

What is Light Pollution



Light pollution

is the excessive or inappropriate use of outdoor artificial light. It is affecting human health, wildlife behavior, and our ability to observe stars and other celestial objects.



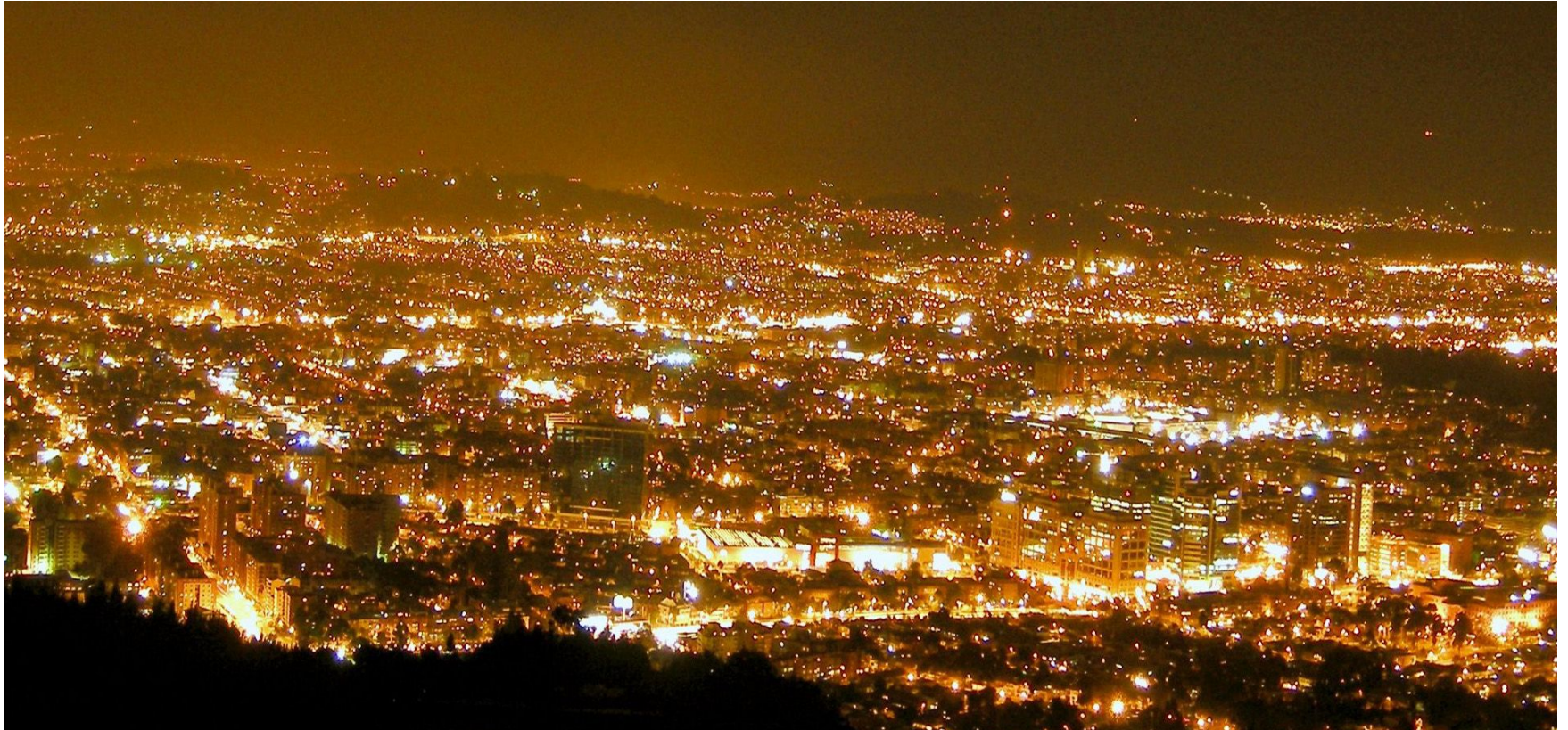
Before the invention of the light bulb in 1879, cities became very dark at night, much like the rest of the natural world.

