

## UXR-300 Series



The UXR-300 is a compact, high pressure, xenon arc lamp, with a dedicated internal reflector. It offers a high intensity narrow beam, long life and broadband illumination. The radiation from the arc is collimated by an internal, parabolic reflector that is optically prealigned. It requires no adjustments for maximizing the collection angle and energy transmission.

The UXR-300 series has taken the state-of-the-art of ceramic xenon lamp technology to a higher level. The UXR series offers a regulated high intensity beam minimizing any cone angle deviation over time, thus establishing higher efficiency in light collection throughout the entire life of the lamp.

Further advances within this lamp have significantly reduced FM noise generation, which can interfere with sensitive monitors and communication equipment.

### FEATURES

- Long life (500 hour non-prorated warranty)
- Regulated high intensity narrow beam light
- Pre-aligned reflector requiring no adjustments
- Reduced FM noise generation
- Anti-arc over feature
- Improved color maintenance over life
- Superior ignition reliability
- No mesh/screen needed for Olympus Systems
- Compact and rugged ceramic to metal seal
- Safety and reliability

### APPLICATIONS

- Fiber optic illumination
- Analytical instrumentation
- Spectroscopy
- Audio-visual systems
- Microscopy
- Character recognition
- Data projection
- Endoscope and Laparoscope illumination
- Infrared and visual searchlights
- Infrared and ultraviolet systems
- Soft soldering heat source
- Machine vision

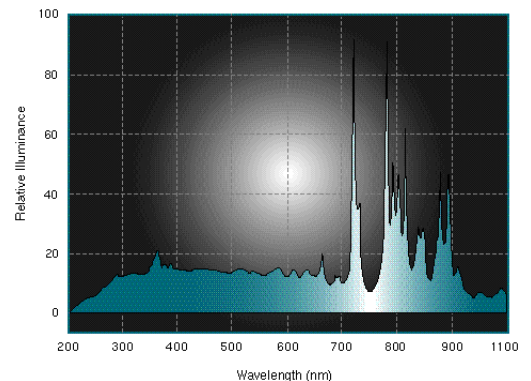
Unlike lamps from other manufacturers, no mesh or screen attachment is necessary on systems where high initial "heat load" is a problem. The benefit is, light levels are more reliably maintained throughout the full life of the lamp.

*With these significant engineering advancements, the user can experience greater lamp performance and life times. Our non-prorated warranty of 500 hours is the minimum service life you should ever expect from our lamp.*

Refashioned mechanical and structural aspects of these lamps have established greater "ignition" reliability with time and starting attempts.

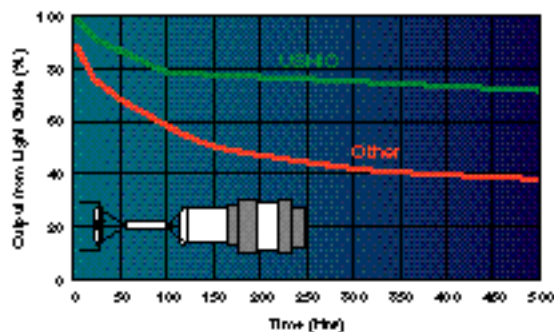
Each lamp is coated with a silicon elastomer which reduces the possibility of ignition problems and reflector breakdown, caused by arcing.

