



# Vertical DE

DEEP CANOPY PENETRATION



# USER MANUAL

## VERTICAL DE REFLECTOR & Top Hat



GL-VFIX  
GL-THR

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**Please read this manual thoroughly prior to installing or operating the fixture.**

- Observe all safety precautions, seek the services of a qualified/certified/licensed/insured electrician, or call ILUMINAR Lighting technicians for assistance.
- DO NOT handle or touch the fixture while in use.
- Connect the fixture only to the power sources of the appropriate voltage using the correct AC plug type. Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet to the unit. Only connect the fixture to an electrical outlet or extension cord of comparable standard and level rating. Connect the fixture ONLY to the power sources of the correct voltage using the plug received.
- The fixture should only be cleaned as directed. Always seek service for your system by qualified service personnel if any of the following occur:
  1. The fixture shows a noticeable change in performance.
  2. The power-supply cord or plug is damaged.
  3. The fixture has been dropped, or the exterior is damaged.



THANK YOU for purchasing an ILUMINAR Lighting Vertical DE Reflector. We strive to deliver the best customer service alongside world-class products and we go above and beyond to make sure you are satisfied with your purchase. The following is a general set of warnings and basic guidelines for the ILUMINAR Vertical DE Reflector. Always have an expert install your product(s).

#### KEEP ORIGINAL PACKAGING

In the event of a return, products will need to be in the original ILUMINAR packaging to avoid product damage during shipping. Any damage to products not in the original packaging will not be covered under the Warranty. Visit [iluminarlighting.com/warranty](http://iluminarlighting.com/warranty) for more detailed information.

#### ❗ SAFETY 1ST

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN ELECTRIC SHOCK AND/OR SERIOUS INJURY. Additionally, failure to follow these safety warnings can/will result in a void of all warranties as well as any manufacturer liability.

Please read carefully prior to beginning installation.

## WARNINGS

- ⚠ Ensure that all power is completely disconnected from fixture prior to installation.
- ⚠ Ensure that all installations maintain a base minimum of 6" (15cm) from all obstructions.
- ⚠ Ensure your hanging hook assembly is fully seated into the hanging connector, do not hang or lift fixture by the lamp power cord.
- ⚠ Ensure that safety glass is properly installed with knurled thumb screw is tight prior to connecting power, never turn on your fixture without the protective glass in place.
- ⚠ Use only matching ballast and lamp combinations that do not exceed 1000W for High Pressure Sodium lamps, Metal Halide, or LEC applications.
- ⚠ Secure all lamp cords to your hanging rail or ceiling above to ensure that they do not come in contact with the fixture in any way.
- ⚠ Do not use any lamps that require UV filtering.
- ⚠ For Metal Halide or LEC lamps use Type-O configurations only.
- ⚠ Lamp is intended for use only in a vertical agricultural environment where this lamp is positioned in between the plants, ensuring a proper safety radius from the plant (1.5 ft - 2 ft minimum distance from the plant) with proper air circulation.
- ⚠ All installations should be done by a certified/registered/insured electrician.
- ⚠ Disconnect all power to fixture when working on the fixture, lamping, or re-lamping.
- ⚠ Fixture is not intended for wet-use locations, protect fixture from all liquids to avoid damage of electric shock.
- ⚠ Ensure that all electrical connections adhere to the National Electrical Code and local building codes.
- ⚠ The use of any other manufacturers accessories that are not recommended by ILUMINAR may cause safety concerns.
- ⚠ Do not exceed maximum fixture voltage rating of 600V or maximum wattage rating of 1000W.
- ⚠ Do not look directly into ignited lamp as this can result in permanent eye damage. Always wear protective eyewear when lamping or re-lamping.

