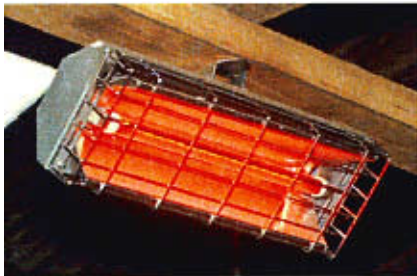


Quartz Linear Lamps for Horticulture

Introduction

Quartz Linear Lamps (QLL's) offer the possibility of warming areas of large, open or often draughty buildings, where heating would once have been too costly to consider.



Quartz heaters use a quartz linear tubular element (similar to those in quartz halogen lamps). The element of the lamp is very hot, running at about 2200°C. Short wave infrared heat is produced which can be accurately directed to a specific area and is effective over a considerable distance from the heater.

The radiant energy produced is not absorbed by the air through which the lamp beam passes. Heat is only produced when it hits a solid object.

Lamps are available in a range of heaters of various designs. Most lamps have ruby red filters to reduce the white light emitted and increase the infrared component.

One of the key advantages of a quartz

heater is that it operates at the flick of a switch and reaches full output within a second. This factor makes them very energy efficient in their use as heat is provided only when it is needed.

Applications

Heating and Lighting

When used without a ruby filter, both heat and light can be produced. This enables lamps to be used for applications such as seed propagation.

Frost Protection

QLL's controlled to operate from a frost-stat are an effective way of providing frost protection in greenhouses. Heaters with a dimpled reflector should be used to ensure a good distribution of heat.

Personnel Heating

Workshops, potting, grading lines and packing sheds can all be heated in a cost effective and energy efficient way using QLL's. Retail areas of garden centres or farm shops can also benefit from the use of QLL's.

Typical capital costs are in the region of £80-£130 per kW. A 1.5 kW heater costs in the region of 10-12p/hour to run on day rate and 3-4p/hour on night rate.