



Test Report Of ANSI/IES LM-79-19

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

Report Number..... : N02A23090145L00501

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

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

Test Model..... : LCELY-1000-L27-DF-I-10
LCELY-1000-L27-DF-I-15

Brand Name..... : N/A

Testing Laboratory... : Guangdong Meide Testing Technology Co., Ltd.

Address..... : 1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road, Songshan
Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

Testing Location..... : As above

Date of receipt..... : Sep. 09, 2023

Date of test : Sep. 09, 2023 – Sep. 15, 2023

Date of report..... : Sep. 15, 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: LCELY-1000-L27-DF-I-10
LCELY-1000-L27-DF-I-15

Manufacturer:

Product Type: SHIN Creide lens

Rated Voltage/Frequency: DC24V

Rated Power: 10W, 15W

Rated luminous flux: /

Nominal CCT: 2700K

2. Standards Used

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

3. Test equipment list

Test Equipment	Serial No.	Model No.	Calibration due date
Full-field Speed Goniophotometer	MD-E028	GO-R5000	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 $25^{\circ}\text{C} \pm 1.2^{\circ}\text{C}$ during measurement. And relative humidity between 10% and 65%.

Goniophotometer System

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

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

Integrating Sphere System

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

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

Fidelity Index (R_f) and Gamut Index (R_g) Calculation

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

5. Integrating Sphere Test Results for LCELY-1000-L27-DF-I-10

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	0.3819	23.998	9.1648	840.74	0.4544	0.4089	0.2597	0.5259	2765	95
1	00h00m10s	0.3821	23.998	9.1696	841.36	0.4544	0.4093	0.2595	0.526	2768	95
2	00h00m20s	0.3822	23.998	9.172	841.46	0.4543	0.4091	0.2596	0.5259	2767	95
3	00h00m30s	0.3823	23.998	9.1744	841.67	0.4544	0.4091	0.2596	0.526	2767	94.9
4	00h00m40s	0.3824	23.998	9.1768	841.38	0.4546	0.4091	0.2597	0.526	2764	95
5	00h00m50s	0.3825	23.998	9.1792	841.9	0.4544	0.409	0.2597	0.5259	2766	94.9
6	00h01m00s	0.3826	23.998	9.1816	841.54	0.4544	0.4091	0.2597	0.526	2766	95
7	00h01m10s	0.3827	23.998	9.184	841.36	0.4545	0.409	0.2597	0.5259	2765	94.9
8	00h01m20s	0.3828	23.998	9.1864	841.93	0.4545	0.4091	0.2597	0.526	2765	94.9
9	00h01m30s	0.3829	23.998	9.1888	841.63	0.4544	0.4091	0.2597	0.5259	2765	95
10	00h01m40s	0.383	23.998	9.1912	842.13	0.4543	0.4091	0.2596	0.5259	2768	95
11	00h01m50s	0.3831	23.998	9.1936	841.79	0.4545	0.409	0.2598	0.5259	2763	94.9
12	00h02m00s	0.3832	23.998	9.196	842.27	0.4546	0.4091	0.2598	0.526	2763	94.9
13	00h02m10s	0.3833	23.998	9.1984	841.79	0.4543	0.4088	0.2597	0.5258	2765	94.9
14	00h02m20s	0.3834	23.998	9.2008	842.57	0.4544	0.4089	0.2597	0.5259	2765	94.9
15	00h02m30s	0.3834	23.998	9.2008	842.25	0.4544	0.4089	0.2597	0.5259	2765	95
16	00h02m40s	0.3835	23.998	9.2032	841.67	0.4545	0.4089	0.2598	0.5259	2764	94.9
17	00h02m50s	0.3836	23.998	9.2056	842.08	0.4545	0.4088	0.2598	0.5259	2763	94.9
18	00h03m00s	0.3836	23.998	9.2056	842.39	0.4545	0.4089	0.2598	0.5259	2764	94.9
19	00h03m10s	0.3837	23.998	9.208	841.53	0.4544	0.4087	0.2598	0.5258	2764	95
20	00h03m20s	0.3838	23.998	9.2104	841.83	0.4545	0.4088	0.2598	0.5259	2762	94.9
21	00h03m30s	0.3838	23.998	9.2104	842.14	0.4544	0.4089	0.2597	0.5259	2766	95

22	00h03m40s	0.3839	23.998	9.2128	842.67	0.4544	0.409	0.2597	0.5259	2766	95
23	00h03m50s	0.384	23.998	9.2152	842.6	0.4545	0.4089	0.2598	0.5259	2763	95
24	00h04m00s	0.384	23.998	9.2152	843.23	0.4543	0.4089	0.2597	0.5259	2766	94.9
25	00h04m10s	0.3841	23.998	9.2176	842.32	0.4545	0.4088	0.2599	0.5259	2762	94.9
26	00h04m20s	0.3841	23.998	9.2176	842.86	0.4545	0.4088	0.2598	0.5259	2763	95
27	00h04m30s	0.3842	23.998	9.22	843.04	0.4545	0.4088	0.2598	0.5259	2763	94.9
28	00h04m40s	0.3842	23.998	9.22	842.32	0.4545	0.4089	0.2598	0.5259	2763	95
29	00h04m50s	0.3843	23.998	9.2224	842.6	0.4546	0.4088	0.2599	0.5259	2761	94.9
30	00h05m00s	0.3843	23.998	9.2224	842.71	0.4545	0.4089	0.2598	0.5259	2763	94.9
31	00h05m10s	0.3844	23.998	9.2248	842.56	0.4546	0.4089	0.2599	0.5259	2762	94.9
32	00h05m20s	0.3844	23.998	9.2248	842.79	0.4545	0.4087	0.2599	0.5258	2761	94.9
33	00h05m30s	0.3845	23.998	9.2272	843.34	0.4542	0.4087	0.2597	0.5258	2765	95
34	00h05m40s	0.3845	23.998	9.2272	842.51	0.4545	0.4088	0.2598	0.5259	2763	94.9
35	00h05m50s	0.3846	23.998	9.2296	842.99	0.4545	0.4088	0.2599	0.5259	2762	95
36	00h06m00s	0.3846	23.998	9.2296	843.45	0.4544	0.4087	0.2598	0.5258	2763	94.9
37	00h06m10s	0.3847	23.998	9.232	842.91	0.4544	0.4087	0.2599	0.5258	2762	94.9
38	00h06m20s	0.3847	23.998	9.232	842.3	0.4545	0.4086	0.26	0.5258	2760	94.9
39	00h06m30s	0.3847	23.998	9.232	842.92	0.4545	0.4086	0.2599	0.5258	2761	94.9
40	00h06m40s	0.3848	23.998	9.2344	843.02	0.4545	0.4086	0.2599	0.5258	2761	94.9
41	00h06m50s	0.3848	23.998	9.2344	843.26	0.4545	0.4087	0.2599	0.5258	2762	94.9
42	00h07m00s	0.3848	23.998	9.2344	843.27	0.4544	0.4087	0.2598	0.5258	2763	94.9
43	00h07m10s	0.3849	23.998	9.2368	842.83	0.4544	0.4086	0.2599	0.5258	2762	95
44	00h07m20s	0.3849	23.998	9.2368	842.47	0.4545	0.4086	0.26	0.5258	2760	94.9
45	00h07m30s	0.385	23.998	9.2392	843.11	0.4546	0.4087	0.2599	0.5258	2760	94.9
46	00h07m40s	0.385	23.998	9.2392	843.29	0.4544	0.4087	0.2598	0.5258	2763	95
47	00h07m50s	0.385	23.998	9.2392	843.06	0.4545	0.4087	0.2599	0.5258	2762	94.9
48	00h08m00s	0.385	23.998	9.2392	843.12	0.4545	0.4085	0.26	0.5258	2761	94.9
49	00h08m10s	0.3851	23.998	9.2416	842.71	0.4546	0.4086	0.26	0.5258	2760	95
50	00h08m20s	0.3851	23.998	9.2416	842.78	0.4545	0.4085	0.2599	0.5258	2761	95
51	00h08m30s	0.3851	23.998	9.2416	842.97	0.4545	0.4085	0.26	0.5257	2760	95
52	00h08m40s	0.3852	23.998	9.244	843.32	0.4544	0.4086	0.2599	0.5258	2762	95

53	00h08m50s	0.3852	23.998	9.244	843.4	0.4544	0.4087	0.2598	0.5258	2763	94.9
54	00h09m00s	0.3852	23.998	9.244	843.9	0.4544	0.4087	0.2598	0.5258	2763	94.9
55	00h09m10s	0.3853	23.998	9.2464	843.14	0.4545	0.4085	0.26	0.5258	2760	95
56	00h09m20s	0.3853	23.998	9.2464	843.01	0.4543	0.4084	0.2599	0.5257	2762	94.9
57	00h09m30s	0.3853	23.998	9.2464	842.99	0.4545	0.4084	0.26	0.5257	2760	94.9
58	00h09m40s	0.3853	23.998	9.2464	843.78	0.4545	0.4087	0.2599	0.5258	2762	95
59	00h09m50s	0.3854	23.998	9.2488	843.24	0.4545	0.4085	0.26	0.5257	2760	94.9
60	00h10m00s	0.3854	23.998	9.2488	843.22	0.4546	0.4086	0.26	0.5258	2759	94.9
61	00h10m10s	0.3854	23.998	9.2488	843.35	0.4545	0.4086	0.2599	0.5258	2761	94.9
62	00h10m20s	0.3854	23.998	9.2488	842.55	0.4545	0.4084	0.26	0.5257	2759	95
63	00h10m30s	0.3854	23.998	9.2488	843.71	0.4546	0.4087	0.26	0.5258	2760	95
64	00h10m40s	0.3855	23.998	9.2512	842.84	0.4545	0.4084	0.26	0.5257	2760	94.9
65	00h10m50s	0.3855	23.998	9.2512	843.13	0.4545	0.4084	0.26	0.5257	2759	94.9
66	00h11m00s	0.3855	23.998	9.2512	843.53	0.4545	0.4084	0.26	0.5257	2760	94.9
67	00h11m10s	0.3855	23.998	9.2512	843.3	0.4544	0.4085	0.2599	0.5257	2761	94.9
68	00h11m20s	0.3855	23.998	9.2512	843.81	0.4547	0.4086	0.2601	0.5258	2758	94.9
69	00h11m30s	0.3856	23.998	9.2536	843.28	0.4546	0.4085	0.26	0.5258	2759	94.9
70	00h11m40s	0.3856	23.998	9.2536	843.58	0.4545	0.4086	0.2599	0.5258	2761	94.9
71	00h11m50s	0.3856	23.998	9.2536	843.8	0.4546	0.4086	0.26	0.5258	2759	94.9
72	00h12m00s	0.3856	23.998	9.2536	842.9	0.4545	0.4085	0.26	0.5257	2760	94.9
73	00h12m10s	0.3856	23.998	9.2536	843.71	0.4546	0.4086	0.26	0.5258	2759	94.9
74	00h12m20s	0.3857	23.998	9.256	843.9	0.4546	0.4086	0.26	0.5258	2759	95
75	00h12m30s	0.3857	23.998	9.256	843.65	0.4544	0.4084	0.26	0.5257	2760	94.9
76	00h12m40s	0.3857	23.998	9.256	843.15	0.4545	0.4083	0.26	0.5257	2759	94.9
77	00h12m50s	0.3857	23.998	9.256	843.56	0.4546	0.4085	0.26	0.5258	2759	94.9
78	00h13m00s	0.3857	23.998	9.256	843.85	0.4544	0.4086	0.2599	0.5258	2761	95
79	00h13m10s	0.3857	23.998	9.256	843.91	0.4546	0.4084	0.2601	0.5257	2758	94.8
80	00h13m20s	0.3858	23.998	9.2584	843.85	0.4546	0.4085	0.26	0.5258	2760	94.9
81	00h13m30s	0.3858	23.998	9.2584	843.33	0.4545	0.4085	0.26	0.5258	2760	95
82	00h13m40s	0.3858	23.998	9.2584	843.51	0.4546	0.4085	0.2601	0.5257	2758	94.9
83	00h13m50s	0.3858	23.998	9.2584	843.83	0.4545	0.4086	0.26	0.5258	2760	95

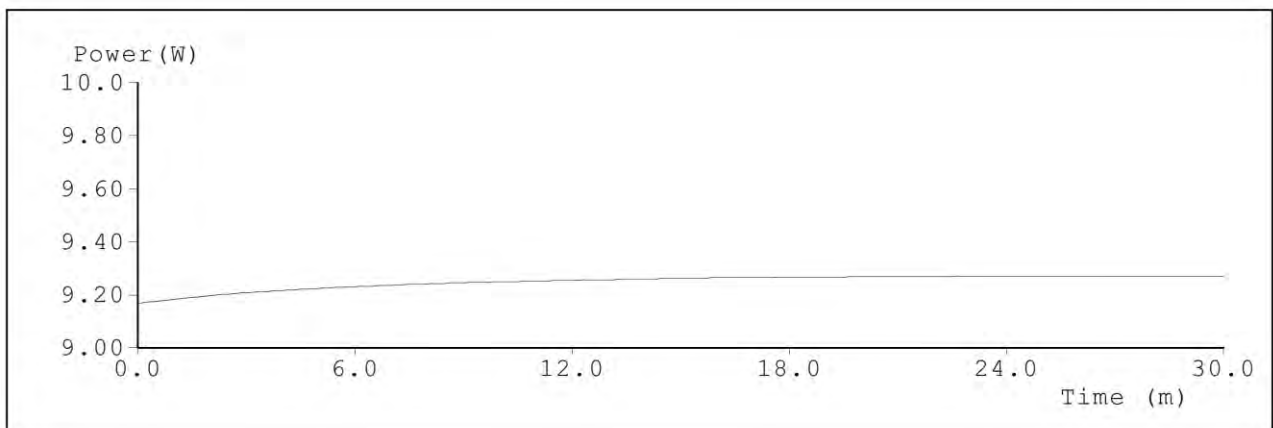
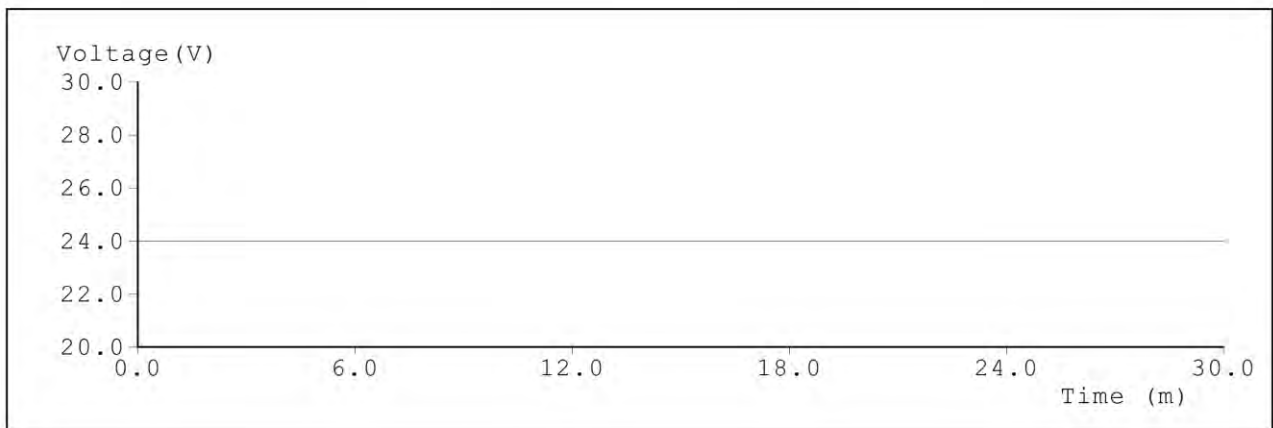
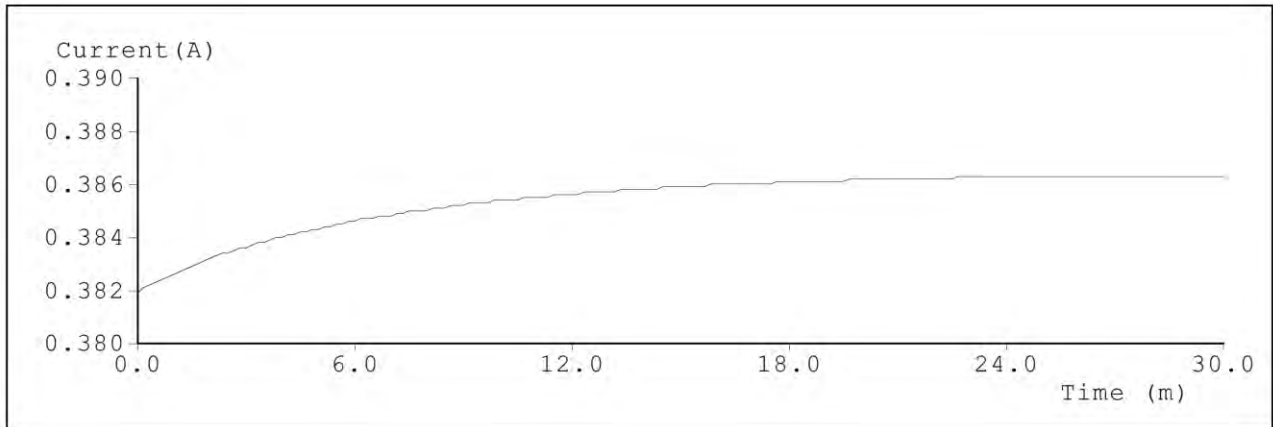
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86	00h14m20s	0.3858	23.998	9.2584	843.56	0.4545	0.4084	0.26	0.5257	2759	94.9
87	00h14m30s	0.3859	23.998	9.2608	843.77	0.4546	0.4084	0.26	0.5257	2759	94.9
88	00h14m40s	0.3859	23.998	9.2608	843.65	0.4545	0.4083	0.2601	0.5256	2759	95
89	00h14m50s	0.3859	23.998	9.2608	843.49	0.4546	0.4085	0.26	0.5258	2759	94.9
90	00h15m00s	0.3859	23.998	9.2608	843.37	0.4544	0.4085	0.26	0.5257	2761	95
91	00h15m10s	0.3859	23.998	9.2608	844.19	0.4545	0.4085	0.26	0.5257	2760	95
92	00h15m20s	0.3859	23.998	9.2608	843.03	0.4545	0.4083	0.2601	0.5257	2759	94.9
93	00h15m30s	0.3859	23.998	9.2608	843.41	0.4545	0.4084	0.26	0.5257	2760	94.9
94	00h15m40s	0.3859	23.998	9.2608	843.87	0.4545	0.4085	0.26	0.5257	2760	94.9
95	00h15m50s	0.386	23.998	9.2632	844.06	0.4546	0.4085	0.26	0.5258	2759	94.9
96	00h16m00s	0.386	23.998	9.2632	844.11	0.4545	0.4085	0.26	0.5257	2760	94.9
97	00h16m10s	0.386	23.998	9.2632	843.54	0.4544	0.4082	0.26	0.5256	2760	94.9
98	00h16m20s	0.386	23.998	9.2632	843.44	0.4545	0.4083	0.2601	0.5257	2758	94.9
99	00h16m30s	0.386	23.998	9.2632	843.8	0.4545	0.4083	0.26	0.5257	2759	94.9
100	00h16m40s	0.386	23.998	9.2632	843.7	0.4544	0.4084	0.26	0.5257	2760	94.9
101	00h16m50s	0.386	23.998	9.2632	843.77	0.4546	0.4085	0.2601	0.5257	2758	94.9
102	00h17m00s	0.386	23.998	9.2632	843.45	0.4546	0.4083	0.2602	0.5257	2756	94.9
103	00h17m10s	0.386	23.998	9.2632	843.3	0.4546	0.4085	0.2601	0.5257	2758	94.9
104	00h17m20s	0.386	23.998	9.2632	843.95	0.4545	0.4084	0.26	0.5257	2759	94.9
105	00h17m30s	0.386	23.998	9.2632	843.78	0.4546	0.4084	0.2601	0.5257	2758	94.9
106	00h17m40s	0.3861	23.998	9.2656	843.88	0.4545	0.4084	0.26	0.5257	2760	94.9
107	00h17m50s	0.3861	23.998	9.2656	843.51	0.4546	0.4084	0.26	0.5257	2759	94.9
108	00h18m00s	0.3861	23.998	9.2656	843.81	0.4546	0.4084	0.2601	0.5257	2758	94.9
109	00h18m10s	0.3861	23.998	9.2656	843.97	0.4547	0.4085	0.2601	0.5258	2757	94.9
110	00h18m20s	0.3861	23.998	9.2656	844.13	0.4546	0.4084	0.2601	0.5257	2758	94.9
111	00h18m30s	0.3861	23.998	9.2656	843.39	0.4545	0.4084	0.26	0.5257	2759	94.9
112	00h18m40s	0.3861	23.998	9.2656	843.72	0.4546	0.4085	0.2601	0.5258	2758	94.9
113	00h18m50s	0.3861	23.998	9.2656	843.64	0.4546	0.4083	0.2601	0.5257	2758	94.9
114	00h19m00s	0.3861	23.998	9.2656	843.77	0.4545	0.4083	0.2601	0.5256	2759	94.9

