



DarkSky

research.fairfaxcounty.gov/lot/light-pollution

# LIGHT POLLUTION MONITORING KIT

This kit contains resources to help you learn about and monitor light pollution near you. Light pollution is intrusive artificial (usually outdoor) light that can have negative consequences. The good news is that it's relatively easy to fix!



## WHY THIS MATTERS

Too much light pollution can wash out starlight in the night sky, disrupt human and animal sleep, interfere with ecosystems, result in adverse health effects and waste energy. The data you share through this project is used by scientists to monitor levels of light pollution.



## KIT COMPONENTS

- **Sky Quality Meter (SQM-L):** Hand-held meter for measuring sky brightness and instructions
- **Red LED Flashlight:** Designed to guide user to viewing areas without disrupting night vision or nocturnal animals
- **Planisphere (English and Spanish):** Rotating star finder to help you identify the constellation you'll need to find, based on the date
- **Globe at Night Data Entry Sheet**



## KIT INSTRUCTIONS

1. Go to [globeatnight.org/campaigns](https://globeatnight.org/campaigns) to see which constellations should be visible in the sky on the current date.
2. Begin your outdoors observation more than an hour after sunset, ideally when the moon is not up.
  - Bring the kit and a pencil (to fill out the data sheet).
  - You may also use your phone or tablet to access the web app directly at [app.globeatnight.org](https://app.globeatnight.org).
  - Allow your eyes to become adjusted to the dark for 10 minutes before your first observation.
3. Use planisphere to locate a visible constellation.
4. Record the constellation observed, date, time and location.
  - Make a note of location details and sky conditions.
5. Power on the Sky Quality Meter (SQM-L) and record the light magnitude number.
  - Remember: Don't face it directly at light, such as the moon or a streetlight.
  - The lower the number on the SQM, the higher the light pollution.
6. Submit your observation. If you used the paper sheet, enter your data at [app.globeatnight.org](https://app.globeatnight.org).
7. Turn off the SQM and flashlight and return all the materials to the kit, except the data sheet, which you can keep. Continue recording light pollution data as long as you have the kit.



## WHAT'S NEXT?

View data submissions (including your own!) at [globeatnight.org/maps-data](https://globeatnight.org/maps-data). You can continue to measure and report light pollution after returning the kit by using the magnitude charts found at [globeatnight.org/magnitude-charts](https://globeatnight.org/magnitude-charts).



## CONSTELLATIONS

During some of the Globe at Night campaigns, there will be more than one choice for which constellation is optimal to use, depending on your location. View information about the upcoming campaigns and the optimal constellations at [globeatnight.org/campaigns](https://globeatnight.org/campaigns).

# TAKE ACTION!

Visit the Fairfax County Park Authority Dark Skies website [fairfaxcounty.gov/parks/topics/dark-skies](https://fairfaxcounty.gov/parks/topics/dark-skies) and the International Dark Sky Association's website at [darksky.org](https://darksky.org) to learn more about impacts of light pollution and how you can make changes to reduce light pollution in your neighborhood!

### QUICK AND EASY TIPS INCLUDE:

- Turn off your outdoor lights before you go to bed.
- Change your bulbs to dimmer or warmer light.
- Add a timer or motion sensor to your outdoor lights.
- Update your light fixtures to ones that are shielded.

Show us your commitment to fighting light pollution in Fairfax County. Submit your action by scanning the QR code or visiting [fairfaxcounty.gov/parks/nature-history/watch-green-grow](https://fairfaxcounty.gov/parks/nature-history/watch-green-grow).

