



# Energy-saving replacement for the incandescent lamp to extend day length and to break the winter dormancy."

Philips GreenPower LED flowering lamp: the energy-saving alternative for extending day length when cultivating e.g. strawberries and bedding plants or producing cuttings from chrysanthemums and kalanchoes.

The optimal lighting solution is different for every crop. Based on successful tests in the field, Philips have been developed three different lamps with specific light recipes for different plants.

This lamp is based on advanced LED technology and has been specially developed as a replacement for the incandescent lamp to extend day length to control flowering or to break the winter dormancy of plants such as chrysanthemums and strawberries.

With the Philips GreenPower LED flowering lamp you can save over 80% on energy costs.









## Appropriate light

Based on successful tests carried out in the field, three different lamps have been developed, each offering a specific light recipe for different plants:

100% far red (FR), a combination of deep red and white (DR/W) and a combination of deep red/white/far red (DR/W/FR). The white color in the lamp creates a pleasant working light, which also enables us to examine the plants effectively when the lamps are switched on. For optimum control, a specific spectrum of light is required for each plant type. Please contact us if you require help choosing the right type of lamp for your plants.

#### **Higher output**

The Philips GreenPower LED flowering lamp combines an optimum spectrum with a low energy consumption. In contrast with the incandescent lamp, the spectrum and light level of the lamps in this range are geared to the specific light requirements of the plant. As a result, you can save more than 80% on energy consumption compared with an incandescent lamp.

#### Flexibility and convenience

Thanks to the different versions available, the GreenPower LED flowering lamp offers the best possible freedom of installation.

The lamps have a standard E26 fitting and are suitable for direct replacement of the lamps in your existing installation, without the need for any modifications to the installation.



# **Proven** in practice

Given that light is an important production resource for growers and also represents an important factor in plant research, Philips has been carrying out various practical tests in conjunction with horticultural companies and research experts. These tests provide valuable information that can be used in product design. They also highlight the versatility of LED solutions and the costeffective opportunities they offer for ensuring optimum yield and plant quality.







Florensis Kenya Ltd. (Bedding plants)

Esmeralda Farms (Cut flowers)

**Brookberries** (Strawberries)

"Two years ago we did a trial with the Philips GreenPower LED flowering lamps in Naivasha, Kenya. At first we were surprised by the colour of the light, but soon we were also impressed with the results. No flower induction and an extreme reduction in energy costs.

At the moment we are also rolling it out in other motherstock plants, to improve our cutting quality even more, and reduce in electricity costs."

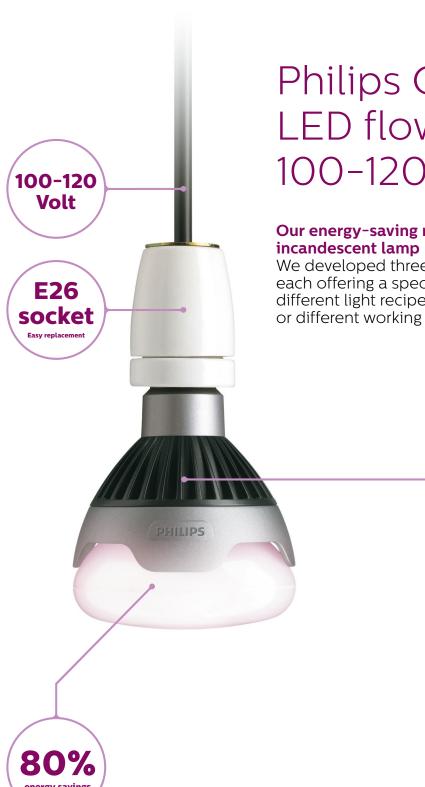
Eddy Verbeek

"After four months working with the LED flowering lamps, an outstanding 91% reduction in energy costs, amounting to a total of US\$ 18,000, was achieved. This is equivalent to an energy saving of US\$ 16.50/hour/hectare. It is estimated that the investment will be recouped within the space of 11 months. The long lifetime and improved water resistance of the LED flowering lamps resulted in reduced labor costs, because now there is no need for the lamps to be replaced every day."

Ruben Orozco

"One of the most important advantages of LED lighting compared with incandescent lamps is the spectacular reduction in energy consumption. This was confirmed by the energy savings of 88%. This means a major improvement for our business operations and meets our express wish to grow crops with the environment in mind. The LED flowering lamp with far red light can match the incandescent lamp with even better results. The plants respond well and, for instance, show improved elongation, making early and increased production possible. We are so pleased with the results that a winter crop of the Sonata variety is planned for the coming season."

Tom van Delm



# Philips GreenPower LED flowering lamp 100-120 V

# Our energy-saving replacement for the

We developed three different LED flowering lamps, each offering a specific spectrum. This to make different light recipes possible, for different plants or different working environments.

#### The three different spectra from which you can choose:

- 1) 100% far red (FR).
- 2) A combination of deep red and white (DR/W).
- 3) A combination of deep red/white/ far red (DR/W/FR).

The white color in the lamp creates a pleasant working light, which enables you us to examine the plants effectively when the lamps are switched on.

Ingress protection rating: IP44 **Power factor:**  $\cos \phi \ 0.75 \pm 0.05$ 

### Certification

Complies with RoHS Quality standard ISO 9001-2000 Environmental standard ISO 14001

# Specifications and ordering information for GreenPower LED flowering lamps

Lamp type	Voltage	Photon flux*	Useful life time 90%**	Energy consumption	Dimensions (in mm)		6 NC	12 NC	EOC
	v	µmol/s	hours	w	Α	В		9290 006	8718291
GreenPower LED flowering DR/W 120V E26	100-120	20	20,000	15	130	95	285700	92303	202134 00
GreenPower LED flowering DR/W/FR 120V E26	100-120	16	20,000	14	130	95	285718	92403	202158 00
GreenPower LED flowering FR 120V E26	100-120	13	15,000	13	130	95	285692	92503	202110 00



- The values for service life and photon flux maintenance are valid for an ambient temperature of 25 °C and a maximum of 15 switches per day.
- Lifetime and maintenance values are given at an ambient temperature of 25 °C, and a photon flux maintenance of 90%.



# More than a product, it's a complete solution

The Philips GreenPower LED flowering lamp offers all the proven benefits of LED technology and – as a complete solution – much more besides.

- · Quick and easy installation
- · Support and advice from technical experts
- · Advice on which lighting strategies are best for your situation



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