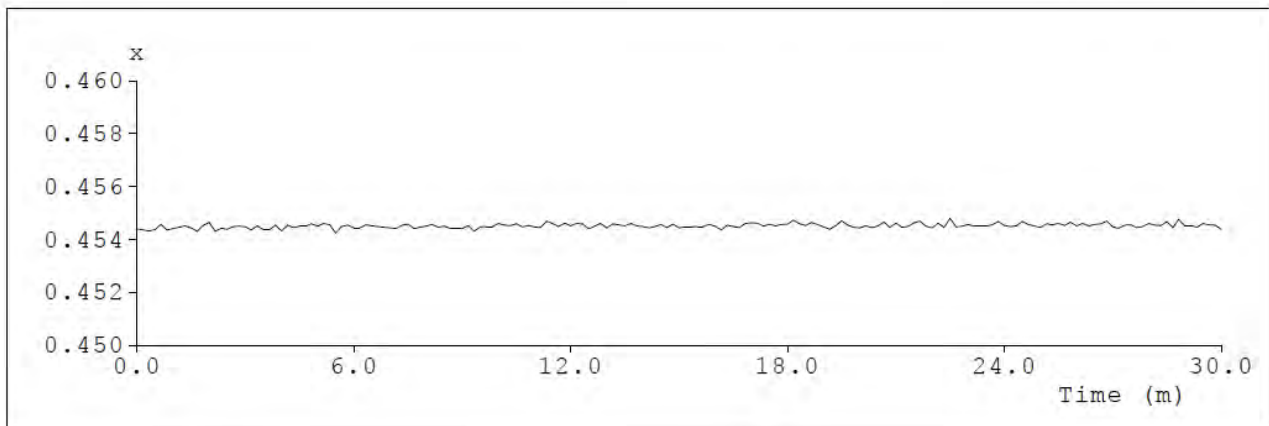
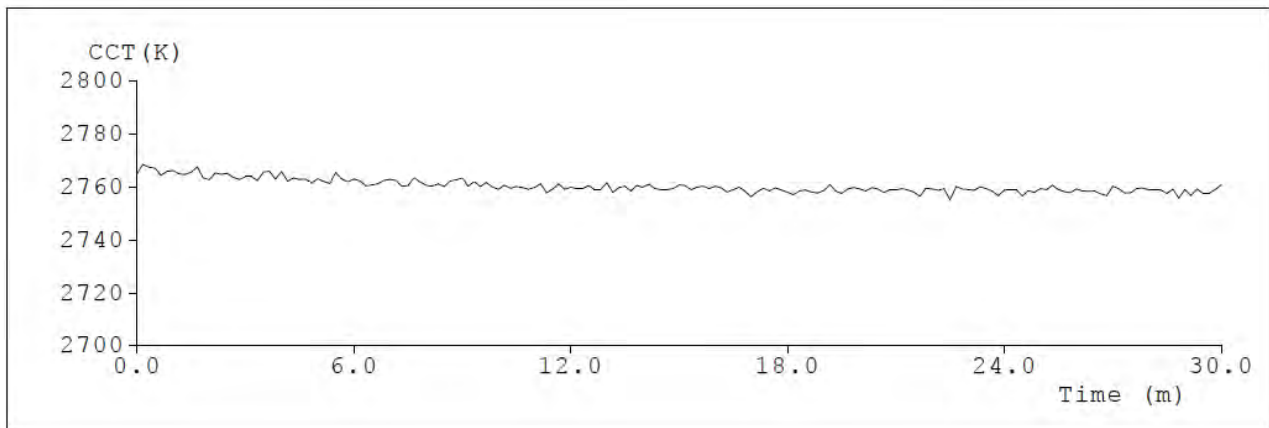
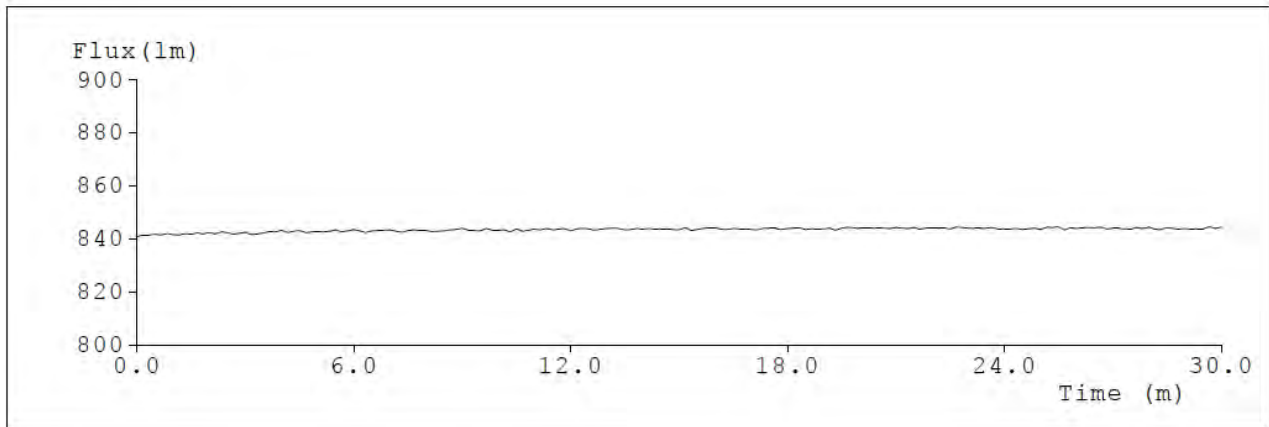
115	00h19m10s	0.3861	23.998	9.2656	843.99	0.4544	0.4084	0.26	0.5257	2761	94.9
116	00h19m20s	0.3861	23.998	9.2656	843.14	0.4545	0.4083	0.2601	0.5257	2758	94.9
117	00h19m30s	0.3861	23.998	9.2656	843.92	0.4547	0.4085	0.2601	0.5258	2758	95
118	00h19m40s	0.3862	23.998	9.268	844.3	0.4545	0.4084	0.26	0.5257	2759	94.9
119	00h19m50s	0.3862	23.998	9.268	844.05	0.4545	0.4084	0.26	0.5257	2760	94.9
120	00h20m00s	0.3862	23.998	9.268	843.86	0.4544	0.4083	0.26	0.5256	2759	94.9
121	00h20m10s	0.3862	23.998	9.268	843.87	0.4545	0.4083	0.2601	0.5257	2758	95
122	00h20m20s	0.3862	23.998	9.268	843.86	0.4544	0.4083	0.26	0.5257	2760	94.9
123	00h20m30s	0.3862	23.998	9.268	844.08	0.4545	0.4084	0.26	0.5257	2759	94.9
124	00h20m40s	0.3862	23.998	9.268	844	0.4546	0.4085	0.2601	0.5258	2758	94.9
125	00h20m50s	0.3862	23.998	9.268	843.86	0.4545	0.4083	0.2601	0.5256	2759	94.9
126	00h21m00s	0.3862	23.998	9.268	844.17	0.4546	0.4085	0.26	0.5258	2759	94.9
127	00h21m10s	0.3862	23.998	9.268	843.96	0.4545	0.4083	0.26	0.5257	2759	94.9
128	00h21m20s	0.3862	23.998	9.268	843.81	0.4545	0.4083	0.2601	0.5257	2759	95
129	00h21m30s	0.3862	23.998	9.268	844.2	0.4546	0.4085	0.2601	0.5258	2758	94.9
130	00h21m40s	0.3862	23.998	9.268	843.52	0.4547	0.4084	0.2602	0.5257	2756	94.9
131	00h21m50s	0.3862	23.998	9.268	843.92	0.4545	0.4084	0.26	0.5257	2759	94.9
132	00h22m00s	0.3862	23.998	9.268	843.95	0.4544	0.4083	0.26	0.5256	2759	94.9
133	00h22m10s	0.3862	23.998	9.268	843.98	0.4546	0.4085	0.26	0.5258	2759	94.9
134	00h22m20s	0.3862	23.998	9.268	844.14	0.4544	0.4083	0.26	0.5257	2759	94.9
135	00h22m30s	0.3862	23.998	9.268	843.74	0.4548	0.4084	0.2602	0.5258	2755	94.8
136	00h22m40s	0.3863	23.998	9.2704	844.35	0.4545	0.4085	0.26	0.5257	2760	94.9
137	00h22m50s	0.3863	23.998	9.2704	844.21	0.4545	0.4084	0.26	0.5257	2759	94.9
138	00h23m00s	0.3863	23.998	9.2704	843.98	0.4546	0.4085	0.26	0.5257	2759	94.9
139	00h23m10s	0.3863	23.998	9.2704	843.81	0.4545	0.4083	0.2601	0.5257	2759	94.9
140	00h23m20s	0.3863	23.998	9.2704	843.87	0.4545	0.4085	0.26	0.5257	2760	94.9
141	00h23m30s	0.3863	23.998	9.2704	843.93	0.4545	0.4084	0.26	0.5257	2759	94.9
142	00h23m40s	0.3863	23.998	9.2704	844.21	0.4545	0.4084	0.2601	0.5257	2758	94.9
143	00h23m50s	0.3863	23.998	9.2704	843.54	0.4547	0.4084	0.2601	0.5257	2757	94.9
144	00h24m00s	0.3863	23.998	9.2704	843.76	0.4545	0.4084	0.2601	0.5257	2759	94.9
145	00h24m10s	0.3863	23.998	9.2704	843.65	0.4545	0.4083	0.2601	0.5257	2759	94.9

