



Twilight Group Co.,Ltd

12x3W LED PAR Grow Light



Unique style, fit general household light socket.

Long lifespan, over 50,000 hours, low maintenance cost

Environment-friendly, no harm to environment, virtually no heat emitted

Cover up 5-9 square feet

Promotes fast vigorous growth



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1. Parameter

Size(mm)	d122x128mm
Real Power(watt)	24w \pm 10%
Input voltage(V)	AC85~260V
Input current(A)	DC330mA \pm 20mA
Work frequency(Hz)	50/60 Hz
light source	3W Bridgelux / epistar led chip (350ma)
LED Quantity	12pcs 3w high power LED
Wide beam angle	40/60/80/90/120 degree
Lumens(Lm)	1080Lm
Lifespan(hrs)	50,000 Hours
Working environment	(-20~40° C)
PF	>0.97
color	Red/orange/blue/yellow/white/UV/IR
Regular spectrum ratio	red630nm:blue460nm:orange=7:1:1





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2,Product Advantage

- 1.Green Products** , Small size, long life, biological energy efficiency, energy saving and environment-friendly. No mercury pollution after broken .It's real green light source, very suitable for green production. No ballasts or reflectors needed.
- 2.Input voltage is AC85-265V**, convenient and safe,very suitable for every country.
- 3.Over 50000 hrs lifespan.**
- 4.Best Spectrum** : LEDs can get pure single or composite light spectrum to promote plant growth ,flowering, fructify and increase yields according to the need of plants in different growth stage. LEDs produce the blue, yellow, orange, green , UV, IR and red lighting which are best for the photosynthesis.
- 5.Very Little Heat** : LED grow light emits very little heat, no burns even close to the plant for supplement lighting. Lighting in the row middle or up the ridges to get great efficiency and lowest light loss. LED Grow Lights are warm to touch and won't scorch young or tender plants but HID lighting can. Reduce your room/building air conditioning costs.
- 6.Simple inner Structure &Easy Maintenance.** It is easy to open and take apart of the light if you meet the problem of the led grow light. We use wire connector in the power supply. It is easy to change the power supply if our clients meet the problem of the power supply.
- 7.Safe**,Environment-friendly, no pollution ,no harm to environment.
- 8. The wavelength can be specified by customer.** We suggest that red light wavelengths **using 620- 630 nm and 640- 660 nm** ,**Blue light use a 450 -460nm and 460- 470 nm**. The red light promotes plant sprouts, flowering, blue light promotes plant growth, and you can independently choose the more suitable wavelength and color proportion to promote the growth of plants.
- 9.Built-in power supply**, CE approved, No setup required, just simpler and safer plugs directly into AC85V-265V, no reflector & ballast needed.
- 10.Small size,using convenient, less weight, high quality and high power.**



3, Product Application

1. Hydroponics & Horticulture & Greenhouse Lighting.
2. Seeding/Seedling/Breeding, Farm/Flower
3. Exhibition/Garden/Bonsai/Home / urban and university research ect.



4, Notice:

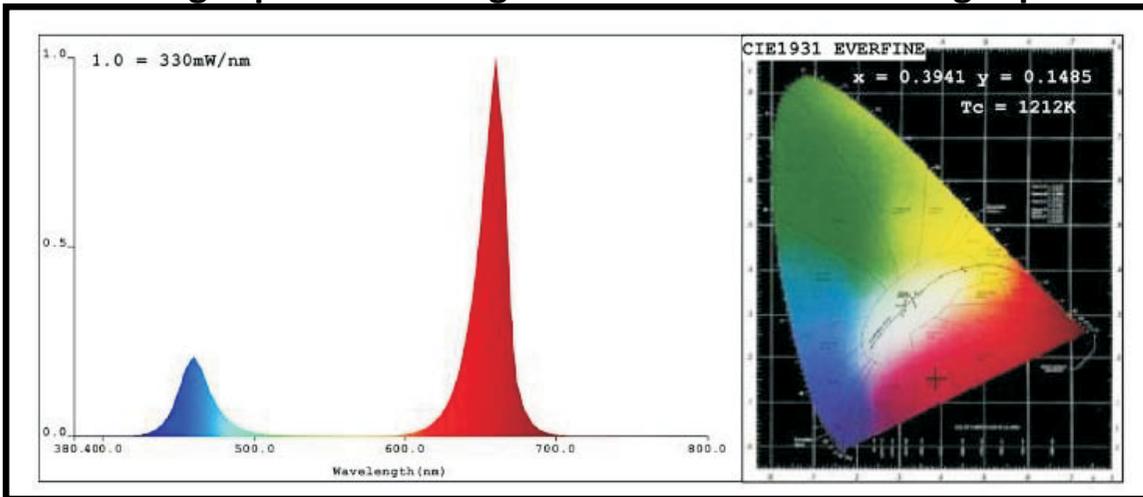
1. This unit is intended for indoor use only and should be prevented from water, moisture and shake.
2. To keep the body of this unit clean to avoid any unnecessary troubles.
3. Do not turn on and off it frequently.
4. Before installation, cut off power supply.
5. LED Grow light should be 0.5-1m higher than plant, it works 12-16h per day can instead of sunlight.



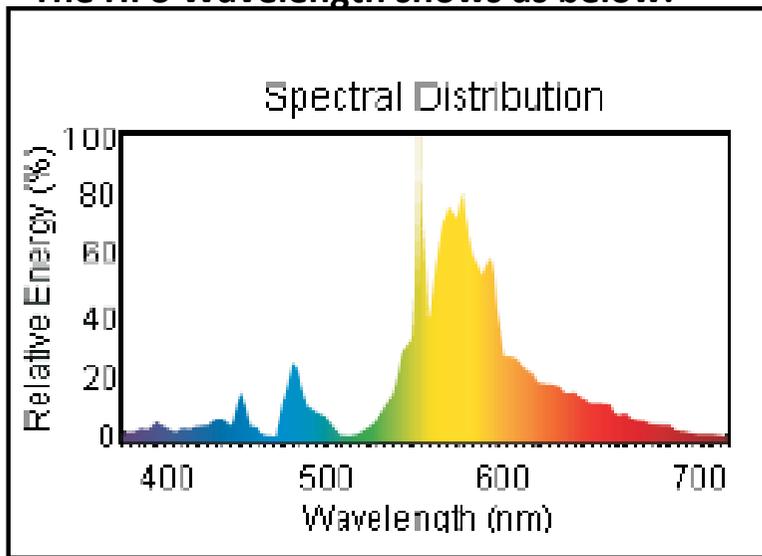
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LED grow light wavelength test result:

The blue light peak wavelength is about 462nm The red light peak wavelength is about 660nm



The HPS Wavelength shows as below:



Our test wavelength machine:

