

Tungram Flexi-Grow




Tailored to your needs



DATASHEET

The LED Greenhouse Linear Toplight lamp of the Tungram Agritech Series has been designed as a replacement for traditional 1000 W High Pressure Sodium lamps. It has an improved efficacy up to 4.0 $\mu\text{mol}/\text{J}$ and uses more than 50% less energy and it also offers light level up to 3580 $\mu\text{mol}/\text{s}$; therefore fewer LED fixtures may be needed to achieve the required PPFD (photosynthetic photon flux density). Our Toplight modules have standard and special wide beam optics, with which we can ensure the most uniform light distribution for your plants to grow evenly and maximize the yield.

We are flexible in meeting your demands for lighting up your greenhouse. The offer will be based on the main criteria you specify:

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Optimized for investment: If the goal is to keep the initial investment low, choose our investment optimized solution, which balances energy consumption and light output.
- 
Optimized for operational cost: If the aim is to minimize operating costs, we will be able to power the greenhouse with high efficiency luminaires up to 4.0 $\mu\text{mol}/\text{J}$.
- 
Maximized for light output: If you want to maximize the photons for your crop, our high PPF (up to 3580 $\mu\text{mol}/\text{s}$) lamps are the most optimal. You can achieve the best quality, yield and nutritional value with them.

4.0
 $\mu\text{mol}/\text{J}$

Modular
design

3580
 $\mu\text{mol}/\text{s}$

Customizable
spectrum

Wide beam
Optics high
uniformity

Compact
size

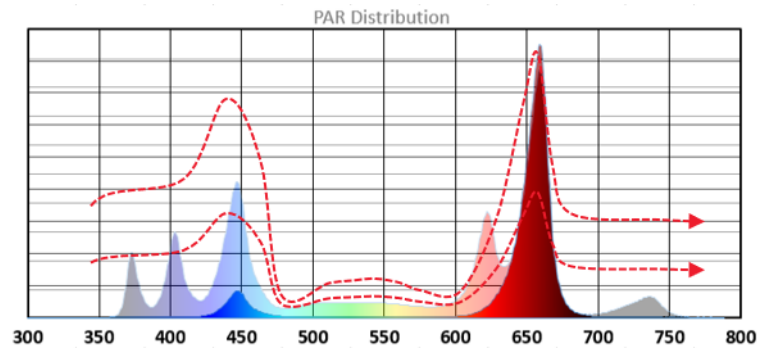
Key product features

- Modular system 1,2,3 module options
- Highest efficiency LED design, up to 4.0 μ mol/J
- High PPF up to 3580 μ mol/s
- Small size for minimal shading
- Life time L80/B50 50000h (Ta=25°C)
- Operating Environment: 0°C to +40°C
- Remote driver
- Passive cooling No moving part!
- Simple hanging system for easy installation
- 100 400V driver, Pf > 0.9
- IP66, IK08 rated
- Regulatory approvals CE, RoHS
- Dimming options available

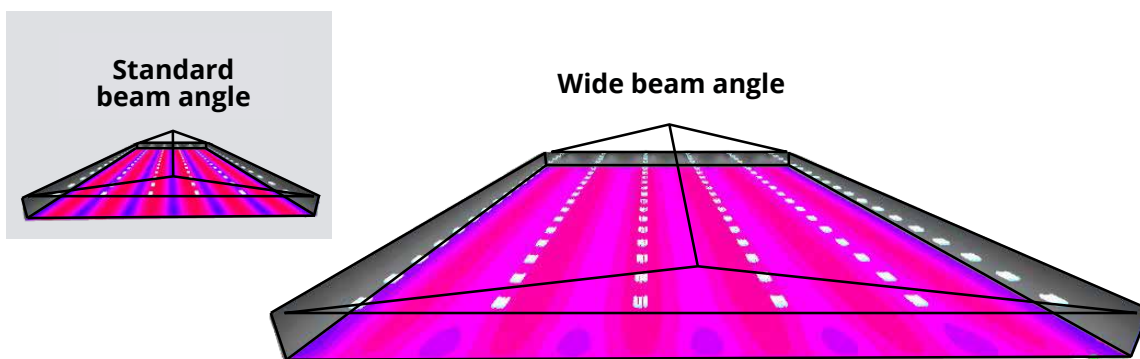
Customizable spectrum

Our crop advisors could help you to choose the most suitable spectrum for your crops and our factory make the lamps accordingly. Exact spectrum may vary between varieties and growth strategies.

We can customize the spectrum based on what **the buyer** or an **independent crop advisor** or **our own crop advisor** suggests.



