

# Genura R80 Reflector

Compact Fluorescent Lamps Integrated  
23W



## Product information

Genura is a unique reflector offer from GE, an electromagnetic induction lamp, delivering long lifetime, high performance light and durability. This premium lamp is ideal in downlights or any decorative indoor lighting.

## 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 fifteen times longer than their incandescent predecessors and offer high quality light.

- 15,000 hours life
- Fast warm-up
- 100,000 high switching cycle endurance
- Low mercury content
- Electrodeless design

## Application areas

Genura lamps are recommended for general indoor applications such as:

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

## Product range

Genura lamps are available in:

- 23W
- E27 cap
- Warm white (2700K and 3000K) colours
- Box pack



# 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
- 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:

- CE mark: 93/68/EEC; LVD: 2006/95/EC; EMC: 2004/108/EC, Ecodesign 2005/32/EC, ROHS 2011/65/EU
- Energy Labelling: Directive 2010/30/EU, 874/2012/EU energy labelling of electrical lamps and luminaires
- RoHS: Directive 2011/65/EU on Restrictions of the use of certain Hazardous Substances (RoHS)
- WEEE: Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)
- REACH: Directive 2006/1907/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- ErP ecodesign: Directive 2005/32/EC, 1194/2012/EU ecodesign requirements (of Energy-related Products) for directional household lamps

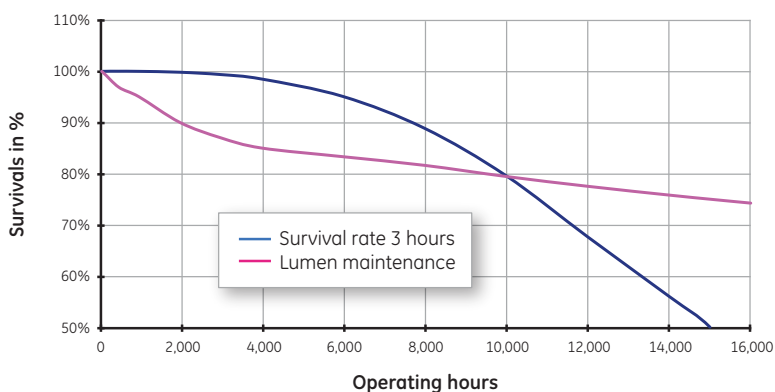
## Basic data

Nominal Wattage [W]	Rated* Wattage [W]	Volts [V]	Cap	Product Description	Product Code Box pack	Beam Angle [degree]	Rated* Lumen [lm]	CCT [K]	CRI [Ra]	Rated* Life [h]	Length [mm]	Diameter [mm]	EEC	Energy Consumption (kWh/1000h)	EuP Inca Watt Equivalent	Pack Qty
23,0	22,5	220-240	E27	EFL23W/827/R80/E27	82174	100	580	2700	80	15,000	130	83	B	22,50	84	6
23,0	22,5	220-240	E27	EFL23W/830/R80/E27	92246	100	580	3000	80	15,000	130	83	B	22,50	84	6

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

## Survival rate and lumen maintenance

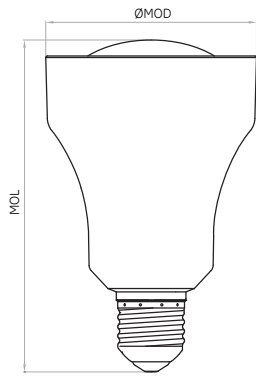
Life expectancy and lumen maintenance



Hours	Survival rate 3 hours	Lumen maintenance
100	1.00	1.00
2,000	1.00	0.85
4,000	0.98	0.84
6,000	0.95	0.83
8,000	0.89	0.82
10,000	0.80	0.79
12,000	0.68	0.78
14,000	0.54	0.76
15,000	0.47	0.75