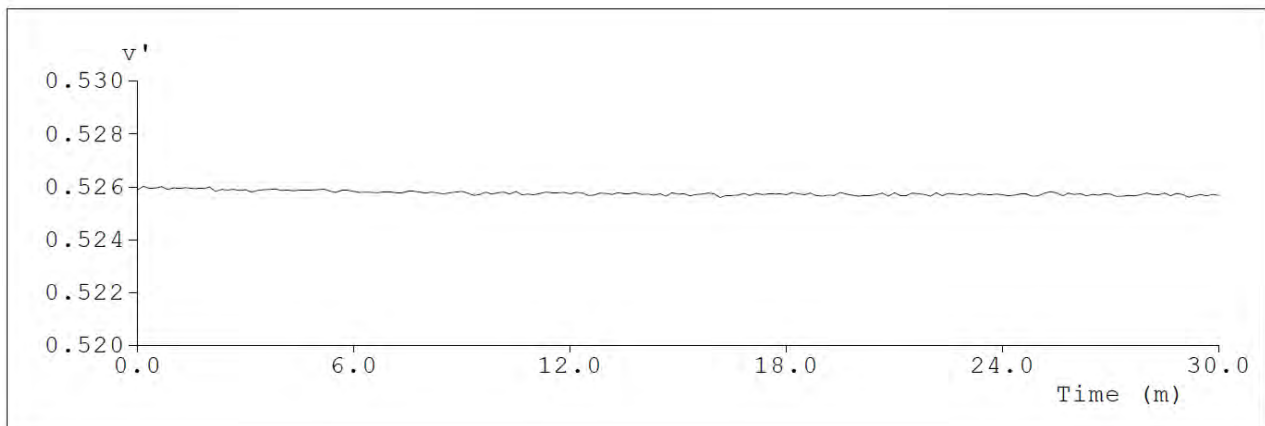
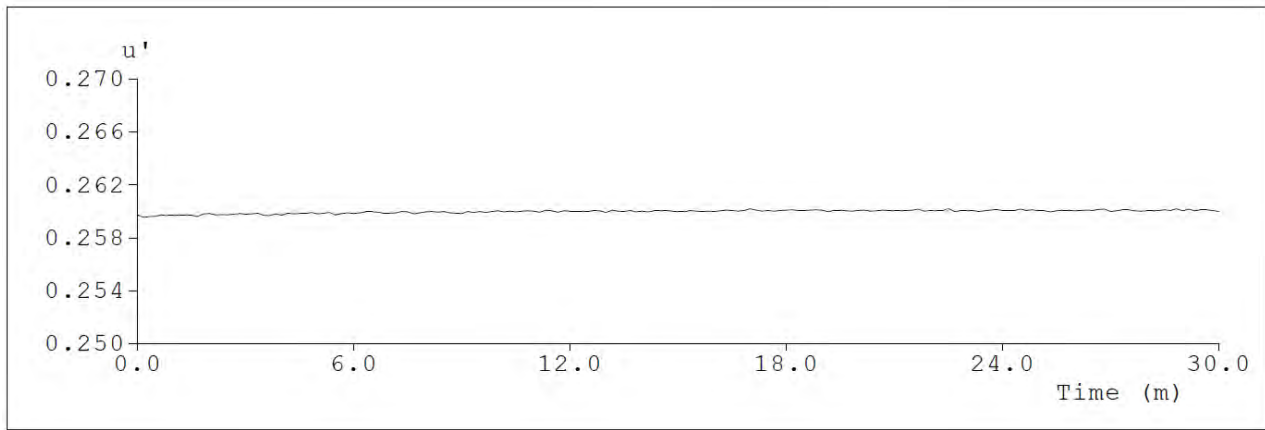
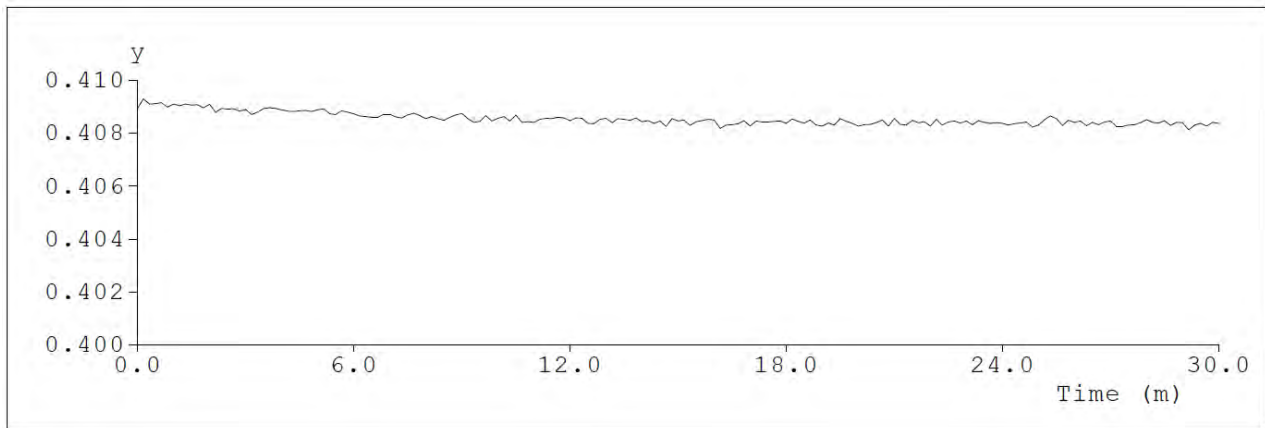
146	00h24m20s	0.3863	23.998	9.2704	843.87	0.4545	0.4084	0.26	0.5257	2759	94.9
147	00h24m30s	0.3863	23.998	9.2704	843.51	0.4547	0.4084	0.2601	0.5257	2756	94.9
148	00h24m40s	0.3863	23.998	9.2704	843.69	0.4546	0.4084	0.2601	0.5257	2759	94.9
149	00h24m50s	0.3863	23.998	9.2704	843.91	0.4545	0.4082	0.2601	0.5256	2758	94.9
150	00h25m00s	0.3863	23.998	9.2704	843.45	0.4545	0.4083	0.26	0.5257	2759	95
151	00h25m10s	0.3863	23.998	9.2704	844.36	0.4546	0.4085	0.26	0.5258	2759	94.9
152	00h25m20s	0.3863	23.998	9.2704	844.17	0.4546	0.4086	0.2599	0.5258	2761	95
153	00h25m30s	0.3863	23.998	9.2704	844.43	0.4546	0.4085	0.26	0.5258	2759	94.9
154	00h25m40s	0.3863	23.998	9.2704	843.39	0.4545	0.4083	0.2601	0.5257	2758	94.9
155	00h25m50s	0.3863	23.998	9.2704	844.15	0.4546	0.4085	0.2601	0.5258	2758	94.9
156	00h26m00s	0.3863	23.998	9.2704	843.88	0.4545	0.4084	0.26	0.5257	2759	94.9
157	00h26m10s	0.3863	23.998	9.2704	844.12	0.4546	0.4085	0.2601	0.5257	2758	94.9
158	00h26m20s	0.3863	23.998	9.2704	844.25	0.4545	0.4083	0.2601	0.5257	2758	94.9
159	00h26m30s	0.3863	23.998	9.2704	844.05	0.4546	0.4084	0.2601	0.5257	2758	94.9
160	00h26m40s	0.3863	23.998	9.2704	844.29	0.4546	0.4083	0.2601	0.5257	2757	94.9
161	00h26m50s	0.3863	23.998	9.2704	843.7	0.4547	0.4084	0.2601	0.5257	2757	94.9
162	00h27m00s	0.3863	23.998	9.2704	843.78	0.4545	0.4085	0.26	0.5257	2760	94.9
163	00h27m10s	0.3863	23.998	9.2704	843.82	0.4544	0.4083	0.26	0.5256	2759	95
164	00h27m20s	0.3863	23.998	9.2704	843.75	0.4545	0.4082	0.2601	0.5256	2758	94.9
165	00h27m30s	0.3863	23.998	9.2704	843.57	0.4546	0.4083	0.2601	0.5257	2758	95
166	00h27m40s	0.3863	23.998	9.2704	844.25	0.4544	0.4083	0.26	0.5257	2759	94.9
167	00h27m50s	0.3863	23.998	9.2704	843.81	0.4545	0.4084	0.26	0.5257	2760	95
168	00h28m00s	0.3863	23.998	9.2704	844.33	0.4546	0.4085	0.26	0.5258	2759	94.9
169	00h28m10s	0.3863	23.998	9.2704	843.55	0.4545	0.4084	0.26	0.5257	2759	95
170	00h28m20s	0.3863	23.998	9.2704	843.39	0.4545	0.4084	0.26	0.5257	2759	94.9
171	00h28m30s	0.3863	23.998	9.2704	844.21	0.4547	0.4085	0.2601	0.5258	2757	94.9
172	00h28m40s	0.3863	23.998	9.2704	843.87	0.4545	0.4083	0.26	0.5256	2759	94.9
173	00h28m50s	0.3863	23.998	9.2704	843.57	0.4548	0.4084	0.2602	0.5257	2756	94.9
174	00h29m00s	0.3863	23.998	9.2704	843.89	0.4545	0.4084	0.26	0.5257	2759	95
175	00h29m10s	0.3863	23.998	9.2704	843.57	0.4545	0.4081	0.2602	0.5256	2757	94.9
176	00h29m20s	0.3863	23.998	9.2704	843.68	0.4545	0.4083	0.26	0.5257	2759	95

177	00h29m30s	0.3863	23.998	9.2704	843.75	0.4546	0.4084	0.2601	0.5257	2758	94.9
178	00h29m40s	0.3863	23.998	9.2704	844.47	0.4545	0.4083	0.2601	0.5257	2758	94.9
179	00h29m50s	0.3863	23.998	9.2704	843.86	0.4545	0.4084	0.26	0.5257	2759	95
180	00h30m00s	0.3863	23.998	9.2704	844.32	0.4544	0.4084	0.26	0.5257	2761	94.9

Test curves



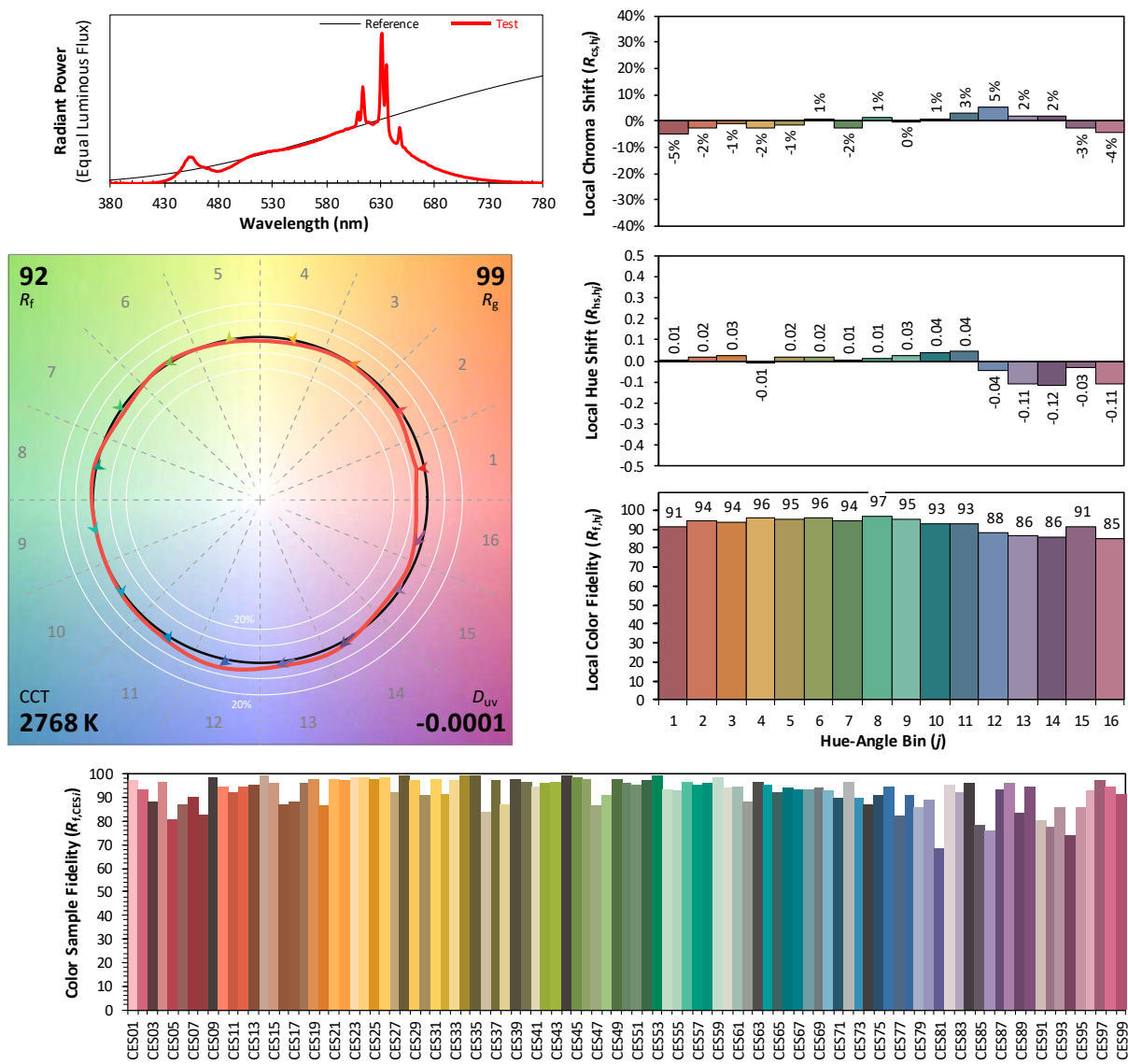




***5.2 ANSI/IES TM-30-18 Color Rendition Report**
ANSI/IES TM-30-18 Color Rendition Report

Source: Manufacturer:

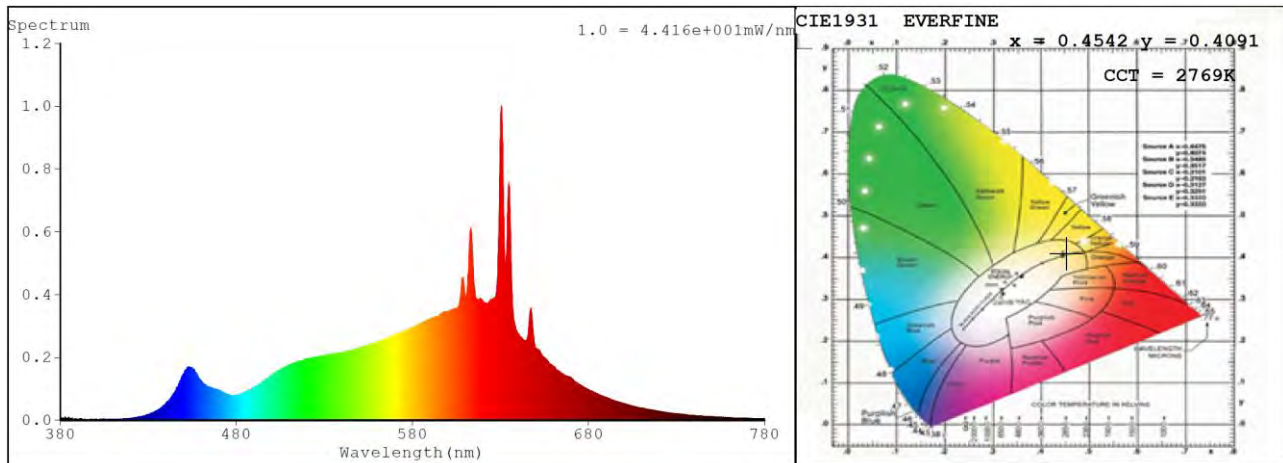
Date: 2023/9/15 Model: LCELY-1000-L27-DF-I-10



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.	x	0.4542	CIE 13.3-1995 (CRI) R_a 95 R_9 61
	y	0.4090	
	u'	0.2596	
	v'	0.5259	

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	0.0096	414	0.0039	448	0.1242	482	0.0806	516	0.1865
381	0.0034	415	0.0032	449	0.1391	483	0.0821	517	0.1872
382	0.0006	416	0.0044	450	0.1468	484	0.0865	518	0.19
383	0.0025	417	0.0047	451	0.1562	485	0.089	519	0.1924
384	0.0065	418	0.0055	452	0.1659	486	0.0915	520	0.1935
385	0.0073	419	0.0053	453	0.168	487	0.0943	521	0.1934
386	0.0056	420	0.0054	454	0.1662	488	0.0985	522	0.1935
387	0.0018	421	0.0061	455	0.1667	489	0.0996	523	0.1981
388	0.0008	422	0.0087	456	0.1631	490	0.1028	524	0.1985
389	0.0033	423	0.0084	457	0.153	491	0.1063	525	0.2017
390	0.0025	424	0.009	458	0.1423	492	0.1096	526	0.2014
391	0.0029	425	0.0098	459	0.1317	493	0.1142	527	0.2035
392	0.0048	426	0.0119	460	0.126	494	0.1175	528	0.2011
393	0.0005	427	0.0126	461	0.1182	495	0.1224	529	0.2041
394	0.002	428	0.0145	462	0.1142	496	0.1254	530	0.2057
395	0.0031	429	0.0172	463	0.1085	497	0.1303	531	0.2067
396	0.0016	430	0.0176	464	0.1061	498	0.1348	532	0.2083
397	0.0022	431	0.0189	465	0.1051	499	0.1386	533	0.2068
398	0.0016	432	0.0231	466	0.1041	500	0.143	534	0.2085
399	0.0026	433	0.0243	467	0.1007	501	0.1459	535	0.2084
400	0.0022	434	0.0288	468	0.0966	502	0.1508	536	0.2118
401	0.0021	435	0.03	469	0.0991	503	0.1524	537	0.2111
402	0.0021	436	0.0344	470	0.0945	504	0.1567	538	0.2133
403	0.0016	437	0.0384	471	0.0956	505	0.1603	539	0.2126
404	0.0017	438	0.0425	472	0.0897	506	0.1641	540	0.2137
405	0.0017	439	0.0463	473	0.0871	507	0.1657	541	0.2165
406	0.0023	440	0.0555	474	0.0831	508	0.1691	542	0.2176
407	0.0025	441	0.0609	475	0.0831	509	0.1725	543	0.2196
408	0.0023	442	0.0654	476	0.0818	510	0.1743	544	0.2173
409	0.0032	443	0.0728	477	0.078	511	0.1765	545	0.22
410	0.0041	444	0.0816	478	0.0785	512	0.1795	546	0.2221
411	0.0025	445	0.0895	479	0.0775	513	0.1833	547	0.2249
412	0.0026	446	0.1027	480	0.0788	514	0.1832	548	0.2258
413	0.0029	447	0.1113	481	0.0794	515	0.1852	549	0.2278

