The current maximum high-beam intensity per lamp is 75,000 cd in the United States and 140,000 cd in the ECE and Japan. The primary goal of this study was to evaluate the relative merits of these two intensity levels for visibility and safety. The analysis reviewed evidence related to the following nine factors: visibility without opposing headlights, glare from opposing and following vehicles, dimming distance, sensitivity to degradation, priority between the high and low beams and within the high beam, driver eye-fixations, difference between the intensity of the low beam and the high beam, range of high beam intensities in actual traffic, and high-beam usage. Although some relevant data do not yet exist, the available information generally favors raising the U.S. maximum from 75,000 cd to the current ECE/Japanese level of 140,000 cd. It is also recommended that the minimum high-beam intensity be raised in both the U.S. and the ECE/Japanese regulations in order to improve visibility and safety. The second topic of this study, the relative merits of two- and four-headlamp systems, is briefly discussed in the Appendix.