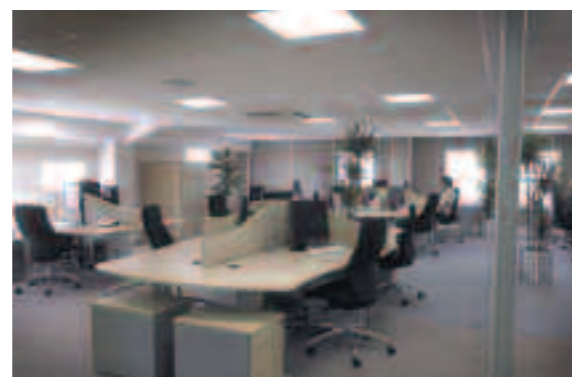
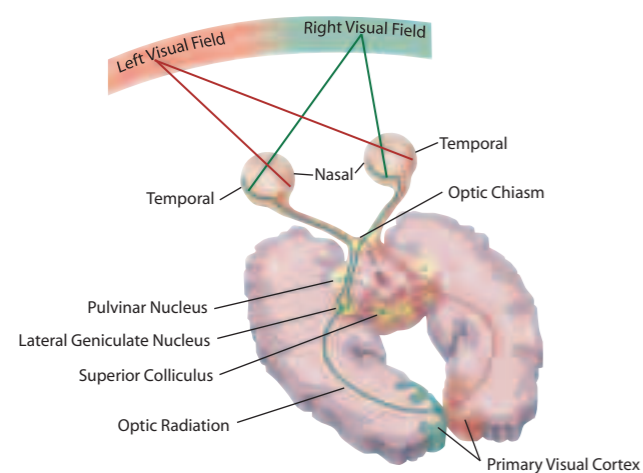
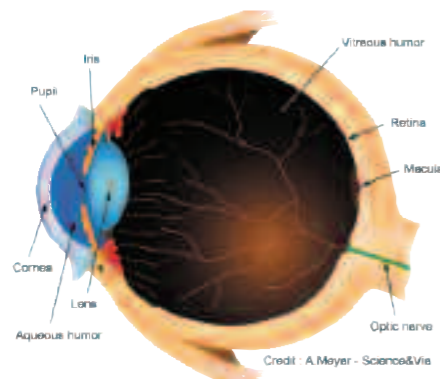


Ergonomics in lighting

Vision

Vision is obviously as critical to workplace performance as it is to well-being. It is recognised that good lighting can reduce task times, as well as headaches caused by visual stress. In particular, colour rendering, intensity, direction and uniformity all contribute to task lighting quality.



Comfort

Comfortable interiors are crucial to modern workspace. It is important to avoid direct views of bright lamps, rapid changes of luminance and the poor uniformity of brightness that create glare and can result in headaches. One of the advantages of lensed fittings is glare control at all angles without specific cut-off points.

Interest

Task areas should have uniform light, but this is not true for whole surface areas, which should have some visual interest. For smaller rooms, most people prefer bright walls. In larger space, the lighting should emphasise the interior architecture. A variety of fittings with different light directions will normally create the most attractive space.

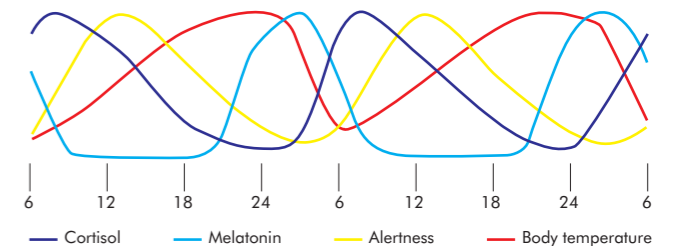


Control

We know that people prefer individual control of their lighting even when it is rarely used. However, this control should not be allowed to compromise the light conditions of other people, as can be the case with individually controlled ceiling fittings. Individual control is best provided as additional lighting close to the task area. Lighting automation systems should be applied with care as they can alienate people from the workplace, since they are the opposite of individual control.

Biology

For many years, lighting design was considered almost entirely from a visual perspective alone. Recent scientific research has caused a shift in the consensus towards recognition of the powerful effects of light on human biology. Certainly circadian rhythms and well-being, as well as concentration and alertness, have been shown to be affected by the colour content (see page 17) of workplace lighting.



Performance

Ergonomics in lighting are crucial because they impact directly on the performance and well-being of people at work. Modern organisations and their building teams must treat with respect the contribution that light plays in successful workplaces.