

the new industry standard

**LAMBDA UV/Vis/NIR and UV/Vis**

**spectrophotometers - 950, 850, and 650**

from PerkinElmer



## high performance systems

delivering superior data quality  
and sampling flexibility



the new LAMBDA series introduces  
intelligent modules and accessories  
**designed to enhance flexibility,  
productivity and convenience  
in your lab**

Dear Analytical Scientist:

PerkinElmer's LAMBDA Series UV/Vis/NIR and UV/Vis spectrophotometers have consistently offered best-in-class accuracy, precision and reproducibility to scientists for nearly 50 years. For sampling flexibility and superior data quality, our instruments have become the standard in thousands of laboratories, in multiple industries worldwide. Building on this tradition of excellence, the new high-performance, innovative LAMBDA 950/850/650 range confirms our leadership in UV/Vis/NIR and UV/Vis spectroscopy.

#### Designed by scientists – for scientists.

We designed the LAMBDA™ 950/850/650 Series knowing the complex requirements of today's laboratories. When we queried our customers and industry experts, users overwhelmingly requested greater flexibility, easier-to-use and more functional accessories, along with the ability to produce results quicker, and advanced software routines. As a result, the new LAMBDA Series offers an unmatched range of snap-in sampling modules, as well as newly engineered workflow software, ensuring increased productivity. We've also redesigned the LAMBDA Series for the highest spectroscopic performance. PerkinElmer is proud to introduce several new advanced features and accessories, including the industry's first fully automated Universal Reflectance Accessory (URA). Our URA, which completely redefines and simplifies variable angle absolute reflectance analysis, reduces set-up time and increases throughput for a broad range of tough measurements.

#### Everything you need, we thought of.

No matter what your industry – from optical coatings to life sciences to glass – and whether you need to analyze optics, flat panel displays or semiconductors – the LAMBDA 950/850/650 Series provides the high standards of results, accuracy and quality that has made PerkinElmer the industry leader.

#### Questions? Concerns? PerkinElmer wants to hear from you.

We hope you'll read through the brochure to learn about the features designed for laboratories like yours, and why they make LAMBDA the standard for demanding UV/Vis/NIR and UV/Vis sampling. Or, for industry-specific questions and instrumentation information, contact a PerkinElmer representative at 1-800-000-0000 or visit [www.perkinelmer.com/lambda](http://www.perkinelmer.com/lambda).

Yours truly,

Peter Coggins, PhD  
President  
Life and Analytical Sciences

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## LAMBDA™ series: next-generation technology addressing the demands of today's labs

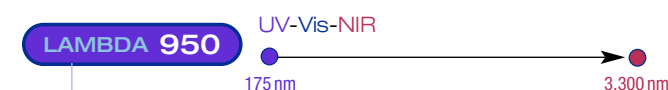
PerkinElmer has introduced state-of-the-art spectrophotometers designed with innovative, quick-change, intelligent accessories, along with an expanded range of new options, tools and software. Our new systems minimize non-productive time spent on set-up and alignment, and offer something that is available nowhere else – PerkinElmer's reputation for excellence, along with our outstanding global service organization.

#### Maximizing consistent results

At PerkinElmer, we know the importance of delivering the highest reliability and data integrity on the most demanding of samples. Whether you need to measure the absolute reflectance of coatings at variable angles, characterize optical filters, or analyze highly absorbing liquids, the LAMBDA™ 950/850/650 Series produces the most consistent, accurate results in the industry.

#### Designed for demanding analysis

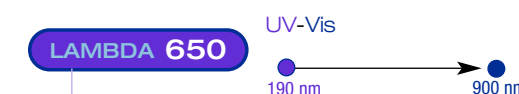
With a wide-range of intelligent modules that snap in and out easily, the LAMBDA Series can handle your laboratory's most demanding analyses. Our innovative new high-performance optical bench, intelligent accessories, large automated sampling compartments and easy-to-use analytical software with professional workflow, make the new LAMBDA 950/850/650 the industry's most capable UV/Vis/NIR



- Highest performance UV/Vis/NIR system
- Wavelength range from 175 nm to 3,300 nm
- UV/Vis Resolution: 0.05 nm – 5.00 nm, NIR Resolution: 0.20 nm – 20.00 nm



- Highest performance UV/Vis system
- Wavelength range from 175 nm to 900 nm
- UV/Vis Resolution: 0.05 nm – 5.00 nm



