

Fixture Handbook



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Recessed Lighting

Recessed Lighting

Also Called

Cans

Hi-hats

Housings

Mini Cans



Commonly Used Recessed Lighting Terms

Old Work/Remodel: Fixture to be installed in existing construction

New Work/New Construction: Brand new construction or total renovation

Air Tight: Fixture is Gasket sealed to prevent any airflow through the fixture

Insulated Can (IC can): Fixture can be used in direct contact with insulation

Insulated Airtight Housing (ICAT): Fixture can be used in direct contact with insulation and restricts most air flow through fixture.

*****NOTE**: NYS code specifies ICAT fixtures to be used in new construction where fixture will come in contact with insulation and air flow.***

Mini-can: Commonly used to light interior of cabinets. These fixtures are used with remote transformers due to their small size. Only available as remodel style.

Recessed Lighting

Configurations

New Work

Old Work/Remodel

Insulated

ICAT

Air Tight Only

Integral Transformer

Remote Transformer

Compact Fluorescent

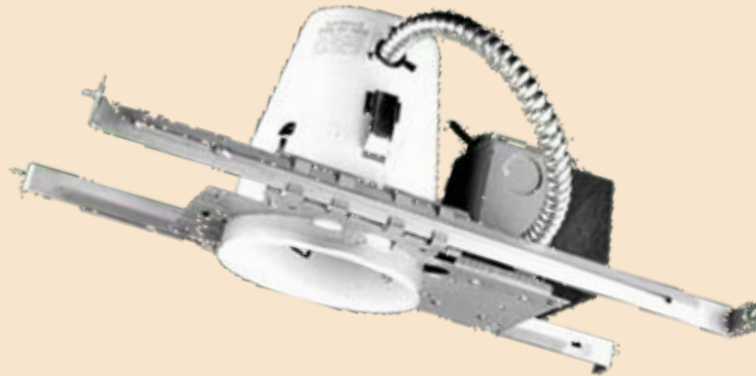
Metal Halide

High Pressure Sodium

Low Voltage

Line Voltage/Incandescent

Mini Can



Sizes

2"

3"

4"

5"

6"

7"

8"

Recessed Lighting

Trim

The trim is the only visible part of the fixture once it is installed:

The trim is a decorative element that can be made of white plastic to blend in with the ceiling, or tinted for a splash of color. Trims may also be incorporated into baffles, slight extensions that direct the beam of light into a specific area.



Recessed Lighting: Trims

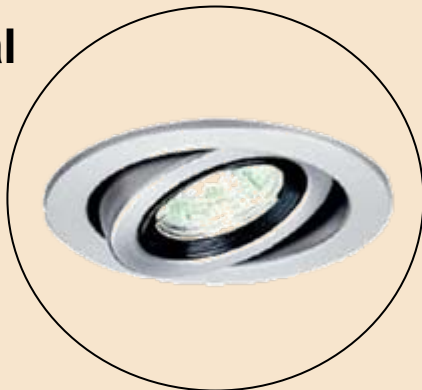
Shower



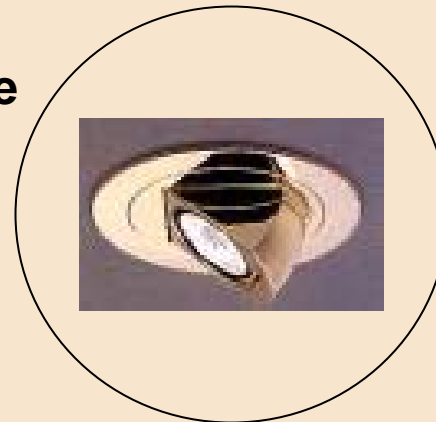
Eyeball



**Gimbal
Ring**

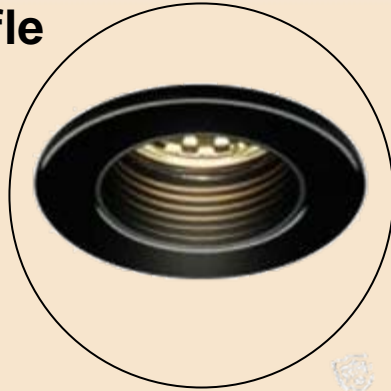


Periscope



Recessed Lighting: Trims

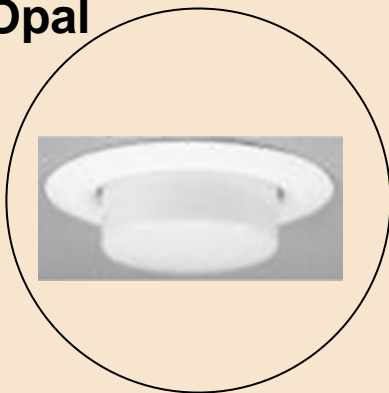
Baffle



Reflector



Drop Opal



Wall Wash



Recessed Lighting: Trims

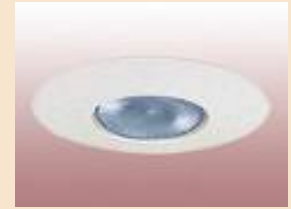
**Pinhole
Spot**



Drop Glass



Open Splay



Fresnel



**Regressed
Eyeball**



**Cross Blade
Reflector**



Recessed Lighting

What Bulbtronics Needs to know

1. What type of bulb are you going to use in this fixture? (MR16, PAR38, Compact FL., HID)
2. What type of ceiling is this fixture going in? (New work/New Construction, Old work / Remodel)
3. Do you need insulated, non-insulated, air tight, or both?
4. What size housing are you looking for?
5. Do you need line or low voltage?
6. What color trim do you need?
7. What style trim do you need?

Fluorescent Lighting

Commonly Used Fluorescent Lighting Terms

Recessed: Sits at ceiling level and is used in conjunction with ceiling tiles. Commonly used in offices, hospitals, and other commercial applications.

Surface Mount: Sits below ceiling level and is not used in conjunction with ceiling tiles.

Modular/Decorative Fluorescent: Commonly used in residential applications and have various style trims available to match home décor.

Starters/Ballasts: Older widely used ballast technology required a starter for the ballast to ignite. Newer ballast technology available in rapid start and quick start styles, they do not require a starter.

