

Optical Mirrors

0-45° AOI High-Power Laser Mirror

A versatile beam-steering solution engineered for high-energy laser systems

- Wide Angle Insensitivity
- Ultra-High Reflectivity
- High Laser Damage Threshold
- Substrate Versatility
- Surface Processing



One Platform Many Possibilities

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Overview

Flexible Beam Steering: High Reflectivity Maintained Across 0-45° AOI

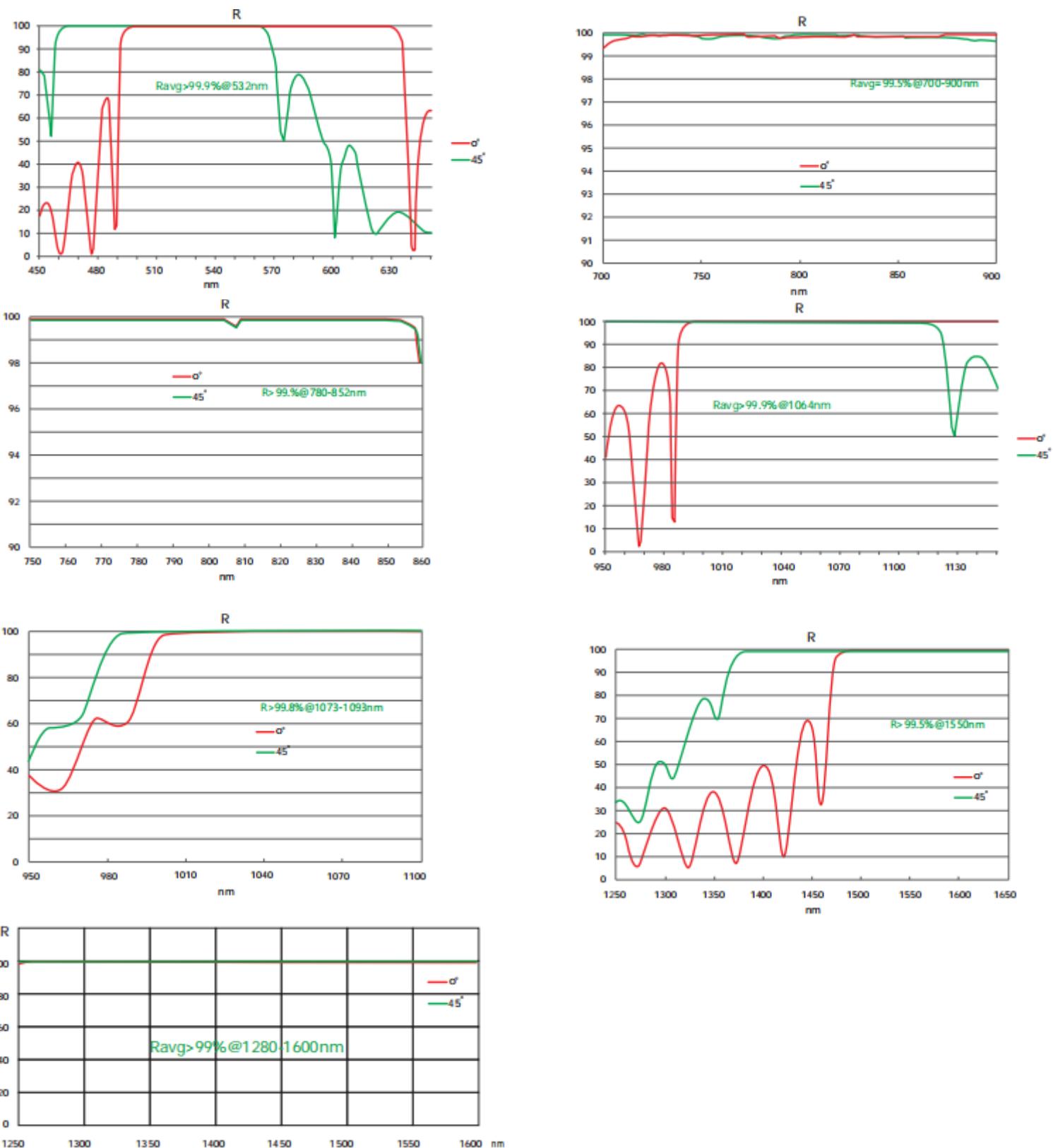
The VLGLM/VLQLM Series is a high-performance laser mirror designed for versatility in complex optical setups. Unlike standard mirrors optimized for a single angle (e.g., 45° only), this series features advanced dense dielectric coatings that maintain exceptional spectral performance at **any Angle of Incidence (AOI)** from 0° to 45°.