## ELECTRICAL PARAMETERS

Maximum Wattage: 1000W

Maximum Voltage: 600V

Maximum Pulse Rating: 5KV

Maximum Operating Temperature: 201°F (105°C)

Lamp Cord: STO 16/3, 600V, 5KV Dimensions

## FIXTURE SPECIFICATIONS

Fixture Length (without cord) 22.22" (564.3mm)

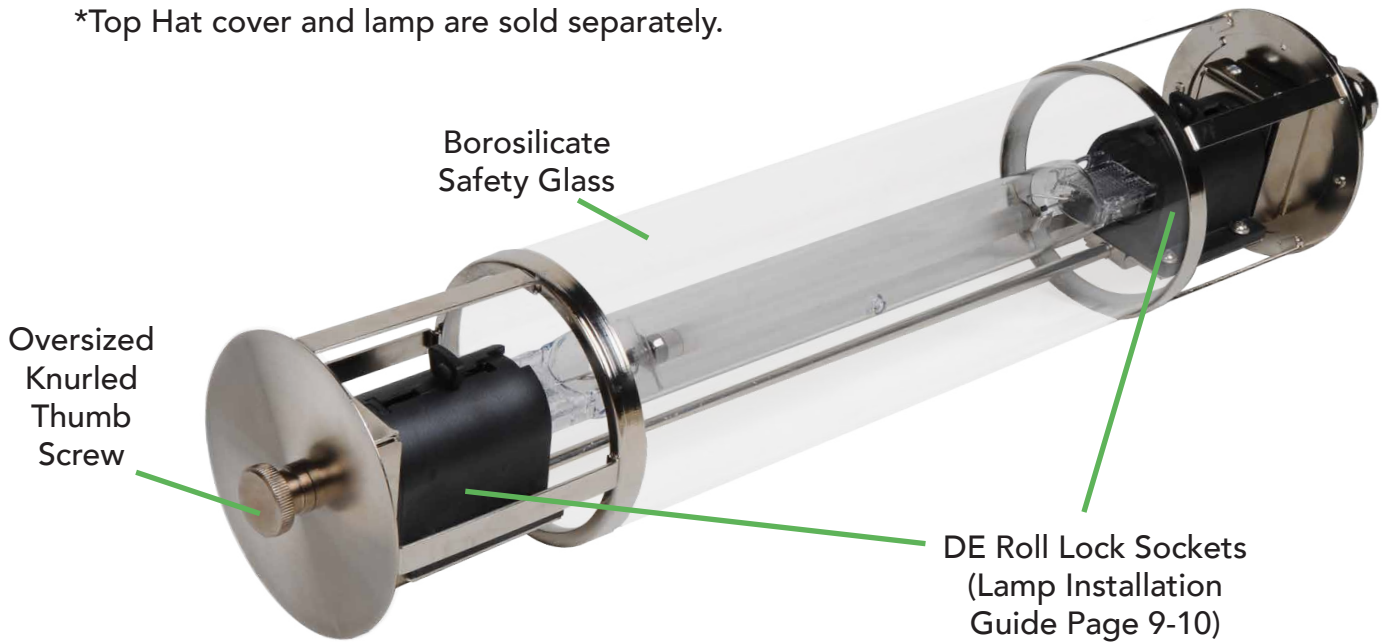
Fixture Diameter: 4.1" (104mm)

Cord Length: 15 Ft (4572mm)

Fixture Weight (with hanging hooks and cord): 7.45lbs (3.38kg)

# IN THE BOX

- 1x Inner frame chassis with built in DE Roll Lock Sockets
- 1x Borosilicate Safety Glass
- 1x Oversized knurled thumb screw
- 1x 15' industry standard lamp cord (not pictured)
- 1x Hanging Hook Assembly (not pictured)
- \*Top Hat cover and lamp are sold separately.



