

Plug-In

Plug-in luminaires or “lamps” as they are often called, are portable luminaires that plug into an electrical outlet. They include table lamps, desk lamps, floor lamps, and night lights. These luminaires are both decorative and functional. They give a room sparkle or visual interest while providing additional light to areas of the room. Many styles are available and prices range widely. Plug-in luminaires use many types of lamps, particularly A-lamps, tubular-shaped halogen lamps, and compact fluorescent lamps. These luminaires offer flexibility to the resident because they can be moved when furniture is rearranged and they can be positioned close to critical tasks such as reading or sewing.

Light can be distributed in many directions; the size, shape, and materials of the shade determine the light distribution. Most plug-in luminaires can be adjusted to positions and angles that reduce glare. Also, they allow a resident to add more light to a room without the effort and expense of installing a hard-wired luminaire.

Purchase plug-in luminaires from department and furniture stores, office supply stores, lighting stores, and catalogs.

Energy and Lamps

Although many plug-in luminaires are purchased as decorative elements, consumers should be aware that they consume energy and should be considered an appliance. Choose luminaires that contain fluorescent lamps or that will accommodate screwbase compact fluorescent lamps if the luminaire will be used frequently or for long periods of time. Operate three-way incandescent lamps at the lowest comfortable level to save energy.

Replace existing lamps of any type with lower-wattage lamps if lower light output is acceptable. If luminaires contain incandescent A-lamps, consider replacing them with halogen lamps or screwbase compact fluorescent lamps of equivalent light output.

Installation

Avoid placing the luminaire directly over a task, especially over tasks with glossy surfaces. Generally the best location is to the side and slightly behind the viewer. Use a plug-in luminaire to balance brightness within a space from other luminaires or from daylight. Decreasing the distance between the luminaire and the task allows lower-wattage lamps to be used.

Controls

Many controls are available for plug-in lamps; some are inserted into the lamp socket, some into the electrical socket, and some can be spliced into the cord. Use dimmers, photocells, or timers for plug-in lamps that contain incandescent lamps. Two popular control options for people with limited dexterity are the touch switch and touch dimmer.

Choose plug-in luminaires that allow multiple-level switching. For instance, luminaires that contain two lamps may offer the choice of switching only one of the two lamps on.

Cautions

For safety, consider the weight and balance of luminaires, especially those containing compact fluorescent lamps. Make sure that luminaires and cords are located and secured so that people will not trip on them and young children will not overturn the luminaire. Luminaires that contain high-wattage lamps, particularly tubular-shaped halogen lamps, can be a fire and burn hazard. Locate them a safe distance from flammable materials, and away from possible skin contact.

To prevent glare, the lamp should not be exposed to view. Do not use compact fluorescent lamps in a table lamp that is controlled by a dimmer because fluorescent lamps are not compatible with dimmers designed for incandescent lamps. If incandescent A-lamps are replaced with screwbase compact fluorescent lamps, which are heavier, check the stability of the plug-in lamp.

