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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	:	N02A23090145L00401
Client	:	Luci Pte. Ltd.
Address	:	52A Tanjong Pagar Road, Singapore 088473
Test Model	:	LCEY-1000-L27-DF-I-10 LCEY-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:	**Checked by:**	**Approved by:**
Jarvis Zhang	Sandy Chen	
Jarvis Zhang/ Test Engineer	Sandy Chen/ Project Engineer	Jessie Li/ Technical Manager

Guangdong Meide Testing Technology Co., Ltd.

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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1. Product Description for Equipment under Test (EUT)

Representative (Tested) Model:	LCEY-1000-L27-DF-I-10 LCEY-1000-L27-DF-I-15
Manufacturer:	
Product Type:	SHIN Creide
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°C±1.2°C during measurement. And relative humidity between 10% and 65%.

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

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

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

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

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

5. Integrating Sphere Test Results for LCEY-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	0.3833	23.998	9.1984	870.61	0.4546	0.4095	0.2596	0.5261	2767	94.5
1	00h00m10s	0.3835	23.998	9.2032	870.5	0.4547	0.4094	0.2597	0.5261	2763	94.5
2	00h00m20s	0.3836	23.998	9.2056	871.09	0.4546	0.4094	0.2597	0.5261	2765	94.6
3	00h00m30s	0.3837	23.998	9.208	871.14	0.4548	0.4094	0.2597	0.5261	2763	94.6
4	00h00m40s	0.3838	23.998	9.2104	870.77	0.4547	0.4093	0.2597	0.5261	2764	94.5
5	00h00m50s	0.3839	23.998	9.2128	871.31	0.4546	0.4093	0.2597	0.5261	2765	94.5
6	00h01m00s	0.384	23.998	9.2152	871.2	0.4547	0.4093	0.2597	0.5261	2764	94.5
7	00h01m10s	0.3841	23.998	9.2176	871.04	0.4547	0.4093	0.2598	0.5261	2763	94.5
8	00h01m20s	0.3842	23.998	9.22	871.17	0.4546	0.4092	0.2597	0.526	2764	94.6
9	00h01m30s	0.3842	23.998	9.22	871.12	0.4548	0.4093	0.2598	0.5261	2763	94.5
10	00h01m40s	0.3843	23.998	9.2224	871.13	0.4548	0.4092	0.2598	0.5261	2762	94.5
11	00h01m50s	0.3844	23.998	9.2248	871.14	0.4546	0.4091	0.2598	0.526	2763	94.5
12	00h02m00s	0.3845	23.998	9.2272	871.42	0.4548	0.4093	0.2598	0.5261	2762	94.6
13	00h02m10s	0.3845	23.998	9.2272	871.66	0.4547	0.4093	0.2597	0.5261	2764	94.5
14	00h02m20s	0.3846	23.998	9.2296	871.3	0.4548	0.4092	0.2599	0.526	2761	94.5
15	00h02m30s	0.3847	23.998	9.232	871.71	0.4545	0.4091	0.2597	0.526	2765	94.6
16	00h02m40s	0.3848	23.998	9.2344	871.67	0.4547	0.4092	0.2598	0.526	2763	94.6
17	00h02m50s	0.3848	23.998	9.2344	871.82	0.4547	0.4092	0.2597	0.526	2764	94.5
18	00h03m00s	0.3849	23.998	9.2368	871.63	0.455	0.4091	0.26	0.5261	2758	94.5
19	00h03m10s	0.3849	23.998	9.2368	871.96	0.4547	0.4092	0.2598	0.526	2762	94.6
20	00h03m20s	0.385	23.998	9.2392	871.33	0.4549	0.4091	0.26	0.526	2759	94.5
21	00h03m30s	0.3851	23.998	9.2416	871.78	0.4548	0.4091	0.2599	0.526	2760	94.5

22	00h03m40s	0.3851	23.998	9.2416	871.85	0.4547	0.4091	0.2599	0.526	2761	94.5
23	00h03m50s	0.3852	23.998	9.244	871.45	0.4547	0.409	0.2599	0.526	2762	94.6
24	00h04m00s	0.3852	23.998	9.244	871.65	0.4548	0.4091	0.2599	0.526	2761	94.6
25	00h04m10s	0.3853	23.998	9.2464	871.91	0.4547	0.4092	0.2598	0.526	2762	94.6
26	00h04m20s	0.3853	23.998	9.2464	871.92	0.4548	0.4092	0.2599	0.526	2761	94.5
27	00h04m30s	0.3854	23.998	9.2488	872.19	0.4548	0.4091	0.2599	0.526	2760	94.5
28	00h04m40s	0.3854	23.998	9.2488	871.85	0.455	0.409	0.26	0.526	2758	94.6
29	00h04m50s	0.3855	23.998	9.2512	872.19	0.4548	0.4091	0.2599	0.526	2760	94.6
30	00h05m00s	0.3855	23.998	9.2512	872.51	0.4547	0.4091	0.2598	0.526	2762	94.5
31	00h05m10s	0.3856	23.998	9.2536	871.72	0.4549	0.4092	0.2599	0.5261	2760	94.6
32	00h05m20s	0.3856	23.998	9.2536	872.15	0.4547	0.409	0.2599	0.526	2760	94.5
33	00h05m30s	0.3857	23.998	9.256	871.8	0.4548	0.409	0.26	0.526	2760	94.5
34	00h05m40s	0.3857	23.998	9.256	871.92	0.4548	0.4089	0.26	0.5259	2759	94.5
35	00h05m50s	0.3857	23.998	9.256	872.46	0.4549	0.4091	0.26	0.526	2759	94.5
36	00h06m00s	0.3858	23.998	9.2584	872.08	0.4548	0.4091	0.2599	0.526	2760	94.5
37	00h06m10s	0.3858	23.998	9.2584	872.46	0.4548	0.4091	0.2599	0.526	2760	94.6
38	00h06m20s	0.3859	23.998	9.2608	872.49	0.4547	0.4088	0.26	0.5259	2759	94.6
39	00h06m30s	0.3859	23.998	9.2608	872.23	0.4547	0.4088	0.26	0.5259	2760	94.5
40	00h06m40s	0.3859	23.998	9.2608	872.17	0.4547	0.4089	0.26	0.5259	2760	94.5
41	00h06m50s	0.386	23.998	9.2632	872.12	0.4549	0.4089	0.26	0.526	2758	94.5
42	00h07m00s	0.386	23.998	9.2632	872.02	0.4548	0.4089	0.26	0.526	2759	94.5
43	00h07m10s	0.386	23.998	9.2632	872.86	0.4548	0.4091	0.2599	0.526	2760	94.5
44	00h07m20s	0.3861	23.998	9.2656	872.5	0.4548	0.409	0.26	0.526	2760	94.5
45	00h07m30s	0.3861	23.998	9.2656	872.65	0.4547	0.4089	0.2599	0.5259	2761	94.6
46	00h07m40s	0.3861	23.998	9.2656	872.01	0.4549	0.4089	0.26	0.526	2758	94.5
47	00h07m50s	0.3862	23.998	9.268	872.64	0.4549	0.4091	0.2599	0.526	2760	94.5
48	00h08m00s	0.3862	23.998	9.268	872.6	0.4547	0.4089	0.2599	0.5259	2760	94.5
49	00h08m10s	0.3862	23.998	9.268	871.76	0.4548	0.4088	0.26	0.5259	2759	94.5
50	00h08m20s	0.3862	23.998	9.268	872.54	0.4547	0.409	0.2599	0.526	2761	94.5
51	00h08m30s	0.3863	23.998	9.2704	872.52	0.4548	0.4088	0.26	0.5259	2758	94.5
52	00h08m40s	0.3863	23.998	9.2704	871.9	0.4549	0.4087	0.2601	0.5259	2757	94.5

53	00h08m50s	0.3863	23.998	9.2704	872.21	0.4547	0.4087	0.26	0.5259	2759	94.6
54	00h09m00s	0.3863	23.998	9.2704	873.1	0.4548	0.409	0.2599	0.526	2760	94.6
55	00h09m10s	0.3864	23.998	9.2728	873.17	0.4549	0.409	0.26	0.526	2758	94.5
56	00h09m20s	0.3864	23.998	9.2728	872.65	0.4547	0.4087	0.26	0.5259	2759	94.5
57	00h09m30s	0.3864	23.998	9.2728	872.71	0.4548	0.4088	0.26	0.5259	2758	94.5
58	00h09m40s	0.3864	23.998	9.2728	872.25	0.4549	0.4091	0.26	0.526	2759	94.5
59	00h09m50s	0.3864	23.998	9.2728	872.29	0.4547	0.4089	0.2599	0.5259	2760	94.6
60	00h10m00s	0.3865	23.998	9.2752	872.9	0.4547	0.4088	0.26	0.5259	2759	94.5
61	00h10m10s	0.3865	23.998	9.2752	872.93	0.4548	0.4089	0.26	0.5259	2759	94.5
62	00h10m20s	0.3865	23.998	9.2752	872.51	0.4548	0.4088	0.26	0.5259	2759	94.5
63	00h10m30s	0.3865	23.998	9.2752	872.97	0.4547	0.4088	0.2599	0.5259	2760	94.6
64	00h10m40s	0.3866	23.998	9.2776	873.19	0.455	0.4089	0.2601	0.526	2756	94.5
65	00h10m50s	0.3866	23.998	9.2776	872.39	0.4549	0.4089	0.26	0.526	2758	94.5
66	00h11m00s	0.3866	23.998	9.2776	872.75	0.4548	0.4089	0.26	0.5259	2759	94.5
67	00h11m10s	0.3866	23.998	9.2776	873.22	0.455	0.409	0.2601	0.526	2757	94.5
68	00h11m20s	0.3866	23.998	9.2776	872.91	0.4549	0.4089	0.2601	0.5259	2757	94.5
69	00h11m30s	0.3866	23.998	9.2776	873.25	0.4548	0.4089	0.26	0.5259	2760	94.5
70	00h11m40s	0.3866	23.998	9.2776	872.85	0.4547	0.4087	0.2601	0.5259	2758	94.5
71	00h11m50s	0.3867	23.998	9.28	872.79	0.4547	0.4088	0.26	0.5259	2759	94.5
72	00h12m00s	0.3867	23.998	9.28	872.91	0.4549	0.4089	0.2601	0.5259	2758	94.5
73	00h12m10s	0.3867	23.998	9.28	872.58	0.4548	0.4087	0.2601	0.5259	2757	94.5
74	00h12m20s	0.3867	23.998	9.28	872.82	0.4548	0.4088	0.26	0.5259	2759	94.5
75	00h12m30s	0.3867	23.998	9.28	872.68	0.4548	0.4088	0.2601	0.5259	2758	94.5
76	00h12m40s	0.3867	23.998	9.28	872.27	0.4548	0.4087	0.2601	0.5259	2757	94.5
77	00h12m50s	0.3867	23.998	9.28	872.28	0.4548	0.4088	0.26	0.5259	2758	94.6
78	00h13m00s	0.3868	23.998	9.2824	872.76	0.4548	0.4086	0.2601	0.5258	2757	94.5
79	00h13m10s	0.3868	23.998	9.2824	873.32	0.4548	0.4088	0.26	0.5259	2758	94.5
80	00h13m20s	0.3868	23.998	9.2824	873.17	0.4548	0.4088	0.26	0.5259	2758	94.5
81	00h13m30s	0.3868	23.998	9.2824	873.11	0.4548	0.4089	0.26	0.5259	2759	94.5
82	00h13m40s	0.3868	23.998	9.2824	872.76	0.4547	0.4086	0.2601	0.5258	2757	94.5
83	00h13m50s	0.3868	23.998	9.2824	872.43	0.4547	0.4087	0.26	0.5258	2759	94.5

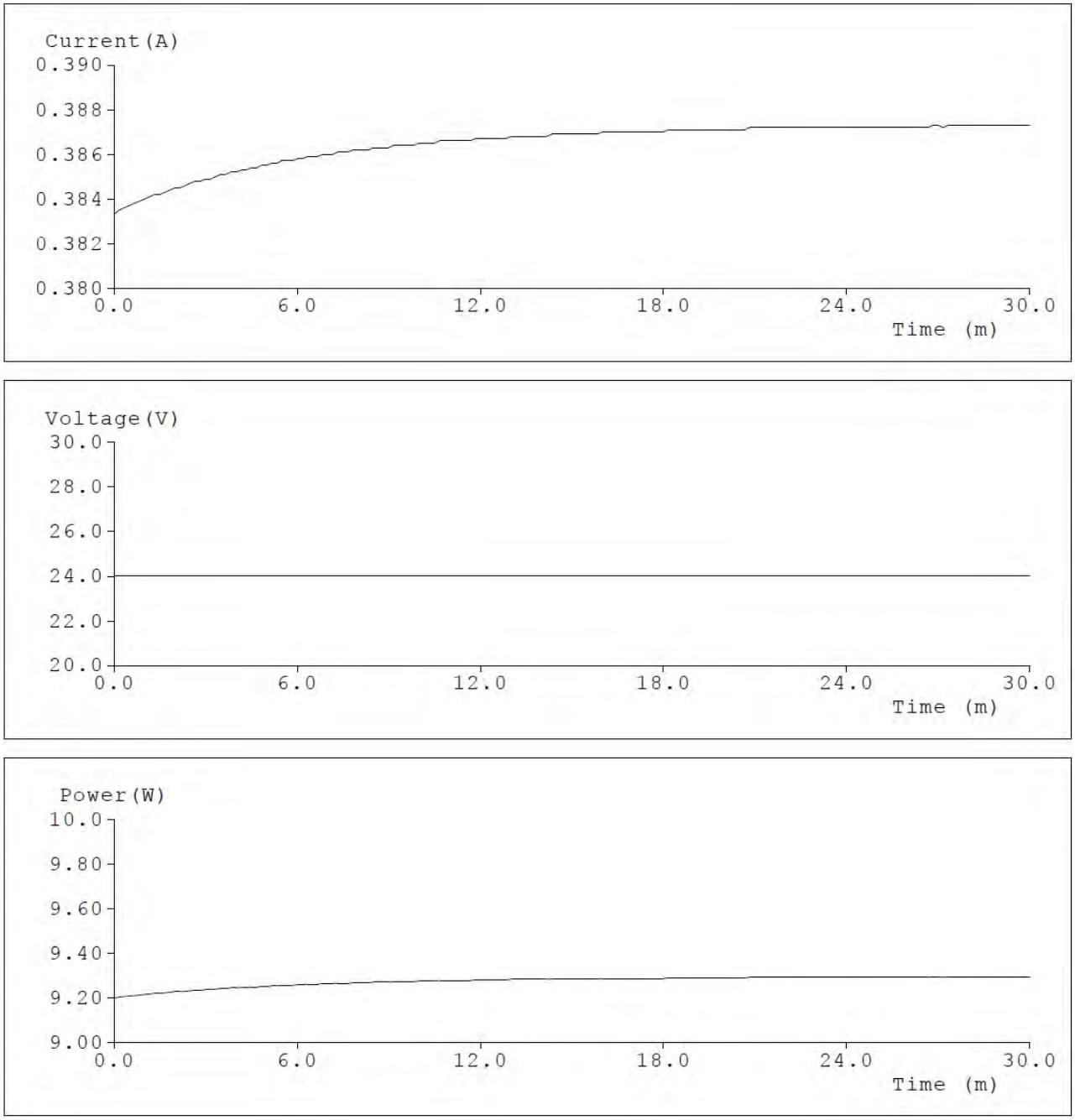
84	00h14m00s	0.3868	23.998	9.2824	872.5	0.4547	0.4087	0.26	0.5258	2759	94.5
85	00h14m10s	0.3868	23.998	9.2824	872.48	0.4549	0.4087	0.2601	0.5259	2756	94.5
86	00h14m20s	0.3869	23.998	9.2848	872.8	0.4549	0.4087	0.2601	0.5259	2757	94.6
87	00h14m30s	0.3869	23.998	9.2848	873.08	0.4547	0.4088	0.26	0.5259	2759	94.5
88	00h14m40s	0.3869	23.998	9.2848	872.98	0.4549	0.409	0.26	0.526	2758	94.5
89	00h14m50s	0.3869	23.998	9.2848	873.36	0.4548	0.4086	0.2601	0.5258	2757	94.5
90	00h15m00s	0.3869	23.998	9.2848	872.58	0.4549	0.4087	0.2601	0.5259	2756	94.5
91	00h15m10s	0.3869	23.998	9.2848	873.14	0.4548	0.4089	0.26	0.526	2758	94.5
92	00h15m20s	0.3869	23.998	9.2848	872.9	0.4549	0.4089	0.2601	0.5259	2757	94.5
93	00h15m30s	0.3869	23.998	9.2848	872.7	0.455	0.4088	0.2602	0.5259	2755	94.5
94	00h15m40s	0.3869	23.998	9.2848	873.1	0.4546	0.4086	0.26	0.5258	2760	94.5
95	00h15m50s	0.3869	23.998	9.2848	873.42	0.4551	0.409	0.2601	0.526	2755	94.5
96	00h16m00s	0.387	23.998	9.2872	872.66	0.455	0.4088	0.2602	0.5259	2755	94.5
97	00h16m10s	0.387	23.998	9.2872	873.27	0.4548	0.4086	0.2601	0.5258	2757	94.6
98	00h16m20s	0.387	23.998	9.2872	872.96	0.4549	0.4088	0.2601	0.5259	2757	94.5
99	00h16m30s	0.387	23.998	9.2872	872.78	0.4549	0.4088	0.2601	0.5259	2758	94.5
100	00h16m40s	0.387	23.998	9.2872	873.19	0.4549	0.409	0.26	0.526	2758	94.6
101	00h16m50s	0.387	23.998	9.2872	872.72	0.4549	0.4087	0.2601	0.5259	2756	94.5
102	00h17m00s	0.387	23.998	9.2872	873.23	0.4547	0.4087	0.26	0.5259	2759	94.5
103	00h17m10s	0.387	23.998	9.2872	872.98	0.455	0.4088	0.2601	0.5259	2756	94.5
104	00h17m20s	0.387	23.998	9.2872	873.09	0.4549	0.4091	0.26	0.526	2759	94.6
105	00h17m30s	0.387	23.998	9.2872	873.38	0.4548	0.4088	0.26	0.5259	2759	94.5
106	00h17m40s	0.387	23.998	9.2872	872.6	0.4548	0.4086	0.2601	0.5258	2757	94.6
107	00h17m50s	0.387	23.998	9.2872	872.93	0.4548	0.4088	0.26	0.5259	2758	94.5
108	00h18m00s	0.387	23.998	9.2872	873.18	0.4548	0.4087	0.2601	0.5259	2757	94.6
109	00h18m10s	0.3871	23.998	9.2896	872.67	0.4548	0.4086	0.2601	0.5258	2757	94.5
110	00h18m20s	0.3871	23.998	9.2896	873.31	0.455	0.409	0.2601	0.526	2757	94.5
111	00h18m30s	0.3871	23.998	9.2896	872.86	0.4549	0.4088	0.2601	0.5259	2757	94.5
112	00h18m40s	0.3871	23.998	9.2896	873.18	0.4548	0.4088	0.2601	0.5259	2758	94.5
113	00h18m50s	0.3871	23.998	9.2896	872.95	0.4548	0.4088	0.2601	0.5259	2757	94.5
114	00h19m00s	0.3871	23.998	9.2896	872.48	0.4549	0.4088	0.2601	0.5259	2756	94.5

