Late detection is the basic mechanism responsible for daytime collisions. One goal of this report is to review evidence concerning the effectiveness of daytime running lights (DRLs) to increase vehicle conspicuity, and thereby facilitate vehicle detection and reduce the number of daytime collisions (including collisions between cars and unprotected road users). Another goal is to recommend lighting characteristics of dedicated DRLs.

The available accident studies indicate that DRLs are effective in reducing the number of daytime collisions. Furthermore, this reduction is larger for pedestrians and cyclists than for motor vehicles.

Evidence indicates that the minimum intensity of DRLs should be about 400 cd. Although increased intensity of DRLs results in increased effectiveness, it also results in increased glare. Consequently, an upper limit on the intensity of DRLs is justified. Arguments are presented that for the relevant levels of ambient illumination (1,500 – 40,000 lux), the maximum intensity for dedicated DRLs should be about 1,500 cd. The report also discusses recommended DRL light distributions, non-dedicated DRL alternatives, and the use of rear lamps with DRLs.