



SAMSUNG
LM301H Diodes

RED
660NM

IR
730NM

KS2500

USER INSTRUCTIONS

Contact Us:

- Follow us on Facebook @ViparSpectra
- Sending an email to support@viparspectra.com
- Contact us via Amazon or eBay message.
- www.viparspectra.com

SAFETY INFORMATION

Dear Users,

Thank you for choosing our products! Please read this instruction carefully before using your lights.

1. CAUTION: Do not look directly at the LED bulbs when the lighting equipment is working.

2. The maximum temperature of the installed environment (ambient temperature) will ensure the safe operation of the lighting equipment. So you will need to control the temperature within the installed environment. (Example: mechanical ventilation or cooling system is required to maintain the temperature within the growing space below 104°F (or 40°C) when the lighting equipment is in operation).

3. Instructions to guide the installation such that cords:

- Are not concealed or extended through a wall, floor, ceiling, or other parts of the building structure,
- Are not located above a suspended ceiling or dropped ceiling,
- Are not permanently affixed to the building structure,
- Are routed so that they are not subject to strain and are protected from physical damage,
- Are visible over their entire length, and
- Are used within their rated ampacity as determined for the maximum temperature of the installed environment specified in the instructions.

4. This lighting equipment is for indoor use only. Not water-proof, protect your lighting equipment from dampness, dust, and water.

5. CAUTION: For horticultural lighting structures, installation shall be performed by qualified personnel and that the structures are intended for installation subject to approval by the authority having jurisdiction.

6. Set up your light in the operating environment that allows for adequate air circulation. Never push objects into the ventilation openings.

7. When cleaning the outside of your light and its components, first, you need to shut off your light, then unplug the power cord. Using a clean, soft, lint-free cloth to wipe the light. Avoid getting moisture in any openings.

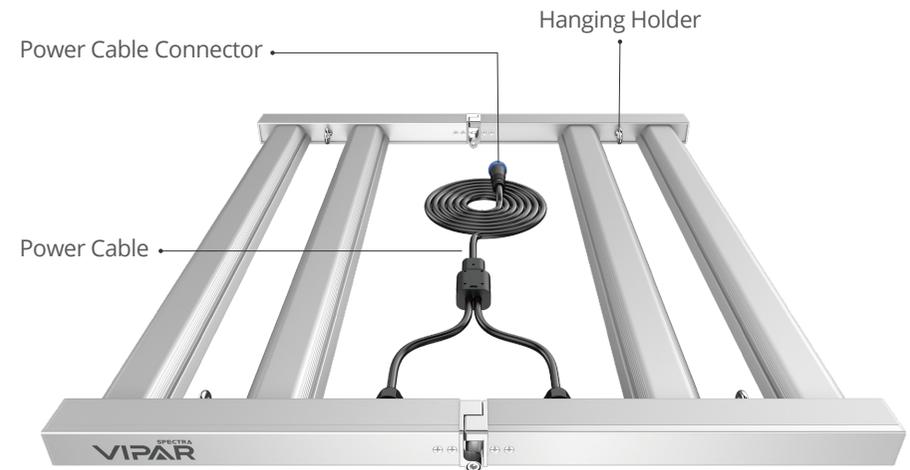
8. CAUTION: Possibly hazardous optical radiation emitted from this product. Do not stare at the operating lamp. May be harmful to the eyes.

KS2500

KS2500 SPECIFICATION

Model	KS2500	HID Replacement	500W HPS/MH
Feature	Dimmable	Vegetative Coverage at 24"	3.0 × 3.0 ft
Actual Power Draw	250W±3% at 120V	Flowering Coverage at 12"	3.0 × 3.0 ft
LEDs	SAMSUNG LM301H 3000K, 5000K, RED 660NM, IR 730NM	Use for	all stages grow and flowering
Total Harmonic Distortion	< 15%	Housing Dimensions	24 × 26 × 1.6 inches
Input	AC100-240V~2.3A	Item Weight	6.9 lbs
Frequency	50/60Hz	Lifespan	≥ 100,000 hours

KS2500 Full Spectrum LED Lighting



* This light includes IR (Infrared) LEDs which look dim, they are not faulty LEDs.

* Light housing's temps would become higher after working several hours. Do not touch the operating lamp.

* SUITABLE FOR OPERATION IN AMBIENT NOT EXCEEDING 104°F (or 40°C).

