

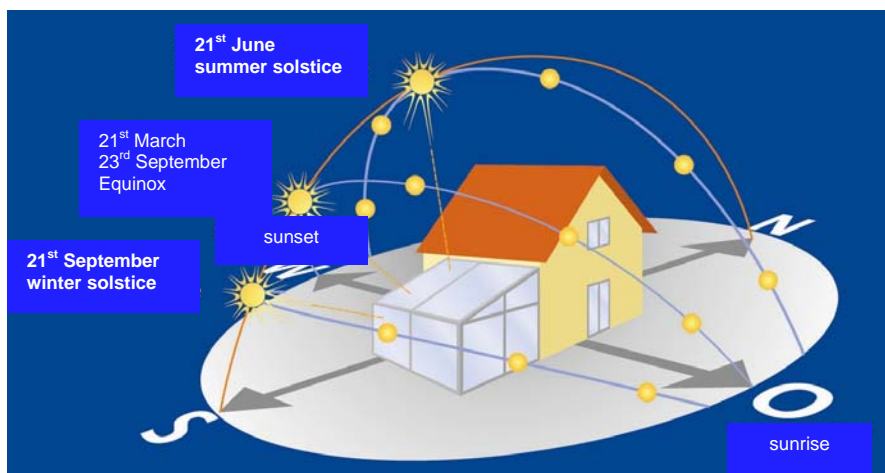
Introduction Solar control, Light directing and Glare control

Solar Control

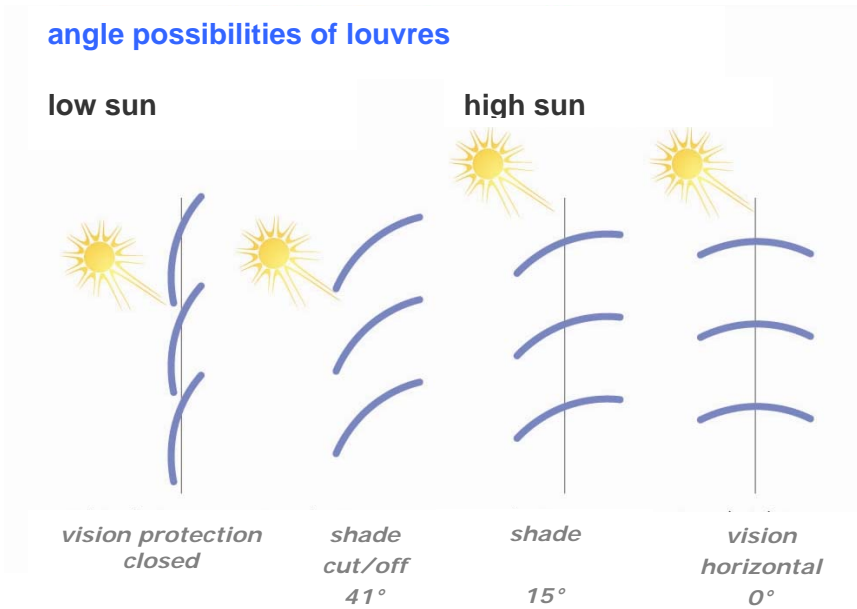
Typical Solar Control insulated glass units are measured and evaluated with vertical radiation in accordance with EN 410. Blind systems however, require a specific method of measurement: the differing angles of the louvre blade and the changing angle of the sun result in differing energy gains.

It must be noted that half-opened blinds let through more energy than closed ones. Even the location of the blinds in the building can make a difference.

With Calorimetric measurements on blind systems, the angle of the sun and the louvre positions are changed and the practical conditions are made relative. The g-value therefore results from the angle of the sun and louvre position. This differentiates louvred systems from insulated units without integrated elements.

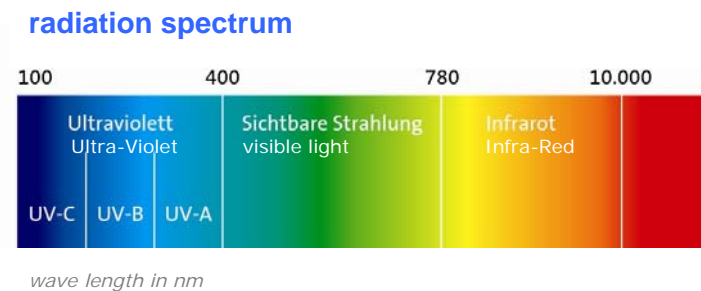


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Many factors influence the effects of the sun, such as louvre shape, degree of surface reflection and the geometry of the blind. That is why only standard colours are evaluated in measurement.

Dark louvres make the glass absorb a lot of energy and are therefore not suitable for external areas – very light colours are therefore used. Interior wall elements, where no solar control is necessary allow colour to be used.



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Light directing and glare control

Visible daylight is also radiation: it should be used to its full potential, but should also not be too strong that it blinds or that too stark a contrast occurs. Optimum light conditions can be achieved through indirect lighting. The self-contradicting requirement of reducing undesired light whilst simultaneously achieving glare-free indirect lighting conditions is possible by using variable and separately functional shading and light-directing louvres. Light direction in upper areas of glazing and solar control with glare protection in vision areas.

Louvres offer the only possibility to adjust light conditions individually.

For work places - particularly where monitors are used – requirements are clearly regulated:

- No direct blinding
- No reflections on the Monitor
- Sufficient contrast
- Adjustability

What is important is: Labour Regulations require a visual connection to outside. With louvres this is achieved without any problem.

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