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.229	599	0.3433	648	0.3219	697	0.0586	746	0.0125
551	0.2307	600	0.3423	649	0.257	698	0.0559	747	0.0121
552	0.2329	601	0.3482	650	0.2316	699	0.0547	748	0.0116
553	0.2349	602	0.3491	651	0.2269	700	0.053	749	0.0114
554	0.236	603	0.3523	652	0.2252	701	0.0525	750	0.0112
555	0.2381	604	0.3545	653	0.2124	702	0.0489	751	0.0111
556	0.2401	605	0.3563	654	0.2039	703	0.0482	752	0.0105
557	0.2447	606	0.3598	655	0.1976	704	0.0473	753	0.0099
558	0.244	607	0.3809	656	0.1936	705	0.0453	754	0.0099
559	0.2453	608	0.4352	657	0.1873	706	0.0442	755	0.0093
560	0.2484	609	0.4493	658	0.1782	707	0.0413	756	0.0087
561	0.25	610	0.3975	659	0.1743	708	0.0402	757	0.0091
562	0.2517	611	0.4053	660	0.171	709	0.0397	758	0.0092
563	0.2546	612	0.4997	661	0.1661	710	0.0388	759	0.009
564	0.2561	613	0.6075	662	0.1611	711	0.0382	760	0.0086
565	0.2604	614	0.5407	663	0.1572	712	0.0363	761	0.0074
566	0.2605	615	0.4342	664	0.1522	713	0.0356	762	0.0074
567	0.2625	616	0.3899	665	0.1486	714	0.0341	763	0.0074
568	0.2639	617	0.3815	666	0.1445	715	0.0325	764	0.0078
569	0.2677	618	0.3847	667	0.141	716	0.0327	765	0.0073
570	0.2686	619	0.3858	668	0.1392	717	0.0305	766	0.0069
571	0.2724	620	0.3801	669	0.1361	718	0.0309	767	0.0071
572	0.2747	621	0.3739	670	0.1363	719	0.0298	768	0.0064
573	0.276	622	0.3723	671	0.1311	720	0.0278	769	0.0064
574	0.279	623	0.3723	672	0.125	721	0.0272	770	0.0064
575	0.2808	624	0.3796	673	0.1206	722	0.0262	771	0.0065
576	0.2848	625	0.3838	674	0.1161	723	0.0262	772	0.006
577	0.2868	626	0.3871	675	0.1126	724	0.0245	773	0.0058
578	0.2906	627	0.3905	676	0.1112	725	0.0244	774	0.0056
579	0.2907	628	0.4282	677	0.1072	726	0.0232	775	0.0057
580	0.2941	629	0.5922	678	0.1035	727	0.023	776	0.0049
581	0.2984	630	0.9167	679	0.0996	728	0.0208	777	0.0051
582	0.2999	631	0.9398	680	0.0959	729	0.0215	778	0.0051
583	0.303	632	0.6172	681	0.0941	730	0.0203	779	0.005
584	0.3075	633	0.4905	682	0.0925	731	0.0197	780	0.005
585	0.3076	634	0.6327	683	0.0901	732	0.0192		
586	0.3131	635	0.7437	684	0.0867	733	0.0191		
587	0.3135	636	0.5212	685	0.0844	734	0.0178		
588	0.3182	637	0.3581	686	0.081	735	0.0179		
589	0.3206	638	0.3092	687	0.0792	736	0.0171		
590	0.3206	639	0.2876	688	0.0765	737	0.0162		
591	0.3238	640	0.2765	689	0.0748	738	0.0162		
592	0.3271	641	0.2655	690	0.0721	739	0.0155		
593	0.3278	642	0.2599	691	0.0698	740	0.0147		
594	0.3297	643	0.2549	692	0.0687	741	0.0144		
595	0.3312	644	0.2525	693	0.0658	742	0.0145		
596	0.3357	645	0.2564	694	0.064	743	0.0138		
597	0.3416	646	0.2922	695	0.0621	744	0.0132		
598	0.3439	647	0.3515	696	0.0599	745	0.0126		

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

6.1 Test Data

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

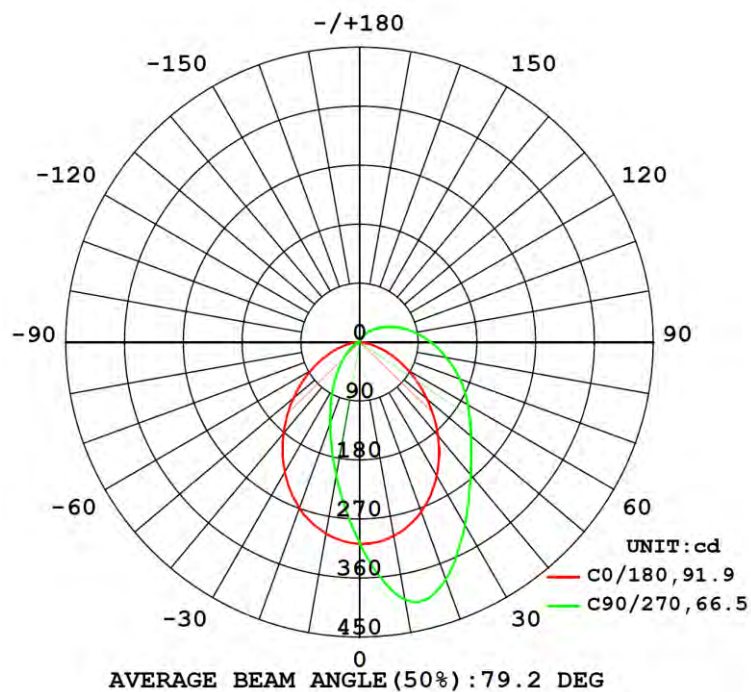
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.39	1.0000	9.36

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	I _{max} (cd)	η up (%)	η down (%)
835.104	89.22	406.4	10.9	89.1

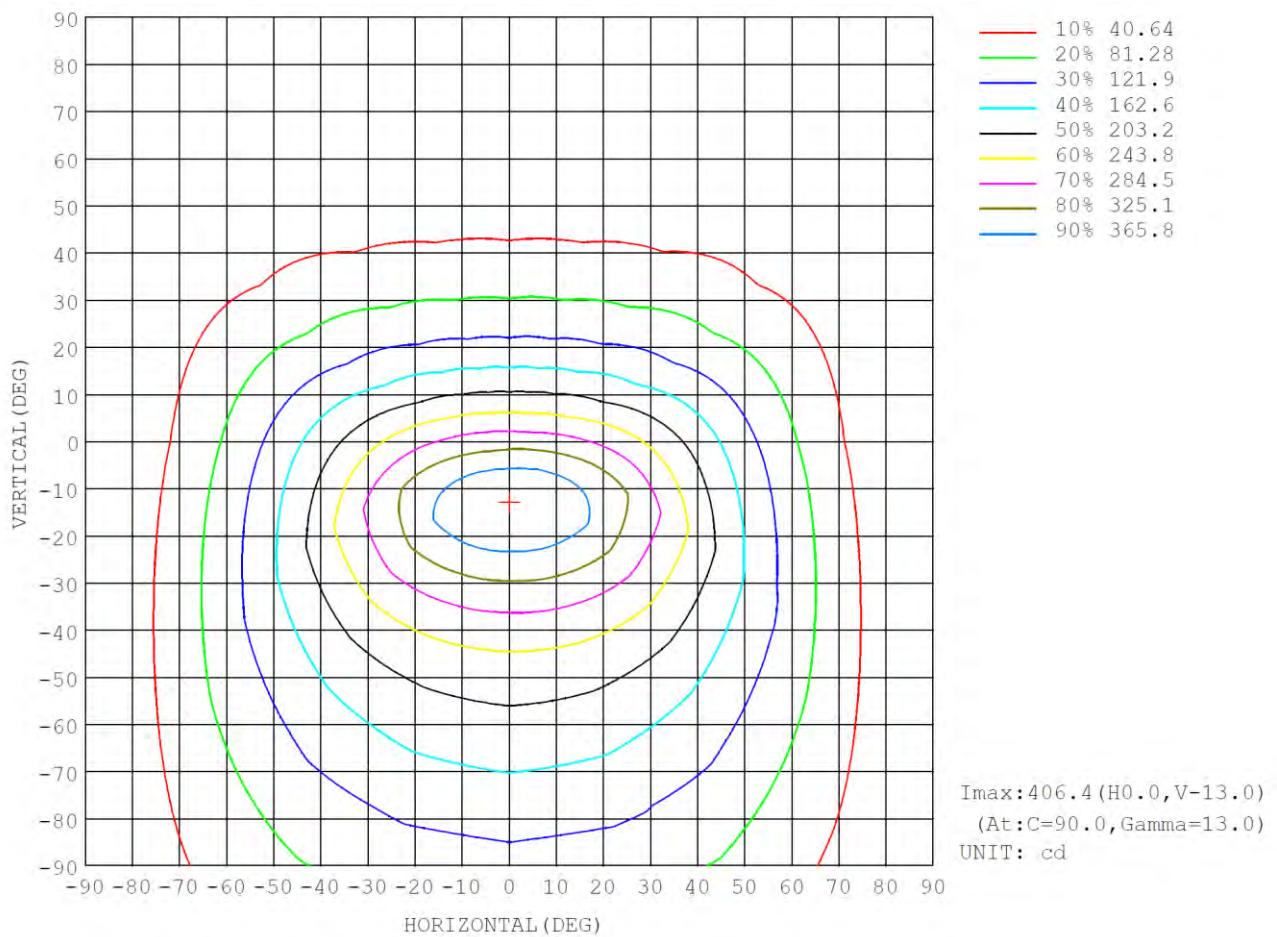
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	300.2	374.5	398.3	370.0	296.7	230.8	207.0	231.1	0- 10	29.06	29.06	3.48, 3.48
20	275.6	382.2	385.6	377.1	269.8	164.2	133.3	165.1	10- 20	80.99	110.0	13.2, 13.2
30	236.2	332.4	322.5	327.0	229.3	112.0	82.38	112.6	20- 30	112.7	222.7	26.7, 26.7
40	186.9	269.7	264.9	264.8	181.8	71.61	47.59	71.89	30- 40	121.7	344.4	41.2, 41.2
50	134.7	214.8	223.0	210.8	132.2	40.63	25.09	40.79	40- 50	114.5	458.9	55, 55
60	86.57	171.0	191.9	167.8	86.30	18.84	11.71	19.14	50- 60	98.83	557.8	66.8, 66.8
70	45.03	135.3	163.5	133.2	47.24	6.856	4.929	7.275	60- 70	80.00	637.8	76.4, 76.4
80	13.68	105.1	134.7	104.1	16.91	2.113	1.544	2.464	70- 80	61.16	698.9	83.7, 83.7
90	1.758	78.34	109.5	78.69	1.870	0.6750	0.4172	1.005	80- 90	44.86	743.8	89.1, 89.1
100	1.602	56.42	86.36	57.78	1.296	0.4927	0.3830	0.7190	90-100	32.75	776.5	93, 93
110	1.610	39.23	65.50	40.87	1.164	0.2878	0.3268	0.4341	100-110	23.23	799.8	95.8, 95.8
120	1.355	26.67	47.54	28.19	0.9971	0.2182	0.2774	0.2276	110-120	15.63	815.4	97.6, 97.6
130	1.083	17.35	32.60	18.63	0.8459	0.2743	0.2958	0.2509	120-130	9.790	825.2	98.8, 98.8
140	0.8168	10.49	20.57	11.47	0.7398	0.3930	0.3992	0.3663	130-140	5.588	830.8	99.5, 99.5
150	0.5926	5.717	11.42	6.342	0.6323	0.4925	0.5099	0.4615	140-150	2.786	833.6	99.8, 99.8
160	0.4428	2.745	5.209	2.572	0.5424	0.5008	0.5174	0.4901	150-160	1.138	834.7	100, 100
170	0.4479	1.155	1.800	0.9968	0.5105	0.4918	0.4752	0.4497	160-170	0.3429	835.0	100, 100
180	0.5029	0.4653	0.3916	0.4229	0.5050	0.4875	0.4781	0.4347	170-180	0.0611	835.1	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	308	308	308	307	307	307	306	306	308	308	308	307	307	307	306	306			
5	306	327	345	356	359	355	342	323	304	285	269	258	254	258	269	284			
10	300	341	374	393	398	391	370	335	297	260	231	213	207	213	231	261			
15	290	348	388	403	405	401	383	340	285	233	196	174	167	174	196	235			
20	276	346	382	387	386	385	377	337	270	207	164	141	133	141	165	209			
25	258	335	361	359	355	356	356	324	251	181	137	113	106	113	137	184			
30	236	314	332	327	322	324	327	304	229	157	112	89.3	82.4	89.4	113	159			
35	212	286	301	295	292	293	295	278	206	134	90.5	69.4	63.3	69.5	90.9	136			
40	187	255	270	267	265	264	265	248	182	112	71.6	52.9	47.6	52.9	71.9	114			
45	161	224	241	243	242	240	236	218	157	91.5	55.0	39.2	35.0	39.2	55.2	92.8			
50	135	194	215	221	223	219	211	190	132	72.5	40.6	28.1	25.1	28.2	40.8	73.5			
55	110	166	192	203	207	201	188	163	109	55.1	28.6	19.4	17.4	19.6	28.8	55.6			
60	86.6	141	171	187	192	185	168	139	86.3	39.3	18.8	13.0	11.7	13.1	19.1	39.5			
65	64.7	119	152	172	178	170	150	118	65.7	25.7	11.7	8.36	7.70	8.51	12.0	25.7			
70	45.0	98.6	135	157	163	155	133	98.7	47.2	14.5	6.86	5.25	4.93	5.38	7.28	14.7			
75	27.7	80.3	120	142	149	140	119	81.6	30.8	7.03	3.90	3.15	2.97	3.24	4.30	7.45			
80	13.7	63.9	105	130	135	127	104	66.3	16.9	3.10	2.11	1.67	1.54	1.73	2.46	3.78			
85	4.55	49.3	91.1	115	122	114	90.8	52.7	6.58	1.44	1.02	0.70	0.59	0.73	1.32	2.17			
90	1.76	37.0	78.3	102	109	101	78.7	40.9	1.87	0.86	0.68	0.47	0.42	0.52	1.00	1.60			
95	0.87	27.4	66.8	90.3	97.6	90.0	67.8	31.4	1.40	0.60	0.59	0.44	0.40	0.49	0.87	1.13			
100	1.60	20.7	56.4	79.1	86.4	79.1	57.8	24.2	1.30	0.29	0.49	0.41	0.38	0.44	0.72	0.70			
105	1.68	16.3	47.2	68.5	75.6	68.8	48.8	19.0	1.24	0.17	0.39	0.37	0.36	0.40	0.58	0.29			
110	1.61	13.2	39.2	58.8	65.5	59.2	40.9	15.3	1.16	0.17	0.29	0.33	0.33	0.35	0.43	0.16			
115	1.49	10.6	32.5	49.9	56.2	50.5	34.1	12.4	1.08	0.21	0.23	0.29	0.30	0.31	0.30	0.17			
120	1.36	8.58	26.7	41.8	47.5	42.5	28.2	10.1	1.00	0.26	0.22	0.27	0.28	0.27	0.23	0.21			
125	1.22	6.91	21.7	34.6	39.7	35.3	23.1	7.91	0.92	0.31	0.23	0.27	0.28	0.26	0.22	0.27			
130	1.08	5.54	17.4	28.2	32.6	28.9	18.6	6.48	0.85	0.38	0.27	0.29	0.30	0.28	0.25	0.35			
135	0.95	4.42	13.7	22.5	26.2	23.2	14.8	5.00	0.79	0.45	0.33	0.34	0.34	0.31	0.30	0.42			
140	0.82	3.50	10.5	17.5	20.6	18.1	11.5	4.05	0.74	0.51	0.39	0.39	0.40	0.38	0.37	0.48			
145	0.70	2.75	7.85	13.2	15.6	13.7	8.66	3.17	0.68	0.55	0.45	0.45	0.46	0.44	0.42	0.52			
150	0.59	2.12	5.72	9.61	11.4	10.0	6.34	2.44	0.63	0.56	0.49	0.50	0.51	0.49	0.46	0.52			
155	0.50	1.63	4.04	6.69	7.93	6.99	4.48	1.67	0.59	0.55	0.51	0.51	0.53	0.51	0.48	0.50			
160	0.44	1.23	2.75	4.42	5.21	4.63	2.57	1.15	0.54	0.52	0.50	0.49	0.52	0.51	0.49	0.47			
165	0.41	0.85	1.81	2.75	3.17	2.78	1.56	0.88	0.51	0.50	0.49	0.48	0.49	0.50	0.47	0.46			
170	0.45	0.66	1.16	1.59	1.80	1.37	1.00	0.67	0.51	0.51	0.49	0.49	0.48	0.47	0.45	0.45			
175	0.48	0.55	0.68	0.83	0.92	0.66	0.65	0.55	0.51	0.51	0.49	0.48	0.49	0.43	0.45	0.44			
180	0.50	0.48	0.47	0.47	0.39	0.42	0.42	0.45	0.50	0.50	0.49	0.48	0.48	0.41	0.43	0.43			

