



IN-GRADE

C54 Accent  
6350 HID Accent  
6360 Cool-Lens

# Well Lights

In - g r a d e   A c c e n t   L i g h t i n g

70 -150 Watt HID

Up to 150 Watt Halogen or Incandescent



**KIM LIGHTING**

# In-Grade Well Lights

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Landscape lighting is both aesthetic and functional, achieving dramatic effects in many diverse applications. Maintaining those effects long term is a monumental challenge. In-grade fixtures, by the very nature of their use, require special design and manufacturing knowledge. Kim Lighting pioneered the in-grade lighting category almost 60 years ago. The continuous evolution of the Kim Well Light family has created products that have improved efficiencies and better aiming capabilities. This extensive experience has gained Kim Lighting the engineering and production expertise to develop a family of Well Lights that can withstand the corrosive forces of soil and water. The Kim Lighting name is your assurance of the finest outdoor lighting equipment anywhere.



**SITE / AREA  
PARKING STRUCTURE  
ROADWAY  
ARCHITECTURAL FLOOD  
ACCENT  
LANDSCAPE**

MAILING ADDRESS:  
P.O. BOX 60080  
CITY OF INDUSTRY, CA  
91716-0080

BUSINESS ADDRESS:  
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CITY OF INDUSTRY, CA 91745  
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**Hubbell  
Lighting, Inc.**

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Version 2.1 (8/11)

## Kim Lighting's Well Lights Series



### 6360 Cool-Lens Well Lights

70-150W HID

For landscapes where lower lens temperatures are required yet light output demands are high.

See pages **2-7**



### 6350 HID Well Lights

70-100W HID

Ideal for providing accent lighting for trees, flag poles, and large outdoor interest points.

See pages **8-11**



### C54 Halogen / Incandescent Well Lights

150W PAR38 / R40

Perfect for highlighting landscaping, columns, and other architectural features.

See pages **12-15**



FOUND PARTNER

SYCLAN SYTA

# Features

## 6360 Cool-Lens Well Light

The Kim **6360** Cool-Lens Well Light is the most advanced, evolutionary Well Light in the industry. It was designed and engineered for performance and human safety. Ideal for illumination of landscape, courtyards, canopies and excellent for dramatic grazing light effects on building walls and reliefs. HID lamps from 70 watt to 150 watt PMH, or 150 watt HPS for superior performance with spot and narrow flood beam patterns are available. The lamp position has 8.25" of adjustment from the highest to lowest position in  $\frac{3}{4}$ " increments. The lamp has aiming adjustment of 15° in the upper position down to 5° in the lower position. The lens frame is made from solid cast bronze for superior appearance and durability.

The Kim Lighting 6360 was carefully designed for safety. The temperature of the lens is dramatically reduced (see chart on page 5) with the use of a secondary low temperature lens that reflects the heat through the lens frame vents, yet transmits the visible light through the primary lens. The Cool-Lens Well Light can be installed in areas of hardscape that require cooler operating temperatures such as shopping mall interiors to accent plant and architectural features. These cooler operating lenses are pedestrian friendly and ideally suited for areas where young children may come into contact with the fixture lenses.

### Housing

12 $\frac{3}{4}$ " diameter x 20" deep x .406" heavy wall PVC housing. Lens frame adapter constructed from high temperature, compression molded, fiberglass impregnated, heavy wall composite material.

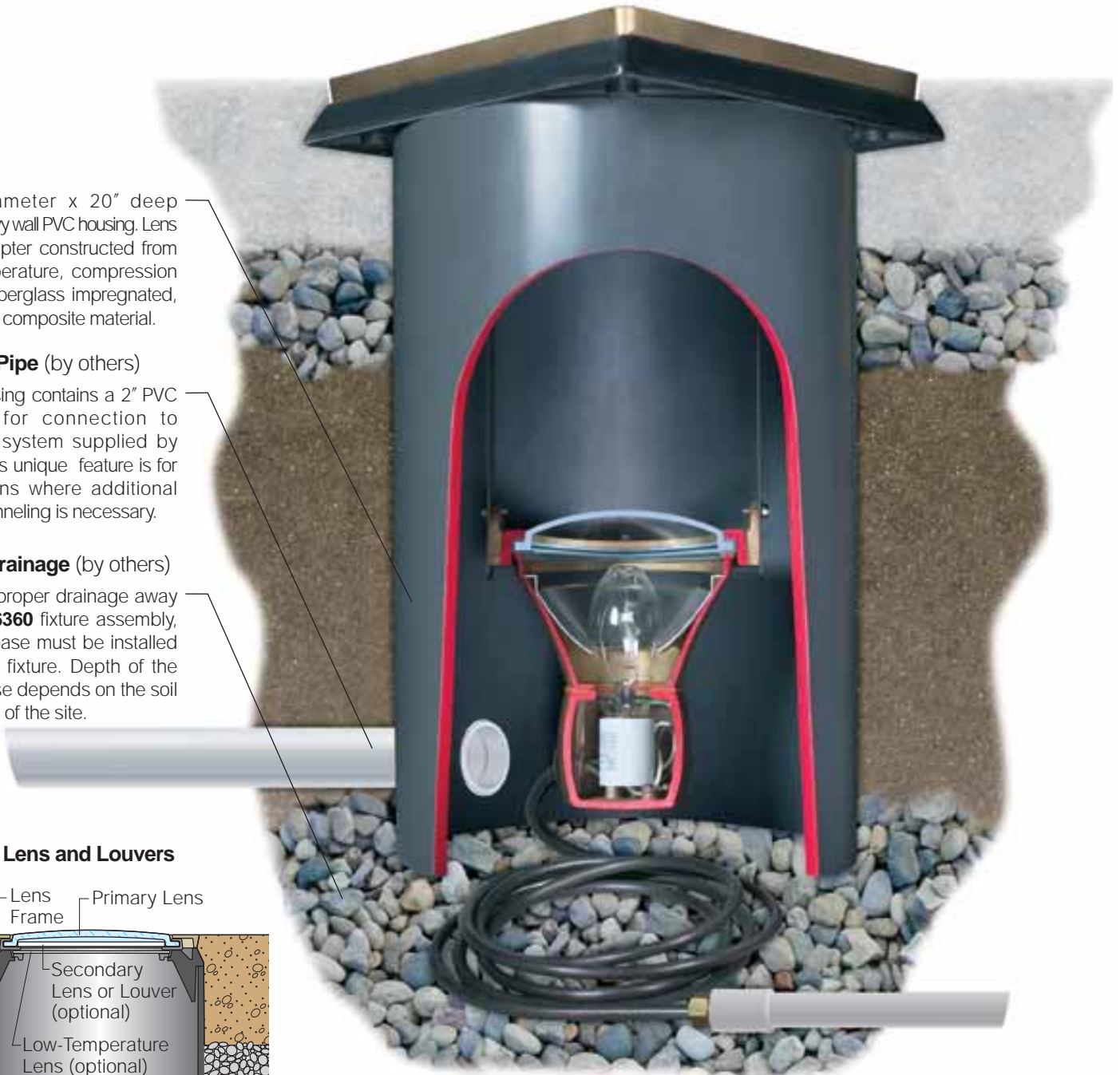
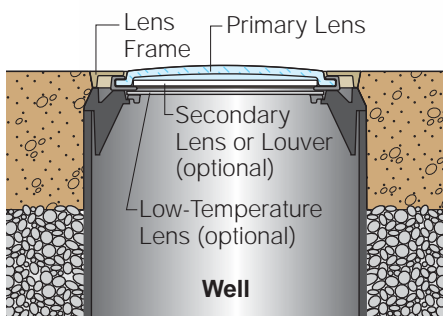
### 2" Drain Pipe (by others)

**6360** housing contains a 2" PVC adapter for connection to drainage system supplied by others. This unique feature is for installations where additional water channeling is necessary.

### Gravel Drainage (by others)

To insure proper drainage away from the **6360** fixture assembly, a gravel base must be installed below the fixture. Depth of the gravel base depends on the soil conditions of the site.

### Optional Lens and Louvers





### Lens Frame

Lens Frame is one-piece, cast bronze with natural finish, secured to housing with four  $\frac{5}{16}$ " blackened stainless steel hex socket cap screws.  $\frac{3}{8}$ " wide integral cooling vents at each corner meet ADA requirements for pedestrian traffic. One-piece, molded, high temperature silicone lens gasket seals the assembly.



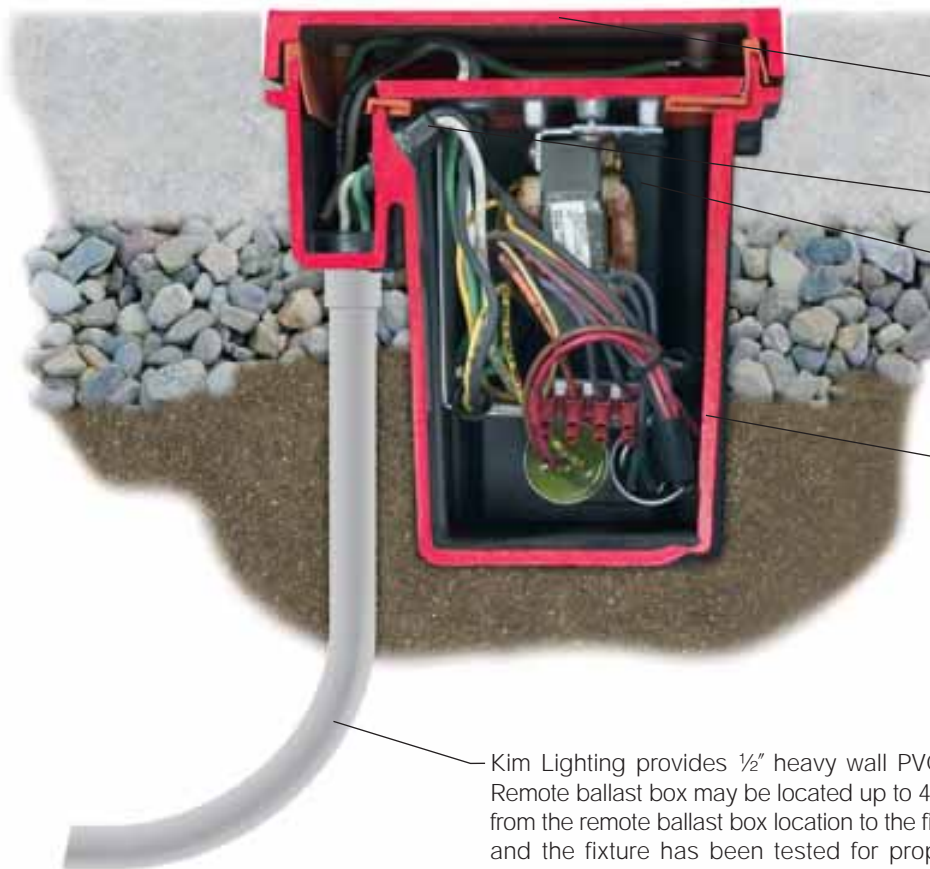
### Trim Mask

Each fixture is shipped with a plastic "Trim Mask" installed, which allows the fixture to be set at finished grade, and provides the correct opening for the lens frame.



