

PHILIPS

Philips GreenPower LED toplighting force

Performance (TLFp)

Growers worldwide are looking for smarter ways to lower energy costs while maximizing production. With TLFp LED fixtures, you achieve high light levels and create consistent summer conditions year-round—without the excess heat of traditional HPS lighting.

Reliable performance. Smart investment.
TLFp delivers a robust, high-quality LED solution that ensures dependable crop results while keeping initial investment in controllable LED lighting low. Ideal for growers expanding LED adoption or working with constrained budgets, it offers a smooth and cost-effective transition to LED lighting—without compromising on performance or reliability.

Unlock the power of dynamic LED lighting
Combined with a Philips GrowWise control system it enables you to create your own dynamic light recipes connected to your crop. TLFp is also prepared for load balancing / energy trading by using the dimming functionality of the LED fixture.

Superior uniformity. Optimized greenhouse fit.
The Quadro Beam lens delivers exceptional light uniformity through its balanced rectangular beam design. Combined with high light output, it ensures an optimal fit within your greenhouse layout.
By enabling fewer fixtures to cover the same area, Quadro Beam reduces installation costs while maximizing uniformity, performance, and long-term reliability.

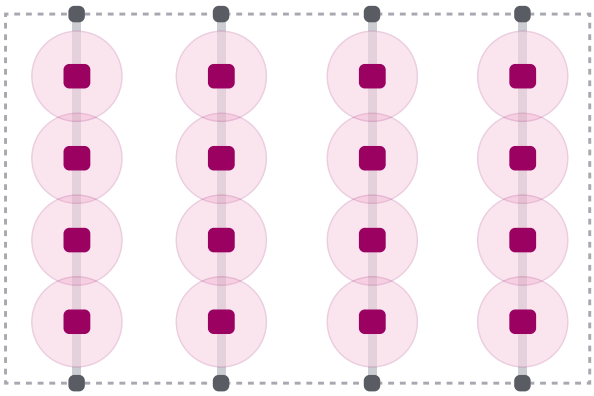
Key benefits

- Four channel control
- Wireless or wired control, no additional data cables needed
- Optimal plug power utilization at a power factor of 0,95 (in all control settings)
- Rated average life 36.000 Hrs – Q90
- T max 35°C (ambient temp of the fixture)
- Efficacy up to 3.7 at 100% PPF setting (up to 3.9 at 50% dimmed)
- Quadro Beam optics for superior light uniformity

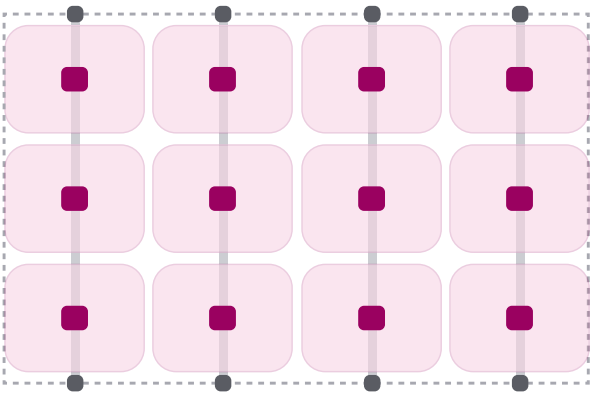
High light output combined with lens for superior light uniformity.

The Quadro Beam lens ensures superb light uniformity. This Lens has a balanced rectangular beam design. In combination with high light output offering an optimal fit in your greenhouse layout. Quadro beam enables fewer fixtures for the same surface, a perfect choice for reduced installation costs and maximizing uniformity and proven reliability.

Top view greenhouse



Standard Beam for optimal output/ efficiency



Quadro Beam for optimal uniformity with fewer grow lights/m^2 (reduced investment cost) and at lower distances between the grow light and head of the crop.

Light recipe setpoints explained.

To experience dynamic light you connect the TLFp fixtures to a GrowWise control system. Channel set-points can be defined and recalled in a 24Hr growth cycle. With the 4 channel fixture selected it is possible to generate own custom set-points within the power setting of a fixture (E.g. 95Dr-5Bl or 90dr-5Bl-5Gr-9Fr or 100dr). For optimal results, your Key Account Manager can support you with simulations to fine-tune your custom settings.

Wireless communication or communication using mains wires.

With TLF you choose between wireless control or coded mains control. The advantage of wireless control is that your zoning will stay flexible after hardware installation. In both cases, wired (coded mains) or wireless (radio control), no additional control cables are needed simplifying installation and maintenance.

Wired communication

Easy Installation
No need for extra wiring, use existing power line

Reliable operation
Proven system in many projects worldwide

Future proof
Expandable with wireless system

Wireless communication

Lower installation cost

Flexible
Create multiple control areas

Future proof
Allow bidirectional feedback communication

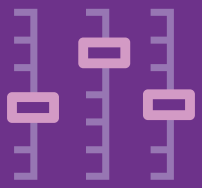
Unlock lighting intelligence
Introducing a new era in horticultural lighting – where high-performance fixtures, intelligent controls, and advanced algorithms work together to optimize every stage of plant growth.

Our integrated solution unlocks lighting intelligence that helps growers increase yields and reduce costs through optimized lighting. Gain the insight, adaptability, and efficiency you need to improve crop performance and boost profitability.



Lights:

Philips GreenPower LED toplighting force controllable luminaires put you in full control of light intensity, spectrum, and power usage. With four steerable channels, you can precisely tailor lighting to meet the unique needs of your crops and your business.



Controls:

Easily create and manage custom light recipes for each crop phase or variety. Our GrowWise control system simplifies recipe management and integrates seamlessly with your climate computer.



Apps:

Unlock the full potential of intelligent lighting. Our smart algorithms automatically optimize your lighting system based on real-time factors like growing conditions or energy prices – to boost crop growth or reduce energy use.

Peace of mind starts with Philips

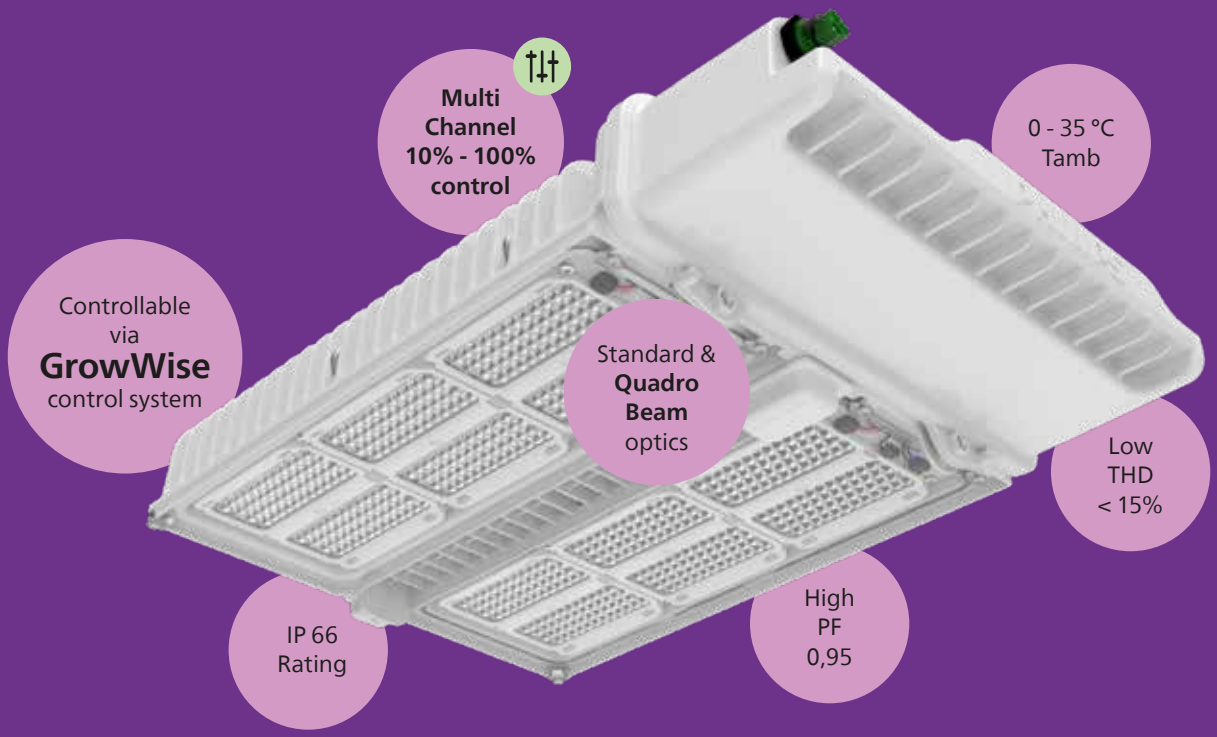
Lighting isn't just a product decision—it's a long-term operational investment. It influences crop performance, energy efficiency, and greenhouse operations for the next 10–15 years.

