	422	0.0053	456	0.1555	490	0.0991	524	0.1862
389	0.0043	423	0.0068	457	0.151	491	0.103	525	0.187
390	0.0035	424	0.0074	458	0.152	492	0.1028	526	0.1906
391	0.0038	425	0.0083	459	0.1454	493	0.1078	527	0.1889
392	0.0033	426	0.0085	460	0.1351	494	0.111	528	0.1904
393	0	427	0.0088	461	0.1334	495	0.1147	529	0.1918
394	0.0004	428	0.0108	462	0.1247	496	0.119	530	0.1944
395	0.0042	429	0.0122	463	0.1188	497	0.1201	531	0.1931
396	0.0037	430	0.0144	464	0.114	498	0.1234	532	0.1934
397	0.0016	431	0.016	465	0.1088	499	0.1273	533	0.1973
398	0.0019	432	0.0179	466	0.1061	500	0.1319	534	0.1956
399	0.0017	433	0.0196	467	0.1014	501	0.1351	535	0.196
400	0.0009	434	0.0212	468	0.1016	502	0.1387	536	0.2004
401	0.0013	435	0.0236	469	0.0988	503	0.1414	537	0.2011
402	0.0026	436	0.0257	470	0.0991	504	0.144	538	0.2014
403	0.0016	437	0.0303	471	0.0976	505	0.1497	539	0.2041
404	0.0006	438	0.0333	472	0.095	506	0.151	540	0.2056
405	0.0026	439	0.0376	473	0.0947	507	0.1544	541	0.2076
406	0.0013	440	0.0419	474	0.0904	508	0.1559	542	0.2071
407	0.0023	441	0.0462	475	0.0905	509	0.1592	543	0.2098
408	0.0041	442	0.0504	476	0.0874	510	0.162	544	0.2077
409	0.0017	443	0.0582	477	0.0856	511	0.1631	545	0.2098
410	0.0034	444	0.0625	478	0.0813	512	0.1656	546	0.2126
411	0.001	445	0.0681	479	0.0808	513	0.1668	547	0.2134
412	0.0027	446	0.0772	480	0.0802	514	0.1692	548	0.2157
413	0.003	447	0.086	481	0.0812	515	0.1732	549	0.219

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2183	599	0.3378	648	0.3159	697	0.0546	746	0.0114
551	0.2218	600	0.3383	649	0.2507	698	0.052	747	0.0112
552	0.2216	601	0.3409	650	0.2239	699	0.0517	748	0.011
553	0.224	602	0.3406	651	0.2201	700	0.0495	749	0.0111
554	0.2268	603	0.3421	652	0.2132	701	0.0488	750	0.0101
555	0.2291	604	0.3467	653	0.2045	702	0.0471	751	0.0101
556	0.2308	605	0.3491	654	0.1936	703	0.045	752	0.0094
557	0.2336	606	0.3521	655	0.1906	704	0.0432	753	0.0092
558	0.2337	607	0.3755	656	0.1845	705	0.0429	754	0.009
559	0.2366	608	0.4292	657	0.1792	706	0.0408	755	0.0088
560	0.2397	609	0.4426	658	0.1727	707	0.0394	756	0.0089
561	0.2389	610	0.3936	659	0.1683	708	0.0394	757	0.0084
562	0.2437	611	0.3972	660	0.164	709	0.0376	758	0.0079
563	0.2453	612	0.4931	661	0.1587	710	0.0358	759	0.0075
564	0.2475	613	0.6067	662	0.1506	711	0.0353	760	0.0074
565	0.2509	614	0.5463	663	0.1487	712	0.0336	761	0.0077
566	0.2504	615	0.4361	664	0.144	713	0.0328	762	0.0074
567	0.2521	616	0.3864	665	0.1401	714	0.0319	763	0.0072
568	0.2575	617	0.3757	666	0.1371	715	0.0311	764	0.0068
569	0.2599	618	0.3739	667	0.1327	716	0.0301	765	0.0067
570	0.261	619	0.3789	668	0.1319	717	0.0292	766	0.0063
571	0.2665	620	0.3727	669	0.13	718	0.0282	767	0.0059
572	0.2665	621	0.3644	670	0.1266	719	0.0268	768	0.0063
573	0.2705	622	0.3648	671	0.1217	720	0.0262	769	0.0064
574	0.2727	623	0.3664	672	0.1174	721	0.0258	770	0.0058
575	0.2748	624	0.3717	673	0.1141	722	0.0251	771	0.006
576	0.2802	625	0.377	674	0.1097	723	0.0236	772	0.0055
577	0.2811	626	0.3749	675	0.1057	724	0.0232	773	0.0052
578	0.2861	627	0.3804	676	0.1034	725	0.0225	774	0.0052
579	0.2872	628	0.421	677	0.1	726	0.0219	775	0.0053
580	0.289	629	0.5801	678	0.0963	727	0.0211	776	0.0051
581	0.293	630	0.907	679	0.0937	728	0.0205	777	0.0049
582	0.2917	631	0.9444	680	0.0904	729	0.021	778	0.0045
583	0.2998	632	0.6297	681	0.0885	730	0.02	779	0.0045
584	0.3023	633	0.4843	682	0.086	731	0.0187	780	0.0045
585	0.3032	634	0.6286	683	0.0832	732	0.0176		
586	0.3065	635	0.7403	684	0.081	733	0.0175		
587	0.3091	636	0.5242	685	0.0785	734	0.0174		
588	0.3123	637	0.3547	686	0.0761	735	0.0161		
589	0.3144	638	0.3021	687	0.0732	736	0.016		
590	0.3149	639	0.2806	688	0.0716	737	0.0153		
591	0.3215	640	0.2657	689	0.0694	738	0.0148		
592	0.3188	641	0.2579	690	0.068	739	0.0135		
593	0.3239	642	0.2538	691	0.0666	740	0.0141		
594	0.3226	643	0.2488	692	0.0637	741	0.0132		
595	0.3266	644	0.246	693	0.061	742	0.0137		
596	0.3309	645	0.2474	694	0.0598	743	0.0126		
597	0.3343	646	0.284	695	0.0585	744	0.0126		
598	0.3387	647	0.3438	696	0.0563	745	0.012		

6. Goniophotometer Test results

6.1 Test Data

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

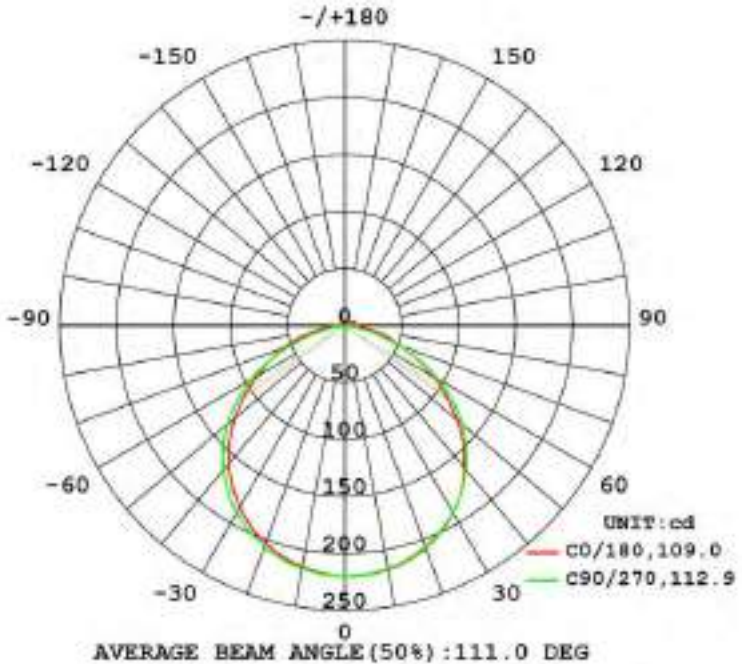
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.218	1.0000	5.232

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
628.484	120.12	220	2.1	97.9