### Lamp Module

Lamp module consists of a cast bronze ring, stainless steel yoke and cast bronze fixture body. The stainless steel yoke consists of 11 lamp height positions. Lamp angle adjustment ranges from 15° in the highest position to 5° in the lowest position, and can be rotated 360°. Relamping is accomplished without disturbing the lamp-aiming angle.



**Cast Bronze Box Cover**

**Anti-siphon Barrier**

**Standard Ballast Components**

Ballast is not a potted assembly (unique to Kim), allows for simple ballast service and accessibility.

**Remote Ballast Box**

High temperature SMC compression molded featuring long-fiber fiberglass impregnated heavy wall construction. Wall separates ballast chamber from the splice compartment, splice chamber is 32 cu. in.; prewired, anti-siphon plugs to and from the ballast chamber.

Kim Lighting provides  $\frac{1}{2}$ " heavy wall PVC conduit for the standard installation shown. Remote ballast box may be located up to 40' from the fixture. Others supply conduit system from the remote ballast box location to the fixture. Once the conductors have been installed, and the fixture has been tested for proper operation, Kim Lighting recommends the installation of silicone sealant be installed to positively seal each end of the conduit.

# Primary Applications

## Cool-Lens Well Lights



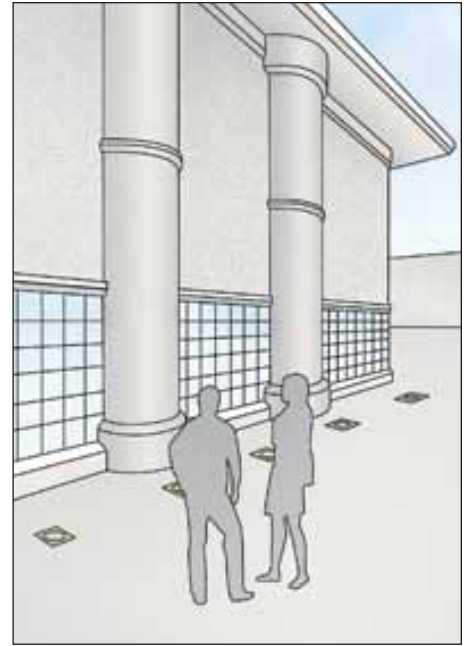
### Trees / Columns

The illumination of trees in sidewalks or courtyards is an excellent application for the Kim Well Lights. 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 below.



### Canopies and Overhangs

Overhanging building structures and canopies are also excellent applications for the Kim Well Lights. 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 below.



### Wall Grazing

The Kim Well Lights are 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 below.

### 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 or cover: (a) Potential frequency of contact. (b) 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:

- 1. Always locate fixtures out of the normal pedestrian path to minimize contact.** Example: In-line with trees or columns, or very close to the building or column, where pedestrian traffic is not normal. See examples above.
- 2. 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.
- 3. Follow the Lens Temperature Guidelines provided by Kim.** Select and specify the correct lamp/lens/fixture position to achieve the appropriate lens temperature for the application. See page 5.

### Kim Lens Temperature Guidelines:

After considering the Cautions stated on page 4, select the appropriate Lamp/Lens/Fixture Position for the application, based on the Temperature Chart. 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 restricts 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 4, and meet the temperature guidelines.
- 2. 43°C Maximum.** Use for applications where there is any degree of uncertainty about meeting the conditions stated in the “CAUTION” on page 4, or the the temperature guidelines.
- 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.

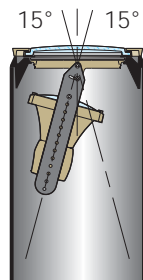
### 6360 LENS TEMPERATURE CHART

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

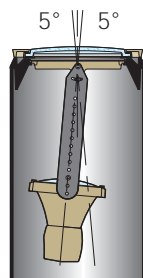
**NOTE:** Use same lens temperatures for same wattage HPS lamps. Eg. 100W PMH = 100W HPS.

### Design Flexibility

Kim Well Lights are excellent for creating lighting effects and illuminating building structures. A poorly aimed fixture can result in misdirected light and objectionable light trespass. The flexibility designed in the Kim 6360 allows for better aiming by allowing lamp tilt up to 15° within the well, for increased tilt the entire well can be installed at an angle, offering a more accurate fixture position and light distribution. The 6360 also has a height adjustment feature to set the lamp in a high or low position within the well to meet pedestrian temperature guidelines.



High Fixture Position



Low Fixture Position

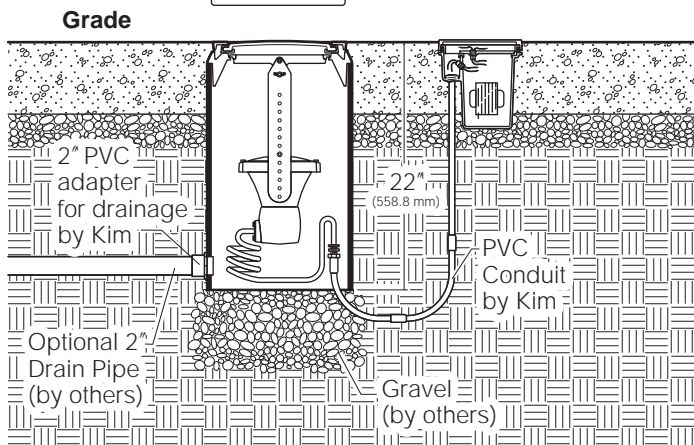
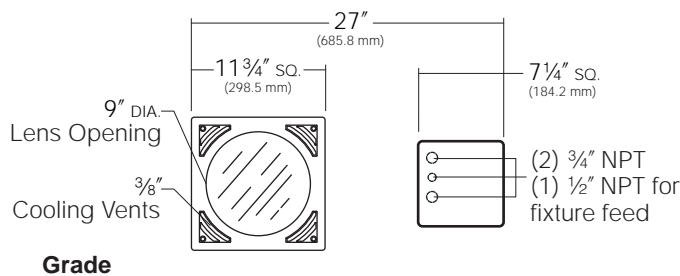
### 25/7 YEAR LIMITED WARRANTY

When installed according to Kim Installation Instructions and accepted trade practices, the solid bronze and stainless steel components of the 6360 Series Kim products are warranted for 25 years, and the composite well and ballast box are warranted for 7 years, from date of sale, against manufacturing defects and failure due to corrosion. All other fixture components (excluding lamps) are warranted to be free of defects in material and workmanship for 1 year from date of sale. 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 the particular application. Kim Lighting shall not be liable to the purchaser for indirect or consequential damages.

# Specifications

## 6360 Cool-Lens Well Light



**Lamp Housing:** Die-cast brass lamp housing with porcelain medium base socket, 4KV pulse rated. Convex tempered clear glass lens.

**Reflector:** Spun specular Alzak® aluminum. Available in Spot or Narrow Flood beam spreads. Easily removed for PAR lamps if desired.

**Gasketing:** Silicone gaskets used throughout.

**Fixture Cord:** 6' long #16-3 with 200°C silicone wire insulation protected by a 200°C teflon insulated jacket; water resistant cord approved for outdoor use. Prewired to fixture through silicone grommet.

**Support Brackets:** Cast bronze fixture support ring with stainless steel support brackets and hardware.

**Well:** 12 3/4" diameter (.406" wall) x 20" depth burial PVC pipe. Lens Frame adapter constructed from high temperature, SMC compression molded, fiberglass impregnated, heavy wall composite. Charcoal gray.

**Lens Frame:** One-piece, cast bronze, natural finish. Four captive 5/16" blackened stainless steel hex-socket cap screws. 3/8" wide integral cooling vents on each corner meet ADA requirements.

**Primary Lens:** Tempered clear glass lens 9" dia. x 5/16" thick, flush with lens frame, slightly crowned.

**Optional Low-Temperature Secondary Lens:** Constructed of borosilicate glass with a hard, first surface dichroic coating. Reflects infrared (heat) away from the exposed primary lens, but transmits visible rays through. (See page 5 - Lens Temperature Chart).

**Optional Slip-Resistant Primary Lens:** Tempered clear glass lens with four 1/2" wide concentric etched rings, flush with lens frame, slightly crowned.

**Ballast:** High power factor -20°F starting, mounted on tray, 120 volt thru 347 volt standard.

**Ballast Box:** High temperature, SMC compression molded featuring long-fiber fiberglass impregnated heavy wall construction. Wall separates ballast chamber from splice compartment, splice area 32 cu in.; prewired, anti-siphon plugs to and from ballast chamber. Conduit entry, two 3/4" NPT for through wiring, one 1/2" NPT for fixture supply.

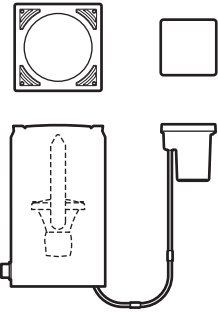





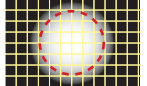
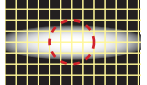
**Ballast Cover:** Cast bronze, natural finish. Four captive, blackened stainless steel hex-socket cap screws.

Listings and Ratings		
UL cUL 1598 <sup>1</sup>	-	25C Ambient
IP68 Rated	CE	

<sup>1</sup>Suitable for wet locations.



