Radiochromic film, with its high spatial resolution and tissue-equivalence would be excellent for obtaining crossbeam profiles of narrow, radiosurgery beams, if it were not for its nonuniformity. We show that this can be largely overcome by exposing a stack of three films to a beam, reading each film separately, registering the films and averaging the readings from all three films at each point. In this way, two-dimensional dose distributions for 5, 7, and 10 mm diameter (FWHM at isocenter) collimators as well as the central square centimeter of a large (10 cm x 10 cm) field were obtained. The effects of averaging three films in a stack are also compared to the results of averaging three readings of the same film. For the films uniformly irradiated in the center of the large field, the average, standard deviation, minimum, and maximum values of the optical absorption were obtained. These statistics show that the average of three scans of the same film is better than one scan and the average of three films in a stack is even better. The average is closer to the dose given, the standard deviation is smaller, and the minimum and maximum are closer together.