

Grow Light



ALTLED®

Lodestar Series

Specification Sheet

Product Introduction

Used in the past as a guide to navigators, LODESTAR is a bright, easily found star. As outdoor lighting series have to be, ALT's LODESTAR street light and flood light are beautiful, cost-saving, and with an incredible long life-span. ALT's Lodestar floodlight series is in fact one of the brightest LED in the world, going up to an astonishing lumens of 15300. Integrated with a patented aerospace structural design, and providing consistent light intensity and high performance even in extreme climates, ALT's Lodestar floodlight is ideal for large outdoor areas including external wall, gardens, harbours and sport fields. Furthermore, ALT is proud to announce that it has launched a revolutionary product called LED Grow Light. Also under the Lodestar floodlight series, our Grow Light changes the way we grow plants indoor. By providing much less heat, Lodestar Grow Light consumes less power by delivering the perfect effects that included Red, Green and Blue. This will consequently provide a much more efficient and fast growing.

Certificates



Features

- ✓ Red and blue wavelengths are ideal for growing and flowering of plants.
- ✓ IP68 waterproof standard.
- ✓ Integration of a patented aerospace structural design ensures optimal cooling.
- ✓ Original high-power LED chips.

Application

- ✓ Greenhouse Lighting.



Specifications

Item	Specification	Details
Output	Beam Angle	10°, 20°, 24°, 30°, 45°, 60°, 90°, 130°, 135°, 120°x50°, 120°x60, 135°x50°
	Colour Range	Red / Blue mix
	Lumen Maintenance	50,000 hours
Electrical	Input Voltage	100 ~ 240V AC
	Power Consumption	35,38,60,76,100,115 Watts
Physical	Weight	5 kg (35W) 6.5 kg (60W) 8.7 kg (100W)
	Lens	Optics PMMA
	Operating Temperature	-40° F to 121° F (-40°C to 50°C)
	Humidity	0 – 95%, non-condensing
Certification and Safety	Certifications	CE, FCC, LVD, RoHS Laser Testing,
	Environment	Suitable for damp location
	Warranty	3 years
Two Million Worldwide Product Liability Insurance.		

Chipset Luminous Flux

Chipsets	EPISTAR		
Power Consumption	35 W	60 W	100 W
Beam Angle	24° / 45° / 130° / 120° x 50°		
Chipset Luminous Flux	605 lm	1210 lm	1815 lm

Chipsets	CREE XP-E	LUXEON Rebel	
Power Consumption	38 W	76 W	115 W
Beam Angle	10° / 20° / 30° / 45° / 60° / 90° / 130° / 135° / 120°x50° / 120°x60° / 135°x50°		
Chipset Luminous Flux	1100 lm	2200 lm	3300 lm

※All Chipset Luminous Flux Data are indicated in max values.

Optical Characteristics

Dominant Wavelength (nm) or Colour Temperature (K)

