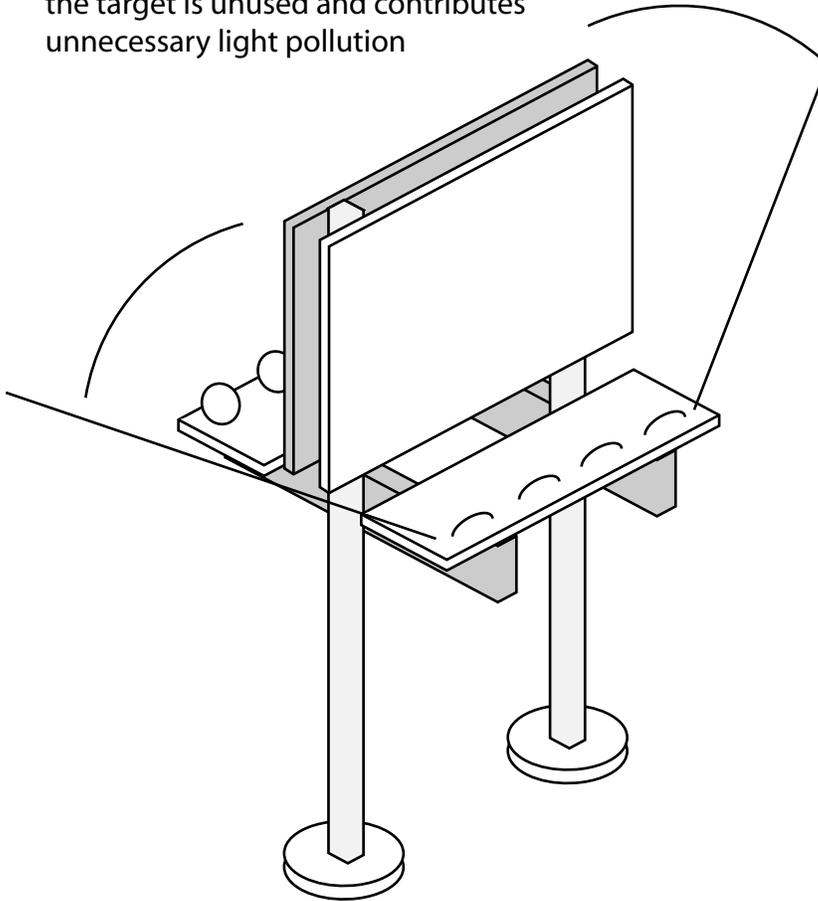


Typical bottom-lit buildboards spill a lot of light upward. This light missing the target is unused and contributes unnecessary light pollution



Some Comments on Billboard Lighting (Comment from the International Darksky Association, www.darksky.org)

Billboards are controversial, and some persons would no doubt like to see them all banned. However, others feel that billboards provide a valuable advertising service for small and large businesses and welcome information for the weary traveler. IDA has no organizational policy concerning billboards as long as they do not contribute to light trespass and light pollution. Many billboards are illuminated all night and are ridiculously overlit with bottom-mounted lighting, the major part of which ends up in the sky rather than on the billboard. Billboard and roadway sign lighting can be effective and unobtrusive if it is done in the right manner.

Top-lit signs with well-shielded fixtures save energy and contribute little to light pollution. Yet, there are all sorts of objections raised to suggestions that billboards be designed in this fashion. Most, if not all, of these objections are fallacious. The majority of the billboards in the Tucson, Arizona area are top-lit, and all interstate roadway signs in southern Arizona are lit from the top. This has caused no problems, resulted in better sign lighting, probably saves money, and helps keep unwanted light out of the sky. A well-designed top-lit billboard is cheaper to run a relatively low-wattage fluorescent fixture, for example, provides more than enough light to give the billboard easy visibility.

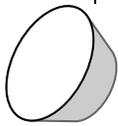
We have not noticed any objectionable shadows in the daytime caused by the lighting system being mounted at the top of the billboard. This is an objection often raised by opponents of top-lit billboards. They also complain that top-mounted fixtures are more difficult to service. This may be true in some cases, but in most instances in Tucson the billboards are quite large and are difficult to change or service no matter where the lights are located.

There is little doubt that changing a lighting system for a billboard may be expensive. It is probably impractical to ask for all billboard owners to retrofit the lighting systems for bottom-lit signs. A first approach would be to ask for all new billboards to be top-lit. Older billboards could be left as they were for some time until they would ordinarily undergo major renovation due to their age.

There is also the question of whether a billboard needs to be lit at all when the business being advertised is not open. Most billboards and other advertising signs should be turned off after 10:30 or 11:00 p.m. We should point out to the sign owner, or better yet the business doing the advertising, how much coal is being burned (and wasted) to light the night sky. These individuals probably do not realize that in addition to light pollution they are also contributing to air pollution and possibly global warming. Most electricity comes from coal-burning power plants.

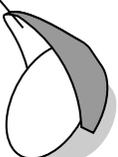
It does not take very much light to make a sign visible at night. The next time you are at an airport notice how dim the taxi and runway lights are. Nevertheless, they are easily seen. In your efforts to produce changes in the way signs are lit in your area, be reasonable and work with the sign owners and billboard companies. A well-constructed top-lit sign is easy to see at night and yet it contributes little to light pollution. We know it can be done because we see good examples in many places. Changing billboard and sign lighting will not be easy and it will take years to bring about a large scale transformation. It will not by itself stop light pollution but it will surely help and is a worthwhile goal to work toward.

Unshielded light source



An unshielded lamp puts out a wide beam, where much of the light misses the billboard. You can often see the light source from the road, attesting to the wide spread of the light

Shielded light source



A simple hood can mask much of the wasted light.