

## Know & Grow Lighting Indoor Houseplants

**Light provides the energy plants need to make food for them to grow and flower. Plants growing outside receive sunlight which is a balance of wavelengths of many colors and intensity. Indoors this light is dramatically dropped by intensity and color. In office conditions sometimes only artificial light is available, the need for lighting is essential for plant survival.**

**How much light is needed?** Houseplants are divided into low, medium, and highlight categories which indicate the minimum light required. Light is measured by light intensity which is called a footcandle. A footcandle is defined as the amount of light received by 1 square foot surface that is 1 foot away from a light source equivalent to one candle. Low light plants - should receive 50 to 250 footcandles. Medium light Plants - should receive 250 to 1,000 footcandles. High Light Plants - should receive at least 1000 footcandles.

### Light Sources

In an average home setting incandescent are disappearing being replaced by LED and compact fluorescent bulbs and fluorescent tubes are still a choice. LED are extremely energy efficient and provide the blue and red light needed by plants. They emit little heat but can be expensive at this time. Fluorescent tubes also are energy efficient, produce little heat, provide the proper light as long as it is not a cool white, and are inexpensive.

Plants receiving no outdoor light should be lit 12 to 16 hours each day. Plants that are in a window receiving daylight should have supplemental light especially in the fall and winter months when days are shorter. Having lights on timers to turn on when the sun sets with five or six hours of additional light keeps plants growing and active all winter. Light sources can be placed on the floor beaming up for tall plants, or pointed vertical or overhead for plants on shelves.

Plants indicate if they are not getting enough light. If a plant is bending or leaning towards the light source, development of long internodes (the length of stem between leaves), smaller than normal leaves, pale green foliage and or yellowing or dropping lower leaves. Remember all plants do adapt to their light conditions and new plants may show these signs at any time of the year, Plants are grown with the best conditions in a greenhouse and when they are introduced into a home environment, acclimatization can occur.

What window? South windows are best for plants needing bright light or sunshine. East and west are great for medium light plants and North windows for low light plants and plants that can't take sunshine like African Violet. Remember the further from a bright window the darker it gets, so a low light plant can survive ten feet from a bright window.