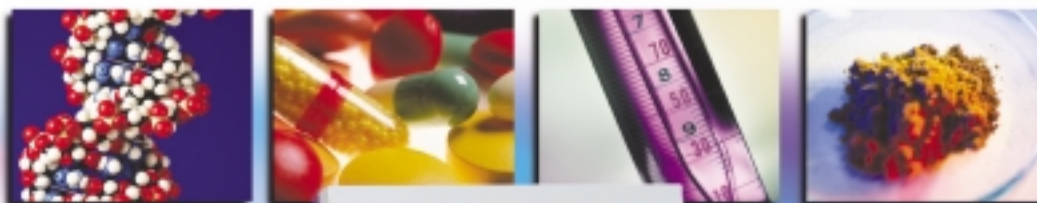


# LAMBDA 25/35/45

UV/Vis Spectrophotometers





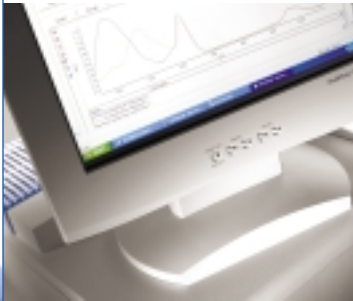
keep your analysis **flowing**

# speed and simplicity

keep the results flowing

LAMBDA™ 25/35/45 UV/Vis Spectrophotometers increase productivity by mimicking the QA workflow to generate high-quality results the first time, every time. And that's exactly what you need in a busy laboratory when the pressure's on and it's your job to keep the results flowing. LAMBDA systems are easy to operate and deliver results you can trust with the minimum of operator training. With our complete range of LAMBDA systems it's easy to develop simple, robust methods and ensure they're followed without mistakes. And, whichever LAMBDA system you choose, your day-to-day UV/Vis analyses will be faster, simpler and more dependable than ever before.

WinLab™ software works the way you work, guiding you through a step-by-step process that simplifies analysis from sample entry to report generation, eliminating costly mistakes and delivering rapid results. You can rely on our proven technology to deliver consistently high-quality results over the lifetime of the system, and you can confirm those results with our extensive suite of Instrument Performance Verification (IPV) tests. For FDA-regulated industries, the Enhanced Security™ (ES) version of UV WinLab integrates seamless 21 CFR Part 11 technical compliance without slowing you down.

	<b>LAMBDA 25</b>	<b>LAMBDA 35</b>	<b>LAMBDA 45</b>
	 <p>The LAMBDA 25 is an ideal match for most routine UV/VIS applications and regulatory tests, giving fast and reliable results time after time.</p>	 <p>The variable bandwidth of the LAMBDA 35 offers the best solution for measurements on solids, pastes and powders.</p>	 <p>The LAMBDA 45's premonochromator deals easily with light scattering samples.</p>
<b>Range (nm)</b>	190-1100		
<b>Double-Beam Operation</b>	Yes	Yes	Yes
<b>Bandwidth (nm)</b>	1 (fixed)	0.5-4 (variable)	0.5-4 (variable)
<b>Pre-Monochromator</b>	No	No	Yes
<b>Modes of Operation</b>	Scanning, Wavelength Program, Timedrive, Rate, Quant, Scanning Quant		
<b>Applications</b>	Routine UV/Vis testing	Routine UV/Vis testing	Routine UV/Vis testing
	Liquids analysis	Liquids analysis	Liquids analysis
	Pharmacopeia and regulatory tests	Solids, pastes and powder samples	Solids, pastes and powder samples
		Regulatory tests requiring variable bandwidths	Regulatory tests requiring variable bandwidths
			Highly scattering samples

# technology

## for best-in-class performance

With more than 10,000 units installed worldwide, our superior technology has proven itself under the toughest conditions.

- True double-beam operation provides the best possible stability and allows references to be measured and corrected in real time.
- Sealed and quartz-coated high-throughput optics ensure consistent performance throughout the instrument's service life.

