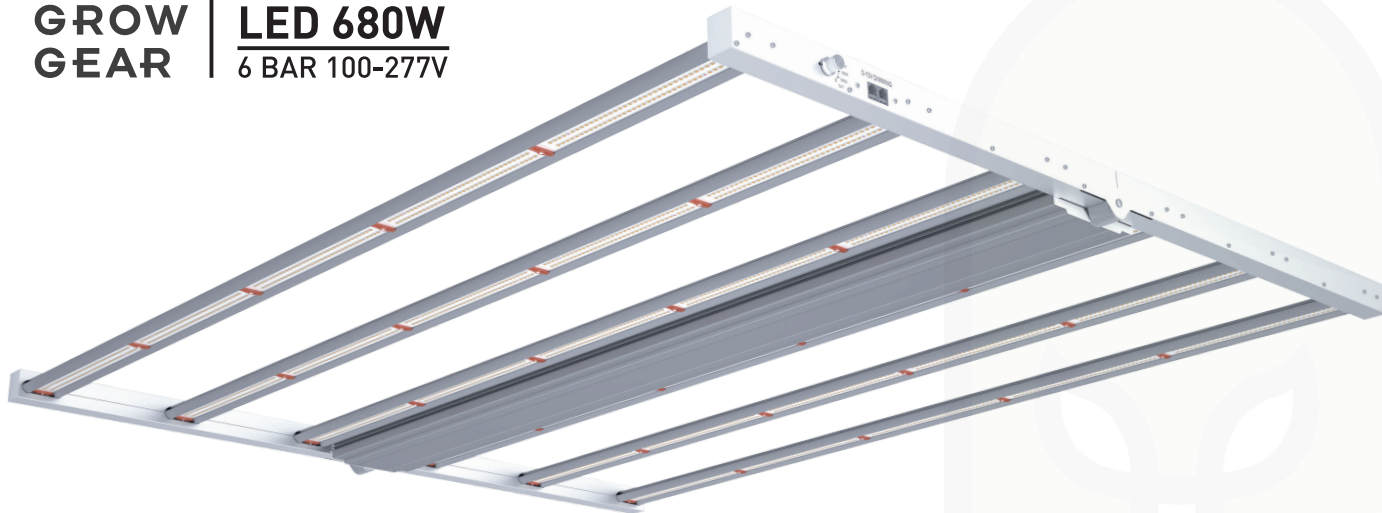




**BC
GROW
GEAR**

**ALDER
LED 680W**
6 BAR 100-277V



USER MANUAL

IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS	2
BEST PRACTICES	2
GENERAL CARE	3
SYSTEM HARDWARE & ACCESSORIES	5
TECHNICAL SPECIFICATIONS	6
FIXTURE DIMENSIONS & WARNINGS	7

- LED EFFICIENCY: 2.8UMOL/J
- TOP BIN LED CHIPS
- FULL SPECTRUM

IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS

- Please read this manual thoroughly before attempting to install or operate any LED Model E Series system.
- After successful installation and configuration of the system, be sure to retain this manual in a safe place for future reference. Safety is a key component to a long lasting and trouble-free installation.
- It is important you read, fully understand, and observe the subsequent safety precautions. If you are not comfortable with the installation of high performance lighting systems, you should seek the services of a qualified installation professional or call us for help.
- NOTICE: The LED are high-performance lighting systems. Do not touch while in operation.
- Connect the system only to the power sources of the appropriate voltage using the AC plug type received. Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet and the unit. Only connect the system to an electrical outlet or extension cord of appropriate type and rating. Connect the system only to the power sources of the correct voltage using the plug received.
- DO NOT defeat the safety purpose of a grounding or polarized plug by removing ground pins or using unsafe adapters. A polarized plug has two blades –one wider than the other. A grounding plug has a third ground prong in addition to the two main conductors. The wide blade or third grounding prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician to replace your obsolete outlet. If you replace the power cord, only use one of similar type and equal or greater current rating.
- The system should only be cleaned as directed in the manual. You should

following occur:

1. The power-supply cord or the plug has been damaged.
2. The unit has been exposed to rain.
3. The unit exhibits a marked change in performance.
4. The unit has been dropped, or its enclosure or chassis is damaged.