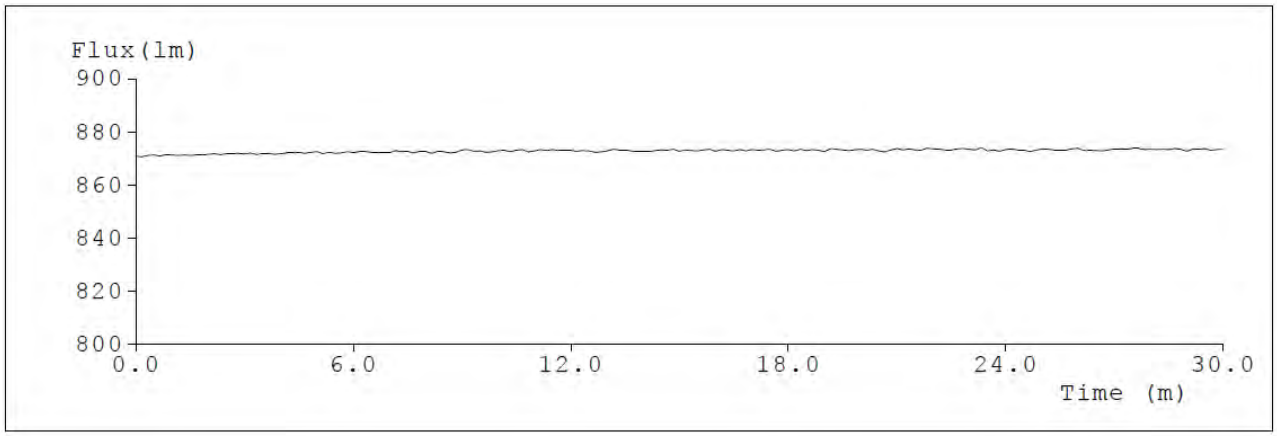
115	00h19m10s	0.3871	23.998	9.2896	873.65	0.4548	0.4088	0.26	0.5259	2759	94.5
116	00h19m20s	0.3871	23.998	9.2896	873.32	0.4549	0.4089	0.2601	0.5259	2757	94.5
117	00h19m30s	0.3871	23.998	9.2896	873.08	0.4549	0.4088	0.2601	0.5259	2757	94.5
118	00h19m40s	0.3871	23.998	9.2896	872.88	0.4548	0.4087	0.2601	0.5259	2757	94.5
119	00h19m50s	0.3871	23.998	9.2896	873.07	0.4549	0.4087	0.2601	0.5259	2756	94.6
120	00h20m00s	0.3871	23.998	9.2896	873.38	0.4547	0.4087	0.26	0.5259	2759	94.6
121	00h20m10s	0.3871	23.998	9.2896	873.01	0.4548	0.4088	0.26	0.5259	2758	94.6
122	00h20m20s	0.3871	23.998	9.2896	873.4	0.4549	0.4088	0.2601	0.5259	2756	94.6
123	00h20m30s	0.3871	23.998	9.2896	872.77	0.4549	0.4089	0.26	0.526	2758	94.5
124	00h20m40s	0.3871	23.998	9.2896	872.35	0.4549	0.4089	0.2601	0.5259	2758	94.5
125	00h20m50s	0.3872	23.998	9.292	873.16	0.4549	0.4089	0.26	0.5259	2758	94.5
126	00h21m00s	0.3872	23.998	9.292	873.66	0.4548	0.4087	0.26	0.5259	2758	94.5
127	00h21m10s	0.3872	23.998	9.292	873.14	0.4548	0.4085	0.2602	0.5258	2756	94.5
128	00h21m20s	0.3872	23.998	9.292	873.54	0.4549	0.4089	0.2601	0.5259	2758	94.5
129	00h21m30s	0.3872	23.998	9.292	873.07	0.4549	0.4089	0.2601	0.526	2757	94.5
130	00h21m40s	0.3872	23.998	9.292	873.02	0.4547	0.4086	0.2601	0.5258	2758	94.5
131	00h21m50s	0.3872	23.998	9.292	873.69	0.4547	0.4089	0.2599	0.5259	2761	94.6
132	00h22m00s	0.3872	23.998	9.292	873.44	0.4548	0.4088	0.26	0.5259	2758	94.5
133	00h22m10s	0.3872	23.998	9.292	873.35	0.4548	0.4087	0.2601	0.5259	2757	94.5
134	00h22m20s	0.3872	23.998	9.292	873.14	0.4549	0.4087	0.2601	0.5259	2756	94.5
135	00h22m30s	0.3872	23.998	9.292	873.08	0.4548	0.4087	0.26	0.5259	2758	94.6
136	00h22m40s	0.3872	23.998	9.292	873.45	0.4549	0.4087	0.2601	0.5259	2756	94.5
137	00h22m50s	0.3872	23.998	9.292	873.6	0.4548	0.4088	0.2601	0.5259	2758	94.5
138	00h23m00s	0.3872	23.998	9.292	873.34	0.4549	0.4089	0.26	0.5259	2758	94.5
139	00h23m10s	0.3872	23.998	9.292	873.08	0.4548	0.4087	0.2601	0.5259	2757	94.5
140	00h23m20s	0.3872	23.998	9.292	873.96	0.455	0.4091	0.2601	0.526	2757	94.5
141	00h23m30s	0.3872	23.998	9.292	872.78	0.4548	0.4087	0.2601	0.5259	2757	94.5
142	00h23m40s	0.3872	23.998	9.292	873.09	0.4548	0.4088	0.2601	0.5259	2758	94.5
143	00h23m50s	0.3872	23.998	9.292	872.54	0.4548	0.4087	0.2601	0.5259	2757	94.5
144	00h24m00s	0.3872	23.998	9.292	873.27	0.455	0.4088	0.2601	0.5259	2756	94.5
145	00h24m10s	0.3872	23.998	9.292	873.44	0.4549	0.4088	0.2601	0.5259	2757	94.5

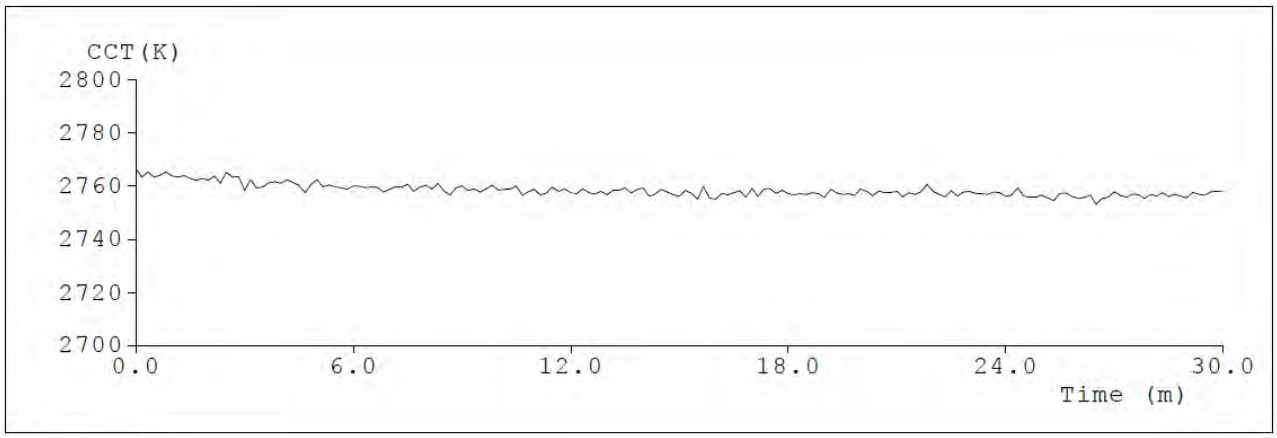
146	00h24m20s	0.3872	23.998	9.292	873.16	0.4546	0.4086	0.26	0.5258	2759	94.6
147	00h24m30s	0.3872	23.998	9.292	873.06	0.4549	0.4087	0.2601	0.5259	2756	94.5
148	00h24m40s	0.3872	23.998	9.292	872.52	0.455	0.4088	0.2601	0.5259	2756	94.5
149	00h24m50s	0.3872	23.998	9.292	873	0.4549	0.4087	0.2601	0.5259	2756	94.6
150	00h25m00s	0.3872	23.998	9.292	873.5	0.4549	0.4088	0.2601	0.5259	2757	94.5
151	00h25m10s	0.3872	23.998	9.292	873.41	0.4549	0.4087	0.2602	0.5259	2755	94.5
152	00h25m20s	0.3872	23.998	9.292	873.06	0.455	0.4088	0.2602	0.5259	2755	94.5
153	00h25m30s	0.3872	23.998	9.292	873.14	0.4549	0.4089	0.2601	0.5259	2757	94.6
154	00h25m40s	0.3872	23.998	9.292	873.14	0.4547	0.4085	0.2601	0.5258	2757	94.5
155	00h25m50s	0.3872	23.998	9.292	873.52	0.455	0.4089	0.2601	0.526	2756	94.5
156	00h26m00s	0.3872	23.998	9.292	873.78	0.455	0.4088	0.2601	0.5259	2755	94.5
157	00h26m10s	0.3872	23.998	9.292	872.9	0.4549	0.4087	0.2601	0.5259	2756	94.5
158	00h26m20s	0.3872	23.998	9.292	872.95	0.4549	0.4087	0.2601	0.5259	2757	94.5
159	00h26m30s	0.3872	23.998	9.292	872.89	0.455	0.4086	0.2603	0.5258	2753	94.5
160	00h26m40s	0.3872	23.998	9.292	872.74	0.455	0.4088	0.2602	0.5259	2755	94.5
161	00h26m50s	0.3873	23.998	9.2944	873.16	0.4549	0.4088	0.2601	0.5259	2756	94.5
162	00h27m00s	0.3873	23.998	9.2944	873.46	0.4547	0.4087	0.2601	0.5258	2758	94.5
163	00h27m10s	0.3872	23.998	9.292	873.43	0.4549	0.4088	0.2601	0.5259	2756	94.6
164	00h27m20s	0.3873	23.998	9.2944	873.35	0.4549	0.4087	0.2601	0.5259	2756	94.5
165	00h27m30s	0.3873	23.998	9.2944	873.59	0.4548	0.4087	0.2601	0.5259	2757	94.5
166	00h27m40s	0.3873	23.998	9.2944	873.58	0.4548	0.4087	0.2601	0.5259	2757	94.5
167	00h27m50s	0.3873	23.998	9.2944	873.23	0.455	0.4088	0.2602	0.5259	2755	94.6
168	00h28m00s	0.3873	23.998	9.2944	873.35	0.4549	0.4089	0.2601	0.5259	2757	94.5
169	00h28m10s	0.3873	23.998	9.2944	873.23	0.4549	0.4087	0.2601	0.5259	2756	94.5
170	00h28m20s	0.3873	23.998	9.2944	873.41	0.4549	0.4088	0.2601	0.5259	2757	94.5
171	00h28m30s	0.3873	23.998	9.2944	873.3	0.4549	0.4088	0.2601	0.5259	2756	94.5
172	00h28m40s	0.3873	23.998	9.2944	873.57	0.4549	0.4089	0.2601	0.526	2757	94.5
173	00h28m50s	0.3873	23.998	9.2944	873.32	0.455	0.4089	0.2601	0.5259	2756	94.5
174	00h29m00s	0.3873	23.998	9.2944	872.57	0.4548	0.4086	0.2602	0.5258	2756	94.6
175	00h29m10s	0.3873	23.998	9.2944	873.54	0.4548	0.4088	0.2601	0.5259	2758	94.5
176	00h29m20s	0.3873	23.998	9.2944	873.36	0.4549	0.4088	0.2601	0.5259	2757	94.5

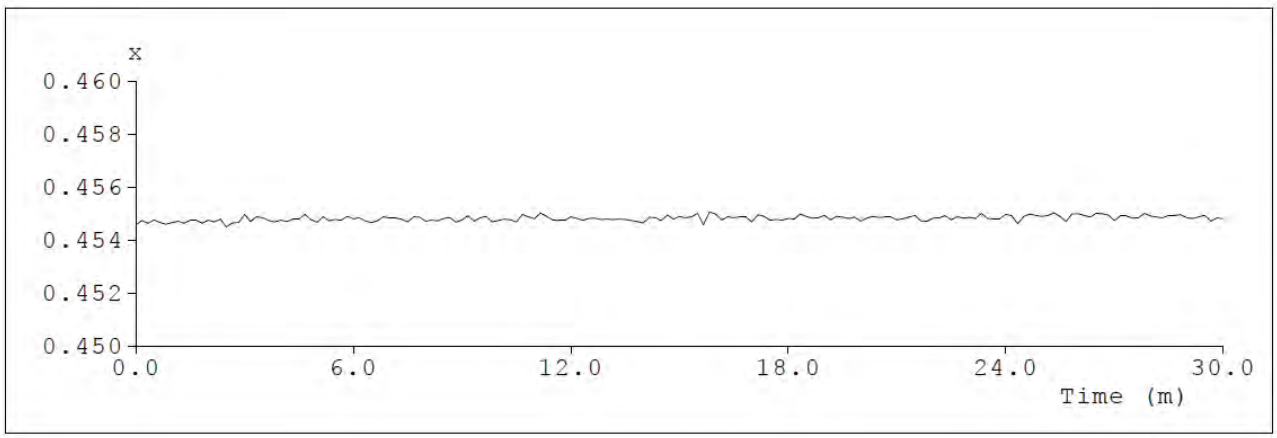
177	00h29m30s	0.3873	23.998	9.2944	873.64	0.4549	0.4089	0.2601	0.5259	2757	94.5
178	00h29m40s	0.3873	23.998	9.2944	872.97	0.4547	0.4086	0.2601	0.5258	2758	94.5
179	00h29m50s	0.3873	23.998	9.2944	873.28	0.4548	0.4089	0.26	0.5259	2758	94.5
180	00h30m00s	0.3873	23.998	9.2944	873.3	0.4548	0.4088	0.26	0.5259	2758	94.5