7. Integrating Sphere Test Results for LCELY-1000-L27-DF-I-15

7.1 Test Data

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

Optical and Electrical Measurement Result

Number	Time	Current (A)	Voltage (V)	Power (W)	Flux(lm)	x	y	u'	v'	CCT (K)	Ra
0	00h00m00s	0.568	23.998	13.631	1230.5	0.4541	0.4093	0.2594	0.526	2772	94.8
1	00h00m10s	0.5687	23.998	13.648	1231.3	0.4542	0.4094	0.2594	0.526	2772	94.8
2	00h00m20s	0.569	23.998	13.655	1231	0.4541	0.4093	0.2594	0.526	2772	94.7
3	00h00m30s	0.5693	23.998	13.662	1231.6	0.4542	0.4093	0.2594	0.526	2771	94.7
4	00h00m40s	0.5696	23.998	13.669	1232.5	0.4542	0.4093	0.2595	0.526	2770	94.7
5	00h00m50s	0.5699	23.998	13.676	1232.1	0.4543	0.4094	0.2594	0.526	2771	94.8
6	00h01m00s	0.5701	23.998	13.681	1231.9	0.4544	0.4094	0.2595	0.5261	2769	94.8
7	00h01m10s	0.5703	23.998	13.686	1231.9	0.4542	0.4091	0.2595	0.5259	2770	94.7
8	00h01m20s	0.5705	23.998	13.691	1232.1	0.4542	0.4091	0.2595	0.5259	2770	94.8
9	00h01m30s	0.5707	23.998	13.696	1232.1	0.4544	0.4093	0.2596	0.526	2767	94.7
10	00h01m40s	0.5709	23.998	13.7	1232.5	0.4543	0.4091	0.2596	0.5259	2768	94.8
11	00h01m50s	0.5711	23.998	13.705	1233.3	0.4542	0.409	0.2596	0.5259	2768	94.7
12	00h02m00s	0.5713	23.998	13.71	1232.5	0.4542	0.4091	0.2595	0.5259	2769	94.7
13	00h02m10s	0.5715	23.998	13.715	1232.3	0.4543	0.409	0.2596	0.5259	2767	94.8
14	00h02m20s	0.5717	23.998	13.72	1232.5	0.4542	0.409	0.2596	0.5259	2769	94.8
15	00h02m30s	0.5718	23.998	13.722	1232.6	0.4544	0.4091	0.2596	0.526	2767	94.7
16	00h02m40s	0.572	23.998	13.727	1232.4	0.4544	0.4091	0.2597	0.5259	2765	94.7
17	00h02m50s	0.5722	23.998	13.732	1233.1	0.4543	0.4091	0.2596	0.5259	2768	94.8
18	00h03m00s	0.5723	23.998	13.734	1233.2	0.4543	0.409	0.2596	0.5259	2767	94.8
19	00h03m10s	0.5725	23.998	13.739	1233.5	0.4543	0.4091	0.2596	0.5259	2768	94.7
20	00h03m20s	0.5726	23.998	13.741	1233.8	0.4544	0.4091	0.2597	0.5259	2766	94.7
21	00h03m30s	0.5728	23.998	13.746	1233.5	0.4543	0.4091	0.2596	0.5259	2767	94.8

22	00h03m40s	0.5729	23.998	13.748	1234.2	0.4544	0.409	0.2597	0.5259	2766	94.7
23	00h03m50s	0.573	23.998	13.751	1233.1	0.4543	0.4089	0.2597	0.5259	2766	94.7
24	00h04m00s	0.5732	23.998	13.756	1233.7	0.4542	0.4088	0.2597	0.5258	2766	94.8
25	00h04m10s	0.5733	23.998	13.758	1233.6	0.4544	0.4088	0.2598	0.5258	2764	94.7
26	00h04m20s	0.5734	23.998	13.76	1233.7	0.4543	0.4089	0.2596	0.5259	2767	94.8
27	00h04m30s	0.5736	23.998	13.765	1234.2	0.4543	0.4089	0.2597	0.5259	2766	94.7
28	00h04m40s	0.5737	23.998	13.768	1234.2	0.4543	0.4088	0.2597	0.5258	2765	94.8
29	00h04m50s	0.5738	23.998	13.77	1233.5	0.4544	0.4088	0.2597	0.5259	2764	94.8
30	00h05m00s	0.5739	23.998	13.772	1233.5	0.4543	0.4088	0.2597	0.5258	2765	94.8
31	00h05m10s	0.574	23.998	13.775	1233.6	0.4543	0.4087	0.2598	0.5258	2764	94.8
32	00h05m20s	0.5741	23.998	13.777	1234.2	0.4544	0.4088	0.2598	0.5258	2764	94.7
33	00h05m30s	0.5742	23.998	13.78	1234.5	0.4544	0.4089	0.2597	0.5259	2766	94.8
34	00h05m40s	0.5744	23.998	13.784	1234.6	0.4543	0.4088	0.2597	0.5258	2765	94.7
35	00h05m50s	0.5745	23.998	13.787	1234.3	0.4544	0.4088	0.2598	0.5259	2764	94.8
36	00h06m00s	0.5746	23.998	13.789	1234	0.4544	0.4089	0.2597	0.5259	2766	94.7
37	00h06m10s	0.5747	23.998	13.792	1233.9	0.4543	0.4087	0.2598	0.5258	2764	94.8
38	00h06m20s	0.5748	23.998	13.794	1234.5	0.4544	0.4088	0.2598	0.5258	2764	94.8
39	00h06m30s	0.5748	23.998	13.794	1235.1	0.4543	0.4088	0.2597	0.5258	2765	94.8
40	00h06m40s	0.5749	23.998	13.796	1234.6	0.4544	0.4086	0.2598	0.5258	2763	94.7
41	00h06m50s	0.575	23.998	13.799	1234.1	0.4545	0.4087	0.2599	0.5258	2762	94.7
42	00h07m00s	0.5751	23.998	13.801	1234.9	0.4544	0.4089	0.2598	0.5259	2764	94.7
43	00h07m10s	0.5752	23.998	13.804	1235	0.4545	0.4087	0.2599	0.5258	2762	94.7
44	00h07m20s	0.5753	23.998	13.806	1234.7	0.4545	0.4087	0.2598	0.5258	2762	94.8
45	00h07m30s	0.5754	23.998	13.808	1234.6	0.4545	0.4089	0.2598	0.5259	2764	94.7
46	00h07m40s	0.5755	23.998	13.811	1234.6	0.4543	0.4086	0.2598	0.5257	2764	94.7
47	00h07m50s	0.5755	23.998	13.811	1234.4	0.4543	0.4086	0.2598	0.5257	2764	94.7
48	00h08m00s	0.5756	23.998	13.813	1234.8	0.4544	0.4086	0.2599	0.5258	2762	94.7
49	00h08m10s	0.5757	23.998	13.816	1234.5	0.4544	0.4085	0.2599	0.5257	2763	94.7
50	00h08m20s	0.5758	23.998	13.818	1234.7	0.4544	0.4086	0.2599	0.5258	2762	94.7
51	00h08m30s	0.5758	23.998	13.818	1234.6	0.4543	0.4085	0.2599	0.5257	2763	94.7
52	00h08m40s	0.5759	23.998	13.82	1234.8	0.4543	0.4086	0.2598	0.5257	2764	94.8

53	00h08m50s	0.576	23.998	13.823	1234.6	0.4544	0.4086	0.2598	0.5258	2763	94.7
54	00h09m00s	0.576	23.998	13.823	1234.3	0.4542	0.4085	0.2598	0.5257	2765	94.8
55	00h09m10s	0.5761	23.998	13.825	1235.2	0.4544	0.4085	0.2599	0.5257	2762	94.7
56	00h09m20s	0.5762	23.998	13.828	1235.8	0.4544	0.4086	0.2598	0.5257	2763	94.7
57	00h09m30s	0.5762	23.998	13.828	1234.5	0.4544	0.4085	0.2599	0.5257	2761	94.8
58	00h09m40s	0.5763	23.998	13.83	1234.3	0.4544	0.4085	0.2599	0.5257	2762	94.7
59	00h09m50s	0.5764	23.998	13.832	1235.4	0.4544	0.4085	0.2599	0.5257	2761	94.7
60	00h10m00s	0.5764	23.998	13.832	1234.1	0.4545	0.4085	0.2599	0.5257	2761	94.8
61	00h10m10s	0.5765	23.998	13.835	1235.5	0.4544	0.4087	0.2598	0.5258	2763	94.7
62	00h10m20s	0.5765	23.998	13.835	1235.7	0.4545	0.4086	0.2599	0.5258	2761	94.7
63	00h10m30s	0.5766	23.998	13.837	1234.2	0.4543	0.4083	0.2599	0.5257	2761	94.8
64	00h10m40s	0.5766	23.998	13.837	1234.7	0.4546	0.4086	0.26	0.5258	2760	94.7
65	00h10m50s	0.5767	23.998	13.84	1235.2	0.4545	0.4086	0.2599	0.5258	2761	94.7
66	00h11m00s	0.5767	23.998	13.84	1235.4	0.4544	0.4087	0.2598	0.5258	2763	94.7
67	00h11m10s	0.5768	23.998	13.842	1235.3	0.4545	0.4085	0.26	0.5257	2761	94.7
68	00h11m20s	0.5769	23.998	13.844	1234.9	0.4543	0.4086	0.2598	0.5258	2763	94.8
69	00h11m30s	0.5769	23.998	13.844	1234.7	0.4544	0.4084	0.26	0.5257	2761	94.7
70	00h11m40s	0.5769	23.998	13.844	1235.3	0.4544	0.4084	0.2599	0.5257	2761	94.7
71	00h11m50s	0.577	23.998	13.847	1235.9	0.4544	0.4085	0.2599	0.5257	2762	94.8
72	00h12m00s	0.577	23.998	13.847	1235.6	0.4546	0.4086	0.26	0.5258	2759	94.7
73	00h12m10s	0.5771	23.998	13.849	1235.4	0.4544	0.4086	0.2599	0.5258	2762	94.7
74	00h12m20s	0.5771	23.998	13.849	1235.4	0.4542	0.4084	0.2598	0.5257	2763	94.8
75	00h12m30s	0.5772	23.998	13.852	1235.2	0.4544	0.4084	0.2599	0.5257	2761	94.7
76	00h12m40s	0.5772	23.998	13.852	1235.7	0.4545	0.4085	0.26	0.5257	2759	94.7
77	00h12m50s	0.5772	23.998	13.852	1235.9	0.4542	0.4084	0.2598	0.5256	2764	94.7
78	00h13m00s	0.5773	23.998	13.854	1234.9	0.4545	0.4084	0.2601	0.5257	2758	94.7
79	00h13m10s	0.5773	23.998	13.854	1234.5	0.4544	0.4083	0.26	0.5257	2760	94.7
80	00h13m20s	0.5774	23.998	13.856	1235	0.4544	0.4084	0.26	0.5257	2760	94.7
81	00h13m30s	0.5774	23.998	13.856	1235.7	0.4543	0.4083	0.2599	0.5256	2761	94.7
82	00h13m40s	0.5774	23.998	13.856	1235.4	0.4544	0.4084	0.2599	0.5257	2762	94.8
83	00h13m50s	0.5775	23.998	13.859	1235.8	0.4544	0.4084	0.26	0.5257	2761	94.7

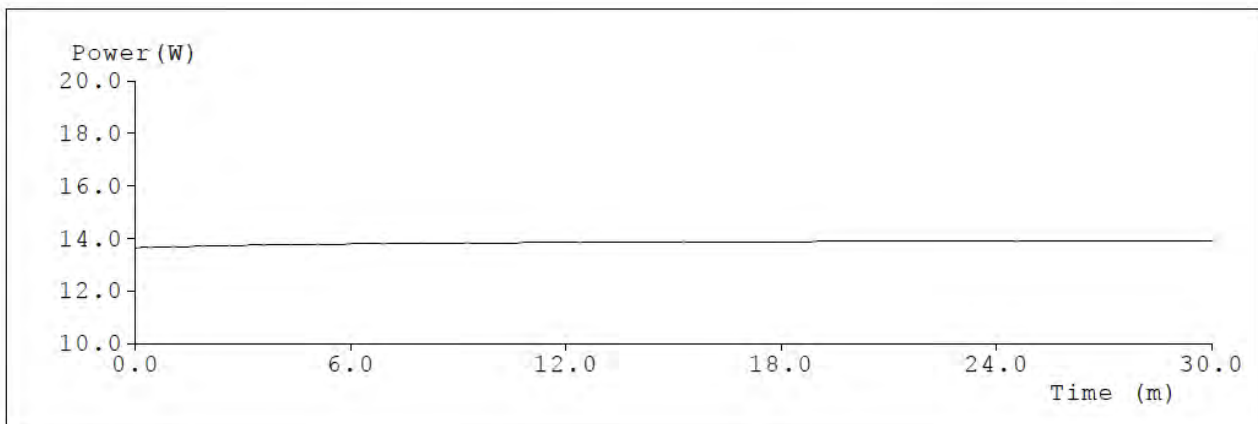
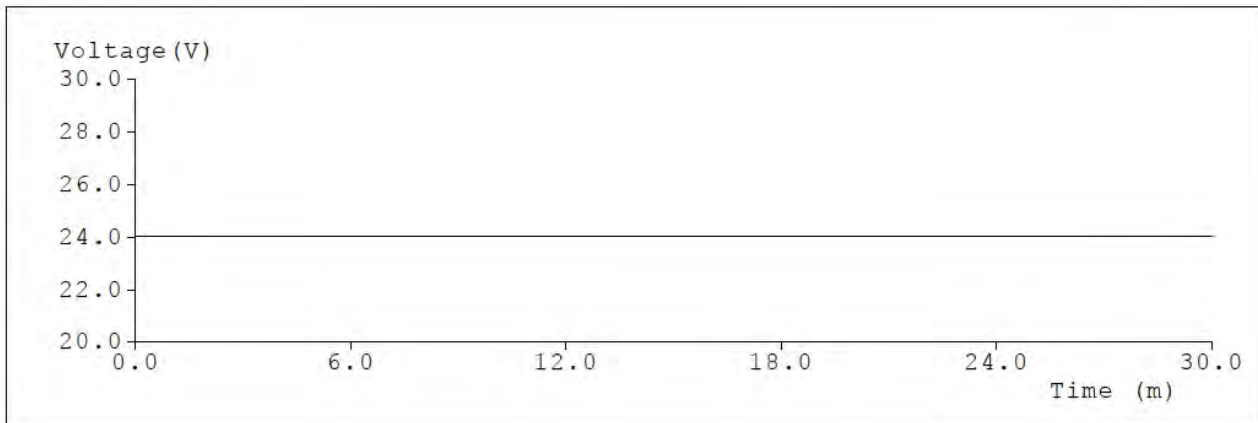
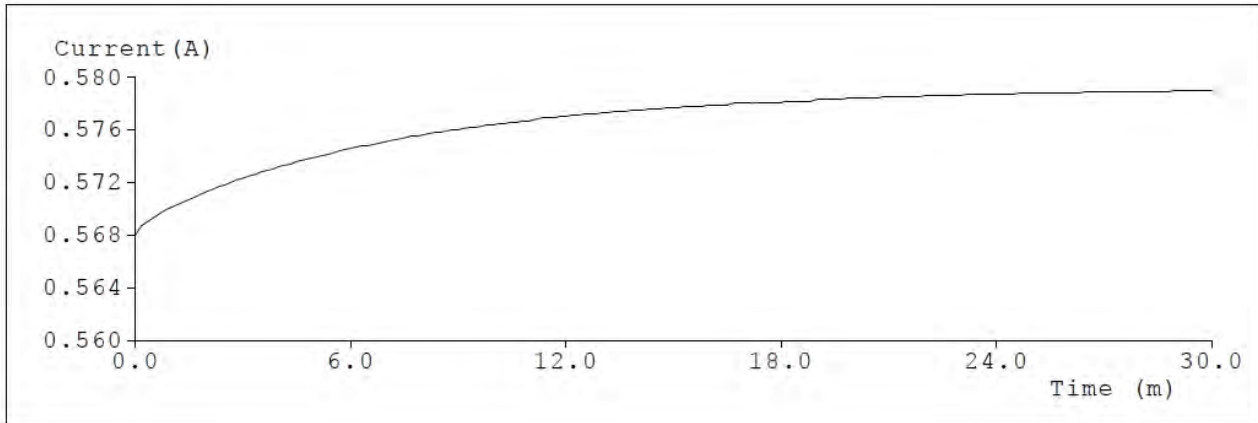
84	00h14m00s	0.5775	23.998	13.859	1235.3	0.4544	0.4085	0.2599	0.5257	2761	94.7
85	00h14m10s	0.5775	23.998	13.859	1235.6	0.4545	0.4083	0.26	0.5257	2759	94.8
86	00h14m20s	0.5776	23.998	13.861	1235.8	0.4544	0.4085	0.2599	0.5257	2762	94.7
87	00h14m30s	0.5776	23.998	13.861	1235.5	0.4544	0.4083	0.26	0.5256	2760	94.7
88	00h14m40s	0.5776	23.998	13.861	1236	0.4543	0.4082	0.26	0.5256	2760	94.7
89	00h14m50s	0.5777	23.998	13.864	1236.2	0.4545	0.4084	0.26	0.5257	2760	94.8
90	00h15m00s	0.5777	23.998	13.864	1235.4	0.4545	0.4084	0.26	0.5257	2760	94.7
91	00h15m10s	0.5777	23.998	13.864	1235.6	0.4545	0.4084	0.26	0.5257	2759	94.7
92	00h15m20s	0.5778	23.998	13.866	1235.2	0.4544	0.4083	0.26	0.5257	2760	94.7
93	00h15m30s	0.5778	23.998	13.866	1235.8	0.4545	0.4085	0.26	0.5257	2760	94.7
94	00h15m40s	0.5778	23.998	13.866	1235.4	0.4544	0.4082	0.2601	0.5256	2759	94.7
95	00h15m50s	0.5778	23.998	13.866	1236.3	0.4545	0.4084	0.26	0.5257	2759	94.7
96	00h16m00s	0.5779	23.998	13.868	1235.8	0.4544	0.4084	0.26	0.5257	2761	94.7
97	00h16m10s	0.5779	23.998	13.868	1235.7	0.4544	0.4083	0.26	0.5257	2760	94.8
98	00h16m20s	0.5779	23.998	13.868	1236.4	0.4542	0.4083	0.2599	0.5256	2763	94.7
99	00h16m30s	0.5779	23.998	13.868	1235.7	0.4545	0.4084	0.26	0.5257	2760	94.7
100	00h16m40s	0.578	23.998	13.871	1235.9	0.4545	0.4085	0.26	0.5257	2760	94.8
101	00h16m50s	0.578	23.998	13.871	1235	0.4544	0.4082	0.26	0.5256	2759	94.8
102	00h17m00s	0.578	23.998	13.871	1235.1	0.4545	0.4083	0.26	0.5257	2759	94.7
103	00h17m10s	0.578	23.998	13.871	1235.9	0.4544	0.4083	0.26	0.5256	2759	94.7
104	00h17m20s	0.5781	23.998	13.873	1235.9	0.4544	0.4082	0.26	0.5256	2760	94.7
105	00h17m30s	0.5781	23.998	13.873	1235	0.4545	0.4083	0.26	0.5257	2759	94.7
106	00h17m40s	0.5781	23.998	13.873	1235.1	0.4545	0.4083	0.2601	0.5257	2759	94.7
107	00h17m50s	0.5781	23.998	13.873	1235.6	0.4544	0.4084	0.26	0.5257	2760	94.7
108	00h18m00s	0.5781	23.998	13.873	1235.8	0.4544	0.4084	0.26	0.5257	2760	94.8
109	00h18m10s	0.5782	23.998	13.876	1236	0.4545	0.4083	0.26	0.5257	2759	94.7
110	00h18m20s	0.5782	23.998	13.876	1236	0.4545	0.4083	0.26	0.5257	2760	94.7
111	00h18m30s	0.5782	23.998	13.876	1235.9	0.4545	0.4082	0.2601	0.5256	2758	94.7
112	00h18m40s	0.5782	23.998	13.876	1235.3	0.4544	0.4083	0.26	0.5257	2760	94.7
113	00h18m50s	0.5782	23.998	13.876	1235.3	0.4545	0.4084	0.26	0.5257	2759	94.7
114	00h19m00s	0.5783	23.998	13.878	1236.4	0.4544	0.4084	0.26	0.5257	2761	94.7

