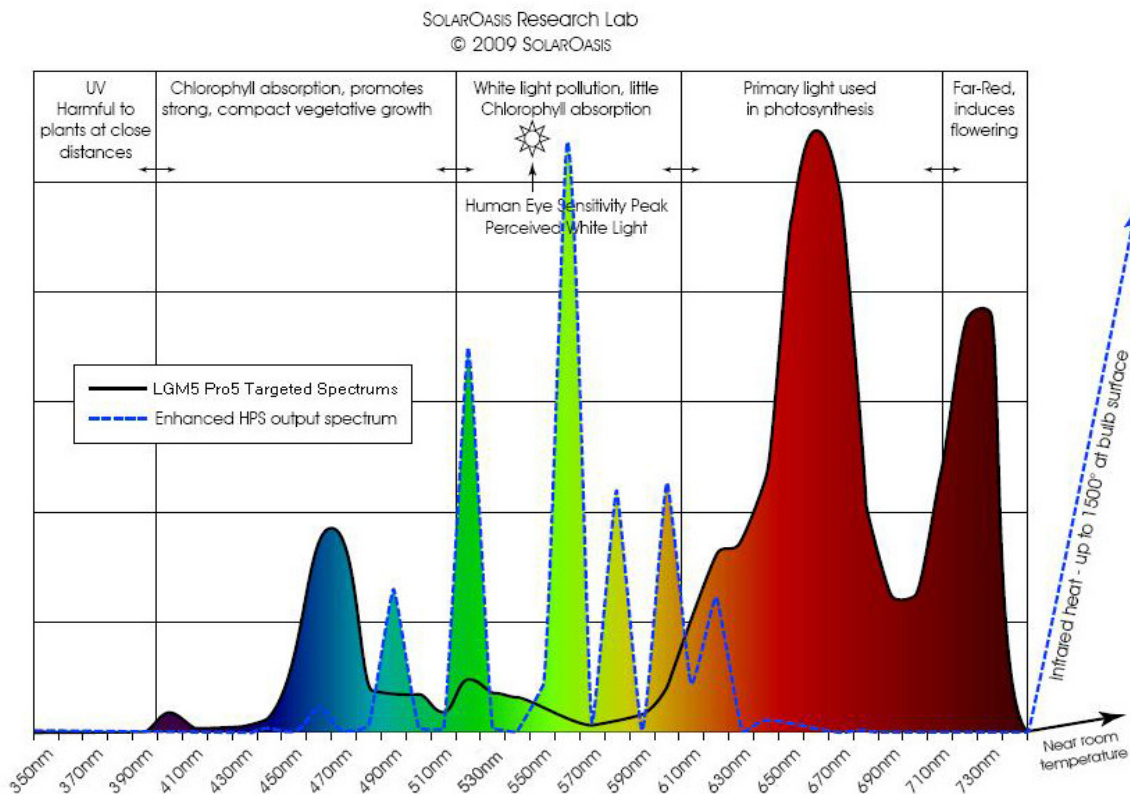


Before SolarOasis introduced the first LED light designed specifically for plant growth in 2002, all measurements of light energy were based on “White Light” products. Products such as HID, HPS, MH, and incandescent lighting were all designed to light rooms and warehouses and not to grow plants therefore, light measurement was based on what the human eye perceives as bright. These white light products produce a lot more energy than plants can use. A typical white light product produces light wavelengths from 380 nm (UV) up to and beyond 880 nm (IR).

Plants primarily use light wavelengths from 400 nm (blue) to 700 nm (red). This range of light wavelengths has been labeled PAR or photosynthetically active radiation. On average, nearly 82% of the light emitted from a traditional white light product is of little benefit to plant growth, and in some cases is harmful to plant health. In a typical HID (HPS/MH) light bulb this harmful energy is in the form of intense heat (IR) and ultraviolet radiation (UV) that you cannot see but can certainly feel.

Solar Oasis took a different approach, they designed a light from the ground up specifically targeting the light wavelengths that plants use for growth, health, smell, and taste producing only light that is 100% useable by plants.



LED Grow Master LEDs are custom made to closely match the absorption peaks for photosynthesis.