Sizes:**2x4****2x2****1x4**

Commonly Used Fluorescent Lighting Terms

Lenses for Fluorescent Fixtures

Parabolic

Prismatic or Prismatic acrylic

Cloud

Wraparound aka wrap (lens wraps around fixture)

Center basket aka perforated basket, perf overlay

Side Basket

Radial baffle

Eggcrate

Vapor Proof

Fluorescent Lighting

**Strips /
Channels**



**Staggered
Strips**



Cove



High Bay



Vaporlite

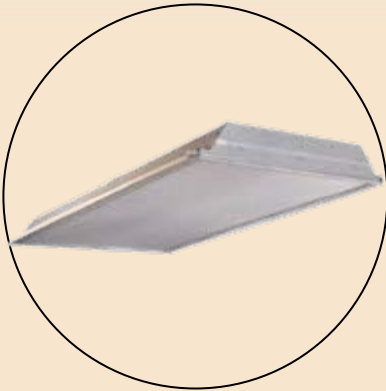


Recessed

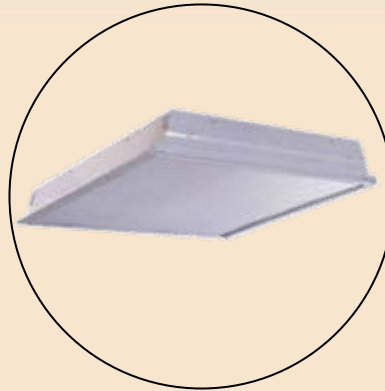


Fluorescent Lighting

2x4



2x2



1x4



**Indirect /
Direct**



**Center
Basket**

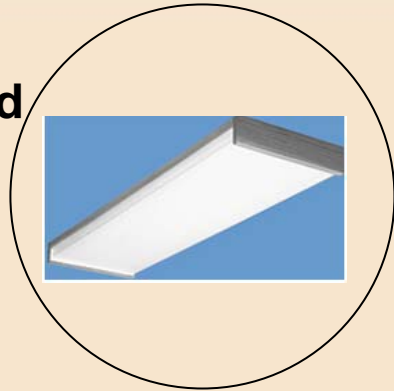


**Side
Basket**



Fluorescent Lighting

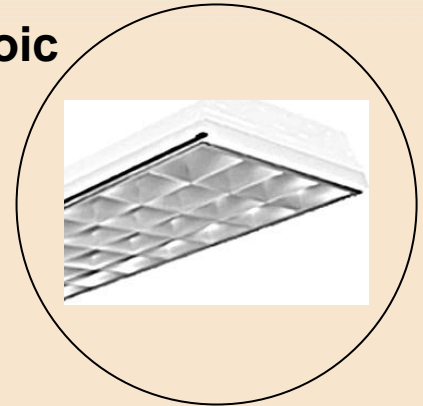
**Wrap
Around**



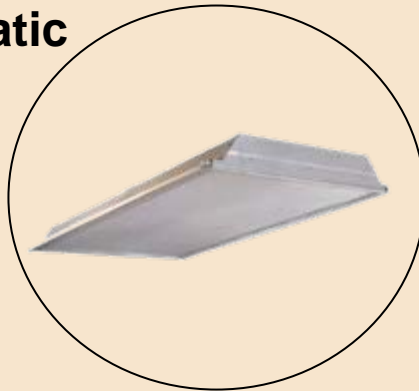
**Surface
Mount**



Parabolic



Prismatic

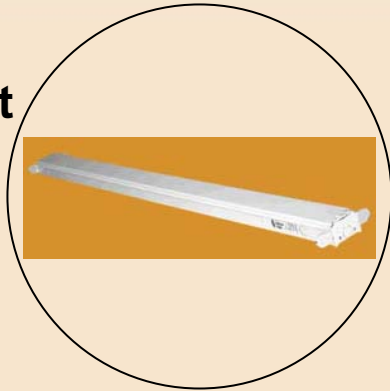


Industrial



Fluorescent Lighting

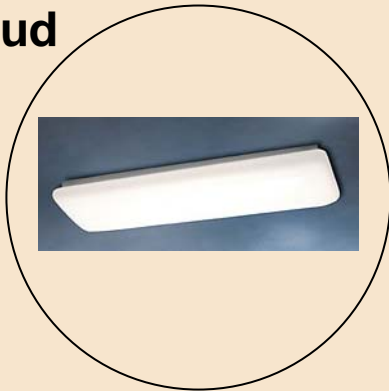
**Side
Socket**



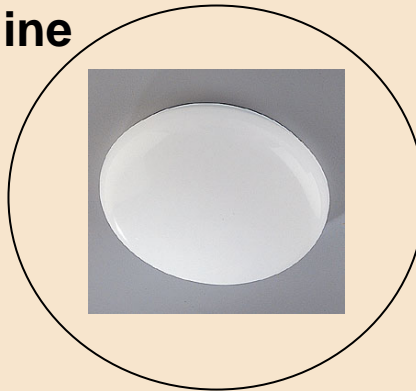
**Under
Counter**



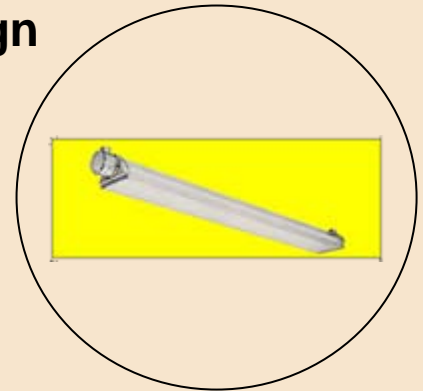
Cloud



Circline



SIP / Sign



Fluorescent Lighting

What Bulbtronics Needs to know

Is this for indoor or outdoor use?

Is this a recessed or surface mount light?

Is this being used in a decorative or commercial application?

How many bulbs per fixture?

What **type of bulb** does the fixture use?

What voltage do you need?

HID Lighting

Commonly Used HID Lighting Terms

Pulse Start Metal Halide: Latest metal halide technology produced to compete with newer high bay fluorescent technology.

Benefit: Instant on, no lag in startup, most energy efficient of all HID technologies.

Metal Halide: Most commonly used HID technology. Due to lag in start up time most often configured with a quartz restrike option that supplies light until metal halide comes to full strength.

Low Pressure Sodium: Older widely used technology, though fixtures are still available. This technology uses the SOX lamp.

Mercury Vapor: Older widely used technology. Replaced by metal halide, though fixtures are still available.

Ballast Kit: Known as the replacement parts for HID lighting. This kit includes an ignitor and a capacitor along with the actual ballast.

