Diode detectors have been used for photon beam *in-vivo* dosimetry in our clinics for a few years. The reading of a calibrated diode is related to dose (in cGy) delivered at the depth of maximum dose, D_{max}. However, it is necessary to apply various correction factors (CFs) to a diode reading. In this study, we compared the SSD, field size, and wedge dependence of two types of commercial diode detector, ISORAD (n-type) and the newly available QED (p-type) from Sun Nuclear Corporation. For a 6 MV photon beam, the CFs of ISORAD diode are 0.96 at SSD of 70 cm and 1.02 at SSD of 130 cm, while corrections to QED diode reading are less than ±1% in the same range of SSD. For a 18 MV photon beam, the CFs of ISORAD diode are 0.94 at SSD of 70 cm and 1.02 at SSD of 130 cm, while CFs of QED are 0.97 at SSD of 70 cm and 1.01 at SSD of 130 cm. Both types of diode do not follow the in-phantom output factors or collimator scatter factors. For a 60° wedge, the CFs to 6 MV beam are 1.07 and 1.04 for ISORAD and QED diodes, respectively; for 18 MV, CFs are 1.05 and 1.00 for ISORAD and QED diodes, respectively. In conclusion, the magnitudes of CFs are reduced significantly, corrections to QED diodes may be still needed depending on beam energy, SSD, and wedge.