

Chapter 15: Quasi-domestic lighting

15.1 Functions of quasi-domestic lighting

Quasi-domestic lighting is found in places that seek to appear as private residences but which are, in fact, communal dwellings. Examples of such locations range from halls of residence for students through care homes for the elderly to hotels. The lighting in such locations has two main functions. The first is to enable the residents to see what they want to see, without discomfort. The second is to create a visual environment that is attractive and interesting or at least one that avoids looking 'institutional.' The balance between these two functions varies within and between each application. For example, in a hotel, the room lighting is dominated by the need to create an attractive and interesting visual environment although bed head lighting will also be designed to ensure that reading is easy. In contrast, in a home for the elderly, greater importance is attached to ensuring that the residents can see what they need to see, although the need for a non-institutional appearance should not be neglected.

15.2 Factors to be considered

15.2.1 Occupants' capabilities

Different communal dwellings may contain people with very different visual capabilities. The occupants of halls of residence at a university are mainly likely to be young with good visual systems. Conversely, the occupants of homes for the elderly will almost certainly be old and many may have some form of visual disability (see Section 2.8.2). Guidance on lighting for people with low vision is given in the SLL Factfile No 10: *Providing visibility for an ageing workforce* and elsewhere (LRC, 2001d; Goodman, 2008). A realistic assessment of the visual capabilities of the occupants and what it is they need to see is necessary before starting to design the lighting.

15.2.2 Daylight

Access to daylight and a view out is strongly desired by most people. Therefore, daylighting and access to windows should always be considered when designing quasi-domestic lighting. The main limitation on this is the desire for privacy in some rooms such as bedrooms and bathrooms, although, even here, there is a desire for daylight some of the time. Privacy and some control of discomfort due to solar glare can be ensured by fitting windows with curtains or blinds.

15.2.3 Light source colour properties

The appearance of the room décor is important in quasi-domestic lighting. The room décor may have been chosen with care to create the required ambience but the effect will be ruined if the appearance of the décor changes between daytime, when the room is daylit, and after dark, when it will be lit with electric light sources. Similarly considerations apply to skin colour. Skin colour is widely used as an indicator of health. Lighting which distorts skin tones will not be acceptable. Such considerations rarely cause a problem with incandescent light sources but they can when inappropriately chosen fluorescent light sources, such as those with a high correlated colour temperature (see Section 1.4.3), are used. To avoid such complications, any light source used in quasi-domestic dwellings should have a CIE general colour rendering index of 80 or greater and a correlated colour temperature of 3500 K or less. This is particularly important in bathrooms and bedrooms.