



DOWNLIGHTS: RISKS AND PROBLEMS

Failures and litigation have resulted from misuse or specific selection of recessed downlights. This issue has arisen following a series of occurrences, ranging from the non issue of Code Compliance Certificates, fires, structural failures, entrapped moisture problems and other embarrassments.

In establishing the cause of failures several facts have become clear. These are not failures of the light fittings themselves, but the misuse of types of fittings in a critical location. To draw a comparison, if a panic bolt was required to a particular door to meet fire egress requirements, then the specific hardware would be specified to prevent selection of inappropriate hardware by chance or by an unaware owner.

In general fittings have not previously been critical in meeting Building Code requirements but performance criteria change that.

In the desire to complete the construction contract documents, light fittings have often been specified by such clauses in Electrical Specifications as: "Allow to fit light fittings as selected by the owner in positions shown on the drawings." In many cases this has worked satisfactorily. The electrician had allowed in is price to fit almost anything, and the owner was happy to be left to make the selection of fittings. This is not the case with recessed heat generating fittings.

TAKE CARE - neither the owner nor the electrician to know that their choice of light fittings might affect compliance with the Building Code in any one of several areas.

- Destroy the integrity of the ceiling insulation (E3 & H.1)
- Allow venting into the ceiling void (G4) and destroy the vapour barriers - if any.
- Cause excessive heat build-up in the ceiling structure (C 1)
- Penetrate fire-rated ceiling/floor construction (C3)
- Penetrate sound-rated ceiling/floor construction (G6)

These are issues integral to design and detailing Correct light fittings must be deliberately selected to achieve compliance with the Building Code and to avoid the risk of building envelope failures.