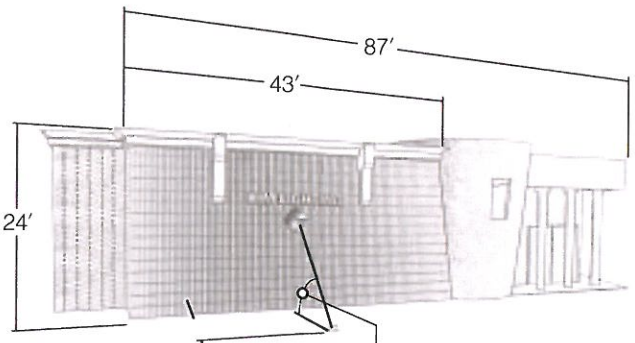
Virtual Performance Models

Architecture

The building created for these performance models is strictly for the purpose of showing the lighting effects of all 9 DBF models on one structure. It is a combination of geometric shapes and textures that simulate the various elements that are often found in architecture. By creating a single building for all 9 DBF optical systems, it is easier to compare the differences between the individual lighting effects. The building facade is divided into left and right sides, separated by a cone element. The left side is a textured wall with various elements that allow flood, spot, or grazing effects to be illustrated. The right side has three columns supporting an overhang to show the lighting effect on structural elements and recessed spaces. To create a finished lighting effect on this building, multiple fixtures would normally be used.

Lighting Effects

The lighting effects in the following nine illustrations are not renderings, but actual computer generated effects derived from real photometric data. Each illustration was created by a 3D design, modeling, and animation program capable of reading actual I.E.S. photometric files from each DBF fixture. The illustrations are very accurate and represent a breakthrough technology by Kim Lighting in helping specifiers visualize and apply the complex art of floodlighting.



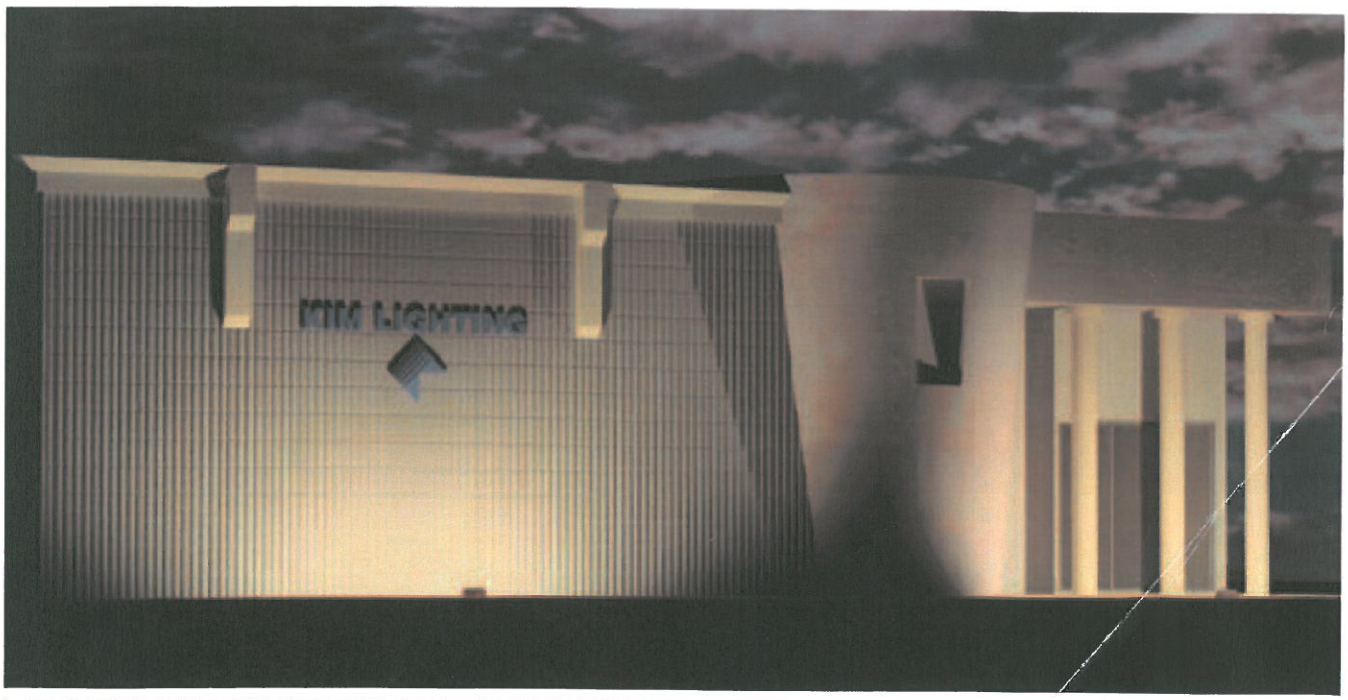
Setback		Aiming	
DBF11-14	Setback 7′	DBF11-14	45°
DBF15-17	Setback 15′	DBF15-17	55°
DBF18-19	Setback 2′	DBF18-19	0°

