

OL 700-22

Pulsed Xenon Flash Source

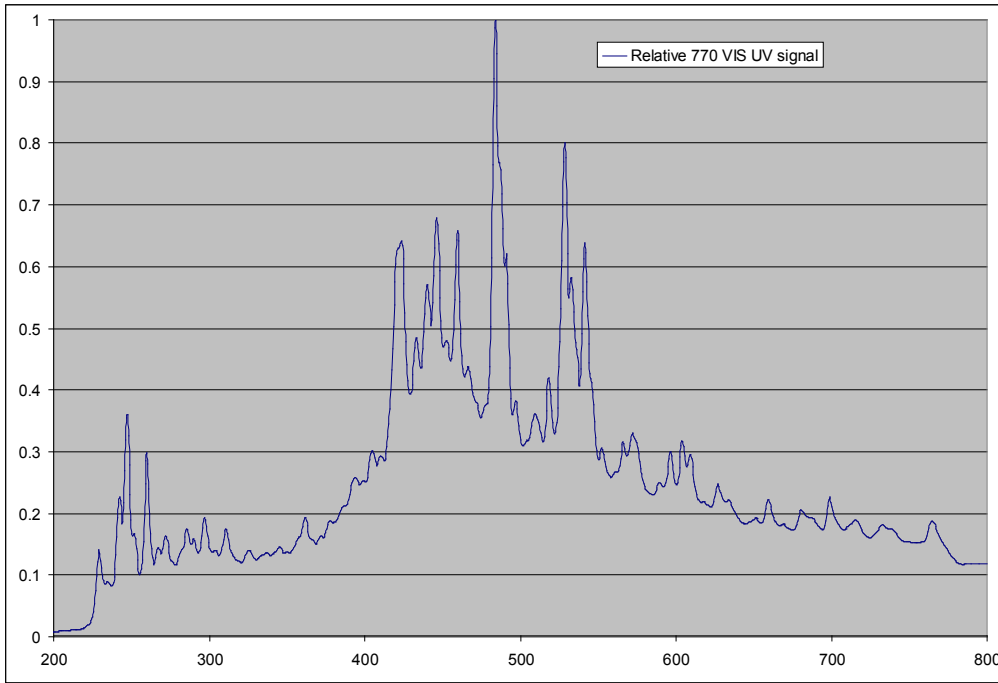
The OL 700-22 Pulsed Xenon Flash Source is a high-pressure, short arc Xenon flash lamp operating at 100Hz rate. Designed for applications requiring higher ultraviolet output, such as reflectance and transmittance and lower stray light than can be achieved with tungsten halogen source, it also offers lower spectral variation than tungsten halogen sources. The OL 700-22 comes with an SMA 905 connector that couples the source through a miniature fiber optic probe (optional) to accessories, including integrating spheres, transmittance, and reflectance attachments. It provides pulse-to-pulse stability, and the output stability improves with additional sample averaging. Pulse output stability can be improved by a factor of three by averaging as few as ten scans.

When the OL 700-22 is coupled to the OL 770 Multichannel Spectroradiometer, optically isolated signals are capable of synchronizing the operation of two light sources. Operation with a standard OL 700-22 source control cable permits single source operation. When the bifurcated OL 700-22 source control cable is used with two sources, each source can be independently controlled by the OL 770. The ability to cascade two OL 700-22 sources enables the user to perform near simultaneous reflectance and transmittance sample analysis.

Because it produces a pulsed signal, the OL 700-22 is less likely than continuous sources to contribute to solarization in optical fiber assemblies, which can occur when fibers are illuminated with signal wavelengths less than 260 nm.



OL 700-22
Pulsed Xenon Flash Source



OL 700-22 Pulsed Xenon Flash Source Spectral Output Plot

SPECIFICATIONS

Spectral Range	200 to 1100nm *
Arc Voltage (V)	Internally Preset..... \cong 600 Volts
Arc Current (I).....	$V \cdot (\text{Capacitance (F)} / L \text{ Inductance (H)})^{1/2}$ \cong 400 Amperes
Discharge Energy (E).....	$.5 \cdot \text{Capacitance (F)} \cdot V^2$ \cong .04 Joules
Average Power	Joules (E) * Pulse Rate (Hz)
Pulse Rate	Internally Preset..... 100 Hz
Output Variation.....	Day to day (10 770UV scans averaged) <2% (250 to 1100nm)
Lamp Lifetime	\cong 115 days of continuous operation \cong 1*10 ⁹ Pulses
Timing	Synchronized to OL 770 exposure signal ... Single or Dual operation
Optical interface.....	SMA-905 Fiber Coupler
Electrical interface	Opto-coupled High Density -15 "D"
Dimensions	8" X 3" X 6" (20.3 cm X 7.6 cm X 15.2 cm)
Weight.....	2lbs (900mg)

* See Optional Fibers section

OPTIONAL FIBERS

770-7G-RS.....	VIS/ VIS/NIR; 380 – 1100 nm; glass FOP
770-7Q-SMA.....	UV/VIS; 200 – 800 nm; quartz grade FOP