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

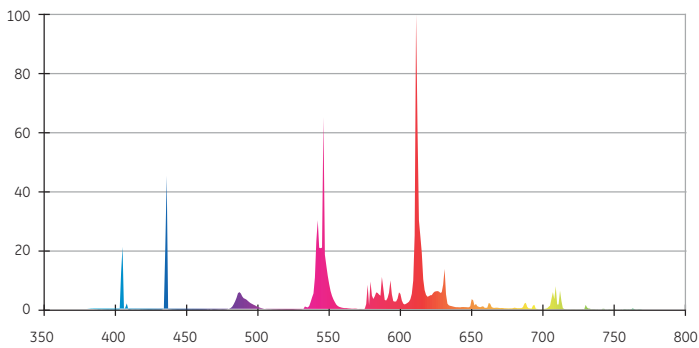
## Dimensions



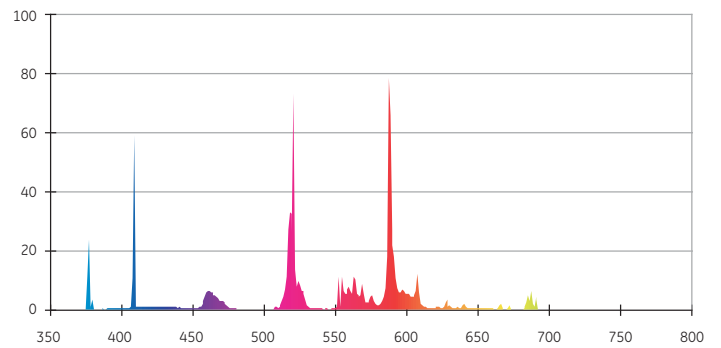
E27 cap		
	MOL [mm]	MOD [mm]
23W	130	83

## Spectral power distribution

Spectral power distribution 2700K



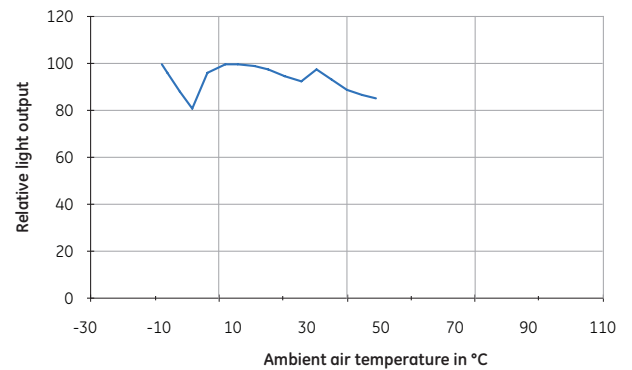
Spectral power distribution 3000K



## 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.

Light output vs ambient air temperature  
Vertical base up position



## Operating temperature limit

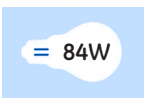
Lamp surface temperature in any application shall not exceed maximum temperature values specified.

	Location	Max temperature value
P1	Between plastic housing and collar	97°C

Lamp measured in vertical base up position.



## Additional information – ErP 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 packaging include the CFL-Incandescent wattage equivalences.



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



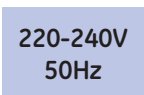
**Starting time:** the time needed for the lamp to start fully and remain alight. GE Lighting's CFL lamps are usually instant light on. Starting categories are: instant on (<0.3sec), quick (0.3-1sec), standard (1-1.5sec).  
**Genura 15,000 hours starting time: instant**



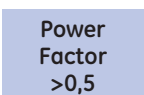
**Warm-up:** Lamp warm-up time to 60% lumens. Based on official EU standard the requirements are <40sec or <100sec for lamps containing in amalgam form.



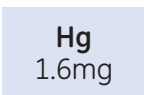
**Dimming:** not recommended to use with dimmers.



**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.



**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. 2.5mg allowed by RoHS.



**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.

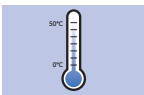


**Beam angle:** The angular dimension of the cone of light from reflector lamps, encompassing the central part of the beam out to the angle where the intensity is 50% of maximum.



**Candela:** The international unit (SI) of luminous intensity.

## 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. **Genura 15,000 hours ambient operating temperature range: -5 -70°C**



**Minimum starting temperature:** the lowest temperature condition at which the product can reliably start at within 3sec at 230V. **Genura 15,000 hours minimum starting temperature: -10°C**

## Cautionary notices



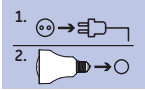
Lamp may shatter and cause injury if broken.



Usage in recessed fixtures could result in reduced life.



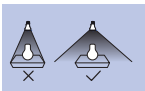
Do not use the lamp in enclosed fixtures.



Switch off electricity before changing the bulb.



Do not grab the tubes when install/screw-in the lamp.



Not suitable for accent lighting.



Shape and size comparison to Incandescent R80 Reflector lamp.