

# GLS 6,000 hours

Compact Fluorescent Lamps Integrated  
8W, 12W, 15W and 20W



## Product information

The 6,000 hours CFL GLS lamps offer traditional incandescent shape, long life and elegant light. Suitable for general home lighting, GE Lighting's Decor CFL range is an ideal and eco-friendly solution.

## Features

Compact Fluorescent Lamps (CFL) have an important role to play in the future of lighting, helping to protect the environment by using less energy and creating less CO<sub>2</sub> emissions. In addition, CFL lamps contribute to the reduction of maintenance costs, ensuring that financial benefits are enjoyed alongside environmental benefits.

There are a variety of performance advantages afforded by GE Lighting CFL lamps. They use almost 80% less energy and last six times longer than their incandescent predecessors, are rated energy class 'A' and offer high quality light.

With continuing technological advancements and miniaturisation, today's CFL GLS lamps are similar to the incandescent lamps that they replace to ensure that they are discreet – yet high performing.

- 6,000 hours life
- Small dimensions
- Fast warm-up
- Low mercury content < 2 mg
- High colour rendering
- 'A' energy class

## Application areas

CFL GLS lamps are recommended for general indoor applications such as:

- Home lighting
- Retail lighting
- Hotels
- Restaurants
- Corridors, hallways

## Product range

CFL GLS lamps are available in a full range of:

- 8, 12, 15, 20 wattages
- E14, E27, B22 caps
- Warm (2700K) and Cool (4000K) colours
- Box and blister packs



# Compliance

## Standards

- IEC 60061-1: Lamp caps and holders together with gauges for the control of interchangeability and safety
- IEC or EN 60969: Self ballasted lamps for general lighting services – performance requirements
- IEC or EN 60968: Self-ballasted lamps for general lighting services – safety requirements
- EN 50285: Energy labelling of household lamps
- CIE S 009/E:2002: Photobiological safety of lamps and lamp systems
- EN 61547: Requirement for general lighting purposes – EMC immunity requirement
- EN 55015 or CISPR 15: Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
- EN 61000-3-2: Electromagnetic compatibility (EMC) – Part 3-2: Limits – limits for harmonic current emissions (equipment input current up to and including 16A per phase)
- EN 61000-3-3: Electromagnetic compatibility (EMC) – Part 3-3: Limits – limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up to 16A

## European Directives:

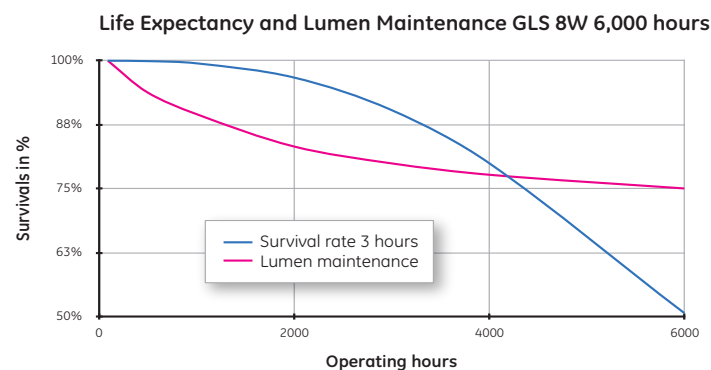
- Safety: Low Voltage (LVD) 2006/95/EC
- Electromagnetic Compatibility: (EMC) 2004/108/EC
- RoHS: Directive 2011/65/EC on Restrictions of the use of certain Hazardous Substances (RoHS)
- ErP household: Directive 2009/125/EC on ecodesign requirements (of Energy-related Products) and its Implementing Measure for non-directional Household Lamps: 244/2009/EC
- Energy Labelling: Commission Directive 98/11/EC of 27 January 1998 implementing Council Directive 92/75/EEC with regard to energy labelling of household lamps
- WEEE: Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE)
- REACH: Commission Regulation 453/2010/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