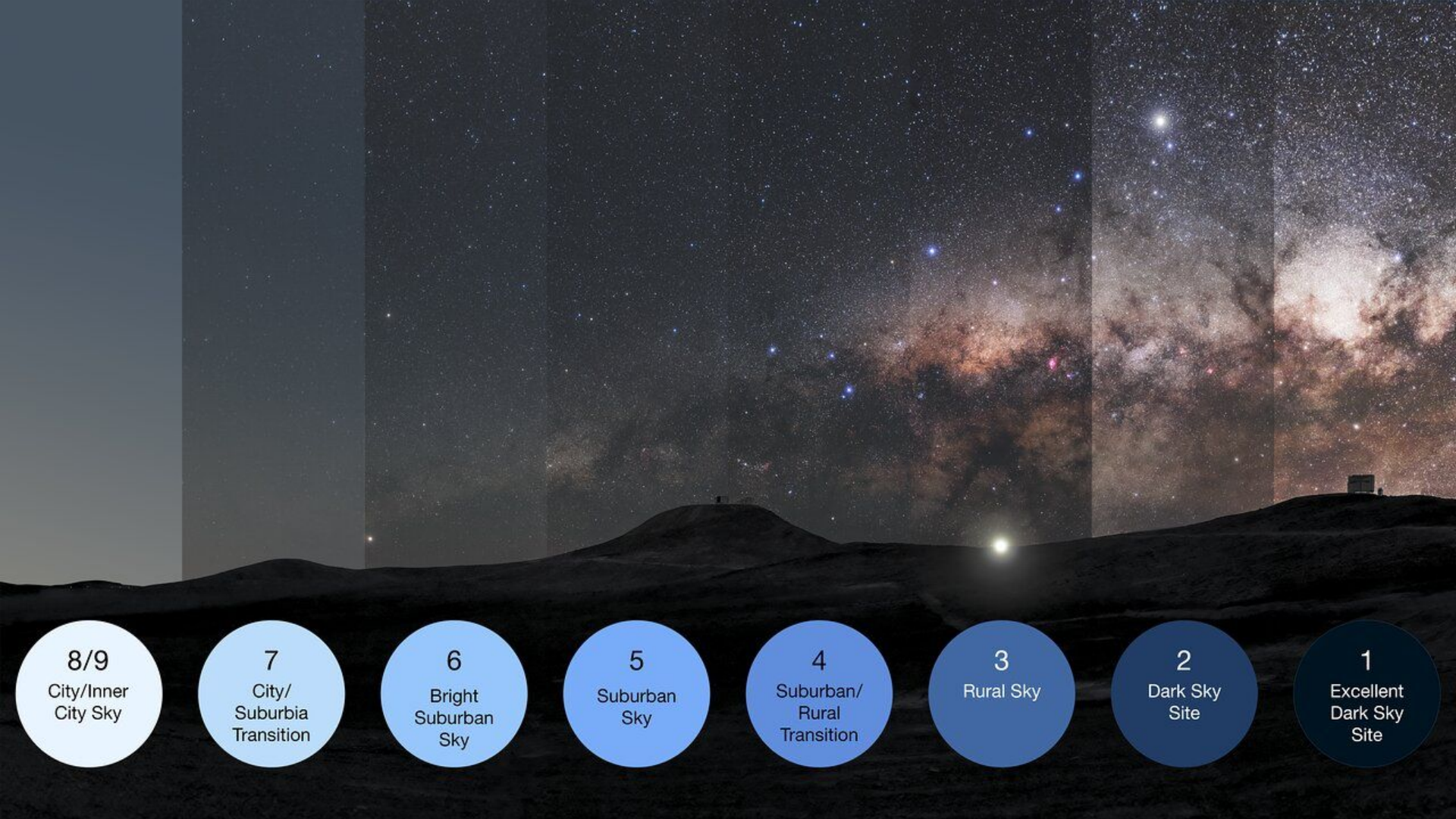


Over the past 150 years, cities have become brighter at night with increasingly bright and more efficient LED lights.



