The Society of
Light and Lighting

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Society of Light & Lighting response to the Directorate General for Energy on possible measures targeting the energy efficiency of lighting in the tertiary sector

The Society of Light & Lighting believes that the only realistic method of driving reductions in energy consumption in tertiary lighting is through system-based targets.

However, in line with our position on the recent UK Government's consultation on the future of the building regulations, whilst we believe in adopting system-based targets, it is essential that it should be based upon consumption targets and not on simplistic installed load.

Whilst it is recognised that this will lead to increased responsibility for designers, it is believed that only by recognised lighting professionals designing buildings will energy consumption truly be reduced. Simplistic targets which can be met by number-crunching alone are too weak and will not stand up to the specification or expertise that lighting designers bring.

The lighting of a building should meet every need of the user and that brings together essential elements such as daylight and lighting control systems, determining what artificial lighting is required to complete tasks, by whom and for how long. An efficient design may contain more than one lighting system but the controls will enable maximum efficiencies to be realised, even though the installed load may indicate otherwise.

Daylight is a crucial component but must take account of location, orientation, shading and dirt. For example, if you compare a building in the city of London with one on the outskirts of Hemel Hempstead, the daylight availability is completely different and hence the reduction of artificial lighting will be very different.

To this end, we would strongly encourage the adoption of LENI as the optimal metric to decide whether tertiary lighting is suitable and efficient. There are existing European standards that permit the calculation of energy consumption of equipment in buildings, for example in lighting EN 15193:2007 *Energy performance of buildings — Energy requirements for lighting* and these should be the actual basis for all calculations of energy performance. There is validated software already widely available to calculate LENI which must be encouraged.

Finally, lighting design is not just about minimum energy consumption; it must express the sense of place for the building as well as lighting the task and creating a visually pleasing environment that is healthy and affects the well being of the occupants in a positive way. The Commission should be encouraging designers of buildings to consider lighting, health and well being AND energy consumption in mind. Reductions in energy consumption will occur if the lighting installation satisfies all the occupants' needs. We therefore recommend inclusion that the lighting of all new and existing buildings complies with the SLL Code for Lighting.

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