

Radiographic film is a convenient tool for measuring two-dimensional integrated dose distributions with high spatial resolution. However, large differences were found when film was used to measure profiles of the enhanced dynamic wedge (EDW). When the profiles are normalized to 100% on the central axis, differences as high as 10% at  $D_{max}$  and 30% at 35cm depth were found near the “toe” (or high dose) region of a wedged profile between film measurements and direct ion-chamber measurements for 6MV, 20cm x 20cm EDW fields. Smaller differences were found for smaller EDW fields or a higher photon energy (18MV). Extensive film measurements and Monte Carlo simulations show that film sensitivity changes along off-axis positions, at deeper depths and for different field sizes. Correction to film measurements is necessary and can be done with only a few single ion-chamber measurements near the toe region of an EDW profile. The method provides an effective way to combine the efficiency of film measurement and the accuracy of ion chamber measurement for EDW commissioning.