- Fast scanning with no compromise in analytical performance.
- Surpasses all regulatory body, quality system and pharmacopeia requirements.
- Prealigned deuterium and tungsten halogen lamps mean that when a lamp needs to be replaced there's no service call and no downtime.

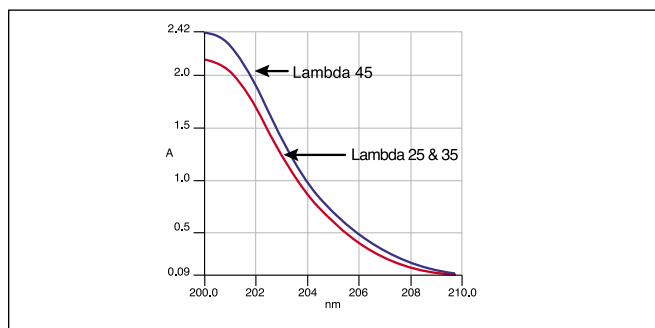


Figure 1. LAMBDA systems exceed the pharmacopeia stray light test specification of an absorbance of  $> 2.0A$  at 200 nm using a 1.2 w/v potassium chloride solution. The additional pre-monochromator in the LAMBDA 45 further reduces stray light compared to the LAMBDA 25 and 35.

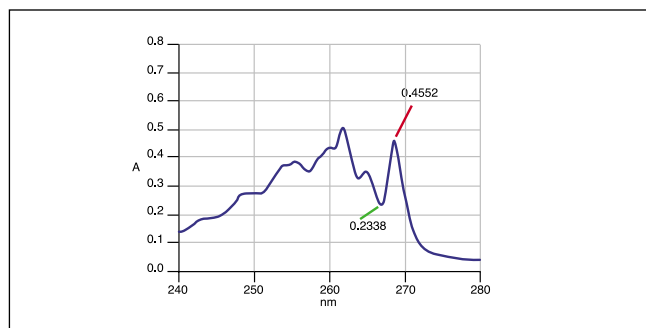


Figure 2. Pharmacopeia resolution test using 0.02% w/v toluene in hexane at 1 nm slit width. Ratio of peak and trough near 269 nm and 266 nm  $> 1.9$  vs. the pass criterion of 1.5.

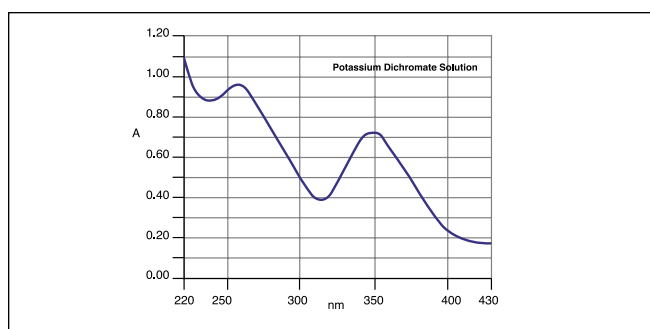


Figure 3. LAMBDA systems easily pass the pharmacopeia absorbance accuracy test at 235 nm, 257 nm, 313 nm and 350 nm using 60.06 mg/l potassium dichromate solution.

