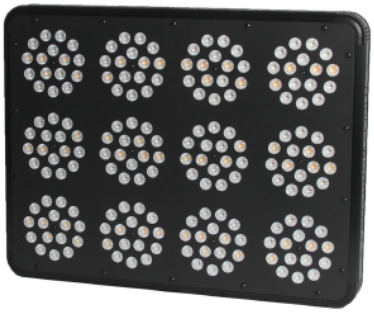
ENELTEC®
brighten your ideas

Apollo LED Grow Lights

AP4

AP6



AP12

AP16

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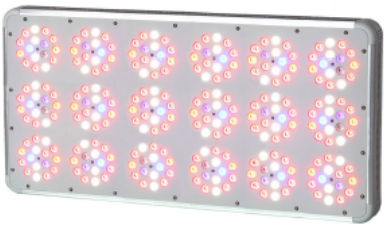

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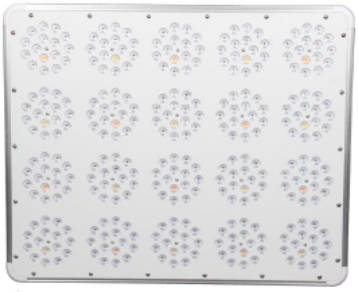


AP20

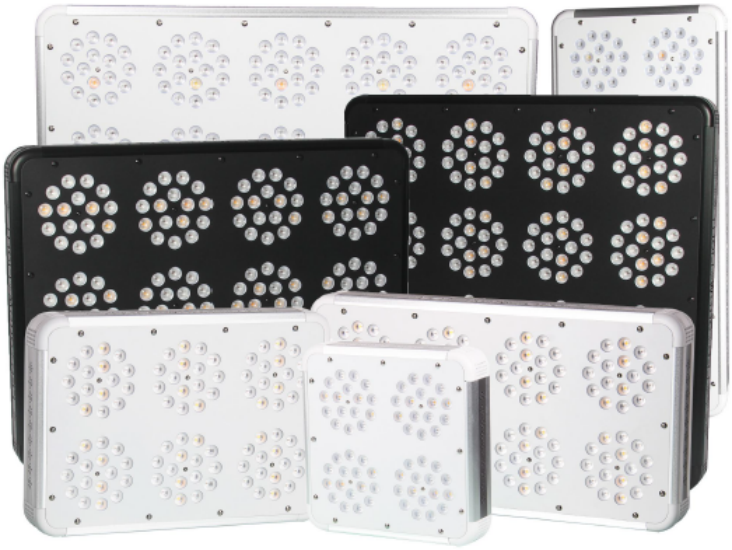
CE

RoHS

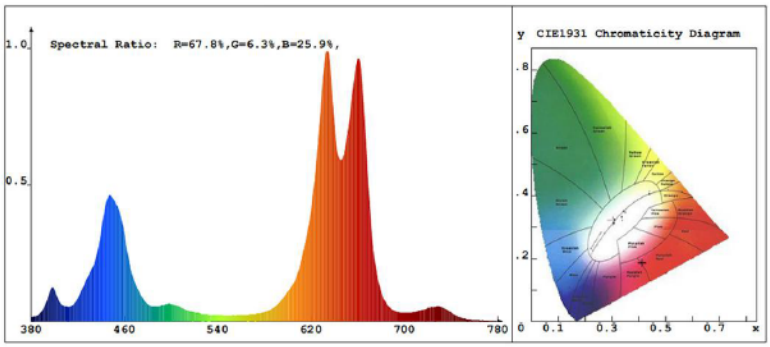
www.eneltec-led.com

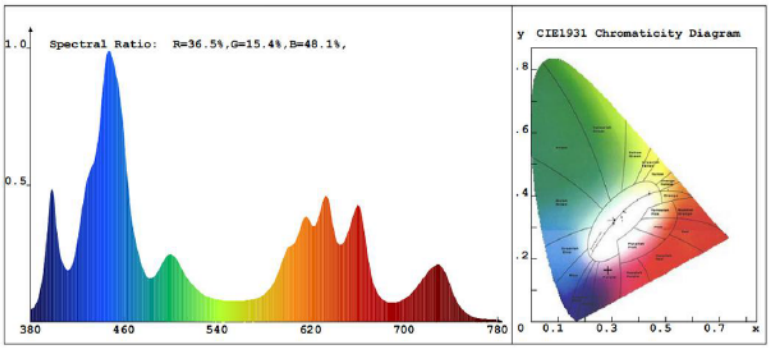
