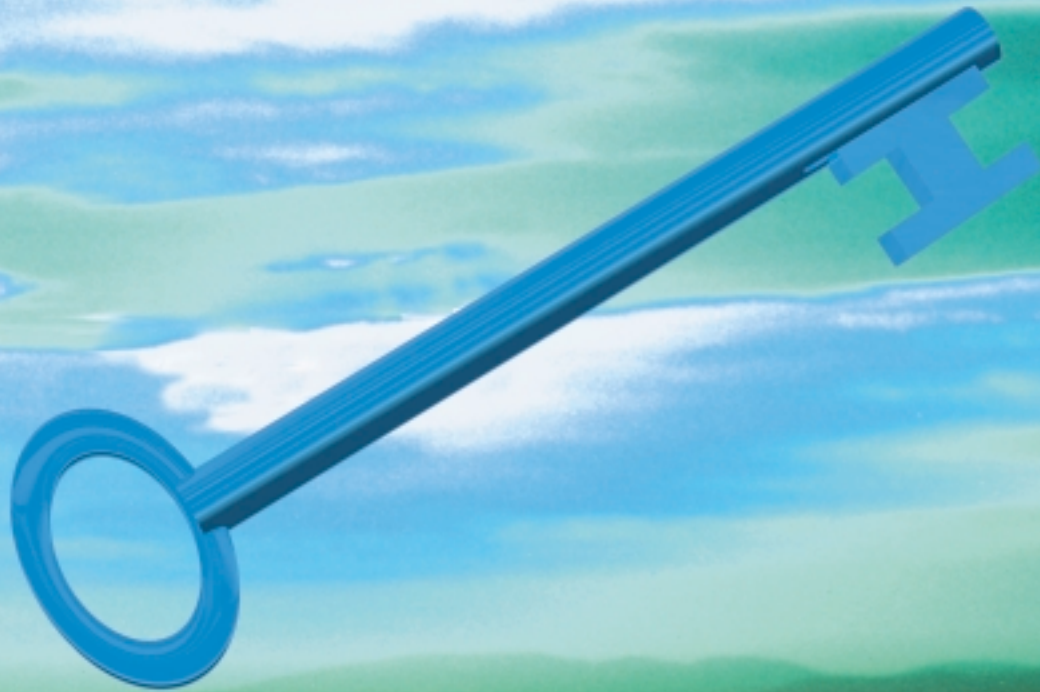


Lighting the Way:

A Key to Independence



Mariana Gross Figueiro



Lighting
Research Center



The Lighting Research Center (LRC) at Rensselaer Polytechnic Institute developed principles for lighting for older adults and tested those principles in two assisted living facilities. The test results demonstrated that lighting helps older adults maintain their independence and improves their quality of life. The AARP Andrus Foundation awarded the LRC a Dissemination Grant to develop these guidelines for designing lighting for older adults. In addition to this publication, the LRC developed two other guidelines that address the needs of 1) the general public, including older adults and their families and 2) health care professionals.

Introduction

Lighting can make the difference between seeing and not seeing for older adults with deteriorating vision. Home designers, architects, and builders can improve the quality of life of older adults by understanding how lighting compensates for the changes that commonly occur in aging eyes.

This publication answers frequently asked questions about how to use lighting to minimize some of the negative changes that occur with age. It also offers practical solutions for the residences of older people. Indeed, these techniques will help people of all ages to enjoy a comfortable visual environment!

The aging eye – how does vision change as one grows older?

The human visual system deteriorates throughout adult life. This is quite normal. The visual system is often characterized as “young” until it reaches about 40 years of age. After that, normal changes to the aging eye become more noticeable as visual capabilities decrease.

As one grows older, less light reaches the back of the eyes. The pupils get smaller and the lens inside the eye becomes thicker, absorbing more light. The lens also scatters more light as one ages, adding a “luminous veil” over images on the retina, which reduces the distinctness (or contrast) and sharpness of objects, and the vividness of colors.

What can I do to make lighting more effective for older adults?

- Increase ambient light levels – Less light reaches the retina of the older eye. The light levels in living environments used by older adults should be increased by at least 50% over those comfortable for younger people. In general, ambient light levels should be at least 300 lux (lx) [30 footcandles (fc)].
- Increase task area light levels - At least three times more light will be required in task areas to see fine details (e.g., reading prescriptions) or low contrast objects (e.g., black thread on blue cloth). Light levels on the task should be at least 1000 lx (100 fc).
- Minimize glare – Although more light is required for the older eye to see well, care should be taken to avoid glare. Glare is experienced when light sources or bright reflections in the field of view impair vision, or are simply uncomfortable.
- Increase contrast – Because contrast sensitivity is reduced with age, the visibility of important objects, such as stair edges, curbs, ramps, or doorways, can be greatly improved by increasing their contrast with paint or similar techniques.
- Balance illuminance levels – Because the older visual system cannot completely adapt to dim conditions, illuminance levels in transitional spaces, such as hallways and entrance foyers, should be balanced with those of the adjacent spaces.
- Improve color perception – Color discrimination is poorer for older adults. High illuminance levels and high-quality fluorescent lamps, rather than conventional incandescent lamps, will help older adults to see colors well.

