Using Chang’E-1 orbital tracking data, in combination with orbital tracking data of SELENE, Lunar Prospector, and historical spacecraft, a lunar gravity field model denoted CEGM02 is developed. Analyses show that due to its higher orbit altitude (200 km), tracking data of Chang’E-1 contribute to the long wavelengths of the lunar gravity field. When compared to SGM100h, formal error of CEGM02 coefficients below degree 5 is reduced by a factor of about 2. Lunar mean moment of inertia is found to be 0.393466±0.000065, which can be served as a strong constraint in lunar internal structure research. Lunar potential Love number k2 is estimated to be 0.0242±0.0004 (ten times the formal error), which may provide better constraints on lunar interior by combination with lunar moments of inertia.