

# HaloGLS, HaloCandle and HaloSpherical lamps

## Halogen Lamps

HaloGLS 20W, 30W, 42W, 53W, 70W and 100W

HaloCandle 20W, 30W and 42W

HaloSpherical 20W, 30W and 42W

## Product information

GE's Retrofit Halogen Lamps are direct replacements for regular incandescent lamps offering a crisp white light.

## Features

Available in standard GLS, candle, spherical and reflector shapes, these lamps are the environmentally friendly solution for those who prefer the features and light quality associated with incandescent bulbs.

- Last twice as long and consume up to 30% less electricity than corresponding incandescent lamps.
- Provide instant-on, full light output at start-up and lumens are maintained throughout the life of the product.
- Unlike some compact fluorescent products, they are 100% retrofit with the incandescent lamps they replace.
- Can be used with dimming switches.
- Environmentally friendly with no lead or mercury.
- Up to 2,000 hours life
- Excellent colour rendering, light close to natural (100% CRI)
- More than 90% lumen maintenance over life

## Application areas



Home



Hospitality



## Product range

GLS lamps are available in a full range of:

- 20, 30, 42, 53, 70 and 100 wattages
- Cap E27 and B22

Candle lamps are available in a full range of:

- 20, 30, and 42 wattages
- Cap E14, E27, B15 and B22

Spherical lamps are available in a full range of:

- 20, 30, and 42 wattages
- Cap E14, E27, B15 and B22

## IEC Standards

GE tungsten halogen lamps comply with the following international standards where applicable:

- IEC 60432-2 Tungsten Halogen Lamps Safety Standard,
- IEC 60357 Tungsten Halogen Lamps Performance Standard,
- IEC 60061 Lamp Caps & Holders – Part1: Lamp Caps