Catalog Number - See Ordering Example Below

1 FIXTURE	2 OPTICS	3 LAMP MODE <sup>1</sup>	4 OPTIONAL PRIMARY LENS	5 OPTIONAL SECONDARY LENS AND LOUVER																																		
<p><b>6360</b> Die-Cast Brass HID In-grade</p>  <p><b>NOTE:</b> Fixture cords up to 50' length can be provided for remote ballast locations. Consult factory.</p>	<p><b>SP</b> Spot</p>  <p>Spun aluminum reflector with specular Alzak<sup>®</sup> finish. Approx. 12° Beam.</p> <p><b>NF</b> Narrow Flood</p>  <p>Spun aluminum reflector with specular Alzak<sup>®</sup> finish. Approx. 35° Beam.</p> <p><b>NOTE:</b> PAR30 or PAR38 Metal Halide lamps may be utilized by removing internal reflector.</p>	<table border="0"> <tr> <td>70PMH120</td> <td>70HPS120</td> </tr> <tr> <td>70PMH208</td> <td>70HPS208</td> </tr> <tr> <td>70PMH240</td> <td>70HPS240</td> </tr> <tr> <td>70PMH277</td> <td>70HPS277</td> </tr> <tr> <td>70PMH347</td> <td>70HPS347</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>100PMH120</td> <td>100HPS120</td> </tr> <tr> <td>100PMH208</td> <td>100HPS208</td> </tr> <tr> <td>100PMH240</td> <td>100HPS240</td> </tr> <tr> <td>100PMH277</td> <td>100HPS277</td> </tr> <tr> <td>100PMH347</td> <td>100HPS347</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>150PMH120</td> <td>150HPS120</td> </tr> <tr> <td>150PMH208</td> <td>150HPS208</td> </tr> <tr> <td>150PMH240</td> <td>150HPS240</td> </tr> <tr> <td>150PMH277</td> <td>150HPS277</td> </tr> <tr> <td>150PMH347</td> <td>150HPS347</td> </tr> </table>	70PMH120	70HPS120	70PMH208	70HPS208	70PMH240	70HPS240	70PMH277	70HPS277	70PMH347	70HPS347			100PMH120	100HPS120	100PMH208	100HPS208	100PMH240	100HPS240	100PMH277	100HPS277	100PMH347	100HPS347			150PMH120	150HPS120	150PMH208	150HPS208	150PMH240	150HPS240	150PMH277	150HPS277	150PMH347	150HPS347	<p><b>SR10</b> Slip-Resistant Lens</p> <p>Tempered clear glass lens with four 1/2" wide concentric etched rings, flush with lens frame, slightly crowned. Available in clear only.</p> 	<p><b>LT10</b> Low-Temperature Lens</p> <p>Reflects heat through cover vents, transmits visible light rays through primary lens. (See page 5 for Lens Temperatures.)</p>  <p><b>HL10</b> Hex Cell Louver</p> <p>Provides additional brightness control.</p>  <p><b>PL10</b> Prismatic Lens</p> <p>Lens softens and spreads fixture distribution. Best with <b>NF</b> optics.</p>  <p><b>SL10</b> Spread Lens</p> <p>Lens creates an oval beam pattern. Best with <b>SP</b> optics.</p> 
70PMH120	70HPS120																																					
70PMH208	70HPS208																																					
70PMH240	70HPS240																																					
70PMH277	70HPS277																																					
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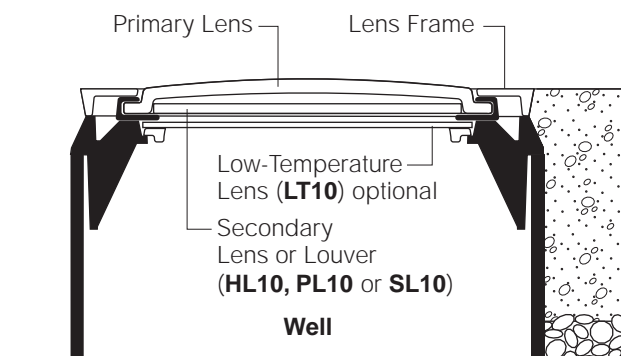
Lamps by others - see page 23 for lamp guide.

Fixture	Optics	Lamp Mode	Optional Primary Lens	Optional Secondary Lens/Louver
<b>6360</b>	<b>SP</b>	<b>100PMH120</b>	<b>SR10</b>	<b>LT10</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**<sup>1</sup>Lamp Mode**  
**100 PMH 120**

Line Volts  
Lamp Type:  
**PMH** = Pulse Start Metal Halide  
**HPS** = High Pressure Sodium  
Lamp Watts

**PHOTOMETRIC DATA**  
See pages 17-20



**NOTE:** See page 5 for Lens Temperature Guidelines.

# Features

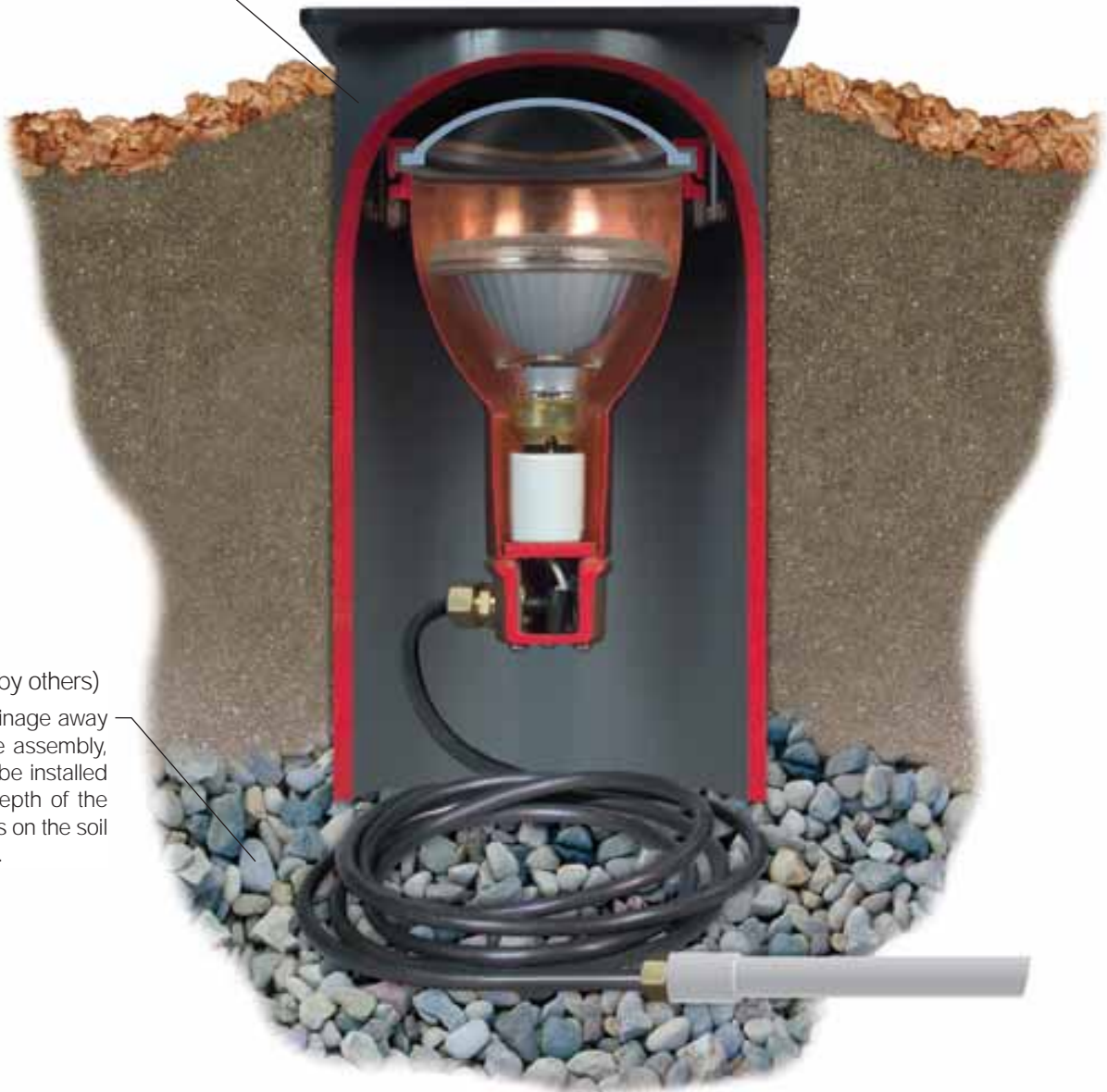
## 6350 HID Well Light

Well Lights are ideal for providing accent lighting for trees and shrubbery, building columns, canopies and overhangs, flag poles, statues, large outdoor works of art as well as for grazing effects. The applications are as varied as the imagination. Below-grade Well Lights by the very nature of their use, require special design and material expertise. Kim Lighting pioneered below-grade lighting over 60 years ago. This extensive experience has evolved the **6350** Well Light into a fixture that can withstand the corrosive forces

of water, soil and time. Lamp wattages range from 70 watts to 100 watts; lamp types vary from high-pressure sodium to metal halide; and lamp beam spreads from narrow flood to spot, provide a wide variety of effects and ranges for most below-grade lighting applications.

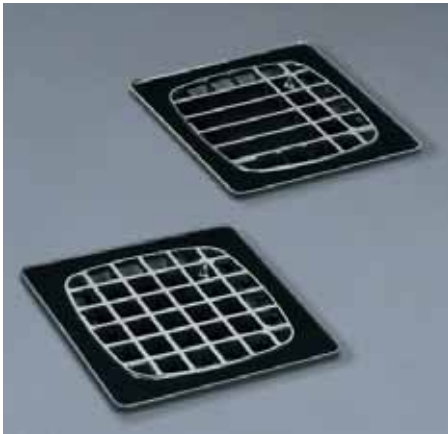
### Housing

9 $\frac{3}{4}$ " diameter x 14 $\frac{3}{4}$ " deep  
x .406" heavy wall PVC housing  
for permanence and reliability.



### Gravel Drainage (by others)

To insure proper drainage away from the **6350** fixture assembly, a gravel base must be installed below the fixture. Depth of the gravel base depends on the soil conditions of the site.



