



Summary of Green Lighting Fire Assessment

A report has been produced by the International Fire Consultants Ltd (IFC) to define the fields of application of Green Lighting Downlights when installed in engineered timber joist floors.

Upon evaluation and analysis of multiple fire tests, both Green Lightings and that of the UKs main joist manufacturers, the downlights have been approved for all joists listed below.

Most manufacturers have tested multiple downlights in the same test, which is not how they would normally be installed and therefore only one downlight type should be considered for a given ceiling. It is therefore likely that a downlight that lets heat into the void could pass due to other downlights that are more heat resistant, even though a ceiling full of such a downlight would fail.

With Green Lighting downlights, by analysing thermo couples in the test data, IFC “approve all of the tested downlights, to be used in any combination within a single ceiling, i.e. every downlight installed in any given ceiling could be different, or, they may be an identical model”.

“Based upon the available test evidence and the subsequent analysis if the specified Green Lighting Ltd downlights were installed within engineered joist floor assemblies, all in accordance with this report and were to be tested to BS 476: Part 21:1987, then they would not be expected to reduce the performance of the assemblies below 30 minutes integrity, insulation and loadbearing capacity”

Downlights Covered

- Pro800 Range
- Eco800 Range
- Eco450 Range
- Pro1300 Range
- Eyeball Range (5w, 7w, 10w)

Joists Covered

- Full Range of Staircraft TFSi Joists
 - Joist Depth – 220, 223, 235, 240, 245, 300, 303mm
 - Web Thickness – 11mm
 - Flange Depth – 47mm
 - Flange Width – 47, 63, 72, 97mm
- Full Range of Mitek Posi-Joists
 - Joist Depth – 202, 225, 253, 304, 373, 421mm
 - Flange Depth – 47, 73, 97, 122, 147mm
 - Flange Width – 47mm

- Full Range of James Jones JJI Joists
 - Joist Depth – 195, 220, 235, 245, 300, 350, 400, 450mm
 - Web Thickness – 9mm
 - Flange Depth – 45mm
 - Flange Width – 47, 63, 72, 97mm

- Full Range of Steico I-Joists

Timber-Flanged I-Joist

- Joist Depth – 200, 220, 240, 250, 300, 350, 360, 400, 450, 500mm
- Web Thickness – 8mm Fiberboard or 10mm OSB/3
- Flange Depth – 45mm
- Flange Width – 45, 60, 90mm

LVL-Flanged I-Joists

- Joist Depth – 200, 220, 240, 250, 300, 350, 360, 400, 450, 500mm
- Web Thickness – 8mm Fiberboard or 10mm OSB/3
- Flange Depth – 39mm
- Flange Width – 45, 60, 90mm

- Full Range of Metsawood FJI Joists
 - Joist Depth – 220, 240, 300, 360, 400
 - Web Thickness – 10 to 12mm
 - Flange Depth – 36, 39mm
 - Flange Width – 38, 45, 53, 58, 69, 89, 96mm