### Spectral Distribution

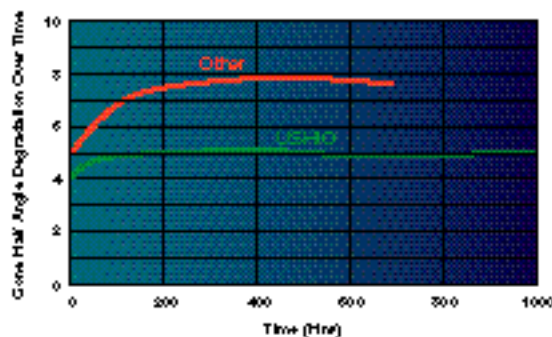


# Performance Comparison Data

Output Reliability Through Light Guide Over Time

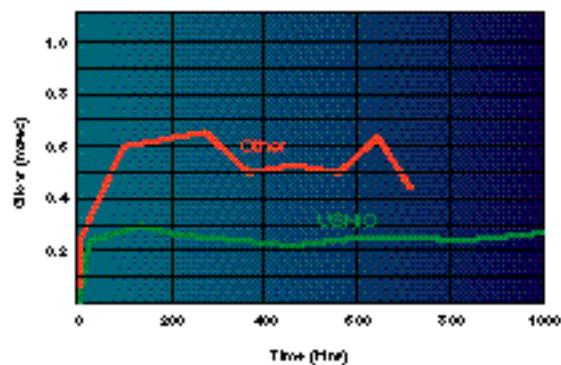


Projected Light Angle Reliability



## IGNITION RELIABILITY COMPARISON

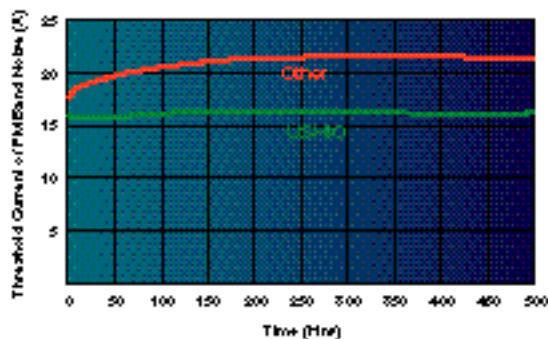
Comparison of Glow Transition to Arc



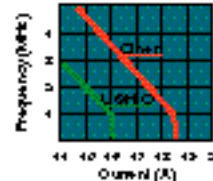
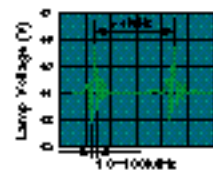
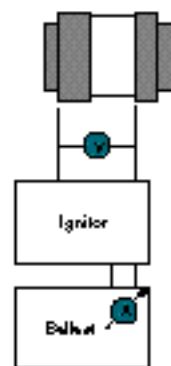
Ignition Reliability Comparison with 2 HV Pulse (%)

TIME (hr)	0	25	100	150	200	225	300	350	400	450	500
USHO	100	100	100	100	100	100	100	100	100	100	100
OTHER	100	100	67	67	67	67	33	33	33	33	33

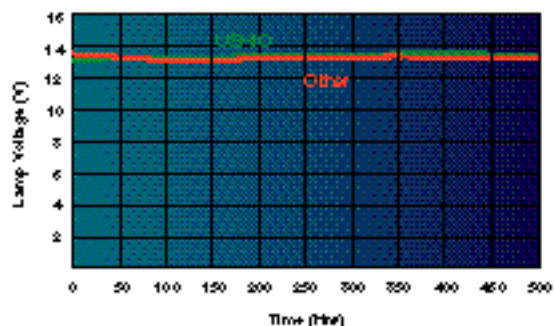
FM Noise Generation Over Time



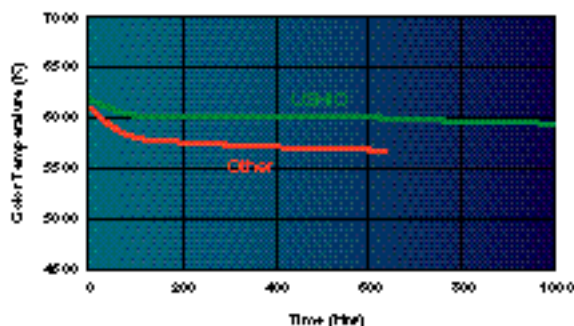
Demonstrate FM Signal Generation at lower operating temperature of USHO vs. Other



