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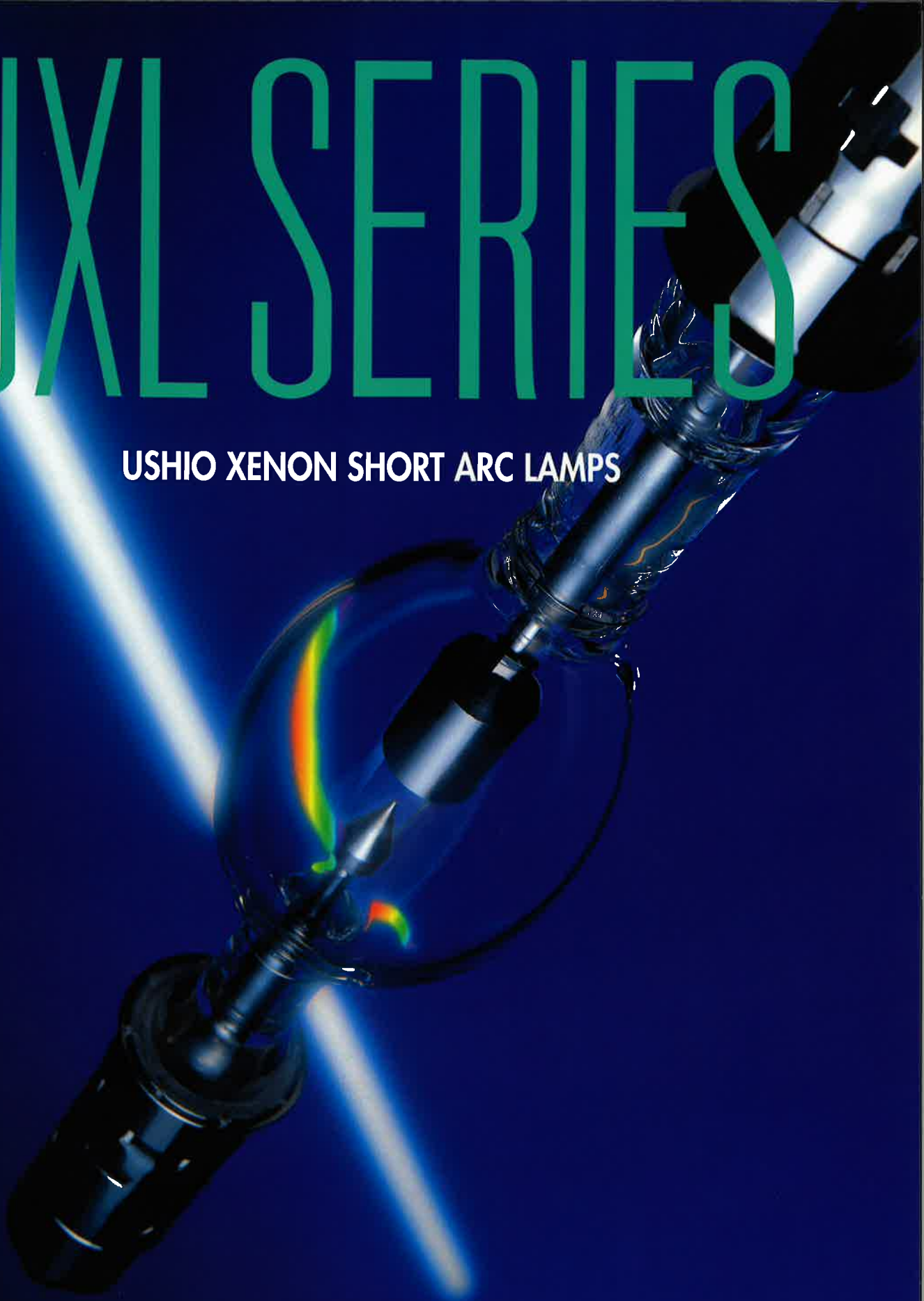
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UXL SERIES

USHIO XENON SHORT ARC LAMPS



FOR CINEMA PROJECTION,FOLLOW SPOT,
SCIENCE AND TECHNOLOGY APPLICATIONS

Lighting Edge Technologies
USHIO



USHIO XENON SHORT ARC LAMPS

UXL SERIES

UXL series are high pressure xenon discharge lamps. Xenon gas is rarely found in the atmosphere as is krypton gas, and thus it is called a rare gas. The most important feature of the UXL series is their close resemblance to daylight in terms of their spectral distribution.