HID Lighting

**High Bay /
Low Bay**



**Trunion
Mount**



**Slp Fitter
Mount**



Shoe box



**Wall
Pack**



HID Lighting

Tall Pack



Hi Hat



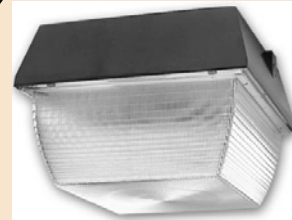
**Yard
Blaster**



**Garage
Lighter**



**Vandal
Proof**

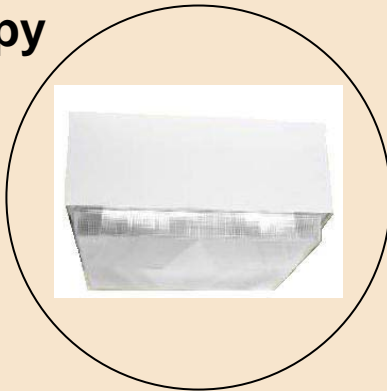


HID Lighting

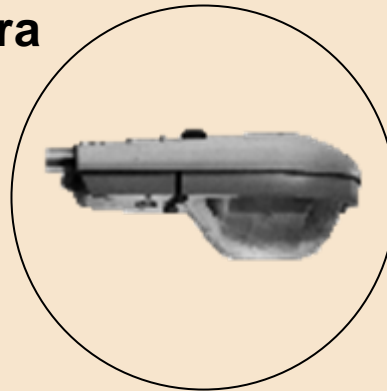
**Sports
Lighter**



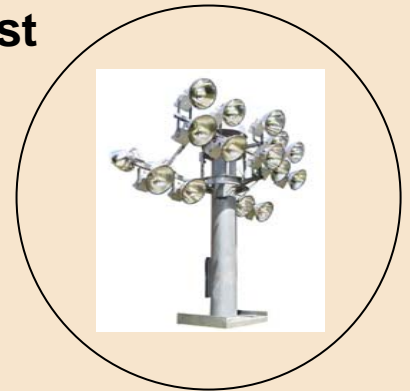
Canopy



Cobra



Highmast



HID Lighting

What Bulbtronics Needs to Know

Is this fixture for indoor or outdoor use?

- a) **If indoor, what is the application** (ie. Recessed lighting, track lighting)
- b) **If outdoor, how will this fixture be mounted** (ie. Wall Mount, Trunion Mount, Slip Fitter, Pole Mount)

Are you looking for high pressure sodium or metal halide?

What voltage are you looking for?

Landscape Lighting

Commonly Used Landscape Lighting Terms

Rocket Post/Permapost: Commonly used to securely mount uplight and spotlight fixtures in the ground.

Inground Lighting aka Ingrade, Well Lighting: Used in both architectural and residential applications. This type of fixture sits flush at ground level and is also available with adjustable aiming features.

Deck Lighting: Commonly used to light steps, railings, deck posts.

Bollard: Free standing fixture commonly used in path lighting, near steps. Bollards can be installed as discrete guides to a pedestrian path.

Underwater Lighting: Used in different underwater applications, common to pools, ponds, lakes, fountains, wells.

Path Lighting: Used to highlight walkways, entrances, and steps. These fixtures are usually mounted on various size stems but, also are available as a ground level fixture.

Landscape Lighting

**Spots /
Uplight**



Bollard



**Well
Light**



**Under
Water**



**Path
Light**



Landscape Lighting

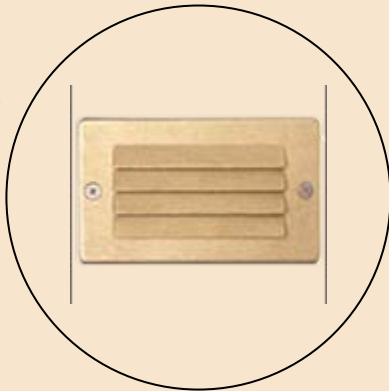
**Rock
Light**



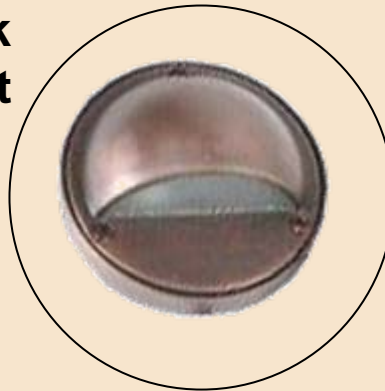
Beacon



**Step
Light**



**Deck
Light**



**Post Top
Light**



Landscape Lighting

Permapost



**Inground
Transformer**



Landscape Lighting

What Bulbtronics Needs to know

Is this a residential or commercial application?

Are you looking for line or low voltage?

What primary voltage do you have at this location?

What application or area are you looking to light?

Do you have a long run from the power source to the fixture?

Decorative Lighting

Commonly Used Decorative Lighting Terms

Sconce: Wall mounted fixture, can be used in various residential or commercial applications including bathrooms.

Chandelier: Ceiling mounted fixture that is chain mounted to ceiling.

Lamps / Portables: Standard table lamp and/or desk lamp.

Close to Ceiling: A fixture that allows the option of suspended light when you do not have enough space for a chandelier or wall mounted fixture.

Flush Mount: Fixture mounts directly to ceiling, leaving no space between fixture and ceiling.

Vanity: Fixtures commonly used over sinks and mirrors.

Decorative Lighting

**Pendant
Lighting**



Chandeliers



**Portable
Lamps**



**Close to
Ceiling**



**Hall and
Foyer**



**Wall
Sconce**

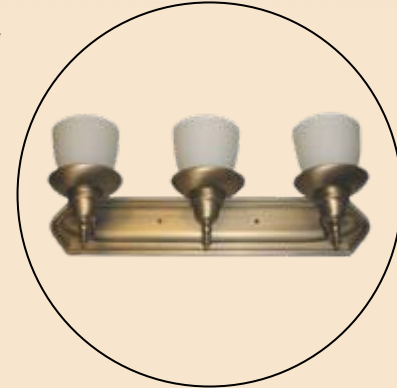


Decorative Lighting

Outdoor



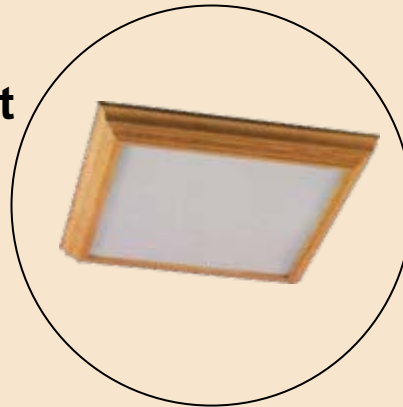
Vanity



**Surface
Mount**



**Modular
Fluorescent**



Decorative Lighting

What Bulbtronics Needs to know

What type of light are you looking for?

