Fig. 1. The distribution of visual acuity (VA) required for restricted and unrestricted licensure in the various states. Only a few states permit VA worse than 20/40 (6/12) for unrestricted driving. Absolute minimum VA levels permitted for restricted licenses vary over a much wider range. The restrictions and conditions attached to driving with the absolute minimum acuity also vary substantially from state to state.
Fig. 2. The states that permit driving with bioptic telescopes are shown in red. In some states bioptic driving is permitted, but only if the standard VA requirement can be met without the telescope (yellow). The states that do not permit bioptic driving (white) appear to be clustered together illustrating regional differences.
Fig. 3. A map of the USA showing those states that have a visual field (VF) screening requirement for non-commercial drivers (red) and those that require such testing for commercial drivers only (yellow). Two states require a minimum VF extent only if the visual acuity screening standard is not met (blue). All other states (white) have no field requirements for private drivers and only impose the federal requirement for commercial drivers.
Fig. 4. The width of the binocular horizontal visual field (VF) required for unrestricted license and the number of jurisdictions having each specific VF requirement. Eighteen jurisdictions have no requirements for non-commercial drivers and two only require a minimum VF extent if the acuity does not meet the screening standard. Note distribution peaks at 70, 110 and 140 deg.
Figure 5. The distributions of visual field requirements for restricted and unrestricted licenses for the 12 states that offer such restricted licenses. Note that only a minimal reduction in field is permitted for the restricted license.
Fig. 6. An illustration of the impact of the increase in VF (from 130° - 140°) required in the District of Columbia for patients with visual acuity in the range of 6/12 to 6/21 on the field of view in a driving scene. The circle of 10° in the centre represents the maximum area that might be affected to cause such a reduction in acuity.