UXL series are made of quartz glass with metal bases and are filled with xenon gas at above atmospheric pressure to provide high luminance and high luminous efficiency. These lamps are widely used in cine-projectors worldwide. The lighting circuit for UXL series is composed of an ignition device and a DC power supply. DC power is required to maintain the stability of the arc.

Features

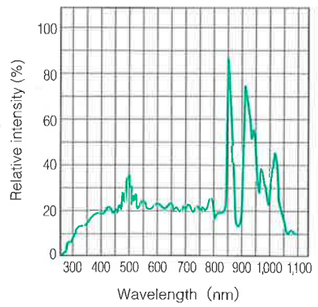
- The luminance of the arc of USHIO xenon short arc lamps is very high while the size is very small. Thus, USHIO xenon short arc lamps are used in applications such as searchlights and projectors.
- USHIO xenon short arc lamps display a near continuous spectral output in the visible region of light making the color rendering quality very close to natural daylight, a feature that has many advantages when using the lamps in applications as a standard light source. USHIO xenon short arc lamps also have a relatively strong distribution in the infrared region of the spectrum and are used as infrared radiation sources as well.
- USHIO xenon short arc lamps ignite and stabilize in moments compared with mercury arc lamps which require several minutes to reach stable operation. Also, the color does not vary as a result of input power variations.

Applications

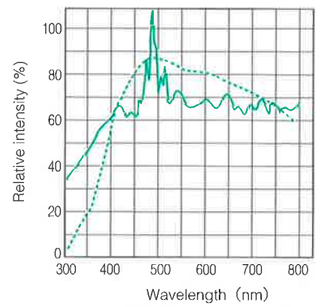
- Cine-projectors
- Profile Projectors
- Standard Daylight
- Stage and Screen Lighting
- Searchlights
- Plaza Lighting
- Floodlighting of park, stadium, work site lighting
- Microscopes
- Medical Equipment
- Spectral Luminosity Measurement Apparatus
- Infrared Communications
- High Luminosity Optical Measurements and Experiments
- Signal Lights
- Arc Image Furnaces
- Photographic Printing
- Plant Growth Experiments

Data

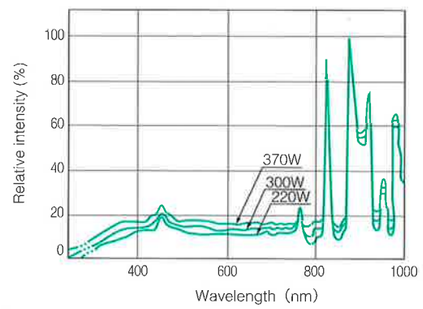
■Spectral Distribution Diagram



■Spectrum Comparison between Xenon Lamp and Daylight



■Variation in Spectral Distribution Corresponding to Input Variation



Typical Applications

Wattage	75	150	300	450	500	700	900	1000	1600	2000	2500	3000	4000	4200	6000	7500
35mm and 70mm film projection				●	●	●	●	●	●	●	●	●	●	●	●	●
8mm and 16mm film projection		●	●	●	●	●	●	●								
Slide projection				●	●	●	●	●								
Follow spot light			●	●	●	●	●	●	●	●	●	●	●			
Search light			●	●	●	●	●	●								
Portable search light	●	●	●													
Spectrophotometer	●	●	●	●	●	●	●	●								
Spectrofluorometer	●	●	●	●												
Spectropolarimeter		●	●	●												
Microscope	●	●														
Monochrometer		●	●	●												
Color scanner		●														
UV recorder	●															
Surgical light		●	●													
Color inspection		●														

