

The Philips logo is displayed in a white rounded rectangle on a dark purple background. The background of the entire page is a photograph of a greenhouse filled with rows of tomato plants, some with green and some with red fruit, under bright lighting.

Horticulture  
LED Solutions

GreenPower LED  
toplighting compact



# The easy switch to LED toplighting

As a grower, you are probably familiar with the benefits of using LED lighting in greenhouses. However, the potentially high upfront investment in LED lighting may have held you back, especially if it meant building a new lighting set-up. That is no longer an issue with the new Philips GreenPower LED toplighting compact. It allows you to easily switch to LED lighting, using either your existing HPS set-up and trellis construction, or building a new installation. The high light output of up to 2650  $\mu\text{mol/s}$  and high efficacy of up to 3.6  $\mu\text{mol/J}$  help you effectively optimize crop growth, enhance crop quality and cut operational costs.

**The capabilities of the GreenPower LED toplighting compact bring benefits to growers in many different segments:**

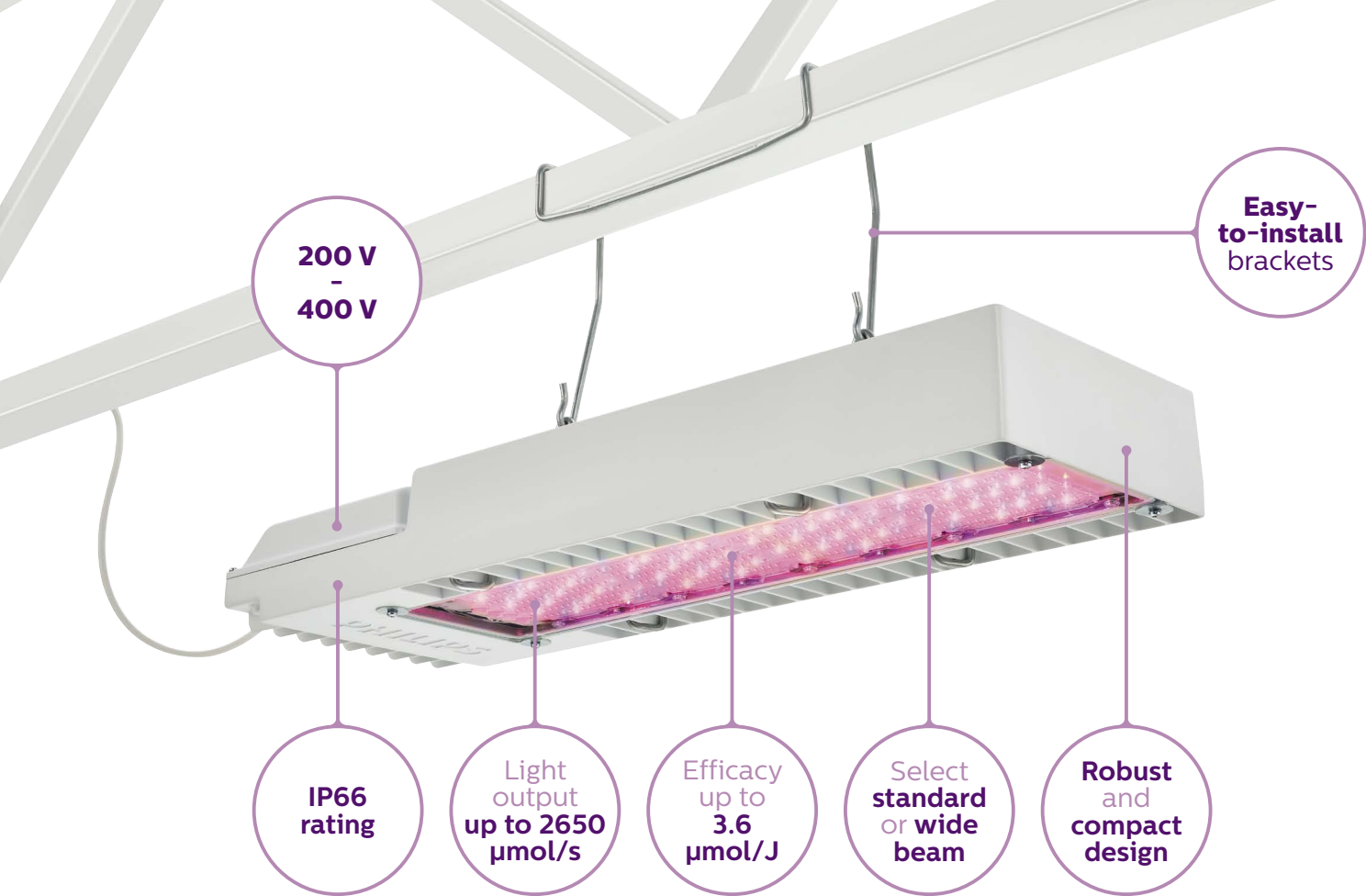
- Tomatoes, cucumbers, lettuce, strawberries and other fruits and vegetables
- Roses, chrysanthemums, alstroemeria and other flowers
- Medicinal cannabis

