

Abstract. A simple model calculating the performance of an IMT solar reference cell is proposed and tested under clear sky periods. One-minute data from EKO spectroradiometers collocated with an IMT reference cell are used for the analysis. Data are obtained at the NREL Solar Radiation Research Laboratory in Golden, Colorado and the UO Solar Radiation Monitoring Laboratory in Eugene, Oregon. The model is also applied and evaluated under cloudy conditions. A match of better than 1% is found between calculated clear sky values and IMT measurements for July, 2020. One-minute cloudy sky comparisons show a much larger variation, but when averaged over one hour, a standard deviation of 4% between the calculated and measured values is found.

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