

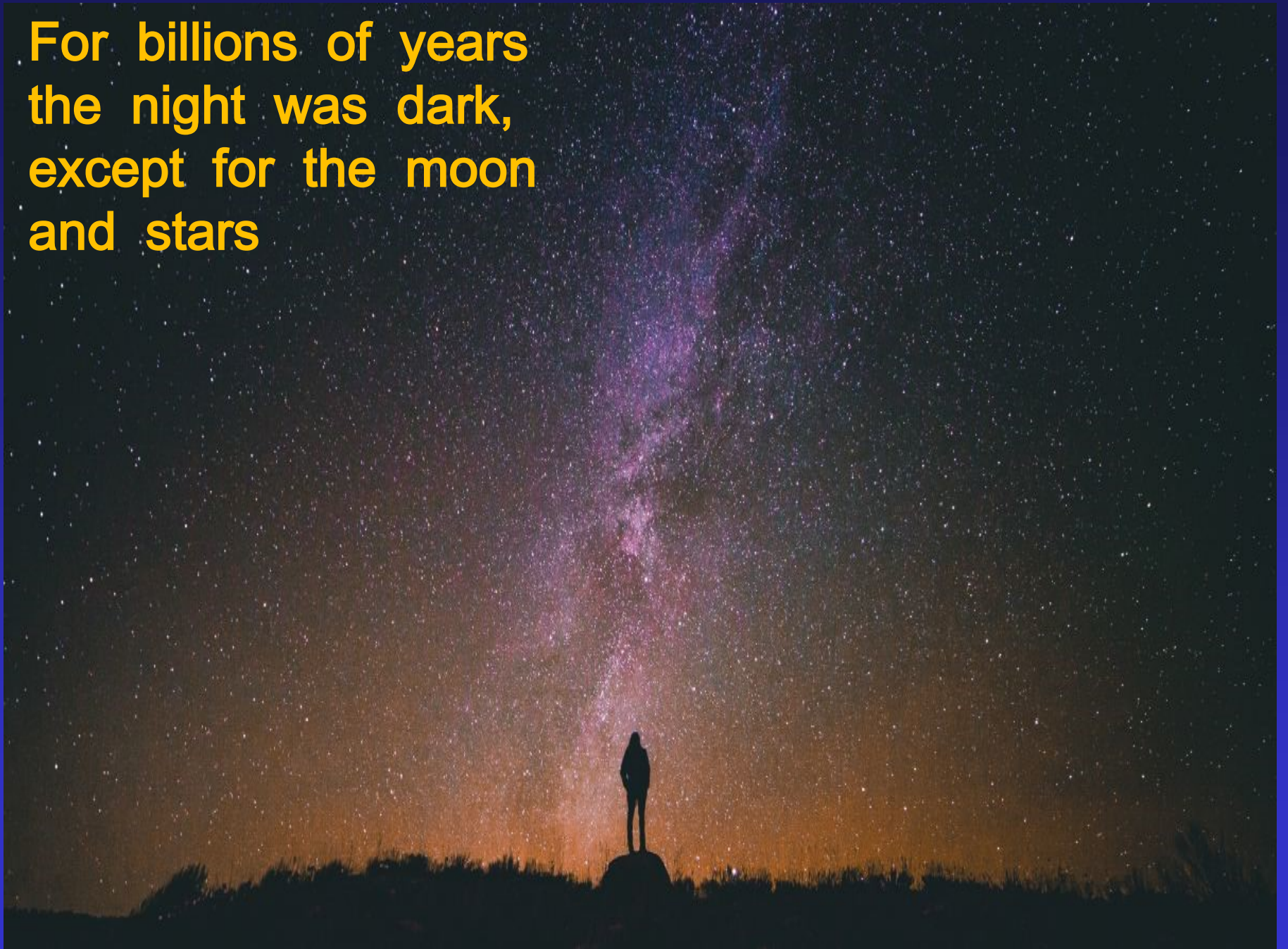


Strategies for Making...