Plug-In: Table Lamps

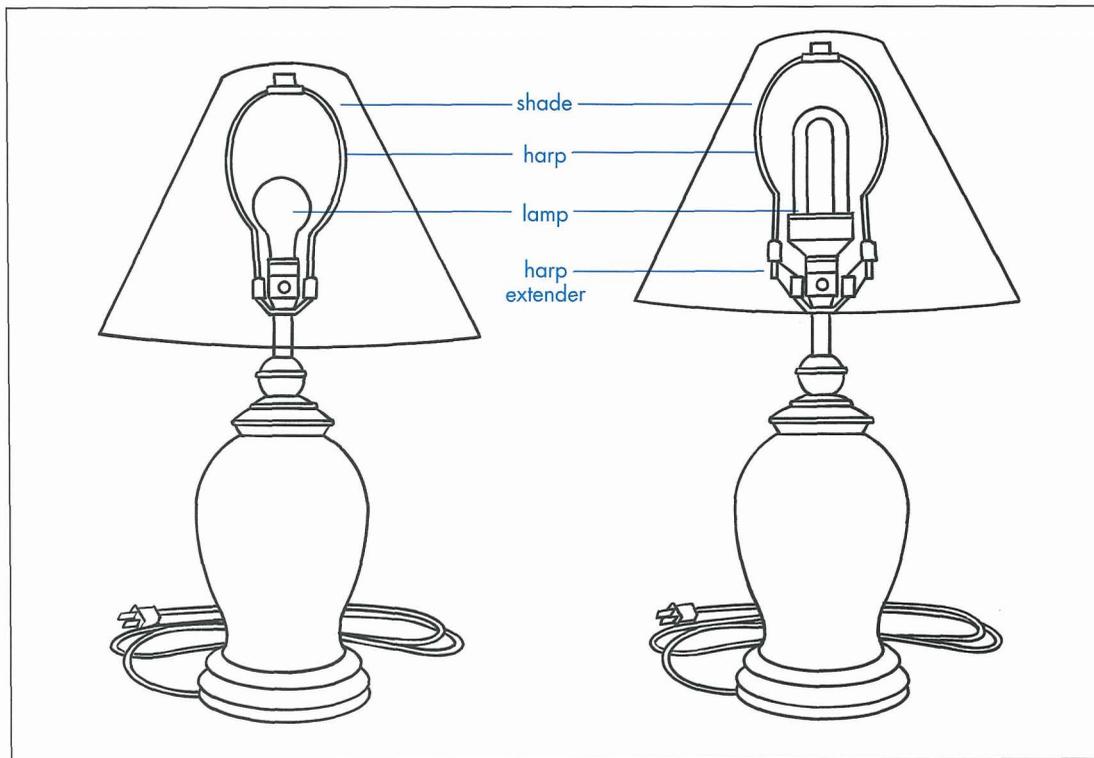


Table lamps are plug-in luminaires that sit on a table or desk. They incorporate diffusers, reflectors, and shades that direct the light to suit various needs.

Energy and Lamps

Replace incandescent A-lamps with screwbase compact fluorescent lamps if the luminaire does not have a dimmer. If compact fluorescent lamps are used to replace incandescent lamps, a harp extender may be required.

Avoid using a three-way incandescent lamp in a table lamp that does not have three-way switching, because the lamp will operate only at the highest wattage.

Installation

The appropriate location of the table lamp depends on the size of the shade, position of the lamp within the shade, aperture diameter, base height, eye position, and desired light distribution. The bottom of the shade should be located at eye level to reduce glare and maximize light distribution.

Controls

Three-way switching is a common option for table lamps. If a single wattage lamp is used in a table lamp designed for a three-way lamp, the single wattage lamp will operate only at two switch settings.

For more information refer to

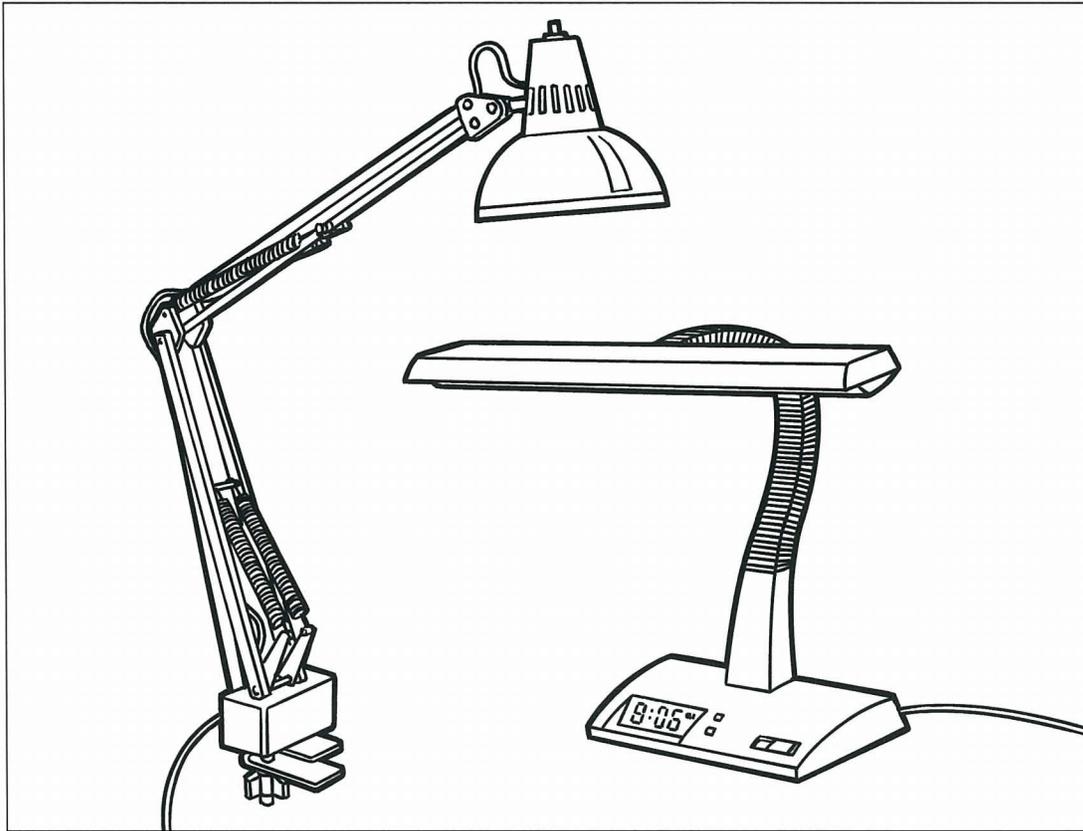
Techniques: Ambient, Task

Lamps: Halogen A, Tubular-Shaped Halogen, Compact and Circline Fluorescent

Designs: Small Living Rooms, Medium Living Rooms, Large Living Rooms 1 and 3, Small Bedroom, Large Bedroom

