

Electric light

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Most of the industrialized world is lit by **electric lights**, which are used both at night and to provide additional light during the daytime. These lights are normally powered by the electric grid, but some run on local generators, and emergency generators serve as backups in hospitals and other locations where a loss of power could be catastrophic. Battery-powered lights, usually called "flashlights" or "torches", are used for portability and as backups when the main lights fail.

Types

Types of electric lighting include:

- incandescent light bulbs
- arc lamps
- gas discharge lamps, e.g., fluorescent lights, neon lamps, modern photographic flashes
- lasers
- light-emitting diodes, including OLEDs
- sulfur lamps

Different types of lights have vastly differing efficiencies. [1]

Name	optical spectrum	nominal efficiency (lm/W)	Lifetime (MTBF) (hours)	Colour temperature (kelvins)	Colour	Color rendering index
Incandescent light bulb	Continuous	12-17	1000-2500	2700	Warm white (yellowish)	100
Halogen lamp	Continuous	16-23	3000-6000	3200	Warm white (yellowish)	100
Fluorescent lamp	Mercury line + Phosphor	52-100	8000-20000	2700-5000*	White (with a tinge of green)	15-85
Metal halide lamp	quasi-Continuous	50-115	6000-20000	3000-4500	Cold White	65-93
Sulfur lamp	Continuous	80-110	15000-20000	6000	Pale green	79
High pressure sodium	broadband	55-140	10000-40000	1800-2200*	Pinkish orange	0-70
Low pressure sodium	narrow line	100-200	18000-20000	1800*	Yellow, virtually no color rendering	0

* Color temperature is defined as the temperature of a black body emitting a similar spectrum; these spectra are quite different from those of black bodies.

The most efficient source of electric light is the low-pressure sodium lamp. It produces an almost monochromatic orange light, which severely distorts color perception. For this reason, it is generally reserved for outdoor public lighting usages. Low-pressure sodium lights are favoured for public lighting by astronomers, since the light pollution that they generate can be easily filtered, contrary to broadband or continuous spectra.

Vendors

- GE Lighting
- Osram
- Philips [2]

Public lighting

The total amount of artificial light is sufficient for cities to be easily visible at night from the air, and from space. This wasted light should not be confused with the light pollution that burdens astronomers and others, although it is the source of it.



Human-made lights highlight particularly developed or populated areas of the Earth's surface, including the seaboard of Europe, the eastern United States, and Japan.

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