Light Pollution the Issue In 2025

CT Association of Conservation & Inland Wetland Commissions
November 16, 2024

For billions of years
the night was dark,
except for the moon
and stars



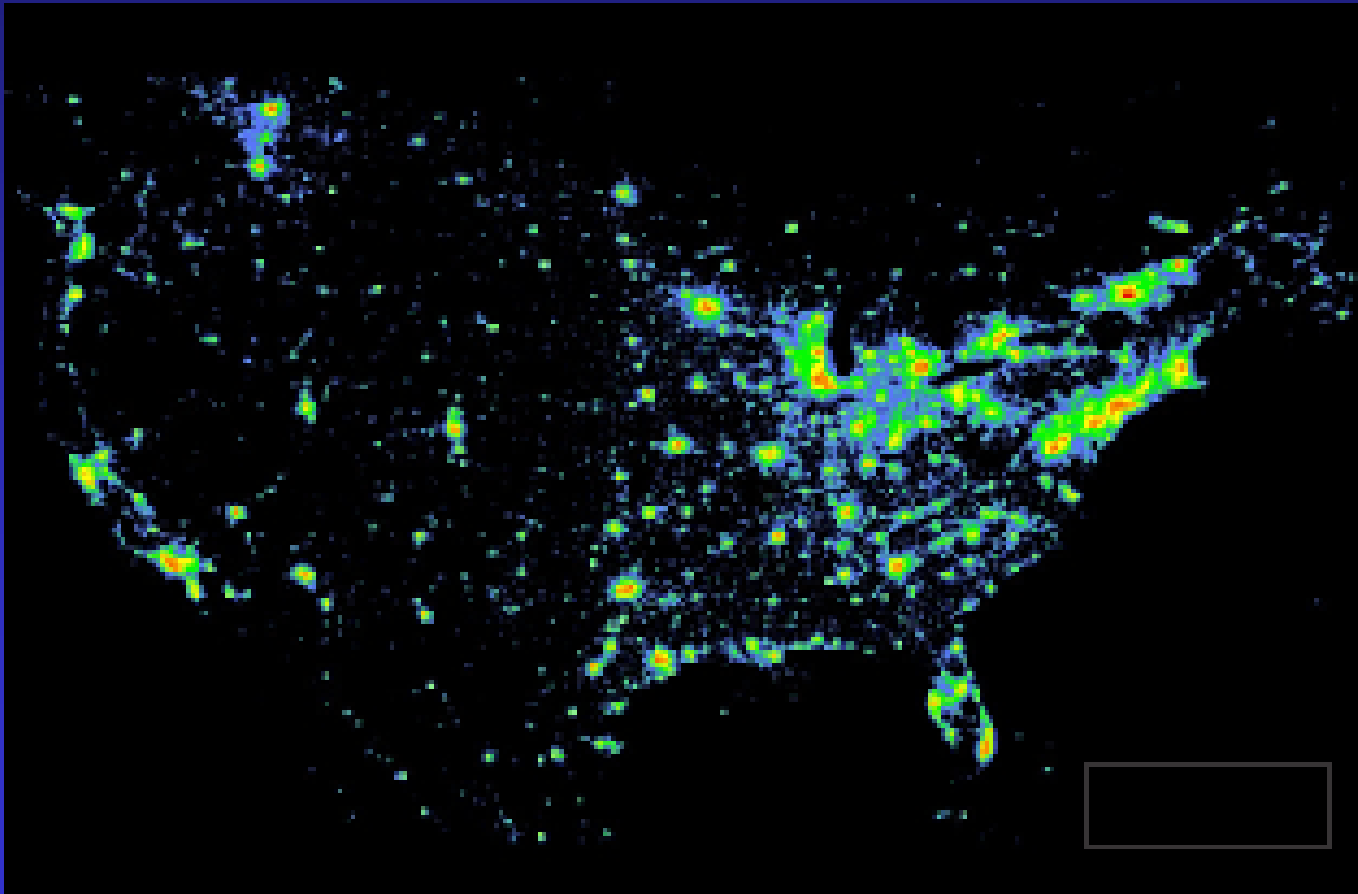
In 1879
the light
bulb is
invented...