This wide-angle insensitivity makes it the perfect solution for laboratory optical construction and industrial laser alignment. Whether you are steering a beam by 90° (45° incidence) or performing fine angular adjustments, these mirrors deliver >99.5% (up to 99.9%) reflectivity, minimizing energy loss and preventing thermal buildup.

Available in both **K9 (N-BK7 equivalent)** and **UV Fused Silica** substrates, these mirrors are optimized for common laser lines including Nd:YAG (1064nm, 532nm) and Ti:Sapphire (700-900nm).

Reference Curve Diagram

Typical Reflectivity Curve: Broadband Dielectric Mirror (0-45° AOI)



Selection Chart

High Performance Laser Mirrors (0-45° AOI)

Item No.	Wavelength (nm)	Diameter (mm)	Thickness (mm)	Clear Aperture (%)	Reflectivity (%)	Substrate
VLGLM25.4-532	532	25.4	5	> 90%	> 99.9%	K9
VLGLM30-532	532	30	5	> 90%	> 99.9%	K9
VLGLM50-532	532	50	5	> 90%	> 99.9%	K9
VLGLM12.7-700/900	700-900	12.7	6	> 90%	> 99.5%	K9
VLGLM25.4-700/900	700-900	25.4	5	> 90%	> 99.5%	K9
VLGLM50-700/900	700-900	50	5	> 90%	> 99.5%	K9
VLGLM50.8-700/900	700-900	50.8	5	> 90%	> 99.5%	K9
VLGLM25.4-700/900-F	700-900	25.4	6	> 90%	> 99.5%	K9 (Frosted)
VLGLM50.8-700/900-F	700-900	50.8	8	> 90%	> 99.5%	K9 (Frosted)
VLGLM12.7-780/852	780-852	12.7	5	> 90%	> 99.9%	K9
VLGLM25.4-780/852	780-852	25.4	5	> 90%	> 99.9%	K9
VLGLM25.4-780/852-F	780-852	25.4	5	> 90%	> 99.5%	K9 (Frosted)
VLGLM25-1064	1064	25	5	> 90%	> 99.9%	K9
VLGLM50-1064	1064	50	5	> 90%	> 99.9%	K9
VLGLM25-1083	1083	25	5	> 90%	> 99.8%	K9
VLGLM50.8-1083	1083	50.8	5	> 90%	> 99.8%	K9
VLGLM12.7-1280/1600-Q	1280-1600	12.7	6	> 90%	> 99%	Quartz (SFS)
VLGLM25.4-1280/1600-Q	1280-1600	25.4	6	> 90%	> 99%	Quartz (SFS)
VLGLM50-1280/1600-Q	1280-1600	50	5	> 90%	> 99%	Quartz (SFS)
VLGLM25-1550-Q	1550	25	5	> 90%	> 99.5%	Quartz (SFS)
VLGLM30-1550-Q	1550	30	5	> 90%	> 99.5%	Quartz (SFS)
VLGLM25.4-1550	1550	25.4	5	> 90%	> 99.5%	K9

Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification

Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE and RoHS**.

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH standards**, ensuring safety and global compliance."

Explore Series

Model	Diameter (mm)	Reflectivity (R)	Thickness (mm)	Wavelength (nm)
VLGLM25.4-532	25.4	> 99.9%	5	532
VLGLM25-1064	25	> 99.9%	5	1064
VLGLM25.4-780/852	25.4	> 99.9%	5	780-852
VLGLM25-1550-Q	25	> 99.5%	5	1550

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

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