Question: What is the reliability of the data shown above 850nm for a USPRO.

Answer:

The USPRO uses a lamp module that contains three Xenon lamps. These are individually filtered such that energy from 350nm to 1050 is emitted during the flash burst and all wavelengths are then detected simultaneously. The actual spectral repeatability, stated in terms of maximum Peak to Peak span varies by wavelength. The brochure states a Maximum P-P of 0.2 between the interval of 435nm and 695nm, which is where the majority of the Tristimulus Weighting occurs.

For the wavelength range 700nm to 895nm typical Maximum P-P would be 0.4

For the wavelength range 900nm to 1020nm the typical Maximum P-P would be 2.0

For the wavelength range 1025 to 1050 the typical Maximum P-P would be 10.0

Note that the maximum difference usually occurs near the end of the stated wavelength above. For example a plot of the repeatability shows a fairly continuous smooth rise from 700nm through 1020nm. Above 1020 the repeatability becomes random throughout the wavelength range at the Maximum P-P level. The gating factor at the upper wavelengths is not the Xenon source as much the sensitivity of the silicon detectors.