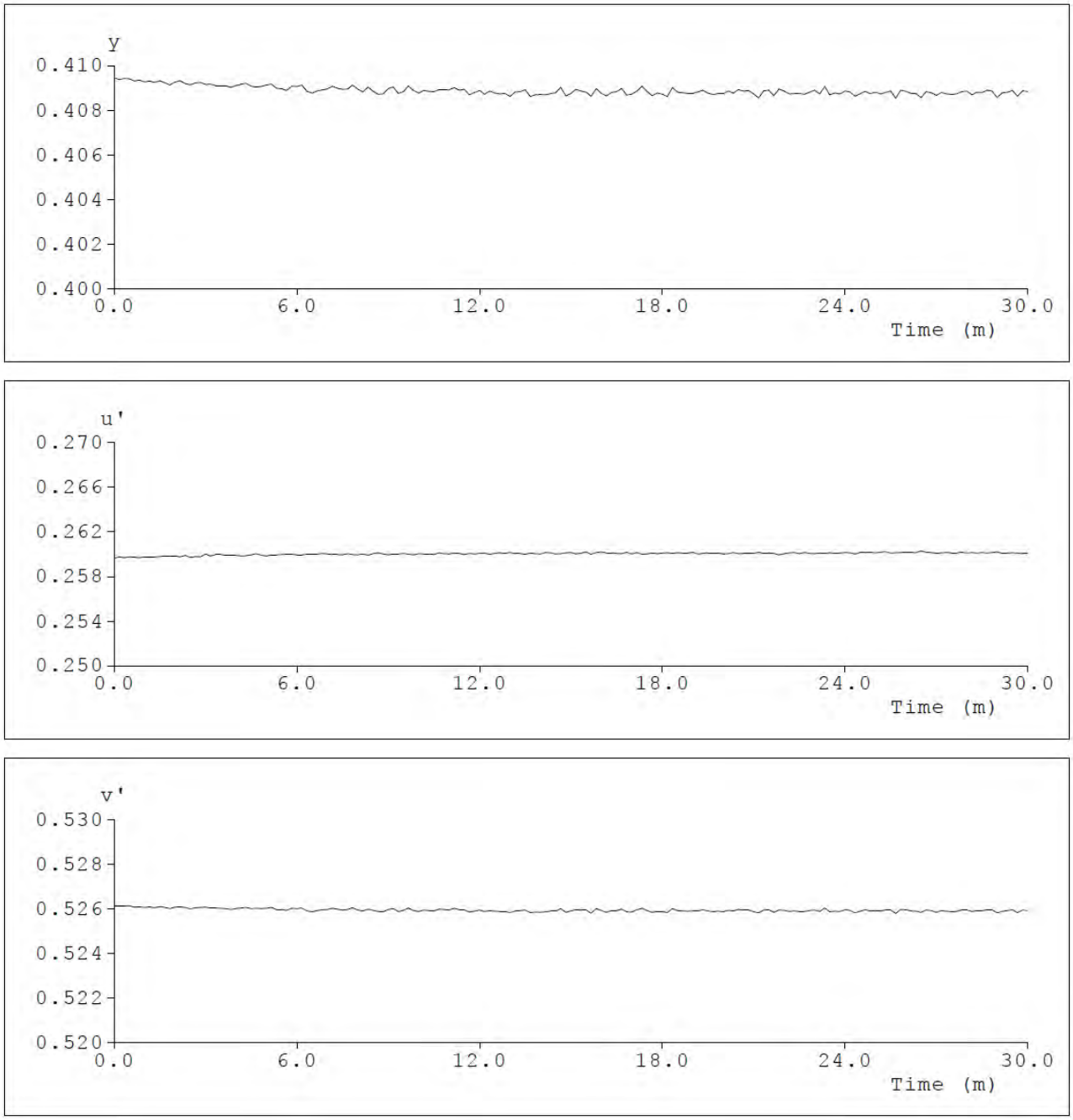
Test curves




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


CCT(K)
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)

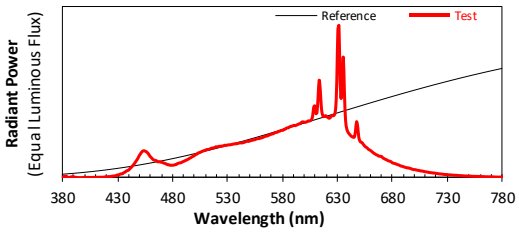

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.270
0.266
0.262
0.258
0.254
0.250
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

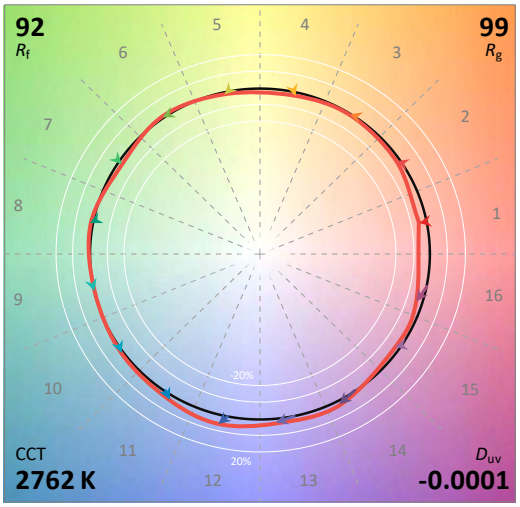
*5.2 ANSI/IES TM-30-18 Color Rendition Report

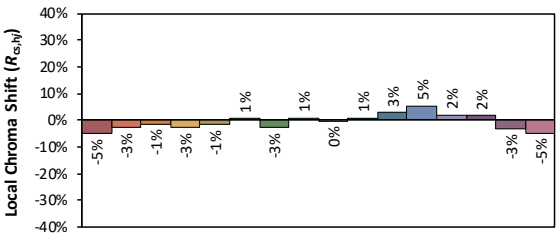
ANSI/IES TM-30-18 Color Rendition Report

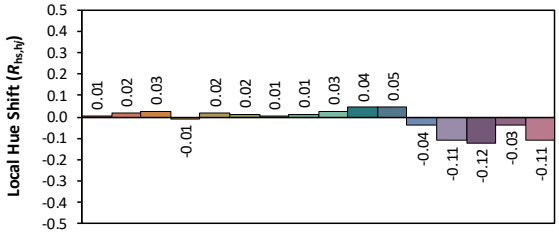
Source: Manufacturer:

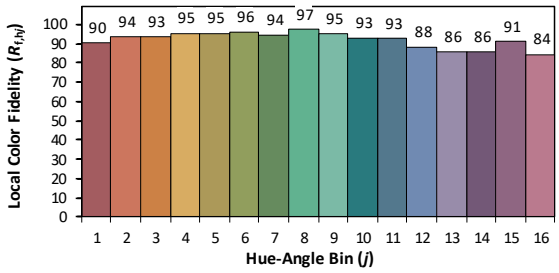
Date: 2023/9/15 Model: LCEY-1000-L27-DF-I-10

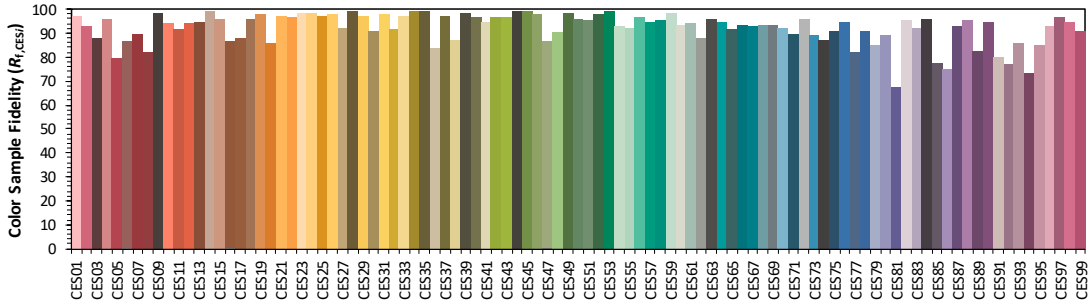












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

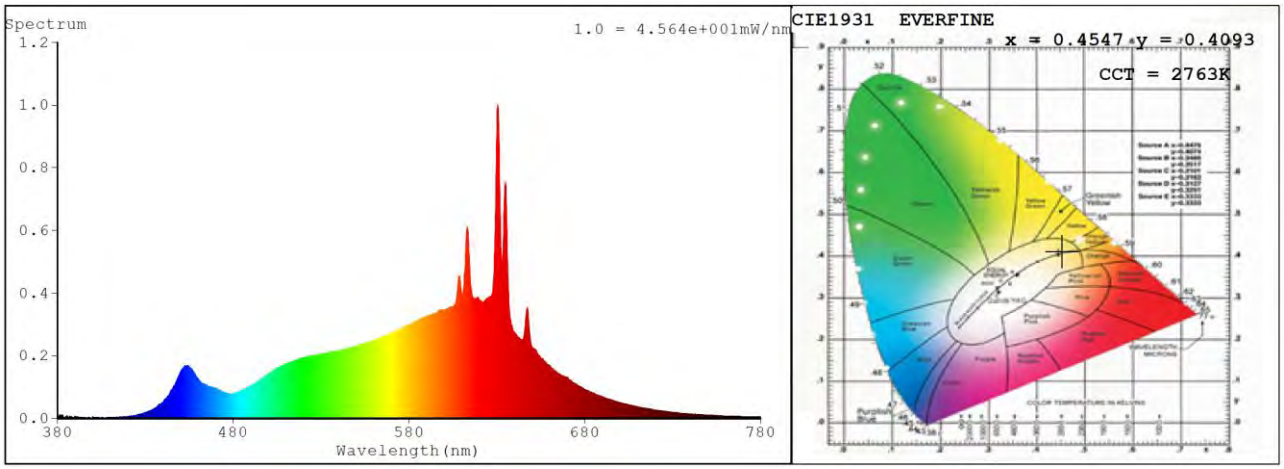
x	0.4548
y	0.4092
u'	0.2598
v'	0.5261

CIE 13.3-1995 (CRI)

R_a	95
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	0.0042	414	0.0042	448	0.1206	482	0.082	516	0.1848
381	0.0096	415	0.003	449	0.1346	483	0.0827	517	0.186
382	0.0073	416	0.0038	450	0.1454	484	0.0884	518	0.1882
383	0.0103	417	0.0042	451	0.1552	485	0.0902	519	0.1923
384	0.0002	418	0.0057	452	0.1635	486	0.0925	520	0.1915
385	0.0025	419	0.0059	453	0.1672	487	0.0933	521	0.1928
386	0.003	420	0.0061	454	0.1672	488	0.0964	522	0.1955
387	0.0049	421	0.0075	455	0.1639	489	0.1002	523	0.1948
388	0.0064	422	0.0071	456	0.1602	490	0.1026	524	0.1965
389	0.0024	423	0.0081	457	0.1533	491	0.1065	525	0.1972
390	0.0066	424	0.0089	458	0.1446	492	0.1093	526	0.199
391	0.001	425	0.0106	459	0.134	493	0.1128	527	0.2016
392	0.0024	426	0.0109	460	0.1268	494	0.1164	528	0.2016
393	0.0014	427	0.0124	461	0.1194	495	0.1208	529	0.2016
394	0	428	0.0128	462	0.1123	496	0.1242	530	0.204
395	0	429	0.0172	463	0.1096	497	0.1285	531	0.2045
396	0	430	0.0174	464	0.108	498	0.1332	532	0.2047
397	0.0003	431	0.0196	465	0.1052	499	0.1351	533	0.2063
398	0.0017	432	0.023	466	0.0992	500	0.1417	534	0.2075
399	0.0022	433	0.0245	467	0.1001	501	0.1449	535	0.2096
400	0.0047	434	0.0254	468	0.0992	502	0.1482	536	0.2103
401	0	435	0.031	469	0.0968	503	0.1546	537	0.2112
402	0.0024	436	0.034	470	0.0966	504	0.1557	538	0.2114
403	0.0028	437	0.0391	471	0.0924	505	0.1591	539	0.2134
404	0.0016	438	0.0438	472	0.0908	506	0.1622	540	0.2152
405	0.0024	439	0.046	473	0.0883	507	0.1658	541	0.2165
406	0.0019	440	0.0506	474	0.085	508	0.1674	542	0.2164
407	0.0023	441	0.0586	475	0.0815	509	0.1706	543	0.2164
408	0.0031	442	0.0645	476	0.0817	510	0.1728	544	0.2186
409	0.0026	443	0.0727	477	0.078	511	0.1756	545	0.2205
410	0.0021	444	0.0807	478	0.0784	512	0.1757	546	0.2233
411	0.0031	445	0.0899	479	0.0775	513	0.1771	547	0.2261
412	0.0036	446	0.0999	480	0.0783	514	0.1804	548	0.2259
413	0.0028	447	0.1101	481	0.0791	515	0.1838	549	0.2261

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2289	599	0.346	648	0.3185	697	0.0547	746	0.0116
551	0.2308	600	0.344	649	0.2539	698	0.0529	747	0.0112
552	0.2331	601	0.3456	650	0.2289	699	0.0507	748	0.0109
553	0.2344	602	0.3484	651	0.2211	700	0.0509	749	0.0108
554	0.2358	603	0.3529	652	0.2183	701	0.0492	750	0.0108
555	0.238	604	0.3522	653	0.2087	702	0.0476	751	0.0104
556	0.241	605	0.355	654	0.2005	703	0.046	752	0.0092
557	0.2436	606	0.3606	655	0.1926	704	0.0456	753	0.0095
558	0.2428	607	0.3813	656	0.1887	705	0.0429	754	0.009
559	0.2449	608	0.4366	657	0.1827	706	0.0424	755	0.0092
560	0.2467	609	0.4458	658	0.1759	707	0.0416	756	0.0087
561	0.2487	610	0.3978	659	0.1727	708	0.0398	757	0.0084
562	0.2514	611	0.4046	660	0.1677	709	0.0383	758	0.0088
563	0.2542	612	0.5007	661	0.1624	710	0.0373	759	0.0082
564	0.2576	613	0.6057	662	0.1565	711	0.0359	760	0.0077
565	0.2592	614	0.543	663	0.1514	712	0.0348	761	0.0073
566	0.2599	615	0.4345	664	0.1475	713	0.0333	762	0.0078
567	0.2641	616	0.3915	665	0.143	714	0.0325	763	0.0071
568	0.2664	617	0.3791	666	0.1403	715	0.0313	764	0.0068
569	0.2691	618	0.3824	667	0.1357	716	0.0308	765	0.0064
570	0.2725	619	0.3853	668	0.1335	717	0.0296	766	0.0067
571	0.2726	620	0.3782	669	0.1332	718	0.0296	767	0.0061
572	0.2772	621	0.3746	670	0.1308	719	0.0276	768	0.0064
573	0.2803	622	0.3691	671	0.1228	720	0.0271	769	0.0063
574	0.2817	623	0.3729	672	0.1196	721	0.0259	770	0.0062
575	0.2833	624	0.3824	673	0.1154	722	0.0247	771	0.006
576	0.2879	625	0.3851	674	0.1127	723	0.0241	772	0.0055
577	0.2892	626	0.3854	675	0.1089	724	0.0237	773	0.005
578	0.2925	627	0.3925	676	0.1052	725	0.0228	774	0.0047
579	0.2945	628	0.4289	677	0.1033	726	0.0218	775	0.0048
580	0.2946	629	0.591	678	0.1012	727	0.0205	776	0.0046
581	0.301	630	0.9145	679	0.0961	728	0.0206	777	0.0046
582	0.3013	631	0.9425	680	0.0919	729	0.0201	778	0.0048
583	0.307	632	0.6173	681	0.0898	730	0.0197	779	0.0048
584	0.31	633	0.4915	682	0.0881	731	0.0184	780	0.0048
585	0.3098	634	0.6351	683	0.0859	732	0.0179		
586	0.3157	635	0.7466	684	0.0823	733	0.0178		
587	0.3183	636	0.5202	685	0.0806	734	0.0169		
588	0.3203	637	0.3569	686	0.078	735	0.0164		
589	0.3224	638	0.3068	687	0.0737	736	0.0159		
590	0.3255	639	0.286	688	0.0722	737	0.0157		
591	0.3234	640	0.2751	689	0.0708	738	0.0155		
592	0.3256	641	0.2666	690	0.0676	739	0.0148		
593	0.3291	642	0.2591	691	0.0657	740	0.0141		
594	0.3323	643	0.2548	692	0.0638	741	0.0137		
595	0.3354	644	0.2516	693	0.0618	742	0.0131		
596	0.3367	645	0.2528	694	0.0617	743	0.0133		
597	0.3444	646	0.2877	695	0.0593	744	0.0124		
598	0.3469	647	0.3474	696	0.0585	745	0.0117		