What type of room is this for?

What type of light bulb are you planning to use?

Are you planning on installing a dimmer?

Undercounter Lighting

Commonly Used Undercounter Lighting Terms

Fluorescent: Oldest undercounter technology. Low heat output. Newer fluorescent lamps and ballasts have increased the use of this type of undercounter lighting.

Halogen: Comes in various shapes, volts, and bases. Much higher heat output than fluorescent. Until recently, it was widely used due to the benefit of dimming ability.

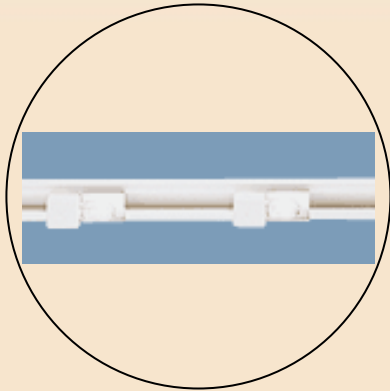
Xenon: Comes in various shapes, volts, and bases. Newer technology than halogen. Same capabilities as halogen but produces a crisper, whiter light while emitting less heat.

LED: Latest technology available. Not commonly used yet due to high price. The benefit of LED is zero heat output, lower energy consumption, and longer life than any other undercounter lighting technologies.

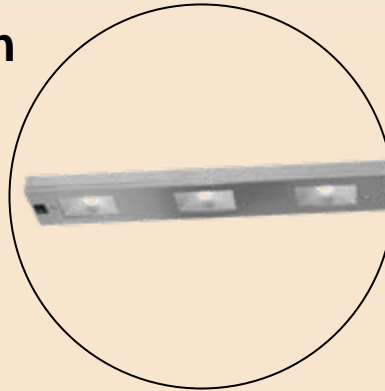
Hockey Puck: These fixtures get their name from the shape of the original models which are the shape of hockey pucks. Available in kit form or in separate units. Available in xenon, halogen, compact fluorescent, and LED. Most commonly used in xenon and halogen which require a transformer. Can be used with electronic or magnetic transformer.

Undercounter Lighting: Cabinet Lighting

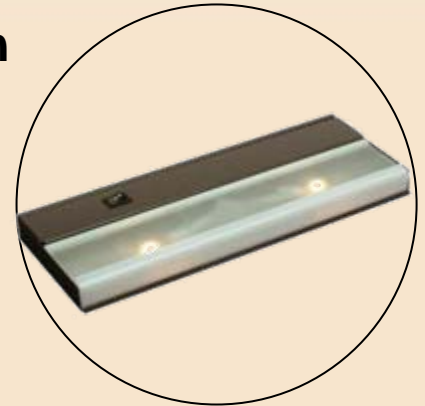
Mini Track



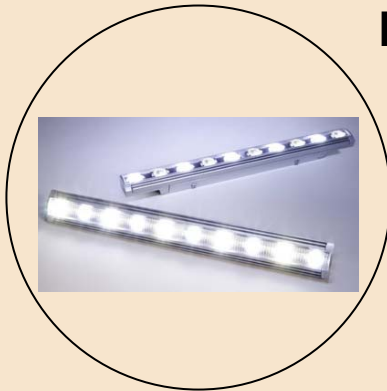
Halogen



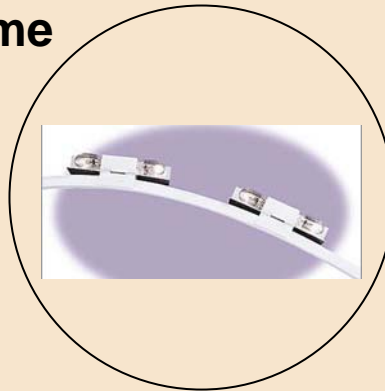
Xenon



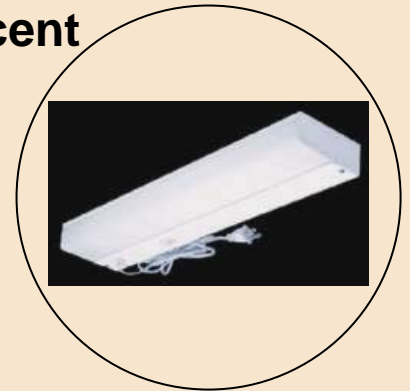
LED



Ducolume



Fluorescent



Undercounter Lighting: Cabinet Lighting

Flexi Strip



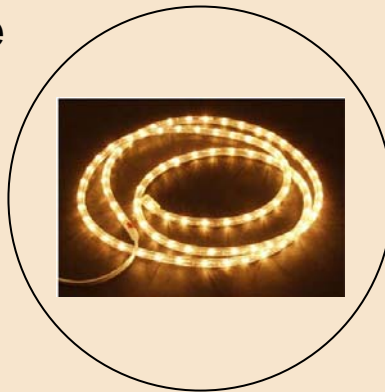
Xenflex



Puck Lighting



Rope Lite



Mini Can



Undercounter Lighting: Cabinet Lighting

What Bulbtronics Needs to know

Do you need line or low voltage under counter lighting?

What type of light bulb or source are you looking to use?

If you are using low voltage, do you know where you are going to remote the transformer

Do you have a kitchen design layout?

Do you have a lightrail or lip under your cabinets?

If so, what is the depth?

Hazardous Location Lighting

Commonly Used Hazardous Location Lighting Terms

Explosion Proof: Fixture used in hazardous and hostile environments where explosive material may be present.

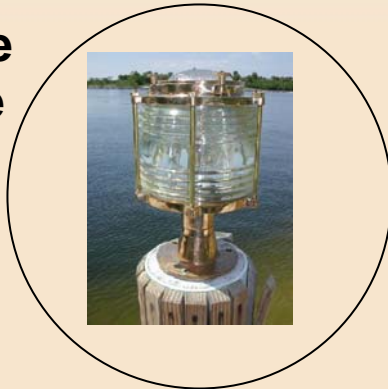
Marine Grade: This fixture provides corrosion resistance and ideal protection in any environment. Various styles of these fixtures are available.

Vapor Proof: This fixture is an enclosed luminaire specifically designed for long-term, element prone installations. Made of rugged steel bodies enclosed in durable fiberglass.

Vandal Proof: Used for a wide variety of institutional, commercial & industrial installations. Utilizes a tamper proof screw system to protect against vandalism.

Hazardous Location Lighting Types

**Marine
Grade**



Vapor Proof



**Explosion
Proof**



**Vandal
Proof**



Hazardous Location Lighting Types

What Bulbtronics Needs to know

Is there a special class or code you need to have this fixture conform to?

