

## Highrack multispectral



100% Made in France. The multispectral luminaire by VGD is the result of 2 years of research & development and qualification of LEDs for the horticultural sector. Developed with one of the leaders in led lighting, Airis (present in 17 countries) then tested and appraised by the essential reference in the sector, CTIFL, around a long-term partnership. A luminaire, all in one, which can be programmed simply from an ergonomic and secure management interface. The characteristics of several luminaires on the market in one, is the flexibility offered by the VGD «High rack» multispectral luminaire. Research tool or production tool, it offers energy and economic savings in maintenance.



Clients

- ✓ Producers
- ✓ Seed companies
- ✓ Nurseries
- ✓ Multipliers
- ✓ Breeders
- ✓ GMS
- ✓ Vertical farming
- ✓ Technical centers and research institutes



Crops

PPAM, Tomatoes, Peppers, Seeds, Pathosystems, Strawberries, Spirulina, Algae, Lawns, ...

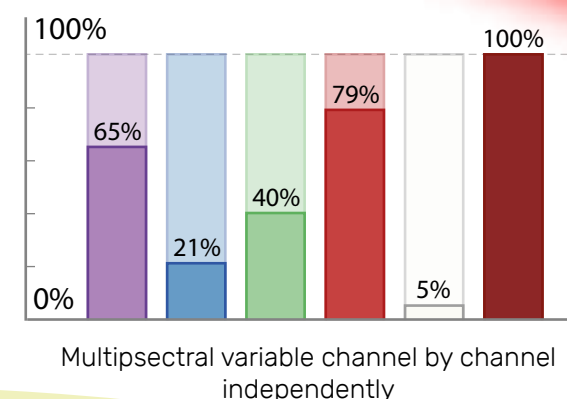
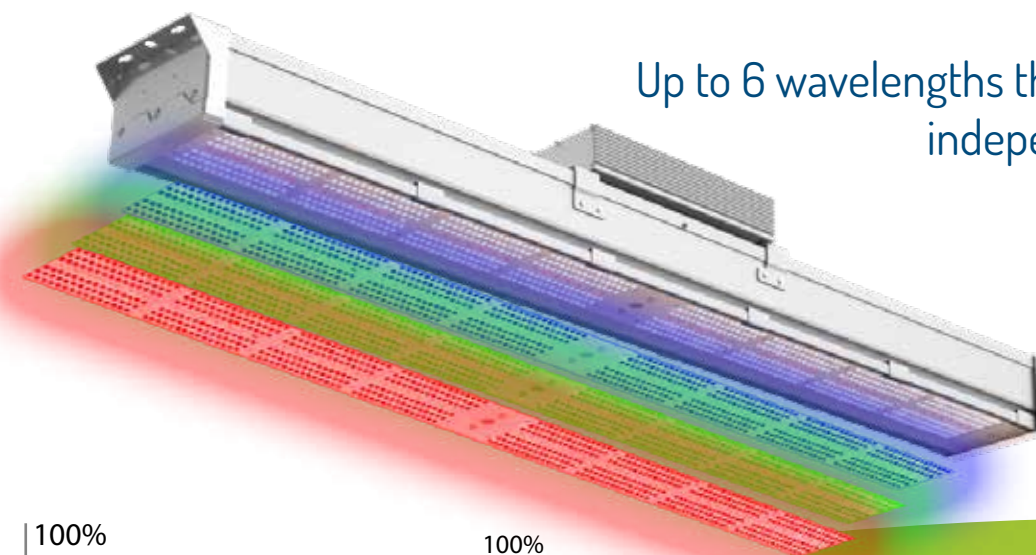


Aims

- ✓ Increase performance
- ✓ Speed up the production cycle
- ✓ Control the reproducibility of cultures
- ✓ Quickly test new varieties
- ✓ Increase the production of molecules of interest
- ✓ ...
- ✓ Produce all year round Increase quality
- ✓ Speed breeding
- ✓ Culture homogeneity
- ✓ Improved post-harvest conservation

## MULTISPECTRAL

Up to 6 wavelengths that can be controlled independently in real time.