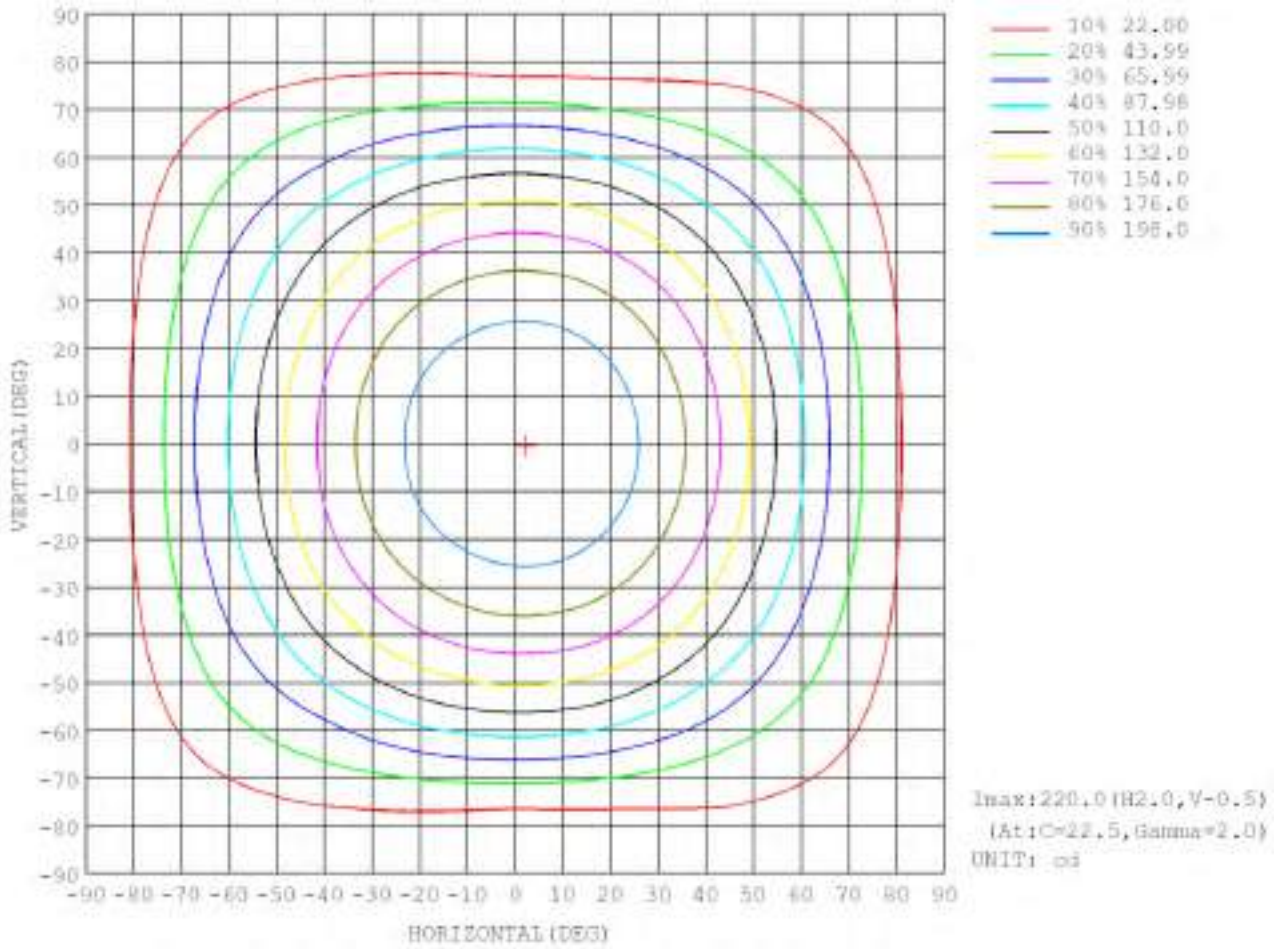
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	217.6	217.4	216.2	215.5	214.3	215.4	216.4	217.2	0~10	20.52	20.62	3.31,3.31
20	207.5	207.6	206.8	206.5	203.2	204.8	206.4	207.3	10~20	59.85	80.67	12.7,12.6
30	188.9	188.7	188.5	188.4	184.2	186.7	188.5	193.4	20~30	91.30	172.0	27.4,27.4
40	163.6	166.0	165.6	161.4	158.4	161.8	165.3	161.8	30~40	119.6	292.6	46.45
50	128.5	131.1	134.3	129.1	125.8	128.6	134.6	131.8	40~50	114.1	396.7	63.1,63.1
60	90.58	90.41	94.48	89.82	88.48	91.46	95.38	89.38	50~60	89.70	496.4	79.79
70	51.96	49.78	49.28	51.95	57.04	54.16	50.18	48.81	60~70	70.50	566.9	90.2,90.2
80	24.38	22.15	11.05	20.51	24.39	21.41	11.06	20.40	70~80	38.77	605.7	96.3,96.3
90	8.312	7.402	0.2108	5.622	6.183	5.622	0.1859	7.441	80~90	11.55	619.2	97.9,97.9
100	7.112	7.182	0.0493	3.963	4.142	4.040	0.0711	7.108	90~100	5.059	620.3	98.7,98.7
110	5.395	5.390	0.0486	3.477	3.552	3.488	0.0921	5.389	100~110	4.259	624.5	99.4,99.4
120	2.718	0.7258	0.1104	0.4727	4.322	0.9798	0.1043	0.7455	110~120	2.343	627.2	99.8,99.8
130	1.213	0.2728	0.1566	0.1936	1.036	0.1893	0.1469	0.1675	120~130	0.7149	627.9	99.9,99.9
140	0.2046	0.2054	0.1818	0.1960	0.2785	0.2242	0.2102	0.2305	130~140	0.2002	628.1	99.9,99.9
150	0.2108	0.2174	0.2169	0.2203	0.3035	0.2378	0.2325	0.2597	140~150	0.1475	628.2	100,100
160	0.2599	0.2524	0.2471	0.2575	0.3448	0.3448	0.3361	0.3399	150~160	0.1291	628.4	100,100
170	0.2823	0.2856	0.2848	0.2841	0.3482	0.3348	0.3420	0.3465	160~170	0.0878	628.5	100,100
180	0.3338	0.3383	0.3306	0.1342	0.3382	0.3341	0.3284	0.3388	170~180	0.0311	628.5	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	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
5	219	219	219	219	219	219	219	218	218	218	218	219	219	219	219	219
10	218	217	217	217	216	216	215	215	215	215	215	216	216	217	217	217
15	213	213	213	213	212	212	211	210	210	210	211	212	212	213	213	213
20	208	208	208	207	206	205	204	204	203	204	205	205	206	207	207	207
25	200	200	200	200	199	198	196	195	194	195	197	198	199	200	200	200
30	190	190	191	191	190	188	186	185	184	185	187	188	190	190	190	190
35	178	178	179	180	179	177	175	173	172	173	175	177	179	179	179	178
40	164	164	166	167	166	164	161	159	158	160	162	164	166	166	166	164
45	147	148	150	152	151	149	146	144	143	144	147	150	151	152	150	148
50	129	129	132	135	134	132	129	127	126	127	130	133	135	135	132	129
55	109	109	112	116	115	113	110	108	108	109	111	115	116	115	112	109
60	91.0	90.4	90.4	94.1	96.5	93.0	89.9	88.5	88.7	89.7	91.5	94.3	95.4	94.1	90.0	90.4
65	69.9	69.9	70.4	71.4	71.9	71.4	69.3	71.9	73.3	73.0	71.4	72.7	72.9	71.3	69.4	69.1
70	52.0	50.9	49.8	49.4	49.3	50.1	52.0	55.6	57.0	56.9	54.2	51.6	50.2	48.7	48.8	50.2
75	39.1	37.8	33.8	30.0	27.7	31.7	35.5	38.7	39.8	39.4	37.2	32.9	28.8	29.3	33.0	36.8
80	24.9	25.1	22.2	16.0	11.1	16.5	20.5	23.3	24.4	24.0	21.4	17.6	12.0	14.7	20.4	23.8
85	12.0	12.4	11.1	7.34	2.93	7.57	11.0	12.6	12.9	12.8	11.3	8.03	3.49	6.87	9.70	10.9
90	8.31	8.48	7.80	4.32	0.11	3.25	5.62	6.23	6.18	6.39	5.82	3.50	0.18	4.05	7.44	7.89
95	7.45	7.57	7.08	4.44	0.05	2.60	4.80	4.48	4.08	4.41	4.41	2.46	0.05	4.31	6.62	7.53
100	7.11	7.39	7.18	4.35	0.05	2.40	3.96	4.63	4.14	4.40	4.08	2.37	0.07	3.92	7.07	7.36
105	8.10	8.20	8.35	0.88	0.06	1.11	3.69	4.27	4.34	4.40	3.68	1.14	0.08	0.80	7.55	8.31
110	9.40	9.18	5.40	0.17	0.07	0.27	3.48	3.98	3.99	3.92	3.65	0.25	0.09	0.16	5.39	8.80
115	8.59	7.09	1.55	0.11	0.09	0.10	2.28	3.69	3.87	3.80	2.29	0.11	0.10	0.11	1.55	7.31
120	3.72	2.54	0.74	0.12	0.11	0.11	0.87	2.69	3.32	2.78	0.97	0.11	0.10	0.12	0.80	2.67
125	2.11	1.48	0.21	0.14	0.14	0.14	0.41	1.36	1.86	1.46	0.38	0.12	0.12	0.13	0.22	1.59
130	1.21	0.52	0.17	0.16	0.16	0.16	0.19	0.67	1.02	0.73	0.19	0.15	0.15	0.16	0.17	0.70
135	0.28	0.19	0.19	0.18	0.18	0.18	0.18	0.30	0.47	0.32	0.19	0.18	0.18	0.19	0.20	0.21
140	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.21	0.27	0.25	0.23	0.22	0.22	0.22	0.23	0.24
145	0.21	0.20	0.21	0.20	0.20	0.20	0.21	0.21	0.27	0.27	0.26	0.26	0.26	0.26	0.27	0.27
150	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.30	0.30	0.30	0.29	0.29	0.29	0.30	0.30
155	0.24	0.24	0.24	0.23	0.24	0.24	0.24	0.24	0.33	0.33	0.33	0.32	0.32	0.32	0.33	0.33
160	0.25	0.26	0.25	0.25	0.25	0.25	0.26	0.26	0.34	0.35	0.34	0.34	0.34	0.33	0.34	0.34
165	0.27	0.28	0.27	0.27	0.26	0.27	0.28	0.28	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.35
170	0.29	0.29	0.29	0.28	0.28	0.29	0.29	0.30	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
175	0.31	0.32	0.31	0.31	0.31	0.31	0.32	0.32	0.35	0.35	0.35	0.35	0.35	0.34	0.34	0.35
180	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.33	0.33	0.33	0.33	0.33	0.33	0.33

7. Photo of sample

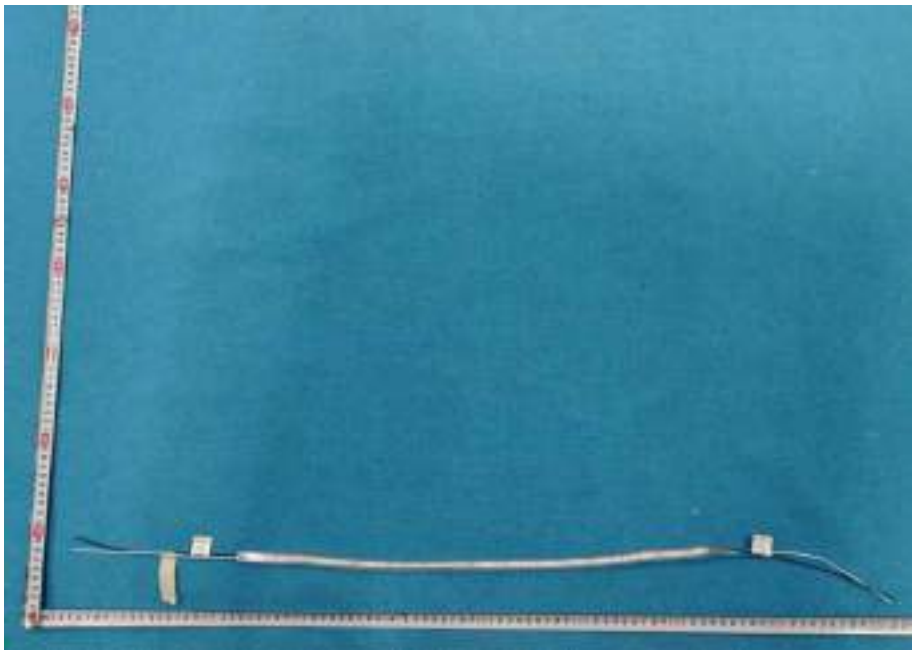


Figure 1 Overview

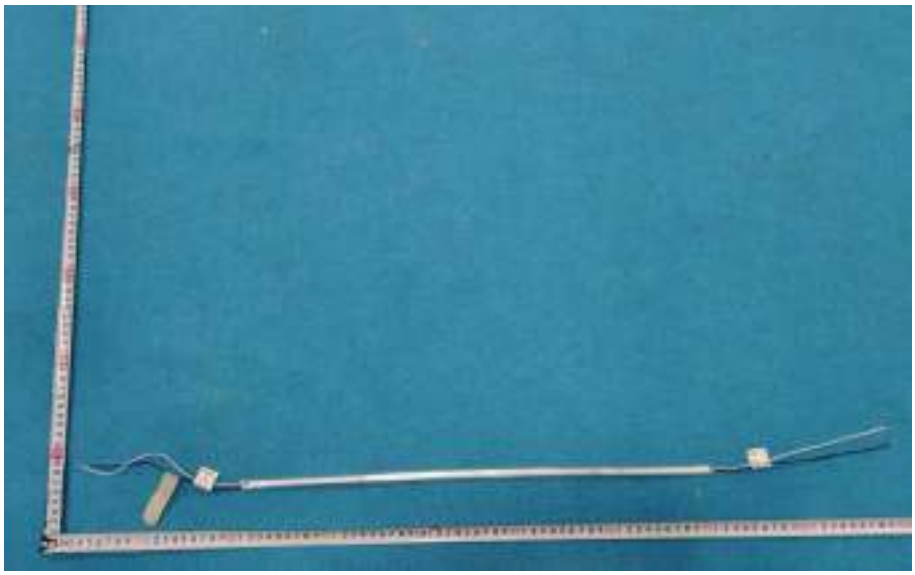


Figure 2 Overview

---End of Report---

NVLAP TESTING NVLAP LAB CODE:600177-0

GTG Global Testing Group

Test Report Of ANSI/IES LM-79-19

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

Report Number	:	N02A23060187L00101
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LFY18-0500-L27-CL-I-12
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	:	June. 08, 2023
Date of test	:	June. 08, 2023 - June. 13, 2023
Date of report	:	June. 13, 2023