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

6.1 Test Data

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

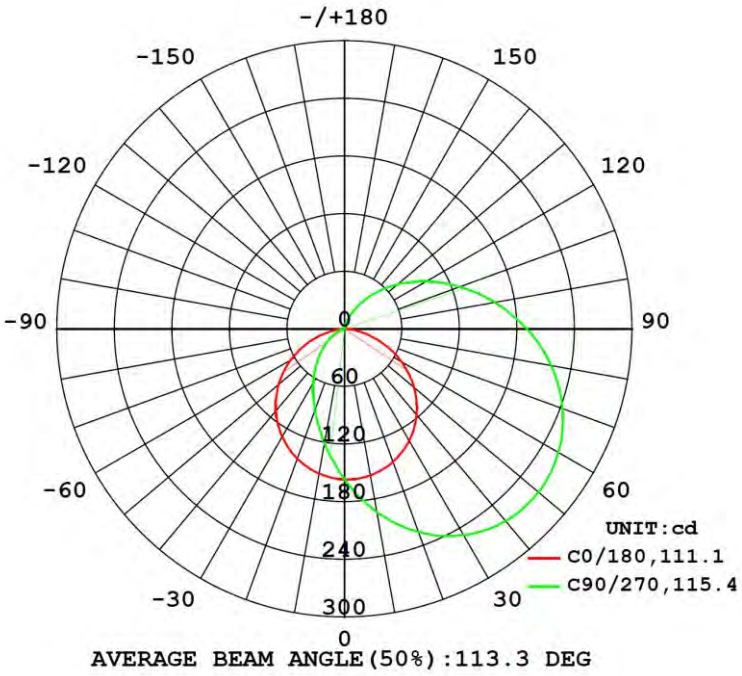
Electrical Measurement

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

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
855.086	91.36	264.6	20.7	79.3

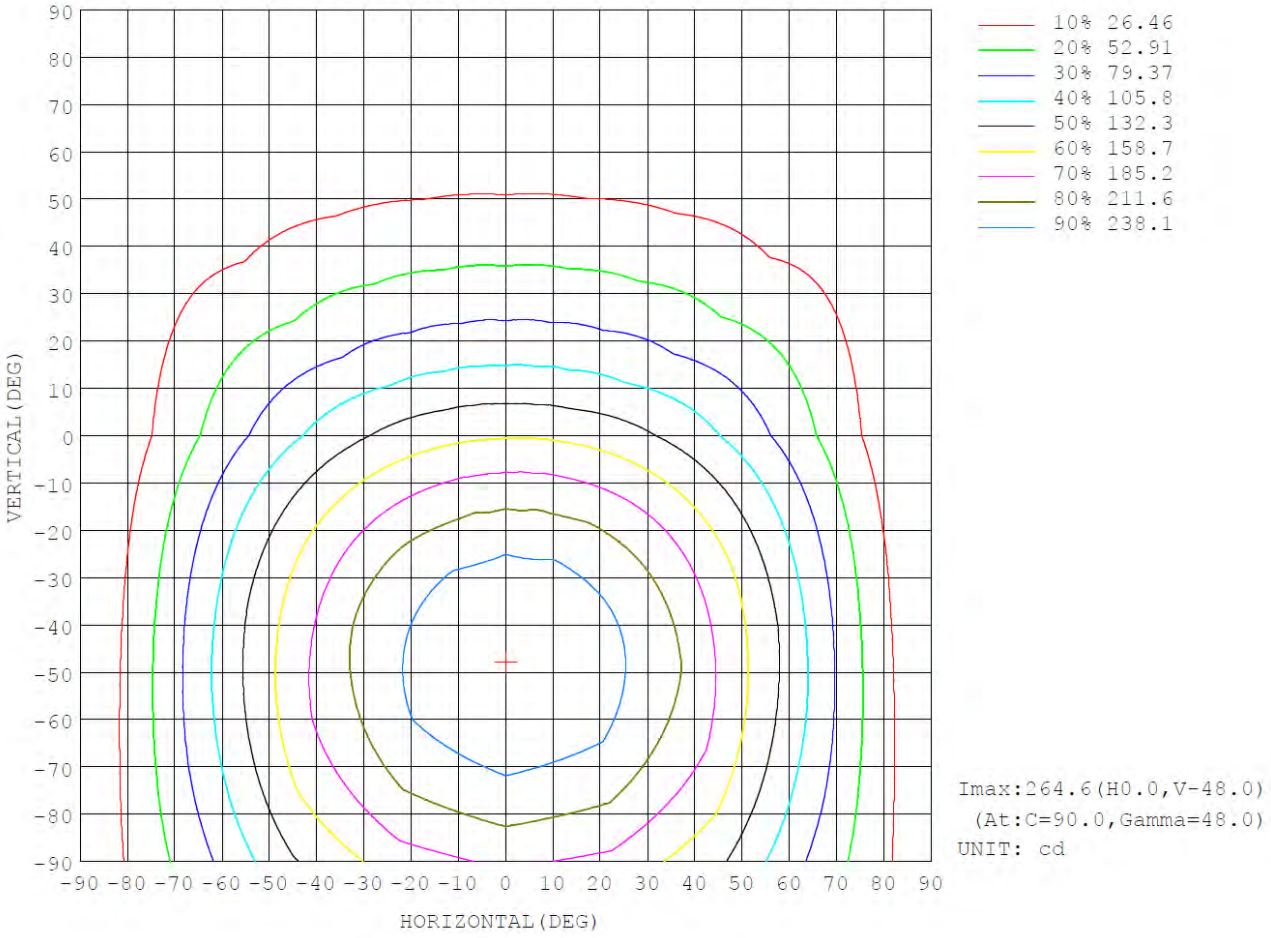
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	154.9	182.5	193.3	180.2	153.1	129.4	120.9	129.9	0- 10	14.89	14.89	1.74,1.74
20	147.5	203.3	225.0	199.0	144.0	102.5	90.38	103.6	10- 20	43.57	58.47	6.84,6.84
30	134.8	217.3	248.1	210.6	130.1	77.79	65.46	79.19	20- 30	68.84	127.3	14.9,14.9
40	117.1	223.2	261.3	214.5	111.8	55.82	44.62	57.14	30- 40	88.36	215.7	25.2,25.2
50	94.82	220.8	264.3	210.4	89.74	36.45	27.63	37.46	40- 50	100.2	315.9	36.9,36.9
60	68.91	209.9	257.6	198.9	64.95	20.44	14.78	21.07	50- 60	103.5	419.4	49,49
70	40.97	191.6	242.1	180.8	38.78	8.970	6.289	9.374	60- 70	98.57	518.0	60.6,60.6
80	15.02	166.7	219.0	157.1	14.51	2.676	1.654	3.095	70- 80	87.17	605.1	70.8,70.8
90	3.096	137.8	190.4	130.0	1.763	1.002	0.6495	1.584	80- 90	72.54	677.7	79.3,79.3
100	2.816	109.1	159.5	103.3	1.671	0.7130	0.6026	1.137	90-100	58.37	736.0	86.1,86.1
110	2.434	83.25	128.6	79.34	1.502	0.4119	0.5008	0.6057	100-110	44.64	780.7	91.3,91.3
120	1.962	60.77	99.39	58.50	1.257	0.2622	0.3771	0.2830	110-120	32.00	812.7	95,95
130	1.486	41.37	72.33	40.38	1.009	0.2693	0.3059	0.2424	120-130	21.09	833.8	97.5,97.5
140	1.042	25.31	47.85	25.16	0.7858	0.3298	0.3111	0.3106	130-140	12.38	846.1	99,99
150	0.6635	12.97	26.87	13.48	0.5746	0.3818	0.3379	0.3435	140-150	6.109	852.2	99.7,99.7
160	0.3927	5.248	11.16	4.908	0.4239	0.3683	0.3311	0.3392	150-160	2.269	854.5	99.9,99.9
170	0.3259	1.358	2.742	1.203	0.3534	0.3498	0.3107	0.3137	160-170	0.5247	855.0	100,100
180	0.3614	0.3520	0.2445	0.3107	0.3639	0.3554	0.3337	0.3064	170-180	0.0533	855.1	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	157	157	157	157	157	156	156	156	157	157	157	157	157	156	156	156
5	157	164	170	174	175	173	169	162	156	149	143	139	138	139	143	149
10	155	170	182	191	193	190	180	167	153	140	129	123	121	123	130	141
15	152	174	194	206	210	204	190	170	149	130	116	107	105	108	117	131
20	148	177	203	220	225	218	199	172	144	119	102	93.2	90.4	93.7	104	121
25	142	179	211	232	238	229	206	173	138	108	89.9	80.2	77.3	80.7	91.2	111
30	135	179	217	241	248	237	211	172	130	97.1	77.8	68.2	65.5	68.8	79.2	99.8
35	127	177	221	248	256	244	214	170	121	85.7	66.5	57.2	54.6	57.7	67.9	88.4
40	117	174	223	253	261	248	214	166	112	74.3	55.8	47.1	44.6	47.5	57.1	76.9
45	106	170	223	255	264	249	213	160	101	63.0	45.8	37.8	35.6	38.2	47.0	65.5
50	94.8	163	221	255	264	249	210	153	89.7	52.0	36.5	29.5	27.6	29.8	37.5	54.3
55	82.2	155	216	253	262	246	206	145	77.6	41.5	28.0	22.2	20.7	22.4	28.8	43.5
60	68.9	146	210	248	258	241	199	136	64.9	31.6	20.4	16.0	14.8	16.1	21.1	33.2
65	55.0	135	202	241	251	234	191	125	51.9	22.5	14.1	10.8	10.0	10.9	14.6	23.8
70	41.0	123	192	231	242	225	181	114	38.8	14.6	8.97	6.85	6.29	6.88	9.37	15.6
75	27.3	109	180	220	231	214	170	101	26.0	8.41	5.19	3.91	3.55	3.94	5.58	9.28
80	15.0	95.1	167	208	219	202	157	88.2	14.5	4.20	2.68	1.89	1.65	1.92	3.10	5.12
85	6.20	80.6	153	194	205	188	144	74.9	5.71	1.99	1.25	0.78	0.67	0.88	1.75	3.05
90	3.10	66.8	138	179	190	174	130	62.2	1.76	1.34	1.00	0.71	0.65	0.83	1.58	2.52
95	2.91	55.1	123	164	175	159	116	51.3	1.70	0.89	0.87	0.67	0.63	0.79	1.41	1.77
100	2.82	45.5	109	148	159	144	103	42.4	1.67	0.46	0.71	0.62	0.60	0.72	1.14	0.93
105	2.64	37.6	95.7	133	144	129	90.9	35.1	1.60	0.23	0.55	0.56	0.56	0.64	0.85	0.38
110	2.43	30.9	83.2	118	129	115	79.3	29.0	1.50	0.21	0.41	0.49	0.50	0.54	0.61	0.18
115	2.20	25.2	71.6	104	114	101	68.6	23.8	1.38	0.23	0.31	0.42	0.44	0.45	0.41	0.19
120	1.96	20.3	60.8	89.9	99.4	88.1	58.5	19.3	1.26	0.28	0.26	0.35	0.38	0.37	0.28	0.25
125	1.72	16.1	50.7	76.8	85.6	75.5	49.1	15.4	1.13	0.34	0.26	0.31	0.33	0.31	0.24	0.34
130	1.49	12.6	41.4	64.4	72.3	63.5	40.4	12.3	1.01	0.41	0.27	0.30	0.31	0.29	0.24	0.44
135	1.26	9.38	32.9	52.6	59.7	52.1	32.4	9.39	0.90	0.45	0.30	0.30	0.30	0.29	0.27	0.51
140	1.04	6.94	25.3	41.7	47.8	41.5	25.2	7.32	0.79	0.48	0.33	0.31	0.31	0.30	0.31	0.53
145	0.84	5.23	18.8	31.7	36.8	31.7	18.9	5.49	0.68	0.50	0.36	0.33	0.33	0.32	0.34	0.52
150	0.66	3.83	13.0	22.9	26.9	23.0	13.5	4.00	0.57	0.49	0.38	0.35	0.34	0.33	0.34	0.47
155	0.51	2.61	8.44	15.3	18.4	15.6	9.02	2.46	0.50	0.46	0.38	0.35	0.34	0.33	0.34	0.41
160	0.39	1.66	5.25	9.25	11.2	9.58	4.91	1.49	0.42	0.41	0.37	0.33	0.33	0.32	0.34	0.36
165	0.31	0.90	2.94	5.10	6.07	5.18	2.51	0.93	0.37	0.36	0.36	0.33	0.31	0.32	0.33	0.34
170	0.33	0.46	1.36	2.30	2.74	1.91	1.20	0.52	0.35	0.35	0.35	0.35	0.31	0.31	0.31	0.33
175	0.35	0.36	0.45	0.65	0.80	0.56	0.46	0.32	0.36	0.37	0.35	0.34	0.33	0.29	0.31	0.32
180	0.36	0.36	0.35	0.34	0.24	0.31	0.31	0.32	0.36	0.36	0.36	0.35	0.33	0.27	0.31	0.31

7. Integrating Sphere Test Results for LCEY-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	0.5675	23.998	13.619	1271.4	0.4535	0.4095	0.2589	0.526	2783	94.3
1	00h00m10s	0.5677	23.998	13.624	1272.3	0.4535	0.4095	0.2589	0.526	2783	94.3
2	00h00m20s	0.568	23.998	13.631	1271.4	0.4534	0.4094	0.2589	0.5259	2783	94.3
3	00h00m30s	0.5682	23.998	13.636	1271.9	0.4536	0.4095	0.2589	0.526	2782	94.3
4	00h00m40s	0.5684	23.998	13.64	1272.6	0.4535	0.4094	0.2589	0.526	2782	94.3
5	00h00m50s	0.5686	23.998	13.645	1272.8	0.4535	0.4095	0.2589	0.526	2782	94.3
6	00h01m00s	0.5688	23.998	13.65	1272.8	0.4535	0.4095	0.2589	0.526	2782	94.3
7	00h01m10s	0.569	23.998	13.655	1272.9	0.4535	0.4095	0.2589	0.526	2783	94.3
8	00h01m20s	0.5692	23.998	13.66	1272.7	0.4535	0.4094	0.2589	0.5259	2782	94.4
9	00h01m30s	0.5694	23.998	13.664	1273.2	0.4534	0.4093	0.2589	0.5259	2782	94.4
10	00h01m40s	0.5696	23.998	13.669	1272.6	0.4536	0.4092	0.2591	0.5259	2778	94.3
11	00h01m50s	0.5698	23.998	13.674	1273.4	0.4534	0.4092	0.2589	0.5259	2782	94.4
12	00h02m00s	0.57	23.998	13.679	1273.5	0.4536	0.4094	0.259	0.526	2780	94.3
13	00h02m10s	0.5701	23.998	13.681	1273.9	0.4537	0.4094	0.2591	0.526	2779	94.3
14	00h02m20s	0.5703	23.998	13.686	1273.6	0.4535	0.4093	0.259	0.5259	2781	94.3
15	00h02m30s	0.5705	23.998	13.691	1273.7	0.4535	0.4092	0.259	0.5259	2780	94.3
16	00h02m40s	0.5706	23.998	13.693	1273.6	0.4535	0.4092	0.259	0.5258	2781	94.3
17	00h02m50s	0.5708	23.998	13.698	1273.1	0.4534	0.4091	0.259	0.5258	2781	94.3
18	00h03m00s	0.5709	23.998	13.7	1273.4	0.4536	0.4092	0.2591	0.5259	2779	94.4
19	00h03m10s	0.5711	23.998	13.705	1273.4	0.4535	0.4089	0.2592	0.5257	2778	94.3
20	00h03m20s	0.5712	23.998	13.708	1273.3	0.4537	0.4092	0.2592	0.5259	2777	94.3
21	00h03m30s	0.5713	23.998	13.71	1273.3	0.4536	0.4091	0.2591	0.5258	2778	94.3