- Upgradeable, flexible UV/Vis at cost-effective price
- Wavelength range from 190 nm to 900 nm
- UV/Vis Resolution: 0.17 nm – 5.00 nm





## increased flexibility and convenience

from the world leader in UV/Vis/NIR and UV/Vis



An industry first

### The Universal Reflectance Accessory (URA) Only from PerkinElmer

The LAMBDA 950/850/650 Series introduces a breakthrough concept in the high-sensitivity, absolute reflectance measurement field - the Universal Reflectance Accessory (URA). The URA dramatically improves on traditional methods of testing by automatically and reproducibly changing the angle with no adjustments to sample or optics, reducing costs and producing results faster. Previously, multi-angle analyses often required three or four conventional accessories and many manual adjustments. Sampling angles are selected with a single mouse click, eliminating time-consuming manual mirror adjustment. In addition, the sample is simply placed onto a horizontal sampling plate, avoiding the inconvenience and damage caused by vertical clamping.

The LAMBDA™ 950/850/650 Series provides a more convenient and flexible approach to sampling than any other UV/Vis/NIR and UV/Vis systems on the market today. Users are able to easily change intelligent sampling modules, and our wide range of accessories reduces the time-consuming complexity of challenging analyses. For example, PerkinElmer's unique new Universal Reflectance Accessory (URA) dramatically simplifies absolute reflectance measurements by increasing throughput for a broad range of tough measurements.

#### Setting the standard for convenience

Improved interchangeability allows sampling modules to simply snap into place. Each one locks into position, requiring no adjustment, saving you valuable time and enabling you to process samples more easily. All key optical components are protected, maintaining critical alignment and minimizing non-productive time. The new, easy-to-use UV WinLab™ analytical software with professional workflow also streamlines analyses, making the LAMBDA Series the most thorough and capable UV/Vis/NIR and UV/Vis instrument range in the industry.

#### Engineered with smart flexibility

PerkinElmer has designed the LAMBDA Series to accommodate a wide variety of samples. The dual sample compartments, the largest in the industry, offers multiple options and the versatility to work with diverse samples. The large compartment/detector modules can be rapidly changed from a standard transmission configuration to all of the options necessary in today's busy laboratories, including a 150 mm integrating sphere, and a Universal Reflectance Accessory (URA). The General Purpose Optical Bench (GPOB) with magnetic optical mounts allows you to create a customized optical system to handle a wide range of sample types - including lenses and telescopes - giving your lab the ultimate in flexibility.



The dual sampling areas on the LAMBDA™ 950, 850 and 650.



## twice the flexibility. twice the ease. two sampling compartments.

#### Rapid Change Modular Components

**URA** - A PerkinElmer exclusive. Automated angle changes - no alignment and no adjustments.

**Integrating spheres** - Many different designs are available - diffuse and specular reflectance and diffuse transmittance are easily performed on a huge range of samples.

**GPOB** - Replaces both sampling areas, offering the largest, most versatile accessory space available.

**Standard Transmission Optics** - Including ultra-high sensitivity UV/Vis and NIR detectors for demanding transmission measurements on liquids and solids.

See inside spread for details

The dual compartments in the LAMBDA Series are the largest in the industry. The primary compartment is used for a wide range of standard reflectance and transmission accessories and polarizers, while the second is customizable via a number of intelligent sampling modules, including integrating spheres, the URA or transmission optics.

## increased flexibility and convenience

from the world leader in UV/Vis/NIR and UV/Vis



An industry first

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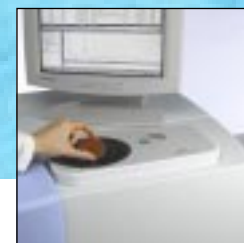
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#### Universal Reflectance Accessory (URA)

- Unique to PerkinElmer
- Snap-in module, changes angle automatically
- No alignment or adjustment required



#### Unmatched sample compartment size

- Additional room to mount samples
- More room to work
- Ability to mount polarizers and depolarizers



#### Industry's only dual sampling compartments

- Snap-in/snap-out for maximum flexibility
- Compartments are quickly and easily reconfigured
- Extra space available for solid samples and large integrating spheres

#### Tackles difficult transmission analyses with ease

- High sensitivity transmission measurements on liquids and solids
- Turbid and cloudy samples, including DNA, proteins and blood
- Cell changers speed and simplify multi-sample measurements

# maximum

delivering optimal performance.