Tested by: Jarvis Zhang

Jarvis Zhang/ Test Engineer

Checked by: Sandy Chen

Sandy Chen/ Project Engineer

Approved by:

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:	LFY18-0500-L27-CL-I-12
Manufacturer:	
Product Type:	SHIN FLEX
Rated Voltage/Frequency:	DC24V
Rated Power:	6W
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	2023/09/17
Digital Power Meter	MD-E001	PF2010	2023/09/17
AC Testing Power Source	MD-E002	DPS1060	2023/09/17
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2023/10/13
Integrating Sphere System	MD-E029	2M	2023/09/17
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2023/09/17
Digital Power Meter	MD-E008	PF310	2023/09/17
AC Testing Power Source	MD-E010	DPS1010	2023/09/17
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

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	0.2297	23.998	5.5123	731.93	0.4584	0.4106	0.2616	0.5271	2720	94
1	00h00m10s	0.2348	23.998	5.6347	730.78	0.4585	0.4105	0.2617	0.5271	2718	94
2	00h00m20s	0.235	23.998	5.6395	731.42	0.4585	0.4105	0.2617	0.5271	2719	93.9
3	00h00m30s	0.2351	23.998	5.6419	731.12	0.4586	0.4104	0.2618	0.5271	2716	93.9
4	00h00m40s	0.2362	23.998	5.6683	733.04	0.4586	0.4105	0.2617	0.5271	2717	93.9
5	00h00m50s	0.236	23.998	5.6635	731.46	0.4584	0.4102	0.2618	0.527	2717	93.9
6	00h01m00s	0.2365	23.998	5.6755	731.45	0.4586	0.4102	0.2619	0.527	2715	93.9
7	00h01m10s	0.2356	23.998	5.6539	729.88	0.4586	0.4102	0.2619	0.527	2715	93.9
8	00h01m20s	0.2349	23.998	5.6371	726.48	0.4585	0.4099	0.2619	0.5269	2714	93.9
9	00h01m30s	0.2359	23.998	5.6611	729.59	0.4587	0.41	0.262	0.527	2713	93.9
10	00h01m40s	0.2353	23.998	5.6467	727.16	0.4585	0.4098	0.262	0.5269	2713	93.9
11	00h01m50s	0.2373	23.998	5.6947	731.66	0.4586	0.4099	0.262	0.5269	2712	93.9
12	00h02m00s	0.2352	23.998	5.6443	726.46	0.4585	0.4098	0.262	0.5269	2713	93.9
13	00h02m10s	0.2337	23.998	5.6083	725.09	0.4587	0.4097	0.2621	0.5269	2710	93.9
14	00h02m20s	0.2415	23.998	5.7955	739.5	0.4586	0.4099	0.262	0.5269	2713	93.9
15	00h02m30s	0.2411	23.998	5.7859	742.29	0.4586	0.4099	0.262	0.5269	2713	93.9
16	00h02m40s	0.2408	23.998	5.7787	740.6	0.4587	0.4099	0.262	0.5269	2712	93.9
17	00h02m50s	0.2406	23.998	5.7739	738.76	0.4587	0.4098	0.2621	0.5269	2710	93.9
18	00h03m00s	0.2409	23.998	5.7811	740.21	0.4587	0.4099	0.2621	0.5269	2711	93.9
19	00h03m10s	0.2423	23.998	5.8147	743.09	0.4587	0.4099	0.2621	0.5269	2711	93.8
20	00h03m20s	0.2405	23.998	5.7715	737.64	0.4587	0.4095	0.2622	0.5268	2709	93.9
21	00h03m30s	0.2403	23.998	5.7667	737.12	0.4587	0.4097	0.2622	0.5268	2709	93.9

22	00h03m40s	0.2411	23.998	5.7859	740.09	0.4586	0.4096	0.2621	0.5268	2710	93.9
23	00h03m50s	0.2404	23.998	5.7691	738.07	0.459	0.4099	0.2622	0.5269	2707	93.8
24	00h04m00s	0.2399	23.998	5.7571	735.89	0.4587	0.4096	0.2622	0.5268	2708	93.8
25	00h04m10s	0.2396	23.998	5.7499	735.32	0.4587	0.4096	0.2622	0.5268	2709	93.9
26	00h04m20s	0.2394	23.998	5.7451	732.95	0.459	0.4098	0.2623	0.5269	2706	93.9
27	00h04m30s	0.2407	23.998	5.7763	738.7	0.4588	0.4097	0.2622	0.5268	2708	93.9
28	00h04m40s	0.2407	23.998	5.7763	738.56	0.4586	0.4096	0.2621	0.5268	2710	93.9
29	00h04m50s	0.2404	23.998	5.7691	737.6	0.459	0.4098	0.2623	0.5269	2707	93.8
30	00h05m00s	0.2405	23.998	5.7715	737.16	0.4589	0.4095	0.2623	0.5268	2706	93.9
31	00h05m10s	0.2418	23.998	5.8027	741.75	0.4588	0.4097	0.2622	0.5268	2707	93.8
32	00h05m20s	0.242	23.998	5.8075	741.7	0.4586	0.4095	0.2622	0.5268	2709	93.9
33	00h05m30s	0.2421	23.998	5.8099	741.81	0.4588	0.4095	0.2623	0.5268	2707	93.8
34	00h05m40s	0.2421	23.998	5.8099	741.96	0.4588	0.4096	0.2622	0.5268	2708	93.8
35	00h05m50s	0.2421	23.998	5.8099	742.32	0.4587	0.4096	0.2622	0.5268	2709	93.9
36	00h06m00s	0.2421	23.998	5.8099	741.13	0.4589	0.4096	0.2623	0.5268	2706	93.9
37	00h06m10s	0.2421	23.998	5.8099	742.08	0.4587	0.4095	0.2622	0.5268	2709	93.9
38	00h06m20s	0.2421	23.998	5.8099	741.24	0.4587	0.4095	0.2622	0.5267	2708	93.9
39	00h06m30s	0.242	23.998	5.8075	741.04	0.4587	0.4095	0.2623	0.5267	2707	93.8
40	00h06m40s	0.2421	23.998	5.8099	741.53	0.4587	0.4095	0.2622	0.5268	2708	93.8
41	00h06m50s	0.242	23.998	5.8075	740.8	0.4588	0.4094	0.2623	0.5267	2706	93.8
42	00h07m00s	0.242	23.998	5.8075	740.81	0.459	0.4094	0.2625	0.5268	2703	93.8
43	00h07m10s	0.2422	23.998	5.8123	741.77	0.4587	0.4095	0.2622	0.5268	2708	93.9
44	00h07m20s	0.2421	23.998	5.8099	741.37	0.4586	0.4095	0.2622	0.5267	2708	93.9
45	00h07m30s	0.2421	23.998	5.8099	741.21	0.4587	0.4094	0.2622	0.5267	2708	93.9
46	00h07m40s	0.242	23.998	5.8075	741.01	0.4587	0.4093	0.2623	0.5267	2706	93.9
47	00h07m50s	0.242	23.998	5.8075	740.79	0.4588	0.4094	0.2623	0.5267	2706	93.8
48	00h08m00s	0.242	23.998	5.8075	741.57	0.4587	0.4095	0.2622	0.5268	2708	93.9
49	00h08m10s	0.242	23.998	5.8075	741.52	0.4587	0.4096	0.2622	0.5268	2708	93.9
50	00h08m20s	0.242	23.998	5.8075	740.73	0.4588	0.4096	0.2623	0.5268	2707	93.9
51	00h08m30s	0.242	23.998	5.8075	741.58	0.4588	0.4095	0.2623	0.5268	2707	93.8
52	00h08m40s	0.242	23.998	5.8075	740.65	0.4588	0.4096	0.2622	0.5268	2708	93.9

53	00h08m50s	0.2419	23.998	5.8051	740.65	0.4586	0.4095	0.2622	0.5267	2709	93.9
54	00h09m00s	0.2419	23.998	5.8051	741.01	0.4587	0.4094	0.2623	0.5267	2707	93.8
55	00h09m10s	0.2418	23.998	5.8027	740.71	0.4588	0.4094	0.2623	0.5268	2706	93.9
56	00h09m20s	0.2419	23.998	5.8051	741.05	0.4587	0.4095	0.2622	0.5268	2708	93.9
57	00h09m30s	0.2419	23.998	5.8051	740.35	0.459	0.4096	0.2624	0.5268	2704	93.8
58	00h09m40s	0.2421	23.998	5.8099	741.22	0.4588	0.4094	0.2623	0.5267	2706	93.8
59	00h09m50s	0.2423	23.998	5.8147	742.23	0.4587	0.4095	0.2622	0.5268	2708	93.9
60	00h10m00s	0.2422	23.998	5.8123	741.51	0.4587	0.4095	0.2623	0.5268	2707	93.8
61	00h10m10s	0.242	23.998	5.8075	740.73	0.4588	0.4095	0.2623	0.5268	2706	93.9
62	00h10m20s	0.2418	23.998	5.8027	740.24	0.4588	0.4096	0.2623	0.5268	2707	93.9
63	00h10m30s	0.2418	23.998	5.8027	740.61	0.4588	0.4096	0.2623	0.5268	2707	93.8
64	00h10m40s	0.2418	23.998	5.8027	740.41	0.4589	0.4095	0.2624	0.5268	2705	93.8
65	00h10m50s	0.2418	23.998	5.8027	740.21	0.4587	0.4094	0.2623	0.5267	2706	93.8
66	00h11m00s	0.2416	23.998	5.7979	739.74	0.4586	0.4096	0.2622	0.5268	2710	93.9
67	00h11m10s	0.2407	23.998	5.7763	736.17	0.4589	0.4094	0.2624	0.5267	2704	93.9
68	00h11m20s	0.2405	23.998	5.7715	736.64	0.4587	0.4094	0.2623	0.5267	2707	93.8
69	00h11m30s	0.2414	23.998	5.7931	738.93	0.4588	0.4095	0.2623	0.5267	2707	93.9
70	00h11m40s	0.238	23.998	5.7115	731.95	0.4589	0.4095	0.2624	0.5268	2705	93.9
71	00h11m50s	0.2425	23.998	5.8195	742.25	0.4588	0.4095	0.2623	0.5268	2706	93.8
72	00h12m00s	0.2418	23.998	5.8027	740.25	0.4589	0.4095	0.2623	0.5268	2706	93.8
73	00h12m10s	0.242	23.998	5.8075	740.73	0.4589	0.4096	0.2623	0.5268	2706	93.8
74	00h12m20s	0.2424	23.998	5.8171	742.59	0.4587	0.4094	0.2623	0.5267	2706	93.9
75	00h12m30s	0.2428	23.998	5.8267	742.95	0.4589	0.4096	0.2623	0.5268	2706	93.8
76	00h12m40s	0.2428	23.998	5.8267	743.34	0.4588	0.4095	0.2623	0.5267	2707	93.8
77	00h12m50s	0.2428	23.998	5.8267	742.93	0.4588	0.4096	0.2623	0.5268	2707	93.9
78	00h13m00s	0.2428	23.998	5.8267	742.73	0.4588	0.4094	0.2623	0.5267	2706	93.8
79	00h13m10s	0.2428	23.998	5.8267	742.73	0.4586	0.4093	0.2623	0.5266	2707	93.8
80	00h13m20s	0.2428	23.998	5.8267	743.43	0.4589	0.4095	0.2624	0.5268	2705	93.8
81	00h13m30s	0.2428	23.998	5.8267	742.86	0.4586	0.4094	0.2623	0.5267	2707	93.9
82	00h13m40s	0.2427	23.998	5.8243	742.66	0.4588	0.4095	0.2623	0.5268	2706	93.8
83	00h13m50s	0.2427	23.998	5.8243	742.64	0.4587	0.4094	0.2623	0.5267	2707	93.8