FIXED LENS
ANGLE 45°
BLACK
METAL HALIDE LAMP

DBF11
Wide Flood

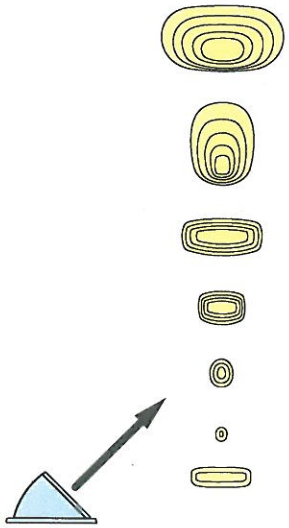
Lamp: 175MH
Setback: 7′
Aiming: 45°

NOTE: This optical system has the greatest horizontal light throw. To uniformly light the illustrated wall, two fixtures would normally be used, and possibly a higher aiming angle to place more light at the top of the wall.

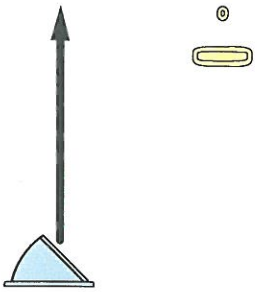


Nine Optical Systems

The DBF is available in nine optical configurations ranging from wide flood to narrow spot. For the DBF11-17 (45° nominal aiming), all reflectors are from Kim's AFL10 series of Architectural Floodlights. For the DBF18 and 19 (0° nominal aiming), new reflectors have been engineered for this configuration. All 9 reflectors are self-contained modules, fully interchangeable within the common housing. Each module is retained in the housing by quick-release hinges, and all wires have quick-disconnect plugs.



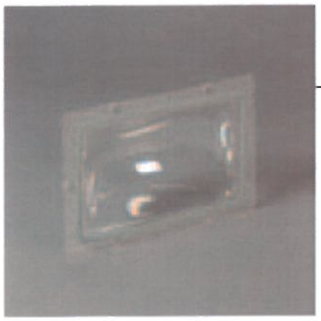
45° Nominal Aiming: ±20°

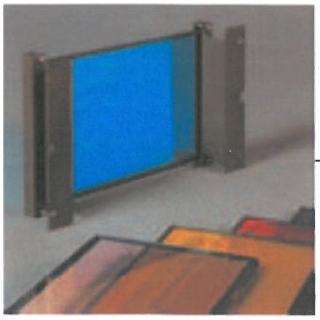


0° Nominal Aiming: +5°, -20°

Optional Lexan® SLX Lens Shield and Fixed Hoods

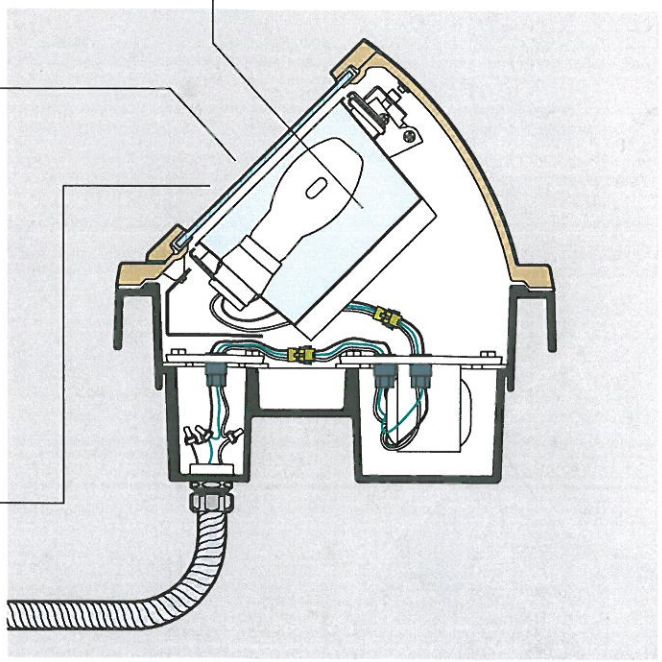
For additional side-glare control, a Fixed Hood or Full Shield is available. These glare control devices may only be used with the DBF11-17, as they will interfere with the straight-up light throw from the DBF18 and 19. For vandal-prone areas, the optional Lexan® SLX Lens Shield can be added and used in addition to the Fixed Hood or Full Shield.