GROW LIGHT

3YEAR WARRANTY



Spectral Distribution





Veg:18 Hours ON

Flower:12 Hours ON

Grow Light

Hanging Rope

Cable plug

Product packaging

Input Voltage

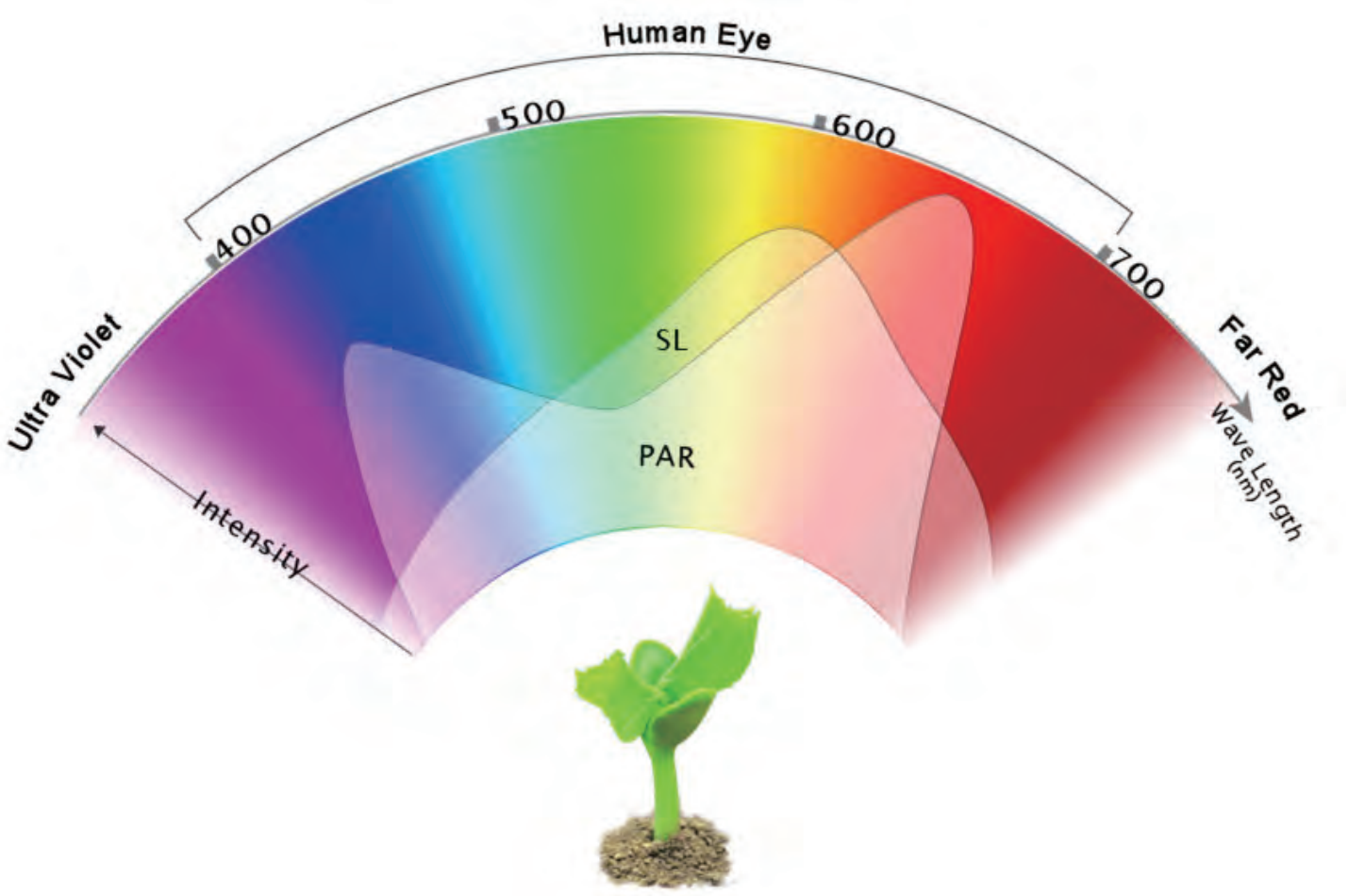
100-277V AC power input, 50/60HZ working frequency, suitable for global residential energy environment.

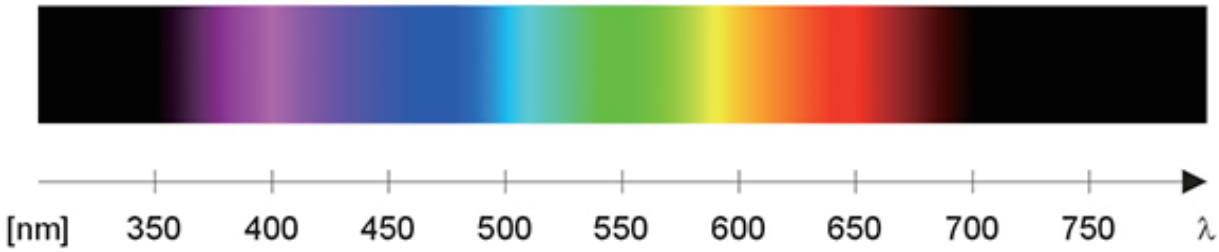
Apollo is designed to be used globally, you will have peace of mind by knowing this light is a universal suitable equipment.