## LAMP DESIGNATION

## ANSI CODE

400W HPS	S51
600W HPS	S106
750W HPS	S111
1000W HPS	S52
400W MH	M59/O
600W MH	M57/O
1000W MH	M47/O
315W LEC	C182/O
630W LEC	C182/O
945W LEC	C182/O

**\*Do not use lamps that require UV filtering.**



# Vertical DE

DEEP CANOPY PENETRATION

315-1000W

VOLTAGE: 120-347V

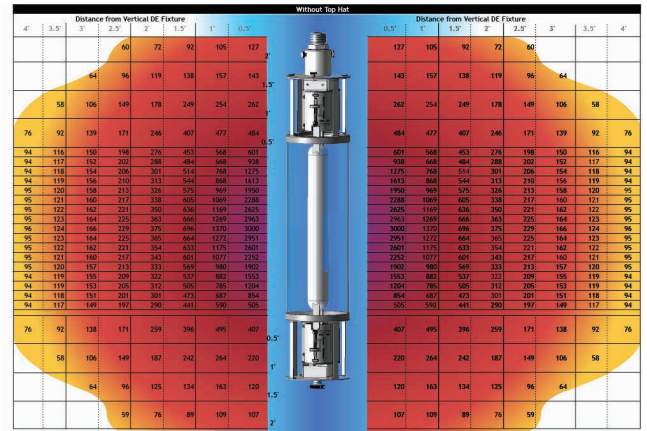
SKU: GL-VFIX



## FEATURES

- ◀ 15' cord
- ◀ Cold rolled, hot galvanized dipped steel frame
- ◀ 360° safety lens made from Borosilicate glass
- ◀ Sweet-spot lighting solution
- ◀ Single hand 'roll-lock' socket for simple lamp installation
- ◀ Increased efficiency
- ◀ Key locking safety lens
- ◀ No tools necessary for assembly

## PPF WITHOUT TOP HAT REFLECTOR



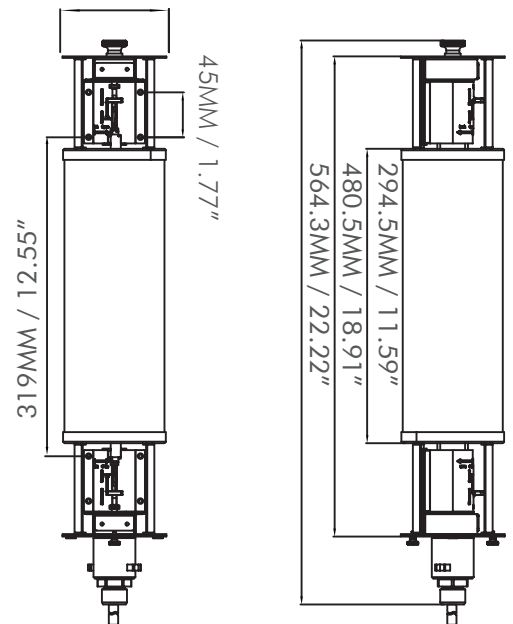
## PERFORMANCE REQUIREMENTS

Wattage Range	315-1000W
Voltage Range	120-347V
Max Wattage	1000W
Max Voltage	600V
Maximum Pulse Rating	5KV
Maximum Operating Temperature	201°F (105°C)

## PHYSICAL SPECIFICATIONS

Length	564.3 mm	22.22"
Width	104 mm	4.1"
Height	104 mm	4.1"
Weight	3.38kg	7.45lb

Ø104MM / 4.1"



COLD ROLLED, HOT GALVANIZED DIPPED STEEL FRAME



KEYHOLE LOCKING SAFETY FEATURE



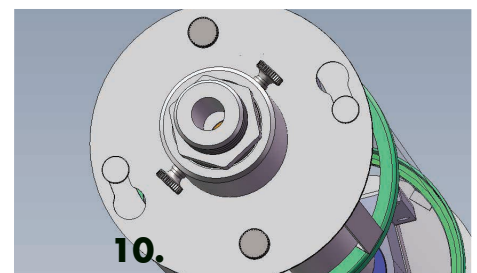
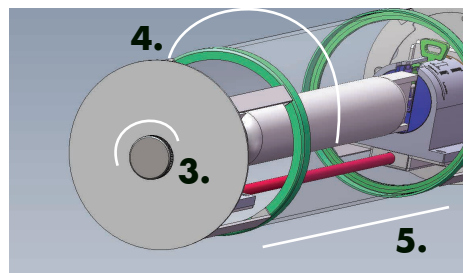
INCREASE YOUR GARDEN EFFICIENCY

## INSTALLATION PROCEDURE

When possible, have a licensed electrician or electrical expert install all lighting fixtures and reflectors or aid in the electrical layout plans and/or diagrams prior to installation.

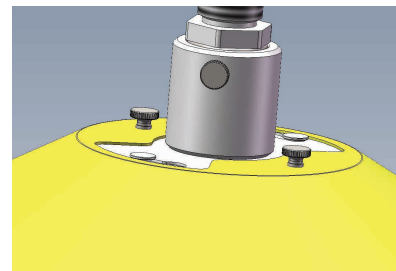
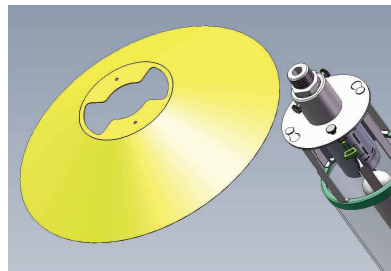
Check the electrical panel to ensure proper voltage is available for the number of fixtures installed. Panels should only support a total amperage of 80% of its capacity, i.e. 100 amp panel should never exceed 80 amps.

1. Unbox the ILUMINAR Vertical Fixture and remove all packaging materials from fixture.
2. Unpack hanging hook assembly and set aside for the moment.
3. Unscrew the knurled thumb screw on the bottom of the fixture and set aside.
4. While holding the top of the fixture in one hand twist the safety glass with your other hand in a clockwise manner.
5. Carefully pull the safety glass down from the top of the fixture, removing it from the inner frame chassis.
6. Set safety glass aside onto the paper packaging to ensure that there is no damage to the glass.
7. Slide the Roll Lock Sockets knobs to the open position - pulled to outer edges of the fixture. Roll Lock Instructions and diagram on pages 9-10.
8. Insert your ILUMINAR HPS or MH lamp into the Roll Lock Sockets and rotate the lamp 90° until seated. **DO NOT BEND WIRE LEADS.**
9. Lock the Roll Lock Socket knobs by sliding them to the closed position (toward the center of the fixture).
10. Carefully reinstall the safety glass onto the inner frame chassis and once both keyways are centered on the shoulder rivets, twist in a counter-clockwise direction until it is firmly seated into position.
11. Reinstall the knurled thumb screw into the bottom of the fixture and tighten until fully seated and there is no movement between the safety glass and inner frame chassis.



## INSTALLING THE TOP HAT (SOLD SEPARATELY)

1. If you purchased the Top Hat (sold separately), begin by sliding the Top Hat reflector cover down the lamp cord and align the Top Hat's mounting holes with the drilled holes on the top of the inner frame assembly and screw the 2 provided 4mm thumb screws onto the Top Hat reflector cover, ensure that Top Hat reflector cover screws are tight and the Top Hat is secure.
2. Install the mounting hook into the junction box hanging connector and ensure that the hook is fully seated into position.
3. Secure the fixture by hanging it onto approved chain or hanging rail and ensure that it will not fall.
4. Using approved fasteners, tie the lamp cord up to an approved hanging rail or chain ensuring that the lamp cord cannot come in contact with the fixture, ballast coil, or any slack cord and tie it so that it won't get bumped or contact the ballast or reflector at any time. Ensure that approved hanging chain or rails are rated to support the fixture weight of 7.45 lbs (3.38kg).
5. Ensure that your ballast has all power disconnected prior to connecting the lamp cord to the ballast.
6. Connect power to your ballast and start growing.





# PROPRIETARY ROLL LOCK SOCKET INSTALLATION

ILUMINAR Lighting created the first of its kind, single-handed "Roll-Lock" socket for simple, one-handed lamp installation. We know it can get tricky to load new lamps - it's too easy to drop the lamp and lose that investment. Keep your lamps safe when you install using the Roll Lock socket. The Roll Lock Socket works with all DE Lamps - HPS, MH, and CMH, for all wattage options.

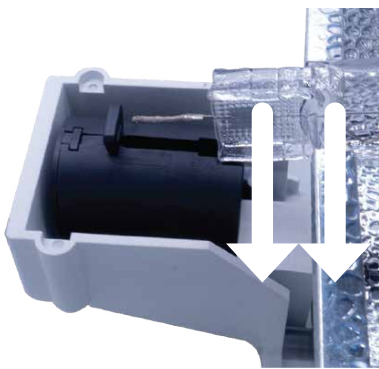
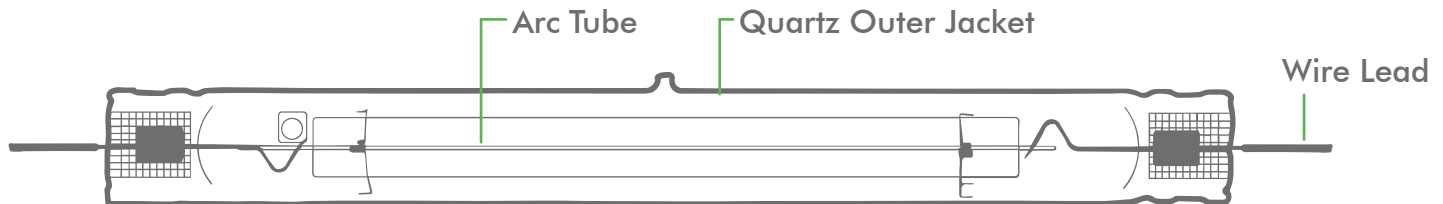


Photo A

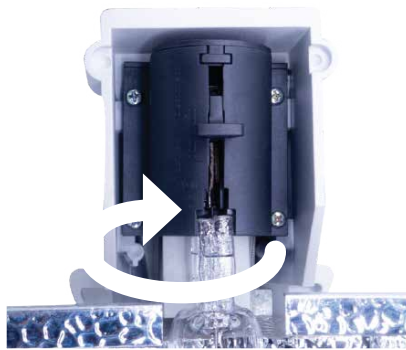


Photo B

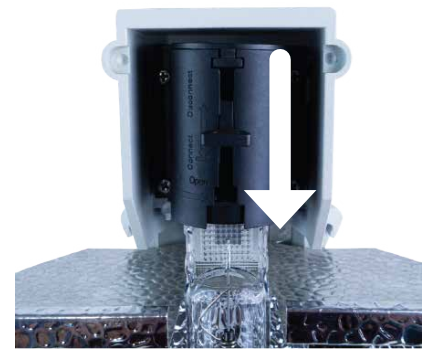


Photo C

## ROLL LOCK SOCKET INSTALLATION

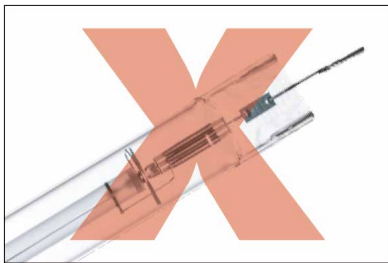
1. Slide both levers away from the lamp to the "Open" position. (Photo A) Each socket applies up to 5mm of lateral pressure to ensure a secure fit.
2. Ensure both wire ends/leads are straight - **DO NOT BEND THE WIRE LEADS!** Ensure the wire leads are **NOT FRAYED OR LOOSE** (if there are frays, twist them back into the wire leads). Small frays of metal can cause the fixture to arc or melt.

**CAUTION: DO NOT HANDLE THE LAMP WITH BARE HANDS**  
The oils from your hands can be dangerous when burning off in the high heat of the lamp.

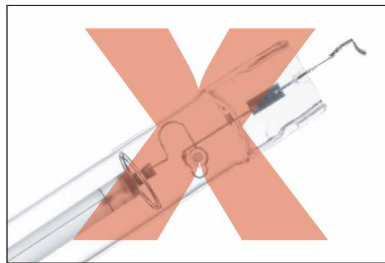
## ROLL LOCK SOCKET INSTALLATION (CONT.)

3. Using soft gloves to handle the lamp, slide the lamp into the fixture (with metal leads straight) until the lamp is fully seated.
4. Rotate the bulb, itself, to lock it into place (so that it will not move).
5. Slide both socket levers toward the lamp to the “closed” position to add a second lock to fix the lamp into position. If the lamp is seated correctly, both levers should easily slide inward to lock the DE lamp into the socket. It is now ready to use.

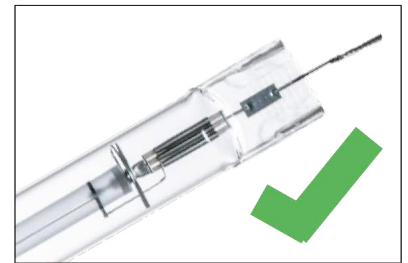
DO NOT force the levers closed, this can cause damage to both the lamp and the levers. DO NOT handle the lamp with bare hands. Always wear surgical or cloth gloves when handling the lamp to minimize fingerprints and oils left on the lamp. If the lamp needs cleaning after installation, use a soft, dry cotton cloth to wipe off fingerprints/skin oils.



DO NOT FRAY



DO NOT BEND



## ROLL LOCK SOCKET UNINSTALL

1. To remove or change the lamp, simply follow the steps above.
2. Slide both socket levers away from the lamp to the “Open” position. (Photo A)
3. USING SURGICAL OR COTTON GLOVES, gently rotate the lamp itself to open the Roll Lock Socket.
4. Gently lift the lamp out of the sockets.
5. Rotate the new bulb into place.
6. Slide both socket levers toward the lamp to the “closed” position.

## WATCH ROLL LOCK VIDEO GUIDE



# TROUBLESHOOTING

Follow these troubleshooting solutions:

## Possible Cause

## Corrective Maintenance

Lamp Loose in Socket	Ensure the lamp is fully inserted into the socket and that it has been properly locked.
Incorrect Voltage	Make sure you're using the correct input voltage with ballast. If using incorrect voltage, disconnect the ballast from the power source immediately.
Defective or Improper Wiring	Examine wiring to ensure it agrees with wiring diagrams on ballast label. Check connections to see that they are secure. If wiring a ballast, DO NOT use a neutral. The correct wiring is two hot wires and a ground.
Poor electrical connections	Check wiring and lamp contact with socket.
Incorrect Lamp	Verify that you're using a correct wattage lamp.
Lamp Damage	Investigate possibility of outer lamp damage. Look for broken tubes or loose metal replace lamp.

## RETURNS

## WARRANTY

Please contact your point of purchase store for returns.

When properly used, this unit will provide you with years of service. Vertical DE Reflector is covered under a 3 year warranty. This warranty will be voided if the unit is misused, abused, opened or altered. Warranty repair or replacement will be at the sole discretion of the manufacturer. Defective units need to be returned to the place of purchase with proof of purchase/receipt.

For more warranty information, visit [iluminarlighting.com/warranty](http://iluminarlighting.com/warranty)

## CERTIFICATIONS



**3**YEAR  
WARRANTY

## GUARANTEE

At ILUMINAR, we stand behind our products and our technology as well as our customers. The ILUMINAR Vertical DE is backed by our 3-Year Guarantee. Please visit our website [iluminarlighting.com/warranty](http://iluminarlighting.com/warranty) for more information.

This guide does not supersede national, state, or local regulations for electrical installations.