

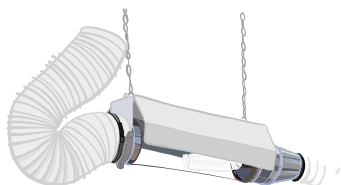
Growing a Great Garden

Grow Lights

We use grow lights in our LGT gardens because the sun is often not strong enough during the winter and through a window to grow fruiting plants.



LED and
Fluorescent are
both strip lights



Metal Halide Bulb
in a cool tube

What do the numbers on your grow light mean?

There are a few measurements and technical specs associated with your grow lights that could be helpful to know. These are:

Watts (W) ie. 24W - Watts measures energy consumption. A measure of the amount of electricity flowing through a wire. Watt hours measure the amount of watts used in one hour. Wattage is also used in grow lighting to determine the amount of light needed for an area.

Kelvins (k) ie. 6400k - This is the measurement used to describe the colour of a specific light source. Closer to the higher end, for example 6400k, is the blue spectrum or daylight hue. Closer to the lower end, for example 2000k is the red spectrum of light.

Lumens (LM) ie. 200 - Lumens Lumens equals brightness; the more lumens, the brighter a light source. One lumen is equal to the amount of light given off by one candle.

Lux (Lux) ie. 20,000 - Lux measures the amount of luminescence on a surface and is often referred to as a light's intensity. Lux is the amount of lumens that are measured per square

There are several different lights being used in LGT gardens. You garden will have one or two of these three styles of light:

- LED (Light Emitting Diode)
- Fluorescent
- Metal Halide

Height

The most important considerations when using your grow lights is adjusting the height of the lights and controlling the light duration. Dry or scorched leaves can be a symptom that lights are too close to plants, while 'leggy', weak stemmed plants can be a symptom of lights being too far away. You will want to keep your lights at a certain height above the top canopy of your plants, depending on the type of light that you are using. **Generally, this is 4 inches above the plant canopy for LED and Fluorescent tube lighting and 2-3 feet for your Metal Halide light. You may need to place some of your shorter plants on top of upturned pots or a table to raise them up.**

Length of Light

Outdoor vegetable gardens generally require 6-8 hours of sunlight a day, while your indoor garden will require 12-16 hours of sunlight a day. We suggest setting your timer to a cycle of 12 hours of grow lights on, 12 hours off. More light does not automatically cause plants to produce more. Plants actually require darkness each day for respiration to occur (respiration is the process by which plants convert the products of photosynthesis to usable energy). Some gardens will adjust the amount of light throughout the growing season to mimic the natural season and inspire plants to set fruit. If you are familiar with this process, you may experiment but we suggest keeping your lighting static for a set amount of time each day.