What type of location will you be using this fixture in?

Are there **any existing fixtures** to match against the new one?

Who is **recommending** you need Explosion or Vapor Proof lighting?

Emergency Lighting

Commonly Used Emergency Lighting Terms

Exit Light: Standard exit light thermoplastic housing available as single/double face. Easily converts from one to the other, utilizes LED technology. Universal chevrons (arrows). Wall or ceiling mountable.

*****NOTE:** NYC code requires the use of exit lighting to be steel construction only with 8" lettering. No plastic is acceptable.***

Exit Light w/ Battery Backup: Same as above but has battery backup capability so if power outage occurs battery will power up fixture. It is common for this type of exit light to have a self diagnostic test switch which allows the end user to test that the fixture is charged and will work correctly in the event of power outage.

Exit/EMG Combo: This is a single/double sided exit light fixture that includes two adjustable emergency bulbs. Commonly used as a two lamp fixture but also available as a three light version. Wall or ceiling mountable. This is only available as a battery backup with self diagnostic test switch.

Edge Lit: This fixture is available both in a surface and recessed mount version. Utilizes LED technology and is wall or ceiling mountable. This fixture is more decorative than the above examples. This fixture is an aluminum housing with a clear piece of lucite that hangs from the aluminum housing. LED lamps illuminate the lucite portion from above.

Commonly Used Emergency Lighting Terms

Universal Emergency Light: Available in both steel and thermoplastic, this unit has no exit sign. It is strictly for emergency lighting purposes and uses an internal battery that will turn on fixture at time of power outage. Available with remote capability and various wattage configurations.

Remote Head: Available in one and two light configurations. This fixture is solely powered by the main emergency lighting unit.

Decorative Retractable Emergency Light: This fixture is a concealed emergency lighting unit. It is a square panel recessed into the wall or ceiling. Upon power outage, the fixture panel will emerge to provide illumination for path of egress (a means or place of going out; an exit).

Recessed Emergency Lighting: Emergency lighting unit available in various configurations. This is designed for a low profile unobtrusive use in walls or ceilings. Available as a flush two light unit or a recessed gimbal (pivot) trim. All recessed emergency lighting utilizes a battery backup, self test feature.

Weatherproof Emergency Lighting: Use in gymnasiums, schools, and correctional facilities or outdoor locations where rugged protection is required. Uses Tamper Proof Mounting Screws, Neoprene Gaskets, and is suitable for Hose-down or wet location areas.

Commonly Used Emergency Lighting Terms

Inverter System: Will allow lighting and/or power systems to operate normally under emergency conditions. During power outage, it seamlessly switches over to backup power - Also known as “no break” switching.

Emergency Fluorescent Power Pack (Ballast): Used in fluorescent fixtures. During power outage this ballast will be triggered by a battery backup and will power up a portion of the fluorescent lamps within the fixture. Used in commercial applications and is substituted for emergency lighting in specific areas.

Emergency Lighting

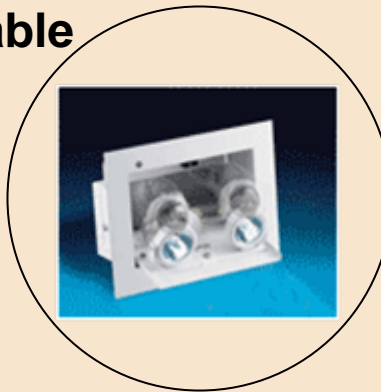
Exit



Exit Combo



**Retractable
emg**



Edgelit



**Recessed
emg**



Emergency Lighting

**2 Head emg /
Dual Head**



**Fluorescent
emg Battery
Pack**



**Inverter
System**



**Weatherproof
Wet Location
Exit**



Emergency Lighting

What Bulbtronics Needs to know

Do you **need NYC approval**?

Do you know if your code requires plastic or metal?

Do you have a specific **battery amp hour** in mind as a **backup**?

Is this emergency lighting being used inside or outside?

If you need an **emergency lighting fixture**, **how many heads** do you need?

For an Edgelit Exit Sign, do you need a recessed or surface mount, which way are the chevrons (arrows)?

Do you know **what color lettering** you want?

Are you looking to run **any remote heads** off your emergency lighting unit?

Track Lighting

Commonly Used Track Lighting Terms

Low Voltage: This type of track fixture is available in two ways.

Integral Transformer: Fixture utilizes an electronic transformer built directly onto the track fixture.

Remote Transformer: Fixture has no transformer and will be operated by using a transformer remoted to another location.

Track Coupling/Connector: This product connects two portions of track and is available in both power feedable and non-power feedable versions. Also available as a flex connector which is able to connect two portions of track at variable angles. It is also power feedable.

Monopoint: Used to mount a single track fixture to an octagon electrical box. When used with a low voltage track head the transformer, box will protrude off of the face of the monopoint.

T-bar Clip: Used to connect track directly to drop ceiling frame.

Commonly Used Track Lighting Terms

AVAILABLE TRACK STYLES

Two Circuit Track: The track enables the use of two separately controlled circuits on one section of track. Usually each track is rated at 2400 watts and allows the control of two individual sets of fixtures. Two circuit track saves on installation costs by eliminating the need for long separate feed runs.

One Circuit Track: Only controllable from ONE location and is more commonly used than two circuit; in addition it is less expensive than two circuit track.

Low Voltage Track aka Mini Track: This track has a smaller height and width than standard one and two circuit track. Commonly used for undercounter lighting as well as cove lighting. Operated via a remote transformer and allows for a much smaller profile track head.

Recessed Track Lighting: This track is the same as standard one and two circuit track; except it is recessed into the ceiling as opposed to standard track that is surface mounted. This style is much more expensive and less common than all other track styles.

Track Power Feeds

Live End Connector: Used for direct wiring from conduit through the ceiling.

Floating Canopy Feed: Supplies power at any point along track. Connects from outlet box in ceiling.

Conduit Feed: Feeds track from either BX armored cable or EMT metal pipe. Connects to track in the same way as a live end connector.

T-connector: Used to join three track sections to make a “T” configuration and is power feedable.

L-connector: Used to join two track sections to create a 90° angle and is power feedable.

X-connector: Used to join four track sections to make an “X” configuration and is power feedable.

