For a glossy magazine page or a VDT screen veiling reflections occur over the whole surface. In this case the luminance of the veiling reflections should be added to all terms in the luminance contrast formula.

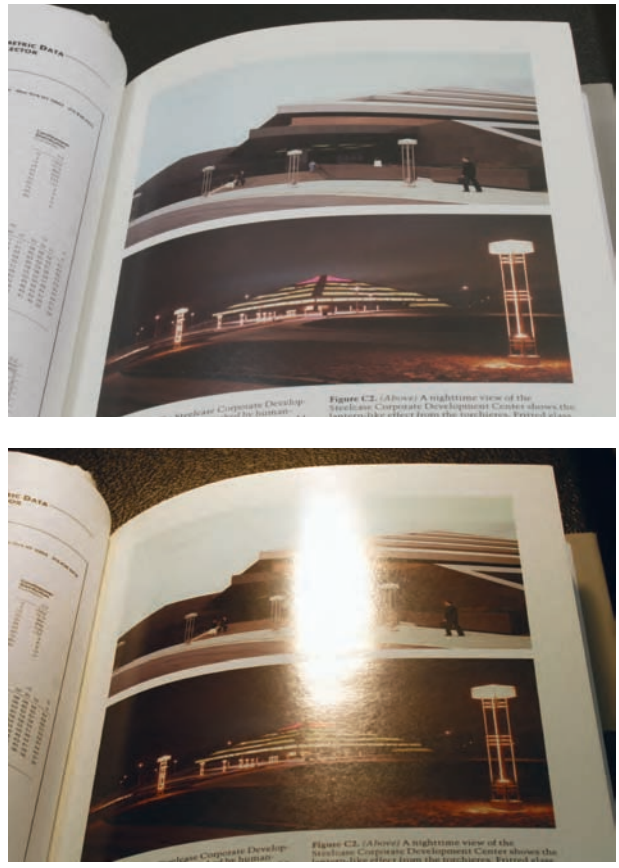

Figure 2.19 A glossy book, with and without veiling reflections

Although veiling reflections are usually considered a negative outcome of lighting that can cause discomfort, they can be used positively, but when they are, they are conventionally called highlights. Physically, veiling reflections and highlights are the same thing. Display lighting of specularly reflecting objects is all about producing highlights to reveal the specular nature of the surface.

2.6.5 Shadows

Shadows are cast when light coming from a particular direction is intercepted by an opaque object. If the object is big enough, the effect is to reduce the illuminance over a large area. This is typically the problem in industrial lighting where large pieces of machinery cast shadows in adjacent areas. The effect of these shadows can be overcome either by increasing the proportion of inter-reflected light by using high reflectance surfaces or by providing local lighting in the shadowed area. If the object is smaller, the shadow can be cast over a meaningful area which in turn can cause perceptual confusion, particularly if the shadow moves. An example of this is the shadow of a hand cast on a blueprint. This problem can also be reduced by increasing the inter-reflected light in the space or by providing local lighting which can be adjusted in position.