<u>Properties of Magnetic Elements Derived from HMI Data Compensated for Scattered-Light</u> Serena Criscuoli¹ [scriscuo@nso.edu], Aimee Norton², and Taylor Whitney¹

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We employ full-disk, scattered-light corrected images from the Helioseismic Magnetic Imager (HMI) to investigate photometric properties of faculae and network. In agreement with results previously obtained from analysis of high spatial resolution observations and simulations on limited fields of view, we find that network regions exhibit in general higher photometric contrast than facular ones. More specifically, for magnetic flux values larger than approximately 300 G, the network is always brighter than faculae and the contrast differences increase toward the limb, where the network contrast is about twice the facular one. For lower magnetic flux values, pixels in network regions appear always darker than facular ones. Contrary to reports from previous full-disk observations, and to synthetic spectra obtained with one-dimensional atmosphere models employed for irradiance reconstructions, we also find that network contrast exhibits a higher center-to-limb variation. We estimate that the facular and network contribution to irradiance variability of the current Cycle 24 is overestimated by at least 11% due to the photometric properties of network and faculae not being recognized as distinctly different.