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Suppliers of  Ballasts & Components **THORN** Lamps & Tubes  Igniters, to Manufacturers

## LINEAR SOURCE XENON DISCHARGE LAMP 1500W A.C. TYPE XB Ref: 98-Q150

### 98-150

June 19

Replaces January 19

### General Description

The 1500w Xenon Discharge lamp consists essentially of a linear arc burning between tungsten electrodes operating in an atmosphere of pure Xenon contained in a quartz arc tube. It is designed to operate from A C mains in series with an inductive ballast.

The spectrum of the radiation is virtually a continuum extending from the ultra-violet through the visible to the infra-red. There is a pronounced peak in the near infra-red at approximately 900nm. Thus it can be used as a powerful source of ultra violet and infra-red radiation as well as light.

The colour of the visible radiation is very similar to noon sunlight having an approximate colour temperature of 5600°K. Colour rendering is excellent. On starting the lamp approximately full light output is given immediately.

### General Applications - Fadeometer Testing.

### Physical Characteristics

Arc Length	155 ± 5mm
Overall Length	355 ± 5mm
Bulb diameter max.	32mm
Operating position	Vertical ± 15°
Caps	Special cylindrical

### Electrical Characteristics

Lamp rating	1500 watts
Supply voltage	200/250 A C
Lamp operating voltage	65/80
Lamp operating current	20/25 amps
Mains current with 200mfd P.F.C.	9 1/4 amps

### Light Source Characteristics and Performance

Arc Size	155 x 10mm
Light Output	33,000 lumens
Luminous Efficiency	22 lumens per watt
Average Objective Life	1500 hours

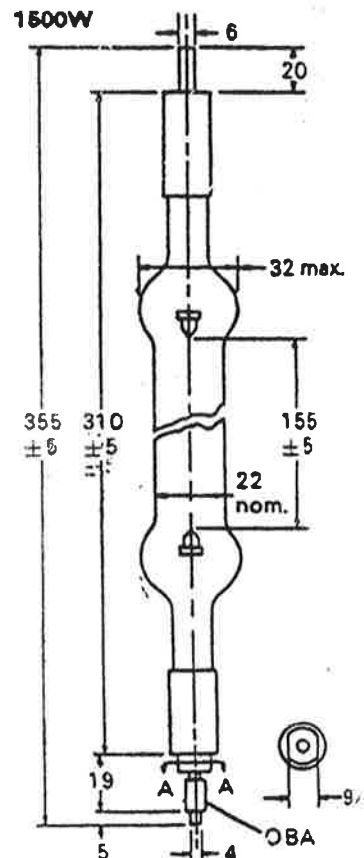
### Control Gear (See Circuit Diagram)

For operation on 200/250v A.C.

2 - Chokes ref: G53251T + 3 Choke G53230T in parallel

25amp Starter Unit ref: G53239

P.F. Capacitors - 200mfd - 1 GC2276 + 2 GC2275 in parallel



All dimensions in mm unless otherwise indicated

**TYPICAL SPECTRAL POWER DISTRIBUTION**  
**Data for a 1500w XB Xenon Lamp**

Spectral Band NM	Spectral Power Watts
250 - 280	3.3
280 - 310	3.3
310 - 340	4.6
340 - 370	6.6
370 - 400	10.5
400 - 430	11.6
430 - 460	12.8
460 - 490	16.5
490 - 520	13.1
520 - 550	13.1
550 - 580	13.3
580 - 610	13.6
610 - 640	13.9
640 - 670	13.6
670 - 700	15.0
700 - 730	14.8
730 - 760	16.2
760 - 790	14.8
790 - 820	19.1
820 - 850	32.5
850 - 880	19.8
880 - 910	39.5
910 - 940	26.5
940 - 970	22.3
970 - 1000	24.5

**NOTE:**

The above figures are accurate to 10% in the visible and I R Regions but may be up to 25% in error in the ultra-violet.

**CIRCUIT DIAGRAM**