How do I apply these lighting principles in a home?

- Provide general or ambient light throughout the room to eliminate dark areas and allow for good visibility for people to move around the space. Keep brightness levels within a room and adjacent spaces about the same.
- Use light-color finishes on walls, ceilings, and floors to increase diffuse, interreflected light in the living environment. This will increase uniformity and reduce glare. Use dark baseboards to help define walls and floors.
- Keep room finishes simple, and avoid complex decorative patterns to minimize confusion with objects on floors and furnishings.
- Identify where visual tasks will be performed, and put extra light at those places. More light is needed to see details, such as reading or sewing. Use adjustable light fixtures (luminaires) to increase light levels in these areas.
- Use switches and dimmers to help people adjust the light level for their task needs.
- Shield direct views of light bulbs (lamps) by using architectural features, such as valances, soffits, and coves, or by choosing luminaires that use baffles, lenses, or louvers.
- Avoid clear-glass luminaires.
- Avoid reflections of light sources from shiny surfaces, such as floors and countertops, by changing the position of the light source relative to the usual line of sight or by using matte finishes.
- Daylight through windows and skylights will increase light levels in the space and improve color discrimination. Use blinds, shades, or curtains to minimize glare from windows.
- Use high contrast colors at salient points, such as steps, ramps, or doorways. Also, use high contrast colors between floor covering on stairs and the floor at the bottom of the stairs. Paint doorframes a dark color to contrast with white walls and thereby improve their visibility.
- Create intermediate illuminance levels in transitional spaces that lead from bright, outdoor areas, to dim, indoor spaces. At night, transition spaces between the relatively bright indoor spaces to the dark night enable older adults to adapt more completely as they move around the different spaces.

How do I choose light sources?

Light sources, or lamps, used in residences, fall into three categories: incandescent [common and halogen, which includes Parabolic Aluminized Reflector Lamps (PAR)], fluorescent (linear and compact), and high intensity discharge (HID).

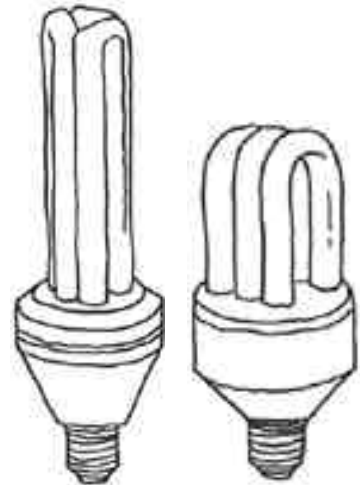
- Lamps emit light that is measured in lumens. The lumen output of a lamp depends on the lamp type and its wattage. For the same lamp type, the lower the wattage, the lower the lumens emitted by the lamp. However, fluorescent lighting systems and HID lighting systems provide more light per watt than incandescent lamps. Depending on the application, fluorescent lamps are usually more cost effective than incandescent lamps. Metal halide lamps (one type of HID lamp) give a lot of light for relatively lower wattage, but they take several minutes to achieve full brightness.



a. Common incandescent



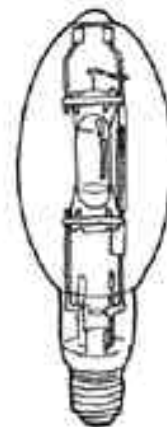
b. PAR



c. Compact Fluorescent



d. Linear Fluorescent



e. Metal Halide

- Fluorescent lamps last 10 to 20 times longer than common incandescent lamps, reducing the number of times one has to get up on a stepladder to change the lamp. Current technology has overcome many problems associated with fluorescent lighting systems. Fluorescent lamps are available with excellent color, plenty of light, no buzz or flicker, and they can be dimmed.
- The color characteristics of lamps are measured in two ways: correlated color temperature (CCT) and color rendering index (CRI). CCT is a measure of the color of the illumination produced by the lamp; “warm” lamps have a low CCT, and the illumination appears yellowish-white, whereas “cool” lamps have a high CCT and the light appears bluish-white. CRI characterizes how well the illumination produced by the lamp makes objects appear “natural.” Remember, both CRI and light level affect color rendering; the higher the illuminance on the task, the more “natural” colors will appear.
 - ◆ Incandescent lamps have a low CCT and a high CRI.
 - ◆ Fluorescent lamps can have nearly any CCT and can have medium to high CRI.
 - ◆ Metal halide lamps usually have high CCT and medium to high CRI.