## Key benefits

- Matches key requirements for any new greenhouse or 1-to-1 retrofit LED installation
- Grow lights available for light-loving crops (up to 2650  $\mu\text{mol/s}$ ) or low operational costs (efficacy up to 3.6  $\mu\text{mol/J}$ )
- Plug and play design saves time and money on installation
- Wide or standard beam provide optimal light distribution for any crop



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# More light, less heat, better control

## **New greenhouse or renovation**

For a new greenhouse or renovation situation, there's a whole range of products to choose from. You can opt for a grow light with an optimized performance balancing light output & efficacy or you can choose one of our specialized solutions with either the lowest operational costs (efficacy up to 3.6  $\mu\text{mol}/\text{J}$ ), the highest light output (up to 2650  $\mu\text{mol}/\text{s}$ ) or a cost-effective light solution. Find your most suitable option in our selection tool.

## **1-to-1 retrofit**

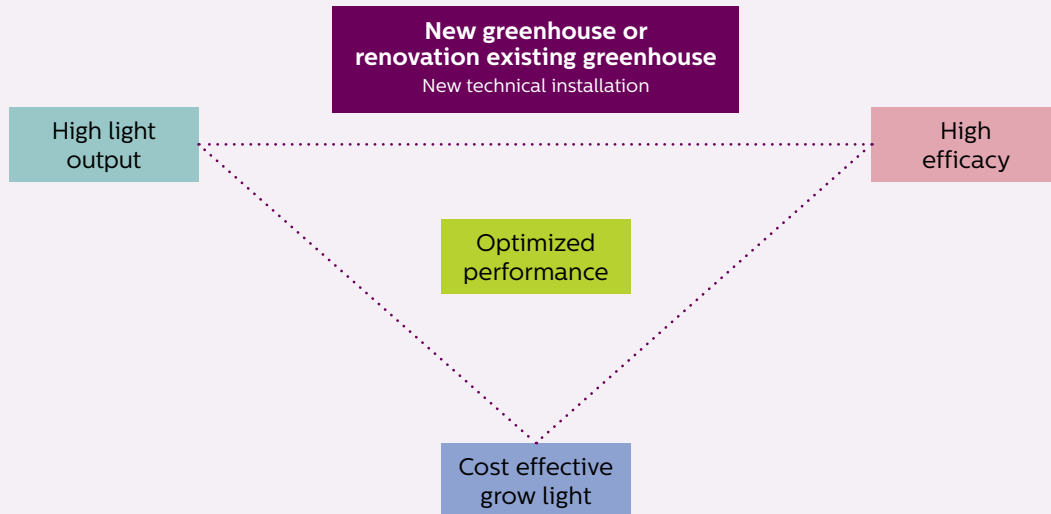
The new toplighting compact fits seamlessly in existing HPS connections and trellis constructions; even between sprinklers. There are two smart options: either you choose to replace your existing HPS installation with a similar light output and consume 50% less power, or you choose to optimize your CHP and increase your light output up to 2x 1850  $\mu\text{mol}/\text{s}$ . In all cases you can make the easy switch to full LED toplighting or create a hybrid LED and HPS lighting system on your current set-up.

The passively cooled module produces much less radiant heat, putting you in control over your greenhouse climate. The compact, white housing intercepts little sunlight and comes with an IP66 ingress protection rating. On top of all this, the toplighting compact comes in a standard and wide beam, providing excellent light distribution in most greenhouse configurations, including high wire-crops.

