XWS-65 broadband plasma light source

XWS-65 laser pumped plasma ultrabright broadband light source

ISTEQ's XWS-65 light source product has been specially developed to be used for a variety of applications, including spectroscopy, high resolution microscopy, thin - film measurement, surface metrology and others. This source is based on cutting edge technology, covered by EU and US patents.

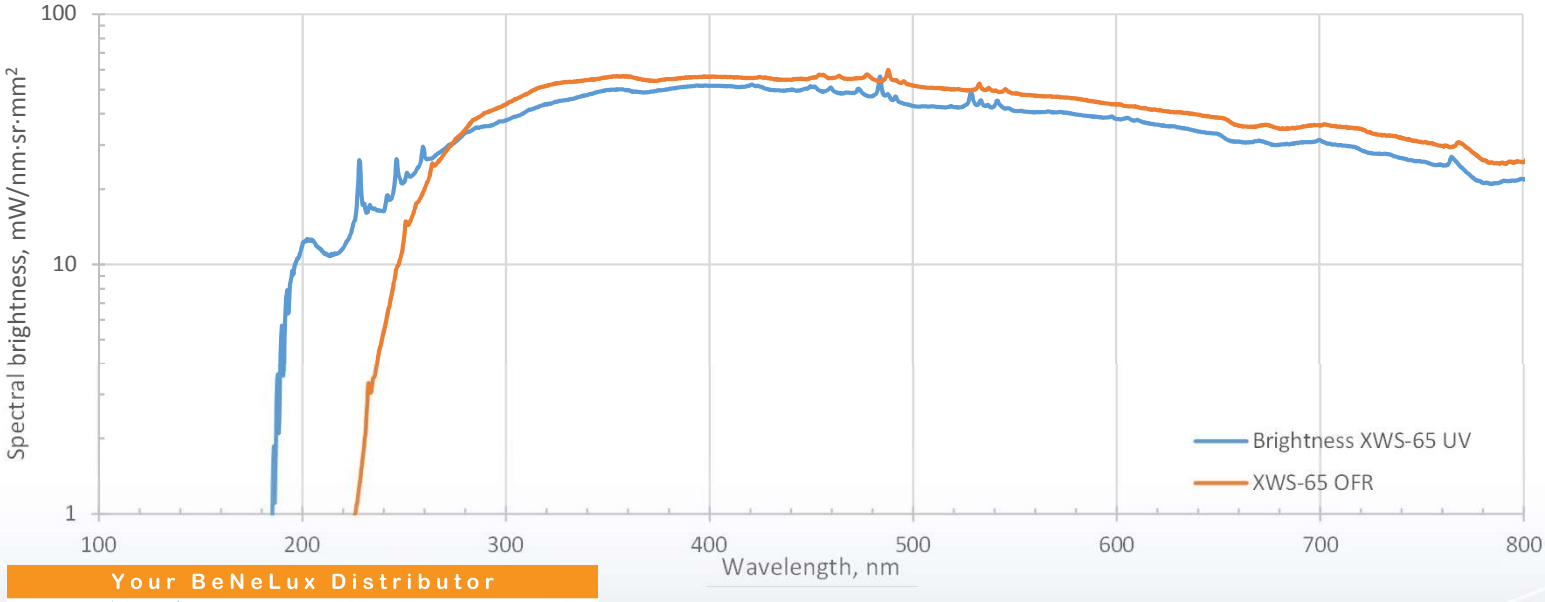
Application fields:

- Absorption and fluorescence spectroscopy
- Diagnostics systems in microelectronics - contamination and defect control
- Surface metrology, ellipsometry and scatterometry
- Microscopy, including confocal and fluorescence
- Optical component testing
- Detectors in chromatography, microfluidics, lab-on-a-chip, droplet spectrometers, cytofluorimeters, etc

Main advantages:

- CW laser plasma discharge
- Broad spectral range: 190 – 2500 nm
- High spectral brightness: up to 55 mW/(mm^2·sr·nm)
- High temporal and spatial stability: STD<0.15%
- Long life time due to electrodeless operation: 10.000 hours
- The small dimensions of the emitting volume considerably expand the range of XWS applications
- External source control/parameters monitoring via built-in software

Spectral brightness of XWS-65 light source in UV and VIS spectral region



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Source specifications

XWS-65 performance	
Spectral range	190 - 2500nm for UV configuration, 250 - 2500nm for OFR configuration
Spectral brightness	Up to 55mW/(mm^2·nm·sr)
Output power	Up to 3 W free space Up to 0.5 W via fiber
Lamp medium	Xenon
Emitting body size	250×500um
Lifetime	10,000 hours
Temporal and spatial stability	STD < 0.15%
Optical design	
Output NA by default	0.4, up to 0.55 upon request
External optic interface by default	C-mount
Optional output interface:	Thorlabs SM1, 30mm cage and more
Fiber interface (only for FCU version)	SMA or FC
Optional configurations	
Source spectrum	UV or Ozone free
Light output	Free space or fiber coupled
Optical head cooling unit	Air or water cooling
Power Supply Unit (PSU) cooling system	Air or water cooling
Additional	
Connection to PC/Laptop	Ethernet (Web interface), COM-port (RS232)
Interlock	Db-15 connector
Remote plasma control	Db-15 connector
System dimensions and weight	
Optical head Free Space	130 × 110 × 74mm, 1.3kg
Power supply unit	351 × 172 × 232mm, 8kg
Facility requirements	
Electrical	100-240V, 50/60Hz
Gas purging (only for UV configuration)	Nitrogen or Argon purging, 1l/min