

University of Tehran

University College of Engineering

Lighting Laboratory

Test Report

No: 96L619

Burux Electronics Co.





Test Report No. 96L619

Test Object: T8 LED tube light_120cm_18W_CW

Manufacturer: Burux Electronics Co.

Test performed in order of: Burux Electronics Co.

Test Scope:

- Electrical test
- Colorimetric test
- T_c measurement
- Operating temperature range test



Lighting Laboratory Participants:

Head of Laboratory: H. Mohseni, Prof.

Test leader: M. Jebeli-Javan

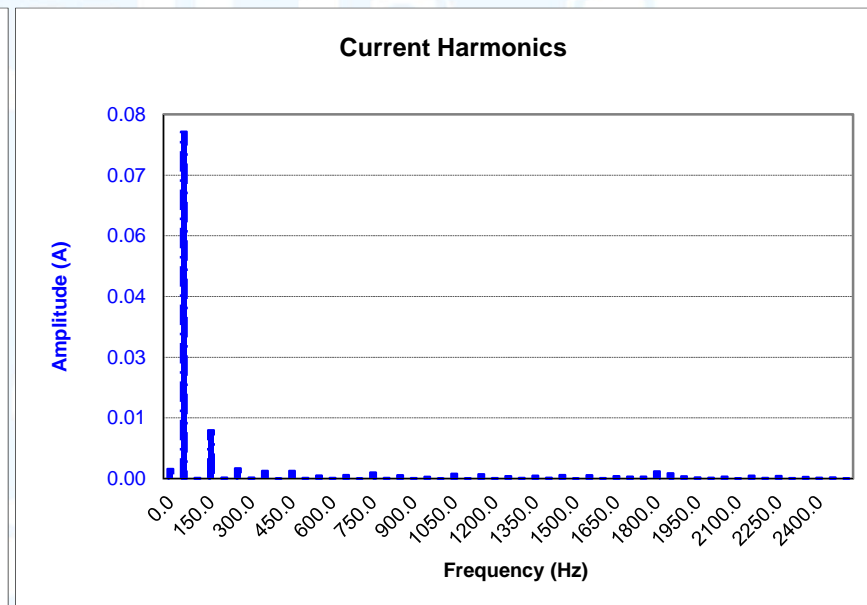
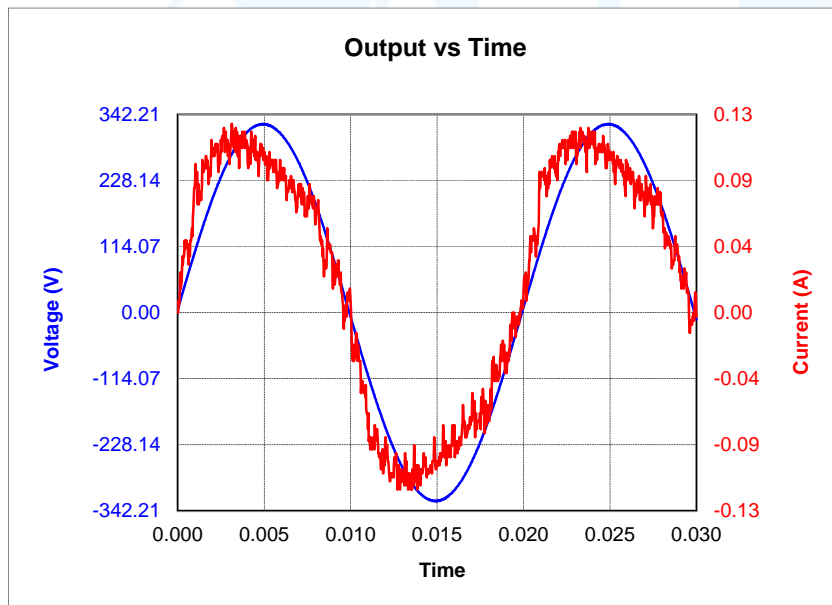
Seal

