



ICEL Technical Statement No.1

Amalgam Fluorescent Lamps in Emergency Lighting Applications

Amalgam fluorescent lamps have a number of advantages over their equivalent mercury lamps and in most normal mains, lighting applications will give superior performance.

There exists a problem, however, when retro fitting amalgam fluorescent lamps, into existing emergency lighting luminaires.

“It is essential that emergency lighting luminaires be re-lamped in accordance with the lamp information supplied with the luminaire and avoid using amalgam lamps unless they are identified as suitable on the label”.

The problems that can be experienced are as follows:

- *Due to the slower increase in light output at switch on the light outputs may not be sufficient at:*
 - (a) *F5 – 50% light output at 5 seconds;*
 - (b) *F60 – 100% light output at 60 seconds;*
- *The design light output may not be achieved due to insufficient heat in the lamp;*
- *The design duration may not be achieved due to the higher circuit watts demanded by the lamp;*
- *Battery and inverter life maybe reduced due to an increase in temperature due to the increased load.*
- *There maybe a colour shift to pink due to insufficient heat in the lamp.*

New ranges of emergency lighting luminaires and conversion modules will be designed to operate these amalgam lamps. Care must be taken when specifying and or ordering emergency lighting luminaires and lamps to ensure full compatibility.

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