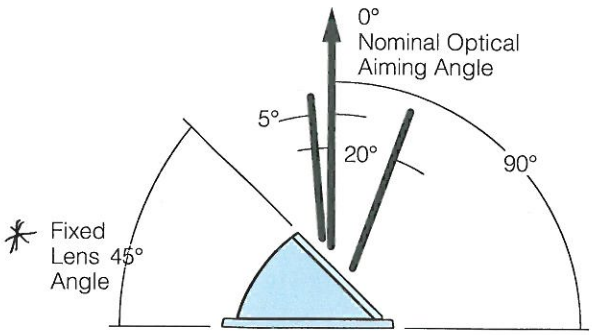


Color Filters

Kim color filters are constructed of color media material sandwiched between two sheets of tempered glass, sealed around all edges. The filter is held 2" away from the fixture lens by an extruded aluminum holder. Available in 5 colors. See page **13**.



Application
DBF18 and **DBF19**
0° Nominal Optical Aiming Angle

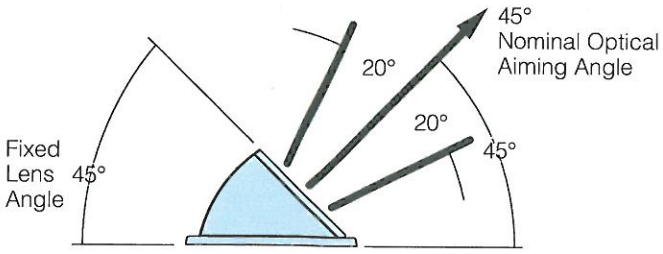


With a nominal optical aiming angle of 0° (straight up), DBF18 and 19 models are for mounting close to the building to create grazing and highlighting effects. Setbacks, usually only 2′ to 5′, should be determined in relation to reliefs and projections on the building facade and whether light should fall on those features. See page **10** for examples.

