



Every single week, while you are sleeping,  
about 47,945 NIS worth of wasteful light  
sprays skyward.

Millions of Watts wasted forever!

## **FIFTY THOUSAND SHEKELS!**

Nearly 2,500,000 shekels a year!

Lost - forever.

- No one watt will protect you or your property, but will waste more and more fuel- making us more dependent on other countries.

Light pollution steals the stars light  
Starlight is our natural heritage. It connects us, fuses us, to all our ancestors and their dark and crystal night sky.

We can't afford to lose one of our greatest treasures our ancestors bequeath to us

**THE NIGHT'S SKY**

- **Save our stars!**

We can't turn the light of – but we can design, create and build smart lights.

### **Smart light**

Shine toward the targets by enhancing our safety and security, protecting people and properties, not up into the sky, cloaking the space in a dull, yellowish glow.

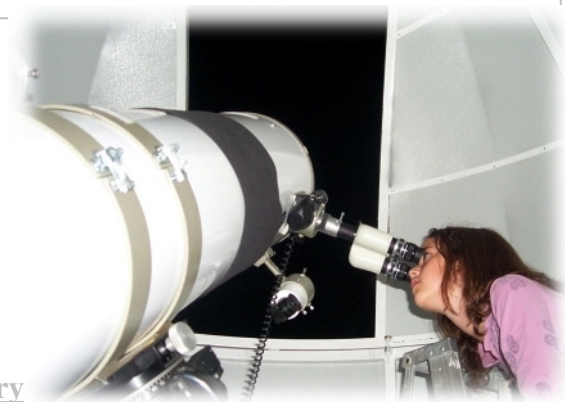
**Nearly 95% of Israel citizens can not see the Milky Way due to light pollution.**

**CAN YOU?**

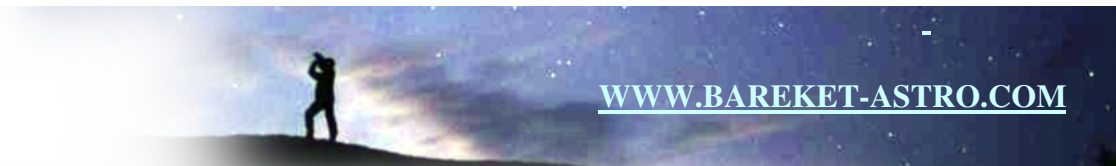
We can't stop the progress – but we can teach everyone to use Smart light.

**We must act now!**

Observation at the Bareket observatory



**WWW.BAREKET-ASTRO.COM**





Imagine children growing up without being allowed to see trees or birds (or any other aspect of nature): now, how is this any different from preventing our children from seeing the stars?! But by our thoughtless erection of outdoor lights everywhere --- without consideration of glare and light trespass, without consideration of safety, without consideration of the right to privacy, and without consideration of the energy waste and the waste of taxpayer dollars --- we are making it so that a very small percentage of children are able to grow up in the world today with the ability to see and ponder the wonders of our beautiful starry night sky.

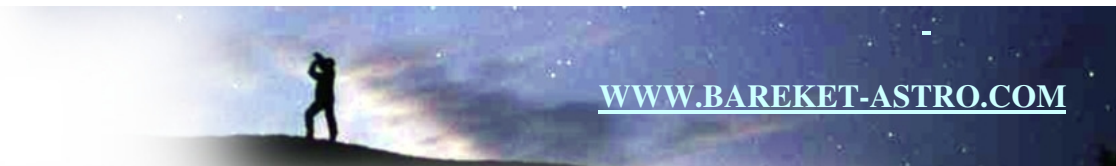
### Light pollution?

Simply put, light pollution is wasted light. You can recognize light pollution by sky glow, the glow at night above the town and harsh light shining in our eyes.

Astronomers, in their search for an understanding of the origin and evolution of the universe, are always striving to study fainter objects in visible light. One important reason to make such observations is that many kinds of interesting objects are intrinsically faint.

But there is another, more substantive, reason astronomers are interested in faint objects. Because light has a finite speed, telescopes act as "time machines." When we look at distant objects whose light has been traveling toward us for a very long time, we see them as they were at an earlier epoch. Astronomers are constantly struggling to probe deeper into space in order to observe the universe at times closer to its creation.

Distant objects appear faint from our perspective, and to probe the distant universe means observing faint objects at the limits of detect ability.



The words of renowned astronomer Edwin Hubble still hold true today: *“With increasing distance, our knowledge fades, and fades rapidly. Eventually we reach the dim boundary - the utmost limits of our telescopes. There, we measure shadows, and we search among ghostly errors of measurement for landmarks that are scarcely more substantial.”* The observation of faint objects requires large telescopes, and astronomers have constantly pushed technology in their quest for ever larger telescopes.

To view faint objects requires not only large telescopes but also dark skies. Regardless of the telescope's size or type of observation being made, very faint objects fade into the background brightness of the night sky.

**Left –Bad shading, can you see any stars???**

**Right – Smart light: Milky Way is visible!**



Many kinds of interesting objects are intrinsically faint.

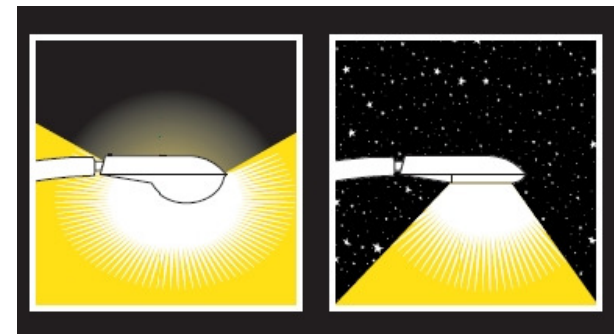
The light pollution coming from the near cities is washing out all the night sky in its bright yellowish light.



At the above shot one can see the affect of light pollution on the astronomical imaging on far celestial objects.

- Bottom Left – bad light shade
- Bottom Right – Smart light

We can note the stars!





Dimming glare safely

Some people worry that these proposed lighting restrictions might compromise night-time safety. However, what is not commonly known is that the very changes that darken the sky also increase the quality of ground lighting. For example, streetlamps that use mirrors or lenses to direct the light downwards eliminate the glare caused by horizontal and vertical emission. Glare is bad because it reduces night vision, by making shadows darker than they otherwise would be.

Compare how much you are able to see in your room directly after you turn off the lights at night, to how much you can see half a minute later, once your eyes have adjusted. Proper fixtures that direct the light downwards can illuminate dark corners without compromising pedestrians' night vision, allowing them to see better overall.

Combatting Light Pollution

In the astronomer's ideal world, all exterior lighting would use low-pressure sodium bulbs. These are the best choice to minimize adverse effects on astronomical observing, because low-pressure sodium has thinner spectral lines and as such is much easier to extract from an image. They are also the most energy efficient, and are inexpensive compared to the metal halide bulbs currently used for most streetlamps. Also, instead of shining a bright white light, they are a golden yellow—easy on the eyes, minimizing glare.

These bulbs are saving more than 60% less electricity.

Light pollution is not a matter of life and death. Yet it is important nonetheless, profoundly so.

We human beings lose something of ourselves when we can no longer look up and see our place in the universe.

It is like never again hearing the laughter of children; we give up part of what we are.

Pic – Smart light.

*Join us and save the stars!*