# versatility



#### Snap-in integrating spheres to 150 mm

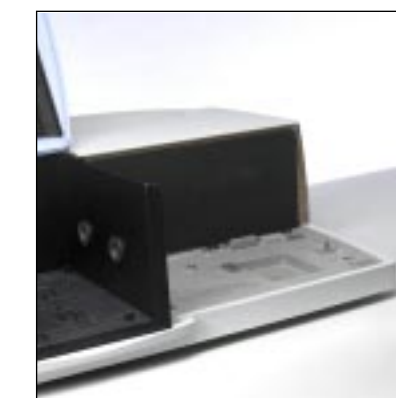
- Transmission, eight degree reflectance and center mount capability
- Only instrument in its class offering a true 150 mm integrating sphere
- 60 mm, 150 mm and detector sphere modules, in addition to specialist options

#### General Purpose Optical Bench (GPOB) handles a wide range of samples - including lenses and telescopes

- Replaces both compartments, creating very large sampling area
- Can be configured for custom optical layouts
- Accommodates large and awkwardly-shaped samples such as optics, lenses and beamsplitters

#### Sampling modules require only seconds to change

- Easily changeable to accommodate next sample requirement
- Sample variety will no longer be a bottleneck
- Broader range of users able to change sampling modules



Taking out the transmission module and replacing it with the Universal Reflectance Accessory (URA)

Call 1 (800) XXX-XXXX\* to arrange a **FREE CONSULTATION** with a PerkinElmer LAMBDA specialist, or e-mail us: [lambda@perkinelmer.com](mailto:lambda@perkinelmer.com)  
[www.perkinelmer.com/lambda](http://www.perkinelmer.com/lambda)

\*Phone number is for US and Canada only. For a complete listing of our global offices, visit [www.perkinelmer.com/lasoffices](http://www.perkinelmer.com/lasoffices).



three models – choose the system with the specifications you need

The LAMBDA Series of UV/Vis/NIR and V/Vis spectrophotometers are the industry standard for high performance, flexibility and convenience. Each model includes the same range of modular components and snap-in accessories to tackle a range of tough applications. Whatever specifications your laboratory requires, the LAMBDA Series provides best-in-class accuracy, precision and reproducibility.



**LAMBDA 950**  
Choose the LAMBDA 950 for ultra-high UV/Vis/NIR performance for wavelengths up to 3300 nm, high-precision measurements, and on applications such as highly-reflective and anti-reflective coatings, color correction coatings, band-pass characteristics of UV, Vis and NIR filters, and more.



**LAMBDA 850**  
Choose the LAMBDA 850 for ultra-high UV/Vis performance between 175 and 900 nm. Sun protection, reflectance properties of flat panel display screens, paint films, transmission and reflectance characterization of glass, solar cells and more.



**LAMBDA 650**  
The cost-effective choice for high-performance UV/Vis measurements between 190 and 900 nm, for example color analysis of paints and textiles, and turbid solutions and enzyme kinetics in life science, biochemistry and pharmaceutical laboratories. The 650 also offers upgrade-ability in sampling, and offers a 150 mm integrating sphere for ASTM, CIE and DIN measurements, a PerkinElmer exclusive.

