

**Robust . Reliable . Accurate**

# Handheld AOTF-NIR Analyzer for Wine and Grape



- Non-destructive Analytical Testing and Inspection
- Brimrose Analytical Software - Snap32!
- "Le Vigneron" Handheld Spectrometer for Grape and Liquid Wine Measurements



Brimrose Corporation of America  
Email: [office@brimrose.com](mailto:office@brimrose.com)  
[www.brimrose.com](http://www.brimrose.com)

Le Vigneron

■ **Rugged Hand-held Analytical Instrument for Grape and Wine Measurements**

The Brimrose Solid-state Luminar 5030 "Hand-held" Miniature AOTF-NIR (Acousto-Optic Tunable Filter-Near Infrared) Analyzer is a rugged hand-held analytical instrument that utilizes Brimrose's high performance AOTF-NIR technology.

The product delivers rapid, multi-component analysis for a wide variety of commercial applications, making it a powerful tool for quality control and process troubleshooting. The Luminar 5030 "Le Vigneron" handheld spectrometer's versatility extends from the laboratory to the production floor and field, providing nondestructive and contact/noncontact analytical testing and inspection.

Brimrose markets the Luminar 5030 "Le Vigneron" handheld spectrometer to wineries for grape and liquid wine measurements prior to producing wine. The instrument is a portable battery-powered device to take measurements for Brix, pH, TA, etc. from any grape in the vineyard without removing it from the vine. This instrument can be used in the vineyard or cellar with a battery pack or Wireless Ethernet connection.



**Luminar 5030 "Le Vigneron" handheld Analyzer for grape and liquid wine measurements**

■ **Key Features**

- Dual Beam, Pre-aligned Lamp Assembly, InGaAs Detectors
- Fast Scanning Speed - 16,000 wavelengths/sec
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language
- 6mm Diameter Sample Area at 40mm Sampling Distance

■ **Real-time Applications**

- **Grape Applications:**  
Validation of Wine Grape Universal Models for Brix, pH, and TA
- **Cellar Applications:**  
Measurements of % Alcohol, pH, TA, Acids Citric, Lactic, Malic, Tartaric, etc.



**Brimrose Corporation of America**  
 Email: [office@brimrose.com](mailto:office@brimrose.com)  
[www.brimrose.com](http://www.brimrose.com)

Le Vigneron

## ■ Technical Data Specifications

| Spectrometer Name  | Luminar 5030 Handheld AOTF-NIR Analyzer   |
|--|---|
| Spectral Range Options   | 600-1100 nm, 850-1700 nm, 900-1800 nm, 1100-2300 nm   |
| Measurement Modes  | Diffuse Reflection, liquid transmission with probe attachment   |
| Spectral Resolution  | 2-10 nm   |
| Wavelength Accuracy  | ± 0.5 nm  |
| Wavelength Repeatability   | ± 0.01 nm   |
| Wavelength Increment   | Software Selectable 1-10 nm   |
| Ambient Light Rejection  | > 10 <sup>6</sup>   |
| Vibration Immunity   | Blenders, Agro field operations, e.g. vineyards   |
| S/N at 70% Range   | < 30µabs in reflectance and transmission, for <5 seconds integration time   |
| Wavelength Access Time   | < 66 µsec   |
| Photometric Range  | 3.5 AU  |
| Linearity  | Better than 0.15%   |
| Signal Digitalization  | 16-bit A/D (1 part in 65,536)   |
| Sampling Speed   | 16,000 wavelength/sec   |
| Sampling Area  | Ø6 mm   |
| Sampling Distance  | 40 mm   |
| Diagnostic   | 10 Built-in monitoring sensors  |
| Power Requirements   | 12VDC, (24VDC special order), 90Watts, 110VAC 60Hz, 220VAC 50Hz   |
| Outputs  | PC Interface via Ethernet connection  |
| Software Package   | Windows-based analytical software for data acquisition  |
| <b>Options:</b>  | <b>Accessories:</b>   |
| <ul style="list-style-type: none"> <li>➤ Battery Operation</li> <li>➤ Display</li> <li>➤ Liquid Probe Attachment</li> <li>➤ Powder Probe Attachment</li> <li>➤ Wireless Communication</li> <li>➤ Gravity Switch</li> </ul> | 5030O: L-shape mounting plate with 1.5" Sapphire Window Assembly for Quick dismounting of Optical module<br>5030E: Mounting Plate for Electronics module for quick dismounting of Electronics module<br>731-09: Liquid Transflectance measurements with selectable path lengths<br>731-10: Diffuse Reflectance measurement with Sapphire ball<br>731-S: Stand with Rotating cup |



Brimrose Corporation of America  
 Email: [office@brimrose.com](mailto:office@brimrose.com)  
[www.brimrose.com](http://www.brimrose.com)