Other luminaires: Suspended Downlights, Recessed, Desk Lamps, Floor Lamps

Plug-In: Desk Lamps



Desk lamps provide light for demanding visual tasks such as reading and writing. These tasks require higher levels of light than do most other activities. Preventing shadows and glare is very important to avoid discomfort and distraction. The placement, shade design, socket location, shielding, and choice of lamp are the primary factors that determine the quantity and quality of the light at the task.

Energy and Lamps

Use desk lamps to supplement ambient lighting when high illuminance is needed on the desk surface. Well-designed desk lamps deliver light efficiently because they are close to the task.

Incandescent lamps are common in desk lamps. In existing luminaires, replace incandescent A-lamps with halogen A-lamps, or with screwbase compact fluorescent lamps if they will fit in the luminaire; harp or socket extenders may be needed. "High-intensity" desk lamps use low-voltage halogen lamps; the transformer typically is housed in the base.

For energy savings, select one of many new models of desk lamps that are designed for compact fluorescent lamps or linear fluorescent lamps; look for them in office supply stores or catalogs.

Installation

Shadows can be an annoying problem when using a desk lamp for writing tasks. Place the desk lamp to the left for a right-handed person, and to the right for a left-handed person. Locate the desk lamp carefully to avoid reflections in a computer screen, but to provide enough light for reading documents. Also locate a desk lamp so that it provides some ambient light near a computer screen; this will help balance the contrast between the screen and the surrounding area.

Cautions

Some desk lamps are packaged with hard-to-find tubular-shaped halogen lamps; ask the retailer if they stock replacement lamps.

For more information refer to

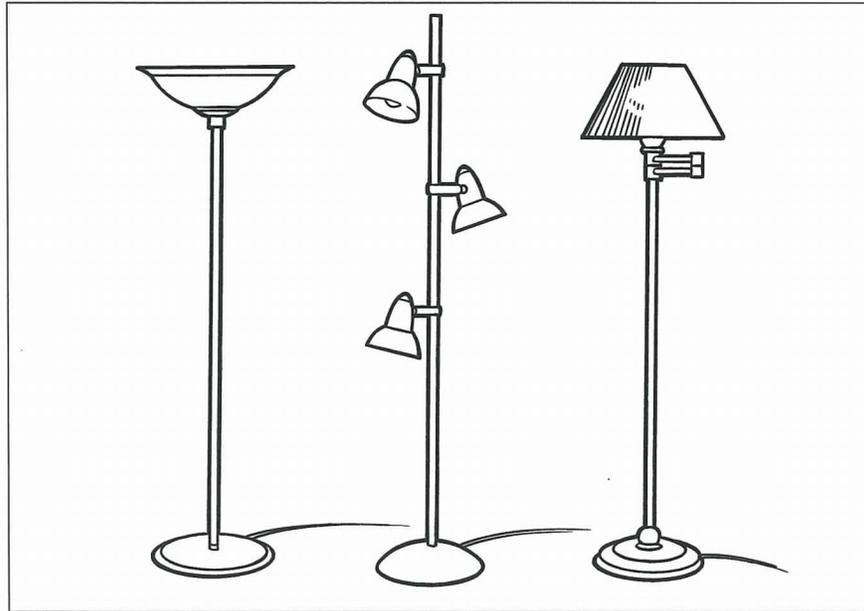
Techniques: Task

Lamps: Halogen A, Tubular-Shaped Halogen, Low-Voltage Halogen, Linear Fluorescent, Compact Fluorescent

Designs: Small Bedroom, Children's Bedroom, Home Office

Other luminaires: Suspended Downlights, Recessed Downlights, Soffits, Under-Cabinet, Table Lamps, Floor Lamps

Plug-In: Floor Lamps



Floor lamps complement the lighting from other luminaires and can balance brightness in a room or provide additional light for an area of the room. A typical floor lamp is approximately 4 to 5 feet tall and adds a vertical emphasis in a room. Like table lamps, floor lamps are decorative, available in many styles, and range widely in price. A torchiere is a floor lamp that directs all light upwards.

Energy and Lamps

Choose floor lamps that are designed for compact fluorescent lamps. In existing luminaires, replace incandescent A-lamps with halogen A-lamps, or with screwbase compact fluorescent lamps if they will fit in the luminaire; harp or socket extenders may be needed. The 500-watt tubular-shaped halogen lamps in some floor lamps can be replaced with 350-watt IR tubular-shaped halogen lamps, and the 300-watt lamps can be replaced with 225-watt IR tubular-shaped halogen lamps. Check the manufacturer's instructions. Use dimmers on these lamps.

