

## LIF Technical Statement No. 47

### Definition of Ultra Efficient Lighting (UEL)

It is well known that for ultimate energy efficient lighting we need the right light, in the right place, at the right time, by the right lighting system. This means having the right lighting scheme design for the place, installed and operated by the right lighting system.

Accepting this leads to the following definitions:

#### *Ultra efficient lighting (UEL)*

means the lighting scheme design needed to fulfil the lighting requirements specified in the relevant lighting application standard and the resulting installed scheme to use an energy efficient lighting system consisting of lamps/light sources, ballasts, luminaires and lighting controls to deliver the scheme lighting requirements **without increasing the environmental impact**.

To qualify as UEL, the energy efficiency of the system shall be in the top **20%** of the range of the lighting energy efficiency ratings of installations made in accordance with BSEN 15193 LENI estimation (measured in units of kWh/m<sup>2</sup>/year) **for indoor lighting or BSEN 13201 for outdoor lighting**.

**whereby**

#### *Lighting Scheme Design*

means a design process in which the lighting designer selects the lighting criteria for the task, chooses the lighting solution (including the use e.g. of day-lighting where appropriate), makes lighting calculations, configures the layout, produces drawings of the lighting scheme and specifies the operating functions of the lighting system, ensuring it is fully compliant with all regulations and standards current at any time, **with particular reference to the Society of Light and Lighting's Code for Lighting**.

#### *Lighting system*

means the lighting equipment or lighting solution (lamps/light sources, ballasts, luminaires and lighting controls) required for the lighting scheme, its installation and operation during the life of the scheme.

**Note:** LENI = Lighting Energy Numeric Indicator (see BS EN 15193)

# TECHNICAL STATEMENT

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