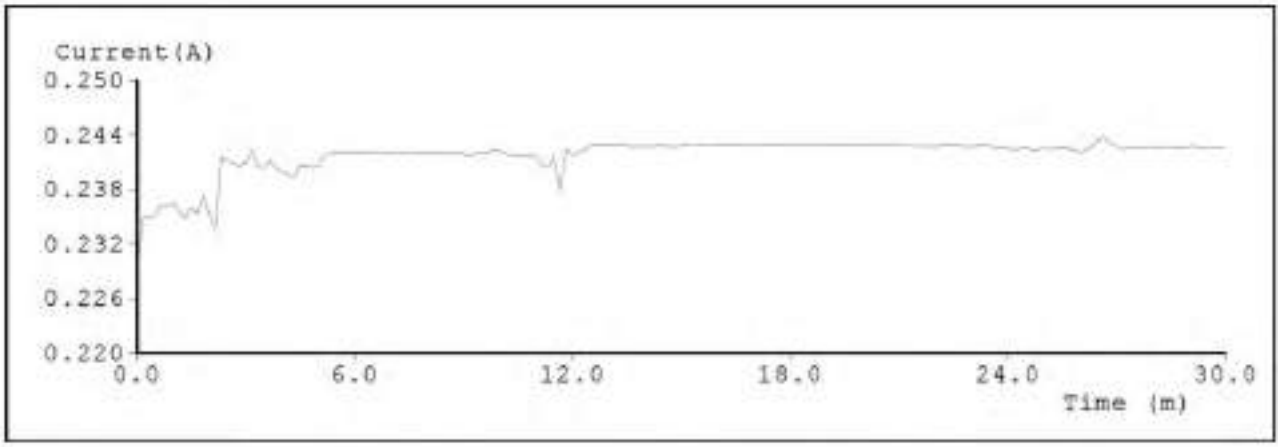
84	00h14m00s	0.2427	23.998	5.8243	743.06	0.4587	0.4095	0.2622	0.5268	2708	93.9
85	00h14m10s	0.2427	23.998	5.8243	742.85	0.4587	0.4094	0.2623	0.5267	2707	93.8
86	00h14m20s	0.2428	23.998	5.8267	743.11	0.4588	0.4095	0.2623	0.5268	2707	93.9
87	00h14m30s	0.2428	23.998	5.8267	742.7	0.4587	0.4095	0.2623	0.5268	2708	93.9
88	00h14m40s	0.2427	23.998	5.8243	743.02	0.4588	0.4095	0.2623	0.5268	2707	93.8
89	00h14m50s	0.2427	23.998	5.8243	743.83	0.4587	0.4097	0.2621	0.5268	2710	93.9
90	00h15m00s	0.2428	23.998	5.8267	743.17	0.4587	0.4094	0.2622	0.5267	2708	93.8
91	00h15m10s	0.2428	23.998	5.8267	743.03	0.4587	0.4095	0.2622	0.5268	2708	93.9
92	00h15m20s	0.2429	23.998	5.8291	742.91	0.4589	0.4095	0.2624	0.5268	2705	93.8
93	00h15m30s	0.2428	23.998	5.8267	743.34	0.4588	0.4094	0.2623	0.5267	2706	93.9
94	00h15m40s	0.2428	23.998	5.8267	743.59	0.4588	0.4096	0.2623	0.5268	2707	93.9
95	00h15m50s	0.2429	23.998	5.8291	743.11	0.4588	0.4095	0.2623	0.5268	2706	93.9
96	00h16m00s	0.2429	23.998	5.8291	743.64	0.4585	0.4095	0.2621	0.5267	2710	93.9
97	00h16m10s	0.2429	23.998	5.8291	743.5	0.4589	0.4096	0.2623	0.5268	2706	93.8
98	00h16m20s	0.2429	23.998	5.8291	743.24	0.4588	0.4094	0.2623	0.5267	2706	93.8
99	00h16m30s	0.2429	23.998	5.8291	743.1	0.4587	0.4095	0.2623	0.5268	2707	93.9
100	00h16m40s	0.2429	23.998	5.8291	743.17	0.4588	0.4094	0.2623	0.5267	2706	93.8
101	00h16m50s	0.2429	23.998	5.8291	743.73	0.4586	0.4094	0.2622	0.5267	2708	93.8
102	00h17m00s	0.2428	23.998	5.8267	743.48	0.4588	0.4097	0.2623	0.5268	2707	93.9
103	00h17m10s	0.2429	23.998	5.8291	742.96	0.4585	0.4093	0.2622	0.5267	2710	93.9
104	00h17m20s	0.2429	23.998	5.8291	743.37	0.4587	0.4095	0.2623	0.5267	2707	93.8
105	00h17m30s	0.2429	23.998	5.8291	743.43	0.4587	0.4095	0.2622	0.5268	2708	93.9
106	00h17m40s	0.2429	23.998	5.8291	743.19	0.4588	0.4096	0.2623	0.5268	2707	93.9
107	00h17m50s	0.2429	23.998	5.8291	743.32	0.4587	0.4093	0.2623	0.5267	2706	93.8
108	00h18m00s	0.2429	23.998	5.8291	743.74	0.4587	0.4096	0.2622	0.5268	2709	93.9
109	00h18m10s	0.2429	23.998	5.8291	744.03	0.4588	0.4096	0.2622	0.5268	2708	93.9
110	00h18m20s	0.243	23.998	5.8315	743.6	0.4588	0.4096	0.2622	0.5268	2708	93.9
111	00h18m30s	0.243	23.998	5.8315	743.9	0.4586	0.4093	0.2623	0.5267	2708	93.9
112	00h18m40s	0.243	23.998	5.8315	743.96	0.4588	0.4095	0.2623	0.5268	2707	93.9
113	00h18m50s	0.2429	23.998	5.8291	743.15	0.4587	0.4095	0.2623	0.5267	2708	93.9
114	00h19m00s	0.2429	23.998	5.8291	743.9	0.4585	0.4094	0.2622	0.5267	2710	93.9

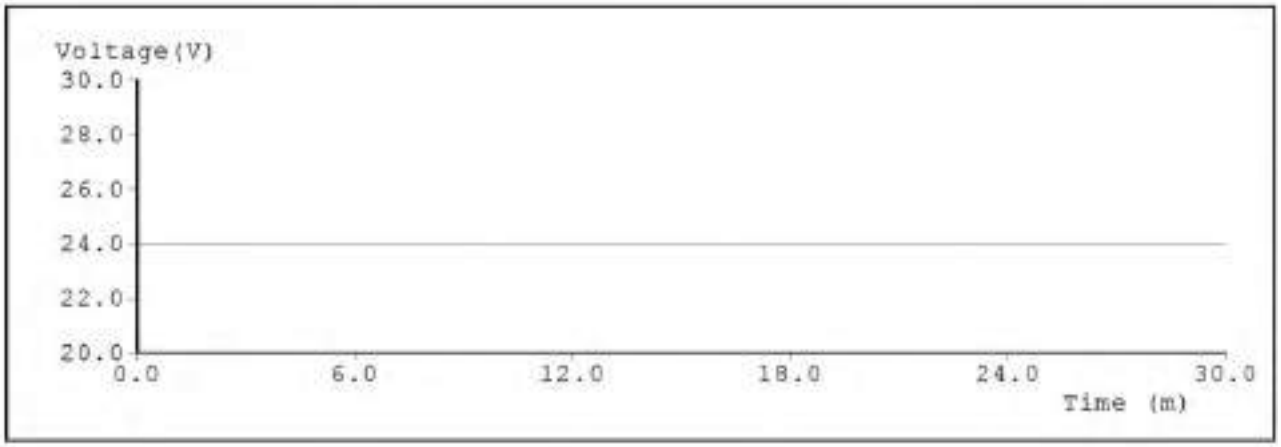
115	00h19m10s	0.2429	23.998	5.8291	743.85	0.4586	0.4094	0.2623	0.5267	2708	93.8
116	00h19m20s	0.2429	23.998	5.8291	743.84	0.4588	0.4097	0.2622	0.5269	2708	93.8
117	00h19m30s	0.2429	23.998	5.8291	743.9	0.4587	0.4095	0.2623	0.5267	2707	93.8
118	00h19m40s	0.2429	23.998	5.8291	743.97	0.4587	0.4097	0.2621	0.5268	2710	93.9
119	00h19m50s	0.2429	23.998	5.8291	744.06	0.4585	0.4094	0.2621	0.5267	2710	93.9
120	00h20m00s	0.243	23.998	5.8315	744.1	0.4588	0.4096	0.2623	0.5268	2707	93.9
121	00h20m10s	0.243	23.998	5.8315	744.51	0.4587	0.4095	0.2623	0.5267	2708	93.8
122	00h20m20s	0.243	23.998	5.8315	744.03	0.4588	0.4097	0.2622	0.5268	2708	93.9
123	00h20m30s	0.243	23.998	5.8315	743.62	0.4586	0.4093	0.2623	0.5267	2708	93.9
124	00h20m40s	0.243	23.998	5.8315	743.84	0.4586	0.4095	0.2622	0.5267	2708	93.9
125	00h20m50s	0.243	23.998	5.8315	744.09	0.4586	0.4095	0.2622	0.5268	2709	93.9
126	00h21m00s	0.2429	23.998	5.8291	743.77	0.4587	0.4094	0.2623	0.5267	2707	93.8
127	00h21m10s	0.243	23.998	5.8315	743.83	0.4587	0.4095	0.2622	0.5267	2708	93.9
128	00h21m20s	0.2428	23.998	5.8267	743.46	0.4588	0.4097	0.2622	0.5268	2708	93.8
129	00h21m30s	0.2427	23.998	5.8243	743.6	0.4587	0.4096	0.2622	0.5268	2708	93.9
130	00h21m40s	0.2428	23.998	5.8267	743.19	0.4588	0.4096	0.2622	0.5268	2708	93.9
131	00h21m50s	0.2427	23.998	5.8243	743.39	0.4588	0.4095	0.2623	0.5268	2707	93.8
132	00h22m00s	0.2427	23.998	5.8243	743.01	0.4588	0.4095	0.2623	0.5268	2706	93.8
133	00h22m10s	0.2428	23.998	5.8267	743.51	0.4587	0.4094	0.2622	0.5267	2708	93.8
134	00h22m20s	0.2428	23.998	5.8267	743.23	0.4587	0.4095	0.2623	0.5268	2708	93.9
135	00h22m30s	0.2428	23.998	5.8267	743.18	0.4587	0.4094	0.2623	0.5267	2707	93.9
136	00h22m40s	0.2428	23.998	5.8267	743.76	0.4587	0.4095	0.2622	0.5268	2708	93.8
137	00h22m50s	0.2427	23.998	5.8243	743.42	0.4587	0.4096	0.2622	0.5268	2708	93.8
138	00h23m00s	0.2427	23.998	5.8243	743.27	0.4584	0.4093	0.2622	0.5267	2710	93.9
139	00h23m10s	0.2428	23.998	5.8267	743.8	0.4587	0.4094	0.2622	0.5267	2708	93.9
140	00h23m20s	0.2428	23.998	5.8267	743.99	0.4586	0.4095	0.2622	0.5267	2709	93.9
141	00h23m30s	0.2428	23.998	5.8267	743.87	0.4585	0.4096	0.2621	0.5268	2711	93.9
142	00h23m40s	0.2426	23.998	5.8219	742.98	0.4587	0.4095	0.2623	0.5267	2707	93.9
143	00h23m50s	0.2425	23.998	5.8195	743.06	0.4587	0.4096	0.2622	0.5268	2708	93.9
144	00h24m00s	0.2425	23.998	5.8195	742.65	0.4589	0.4097	0.2623	0.5269	2706	93.8
145	00h24m10s	0.2423	23.998	5.8147	741.86	0.4586	0.4094	0.2622	0.5267	2709	93.9

