



INSTALLATION GUIDELINES:

CAUTION: Two important factors should be considered when locating below grade luminaires in pedestrian areas where the potential exists that human skin might come in contact with the glass lenses:

- 1) Potential frequency of contact.
- 2) Potential duration of contact.

There are no universal guidelines for the application of below-grade luminaires in pedestrian areas. Numerous studies exist on "recommended maximum temperatures for touchable surfaces", and healthy adult human skin is known to burn if it reaches a temperature of 43°C (109°F). The key word is "reaches", because duration of contact is a key factor. For example, if you touch a surface that is 200°C, the burn will be instant before reflex actions cause you to pull away. On the other hand, if you touch a surface that is 43° C, it may take hours for a burn to occur. Kim Lighting has taken the position that we must set the application standards for this product based on our extensive experience in outdoor lighting, and actual Kim lab tests. Therefore, we strongly suggest the following guidelines:



Trees / Columns

The illumination of trees in sidewalks or courtyards is an excellent application for the 6360. Fixtures should always be located out of the normal pedestrian path to minimize contact. This is normally in-line with the row of trees, and out of the main sidewalk area. The same fixture locations should also be applied to building columns, locating them in-line with, and close to the columns. **See Caution.**

Typical Installation in Concrete or Paved Areas:

To make fixture installation easier in concrete or paved areas each fixture comes with a plastic grout mask. **Note:** Always use adequate rebar surrounding the fixture to prevent cracking of the concrete due to heat expansion. 2" Draina



Canopies and Overhangs

Overhanging building structures and canopies are also excellent applications for the 6360. To minimize contact with the fixtures, they should be located close to the wall or glass line where pedestrian traffic is not normal. For free-standing canopies supported by columns, fixtures should be located close to the columns. **See Caution.**



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Wall Grazing

The 6360 is excellent for creating a dramatic grazing-light effect on building walls that have reliefs and projections. As with canopies and overhangs fixtures should be located close to the wall where pedestrian traffic is not normal. **See Caution.**



INSTRUCTIONS PERTAINING TO A RISK OF FIRE, OR INJURY TO PERSONS IMPORTANT SAFETY INSTRUCTIONS!

WARNING: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

SAFETY WARNING: <u>DO NOT</u> install these fixtures in submersible installations such as fountains or swimming pools. Extreme caution should be taken when fixtures are used in paved areas. If fixtures must be used in paved areas, locate them away from normal pedestrian traffic, and use the lowest wattage lamp available.

NOTE: All wiring must be done by a qualified electrician. KEEP THIS SHEET FOR FUTURE REFERENCE.

- **CAUTION:** A Extreme caution should be used for projects where Children, the Elderly, or the Disabled may come in contact with these fixtures. Significantly lower temperature limits must be considered for this group.
 - ▲ Follow the Lens Temperature Guidelines provided by Kim (see page 6).
 - ▲ To help maintain a clean, dry splice compartment, seal the conduit entries with RTV entering the ballast splice compartment.
 - ▲ Do not exceed maximum wattage shown on fixture label.
 - ▲ Field wires must be rated 90° C. minimum.

Your KIM fixture ballast box includes a pre-wired ballast. The box has two (2) covers. Only the outside cover should be removed during installation. The ballast box has two (2) $\frac{3}{4}$ " NPT taps and one (1) $\frac{1}{2}$ " NPT tap in the bottom.

Important! If your fixture has been ordered as either 120, 208, 240, 277, (or 347 volts, in Canada) the ballast box is equipped with a multi-tap ballast. Any one of these four voltages can be selected by removing the ballast cover and connecting the input lead to the required voltage on the terminal block (see instruction step #10).

Tools Required:3%" Socket WrenchI RTV Sealant7%" & 7/6" Open End Wrenches or Adjustable WrenchI Phillips Head ScrewdriverI Torque Ratchet (inch/lbs.) with 1/4" Hex Drive Bit & 3/16" Hex Drive Bit





2. Remove brass cover to keep clean during installation. Remove lamp housing from well by loosening cam locks (see photo #15).



