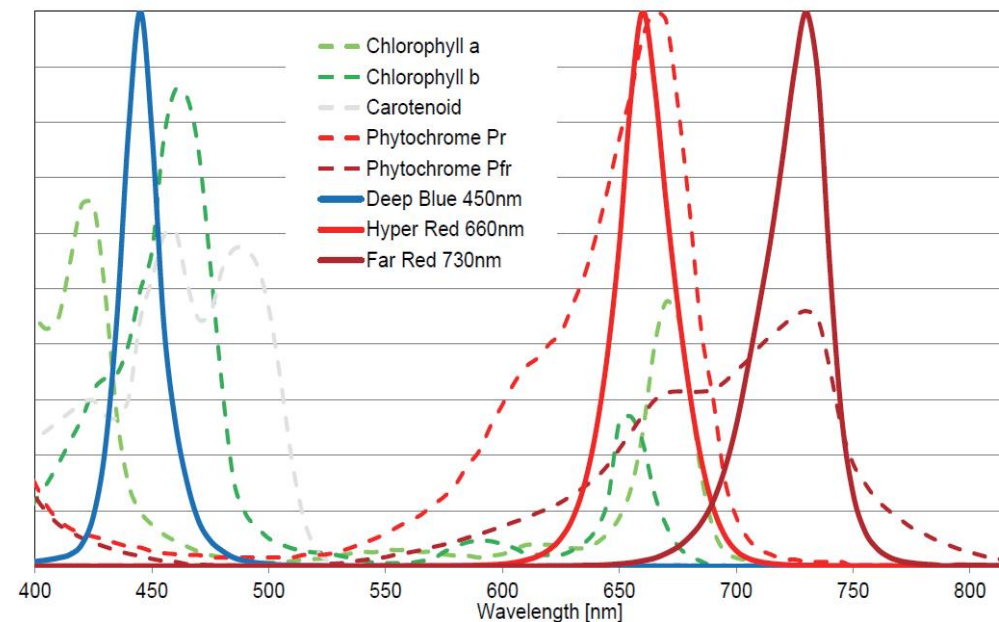


LED Spectrum Bands	Light Color	Effects on Plants
360–410nm	UV/Ultraviolet	<ol style="list-style-type: none"> 1.It has a slight impact on photosynthesis, with special effects on plants, influencing the establishment of plant photomorphogenesis. 2.Thickens leaf blades, inhibits the growth of plant stems, and affects the synthesis of flower pigments. 3.Stimulates the synthesis of certain plant components. 4.Stimulates the production of plant anthocyanins.
410–500nm	Blue	<ol style="list-style-type: none"> 430nm to 450nm strongly impact photosynthesis and inhibit plant growth, resulting in a dwarf and stout morphology. 1.Blue-violet light accelerates the development of short-day plants and stimulates the synthesis of proteins and organic acids. 2.Short-wavelength blue-violet light and ultraviolet light inhibit internode elongation, promote root growth and differentiation, stimulate the differentiation of multiple lateral branches and buds, and contribute to the synthesis of pigments and vitamins. 3.Enhances photosynthesis.
500–600nm	Green	<ol style="list-style-type: none"> 1. There is a slight decrease in the effects on photosynthesis and morphogenesis in plants, suppressing height growth. A small amount of green light increases photosynthesis. 2. It promotes the growth of some algae
600–700nm	Far-red	<ol style="list-style-type: none"> 1. Regulation of the photoperiod, extending the duration of light exposure; 2. Acceleration of photosynthesis, with significant effects on both photosynthesis and the photoperiod; 3.Red light not only benefits the synthesis of plant carbohydrates; 4.It also speeds up the development of long-day plants, promoting branching, plant height, and leaf enlargement. 5.Influences the establishment of plant photomorphology; the 685nm: 660nm combination accelerates photosynthesis.
700–1000nm	Infrared	<ol style="list-style-type: none"> 1.Promotes and stimulates cell elongation in plants. 2.Induces flowering. 3.Combined with 660nm, it accelerates photosynthesis. 4.Affects the establishment of light morphology in plants. 5.Stimulates seed germination and encourages plant elongation.



*Light has regulatory effects on photosynthesis, growth and development, morphogenesis, and material metabolism in plants.

*LED plant growth lamps, with advantages such as rich wavelength types, low energy consumption, and high light efficiency, can optimize the spectral response required for plant

(1)"FR660nm" stands for Far-Red light at a wavelength of 660 nanometers. Far-Red light is known to play a role in various physiological processes in plants, including the regulation of flowering, stem elongation, and the overall growth and development.

(2)"IR730nm" stands for Infrared light at a wavelength of 730 nanometers. Infrared light is generally associated with heat, and in the context of plant growth, it can contribute to the overall energy balance and temperature regulation, influencing metabolic processes.