Track Lighting

Low Volt



Line Volt



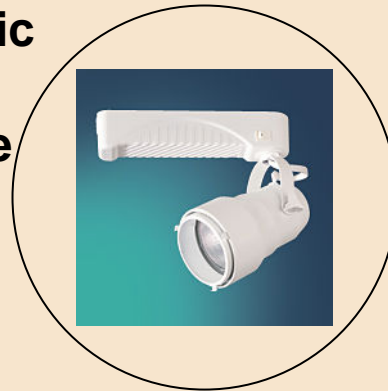
Projector



Metal Halide



Ceramic Metal Halide



Track Lighting

T-connector



**Floating
Canopy**



**Conduit
connector**



**Mini
connector**



**X-
Connector**

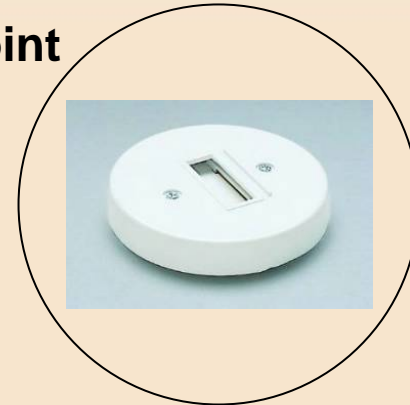


Track Lighting

Stem



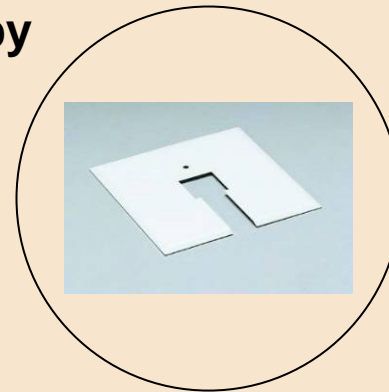
Monopoint



**Precision
Spot**



**Canopy
plate**

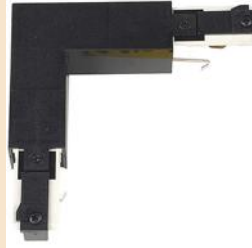


Track Lighting

**Recessed
Track**



L-connector



**T-bar
Attachment**



**Suspension
Loop**



**Compact
Fluorescent
/ Biax**



Track Lighting

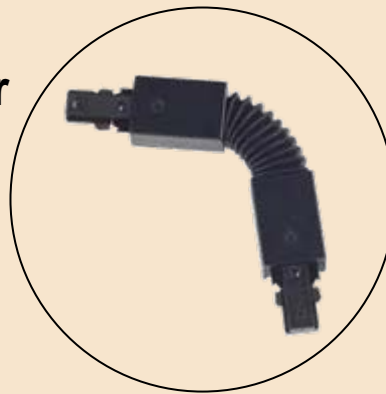
Live End



Mini Track



**Flex
Connector**



Track Lighting

What Bulbtronics Needs to know

What **type** of **bulb** are you looking to use?

Are you looking for a **1** or **2** **circuit** track?

Do you need **line** or **low voltage** track?

If low voltage bulb, do you want a fixture with an **integral** or **remote** transformer?

What **type** of **feed** do you need?

Do you need any **stem mounts/extensions**?

Is this a **straight run** or is there a special configuration of track?

LED Lighting

Commonly Used LED Lighting Terms



RGB (RED GREEN BLUE): These are the primary colors which any color changing LED lighting system is based on.

Additive Mixing: All colors that can be seen by the human eye receptor are formed by mixing the RGB colors.

LED Driver/Power Supply: Common term used in dealing with LED lighting for the power source or ballast. More commonly found in DC voltage, but is available in AC voltage.

Controller: This is what the end user and/or programmer would use to control the function of the LED unit. Used for control of both white or color (RGB) lighting systems.

Stand Alone: An LED fixture in which no type of control is used. The LED fixture would operate on a pre-programmed function and would not be changeable.

DMX Compatible: DMX512, often shortened to DMX (Digital MultipleX) is a communications protocol used mainly to control stage lighting. Any quality LED lighting fixture that is controllable will be DMX compatible.

Heat Sink: Used to dissipate heat build-up from an LED to protect against catastrophic failure and LED burnt out.

LED Lighting

**Cove LED
White**



**Cove LED
RGB**



**Indoor Power
Supply**



**Dip Switch
Controller**



**Outdoor
Power
Supply**



**Keypad
Controller**



LED Lighting

Heat Sink



LED Driver / Ballast



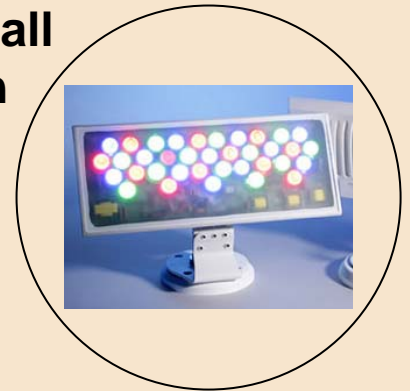
LED Hockey Puck



LED White Wall Wash



RGB Wall Wash

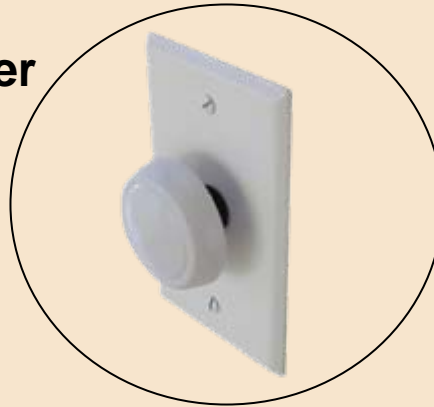


LED Lighting

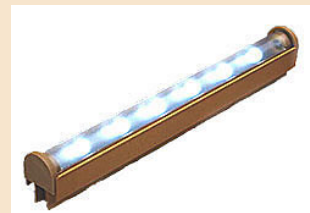
**RGB
Diffused
Cove**



**Rotary
Controller**



**LED Under
Counter
Strip**



LED Lighting

What Bulbtronics Needs to know

Are you looking for an **LED replacement lamp** or **LED light fixture**?

Are you looking for a **color changing**, **fixed color**, or **white LED lighting fixture**?

Are you looking to **control** the LED light fixture?

What **application** will you be using this LED fixture in? (**Indoor / Outdoor**)

Do you need a **power source / LED driver** for this fixture?

Ballasts

Commonly Used Ballast Terms

Universal Voltage/Multi-tap: Commonly known terms for any type of ballast technology that allows a variety of different primary voltages and secondary voltages to be used within one ballast.

Electronic Fluorescent Ballast: Integral part of a lighting fixture used to convert primary voltage to the necessary voltage of the lamp being used in a specific fixture. This technology is widely used due to its energy efficiency and low noise level.

