

## Stella's Advice on - Binoculars for Night-sky Observing



**Sky Watching with binoculars** - Naked eye is the best way to start observing the night sky. But, once you are oriented to the constellations and have taken in the awesome reality of the thousands of stars revealed in a naturally dark sky, binoculars can open a whole new vista.

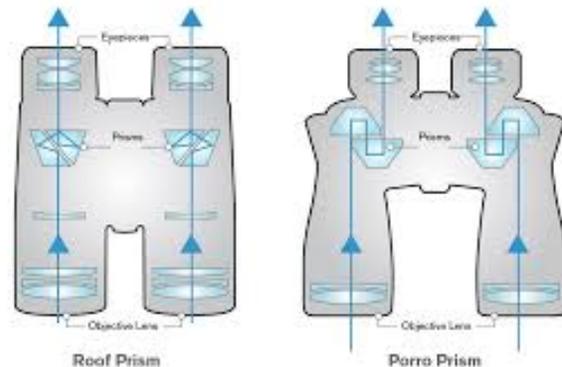
Binoculars are usually described by two numbers, such as 7X35. The first number is the magnification and the second the aperture. In this terminology the human eye is 1X7. A 35mm binoculars takes in twenty-five times as much light as the human eye. In sky watching more light is important.

In most cases, focus the left eye with the focus knob, then the right eye by twisting the right eyepiece and then adjust the width to fit your eye-separation. People with astigmatism will want to wear their glasses, while others can focus without glasses. Once set, start scanning the

Milky Way looking for open clusters, larger globular clusters, Jupiter's moons, and even a few galaxies can be seen under a dark sky with binoculars.

**Selection** - Stella's good friend, Robert Togni, an Astronomical League Master Observer and author of ANSA's [Learn the Constellations booklet](#), offers the following advice for selecting binoculars for sky watching:

Roof prism binoculars are compact, but the porro prism design lets more light through and are less expensive, but use what you have. Some other considerations are:



*Celestron.com*

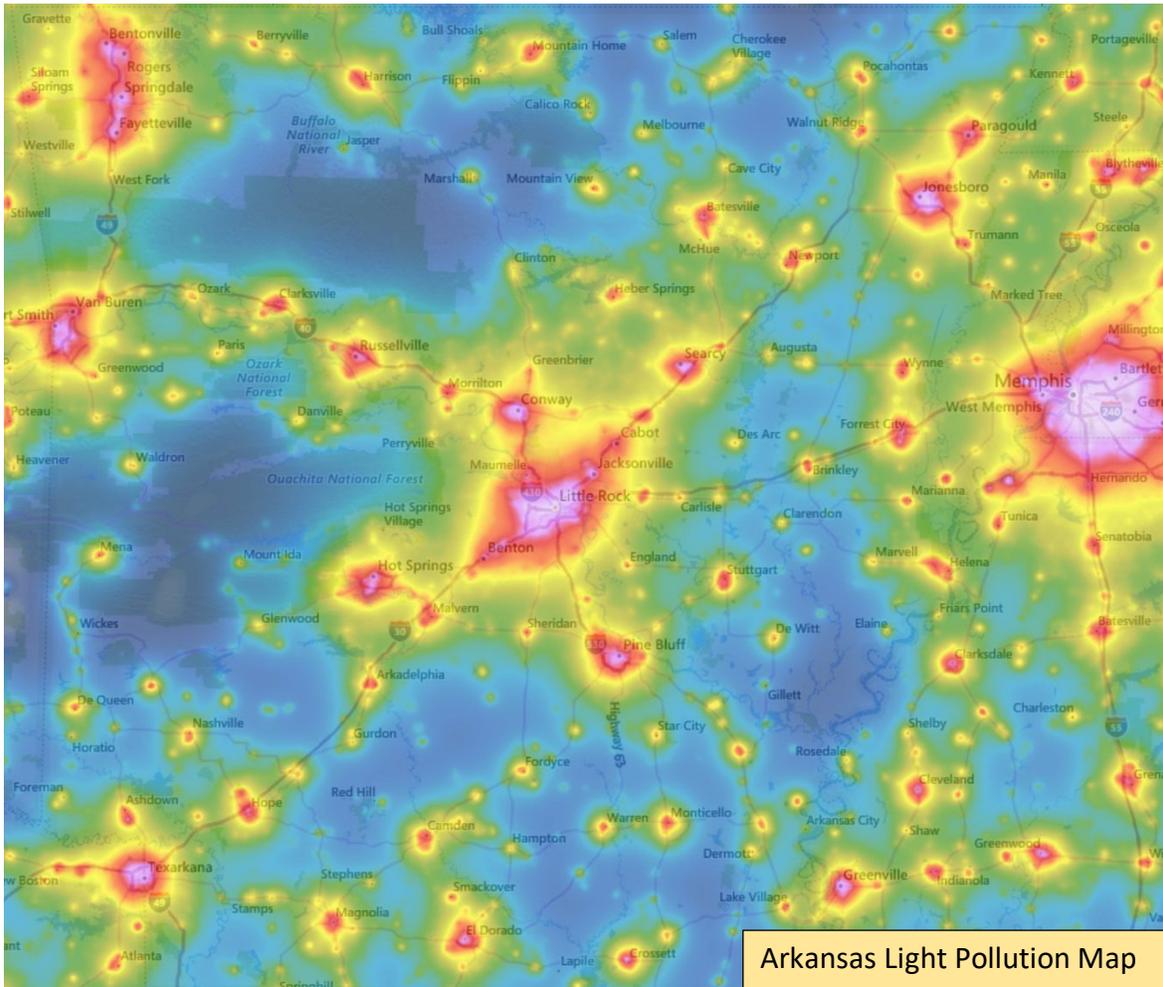
- Size – 35mm up to 50mm are useful without being too heavy. Some push 7x50's, for me, 8x42mm is the sweet spot.
- Power – More than ten power requires a tripod or mount.
- Construction – At least water resistant if not proof with multi-coated lenses.
- Eye Relief – Is how far from the eyepiece the pupil can intercept the focused image. Good eye relief is always a plus but at least 16 mm is needed to avoid vignetting for those who need to wear glasses.

**What's up** – [SkyMap](#) provides a simple downloadable and printable monthly sky map and along with websites such as [In-The-Sky.org](#), [Sky and Telescope's sky-at-a-glance](#), and [Astronomy's sky-this-week](#) highlights what's up. Apps, like **Sky View**, **Sky Safari**, **Star Rover**, **Cosmic Watch**, **Star Walk**, and **Stellarium Mobile** will let you take the chart with you. Whatever you use, the goal is to lay back with a contemplative mind and wander among the stars.

"A sunset is the sun's fiery kiss to the night" - Crystal Woods

## Stella's Advice on Responsible Lighting

**The Problem** - Outdoor lighting has become a classic case of too much of a good thing, or in some cases, a seemingly good thing. In only a few generations, the careless, ill-informed use of artificial light at night has turned night into day around the globe, covered the stars in wasted light, added needless carbon to the atmosphere, impacted insect and animal reproduction, migration and feeding, and risks to human health.



**The Solution** – The solution to light pollution has no losers. Responsible lighting saves energy and money, reduces carbon emissions, reduces risks to human health and wildlife while providing a more pleasant, safer and more secure nighttime environment as responsible lighting is better lighting. There are four simple principles to responsible lighting:

1. Light only when needed (Most dusk-to-dawn lighting should be avoided)
2. Light only where needed (Properly shielded fixtures aimed down onto a discrete area)
3. Light only just enough (Too bright light actually reduces visibility outdoors at night)
4. Light only with warm colors (3000k CCT or less, 2700 or less in sensitive areas)

To learn more about light pollution and ANSA projects and programs [www.darkskyarkansas.org](http://www.darkskyarkansas.org)  
Also, [www.facebook.com/darkskyarkansas.org/](https://www.facebook.com/darkskyarkansas.org/)

Stars light illuminates the spirit with perspective that feeds the soul.