## **GrowWise Control System enables dimming**

The dimmable version of the GreenPower LED toplighting compact can be connected with the GrowWise Control System, allowing growers to dim the lighting to mimic the dusk to dawn interval and enhance results for specific crops. The GrowWise Control System can be used stand-alone or can be controlled via your climate computer.

# Selection tool



## Optimized performance for optimal combination of efficacy and light output

| Beam          | Voltage  |                         |        | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue | White/Low Blue |
|---------------|----------|-------------------------|--------|------------------------|-------------------------|-------------------------|----------------|
| Standard beam | 277-400V | Typical photon flux     | µmol/s | 2200                   | 2150                    | 2100                    | 1650           |
|               |          | Power consumption (max) | W      | 645                    | 645                     | 645                     | 645            |
|               |          | Efficacy                | µmol/J | 3.4                    | 3.3                     | 3.3                     | 2.6            |
| Wide beam     | 277-400V | Typical photon flux     | µmol/s | 2000                   | 1950                    | 1900                    |                |
|               |          | Power consumption (max) | W      | 645                    | 645                     | 645                     |                |
|               |          | Efficacy                | µmol/J | 3.1                    | 3.0                     | 2.9                     |                |

## High light output for light-loving crops

| Beam          | Voltage |                         |        | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue |
|---------------|---------|-------------------------|--------|------------------------|-------------------------|-------------------------|
| Standard beam | 400V    | Typical photon flux     | µmol/s | 2650                   | 2600                    | 2550                    |
|               |         | Power consumption (max) | W      | 780                    | 800                     | 780                     |
|               |         | Efficacy                | µmol/J | 3.4                    | 3.3                     | 3.3                     |

## High efficacy for lowest operational costs

| Beam          | Voltage  |                         |        | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue | Deep Red/White/Far Red |
|---------------|----------|-------------------------|--------|------------------------|-------------------------|-------------------------|------------------------|
| Standard beam | 200-400V | Typical photon flux     | µmol/s | 1850                   | 1800                    | 1750                    | 1650                   |
|               |          | Power consumption (max) | W      | 520                    | 520                     | 520                     | 520                    |
|               |          | Efficacy                | µmol/J | 3.6                    | 3.5                     | 3.4                     | 3.2                    |

## Cost effective grow light for easier financing

| Beam          | Voltage  |                         |        | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue |
|---------------|----------|-------------------------|--------|------------------------|-------------------------|-------------------------|
| Standard beam | 277-400V | Typical photon flux     | µmol/s | 1800                   | 1800                    | 1800                    |
|               |          | Power consumption (max) | W      | 590                    | 610                     | 620                     |
|               |          | Efficacy                | µmol/J | 3.1                    | 3.0                     | 3.0                     |
| Wide beam     | 277-400V | Typical photon flux     | µmol/s | 1800                   | 1800                    | 1800                    |
|               |          | Power consumption (max) | W      | 600                    | 620                     | 630                     |
|               |          | Efficacy                | µmol/J | 3.0                    | 2.9                     | 2.9                     |

All products are dimmable to 10% of the photon flux/power consumption when combined with a GrowWise Control system.

## Selection tool for Roses

| Select                  | Beam          | Voltage  |                         |        | Deep Red/White/Far Red_4 RSE! |
|-------------------------|---------------|----------|-------------------------|--------|-------------------------------|
| New greenhouse          | Standard beam | 400V     | Typical photon flux     | µmol/s | 2250                          |
|                         |               |          | Power consumption (max) | W      | 710                           |
|                         |               |          | Efficacy                | µmol/J | 3.2                           |
| Utilize available power | Standard beam | 200-400V | Typical photon flux     | µmol/s | 2 x 1650                      |
|                         |               |          | Power consumption (max) | W      | 2 x 520                       |
|                         |               |          | Efficacy                | µmol/J | 3.2                           |

