

PHILIPS

Mercury Blended Lamp MBTL-MBT/U

CI/SfB

(63.3)

UDC

628.94/.97



Features and Applications

The MBTL replaces the former MBT/U, having double the life—greater lumen output—same physical size—same price. A balanced combination of tungsten filament and mercury discharge tube enables the lamp to operate direct from the supply with no additional control gear, giving instant start light output. In addition, MBTL lamps have an average rated life six times that of normal tungsten filament lamps.

All these advantages result in a lamp ideally suited to commercial and public lighting applications, particularly where initial installation costs are of prime importance. Alternatively, they make an excellent replacement for tungsten lamps where their use will considerably reduce maintenance costs, especially in installations where accessibility is a problem.

Construction

The constructional features of this range are shown below. The 250W and 500W ratings use a specially developed phosphor whilst the 160W is silica coated.

Colour Correction

By the inclusion of the tungsten filament, a higher red content in the light output is achieved, with further improvement in the colour rendering properties being obtained by the use of a specially developed phosphor for the 250W and 500W ratings.

Starting

These lamps are designed to give "instant-start" light. After switching off there will be a short re-starting delay of two or three minutes. Suitable for operation on A.C. mains 50Hz only.

Burning Position

Normal burning position for these lamps is "vertical cap up". Where the supply regulation is good the 250W and 500W lamps may be burnt in any position.

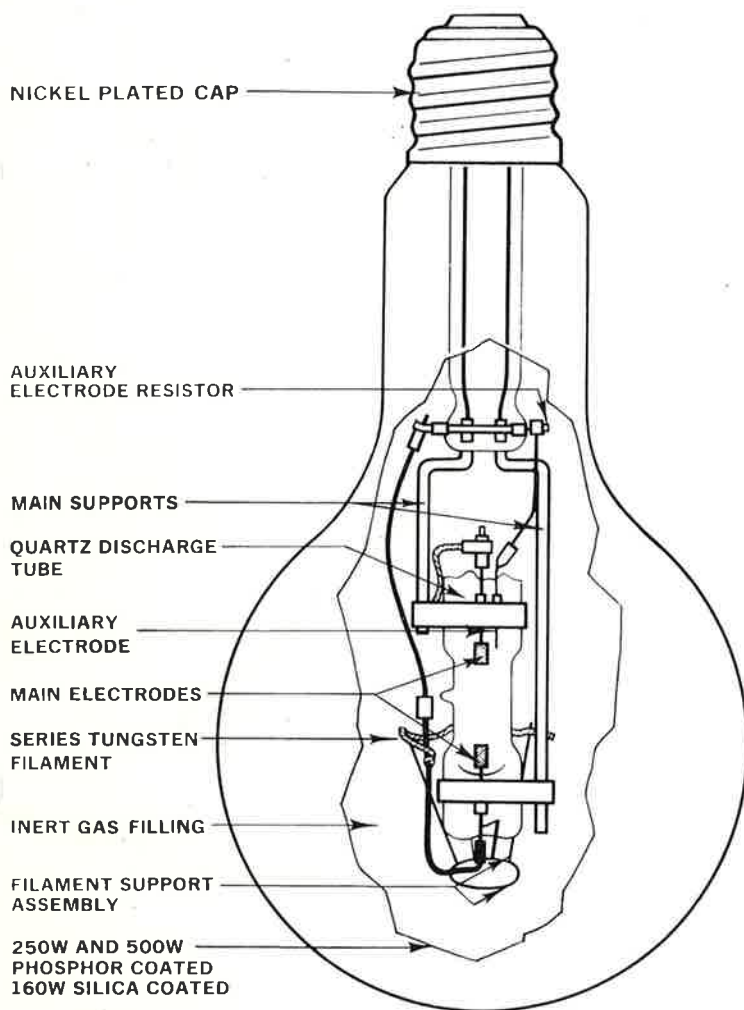
Light Output

The careful design of the tungsten filament in series with the discharge tube has made possible a source combining the favourable colour rendering features of tungsten lamps coupled with the high luminous efficiency of mercury discharge lamps. A white blended light output results.

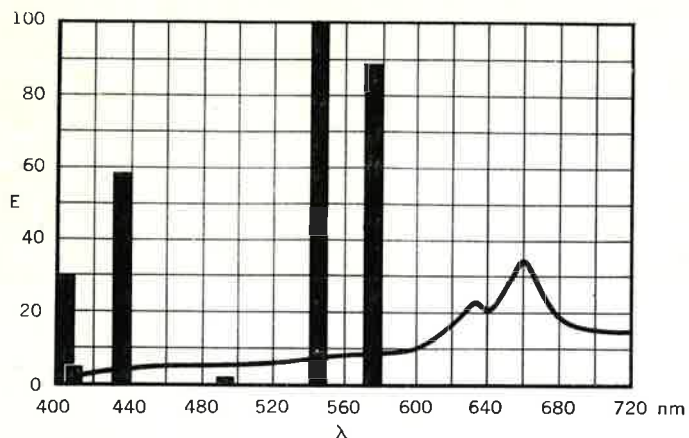
The internal coatings used in this range of lamps further improve the colour rendering properties of the light emitted, so that, except where colour is of considerable importance, the output from this lamp is suitable for most applications.

