

# IDENTIFYING GOOD & BAD LIGHTING FIXTURES

## Street Lighting



**Non-Cutoff Cobra Head**



**Cutoff Cobra Head**

The cobra head fixture mounted at conventional heights is the most efficient and cost effective luminaire to use for local streets and highways. The cutoff cobra head fixture will perform the lighting task better than the non-cutoff cobra head with the drop-down globe. Utilizing the same wattage with the cutoff fixture and at no additional cost, there will be less glare and improved night vision.

## Post-Top Decorative Light Fixtures



This fiberglass fixture is being installed for street lighting by Electric Utilities. The lamp (bulb) is usually located directly behind the panels and become a direct glare source visible in our line of sight as we drive. This fixture is not as efficient as the cobra head shown above.



This "acorn" luminaire generates a lot of glare and spill-light with almost half the light going upward and sideways, missing the intended target area. It is a poor choice for lighting streets and parking lots.



Near cutoff equivalent designs can be acceptable if the wattage is not excessive. Minor glare may not be a problem in a "main street/downtown" environment that has some ambient light. The better models have no more than 3 or 4% of the total lamp lumens rising upward above the horizon (90 degrees above nadir).



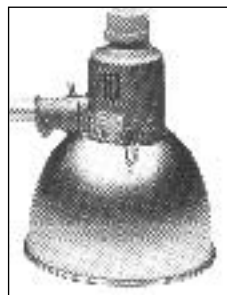
Cutoff types such as these will provide good lighting without causing unnecessary light pollution while still maintaining the decorative look of the post-top fixture.

## NEMA-Head Fixtures

NEMA-head luminaires are still being used almost everywhere, in parking lots, as wall mounted security lights, in park facilities and some even remain as old, inefficient streetlights.



The "dusk-to-dawn", unshielded NEMA-head fixture has been around for many years, light polluting our environment. Half of the glary light goes upward, wasting energy. Most have inefficient mercury vapor lamps.



This same type of NEMA-head fixture, with an inexpensive shield and high pressure sodium lamp, becomes an efficient cutoff light fixture. The upward light is redirected downward, increasing the illuminance within the target area significantly and with no light pollution!