

- People will take action to reduce or eliminate daylight if it causes discomfort or increases task difficulty.
- The performance of both visual and non-visual tasks will be affected by disruption of the human circadian system. To avoid such disruption, the exposure to bright light during the day and little light at night is necessary. Daylighting is a convenient means to deliver bright light during the day to people who have little opportunity to go outside.
- Different lighting conditions can change the mood of occupants of a building. However, there is no simple recipe for what lighting conditions produce the most positive mood. Windows are strongly favoured in work places for the daylight they deliver and the view out they provide, as long as they do not cause visual or thermal discomfort, or a loss of privacy. Therefore, the presence of well-designed windows is expected to enhance positive mood and their absence to increase negative mood, although whether it is the view out or the admission of daylight that provides the benefit is unclear.
- Exposure to daylight can have both positive and negative effects on health. The strongest effects occur outdoors. Exposure to daylight outdoors can cause tissue damage, which is bad, and generate vitamin D, which is good. Daylight and sunlight delivered through glass will have less ultra-violet radiation than the same radiation outdoors, but can still have adverse effects on people who are sensitive to ultra-violet radiation. Daylighting that makes what needs to be seen difficult to see can cause eyestrain. Conversely, daylighting that makes what needs to be seen easy to see can reduce eyestrain. Windows that provide a view out as well as daylight can reduce stress.

These conclusions imply that good daylighting design is not simple. Thought needs to be given to the amount of daylight available, the view out, the control of glare, the light distribution in the space, solar heat gain and integration with electric lighting. When done well, daylighting can make a very effective and attractive space (Loe and Mansfield, 1998; Philips, 2004) but when done without thought or with thought limited to the external appearance of the building, daylighting can cause discomfort to occupants and add to the energy consumption of the building.



**Figure 7.2** An attractive daylighting design