At our institution, total skin electron (TSE) irradiation is achieved by using 2 oblique beams at gantry angles 38 degrees apart, and rotating a patient at 6 different standing angles facing the gantry. A patient stands within a TSE box (at 130 cm SSD) at a nearest distance to a beam degrader (1/4" Plexiglas). We have investigated determining dose per monitor unit from such a TSE treatment with three different dosimetric techniques including using TLD, electron diode, and parallel-plate chamber. A cylindrical phantom of 35 cm in diameter was used for the diode, and TLD measurements, while a rectangular phantom was used for the parallel-plate chamber. The TLD, diode, and paralle-plate chamber were calibrated for the electron beam at isocenter using a 10 x 10 cm open field. The variation of patient surface dose as a function of distance from the degrader to the patient surface was also measured. Details of our dosimetric techniques will be reported. Our results showed a good agreement among the data of dose per monitor unit from diode, TLD, and parallel-plate chamber measurements. The distance between the degrader and patient did not change dose significantly within 5 cm. Beyond that, the fall-off of dose as a function of distance was rather gradual and in a linear fashion at a gradient about 1% per cm. This indicated that the degrader was effective in providing more uniform dose distribution for the TSE treatment at different degrader-to-skin distances.