KS2500 PPF MAP

Tested in a 3.0 x 3.0 ft Grow Tent

Seedling: **50%** Distance: **18" (45cm)**

277	320	341	342	319	270
302	348	378	373	344	308
313	364	397	392	357	320
319	361	397	397	361	323
305	339	378	384	338	307
274	304	321	320	305	274

3ft

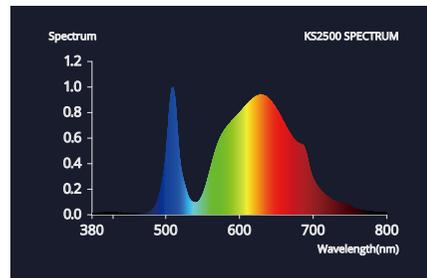
Vegetative Stage: **75%** Distance: **18" (45cm)**

412	478	506	511	480	410
417	516	570	563	514	457
452	540	592	588	535	481
464	529	588	590	538	481
422	501	553	560	501	437
413	450	485	497	466	415

3ft

Flowering Stage: **100%** Distance: **12" (30cm)**

475	618	701	709	611	469
603	863	959	981	860	605
614	827	920	934	832	615
612	822	921	920	837	610
601	846	942	969	850	601
470	615	680	675	616	470



Visit our website for more useful suggestions and PPF Maps.

USING SUGGESTIONS

KS2500	Seedlings / Clones / Mother Plants	Vegetative Stage	Flowering Stage
Brightness	50%	75%	100%
Power Draw	125 Watts	187.5 Watts	250 Watts
Hanging Height (Above Plant)	18" (45cm)	18" (45cm)	12" (30cm)
Maximum PPF	400 $\mu\text{mol}/\text{m}^2/\text{s}$	603 $\mu\text{mol}/\text{m}^2/\text{s}$	1000 $\mu\text{mol}/\text{m}^2/\text{s}$
Average PPF	335 $\mu\text{mol}/\text{m}^2/\text{s}$	498 $\mu\text{mol}/\text{m}^2/\text{s}$	729 $\mu\text{mol}/\text{m}^2/\text{s}$
Using Hours	18 on / 6 off	18 on / 6 off	12 on / 12 off

KS2500 USABLE PPE

Usable PPE: 2.36 $\mu\text{mol}/\text{J}$

Flowering Stage: **100%** Distance: **12" (30cm)**

475	618	701	709	611	469
603	863	959	981	860	605
614	827	920	934	832	615
612	822	921	920	837	610
601	846	942	969	850	601
470	615	680	675	616	470



Hanging Height:	12" (30cm)
MAX PPF:	1000 $\mu\text{mol}/\text{m}^2/\text{s}$
Power Draw:	250W
Ave. PPF:	729 $\mu\text{mol}/\text{m}^2/\text{s}$
Usable PPF:	590.5 $\mu\text{mol}/\text{s}$
Usable PPE:	2.36 $\mu\text{mol}/\text{J}$

PLANTING SUGGESTIONS

($\mu\text{mol}/\text{m}^2/\text{s}$)

Species	Seed	Vegetative Cutting	Vegetative	Flower/Fruit/Reproductive
Canna Plants	200-400	75-150	400-600	600-1000 (No CO ₂)
Tomatoes	150-350	75-150	350-600	600+
Cucumbers	100-300	-	300-600	600+
Peppers	150-350	-	300-600	600+

Seedlings - You will need to hang the light high due to the delicate nature of seedlings. We recommend a break-in period of about a week while a seed has broken the surface. The first set of real leaves should be present while the seedling has been above ground for about a week.

Clones - Clones are a little bit harder than fresh seedlings, but still, need to be given gentle light as they are entirely rootless when first cut, and need to conserve energy and moisture to transition into a rooting stage.

Vegetative - The deeper red spectrum is utilized less by the plant than when it is in flower. It uses high levels of white light that are essential for creating lush, thick plants that have tight internodal spacing and minimal stretching.

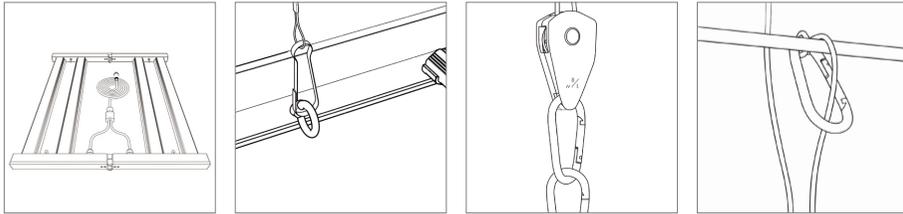
Flowering - The plant has much work to do and is performing many complex biological processes in producing flowers and fruits. Because of this, the plant now requires large amounts of light.

