THORN LIGHTING

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4:9.9.1

CID Compact Iodide Daylight Lamp

1kW Metal Halide Discharge Lamp

Specification Ref. 99 - 1225

Identification

Applications

For use in film and television lighting. Suitable for colour film stock balanced for light of 5500K and for all colour or monochrome television productions.

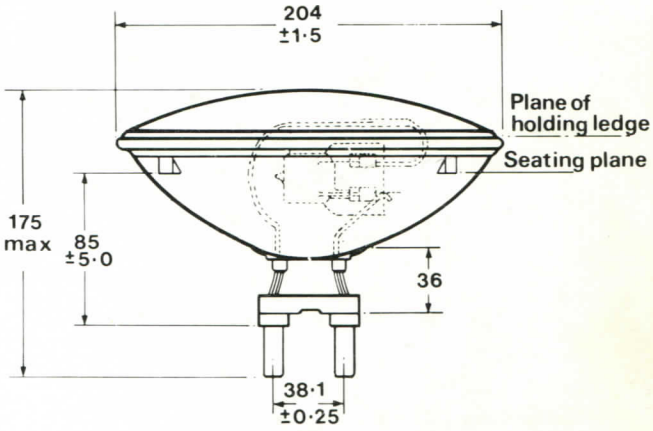
The CID lamp is also widely used for theatre lighting and allied applications where suitable lighting fittings can make good use of this robust, lightweight, compact high intensity light source.

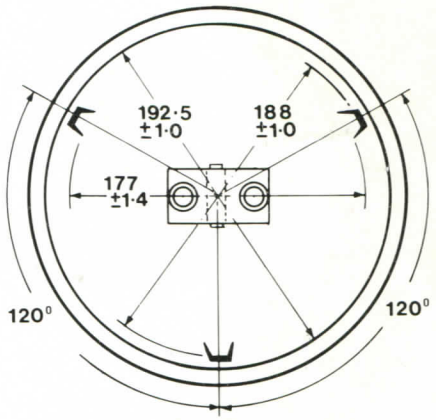
Description

This 1kW CID lamp consists of a high pressure metal halide discharge lamp enclosed within an 8 inch sealed beam glass envelope.

The arc tube is of quartz and the discharge is between tungsten electrodes in an atmosphere of mercury vapour with additional metallic iodides. These additions ensure a light of 5500 ± 400K and the lamp operates at very high efficacy.

The extremely accurate positioning of the arc tube within the outer envelope gives a beam candle power in excess of ¾ million candelas with a total spread of 20° (to 1/10 peak).





All dimensions in mm

Performance

Electrical Characteristics

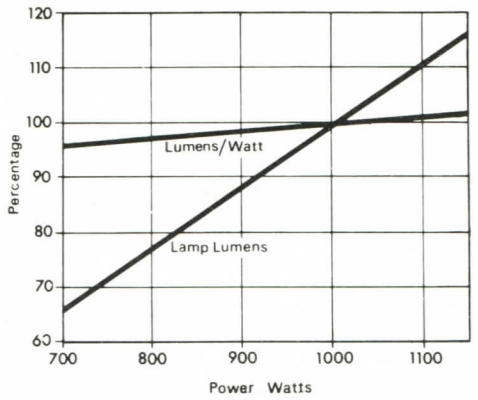
Supply Voltage	220/240 AC*
Base	G38 Bipost
Arc Voltage	70–85
Nominal Arc Current	15 amp
Run-up time	1 minute
Operating Position	Any
Life	1000 hrs

Luminous Characteristics

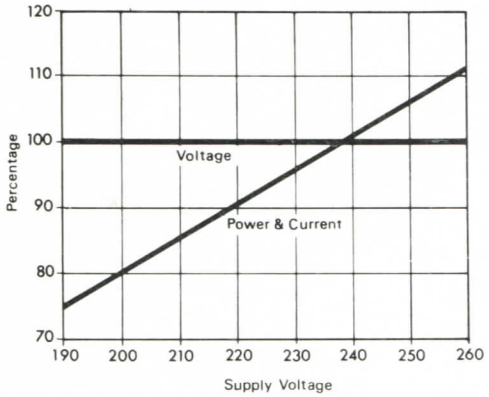
Peak Initial Beam Candlepower	850,000 cds
Beam Width (½ peak) included angle	8°
Field angle (1/10 peak) included angle	20°
Correlated Colour Temperature	5500 ± 400K
Colour Rendering Index Ra	85
Chromaticity co-ordinates	x' 0.333 y' 0.341

*Details upon application for control gear for operating on supply voltage between 100V and 240V AC 50Hz or 60 Hz.