Tehran, July 25, 2017



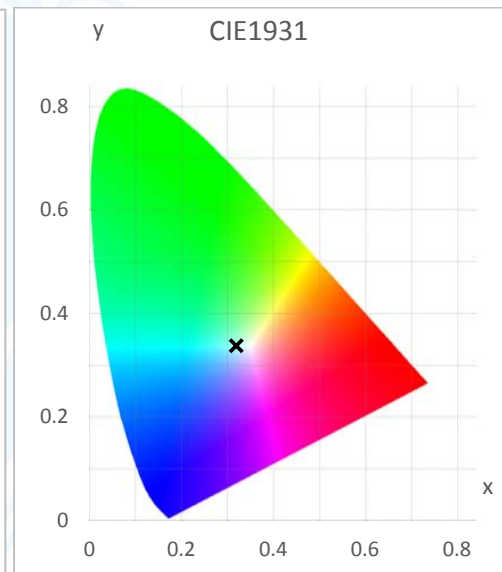
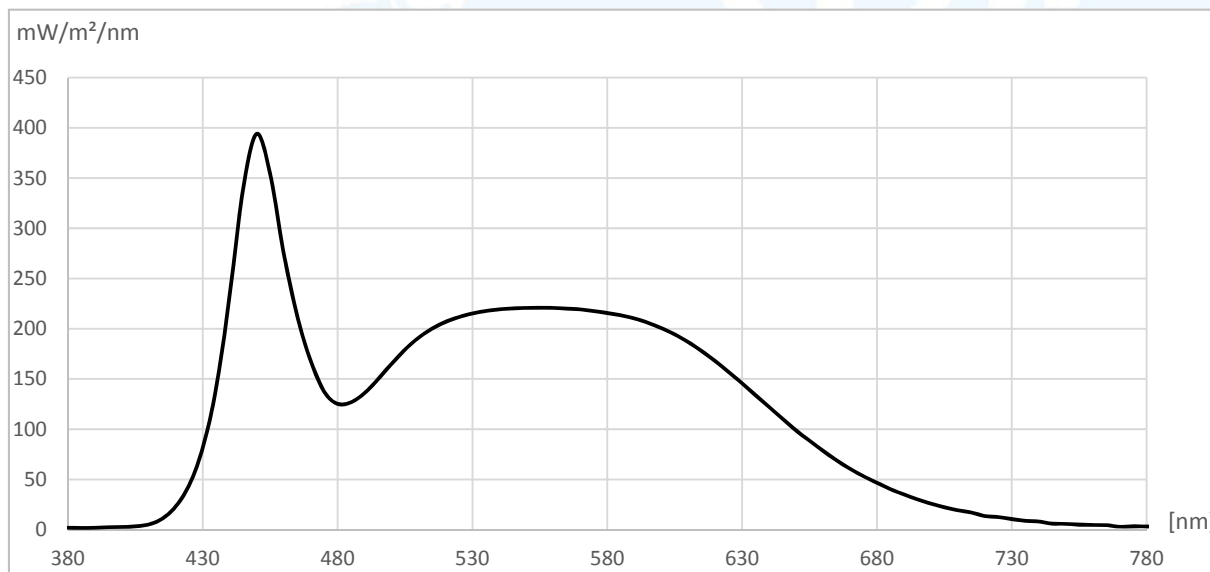
- Electric Test Results:**

Electrical Parameter of Luminaire			
Vac	230.046 [V]	Ithd	16.7679 [%]
Vthd	153.55 [m%]	AC Pwr	17.920 [W]
Freq	50.0000 [Hz]	App Pwr	18.451 [VA]
Iac	80.177[mA]	React Pwr	4.396 [Var]
Icrest	1.515	Pwr Fact	0.971209





