

# Halo T

Mains Voltage Single Ended Halogen Tubular Lamps with E40 cap  
Halo T 500W, 1000W

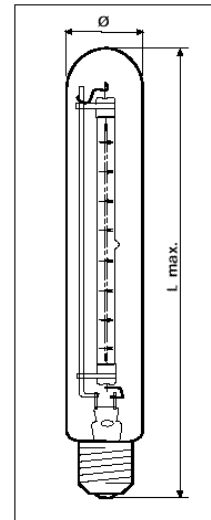


## Description

Housing in a clear outer soft glass bulb, these halogen floodlighting lamps operated on 230V or 240V mains have an E40 cap and can be fitted directly into traditional incandescent lamp sockets. The outer bulbs contain Mains Voltage Double Ended Halogen Linear Lamps in clear bulb.

## Features

- retrofit halogen lamps
- high efficacy = up to 10% more light for the same power
- crisp white halogen light, stable colour temperature
- excellent lumen maintenance
- long life = lasts 2000 hours — two times that of standard incandescents
- high heat impact resistance
- negligible amount of UV light
- dimmable



## Applications

- parking areas
- entrances, garages
- street and industry lighting, etc.

## Technical Data

Burning position: horizontal  $\pm 4^\circ$

Order Code	Watts	Volts	L max. Length (mm)	ø Diameter (mm)	Average Lumens	Rated Average Life (h)	Filament
Bulb: clear, Cap: E40							
HALOT/500/230/E40	500	230	220	38	9500	2000	C-8
HALOT/500/240/E40	500	240	220	38	9500	2000	C-8
HALOT/1000/230/E40	1000	230	280	38	21000	2000	C-8
HALOT/1000/240/E40	1000	240	280	38	21000	2000	C-8

## Tungsten Halogen Principle

The tungsten filament is enclosed in a gas filled quartz bulb, together with a controlled quantity of halogen. At the operating temperature some tungsten vapourizes and migrates to the cooler areas of the bulb wall where before it can be deposited, it combines with the halogen to form a tungsten halide. This circulates until it comes near the filament where the halide dissociates and deposits the tungsten back on the filament. This cycle continues throughout the operating life of the lamp. As the bulb wall remains clean the bulb size can be reduced considerably by the use of quartz which can withstand the high wall temperatures.

The small bulb and strong materials withstand much higher working pressures and the increased gas density. This reduces filament evaporation, thus offering increased performance either as more light or longer life.

## Light, Life & Voltage

For any particular lamp, the light output and life depend upon the voltage at which a lamp is operated. For instance, as approximations, the light output varies as the 3.6th power of the voltage and the life varies inversely as the 12th power of the voltage. The Chart and Tables below illustrate the effects of overvoltage or undervoltage applied to lamp on its current, life and light output. The values given (except for long life lamps) are reasonably valid between 95% and 110% rated volts.

Beyond this range the indicated characteristics may not be realised because of the increasing influence of factors which cannot be incorporated into the chart. The chart applies only to D.C. or sine-wave A.C. current. The data may differ particularly for lamp operation on half-wave rectified voltage, semiconductor dimming devices of constant operation.

## Tungsten Halogen Lamps & UV Radiation

Under normal use, there is no risk to humans of damage to the skin such as sunburn. For example, in typical office applications, the exposure to ultra violet light during an 8 hour day is equivalent to 10 minutes in the summer sun.

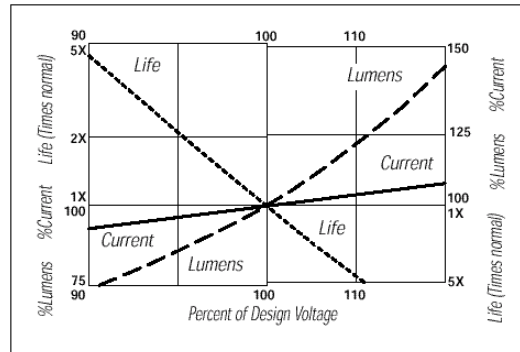
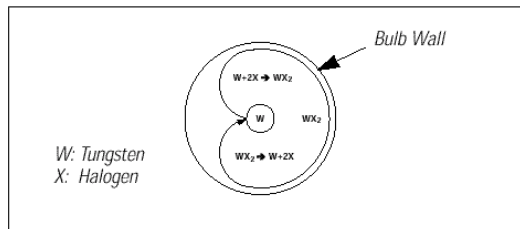
For tungsten halogen lamps, the amount of ultra violet and the extent of damage it can do to the skin depends on:

- how powerful the lamp is,
- how close you are to the lamp,
- how long you are close to the lamp.

Due to their outer soft glass bulbs, the amount of UV light emitted by GE Halo T lamps is significantly less than in case of conventional quartz halogen lamps without outer glass envelope, i.e. these lamps can be used as traditional incandescents and have no harmful effect to humans, at all.

## IEC Standards

GE tungsten halogen lamps comply with the following international and British Standards where applicable:  
IEC 60432-3 Tungsten Halogen Lamps Safety Standard  
IEC 60357 & BS 1075 Tungsten Halogen Lamps,  
IEC 60061 & BS 51001 Lamp Caps & Holders.



### Underrated Bulb Voltages (<100%)

VOLTS %	AMPS %	LUMENS %	LIFE %
99	99.4	96.5	112.8
98	98.9	93.2	127.4
97	98.3	89.9	144.1
96	97.8	86.7	163.2
95	97.2	83.6	185.1
90	94.4	69.2	354.1

### Overrated Bulb Voltages (>100%)

VOLTS %	AMPS %	LUMENS %	LIFE %
101	100.5	103.5	88.7
102	101.1	107.2	79.8
103	101.6	110.9	70.1
104	102.2	114.7	62.5
105	102.7	118.6	55.7
110	105.4	139.6	31.9

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