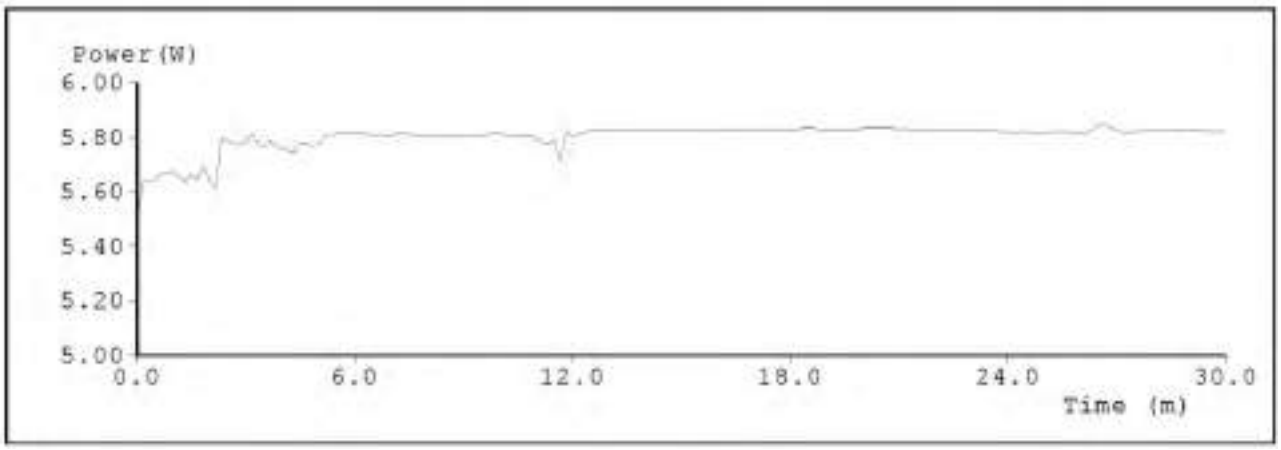
146	00h24m20s	0.2425	23.998	5.8195	743.13	0.4585	0.4094	0.2621	0.5267	2710	93.9
147	00h24m30s	0.2425	23.998	5.8195	742.99	0.4587	0.4095	0.2622	0.5268	2708	93.9
148	00h24m40s	0.2424	23.998	5.8171	743.25	0.4586	0.4096	0.2621	0.5268	2710	93.9
149	00h24m50s	0.2424	23.998	5.8171	742.78	0.4587	0.4095	0.2623	0.5268	2707	93.9
150	00h25m00s	0.2425	23.998	5.8195	743.1	0.4586	0.4096	0.2621	0.5268	2710	93.9
151	00h25m10s	0.2424	23.998	5.8171	742.68	0.4588	0.4095	0.2623	0.5268	2707	93.8
152	00h25m20s	0.2425	23.998	5.8195	742.81	0.4587	0.4095	0.2623	0.5268	2708	93.8
153	00h25m30s	0.2425	23.998	5.8195	742.68	0.4586	0.4095	0.2622	0.5267	2709	93.9
154	00h25m40s	0.2425	23.998	5.8195	742.85	0.4587	0.4095	0.2622	0.5268	2708	93.9
155	00h25m50s	0.2423	23.998	5.8147	742.55	0.4585	0.4095	0.2621	0.5267	2710	93.9
156	00h26m00s	0.2421	23.998	5.8099	742.2	0.4588	0.4095	0.2623	0.5268	2706	93.9
157	00h26m10s	0.2424	23.998	5.8171	743.44	0.4585	0.4095	0.2621	0.5268	2710	93.9
158	00h26m20s	0.2428	23.998	5.8267	743.58	0.4587	0.4097	0.2622	0.5268	2709	93.9
159	00h26m30s	0.2435	23.998	5.8435	746	0.4585	0.4095	0.2621	0.5267	2710	93.8
160	00h26m40s	0.2437	23.998	5.8483	746.44	0.4586	0.4094	0.2622	0.5267	2708	93.9
161	00h26m50s	0.2431	23.998	5.8339	744.55	0.4588	0.4096	0.2623	0.5268	2707	93.8
162	00h27m00s	0.2427	23.998	5.8243	743.59	0.4587	0.4097	0.2621	0.5268	2710	93.9
163	00h27m10s	0.2424	23.998	5.8171	742.7	0.4586	0.4095	0.2621	0.5267	2710	93.9
164	00h27m20s	0.2425	23.998	5.8195	743.18	0.4585	0.4094	0.2622	0.5267	2710	93.8
165	00h27m30s	0.2425	23.998	5.8195	743.26	0.4587	0.4096	0.2622	0.5268	2708	93.9
166	00h27m40s	0.2426	23.998	5.8219	743.52	0.4588	0.4095	0.2623	0.5268	2707	93.8
167	00h27m50s	0.2427	23.998	5.8243	743.62	0.4588	0.4096	0.2622	0.5268	2708	93.9
168	00h28m00s	0.2426	23.998	5.8219	743.48	0.4589	0.4096	0.2623	0.5268	2706	93.8
169	00h28m10s	0.2426	23.998	5.8219	743.47	0.4587	0.4096	0.2622	0.5268	2709	93.9
170	00h28m20s	0.2427	23.998	5.8243	743.57	0.4586	0.4094	0.2622	0.5267	2709	93.9
171	00h28m30s	0.2426	23.998	5.8219	743.45	0.4586	0.4096	0.2621	0.5268	2710	93.8
172	00h28m40s	0.2426	23.998	5.8219	743.16	0.4587	0.4095	0.2622	0.5268	2708	93.9
173	00h28m50s	0.2426	23.998	5.8219	743.32	0.4588	0.4098	0.2621	0.5269	2709	93.9
174	00h29m00s	0.2427	23.998	5.8243	743.89	0.4588	0.4096	0.2623	0.5268	2707	93.9
175	00h29m10s	0.2427	23.998	5.8243	743.86	0.4588	0.4096	0.2622	0.5268	2708	93.8
176	00h29m20s	0.2426	23.998	5.8219	743.68	0.4587	0.4097	0.2622	0.5268	2709	93.9

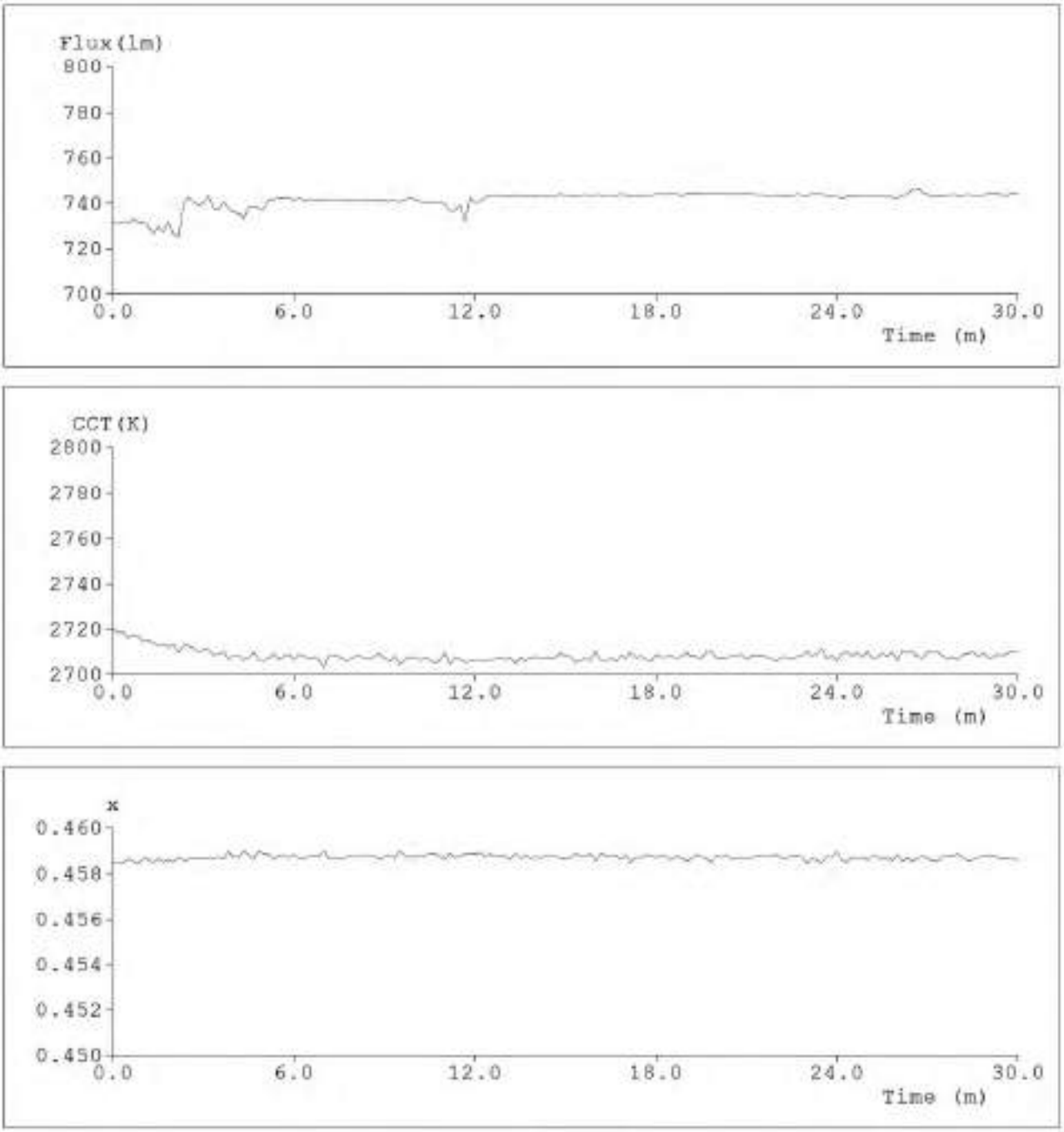
177	00h29m30s	0.2426	23.998	5.8219	743.46	0.4586	0.4095	0.2622	0.5267	2708	93.9
178	00h29m40s	0.2425	23.998	5.8195	743.36	0.4586	0.4096	0.2622	0.5268	2709	93.9
179	00h29m50s	0.2425	23.998	5.8195	744.55	0.4586	0.4097	0.2621	0.5268	2710	93.9
180	00h30m00s	0.2428	23.998	5.8267	744.51	0.4586	0.4096	0.2621	0.5268	2710	93.9

