



«Give light and people will find the way» Ella Baker



# LIGHTING AND ENERGY SAVING

#### LED.

Three letters that will change the lighting of the world.

In 2008, the Joint Research Centre, JRC (Joint Research Centre of the European Commission) estimated that lighting is responsible for about 8, 9 % of total primary energy consumption in the world and it is the cause of the emission of about 1,900 million tonnes (Mt) of CO2 into the atmosphere each year.

The electricity demand for lighting is growing around 2.1% annually, and consumptions are the highest in the United States and in Europe. The residential and the commercial sectors are responsible for about 75% of total electricity consumption for lighting, followed by the industrial sector with around 18%.

#### Illuminating means consuming energy and thus spending money.

Consumption, quality and quantity of light output may considerably vary depending on the type of lamp you choose to install. More than about consumption, however, it is advisable to talk about **efficiency**; i.e. the luminous efficiency of a conventional light bulb.

The European Union since 2009 is constantly **improving the energy efficiency standards** by encouraging the use of lighting devices with low consumption and more eco-friendly, such as LED.



# **BENEFITS OF LED**

- Long-life in contrast to traditional lighting: 50.000-100.000hrs (LED) performance, with a radical decrease in technology maintenance costs;
- High Energy Efficiency: over 60% increase in light energy savings. Compared to traditional incandescent bulbs the saving achieved by using LED lighting is about 93% compared to halogen lamps up to 90% compared to metal halide lamps 70% compared to fluorescent lamps 66%;
- High safety: LED contains silicon powder, it does not contain harmful gases to the health and has no toxic substances such as lead, nitrogen and mercury; there are no UV and I.R emissions.
- Low-Voltage: with low heat emission: LEDs are supplied at low voltage; maximum efficiency even at low temperatures. You can install LEDs in contact with plastic, wood, and all those materials that don't tolerate excessive heat. The saving in air-conditioning a very enlightened room can be considerable;
- High luminous efficiency: immediate ON/OFF switching, not flickering, compact light source with precise beam control of the light emitted. Excellent colour rendering.
- Application on various lighting solutions due to its adaptability.





LED technology offers many advantages: LEDs generate virtually no heat and consume little electricity (90% less than incandescent bulbs), they have good colour rendering properties, can easily be dimmed, and with a service light of up to 50,000 operating hours, provide lighting for nearly the full lifetime of a store/business area.

The common tungsten filament bulbs turn into light only 10% of the energy absorption, whereas the energy-saving fluorescent ones reach at most 25%; the remainder is converted into heat.

In the worst case scenario ,i.e. with gas-discharge lamps (or lamps that have reached the end of the service life, used in sports facilities and street lighting), the ratio is about 1/3. Assuming a lighting system with a 30W performance and equal output, a LED device would consume instead only 10W. Compared with the filament lamps the ratio increases to 1/10;

Assuming a 100W consumption, a LED light would require instead 10 W.

# **Reflexion Italia Srl**





**Reflexion Italia Srl.** *Better lighting with less energy consumption.* 

The **Reflexion Italia Srl** continues to develop multiple applications of LED technology and it was one of the first companies to believe in this technology.

Reflexion Italia Srl products have entered the market with the best quality/price ratio; customers may observe substantial savings on electricity bills and on maintenance costs of installed products. Thanks to services and products specifically designed for each necessity, Reflexion Italia Srl aims to demonstrate widespread the effectiveness and importance of adopting **energy efficiency policies**.

Reflexion Italia Srl always delivers the best service to its customers and a team of technicians is always available to answer specific questions in each technical field and to find the most suitable lighting solution for each project.



## **BRANCH OFFICE**

#### OUR MISSION.

To conduct research on, develop widespread LED technology and its innumerable benefits.



#### Reflexion Italia S.r.l.

The company markets LED technology and lighting branded Reflexion and RL on the Italian market. It is an exclusive dealer.



# MANAGEMENT





## PRODUCT CATALOGUE







CE



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### COMMERCIAL USE Some of our products







### **INDUSTRIAL USE** Some of our products



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### SERVICES





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- Current lighting plan survey (lighting problems feedback, evaluation of visual comfort and legal requirements);
- Lighting calculus and proposal for a new lighting plan that includes the saving of consumption and greater visual comfort; possibility of developing a three-dimensions simulation of the existing layout;
- Detailed calculation on customized payback time (return on investment) according to customers' demands;
- Technical support services in accordance with costumers' needs;
- Collaboration with ESCo companies (*Energy Service Company*) to obtain the TEE (*Energy Efficiency Certificates*
- Installation and assembly.









### REFERENCES

Some of our customers

A.S. Roma Store Agenzia delle Dogane Albasider SpA Banca D'Italia Beckers Group BT Italia Bloomberg TV Bmw Italia Bosch Group Italia Aresi SpA Bosch Group Italia VHIT SpA Bosch Rexroth BT Group

Carrefour Italia Epson Italia Esselte Essere e Benessere Fater Ferrero-Pozzuolo Martesana Forte Chance Giuso Guido SpA Gruppo Pelizzari Hypromat Italia – Aquarama Intesa San Paolo Invidiauomo Srl

Mont Blanc Ospedale Fatebenefratelli Ospedale San Luigi Photovoltaic Systems Questura di Como Saloon Service **STMicroelectronics** Telecom Italia SpA *Torre Expo 2015* Trenitalia SpA Unicredit Yamaha





Belmonte



Giuso Guido SpA



*STMicroelectronics* 



Agenzia delle Dogane



Bosch Rexroth



Bosch Group Italia Aresi SpA





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