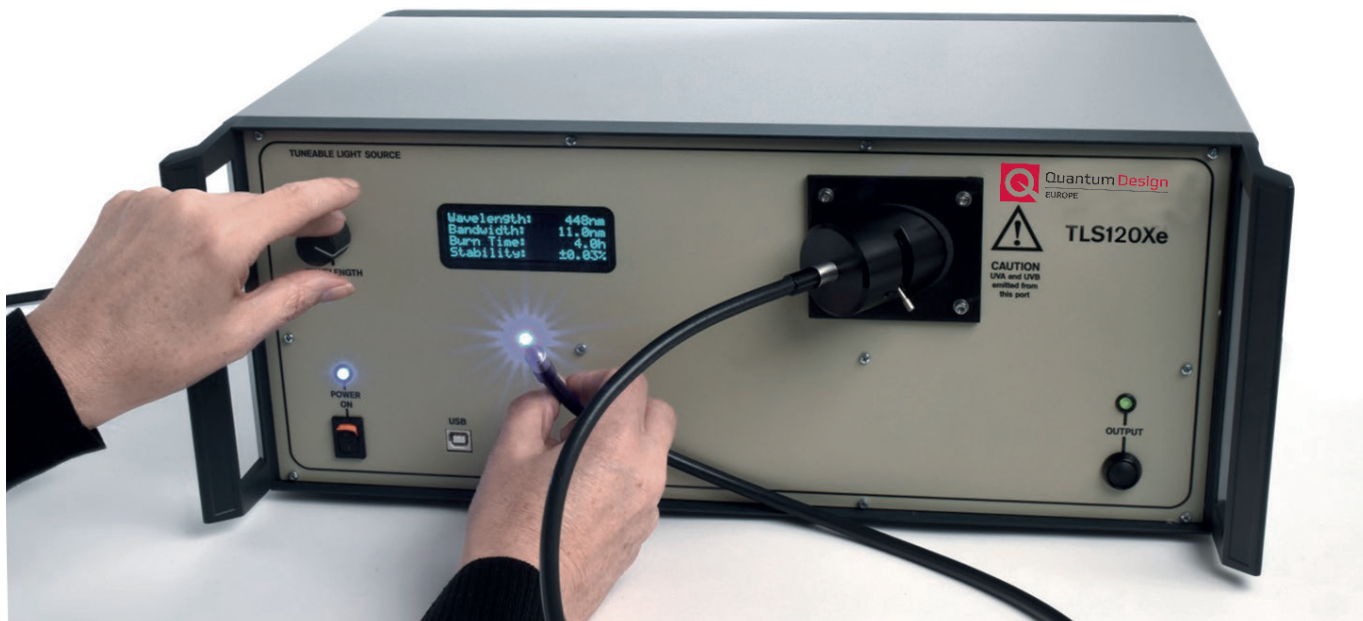


# B-TLS120Xe High power tuneable light source (280-1100 nm)



The B-TLS120Xe is a high power tuneable xenon light source that puts monochromatic light at your fingertips.

This compact solution easily fits into a wide range of applications in spectroscopy and spectrophotometry and delivers superlative stability and continuous tuning over 280-1100 nm. The wavelength agile B-TLS120Xe offers a high power monochromatic beam suited to a wide range of materials and photodetector characterisation applications in research, industry and OEM, including:

- Fluorescence imaging
- Photoluminescence/fluorimeter excitation
- Detector responsivity/QE evaluation
- Reflectance and transmittance analysis
- Thin film deposition monitoring
- CCD/CMOS camera testing

Optical coupling options include SMA or FC/PC patch cord, fibre bundle or liquid light guide. Compatible with our portfolio of measurement accessories, including integrating spheres, collimators and relay optics, let the B-TLS120Xe deliver light your way.

