Colasse

PRODUCT SHEET

Research · Vegeled

Handheld spectrometer for plant lighting



Mavospec Base the pocket spectrometer for your growth chambers

Measure PPFD, the spectrum and the share of blue, red and far-red light at plant level, in seconds. A GOSSEN instrument, recommended and supplied by Colasse.

PPFD	380–780 nm	± 3 %	150 g
in µmol/m²·s, split into UV, blue, green, red and far-red	full spectrum, about 1.7 nm resolution	illuminance uncertainty*	fits in a pocket, 8 h battery life

Why a spectrometer?

A lux meter measures light as the human eye sees it: it underestimates blue and red, the colours plants use most for photosynthesis. A PAR meter gives total PPFD, but says nothing about its composition.

The **Mavospec Base** measures the full spectrum and derives PPFD band by band. You know how much light your plants receive, and in which colours.

What you measure

- **PPFD** 400–700 nm, in µmol/m²·s
- **PPFD UV** 380–400, **blue** 400–500, **green** 500–600, **red** 600–700 and **far-red** 700–780 nm
- Spectrum in mW/m²/nm
- Illuminance (lux), colour temperature, CRI Ra and R1–R15, TM-30
- Driver flicker
- Peak and dominant wavelengths

In your laboratory

- **Check uniformity** in a chamber or greenhouse: grid measurements, average, minimum and maximum PPFD.
- **Check delivered lighting**: do the spectrum and PPFD match the order?
- **Compare two chambers** or monitor an installation over time with reference mode, which shows the difference with a stored measurement.
- **Log a full day** at an adjustable interval with the Excel data logger supplied (meter connected to a PC) to check a photoperiod or a simulated sunrise.



Documented measurements

Measurements are stored on the micro SD card (up to 500,000) as CSV files. The Excel templates supplied produce reports ready to print or save as PDF.

The open USB interface lets you integrate the meter into your own test tools.

Technical data

Spectral range	380–780 nm, 256-pixel CMOS sensor
Bandwidth (FWHM)	≤ 15 nm (typ. 12 nm)
Illuminance	10 to 100,000 lx
Uncertainty*	illuminance ± 3 %, CCT ± 2 %, CRI ± 1.5 %
Display	2.1″ colour TFT
Memory	4 GB micro SD, CSV files
Battery	Li-ion, ≥ 8 h, 1.5 h charging
Size, weight	139 × 60 × 30 mm, 150 g
Warranty	3 years, made in Germany

The Colasse offer

- **Mavospec Base** supplied with aluminium case, pouch, battery, charger, USB cable, micro SD card with Excel templates and calibration report.
- Advice on use from the Vegeled team, who measure their own lighting with this instrument.
- Factory calibration certificate available as an option. Recalibration recommended every 12 to 24 months.

On request price and lead time on request

Request a quotation: **info@colasse.be** · +32 4 225 25 89

Photos: GOSSEN Foto- und Lichtmesstechnik · * Illuminant A, 2,856 K, 1,000 lx · Manufacturer data, subject to change

Colasse

Understanding your challenges is already securing your project.
Let's talk.

- **Rue Puits-Marie, 79**
  4100 Seraing – Belgium
- **1 Rue Louis Néel, Synergie Park**
  59260 Lezennes – France
- **info@colasse.be** · +32 4 225 25 89
- **www.colasse.be**