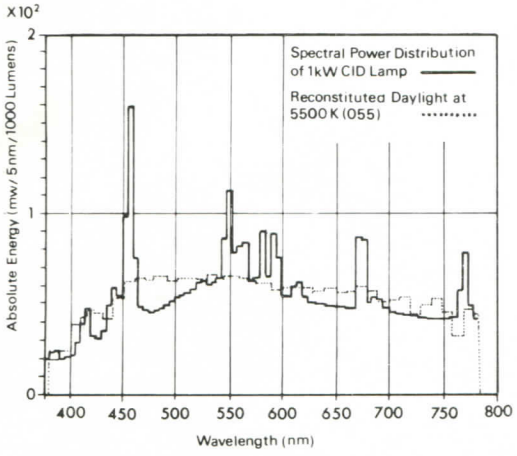
DEPENDENCE OF OPTICAL CHARACTERISTICS OF LAMP ON POWER DISSIPATED



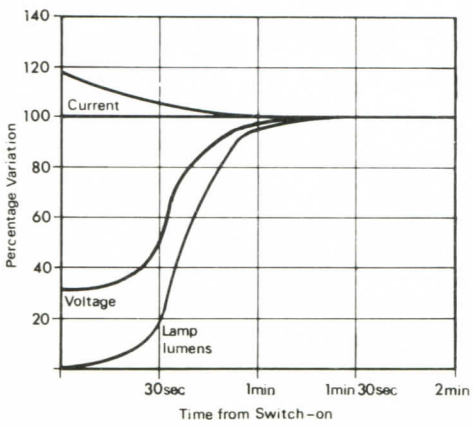
DEPENDENCE OF ELECTRICAL CHARACTERISTICS OF LAMP SUPPLY VOLTAGE



TYPICAL SPECTRAL POWER HISTOGRAM



TRANSIENT CHARACTERISTICS OF LAMP FROM SWITCH-ON



Operation and Maintenance

Safety

Before Use

Always isolate the equipment from the electricity supply before inserting or replacing a lamp.

Check that the replacement lamp is the correct type for the application, wattage and cap for use in the circuit and with control gear.

Ensure that the lamp is correctly located in the lampholder and the glass outer is not scratched during insertion.

During Use

If the outer envelope is broken the lamp must not be operated.

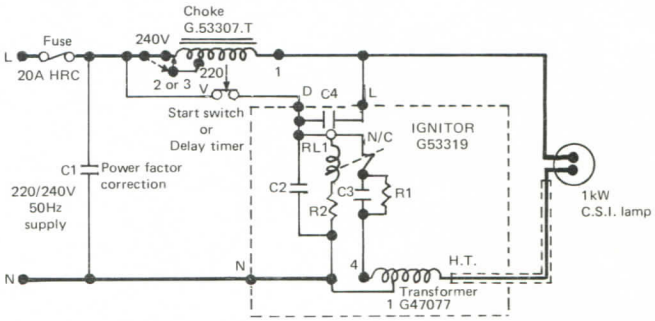
Where mercury discharge and metal halide lamps are used for prolonged periods in close proximity to eyes and skin there may be a slight possibility of a low level UV radiation hazard. Suitable protection should be employed.

Certain metal halide lamps have operating restrictions, details of which are specified with the lamps.

Disposal

These lamps should be broken in a container. Precautions must be taken against flying glass or other fragments. The operation should be carried out outdoors (or in a well ventilated area). With high pressure mercury lamps it is not necessary to break up the inner arc tube. Where applicable, the debris of large quantities of lamps must be disposed of in accordance with the rules of the Local Authority.

1kW CSI Circuit Diagram Using Choke G53307-T and Ignitor G53319



C1 – 175 µF 250V A.C.
C2/C3 – 0.22 µF 1000V
C4 – 0.005 µF 250V A.C.
R1 – 4.7kΩ10W
R2 – 4.7kΩ1W
RL1 – Magnetic Devices 325/TS 14084

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.

Floodlighting Fitting (see data sheet T49/T)

Suitable fittings ref: OQ 1000 series available for use with these lamps, giving a variety of light distributions, and incorporating the starter unit G53319 within the fitting housing.

Further Information

Thorn Lighting reserve the right to alter the specification without prior notice or public announcement.