For wall-mounted luminaires fixed at ≥ 2.0 m angle b shall be the actual measured value. At mounting heights of ≥ 1.8 m but less than 2.0 m from finished floor level, angle b shall always be 90 degrees. For mounting heights below 1.8 m angle b shall always be 120 degrees. The maximum luminance must not exceed 700 cd/m^2 at any angle of azimuth between and including, the angles of elevation detailed in Figure 14.7 above.

Luminaires must not cause excessive luminance spots (bright patches), on the room surfaces when viewed by the patients. The average luminance of all the major reflecting surfaces should not exceed 600 cd/m^2 and the maximum measured spot level should not exceed 1500 cd/m^2. In addition there should be no sudden change in the values of luminance on any of the major reflecting surfaces, i.e. they should change gradually.

14.3.6 Reading lighting

When reading, most people will rest with their head or back against the pillows. A reading light should provide an average illuminance of 300 lx over a horizontal area of 1m x 1m centred at the bed-head and directed towards the bottom of the bed at 1.0 m above floor level, after taking into account the shielding effect produced by the patient's head and shoulders. The reading light switch should be conveniently positioned within reach of the patient. Suitable reading lights, especially if they are articulated, may also be used for general nursing activities at the beds. All reading lights should be cool to touch and easy to clean. Ideally, wall-mounted fixed bed-head type reading lights should be installed at a mounting height of 1.8 m but can be mounted below 1.8 m provided care is taken to control glare and shadows. Articulated wall-mounted reading lights and ceiling-mounted reading lights can also be used.

14.3.7 Night lighting

Night lighting needs to fulfill three functions: to provide enough light for the safe movement around the ward, to allow the nursing staff to see facial features and a patient's general condition, and to allow patients to sleep. The average maintained illuminance for the central ward circulation space should be 5 lx on a 0.85 m high horizontal working plane, with a maximum illuminance measured on the pillow of 0.5 lx. To avoid disturbing glare, the luminance of any luminaire left on during the night within the ward should not exceed 30 cd/m^2 at an angle of 35° and more from the downward vertical at all angles of azimuth.

In addition, any luminaire positioned at the bed head or within the bedded area defined by the screening curtains should not exceed 30 cd/m^2 at an angle of 20° and more from the downward vertical at all angles of azimuth.

Moving shadows cast by car headlamps, trees or from nearby road lighting can be particularly disturbing to patients, it is recommended therefore that blinds or curtains be drawn over the windows at night where external sources are considered to be an issue.

14.3.8 Night observation lighting (watch lighting)

Watch lighting may be required for the observation of a particular patient after the general lighting has been switched off. It should avoid any visual disturbance to other patients so it is unlikely that the general use of a patient's reading light, which has not been designed for this purpose, will be successful. An illuminance of 15–20 lx at the bed head is considered adequate for this task, provided the night lighting is of the recommended level.