The glow of cities is reflected and scattered by the atmosphere above making stars invisible.





8/9

City/Inner
City Sky

7

City/
Suburbia
Transition

6

Bright
Suburban
Sky

5

Suburban
Sky

4

Suburban/
Rural
Transition

3

Rural Sky

2

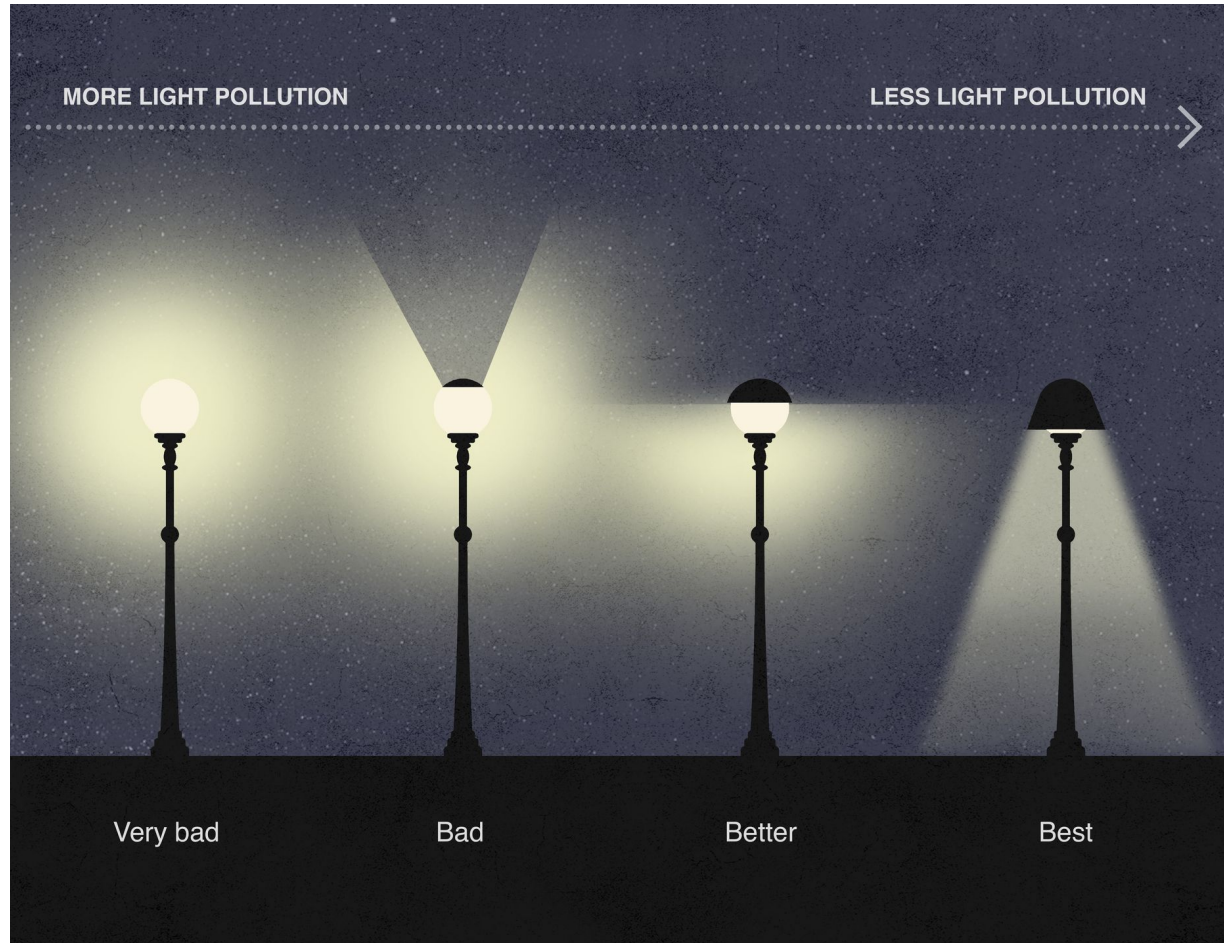
Dark Sky
Site

1

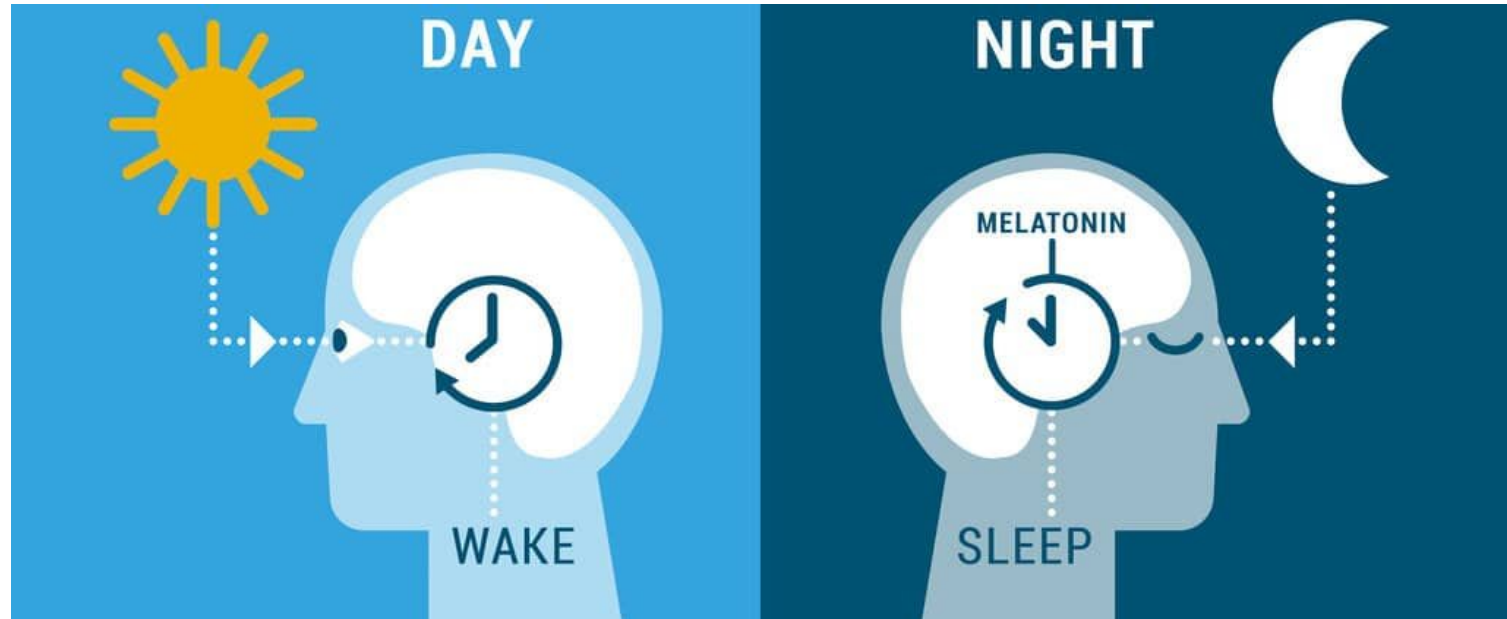
Excellent
Dark Sky
Site

Street Lamps

are the primary cause of light pollution. This source of pollution can be reduced by designing better lamps that shine light only where needed instead of in all directions.



Light pollution disrupts our **circadian rhythm** which is our body's 24-hour internal clock that regulates many body processes, including your sleep-wake cycle with brain chemicals such as melatonin. Light pollution may cause issues like insomnia, daytime sleepiness, and reduced productivity. Our lights also disrupts this rhythm in plants and animals near our cities.



Melatonin can also be reduced by the lights we use personally at night. The blue colored light from **computer** and **phone screens** can disrupt our brain signals causing sleep deprivation, fatigue, headaches, stress, anxiety, and other health problems. Recent studies also show a connection between reduced melatonin levels and cancer. It is advised to reduce screen time at night a few hours before sleeping.



For ourselves and for nature, we need to make an effort to **reduce light pollution**.