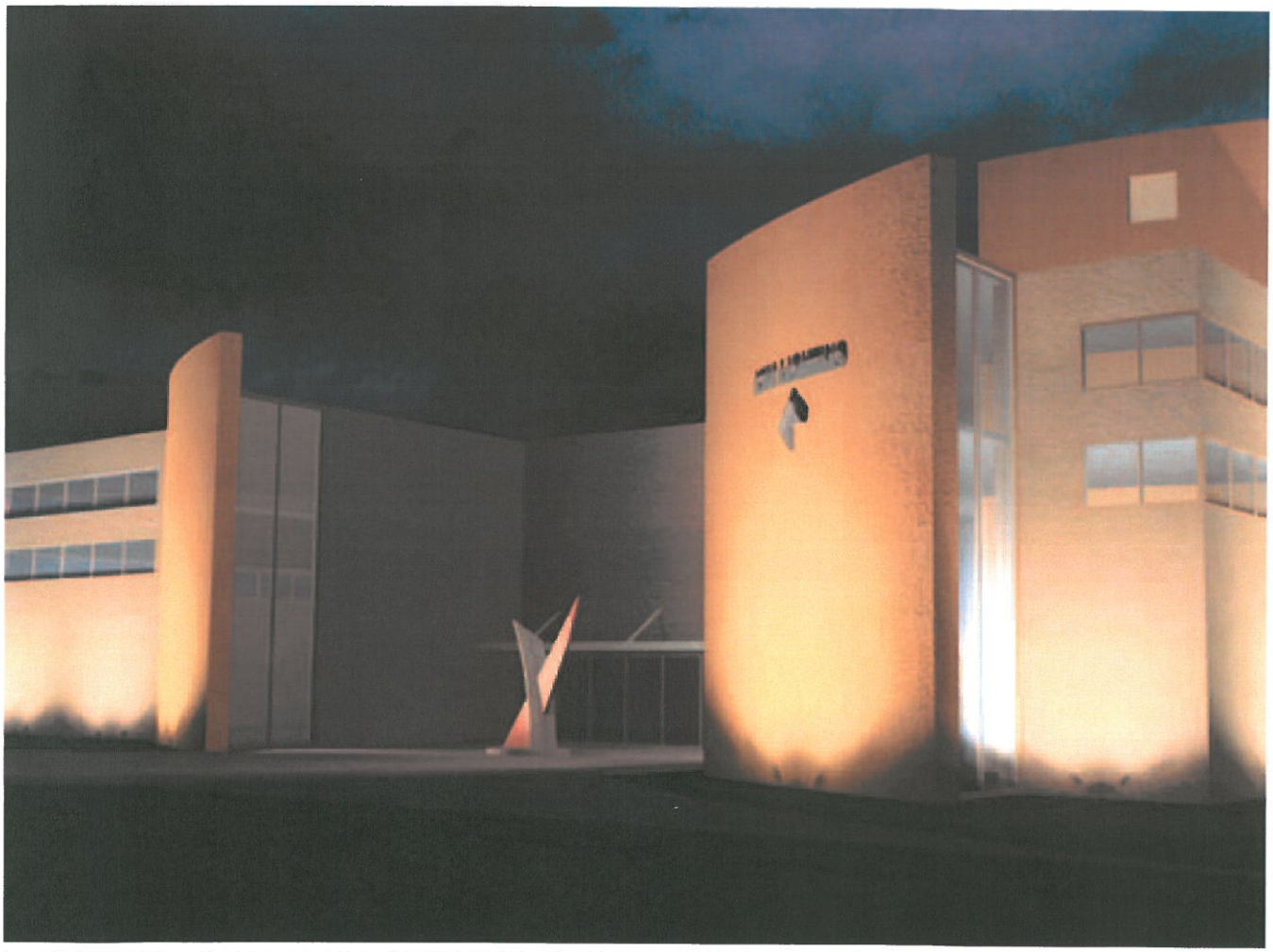
Application

DBF11-17

45° Nominal Optical Aiming Angle



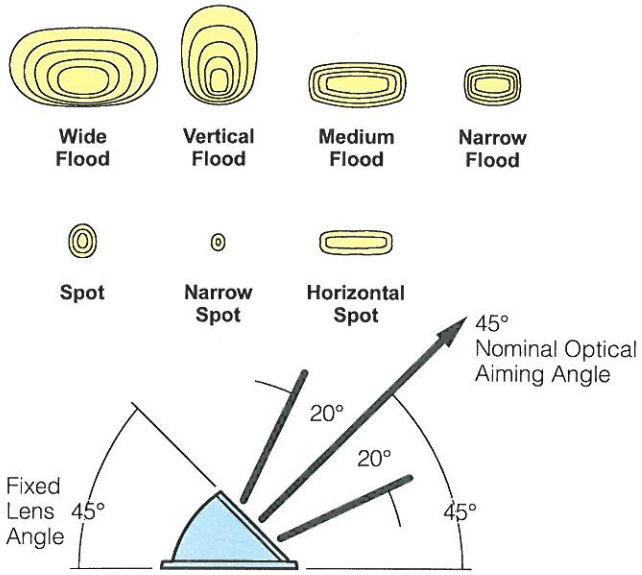
With a nominal optical aiming angle of 45°, DBF11-17 models are for mounting away from the building to create floodlighting effects. Minimum setback from the building should be 6′ for DBF11-14 "flood" models, while much greater setbacks will be required for DBF15-17 "spot" models. For small signs, a ≤6′ setback could be used. See pages **6-9** for examples.



