# PHILIPS

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 µmol/s and high efficacy of up to 3.6 µmol/J help you effectively optimize crop growth, enhance crop quality and cut operational costs.

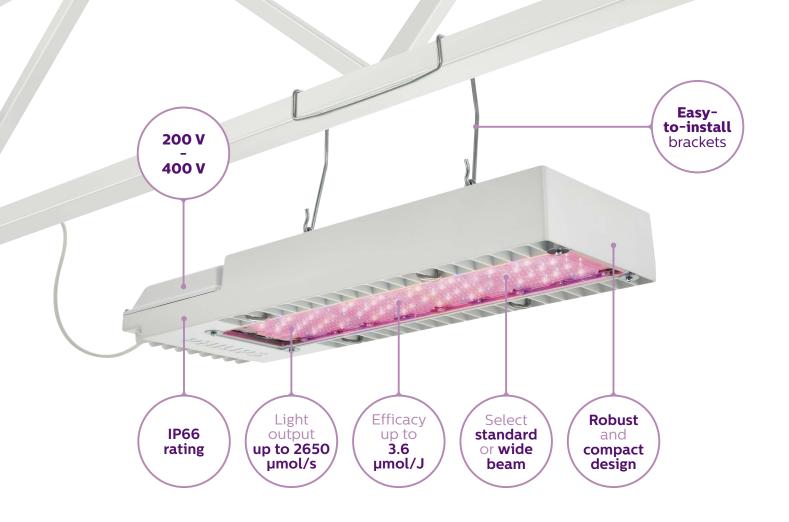
# The capabilities of the GreenPower LED toplighting compact bring benefits to growers in many different segments:

- 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 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), the highest light output (up to 2650 µmol/s) or a cost-effective light solution. Find your most suitable option in our selection tool.

#### 1-to-1 retrofit

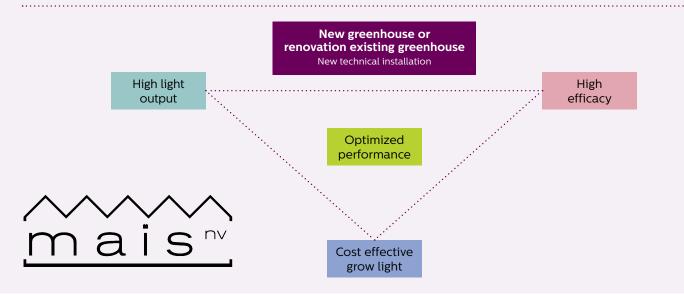
The new toplighting compact fits seamlessly in existing HPS connections and trellis constructions; even between sprinklers. There are two smart options: either you choose to replace your existing HPS installation with a similar light output and consume 50% less power, or you choose to optimize your CHP and increase your light output up to 2x 1850 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 standalone 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	277- 400V	Typical photon flux	µmol/s	2200	2150	2100	1650
		Power consumption (max)	W	645	645	645	645
beam		Efficacy	µmol/J	3.4	3.3	3.3	2.6
Wide	277-	Typical photon flux	µmol/s	2000	1950	1900	
	4000	Power consumption (max)	W	645	645	645	
beam		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
8	400V	Typical photon flux	µmol/s	2650	2600	2550
Standard beam		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 <sup>1</sup>
	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

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Beam	Voltage			Deep Red/Blue/Low Blue	Deep Red/White/Low Blue	Deep Red/White/Mid Blue
Standard	277- 400V	Typical photon flux	µmol/s	1800	1800	1800
		Power consumption (max)	W	590	610	620
beam		Efficacy	µmol/J	3.1	3.0	3.0
	277- 400V	Typical photon flux	µmol/s	1800	1800	1800
Wide		Power consumption (max)	W	600	620	630
beam		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 <sup>1</sup>
New greenhouse	6	400V	Typical photon flux	µmol/s	2250
	Standard beam		Power consumption (max)	W	710
			Efficacy	µmol/J	3.2
Utilize available power	Standard	200- 400V	Typical photon flux	µmol/s	2 x 1650
		4000	Power consumption (max)	W	2 x 520
	beam		Efficacy	µmol/J	3.2

## Selection tool



#### 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
	6	277- 400V	Typical photon flux	µmol/s	2200	2150	2100
Optimized	Standard	4000	Power consumption (max)	W	645	645	645
performance	beam		Efficacy	µmol/J	3.4	3.3	3.3
1000 W HPS replacement	8	277- 400V	Typical photon flux	µmol/s	2000	1950	1900
replacement	Wide beam	4000	Power consumption (max)	W	645	645	645
			Efficacy	µmol/J	3.1	3.0	2.9
	Standard	277- 400V	Typical photon flux	µmol/s	1800	1800	1800
		4000	Power consumption (max)	W	590	610	620
Cost effective	beam		Efficacy	µmol/J	3.1	3.0	3.0
1000 W HPS replacement	8	277- 400V	Typical photon flux	µmol/s	1800	1800	1800
	Wide	4000	Power consumption (max)	W	600	620	630
	beam		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>
	6	200- 400V	Typical photon flux	µmol/s	1850	1800	1750	
	Standard	4000	Power consumption (max)	W	520	520	520	
	beam		Efficacy	µmol/J	3.6	3.5	3.4	
	6	277- 400V	Typical photon flux	µmol/s	1800	1800	1800	
HPS 600 Watt	Standard beam	4000	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		
		4000	Power consumption (max)	W	600	620		
			Efficacy	µmol/J	3.0	2.9		
	88		Typical photon flux	µmol/s	2 x 1850	2 x 1800	2 x 1750	2 x 1650
HPS plus 1.000 Watt	Standard		Power consumption (max)	W	2 x 520	2 x 520	2 x 520	2 x 520
	beam		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.

#### **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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