SDK RESSOURCEN INNOVATIOUN NOHALTEGKEET CIRCULAR ECONOMY

SuperDrecksKëscht®

ausgezeichnet von der EU-Kommission als ‚best practice'

SHOP GREEN !

LONG-LIFE AND ENERGY-SAVING LAMPS

GUIDELINES WITH USEFUL INFORMATION FOR BUYING LAMPS

CHOOSE THE RIGHT LIGHTING

Further information on :

www.shop-green.lu

Shop Green
SuperDrecksKëscht®

Choosing the right lighting is getting increasingly difficult for consumers. The guidelines should assist you with this choice.

When buying lamps, watch out for the label „Shop Green“.

These products last longer and consume less energy as other lamp types.

- **recommendations for use**
- **product related criteria**
- **list of recommended products**
- **participating shops**
- **... and more**

WATT, LUMEN, ENERGY EFFICIENCY CLASSE, ...

WHAT IS BEHIND THIS ?

Further information on :

www.shop-green.lu

Form of lamps

Lamps exist in a large variety of forms and sizes, for instance in pear shape or candle shape. In addition there are reflectors or spotlights.

Sockets

High-voltage LED lamps (220 V) come with E27, E14 or GU10 sockets.

Low-voltage lamps come with GU5.3 and MR11 sockets.

Energy consumption (W) and energy efficiency

Energy consumption of lamps is calculated in Watt (W). A high watt number means high energy consumption and hence high energy costs.

The EU energy label shows the energy efficiency class of the lamp (or of another electrical appliance).

Lumen (lm)

The brightness of lamps is measured in Lumen (lm). A bright lamp has a high lumen number. This unit denominates the quantity of light, a light source will provide in all directions.

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WHAT IS BEHIND THIS ?

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Lifetime

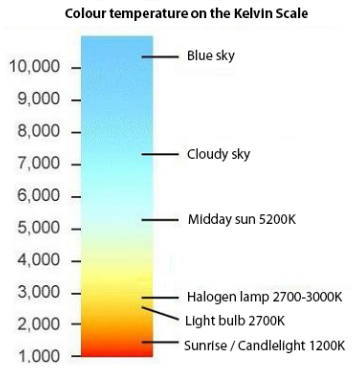
Producers provide the average lifetime of lamps in years or hours. LED lamps can reach a lifetime of 50,000 hours and more, normal light bulbs will last up to 1,000 hours.

Colour temperature (K) and colour rendering (Ra)

Colour temperature is provided in Kelvin (K) and shows if a lamp will generate a warmer, red light (about 2700 K) or a colder blue light (about 6500 K). Lower values correspond to a warmer light with a high proportion of red and yellow (light bulbs). Warm light is comforting and

calming while cold light is uplifting. For a

better understanding, producers use terms such as “warm white” or “daylight white”.



The colour rendering index Ra varies between 20 and 100 and provides how close the artificial light source is to natural sunlight. The

higher the index, the more the colours under the light correspond to the colours under sunlight. In summary, the higher, the better.

Further information

The packaging contains further information, for instance if the lamp can be dimmed and how many times in can be switched on and off (i.e. 20,000 switch cycles).

PAY ATTENTION WHEN USING LOW-VOLTAGE LEDS (12V)

Further information on :

www.shop-green.lu

Transformers are used to reduce voltage from 220 V - 230 V to 12 V.

To work correctly, some transformers require a minimum charge (i.e. electrical transformers).

When replacing halogen lamps with LED lamps, you have to make sure, the minimum charge of the transformer is reached. If this is not the case, LED lamps can work improperly or not at all. In the worse case, a short circuit or destruction of the lamp and the transformer are the results.

Thus, make sure your lamps are compatible with the transformer. Special LED transformers provide a continuous voltage, which is important for low-voltage LEDs to guaranty the lifetime of the product.

To avoid these problems, it is recommended to plan 220 V - 230 V spots in larger renovation works or new constructions.

LED Spots 12 V with GU5.3 - Sockets

LED Spots 230 V with GU10 - Sockets

CAN LEDS BE DIMMED OR NOT ?

Further information on :

www.shop-green.lu

Not all LED lamps can be dimmed. Check on the packaging if the lamp can be dimmed. The absence of such indication means the lamp cannot be dimmed and may not be connected to a dimmer.

In general you should check that dimmers have a rather low minimum capacity (i.e. about 20 W), as not reaching this minimum charge can cause flickering or interruptions. LED that can be dimmed can also generate a continuous buzzing.

Source: www.spar-helferchen.de

COOL LEDS - COOLING DOWN LED LAMPS

Further information on :

www.shop-green.lu

It is extremely important for LED lamps that the electronic parts have sufficient cooling. This may seem strange as LED lamps do not get as hot as light bulbs. However, inside the LED heat is generated which has to be evacuated from the appliance in order to avoid damage due to overheating. Most of the time, defects of LED lamps are not due to the lighting diodes but to a breakdown of the electronic parts (i.e. plug), which is frequently due to thermal overheating.

For this reason, LED lamps should have a sufficient cooling body made out of a heat conducive material (i.e. aluminium cooling or ceramic cooling body).

Source: www.spar-helferchen.de

LED lamps with sufficiently large cooling body made out of heat conductive material

LED TUBES

Further information on :

www.shop-green.lu

If you are using conventional ballast or low loss ballast, LED tubes can be powered without major changes with these ballasts. Only the starter has to be changed as provided in the instructions.

It is however recommended to remove or pass-by conventional ballast as else this will continue to consume electricity (5 – 20 W per ballast!).

If you are using electrical ballast, it is necessary to remove or pass-by this ballast and the lamp has to be connected as provided in the instructions.

Source: www.spar-helferchen.de

LED tubes

Shop Green products :

Shop Green
SuperDrecksKëscht®

RINSE-OFF PRODUCTS

SCHOOL AND OFFICE SUPPLIES

DETERGENTS AND CLEANING PRODUCTS

HYGIENE-PAPER PRODUCTS

BULBS (LAMPS) AND LUMINAIRE

RECHARGEABLE BATTERIES AND ACCESSORIES

PAINTS, LACQUERS AND GLAZES

The participating shops can be found on the SDK® homepage www. sdk.lu !

Attention: Also ecological products must be properly recycled or disposed of after use ! Information on www.sdk.lu

Shop Green
SuperDrecksKëscht®

LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Environnement, du Climat
et du Développement durable
Administration de l'environnement

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A SuperDrecksKëscht® campaign with its partners

ecotrel
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Also pay attention to the following sign, that indicates participating shops.

Nohalteg akafen

Shop Green
SuperDrecksKëscht®

Mir maache mat!
www.shop-green.lu

Geliefte Klimaschutz

Version française sur

Deutsche Version auf

www.shop-green.lu

ausgezeechent vun der EU-Kommissioun als 'best practice'

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