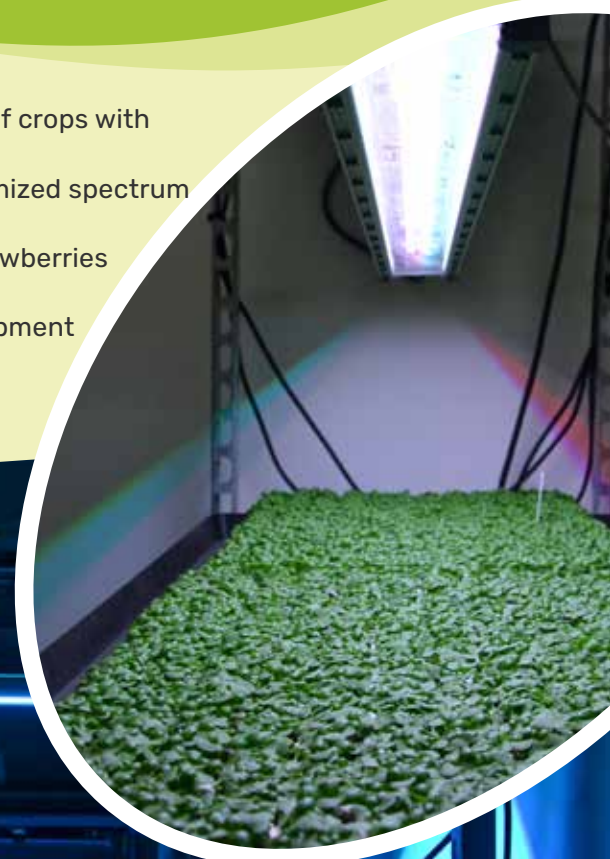


### BENEFITS

- Light spectrum modulation flexibility
- Release the locks
- Accelerates cycles
- Programmable channel by channel
- No use limit
- High performance

## Results

- Definition of the optimum light spectrum, suitable for several types of crops with standard luminaire industrialization
- Replacement of fluorescent tubes in a culture chamber with an optimized spectrum
- Seed production cycle for bell pepper reduced by 18 days
- Optimization of crop management on raspberries, tomatoes and strawberries
- Definition of light signals to break dormancy
- Definition of light signals to be provided at a specific stage of development to increase vitamin C concentrations
- Facilitated observation of different pathosystems (hosts – pathogens)
- ...



“ Vegenov being a service provider in the field of cell biology and phytopathology, we were looking for a tool allowing us to be able to test an unlimited number of light recipes for our experiments in greenhouses and in culture chambers. We have therefore acquired the VGD Led «High Rack 6 way» lighting system. This equipment allows us today to offer our seed and agrochemical customers the opportunity to study the impact of lighting on plant metabolism and growth as well as on the development of plant microorganisms. ”

Mickaël Euzen  
R&D engineer in cell biology - Vegenov



Highrack multispectral



- 40 - 900 Watts
- 120°
- IP67
- IK08
- 850°
- Class 1
- CE
- 3 to 5 year warranty



Up to 6 independent wavelengths in a single luminaire from a catalog of 32 qualified wavelengths.

A multidisciplinary multispectral VGD technology adaptable to the luminaires corresponding to each type of installation and use (greenhouse, shelving, etc.).

This innovative solution by VGD makes it possible to have only a single luminaire with the possibility of modifying the spectrum according to the type of crop using one of the control systems.

VGD Box



The control system by VGD, awarded at SIVAL 2020. Combined with the VGD luminaire equipped with multispectral technology, it allows one or more spectral combinations to be applied depending on the stages of cultivation and the variety. The VGD Box system is then able in real time to modulate each of the on-board wavelengths according to the natural supply of light and its exposure. The goal is to maximize energy savings while respecting plants by providing the right light at the right time.

µWave control

This sampler allows the use of multi-wavelength VGD technology in on / off use without a control box, ie without a smartphone, tablet or computer. It is typically used for tests to define the unique light spectrum of one or more lights suitable for each crop.



MULTISPECTRAL TECHNOLOGY FOR EACH TYPE OF APPLICATION

- Glass greenhouse
- Photovoltaic greenhouse
- Tunnel greenhouse
- Culture Chamber
- Custom Projects

