

# What's the Problem?

## How many lumens are needed to light a room?

1. Measure the length and width of the room in inches with a measuring tape. For example, your dining room might measure 96 inches by 136 inches.
2. Multiply the room dimensions together to find the number of square inches in the room. For example, 96 times 136 is 13,056 inches.
3. Divide the number of square inches by 144 to convert it to square feet. For example, 13,056 divided by 144 equals 90.67 square feet.
4. Multiply the square footage of the room by the appropriate number of lumens per square foot for that type of room. Bedrooms require 15 lumens per square foot, hallways need 7.5 lumens per square foot, dining rooms, kitchens and offices need 35 lumens per square foot and bathrooms and parts of rooms that include sinks need 75 lumens per square foot.

\*\*\*In this case, multiply 90.67 square feet by the required 35 lumens per square foot in a dining room to calculate that you need about 3,173 lumens to light the dining room.