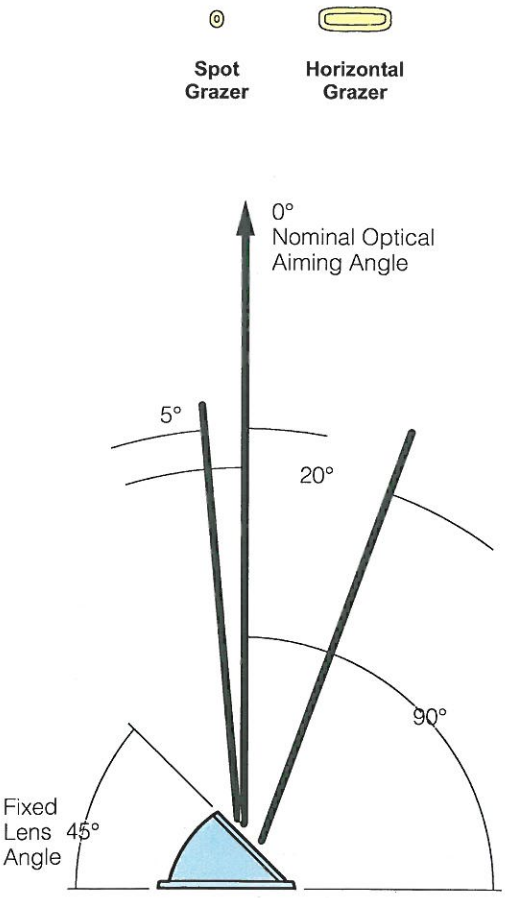
Two Basic Configurations

9 Light Distributions

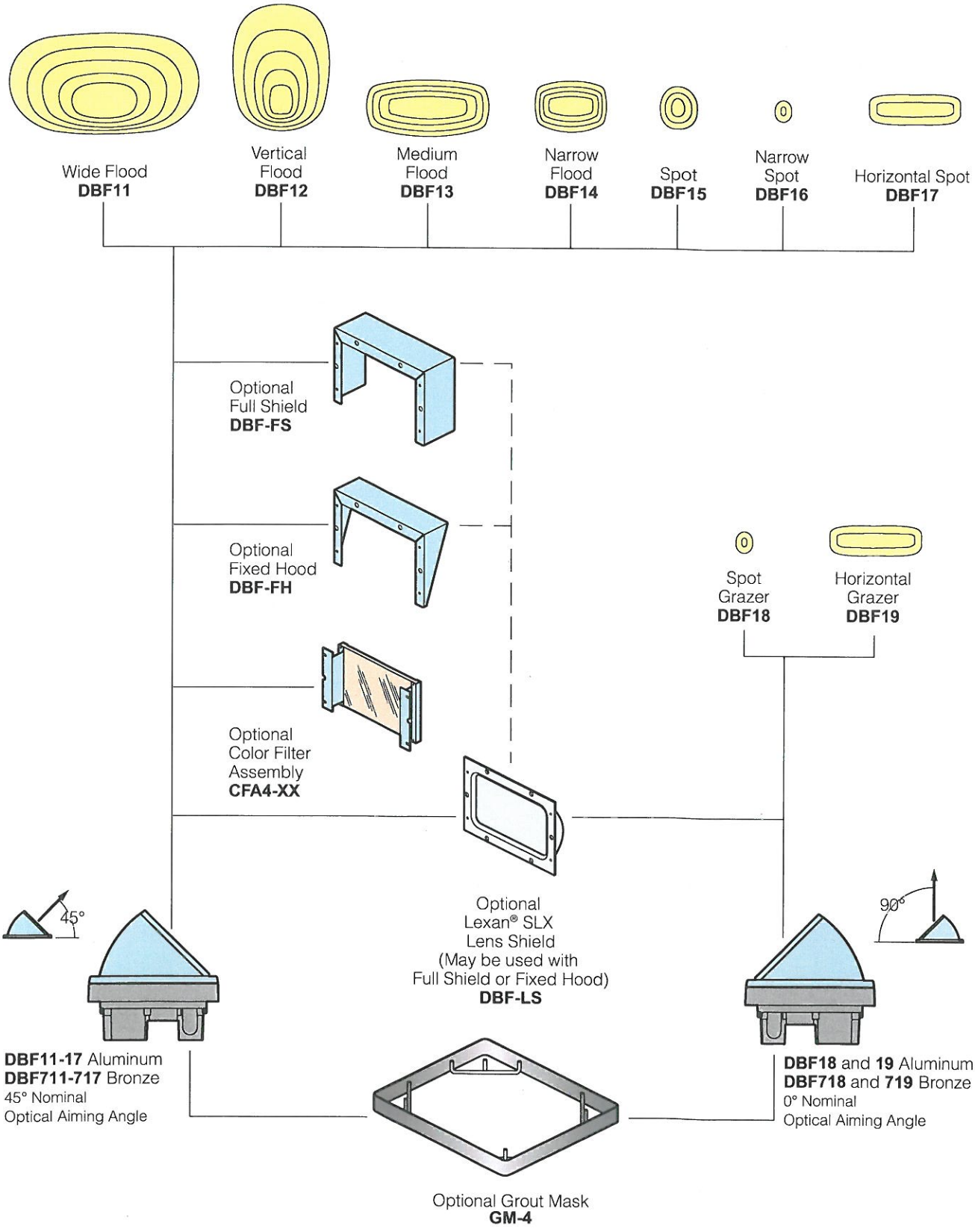
45° Nominal Optical Aiming Angle: ±20°



0° Nominal Optical Aiming Angle: +5°, -20°



DBF


Wide Flood
DBF11
Vertical Flood
DBF12
Medium Flood
DBF13
Narrow Flood
DBF14
Spot
DBF15
Narrow Spot
DBF16
Horizontal Spot
DBF17
Optional Full Shield
DBF-FS
Optional Fixed Hood
DBF-FH
Optional Color Filter Assembly
CFA4-XX
Spot Grazer
DBF18
Horizontal Grazer
DBF19
Optional Lexan® SLX Lens Shield
(May be used with Full Shield or Fixed Hood)
DBF-LS
45°
90°
DBF11-17 Aluminum
DBF711-717 Bronze
45° Nominal
Optical Aiming Angle
DBF18 and 19 Aluminum
DBF718 and 719 Bronze
0° Nominal
Optical Aiming Angle
Optional Grout Mask
GM-4

Ordering Information

Direct Burial Floodlight

Ordering Example:

Fixture	Electrical Module	Optional Socket	Finish	Optional Fuse
DBF15	**/ 175MH277**	**/ G12**	**/ BL-P**	**/ SF**
1	2	3	4	5

Standard Fixture and Options Ordered Assembled with Fixture

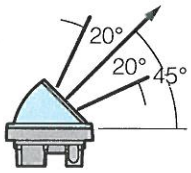
Options: **DBF-FH/BL-P** (6-10) — Options Ordered and Shipped Separately from Fixture

1 Fixture:

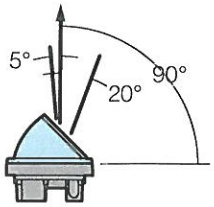
Cat. No. designates complete fixture and beam pattern. "7" designates bronze above-grade housing.

