

LEDZED Benefits



The advantages of LED lights compared to a regular light bulb:

- LED lights save electricity. This decreases the emissions affecting global warming by decreasing the need for energy production
- LED lights save money. They last up to 100 000 hours. Even if you use the LED round the clock you'll get more than 10 years of light!
- No more troublesome light bulb changes. A great attribute especially if your lamps are in inconvenient places.
- When the LED has finished its job they just fade out instead of dying completely.
- LED lights produce just a fraction of the heat old lamps do so they can be installed in places where heat is harmful.

NB! LED lights will work the best in cold places. Hence in a sauna LEDs should be placed in the floor or under the seats.

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LED lights and the environment

The climate change is a serious challenge for the whole human race. It affects us all and demands quick global solutions. Concern for the climate change is valid. The continental ice sheets are melting, rainforests are vanishing, carbon dioxide emissions are increasing and toxic waste piles up.

The climate change is partially a consequence of the actions of us humans. For example the traffic, the energy production, some industry processes, the heating of houses, the waste management, and the agriculture and forestry add to the emission of greenhouse gases. In addition to human input they are generated among other things in wildfires and volcanic eruptions.

The climate change can be prevented in many ways. Technology and its development are in a key position. According to a research the United States could save 24,184.4 Million Watts just by getting every person in the country to change one single regular light bulb for a LED light. This would make it possible to shut down multiple nuclear power plants.

The prevention of climate change is becoming an important marketing concept. Many big organizations have made climate change a way to boost their image and brands. The prices of ecologically durable products are brought down. Soon the product descriptions include the amounts of emissions the product deliveries of the organization produce. Some chains of stores have said that they will produce no more emissions by the year 2012. The chains are going to cut down 25 per cent of their energy consumption. One way to achieve this is by changing to LED lighting.

LED lighting is Your opportunity to save the world! By changing to LED lighting you'll save energy and decrease carbon dioxide emissions. LED light only spends one tenth of the electricity old light bulbs do. LED lights don't contain mercury and hence they don't add to the toxic waste load.

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Savings

The LED lights use only one tenth of the energy that regular light bulbs do.

This saves a lot of money in the long run.

Below is an assessment of the lifetime savings of a LED light.

A 7 Watt LED light equals to a 60 Watt light bulb. This adds the energy savings up to 53 Watts (60W – 7W).

When the price of electricity is 0.1 euros / kWh and the lifetime of a LED light is 50.000 hours, the savings add up to:

- $1 \text{ LED-light} \times 53 \text{ W} \times 0,1 \text{ €} \times 50.000 \text{ hours} = 265 \text{ €}$
- $10 \text{ LED-light} \times 53 \text{ W} \times 0,1 \text{ €} \times 50.000 \text{ hours} = 2.650 \text{ €}$
- $100 \text{ LED -lights} \times 53 \text{ W} \times 0,1 \text{ €} \times 50.000 \text{ hours} = 26.500 \text{ €}$

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A few examples of the savings of corporate customers

The use of lights in a hotel:

- 1000 regular 60 Watt light bulbs
- 2000 regular 40 Watt halogen lights
- 1200 fluorescence tubes 60cm in length
- 600 fluorescence tubes 120cm in length

Let's assume the customer uses the lights for about 20 hours a day.

By replacing the regular light bulbs with custom made LED lights the customer saves 349.318 euros per year.

The payback time for the LED light investment is approximately 1.6 years.

After this period every year will generate the customer a profit of 349.318 euros.

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The use of lights in a shopping center:

- 5000 regular 60 Watt light bulbs
- 5000 regular 40 Watt halogen lights
- 10 000 fluorescence tubes 150cm in length

Let's assume the customer uses the lights for about 16 hours a day.

By replacing the regular light bulbs with custom made LED lights the customer saves 611.712 euros per year.

The payback time for the LED light investment is approximately two years.

After this period every year will generate the customer a profit of 611.712 euros.

The calculations do not include the expenses coming from light bulb changes during the lifetime of a LED light or the possible rise in the price of electricity.

Values are based on the lifetimes of light bulbs and LED lights given by the manufacturer.

The electricity price is the average price in Finland.

Our catalogue and examples of places to illuminate with LED lights