CULTIVATION BEST PRACTICES

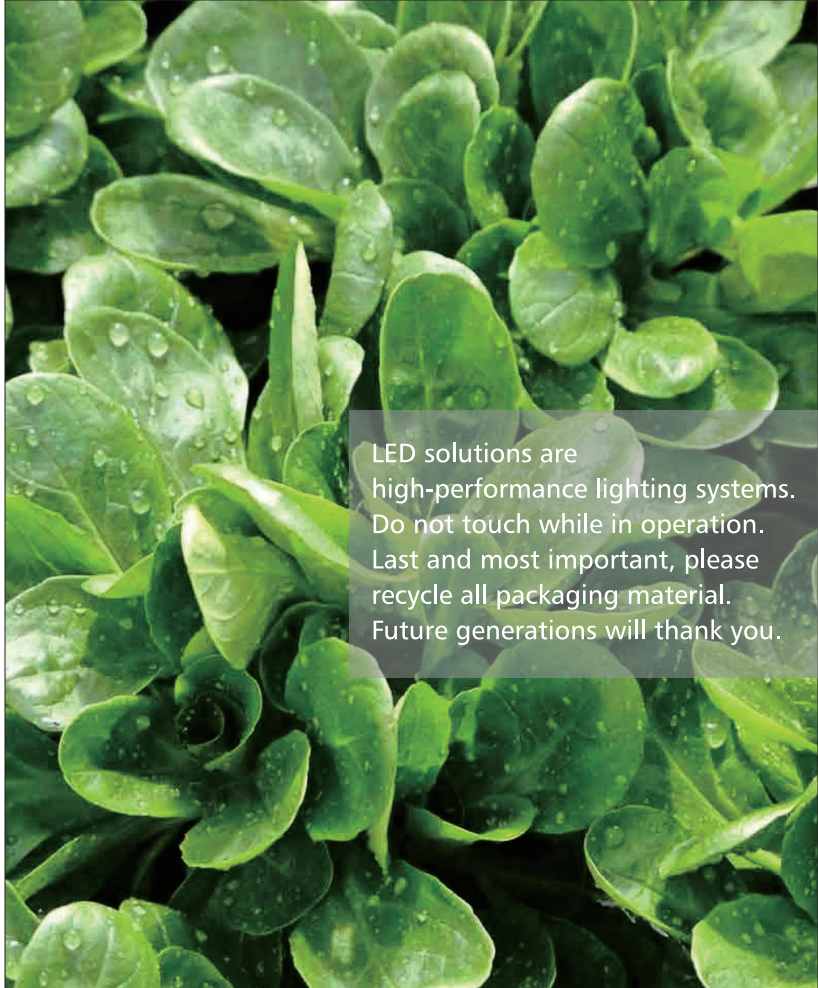
Encourages everyone to experiment and pursue their own techniques. Every crop is different and everyone has different goals. However, our internal research has given us insight into several strategies we would like to share.

- Regularly check your plants' growth and health. LED Model E lighting systems deliver high levels of PAR, typically more than experienced in nature. Adjustments to H₂O, CO₂, RH, nutrients, and temperature are typically required.
- Mount the fixture at least 6" from the top of your canopy to ensure optimal uniformity and consistent PPF. The LED Series was designed to provide uniform light dispersion and requires precise deployment.
- Many plants prefer higher temperatures when exposed to high PPF. Experiment with higher temperatures to achieve higher yields. Canopy temperature and room ambient temperature often vary. For accurate results, test at the canopy level to gauge leaf surface temperature.

GENERAL CARE

LED Series systems are passively cooled with zero moving components. They are designed for harsh environments and years of maintenance-free performance. Some basic care will keep your system operating at peak performance cycle-after-cycle.

- Natural convection removes heat away from the heatsink. In order for the system to properly cool itself, at least one inch of space is required between the console and the roof of your grow area. Failure to do so may shorten the fixture's lifespan.
- To achieve the optimal lifespan and performance of your fixtures, routinely check for and remove excess dust, debris, and mineral build up from heatsink and LED array. Cleaning should always be done with the fixture unplugged from its power source using low-pressure compressed air or water to rinse away dirt from light bars.
- Never use a cloth to clean the diode array. Doing so can scratch or compromise the integrity of the silicon seal, or dislodge diodes entirely.
- To limit degradation, avoid touching the diodes with your hands, even in a powered off state.



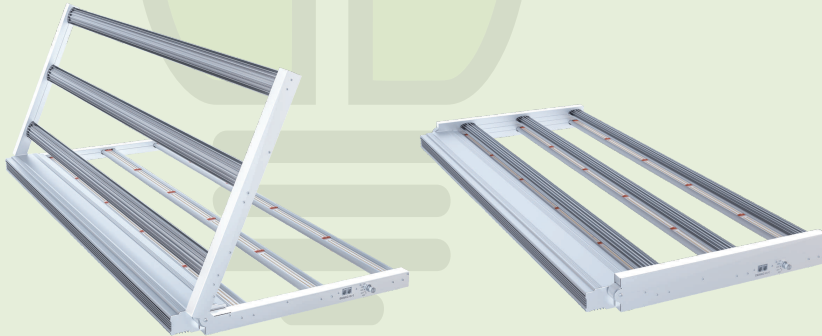
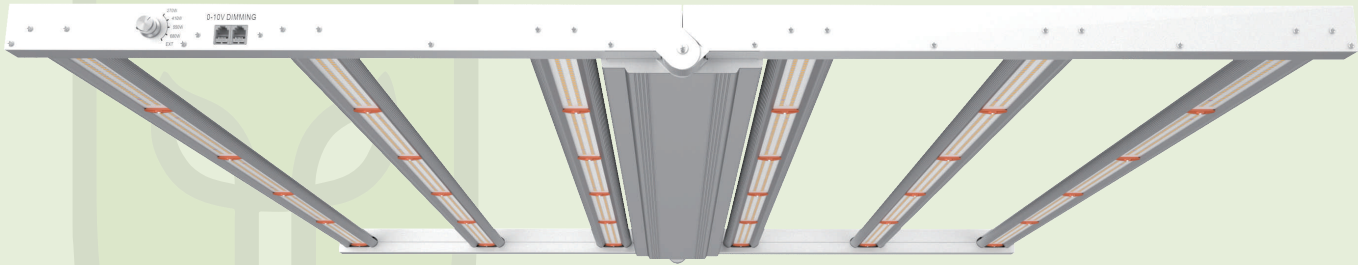
LED solutions are high-performance lighting systems. Do not touch while in operation. Last and most important, please recycle all packaging material. Future generations will thank you.

