

3.3.2.8 Wall lighting

Wall lighting can fulfil a variety of tasks. It can be directed at vertical visual tasks on the walls, e.g. textual information on charts or posters, objects such as paintings, or retail goods, architectural structures or the wall surface itself. Wall lighting may also be intended to present the wall in its function as a room surface; finally, wall lighting can be a means for providing indirect general lighting in a space.

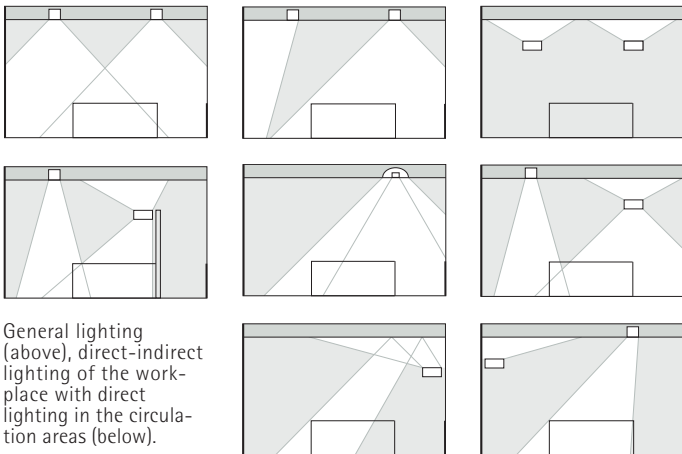
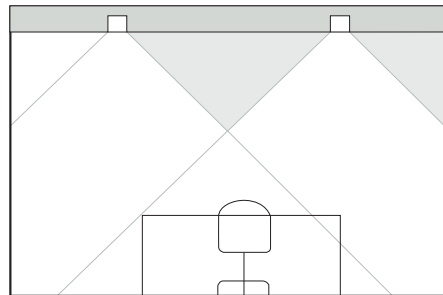
To accentuate certain areas of wall or objects on the wall spotlights and recessed directional spotlights are particularly suitable, depending on the degree of flexibility required. In the case of reflecting surfaces, e.g. oil paintings or pictures framed behind glass, attention must be paid to the angle of incidence of the light to avoid disturbing reflections that may arise in the observer's field of vision, if the angle is too low, or heavy shadows that may occur, e.g. shadows of the picture frames on the pictures, if the angle of incidence is too steep.

Grazing light provided by downlights is especially suitable for accentuating surface structures. This type of lighting can also be used exclusively for illuminating walls, if a scallop effect is required. In corridors and exterior spaces in particular grazing light on walls can be effected using uplights or combined uplight and downlights. In any case the distribution of the scallops over the wall should be in line with the proportions of the space and follow a regular rhythm. Asymmetrical spacing, which may be required due to special features of the particular wall surface, e.g. the positions of doors or objects, is also possible.

If the wall is not to be revealed as a room surface as such, but an open impression of a wall is required, then uniform, transitionless lighting should be used. Washlights are the most appropriate luminaires in this case. There are various models available, including fixtures for linear walls, for walls with recesses and corners, and for parallel walls in narrow spaces such as corridors. Washlights have a special reflector segment that produces distinctly more uniform illumination of the wall than downlights in their basic form.

Totally uniform wall lighting is obtained using wallwashers, which, like washlights, are available for recessed or surface mounting or for mounting on track or trunking systems. Lighting walls using wallwashers or washlights also provides uniform lighting of vertical visual tasks as well as indirect general lighting.

Illumination of working areas in an office: different lighting concepts can be applied, depending on the type of room and how it is used.

