



Designation: E 1135 - 97

STANDARD TEST METHOD FOR COMPARING THE BRIGHTNESS OF FLUORESCENT PENETRANTS



Procedure For the Model S291

- ❑ *Sample Holder* – The sample holder is pictured in Fig. It is designed for insertion in the sample slot on the front of the photofluorometer. The sample holder comes with the instrument.
- ❑ *Primary Light Filter* – The primary (Light source) filter for the S291 photofluorometer is an integrally filtered long-wave 4-W lamp.
- ❑ *Secondary Light Filters* – The Model S291 photofluorometer uses a OGR green an OB14 blue glass filter that are preinstalled.
- ❑ All filters are installed by the manufacturer and the instrument is ready for use.
- ❑ Turn on the instrument and allow a 10 to 15 min warm up.
- ❑ Compare the prepared papers under the black light and choose one of the brightest papers to set the instruments.
- ❑ Place the chosen paper in the sample holder, and insert the holder into the sample port of the photofluorometer.
- ❑ Adjust the meter response to 80 by turning the “CAL” adjustment knob.
- ❑ Remove the sample holder, and replace the fluorescent paper with an untreated blank paper and re-insert into the instrument.
- ❑ Adjust the meter response to 00 by turning the “Zero” adjustment knob.
- ❑ Remove the blank paper and insert the prepared sample for measurement. Alternate samples of test and standard material to minimize effect of any instrument drift that might occur.

Calculation

- ❑ Calculate the fluorescence of the test material as a percentage of that of the standard material by the formula

$$X/S \times 100$$

Where:

X = the average of the test material reading, and

S = the average of the standard material reading.