Lower Power Consumption
Higher Efficiency PPF
Cost Less, Get More



**BC
GROW
GEAR**

**ALDER
LED 680W**
6 BAR 100-277V



180 DEGREE FOLDABLE

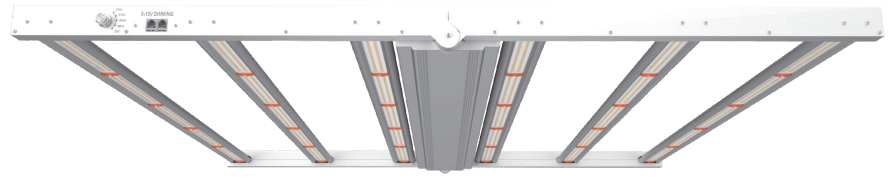
The foldable design feature can save your shipping cost.



SYSTEM HARDWARE & ACCESSORIES

Pre-Configured With:

- A. LED Model E fixture
- B. External RJ14 Network cable
- C. Input Power Cable
- D. 1/8" Rope Ratchet x4



A



B

C



D



TECHNICAL SPECIFICATIONS

Model	Input Power	Spectrum	AC Power Cord	AC Plug	Mounting Hardware
ALDER LED	680W	PhysioSpec Indoor	10Ft (3m)	NEMA 5-15P (UK / EU / AU / IT)	1/8" Rope Ratchet

Photosynthetic Photon Flux (PPF)

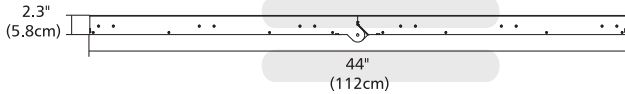
LED Model E-6 Bars 680W 1750 $\mu\text{mol/s}$

Photosynthetic Photon Efficacy (PPE)

LED Model E-6 Bars 680W 2.8 $\mu\text{mol/J}$

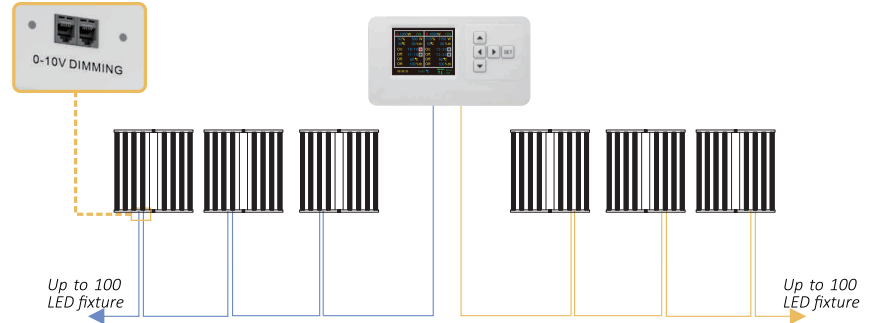
Fixture Dimensions

L 43.5" X W 44" X H 2.3" (111X112X5.8CM)



SMART CONTROL SYSTEM

0-10V dimming feature can make your lighting system more smarter and easier





WARNING

Risk of electrical shock. To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before moving or cleaning.

WARNING

Fixture and power supply are UL 1598 Wet Location rated but are not designed to be submerged in water. In the event that the module or power supply enclosure becomes submersed, first disengage the circuit breaker, then unplug submersed components before proceeding to remove from water.

CAUTION

To prevent eye damage, avoid looking directly at the unshielded LEDs.

CAUTION

LED and heat sink surfaces may be hot. Allow sufficient cooling time before handling.

CAUTION

To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.



**BC
GROW
GEAR**

**ALDER
LED 680W**
6 BAR 100-277V



**FIND MORE HARVEST,
FIND OUR PROFESSIONAL LED
HORTICULTURAL LIGHTING SERIES**