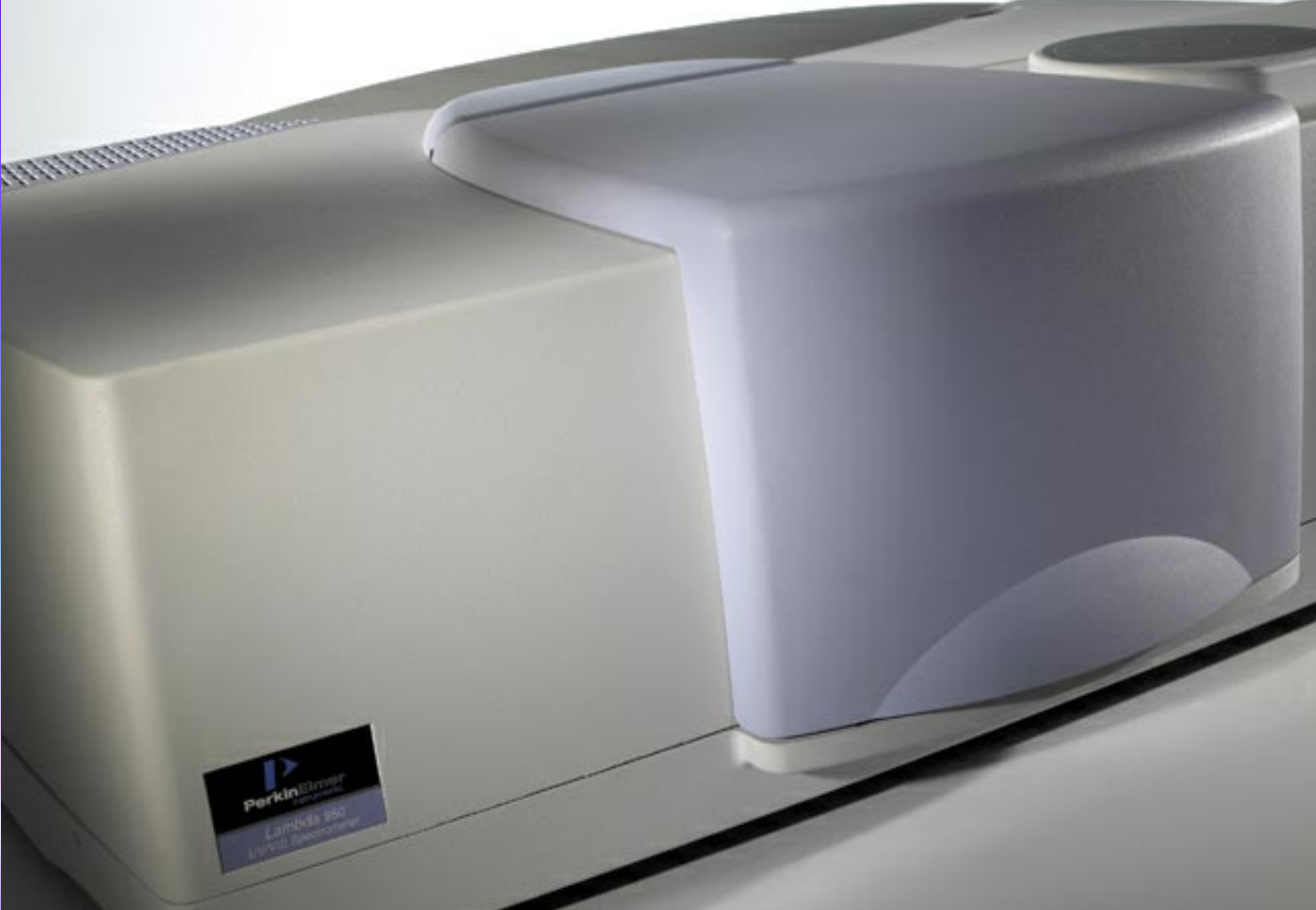
UV-Vis-NIR  
175 nm 3,300 nm

UV-Vis  
175 nm 900 nm

UV-Vis  
190 nm 900 nm

	950	850	650
Principle	Double-beam, double monochromator, ratio recording spectrophotometers.		
Optical System	All reflecting optical system (SiO2 coated) with holographic grating monochromators. Litrow mounting, sample thickness compensated detector optics.		
Detector	Photomultiplier (UV/Vis), Peltier-cooled PbS (NIR)	Photomultiplier (UV/Vis)	Photomultiplier (UV/Vis)
UV/Vis Resolution	≤ 0.05 nm	< 0.05nm	< 0.17nm
NIR Resolution	< 0.20 nm	–	–
Stray Light at 220 nm (10g/L NaI ASTM method)	<0.00007 %T	0.00007 %T	0.0001 %T
Photometric Range	8A	8A	6A

See specification sheet for full-details.  
These specifications are guaranteed, not “typical” performance specs.



a wide range of new features for hundreds of applications

What LAMBDA feature is designed to help your laboratory?									
	GLASS PRODUCTS	NON-OPTICAL COATINGS, PAINTS	OPTICS	PHARMA-CEUTICALS	LIFE SCIENCE	COLOR	OPTICAL COATINGS	SEMI-CONDUCTOR	TEXTILES
2 Large Sample Compartments	●	●	●	●	●	●	●	●	●
Modular Integrating Spheres	●	●	●	●	●	●		●	●
URA Module	●	●	●				●	●	
GPOB	●	●	●				●		
Peltier-controlled multi-cell changers				●	●				
Polarization/Depolarization	●		●				●	●	

EASY TO CHANGE INTEGRATING SPHERES: ● SECURITY INK ON PAPER URA: ● THIN FILMS LASER MIRRORS  
GPOB: ● LENSES, TELESCOPES, CONCAVE AND CONVEX MIRRORS, LASER RODS, BEAMSPLITTERS, SUN PROTECTION, AUTOMOBILE AND ARCHITECTURAL GLASS