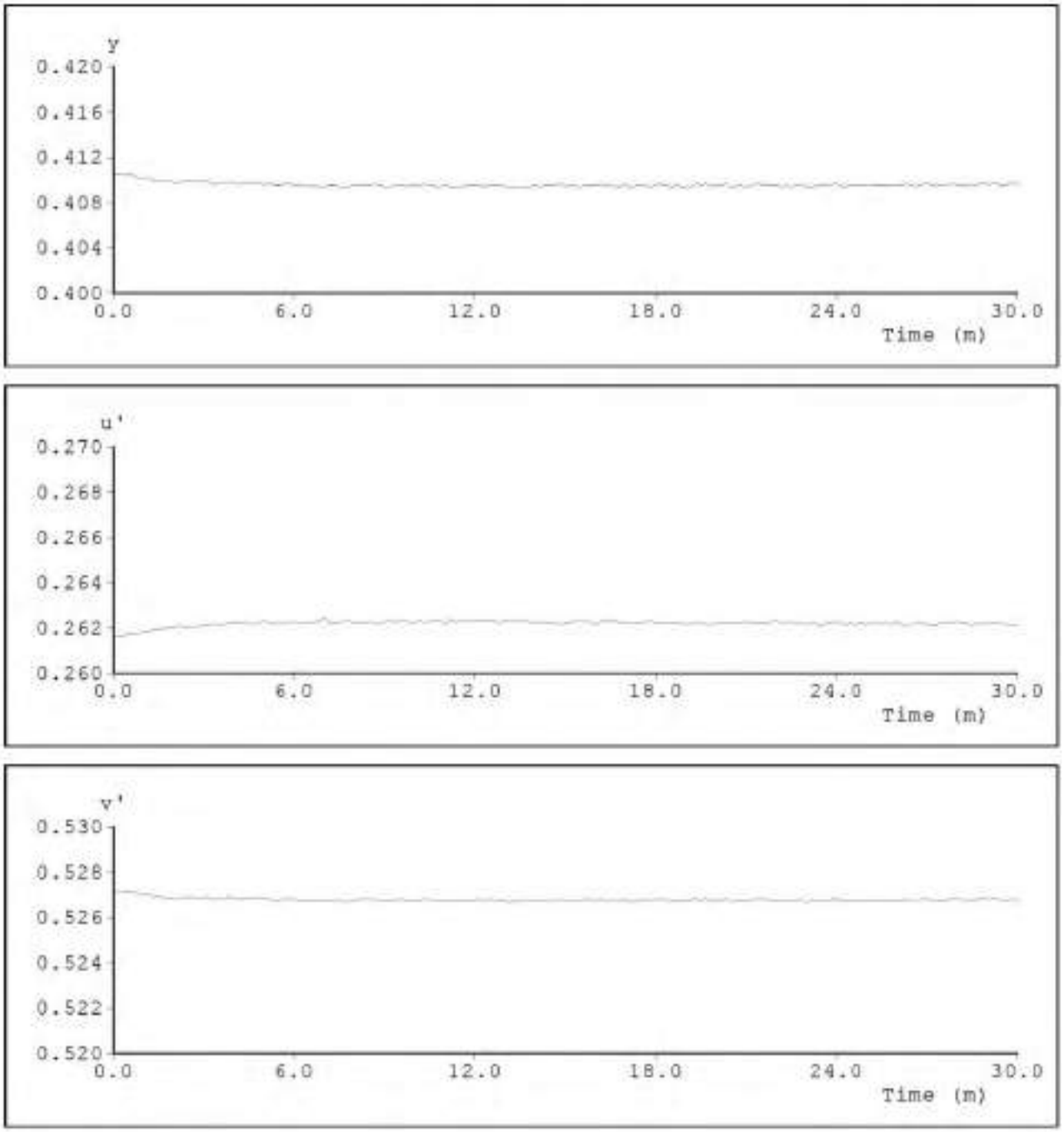
Test curves







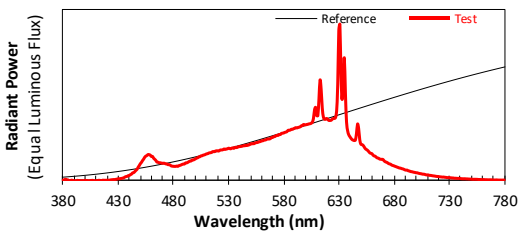

Flux(lm)
800
780
760
740
720
700
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
CCT(K)
2800
2780
2760
2740
2720
2700
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
x
0.460
0.458
0.456
0.454
0.452
0.450
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

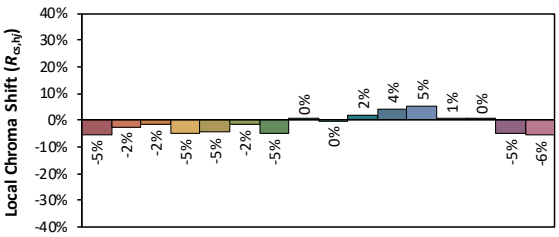

y
0.420
0.416
0.412
0.408
0.404
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.268
0.266
0.264
0.262
0.260
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

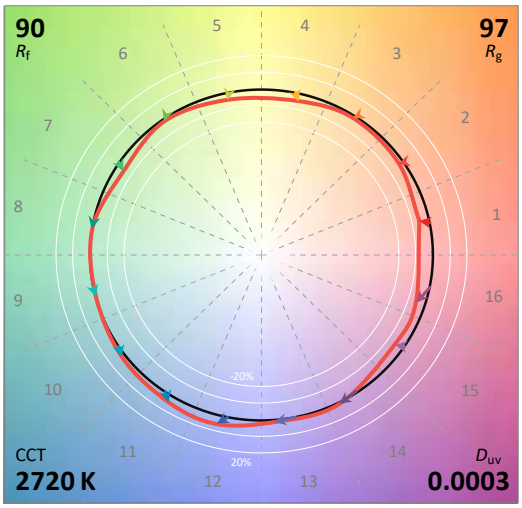
*5.2 ANSI/IES TM-30-18 Color Rendition Report

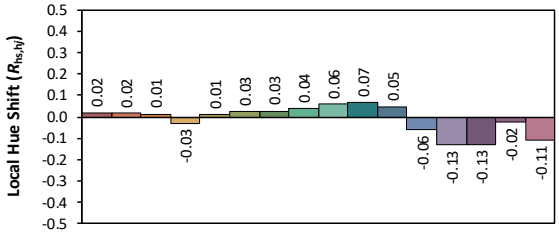
ANSI/IES TM-30-18 Color Rendition Report

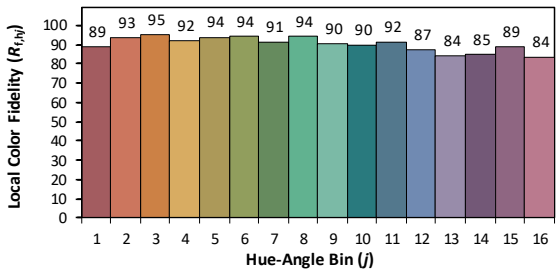
Source:		Manufacturer:	
Date:	2023/6/13	Model:	LFY18-0500-L27-CL-I-12

