

IMPORTANT LIGHTING DEVELOPMENTS

1879

The first electric light bulbs are invented

1880

Some cities around the world have begun to install streetlamps

1880

Moontowers are used to brighten up cities at night

1897

Lights have begun to be used for public outdoor displays

1930

Increased sky glow in Rome makes their observatores unusable

1976

High-efficiency and high-brightness LEDs are invented

1988

The International Darksky Association is founded to preserve dark skies

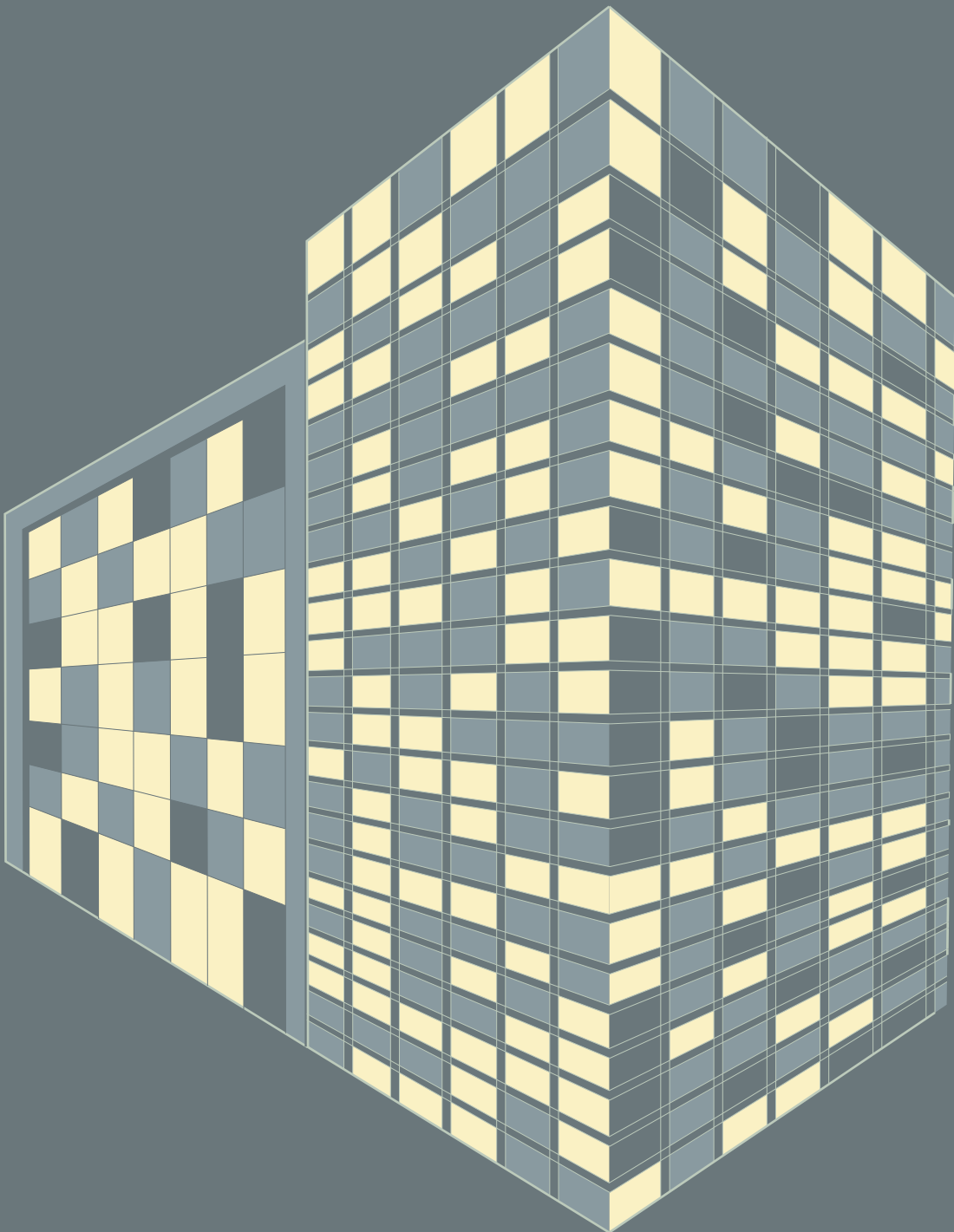
1995

The first white and blue LEDs are invented. LEDs become commonly used

Light Pollution

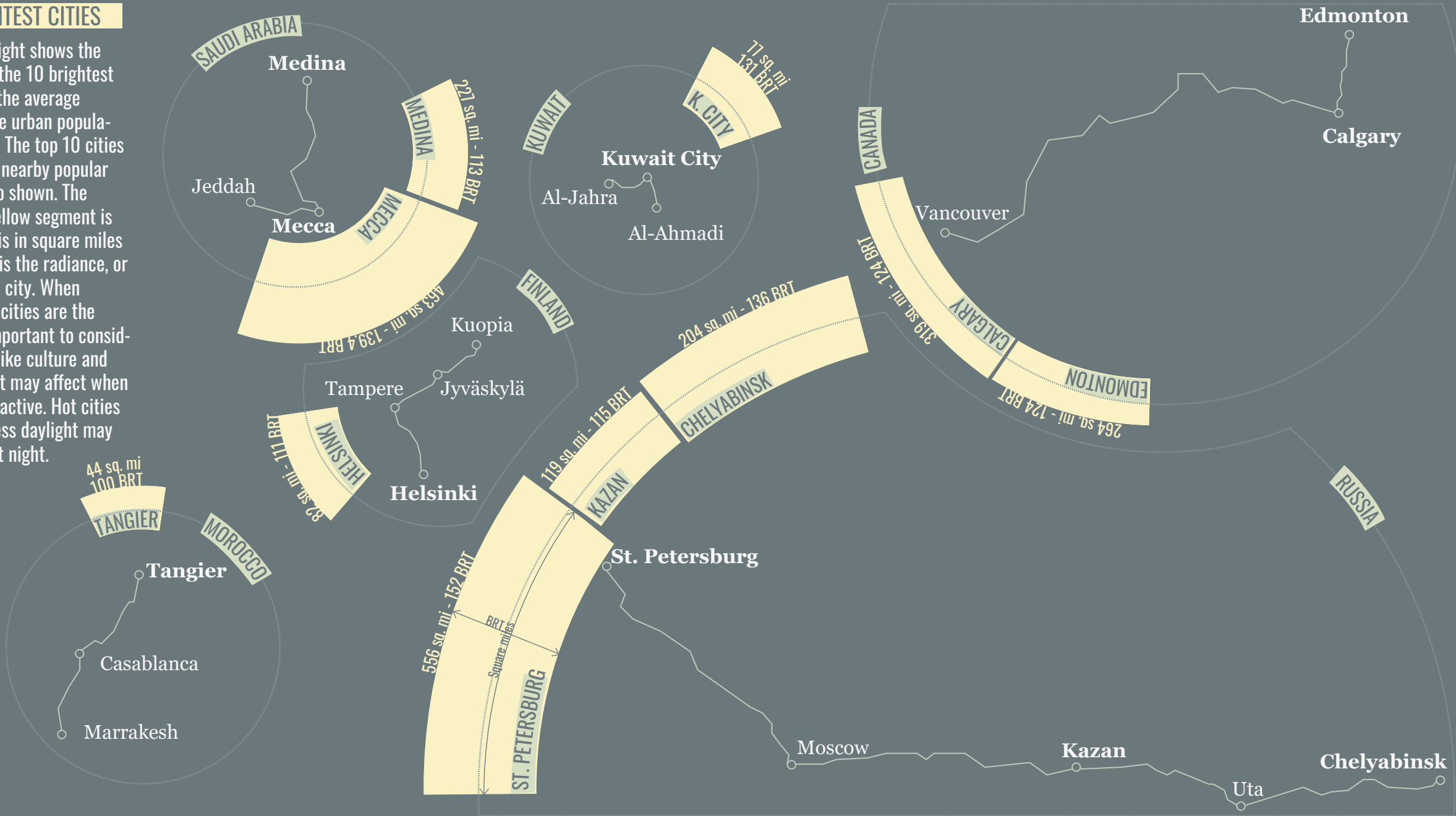
Light pollution is excessive, misdirected, or obtrusive artificial (usually outdoor) light. Too much light pollution has consequences: it washes out starlight in the night sky, interferes with astronomical research, disrupts ecosystems, has adverse health effects and wastes energy.