DBF11 — Beam Pattern; **Aluminum** Above-Grade Housing

DBF711 — Beam Pattern; **Bronze** Above-Grade Housing

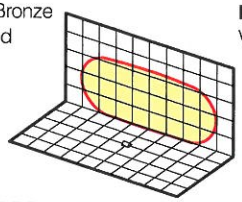


DBF11-17
DBF711-717
45° Nominal Optical Aiming Angle

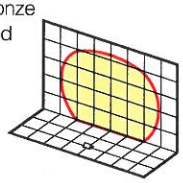


DBF18 and **19**
DBF718 and **719**
0° Nominal Optical Aiming Angle

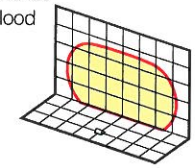
DBF11 Aluminum
DBF711 Bronze
Wide Flood



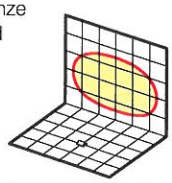
DBF12 Aluminum
DBF712 Bronze
Vertical Flood



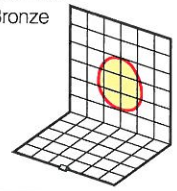
DBF13 Aluminum
DBF713 Bronze
Medium Flood



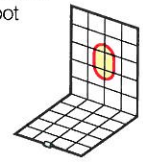
DBF14 Aluminum
DBF714 Bronze
Narrow Flood



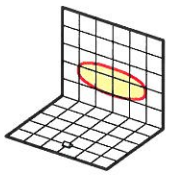
DBF15 Aluminum
DBF715 Bronze
Spot



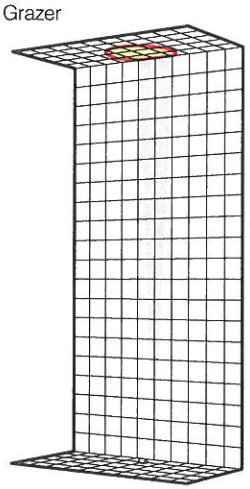
DBF16 Aluminum
DBF716 Bronze
Narrow Spot



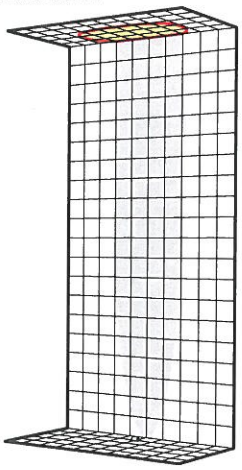
DBF17 Aluminum
DBF717 Bronze
Horizontal Spot



DBF18 Aluminum
DBF718 Bronze
Spot Grazer



DBF19 Aluminum
DBF719 Bronze
Horizontal Grazer



2 Electrical Module:

HPS = High Pressure Sodium
MH = Metal Halide
PMH = Pulse Start Metal Halide
PL = Fluorescent

Available with optional Electronic Ballast. Add **E** to Electrical Module number. e.g.: **150PMH277E**[4]

Lamp Watts	Lamp Type	Line Volts
175	MH	277

39PMH120	**50PMH120**	**70PMH120**	**100PMH120**	**150PMH120**	**175MH120**
39PMH208	**50PMH208**	**70PMH208**	**100PMH208**	**150PMH208**	**175MH208**
39PMH240	**50PMH240**	**70PMH240**	**100PMH240**	**150PMH240**	**175MH240**
39PMH277	**50PMH277**	**70PMH277**	**100PMH277**	**150PMH277**	**175MH277**
39PMH347	**50PMH347**	**70PMH347**	**100PMH347**	**150PMH347**	**175MH347**
		70PMH480[1]	**100PMH480**[1]	**150PMH480**[1]	**175MH480**[1]

35HPS120	**50HPS120**	**70HPS120**	**100HPS120**	**150HPS120**	**42PL**[2]
35HPS277	**50HPS208**	**70HPS208**	**100HPS208**	**150HPS208**	**60PL**[3]
	50HPS240	**70HPS240**	**100HPS240**	**150HPS240**	**85PL**[3]
	50HPS277	**70HPS277**	**100HPS277**	**150HPS277**	**120PL**[3]
		70HPS347	**100HPS347**	**150HPS347**	
		70HPS480[1]	**100HPS480**[1]	**150HPS480**[1]	

[1] Check with local codes for the use of medium base socket with 480 volt.
[2] Operates 42 watt compact fluorescent lamp. 120 through 277 volt / 50 or 60 Hz.
[3] Available in wide flood only (**DBF11** or **DBF711**). Operates 120 through 277 volt / 50 or 60 Hz.
[4] Optional Electronic Ballast is variable voltage ballast for use in 120 through 277 voltages and 50 or 60 Hz. For use with Metal Halide lamps only. Consult factory for other voltages.