Magnetic Fluorescent Ballast: Older widely used technology used in a variety of fluorescent lighting fixtures. Magnetic ballasts would require the use of a starter as opposed to an electronic ballast. This type of ballast is commonly associated with T12 fluorescent lamps.

Dimmable Fluorescent Ballast: Newer technology that allows the user to dim the fluorescent lamps in a fixture when combined with the proper dimmer.

CFL Ballast: This type of ballast is used with a compact fluorescent lamp and comes in a large variety of different wattages and lamp combinations.

Weatherproof/Outdoor Ballast: This type of ballast is used strictly for outdoor applications. It is considered a high output ballast and is used in sign and outdoor lighting fixture applications.

Commonly Used Ballast Terms

HID Ballasts

Pulse Start Metal Halide Ballast: Latest metal halide technology produced to compete with newer high bay fluorescent technology. Benefit; Instant on, no lag in startup, most energy efficient of all HID technologies.

Standard Metal Halide Ballast: Most widely used metal halide technology. Available in many different wattages. The downfalls of a standard metal halide ballast are low energy efficiency and a long start-up time which can be a problem if power outage occurs.

High Pressure Sodium Ballast: This technology is still widely used. Most common in commercial and industrial applications. Though high pressure sodium ballasts are not energy efficient, there is a better efficacy than on standard metal halide ballast.

Mercury Lamp Ballast: Older technology than metal halide and high pressure sodium. Though still available it is a much less commonly sort after ballast.

Low Pressure Sodium Ballast: Oldest HID ballast technology. Though still available, it is not commonly used. Due to low efficiency, this ballast is commonly used with the SOX lamp.

Electronic HID Ballast: Newest of all the HID ballast technologies, this is a much more efficient ballast and is

Ballasts

**Compact
Fluorescent**



HID



Electronic



**Weather
Proof
Outdoor**



Dimmable



Ballasts

What Bulbtronics Needs to know

What **type** of **light bulb** do you need the ballast for?

How many lamps does this ballast need to operate?

Do you know the **replacement model #** or **brand** of the ballast you are looking for?

Do you know the **dimensions** of the ballast you presently have?

Do you know the **primary voltage** at the location of where this ballast is going to be used?

Is this ballast being used for an **indoor** or **outdoor** application?

Transformers

Commonly Used Transformer Terms

Electronic: Mainly used for indoor lighting. Used in track lighting or recessed lighting. Smaller than most other style transformers.

ETB (Electronic Transformer Box): Metal enclosure used for electronic transformers to prevent any heat output from outside contact.

Magnetic: Can be used in landscape indoor/outdoor lighting. Larger size than most other transformers. Much higher wattages available than electronic transformers. Comes in multitap versions and can be used for multiple voltages.

Direct burial aka Inground: used for landscape lighting. This transformer can be completely buried in the ground.

Torroidal: Used indoors only. This transformer is used in the canopy of a light fixture due to its round shape, most common with pendant lighting. This transformer has no enclosure.

Plug-in: Transformer is much like the electronic version though it is directly plugged into the wall as opposed to directly wired to the fixture.

Transformers

Electronic



Magnetic



**Toroidal /
Canopy**



Inground



Integral



Transformers

Plug In



ETB



Transformers

What Bulbtronics Needs to know

What voltage do you presently have?

At what voltage are you planning to run the light fixture?

Do you want electronic or magnetic?

Is the transformer located on the fixture?

Is the transformer for indoor or outdoor use?

Do you need a hardwire or plug in style transformer?

Do you need a timer or photocell?

Sockets/Lampholders

Commonly Used Socket/Lampholder Terms

Tombstone: A "tombstone" socket design was one such standard design. Its name was derived from the socket's appearance, which is shaped like a tombstone.

Bayonet: Designed for incandescent lamps, having an unthreaded metal shell with two diametrically opposite keyways that mate with the keyways on the lampholder. Pushing down on the bulb and turning it clockwise in the lampholder locks the bulb in place.

Candelabra: A small screw-base threaded lampholder designed for candelabra-base incandescent lamps commonly used in chandeliers, night lights, and ornamental lighting.

Circline: A four-contact, double-ended lampholder designed for use with tubular, circular fluorescent lamps.

Compact Fluorescent: A lampholder designed for the Compact Fluorescent Lamps (CFLs) that are increasingly being used to replace incandescent lamps for energy efficiency.

Double-Contact Recessed: Designed for high-output fluorescent lamps.

Edison Base: An internally-threaded lampholder with an inner shell approx. 1" in diameter. Designed for widely-used standard medium base lamps.

Commonly Used Socket/Lampholder Terms

Intermediate: A lampholder with a threaded screw shell designed for intermediate base lamps that have a 13/32" threaded base (smaller than the standard 1" dia. medium base). Mostly used in decorative lighting.

Key: A lampholder with a flat or round "key" knob that operates an internal switching mechanism (**"Keyless" lampholders do not provide an internal switching mechanism**).

Lumiline: A specially designed lampholder for tubular Lumiline-type incandescent lamps, typically used in bathrooms and retail display cases.

Medium Base: Same as the Edison base lampholder. An internally-threaded lampholder, with the inner shell approx. 1" in diameter. Designed for widely-used standard medium base lamps.

Miniature: Designed for the smallest available incandescent lamps with a screw-in base, approx. 3/8" dia. Widely used in flashlights and toys, etc.

Mogul: The largest screw-in type lampholder, designed for mogul incandescent lamps with a screw base of approx. 1.5" dia. Used in street lights and numerous commercial/industrial applications.

Commonly Used Socket/Lampholder Terms

Medium Bi-Pin: A fluorescent lampholder with two contacts, used in pairs. For type T-8 tubular fluorescent lamps, approx. 1" in diameter.

Miniature Bi-Pin: Similar to medium bi-pin lampholders, but designed for type T-5 tubular fluorescent lamps, approx. 5/8" in diameter.

Pull-Chain: An incandescent lampholder with an internal switching mechanism that is activated by pulling down on a beaded chain or cord.

Push-Through: An incandescent lampholder with an insulated lever that is pushed from either side to activate an internal ON/OFF switching mechanism.