GE imagination at work

## Basic data

### HaloGLS lamps

Wattage [W]	Volt [V]	Cap	Product Description	Product Code	Lumen [lm]	Colour [K]	Lifetime [hours]	Length [mm]	Diameter [mm]	Switching cycle	Energy Class	Pack Type	Pack Qty	Energy consumption [kWh/1000 hrs]
20	230	E27	20W HALO A CL E27 230V	98410*	235	2800	2,000	89.5	50	8000	D	Box	10	21.46
20	230	E27	20W HALO A CL E27 230V	98411*	235	2800	2,000	89.5	50	8000	D	Blister	10	21.46
30	240	B22	30W HALO A CL B22 240V	98361*	405	2800	2,000	89.5	50	8000	D	Box	8	31.53
30	230	E27	30W HALO A CL E27 230V	98362*	405	2800	2,000	89.5	50	8000	D	Box	10	31.70
30	240	B22	30W HALO A CL B22 240V	98364*	405	2800	2,000	89.5	50	8000	D	Twinbox	16	31.53
30	240	E27	30W HALO A CL E27 240V	98365*	405	2800	2,000	89.5	50	8000	D	Twinbox	16	31.53
30	230	B22	30W HALO A CL B22 230V	98376*	405	2800	2,000	89.5	50	8000	D	Blister	10	31.70
30	240	E27	30W HALO A CL E27 240V	98406*	405	2800	2,000	89.5	50	8000	D	Box	8	31.53
30	230	E27	30W HALO A CL E27 230V	98409*	405	2800	2,000	89.5	50	8000	D	Blister	10	31.70
42	240	B22	42W HALO A CL B22 240V	62575	630	2800	2,000	89.5	50	8000	D	Box	8	43.65
42	230	E27	42W HALO A CL E27 230V	63613	630	2800	2,000	89.5	50	8000	D	Box	10	43.03
42	230	B22	42W HALO A CL B22 230V	63615	630	2800	2,000	89.5	50	8000	D	Blister	10	43.03
42	230	E27	42W HALO A CL E27 230V	63650	630	2800	2,000	89.5	50	8000	D	Twinblister	20	43.03
42	230	B22	42W HALO A CL B22 230V	63651	630	2800	2,000	89.5	50	8000	D	Twinblister	20	43.03
42	240	B22	42W HALO A CL B22 240V	63928	630	2800	2,000	89.5	50	8000	D	Twinbox	16	43.65
42	240	E27	42W HALO A CL E27 240V	63931	630	2800	2,000	89.5	50	8000	D	Twinbox	16	43.65
42	240	E27	42W HALO A CL E27 240V	79422	630	2800	2,000	89.5	50	8000	D	Box	8	43.65
42	230	E27	42W HALO A CL E27 230V	99935	630	2800	2,000	89.5	50	8000	D	Blister	10	43.03
53	230	E27	53W HALO A CL E27 230V	63959	850	2800	2,000	89.5	50	8000	D	Box	10	54.96
53	240	E27	53W HALO A CL E27 240V	63961	850	2800	2,000	89.5	50	8000	D	Box	8	56.35
53	240	B22	53W HALO A CL B22 240V	64993	850	2800	2,000	89.5	50	8000	D	Box	8	56.35
53	230	E27	53W HALO A CL E27 230V	65821	850	2800	2,000	89.5	50	8000	D	Twinblister	20	54.96
53	230	B22	53W HALO A CL B22 230V	98712	850	2800	2,000	89.5	50	8000	D	Twinblister	20	54.96
70	240	B22	70W HALO A CL B22 240V	62576	1200	2800	2,000	89.5	50	8000	D	Box	8	73.33
70	230	E27	70W HALO A CL E27 230V	63612	1200	2800	2,000	89.5	50	8000	D	Box	10	72.45
70	230	E27	70W HALO A CL E27 230V	63648	1200	2800	2,000	89.5	50	8000	D	Twinblister	20	72.45
70	230	B22	70W HALO A CL B22 230V	63649	1200	2800	2,000	89.5	50	8000	D	Twinblister	20	72.45
70	240	B22	70W HALO A CL B22 240V	63929	1200	2800	2,000	89.5	50	8000	D	Twinbox	16	73.33
70	240	E27	70W HALO A CL E27 240V	63932	1200	2800	2,000	89.5	50	8000	D	Twinbox	16	73.33
70	240	E27	70W HALO A CL E27 240V	79423	1200	2800	2,000	89.5	50	8000	D	Box	8	72.45
70	230	E27	70W HALO A CL E27 230V	99933	1200	2800	2,000	89.5	50	8000	D	Blister	10	72.45
70	230	B22	70W HALO A CL B22 230V	99934	1200	2800	2,000	89.5	50	8000	D	Blister	10	102.08
100	240	E27	100W HALO A CL E27 240V	97243	1800	2800	2,000	89.5	50	8000	D	Box	8	102.08
100	240	B22	100W HALO A CL B22 240V	97244	1800	2800	2,000	89.5	50	8000	D	Box	8	102.56
100	230	E27	100W HALO A CL E27 230V	97245	1800	2800	2,000	89.5	50	8000	D	Blister	10	102.56
100	230	E27	100W HALO A CL E27 230V	97246	1800	2800	2,000	89.5	50	8000	D	Box	10	102.56
100	230	B22	100W HALO A CL B22 230V	97247	1800	2800	2,000	89.5	50	8000	D	Blister	10	129

\*Notice: Please note that the rated life of those lamps under this SKU number placed on the market on or before 31 August 2013 can be either 1,000 hours or 2,000 hours. The rated life of those lamps placed on the market on or after 1 September 2013 is exclusively 2,000 hours.

