QUANTUM FOX-2 FLEXIBLE FIBER OPTIC PROBE

INSTRUCTIONS

The FOX-2 fiber optic probe is recommended for use with Calcu-Flash II, Calcu-Light XP, Calcu-Light X, or Calcu-Light, although it fits any Calcu-Light/Calcu-Flash model. To mount it, place the probe side of the attachment over the mark ∧ on the instrument housing. Tighten the thumbscrew. (To mount it on early models, you must remove the screw of the FOX-2 by prying off the screw retainer on the underside of the turret).

All measurements are made by holding the probe against a screen. The screen may be a focusing screen, television monitor, or any light emitting surface.

Film density measurement

A uniformity bright, diffuse light screen (light table) is required for this measurement. First, take a digital reading of the light screen, for example digital reading "42".

Next, place the film negative or transparency on the light table. Take a reading of the area of interest, for example, a digital reading of "36".

Then, subtract the second reading "36" from the first "42" and obtain 6. The density is 0.6, in other words, the digital readings are 1/10 density units.

Contrast measurement

Any type of contrast measurement on a screen may be taken. The difference in digital readings is the contrast ratio in 1/3 stops (1/3 Ev).

Exposure measurements through the lens

These measurements may be taken from the focusing screen of a camera. First, it is necessary to determine a calibration factor. Set up the camera and focus on infinity. Aim the lens at a continuous tone subject. Take a reflected light reading (with a standard 30º reflected light turret) of the subject. For example, digital reading "32".

Next, take a reading with the FOX-2 of the subject on the camera's focusing screen. Use the maximum lens aperture. (For example digital reading "19"). Subtract the second reading from the first, resulting in 13, your calibration factor.

Now proceed to set up a shot. Measure the subject on the focusing screen at the same maximum aperture. Add your calibration factor to the digital readings, and set those numbers in the reflected light ↘ window of the calculator dials to determine shutter time and aperture for the shot. Bellows extension factor will be accounted for automatically with this type of measurement.

If you change focusing screens, lenses, or camera, then determine a separate calibration factor for each set-up. You may measure contrast ratios on the focusing screen without regard to calibration factors. Be sure, however, to exclude light reaching the focusing screen from behind the camera.

Direct reflected light measurement

You may use FOX-2 for direct reflected light measurement of subjects. In that case, apply the calibration factor indicated on the attachment by adding 6 numbers to the DIN film speed setting. (Or multiply ASA x 4).