Lighting up our world

Light and lighting
ISO/TC 214 applies to lighting in specific cases, complementing the work of the International Commission on Illumination (CIE). 16 joint ISO/CIE standards have already been published.

Since Thomas Edison’s incandescent light bulb in the 1880s, artificial light has become of primary importance to human activity.

Optics and photonics
ISO/TC 172 develops, for example, standards for laser systems for medical applications.
Did you know “laser” means Light Amplification by Stimulated Emission of Radiation!

By 2020, LED lighting will represent 60% of the lighting market.

Photography
ISO/TC 42 applies to still picture imaging, both chemical and electronic.

From the daguerreotype, invented by Louis Daguerre in 1839, to the smartphone, the principle of photography is to create images through the action of light.

Fireworks
ISO/TC 164 reduces accidents, ensures the protection of employees and promotes the international fireworks trade.

China
40 million cartons of fireworks used

United States
8.5 million cartons used

European Union
9.5 million cartons used

Other countries
12 million cartons used

Solar energy
ISO/TC 180 deals with development, testing, installation and servicing of equipment and systems related to solar energy.

Solar photovoltaic systems

Solar thermal electricity

= 6 billion tonnes of CO₂ saved/year

Snow
reflects 80% of UV radiations

Sea foam
reflects 25% of UV radiations

Sand
reflects 15% of UV radiations

UNESCO celebrates 2015 as the International Year of Light. Light in all its forms, from sunbeams to lasers, to photographic devices, illuminates our daily lives, and plays a vital role in the development of today’s technological world. Whether natural or artificial, here’s what you should really know about light.

The speed of light in vacuum is exactly 299,792,458 m/s.

It takes sunlight an average of 8 min and 20 s to travel from the Sun to the Earth.

Cosmetics
ISO/TC 217 develops sun protection test methods to safeguard the skin from the damage of the sun.

66,000 deaths occur annually from melanoma and other skin cancers.