

# HYTEK LAMPS

## COMPACT SOURCE MERCURY IODIDE PROJECTOR LAMP

99-0221

September 1973

Replaces September 1972

### DESCRIPTION

The 1000W Compact Source Iodine Lamp gives white light of good colour rendering at an efficacy of 90L/W for 200 hours life.

### APPLICATIONS

The high efficacy, robustness and small size of this lamp, makes it eminently suitable for projector purposes such as for follow spotlights. For photographic use it is suitable for use with daylight colour film stock.

### ELECTRICAL CHARACTERISTICS

Supply volts	240
Arc watts	1000
Arc volts	70/85
Arc current	15 amps
Run-up time	30 secs
Re-start time	2/5 mins

### DIMENSIONS

Arc Length	14-15 mm
Overall length	85mm max excluding pins
Light centre length	63.5 ± 2mm
Diameter	32mm max
Cap	Medium Bipost-G22

### LUMINOUS CHARACTERISTICS

Initial efficacy	90 L/W
Lumen maintenance	90%
Colour rendering	Good
Chromaticity co-ordinates	x = 0.395
	y = 0.395
	CV 3.5%

### LIFE

(Nominal objective) - 200 hours

### OPERATING POSITION

Universal

### CONTROL GEAR

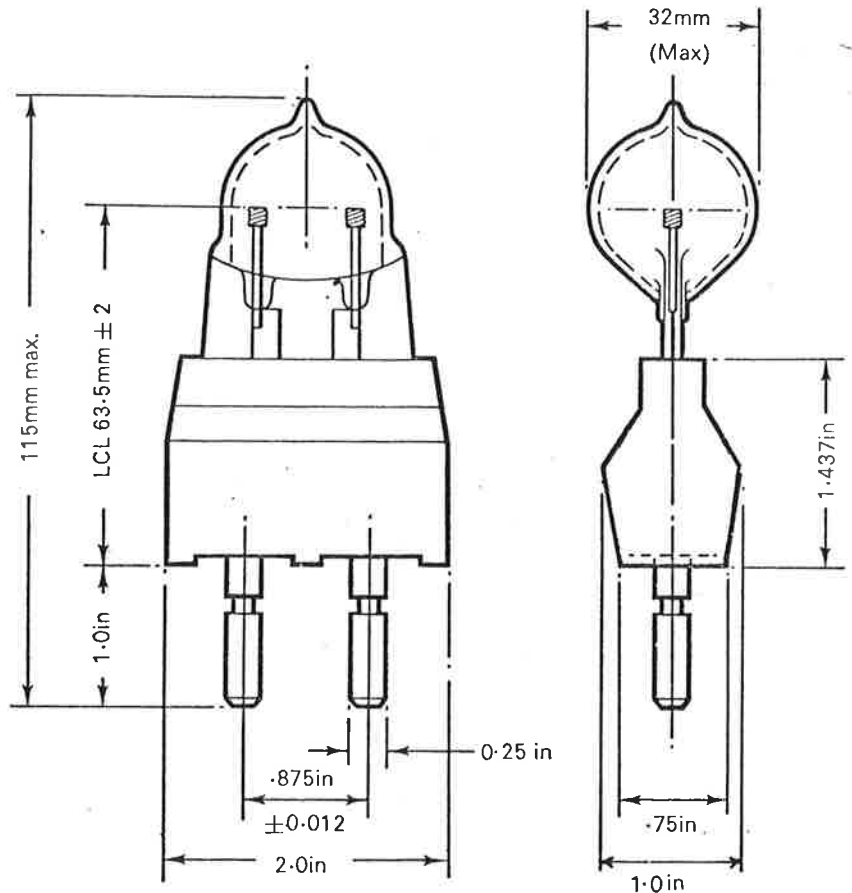
Control gear and box G 53255

### GENERAL DESCRIPTION

The 1kw Compact Source Iodide is a new design of projector lamp giving white light of good colour rendering properties at an efficacy of 90 L/W and a life of 200 hours. The arc size is approximately 15mm x 5mm and the brightness is about 8000 candelas per square cm.

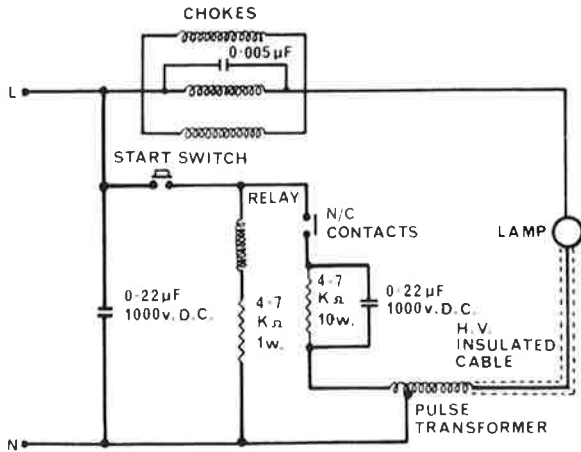
The high efficacy is obtained by the use of an arc discharge. The iodide technique has been used to introduce additional elements into the arc and to keep the bulb wall clean throughout life. Careful choice of the number and quantity of these additional elements and of the loading conditions has resulted in a balanced spectral distribution which is virtually continuous with a few widely spaced narrow absorption lines. In practical user terms this means that the light is white and the colour rendering is good.

The lamp somewhat unconventional in appearance. It is extremely robust. The small total physical size and the ability to operate it in any position ensures that the lamp can be readily fitted into existing equipment, and simplifies the design of new equipment. The single ended construction and the degree of pre-focusing provided means that lamp replacement is straightforward.

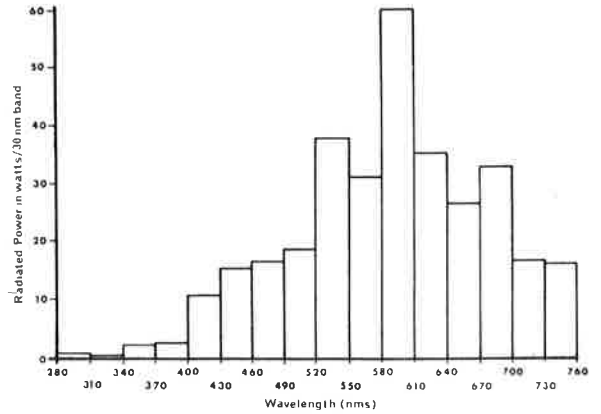


- 2) The starting unit is mounted on a detachable chassis, and may be removed and fixed separately. This enables the starter unit to be mounted on the side of the lamp housing ensuring a short H.T. lead totally enclosed within the equipment for additional safety.
- 3) The case of the unit should be earthed.
- 4) To start the lamp the switch should be depressed for a few seconds until the lamp is burning steadily and then released. The switch should not be operated whilst the lamp is working.
- 5) It will be necessary to allow the lamp to cool before restarting.

**CIRCUIT DIAGRAM**



**SPECTRAL ENERGY HISTOGRAM**



**WARNING**

The unit generates high voltage pulses for lamp starting. Suitable safety precautions should be taken during installation and operation of the unit.

The control unit and associated lamp house must be earthed. The H.V. cable should be protected from accidental damage. The supply must be disconnected before servicing. For outdoor use the lamp must be protected from rain.

**LAMP FITTINGS**

Suitable fittings ref. OM1000 series are available for use with these lamps, giving a variety of light distributions, and incorporating the starter unit with the fitting housing.

A complete gear box G 53255 is not required with this fitting. Only the ballast and capacitor tray assembly ref: OMG B3C8 is needed.