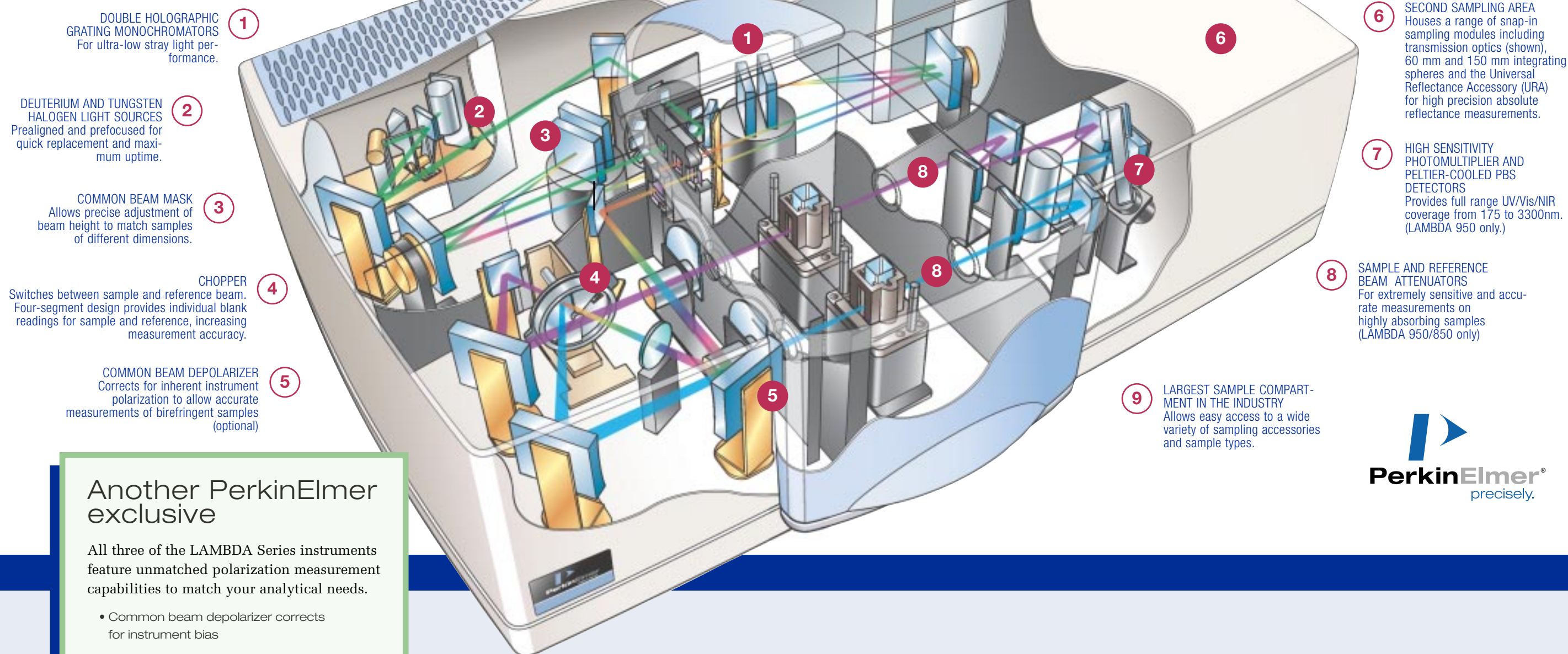
To arrange a free consultation with a PerkinElmer LAMBDA specialist, or to receive application notes or specification sheets for the LAMBDA Series, call 1 (800) XXX-XXXX\*, or e-mail us: [lambda@perkinelmer.com](mailto:lambda@perkinelmer.com) [www.perkinelmer.com/lambda](http://www.perkinelmer.com/lambda)

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# inside the PerkinElmer LAMBDA 950/850/650 Series

the highest performing  
UV/Vis/NIR and UV/Vis available



## Another PerkinElmer exclusive

All three of the LAMBDA Series instruments feature unmatched polarization measurement capabilities to match your analytical needs.

- Common beam depolarizer corrects for instrument bias
- Automated polarizer/depolarizer drive in the large sample compartment provides further depolarization or allows study of oriented samples with polarized light.
- FPO – DAVE WILL BE MAILING 3rd BULLET POINT – FPO

To arrange a free consultation with a PerkinElmer LAMBDA specialist, or to receive application notes or specification sheets for the LAMBDA Series, call 1 (800) XXX-XXXX\*, or e-mail us: [lambda@perkinelmer.com](mailto:lambda@perkinelmer.com) [www.perkinelmer.com/lambda](http://www.perkinelmer.com/lambda)

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**PerkinElmer**  
precisely.