- From **Globe at Night**

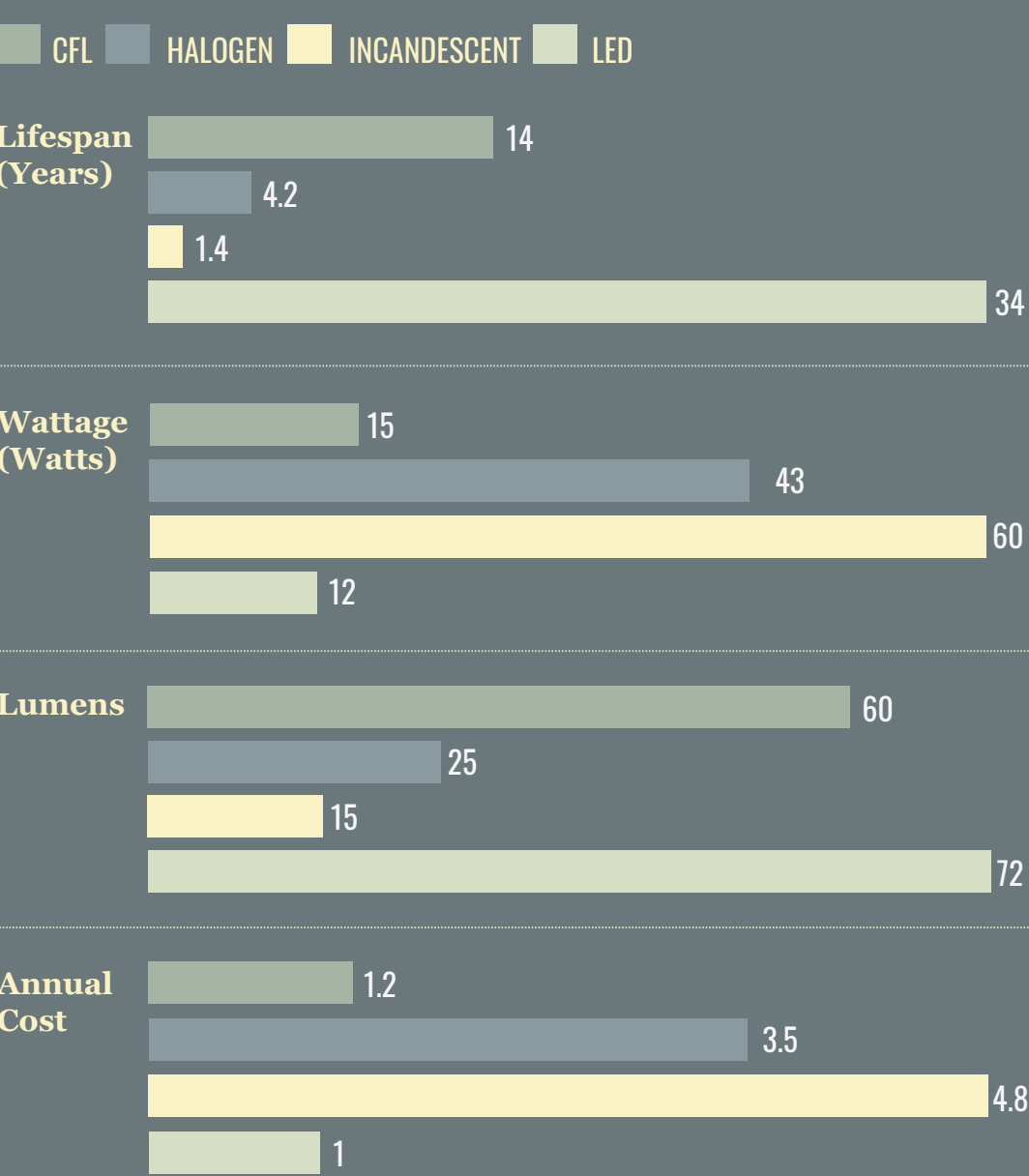


THE 10 BRIGHTEST CITIES

The map to the right shows the countries where the 10 brightest cities (based on the average brightness for the urban population) are located. The top 10 cities are bolded while nearby popular locations are also shown. The length of each yellow segment is how big the city is in square miles while the height is the radiance, or brightness of the city. When looking at which cities are the brightest, it is important to consider other factors like culture and temperature, that may affect when people are more active. Hot cities and cities with less daylight may be more active at night.



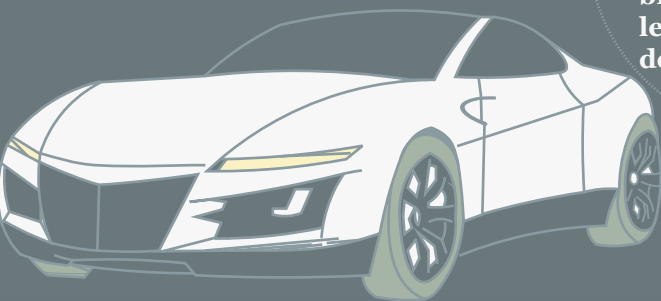
CHOICE OF BULB MAKES A DIFFERENCE



LIGHT POLLUTION SIDE EFFECTS

Light Pollution can affect the way humans and animals function. In humans, it can cause changes in health while it can cause animals to be less aware of their senses and surroundings. The **three main types** of light pollution are glare, skyglow, and light trespass. They are caused by the different **light sources** people use. Side effects are close to similar side effects. They are also close to the light source they are most caused by, while some are in the middle if they are affected by more than one light pollution type.

- Light Pollution Type
- Effect on Animals
- Effect on Humans



When light enters into a room or space unwanted. This can occur when a car's light beams enter a sleeping person's room or lighting from other buildings leaks into other rooms or nearby buildings

Too much light prevents the production of melatonin, which is needed for sleep, affecting our biological clock. This leads to sleep disorders and anxiety

Excessive levels of electrical light have been linked to certain types of cancer. The temperature (color) of light can also have an affect on these diseases

