Gemlogis Lumens

Overview

Gemlogis Lumens is a desktop diamond verification instrument for loose and mounted stones designed to separate natural diamonds from synthetic diamonds and cubic zirconia. The Lumens is manually operated but gives an automatic result.

Lumens can screen multiple loose and mounted stones at a time arranged on trays (included with the device).
The instrument scans the stones to return the following results:
i) Diamond
ii) CVD
iii) HPHT
iv) Cubic Zirconia

For ASSURE testing, CVD and HPHT results were categorized as Synthetic for the calculation of the performance metrics. Simulants were not included in the ASSURE test sample since the Lumens does not screen Moissanite, Sapphire or glass simulants.

Stone Testing Capabilities

Weight range:	**0.002 ct +**
Size of stones:	**1 mm +**
Colour range:	**D-J**
Stone shape:	**All**
Diamond simulants:	**Cubic Zirconia**
Mounted stones:	**Yes - open back settings**

Instrument Capabilities

Automated feed:	**No**
Automated results:	**Yes**
Automated dispense:	**No**
Detect or Refer (synthetic diamonds):	**Detect**
Detect or Refer (diamond simulants):	**N/A**
Multiple stones at once:	**Yes**
Training required:	**No**

ASSURE 2.0 Performance

Key ASSURE 2.0 test results for Lumens:

	Primary Loose	Smalls	Primary Mounted
Diamond False Positive Rate *(Optimal rate 0%)*	**4.7%** +/- 1.0%	**5.7%** +/- 0.8%	**2.2%**
Diamond Referral Rate *(Optimal rate 0%)*	N/A	N/A	N/A
Diamond Accuracy Rate *(Optimal rate 100%)*	**98.4%** +/- 0.4%	**97.0%** +/- 0.6%	**97.8%**
Test Speed *Stones per hour*	**199** +/- 21		

Notes:
Uncertainty ranges (+/-) are based on repeatability testing (three trials) and represent spread of results in absolute terms.
Test Speed based on time to screen the full Primary Loose sample set, and includes time taken to retest Referrals.
See Laboratory Report for full set of performance results.

Instrument Specifications

29 cm (W) x 30.6 cm (D) x 31.4 cm (H)

9.6 kg

Price: 4,500 USD (March 2025)

Contact