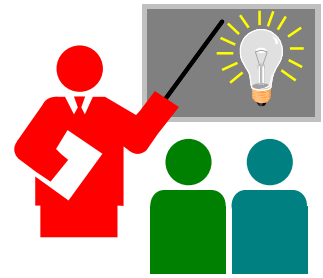




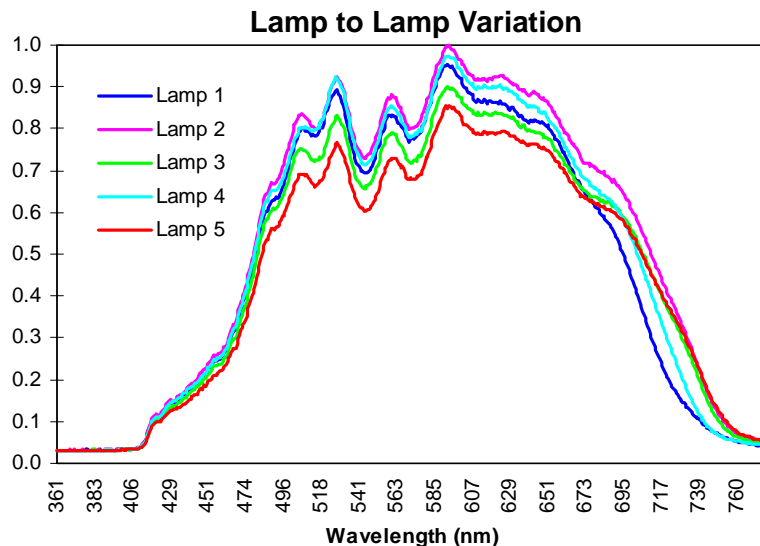
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# Technical Note: **104**

## Question:

When relamping a fiberoptic lightsource, will repeatability of the intensity setting be preserved? What about the 3900?



## Answer:

Despite the fact that lamps are manufactured under highly automated conditions and are computer calibrated, the lamp to lamp intensity variation is in excess of 40%. This means that a standard DC Regulated lightsource will experience a shift of up to +/-20% or more from previous settings every time a new lamp is installed. The 3900 helps reduce some of this effect, but tests show that even in the 3900 the shifts in intensity setting upon relamping can be +/-10% or more. The graph shows the inherent variation in new lamps, all from the same manufacturer. Note also the slight shift in spectral output for some of the lamps.

## Solution:

The only solution to the requirement of preserving the intensity setting upon relamp is to perform a calibration after every new lamp is installed. Work is proceeding on a standard calibration product which would allow users with these stringent requirements to perform the necessary adjustment in the field upon relamp. The other alternative is to adjust parameters in the software during every relamp. The 3900 ensures these values to within 1% over the life of the new lamp.

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