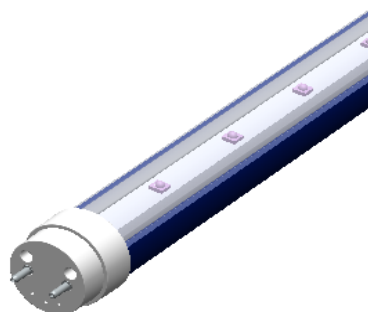


Integrated UV LED Solution

UV LED Lamp – 10.5W



Product Brief

Description

- UV LED Lamp is designed for low power consumption and high brightness.
- There's no harmful substances in UV LED lamp. Product is eco-friendly product.
- Specially designed single wavelength is ideal for replace BL and BLB mercury Lamp
- good for energy savings

Features and Benefits

- Long Life Time
- Lead Free Product
- RoHS Compliant
- Energy Saving
- Eco-friendly

Key Applications

- UV Curing
- Insect Trap
- Entertainment

Table 1. UV-A Lamp Products line up

| Product type | Voltage [Vrms] | Current [mA] | Power [W] | Peak wavelength λ_p [nm] | Remark |
|-------------------------|----------------|--------------|-----------|----------------------------------|--------|
| T8-UV LED Lamp (Indoor) | AC220 | 51.0 | 10.5 | 365.0 | |

Performance Characteristics

Table 2. Electro Optical Characteristics of UV LED Lamp

<Ta=25°C>

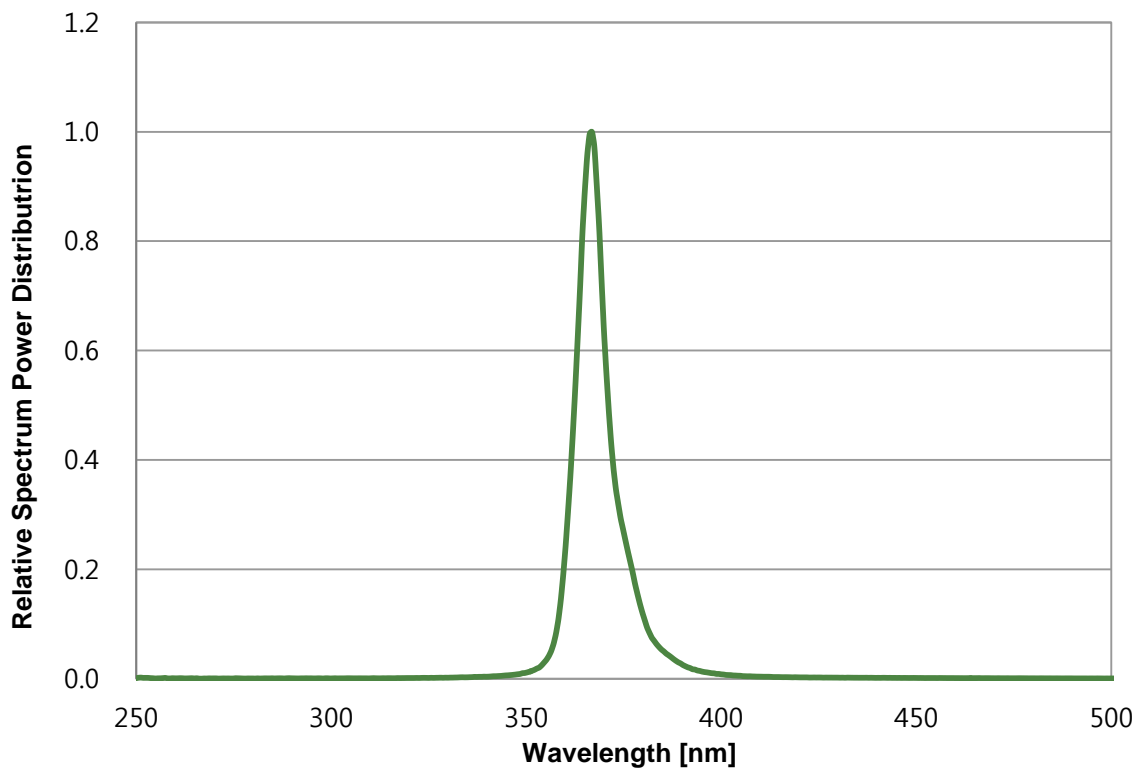
| Parameter | Symbol | Value | | | Unit |
|-----------------------|-----------------|-------|-------|------|------|
| | | Min. | Typ. | Max. | |
| Power Consumption | P_d | | 10.5 | | W |
| Radiant Power | Φ_e | | 3,690 | | mW |
| Input Voltage | V_{in} | 100 | 220 | 240 | Vrms |
| Frequency | - | 50 | - | 60 | Hz |
| Spectrum Half Width | $\Delta\lambda$ | | 9.0 | | nm |
| Peak Wave length | λ_p | 360 | 365 | 370 | nm |
| Operating Temperature | T_{opr} | -10 | | 50 | °C |
| Storage Temperature | T_{stg} | -20 | | 85 | °C |

Note :

- [1] P_d can be changed by surrounding temperature and current.
- [2] Peak Wavelength Measurement tolerance : $\pm 3\text{nm}$
- [3] Radiant Flux Measurement tolerance : $\pm 10\%$
- [4] Φ_e is the Total Radiant Flux as measured with an integrated sphere.
- [5] Forward Voltage Measurement tolerance : $\pm 3\%$

