

Luminaire Specifications: “Equal and Approved” or Fraudulent Misrepresentation?

In the specification lighting market it is commonplace for specified luminaires to be substituted within the supply chain for cheaper alternatives. The alternative luminaires should be “equal and approved”, but that is often not the case.

In commercial lighting construction contracts the luminaires specified by the project architect, engineer or lighting designer are sometimes substituted with alternative product during the construction phase. Cost saving is almost always the motivator in the search for alternative luminaires to those originally specified.

Many questions arise: Has there been an open and transparent process to discuss acceptable alternative products? Or has substitution happened covertly without approval, and possibly fraudulently? Who benefits from any cost savings? Is it the building contractor, the electrical contractor, or the client?

Contractors are often better placed than specifiers to evaluate relative cost issues and are certainly more able to accurately determine costs close to the time of ordering rather than at the usual designer's time frame of 6-12 months prior. The concept of “equal and approved” has evolved internationally in the industry to handle the process for the identification and approval of acceptable alternatives to the specified luminaires.

For alternatives to be considered “equal and approved”, this requires:

- Assessment process for alternatives is

disclosed and understood by all parties;

- Lighting designer is funded to evaluate the equivalency of alternative luminaires, and to undertake lighting design with the alternatives;
- Lighting design standards compliant outcomes are achieved;
- Lighting designer takes responsibility for the alternative designed outcome;
- Client approval is attained.

Or, if the electrical contractor takes on the above responsibilities this is done understanding the contractual, legal and regulatory responsibilities and there is professional indemnity insurance in place to cover this role. If this does not occur the contractor may be exposed to assertions of fraudulent activity by misrepresenting the alternative lighting scheme as that originally designed.

Due to the multifaceted nature of lighting design and application, comparison of product features and weighing of value is not a simple matter. Parameters and targets to meet are:

- Photometric Equivalence – light type and light optical distribution;
- Electrical Equivalence – electrical and EMC performance;

- Energy equivalence – building design meets regulated minimum energy performance;
- Construction Robustness – physically appropriate and fit for purpose;
- Luminaire Aesthetic Appearance – fits the visual design brief in lit and unlit states;
- Regulatory Compliance – meets all regulatory criteria for safety and performance.

By using robust “equal and approved” probity processes and life-cycle costing techniques on commercial projects the evaluation of luminaire alternatives can be truly “apples with apples” and can avoid the temptation to dumb-down performance and value when confronted with the illusion of lowest first cost. Any genuine savings that can be achieved can be transparently communicated to client representatives to avoid the perception of hidden agendas and to ensure client interests are well-served by the design and construction process.

LCNZ is the industry association for lighting manufacturing and importing companies in New Zealand.

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