

11.3 Lighting recommendations

11.3.1 Illuminances

Table 11.1 summarises the minimum maintained illuminances recommended for the more common functional areas of educational premises. These illuminances should be provided on the relevant plane. For classrooms, this will be on the plane of the desks but for art rooms it may be the vertical plane of a canvas. High reflectance surface finishes will help distribute the light evenly on different planes.

Table 11.1 Lighting recommendations for functional areas

Room	Minimum maintained illuminance (lx)	Minimum illuminance uniformity	Maximum unified glare rating	Minimum CIE general colour rendering index
Classroom, lecture hall	300	0.8	19	80
Classroom used for adult education	500	0.8	19	80
IT room	300	0.8	19	80
Arts room	500	0.8	19	90
Science laboratory	500	0.8	22	80
Seminar room	300	-	19	80
Library	300	-	19	80
Assembly hall	300	0.8	19	80
Music room	300	-	19	80
Drama studio	300	-	19	80

11.3.2 Illuminance uniformity

Illuminance uniformity is important where the lighting needs to be perceived as uniform or where activities may take place anywhere within the lit area. So, for classrooms, lecture halls, IT rooms, art rooms, science laboratories and assembly halls a minimum illuminance uniformity of 0.8 is recommended. Where the space is likely to be obstructed, e.g. a library or where light should be centred on a performer, e.g. in a music room, the illuminance uniformity requirement is limited to the task area. Even where illuminance uniformity over the whole working plane is important, it may be necessary to provide additional lighting in a specific area to give emphasis e.g. on the whiteboard in a classroom.

11.3.3 Glare control

Glare control should be applied to both luminaires and windows. For luminaires, this is a matter of limiting the light distribution so that the unified glare rating is 19 or less. One point that calls for care is the lighting of the teacher in a classroom or an instructor in a lecture hall. Figure 11.2 shows an instructor being illuminated with spotlights. The instructor will experience glare if the spotlights are positioned less than 60 degrees above the line of sight straight ahead.