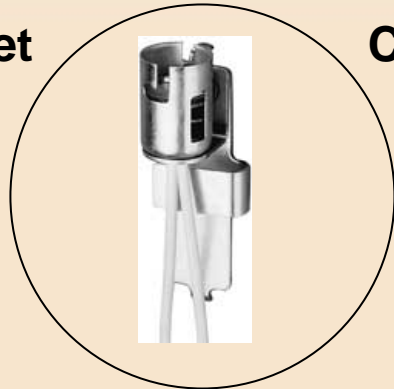
Slimline Single-Pin: A fluorescent lampholder with a single contact designed for Slimline fluorescent lamps such as the T-12 (1.5" dia.), T-8 (1" dia.), and the smaller version T-6 (3/4" dia.).

Snap-In: An incandescent or compact fluorescent lampholder with factory-assembled spring clips that securely snap into a panel cutout without requiring additional fasteners.

Surface-Mounted: A lampholder of any type that mounts on a flat or plane surface.

Sockets/Lampholders

**Bayonet
Base**



**Candelabra
Base**



**Compact
Fluorescent**



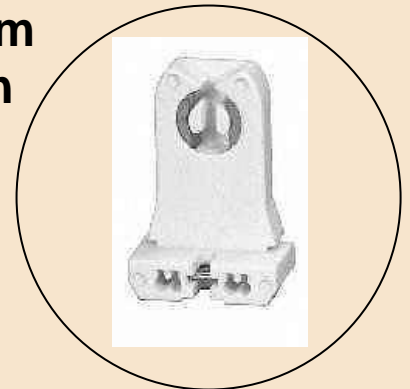
**Double
Contact**



**Medium
Base**



**Medium
Bi-Pin**

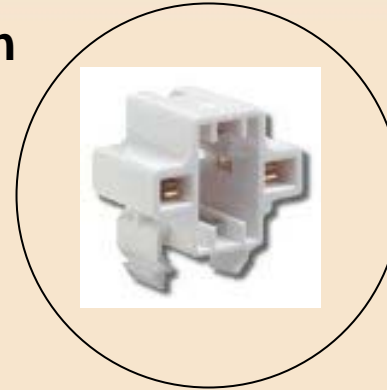


Sockets/Lampholders

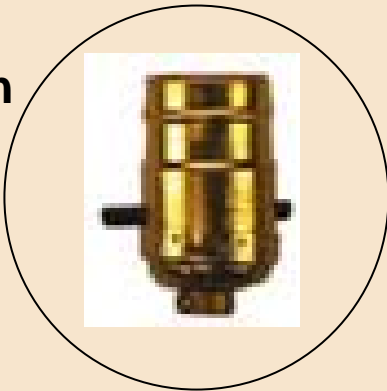
**Mogul
Base**



Snap-in



**Push
Through**



Tombstone



Sockets/Lampholders

What Bulbtronics Needs to know

What **type** of **lamp** do you need this socket or lampholder for?

Do you have a **model #** or **brand** of the **socket/lampholder** you are trying to replace?

Do you have the **model number** or **description** of the **bulb** that goes into this lampholder/socket?

Can you take a **digital picture** and **e-mail** it to us so we can correctly **identify** this product for you?

Reflectors

Commonly Used Reflector Terms

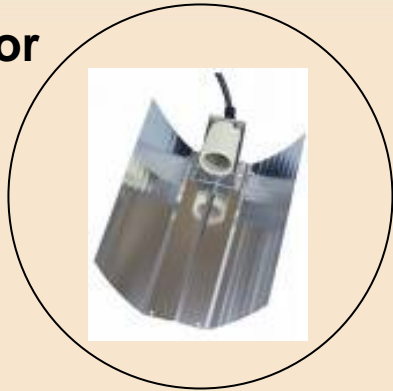
Asymmetrical reflectors: Asymmetrical and symmetrical lighting are two different principles of lighting the work area. Asymmetrical light distribution is a feature of technically advanced task lights where the advanced, computer optimized reflector system directs the light sideways from the shade across the work area. Symmetrical light distribution, however, spreads the light equally in all directions.

Anodized: Anodizing is one of the most common finishing processes done to aluminum in the lighting industry. Anodizing is a controlled oxidation process that occurs when aluminum is exposed to an electrically charged chemical bath. The end result is a hardening of the surface to resist abrasion and corrosion with an added protective transparent layer to preserve the decorative natural aluminum finish. Anodizing can also produce colored or dyed finishes that are locked into the aluminum surface. Pre-anodizing is usually performed on the raw coil of aluminum before it is fabricated into a louver or reflector.

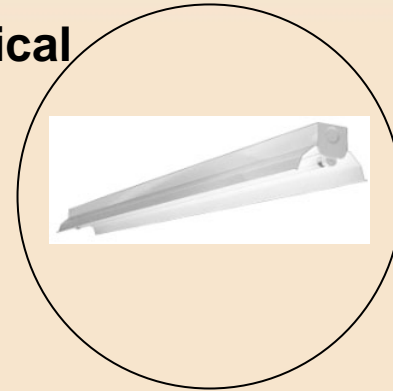
Semi-Specular: This refers to the image one would see in a reflective surface. A true specular reflector would act similar to a mirror where one could clearly see the reflective image. A semi-specular image would produce a more diffuse, less clear and a less glaring image, which is a desirable type of reflector used in a lighting.

Reflectors

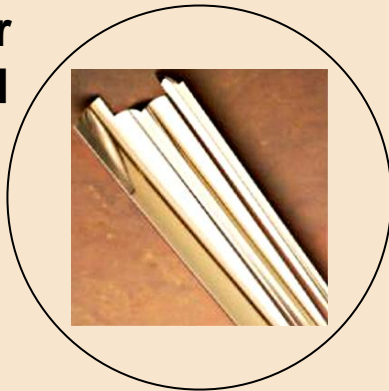
**Reflector
Kit**



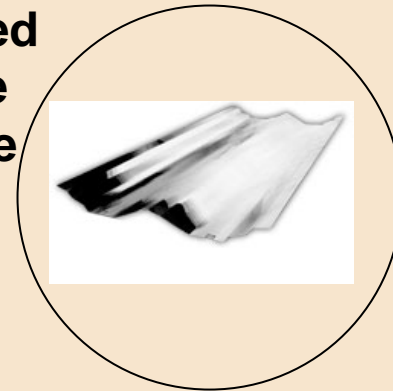
Symmetrical



**Specular
Mirrored**



**Inverted
Wave
Shape**



Reflectors

What Bulbtronics Needs to know

Are you interested in replacing only the reflector or the ballast and socket as well?

Do you know what **brand** of **light fixture** you have?

How many lamps does your **present light fixture** have and **what lamp is it**?

Do you have **any pictures** of the **light fixture** you are looking to retrofit, so we can identify it correctly for you?



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**Thank You
For Choosing
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