Technical Data

Type (W)	Model	Rated input power (W)	Rated current (A)	Current range (A)	Rated voltage (V)	Optical characteristics: Luminous flux (Lm)	Optical characteristics: Light intensity (cd)	Cold arc gap (mm)	Average life: Vertical position (hrs)	Average life: Horizontal position (hrs)	Operating position: Vertical (degrees)	Operating position: Horizontal (degrees)	Velocity of the forced air for lamp cooling (m/sec)	Dimensions: L1 (mm) MAX.	L2 (mm)	L3 (mm)	D1 (mm)	D2 (mm)	D3 Cathode side (mm)	D4 Anode side (mm)	Fig. No.	Notes	Safety Instructions
75	UXL-75XE	65	5.4	4.6~5.4	12.5	1,000	100	0.8	400	400	±10°	±10°	—	88	80	36.5	φ13	φ9	φ2.5	φ2.5	1	—	
	UXL-S75XE	80	5.4	4.6~5.4	15.0	1,400	140	1.3	2,000	—	±10°	—	—	88	80	36.5	φ13	φ7.5	φ2.5	φ2.5	1	Super-High Stability Type	
150	UXL-150MO	150	8.5	7.0~9.0	17.5	2,900	290	2.1	1,500	—	±5°	—	—	150	125	58	φ19	φ12	M4-P0.7	M4-P0.7	2	—	
	UXL-S150MO	150	8.5	8.0~9.0	17.5	2,700	280	2.1	3,000	—	±5°	—	—	150	125	58	φ19	φ12	M4-P0.7	M4-P0.7	2	Super-High Stability Type	
	UXL-S151	150	7.5	7.0~8.0	20.0	2,800	290	2.5	3,000	—	±5°	—	—	150	125	58	φ19	φ12	M4-P0.7	M4-P0.7	2	Super-High Stability Type	
	UXL-151H	150	7.5	7.0~8.0	20.0	2,200	220	2.1	1,200	800	±15°	±15°	—	114.3	95	48	φ18.5	φ12.7-φ11	φ11	φ11	1	—	
	UXL-151HO	150	7.5	7.0~8.0	20.0	2,200	220	2.1	1,200	800	±15°	±15°	—	114.3	95	48	φ18.5	φ12.7-φ11	φ11	φ11	1	—	
	UXL-150S	150	7.5	7.0~8.0	20.0	3,000	300	2.5	1,200	—	±5°	—	—	150	125	58	φ19	φ12	M4-P0.7	M4-P0.7	2	—	Ⓐ
	UXL-150SO	150	7.5	7.0~8.0	20.0	3,000	300	2.5	1,200	—	±5°	—	—	150	125	58	φ19	φ12	M4-P0.7	M4-P0.7	2	—	
	UXL-152H	150	7.5	7.0~8.0	20.0	3,000	300	2.5	1,200	—	±5°	—	—	152	125	58	φ19	φ13	M4-P0.7	M4-P0.7	2	—	
	UXL-152HO	150	7.5	7.0~8.0	20.0	3,000	300	2.5	1,200	—	±5°	—	—	152	125	58	φ19	φ13	M4-P0.7	M4-P0.7	2	—	
300	UXL-300D-O	300	15.0	14~16	20.0	7,600	800	2.6	900	600	±15°	±15°	4~6	175	150	65	φ25	φ13	M5-P0.9	M5-P0.9	2	—	
	UXL-302-O	300	15.0	8~15	20.0	7,000	700	2.6	900	—	±30°	—	—	180	150	65	φ25	φ13	NO.10-32UNF	NO.10-32UNF	3	—	
450	UXL-450S-O	450	25.0	17~30	18.0	13,500	1,300	3.0	2,000	—	±30°	—	—	177	—	80.5	φ29	φ19	—	—	4	—	
	UXL-451	450	25.0	17~30	18.0	13,500	1,300	3.0	2,000	1,500	±30°	±30°	4~6	263	212	97	φ29	φ20	φ10	φ8	5	—	
	UXL-451-O	450	25.0	17~30	18.0	13,500	1,300	3.0	2,000	1,500	±30°	±30°	4~6	263	212	97	φ29	φ20	φ10	φ8	5	—	
500	UXL-500D-O	500	25.0	17~25	20.0	16,000	1,700	4.0	1,500	1,200	±15°	±15°	4~6	234	204	95	φ29	φ20	M8-P1.25	M8-P1.25	6	—	
	UXL-5SB	500	28.0	17~30	18.0	15,000	1,600	3.0	2,000	2,000	±15°	±15°	4~6	196	165	76	φ35	φ18.5	φ10	φ8	8	Shorter Type	
700	UXL-7SB	700	37.0	30~45	19.0	22,000	2,300	4.2	1,500	1,500	±15°	±15°	4~6	245	214	98.5	φ40	φ25	5/16-18UNC	φ11	9	Shorter Type	
	UXL-7SCB	700	37.0	30~45	19.0	22,000	2,300	4.2	1,500	1,500	±15°	±15°	4~6	233	220	98.5	φ40	φ25	5/16-18UNC	With Lead Wire(L:270)	10	Shorter Type	
	UXL-7PR	665	35.0	30~35	19.0	21,000	2,200	4.0	—	1,500	—	+15°–45°	4~6	250	220	98.5	φ40	φ25	—	φ11	11	—	
900	UXL-900-O	900	45.0	30~50	20.0	29,000	3,000	4.0	2,000	1,500	±30°	±15°	4~6	325	275	125	φ40	φ25	φ12	φ10	5	—	Ⓑ
1000	UXL-1000HA	1,000	45.0	35~50	22.0	34,000	3,400	5.0	2,000	2,000	±15°	±15°	4~6	330	275	125	φ45	φ25.4	M14-P1.5	φ14	12	—	
	UXL-1000HK-O	900	45.0	32~47	20.0	29,000	3,000	5.0	1,500	1,500	±15°	±15°	4~6	315	275	125	φ40	φ25	M10-P1.25	M8-P1.25	6	—	
	UXL-1000PR	990	45.0	32~45	22.0	34,000	3,500	5.0	—	1,500	—	+10°–45°	4~6	315	275	125	φ40	φ25	—	M8-P1.25	11	—	
	UXL-10SB	1,000	50.0	30~55	20.0	33,000	3,400	4.2	1,500	1,500	±15°	±15°	4~6	245	214	98.5	φ40	φ25	5/16-18UNC	φ11	9	Shorter Type	
	UXL-10SC/SCB	1,000	50.0	30~55	20.0	33,000	3,400	4.2	1,500	1,500	±15°	±15°	4~6	233	220	98.5	φ40	φ25	5/16-18UNC	With Lead Wire(L:270)	10	Shorter Type	