3 Optional Socket:

Cat. No.: **G12**

Optional G12 base socket is available for 39, 70, and 150 Metal Halide T-6 Bipin lamps. Must use UV filtering lamp.

4 Finish:

Aluminum Above-Grade Housing[1]:

Color:	Black	Dark Bronze	Light Gray	Platinum Silver	White	Custom Colors[2]
Cat. No.:	**BL-P**	**DB-P**	**LG-P**	**PS-P**	**WH-P**	**CC-P**

[1]Finish: Super TGIC powder coat paint over clear anodizing and Titanated Zirconium conversion coating.
[2]Consult representative for custom colors.

Bronze Above-Grade Housing

Cat. No.: **NB** Natural Bronze

Will rapidly age to a rich deep bronze color, and may develop areas of verde patina.

5 Optional Fusing:

Single Fuse

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	**SF**	**DF**	**DF**	**SF**	**SF**	**DF**

High temperature fuse holders factory installed inside the fixture housing. Single Fusing **(SF)** for 120V, 277V and 347V or Double Fusing **(DF)** for 208V, 240V and 480V.

6 Optional Fixed Hood:

Specify Finish for Aluminum Hood
Example: **DBF-FH/BL-P**

Copper Hood has natural finish, and will age to a deep bronze color. May develop areas of verde patina.
Example: **DBF7-FH**

Cat. No.: **DBF-FH** Aluminum

Formed 3/32" thick aluminum. Mounts to predrilled doorframe holes. Cannot be used with **DBF18** and **DBF19**. Ordered and shipped separately from fixture.

Cat. No.: **DBF7-FH** Copper

Formed 1/16" thick copper. Mounts to predrilled doorframe holes. Cannot be used with **DBF718** and **DBF719**. Ordered and shipped separately from fixture.

7 Optional Full Shield:

Specify Finish for Aluminum Hood
Example: **DBF-FS/BL-P**

Copper Hood has natural finish, and will age to a deep bronze color. May develop areas of verde patina.
Example: **DBF7-FS**

Cat. No.: **DBF-FS** Aluminum

Formed 3/32" thick aluminum. Mounts to predrilled doorframe holes. Should not be used with **DBF11** and **DBF12**. Use Fixed Hood instead. Cannot be used with **DBF18** and **DBF19**. Ordered and shipped separately from fixture.

Cat. No.: **DBF7-FS** Copper

Formed 1/16" thick copper. Mounts to predrilled doorframe holes. Should not be used with **DBF711** and **DBF712**. Use Fixed Hood instead. Cannot be used with **DBF718** and **DBF719**. Ordered and shipped separately from fixture.

8 Optional Lexan® SLX Lens Shield:

Cat. No.: **DBF-LS** Clear Finish

3/16" clear convex vacuum formed non-yellowing Lexan® SLX with gasket. Mounts over lens to predrilled door frame holes and may be used with **FH** Fixed Hood or **FS** Full Shield option. Ordered and shipped separately from fixture.

9 Optional Color Filter Assembly:

Specify Finish
Example: **CFA4-05/BL-P**

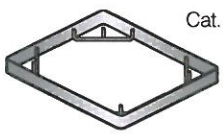
Cat. No.: **CFA4-XX**

Color Filter Assembly Cat. No. includes color filter and channel finish. Specify filter, substituting **XX** for color filter number (See below) and add finish.

Heavy wall aluminum extrusion with anti-reflection baffles and vertical channels that hold the color filter 2" away from the fixture lens. Quick change-out of the color filter is possible by the removal of two channel screws. Support mounts to predrilled holes in fixture door frame. May be used in conjunction with **FH** Fixed Hood or **FS** Full Shield option. Ordered and shipped separately from fixture.

Color Filter:	Deep Straw	Rose Tint	Medium Red	Brilliant Blue	Primary Green
XX:	**15**	**05**	**27**	**69**	**91**

10 Optional Grout Mask:



Cat. No.: **GM-4**

For fixture support during concrete pour. Galvanized steel guard and rebar. Ties to paving rebar and provides 2" of space for finishing up to fixture. Fixture must be with grout mask during pour. Ordered and shipped separately from fixture.