## Key benefits

- Continuously tuneable high power monochromatic source (280-1100 nm)
- Easy to use through front panel interface or over USB 2.0
- Plug-and-play functionality
- Compact design

## Features

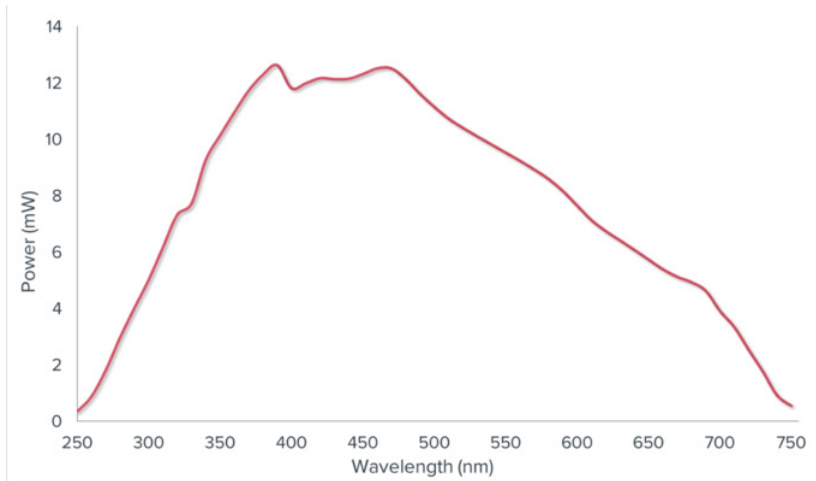
- Short-arc xenon light source with starter and constant power supply (high power and long life version available)
- 120 mm focal length monochromator
- Housed in single 19" benchtop enclosure
- Ideally suited for OEM applications
- Forms part of a fully automated spectrophotometer/spectrometer with Benwin+ Spectral Acquisition Software

Ordering information	
Ordering number	Description
<b>B-TLS120Xe-100</b>	B-TLS120Xe High power tuneable light source, Spectral range: 280 – 1100 nm
<b>B-19719</b>	100 W short-arc xenon lamp, nominal 500 hours lifetime
<b>B-SA-FSP(0.74)</b>	Fixed slit plate to set 5 nm nominal bandwidth
<b>B-SA-FSP(1.48)</b>	Fixed slit plate to set 10 nm nominal bandwidth
<b>B-SA-FSP(2.96)</b>	Fixed slit plate to set 20 nm nominal bandwidth
<b>B-SA-FSP(5.92)</b>	Fixed slit plate to set 40 nm nominal bandwidth
<b>B-SMA-1500-1000</b>	High OH SMA fibre 0.39 NA 1 m long. 1.5 mm diameter. (250-1200 nm)
<b>B-FOP-UV-4-4-1000</b>	UV grade fused silica fibre bundle, 0.22 NA, 1 m long. 4 mm diameter. (200-1350 nm)
<b>LLG-3-1000</b>	Liquid light guide, 1 m long, 3 mm diameter. (280-700 nm)

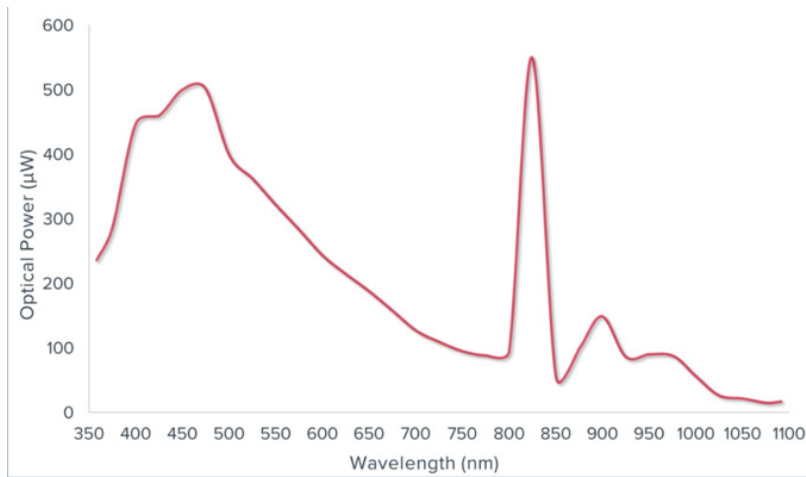
# B-TLS120Xe High power tuneable light source (280-1100 nm)