Suffix Note B:With cylindrical protective cover
C:With cable on base
O,-O:Ozone free
＊Lamps with wattage above 500w inclusive are usually ozone free type even though they do not have Suffix "O" or "-O"

＊The horizontal lighting type may require magnet correction.
When correcting the arc position with a magnet,be sure to adjust the arc to be radiated evenly both horizontally and vertically on the flat part of the anode tip.
＊Average life:indicates the average life when the lamp is lit continuously at the rated current.
A lamp at the end of its life has either of the following characteristics:1 The luminous flux becomes 70% or less of the initial value.
2 The lamp does not light.
＊USHIO also manufactures highly stable lamps for spectroscopes. For details,please contact USHIO.

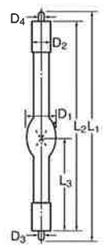


Fig.1

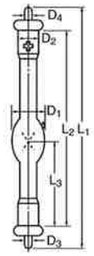


Fig.2

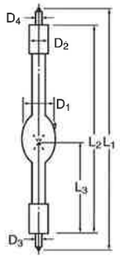


Fig.3

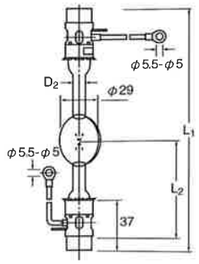


Fig.4

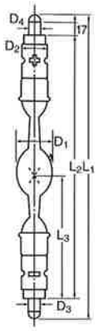


Fig.5

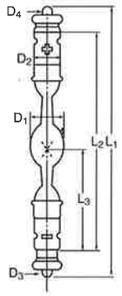


Fig.6

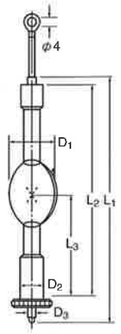


Fig.7

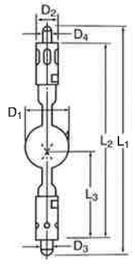


Fig.8

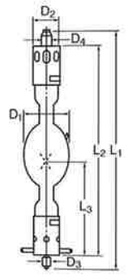


Fig.9

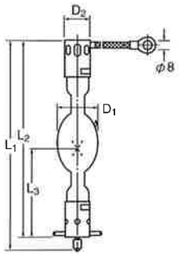


Fig.10

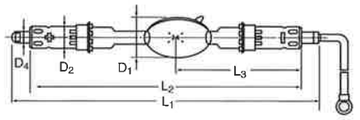


Fig.11

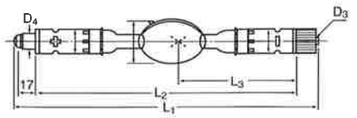


Fig.12

Technical Data

Type (W)	Model	Rated input power (W)	Rated current (A)	Current range (A)	Rated voltage (V)	Optical characteristics: Luminous flux (Lm)	Optical characteristics: Light intensity (cd)	Cold arc gap (mm)	Average life: Vertical position (hrs)	Average life: Horizontal position (hrs)	Operating position: Vertical (degrees)	Operating position: Horizontal (degrees)	Velocity of the forced air for lamp cooling (m/sec)	Dimensions: L1 (mm) MAX.	L2 (mm)	L3 (mm)	D1 (mm)	D2 (mm)	D3 Cathode side (mm)	D4 Anode side (mm)	Fig. No.	Notes	Safety Instructions
1600	UXL-1600-O	1,600	65.0	45～75	24.0	56,000	5,800	5.5	2,000	1,500	±30°	±15°	4～6	370	320	145	φ52	φ27	φ12	φ10	5	—	
	UXL-16SB	1,430	65.0	45～70	22.0	49,000	5,100	4.0	1,500	1,500	±15°	±15°	4～6	245	214	98.5	φ46.5	φ25	5/16-18UNC	φ11	9	Shorter Type	
	UXL-16SC/SCB	1,450	65.0	45～70	22.0	49,000	5,100	4.0	1,500	1,500	±15°	±15°	4～6	233	220	98.5	φ46.5	φ25	5/16-18UNC	With Lead Wire(L:270)	10	Shorter Type	
2000	UXL-2000HA	2,000	80.0	60～85	25.0	74,000	7,400	6.0	—	2,000	—	±15°	7～10	375	320	145	φ55	φ27	M4-P1.5	φ14	12	—	
	UXL-2000HR	2,000	70.0	50～85	29.0	75,000	7,500	6.0	2,000	2,000	±30°	±30°	10～13	370	320	145	φ60	φ27	φ12	φ10	13	—	
	UXL-2003HKL-O	1,750	70.0	56～70	25.0	64,000	6,700	6.0	1,500	1,500	±15°	±15°	4～6	365	320	145	φ52	φ25.4	M10-P1.25	M10-P1.25	14	—	