Late Flower - Most rapid development has stopped, and the plant is gearing up for the scene in which the large flowers and fruits will mature or ripen.

If you expose plants to high light intensities too early in the crop cycle, you can damage chlorophyll pigments causing photo-oxidation (photo-bleaching), so we recommend slowly increasing your light intensity as your plant develops.

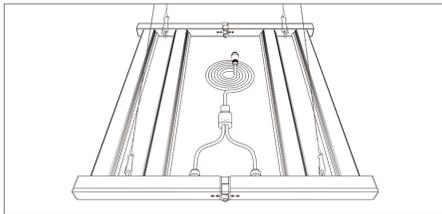
MOUNTING INSTRUCTIONS

1. Mounting

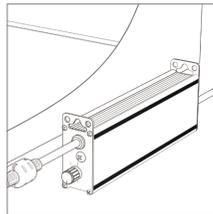


1. Unfold your light fixture and place it on the floor with the LEDs facing downward.
2. Attach the hanging kits' clips (or the rope ratchets) to each hanging hole on the light.
3. Connect the rope ratchets with each hanging kit's carabiners.
4. Hang up each rope ratchets in a safety mounting location and raise them to the desired hanging height.

KS2500 Product suspension diagram

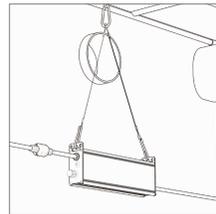


Option 1 (Recommended)



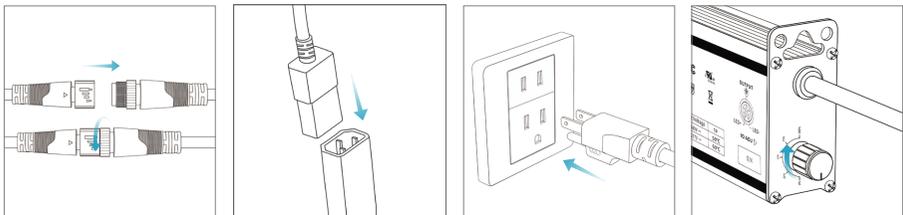
Place the LED driver in a safety location outside the grow tent.

Option 2



Hang up the LED driver in a safety location in the grow tent.

3. Connect LED Driver to Light(s)



1. Connect the driver power cord to the light. To remove the connection, twist the locking ring counter clockwise and pull.
2. Connect the power cord to the driver.
3. Plug the light into an outlet.
4. Adjust the brightness based on your desired light intensity needs.

WARRANTY TERMS

1. This warranty applies only if you purchased your products in the United States.
2. We offer 3 years warranty for our KS Series LED grow lights purchased against manufacturing defects from the date of purchase. If you need any warranty assistance, please contact us as soon as possible.
3. The warranty does not cover damage due to high moisture levels, water, power surges, improper hanging or mounting, incorrectly use, dust build-up, or user modifications.
4. If your light has any quality issue within 30 days, please kindly contact us. We will email you a prepaid return label if the lights need to be returned to our warranty center. You can choose:



Replacement. Please send the light back to our warranty center. A new replacement will be shipped to you for free as soon as we receive the defective light.



Money-Back. Please send the light back to our warranty center. You will get your money back as soon as we receive the defective light.



Repairing. We can send the part immediately if it is missing part or accessory issue. Or you also can choose to return the light. We will send the light back to you after fixing it. It will not cost any repair charge — all for free.

5. Repairing. If any light has any quality issue over 30 days after delivery, please kindly contact us to get a satisfactory solution. We can send the part free of charge immediately if it is missing part or accessory issue. Or you also can choose to return the light with the provided prepaid shipping label. We will send the light back to you after fixing it — all for free.

6. For customers outside the US, you will also enjoy 3 years US warranty. Back and forth shipping cost from your country to our US warranty center would be buyer's responsibility. All repairs are only processed within the United States.

7. If a light was not covered under warranty, we might still be able to perform warranty service. However, that is at our discretion, and repair may bear a cost that will be assessed before repairing the light.

Our company reserves the interpretation right of this warranty structure. If you have any questions about our warranty policy, please kindly contact us.