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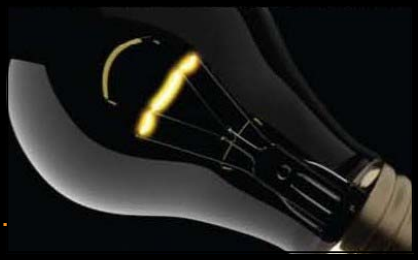

Minera House, 9A School Road, Beighton, Sheffield S20 1EG.

PART L

Part L relates to the Conservation of Fuel and Power in building design. It is there to establish energy design criteria for the specification of materials and equipment in new buildings and existing buildings where refurbishment work is undertaken.

The latest version of 'Approved Document L: Conservation of Fuel and Power' will become valid in October 2010, and there are some fascinating changes in the way that the lighting design criteria have been altered.

There are still the same four parts: Parts 1L.A and 1l.B, relating to dwellings and Parts 2.L.A and 2L.B, which relate to 'buildings other than dwellings'. The 'A' refers to new buildings and the 'B' refers to existing buildings.

The design criteria isn't in the Part L documents, you need to access a copy of the Part L Compliance Guides and that's where you'll find the numbers.

Changes to Part L1 Design Standards

The energy efficiency standards have been tightened up, shifting the minimum luminous efficacy rating from **40 lamp lumens/circuit Watt to 45 lamp lumens/circuit Watt**.

In the 2006 edition a reasonable provision of low energy lighting was achieved if the designer ensured that either **one luminaire in four** used a dedicated low energy source, or that there would be **one low-energy lamp per 25m2** of dwelling space (excluding garages)

In 2010, however, the new standards require ***three*** luminaires out of ***four*** to be fitted with low-energy lamps - but these can be any type of low-energy lamp provided their luminous efficacy meets the **45 lm/W** requirement. Luminaires can be fitted with conventional lamp holders (Edison Screw or Bayonet Cap) - and that's a major shift in assumptions about the general acceptability of low energy light sources.

The 2010 edition has allowed an ***exemption*** for any luminaire that has a power requirement of less than **5 circuit Watts** - something that doesn't relate to compact fluorescent sources, but which is obviously aimed at LED fixtures.

As regards **external lighting**, the energy standards have once again been tightened-up, with the requirement that lamp capacity should not be more than 100 lamp-Watts, that they should be automatically controlled to switch off when there is no one around, and that they are fitted with a daylight sensor to prevent their use when they are not needed.

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Having Twenty Five Years Experience Within The Lighting Industry

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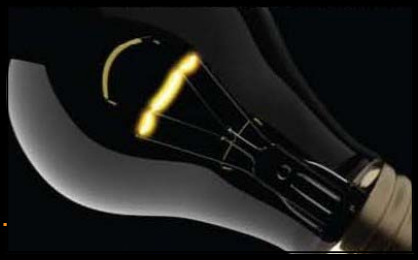

Changes to Part L2 Design Standards

The focus is tightening-up of the luminous efficacy ratings; general lighting for offices, industrial and storage areas now requires luminaires to have an ***initial efficac***y of **55 luminaire lumens /circuit Watt**, an increase of 10%.
General lighting in other non-domestic spaces will require light sources to have an average initial efficacy of **55 lamp lumens / circuit Watt**.

Display lighting gets a bigger hit by having its compliance limit lifted from an initial efficacy of **15 lamp lumens/ circuit Watt to 22 lamp lumens / circuit Watt**, a 50% increase.

There are also minimum lighting control standards to be met, from requiring a light switch by the door to a small room, to a fully-managed system using time-based or processor-based controls.

There's also a cute reference to the control of display lighting, which can be 'switched off when people will not be inspecting exhibits or merchandise or being entertained'.

The Lighting Design approach to the Part L Design Standards.

The simplest way of developing a lighting design that needs the criteria of Part L is to ensure that every luminaire/light source in the specification meets the Standards, especially when looking at non-domestic properties. The problem with this approach is that it can run counter to the stated aims of the **CIBSE lighting design Codes of Practice.**

For example, the Introduction to CIBSE Lighting Guide 7: Office Lighting states:
'Even the most dedicated office worker looks up from his or her work from time to time, and when they do they need to see an interestingly lit office space ... '.

To achieve an 'interestingly lit office space' may need more than an installation where every luminaire is 100% compliant with the Part L Design Standards. That is why every performance figure given relates to average efficacy across the installation. Specifies who choose to ignore the importance of designing a degree of humanity into the built environment do us all a disservice.

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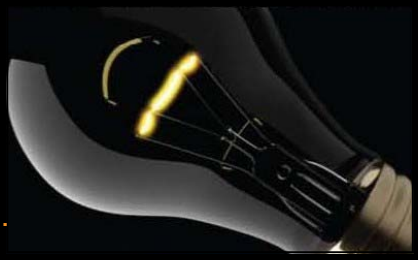

Quick Breakdown

Domestic Lighting Regulations

Internal Lighting

75% (3 in every 4) of fittings must be low energy = minimum 45lm/W & output of 400lm. (some LEDs, Fluorescents, Cold Cathode). Lights in cupboards and wardrobes cannot be counted as low energy
Retro-Fit Lamps can be used if they meet the requirements above
If a light is below 5W then it is not counted at all

External Lighting (Lights fixed to the outside of the building only)

Either

Max 100W
Must be operated by a PIR sensor
Must have a daylight control so that it only turns on when it is dark

Or

Fitting must be minimum 45lm/W (Retro-Fit Lamps can be used)
Must have a daylight control so that it only turns on when it is dark
Must have a switch to turn the lights off

Commercial Lighting Regulations

Office/Industrial/Storage Spaces
55 luminaire lumens/Watt (Lumens x LOR/Watts)

Other General Spaces (restaurants, shops, etc.)
55 Lumens/Watt

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