Wide beam optics for high uniformity

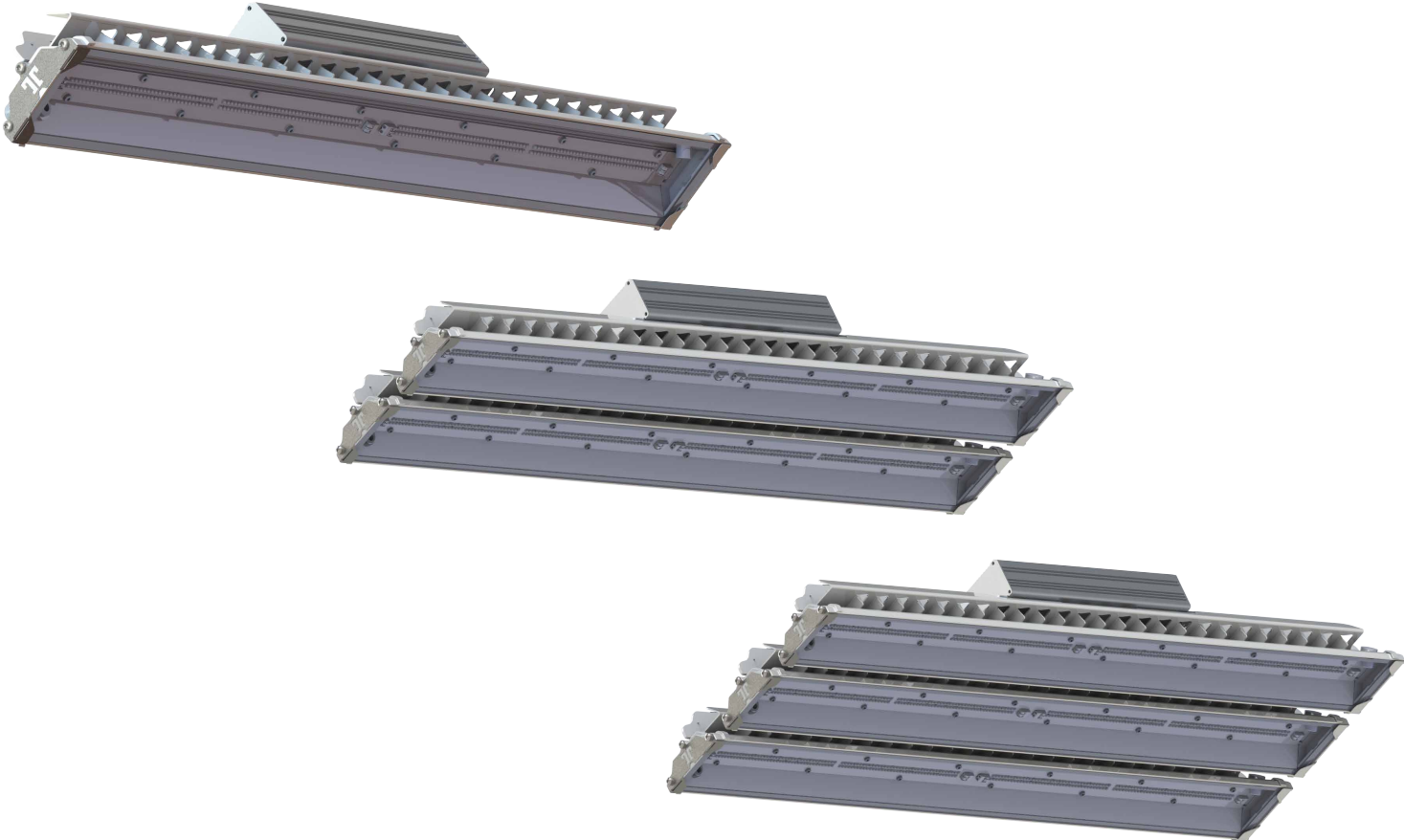


Uniform light distribution

Fewer fixtures, lower investment cost

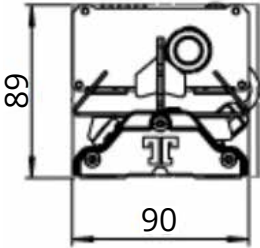
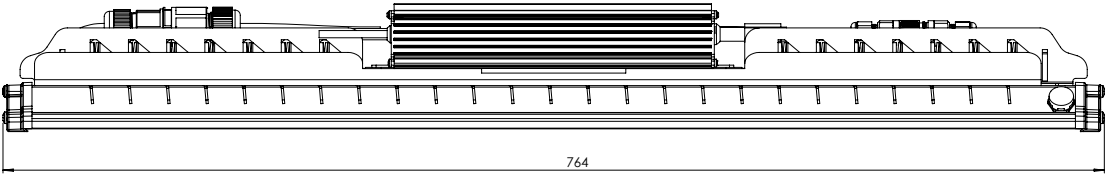
Equal light for all plants, stable yield

Modular system



Dimension (mm)

Weight: ~ 3.5 kg per module



Mounting options




Ease of installation


Extra light weight ~ 3.5kg per module


Less shading

Product Specifications for our different product types

With our products, any spectrum can be produced, thus can be requested, so **the actual number of product varieties is infinite** and depends only on the needs of our customers and their plants.

 Lowest initial investment						
Specification	Optimized for investment					
Lamp type	Single Modul		Double Module		Triple Modul	
Growth Spectrum*	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR
P (W)	300	315	600	630	900	945
PPF (μ mol/s)	1000	940	2000	1880	3000	2820
Efficacy (μ mol /	3.3	3.0	3.3	3.0	3.3	3.0

 Maximize energy saving						
Specification	Optimized for operational cost					
Lamp type	Single Modul		Double Module		Triple Modul	
Growth Spectrum*	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR
P (W)	240	269	480	538	720	807
PPF (μ mol/s)	950	940	1900	1880	2850	2820
Efficacy (μ mol /	4.0	3.5	4.0	3.5	4.0	3.5

 Increased crop yield						
Specification	Maximized for light output					
Lamp type	Single Modul		Double Module		Triple Modul	
Growth Spectrum*	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR	LB/HR	LB/W/R/FR
P (W)	329	327	658	654	987	981
PPF (μ mol/s)	1194	1045	2388	2090	3582	3135
Efficacy (μ mol /	3.6	3.2	3.6	3.2	3.6	3.2

*LB: low blue, HR: high red, W: white, R: red, FR: far red