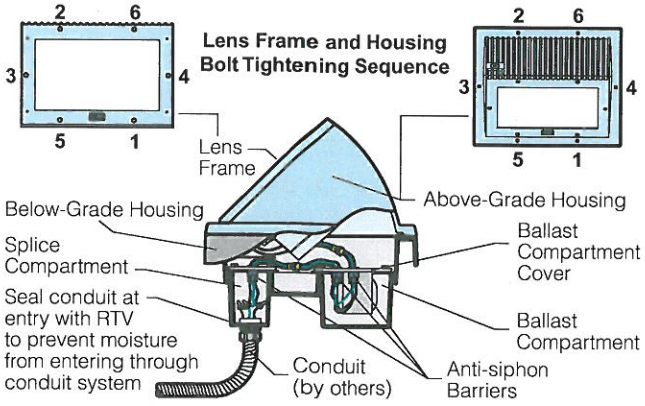
Installation Guide

Wiring and Assembly

After installing conduit and pulling the correct conductors into the splice compartment, seal the conduit by injecting silicone sealer into the open conduit end to completely block the entry of water.

Clean all gaskets, cover plates, housing flanges, and housing interior. Install gaskets, cover plates, and housings as outlined in the Installation Instructions. Install lamp and test for operation.

Energize the fixture. Allow the fixture to reach operating temperature (at least 30 minutes). Remove aiming plug and allow the fixture to "Breathe" for approximately 10 minutes; this will permit the moist air to be "Exhaled". While the fixture is still energized, replace the aiming plug and tighten as described in the Installation Instructions. This procedure should be repeated each time the fixture is opened for maintenance.



Isolate and Elevate.

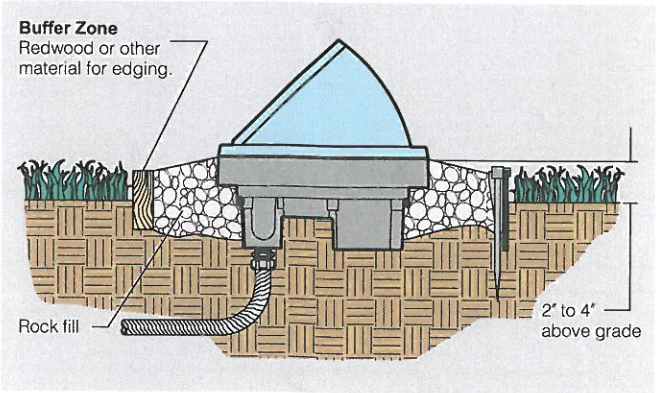
The fundamentals of a clean, maintainable installation.

Create a Buffer Zone

When fixtures are located in areas planted in ground cover or shrubbery, construct a buffer zone to prevent lens overgrowth and to create an edge for trimming. Elevate the fixtures for drainage and backfill with decorative rock. As the ground cover grows, the fixtures will look flush even though they are 2″ to 4″ above grade.

Advantages

- Prevents lens overgrowth.
- Provides a defined edge for trimming.
- Provides drainage away from the lens to maintain light output.
- Visually looks like a flush installation.



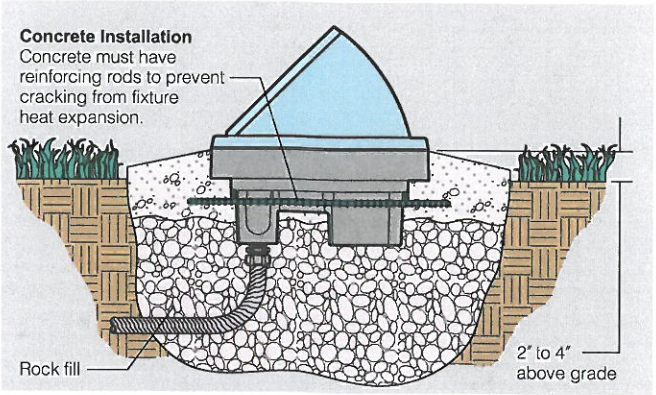
Install in Concrete

Another option for installations in ground cover, shrubbery or lawn areas is to encase the fixture in concrete. This creates the buffer zone as described above, with the additional advantage of greater fixture stability. Elevate the fixture 2″ to 4″ above grade, and slope the concrete away from the housing for drainage.

Advantages

- Cleaner, more stable installation, less susceptible to traffic and maintenance activity.
- Prevents lens overgrowth.
- Provides a defined edge for trimming.
- Provides drainage away from the lens to maintain light output.
- Visually looks like a flush installation.

NOTE: Always use adequate rebar surrounding the fixture to prevent cracking of the concrete due to heat expansion.



In Paved Areas

When below-grade luminaires are installed in paving, it is usually required that the below-grade housing be flush with finished grade. To make this installation easier, Kim offers an optional Grout Mask (page **15**) to support the housing at the proper height during the concrete pour. The Grout Mask is normally tied into the paving rebar for support.

Advantages

- Supports fixture at proper height during concrete pour.
- Provides 2″ grout space for finishing.
- Easily adapts to any paving material; concrete, brick, stone, etc.