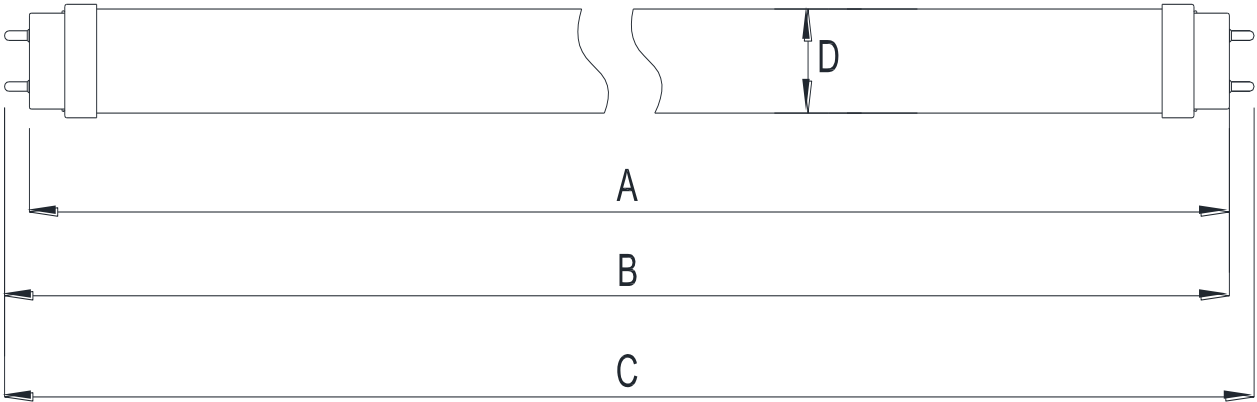
Spectral Power Distribution

Fig1. Wavelength



Mechanical Dimension

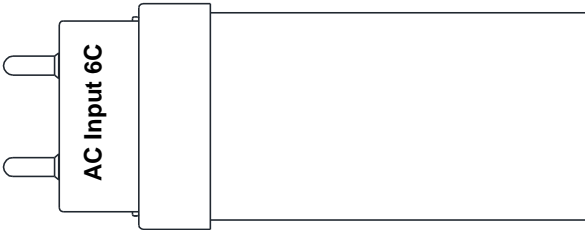
Fig 2. Lamp Length and Diameter



| Dimensional characteristics(definitions of Part II apply) | | Millimeters | |
|---|---------------------------------------|-------------|-------|
| | | Min | Max |
| A | Base face to base face | - | 437.4 |
| B | Base face to end of opposite base pin | 442.1 | 444.5 |
| C | Base face to end of opposite base pin | 444.8 | 451.6 |
| D | Bulb, outside diameter | 23.9 | 27.9 |

Label Information

Fig3. Base Label



| | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | A | B | C | D | E | F | G | H | J | K | L | M |

Precaution for Use

1) Storage

- To avoid moisture penetration, we recommend storing products in a dry box with a desiccant. The recommended temperature and Relative humidity are between 5 °C and 30 °C and below 50% respectively.
- Products must be stored properly to maintain the device. If the products are stored for 3 months or more after being shipped from YesLED, a sealed container with a nitrogen atmosphere should be used for storage.
- Prolonged exposure to moisture can adversely affect the proper functioning of the Products.
- Keep the products away from the kid

2) Handling Precautions

- VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate products and discolor them when exposed to heat and photonic energy. The result can be a significant loss of light output from the fixture. Knowledge of the properties of the materials selected to be used in the construction of fixtures can help prevent these issues.
- In case of using the products, do not use adhesives that outgas organic vapor.
- Please do not use together with the materials containing Sulfur.
- Please do not assemble in conditions of high moisture and/or oxidizing gas such as Cl, H₂S, NH₃, SO₂, NO_x, etc.
- Do not apply mechanical force or excess vibration during the cooling process to normal temperature after soldering.
- Do not use inflammable material nearby the products.
- Do not touch the products with wet hand
- Do not fix or remodel the products.
- Do not drop the machine, or give strong impact on the products.
- Cover needs to be handled carefully as below
 - Avoid touching cover parts especially with sharp tools such as pincettes(Tweezers)
 - Avoid leaving fingerprints Cover parts.
 - Cover will attract dust so use covered containers for storage.
 - It is not recommend to cover of the Lamp with other materials (epoxy, urethane, etc)

3) Safety for eyes and skin

- The Products emit high intensity ultraviolet light which can make your eyes and skin harmful, So do not look directly into the UV light and wear protective equipment during operation.

4) Precautions for Changing the Lamp.

- Do not change the lamp with wet hand.
- Turn off the power source to fixture for safety when changing the lamp.

Precaution for Use

5) Operation

- The Lamp should be operated under the given forward voltage and current. When the module is operated in the excessive voltage or current conditions, the LEDs mounted on the product could be burned out.
- This Lamp is not allowed to be used in any type of fluid such as water, oil, organic solvent , etc

6) Others

- The appearance and specifications of the product may be modified for improvement without notice.
- The driving circuit must be designed to allow forward voltage only when it is ON or OFF. If the reverse voltage is applied to LED, migration can be generated resulting in LED damage.
- Do not handle this product with acid or sulfur material in sealed space
- Please handle using equipment that prevents static electricity.
- Do not touch unless ESD protection is used.
- Ionizer, earthing and keeping appropriate humidity are necessary for work environment.

