

of vision over which it occurs. For a given set of circumstances, the frequency above which the alternation of visual stimuli is no longer perceptible is known as the fusion frequency. Large amplitude variations over large areas at low frequencies give the most uncomfortable conditions. The eye is most sensitive to flicker at the edge of the field of view; thus visibly flickering overhead lights can be a source of great discomfort.

Lamps driven by high-frequency power supplies (e.g. 35 kHz) overcome these drawbacks in that all significant low frequency modulation below 100 Hz is eliminated. Although 100 Hz modulation of appreciable amplitude does affect a very small minority of the population, the modulation from well-designed electronic ballasts (Figure 1.19(c)) is similar in shape and amplitude to that of incandescent sources.

Note: For a more formal definition of some of the terms involved, see Part 4, Glossary.