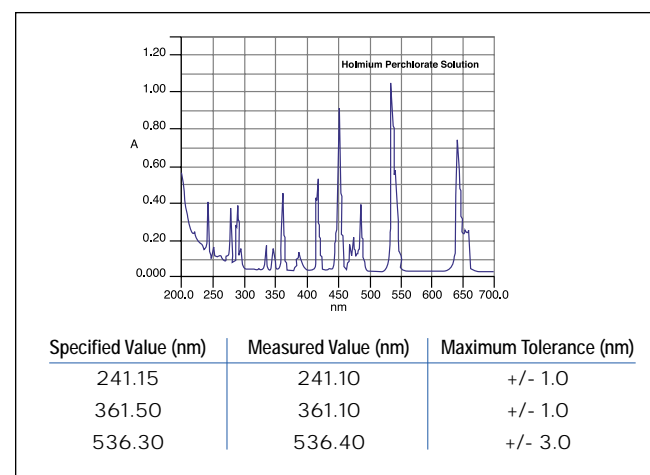


Figure 4. LAMBDA systems exceed pharmacopeia and ASTM requirements for wavelength accuracy (NIST 260-140) using a 4 mg/ml solution of holmium perchlorate.

# UV WinLab software

## Works the way you work

UV WinLab software mimics the way you work, guiding you through method development, analysis, reporting and analysis of results in a series of simple steps – so it's easy to keep in touch with all the stages of your analysis.

UV WinLab archives all of your results and methods with a single mouse click in a secure, relational database. This transforms your data from a collection of individual

results into valuable knowledge to help you make faster decisions. A range of intelligent querying options allows you to instantly answer questions from your customers and auditors and identify potential problems before they happen.

## Seamless validation and technical compliance

UV WinLab's integral performance tests give you the absolute confidence that your analyses and results will always meet the toughest internal and external quality standards.

- UV WinLab software includes a comprehensive suite of 20 Instrument Performance Verification (IPV) tests (Figure 5) covering pharmacopeia, ASTM, GLP and ISO requirements.
- Specify the intervals between IPV tests.

## Compliance for FDA-regulated industries

As the leading supplier of UV/Vis systems to regulated industries, PerkinElmer is your partner for all stages on the route towards system validation. We provide a full suite of materials to help you complete a thorough validation plan according to the GAMP 4 guidelines.

- Detailed functional and system design specifications.
- Materials to simplify preparation of your user requirements specification and supplier assessment questionnaire.
- Manufacturing test specification and certificates.
- Comprehensive IQ/OQ plan.
- Data processing validation and suitability CD.

## UV WinLab Enhanced Security

The Enhanced Security (ES) version of UV WinLab software integrates 21 CFR Part 11 technical compliance within the workflow user interface. Unlike other packages with "bolt-on" compliance modules, UV WinLab ES eliminates compliance loopholes without compromising productivity.

- Multi-level user permissions including administrator, method developer, analyst and reviewer.
- Password-protected access control includes password aging and expiry.
- Method-lock facility ensures that methods cannot be overwritten. All revisions are saved in a single location.
- Fully configurable e-signature points.
- Six-level database security protects valuable data.

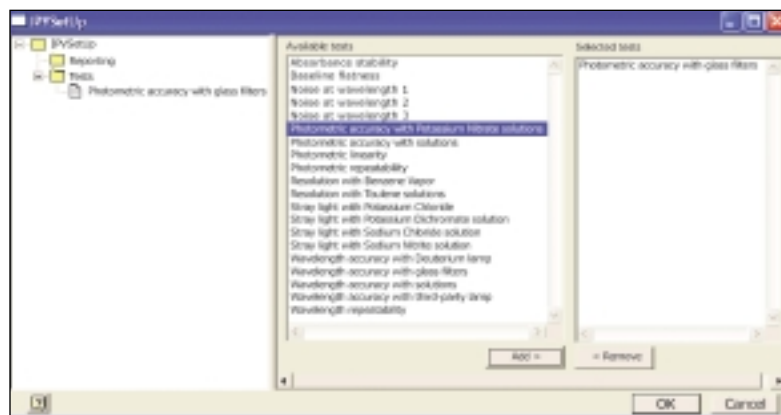


Figure 5. UV WinLab features a comprehensive list of IPV tests.

# sampling accessories

simple, reproducible and robust

LAMBDA 25/35/45 systems offer the widest range of reproducible and robust sampling accessories to simplify and speed your analysis whatever your sample type. Choose the right accessory for your application at: [www.perkinelmer.com/UVsupplies](http://www.perkinelmer.com/UVsupplies)



For liquids, the peristaltic sipper speeds throughput.