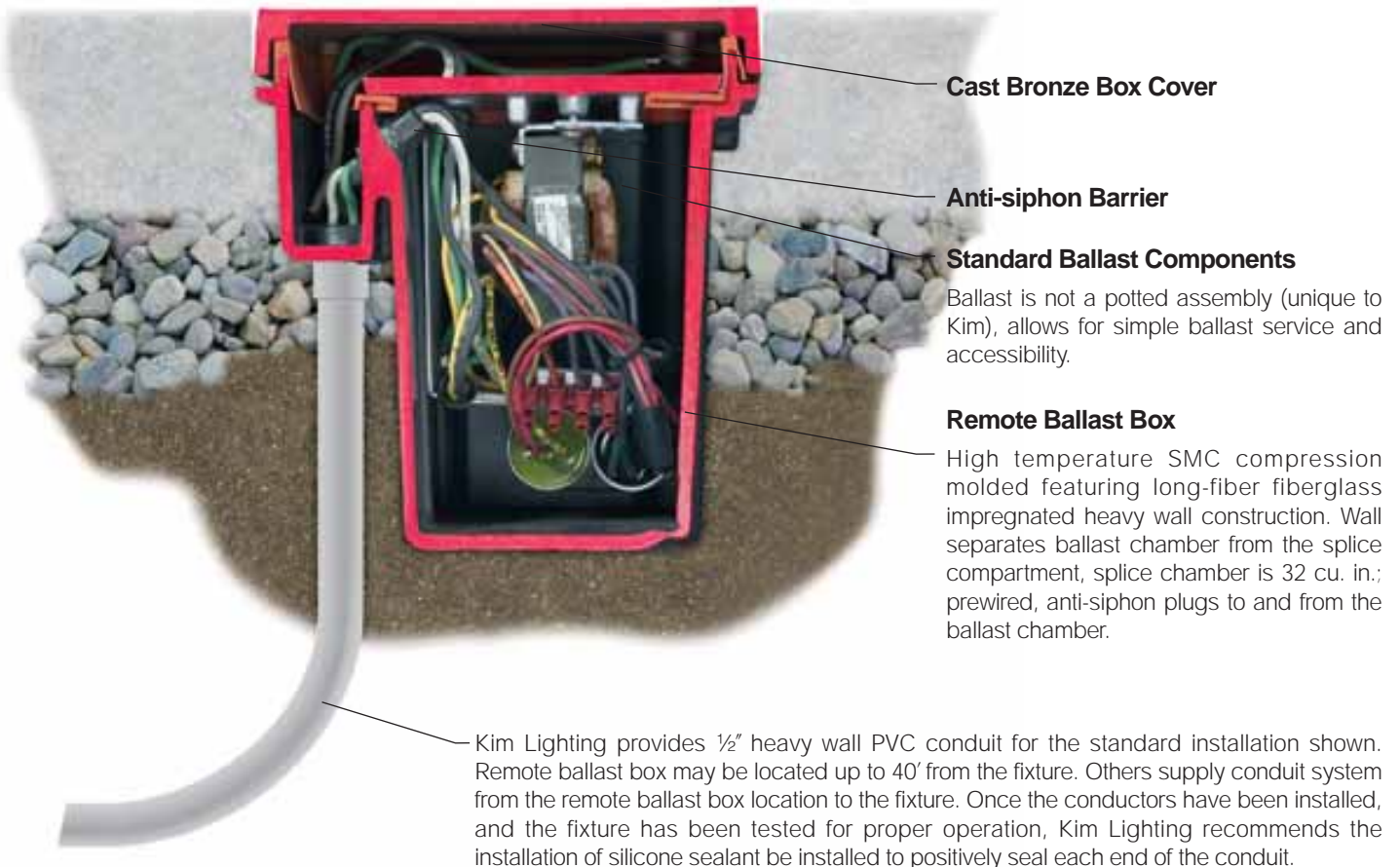
### Louver

The louver is cast aluminum, black finish with polished edges. Full or directional louvers are available. Socket head set screws secure the louver to the housing. Adjustable clips suspend the lamp module from the louver assembly.



### Lamp Module

The outstanding reliability of cast bronze and copper fixtures justifies the investment in these quality materials. Spun copper, bronze clamping ring and prewired 6' long water resistant cord approved for outdoor use.



**Cast Bronze Box Cover**

**Anti-siphon Barrier**

**Standard Ballast Components**

Ballast is not a potted assembly (unique to Kim), allows for simple ballast service and accessibility.

**Remote Ballast Box**

High temperature SMC compression molded featuring long-fiber fiberglass impregnated heavy wall construction. Wall separates ballast chamber from the splice compartment, splice chamber is 32 cu. in.; prewired, anti-siphon plugs to and from the ballast chamber.

Kim Lighting provides 1/2" heavy wall PVC conduit for the standard installation shown. Remote ballast box may be located up to 40' from the fixture. Others supply conduit system from the remote ballast box location to the fixture. Once the conductors have been installed, and the fixture has been tested for proper operation, Kim Lighting recommends the installation of silicone sealant be installed to positively seal each end of the conduit.

# Specifications

## 6350 HID Well Light



**Housing:** Spun copper, bronze clamping ring, prewired cord through brass seal.

**Lens:** Convex tempered clear glass with silicone gasket.

**Socket:** Porcelain medium base.

**Well:** 9" diameter x 14<sup>3</sup>/<sub>4</sub>" depth direct burial PVC pipe.

**Louwer:** Cast aluminum finished black with polished edges, secured to well with socket head set screws. Slot sizes allow light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic.

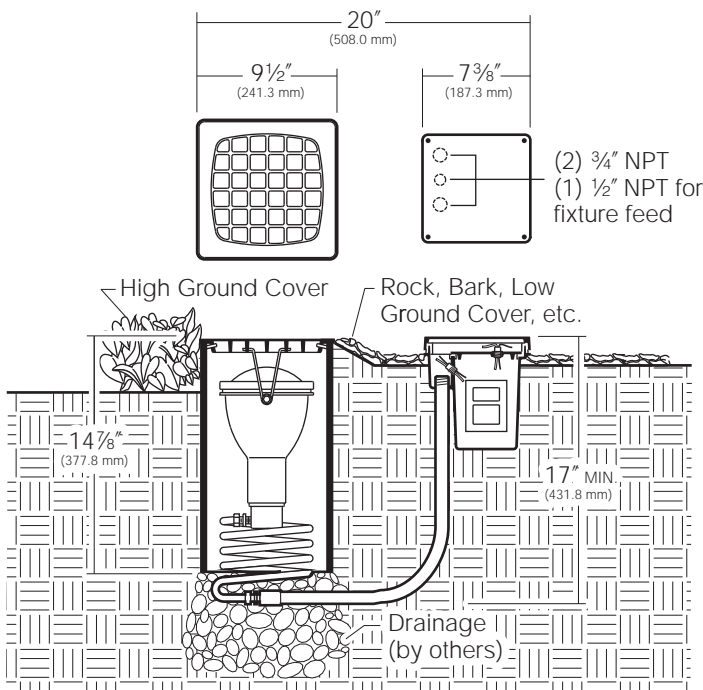
**Ballast:** High power factor -20°F. starting, mounted on tray, 120 volt standard; 277 volt and 347 volt on request.

**Ballast Box:** High temperature, compression molded featuring long-fiber fiberglass impregnated heavy wall construction. Wall separates ballast chamber from splice compartments, splice area 32 cu in.; prewired, two anti-siphon plugs to and from ballast chamber. Conduit entry; two 3/4" NPT for through wiring, one 1/2" NPT for remote access.

**Ballast Cover:** Cast bronze. Flat for remote mount.

Listings and Ratings		
UL cUL 1598 <sup>1</sup>	-	25C Ambient
IP67 Rated	CE	

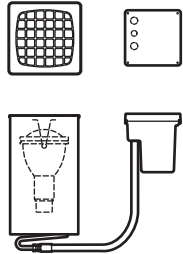
<sup>1</sup>Suitable for wet locations.



Catalog Number - See Ordering Example Below

## 1 FIXTURE

**6350**  
Copper and  
Bronze  
HID  
In-grade



## 2 LAMP MODE<sup>1</sup>

**70PMH120**  
**70PMH208**  
**70PMH240**  
**70PMH277**  
**70PMH347**

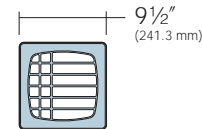
**100PMH120**  
**100PMH208**  
**100PMH240**  
**100PMH277**  
**100PMH347**

PAR38 or R40 lamp by others.

## 3 OPTIONS

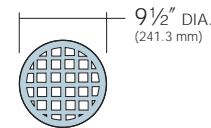
### 5090DL Directional Louver<sup>2</sup>

9½" square. Cast aluminum. Replaces standard full louver. Provides glare control and allows maximum light output in direction of fixture tilt. Slot sizes vary to allow light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic.



### 5293TG Round Tree Grate Louver<sup>2</sup>

Gray cast iron. Designed to mount into Neenah Foundry R-8860 93" round tree grate with 9½" diameter light opening. Slotted design allows light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic. For use with tree grate only.



<sup>2</sup>May be ordered separately. To order assembled with fixture, add to fixture **Cat. No.** - Example: **6350/70PMH120/5293TG**

**Lamps by others** - see page **23** for lamp guide.

**NOTE:** Fixture will tilt 15° within well. If greater tilt is needed, entire well can be installed at an angle.

**CAUTION:** Not approved for walk-over areas. Conduit entries must be RTV sealed. Do not submerge. Provide drainage during installation (by others) to prevent flooding.

**ORDERING EXAMPLE:**      Fixture      Lamp Mode      Options  
**6350 / 70PMH120 / 5293TG**  
1            2            3

### <sup>1</sup>Lamp Mode 70 PMH 120

— Line Volts  
 — Lamp Type:  
**PMH** = Pulse Start Metal Halide  
 — Lamp Watts

**PHOTOMETRIC DATA**  
See pages **21-22**



## 1 YEAR LIMITED WARRANTY

When installed according to Kim Installation Instructions and accepted trade practices, the copper and bronze components of the 6350 Series Kim products are warranted for 1 year, from date of sale, against manufacturing defects and failure due to corrosion. 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 the particular application. Kim Lighting shall not be liable to the purchaser for indirect or consequential damages.

## Features

### C54 Halogen or Incandescent Well Light

Well Lights are in-ground products that do not visually detract the theme of the area. Well Lights are entirely recessed into the ground and are invisible to the area. As with all great lighting products, the effect of the lighting application is all that needs to be seen, not the device producing the lighting effect. The **C54** Well Light from Kim Lighting has been the standard in the industry for over 60 years.

This extensive experience has evolved the C54 Well Light into a fixture that can withstand the corrosive forces of water, soil and time. The C54 utilizes PAR38 incandescent or halogen lamps up to 150 watts, and/or R40 incandescent lamps up to 150 watts. These lamps have a wide variety of beam spreads for most in-ground applications.

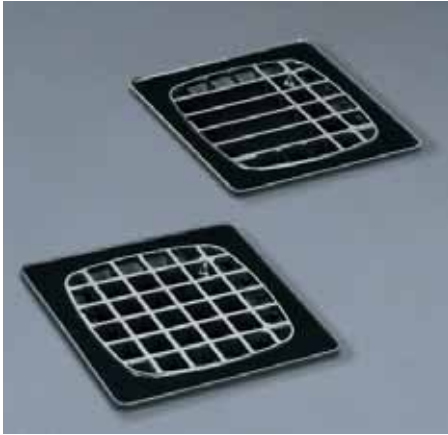
#### Housing

9 $\frac{3}{4}$ " diameter x 14 $\frac{3}{4}$ " deep x .406" heavy wall PVC housing for permanence and reliability.



#### Gravel Drainage (by others)

To insure proper drainage away from the **C54** fixture assembly, a gravel base must be installed below the fixture. Depth of the gravel base depends on the soil conditions of the site.