## Basic data

Rated* Wattage [W]	Volts [V]	Cap	Product Description	Product Code Box pack	Product Code Blister pack	Rated* Lumen [lm]	CCT [K]	CRI [Ra]	Rated* Life [h]	Length [mm]	Diameter [mm]	EEC	Pack Qty	EuP Inca Watt Equivalent
8,0	220-240	E14	FLE8GLS/T2/827/E14	88178		370	2700	80	6,000	103.5	52.5	A	8	35
8,0	220-240	E27	FLE8GLS/T2/827/E27	88180		370	2700	80	6,000	100	52.5	A	8	35
8,0	220-240	B22	FLE8GLS/T2/827/B22	88179		370	2700	80	6,000	99	52.5	A	8	35
8,0	220-240	E14	FLE8GLS/T2/840/E14	88151		370	4000	80	6,000	103.5	52.5	A	10	35
8,0	220-240	E27	FLE8GLS/T2/840/E27	88152		370	4000	80	6,000	100	52.5	A	10	35
12,0	220-240	E14	FLE12GLS/T2/827/E14	88177	96865	625	2700	80	6,000	113.5	56	A	6	52
12,0	220-240	E27	FLE12GLS/T2/827/E27	88209		625	2700	80	6,000	110	56	A	6	52
12,0	220-240	B22	FLE12GLS/T2/827/B22	88208		625	2700	80	6,000	109	56	A	6	52
12,0	220-240	E14	FLE12GLS/T2/840/E14	88149		600	4000	80	6,000	113	56	A	10	51
12,0	220-240	E27	FLE12GLS/T2/840/E27	88150		600	4000	80	6,000	110	56	A	10	51
15,0	220-240	E27	FLE15GLS/T3/827/E27	88176		830	2700	80	6,000	121	61	A	6	66
15,0	220-240	B22	FLE15GLS/T3/827/B22	88175		830	2700	80	6,000	120	61	A	6	66
15,0	220-240	E27	FLE15GLS/T3/840/E27	88148		825	4000	80	6,000	121	61	A	10	66
20,0	220-240	E27	FLE20GLS/T3/827/E27	82151		1160	2700	80	6,000	152	77	A	6	86
20,0	220-240	B22	FLE20GLS/T3/827/B22	82150		1160	2700	80	6,000	151	77	A	6	86

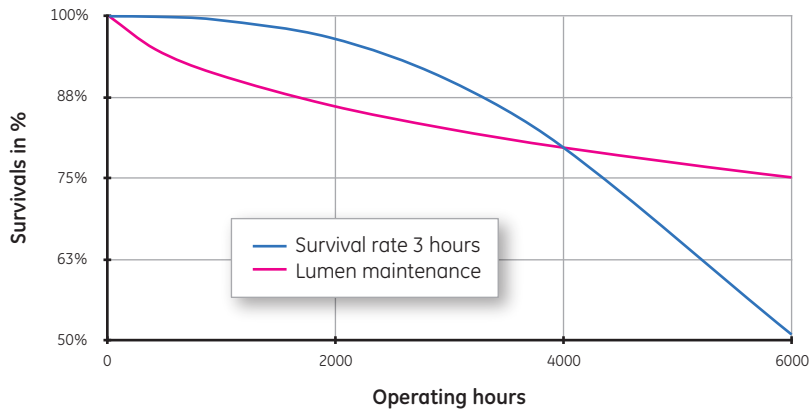
\*Rated wattage, life and lumen are equivalent to nominal values, which are indicated on product packaging

## Survival rate and lumen maintenance



Hours	Survival rate 3 hours	Lumen maintenance
100	1.00	1.00
2,000	0.97	0.83
4,000	0.80	0.78
6,000	0.51	0.75