22	00h03m40s	0.5715	23.998	13.715	1274.4	0.4536	0.4093	0.2591	0.5259	2779	94.3
23	00h03m50s	0.5716	23.998	13.717	1274.4	0.4536	0.4092	0.2591	0.5259	2779	94.3
24	00h04m00s	0.5717	23.998	13.72	1274.9	0.4535	0.4092	0.2591	0.5258	2779	94.3
25	00h04m10s	0.5718	23.998	13.722	1275.2	0.4535	0.409	0.2591	0.5258	2779	94.3
26	00h04m20s	0.5719	23.998	13.724	1274	0.4536	0.409	0.2592	0.5258	2777	94.3
27	00h04m30s	0.572	23.998	13.727	1274.3	0.4536	0.409	0.2592	0.5258	2777	94.3
28	00h04m40s	0.5721	23.998	13.729	1274	0.4537	0.4092	0.2591	0.5259	2778	94.3
29	00h04m50s	0.5722	23.998	13.732	1273	0.4536	0.4091	0.2591	0.5258	2778	94.3
30	00h05m00s	0.5724	23.998	13.736	1274.9	0.4535	0.4091	0.2591	0.5258	2778	94.3
31	00h05m10s	0.5725	23.998	13.739	1274.6	0.4535	0.4089	0.2591	0.5258	2779	94.4
32	00h05m20s	0.5726	23.998	13.741	1274.6	0.4537	0.4089	0.2592	0.5258	2776	94.3
33	00h05m30s	0.5726	23.998	13.741	1274.4	0.4534	0.4088	0.2591	0.5257	2778	94.4
34	00h05m40s	0.5727	23.998	13.744	1274.5	0.4537	0.4089	0.2592	0.5258	2776	94.3
35	00h05m50s	0.5728	23.998	13.746	1275.5	0.4537	0.4089	0.2592	0.5258	2776	94.3
36	00h06m00s	0.5729	23.998	13.748	1274.8	0.4536	0.4089	0.2592	0.5258	2777	94.3
37	00h06m10s	0.573	23.998	13.751	1274.6	0.4536	0.4088	0.2592	0.5257	2776	94.3
38	00h06m20s	0.5731	23.998	13.753	1275.5	0.4536	0.4089	0.2592	0.5258	2777	94.3
39	00h06m30s	0.5732	23.998	13.756	1275.4	0.4536	0.4088	0.2592	0.5257	2777	94.3
40	00h06m40s	0.5732	23.998	13.756	1275.4	0.4535	0.4089	0.2592	0.5257	2778	94.3
41	00h06m50s	0.5733	23.998	13.758	1274.9	0.4538	0.409	0.2593	0.5258	2775	94.3
42	00h07m00s	0.5734	23.998	13.76	1274.6	0.4537	0.4089	0.2593	0.5258	2775	94.4
43	00h07m10s	0.5734	23.998	13.76	1274.9	0.4537	0.4088	0.2593	0.5257	2775	94.3
44	00h07m20s	0.5735	23.998	13.763	1274.9	0.4535	0.4089	0.2592	0.5257	2778	94.3
45	00h07m30s	0.5736	23.998	13.765	1275	0.4536	0.4089	0.2592	0.5258	2777	94.4
46	00h07m40s	0.5736	23.998	13.765	1274.4	0.4536	0.4088	0.2592	0.5257	2776	94.3
47	00h07m50s	0.5737	23.998	13.768	1275.1	0.4538	0.4089	0.2593	0.5258	2774	94.3
48	00h08m00s	0.5738	23.998	13.77	1275.4	0.4537	0.4087	0.2593	0.5257	2774	94.3
49	00h08m10s	0.5738	23.998	13.77	1276.2	0.4537	0.409	0.2592	0.5258	2776	94.3
50	00h08m20s	0.5739	23.998	13.772	1275.6	0.4535	0.4089	0.2592	0.5257	2778	94.3
51	00h08m30s	0.5739	23.998	13.772	1276.2	0.4537	0.4089	0.2593	0.5258	2775	94.3
52	00h08m40s	0.574	23.998	13.775	1275.5	0.4537	0.4089	0.2592	0.5258	2776	94.3

53	00h08m50s	0.574	23.998	13.775	1275	0.4536	0.4088	0.2593	0.5257	2776	94.3
54	00h09m00s	0.5741	23.998	13.777	1274.6	0.4537	0.4087	0.2594	0.5257	2773	94.3
55	00h09m10s	0.5742	23.998	13.78	1275	0.4538	0.409	0.2593	0.5258	2775	94.3
56	00h09m20s	0.5742	23.998	13.78	1275.8	0.4537	0.4087	0.2593	0.5257	2774	94.3
57	00h09m30s	0.5743	23.998	13.782	1275.2	0.4535	0.4087	0.2592	0.5257	2777	94.4
58	00h09m40s	0.5743	23.998	13.782	1275.5	0.4536	0.4087	0.2593	0.5257	2775	94.3
59	00h09m50s	0.5743	23.998	13.782	1275.3	0.4537	0.4089	0.2593	0.5258	2775	94.3
60	00h10m00s	0.5744	23.998	13.784	1275.5	0.4536	0.4087	0.2593	0.5257	2776	94.3
61	00h10m10s	0.5744	23.998	13.784	1275	0.4536	0.4087	0.2593	0.5257	2776	94.3
62	00h10m20s	0.5745	23.998	13.787	1275.1	0.4535	0.4087	0.2593	0.5257	2776	94.3
63	00h10m30s	0.5745	23.998	13.787	1275.7	0.4537	0.4088	0.2593	0.5257	2774	94.3
64	00h10m40s	0.5746	23.998	13.789	1275.1	0.4536	0.4087	0.2593	0.5257	2775	94.3
65	00h10m50s	0.5746	23.998	13.789	1275.9	0.4535	0.4088	0.2592	0.5257	2777	94.3
66	00h11m00s	0.5746	23.998	13.789	1275.6	0.4536	0.4087	0.2593	0.5257	2775	94.4
67	00h11m10s	0.5747	23.998	13.792	1275.8	0.4536	0.4087	0.2593	0.5257	2775	94.3
68	00h11m20s	0.5747	23.998	13.792	1275.9	0.4536	0.4088	0.2593	0.5257	2776	94.3
69	00h11m30s	0.5747	23.998	13.792	1275.4	0.4537	0.4088	0.2593	0.5257	2775	94.3
70	00h11m40s	0.5748	23.998	13.794	1275.6	0.4536	0.4087	0.2593	0.5257	2775	94.3
71	00h11m50s	0.5748	23.998	13.794	1275.4	0.4536	0.4087	0.2593	0.5257	2775	94.3
72	00h12m00s	0.5748	23.998	13.794	1276	0.4537	0.4088	0.2593	0.5257	2775	94.3
73	00h12m10s	0.5749	23.998	13.796	1276.1	0.4536	0.4088	0.2593	0.5257	2775	94.3
74	00h12m20s	0.5749	23.998	13.796	1274.9	0.4539	0.4087	0.2595	0.5257	2771	94.3
75	00h12m30s	0.5749	23.998	13.796	1276	0.4538	0.4088	0.2594	0.5258	2773	94.3
76	00h12m40s	0.575	23.998	13.799	1276.1	0.4536	0.4086	0.2594	0.5257	2774	94.3
77	00h12m50s	0.575	23.998	13.799	1275.6	0.4536	0.4086	0.2594	0.5257	2774	94.3
78	00h13m00s	0.575	23.998	13.799	1275.7	0.4535	0.4086	0.2593	0.5256	2775	94.3
79	00h13m10s	0.5751	23.998	13.801	1276	0.4537	0.4088	0.2593	0.5257	2774	94.3
80	00h13m20s	0.5751	23.998	13.801	1274.5	0.4537	0.4086	0.2594	0.5257	2773	94.3
81	00h13m30s	0.5751	23.998	13.801	1275.7	0.4536	0.4087	0.2593	0.5257	2775	94.3
82	00h13m40s	0.5751	23.998	13.801	1275.7	0.4536	0.4087	0.2593	0.5257	2775	94.4
83	00h13m50s	0.5752	23.998	13.804	1276.1	0.4539	0.4088	0.2594	0.5258	2772	94.3

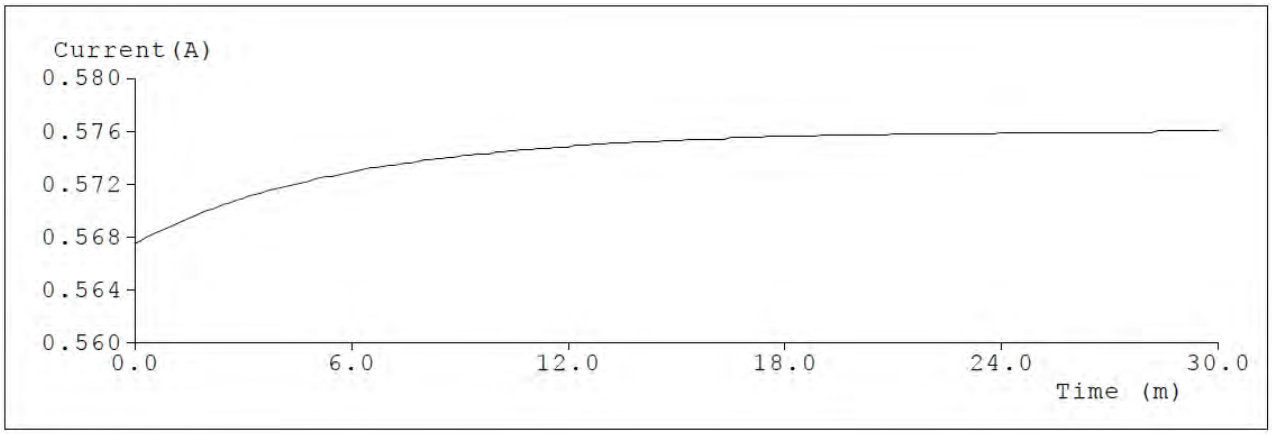
84	00h14m00s	0.5752	23.998	13.804	1275.5	0.4536	0.4085	0.2594	0.5256	2774	94.3
85	00h14m10s	0.5752	23.998	13.804	1276.1	0.4536	0.4087	0.2593	0.5257	2774	94.3
86	00h14m20s	0.5752	23.998	13.804	1276	0.4537	0.4086	0.2594	0.5257	2772	94.3
87	00h14m30s	0.5752	23.998	13.804	1276	0.4537	0.4087	0.2594	0.5257	2774	94.3
88	00h14m40s	0.5753	23.998	13.806	1276.9	0.4537	0.4088	0.2593	0.5257	2774	94.3
89	00h14m50s	0.5753	23.998	13.806	1276.2	0.4538	0.4087	0.2594	0.5257	2773	94.3
90	00h15m00s	0.5753	23.998	13.806	1276.4	0.4537	0.4087	0.2594	0.5257	2774	94.3
91	00h15m10s	0.5753	23.998	13.806	1275.8	0.4537	0.4085	0.2594	0.5256	2773	94.3
92	00h15m20s	0.5754	23.998	13.808	1276.6	0.4536	0.4087	0.2593	0.5257	2774	94.3
93	00h15m30s	0.5754	23.998	13.808	1275.2	0.4537	0.4087	0.2593	0.5257	2774	94.4
94	00h15m40s	0.5754	23.998	13.808	1275.3	0.4537	0.4085	0.2594	0.5256	2773	94.3
95	00h15m50s	0.5754	23.998	13.808	1275.8	0.4536	0.4087	0.2593	0.5257	2775	94.3
96	00h16m00s	0.5754	23.998	13.808	1276.7	0.4535	0.4086	0.2593	0.5256	2775	94.3
97	00h16m10s	0.5754	23.998	13.808	1276.2	0.4535	0.4086	0.2593	0.5256	2776	94.3
98	00h16m20s	0.5754	23.998	13.808	1275.6	0.4535	0.4086	0.2593	0.5256	2775	94.4
99	00h16m30s	0.5755	23.998	13.811	1276.5	0.4536	0.4086	0.2594	0.5256	2774	94.3
100	00h16m40s	0.5755	23.998	13.811	1275.7	0.4536	0.4086	0.2594	0.5256	2774	94.4
101	00h16m50s	0.5755	23.998	13.811	1275.2	0.4537	0.4085	0.2594	0.5256	2772	94.3
102	00h17m00s	0.5755	23.998	13.811	1276.8	0.4535	0.4085	0.2593	0.5256	2775	94.3
103	00h17m10s	0.5755	23.998	13.811	1276.2	0.4536	0.4088	0.2593	0.5257	2775	94.4
104	00h17m20s	0.5755	23.998	13.811	1276.2	0.4536	0.4087	0.2593	0.5257	2775	94.4
105	00h17m30s	0.5756	23.998	13.813	1276.4	0.4538	0.4087	0.2594	0.5257	2772	94.3
106	00h17m40s	0.5756	23.998	13.813	1275.2	0.4537	0.4086	0.2594	0.5256	2773	94.3
107	00h17m50s	0.5756	23.998	13.813	1275.3	0.4536	0.4086	0.2594	0.5256	2774	94.3
108	00h18m00s	0.5756	23.998	13.813	1275.9	0.4537	0.4087	0.2594	0.5257	2774	94.3
109	00h18m10s	0.5756	23.998	13.813	1275.5	0.4537	0.4087	0.2594	0.5257	2774	94.4
110	00h18m20s	0.5756	23.998	13.813	1275.7	0.4537	0.4086	0.2594	0.5257	2772	94.3
111	00h18m30s	0.5756	23.998	13.813	1276.5	0.4537	0.4087	0.2594	0.5257	2773	94.3
112	00h18m40s	0.5756	23.998	13.813	1276.2	0.4537	0.4087	0.2594	0.5257	2774	94.4
113	00h18m50s	0.5756	23.998	13.813	1276.3	0.4536	0.4086	0.2594	0.5256	2774	94.4
114	00h19m00s	0.5757	23.998	13.816	1275.9	0.4536	0.4086	0.2593	0.5256	2775	94.3

