DATASHEET

HSH1002UEO

Lamps for Photolithography



Description

PerkinElmer Optoelectronics is a leading manufacturer of mercury short arc lamps ranging in output power from 1000 to 8000 watts. These lamps are used in the production of printed circuit boards, liquid crystal displays and semiconductors. The HSH Series lamps are used worldwide in microlithography systems manufactured by ASML, Canon, GCA, Nikon, Karl Suss, Ultratech Stepper, and SVG. With extremely high stability, uniform output distribution and extended lamp lifetimes, the HSH Series has become the lamp choice of many of the world's leading semiconductor manufacturers.

PerkinElmer has been a leading manufacturer of high intensity arc lamps for more than 30 years and is a premier lamp supplier for solid state lasers, medical equipment, NASA space systems and microlithography. PerkinElmer has steadily advanced lamp performance from 1000 watts to 8000 watts. With the introduction of new materials and proprietary manufacturing processes, we have extended lamp lifetimes form several hundred hours to more than two thousand hours. The HSH Series provides longer lifetimes, outstanding uniformity, and excellent spectral quality which results in increased throughput, reduced downtime and an overall reduction in the cost of ownership.

Applications

- Microlithography

PerkinElmer™
optoelectronics.

HSH1002UEO

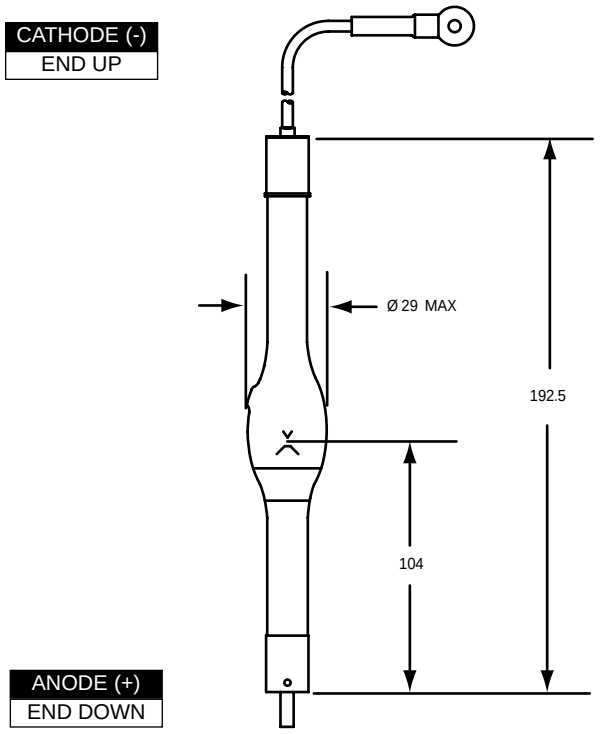
Operational Specifications

Description	Nominal	Range
Power (idling mode)	700 watts	650-750 watts
Power (flash mode)	1000 watts	1050 watts (max)
Current (idling mode)	16 amps (DC)	14.2-17.8 amps (DC)
Current (flash mode)	21.3 amps (DC)	19-23.6 amps (DC)
Voltage (idling mode)	44 volts (DC)	39-49 volts (DC)
Voltage (flash mode)	47 volts (DC)	42-52 volts (DC)
Current Ripple	3%	
Temperature (at base)	220ºC (max)	
Lifetime	2500 hours	

Physical Specifications

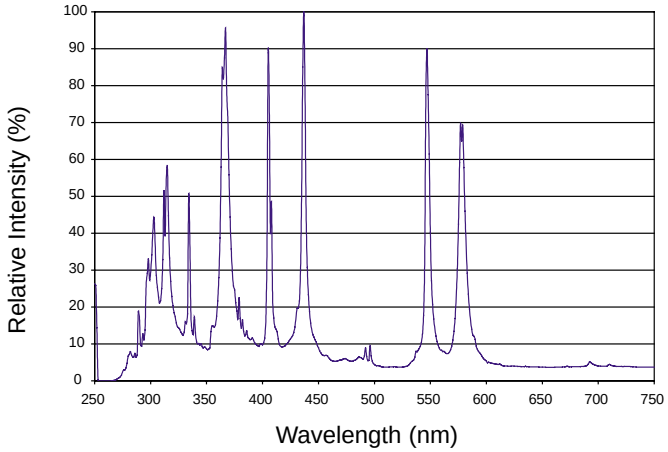
Description	Specification
Arc Gap	3.0 mm (max)
Anode Base	19.05 mm Dia
Cathode Base	14 mm Dia and Cable

Dimensions

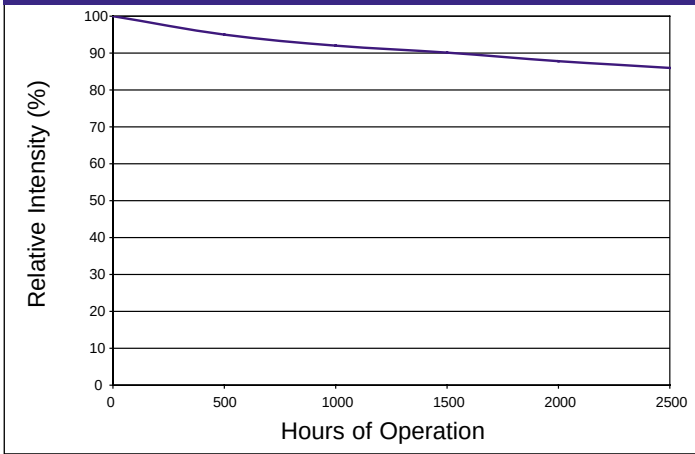


All dimensions are in millimeters.

Spectral Output



Typical Performance Graph



Notes

1. Lamp must be operated with cathode end up and anode end down. Inclination of lamp axis to vertical must not exceed 10º.

Part Number References

Used In	ULTRATECH 4700, 2244i
Replaces	USH1003FAL2

PerkinElmer welcomes inquiries about special lamps. We would be pleased to discuss the requirements of your application and the feasibility of designing a lamp specifically suited to your needs.

For more information e-mail us at opto@perkinelmer.com or visit our web site at www.perkinelmer.com/opto.

All values are nominal; specifications subject to change without notice.

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