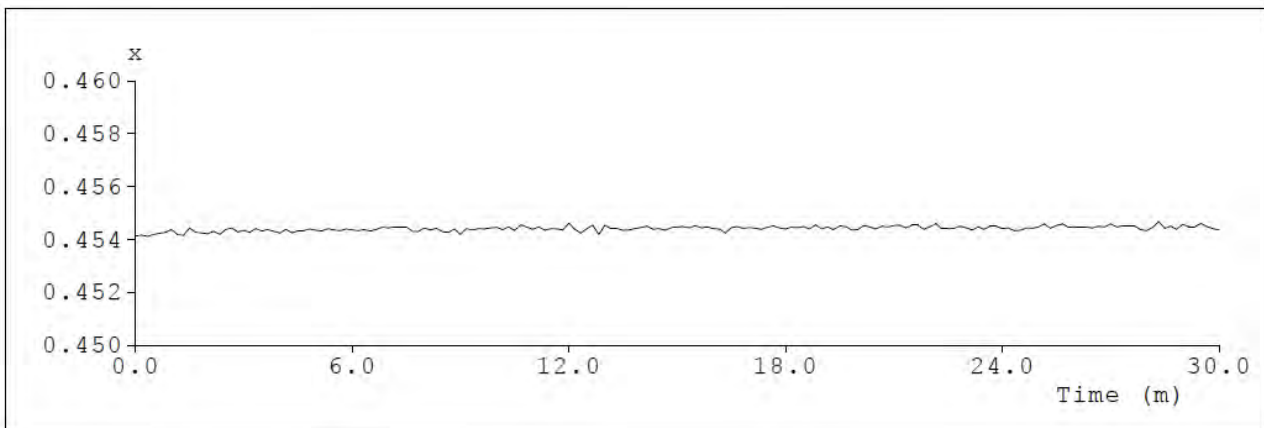
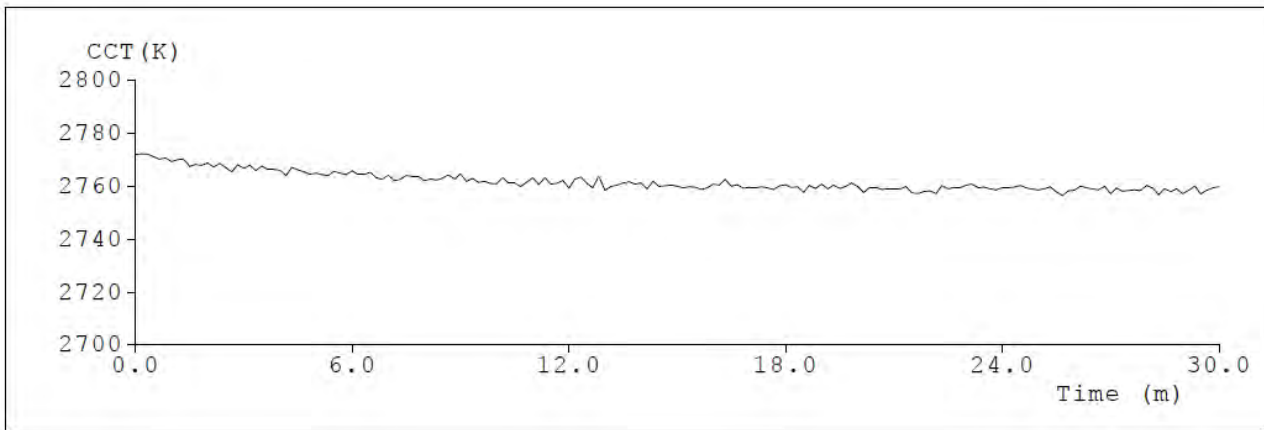
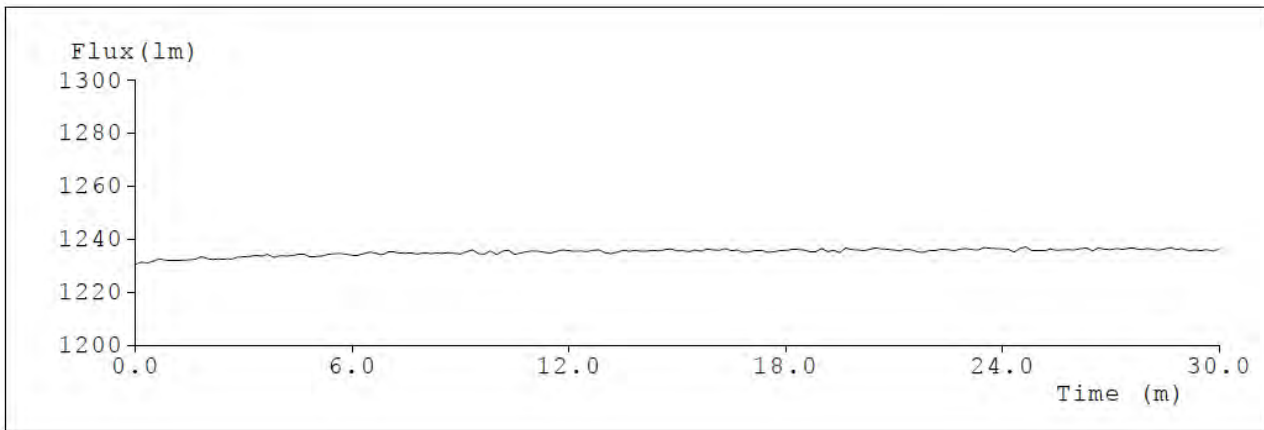
115	00h19m10s	0.5783	23.998	13.878	1235.2	0.4545	0.4083	0.2601	0.5257	2759	94.7
116	00h19m20s	0.5783	23.998	13.878	1235.7	0.4544	0.4083	0.26	0.5256	2760	94.8
117	00h19m30s	0.5783	23.998	13.878	1234.8	0.4545	0.4084	0.26	0.5257	2759	94.7
118	00h19m40s	0.5783	23.998	13.878	1236.7	0.4545	0.4084	0.26	0.5257	2760	94.7
119	00h19m50s	0.5784	23.998	13.88	1236.1	0.4544	0.4084	0.2599	0.5257	2761	94.7
120	00h20m00s	0.5784	23.998	13.88	1235.9	0.4544	0.4082	0.26	0.5256	2760	94.7
121	00h20m10s	0.5784	23.998	13.88	1235.6	0.4545	0.4082	0.2601	0.5256	2757	94.8
122	00h20m20s	0.5784	23.998	13.88	1236.2	0.4545	0.4084	0.26	0.5257	2760	94.7
123	00h20m30s	0.5784	23.998	13.88	1236.6	0.4544	0.4082	0.26	0.5256	2760	94.7
124	00h20m40s	0.5784	23.998	13.88	1236.2	0.4545	0.4083	0.2601	0.5257	2759	94.7
125	00h20m50s	0.5785	23.998	13.883	1236.1	0.4545	0.4083	0.2601	0.5257	2759	94.7
126	00h21m00s	0.5785	23.998	13.883	1235.9	0.4545	0.4084	0.26	0.5257	2759	94.7
127	00h21m10s	0.5785	23.998	13.883	1235.4	0.4545	0.4084	0.26	0.5257	2759	94.7
128	00h21m20s	0.5785	23.998	13.883	1236.2	0.4544	0.4083	0.26	0.5257	2760	94.7
129	00h21m30s	0.5785	23.998	13.883	1235.9	0.4545	0.4082	0.2601	0.5256	2757	94.7
130	00h21m40s	0.5785	23.998	13.883	1235.1	0.4545	0.4082	0.2601	0.5256	2757	94.7
131	00h21m50s	0.5785	23.998	13.883	1235	0.4544	0.408	0.2601	0.5255	2758	94.7
132	00h22m00s	0.5786	23.998	13.885	1235.9	0.4545	0.4082	0.2601	0.5256	2758	94.7
133	00h22m10s	0.5786	23.998	13.885	1235.9	0.4546	0.4083	0.2601	0.5257	2757	94.7
134	00h22m20s	0.5786	23.998	13.885	1236.2	0.4544	0.4083	0.26	0.5257	2760	94.7
135	00h22m30s	0.5786	23.998	13.885	1236	0.4544	0.4082	0.2601	0.5256	2759	94.8
136	00h22m40s	0.5786	23.998	13.885	1235.6	0.4544	0.4083	0.26	0.5256	2759	94.7
137	00h22m50s	0.5786	23.998	13.885	1236.1	0.4545	0.4084	0.26	0.5257	2759	94.7
138	00h23m00s	0.5786	23.998	13.885	1236.4	0.4545	0.4084	0.26	0.5257	2760	94.8
139	00h23m10s	0.5787	23.998	13.888	1236	0.4544	0.4083	0.26	0.5256	2761	94.7
140	00h23m20s	0.5787	23.998	13.888	1235.8	0.4545	0.4083	0.26	0.5257	2759	94.8
141	00h23m30s	0.5787	23.998	13.888	1236.7	0.4544	0.4082	0.26	0.5256	2760	94.8
142	00h23m40s	0.5787	23.998	13.888	1236.5	0.4545	0.4083	0.26	0.5257	2759	94.7
143	00h23m50s	0.5787	23.998	13.888	1236.4	0.4545	0.4083	0.2601	0.5257	2759	94.8
144	00h24m00s	0.5787	23.998	13.888	1236.3	0.4544	0.4082	0.26	0.5256	2759	94.8
145	00h24m10s	0.5787	23.998	13.888	1236.1	0.4544	0.4083	0.26	0.5257	2759	94.7

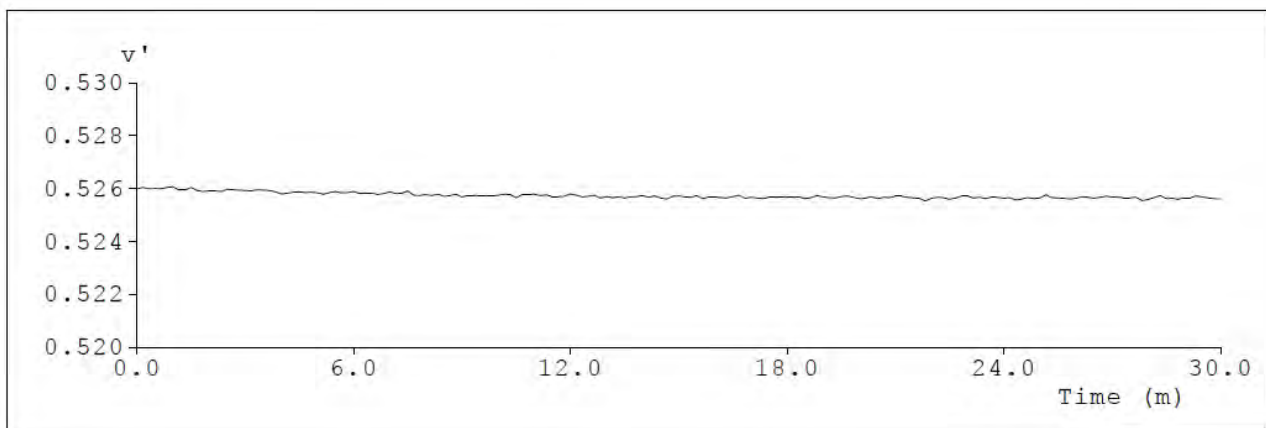
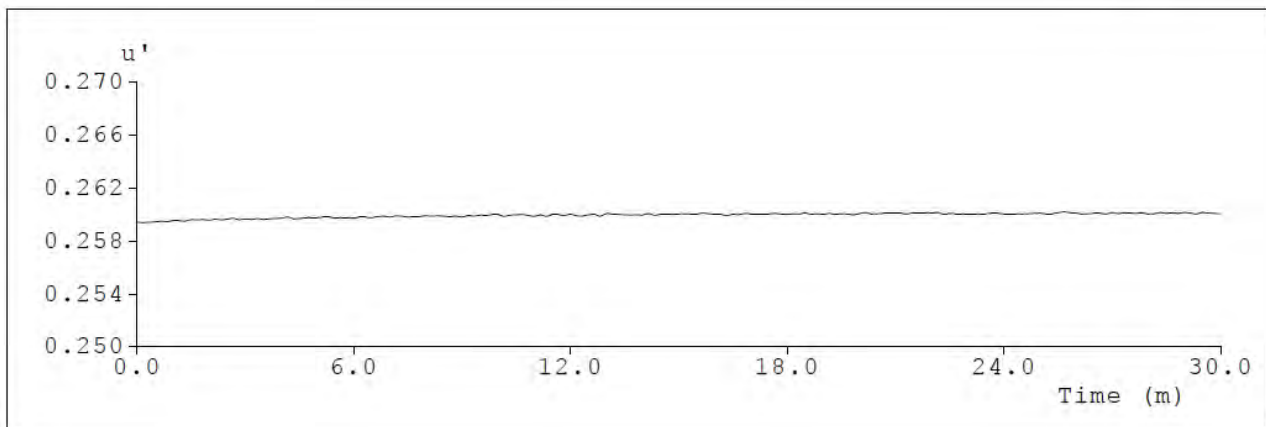
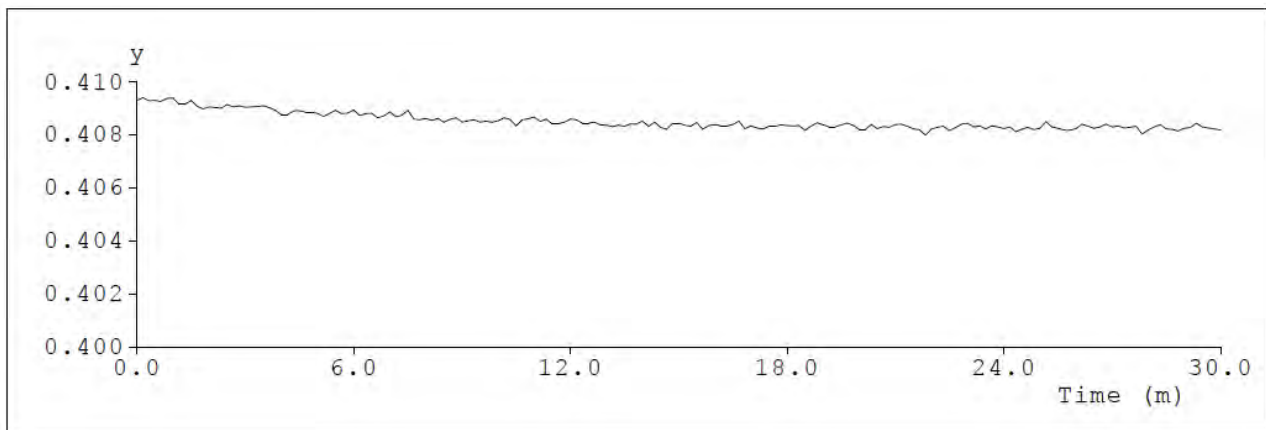
146	00h24m20s	0.5787	23.998	13.888	1235.1	0.4543	0.4081	0.26	0.5256	2760	94.8
147	00h24m30s	0.5787	23.998	13.888	1236.5	0.4543	0.4082	0.26	0.5256	2760	94.8
148	00h24m40s	0.5788	23.998	13.89	1237.1	0.4544	0.4083	0.26	0.5256	2759	94.8
149	00h24m50s	0.5788	23.998	13.89	1235.5	0.4544	0.4082	0.2601	0.5256	2759	94.7
150	00h25m00s	0.5788	23.998	13.89	1235.4	0.4545	0.4082	0.2601	0.5256	2759	94.8
151	00h25m10s	0.5788	23.998	13.89	1235.5	0.4546	0.4085	0.26	0.5258	2759	94.8
152	00h25m20s	0.5788	23.998	13.89	1236.3	0.4544	0.4083	0.26	0.5257	2760	94.7
153	00h25m30s	0.5788	23.998	13.89	1235.8	0.4545	0.4082	0.2601	0.5256	2758	94.7
154	00h25m40s	0.5788	23.998	13.89	1235.8	0.4546	0.4082	0.2602	0.5256	2756	94.7
155	00h25m50s	0.5788	23.998	13.89	1236	0.4545	0.4082	0.2601	0.5256	2758	94.7
156	00h26m00s	0.5788	23.998	13.89	1235.8	0.4545	0.4082	0.2601	0.5256	2758	94.7
157	00h26m10s	0.5788	23.998	13.89	1236.4	0.4545	0.4084	0.26	0.5257	2760	94.7
158	00h26m20s	0.5788	23.998	13.89	1236.7	0.4545	0.4083	0.26	0.5257	2759	94.7
159	00h26m30s	0.5789	23.998	13.892	1235.5	0.4544	0.4082	0.26	0.5256	2759	94.7
160	00h26m40s	0.5789	23.998	13.892	1236.7	0.4545	0.4083	0.2601	0.5257	2759	94.7
161	00h26m50s	0.5789	23.998	13.892	1236.2	0.4545	0.4084	0.26	0.5257	2760	94.7
162	00h27m00s	0.5789	23.998	13.892	1236	0.4546	0.4083	0.2601	0.5257	2757	94.7
163	00h27m10s	0.5789	23.998	13.892	1236.4	0.4545	0.4083	0.26	0.5257	2759	94.7
164	00h27m20s	0.5789	23.998	13.892	1236.1	0.4545	0.4083	0.2601	0.5256	2758	94.8
165	00h27m30s	0.5789	23.998	13.892	1236.4	0.4545	0.4083	0.2601	0.5257	2758	94.8
166	00h27m40s	0.5789	23.998	13.892	1236.4	0.4545	0.4083	0.2601	0.5257	2759	94.7
167	00h27m50s	0.5789	23.998	13.892	1236	0.4544	0.408	0.2601	0.5255	2758	94.8
168	00h28m00s	0.5789	23.998	13.892	1236.4	0.4543	0.4082	0.26	0.5256	2760	94.8
169	00h28m10s	0.5789	23.998	13.892	1236.2	0.4545	0.4083	0.26	0.5257	2759	94.7
170	00h28m20s	0.5789	23.998	13.892	1235.7	0.4547	0.4084	0.2601	0.5257	2757	94.7
171	00h28m30s	0.5789	23.998	13.892	1236.3	0.4544	0.4082	0.2601	0.5256	2759	94.7
172	00h28m40s	0.5789	23.998	13.892	1236.8	0.4545	0.4082	0.2601	0.5256	2758	94.7
173	00h28m50s	0.5789	23.998	13.892	1236	0.4544	0.4081	0.2601	0.5256	2759	94.7
174	00h29m00s	0.579	23.998	13.895	1236.5	0.4546	0.4082	0.2601	0.5257	2757	94.6
175	00h29m10s	0.579	23.998	13.895	1235.5	0.4545	0.4083	0.2601	0.5257	2758	94.8
176	00h29m20s	0.579	23.998	13.895	1235.9	0.4545	0.4084	0.26	0.5257	2760	94.7