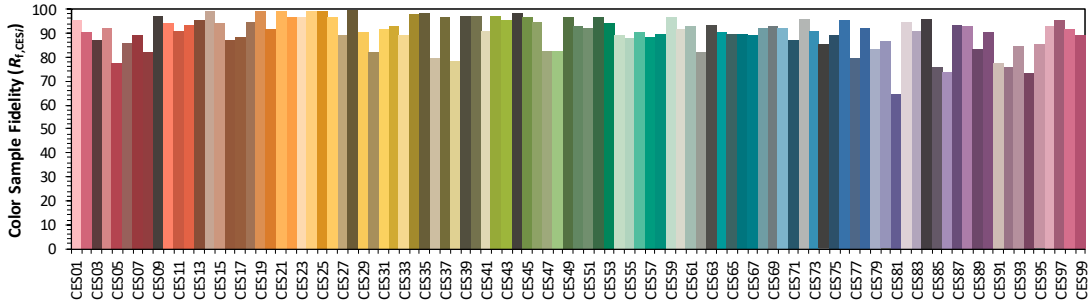












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

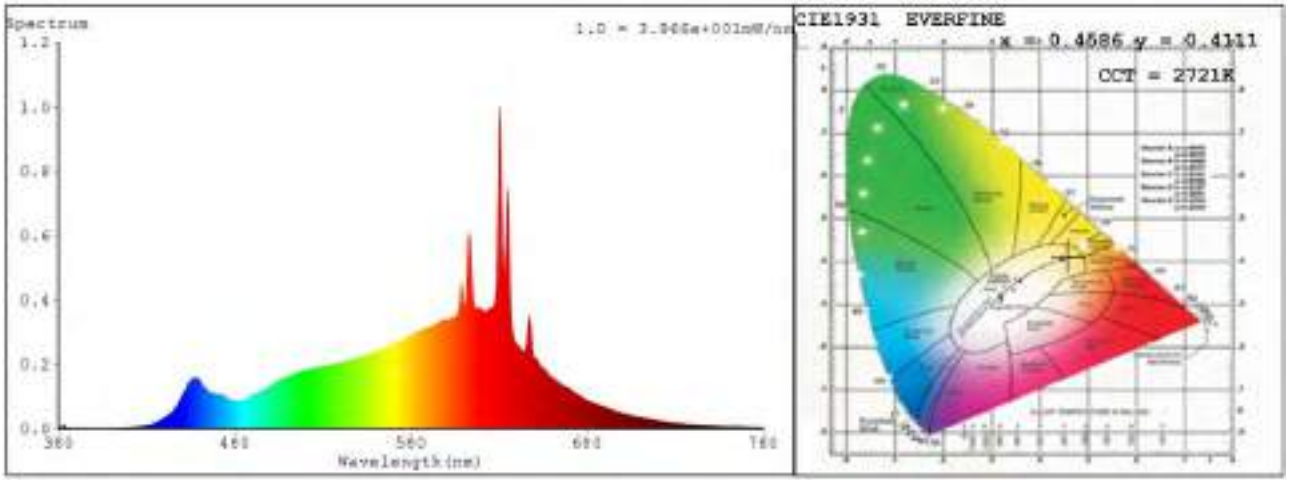
x	0.4587
y	0.4110
u'	0.2615
v'	0.5273

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	0.0052	414	0.0022	448	0.0819	482	0.0874	516	0.1767
381	0.0043	415	0.0016	449	0.0919	483	0.0893	517	0.1756
382	0.0099	416	0.0042	450	0.1033	484	0.0873	518	0.1791
383	0.0006	417	0.0035	451	0.1113	485	0.0917	519	0.1809
384	0.007	418	0.0039	452	0.1224	486	0.0935	520	0.181
385	0.002	419	0.0034	453	0.1312	487	0.0961	521	0.1794
386	0.0017	420	0.0044	454	0.1426	488	0.0993	522	0.184
387	0.0031	421	0.0038	455	0.149	489	0.1014	523	0.1863
388	0.0044	422	0.0044	456	0.1529	490	0.1016	524	0.1861
389	0	423	0.0058	457	0.1585	491	0.1082	525	0.1881
390	0.0016	424	0.0067	458	0.1577	492	0.1084	526	0.1922
391	0	425	0.0074	459	0.1549	493	0.1114	527	0.1893
392	0.0008	426	0.008	460	0.147	494	0.1155	528	0.1919
393	0.0037	427	0.0079	461	0.1474	495	0.1191	529	0.193
394	0.0004	428	0.0097	462	0.1369	496	0.1195	530	0.1967
395	0.0024	429	0.0108	463	0.1303	497	0.1262	531	0.1948
396	0.0007	430	0.0126	464	0.1236	498	0.1258	532	0.193
397	0.0018	431	0.0128	465	0.1135	499	0.1289	533	0.1975
398	0.001	432	0.014	466	0.1126	500	0.1327	534	0.1975
399	0.0015	433	0.0148	467	0.1092	501	0.1369	535	0.1961
400	0.0038	434	0.0168	468	0.1091	502	0.139	536	0.2026
401	0.0008	435	0.0188	469	0.1073	503	0.1439	537	0.2006
402	0.0022	436	0.023	470	0.1061	504	0.1455	538	0.2019
403	0.0003	437	0.0259	471	0.1063	505	0.1505	539	0.2055
404	0.0014	438	0.027	472	0.1057	506	0.1512	540	0.2063
405	0.0022	439	0.0314	473	0.1024	507	0.1551	541	0.207
406	0.0028	440	0.0329	474	0.102	508	0.1564	542	0.2082
407	0.003	441	0.0376	475	0.0979	509	0.1591	543	0.2102
408	0.0004	442	0.0409	476	0.0976	510	0.1625	544	0.2117
409	0.0005	443	0.0483	477	0.0953	511	0.1636	545	0.2116
410	0.0021	444	0.0498	478	0.0902	512	0.1673	546	0.2158
411	0.0015	445	0.0561	479	0.0886	513	0.169	547	0.213
412	0.0034	446	0.0634	480	0.0878	514	0.17	548	0.2165
413	0.0032	447	0.0696	481	0.0873	515	0.1736	549	0.2175

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2234	599	0.3374	648	0.3143	697	0.0539	746	0.0119
551	0.2226	600	0.3376	649	0.2474	698	0.052	747	0.0118
552	0.2247	601	0.3396	650	0.2209	699	0.0509	748	0.0109
553	0.2237	602	0.3409	651	0.2183	700	0.0491	749	0.011
554	0.2276	603	0.3431	652	0.2143	701	0.0487	750	0.0103
555	0.2302	604	0.3442	653	0.2044	702	0.0466	751	0.0097
556	0.2308	605	0.3472	654	0.1942	703	0.0448	752	0.0093
557	0.2331	606	0.3538	655	0.189	704	0.0436	753	0.0096
558	0.2358	607	0.3755	656	0.1843	705	0.0425	754	0.0095
559	0.2371	608	0.428	657	0.1773	706	0.0405	755	0.0093
560	0.2415	609	0.4421	658	0.1695	707	0.0403	756	0.0089
561	0.2412	610	0.3926	659	0.1659	708	0.0389	757	0.0082
562	0.2446	611	0.3931	660	0.1639	709	0.0366	758	0.0083
563	0.2459	612	0.4932	661	0.1555	710	0.0359	759	0.0079
564	0.2477	613	0.6071	662	0.1504	711	0.036	760	0.0075
565	0.2516	614	0.5497	663	0.1484	712	0.0336	761	0.0079
566	0.2521	615	0.4387	664	0.1423	713	0.0331	762	0.0075
567	0.2523	616	0.3848	665	0.138	714	0.0321	763	0.0069
568	0.2548	617	0.3708	666	0.1366	715	0.0308	764	0.0071
569	0.2612	618	0.3715	667	0.1315	716	0.0299	765	0.0065
570	0.2614	619	0.3757	668	0.1305	717	0.029	766	0.0064
571	0.2665	620	0.37	669	0.1293	718	0.0277	767	0.0067
572	0.2667	621	0.3636	670	0.1293	719	0.0267	768	0.0066
573	0.2716	622	0.3642	671	0.1213	720	0.0263	769	0.0062
574	0.2741	623	0.3646	672	0.1158	721	0.0252	770	0.0059
575	0.2737	624	0.371	673	0.1129	722	0.0243	771	0.0053
576	0.2796	625	0.3752	674	0.1098	723	0.0236	772	0.0055
577	0.2789	626	0.3759	675	0.1049	724	0.0227	773	0.0059
578	0.2853	627	0.3806	676	0.1021	725	0.0232	774	0.0053
579	0.2874	628	0.4185	677	0.1002	726	0.0218	775	0.0049
580	0.2882	629	0.5785	678	0.0951	727	0.0213	776	0.0049
581	0.2918	630	0.9039	679	0.0928	728	0.0199	777	0.0049
582	0.2938	631	0.9404	680	0.0904	729	0.0197	778	0.0047
583	0.2964	632	0.6326	681	0.0877	730	0.0197	779	0.0051
584	0.3045	633	0.4897	682	0.0852	731	0.019	780	0.0051
585	0.3045	634	0.6211	683	0.0826	732	0.0182		
586	0.306	635	0.7414	684	0.0801	733	0.0176		
587	0.3109	636	0.5262	685	0.0775	734	0.0172		
588	0.3105	637	0.354	686	0.0766	735	0.0158		
589	0.3141	638	0.3015	687	0.0737	736	0.016		
590	0.3172	639	0.2781	688	0.0723	737	0.0153		
591	0.3204	640	0.2666	689	0.0696	738	0.015		
592	0.3186	641	0.2568	690	0.0663	739	0.0151		
593	0.3215	642	0.249	691	0.0648	740	0.0144		
594	0.3231	643	0.2453	692	0.0648	741	0.0135		
595	0.3257	644	0.2431	693	0.0607	742	0.013		
596	0.3315	645	0.2452	694	0.0595	743	0.0126		
597	0.3325	646	0.2828	695	0.0564	744	0.0129		
598	0.3397	647	0.3421	696	0.0555	745	0.0124		

6. Goniophotometer Test results

6.1 Test Data

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

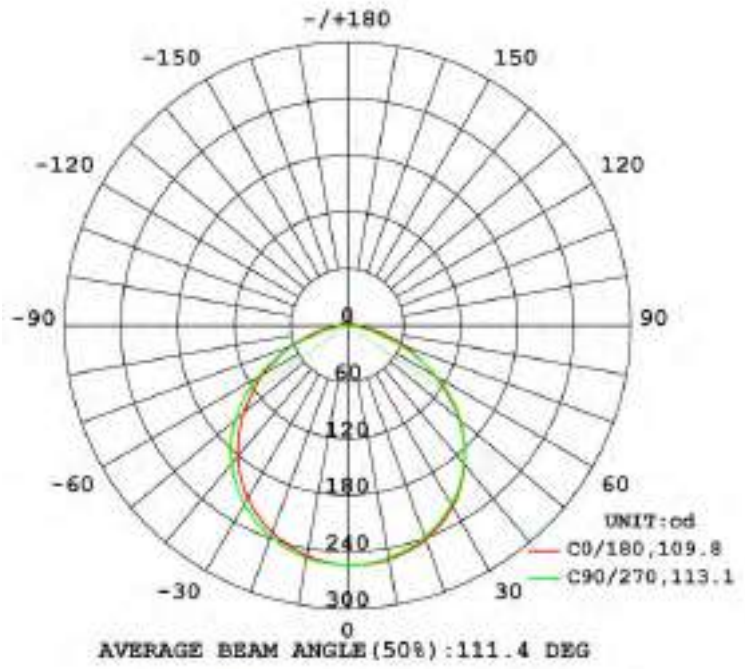
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.256	1.0000	6.144

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
724.931	117.99	254.2	1.8	98.2