	UXL-2003HT	1,750	70.0	56～70	25.0	64,000	6,700	6.0	—	2,000	—	±15°	4～6	370	320	145	φ52	φ25	M10-P1.25	—	15	—	
	UXL-2000PR	1,750	70.0	56～70	25.0	64,000	6,700	6.0	—	2,000	—	+10°–45°	6～9	365	320	145	φ45	φ25.4	With Lead Wire(L:270)	φ10	11	—	
	UXL-20SC	2,000	80.0	50～85	25.0	80,000	8,500	5.5	2,000	2,000	±30°	±30°	5～10	342	302	147	φ60	φ27	φ7.9	φ9.5	16	Shorter Type	
	UXL-21SCB	2,000	70.0	45～70	28.0	76,000	8,100	6.0	2,000	2,000	±15°	±15°	10～13	233	220	98.5	φ46	φ27	5/16-18UNC	—	10	Shorter Type	
2500	UXL-2500-O	2,500	83.0	60～95	30.0	98,000	10,000	7.0	1,500	1,200	±30°	±15°	4～6	428	380	171	φ57	φ27	φ14	φ13	17	—	
	UXL-2500HA	2,500	90.0	70～100	28.0	98,000	10,000	7.0	—	1,500	—	±15°	10～13	403	350	165	φ60	φ28	M14-P1.5	φ14	12	—	
	UXL-25S	2,500	90.0	70～100	28.0	100,000	10,000	6.0	1,500	1,200	±15°	±15°	10～13	342	300	147	φ60	φ25	φ8	φ8	18	Shorter Type	
	UXL-25SC	2,500	90.0	70～100	28.0	97,000	10,000	6.0	1,500	1,200	±15°	±15°	10～13	342	300	147	φ60	φ25	φ8	9.5With Lead Wire(L:270)	16	Shorter Type	
3000	UXL-3000HA	3,000	100.0	80～110	30.0	110,000	12,000	7.0	—	1,200	—	±15°	10～13	403	350	165	φ60	φ28	M14-P1.5	φ14	12	—	Ⓑ
	UXL-3000HR	3,000	100.0	60～100	30.0	110,000	12,000	7.0	1,500	1,200	±30°	±15°	10～13	428	382	171	φ70	φ27	φ14	φ13	13	—	
	UXL-3000HK-O	2,500	90.0	70～110	27.0	93,000	9,500	7.0	1,500	1,200	±15°	±15°	10～13	398	350	165	φ55	φ28	φ13	M13-P1.5	14	—	
	UXL-3600HN	3,360	120.0	85～120	28.0	130,000	14,000	7.0	—	1,200	—	±15°	10～13	388	360	165	φ60	φ28	M13-P1.5	—	19	—	
	UXL-30SC	3,000	100.0	60～110	30.0	110,000	12,000	7.0	1,500	1,200	±30°	±30°	5～10	342	302	147	φ60	φ27	φ7.9	9.5With Lead Wire(L:300)	16	Shorter Type	
3600	UXL-3601HK-O	3,360	120.0	85～120	28.0	130,000	14,000	7.0	1,500	1,200	±15°	±15°	10～13	411	360	165	φ60	φ28	M13-P1.5	M13-P1.5	14	—	
4000	UXL-4000K-O	4,000	120.0	60～120	33.0	160,000	16,800	8.0	1,000	—	±15°	—	4～6	432	382	180	φ60	φ30	φ20	φ18	20	—	
	UXL-4000HA	4,000	130.0	100～140	30.0	150,000	16,000	7.0	—	900	—	±15°	10～13	433	380	170	φ70	φ28	M14-P1.5	φ14	12	—	
	UXL-40SC	4,000	135.0	80～150	29.0	153,000	15,000	7.0	800	800	±15°	±15°	10～13	410	370	174.5	φ70	φ30	φ8	9.5With Lead Wire(L:400)	16	Shorter Type	
4200	UXL-4200K-O	4,200	140.0	100～160	30.0	166,000	17,000	7.0	1,000	—	±15°	—	10～13	433	380	171	φ60	φ28	φ18	φ16	5	—	
5000	UXL-5000HN	4,200	140.0	100～140	30.0	165,000	17,000	8.0	—	600	—	±15°	10～13	407	380	171	φ70	φ28	M18-P1.25	—	21	—	
6000	UXL-6000HK-O	5,400	155.0	140～170	35.0	250,000	23,500	8.0	600	600	±10°	±10°	10～13	510	462	214	φ70	φ32	—	—	20	—	
7000	UXL-70SC	7,000	160.0	120～170	43.0	280,000	29,000	11.0	500	500	±15°	±15°	10～13	433	392	171	φ80	φ30	φ7.9	9.4With Lead Wire(L:370)	16	Shorter Type	
7500	UXL-7500HK-O	6,500	155.0	130～170	42.0	280,000	29,000	10.0	—	200	—	±15°	10～13	510	460	215	φ80	φ32	—	—	20	—	

