In Clause 5, for specific applications a restricted band of suitable colour temperatures is given. These are applicable for daylighting as well as artificial lighting.

4.7.3 Colour rendering

For visual performance and the feeling of comfort and well being colours in the environment, of objects and of human skin, shall be rendered naturally, correctly and in a way that makes people look attractive and healthy.

To provide an objective indication of the colour rendering properties of a light source the general colour rendering index R_a is used. The maximum value of R_a is 100.

The minimum value of colour rendering index for distinct types of interiors (areas), tasks or activities are given in Tables 5.1 to 5.53.

Safety colours according to ISO 3864-1 shall always be recognisable as such.

NOTE 1 Colour rendering of light from a light source may be reduced by optics, glazing and coloured surfaces.

NOTE 2 For accurate rendition of colours of objects and human skin the appropriate individual special colour rendering index (R_i) should be considered.

4.8 Flicker and stroboscopic effects

Flicker causes distraction and can give rise to physiological effects such as headaches.

Stroboscopic effects can lead to dangerous situations by changing the perceived motion of rotating or reciprocating machinery.

Lighting systems should be designed to avoid flicker and stroboscopic effects.

4.9 Lighting of work stations with Display Screen Equipment (DSE)

4.9.1 General

The lighting for the DSE work stations shall be appropriate for all tasks performed at the work station, e.g. reading from the screen, reading printed text, writing on paper, keyboard work.

For these areas the lighting criteria and system shall be chosen in accordance with type of area, task or activity from the schedule in Clause 5.

Reflections in the DSE and, in some circumstances, reflections from the keyboard can cause disability and discomfort glare. It is therefore necessary to select, locate and arrange the luminaires to avoid high brightness reflections.

The designer shall determine the offending mounting zone and shall choose equipment and plan mounting positions which will cause no disturbing reflections.

4.9.2 Luminaire luminance limits with downward flux

Light can lower the contrast of the presentation on a DSE by:

— veiling reflection caused by the illuminance on the displays´ surface and

— luminances from luminaires and bright surfaces reflecting in the display.

EN ISO 9241-307 gives requirements for the visual qualities of displays concerning unwanted reflections.