## HaloCandle lamps

Wattage [W]	Volt [V]	Cap	Product Description	Product Code	Lumen [lm]	Colour [K]	Lifetime [hours]	Length [mm]	Diameter [mm]	Switching cycle	Energy Class	Pack Type	Pack Qty	Energy consumption [kWh/1000 hrs]
20	240	E14	20W HALO C CL E14 240V	98366*	235	2800	2,000	99.5	35	8000	D	Twinbox	20	21.15
20	240	E14	20W HALO C CL E14 240V	98399*	235	2800	2,000	99.5	35	8000	D	Box	12	21.15
30	240	E14	30W HALO C CL E14 240V	98367*	405	2800	2,000	99.5	35	8000	D	Twinbox	20	31.53
30	240	B22	30W HALO C CL B22 240V	98368*	405	2800	2,000	95.5	35	8000	D	Twinbox	20	31.53
30	240	E27	30W HALO C CL E27 240V	98369*	405	2800	2,000	96.5	35	8000	D	Twinbox	20	31.53
30	240	E27	30W HALO C CL E27 240V	98391*	405	2800	2,000	96.5	35	8000	D	Box	12	31.53
30	240	E14	30W HALO C CL E14 240V	98392*	405	2800	2,000	99.5	35	8000	D	Box	12	31.53
30	240	B22	30W HALO C CL B22 240V	98393*	405	2800	2,000	95.5	35	8000	D	Box	12	31.53
30	240	B15	30W HALO C CL B15 240V	98394*	405	2800	2,000	98.5	35	8000	D	Box	12	31.53
30	230	E14	30W HALO C CL E14 230V	98398*	405	2800	2,000	99.5	35	8000	D	Box	10	31.70
42	240	B15	42W HALO C CL B15 240V	63933	630	2800	2,000	98.5	35	8000	D	Twinbox	20	43.65
42	240	E14	42W HALO C CL E14 240V	63936	630	2800	2,000	99.5	35	8000	D	Twinbox	20	43.65
42	240	B22	42W HALO C CL B22 240V	63938	630	2800	2,000	95.5	35	8000	D	Twinbox	20	43.65
42	240	E27	42W HALO C CL E27 240V	63940	630	2800	2,000	96.5	35	8000	D	Twinbox	20	43.65
42	240	E27	42W HALO C CL E27 240V	76568	630	2800	2,000	96.5	35	8000	D	Box	12	43.65
42	240	E14	42W HALO C CL E14 240V	76569	630	2800	2,000	99.5	35	8000	D	Box	12	43.65
42	240	B22	42W HALO C CL B22 240V	76570	630	2800	2,000	95.5	35	8000	D	Box	12	43.65
42	240	B15	42W HALO C CL B15 240V	76571	630	2800	2,000	98.5	35	8000	D	Box	12	43.65
42	230	E27	42W HALO C CL E27 230V	76572	630	2800	2,000	96.5	35	8000	D	Blister	10	43.03
42	230	E27	42W HALO C CL E27 230V	76573	630	2800	2,000	96.5	35	8000	D	Box	10	43.03
42	230	E14	42W HALO C CL E14 230V	76574	630	2800	2,000	99.5	35	8000	D	Blister	10	43.03
42	230	E14	42W HALO C CL E14 230V	76575	630	2800	2,000	99.5	35	8000	D	Box	10	43.03

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## HaloSpherical lamps

Wattage [W]	Volt [V]	Cap	Product Description	Product Code	Lumen [lm]	Colour [K]	Lifetime [hours]	Length [mm]	Diameter [mm]	Switching cycle	Energy Class	Pack Type	Pack Qty	Energy consumption [kWh/1000 hrs]
20	240	E14	20W HALO S CL E14 240V	98371*	235	2800	2,000	78	45	8000	D	Twinbox	16	21.15
20	240	E27	20W HALO S CL E27 240V	98373*	235	2800	2,000	73	45	8000	D	Twinbox	16	21.15
20	240	E14	20W HALO S CL E14 240V	98385*	235	2800	2,000	78	45	8000	D	Box	12	21.15
20	240	B22	20W HALO S CL B22 240V	98386*	235	2800	2,000	73	45	8000	D	Box	12	21.15
20	230	E27	20W HALO S CL E27 230V	98387*	235	2800	2,000	73	45	8000	D	Blister	10	21.46
20	230	E27	20W HALO S CL E27 230V	98388*	235	2800	2,000	73	45	8000	D	Box	10	21.46
20	230	E14	20W HALO S CL E14 230V	98389*	235	2800	2,000	78	45	8000	D	Blister	10	21.46
20	230	E14	20W HALO S CL E14 230V	98390*	235	2800	2,000	78	45	8000	D	Box	10	21.46
30	240	B15	30W HALO S CL B15 240V	98370*	405	2800	2,000	78	45	8000	D	Twinbox	16	31.53
30	240	E14	30W HALO S CL E14 240V	98372*	405	2800	2,000	78	45	8000	D	Twinbox	16	31.53
30	240	E27	30W HALO S CL E27 240V	98374*	405	2800	2,000	73	45	8000	D	Twinbox	16	31.53
30	240	B22	30W HALO S CL B22 240V	98375*	405	2800	2,000	73	45	8000	D	Twinbox	16	31.53
30	240	E27	30W HALO S CL E27 240V	98377*	405	2800	2,000	73	45	8000	D	Box	12	31.53
30	240	E14	30W HALO S CL E14 240V	98378*	405	2800	2,000	78	45	8000	D	Box	12	31.53
30	240	B22	30W HALO S CL B22 240V	98379*	405	2800	2,000	73	45	8000	D	Box	12	31.53
30	240	B15	30W HALO S CL B15 240V	98380*	405	2800	2,000	78	45	8000	D	Box	12	31.53
30	230	E27	30W HALO S CL E27 230V	98381*	405	2800	2,000	73	45	8000	D	Blister	10	31.70
30	230	E27	30W HALO S CL E27 230V	98382*	405	2800	2,000	73	45	8000	D	Box	10	31.70
30	230	E14	30W HALO S CL E14 230V	98383v	405	2800	2,000	78	45	8000	D	Blister	10	31.70
30	230	E14	30W HALO S CL E14 230V	98384*	405	2800	2,000	78	45	8000	D	Box	10	31.70
42	230	E14	42W HALO S CL E14 230V	63652	630	2800	2,000	78	45	8000	D	Twinblister	20	43.03
42	240	E14	42W HALO S CL E14 240V	63944	630	2800	2,000	78	45	8000	D	Twinbox	16	43.65
42	240	E27	42W HALO S CL E27 240V	63947	630	2800	2,000	73	45	8000	D	Twinbox	16	43.65
42	240	B22	42W HALO S CL B22 240V	63949	630	2800	2,000	73	45	8000	D	Twinbox	16	43.65
42	240	E27	42W HALO S CL E27 240V	76547	630	2800	2,000	73	45	8000	D	Box	12	43.65
42	240	E14	42W HALOS CL E14 240V	76548	630	2800	2,000	78	45	8000	D	Box	12	43.65
42	240	B22	42W HALOS CL B22 240V	76549	630	2800	2,000	73	45	8000	D	Box	12	43.65
42	230	E27	42W HALO S CL E27 230V	76550	630	2800	2,000	73	45	8000	D	Blister	10	43.03
42	230	E27	42W HALO S CL E27 230V	76551	630	2800	2,000	73	45	8000	D	Box	10	43.03
42	230	E14	42W HALO S CL E14 230V	76552	630	2800	2,000	78	45	8000	D	Blister	10	43.03
42	230	E14	42W HALO S CL E14 230V	76553	630	2800	2,000	78	45	8000	D	Box	10	43.03

