

# Greenhouse Toplight Research Module



**Endless Spectral Variations**

## Product information

When selecting the right LED system for a specific crop, one must first consider the desired growth spectrum and the amount of PPF (photosynthetic photon flux density). The Research Toplight allows users to experiment with different mix of wavelengths and light intensity to define and finetune the most optimal light spectrum for given phenophases of all kinds of plants to achieve the targeted quantity and quality of primary and secondary metabolites. Our two research modules are equipped with standard compositions of LEDs - one module with 12% blue, 5% green, 75% red, 8% far red and the other module with 18% blue, 7% green, 64% red, 11% far red - but the mix can also be predefined by customers, to achieve the most versatile spectra in the given research environment.

## Product Specifications

Product ID	Module	Growth Spectrum (% UV/B/G/R/FR)	Nominal Power (W)	PPF ( $\mu\text{mol/s}$ )	Efficacy ( $\mu\text{mol/J}$ )	Optics	Control	Options
FA-GTR	1	0012057607	182	598 *	3,29	C1-120° L5-50°	D – multi channel DALI	ST-Standard
	2	0018076510	417	1264 *	3,03			

\*Measured range 300-800 nm

## Key Technical Features

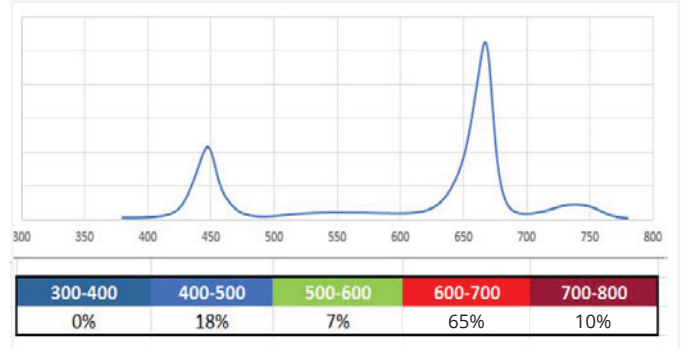
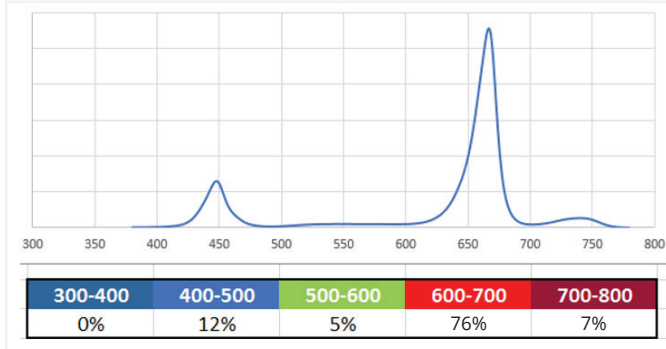
- Highest PPF – up to 1264  $\mu\text{mol/s}$
- High efficiency LED design, up to 3,29  $\mu\text{mol/J}$
- Ingress protection: IP65
- Impact resistance: IK08
- Operating Environment: 0°C to +40°C
- Life-time >50 000h (Ta= 25 °C)
- Passive cooling - no moving parts
- Simple hanging system for easy installation
- Painted white finish
- Regulatory approvals – CE, RoHS

## Advanced control

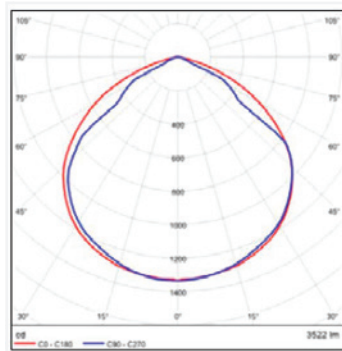
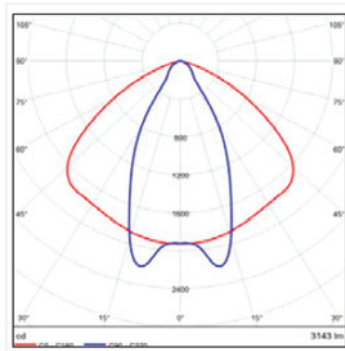
- Innovative control system options for research cultivations
- Real time growing recipe management: timed dimming, grouped control, easy-to-adapt map view
- 0-100% dimmability on each channel ensures most versatile spectral variants and wide range of PPF density



## Spectral distribution

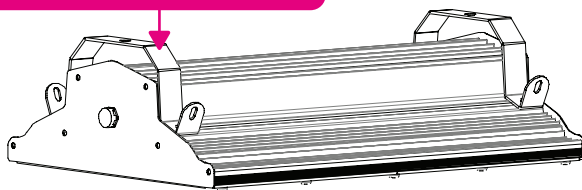


## Photometric data

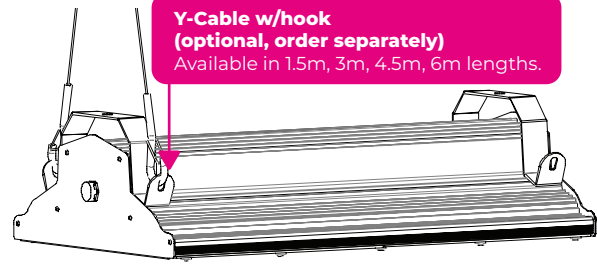


## Mounting

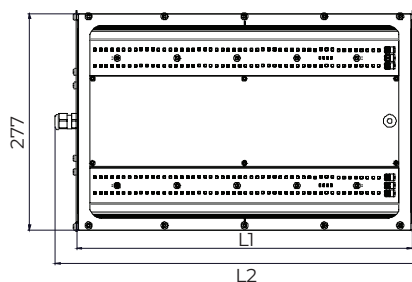
**Rod Mount (included in the pack)**  
Available on all fixture configurations.  
Attaches to M6 threaded rod.



**Y-Cable w/hook (optional, order separately)**  
Available in 1.5m, 3m, 4.5m, 6m lengths.



## Dimensions (mm)



	Single	Double
L1	422	842
L2	456	876
Weight	5 kg	10 kg

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**LED Research Module Datasheet – June 2022**