LEDs

Apollo LED Grow Lights select first-rate LEDs as light source, ensuring the superior high quality and long lifespan. Apollo addressing various photosynthetic aspects helping in plant's growth.

The LEDs are available in a variety of wavelengths and spectra can be customized to provide the most nutrient light source for your plants.





Wavelength (nm)		Wavelength Influence on Plants
UV (Ultraviolet)	**10-400**	Though overexposure to UV light is dangerous for the flora, small amounts of near-UV light can have beneficial effects. In many cases, UV light is a very important contributor for plant colors, tastes and aromas. This is an indication of near-UV light effect on metabolic processes. Studies show that 385 nm UV light promotes the accumulation of phenolic compounds, enhances antioxidant activity of plant extracts, but does not have any significant effect on growth processes.
Blue	**440-470**	Such as phototropic curvature, inhibition of elongation growth, chloroplast movement, stomatal opening and seedling growth regulation. It affects chlorophyll formation, photosynthesis processes, and through the cryptochrome and phytochrome system, raises the photomorphogenetic response. These wavelengths encourage vegetative growth through strong root growth and intense photosynthesis and are often used as supplemental light for seedlings and young plants during the vegetative stage of their growth cycle, especially when “stretching” must be reduced or eliminated.
Green	**500-550**	Green light is sometimes used as a tool for eliciting specific plant responses such as stomatal control, phototropism, photomorphogenic growth and environmental signaling. When combined with blue, red and far-red wavelengths, green light completes a comprehensive spectral treatment for understanding plant physiological activity.
Red	**640-680**	Red light affects phytochrome reversibility and is the most important for photosynthesis, flowering and fruiting regulation. These wavelengths encourage stem growth, flowering and fruit production, and chlorophyll production. A study titled “Influence of Light Wavelengths on Growth of Tomato” by Hery Suyanto et.al., for example, demonstrated that tomato plants showed the most growth in the vegetative phase under 650nm light. In the germination phase, irradiation of 680nm spurred the greatest growth rate. The 624nm region has the highest photosynthetic relative quantum yield for a range of plants. At the same time, its action on red-absorbing phytochrome is considerably weaker compared to that of 660 nm red light and can be used to balance the phytochrome equilibrium towards lower values (closer to those of daylight) than those achievable with 660 nm red light, especially when used together with 730 nm red light. The 660nm wavelength has a very strong photosynthetic action and also exhibits the highest action on red-absorbing phytochrome regulated germination, flowering and other processes. Most effective for light cycle extension or night interruption to induce flowering of long-day plants or to prevent flowering of short-day plants. Most energy-efficient source for photosynthesis among all available supplemental LEDs.
Far red	**730-740**	On the far-red absorbing form of phytochrome, converting it back to the red-absorbing form. It becomes necessary for plants requiring relatively low values of the phytochrome photoequilibrium to flower. Can be used at the end of each light cycle to promote flowering in short-day plants.

Applications

Benefits of LED Grow Lights in various segments

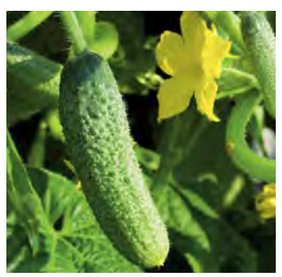
Most greenhouse growers can increase yield, optimize plant quality and reduce energy costs by replacing or supplementing their existing lighting with LED Grow Lighting solution.
LED lamps produce very little heat in comparison to HPS lamps and so do not damage the plants, even growers with low greenhouse ceilings can now enjoy the proven benefits of LED Grow Lights.

Growers of high-wire vegetables like tomato and cucumber

Year-round production, flexibility in use, efficient production, good quality
High-wire vegetables like tomato and cucumber need light for year-round production in the most efficient way. The surplus of heat produced by traditional light sources like HPS is often a restricting factor for using (higher levels of) grow light in a greenhouse. With LED Grow Lights are now new options, giving you more flexibility to light at times of higher outside temperatures.