With over 20 years of horticultural LED research and development, Philips horticulture LED solutions are engineered for consistent performance across the full lifecycle. Stable spectra, uniform light output, and reliable crop results—season after season.

Backed by Signify and 135 years of lighting innovation, our systems are built to maintain performance over time—not just at installation. Because as systems age, consistency makes the difference.

What truly sets Philips apart is the expertise behind the technology. Growers are supported by plant specialists and application experts with real greenhouse experience—ensuring lighting decisions translate into optimal crop results.

For growers, the outcome is clear: **l**ess variability, fewer surprises, and confidence in every season ahead.
Trusted today. Trusted tomorrow.



Product Specifications PRELIMINARY setpoint data

Beam	Spectral version		Deep Red/Blue/White/Far Red types	
	Spectral code (factory-set light recipe)		RBWF	
Standard beam	Typical photon flux	µmol/s	**2400**	**3800**
	Power consumption (max)	W	**680**	**1040**
	Efficacy @ max power	µmol/J	3.6	3,7
	Efficacy at 50% (dimmed)	µmol/J	3.8	3,9
	Mains voltage[2]	V	277-400	347-400
	Control interface		CC4 | WC4	CC4 | WC4
		CH1	DR	DR
		CH2	B	B
		CH3	W	W
		CH4	FR	FR
Quadro Beam	Typical photon flux	µmol/s	**2400**	**3800**
	Power consumption (max)	W	**680**	**1040**
	Efficacy @ max power	µmol/J	3.6	3,7
	Efficacy at 50% (dimmed)	µmol/J	3.8	3,9
	Mains voltage[2]	V	277-400	347-400
	Control interface		CC4 | WC4	CC4 | WC4
		CH1	DR	DR
		CH2	B	B
		CH3	W	W
		CH4	FR	FR

Quick reference data

Light distribution		Standard Beam - beam angle 120° Quadro Beam - beam angle 150x135°
Color Controllable Set-point Dimmable[5]		10% - 100% (Controllable per channel[4]) 50% - 100%
Dimensions	cm	**Length:** 58,1 **Width:** 36,4 **High;** 13,0
Weight	kg	13
Power factor		0.95
Total Harmonic Distortion	%	< 15
Rated Average Lifetime[3]	hrs	36.000 - Q90
T max	°C	35
Ingress protection rating		IP66 / wet locations
Cooling		Passively cooled
Approval marks		CE, ENEC, UL/CSA, RCM, PSE, IC/FCC
Mains connector		Wieland RST20i3 Green

Legend
RBWF = 4 channel exact control in combination with GrowWise

Notes
1 The published value represents the total photon flux from 400-800nm
2 50 - 60 Hz
3 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.
4 In combination with GrowWise control system Version 4.0 or higher. Dimming the light output increases the efficacy of the product.

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Write us an e-mail:
horti.info@signify.com

Or follow us:
Philips Horticulture LED Solutions
@philipshorticulture