The fiberoptic probe enables in-situ sampling away from the instrument.



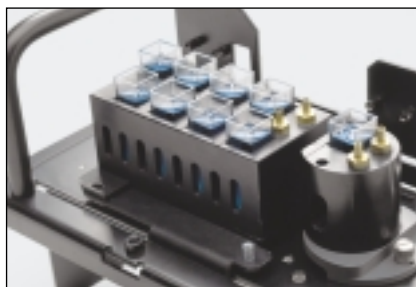
Peltier controllers accurately control the temperature of your experiment.



The temperature measurement kit provides precise in-cell temperature monitoring with real-time display within UV WinLab.



The sensitive integrating sphere simplifies the analysis of a wide variety of sample types, including solids, powders, pastes and liquids.



A range of automatic linear cell changers speeds and simplifies multi-sample measurements and quantitative calibrations.

A liquid autosampler is also available for high-throughput measurements using a wide range of sample vessels.



For everyday UV/Vis measurements, a wide range of routine cells and cell holders extends the range of sample you can analyze.

## Service, when and where you need it

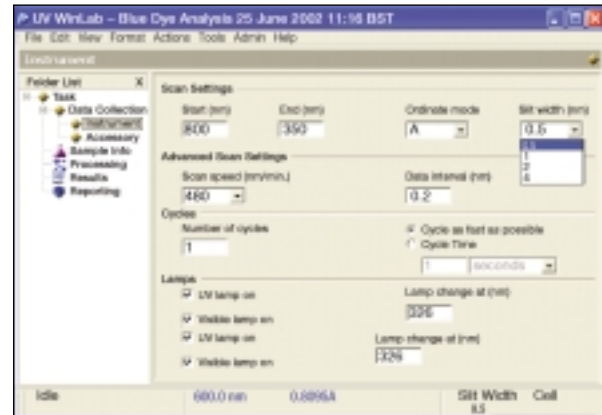
OneSource<sup>SM</sup> Laboratory Services from PerkinElmer is your worldwide source for comprehensive Service and Support. Our OneSource solutions are focused on customer value creation through improving instrument performance, increasing uptime/efficiency and driving

lab productivity. Whether you require customized service agreements, comprehensive validation services, or individualized expert training; OneSource Laboratory Services has a solution to fit your needs, allowing you to focus on what matters most – results.

# mimics QA workflow for quick results

## Simple method development

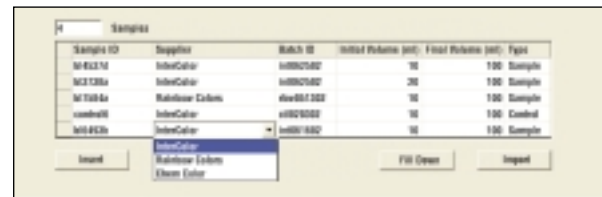
Scan, rate, quant, timedrive and wavelength program modes provide maximum application flexibility. Method lock and password protection keep key parameters from being changed, preventing errors. Fully integrated math engine includes conditional formatting for easy setup of pass and fail criteria. Save frequently used equations as favorites. In the Communiqué™ reporting environment, create customized report templates using a simple drag-and-drop report editor.



Data Collection Setup

## Fast analysis

Purpose-designed sample entry tables include information on sample preparation, sample description, supplier information and control limits. Prompts for mandatory information in sample table standardize analyses. GLP information is included in the header and footer of the report. Reports can even be automatically emailed anywhere they're needed at the end of the analysis.



