



**High Pressure Sodium Lamps  
Internal Parts Identification and Function  
End of Life or Lamp Failure Indicators  
Hortilux™ SUPER HPS and Hortilux™ ULTRA ACE**

New Vacuum Lamp  
Appearance

Frame Support and Other Components

– Supports the arc tube and provides electrical connections to components. Welds are susceptible to breakage due to excessive vibration or rough handling



Normal End of Life indication - Sodium Loss depicted by yellowing of lamp outer jacket

Newly Produced Arc Tube – Bright white appearance – Ends will appear ‘dark silver’ at installation due to 100% start up testing and chemicals depositing after the initial cool down. Ends will clear during initial operation, and then over life tungsten will deposit at ends gradually darkening them



Arc Discharge in Outer Jacket – Lamp experienced a seal leak that resulted in an arc discharge in the outer jacket during lamp operation

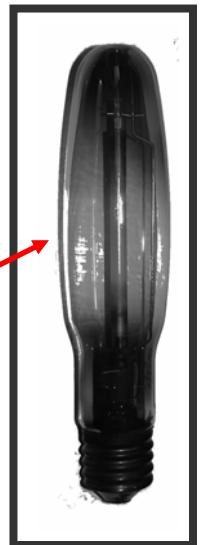


Getter Flash – Mirror-like Finish



Normal End of Life - Due to arc tube crack or seal failure

Arc Tube Crack/Leak - Mercury Sodium Amalgam coats the inside of the glass bulb



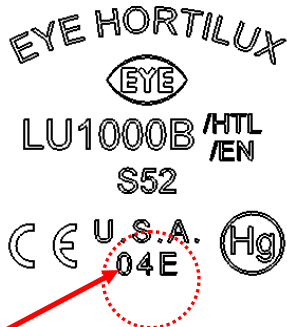
Getter Flash absorbs oxygen, hydrogen and other impurities present within the lamp. These impurities can result in the rapid deterioration of the metal parts...resulting in lamp failure



**EYE LIGHTING INTERNATIONAL  
OF NORTH AMERICA, INC.**  
A SUBSIDIARY OF IWASAKI ELECTRIC CO., LTD.

**HORTILUX™**

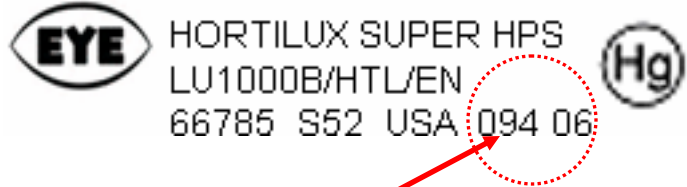
## Monogram Improvements and Variations Manufactured Date Code Interpretation



### OLD Date Code

This date code is old and the lamp will be out of warranty, unless the customer can prove date of sale is within one year.

Example: Manufactured Date 04E = May, 2004

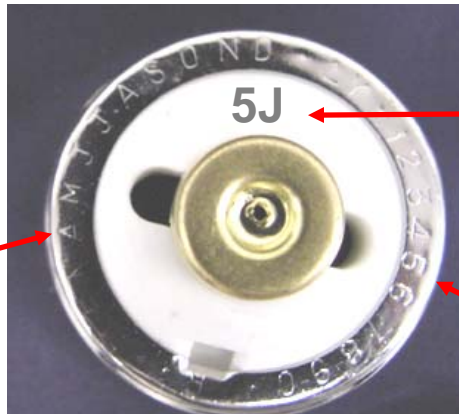


### NEW 'Julian' Date Code

Example: Manufactured Date  
94<sup>th</sup> day of 2006 = April 4<sup>th</sup>, 2006

Identifies type of lamp:	<b>LU</b>	<b>400</b>	<b>S</b>	<b>/ HTL / EN</b>	Identifies feature of lamp
LU: High Pressure Sodium lamp					EN: Environmental friendly
LUR: Reflectorized High Pressure Sodium lamp					S: High efficacy
NH: High Pressure Sodium Conversion lamp					
NHT: High Pressure Sodium Conversion lamp with tubular bulb					
		Identifies lamp wattage		HTL: Horticulture	

Mark <sup>(\*)</sup> the month and year of sale on the base by using a permanent marker or a scribe, marking both the month and year of sale



Secondary Date Code Application –  
Year/Month – 5J =  
September 2005

Month J, F, M, A, M, J, J, A, S, O, N, D

Year 0-9

# HORTILUX™ WARRANTY

## EYE LIGHTING INTERNATIONAL OF NORTH AMERICA INC. EXCLUSIVE HIGH INTENSITY DISCHARGE (HID) LAMP LIMITED WARRANTY/REMEDY

The following exclusive limited warranty and remedy shall apply to EYE Hortilux™ Super HPS, Hortilux™ Metal Ace, Hortilux™ Ultra Ace, Hortilux™ Blue lamps, and Hortilux™ Metal Halide. EYE Lighting International warrants all Hortilux™ lamps to be free from defects in material and workmanship for the following period:

**One year** from the date of <sup>(\*)</sup> sale or, if unknown, from date of manufacture, provided that such lamps are operated on ballasts and luminaires that meet all applicable ANSI specifications or, where no ANSI specifications exist, Iwasaki Electric / EYE Lighting specifications.

EQS-N-52-46-00002