

Technical Datasheet: ASTRON^{UV} LED II 9 watt lamp

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Summary advantages ASTRON^{UV} LED II replacement lamp

- The 9 watt Astron UV LED II Lamp is designed for low power consumption and high brightness. This offers optimised insect attraction.
- There are no harmful substances in the Astron UV LED lamp. This is an eco-friendly product.
- Specially designed single wavelength is ideal for replacement of the 15 Watt BL and BLB Mercury Lamp.
- The Astron UV lamp does not require a ballast and operates when connected directly to the mains (100-240V / 50-60Hz)
- The Astron UV LED II lamp offers significant energy savings
- The Astron UV LED II lamp has an operational lifetime of 25,000 hrs (3 years of constant use and operated at specified operating temperatures)
- The Astron UV LED II lamp is executed in a full shatterproof executed design (glass is not used)
- Guarantee period: 2 years on electrical failures, mechanical defaults are excluded from the guarantee period
- Built in UV diffuser optimising the UV light distribution

Product key data

Table 1. Astron UV LED 15 watt lamp key data

Product type	Voltage [Vrms]	Current [mA]	Power [W]	Peak wavelength λp [nm]	IP level
T8-9 watt Astron UV LED Lamp	AC100-240	51.0	9	365.0	IP 65 (waterproof)

Spectral power distribution ASTRON^{UV} LED

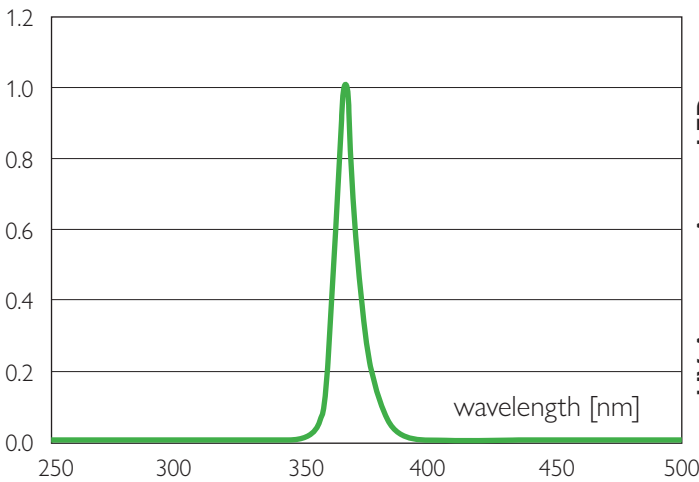
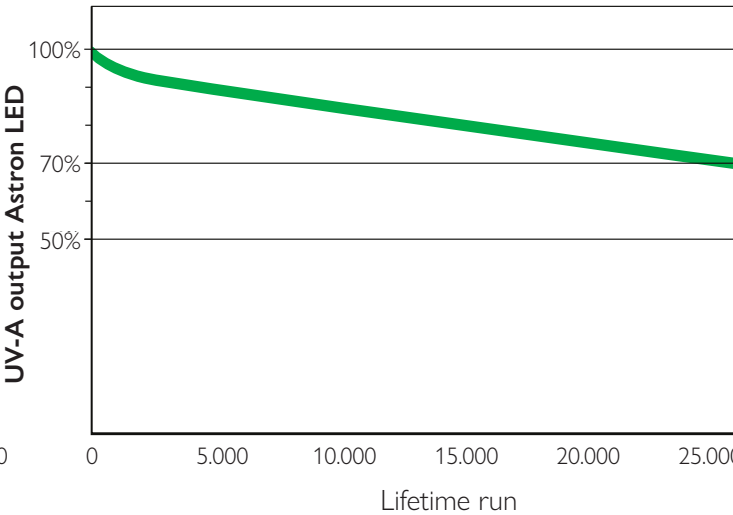


Fig. 1 - Emission peak is at 365 nm

Degradation curve ASTRON^{UV} LED II 9W lamp



This Astron UV LED lamp is developed with and manufactured for:



Zeilmaker 4
3861 SM Nijkerk
The Netherlands

Mechanical dimensions ASTRON^{UV} LED

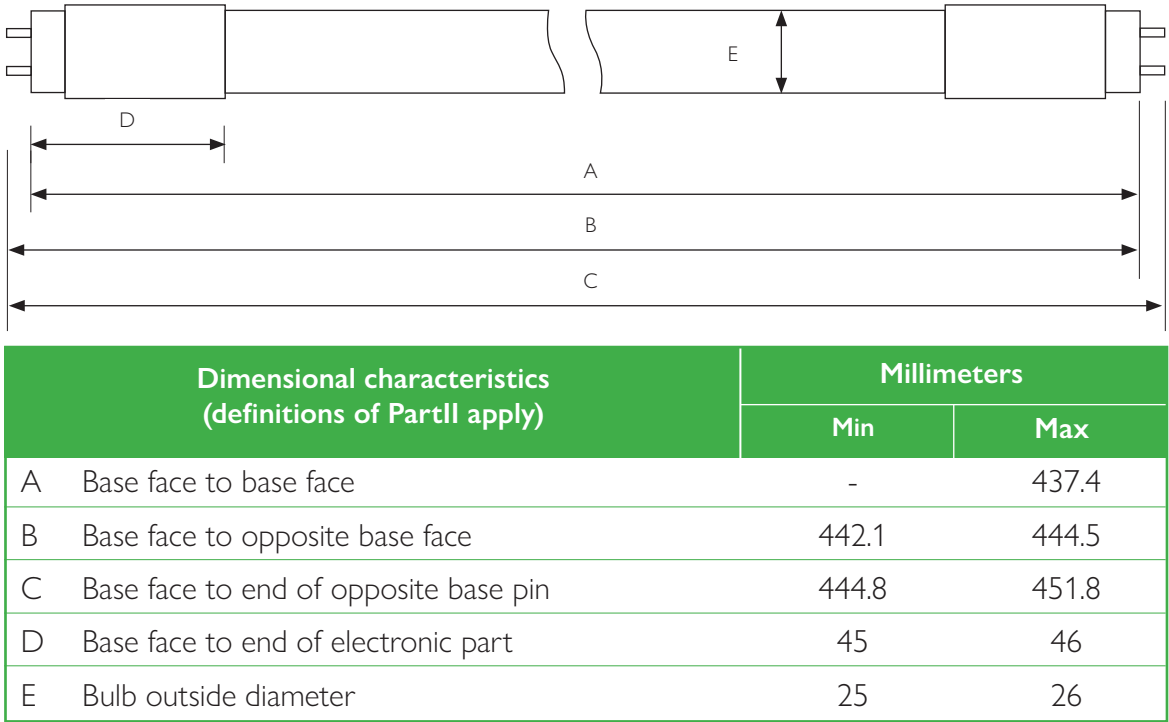


Fig. 2 Lamp Length and Diameter

Technical characteristics

Table 2. Electro Optical Characteristics of ASTRON^{UV} LED 15 watt Lamp

Parameter	Symbol	Min Value	Typ Value	Max Value	Unit
Power Consumption	Pd		9		W
Radiant Power	Øe	2,700	3,300	3,900	mW
Input Voltage	Vin	100	110-220	240	Vms
Frequency	-	50		60	Hz
Spectrum Half Width	Δλ		9,0		nm
Peak Wave length	λp	360	365	370	Nm
Operating Temperature	Topr	-10		50	°C
Storage Temperature	Tstg	-20		85	°C
Lamp life	L	20,000	25,000	30,000	Hrs

Note :
1] Pd can be changed by surrounding temperature and current.
2] Peak Wavelength Measurement tolerance : ± 3 nm
3] Radiant Flux Measurement tolerance : ± 10 %
4] Øe is the Total Radiant Flux as measured with an integrated sphere.
5] Forward Voltage Measurement tolerance : ± 3 %
6] At 25,000 hrs a drop in UV-A output of 30 % is to be expected at given operational data

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% and 30% and below 50% respectively.
- Astron UV LED II lamps must be stored properly to maintain the device.
- Prolonged exposure to moisture can adversely affect the proper functioning of the lamp.
- Keep the Astron UV LED II lamps away from children

2) Handling Precautions (applicable if the lamps are fitted in non-Alcochem products)

- VOCs (Volatile organic compounds) emitted from materials used in the construction of fixtures can penetrate Astron UV LED II lamp and discolour 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 Astron UV LED II lamps, do not use adhesives that outgas organic vapor.
- Please do not use together with the materials containing Sulphur.
- Please do not assemble in conditions of high moisture and/ or oxidizing gas such as Cl, H2S,NH3,SO2,NOX,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 Astron UV LED II lamps.
- Do not touch the Astron UV LED II lamps with wet hand
- Do not fix or remodel the Astron UV LED II lamps.
- Do not drop the insect control unit, or give strong impact on the Astron UV LED II lamps.
- Cover needs to be handled carefully as below
 - Avoid touching cover parts especially with sharp tools such as 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 Astron UV LED II lamps emit high intensity ultraviolet light which can make your eyes and skin harmful, So do not look directly into the UV light at distances shorter than 20cm and wear protective equipment during operation.

4) Precautions for Changing the Lamp

- Do not change the lamp with wet, greasy or dirty hands
- Turn off the power source of the unit for safety when changing the Astron UV LED II lamp.

5) Operation

- The Astron UV LED II 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 Astron UV LED II lamp could burn out.
- This Astron UV LED II 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 Astron UV LED II lamp may be modified for improvement without prior notice given.
- Do not handle this Astron UV LED II lamp with acid or sulphur material in sealed space
- Please handle using equipment that prevents static electricity.
- Do not touch internal parts, unless ESD protection is used.
- In case permission is granted by Alcochem Hygiene to open up the lamp: An Ionizer, earthing and keeping appropriate humidity are necessary for work environment.

CAUTION

- UV LED's emit high intensity UV light.
- Do not look directly into the UV light during operation. This can be harmful to your eyes and skin.
- Wear protective eyewear to avoid exposure to UV light.
- Attach caution labels to your products which contain UV LEDs.

Avoid direct eye and skin exposure to UV light.**Keep out of reach of children**