



FAQs: "What is fixture efficiency?"

Q: "Are fixture efficiencies real."

A: Fixture efficiency is the amount of light (lumens) leaving a given fixture compared to the amount of light generated by a given light source within a fixture.

Q: "Can a fixture really have 100% efficiency?"

A: Yes and no. A porcelain socket base with a bare lamp has a fixture efficiency of 100%, but that does not make it more efficient. Although 100% of the light leaves the lamp, it may never reach the task.

Q: "Can a fixture have more than 100% efficiency?"

A: Unless the fixture has found a magic way to create additional light, it is impossible to have more than 100% efficiency. Even with the most efficient reflector design, some amount of light will be reflected back into the lamp or trapped somewhere else within the fixture. Be cautious of manufacturers that claim efficiencies over 98%.

It's important to consider other factors other than fixture efficiency.

How is the light dispersed to the task? Is the fixture mounted to achieve the desired results? Does the fixture meet the application?

Pay close attention to photometric curves that should be available from the fixture manufacturer. These will provide you with information, such as total light output and the angles at which the light is dispersed from the fixture. At first, photometric curves can appear to be complex, but after a quick explanation they can be very simple and extremely helpful when comparing various fixtures.

It may be necessary to use a computer-modeling program such as Lumen-Micro or AGI to compare fixtures and determine the proper layout. Most manufacturers are able to provide you with a free analysis or layout for your specific application. Remember, nothing is more convincing than actually seeing a fixture demonstration within your facility. Ask for sample fixtures and have them installed.