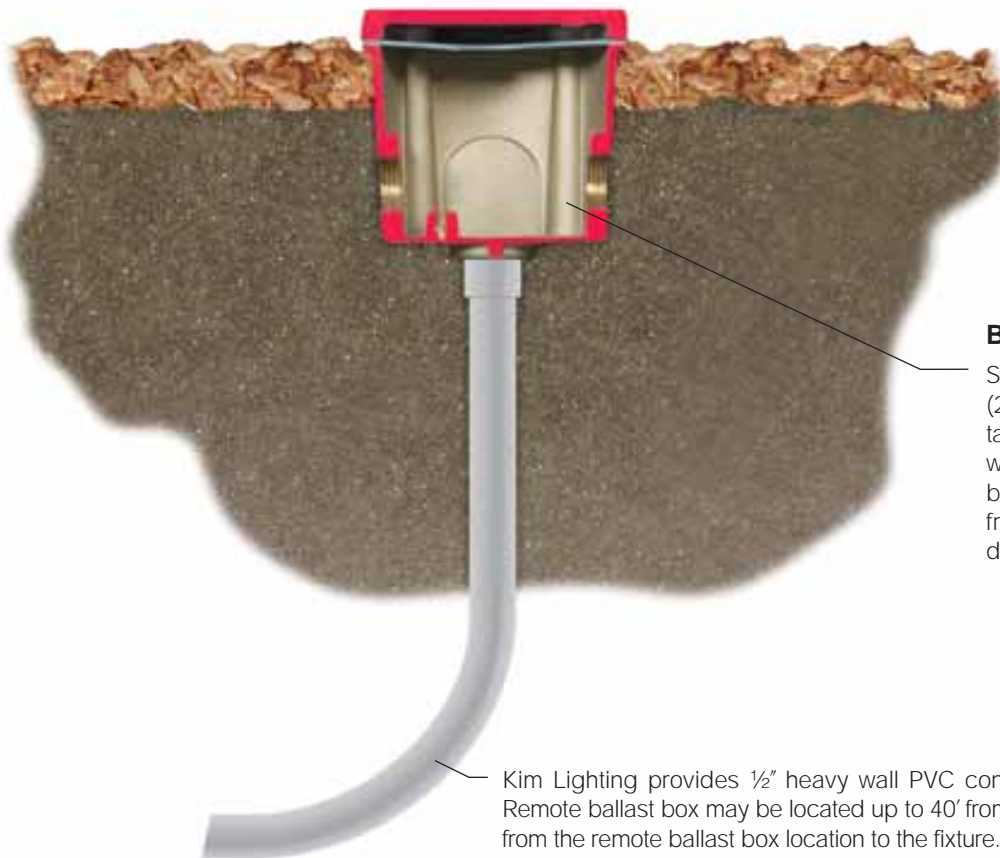
### Louver

The louver is sand-cast aluminum, black finish with polished edges. Full or directional louvers are available. Socket head set screws secure the louver to the housing. Adjustable clips suspend the lamp module from the louver assembly.



### Lamp Module

The outstanding reliability of cast bronze and copper fixtures justifies the investment in these quality materials. Spun copper, bronze clamping ring and prewired 6' long water resistant cord approved for outdoor use.



### Brass Remote Junction Box

Solid die-cast brass junction box with (2) 1/2" NPT side and (2) NPT bottom conduit taps and die-cast cover. Side taps provided with plugs. 18 cu. in. internal volume. Solid brass junction box is warranted for 25 years from date of sale against manufacturing defects and defects due to corrosion.

Kim Lighting provides 1/2" heavy wall PVC conduit for the standard installation shown. Remote ballast box may be located up to 40' from the fixture. Others supply conduit system from the remote ballast box location to the fixture. Once the conductors have been installed, and the fixture has been tested for proper operation, Kim Lighting recommends the installation of silicone sealant be installed to positively seal each end of the conduit.

# Specifications

## C54 Halogen or Incandescent Well Light



**Housing:** Spun copper, bronze clamping ring, prewired cord through brass seal.

**Lens:** Convex tempered clear glass with silicone gasket.

**Socket:** Porcelain medium base.

**Well:** 9" diameter x 14<sup>3</sup>/<sub>4</sub>" depth direct burial PVC pipe.

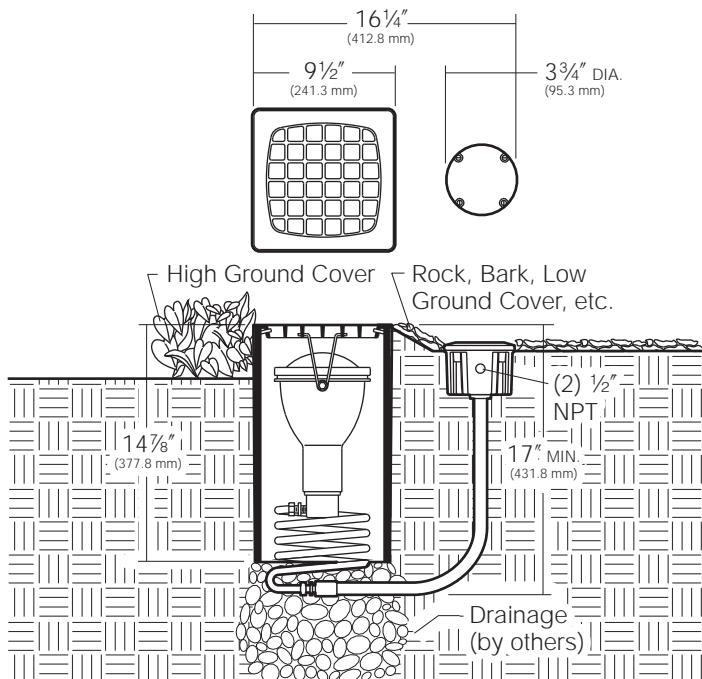
**Louwer:** Cast aluminum finished black with polished edges, secured to well with socket head set screws. Slot sizes allow light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic.

**Junction Box:** Die-cast brass, 1/2" rigid conduit and brass seal for fixture cord, two 1/2" NPT conduit entries in sides, one 1/2" NPT conduit entry in bottom. 21 cu. in. volume.

### Listings and Ratings

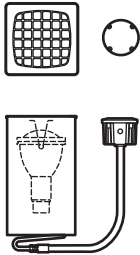
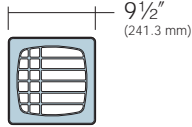
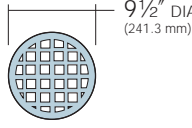
UL cUL 1598 <sup>1</sup>	-	25C Ambient
IP67 Rated	CE	

<sup>1</sup>Suitable for wet locations.





Catalog Number - See Ordering Example Below


1 FIXTURE	WATTAGE / LAMP	2 OPTIONS
<p><b>C54</b> Copper and Bronze In-grade</p> 	<p><b>150W</b> PAR38 Incandescent / Halogen</p> <p><b>150W</b> R40 Incandescent</p>	<p><b>5090DL</b> Directional Louver<sup>1</sup></p> <p>9½" square. Cast aluminum. Replaces standard full louver. Provides glare control and allows maximum light output in direction of fixture tilt. Slot sizes vary to allow light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic.</p>  <p><b>5293TG</b> Round Tree Grate Louver<sup>1</sup></p> <p>Gray cast iron. Designed to mount into Neenah Foundry R-8860 93" round tree grate with 9½" diameter light opening. Slotted design allows light and drainage, and prohibit litter from collecting in the well, however, not recommended for pedestrian or walkover traffic. For use with tree grate only.</p>  <p><sup>1</sup>May be ordered separately. To order assembled with fixture, add to fixture <b>Cat. No.</b> - Example: <b>C54/5293TG</b></p>

**Lamps by others** - see page 23 for lamp guide.

**NOTE:** Fixture will tilt 15° within well. If greater tilt is needed, entire well can be installed at an angle.

**CAUTION:** Not approved for walk-over areas. Conduit entries must be RTV sealed. Do not submerge. Provide drainage during installation (by others) to prevent flooding.

ORDERING EXAMPLE: Fixture Options  
**C54 / 5090DL**  
1 2

PHOTOMETRIC DATA   
 See page 22

## 1 YEAR LIMITED WARRANTY

When installed according to Kim Installation Instructions and accepted trade practices, the copper and bronze components of the C54 Series Kim products are warranted for 1 year, from date of sale, against manufacturing defects and failure due to corrosion. 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 the particular application. Kim Lighting shall not be liable to the purchaser for indirect or consequential damages.

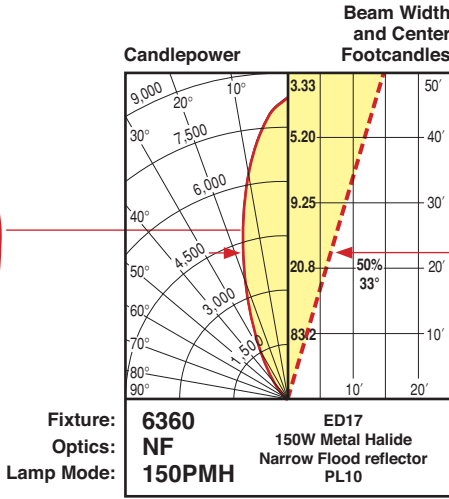
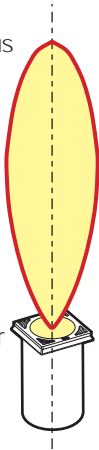
# Photometric Guide

## Reading Photometric Information

### 6360: SP Spot and NF Narrow Flood

#### Candlepower

The left half of the photometric chart shows the luminous intensity at various angles, measured in a vertical plane through the light center. The curve is symmetrical about the center line, and is commonly known as a "candlepower distribution curve."

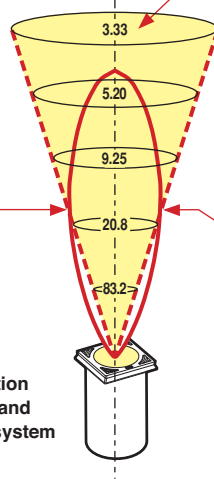


#### Center Footcandles

On the beam centerline, footcandle values are shown at various distances from the fixture. Since the beam edge (dashed line) is 50% of the centerline value, the footcandles at the edge would be 50% of the number shown in the center.

#### Beam Width

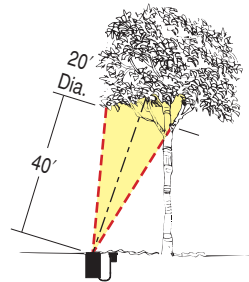
This included angle, symmetrical about the centerline, is constructed by drawing a dashed line through the candlepower curve at 50% of the useful beam width that will produce acceptable uniformity of illumination.



#### Application of Data

The final objective is to select the proper 6360 luminaire, optical system and lamp that will produce the desired illumination. This can be derived from the beam width, footcandle and distance values shown on the right side of the photometric charts. It may be necessary to construct a scaled elevation of the object to be illuminated (example at right) to determine the ideal beam width. Remember, an object can be lighted from multiple locations to achieve the desired coverage and illumination level.

