PHILIPS



Philips GreenPower LED toplighting force

Elite (TLFe)

Take the next leap in LED fixture conversion— Where optimized business results meet the future of horticultural lighting.

As the horticulture industry matures, growers are adopting increasingly focused business strategies. TLFe is your ideal fixture to transform your greenhouse with precision-driven digital lighting intelligence, designed to optimize capital expenditure.
Empowering growers with unmatched accuracy, TLFe enables precise control over crop growth and energy use—unlocking a new era of automated, efficient, and optimized horticultural lighting.

Maximum efficacy. Intelligent control. Proven performance.
TLFe is a multi-channel fixture engineered for growers who demand maximum performance from their lighting systems. Delivering efficacies up to 4.2 µmol/J while maintaining high photosynthetic photon flux (PPF), it ensures outstanding output without compromising light uniformity.
Seamlessly integrated with the Philips GrowWise system, TLFe becomes a powerful solution for professional growers ready to upgrade to LED, implement smart applications, and monitor crop performance with precision and confidence.

Lighting intelligence unlocked. Results maximized.
Built on advanced digital electronics, TLFe enables dynamic light recipes that adapt to sunlight and energy prices. The Quadro Beam Lens delivers high output with exceptional uniformity, ensuring optimal light balance across your greenhouse.

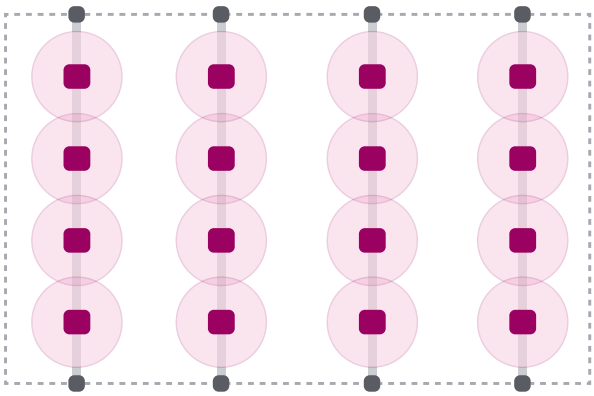
Key benefits

- Three and four channel control
- Wireless or wired control, no additional data cables needed
- Optimal plug power utilization at a power factor of 0,98 (in all control settings)
- Rated average life 36.000 Hrs – Q95
- T max 40°C (ambient temp of the fixture)
- Highest efficacy in the market
- Quadro Beam optics for superior light uniformity

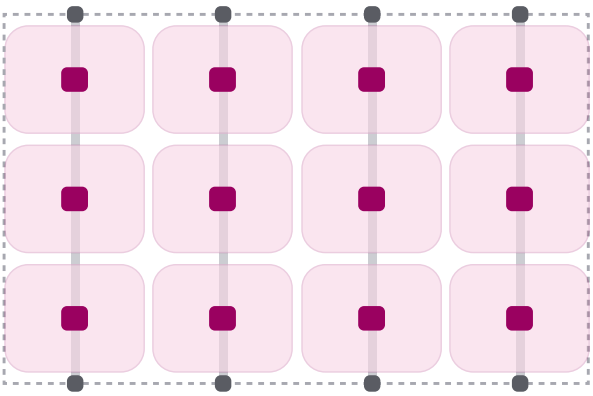
High light output combined with lens for superior light uniformity.

The specific for greenhouse developed Quadro Beam lens ensures uniformity in all directions even securing the light uniformity at shorter head of crop to fixture distances. This enables a light plan with fewer fixtures for the same crop area, reducing installation costs.

Top view greenhouse



Standard Beam for optimal output/ efficiency



Quadro Beam for optimal uniformity with fewer grow lights/m² (reduced investment cost) and at lower distances between the grow light and head of the crop.

Light recipe setpoints explained.

Where growers once relied on static, crop-oriented LED spectra, TLFe enables the next step: dynamic lighting. By connecting TLFe fixtures to the Philips GrowWise control system, precise setpoints can be defined and seamlessly executed throughout a 24-hour growth cycle.

Depending on the 3 or 4 channel fixtures 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

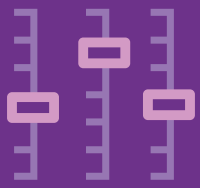
Unlock lighting intelligence
Introducing a new era in horticultural lighting – where high-performance fixtures, intelligent controls, and advanced algorithms work together to optimize every stage of plant growth.