Specifications	
<b>Light source</b>	
Lamp type	Short-arc OFR xenon lamp
Operating current	Constant current
Coupling	Ellipsoidal reflector, 60 mm diameter
<b>100 W lamp</b>	
Lamp type	7.2 A
Operating current	100 W, 14 V
Nominal lamp power and voltage	500 hours
<b>Optical Layout</b>	
Configuration	Constant deviation angle
Focal length	120 mm effective
<b>Opto-Mechanical</b>	
Grating mount	Single grating on-axis turret
Grating type	Concave blazed holographic
Grating line density	1200
Nominal blaze wavelength	380 nm
Slit type	Fixed slit
Drive type	Stepper motor
Drive resolution	0.5 arcsec per step
Maximum drive speed	115° per sec
<b>Optical performance</b>	
Wavelength range	280 nm -1100 nm
Wavelength step	0.0035 nm
Bandwidth at FWHM with 0.74 mm slit	5 nm
Bandwidth at FWHM with 1.48 mm slit	10 nm
Bandwidth at FWHM with 2.96 mm slit	20 nm
Bandwidth at FWHM with 5.92 mm slit	40 nm
<b>Control</b>	
Interface	USB2.0
Software control	BenWin+ spectral acquisition application, SCPI
<b>Electrical/mechanical</b>	
Overall dimensions	300 mm (Length) x 460 mm (width) x 185 mm (height)
Weight	8.8 kg
Power supply	100-240 V AC 50-60 Hz
Orientation	<b>Horizontal only</b>
<b>Environmental</b>	
Operating temperature range	10-35 °C
Operating humidity range	30% to 70% (no condensation, less than 70% above 30 °C)

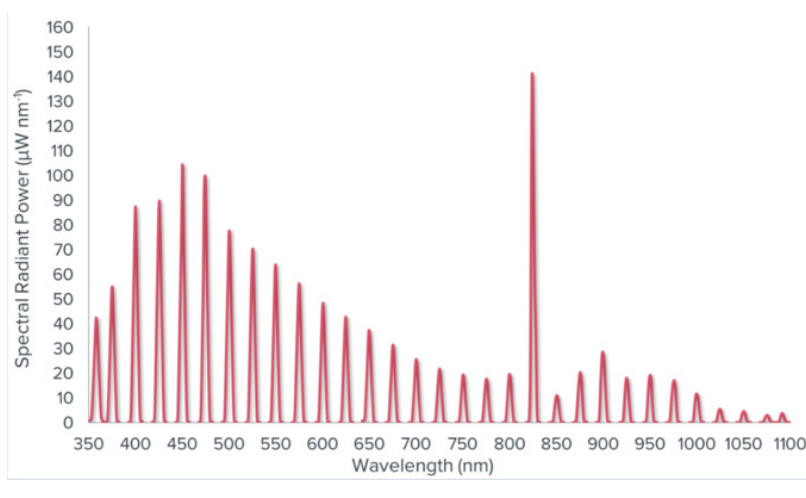
# B-TLS120Xe High power tuneable light source (280-1100 nm)



**B-TLS120Xe optical power at 20 nm bandwidth with 3 mm liquid light guide**



**B-TLS120Xe optical power at 5 nm bandwidth with 1 mm core SMA patchcord**



**B-TLS120Xe spectral power distribution at 5 nm bandwidth with 1 mm core SMA patchcord**

# B-TLS120Xe High power tuneable light source (280-1100 nm)



## 1 B-TLS120Xe – Integrated solution

Housing lamp, power supply and monochromator in a 19" benchtop enclosure, convenient to use and easy to deploy

## 2 Wavelength selection

Enjoy plug and play functionality, with direct front panel control or automation over USB.

## 3 Output optics

Ensures efficient coupling to the fibre of choice and the option of beam attenuation using an iris diaphragm.

## 4 Display

An OLED display reports wavelength, bandwidth, burn time and stability.

## 5 Monitor port

Ensure optical alignment of replacement lamps using the monitor port to record transmitted optical power.

## 6 Automation

Take full control of the TLS120Xe over USB using SCPI commands or using the spectral acquisition application, BenWin+.

## 7 Monochromatic light source

An 100 W short-arc xenon lamp feeds a 120 mm focal length monochromator, ensuring high optical power and continuous wavelength tuning.

## 8 Coupling options

A range of fibres and light guides are on offer to adapt to the spectral range in your application.