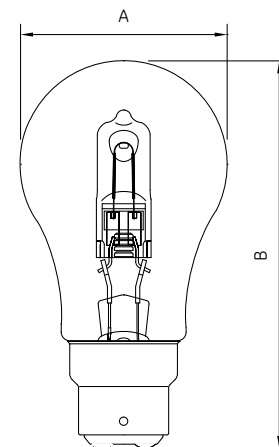
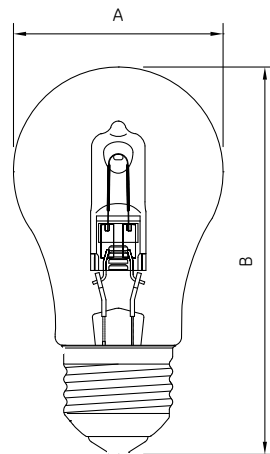
\*Notice: Please note that the rated life of those lamps under this SKU number placed on the market on or before 31 August 2013 can be either 1,000 hours or 2,000 hours. The rated life of those lamps placed on the market on or after 1 September 2013 is exclusively 2,000 hours.

## Cross reference table

Halogen [W]	EuP Inca equivalent [W]
20	26
30	40
42	55
53	70
70	92
100	129

## Dimensions

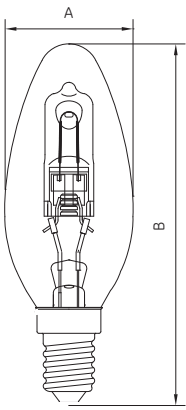
### HaloGLS lamps



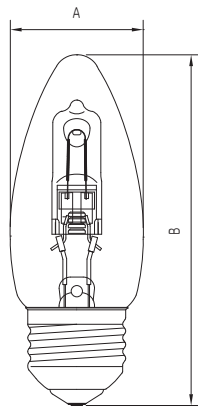
Wattage	Cap	B Length [mm]	A Diameter [mm]
20W	E27	89.5	50
30W	E27	89.5	50
42W	E27	89.5	50
53W	E27	89.5	50
70W	E27	89.5	50
100W	E27	89.5	50

Wattage	Cap	B Length [mm]	A Diameter [mm]
30W	B22	89.5	50
42W	B22	89.5	50
53W	B22	89.5	50
70W	B22	89.5	50
100W	B22	89.5	50