Some tips for choosing a light source

- Fluorescent lamps are a good choice for residences, but to have flicker-free, quiet operation, an electronic ballast is required.
- For good color properties in residences, request fluorescent lamps with a CCT of 2700 to 3500 K and a CRI of at least 80 or above.
- Compact fluorescent lamps can produce the same amount of light for about 1/3 the wattage of a common incandescent lamp. Just make sure the compact fluorescent lamp fits completely inside the luminaire to avoid seeing the lamp itself. Also, high-quality compact fluorescent lamps always have the ENERGY STAR label on the package.
- Fluorescent lamps and compact fluorescent lamps are cooler to touch than incandescent lamps. Incandescent lamps can be a burn hazard in task lights.
- If incandescent and fluorescent (or compact fluorescent) lamps are used in the same room, choose fluorescent lamps with CCT of 2700 to 3000 K to match the warm color of light from incandescent lamps.
- The light-emitting filament in a common incandescent lamp is very bright when the lamp is operated at maximum power (i.e., without dimming). If it is not possible to shield the incandescent lamp from view, select a bulb with a frosted finish to help reduce glare.
- To concentrate light onto a specific area (e.g., a countertop or a work of art on the wall), use a halogen PAR incandescent lamp. The table below illustrates how PAR lamps provide higher illuminances than common incandescent and compact fluorescent lamps. Remember, recessed downlights add to the light produced by ambient lighting.

Recessed Downlights (5" Aperture-6 3/4" deep)

(Illuminance in footcandles)

Incandescent		Compact Fluorescent Lamp		
Common		PAR (30)		(Quad tube)
75W	100W	50W	75W	13W
5	7	58	65	4

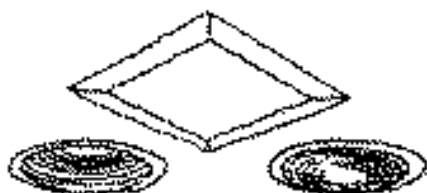
Note: The calculated illuminance levels (center of the beam) are based upon a common A19 incandescent lamp, a PAR 30 lamp, and a compact fluorescent quad-tube lamp. These lamps were assumed to be in a Lightolier Lytecaster #1005 with Step Baffle mounted 66 inches (in.) above the countertop [8 feet (ft) ceiling height].

Illuminance is defined as the amount of light falling on the task.

How do I select and install luminaires?

Luminaires, or light fixtures, fall into six categories: recessed, ceiling-mounted, suspended, architectural, wall-mounted, and plug-in.

- Recessed luminaires direct light downward or toward a wall. The light distribution pattern can be narrow or broad, intense or diffuse, and provide ambient light, wall washing, or accent lighting.
 - ◆ Select a deeply-recessed downlight (cutoff angle between 40° and 50° from horizontal) so the light source cannot be seen from normal lines of sight.
 - ◆ Select downlights with halogen PAR incandescent lamps when accent or task lighting is desired (e.g., light above the kitchen sink). They are available in a variety of beam angles. Aim them properly to minimize direct glare. See table on p. 8 (Some Tips for Choosing a Light Source).
 - ◆ Use optical media, such as baffles, louvers, prismatic lenses, or diffusers to shield direct view of the lamp.
 - ◆ If possible, use a matte finish inside the luminaire to eliminate seeing mirror images of the lamp.
 - ◆ Do not place recessed luminaires on dark ceilings, because it will make the luminaire appear brighter and cause more glare.
 - ◆ Place recessed downlight luminaires to the side and slightly in front of the position where a person stands to see the task.
 - ◆ Install adjustable recessed downlight luminaires 2 ft from the wall to avoid harsh scallops on the wall.



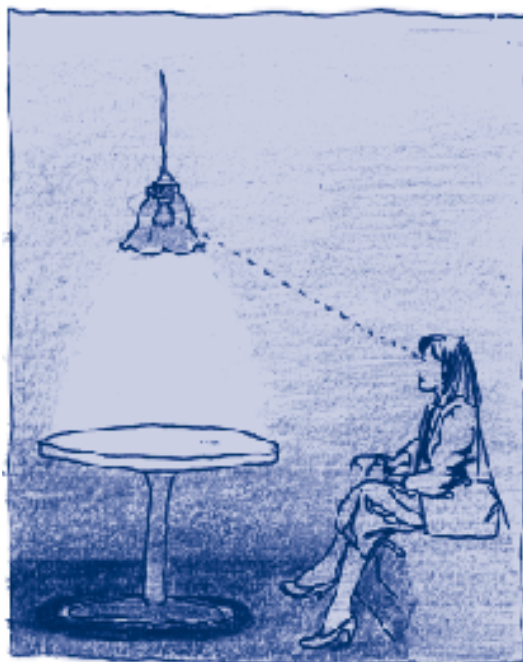
Use slightly recessed lens, diffusers, or baffles to shield direct view of the lamp.

