

# Working with “Critical Light”.



## CRITICAL AND GLANCING LIGHT

One of the major issues affecting the use of plasterboard and its associated paint covering is consumer expectation in regard to the visual appearance. This visual appearance is significantly affected by lighting conditions both natural and artificial. Master Painters NZ Association believes that both contractors and consumers should be aware and consider some of these issues.

### Natural Glancing Light

The intensity of natural lighting changes constantly throughout the day depending on the position of the sun. Sunlight can be reflected from adjacent buildings and water surfaces to produce unwanted rippling effects on walls and ceilings.

### Artificial Glancing Light

The positioning of windows greatly influences how much glancing light will enter a room. Windows placed close to a ceiling or corner will allow light to fall across a surface and show up undulations on what would otherwise appear as a perfectly flat surface. Experience has shown that many joints that become visible under glancing light are difficult to see under normal lighting conditions. These joints are in many cases, well within industry tolerances. The most common form of artificial lighting is the surface mounted batten holder. Centrally mounted in a room and close to the ceiling without a shade, this style of lighting provides the worst conditions for glancing light.

### Some Solutions

- Avoid locating windows close to wall and ceiling surfaces during design phase
- Introduce drapes where windows are close to wall and ceiling surfaces
- Hang mesh curtains to diffuse light entering a room
- Avoid mounting lights directly on surfaces and use shades to point light away from surfaces.
- Use recessed light fittings in preference to surface mounted fittings
- Position down lights so that they don't shine down the face of the wall
- Reduce shadows by fitting multiple light fittings of less intensity rather than one bright light.
- Ensure plasterboard sheets are fixed horizontally in passage ways
- Use flat paint finishes on ceilings - white for best results.
- Increase the level of plasterboard finish specified.

**All preparation and painting works should in accordance with  
AS/NZS 2311:2017 Guide to the painting of buildings**

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