That's only
145
years ago

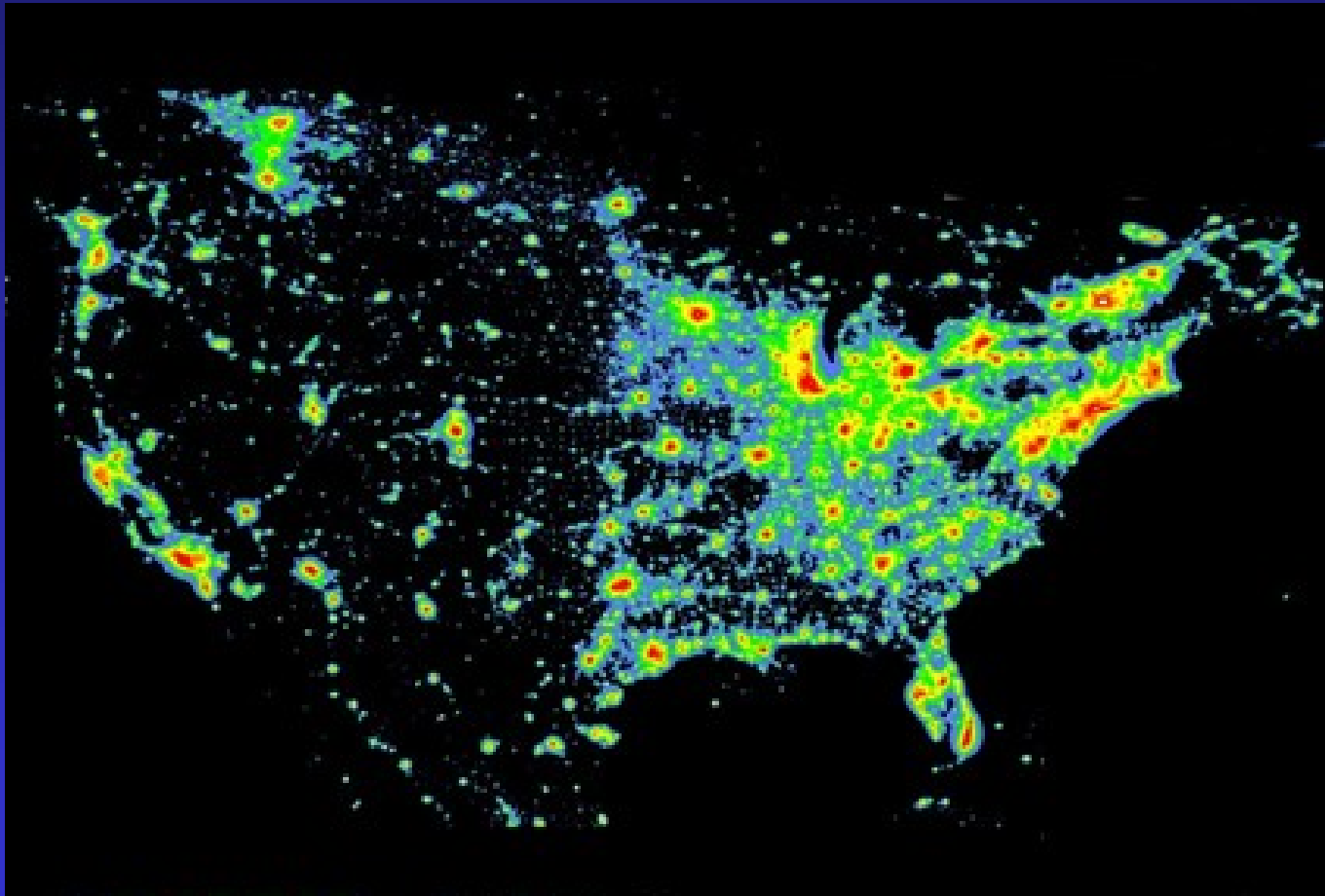


Artificial Sky Brightness Due to Light Pollution

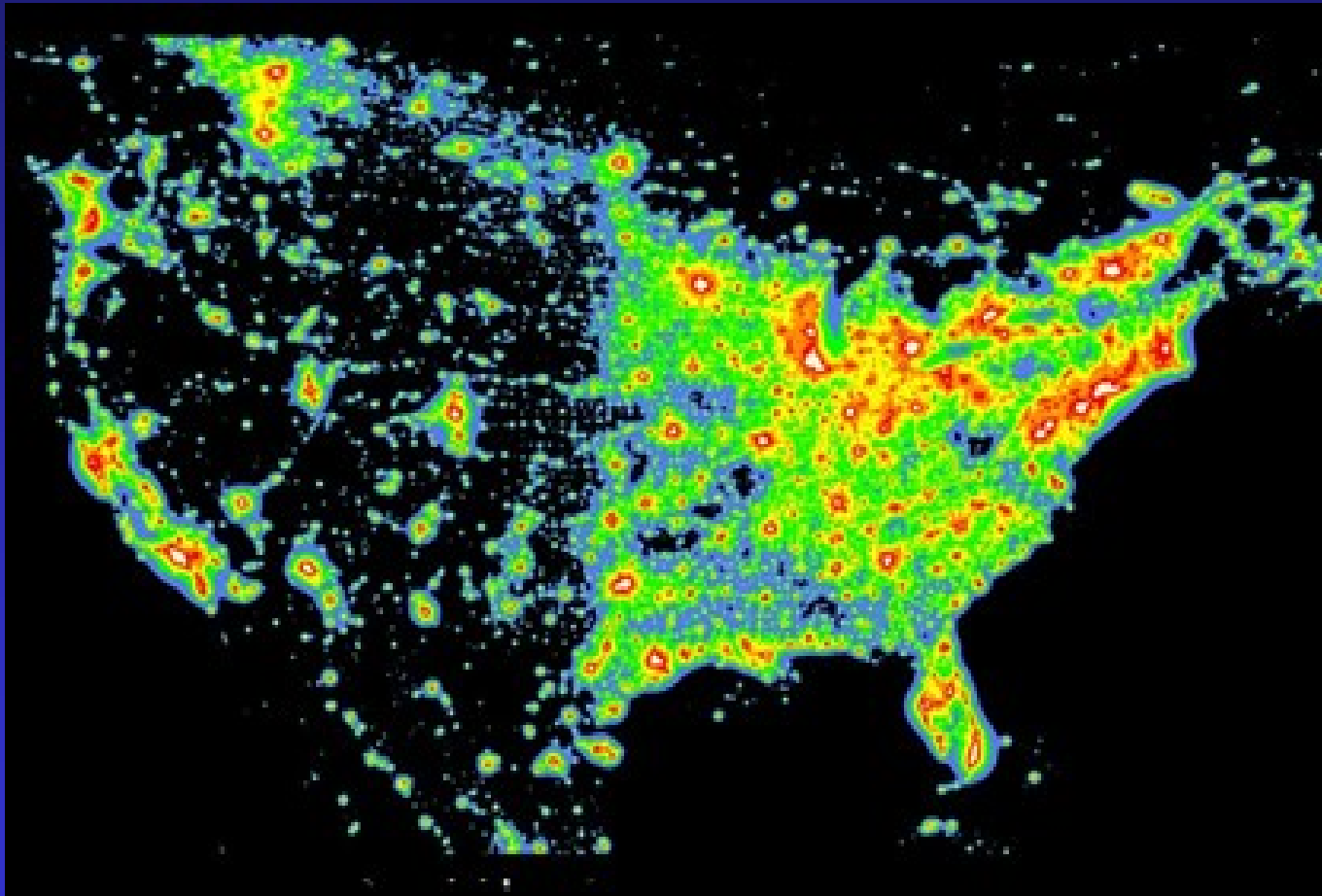
United States - 1950



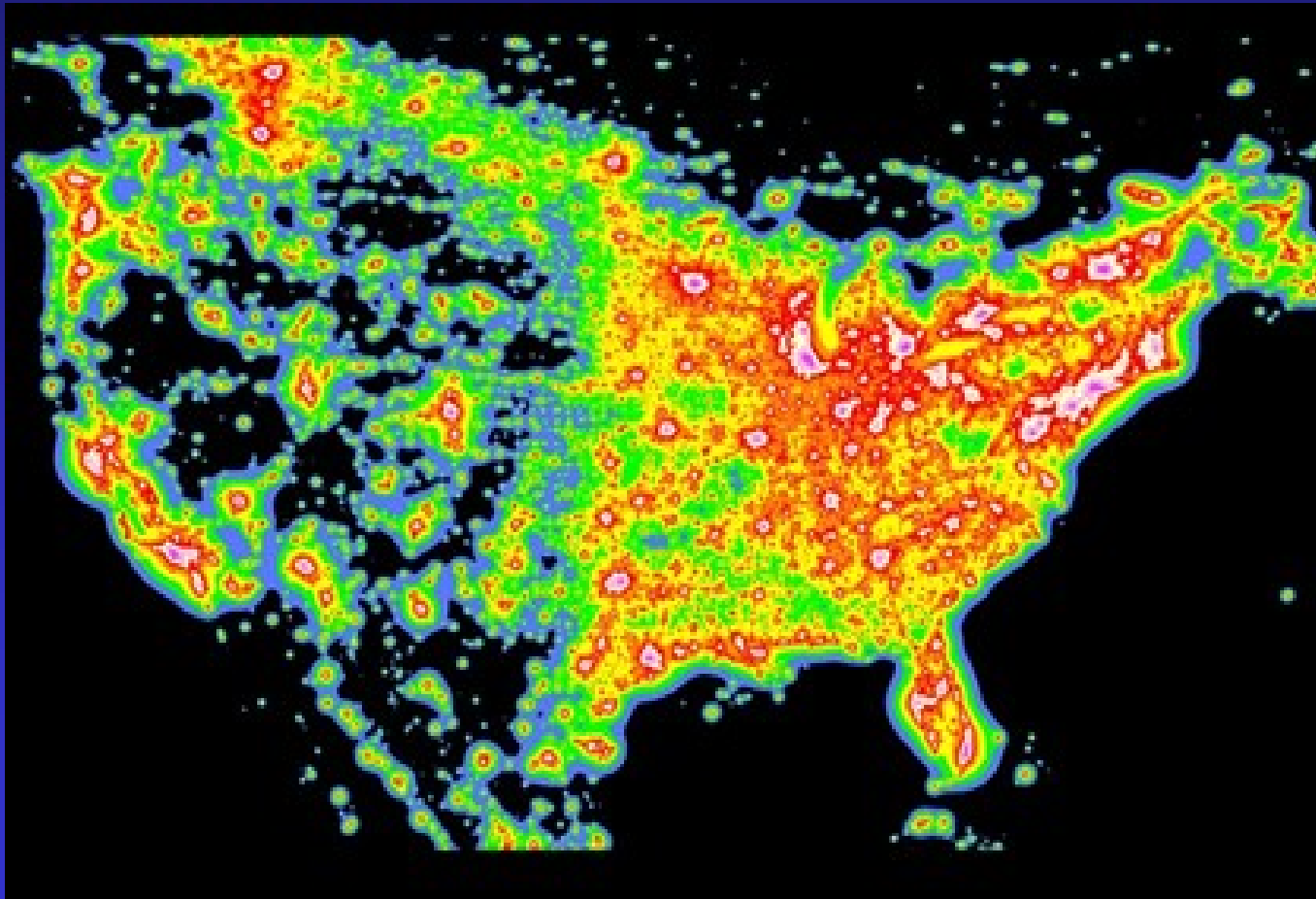
U.S. - By 1975



U.S. by 1997 – (No LEDs Yet)



U.S. by 2025, Projected (about 20 Years after LEDs)



Five Principles for Responsible Outdoor Lighting

LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting



Illuminating
ENGINEERING SOCIETY



DarkSky

USEFUL



ALL LIGHT SHOULD HAVE A CLEAR PURPOSE

Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.

TARGETED



LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED

Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.

LOW LIGHT LEVELS



LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY

Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.

CONTROLLED



LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.

COLOR



USE WARMER COLOR LIGHTS WHERE POSSIBLE

Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

Connecticut's State Building Code Light Pollution Control Amendment (2004)