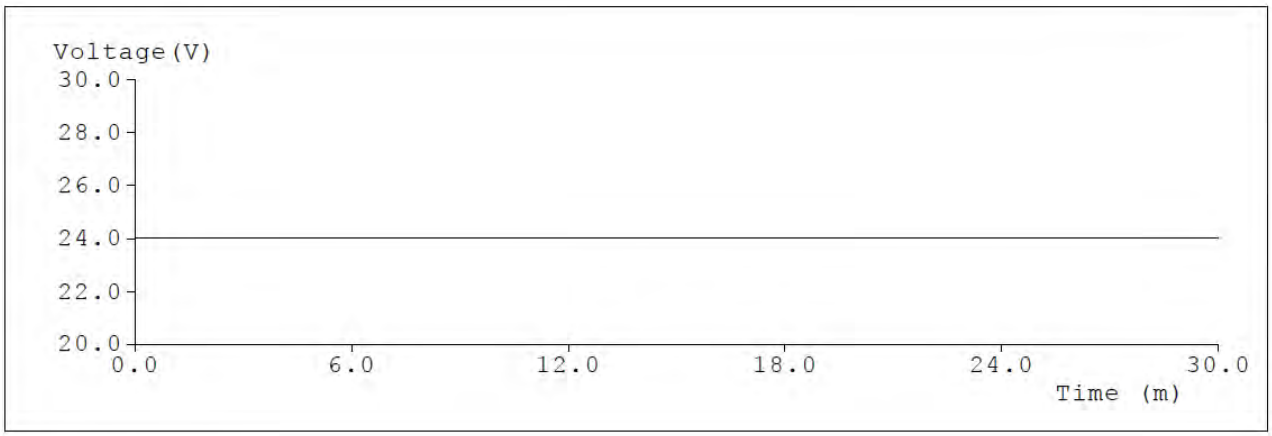
115	00h19m10s	0.5757	23.998	13.816	1276	0.4536	0.4086	0.2593	0.5256	2775	94.3
116	00h19m20s	0.5757	23.998	13.816	1275.5	0.4539	0.4087	0.2595	0.5257	2771	94.4
117	00h19m30s	0.5757	23.998	13.816	1275.9	0.4537	0.4086	0.2594	0.5257	2772	94.3
118	00h19m40s	0.5757	23.998	13.816	1275.6	0.4536	0.4086	0.2594	0.5257	2774	94.3
119	00h19m50s	0.5757	23.998	13.816	1275.9	0.4537	0.4086	0.2594	0.5257	2773	94.3
120	00h20m00s	0.5757	23.998	13.816	1276.5	0.4536	0.4087	0.2594	0.5257	2774	94.3
121	00h20m10s	0.5757	23.998	13.816	1275.9	0.4537	0.4086	0.2594	0.5257	2773	94.3
122	00h20m20s	0.5757	23.998	13.816	1275.1	0.4537	0.4086	0.2594	0.5257	2773	94.4
123	00h20m30s	0.5757	23.998	13.816	1276.5	0.4537	0.4088	0.2593	0.5257	2774	94.3
124	00h20m40s	0.5757	23.998	13.816	1275.5	0.4537	0.4086	0.2594	0.5257	2773	94.3
125	00h20m50s	0.5757	23.998	13.816	1276	0.4535	0.4085	0.2594	0.5256	2774	94.4
126	00h21m00s	0.5758	23.998	13.818	1276.4	0.4536	0.4087	0.2593	0.5257	2775	94.3
127	00h21m10s	0.5758	23.998	13.818	1276.3	0.4536	0.4086	0.2593	0.5257	2774	94.3
128	00h21m20s	0.5758	23.998	13.818	1276	0.4536	0.4086	0.2594	0.5257	2774	94.3
129	00h21m30s	0.5758	23.998	13.818	1276.3	0.4536	0.4086	0.2593	0.5256	2774	94.4
130	00h21m40s	0.5758	23.998	13.818	1275.5	0.4537	0.4085	0.2594	0.5256	2773	94.3
131	00h21m50s	0.5758	23.998	13.818	1275.9	0.4538	0.4086	0.2595	0.5257	2772	94.3
132	00h22m00s	0.5758	23.998	13.818	1277.3	0.4537	0.4088	0.2593	0.5257	2774	94.3
133	00h22m10s	0.5758	23.998	13.818	1275.7	0.4536	0.4086	0.2594	0.5256	2774	94.3
134	00h22m20s	0.5758	23.998	13.818	1275.7	0.4537	0.4084	0.2595	0.5256	2771	94.3
135	00h22m30s	0.5758	23.998	13.818	1276.7	0.4536	0.4088	0.2593	0.5257	2776	94.3
136	00h22m40s	0.5758	23.998	13.818	1276.2	0.4535	0.4085	0.2594	0.5256	2774	94.3
137	00h22m50s	0.5758	23.998	13.818	1275.9	0.4535	0.4085	0.2594	0.5256	2774	94.3
138	00h23m00s	0.5758	23.998	13.818	1276.5	0.4536	0.4086	0.2593	0.5257	2774	94.3
139	00h23m10s	0.5758	23.998	13.818	1276.4	0.4537	0.4087	0.2594	0.5257	2773	94.3
140	00h23m20s	0.5758	23.998	13.818	1276.2	0.4536	0.4087	0.2593	0.5257	2775	94.3
141	00h23m30s	0.5758	23.998	13.818	1276.4	0.4535	0.4086	0.2593	0.5256	2776	94.3
142	00h23m40s	0.5758	23.998	13.818	1275.8	0.4537	0.4086	0.2594	0.5257	2773	94.3
143	00h23m50s	0.5758	23.998	13.818	1276.3	0.4538	0.4087	0.2594	0.5257	2773	94.3
144	00h24m00s	0.5759	23.998	13.82	1275.5	0.4536	0.4086	0.2594	0.5256	2774	94.3
145	00h24m10s	0.5759	23.998	13.82	1276	0.4536	0.4085	0.2594	0.5256	2773	94.3

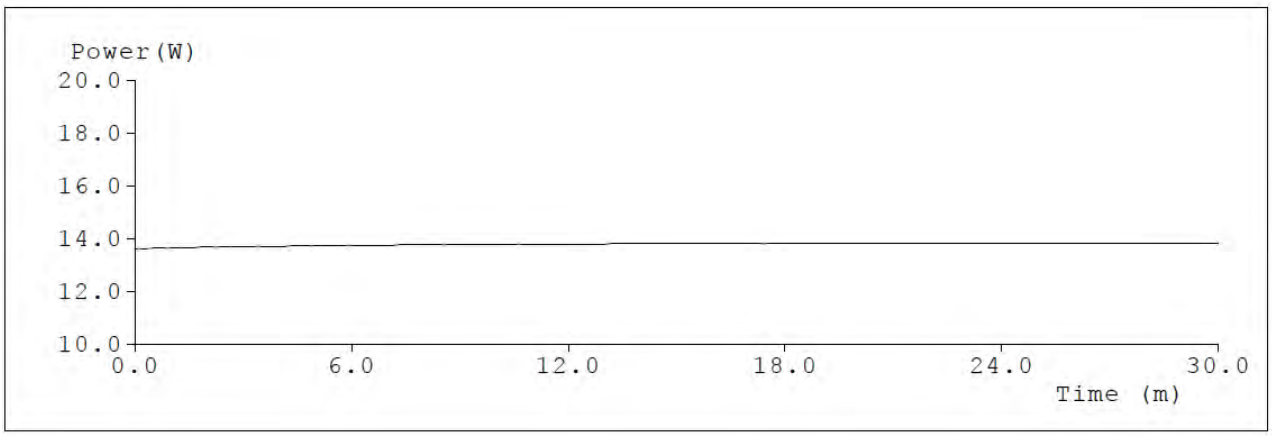
146	00h24m20s	0.5759	23.998	13.82	1275.9	0.4536	0.4087	0.2593	0.5257	2774	94.4
147	00h24m30s	0.5759	23.998	13.82	1275.7	0.4538	0.4087	0.2594	0.5257	2772	94.3
148	00h24m40s	0.5759	23.998	13.82	1275.8	0.4538	0.4086	0.2595	0.5257	2771	94.3
149	00h24m50s	0.5759	23.998	13.82	1276.2	0.4537	0.4086	0.2594	0.5257	2772	94.3
150	00h25m00s	0.5759	23.998	13.82	1276.9	0.4536	0.4086	0.2594	0.5257	2774	94.3
151	00h25m10s	0.5759	23.998	13.82	1275.8	0.4537	0.4085	0.2594	0.5256	2773	94.3
152	00h25m20s	0.5759	23.998	13.82	1275.7	0.4537	0.4087	0.2594	0.5257	2774	94.3
153	00h25m30s	0.5759	23.998	13.82	1276.9	0.4537	0.4088	0.2593	0.5257	2774	94.3
154	00h25m40s	0.5759	23.998	13.82	1275.8	0.4536	0.4086	0.2594	0.5256	2774	94.3
155	00h25m50s	0.5759	23.998	13.82	1275.6	0.4537	0.4087	0.2594	0.5257	2774	94.3
156	00h26m00s	0.5759	23.998	13.82	1275.4	0.4537	0.4086	0.2594	0.5257	2773	94.4
157	00h26m10s	0.5759	23.998	13.82	1275.9	0.4537	0.4085	0.2594	0.5256	2772	94.3
158	00h26m20s	0.5759	23.998	13.82	1275.7	0.4538	0.4086	0.2595	0.5257	2771	94.3
159	00h26m30s	0.5759	23.998	13.82	1276.5	0.4537	0.4088	0.2593	0.5257	2775	94.4
160	00h26m40s	0.5759	23.998	13.82	1275.7	0.4537	0.4086	0.2594	0.5257	2773	94.3
161	00h26m50s	0.5759	23.998	13.82	1276.5	0.4537	0.4086	0.2594	0.5256	2773	94.3
162	00h27m00s	0.5759	23.998	13.82	1275.8	0.4537	0.4085	0.2594	0.5256	2772	94.3
163	00h27m10s	0.5759	23.998	13.82	1275.3	0.4537	0.4087	0.2594	0.5257	2774	94.3
164	00h27m20s	0.5759	23.998	13.82	1276.5	0.4536	0.4086	0.2594	0.5257	2774	94.3
165	00h27m30s	0.5759	23.998	13.82	1276.1	0.4537	0.4086	0.2594	0.5257	2772	94.3
166	00h27m40s	0.5759	23.998	13.82	1276.3	0.4537	0.4087	0.2594	0.5257	2773	94.3
167	00h27m50s	0.5759	23.998	13.82	1275.9	0.4535	0.4085	0.2593	0.5256	2774	94.3
168	00h28m00s	0.5759	23.998	13.82	1276.3	0.4537	0.4085	0.2594	0.5256	2773	94.3
169	00h28m10s	0.5759	23.998	13.82	1276.8	0.4536	0.4087	0.2593	0.5257	2774	94.3
170	00h28m20s	0.576	23.998	13.823	1276.6	0.4537	0.4085	0.2594	0.5256	2773	94.3
171	00h28m30s	0.576	23.998	13.823	1275.7	0.4537	0.4087	0.2594	0.5257	2773	94.3
172	00h28m40s	0.576	23.998	13.823	1276.1	0.4538	0.4087	0.2595	0.5257	2771	94.4
173	00h28m50s	0.576	23.998	13.823	1276.6	0.4537	0.4087	0.2594	0.5257	2773	94.4
174	00h29m00s	0.576	23.998	13.823	1276.2	0.4535	0.4085	0.2593	0.5256	2774	94.3
175	00h29m10s	0.576	23.998	13.823	1275.9	0.4537	0.4085	0.2595	0.5256	2771	94.3
176	00h29m20s	0.576	23.998	13.823	1276.9	0.4537	0.4087	0.2594	0.5257	2774	94.3

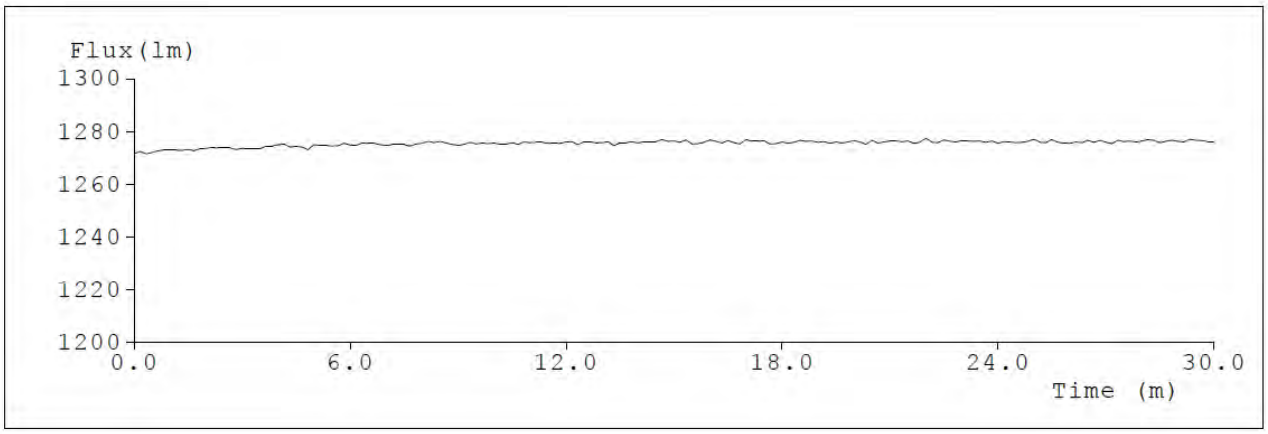
177	00h29m30s	0.576	23.998	13.823	1276.5	0.4536	0.4087	0.2593	0.5257	2775	94.3
178	00h29m40s	0.576	23.998	13.823	1276.4	0.4535	0.4086	0.2593	0.5256	2775	94.3
179	00h29m50s	0.576	23.998	13.823	1276	0.4537	0.4085	0.2594	0.5256	2773	94.3
180	00h30m00s	0.576	23.998	13.823	1276	0.4538	0.4087	0.2594	0.5257	2772	94.4

