

5.9: Light Pollution



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One of the biggest challenges to Earth-based telescopes is that of light pollution. Lighting interferes with the dim objects astronomers need to study. Consider how many people have actually seen our Milky Way arching across the sky. *Have you?*

Light pollution has other serious side effects. Environmentally it disrupts natural day and night patterns for many plants and animals. There are severe beach restrictions in regard to lighting in many areas due to nesting sea turtles. Another consequence of light pollution is the cost.

A number of solutions are possible. First, good night lighting is shielded; that is, directed only towards the ground. Why have a streetlight that shines in one's eyes? Second is the type of bulb used in night lighting. It has been shown that sodium vapor lamps more-efficiently light an area; both cost- and illumination-wise. As Light-emitting diode (LED) lamps are developed, better lighting solutions will follow.

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