177	00h29m30s	0.579	23.998	13.895	1235.6	0.4546	0.4083	0.2601	0.5257	2757	94.7
178	00h29m40s	0.579	23.998	13.895	1236.1	0.4545	0.4083	0.2601	0.5256	2758	94.7
179	00h29m50s	0.579	23.998	13.895	1235.3	0.4544	0.4082	0.26	0.5256	2759	94.7
180	00h30m00s	0.579	23.998	13.895	1236.4	0.4544	0.4082	0.26	0.5256	2760	94.7

Test curves

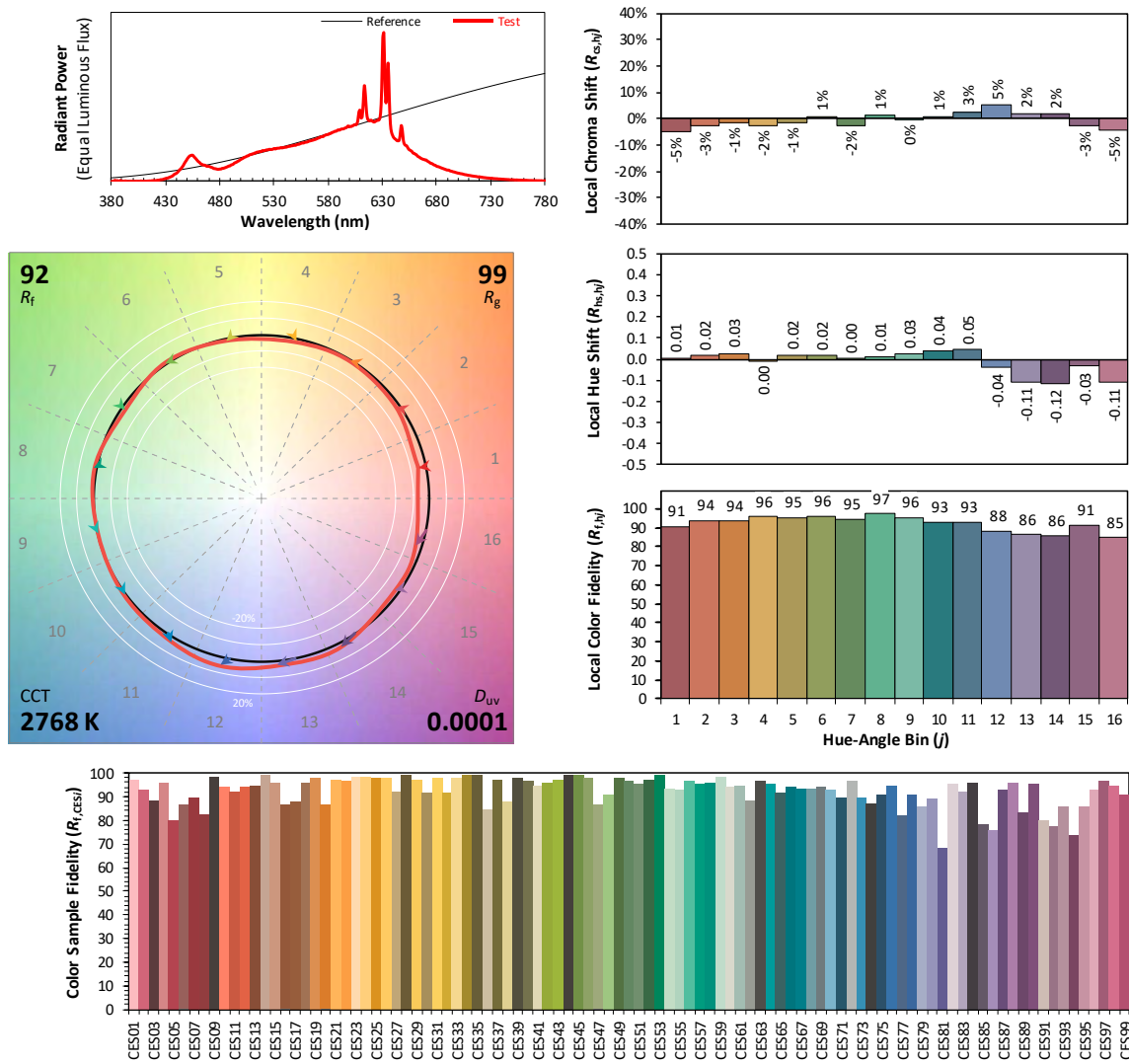






***7.2 ANSI/IES TM-30-18 Color Rendition Report**
ANSI/IES TM-30-18 Color Rendition Report

Source: Manufacturer:
Date: 2023/9/15 Model: LCELY-1000-L27-DF-I-15



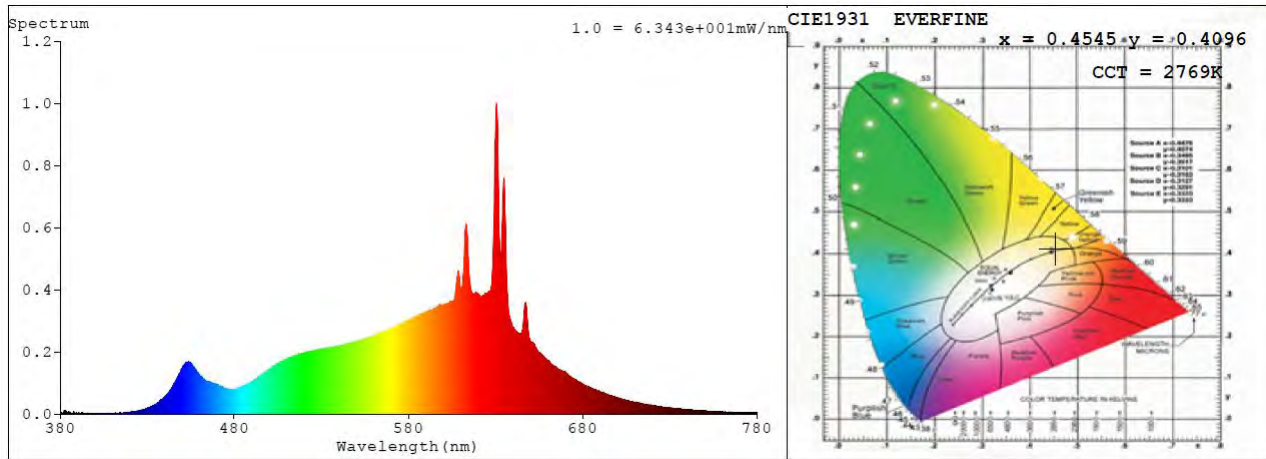
Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x **0.4545**
 y **0.4095**
 u' **0.2595**
 v' **0.5261**

CIE 13.3-1995 (CRI)
 R_a 95
 R_g 60

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

7.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0	414	0.0037	448	0.126	482	0.0844	516	0.1906
381	0.0036	415	0.0044	449	0.1361	483	0.0843	517	0.1912
382	0.0015	416	0.004	450	0.1476	484	0.0872	518	0.1914
383	0.0081	417	0.0054	451	0.1562	485	0.0893	519	0.1975
384	0.0021	418	0.0058	452	0.1633	486	0.0925	520	0.1963
385	0.0069	419	0.0065	453	0.1659	487	0.0952	521	0.1978
386	0.0035	420	0.0065	454	0.1681	488	0.0993	522	0.1994
387	0.0025	421	0.0068	455	0.1663	489	0.0996	523	0.202
388	0.0076	422	0.0084	456	0.1577	490	0.1055	524	0.2016
389	0.0034	423	0.0089	457	0.1507	491	0.1076	525	0.2048
390	0.0022	424	0.0097	458	0.1428	492	0.1104	526	0.2051
391	0.0028	425	0.012	459	0.1343	493	0.1169	527	0.2046
392	0.0031	426	0.0123	460	0.127	494	0.1208	528	0.2052
393	0.0043	427	0.0132	461	0.1221	495	0.1233	529	0.2074
394	0.0012	428	0.016	462	0.1142	496	0.1282	530	0.2108
395	0.0008	429	0.018	463	0.1106	497	0.1312	531	0.2073
396	0.0017	430	0.0204	464	0.1068	498	0.1361	532	0.2113
397	0.0023	431	0.0221	465	0.1049	499	0.1407	533	0.2122
398	0.0023	432	0.0233	466	0.1044	500	0.1447	534	0.2128
399	0.0022	433	0.0267	467	0.1001	501	0.1482	535	0.2134
400	0.0018	434	0.0291	468	0.0972	502	0.1529	536	0.2162
401	0.0019	435	0.0323	469	0.0981	503	0.1561	537	0.2146
402	0.0019	436	0.0355	470	0.0961	504	0.159	538	0.2157
403	0.0029	437	0.0415	471	0.0936	505	0.1635	539	0.2174
404	0.0017	438	0.0476	472	0.0906	506	0.1642	540	0.2184
405	0.002	439	0.05	473	0.0886	507	0.1698	541	0.2191
406	0.0019	440	0.0548	474	0.0838	508	0.1722	542	0.2214
407	0.0043	441	0.061	475	0.0827	509	0.1739	543	0.2238
408	0.0023	442	0.0693	476	0.0814	510	0.1767	544	0.2245
409	0.0021	443	0.0769	477	0.0795	511	0.1778	545	0.2258
410	0.0028	444	0.083	478	0.0784	512	0.1822	546	0.2279
411	0.0025	445	0.0923	479	0.0789	513	0.1836	547	0.2284
412	0.0022	446	0.1019	480	0.0799	514	0.1877	548	0.2316
413	0.0034	447	0.1149	481	0.0806	515	0.1878	549	0.2306

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2322	599	0.3498	648	0.3278	697	0.0585	746	0.0129
551	0.2361	600	0.3512	649	0.2616	698	0.0567	747	0.0116
552	0.237	601	0.3507	650	0.2381	699	0.0544	748	0.0118
553	0.2382	602	0.3548	651	0.2309	700	0.0535	749	0.0114
554	0.2414	603	0.3578	652	0.2278	701	0.0517	750	0.0112
555	0.244	604	0.3625	653	0.2161	702	0.0503	751	0.0112
556	0.2459	605	0.3617	654	0.2054	703	0.0494	752	0.0097
557	0.2456	606	0.3658	655	0.2006	704	0.0475	753	0.0105
558	0.2491	607	0.389	656	0.1963	705	0.0454	754	0.0102
559	0.2507	608	0.4416	657	0.1907	706	0.0439	755	0.0096
560	0.2515	609	0.4542	658	0.1811	707	0.043	756	0.0094
561	0.2541	610	0.405	659	0.1795	708	0.0413	757	0.0093
562	0.2575	611	0.4117	660	0.1741	709	0.0397	758	0.0089
563	0.2591	612	0.5038	661	0.171	710	0.039	759	0.0086
564	0.261	613	0.611	662	0.1624	711	0.0379	760	0.0084
565	0.2627	614	0.5476	663	0.1581	712	0.0364	761	0.0079
566	0.2647	615	0.4445	664	0.1542	713	0.0355	762	0.0085
567	0.267	616	0.4	665	0.1489	714	0.0342	763	0.0078
568	0.2691	617	0.3896	666	0.1456	715	0.0333	764	0.0075
569	0.2722	618	0.3869	667	0.1423	716	0.0327	765	0.0071
570	0.2755	619	0.3912	668	0.141	717	0.0312	766	0.0068
571	0.2778	620	0.3873	669	0.1374	718	0.0295	767	0.007
572	0.2808	621	0.3822	670	0.1377	719	0.0308	768	0.0066
573	0.2849	622	0.3789	671	0.1313	720	0.0287	769	0.0065
574	0.2863	623	0.3824	672	0.1269	721	0.0284	770	0.0062
575	0.2864	624	0.3864	673	0.1231	722	0.027	771	0.0063
576	0.2922	625	0.3903	674	0.1172	723	0.0258	772	0.0061
577	0.2954	626	0.3907	675	0.1154	724	0.0251	773	0.0054
578	0.2977	627	0.3977	676	0.112	725	0.0242	774	0.0061
579	0.2995	628	0.4358	677	0.1068	726	0.0232	775	0.0051
580	0.3008	629	0.5958	678	0.1046	727	0.0227	776	0.0058
581	0.3059	630	0.9138	679	0.1012	728	0.0222	777	0.005
582	0.3063	631	0.9455	680	0.0964	729	0.0211	778	0.005
583	0.312	632	0.6275	681	0.0953	730	0.021	779	0.0051
584	0.3137	633	0.5011	682	0.0931	731	0.021	780	0.0051
585	0.3171	634	0.6394	683	0.0897	732	0.019		
586	0.3206	635	0.7518	684	0.0872	733	0.0191		
587	0.3205	636	0.5323	685	0.0844	734	0.0181		
588	0.3255	637	0.3693	686	0.0821	735	0.0182		
589	0.3292	638	0.3162	687	0.0793	736	0.0175		
590	0.3274	639	0.2953	688	0.0771	737	0.0164		
591	0.3318	640	0.281	689	0.0739	738	0.0166		
592	0.3346	641	0.2735	690	0.0734	739	0.0159		
593	0.3351	642	0.2682	691	0.0724	740	0.015		
594	0.3363	643	0.2612	692	0.0684	741	0.0151		
595	0.3402	644	0.2598	693	0.0665	742	0.0144		
596	0.3427	645	0.2616	694	0.0647	743	0.0138		
597	0.3471	646	0.295	695	0.0621	744	0.0137		
598	0.3541	647	0.3559	696	0.061	745	0.0129		