- Ceiling-mounted luminaires attach directly to the ceiling or to a ceiling track.
 - ◆ Never use clear globes or thin diffusers, because they will cause glare.
 - ◆ Use ceiling-mounted luminaires to provide ambient lighting, not task lighting. Supplement ambient lighting with plug-in luminaires near the task area.
 - ◆ As with recessed luminaires, do not place a ceiling-mounted luminaire on a dark ceiling.
 - ◆ A person's line of sight is usually straight ahead or downward. To minimize glare for these typical lines of sight, be sure a ceiling mounted luminaire is placed at least 6 ft, 8 in. above the floor.



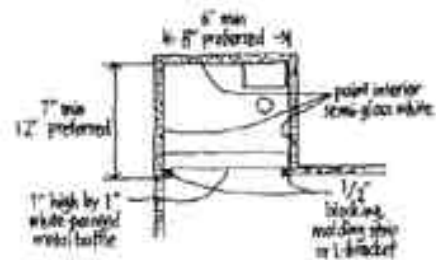
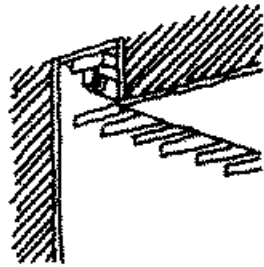
Ceiling-mounted luminaires are attached directly to the ceiling or to a ceiling track.

- Suspended luminaires hang from the ceiling by a rod, cord, or chain and include suspended downlights, uplights, uplights/downlights, ceiling fans, and chandeliers. Suspended luminaires are used for task lights, ambient lighting, or decoration.
 - ◆ The lamps in suspended luminaires used for task or ambient lighting should be shielded from direct view to reduce glare. Select a diffuser/reflector that is opaque or only slightly translucent.
 - ◆ A decorative chandelier mounted above a table should be 12 in. smaller in diameter than the smallest table dimension and located 2 ft, 6 in. above the table.
 - ◆ A task light mounted above a table should be located approximately 24 in. above the table. For visually demanding tasks, either use a light source that produces more light, or mount the luminaire closer to (approximately 15 in. above) the surface. To avoid a bright spot on the ceiling from a suspended luminaire that provides some “up-lighting,” the luminaire should be mounted about 18 in. below the ceiling.

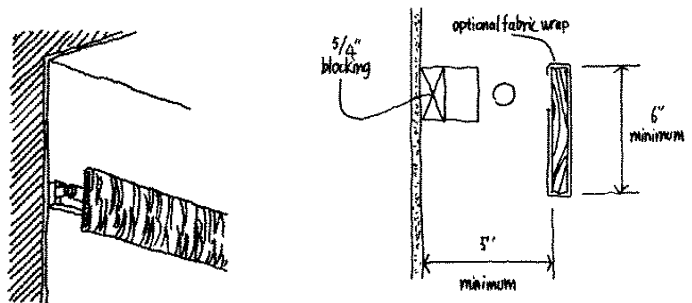


Block direct view of the lamp with opaque or slightly translucent shades.

- Architectural luminaires are integrated into the structure and are usually mounted horizontally on the wall, ceilings, or on cabinet tops. In general, they are used with linear fluorescent lamps.
 - ◆ Soffits provide light downward along the walls.
 - ◆ Valances direct light upward and downward along the walls. Align the valance height with the top of doors and windows, typically 6 ft, 8 in.
 - ◆ Cove lighting distributes light upward, and the ceiling serves as a diffuse reflector. Cove lighting distributes light evenly throughout the room.
 - ◆ Place the top of the cove or valance at least 18 in. below the ceiling to avoid hot spots or excessive brightness on the ceiling.
 - ◆ As with any luminaire, it is important to avoid direct views of the lamp in an architectural luminaire. In kitchens, for example, lampholders can be mounted on top of the cabinets and concealed from direct view with a trim board.



Detail of soffits with baffle. Baffles are often used to hide direct view of the lamp.



Detail of fabric-covered valance luminaire



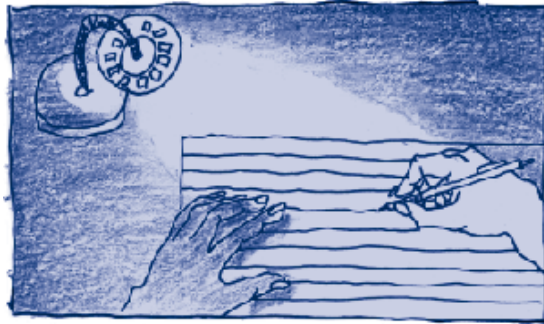
Detail of cove luminaire

- Wall-mounted luminaires are mounted directly to a wall surface and are appropriate for rooms with low ceilings. They can provide direct, indirect, or diffuse lighting.
 - ◆ Wall-mounted luminaires can be used to provide diffuse light in hallways, dining rooms, living rooms, and bedrooms.



