

## SPECIFICATION SHEET

Customer:

Product: 11405615

Model: 2.4 x 453 | 0.299/0.303



# Specifications

- 1. Available Range. The specifications available to CCFL unit listed on page 1.
- 2. Product Construction.

Item No.	Name	Requirements	Remark
		Lamp Shape: Straight	
1	Dimension	Dia: Φ2.4 +/- 0.05mm	Naked lamp
		Glass tube length: 453 +/- 1.0mm	
2	Glass tube	Hard material glass tube	
3	Fluorescent powder	Three primary colors phosphor	
4	Electrode	Kovar	
5	Gas	60 Torr	Ne+Ar(95:5)

- 3. Primary Characteristics.
  - 3.1. Requests of Specifications

Item No.	Name	Code	Unit	Specification		Remark
1	Lamp Voltage (Reference)	VL	Vrms	840 +/- 10%		KD12300 inverter 12V
2	Lamp Current	IL	MArms	6.0 +/- 0.2mA		
3	Starting Voltage (Reference)	Vs	Vrms	1350 +/- 10%		KD12300 6mA 25°C
4	Surface Brightness	В	Cd/m <sup>2</sup>	24500 +/- 10%		KD12300 6mA 25°C
_	Color	Х		0.299 +/- 0.010		CIE 1021
5	Coordinates	У		0.303 +/- 0.010		CIE 1931
6	Peak Spectrum (Reference)			Red	611	
			Nm	Green	544	
				Blue	440	
7	Stable Time of Illumination	Ts	min	3min		



#### 3.2. Test Conditions

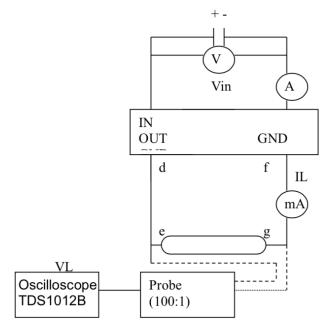
- 3.2.1. Lamp should be placed in horizontal position, under required testing current, and undergo normal lighting for more than 3 minutes, then conduct the electrical and optical properties tests
- 3.2.2. Temperature of Test Environment = 25°C±2°C
- 3.2.3. Relative Humidity of Test Environment = 65%±20%, under no wind state.

### 3.3. Test Apparatus

Test Items	Test Apparatus			
Lamp Voltage	Oscilloscope (Tektronix TDS1012B 100:1)			
Lamp Current	Multimeter (Fluke 8086 A)			
Surface Brightness	Colorimeter (Topcon BM-7)			
Color and Color Temp Coordinates	Colorimeter (Topcon BM-7)			

#### 3.4. Test Methods

- 3.4.1. CCFL unit under complete voltage control; the test circuit as shown in the Diagram below.
  - 3.4.1.1. LV output end connected to negative of 0V ~ 12V input
  - 3.4.1.2. The connection wire length is 100~300mm
  - 3.4.1.3. Test circuit wires parallel distance should be longer than 100mm in order to avoid possible interference which could affect measurement accuracy
  - 3.4.1.4. When testing current disconnect VL test equipment
  - 3.4.1.5. When testing voltage disconnect IL test equipment
  - 3.4.1.6. During testing, place CCFL unit on shelf with black background in a non-reflective environment





- 3.4.2. Brightness Measurement (naked lamp only), the Colorimeter should be kept a distance of 500 +/- 10mm from the lamp vertical axis and test black perspective at 0.1 degrees.
- 3.4.3. NOTE: testing done with difference test equipment and under different test conditions may result in measurement differences.

