

Notes to Table 16.2

Note 1. A five percentage point increase in minimum threshold increment is permitted where low luminance light sources, such as low pressure sodium and fluorescent, are used.

Note 2. The surround ratio criterion should only be applied where there are no traffic areas with their own criteria adjacent to the carriageway.

In some situations, it may not be possible to calculate the maximum threshold increment. An alternative method to limit disability glare is to select a luminaire according to the classes given in Table 16.3. The different classes are defined by the luminous intensity of the luminaire, in candelas/1000 lumens of bare light source output, at 70, 80 and 90 degrees from the downward vertical, in any direction, and the luminous intensity above 95 degrees, in any direction. Class G3 corresponds to a cutoff luminaire. Class G6 corresponds to a full cutoff luminaire.

Table 16.3 Luminaire classes for the control of disability glare

| Lighting class | Maximum luminous intensity/1000 lumens at 70° (cd/1000 lm) | Maximum luminous intensity/1000 lumens at 80° (cd/1000 lm) | Maximum luminous intensity/1000 lumens at 90° (cd/1000 lm) | Luminous intensity above 95° (cd) |
|----------------|--|--|--|-----------------------------------|
| G1 | - | 200 | 50 | - |
| G2 | - | 150 | 30 | - |
| G3 | - | 100 | 20 | - |
| G4 | 500 | 100 | 10 | 0 |
| G5 | 350 | 100 | 10 | 0 |
| G6 | 350 | 100 | 0 | 0 |

16.2.2 Lighting recommendations for areas adjacent to the carriageway

People and objects adjacent to the carriageway need to be seen by the driver. Such locations include unmade verges, footways and cycle paths and the emergency lanes of motorways. For all traffic routes other than heavily used footways and cycle tracks and the emergency lanes of motorways, lighting of the area adjacent to the carriageway should conform to the surround ratio (Table 16.2).

For traffic routes with heavily trafficked footways and cycle tracks an appropriate lighting criterion should be selected from Table 16.4. Which criterion is selected will depend on the lighting class used for the carriageway. To ensure adequate illuminance uniformity, the actual maintained average horizontal illuminance should not be more than 1.5 times greater than the minimum maintained average horizontal illuminance.

Emergency lanes on motorways should be lit to lighting class ME4a (see Table 16.2).