



## LEDs & Seasonal Affective Disorder Syndrome



The True Sunlight type light which generates the majority of Ultra Violet (UV) can now be successfully emulated by LEDs but without the UV which is so damaging to skin and any coloured surface.

The LED-generated light "tricks" the brain into thinking that the environment local to that light source is more comfortable; therefore alleviating the SAD Syndrome.

EcoLEDLighting has acquired significant data and are in contact with NASA, who have used LEDs to light *Green Houses* in which solar powered generated LEDs propagate and grow plants on the International Space Station.

In the band 30 degrees north, to the same south of the equator there is only 12 - 14 hours daily of natural sunlight; throughout the year. However, EcoLEDLighting has invested much resource into the design of luminaires for use in additional light output for plant growth, and **have successfully increased the period of photosynthesis in tropical regions to a 22 hour cycle.**

The extended photosynthesis period allows commercial farmers an additional full cycle plant growth to allow them to grow 3 crops annually for certain vegetables (peas, all types of beans, carrots, lettuce, cabbages, etc).

The SAD work was pioneered by NASA as a result of the success of space plant growth experimentation and to alleviate the SAD syndrome encountered by astronauts on the ISS, as a secondary result of the intended experimentation.