# UV WinLab software – works the way you work



PerkinElmer's powerful UV WinLab software works the way you do - mimicking laboratory workflow – guiding you through method development, and reporting and analysis of results in simple steps. UV WinLab also offers multiple tools, including databases, trending functions and security you need to meet all of your analytical challenges and data requirements. The software is also available in an Enhanced Security™ 21 CFR Part 11 compliant version.

## Maximum flexibility for enhanced productivity

- Simple Method Development with scan, rate, quant, timedrive and wavelength program modes for maximum applications flexibility.
- Storage of all results in a secure database aids GLP and makes reviewing results easy.
- Intelligent querying allows searching on multiple table parameters.
- Trending tool offers ability to review, analyze and predict based on a set of method parameters. This unique feature provides in-depth insight to your analysis and can help identify problems before they happen.
- Fully integrated math engine.
- Ability to create customized report templates.

## Easy-to-use, unrivaled security features

Access control is built into the software, locking methods so that analysts follow defined procedures and cannot inadvertently make changes to key parameters. UV WinLab ES™ goes further, including multi-level user permissions and comprehensive audit trails and electronic signature points in a stringently controlled working environment.



Lambda: backed by a  
network of **accessible**  
service engineers –  
**worldwide**

## Your worldwide partner for support

With OneSource Laboratory Services by your side, you've got the power of PerkinElmer on your side.

## Global capabilities for rapid response:

As an industry leader in service, PerkinElmer offers technical and support services in more than 125 countries with a team of over 1,000 factory trained service professionals. With global processes such as the ALERT network and global parts distribution, your service engineer will know the service history of your instruments and the methods you are running, providing you with the most effective and responsive service in the industry.

## Application expertise and support:

PerkinElmer has more UV/Vis product specialists than any other instrument manufacturer, offering superior UV/Vis/NIR and UV/Vis application support. Our OneSource solutions are focused on customer value creation through improving instrument performance, increasing uptime/efficiency and driving lab productivity. OneSource offerings include:

- **Expert Support and Service**
- **Instrument Care and Upgrades**
- **Validation**
- **Education and Training**
- **Partnerships**

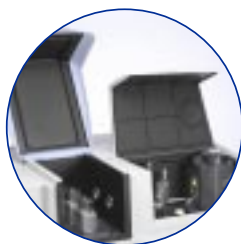
## Preventing downtime with on-demand service when you need it?

With PerkinElmer's OneSource Service Plan, you are ensured rapid response to your instrument repair request.

Call 1 (800) XXX-XXXX\* to arrange a **FREE CONSULTATION** with a PerkinElmer Lambda specialist, or e-mail us:

lambda@perkinelmer.com  
www.perkinelmer.com/lambda

\* Phone number is for US and Canada only. For a complete listing of our global offices, visit [www.perkinelmer.com/lasoffices](http://www.perkinelmer.com/lasoffices).



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 team of over 1,100 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.

Preferred for years by laboratories worldwide, the LAMBDA Series is the premier range of high-performance UV/Vis/NIR and UV/Vis spectrophotometers providing accurate, stable and repeatable results. All three models share the same high-performance optical bench, allowing each one to use the same array of intelligent sampling accessories. For sampling flexibility, ease-of-use and superior data quality, the PerkinElmer LAMBDA 950/850/650 Series spectrophotometers are the industry standards for excellence.

### The PerkinElmer Lambda Advantage

#### INDUSTRY LEADING PERFORMANCE

For decades, PerkinElmer has led the charge in UV/Vis/NIR instrumentation, and continues to set industry benchmarks with the innovative Lambda Series.

#### LOWEST SAMPLING SET-UP TIME

Thanks to intelligent design features like snap-in modules, dual compartments and more automation – the Lambda Series offers the industry's lowest sampling set up time.

#### EASIEST TO CHANGE ACCESSORIES

The Lambda Series offers a like no other instrument – change and calibrate accessories in seconds. When accessories are swapped, the Lambda instrument recognizes and calibrates automatically.

#### POWER IN UV WINLAB 5 SOFTWARE

Updated software “works the way you do” by mimicking The re-designed software offers the databases, trending 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 Laboratory Services.

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Shelton, CT 06484-4794 USA  
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