



# 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 PPFD (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 4-channel research modules are equipped with standard compositions of LEDs - one module with 12% blue, 5% green, 76% red, 7% far red and the other module with 18% blue, 7% green, 65% red, 10% far red - but it is possible to add a 5th channel (UV), 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 (Mmol/S)	Efficacy (Mmol/J)	Optics	Control	Options
FA GTR	1	0012057607	182	598*	3,29	C1-120°	D – Multi Channel DALI	ST-Standard
	2	0018076510	417	1264*	3,03			

\*Measured Range 300-800 Nm

## **Key Technical Features**

#### **Advanced Control**

4 or 5 channel (UV) option

- Highest PPF up to 1264 µmol/s
- High efficiency LED design, up to 3,29 µmol/J
- Ingress Protection: IP65
- Operating Environment: 0°C to +40°C
- Life-time >50 000h (Ta= 25 °C)
- Passive Cooling
- Simple hanging system for easy installation
- Painted White Finish
- Regulatory approvals CE, RoHS

**CultiMesh** 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 mostversatile spectral variants and wide range of PPF density



#### **SMART LIGHTING SOLUTIONS**



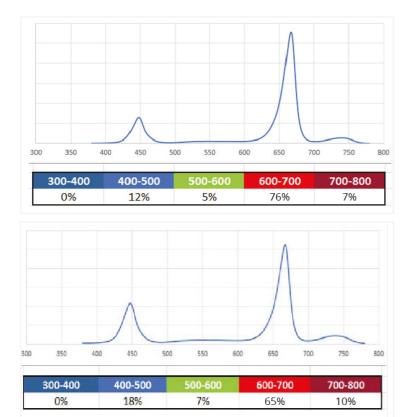


#### DATASHEET

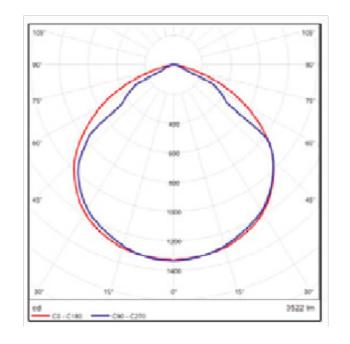
**Greenhouse Toplight Research Module** 

#### **Spectral Distribution**

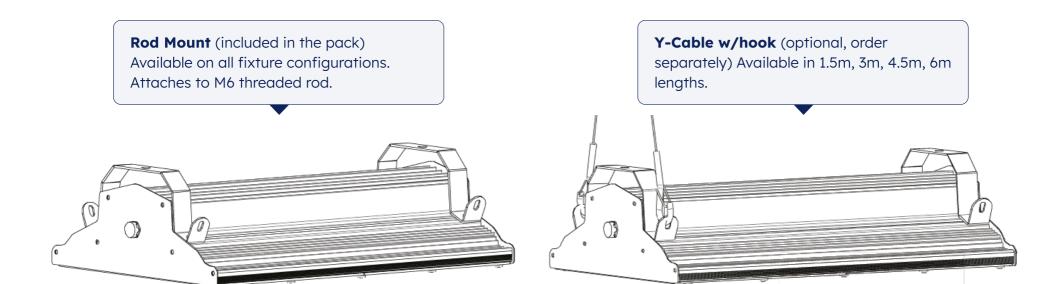
(All Channels At Max. Power)



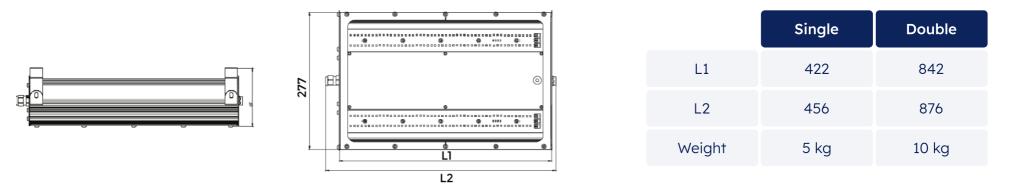
# Photometric Data



## **Mounting Options**



#### **Dimensions**



At Food Autonomy, we are constantly developing and improving our products. For this reason, all product descriptions in this catalogue are intended as a general guide, and we may change specifications from time to time in the interest of product development, without prior notification or public announcement. All descriptions in this publication present only general particulars of the goods to which they refer and shall not form part of any contract. Data in this guide has been obtained in controlled experimental conditions. However, Food Autonomy cannot accept any liability arising from the reliance on such data to the extent permitted by law. LED Research Module Datasheet – June 2023

#### **SMART LIGHTING SOLUTIONS**