- ◆ Conceal the lamp with opaque or semi-translucent materials. Do not install bright wall-mounted luminaires against a dark color wall.
- ◆ Mount wall-mounted luminaires so the lamp cannot be seen from above or below. Install the outlet box for the luminaire approximately 5 ft, 6 in. above the floor.
- ◆ Choose wall-mounted luminaires that comply with the Americans with Disabilities Act (ADA). In public spaces, such as corridors, the ADA limits the outward extension of a wall-mounted luminaire to 4 in. if it is mounted lower than 6 ft, 8 in. above the floor.

- Plug-in luminaires are portable fixtures that plug into an electrical outlet. They include table lamps, floor lamps, torchieres, desk lamps, undercabinet lighting, and night-lights. 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 and sewing.
 - ◆ Place adjustable desk lamps, floor lamps, or table lamps as close to the work area as possible to get the highest illuminance on the visual task. For seeing very fine details, use adjustable task lights with an integrated magnifying glass.
 - ◆ Place the task light on the left side and slightly to the front if the person is right-handed. Place it to the right and slightly forward if the person is left-handed. This will reduce shadows cast by hands on papers, cutting boards, or other task surfaces.



a.

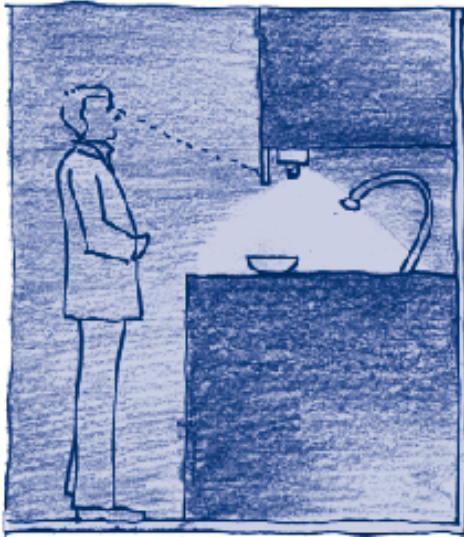


b.

Place your task light slightly to the front and on the opposite side of the writing hand one writes with (a) to avoid shadows (b).

- ◆ Place the task light beside the task, not in front of it, to avoid reflected glare from shiny surfaces like polished wood or glossy magazines.

- ◆ When upper cabinets are used in the kitchen or at a desk, illuminate the work surface with thin undercabinet luminaires mounted on the underside of the upper cabinets. Mount the lamp as close to the front of the cabinet as possible, but make sure the light source is properly concealed to avoid glare from a seated position.



Block direct view of lamps with a shielding board.

- ◆ For reading in bed, mount swing arm lamps above the head of the bed or to the side, below eye level.
- ◆ Place floor lamps slightly behind a reading chair so light is delivered over the reader's shoulder, close to the task.



Place a task light over the reader's shoulder, close to where he/she reads.

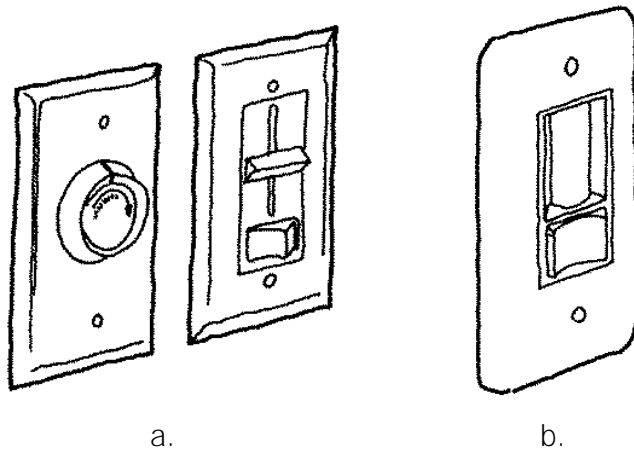
Some tips for choosing luminaires

- Avoid clear-glass luminaires.
- For luminaires that have a visible reflector, select a semi-specular or matte finish. Luminaires with specular reflectors can reflect the image of the light source and produce glare.
- Paint inside of architectural luminaires (soffits, coves, and valances) a matte white color to provide more diffuse light in the room.
- Look for the ENERGY STAR label on the luminaire.

How do I specify and install lighting controls?

Older adults will require higher light levels and may have more sensitivity to glare. Because older adults cannot completely adapt to dim conditions, lighting controls should be used in transitional spaces, such as hallways and foyers, to provide high light levels during the day and low light levels at night. Lighting controls should also be used to help older adults get up in the middle of the night safely.