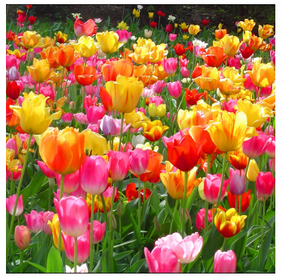
Strawberry growers

Early or year-round production, better-quality fruit
The strawberry production period can be extended to as much as year-round by providing the right amount of light and the right temperatures. LED Grow Lights have the benefit of delivering efficient light while not creating the heat load that could lead to lower-quality fruit.



Propagators

Uniform and controllable production to realize the desired plant architecture
LED Grow Lights enable a very uniform light and heat distribution, resulting in uniform production. The various spectral versions help to grow the plant architecture you want, e.g. for the rooting of young floriculture material in an efficient way.



Cut flower growers

Highly efficient production, good-quality flowers
In the case of cut flowers, length, weight, vase life, flower color and uniformity are important quality and production factors. All of these factors can be influenced by the light recipe, often in combination with other climate factors. Optimizing these in combination with effective use of light will boost profitability for growers of crops like chrysanthemums, alstroemeria, gerbera and roses.

Growers of leafy vegetables and herbs

Tasty vegetables and herbs grown efficiently
Leafy vegetables are often grown at relatively cold temperatures, but they grow very well under light. The growing systems for leafy vegetables vary and therefore the light recipes can be optimized in different ways, adapted to cultivation method, climate and cultivars. Various light recipes are available to ensure optimal results in each situation: 100% LED or in combination with high-pressure sodium in cold countries; one spectral recipe for a whole cultivation period; or combinations of spectra and light sources during different stages of the production cycle.

Potted plant growers

Beautifully shaped plants with good leaf and flower color
Along with ornamental value, growth speed is the most important factor for potted plant growers. Considerable energy is devoted to optimizing growth speed via climate and growth regulators. Light is another tool that can strongly influence growth, and it can be very effective when applied in the right way.
The spectral versions of LED Grow Lights offer the option to go for more compact growth (and possibly use less growth regulator) but also to choose the most efficient growth. LED's lack of heat radiation enables better control of the plant temperature, preventing stress and damage to leaves and making it possible to apply higher light levels (e.g. for phalaenopsis, anthurium).

More information about LED Grow Lights recipes

As well as the above-mentioned greenhouse crop segments there are many other types of crops and growth situations where LED Grow Lights could be used for the light recipe. Please contact ENELTC sales team for support

Parameters:

Model No.	ENGL-AP4-01	ENGL-AP6-01	ENGL-AP8-01	ENGL-AP10-01	ENGL-AP12-01	ENGL-AP16-01	ENGL-AP18-01	ENGL-AP20-01
LED Power (W)	115	170	230	280	340	450	500	600
IP Rate	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Input Voltage	100-277VAC, 50-60Hz							
LED	High Power 3WLED	High Power 3WLED	High Power 3WLED	High Power 3WLED	High Power 3WLED	High Power 3WLED	High Power 3WLED	630NM:460NM 240:60
	Customized Available							
Color	Full Spectrum (Customized Available)							
Beam Angle	60°/90°/120°							
Base	Matching plug	Matching plug	Matching plug	Matching plug	Matching plug	Matching plug	Matching plug	Matching plug
Par (umol)	805/20inch 143/59inch	1015/20inch 162/59inch	956/20inch 169/59inch	1122/20inch 147/59inch	1200/20inch 225/59inch	1315/20inch 254/59inch	1138/20inch 218/59inch	1928/20inch 403/59inch
Light Intensity (lux)	52460/20inch 8450/59inch	32010/20inch 4840/59inch	32010/20inch 4840/59inch	40354/20inch 6500/59inch	45000/20inch 7000/59inch	53200/20inch 7200/59inch	36571/20inch 5720/59inch	68571/20inch 11428/59inch
Coverage Area (m2)	1.5/20inch 6.3/59inch 16/98inch	1.45/20inch 6.3/59inch 15.7/98inch	1.45/20inch 6.3/59inch 15.7/98inch	1.8/20inch 7/59inch 18/98inch	1.8/20inch 8/59inch 19/98inch	2.07/20inch 8.1/59inch 20.7/98inch	1.85/20inch 7.2/59inch 19.45/98inch	2.4/20inch 9.27/59inch 24.15/98inch
Product Dimension (mm)	305*305*65	435*306*65	565*305*65	695*305*65	349*657*65	565*565*65	825*435*65	695*565*65
Packing Dimension cm)	4PCS 53*42*39	2PCS 55*27*39	2PCS 68*27*39	2PCS 68*27*39	1PC 53*16*68	1PC 68*18*68	1PC 85*27*39	1PC 82*18*68
Gross Weight (Kg)	4PCS 18.5KG	2PCS 13KG	2PCS 16KG	2PCS 20.5KG	1PC 12KG	1PC 15KG	1PC 18KG	1PC 20KG