Grow Light - t50



Type	LED Quantity	Wavelength
Red	3	620 - 625 nm
Blue	1	460 - 470 nm

Grow Light – t100



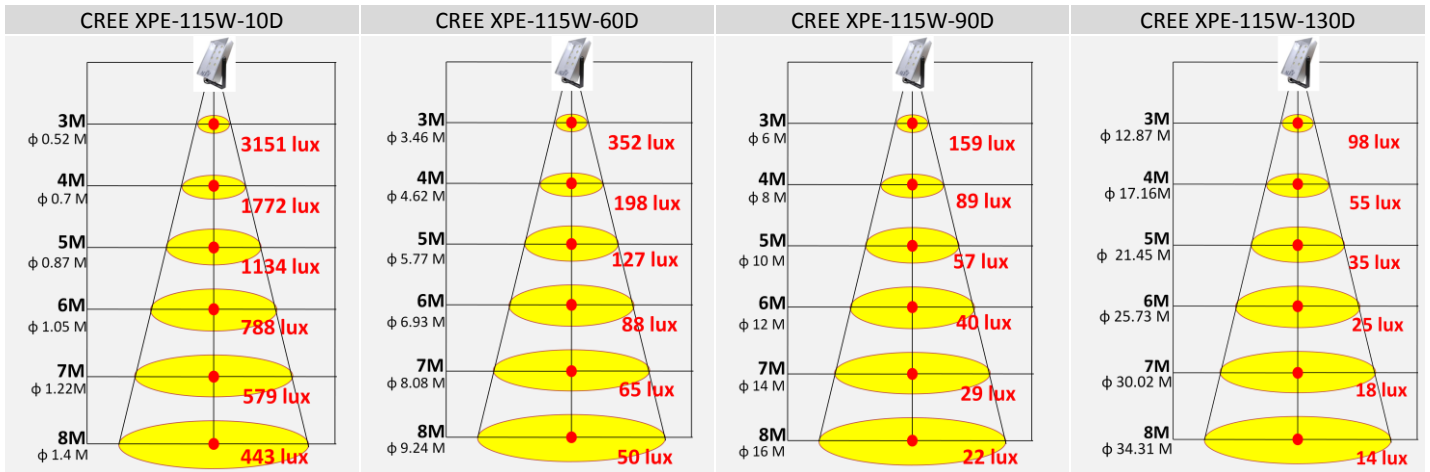
Type	LED Quantity	Wavelength
Red	6	620 - 625 nm
Blue	2	460 - 470 nm

Grow Light - t150

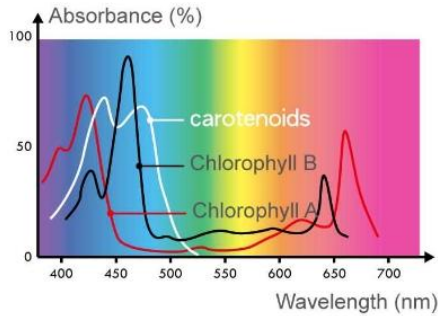


Type	LED Quantity	Wavelength
Red	9	620 - 625 nm
Blue	3	460 - 470 nm

Illuminance at Distance



Chlorophyll Chart

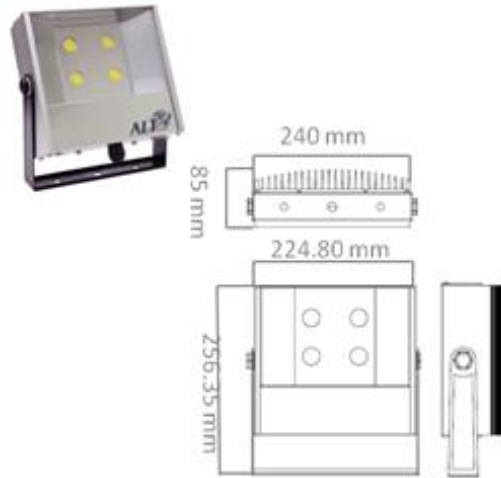


For plant growth, the first stage of photosynthesis is absorbing light by chlorophyll. Chlorophyll A & B and carotene are three major elements to affect plant growth. The two ideal wavelengths for photosynthesis are Blue ray 400-500 nm and Red ray 600-700 nm. Scientifically proved Blue ray and Red ray are the most efficient for plant growth.

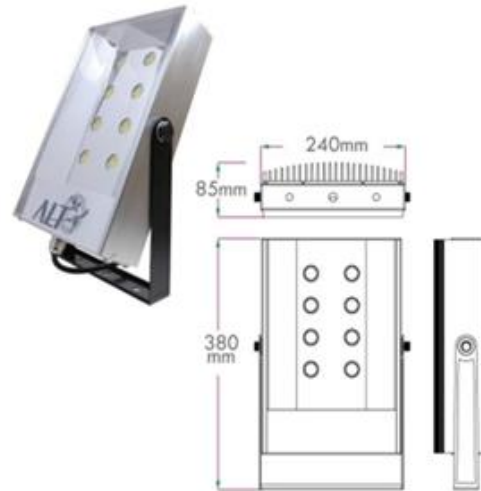
Wavelength	Color	Effects on plant illumination
400~520 nm	Blue	Maximize the Chlorophyll and carotenoids absorbability, highest effect on photosynthesis
610~720nm	Red	Low absorbability of Chlorophyll, notable affect to Chlorophyll and light cycle effect

Mechanical Dimensions

- 35W & 38W



- 60W & 76W



- 100W & 115W