- Provide a range of light levels in the space with a dimmer installed in the wall switch box.
- Select only dimmable compact fluorescent lamps when installing this type of lamp in a luminaire controlled by an incandescent lamp dimmer. Luminaires designed for compact fluorescent lamps or linear fluorescent lamps need special dimming ballasts and controls. Check with manufacturers for more information on fluorescent dimming.
- Install switches near room entrances and near the bed for easy access.
- Install light switches with toggles that glow in the dark.
- Use a motion sensor in the hallway that leads to the bathroom to automatically turn on a low-brightness luminaire.



Dimmers (a) are typically used in residences to create different light levels in a space, and occupancy sensors (b) are typically used to save energy and to turn lights on without switches.

Lighting Rooms

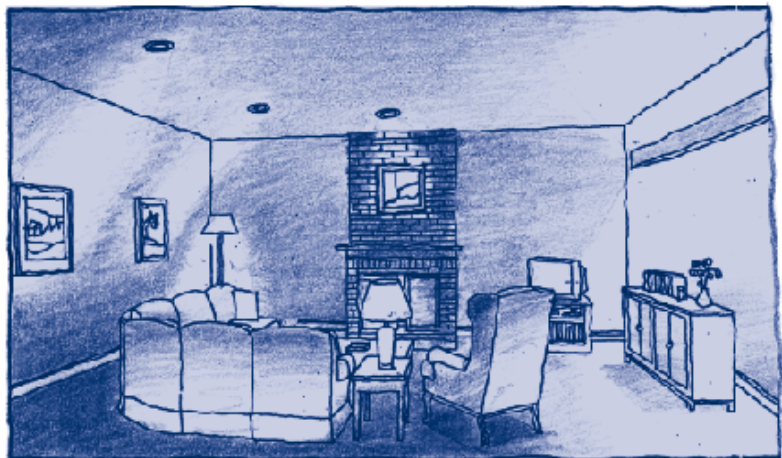
There are many ways to light rooms in the homes of older adults. Following are a few examples of good lighting. Each section describes the lighting goals and principles for a room, illustrates a lighting solution, and summarizes how solutions can be applied to meet a client's needs.

Living Room

A variety of activities occur in a living room. General lighting is necessary to allow people to see faces, engage in a conversation, and watch television. Task lighting should be available for reading or sewing, and accent lighting can be used to highlight artwork, plants, or any other interesting features. Lights aimed toward the walls and ceilings can also make the room appear brighter than if all the light is directed on the floor. Bare lamps should be hidden behind shades, architectural features, or opaque surfaces of luminaires.

Design features:

- The wall and ceiling are lighted by two 4-ft long wall-mounted strip lights, each with two fluorescent lamps, mounted behind a wall valance. The lamps are 32-watt (W) T8/830 linear fluorescent lamps (CCT of 3000K and CRI of 80) with electronic dimming ballasts.
- Plug-in table and floor lamps light the reading chairs. To minimize glare, the bottom of the floor lamp's shade is located at eye level when a person is seated. Floor lamps should be located behind and slightly to the side of the reader. These lamps use 25- to 30-W ENERGY STAR screw-base compact fluorescent lamps or 75- to 100-W halogen incandescent lamps. Table and floor lamps designed for 68-W metal halide lamps can also be used.
- Adjustable downlights recessed into the ceiling highlight objects on the wall and provide added brightness to the space. These downlights have grooved baffles and use 50-W halogen PAR 20 or PAR 30 floodlights or narrow floodlights, depending on the size of the objects being illuminated.



Lighting Tips

- Increase light level by placing luminaires close to the task, or by selecting lamps with more lumens (look for the lamp lumen rating on the package).
- Use light color finishes on walls and ceilings to soften the effects of bright light sources, and to reduce shadows.

Lighting Tips

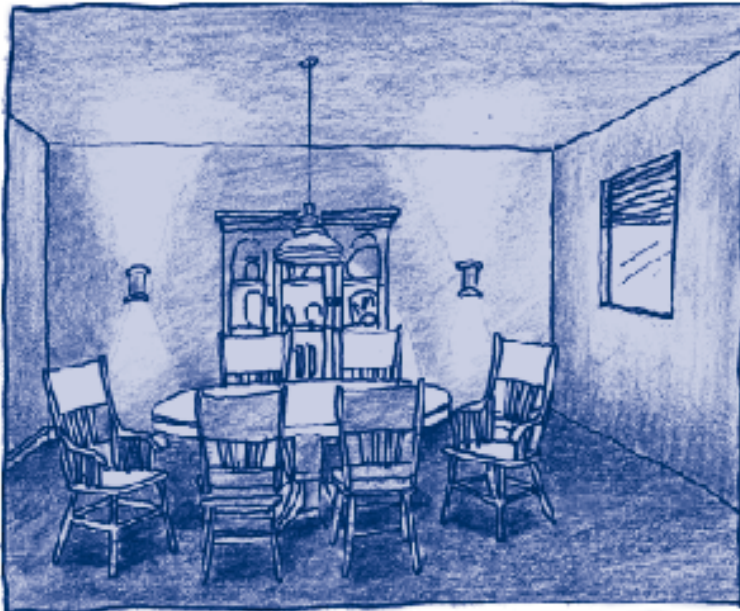
- Avoid using clear-glass luminaires.
- When using extra light on objects of special interest, such as pictures, vases, etc., aim the lighting at the object, away from faces.

Dining Room

Good lighting in a dining room helps people to see their food and each other's faces with minimum glare. A dimmer adjusts the light level, allowing low levels for candlelight dinners and high levels for paperwork on the dining table. Pendant luminaires light the table and provide general illumination. Chandeliers can also be used as general illumination and as a decorative complement to the décor, although they can be a source of glare if the wattage is too high and it is not controlled by a dimmer. Accent lighting for artwork or other architectural features adds interest to the space.

Design features:

- A pendant luminaire lights both the ceiling and the table. The pendant luminaire reflector is slightly translucent to minimize glare. Make sure no one can see the bare lamp when seated. This pendant luminaire uses two 75-W halogen incandescent lamps. Alternatively, two 23-W ENERGY STAR labeled compact fluorescent lamps can be used if a dimmer does not control the pendant. If controlled by a dimmer, look specifically for a dimmable compact fluorescent lamp.
- Wall sconces are mounted on each side of the buffet or sideboard. The translucent luminaires shield views of the lamps and provide some brightness on the walls and ceiling. Each is designed to use one 18-W compact fluorescent lamp with an electronic ballast.



- Although not shown in the figure, displayed objects can be accented with a narrow beam of light from adjustable recessed downlights installed in the ceiling. Use grooved baffle trims to avoid glare. Use 50-W halogen PAR 20 or PAR 30 floodlights or narrow floodlights depending on the size of the objects being illuminated.

Kitchen

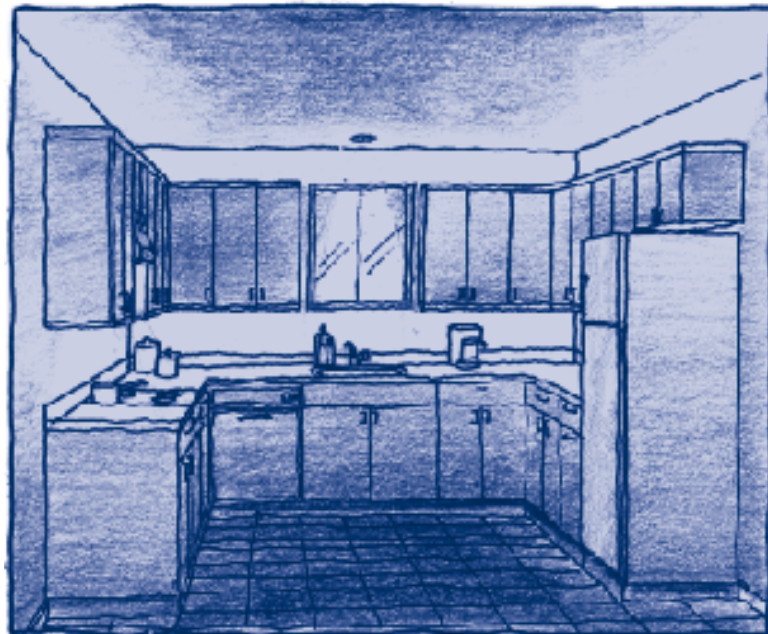
The kitchen should appear bright, yet without glare. Good lighting is needed for a variety of visual tasks, including working at the sink and stove, preparing food on the countertop, and reading recipes.

Design features:

- Fluorescent strip lighting luminaires are mounted on top of the cabinets (behind a trim board) since there is at least 12 to 18 in. of space from the top of the upper cabinets to the ceiling. Paint the top of the cabinets a matte white color to increase diffuse illumination to the room. These luminaires provide glare-free general lighting by bouncing light off the light-colored ceiling. Each luminaire uses a 32-W/830 T8 fluorescent lamp (CCT of 3000K and CRI of 80) with electronic ballast. For kitchens without an open cove above the cabinets, a ceiling-mounted, ENERGY STAR labeled luminaire can be centered in the room.
- Undercabinet fluorescent lighting luminaires, hidden from view on the underside of the upper cabinets, light the countertops. These 2-ft long undercabinet luminaires have prismatic acrylic lenses and use 17-W/830 T8 fluorescent lamps with electronic ballasts.
- A recessed downlight centered over the sink makes washing dishes and preparing food easier. This downlight has a grooved baffle trim, 5 in. diameter aperture, and uses a 50-W PAR 30 incandescent halogen floodlight or narrow floodlight lamp. A downlight over the sink is especially important if the ambient light is provided by a single luminaire in the center of the ceiling.