3. Attach drain pipe adaptor to side of fixture drain.



4. Attach drainpipe to the adaptor as required.



5. Assemble and attach the conduit (supplied by KIM) to the ballast box, (seal <u>all</u> connections).



IMPORTANT!

Fixture is supplied with 6' of cord. It is recommended that cord is coiled up inside the well for easy lamp replacement. If a longer run of conduit is desired, contact your local Kim Lighting representative for details.

- 6. Run the fixture conduit under and up against the side of the well as shown paying close attention to the desired finish grade.
- 7. Attach the field conduit to the ballast box paying close attention to the finished grade (seal all connections).



8. Attach the ballast box grout mask to the top surface of the ballast box. Set the orientation and height of the top surface with the finished grade.



9. Back fill with rock, sand or concrete to create finished grade.



10. Remove grout masks from the well and ballast box. Run field wires through the ballast box splice compartment.



11. Fish the fixture cord through the well conduit and up into the ballast box splice compartment, tighten cord seal. Excess cord should be rolled up and laid on the bottom of the well.



12. Remove lamp compartment cover, lens and gasket. Install lamp as per fixture label. Reinstall cover, lens and gasket.

WARNING: The H.I.D. / Fluorescent fixture utilizes a lamp that may contain mercury. For information on disposal of lamp, go to website: www.lamprecycle.org



 Adjust lamp compartment height as desired or as per lens termperature chart on page 6.



14. Adjust aiming angle. Tighten all screws. Place lamp assembly in well.



15. Rotate lamp ring to desired position and tighten cam locks to secure.



16. Place lens options (if ordered) and top fixture lens/gasket, making sure all surfaces are clean.



17. To attach brass fixture cover, coat screw threads with a thin layer of silicone grease. Tighten screws progressively in a cross pattern, as shown.



18. Seal the cord and field wire access into the ballast box splice compartment.



19. Connect fixture wires to field wires observing polarity, i.e.; green-to-ground, white-tocommon, and black-to-voltage.



20. Check incoming voltage against order to verify correct supply requirement. If no voltage was specified, the ballast is wired to 277 volts. Remove ballast compartment cover and make necessary voltage change at terminal block.



21. To attach brass ballast compartment cover, coat screw threads with a thin layer of silicone grease. Tighten screws progressively, in a cross pattern. Tighten screws to 20 inch/pounds (1.67 ft./lbs.) Installation is complete.

Lamp Installation: A Make certain electrical supply is **OFF** before starting lamp installation.







1. Remove brass fixture cover, lens cover with lens and gasket. Remove optional low temperature lens (if required).





2. Remove lamp compartment assembly. Install lamp. Do not exceed maximum wattage on fixture label.

3. Install brass fixture cover. Make sure gasket surfaces are clean and free of debris. Coat screws with silicone grease and tighten fixture screws in a cross pattern to ensure even pressure is applied to the entire gasket surface.

Kim Lens Temperature Guidelines:

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After considering the Cautions stated on page 1, select the appropriate Lamp/Lens/Fixture Position for the application, based on the Temperature Chart on page 6. Specifiers must consider any local codes that may apply to this type of fixture application, and owners should consider factors such as maintenance. For example, if the primary lens is allowed to accumulate dirt or any other film that restrict light transmission, heat will build and the lens temperature will rise above stated levels. In general, Kim Lighting suggests the following guidelines for Lens Temperature:

- 1. 55°C Maximum. Use for applications that meet all conditions stated in the "CAUTION" on page 1, and meet the guidelines above.
- 2. 43°C Maximum. Use for applications where there is any degree of uncertainty about meeting the conditions stated in the "CAUTION" on page 1, or the guidelines above.
- **3.** Do Not Use. If you have any apprehensions about using a fixture of this type in a pedestrian area, Kim Lighting recommends that you consider using one of the many above-grade products in the Kim line.

MAINTENANCE: To maintain light efficiency and prevent fixture overheating, lenses must be kept clean and free of dirt, dust, leaves, trash and mineral deposits from water. For optimum performance a regularly scheduled maintenance program should be followed.

LENS TEMPERATURE CHART				
Fixture Position Inside Well	Primary/Secondary Lens Type	70W MH	100W MH	150W MH
Highest Fixture	Clear Primary Only	46° c	48°c	61°c
Position	w/Low-Temp Secondary	36° c	38° c	51° c
Lowest Fixture	Clear Primary Only	37° c	39° c	52°c
Position	w/Low-Temp Secondary	27° c	29° c	42° c
Highest Fixture	Amber or Rose Primary Only	47° c	49° c	62° c
Position	w/Low-Temp Secondary	37° c	39° c	52° c
Lowest Fixture	Amber or Rose Primary Only	38° c	40° c	53° c
Position	w/Low-Temp Secondary	28° c	30° c	43° c
Highest Fixture	Red or Green Primary Only	49° c	51° c	64° c
Position	w/Low-Temp Secondary	39° c	41° c	54° c
Lowest Fixture	Red or Green Primary Only	40° c	42° c	55° c
Position	w/Low-Temp Secondary	30° c	32° c	45° c
Highest Fixture	Blue Primary Only	50° c	52° c	65° c
Position	w/Low-Temp Secondary	40° c	42° c	55° c
Lowest Fixture	Blue Primary Only	41° c	43° c	56° c
Position	w/Low-Temp Secondary	31° c	33° c	46° c

Note: Use same lens temperatures for same wattage HPS or MV lamps. Eg. 100W MH = 100W HPS = 100W MV.

KIM LIGHTING LIMITED WARRANTY

When installed in accordance with Kim Installation Instructions and accepted trade practices, the following shall apply: General Product Limited Warranty Coverage

All material and component parts used in the manufacture of Kim Products, are warranted to be free from defects of material and/or workmanship for a period of 1 year from date of sale, with the following exceptions:

Auxiliary Equipment:

All auxiliary equipment (such as lamps, ballasts, and transformers) provided by and/or included in Kim Products shall carry the components manufacturer's warranty.

Copper, Bronze and Brass Landscape Components

Copper and Bronze Landscape fixture components shall be warranted against defects of material and/or workmanship, and failure due to corrosion, for a period of 25 years from date of sale.

Kim Lighting's brass components are constructed from several brass parts that are manufactured by various methods at various times. Since brass naturally deepens in color as it ages through the normal oxidation process, these parts may exhibit subtle differences in coloration when the product is new. This is normal and expected. These color differences will be eliminated shortly after installation through the normal brass oxidation process.

Composite In-Grade Components

Composite In-Grade fixture components installed below grade, shall be warranted against defects of material and/or workmanship, and failure due to corrosion, for a period of 7 years from date of sale.

Aluminum Landscape Components

Aluminum Landscape fixture components not in direct contact with soil, shall be warranted against defects of material and/or workmanship for a period of 3 years from date of sale. Aluminum fixture components in direct contact with soil shall be warranted from defects of material and failure from corrosion for a period of 1 year from date of sale.

Limit of Liability and General Conditions

Only products which are installed, used and maintained in accordance with applicable Kim instructions, specifications and accepted trade practices, are covered by the Kim Warranty. During the warranty period, with proof of purchase, Kim will repair or replace with the same or similar product, at Kim's option without charge. Labor costs are the owner's responsibility and are excluded from this warranty. This warranty is void if the product is modified, tampered with, misapplied, poorly installed, improperly maintained, or subjected to abnormal conditions.

Repair or replacement as provided under this warranty is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, expressed, or implied, including any implied warranty of fitness for a particular application. Kim Lighting shall not be liable to the purchaser for indirect or consequential damages.



How may we serve you better? Please let us know. Visit our website at: www.kimlighting.com Your concerns are important to us.