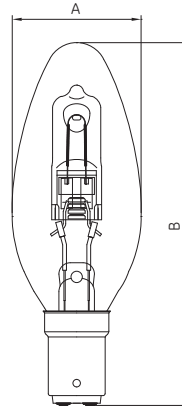
## HaloCandle lamps



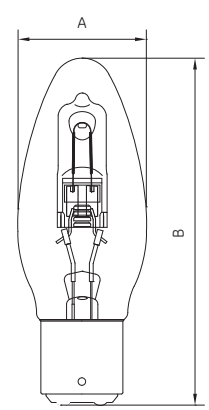
Wattage	Cap	B Length [mm]	A Diameter [mm]
20W	E14	99.5	35
30W	E14	99.5	35
42W	E14	99.5	35



Wattage	Cap	B Length [mm]	A Diameter [mm]
30W	E27	96.5	35
42W	E27	96.5	35

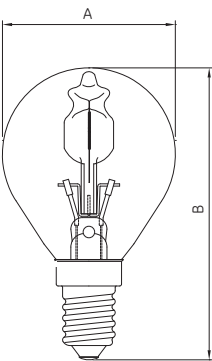


Wattage	Cap	B Length [mm]	A Diameter [mm]
30W	B15	98.5	35
42W	B15	98.5	35

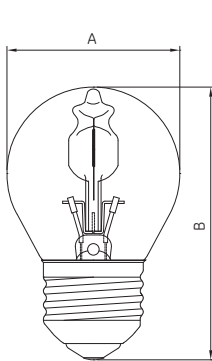


Wattage	Cap	B Length [mm]	A Diameter [mm]
30W	B22	95.5	35
42W	B22	95.5	35

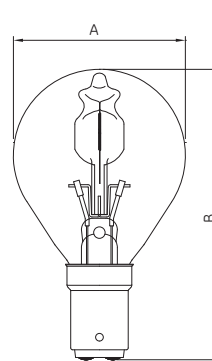
## HaloSpherical lamps



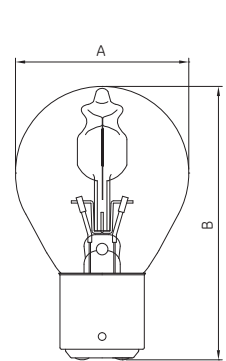
Wattage	Cap	B Length [mm]	A Diameter [mm]
20W	E14	78	45
30W	E14	78	45
42W	E14	78	45



Wattage	Cap	B Length [mm]	A Diameter [mm]
20W	E27	73	45
30W	E27	73	45
42W	E27	73	45



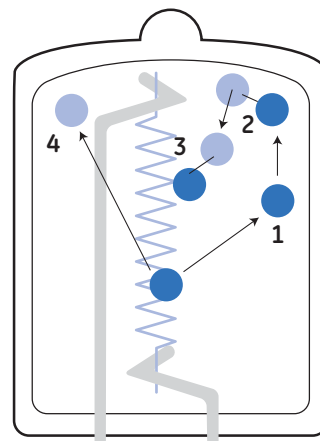
Wattage	Cap	B Length [mm]	A Diameter [mm]
30W	B15	78	45



Wattage	Cap	B Length [mm]	A Diameter [mm]
20W	B22	73	45
30W	B22	73	45
42W	B22	73	45

## Tungsten halogen principle

The filament of the incandescent lamp is replaced with a halogen inner burner. The burner builds up from a tungsten filament enclosed in a gas filled quartz bulb, together with a controlled quantity of halogen. At the operating temperature some tungsten evaporates 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 required by the halogen cycle. The small bulb and strong materials withstand much higher working pressures, this reduces filament evaporation, thus offering increased performance either as more light or longer life.



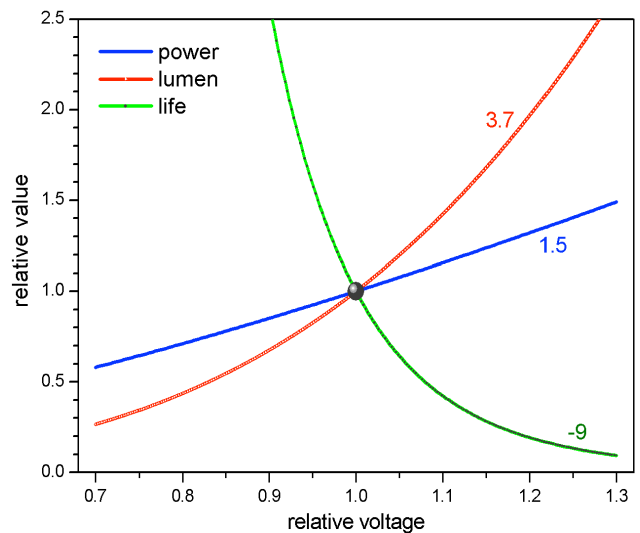
1. Tungsten evaporation
2. W- halogen reaction at bulb
3. Halogen returns to filament
4. Halogen returns to cycle

