

Reply to the Editor (AMT-2022-259)

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We thank the editor for the additional comments!

The wrong caption of figure 7 is corrected now. Thanks for finding this mistake!

With respect to the spectral ranges of the radiometers and the spectral range of solar and thermal-infrared radiation, we intended to specify different wavelength ranges. To our understanding, the radiometer have a limited spectral sensitivity (CMP22 pyranometer 0.2-3.6 μm , CGR4 pyrgeometer 4.5-42 μm). However, the radiometer are calibrated against the entire solar or thermal-infrared spectral range. In the introduction we aim to define the spectral ranges of the measured irradiances (solar and thermal-infrared spectral range). The spectral ranges (0.3-3 μm and 3-100 μm) are defined by the WMO Guide to Instruments and Methods of Observation (WMO-No. 8, 2021 edition - Volume I: Measurement of Meteorological Variables) like we introduce in abstract and introduction. Later, when describing the technical parameters of the radiometers, we refer to the spectral sensitivities, which do not cover the entire solar and thermal-infrared spectral range due to sensor and dome characteristics. And in this section we also add, that both radiometer do not cover the entire spectral ranges, which may have consequences for their measurement performance.

We think, it is important to point out, that the measured irradiances refer to the entire spectral ranges. That's why we want to keep this statement in the abstract and introduction. Otherwise, readers may mistakenly do radiative transfer simulations using only the CGR4 or CMP22 spectral range and wonder about discrepancies between simulations and observations.