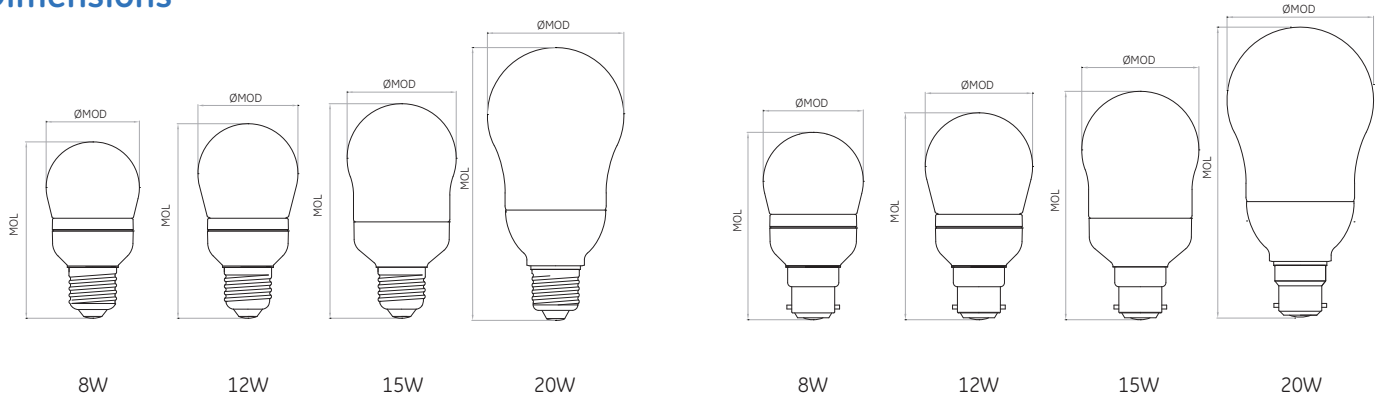
## Life Expectancy and Lumen Maintenance GLS 12, 15 and 20W 6,000 hours



Test condition: 50Hz 230V 3 hours cycling - according to IEC60969

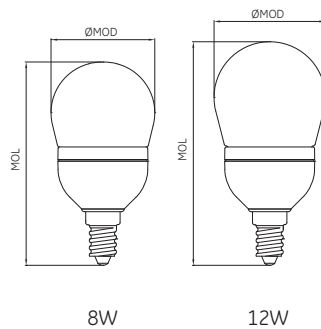
Hours	Survival rate 3 hours	Lumen maintenance
100	1.00	1.00
2,000	0.97	0.86
4,000	0.80	0.80
6,000	0.51	0.75

## Dimensions



E27 cap		
	MOL [mm]	MOD [mm]
8W	100	52.5
12W	110	56
15W	121	61
20W	152	77

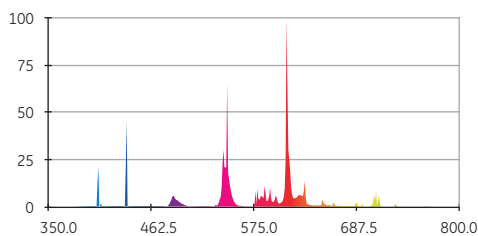
B22 cap		
	MOL [mm]	MOD [mm]
8W	99	52.5
12W	109	56
15W	120	61
20W	151	77



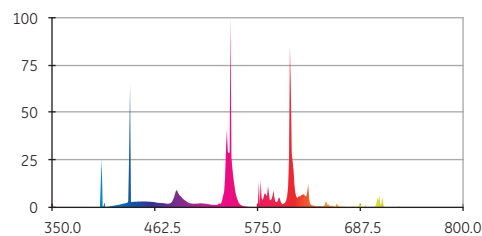
E14 cap		
	MOL [mm]	MOD [mm]
8W	103.5	52.5
12W	113.5	56

