



Dark Sky Policy:

Study Session

Fairfax Planning Commission, June 20, 2024

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What is Dark Sky?

- Light pollution reduction for night sky visibility
- Local governments: adopt light pollution regulations
- International Dark Sky Community certification v. light pollution reduction

Dark Sky Certification Minimum Requirements



- Comprehensive Lighting policy
- Full shielding of lights greater than 1000 lumens
- Light emission limits
- Over-lighting policy
- Regulation of new lighting installation
- Illuminated sign restrictions

Dark Sky Community

- Entitles the community to display logo
- Enhances awareness of dark sky matters for residents and visitors
- Encourages neighboring jurisdictions to apply dark-sky techniques
- Increases dark-sky tourism

Five Lighting Principles for Responsible Outdoor Lighting



Responsible outdoor lighting is

1 Useful

Use light only if it is needed

All light should have a clear purpose. Consider how the use of light will impact the area, including wildlife and their habitats.



2 Targeted

Direct light so it falls only where it is needed

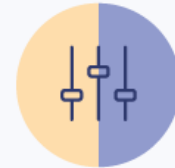
Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.



3 Low Level

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.



4 Controlled

Use light only when it is needed

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.



5 Warm-colored

Use warmer color lights where possible

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



Key Terms and Concepts

- Brightness of light
- Light color
- Shielding
- Dimming
- Curfew
- Timers
- Sky glow
- Light trespass
- Glare



Brightness



Brightness

2000K

3000K

4000K

5000K

6000K

7000K

8000K

9000K

10000K

11000K



Light Temperature and Lumens



Light Shielding



Light Shielding

Light Pollution

- Light pollution reduction for night sky visibility
- Local governments: adopt light pollution regulations
- International Dark Sky Community certification v. light pollution reduction

Regulatory Tools

- Zoning ordinance
- Public works standards
- Public education

Fairfax: Implement and Enforce

- Public streets and facilities
- Private property regulations

Areas of Controversy

- Lighting for safety v. light pollution
- Private property rights v. regulations that enhance the community
- Neighbor conflict
- Upgrade costs
- Enforcement difficulties

Ordinance Options

- Shielding requirements
- Rated color temperature
- Sign illumination
- Athletic field illumination
- Right of way lighting
- Residential lighting provisions
- Compliance methods

Next Steps

1. Commission formulates policy recommendation to Council
 - A. Streetlight policy (determine cost effective replacement policy)
 - B. Regulatory policy, mandatory versus voluntary approaches
 2. Town Council to discuss policy
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3. Ordinance updates
 - Commission recommendation
 - Council adoption
 4. On-going implementation
 - Education
 - Enforcement