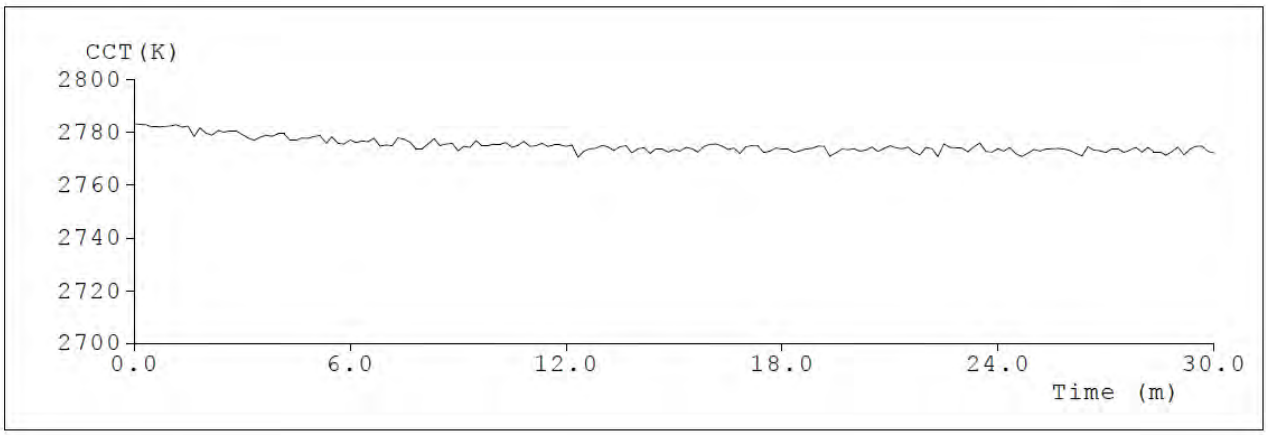
Test curves

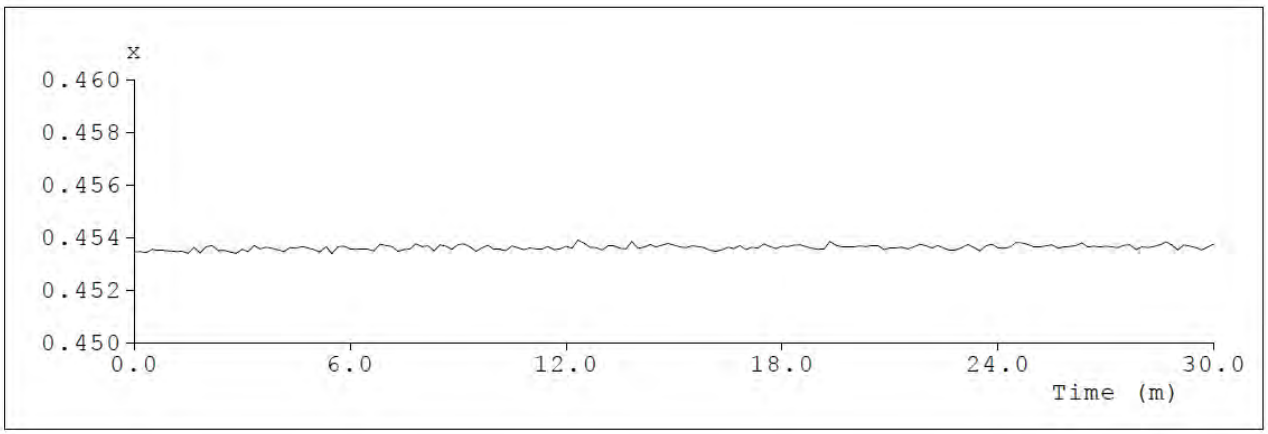


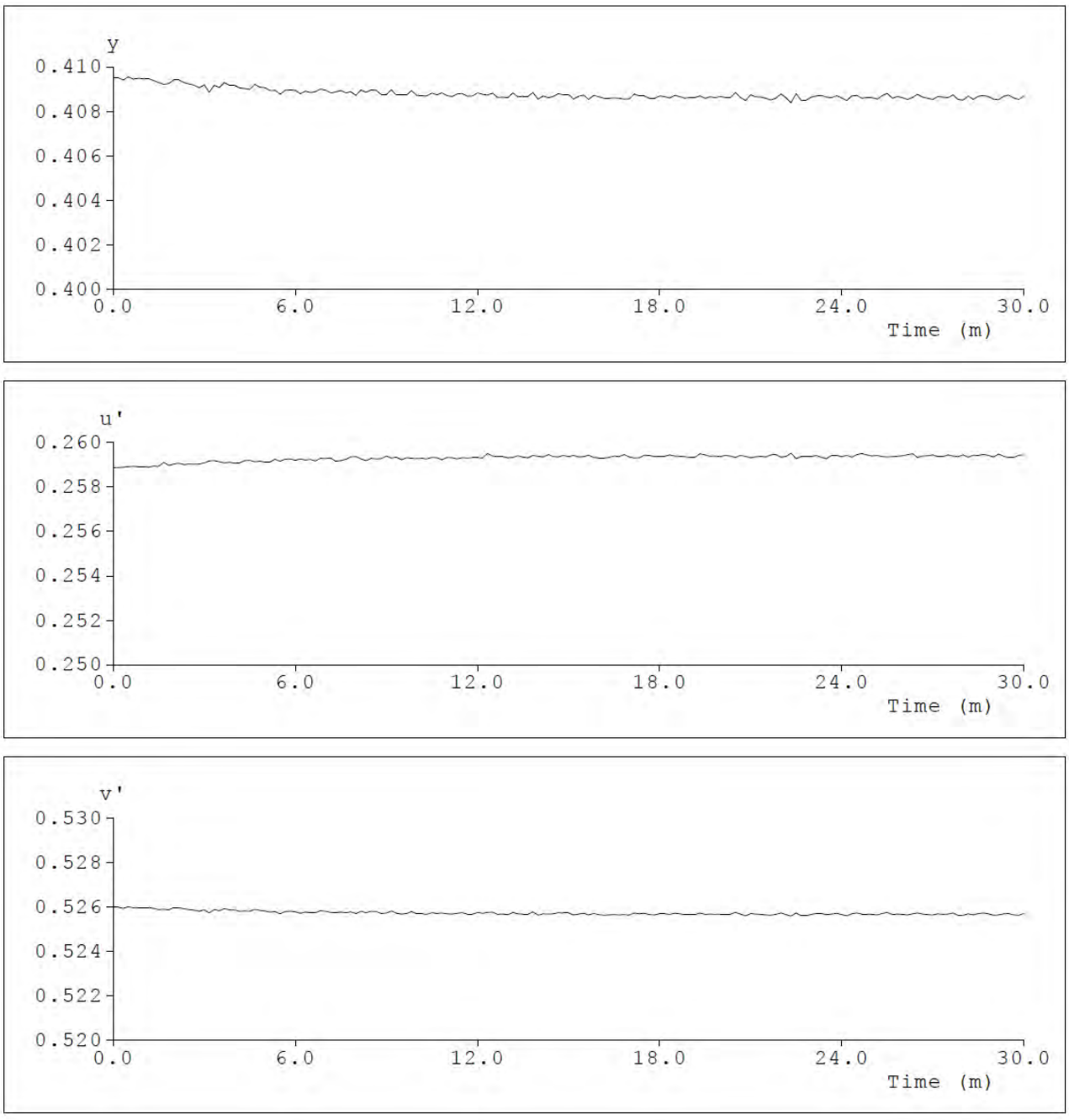





Flux(lm)
1300
1280
1260
1240
1220
1200
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)


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)

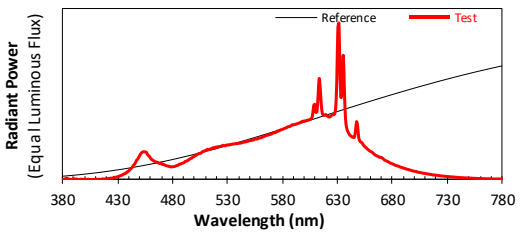

y
0.410
0.408
0.406
0.404
0.402
0.400
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
u'
0.260
0.258
0.256
0.254
0.252
0.250
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)
v'
0.530
0.528
0.526
0.524
0.522
0.520
0.0
6.0
12.0
18.0
24.0
30.0
Time (m)

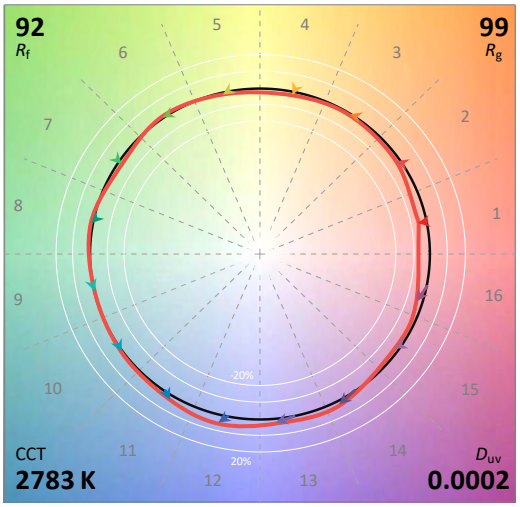
*7.2 ANSI/IES TM-30-18 Color Rendition Report

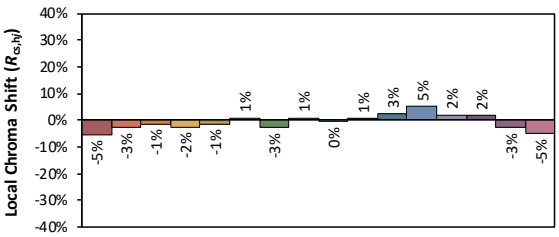
ANSI/IES TM-30-18 Color Rendition Report

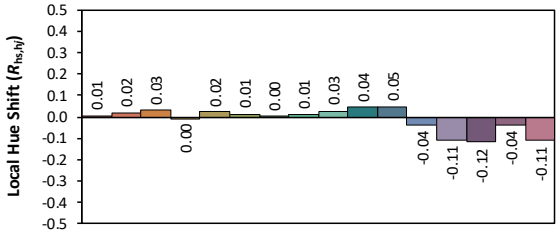
Source: Manufacturer:

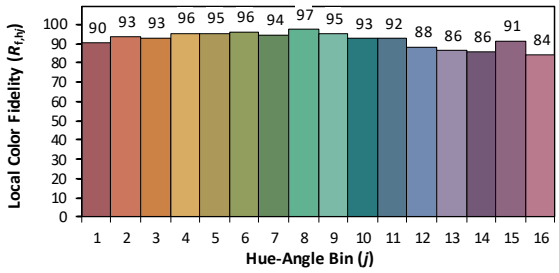
Date: 2023/9/15 Model: LCEY-1000-L27-DF-I-15

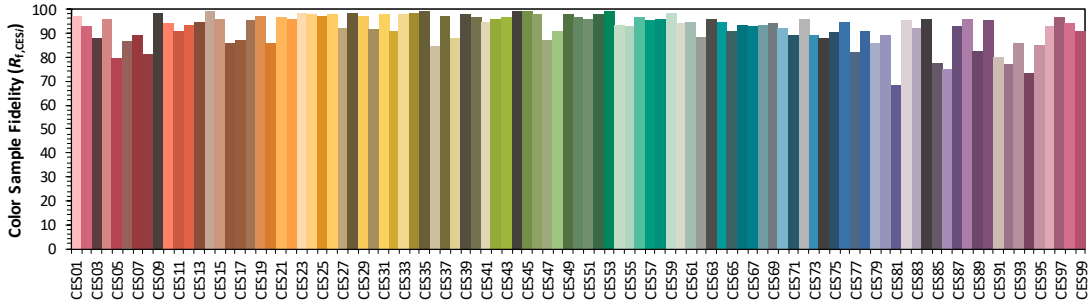












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

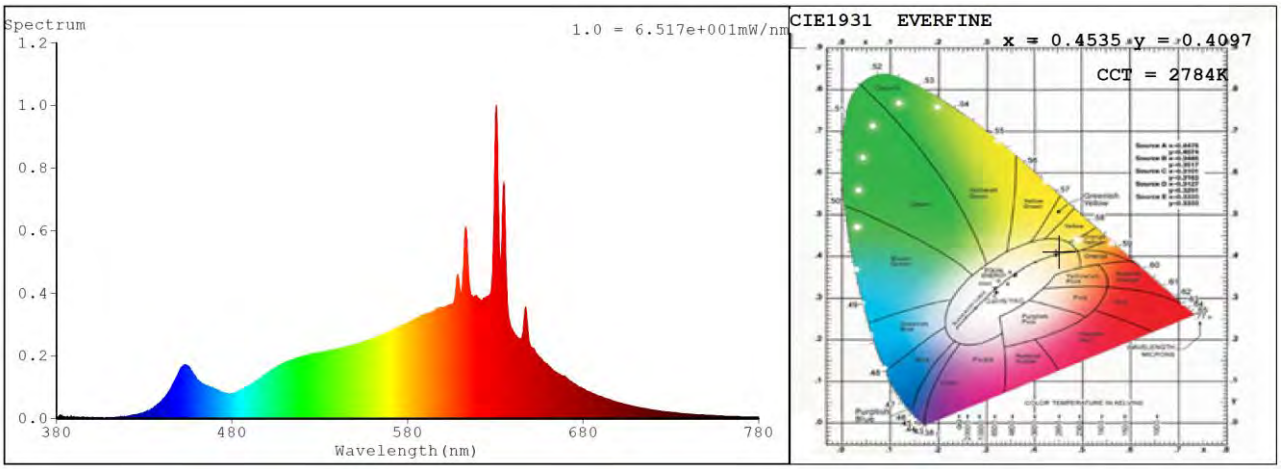
x	0.4535
y	0.4096
u'	0.2589
v'	0.5260

CIE 13.3-1995 (CRI)

R_a	94
R_9	58

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

7.3 Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0	414	0.0032	448	0.1257	482	0.082	516	0.1911
381	0.0059	415	0.0039	449	0.1379	483	0.0853	517	0.1943
382	0.0001	416	0.0057	450	0.1505	484	0.087	518	0.1915
383	0.0105	417	0.0049	451	0.1599	485	0.0903	519	0.1969
384	0.0069	418	0.0055	452	0.1667	486	0.0949	520	0.1972
385	0.0034	419	0.0065	453	0.1687	487	0.0955	521	0.1991
386	0.0049	420	0.0065	454	0.1689	488	0.0991	522	0.2006
387	0	421	0.0086	455	0.1678	489	0.101	523	0.2009
388	0.0026	422	0.0084	456	0.1638	490	0.1041	524	0.2032
389	0.003	423	0.0096	457	0.1498	491	0.1101	525	0.2065
390	0.007	424	0.0105	458	0.1443	492	0.1123	526	0.2076
391	0.004	425	0.011	459	0.1362	493	0.1155	527	0.205
392	0.0046	426	0.0136	460	0.1254	494	0.1192	528	0.2064
393	0.0036	427	0.016	461	0.1211	495	0.1244	529	0.2102
394	0	428	0.0154	462	0.1159	496	0.1285	530	0.2101
395	0.0012	429	0.0178	463	0.1123	497	0.131	531	0.2097
396	0.0042	430	0.0198	464	0.1091	498	0.1373	532	0.2128
397	0.003	431	0.0217	465	0.1056	499	0.1399	533	0.2131
398	0.0031	432	0.0256	466	0.106	500	0.1445	534	0.2153
399	0.0032	433	0.0266	467	0.101	501	0.1488	535	0.2154
400	0.0019	434	0.0309	468	0.0974	502	0.1528	536	0.217
401	0.001	435	0.0338	469	0.1011	503	0.1564	537	0.2178
402	0.0031	436	0.0379	470	0.0934	504	0.1593	538	0.2182
403	0.0041	437	0.0398	471	0.0949	505	0.1599	539	0.2185
404	0.0023	438	0.0468	472	0.0904	506	0.1649	540	0.2207
405	0.0022	439	0.0504	473	0.088	507	0.1707	541	0.2208
406	0.0014	440	0.0559	474	0.085	508	0.1714	542	0.222
407	0.002	441	0.0641	475	0.0838	509	0.1754	543	0.2237
408	0.0027	442	0.0692	476	0.0813	510	0.1772	544	0.2271
409	0.0032	443	0.077	477	0.081	511	0.183	545	0.2267
410	0.004	444	0.0871	478	0.0778	512	0.1826	546	0.229
411	0.0026	445	0.0949	479	0.0785	513	0.1829	547	0.2295
412	0.0038	446	0.1059	480	0.0793	514	0.1865	548	0.2319
413	0.0033	447	0.1189	481	0.0799	515	0.1875	549	0.2341

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.2376	599	0.3519	648	0.3222	697	0.0566	746	0.0119
551	0.2362	600	0.3552	649	0.2538	698	0.0542	747	0.0119
552	0.2392	601	0.3548	650	0.2338	699	0.0527	748	0.0116
553	0.2396	602	0.3582	651	0.2264	700	0.0514	749	0.0114
554	0.2432	603	0.3595	652	0.2237	701	0.0502	750	0.0106
555	0.2456	604	0.3616	653	0.2115	702	0.0485	751	0.0105
556	0.2461	605	0.365	654	0.2038	703	0.0457	752	0.0105
557	0.246	606	0.3686	655	0.1968	704	0.0454	753	0.0095
558	0.2519	607	0.3907	656	0.1918	705	0.0437	754	0.0095
559	0.2521	608	0.4457	657	0.1846	706	0.0431	755	0.0088
560	0.2533	609	0.4541	658	0.1802	707	0.0408	756	0.0088
561	0.2565	610	0.406	659	0.1737	708	0.0396	757	0.0085
562	0.2587	611	0.4106	660	0.1705	709	0.0394	758	0.0081
563	0.2618	612	0.5055	661	0.1672	710	0.0369	759	0.0084
564	0.265	613	0.61	662	0.1605	711	0.0368	760	0.0083
565	0.2661	614	0.5464	663	0.1549	712	0.0352	761	0.0078
566	0.2701	615	0.4444	664	0.1495	713	0.0344	762	0.0074
567	0.2705	616	0.3978	665	0.1458	714	0.033	763	0.0069
568	0.2728	617	0.3895	666	0.143	715	0.0323	764	0.0074
569	0.2746	618	0.3892	667	0.1399	716	0.0304	765	0.0066
570	0.2775	619	0.393	668	0.1349	717	0.0293	766	0.0063
571	0.2822	620	0.3869	669	0.1361	718	0.0295	767	0.0066
572	0.2833	621	0.3816	670	0.1327	719	0.0282	768	0.0064
573	0.2845	622	0.3781	671	0.128	720	0.0278	769	0.0064
574	0.2879	623	0.3797	672	0.1219	721	0.0267	770	0.0056
575	0.2944	624	0.3861	673	0.1174	722	0.0256	771	0.0058
576	0.2932	625	0.3908	674	0.1144	723	0.0247	772	0.0054
577	0.2973	626	0.3919	675	0.1109	724	0.0236	773	0.0053
578	0.301	627	0.3956	676	0.1087	725	0.023	774	0.0056
579	0.3023	628	0.4315	677	0.1037	726	0.0228	775	0.0059
580	0.3049	629	0.5912	678	0.1003	727	0.0214	776	0.0053
581	0.3083	630	0.9103	679	0.0984	728	0.0214	777	0.005
582	0.3113	631	0.9406	680	0.0948	729	0.0204	778	0.0052
583	0.3126	632	0.6205	681	0.0926	730	0.0198	779	0.0047
584	0.3174	633	0.4946	682	0.0879	731	0.0194	780	0.0047
585	0.3202	634	0.6313	683	0.0867	732	0.0185		
586	0.3198	635	0.7468	684	0.0844	733	0.0184		
587	0.3246	636	0.5251	685	0.0822	734	0.0174		
588	0.3296	637	0.3642	686	0.0797	735	0.0175		
589	0.3322	638	0.3132	687	0.076	736	0.0166		
590	0.3315	639	0.2921	688	0.0751	737	0.016		
591	0.3331	640	0.2789	689	0.0725	738	0.0155		
592	0.3362	641	0.2679	690	0.0703	739	0.0149		
593	0.3372	642	0.2642	691	0.0684	740	0.0143		
594	0.3408	643	0.2577	692	0.0659	741	0.0138		
595	0.3423	644	0.2559	693	0.0637	742	0.0133		
596	0.3453	645	0.2563	694	0.0632	743	0.0133		
597	0.3494	646	0.2916	695	0.06	744	0.0125		
598	0.3528	647	0.3493	696	0.0585	745	0.0124		