Suffix Note B:With cylindrical protective cover
C:With cable on base
O,-O:Ozone free
＊Lamps with wattage above 500w inclusive are usually ozone free type even though they do not have Suffix "O" or "-O"

＊The horizontal lighting type may require magnet correction.
When correcting the arc position with a magnet,be sure to adjust the arc to be radiated evenly both horizontally and vertically on the flat part of the anode tip.
＊Average life:indicates the average life when the lamp is lit continuously at the rated current.
A lamp at the end of its life has either of the following characteristics:1 The luminous flux becomes 70% or less of the initial value.
2 The lamp does not light.
＊USHIO also manufactures highly stable lamps for spectroscopes. For details,please contact USHIO.

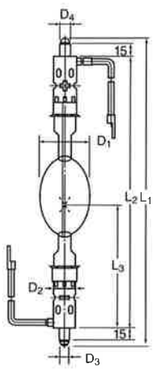


Fig.13

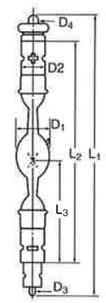


Fig.14

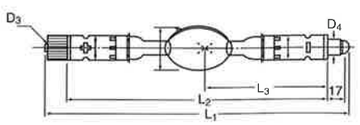


Fig.15

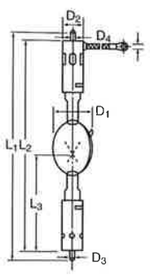


Fig.16

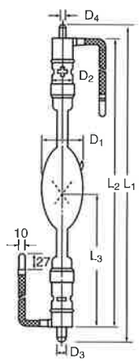


Fig.17

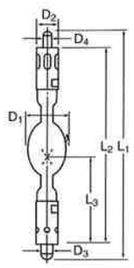


Fig.18

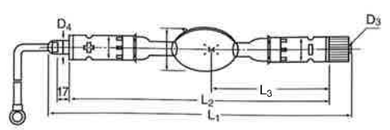


Fig.19

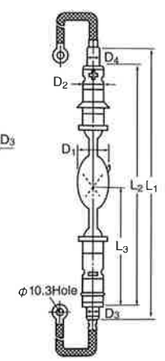


Fig.20

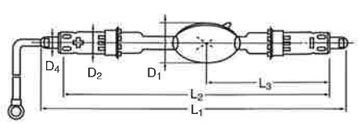


Fig.21

Safety Instruction

Ⓐ Xenon Lamps (Foil Seal Xenon Lamps)