# Selection tool

## 1-to-1 Retrofit

Use existing HPS connection and trellis construction

Keep existing light level  
Save energy

Utilize available power  
Increase light level

### Keep existing light level and save energy

| Select  | Beam          | Voltage  |                         | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue |      |
|---|---------------|----------|-------------------------|------------------------|-------------------------|-------------------------|------|
| Optimized performance<br>1000 W HPS replacement | Standard beam | 277-400V | Typical photon flux     | μmol/s                 | 2200                    | 2150                    | 2100 |
|   |               |          | Power consumption (max) | W                      | 645                     | 645                     | 645  |
|   |               |          | Efficacy                | μmol/J                 | 3.4                     | 3.3                     | 3.3  |
|   | Wide beam     | 277-400V | Typical photon flux     | μmol/s                 | 2000                    | 1950                    | 1900 |
|   |               |          | Power consumption (max) | W                      | 645                     | 645                     | 645  |
|   |               |          | Efficacy                | μmol/J                 | 3.1                     | 3.0                     | 2.9  |
| Cost effective<br>1000 W HPS replacement        | Standard beam | 277-400V | Typical photon flux     | μmol/s                 | 1800                    | 1800                    | 1800 |
|   |               |          | Power consumption (max) | W                      | 590                     | 610                     | 620  |
|   |               |          | Efficacy                | μmol/J                 | 3.1                     | 3.0                     | 3.0  |
|   | Wide beam     | 277-400V | Typical photon flux     | μmol/s                 | 1800                    | 1800                    | 1800 |
|   |               |          | Power consumption (max) | W                      | 600                     | 620                     | 630  |
|   |               |          | Efficacy                | μmol/J                 | 3.0                     | 2.9                     | 2.9  |

### Utilize available power and increase light level

| Replace                | Beam          | Voltage  |                         | Deep Red/Blue/Low Blue | Deep Red/White/Low Blue | Deep Red/White/Mid Blue | Deep Red/White/Mid Blue/Far Red <sup>1</sup> |          |
|------------------------|---------------|----------|-------------------------|------------------------|-------------------------|-------------------------|--|----------|
| HPS<br>600 Watt        | Standard beam | 200-400V | Typical photon flux     | μmol/s                 | 1850                    | 1800                    | 1750   |          |
|                        |               |          | Power consumption (max) | W                      | 520                     | 520                     | 520  |          |
|                        |               |          | Efficacy                | μmol/J                 | 3.6                     | 3.5                     | 3.4  |          |
|                        | Standard beam | 277-400V | Typical photon flux     | μmol/s                 | 1800                    | 1800                    | 1800   |          |
|                        |               |          | Power consumption (max) | W                      | 590                     | 610                     | 620  |          |
|                        |               |          | Efficacy                | μmol/J                 | 3.1                     | 3.0                     | 3.0  |          |
|                        | Wide beam     | 277-400V | Typical photon flux     | μmol/s                 | 1800                    | 1800                    |  |          |
|                        |               |          | Power consumption (max) | W                      | 600                     | 620                     |  |          |
|                        |               |          | Efficacy                | μmol/J                 | 3.0                     | 2.9                     |  |          |
| HPS plus<br>1,000 Watt | Standard beam | 200-400V | Typical photon flux     | μmol/s                 | 2 x 1850                | 2 x 1800                | 2 x 1750                                     | 2 x 1650 |
|                        |               |          | Power consumption (max) | W                      | 2 x 520                 | 2 x 520                 | 2 x 520                                      | 2 x 520  |
|                        |               |          | Efficacy                | μmol/J                 | 3.6                     | 3.5                     | 3.4  | 3.2      |

**Note:** half the power consumption of HPS 1,000 Watt; 2 TLC modules replace one 1,000 Watt HPS grow light  
All products are dimmable to 10% of the photon flux/power consumption when combined with a GrowWise Control system.



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### Technical specifications

- Length: 72 cm
- Width: 24 cm
- Height: 9 cm
- Weight: 10.5 kg (incl. brackets)
- Power factor: 0,98
- Total Harmonic Distortion: < 15%
- Rated Average Lifetime<sup>2</sup>: L90: 36.000 hrs
- Ingress protection rating: IP66
- Cooling: Passively cooled
- Approval marks: CE, ENEC, RoHS, UL/CSA, RCM
- Warranty: 3 years

### Notes

- <sup>1</sup> The published value represents the total photon flux from 400-800nm
- <sup>2</sup> Lifetime and maintenance values are given at an ambient temperature of 25°C / 77°F. All measured lifetimes are industry standard measurements indicating average length of operation and not a performance claim specific to any individual product.



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[horti.info@signify.com](mailto:horti.info@signify.com)

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