**State Building
Code Applies
To All Exterior
Lighting for
Commercial
Property:**

**Parking and
Area Lighting
Must be Full Cutoff**





International Energy Conservation Code (IECC) – For Commercial Buildings Part of Connecticut State Building Code

C405.2.7.2 Building facade and landscape lighting

Building facade and landscape lighting

must shut off 1 hour after business

closing

4 New Light Pollution Building Code Proposals for November 20, 2024 hearing

- **Limit Color Temperature to 3000K**
- **Lower Exemption to 1000 Lumens**
- **Eliminate Shielding Exemption for Lighting
Façades and water features**
- **Exempt only maximum of 150 lumen output
for Low Voltage Landscape Lighting**



Model Outdoor Lighting Regulations for Connecticut



Merunkatuck
Audubon
Society



LIGHTSOUTCT.ORG

Free Download

More Efficient Use of Streetlights

- **Advocate for Adaptive Roadway Lighting**

From 11 PM until 6 AM, streetlights either

a) turn off, or

b) reduce output by 50%

Adopt A Streetlight Master Plan

Identify where streetlights are necessary.

Turn some streetlights off after midnight.

Remove unnecessary streetlights

The Future Demise of Streetlight Technology

Within 20 years!

Vehicle-to-Everything (V2X)

\$60 million awarded in July 2024

**2036 Projected completion for V2X technology
to be embedded into 100% of the Federal
Highway System**

Top Initiative for 2025



Strategic Environmental Litigation

Ingredients for Successful Litigation

Connecticut Environmental Protection Act



+

**Connecticut Laws and Regulations to
Minimize Light Pollution**



+

History of Corporate Non-Compliance



Attorney – Still Looking



**In Connecticut 40%
of McDonald's Fail
To Comply with State
Building Code Light
Pollution Control
Requirements**

EVERSOURCE

Floodlights - trespass
as seen from property line
in violation of **143d (b)(4)**



**Almost ALL Utility Flood-
lights fail to comply with
Statutory Requirements**

End Goal:

Correct Connecticut Non-Compliant Lighting

**Develop and Implement Corporate
Policies for Responsible Outdoor
Lighting –**

Worldwide

CONTACT INFORMATION



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