WARNING

- •Do not operate the lamp in close proximity to paper, cloth or other combustible material, nor cover it with such materials, even immediately after it is turned off.
  Otherwise it could cause a fire.
- •As the lamp could burst while in use or not, it is kept in the provided protective case.Exchanging the lamp is very dangerous because the lamp is taken out of the provided case. These instructions must be followed when exchanging the lamp.
  Otherwise, it could cause injury if it bursts.
- •Lamps that have been used for the rated service life are more likely to break and burst because of the deteriorated glass condition. Therefore, follow the instructions in this leaflet for replacement and disposal of used lamps.
  Otherwise they could cause injury if they burst.
- •The lamp must be operated in a splinter-scatter-proof lamp house. Do not open the lamp house while the lamp is operating or immediately after it is turned off.
  Otherwise it could cause injury if it bursts.
- •The lamp is under high internal pressure. Do not hit the lamp against anything, apply excessive stress or scratch the lamp.
  Otherwise it could burst.
- •Wear a protective mask, leather gloves and a thick long-sleeved shirt when handling the lamp.
  Otherwise it could cause injury, if it bursts.
- •Turn off the electrical power before installing, removing or cleaning the lamp house (equipment).
  Otherwise it could cause electrical shock.
- •Operate the lamp in the position indicated.
  Otherwise it could cause the lamp house to overheat, breakage or short lamp life.
- •During operation the lamp emits intense UV radiation which is harmful to the eyes and skin.
  Do not look directly or indirectly at the operating lamp.
  Otherwise it could cause eye aches or eyesight problems.
- •Do not directly or indirectly expose your skin to the lamp light.
  Otherwise it could cause inflammation of the skin.
- •Thoroughly ventilate the area or the room when operating the lamp in an Oxygen atmosphere (in the air), except in the case of ozone-free lamps.
  If ozone is inhaled, it could cause headaches, nausea, dizziness, etc.

CAUTION

(Handling)

- •As the lamp is filled with high pressure Xenon gas, it must be kept in the provided protective case when transporting.
  Otherwise it could cause injury, if it bursts.
- •When the lamp is soiled with fingerprints or dust, clean it with an alcohol-soaked cloth.
  Otherwise it could cause bursting or shorten the lamp life.
- •Do not operate the lamp in an atmosphere containing an inflammable substance, such as a thinner.
  Otherwise it could cause a fire or explosion.
- •Avoid any vibration or shock to the lamp since it is a glass product.
  Otherwise it could cause breakage or short lamp life.

(Installation)

- •Affix the lamp in the correct polarity.
  Otherwise it could cause bursting, overheating of the lamp house or shorten lamp life.
- •Do not apply excessive stress when installing the lamp.
  Otherwise it could cause breakage and injury.
- •Do not use any tools to tighten nuts when fixing the lamp, use only hands.
- •Fix the lamp and its lead wire firmly to the terminals.
  Otherwise it could cause overheating by poor connection or fuming.
- •The lamp must be fixed at one metal base only, leaving the other metal base free.
  Otherwise it could burst.

(Operation)

- •Do not touch the lamp while it is operating or immediately after it is turned off because it is extremely hot.
  Otherwise it could cause a burn.

- •Do not open the lamp house for at least ten (10) minutes after the lamp is turned off.
  Otherwise it could cause injury if it bursts.
- •Use a suitable lamp house and a lamp of the wattage designated by the power supply.
  Otherwise it could cause overheating.

(Disposal)

- •The used lamp must be kept in the provided protective case until disposal by breaking the glass part.
  Otherwise it could cause injury.
- •The lamp is filled with high pressure Xenon gas. Disposal without breaking the glass part may result in lamp burst. Follow the instructions below to prevent harmful repercussions.
  Wear a protective mask, leather gloves and a long sleeved shirt when handling the lamp.
  1.Wrap the used lamp in a thick cloth.
  2.Break the glass part of the lamp into pieces using a hammer.
  3.Dispose as industrial waste.
  Dispose separately in case that metal and glass should be disposed of separately.

Important Operation Notes

- •The lamp must be operated under the specified use conditions such as lamp amperage, lamp voltage and cooling condition.
- •Keep the lamp base temperature below 200°C or follow the maximum temperature of the metal base section if specified.

Ⓑ Xenon Lamps (Graded Seal Xenon Lamps)