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

8.1 Test Data

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

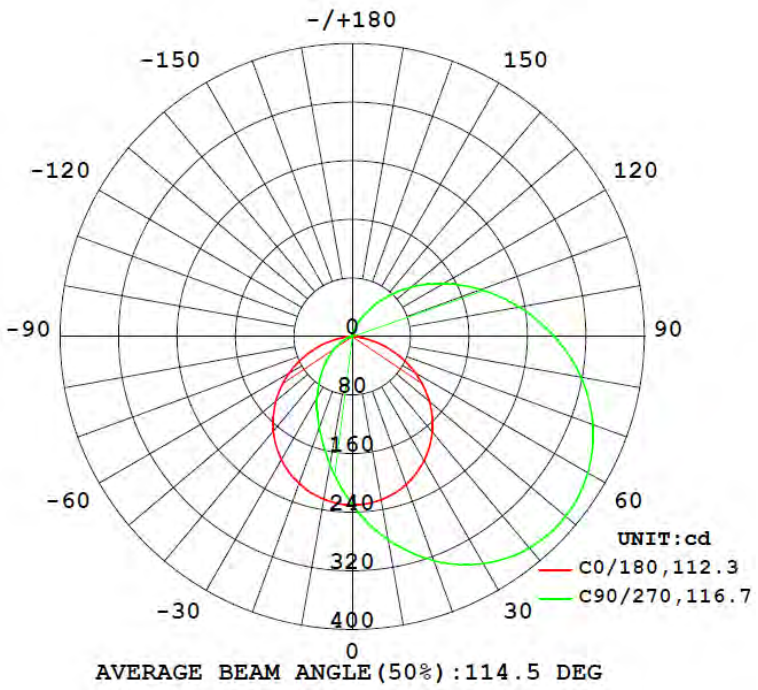
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
24	--	0.582	1.0000	13.968

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	η up (%)	η down (%)
1250.76	89.54	381.6	20.8	79.2

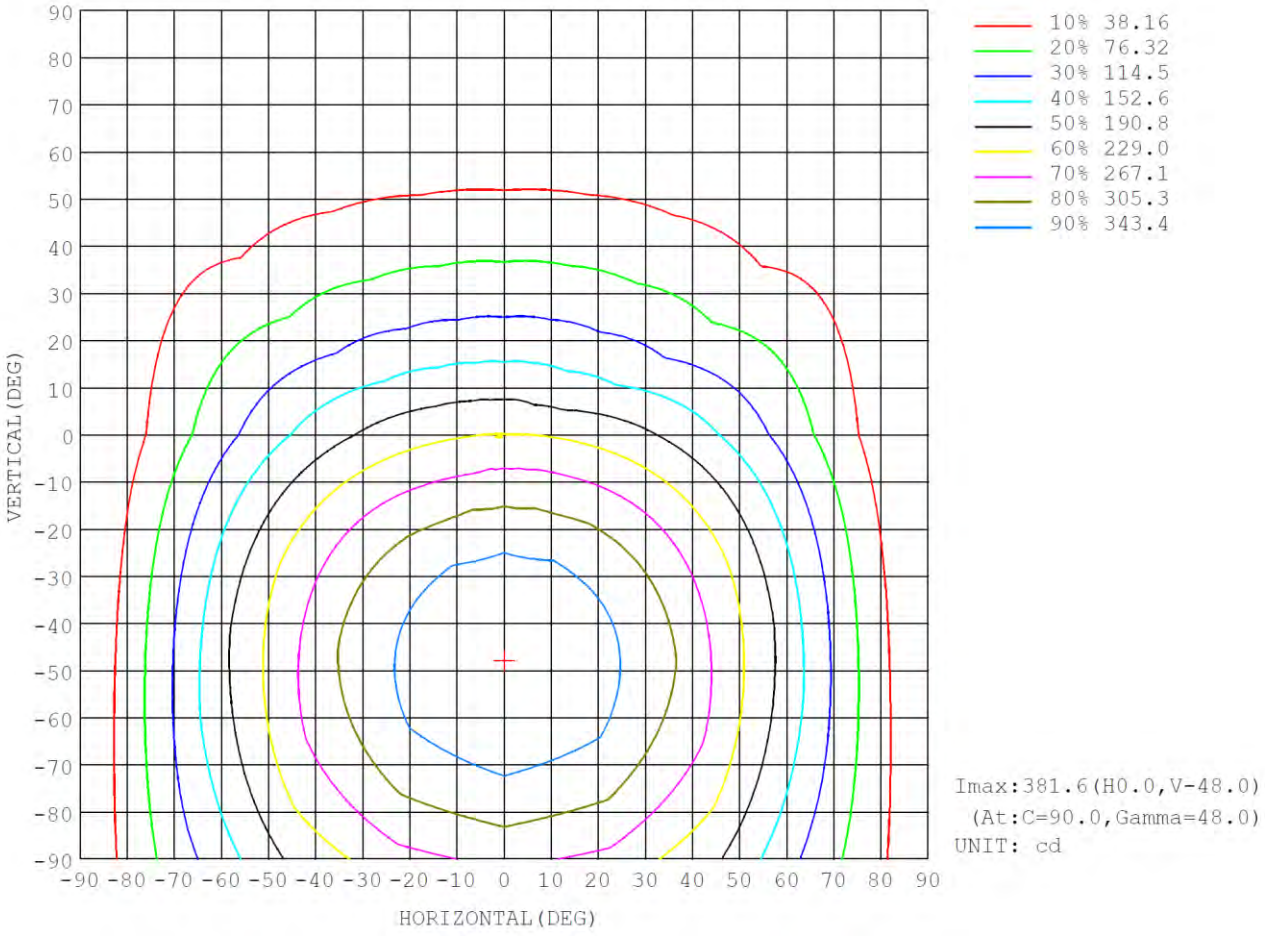
8.2 Luminous Intensity Distribution



8.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	226.3	265.6	281.4	260.8	225.5	190.8	177.8	186.6	0- 10	21.74	21.74	1.74,1.74
20	215.1	293.3	325.3	288.2	213.6	151.7	133.0	148.1	10- 20	63.45	85.19	6.81,6.81
30	196.3	312.1	357.9	306.7	194.4	115.5	96.73	112.7	20- 30	100.1	185.3	14.8,14.8
40	170.2	319.8	376.7	314.4	168.6	83.28	66.69	81.04	30- 40	128.6	313.9	25.1,25.1
50	137.7	315.9	381.4	310.7	136.9	54.97	42.01	53.07	40- 50	146.1	459.9	36.8,36.8
60	99.80	300.3	372.2	296.0	100.4	31.39	23.15	29.96	50- 60	151.2	611.1	48.9,48.9
70	59.03	273.8	350.4	271.1	61.13	14.24	10.39	13.48	60- 70	144.4	755.5	60.4,60.4
80	21.49	238.1	317.8	237.6	24.02	4.660	3.146	4.559	70- 80	128.0	883.5	70.6,70.6
90	4.037	196.3	276.8	198.1	3.172	1.754	0.9537	2.153	80- 90	106.7	990.2	79.2,79.2
100	3.494	154.9	232.6	158.5	2.931	1.320	0.8844	1.455	90-100	85.82	1076	86,86
110	3.292	118.3	187.6	122.7	2.515	0.7858	0.7378	0.7713	100-110	65.62	1142	91.3,91.3
120	2.689	85.60	144.7	90.75	2.043	0.4177	0.5636	0.3899	110-120	47.00	1189	95,95
130	2.060	57.58	105.4	62.71	1.591	0.3690	0.4508	0.3602	120-130	30.92	1220	97.5,97.5
140	1.461	34.73	68.98	39.16	1.211	0.4543	0.4504	0.4613	130-140	18.08	1238	98.9,98.9
150	0.9485	18.26	38.18	21.41	0.8752	0.5340	0.4939	0.4981	140-150	8.880	1246	99.7,99.7
160	0.5697	7.826	16.32	8.422	0.6115	0.5222	0.4935	0.4888	150-160	3.355	1250	99.9,99.9
170	0.4797	2.204	4.350	2.354	0.5246	0.5156	0.4624	0.4666	160-170	0.8159	1251	100,100
180	0.5279	0.5089	0.3390	0.2302	0.5272	0.5165	0.4871	0.4449	170-180	0.0871	1251	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	230	230	230	230	230	229	225	225	230	230	230	230	230	229	225	225			
5	229	240	248	254	256	254	244	235	229	219	211	205	203	205	206	213			
10	226	247	266	278	281	277	261	243	226	206	191	181	178	181	187	201			
15	222	253	281	298	304	297	276	249	221	192	171	158	154	158	167	187			
20	215	257	293	317	325	316	288	253	214	177	152	137	133	138	148	171			
25	207	259	304	334	343	332	299	255	205	161	133	118	114	119	130	156			
30	196	259	312	347	358	344	307	256	194	145	115	101	96.7	101	113	139			
35	184	256	317	357	369	354	312	253	182	128	98.9	85.0	81.1	85.4	96.4	122			
40	170	251	320	363	377	360	314	249	169	111	83.3	70.3	66.7	70.7	81.0	106			
45	155	244	319	366	381	362	314	243	153	94.5	68.6	56.9	53.6	57.2	66.6	89.1			
50	138	235	316	366	381	362	311	234	137	78.2	55.0	44.8	42.0	45.0	53.1	73.1			
55	119	223	310	363	378	358	305	224	119	62.6	42.5	34.0	31.8	34.3	40.8	57.7			
60	99.8	209	300	356	372	351	296	211	100	47.9	31.4	24.9	23.2	25.1	30.0	43.4			
65	79.5	193	288	346	363	341	285	196	80.9	34.3	21.9	17.2	16.0	17.3	20.8	30.4			
70	59.0	175	274	333	350	328	271	180	61.1	22.6	14.2	11.1	10.4	11.3	13.5	19.5			
75	39.2	155	257	317	335	313	255	162	41.7	13.2	8.51	6.64	6.17	6.74	8.13	11.4			
80	21.5	135	238	299	318	296	238	143	24.0	6.84	4.66	3.46	3.15	3.53	4.56	6.28			
85	8.73	113	218	279	298	276	218	123	9.82	3.49	2.31	1.41	1.17	1.46	2.45	3.83			
90	4.04	93.3	196	258	277	255	198	104	3.17	2.49	1.75	1.10	0.95	1.17	2.15	3.09			
95	2.68	76.1	175	236	255	234	178	86.3	3.14	1.84	1.57	1.05	0.93	1.11	1.84	1.88			
100	3.49	62.2	155	214	233	212	159	71.5	2.93	1.06	1.32	0.97	0.88	1.01	1.45	0.92			
105	3.51	50.8	136	192	210	191	140	59.3	2.73	0.49	1.05	0.87	0.82	0.90	1.09	0.38			
110	3.29	41.4	118	170	188	170	123	49.1	2.51	0.29	0.79	0.76	0.74	0.77	0.77	0.26			
115	3.00	33.4	101	149	166	149	106	40.3	2.28	0.28	0.57	0.65	0.65	0.65	0.53	0.30			
120	2.69	26.7	85.6	129	145	130	90.7	32.8	2.04	0.33	0.42	0.55	0.56	0.54	0.39	0.40			
125	2.37	21.2	71.0	111	125	112	76.2	23.9	1.81	0.43	0.36	0.47	0.49	0.46	0.35	0.54			
130	2.06	16.7	57.6	92.4	105	93.5	62.7	20.8	1.59	0.52	0.37	0.44	0.45	0.42	0.36	0.66			
135	1.75	13.0	45.4	75.2	86.6	76.4	50.3	16.5	1.39	0.61	0.41	0.44	0.44	0.41	0.41	0.74			
140	1.46	10.0	34.7	59.1	69.0	60.5	39.2	12.8	1.21	0.67	0.45	0.45	0.45	0.44	0.46	0.75			
145	1.19	7.56	25.7	44.6	52.7	45.9	29.5	9.81	1.03	0.71	0.51	0.48	0.48	0.46	0.49	0.71			
150	0.95	5.54	18.3	32.0	38.2	33.2	21.4	7.37	0.88	0.70	0.53	0.51	0.49	0.48	0.50	0.64			
155	0.74	3.91	12.4	21.7	26.0	22.6	14.8	5.10	0.72	0.66	0.54	0.51	0.50	0.49	0.49	0.57			
160	0.57	2.59	7.83	13.6	16.3	14.3	8.42	3.13	0.61	0.59	0.52	0.48	0.49	0.48	0.49	0.49			
165	0.45	1.39	4.49	7.72	9.20	8.00	4.65	2.00	0.52	0.51	0.51	0.48	0.46	0.47	0.48	0.49			
170	0.48	0.73	2.20	3.67	4.35	3.19	2.35	1.19	0.52	0.52	0.52	0.51	0.46	0.45	0.47	0.48			
175	0.51	0.52	0.75	1.14	1.40	0.97	1.05	0.68	0.53	0.53	0.52	0.51	0.49	0.41	0.45	0.45			
180	0.53	0.52	0.51	0.48	0.34	0.21	0.23	0.45	0.53	0.53	0.52	0.51	0.49	0.39	0.44	0.46			

9. Photo of sample

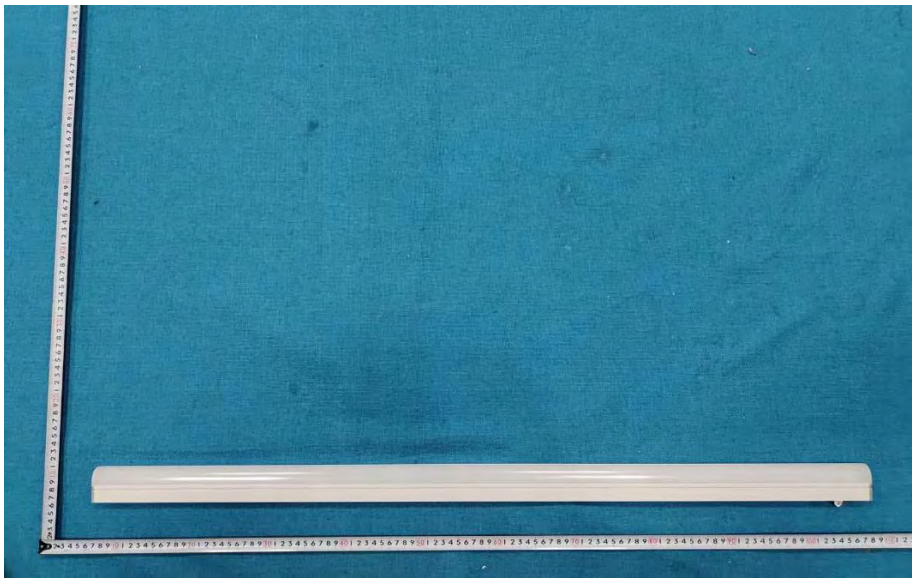


Figure 1 Overview

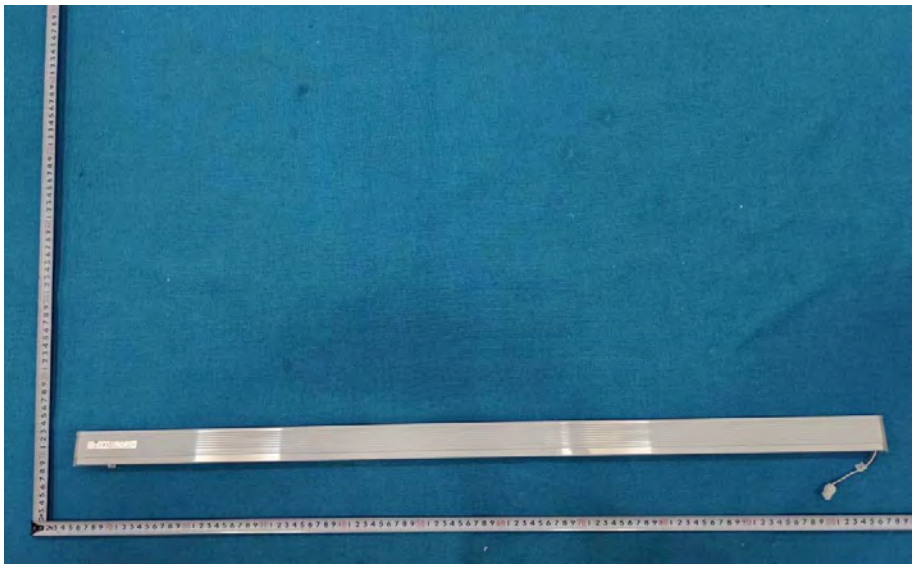


Figure 2 Overview

---End of Report---