#### Example using data from chart above:



5.20 fc on foliage

#### Basic Formula

Using candlepower data from the left side of the photometric chart.

$$\frac{cp}{d^2} = fc$$

- cp – candlepower at 0°
- d – distance from fixture to object in feet
- fc – footcandles

#### Example:

Based on example photometric chart and application diagram at left.

$$\frac{8,320 \text{ cp}}{40^2} = 5.20 \text{ fc}$$

#### Basic I.E.S. footcandle recommendations:

Object	Dark Surroundings	Bright Surroundings
Trees	5fc	10-20fc
Flags	20fc	50fc

### 6350 / C54: SP Spot and FL Flood

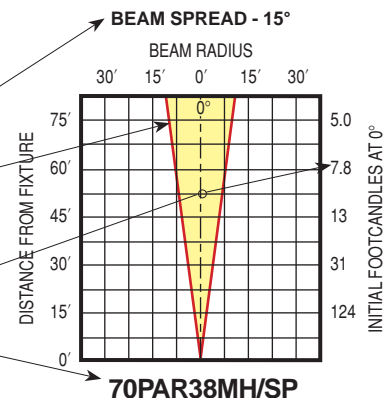
**Accent Lights:** Based on photometric tests on each fixture, the data is converted to a beam spread chart to show values as they might be applied to an actual task.

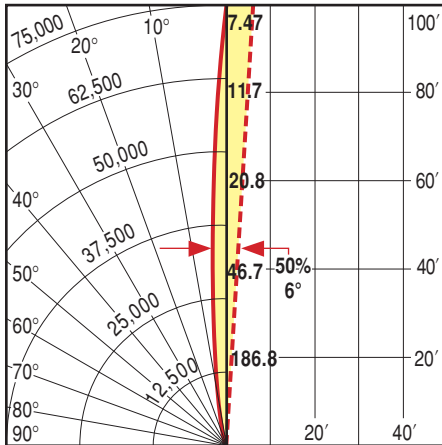
**Beam Spread:** This value is as specified by the lamp manufacturer.

**Beam Pattern:** The pattern shown is based on the fixtures performance at 50% of the maximum value. This is generally regarded as the most useful beam width that will produce acceptable uniformity of illumination.

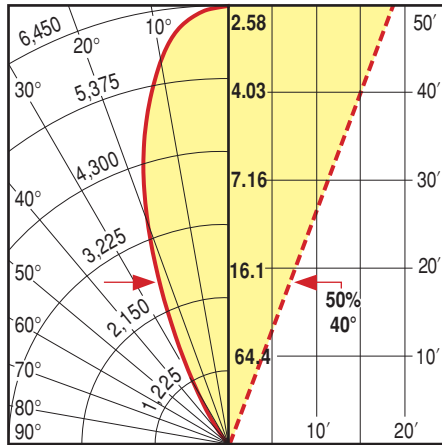
**Initial Footcandles:** These values are the illumination levels at the beam center (0°) at various distances from the fixture.

**Bare Lamp Designation:** Specified by the lamp manufacturer.

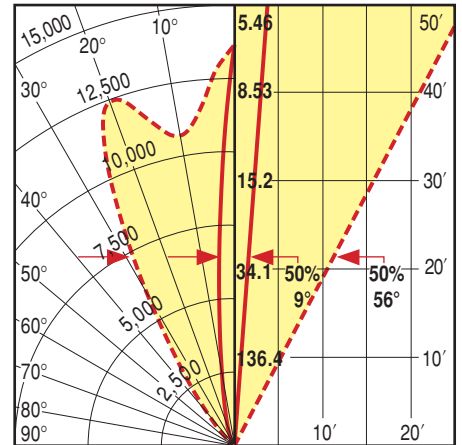




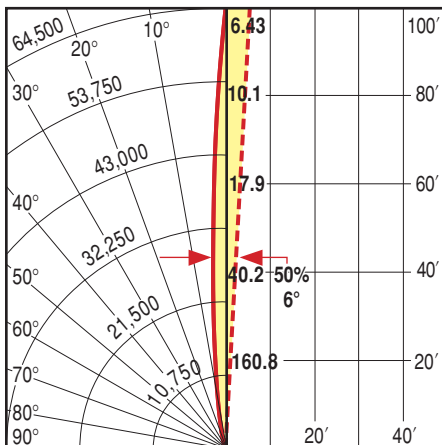
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector



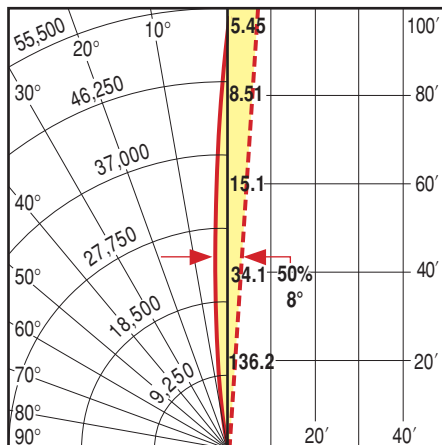
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector PL10



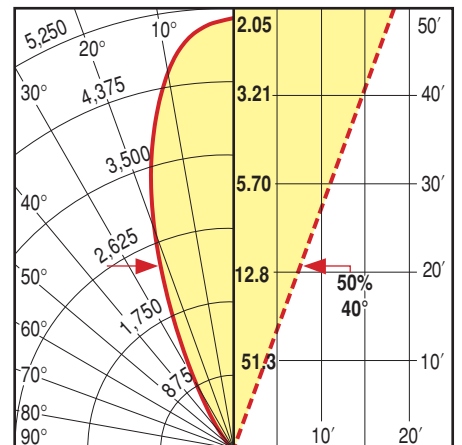
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SL10



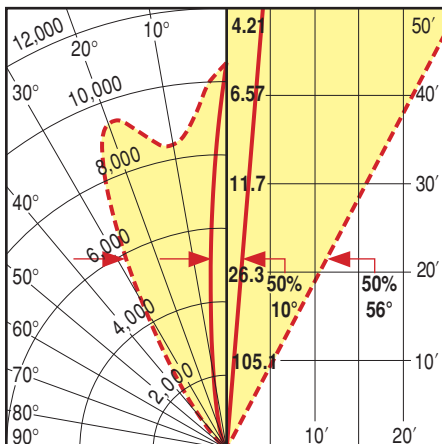
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector HL10



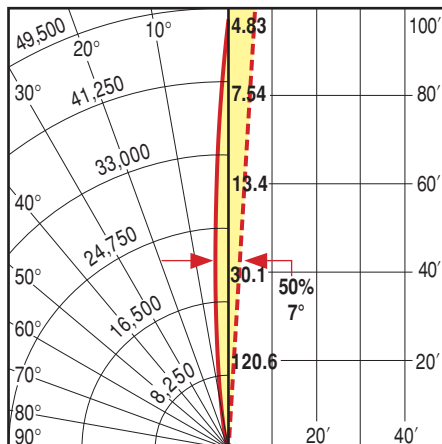
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector LT10



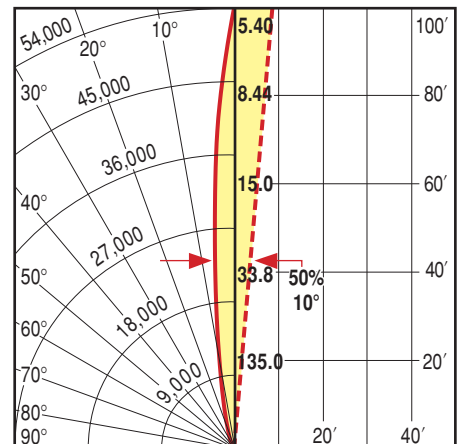
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector LT10/PL10



**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector LT10/SL10



**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector LT10/HL10

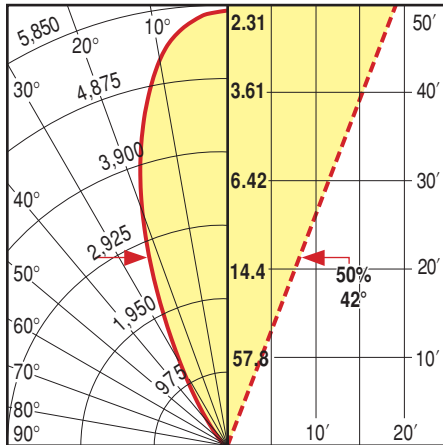


**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10

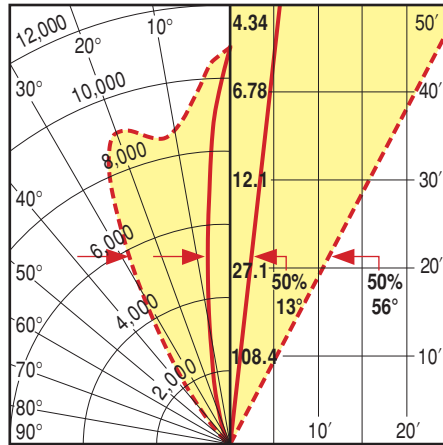
# Photometrics

## 6360 150PMH

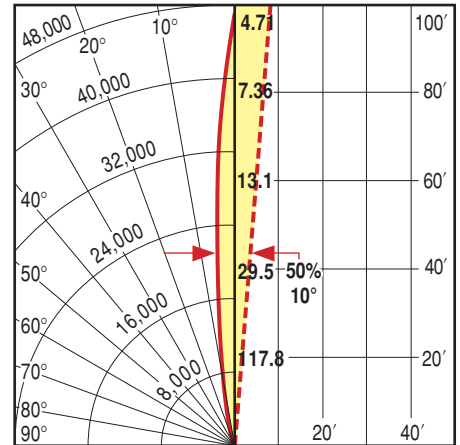
### Highest Fixture Position Inside Well



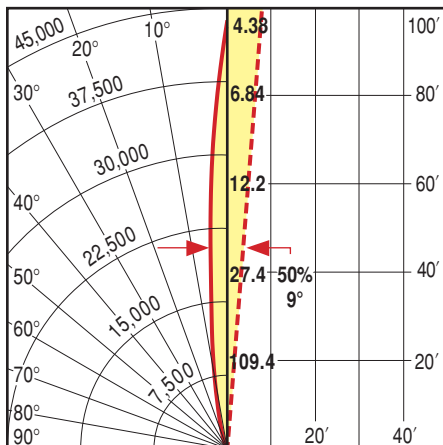
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / PL10



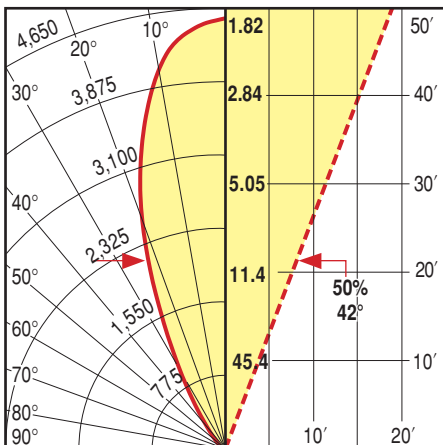
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / SL10