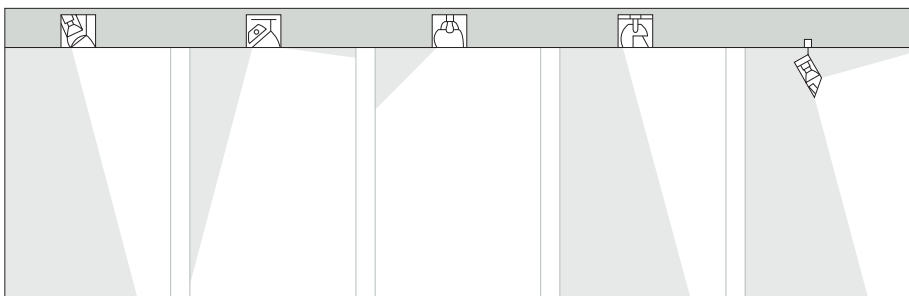
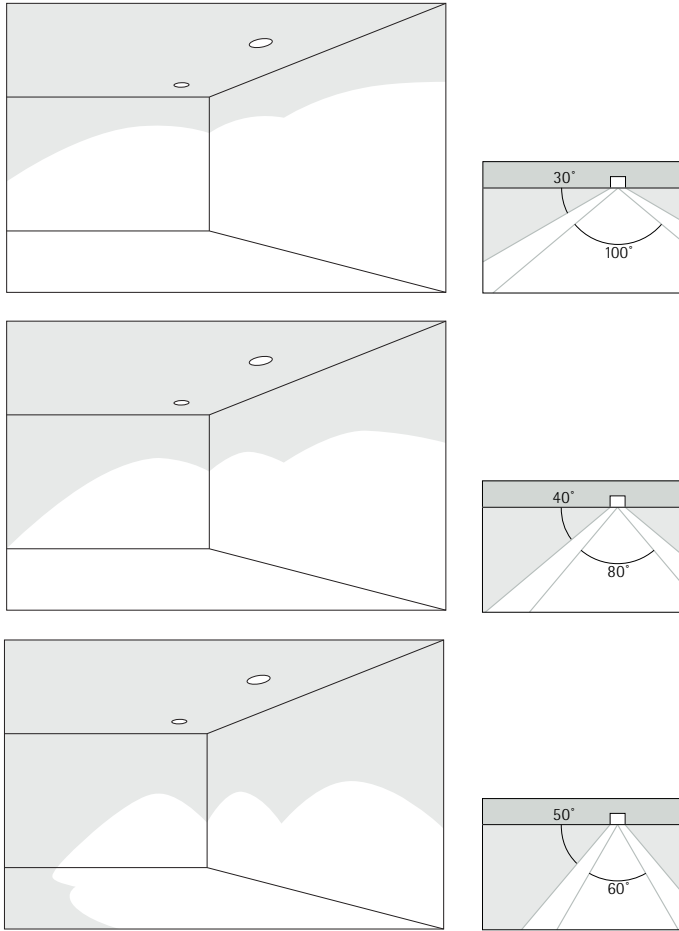


General lighting (above), direct-indirect lighting of the workplace with direct lighting in the circulation areas (below).

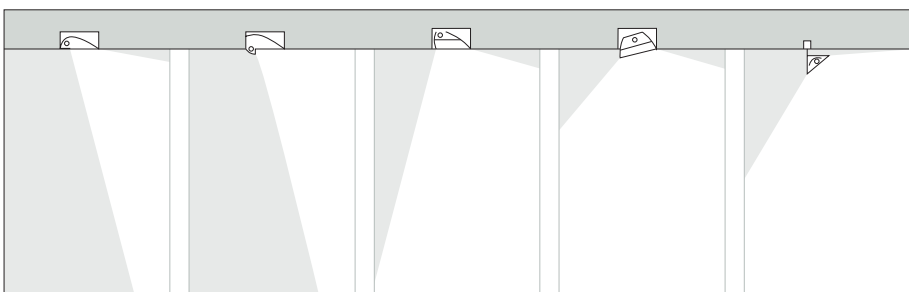
Direct light on the working area together with wall lighting (above), secondary reflector luminaires provide light on the working plane (centre), indirect general lighting and lighting for the workplace using the ceiling as a reflector (below).

Indirect general lighting (above), direct-indirect lighting of the workplace with direct lighting in the circulation areas (centre), directed light on the working plane with indirect lighting in the circulation areas (below).

The greater the cut-off angle, the greater the visual comfort provided by the luminaire due to improved glare control. The same lighting layout will produce different distributions on the walls. As the cut-off angle increases, so the beam spread will decrease, as is the case for the combinations shown for the 30°, 40° and 50° angles illustrated.



Wall lighting using rotatorially symmetrical luminaires (from left to right): lens wall-washer, directional washlight, washlights, wallwasher, track-mounted wallwasher.



Wall lighting using linear luminaires (from left to right): wall-washer for fluorescent lamps, wallwasher with prismatic element, wallwasher with louvred reflector, adjustable wallwasher, track-mounted wallwasher.