WARNING

- •Do not operate the lamp in close proximity to paper, cloth or other combustible materials, nor cover it with such materials, even immediately after it is turned off.
  Otherwise it could cause a fire.
- •As the lamp could burst while in use or not, it is kept in the provided case.
  Exchanging the lamp is very dangerous because the lamp is taken out of the provided case. These instructions must be followed when exchanging the lamp.
  Otherwise, it could cause injury if it bursts.
- •Lamps that have been used for the rated service life are more likely to break and burst because of the deteriorated glass condition. Therefore, follow the instructions in this leaflet for replacement and disposal of used lamps.
  Otherwise they could cause injury if they burst.
- •The lamp must be operated in a splinter-scatter-proof lamp house. Do not open the lamp house while the lamp is operating or immediately after it is turned off.
  Otherwise it could cause injury if it bursts.
- •The lamp is under high internal pressure. Do not hit the lamp against anything, apply excessive stress or scratch the lamp.
  Otherwise it could burst.
- •Wear a protective mask, leather gloves and a thick long sleeved shirt when handling the lamp.
  Otherwise it could cause injury, if it bursts.
- •Turn off the electrical power before installing, removing or cleaning the lamp house (equipment).
  Otherwise it could cause electrical shock.
- •Operate the lamp in the position indicated.
  Otherwise it could cause the lamp house to overheat, breakage or short lamp life.
- •During operation the lamp emits intense UV radiation which is harmful to the eyes and skin.
  Do not look directly or indirectly at the operating lamp.
  Otherwise it could cause eye aches or eyesight problems.
- •Do not directly or indirectly expose your skin to the lamp light.
  Otherwise it could cause inflammation of the skin.
- •Thoroughly ventilate the area or the room when operating the lamp in an Oxygen atmosphere (in the air), except in the case of ozone-free lamps.
  If ozone is inhaled, it could cause headaches, nausea, dizziness, etc.

CAUTION

(Handling)

- As the lamp is filled with high pressure Xenon gas, it must be kept in the provided protective case when transporting.
  Otherwise it could cause injury, if it bursts.
- When the lamp is soiled with fingerprints or dust, clean it with an alcohol-soaked cloth.
  Otherwise it could cause bursting or shorten the lamp life.
- Do not operate the lamp in an atmosphere containing an inflammable substance, such as a thinner.
  Otherwise it could cause a fire or explosion.
- Avoid any vibration or shock to the lamp since it is a glass product.
  Otherwise it could cause breakage or short lamp life.

(Installation)

- Affix the lamp in the correct polarity.
  Otherwise it could cause bursting, overheating of the lamp house or shorten lamp life.
- Do not apply excessive stress when installing the lamp.
  Otherwise it could cause breakage and injury.
- Do not use any tools to tighten nuts when fixing the lamp, use only hands.
  Otherwise it could burst.
- Fix the lamp and its lead wire firmly to the terminals.
  Otherwise it could cause overheating by poor connection or fuming.

(Operation)

- Do not touch the lamp while it is operating or immediately after it is turned off because it is extremely hot.
  Otherwise it could cause a burn.
- Do not open the lamp house for at least ten (10) minutes after the lamp is turned off.
  Otherwise it could cause injury if it bursts.
- Use a suitable lamp house and a lamp of the wattage designated by the power supply.
  Otherwise it could cause overheating.

(Disposal)

- The used lamp must be kept in the provided protective case until disposal by breaking the glass part.
  Otherwise it could cause injury.
- The lamp is filled with high pressure Xenon gas.
  Disposal without breaking the glass part may result in lamp burst. Follow the instructions below to prevent harmful repercussions. Wear a protective mask, leather gloves and a long-sleeved shirt when handling the lamp.
  1. The used lamp must be kept in the provided protective case; the case must be securely locked by the metallic stopper.
  2. Place the used lamp in the protective case into the provided paper case. Firmly attach the tape of the paper case to make certain the case will not open when the lamp is dropped onto a hard floor.
  3. From about one (1) meter in height, drop the provided paper case, with the lamp and protective case inside, onto a hard floor.
  4. Shake the paper case to determine if the lamp is broken.
  5. Dispose of as industrial waste. Dispose separately where metal and glass must be disposed of separately.

Important Operation Notes

- The lamp must be operated under the specified use conditions such as lamp amperage, lamp voltage and cooling condition.
- Keep the lamp base temperature below 200°C or follow the maximum temperature of the metal base section if specified.

COMPANY PROFILE

USHIO INC. is a company which is constantly challenging new frontiers in quest of its goal of providing a new and better light-age for tomorrow's society.
We are a young, energetic and greatly ambitious group developing many kinds of lighting methods, both in the visible and invisible wavelength regions, with multi-faceted applications in many fields of endeavor such as office equipment, automotive equipment, motion pictures, electronics and space communications.
We are the only specialized manufacturing company in Japan providing a wide range selection of halogen lamps, xenon lamps and many other different kinds of discharge lamps. Our products are marketed and serviced throughout the world through our coordinated marketing/engineering concepts, and all of these fine products are readily available wherever and whenever needed.



BREAKING THOUGH THE LIGHT BARRIER
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USHIO continues research and development of not only visible light but also invisible light in the ultraviolet or infrared spectrums. Now, USHIO provides these technologies as units and systems to meet various user needs.

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Metal-halide lamps
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Lasers

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Exposure unit for semiconductor manufacturing equipment

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