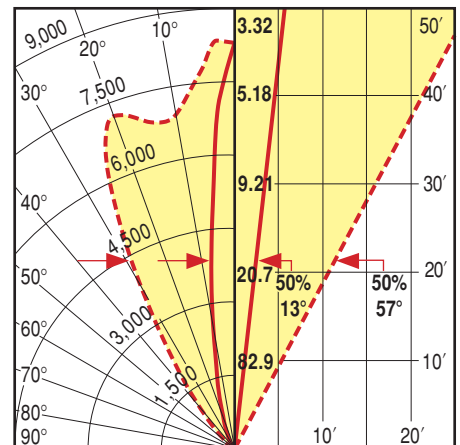
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / HL10



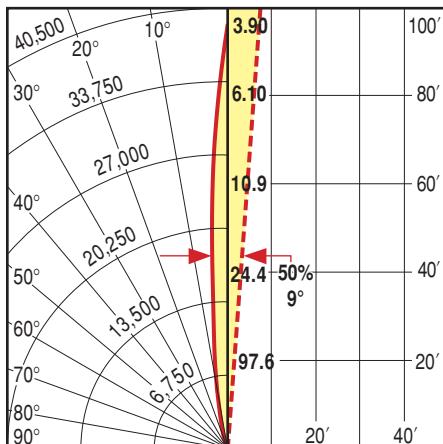
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / LT10



**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / LT10 / PL10



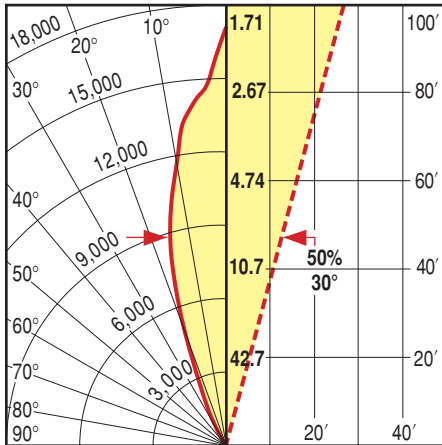
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / LT10 / SL10



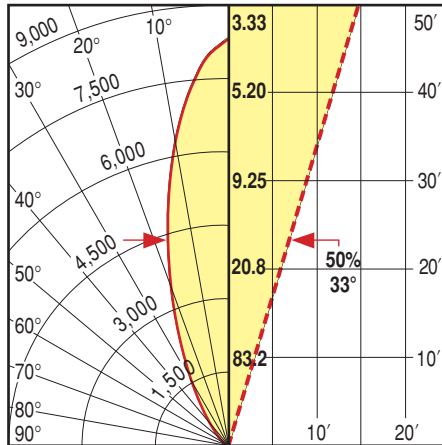
**6360 SP 150PMH** ED17 150W Metal Halide Spot reflector SR10 / LT10 / HL10

150PMH

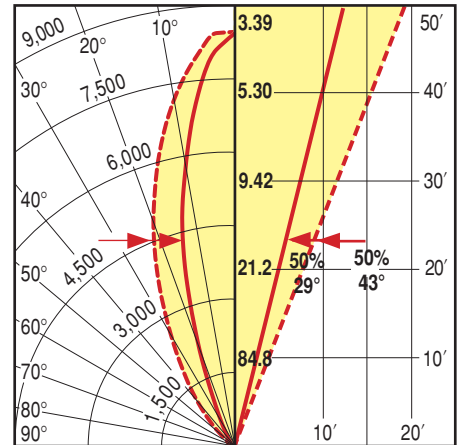
Highest Fixture Position Inside Well



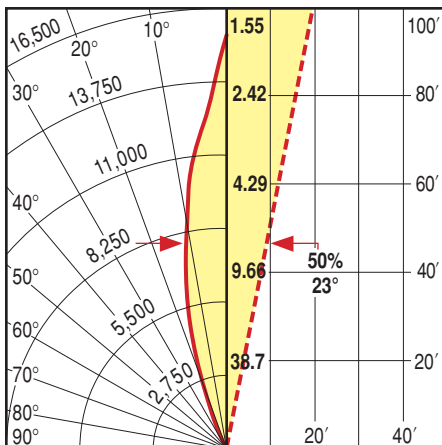
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector PL10



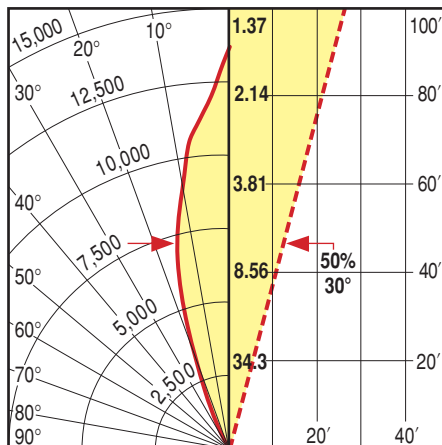
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SL10



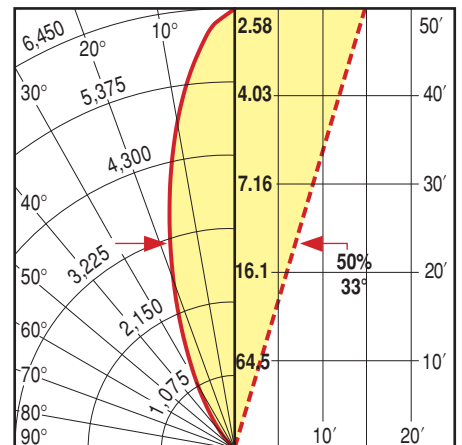
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector HL10



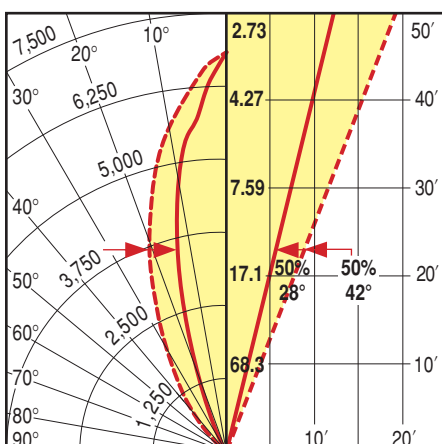
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector LT10



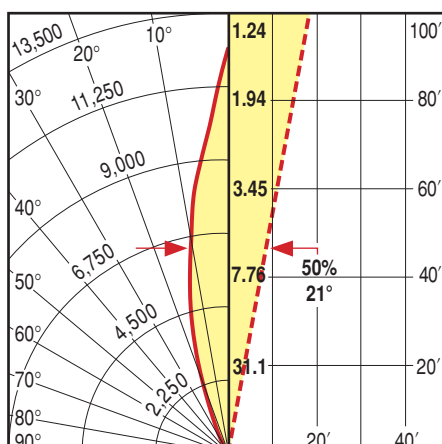
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector LT10 / PL10



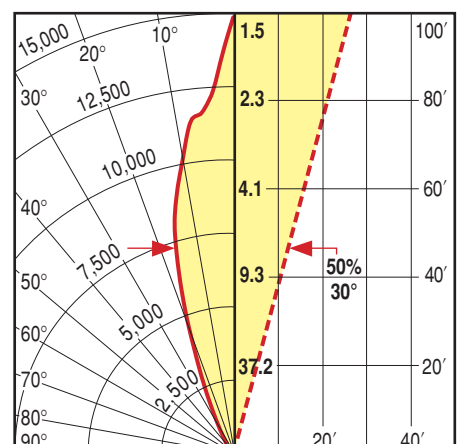
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10



**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector LT10 / SL10



**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector LT10 / HL10

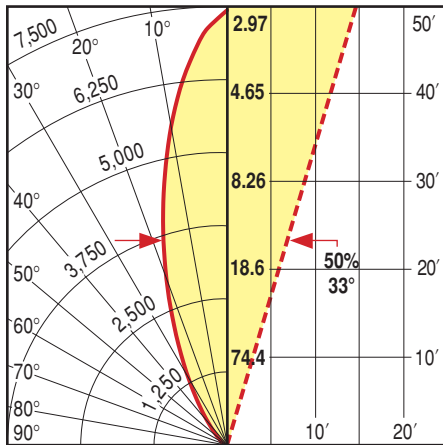


**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10

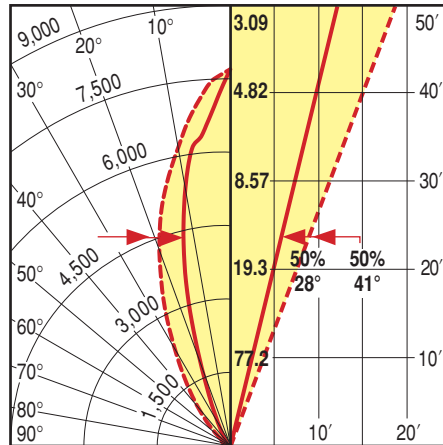
# Photometrics

## 6360 150PMH

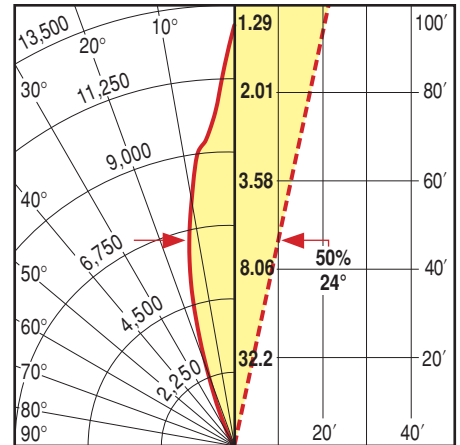
### Highest Fixture Position Inside Well



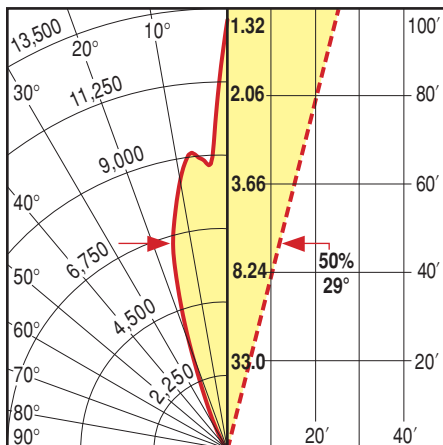
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / PL10



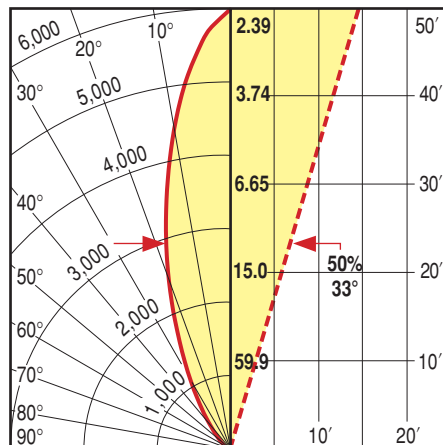
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / SL10



