

How good are 100-watt compact fluorescent bulbs?

I am growing two plants using two 100-watt compact fluorescent bulbs called natural light lamps. They have a cool white spectrum. Do you think I will manage to obtain good results with this kind of lighting?

The new high watt compact fluorescent lamps provide new opportunities for lighting gardens. One of the problems with old fluorescent tubing is that they emit light over a large area. Compact fluorescents, such as the new 100-watt lamps, provide a very bright light fairly economically. The lamps are not as efficient as high pressure sodium (HPS) lamps in total light output. However, more of the fluorescent light is emitted in the blue and red bands, which are the spectrums that plants use for photosynthesis. Thus these lights provide a good alternative to high intensity discharge lamps. Both HPS and metal halide (MH) lamps emit most of their light in the green, yellow and orange spectrums, which are not used efficiently by the plant for photosynthesis.

The cool white lamp will encourage robust vegetative growth with stout, sturdy stems and moderate-sized leaves. Switch to a warm white spectrum lamp of the same wattage when the plants are forced to flower.

Each 100-watt lamp should well illuminate a space of about two square feet. Two of the lamps will light a two-foot x two-foot garden. The lamps will produce good results and are a convenient way to set up a garden.