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

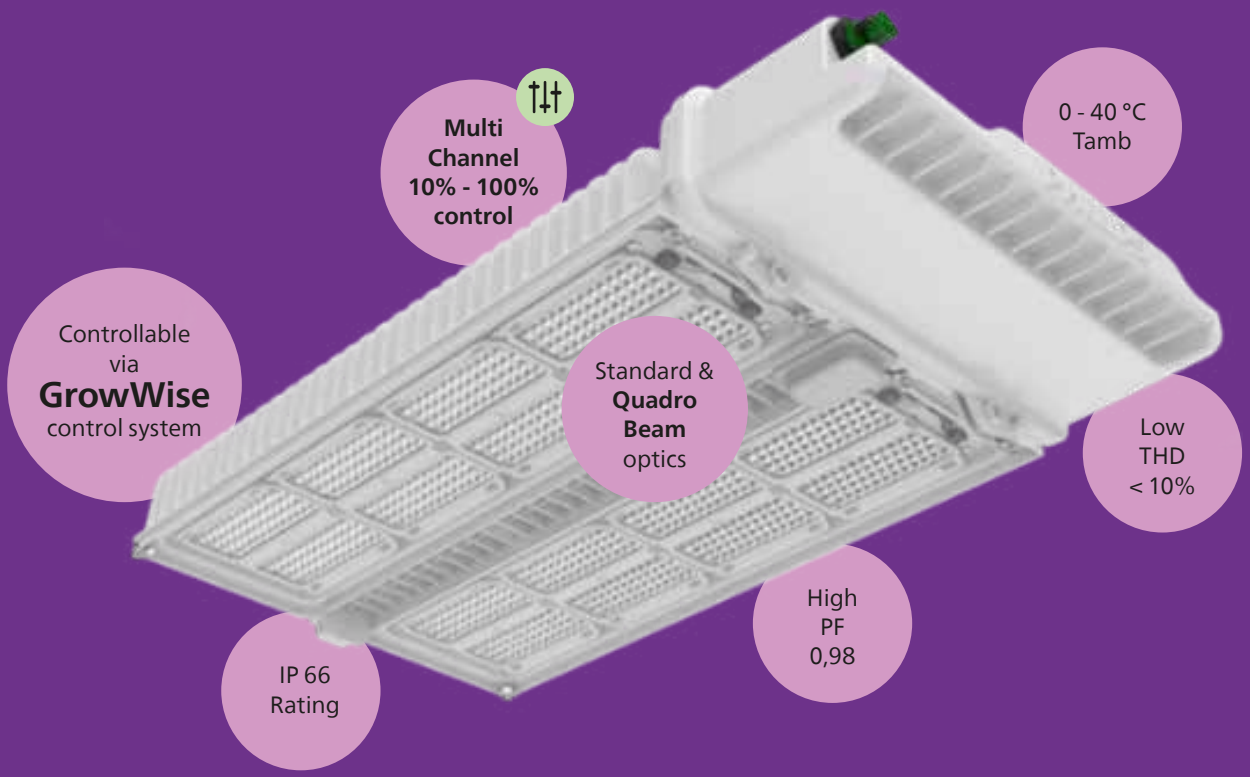
Lighting isn't just a product decision—it's a long-term operational investment. It influences crop performance, energy efficiency, and greenhouse operations for the next 10–15 years.

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: less 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	Deep Red/Blue/White/Far Red types		
	Spectral code (factory-set light recipe)		RBW	RBWF		
Standard beam	Typical photon flux	µmol/s	**4110**	**2550**	**3000**	**4110**
	Power consumption (max)	W	**1040**	**645**	**760**	**1040**
	Efficacy @ max power	µmol/J	4,0	4.0	4.0	4,0
	Efficacy at 50% (dimmed)	µmol/J	4,3	4.2	4.2	4,3
	Mains voltage[2]	V	347-400	277-400	277-400	347-400
	Control interface		CC3 | WC3	CC4 | WC4	CC4 | WC4	CC4 | WC4
		CH1	DR	DR	DR	DR
		CH2	B	B	B	B
		CH3	W	W	W	W
		CH4	n.a.	FR	FR	FR
Quadro Beam	Typical photon flux	µmol/s	**4110**	**2550**	**3000**	**4110**
	Power consumption (max)	W	**1040**	**645**	**760**	**1040**
	Efficacy @ max power	µmol/J	4,0	4.0	4.0	4,0
	Efficacy at 50% (dimmed)	µmol/J	4,3	4.2	4.2	4,3
	Mains voltage[2]	V	347-400	277-400	277-400	347-400
	Control interface		CC3 | WC3	CC4 | WC4	CC4 | WC4	CC4 | WC4
		CH1	DR	DR	DR	DR
		CH2	B	B	B	B
		CH3	W	W	W	W
		CH4	n.a.	FR	FR	FR

Quick reference data

Light distribution			Standard Beam - beam angle 120° Quadro Beam - beam angle 150x135°
Color Controllable Set-point Dimmable[3]			10% - 100% (Controllable per channel[4]) 5%- 100% (Blue channel, control range) 25% - 100%
Dimensions	645W/760W 1040W	cm cm	**L:** 58,1 **W:** 36,4 **H:** 13,0 **L:** 70,3 **W:** 36,4 **H:** 13,0
Weight	645W/760W 1040W	kg kg	13 15
Power factor			0.98
Total Harmonic Distortion		%	< 10
Rated Average Lifetime[3]		hrs	36.000 - Q95
T max		°C	40
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 cobination with GrowWise

RBW = 3 channel 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