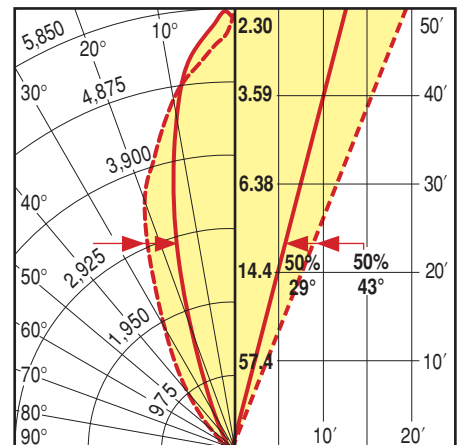
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / HL10



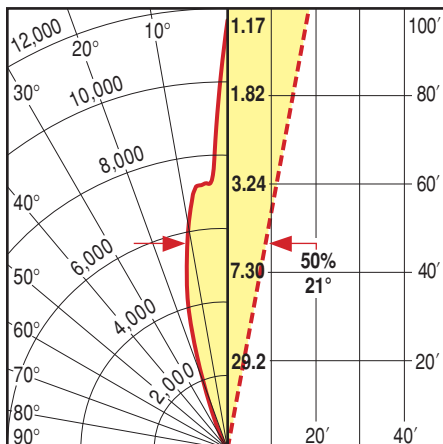
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / LT10



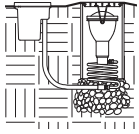
**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / LT10 / PL10



**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / LT10 / SL10

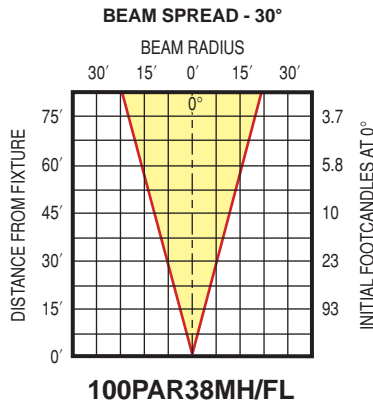
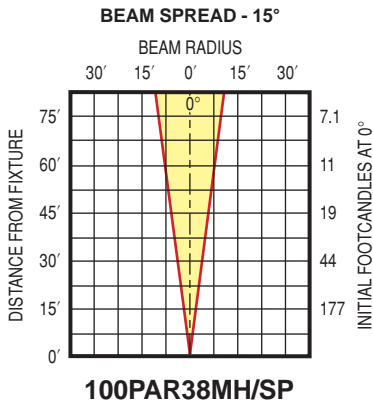
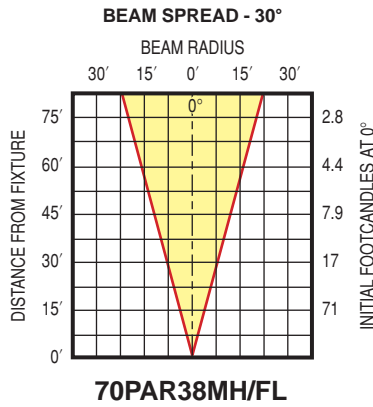
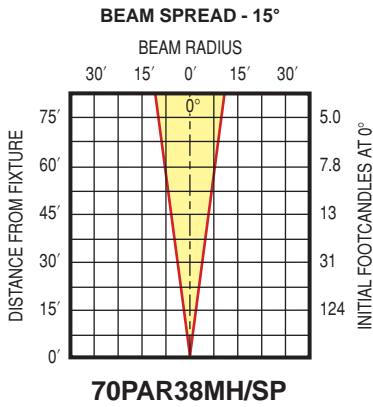


**6360 NF 150PMH** ED17 150W Metal Halide Narrow Flood reflector SR10 / LT10 / HL10



6350<sup>1</sup>

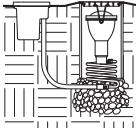
<sup>1</sup>NOTE: Reduce values shown by 20% for grill louver loss.



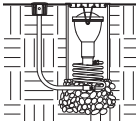
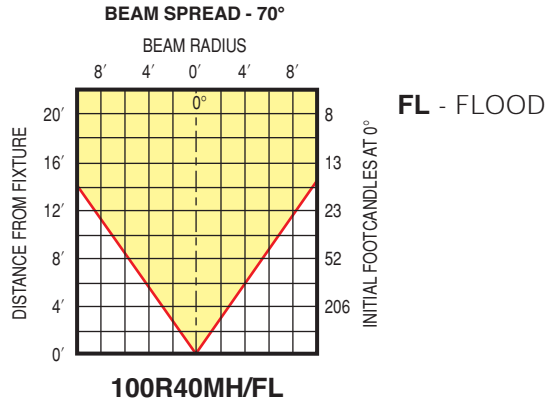
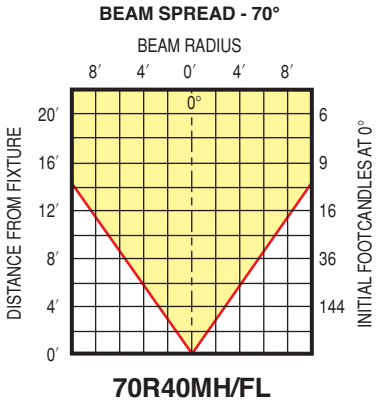
**SP** - SPOT  
**FL** - FLOOD

# Photometrics

## 6350 R40 Accent Lighting C54 PAR38 Accent Lighting

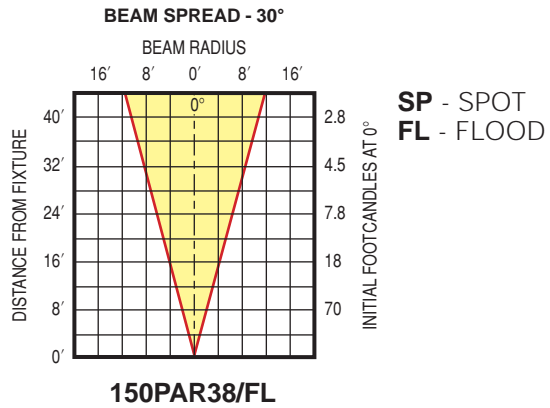
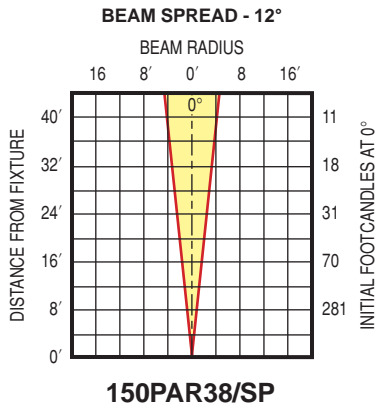


6350<sup>1</sup>



C54<sup>1</sup>

<sup>1</sup>NOTE: Reduce values shown by 20% for grill louver loss.





# Lamp and Electrical Guide

Lamp	Lamp Watts	ANSI Ballast Type	Life (Hours)	Initial Lumens <sup>1</sup>	Voltage	Operating Amps.	Open Circuit	Starting Amps.	Max. Amps.
<b>HIGH PRESSURE SODIUM</b>									
<b>70HPS</b>									
ED-17 Clear Medium Base	70	S62	24000+	5860	120	0.82	1.40	0.90	1.40
					208	0.48	0.83	0.50	0.83
					240	0.41	0.72	0.44	0.72
					277	0.36	0.62	0.35	0.62
					347	0.30	0.55	0.30	0.55
<b>100HPS</b>									
ED-17 Clear Medium Base	100	S54	24000+	8800	120	1.14	2.20	0.80	2.20
					208	0.66	1.40	0.55	1.40
					240	0.57	1.10	0.41	1.10
					277	0.49	0.95	0.35	0.95
					347	0.39	0.70	0.45	0.70
<b>150HPS</b>									
ED-17 Clear Medium Base	150	S55	24000+	15000	120	1.66	3.00	1.95	3.00
					208	0.96	1.65	1.10	1.65
					240	0.83	1.45	0.95	1.45
					277	0.72	1.25	0.88	1.25
					347	0.56	0.92	0.52	0.92
<b>PULSE START METAL HALIDE</b>									
<b>70PMH</b>									
ED-17 Clear Medium Base	70	M98	11000+	6000	120	0.85	1.70	0.80	1.70
					208	0.50	1.04	0.50	1.04
					240	0.43	0.87	0.43	0.87
					277	0.37	0.78	0.39	0.78
					347	0.30	0.60	0.30	0.60
<b>100PMH</b>									
ED-17 Clear Medium Base	100	M90	11000+	9000	120	1.15	2.30	1.20	2.30
					208	0.66	1.40	0.80	1.40
					240	0.58	1.15	0.65	1.15
					277	0.50	1.00	0.60	1.00
					347	0.40	1.00	0.40	1.00
<b>150PMH</b>									
ED-17 Clear Medium Base	150	M102	11000+	12500	120	1.60	3.65	1.75	3.65
					208	1.00	2.10	1.30	2.10
					240	0.80	1.80	0.85	1.80
					277	0.70	1.58	0.77	1.58
					347	0.55	1.25	0.65	1.25

<sup>1</sup> All initial lumen values shown may vary from one manufacturer to another. Consult lamp manufacturer's data for exact lumen and life data.

**NOTE:** For lamp/ballast information outside of the U.S.A. and Canada, please consult your local Kim representative.

# Safety and Maintenance

1. Fixtures must be grounded in accordance with national, state, and/or local codes. Failure to do so may result in serious personal injury.
2. Below-grade luminaires should always be located out of the normal pedestrian areas to minimize contact. If fixtures must be used in these areas, consider the Cautions stated on page 4, and select the appropriate Lamp/Lens/Fixture Position for the application, based on the Temperature Chart.
3. It is recommended that all conduit entries be sealed with RTV silicone to maintain a clean, dry splice compartment.
4. To maintain light efficiency and prevent fixture overheating, lenses must be kept clean and free of dirt, dust, leaves and trash.



# Kim Lighting's Additional In-Grade Offerings



## Lightvault®

Composite housings combined with cast bronze trims and a gambit of design innovations provide the ultimate in value and flexibility. Now includes LED uplight options. Refer to **Kim In-Grade Supplement** for details.

**25/7 Year Limited Warranty**



## Minivault®

Cast bronze housings and trims for lower wattages. Now includes 35W PMH version. Refer to **Kim In-Grade Supplement** for details.

**25/7 Year Limited Warranty**

# Well Lights

In-grade Accent Lighting



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Your input is valuable to us.



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