

# Luminar 5030

## Hand-Held AOTF-NIR Spectrometer

Data Sheet

### Versatile AOTF-NIR Spectrometer – Luminar 5030

The Brimrose Luminar 5030 AOTF-NIR Spectrometer is our most flexible unit. The 5030 has an aluminum housing and can be used in the following ways:

- Hand-Held
- Laboratory – with the use of a lab stand
- Mounted – with the use of a mounting plate; when stainless steel not required

Designed with flexibility in mind, the Luminar 5030 has the widest range of customer applications including: Blending Uniformity, Fluid Bed Dryers, Material Identification, Peanut and Soybean Sorting, Hay and Alfalfa, Olives, Brix, etc.



## Mounted In-line / In Lab

- Mounting Plates for Optical Module and Electronics Module
- Lab Stand with Rotating Sample Cup

## Key Features

- **Robust** – Built for In-Line and At-Line Monitoring; Extremely Fast (up to 10 measurements / second Typical)
- **Reliable** – Solid State; Immune to Vibration and Ambient Light; Install Anywhere
- **Accurate** – Real-Time Dual Beam Referencing; Real 1 or 2 nm Steps

## What is measured?

- Measuring Fatty Acid Content in Soybeans
- Measurements for Brix, pH, TA, etc.
- Fruit Inspection
- On-line Food Analysis for Fat, Protein, Moisture, Starch, etc.

## AOTF-NIR Advantages

- **Solid State** – No Moving Parts
- **Faster** – Up to 10 measurements / second and can get up to 30 scans per second across the whole wavelength range (1100-2300 nm)
- **Sensitive** – higher resolution with excellent signal-to-noise ratio
- **Customized for Purpose** (ATEX / UL / IPxx)
- **Immune to Ambient Light & Vibration** – no need to block ambient light from the sample
- **Real-Time Dual-Beam Reference** – No Drifting, Excellent Wavelength Repeatability, No Need to Recalibrate The Device



## Technical Specification

Spectral Range Options	600–1100 nm, 850–1700 nm, 900–1800 nm, 1100–2300 nm (standard)
Wavelength Repeatability	± 0.01 nm
Spectral Resolution	2–10 nm
Wavelength Accuracy	± 0.5 nm
Sampling Speed	16,000 wavelength/sec
Ambient Light Rejection	> 10 <sup>6</sup>
<b>Installation Requirement</b>	
Power Requirements	12VDC, (24VDC special order), 90Watts, 110VAC 60Hz, 220VAC 50Hz
Cooling Options	Fan-cooled
Communication	Wireless, TCP/IP Ethernet
<b>Accessories / Options</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>• Mounting Options</li><li>• Gravity Switch / Trigger</li></ul>	

Lab Stand with Rotating Sample Cup