Voltage Stability Over Time

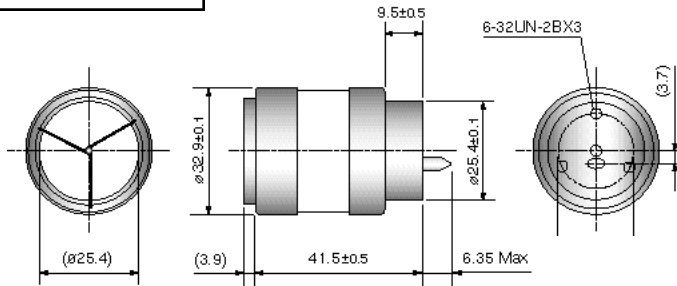


Color Temperature Comparison vs. Time

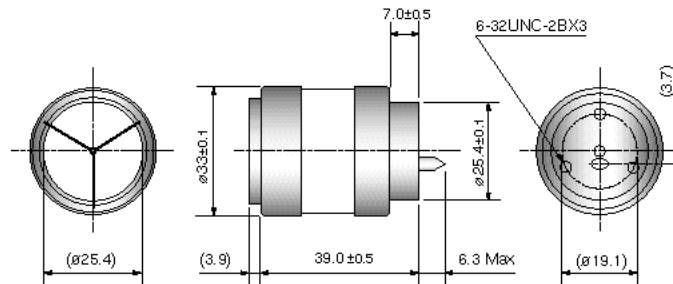


# Characteristics and Specifications

## UXR-300AU, BU



## UXR-300CU

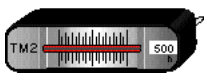


AU, and CU are continuous operation types.  
BU is a pulse type, but can be used at continuous mode.

Ushio Lamp Code	Ushio Ordering Code	Volts (V)	Watts (W)	Current (A)	Color Temp (K)	Ignition Voltage (kV)	Rising Time ( $\mu$ sec)	Max Luminous Intensity (cd)	Effective Luminous Flux (lm)	Cone Half Angle
UXR-300AU	5000380	14	300	20	6150	20	Less than 100	$5 \times 10^5$	5000 over entire spectrum	Less than $5^\circ$
UXR-300BU	5000381									
UXR-300CU	5000382									

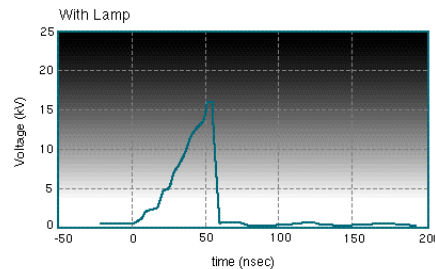
## Mercury Timer for UXR Series

UXR-MT      5000384

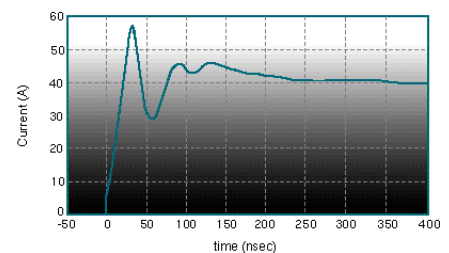
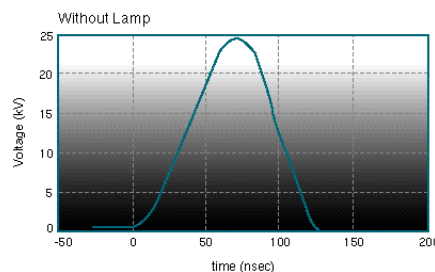
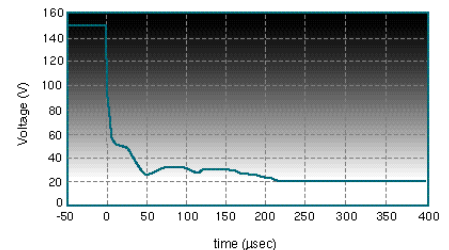


Mercury Timer  
(500 Hours)

### Ignition Voltage Profile



### Arc Transition Profiles



◆ There are no ozone depleting products contained within this lamp.

The Ushio Harima Factory has been operating under ISO-9002 Certified guidelines since 1993 and under ISO-9001 from 1994. Launched in 1987 at Geneva, Switzerland, the International Standards Organization (ISO) verification unified many of the existing quality standards. Certification is awarded by independent auditors and proves to customers that a facility meets the quality systems requirements set by the International Organization for Standardization.

There are five classes of individual, but related, series on quality management and assurance of ISO standards ranging from 9000 to 9004. Providing guidelines and definitions, the 9000 and 9004 serve as a roadmap to other standards. Involving terse inspection procedures and a search for weak management links, the 9003 is the most limited. The 9002 rates quality requirements in production, installation, and inspection. Our Harima Factory received **ISO-9002** in May of 1993 and is rated globally in the top 200 of this range.

The 9001 Certification is the most prestigious, comprehensive, and difficult to obtain; it rates the quality of self-designing companies manufacturing products from scratch, and now includes new product design. Inspection starts with the manufacturing process and is closely scrutinized all the way to the consumer. In December of 1994, Ushio's Harima Factory proudly received **ISO-9001** Certification.



*Purchasing* magazine defines ISO 9000 certification as security for the purchaser. It is "a guarantee that a supplier has the ability to provide a quality product or service, and that he will be able to do so whether you purchase it today, next week, or a year from now."