Installation

Torchieres work well in rooms with high ceilings, but avoid placing them in rooms with very low ceilings. For other types of floor lamps, use a shade to shield the lamp from direct view. Locate the luminaire so that there is no view of an exposed lamp from stairs, landings and balconies. Floor lamps can create distracting light distribution patterns if located too close to a wall.

Cautions

Do not place an uplight floor lamp or torchiere beneath ceiling fan blades because a stroboscopic effect may occur. Never place a torchiere or any floor lamp with an indirect lighting component under flammable materials such as drapes. Check the balance of floor lamps, especially those that contain screwbase compact fluorescent lamps: make sure that they are not top-heavy.

For more information refer to

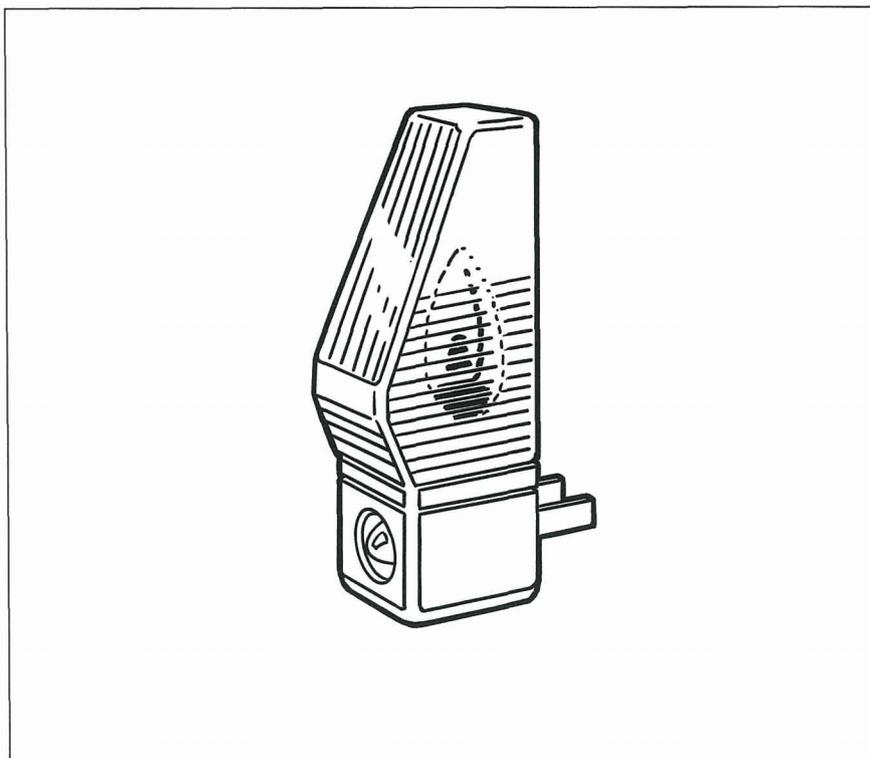
Techniques: Ambient, Indirect, Task

Lamps: Halogen A, Tubular-Shaped Halogen, Compact and Circline Fluorescent

Designs: Medium Living Room 2, Large Bedroom

Other luminaires: Ceiling-Mounted, Suspended, Recessed, Architectural, Table Lamps

Plug-In: Night Lights



Night lights may be hard-wired or plug-in units; they use low-wattage lamps to provide lighting for finding your way in the dark. Night lights may have a diffuser to shield the lamp. Plug-in night lights may be switched by removing them from the outlet, by an on-off switch, or by a photocell that turns the night light off when light from other luminaires or daylight illuminates the space. Plug-in night lights can be purchased at discount stores, supermarkets, hardware stores, and through electric utility company promotions.

Energy and Lamps

If luminaires are left on all night for orientation, adding and using night lights is a simple way to reduce waste. They present a good opportunity to explain to family members that using the night lights rather than other luminaires saves energy. Use the lowest-wattage lamp available that will provide sufficient light for orientation. Typically, 7-, 4-, and ¼-watt incandescent lamps are used, but some luminaires of this type use fluorescent lamps.

Installation

Night lights typically are used in bedrooms, hallways, and bathrooms, but they may also be useful in basements, attics, garages, and other utility rooms.

Controls

Choose night lights with both a photocell and a manual switch for greatest efficiency and convenience. As an alternative to night lights, consider using light switches with dim, illuminated handles which can be located easily in the dark.

For more information refer to

Designs: Children's Bedroom

Other luminaires: Stove / Appliance