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**CALIFORNIA STATE POLYTECHNIC INSTITUTE AT POMONA
PROBLEM INTRODUCCION**

Light- it is the fundamental element of life! It warms our earth, illuminates our world, and makes life possible. But there's more to light than meets the eye. Have you ever wondered why colors look different under different types of lighting or why an incandescent bulb gets hot while a fluorescent bulb or light emitting diode stays cool?

Around the world, billions of dollars are spent each year on lighting. Unfortunately, much of the energy used for lighting is wasted. For example, the output of an incandescent light is about 95% heat, only 5% is usable light. Poorly designed lighting fixtures are responsible for glare and light trespass, problems that make it increasingly difficult to see the night sky. And many applications use more light than is needed, a problem referred to as over-illumination.

In today's world where energy conservation is critical, the technology of lighting is becoming more and more important. At research laboratories such as the Center for Lighting Education and Applied Research at California State Polytechnic University in Pomona the next generation of lighting sources and fixtures is being developed and tested.