Bulb remains clear, "hot-spot" forming delayed

## 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 of incandescent replacement halogen lamps varies as the 3.7th power of the voltage and the life varies inversely as the 9th power of the voltage.

The chart below illustrates the effects of overvoltage or undervoltage applied to lamp on its power, life and light output. The values given are reasonably valid between 70% and 130% rated voltage. Since the halogen cycle is optimized at rated voltage, a certain degree of bulb blackening occurs at overvoltage. The chart applies only for A.C. operation. The life may be reduced for lamp operation on half-wave rectified or D.C. voltage because of a harmful unidirectional tungsten diffusion within the coil. Phase-splitting semiconductor dimming devices have no reducing effect on life.

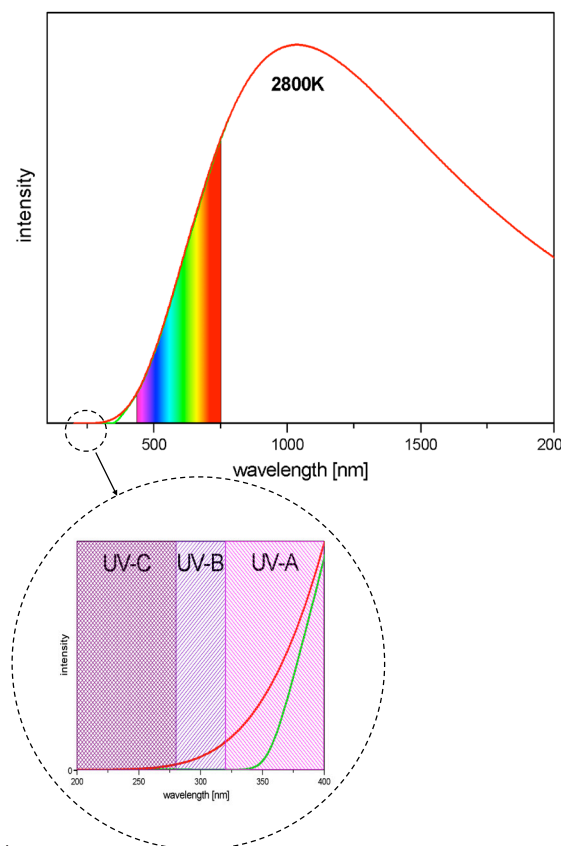


## UV radiation

The hot filament emits only a small amount of energy in the UV range according to the blackbody radiation. The soft glass outer bulb of the lamp blocks all UV radiation of the filament, just like in case of a traditional incandescent lamp. This results that the UV levels are much below the international standards. It means that even in the case of very high illumination levels, the use of these lamps has no harmful effects to material and living being at all.

## End-of-life behaviour

The technology applied for the inner burners provides extremely safe end-of-life behaviour. Since the burner does not contain additional metal parts, the risk of high current arcing when a lamp burns out is essentially eliminated. In addition fuses are built in the lamp to ensure smooth end-of-life behaviour.



## Operation and Maintenance

- Store and use the lamps the same way as traditional incandescent lamps.
- Fuse is not required in circuit.
- Observe wattage limitations of your fixture.
- Bulb wall temperatures in operation are high and therefore lamps should not be operated in flammable atmospheres unless enclosed in suitably rated luminaires.
- Lamps should be kept free from contamination.
- Good condition of the lampholder contacts is important to ensure proper operation of lamp.
- Ensure lamp is cool before removing.
- Do not use the lamp if the outer jacket is broken, even if the burner still operates. There is a risk of electric shock.
- Rapid cycling can shorten lamp life and designers should take advice from their GE Lighting representative before using these lamps in flashing or blinking applications.
- The lamps may be dimmed by reducing voltage. However, this may cause the bulbs to blacken. If this occurs the lamp should be run at full voltage for fifteen minutes, thereby clearing the problem.
- Switch off mains supply before installing/removing lamp.