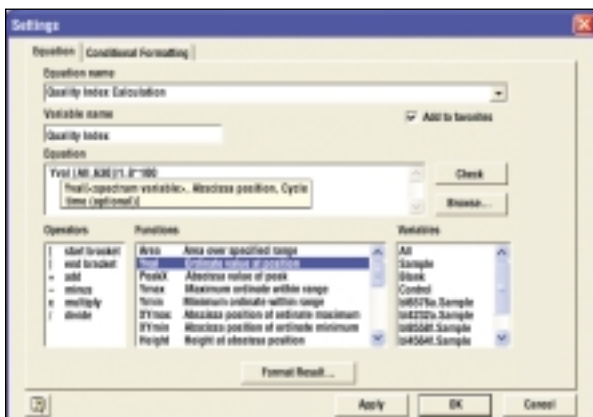
Sample Entry

## Easy access to your data

Secure, encrypted storage of all results in one place aids GLP and makes reviewing results easy. Intelligent querying allows searching on multiple table parameters. Trending tools add another dimension to your data – review, analyze and predict.



Database Query



Data Processing



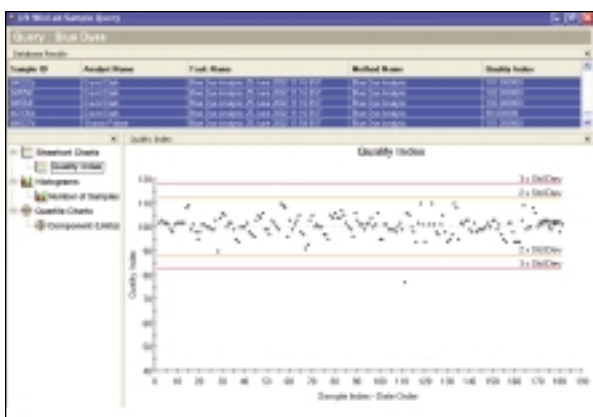
Report Template



Results



Report



Trending



LAMBDA UV/Vis/NIR and UV/Vis spectrophotometers:

# powered by PerkinElmer

PerkinElmer, Inc. is a global technology leader focused in the following businesses – Life and Analytical Sciences, Optoelectronics, and Fluid Sciences. A \$1 billion market leader, the Life and Analytical Sciences division serves a large number of industries, including the academic research, biotechnology, clinical screening, pharmaceutical, environmental, forensic, petrochemical and semiconductor segments.

Our instruments and related software and customer support programs, including our OneSource<sup>SM</sup> team of over 1,000 factory-trained service professionals

deployed in over 125 countries, help our customers to enhance research productivity, meet strict regulatory requirements, improve time-to-market, and increase manufacturing efficiencies.

The LAMBDA 25/35/45 spectrophotometers are the UV/Vis systems of choice for thousands of laboratories worldwide. Discover for yourself how our proven technology and excellent service and support will help to increase your lab's productivity by delivering consistently high quality results over the entire lifetime of the systems.

## The PerkinElmer LAMBDA Advantage

### INDUSTRY-LEADING PERFORMANCE

For almost 50 years, PerkinElmer has been an industry leader in UV/Vis/NIR and UV/Vis instrumentation, and continues to set benchmarks with the innovative LAMBDA Series.

### INCREASED PRODUCTIVITY

Our workflow software and simple, robust sampling accessories simplify and speed your analysis – whatever your sample type.

### TECHNOLOGY YOU CAN TRUST

With more than 10,000 units installed worldwide, our superior technology has proven itself under the toughest conditions.

### POWER IN UV WINLAB<sup>TM</sup> SOFTWARE

Updated software “works the way you do” by mimicking laboratory workflow and offering the tools and enhanced security you need to meet all of your analytical challenges and data requirements.

### PREMIUM SERVICE – “GO-TO” SUPPORT

PerkinElmer is the only major life and analytical sciences manufacturer to have a dedicated service business – OneSource<sup>SM</sup> Laboratory Services.

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For a complete listing of our global offices, visit [www.perkinelmer.com/lasoffices](http://www.perkinelmer.com/lasoffices)

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