A combination of unshielded and reflected lights in a city or town. Causes a glow, similar to a viel, that can extend beyond the direct area. Typically looks like an orange glow during the night

Due to changed migratory patterns, animals may migrate during times they are not used to, putting them in more dangerous situations

Because of the changing interactions with animals and the environment (changed migration), animals can change over time to adapt

Since migratory patterns and active hours may change for animals, they may come across new prey or predators

Glare from lights can spread across the eye. This damages aged eyes, and causes eyes to age. It can also make it more difficult to see dark areas after light exposure

The excess light coming from unprotected lighting, for example, the headlights from cars. This can hit a person's eyes harder since there is more of a spread when this light hits

REDUCING LIGHT POLLUTION: LIGHT SHIELDING

One big step in lighting that can either reduce or contribute to light pollution is the amount of shielding, by determining the amount of excess light. Below are some examples of shielding.



The visual language and typography of this infographic was emulated from the infographic "Piu Veloce Dell'aereo" by Francesco Franchi

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The color of this infographic was emulated from the infographic "Wind Energy" by Ali Borowsky
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The layout of this infographic was emulated from the infographic "sol-itudeine, il destino della terra " by Francesco Franchi

https://thumbnails-visually.netdna-ssl.com/solitudine-il-destino-della-terra-solar-power-the-fate-of-the-earth_50290b19333af_w1500.jpg

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