Chapter 11: Lighting for educational premises

11.1 Functions of lighting for educational premises

Educational premises contain spaces with many different functions. For schools, these can range from the ubiquitous classrooms through the assembly hall to specialist locations such as art rooms and sports halls. For universities, there are lecture halls with raked seating, research laboratories and seminar rooms. The lighting of educational premises should be both functional and inspirational. Functionally, the lighting should allow the students to see the teacher and the teacher to see the students. For inspiration, the lighting should be consistent with the psychological and emotional needs of the students.

Guidance on the lighting of some parts of educational premises is given elsewhere in this *Handbook,* e.g. for the lighting of sports halls and swimming pools see Chapter 19, for emergency lighting see Chapter 8. More guidance on the lighting of educational premises is published by the Department for Children, Schools and Families in the form of Building Bulletins and is given in the SLL Lighting Guide 5: *Lecture, teaching and conference rooms*. The lighting that will be considered here is that of the functional parts of educational premises, such as classrooms and lecture halls.

11.2 Factors to be considered

11.2.1 Students' capabilities

The policy today is to educate many students with disabilities in conventional schools. This means that a classroom may contain students with seeing and hearing difficulties or who are autistic and therefore sensitive to sudden changes in the environment. For students who have difficulty hearing, it is important that the movements of the teacher's lips are clearly visible. For students who are partially sighted, it is important to control glare from luminaires and windows, to minimise veiling reflections and to use the décor to give high contrast to salient details of the environment, such as the position of the door (Figure 11.1). For autistic children, it is necessary to avoid sudden and dramatic changes in the environment. This implies that slow dimming control is better than simple switching and that control of any changes should reside in the classroom so students can be warned about any changes. More advice is given in Department for Education and Science Building Bulletin 77.

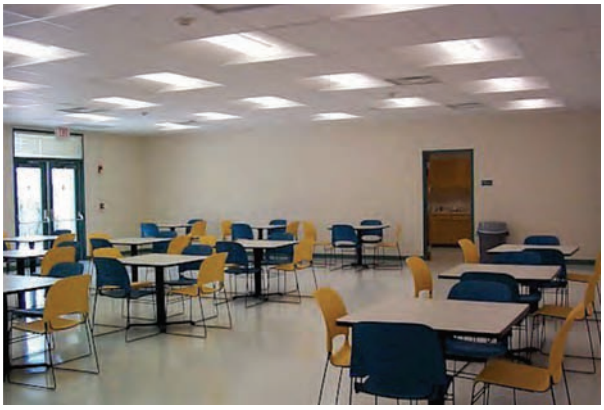

Figure 11.1
A classroom with good luminance and colour contrast on salient detail