

Modular Vertical Farm Lightbars

Tailored to your needs



Product information

The LED VF lightbar is a very flexible and highly efficient solution specifically designed for indoor multilayer growing facilities. This light weight modular system can be customized in length, light output and color spectra to meet the needs of the different crops and thus ensure the best harvest results. Our lightbars produce very low heat radiation above the plants and the wide beam version gives great uniformity even from 15 cm or shorter distance.

The various versions of the Food Autonomy LED VF lightbars enable growers to have full control over the growth cycle of their plants:

- **Fix spectrum lightbar** (FA VF5M) offers the most cost effective solution with our proven light recipes or tailored to customer requirements.
- **4-channel lightbar** (FA VF4M) provides control over the mix of wavelengths and light intensity resulting in a dynamic lighting strategy for advanced indoor farming production.
- **6-8 channel Research module** (FA VF6M) enables to create most versatile spectral variations to finetune light recipes in R&D centers for the most optimized production in plant factories.

Up to 3.5
 $\mu\text{mol/J}$

Remote
driver

Various
length

Customizable
spectrum

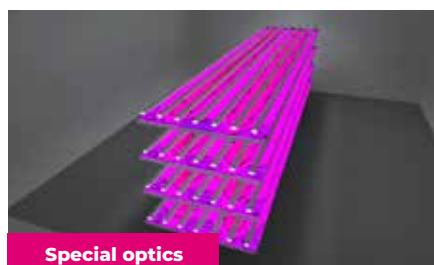
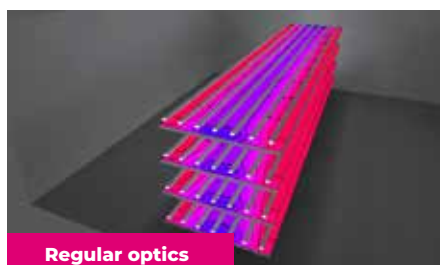
Wide beam
solution

Robust
metal
housing

Key product features

• Fixed or controllable spectrum	• Lifetime: L90B50 54khrs (Ta= 25 °C)
• Remote driver - minimizing heat dissipation within the selves	• Operating Environment: 0°C to +40°C
• Standard and wide beam option	• 220-400 V, 50-60Hz
• Robust metal housing	• Power factor >0.9
• Various lengths (up to 2,5m)	• Light weight and simple mounting solution – CE, RoHS
• Ingress protection: IP65	• Regulatory approvals

Special optics for optimized light distribution



Uniform light distribution even with short fixture-plant distance

Fewer fixtures, lower investment cost

Product Specifications of the standard 1.2m lightbars

In case of customized solutions the size and number of lightbars per driver, the wattage, PPF and efficacy values are adjusted specific to the application (size of growth surface, distance between the lightsource and the plants, spectrum, PPFD and uniformity requirements).

Product ID	VFSM		VFPM		VFRM
Type	EFF	STD	MO	HO	STD
Growth Spectrum *	B/G/R/FR	B/G/R/FR	B/G/R/FR	B/G/R/FR	UV/B/G/A/R/FR
Nominal System Power (W)	32	50	51	71	65
Photon flux 300-780nm (µmol/s)	96	145	148	200	150
Efficacy (µmol/J)	3.0	2.9	2.9	2.9	2.3
Control	Fix or Dimmable		4-channel variable spectrum		6-channel variable spectrum**

* B=Blue, G=Green, A=Amber, R=Red, FR=Far Red, UV (customization possible)

** 8-channel optional

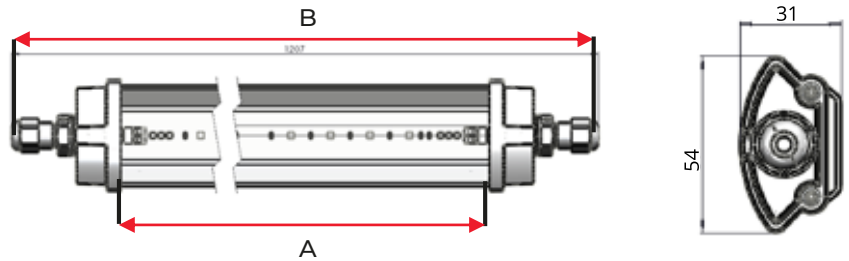
Advanced Control

- Remotely operated innovative control system options for industrial scale and research cultivations
- Real time growing recipe management: pre-defined programs, timed dimming, grouped control, easy-to adapt map view of the growing areas
- 0-100% dimmability on each channel ensures numerous spectral variants and wide range of PPF



Standard dimensions (mm)

Model	A (mm)	B (mm)	Weight
S	1102	1192	850
T	1472	1562	1100
M	1842	1932	1350
L	2470	2560	1800



Mounting

For ease of installation the mounting bracket can be pre-assembled and once they are installed, the lightbars can be simply snapped into place (#1 Picture). Depending on the layout lamps can be directly connected by engaging the male and female connectors (#2 Picture) or by using a connecting cable (#3 Picture). Driver/driver box provided with sufficient cable length and connectors to allow them to be assembled remotely as it best suits the application.