Features and Applications of MBT/U

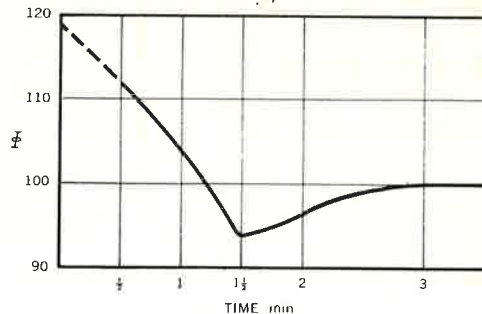
The 100W MBT/U mercury blended lamp is not part of the MBTL range and remains unchanged. This lamp is designed to economise in such situations where inaccessible lighting fittings cause costly service charges. Its simplicity of operation and long life make it ideal for industrial installations. It plugs into existing points, requires no control gear and gives immediate full light output. It is highly recommended for flameproof fittings and for bulkhead units, where the task of lamp changing is difficult.



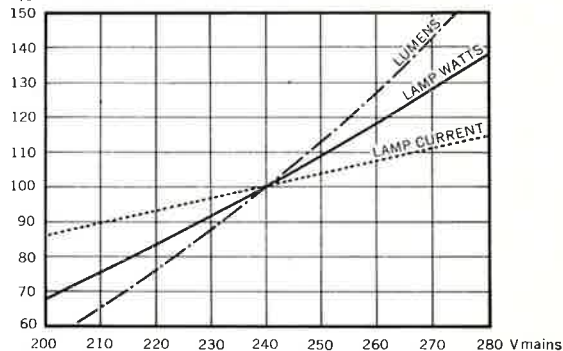
% LATIVE SPECTRAL POWER DISTRIBUTION



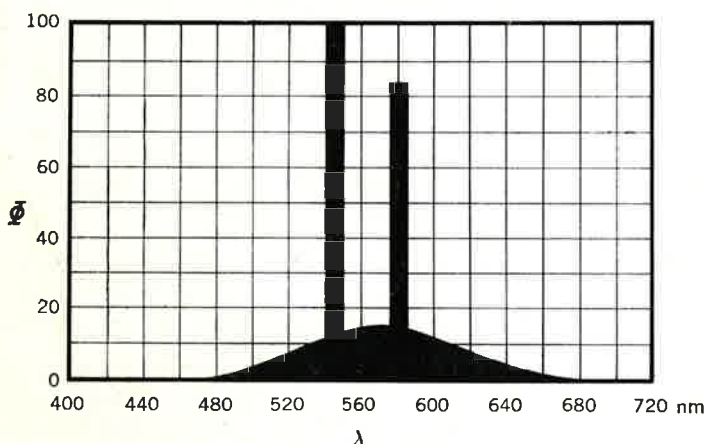
% LAMP PERFORMANCE DURING STARTING PERIOD



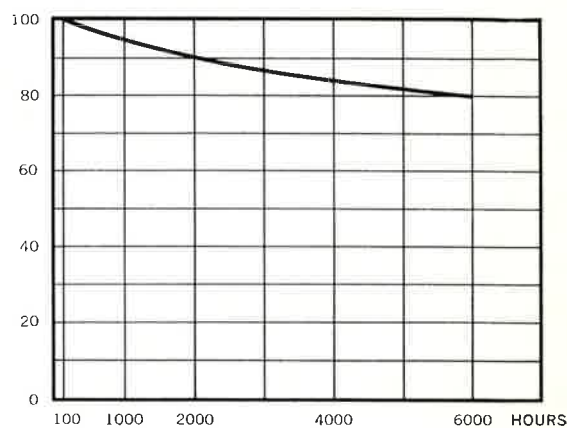
% EFFECT OF MAINS VOLTAGE FLUCTUATIONS



% RELATIVE SPECTRAL LIGHT DISTRIBUTION



% LIGHT DEPRECIATION CURVE



MBTL MBT/U Rating W	Lighting Design Lumens	Lamp Voltage (as mains) V	Lamp Current A	Power Factor	Dimensions		Cap		Packing Quantity
					O/A Length mm	Dia. mm			
100	1250	240/250	0.45	>0.95	152	70	BC	No Control Gear Required	32
160	2560	240/250 or 220/230	0.65		178 \pm 5.5	90 \pm 1	ES or BC		24
250	4840	240/250	1.05		233 \pm 7	110 \pm 1.5	GES		9
500	11000	240/250	2.20		267 \pm 7	130 \pm 1.5	GES		6

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