

Luminar 3076

SeedMeister AOTF-NIR Spectrometer

Data Sheet

Non-destructive Analysis & Sorting Seeds – luminar 3076

The Brimrose Luminar 3076 SeedMeister AOTF-NIR Analyzer is a system specifically developed for non-destructive analyzing and sorting 100% of seeds.

Properties – oil, protein, moisture, starch, oleic, linoleic, sugar, etc.

Major Hybrid Seeds – corn, soybeans, coffee, watermelon, peanuts, sunflower and much more.

The latest Seedmeister has several modifications for the measurement of nuts and seeds of irregular shape and size. The Luminar 3076 Seedmeister Mark IIIx is the perfect turnkey solution for breeders who need consistent and accurate results when sorting. The Mark IIIx has proved very effective at measuring the oleic – linoleic ratio in peanuts so that breeders can grow healthier products.



Brimrose Seedmeister Mark IIIx automates your sorting process

Measurement Modes

- Transmission
- Diffuse Reflectance

Key Features

- Belt Driven Orientation
- **Sample Throughput** - Sorting Up to 40 Seeds/min
- **Sorting** - 2-6 Discrete Channels
- Specialized Seed Analytical & Sorting Software
- **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?

- Sorting High Oleic, High Linoleic Peanut Seeds
- Measuring Fatty Acid Content in Soybeans
- Fast Sorting of Triploid from Diploid Watermelon
Seeds Up to 40 Seeds per Minute

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	850-1600 nm or 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 ⁶
Installation Requirement	
Power Requirements	110 VAC 60 Hz, 220 VAC 50 Hz
Cooling Options	Fan-cooled
Communication	TCP/IP Ethernet
Accessories / Options	
<ul style="list-style-type: none">• Automatic Seed Sample Feeder• Free Space Optical Head for Transmission Sorting System• Free Space Optical Head for Diffuse Reflectance Sorting System	



Luminar 3076-908
in Transmission