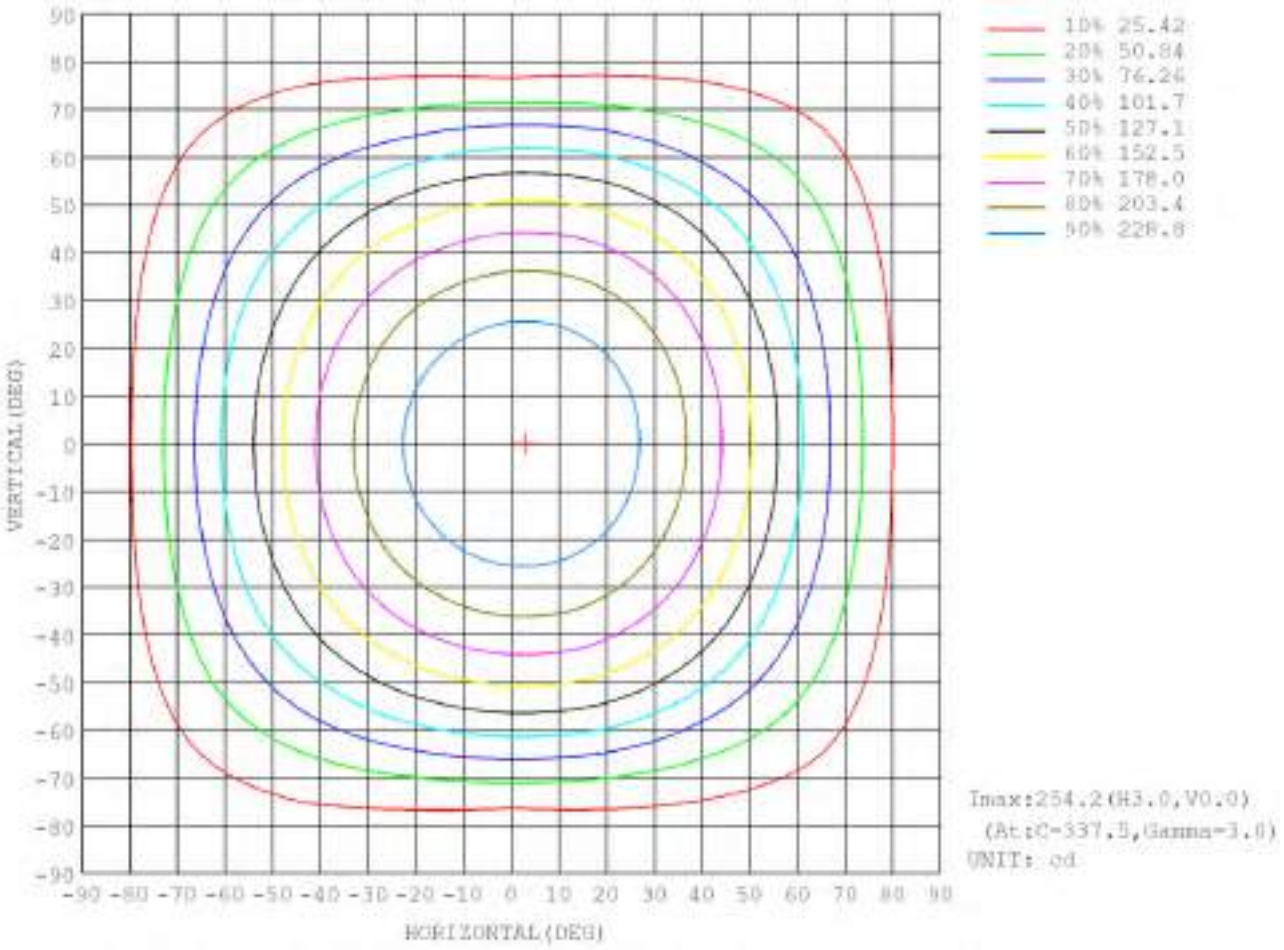
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	252.7	251.5	250.1	248.7	247.7	246.4	249.5	251.2	0~10	24.03	24.03	3.33,3.33
20	241.3	247.9	238.6	235.3	233.8	234.6	238.2	240.9	10~20	69.19	93.22	12.9,12.9
30	221.5	221.5	219.4	214.7	211.9	213.0	218.8	222.2	20~30	[illegible]	[illegible]	[illegible]
40	192.7	194.2	192.6	185.7	185.2	184.4	191.5	194.6	30~40	[illegible]	[illegible]	[illegible]
50	154.1	156.4	155.9	149.4	143.7	146.8	155.4	157.5	40~50	[illegible]	[illegible]	[illegible]
60	107.8	108.7	109.6	103.7	105.7	102.2	110.8	110.6	50~60	[illegible]	[illegible]	[illegible]
70	65.32	58.84	56.16	58.89	61.09	58.40	58.05	61.18	60~70	82.28	676.1	[illegible]
80	26.45	21.09	18.31	24.16	24.54	22.42	14.97	22.88	70~80	41.75	[illegible]	[illegible]
90	7.253	6.466	0.1196	6.466	5.397	6.510	0.3176	7.207	80~90	12.22	[illegible]	[illegible]
100	5.225	5.836	0.1452	5.671	5.876	5.420	0.0422	5.386	90~100	[illegible]	[illegible]	[illegible]
110	5.046	3.504	0.1724	5.133	4.697	5.300	0.1044	3.782	100~110	[illegible]	[illegible]	[illegible]
120	2.753	0.4983	0.1225	1.082	4.452	1.081	0.1285	0.4896	110~120	[illegible]	[illegible]	[illegible]
130	0.5452	0.1077	0.1026	0.2258	1.411	0.2135	0.1724	0.1863	120~130	[illegible]	[illegible]	[illegible]
140	0.2368	0.2306	0.2221	0.2329	0.2390	0.2693	0.2578	0.2682	130~140	[illegible]	[illegible]	[illegible]
150	0.2563	0.2570	0.2515	0.2596	0.3558	0.3558	0.3443	0.3468	140~150	[illegible]	[illegible]	100,100
160	0.2568	0.3089	0.2568	0.3219	0.4055	0.4077	0.3958	0.3555	150~160	[illegible]	[illegible]	100,100
170	0.3418	0.3328	0.3298	0.3457	0.4085	0.4105	0.2078	0.4062	160~170	[illegible]	[illegible]	100,100
180	0.3887	0.3525	0.1922	0.3908	0.3889	0.3889	0.3882	0.3879	170~180	[illegible]	[illegible]	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	254	254	254	254	254	254	254	254	254	254	254	254	254	254	254	254			
5	254	254	254	253	253	253	252	252	252	252	252	252	253	253	254	254			
10	252	252	251	251	250	249	249	248	248	248	248	249	250	251	252	252			
15	248	247	247	247	245	244	243	242	241	242	243	244	245	246	247	248			
20	241	241	241	240	239	237	235	234	233	234	235	236	238	240	241	241			
25	233	233	233	232	230	228	226	224	224	224	225	227	230	231	233	233			
30	222	222	222	221	219	217	215	213	211	212	214	216	219	221	222	222			
35	209	209	209	209	207	204	201	199	197	198	200	203	206	209	210	209			
40	193	193	194	194	192	189	186	183	181	182	184	188	191	194	195	194			
45	175	175	177	178	175	172	168	165	163	164	167	170	174	178	178	176			
50	154	155	156	158	156	152	148	145	144	144	147	151	155	159	157	156			
55	131	132	134	136	134	130	127	124	123	123	125	129	134	137	135	133			
60	107	107	109	111	109	107	104	103	105	104	102	106	110	113	111	108			
65	84.2	83.4	82.3	83.7	82.4	81.4	82.3	81.4	81.7	80.7	81.1	81.3	84.8	86.9	84.4	84.6			
70	65.3	62.5	58.8	57.3	56.3	56.4	58.9	61.2	61.8	60.5	58.4	57.2	58.1	60.8	61.2	64.8			
75	45.3	42.4	38.1	35.1	32.1	34.9	39.9	42.4	42.8	41.8	39.5	35.1	31.4	37.0	41.9	45.5			
80	25.6	24.6	21.1	17.9	13.2	18.4	23.1	24.7	24.6	24.1	22.6	18.1	13.4	18.5	23.0	26.0			
85	13.4	13.3	11.8	8.35	3.55	8.06	10.8	11.5	11.8	11.4	10.6	8.24	4.04	8.59	12.7	14.2			
90	7.29	7.21	6.66	3.99	0.12	4.22	6.49	6.13	5.99	6.35	6.52	4.20	0.32	4.18	7.21	7.94			
95	5.86	5.94	5.51	3.53	0.04	3.76	6.07	6.11	5.73	6.21	5.50	3.60	0.06	3.62	5.76	6.19			
100	5.23	5.32	5.04	2.96	0.05	3.31	5.67	5.60	5.38	5.55	5.43	3.53	0.08	2.76	5.39	5.38			
105	5.48	5.71	5.45	0.85	0.06	1.06	6.03	6.35	6.26	6.09	5.61	1.21	0.10	0.78	5.49	5.83			
110	5.87	5.73	3.50	0.15	0.07	0.28	5.13	6.57	6.70	6.56	5.40	0.35	0.10	0.16	3.58	5.32			
115	5.28	4.39	1.48	0.11	0.10	0.12	2.34	6.24	7.06	6.28	2.16	0.13	0.11	0.12	1.67	4.26			
120	2.75	2.11	0.50	0.13	0.12	0.13	1.00	3.27	4.45	3.27	1.00	0.13	0.12	0.13	0.49	2.12			
125	1.22	0.82	0.21	0.16	0.16	0.16	0.44	1.71	2.43	1.78	0.45	0.15	0.14	0.15	0.21	0.84			
130	0.55	0.31	0.20	0.19	0.18	0.19	0.22	0.96	1.41	1.02	0.21	0.18	0.17	0.18	0.19	0.36			
135	0.25	0.22	0.21	0.21	0.20	0.21	0.22	0.38	0.70	0.46	0.23	0.22	0.21	0.21	0.22	0.24			
140	0.24	0.23	0.23	0.22	0.22	0.23	0.23	0.24	0.30	0.28	0.27	0.26	0.26	0.26	0.26	0.27			
145	0.24	0.24	0.24	0.24	0.23	0.24	0.24	0.25	0.32	0.32	0.32	0.31	0.30	0.31	0.31	0.31			
150	0.26	0.25	0.26	0.25	0.25	0.25	0.26	0.27	0.36	0.36	0.36	0.35	0.34	0.35	0.35	0.35			
155	0.28	0.28	0.28	0.28	0.27	0.28	0.28	0.29	0.39	0.39	0.39	0.38	0.37	0.37	0.38	0.38			
160	0.30	0.30	0.30	0.29	0.29	0.29	0.30	0.31	0.41	0.41	0.41	0.40	0.40	0.39	0.40	0.40			
165	0.32	0.33	0.32	0.31	0.31	0.32	0.32	0.33	0.41	0.41	0.41	0.41	0.40	0.40	0.40	0.40			
170	0.34	0.34	0.33	0.33	0.33	0.33	0.35	0.35	0.41	0.41	0.42	0.41	0.41	0.40	0.41	0.41			
175	0.36	0.37	0.37	0.36	0.36	0.36	0.37	0.38	0.41	0.41	0.41	0.41	0.41	0.40	0.41	0.41			
180	0.39	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39			

7. Photo of sample

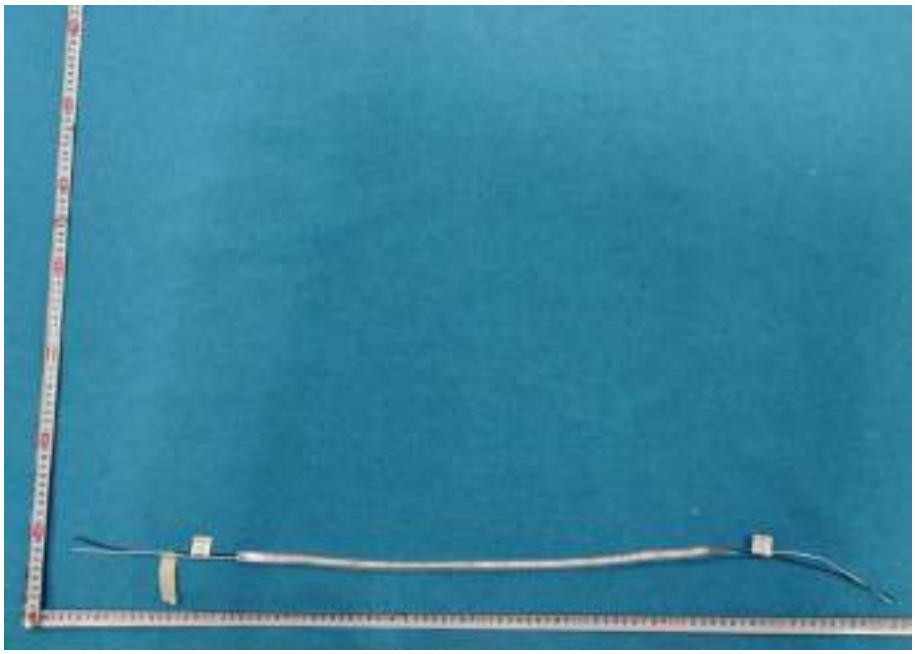


Figure 1 Overview

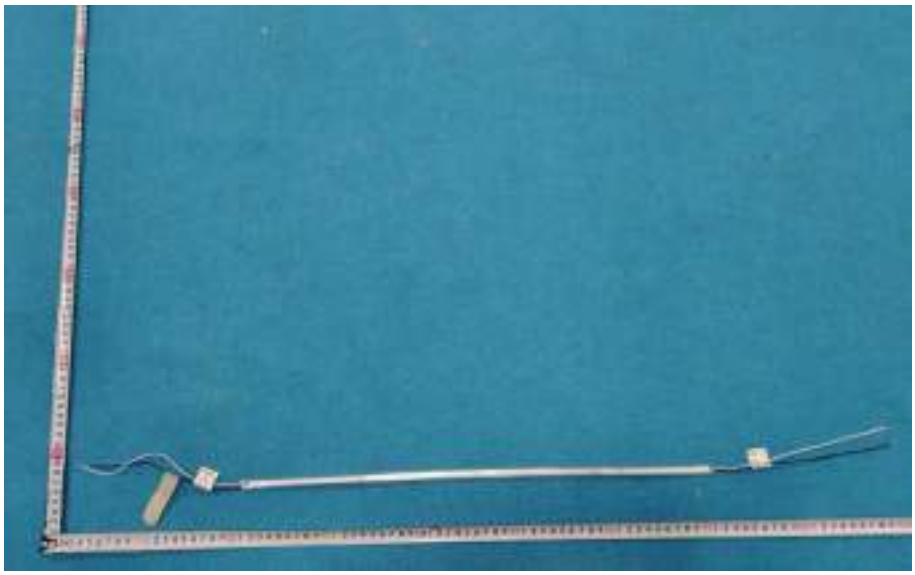


Figure 2 Overview

---End of Report---