PHILIPS

Horticulture LED

GreenPower LED toplighting compact

The easy switch to LED toplighting

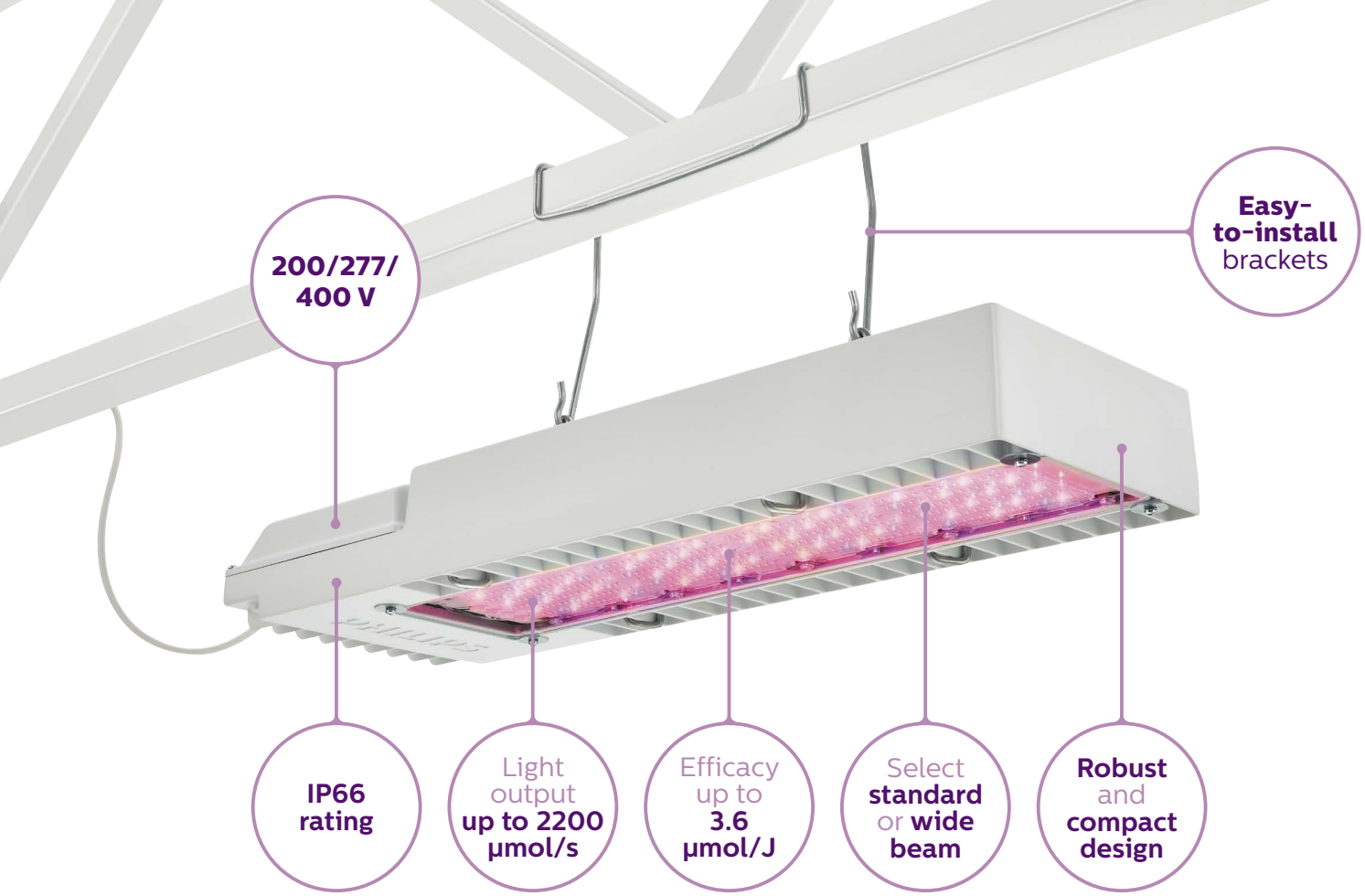
As a grower, you are probably familiar with the benefits of using LED lighting in greenhouses. However, the potentially high upfront investment in LED lighting may have held you back, especially if it meant building a new lighting set-up. That is no longer an issue with the new Philips GreenPower LED toplighting compact.
It allows you to easily switch to LED lighting, replacing your existing HPS set-up, or building a new installation. The high light output of up to 2200 µmol/s or high efficacy of up to 3.6 µmol/J helps 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:

- Vegetables and fruits like tomatoes, cucumbers, lettuce and strawberries
- Cut flowers and potted plants like roses, chrysanthemums and alstroemeria
- 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 2200 µmol/s) or low operational costs (efficacy up to 3.6 µmol/J)
- Plug and play design saves time and money on installation
- Wide or standard beam provide optimal light distribution for any crop



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 µmol/J), or high photosynthetic photonflux (up to 2200 µmol/s) or a low initial investment 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 µmol/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

New greenhouse or renovation existing greenhouse
New technical installation

- Optimized performance
- High efficacy
- Cost effective grow light

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	Deep Red/White
Standard beam	277-400V	Typical photon flux	µmol/s	2200	2150	2100	1650
		Power consumption	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	W	645	645	645	
		Efficacy	µmol/J	3.1	3.0	2.9	

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[1]
Standard beam	200-400V	Typical photon flux	µmol/s	1850	1800	1750	1650
		Power consumption	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	W	590	610	620
		Efficacy	µmol/J	3.1	3.0	2.9
Wide beam	277-400V	Typical photon flux	µmol/s	1800	1800	1800
		Power consumption	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 for Roses

Select	Beam	Voltage			Deep Red/White/Far Red_RSE[1]
Utilize available power	Standard beam	200-400V	Typical photon flux	µmol/s	1650 (2 lights on 1 HPS socket)
			Power consumption	W	520 (2 lights on 1 HPS socket)
			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 1000 W HPS replacement	Standard beam	277-400V	Typical photon flux	µmol/s	2200	2150	2100
			Power consumption	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	W	645	645	645
			Efficacy	µmol/J	3.1	3.0	2.9
Cost effective 1000 W HPS replacement	Standard beam	277-400V	Typical photon flux	µmol/s	1800	1800	1800
			Power consumption	W	590	610	620
			Efficacy	µmol/J	3.1	3.0	2.9
	Wide beam	277-400V	Typical photon flux	µmol/s	1800	1800	1800
			Power consumption	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/Far Red[1]
HPS 600 Watt	Standard beam	200-400V	Typical photon flux	µmol/s	1850	1800	1750	
			Power consumption	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	W	590	610	620	
			Efficacy	µmol/J	3.1	3.0	2.9	
	Wide beam	277-400V	Typical photon flux	µmol/s	1800	1800		
			Power consumption	W	600	620		
			Efficacy	µmol/J	3.0	2.9		
HPS plus 1.000 Watt	Standard beam	200-400V	Typical photon flux	µmol/s	1850 (2 lights on 1 HPS socket)	1800 (2 lights on 1 HPS socket)	1750 (2 lights on 1 HPS socket)	1650 (2 lights on 1 HPS socket)
			Power consumption	W	520 (2 lights on 1 HPS socket)	520 (2 lights on 1 HPS socket)	520 (2 lights on 1 HPS socket)	520 (2 lights on 1 HPS socket)
			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 1.040 Watt HPS grow light
All products are dimmable to 10% of the photon flux/power consumption when combined with a GrowWise Control system.

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[2]: L90: 36.000 hrs
- Ingress protection rating: IP66
- Cooling: Passively cooled
- Approval marks: CE, ENEC, RoHS, UL/CSA, RCM

Notes

[1] The published value represents the total photon flux from 400-800nm
[2] 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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