- Colorimetric Test Results:**



Spectrometric results of luminaire

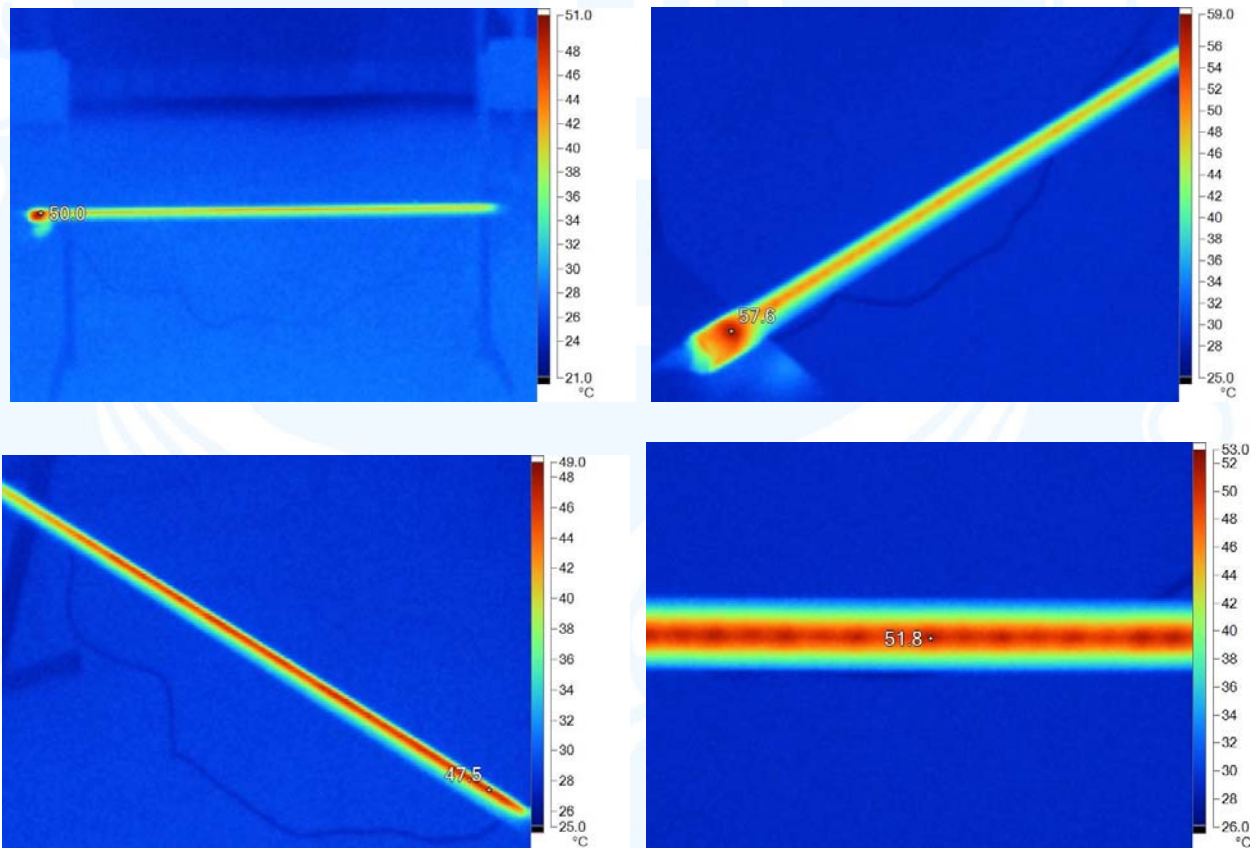
According to diagram CIE 1931 for colorimetric

x	y	CRI	Nominal CCT	Measured CCT	SDCM
0.3194	0.3372	85.3	6500 °K	6110 °K	4.1



- **T_c Measurement ($^{\circ}\text{C}$):**

The LED tube supplied with its rated input voltage and placed in the room with 25°C temperature for 3 hours. Thermal pictures below show the temperature of different parts of luminaire and marked points show the hottest points with related temperatures.





- **Operating Temperature Range Test:**

A laboratory heat chamber with adjustable temperature from $-20\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$ was used for this test.



picture 1. Chamber used for the test

The LED tubes (5 samples) supplied with 211 [V] input voltage and placed in the chamber with $-20\text{ }^{\circ}\text{C}$ for 3 hours. there was no fault in luminaire's operation after the test and the light was still on.

Then the luminaires supplied with 244 [V] input voltage and placed in the chamber with $+50\text{ }^{\circ}\text{C}$ for 3 hours. there was no fault in luminaire's operation after the test and the light was still on.