## Spectral power distribution

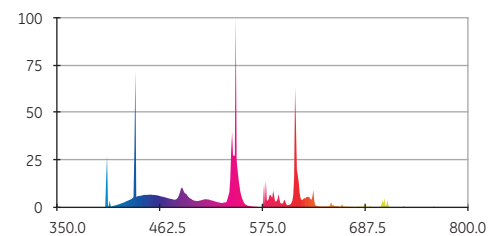
Spectral Distribution 2700K



Spectral Distribution 4000K

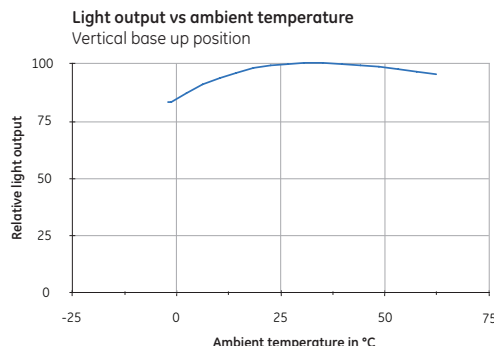


Spectral Distribution 6500K

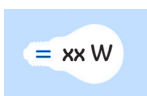


## Influence of ambient temperature on light output

Photometrical and light parameters of a fluorescent lamp depend on the mercury vapor pressure inside the lamp. Mercury vapor pressure in turn is controlled by temperature. When installed in a luminaire, the temperature of the air surrounding the lamp cap changes and this can affect the light output of the lamp. The effects of changes in ambient temperature for a typical lamp are shown on the graph.



## Additional information – EuP Compliance



**Incandescent watt equivalence:** select the preferred wattage to enjoy the same light output as the original incandescent bulb while at the same time achieving significant energy savings. The Basic Data table and the updated EuP packaging include the CFL-Incandescent wattage equivalences according to the new EuP luminous flux standards.



**Switching cycle:** switching endurance is a minimum 3000 cycles based on official EU standard – one minute on, three minutes off.

**GLS 6,000 hours 8-12W switching cycle: 5,000; GLS 6,000 hours 15-20W switching cycle: 10,000**



**Starting time:** the time needed for the lamp to start fully and remain alight. GE Lighting's CFL lamps are usually instant light on. Starting categories are: instant on (<0.3sec), quick (0.3-1sec), standard (1-1.5sec).

**GLS 6,000 hours starting time: 8 and 12W instant; 15 and 20W quick**

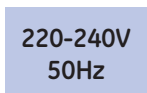


**Warm-up:** GE Lighting's CFL lamps are usually characterised by fast warm-up times. Warm-up categories at 60% lumen are: fast (<30sec), standard (30-60sec) and slow (60-120sec).

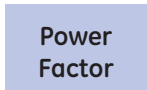
**GLS 6,000 hours: standard warm-up (<60sec)**



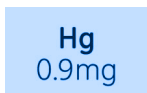
**Dimming:** not recommended to use with dimmers.



**220-240V 50Hz:** all lamps operate on 220-240 Volt (-10%; +6%), 50 Hertz



**Power Factor:** ratio of the measured active input power to the product of the supply voltage (r.m.s.) and the supply current (r.m.s.). measures how efficiently the current is being converted into real power. Lamps of power factor >0.9 are referred to as High Power Factor lamps, below that as Low Power Factor lamps. All CFL lamps above 25 watts sold in EU need to be High Power Factor lamp. **GLS 6,000 hours power factor: >0.5**



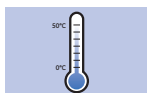
**Mercury content:** GE Lighting's CFL lamps contain a minimised level of mercury, some of our best-in class lamps as low as 0.9mg vs. the max. 5.0mg allowed by RoHS.

**GLS 6,000 hours 8, 12 and 15W: mercury content 2.0mg; GLS 6,000 hours 20W: mercury content 3.5mg**



**Website:** instructions on how to dispose of lamps at end of life or in the case of accidental lamp breakage are available on the GE Lighting website.

## Application information



**Ambient temperature range:** temperature at which a lighting product can be safely used and can meet the claimed rated life. Outside of this temperature range, the product might still operate, although the life could be reduced.

**GLS 6,000 hours 8, 12 and 15W ambient operating temperature range: -10-50°C**

**GLS 6,000 hours 20W ambient operating temperature range: -20-40°C**



**Minimum starting temperature:** the lowest temperature condition at which the product can reliably start at within 3sec at 230V.

**GLS 6,000 hours 8, 12 and 15W minimum starting temperature: -10°C**

**GLS 6,000 hours 20W minimum starting temperature: -20°C**

## Cautionary notices



**Enclosed fixture:** usage in enclosed fixture may reduce life. Not recommended in totally enclosed fixture.