8. Goniophotometer Test results for LCELY-1000-L27-DF-I-15

8.1 Test Data

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

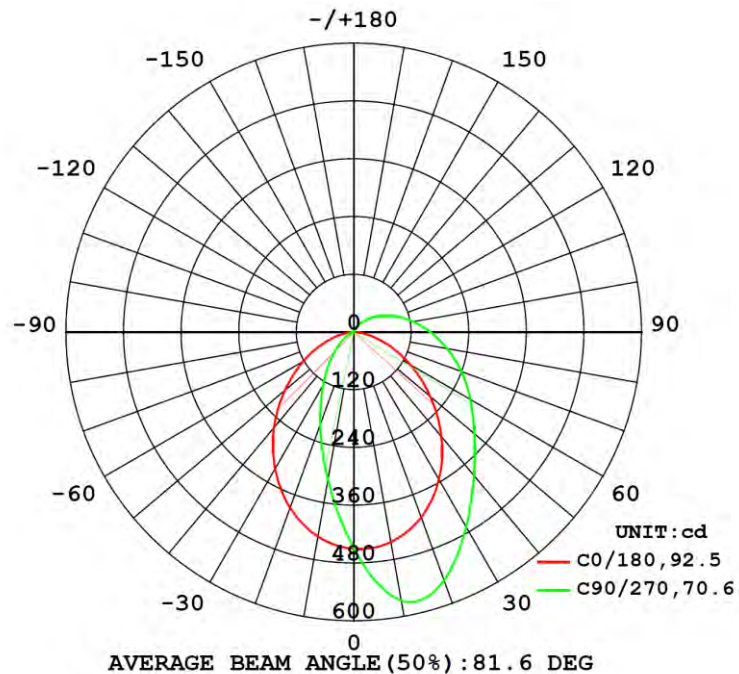
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.583	1.0000	13.992

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	I _{max} (cd)	η up (%)	η down (%)
1225.15	87.56	574.6	10.7	89.3

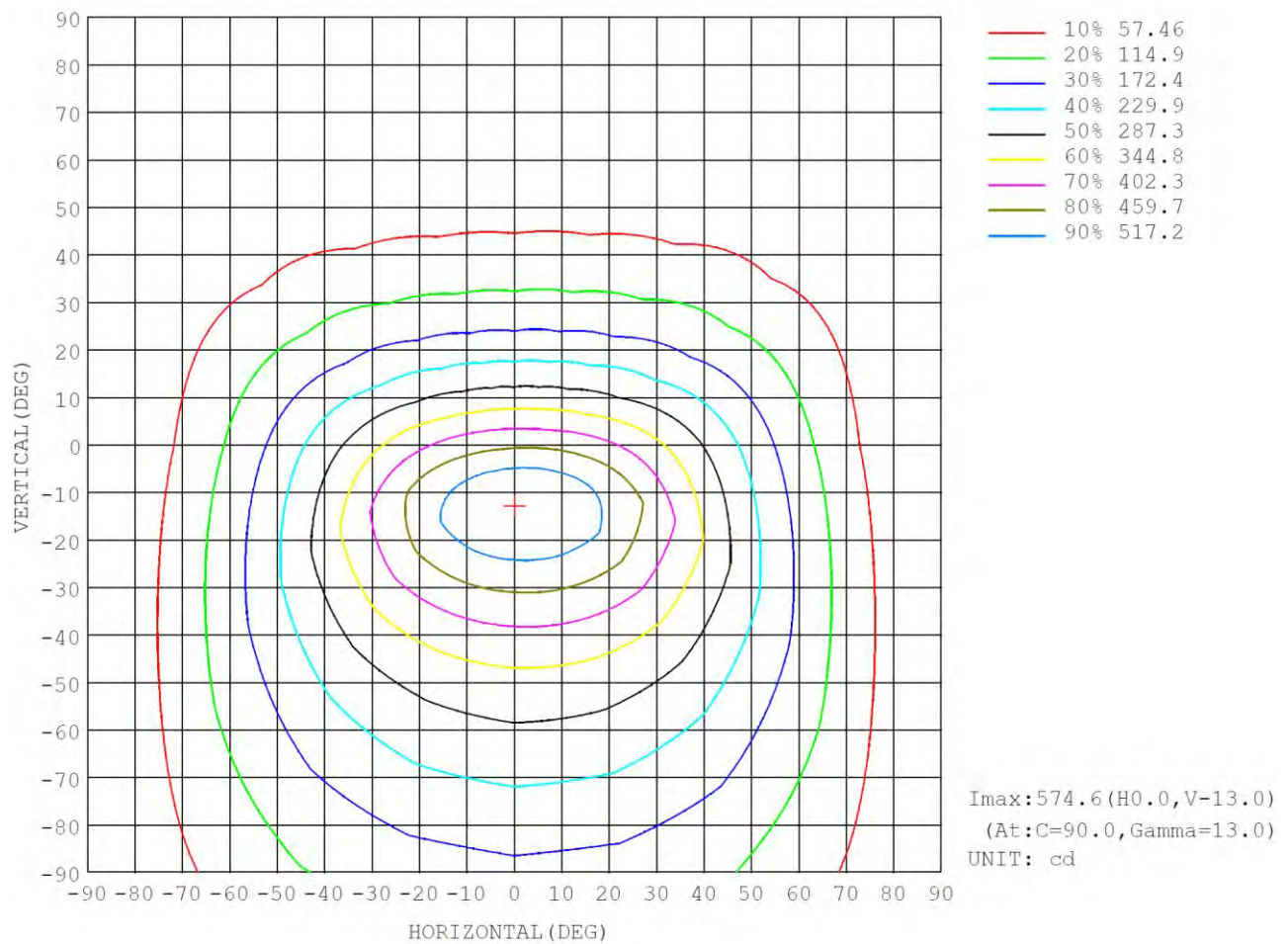
8.2 Luminous Intensity Distribution



8.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	443.0	538.8	565.8	527.8	431.5	342.8	312.1	347.8	0- 10	42.45	42.45	3.47,3.47
20	410.0	547.4	549.2	529.0	389.0	247.3	205.6	254.5	10- 20	117.8	160.3	13.1,13.1
30	354.8	483.9	468.1	461.1	328.7	169.9	128.9	176.7	20- 30	164.6	324.8	26.5,26.5
40	284.6	400.0	389.6	377.5	259.6	108.9	75.37	114.3	30- 40	179.0	503.8	41.1,41.1
50	208.3	322.7	328.4	302.7	188.0	62.00	39.71	65.63	40- 50	169.6	673.4	55,55
60	135.7	258.4	281.0	241.7	122.0	28.77	18.30	30.87	50- 60	146.6	820.0	66.9,66.9
70	73.10	205.3	238.4	191.6	65.89	10.18	7.261	11.34	60- 70	118.3	938.4	76.6,76.6
80	23.71	159.1	197.2	148.6	22.22	2.888	2.114	3.557	70- 80	90.11	1028	83.9,83.9
90	3.026	119.7	159.8	112.1	1.693	0.9621	0.6021	1.486	80- 90	65.82	1094	89.3,89.3
100	2.783	86.13	125.8	81.19	1.653	0.7369	0.5603	1.075	90-100	47.97	1142	93.2,93.2
110	2.437	59.31	95.29	56.46	1.518	0.4578	0.4891	0.6466	100-110	33.78	1176	96,96
120	2.016	39.32	68.38	38.02	1.309	0.3260	0.4151	0.3370	110-120	22.38	1198	97.8,97.8
130	1.590	24.60	46.00	24.28	1.111	0.3974	0.4327	0.3679	120-130	13.73	1212	98.9,98.9
140	1.190	14.07	28.01	14.20	0.9852	0.5679	0.5757	0.5383	130-140	7.573	1220	99.6,99.6
150	0.8597	7.159	14.66	7.425	0.8649	0.7163	0.7373	0.6802	140-150	3.607	1223	99.8,99.8
160	0.6518	2.977	6.118	2.656	0.7649	0.7183	0.7513	0.7283	150-160	1.384	1225	100,100
170	0.6601	0.9473	1.627	0.8782	0.7355	0.7138	0.6767	0.6780	160-170	0.3847	1225	100,100
180	0.7355	0.6985	0.5941	0.6111	0.7355	0.7083	0.6938	0.6299	170-180	0.0703	1225	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

8.4 Isocandela Diagram



8.5 Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	450	451	451	451	450	450	449	449	450	451	451	451	450	450	449	449			
5	450	478	501	515	518	512	494	470	444	418	397	383	378	384	399	421			
10	443	497	539	561	566	556	528	483	432	382	343	320	312	322	348	389			
15	429	506	556	572	573	564	541	486	413	344	293	264	255	267	299	354			
20	410	502	547	554	549	544	529	477	389	305	247	215	206	218	254	318			
25	385	486	521	518	511	507	500	457	361	268	206	174	164	177	214	282			
30	355	457	484	476	468	465	461	426	329	232	170	138	129	141	177	246			
35	321	420	442	434	427	423	419	388	295	198	137	108	99.6	110	144	212			
40	285	379	400	395	390	384	378	348	260	165	109	82.4	75.4	84.4	114	178			
45	247	335	360	360	357	350	338	306	224	135	83.8	61.3	55.6	62.9	88.3	147			
50	208	293	323	329	328	319	303	267	188	107	62.0	44.0	39.7	45.2	65.6	117			
55	171	253	289	302	303	292	270	230	154	81.2	43.6	30.4	27.6	31.3	46.4	88.9			
60	136	217	258	277	281	268	242	196	122	57.8	28.8	20.1	18.3	20.8	30.9	63.6			
65	103	183	231	254	260	246	216	166	92.6	37.5	17.6	12.7	11.8	13.3	19.2	41.4			
70	73.1	153	205	232	238	224	192	139	65.9	21.3	10.2	7.71	7.26	8.10	11.3	24.0			
75	46.2	126	181	210	217	203	169	115	42.2	10.2	5.57	4.43	4.19	4.69	6.43	11.8			
80	23.7	101	159	190	197	183	149	92.6	22.2	4.38	2.89	2.26	2.11	2.43	3.56	5.67			
85	8.18	78.9	138	170	178	164	129	72.6	7.82	1.99	1.37	0.90	0.79	1.02	1.90	3.14			
90	3.03	59.7	120	151	160	146	112	55.4	1.69	1.26	0.96	0.66	0.60	0.78	1.49	2.33			
95	2.81	44.5	102	134	142	129	95.9	41.6	1.67	0.94	0.85	0.63	0.59	0.72	1.28	1.67			
100	2.78	33.3	86.1	117	126	114	81.2	31.3	1.65	0.54	0.74	0.59	0.56	0.67	1.07	1.01			
105	2.63	25.6	71.8	102	110	98.7	68.0	24.2	1.60	0.28	0.60	0.55	0.53	0.60	0.87	0.40			
110	2.44	19.9	59.3	86.9	95.3	84.6	56.5	19.0	1.52	0.26	0.46	0.49	0.49	0.54	0.65	0.24			
115	2.23	15.7	48.6	73.4	81.3	71.6	46.6	15.1	1.42	0.29	0.36	0.44	0.45	0.47	0.45	0.26			
120	2.02	12.3	39.3	61.1	68.4	59.8	38.0	11.8	1.31	0.35	0.33	0.40	0.42	0.41	0.34	0.33			
125	1.80	9.64	31.4	50.0	56.7	49.3	30.7	9.40	1.21	0.43	0.34	0.39	0.41	0.39	0.33	0.43			
130	1.59	7.48	24.6	40.2	46.0	39.8	24.3	7.39	1.11	0.51	0.40	0.42	0.43	0.41	0.37	0.54			
135	1.38	5.73	18.8	31.5	36.4	31.3	18.8	5.65	1.04	0.61	0.48	0.49	0.49	0.46	0.45	0.64			
140	1.19	4.31	14.1	24.0	28.0	24.0	14.2	4.34	0.99	0.70	0.57	0.56	0.58	0.55	0.54	0.72			
145	1.01	3.19	10.2	17.6	20.7	17.7	10.5	3.27	0.91	0.77	0.65	0.65	0.67	0.64	0.62	0.77			
150	0.86	2.29	7.16	12.4	14.7	12.6	7.42	2.34	0.86	0.79	0.72	0.72	0.74	0.71	0.68	0.77			
155	0.73	1.59	4.75	8.28	9.86	8.44	4.92	1.52	0.81	0.79	0.73	0.74	0.77	0.75	0.71	0.75			
160	0.65	1.08	2.98	5.13	6.12	5.24	2.66	1.02	0.76	0.75	0.72	0.70	0.75	0.75	0.73	0.71			
165	0.60	0.73	1.71	2.89	3.41	2.80	1.49	0.73	0.74	0.73	0.71	0.69	0.70	0.73	0.71	0.68			
170	0.66	0.66	0.95	1.42	1.63	1.19	0.88	0.56	0.74	0.73	0.71	0.71	0.68	0.70	0.68	0.67			
175	0.70	0.69	0.69	0.70	0.72	0.64	0.60	0.60	0.74	0.74	0.71	0.70	0.71	0.64	0.67	0.65			
180	0.74	0.71	0.70	0.70	0.59	0.63	0.61	0.62	0.74	0.73	0.71	0.70	0.69	0.61	0.63	0.61			

9. Photo of sample

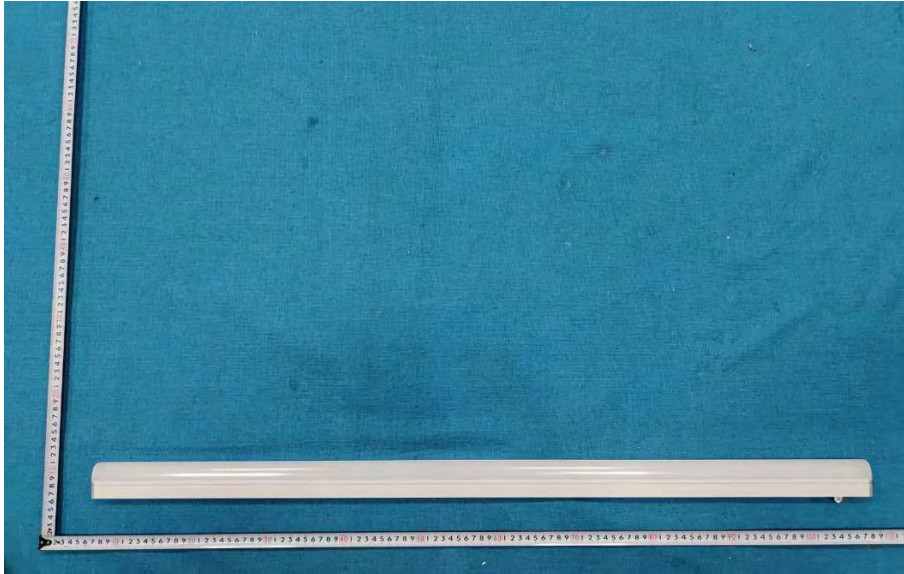


Figure 1 Overview

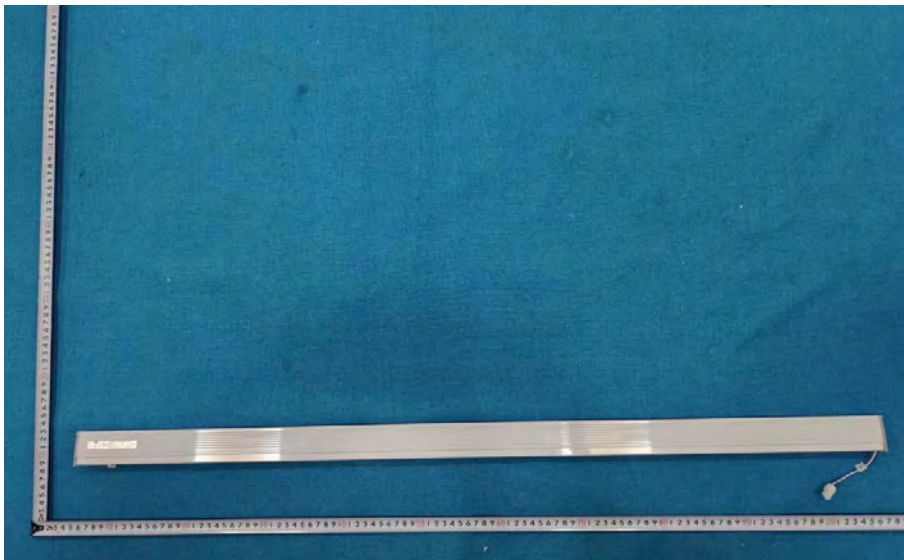


Figure 2 Overview

---End of Report---