Lighting Tips

- Place luminaires over the sink, stove, countertops, and other fixed work areas. Locate these luminaires slightly to the side and in front of the position where a person would stand to see the task.
- Avoid having only one ceiling luminaire in the center of the room that casts a person's shadow onto the counter or sink where he/she is working.



Lighting Tips

- In the bathroom, use a wet-location-rated shower light for good visibility.
- Luminaires that are not wet-location-rated should be mounted at least 3 ft away from the bathtub or shower.
- Choose a matte countertop vanity surface with light colors to reflect light to the underside of your chin.

Bathroom

Bathroom lighting should be bright, uniform and shadow-free, while minimizing glare. Good lighting is important for shaving, grooming, applying make up, showering, and reading fine print on prescription bottles. Faces lighted from all sides have few shadows. Skin tones and hair color appear better with light sources that offer high light levels and good color rendering.

Design features:

- A wall-mounted 4-ft long vanity light with an opaque front, open top aperture, and acrylic lenses on the bottom aperture extends over the lavatory and toilet. The luminaire bounces light off the ceiling, white countertop, and light-colored walls so all sides of the face are lighted at the mirror. People can also read easily while seated on the toilet. This valance luminaire uses two 32-W/830 T8 fluorescent lamps with electronic ballasts. For smaller bathrooms, select a 2-ft long vanity light with two 17-W/830 T8 fluorescent lamps. An alternative to the valance is to use luminaires on both sides of the mirror, if there is sufficient room.



- A wet-location-rated downlight recessed in the ceiling above the tub, using a 52-W halogen lamp, adds light to the shower area and is switched separately from the valance light. When high light levels are uncomfortable in the middle of the night, the shower light alone can be switched on, providing a more comfortable light level.

Bedroom

Bedrooms need a low-level ambient light for a relaxing atmosphere, with some bright areas for reading or other activities. Reading lights should be flexible and glare free. At least one light should be switched from the bed. A low-wattage nightlight plugged into an electrical outlet can improve safety when getting up at night.

Design features:

- A ceiling-mounted luminaire with translucent acrylic diffuser provides uniform, shadow-free light when higher levels are desired throughout the bedroom. This luminaire is a 22 in. diameter ENERGY STAR labeled luminaire using two 24-W/830 long twin tube fluorescent lamps with electronic ballast.
- For lower, more relaxing ambient light levels, a torchiere stands on the floor, directing light to the light-colored ceiling. The torchiere uses three 36-W/830 compact fluorescent lamps. A 3-way switch allows three levels of light. Alternatively (not shown in the figure), a portable swing-arm compact fluorescent floor lamp with 3-way switch, using a 39-W/830 3-level compact fluorescent lamp, provides both ambient lighting and task lighting for a chair.
- Adjustable arm task lights mounted above the bed's headboard make reading in bed much easier. They can be positioned to direct light onto reading materials without glare. Each task light uses one 18-W/830 compact fluorescent lamp with an electronic ballast.

Lighting Tips

- Install light switches with toggle that glow in the dark. Place switches near the bed. Wall outlets should be installed 18 to 24 in. above the floor for easy access.
- Use lamps with good color properties in closets to help color matching of clothes.



Further Information

One of the barriers to good lighting is that people who need good lighting do not know what to ask for! A glossary is provided at the LRC website at www.lrc.rpi.edu and at the AARP Andrus Foundation website at www.andrus.org to make asking for good lighting easier. Also available on the website is a list of manufacturers. Below are some useful references that will also provide you with more information.

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Lighting Research Center at Rensselaer Polytechnic Institute - www.lrc.rpi.edu

ENERGY STAR Program - www.energystar.gov

Lighthouse International - www.lighthouse.org

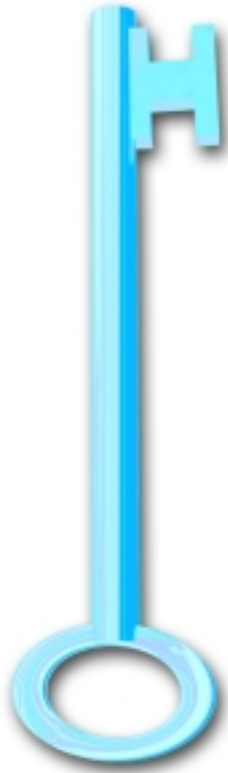
International Association of Lighting Designers - www.iald.org

Illuminating Engineering Society of North America - www.iesna.org

Center of Design For an Aging Society – www.centerofdesign.org

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Good lighting can be a key to independence!

Changing life style...this is a scary reality. No one looks forward to the time when performing simple tasks, such as reading the newspaper or putting together a jigsaw puzzle, becomes impossible. Even everyday tasks, such as cooking, cleaning, reading a prescription label, or choosing an outfit can become difficult or impossible to execute without good sight. Good lighting can help!

For many older adults, losing the ability to see well means losing independence. Light is essential to sight. Sight is essential to independence. Our ability to see, and therefore remain independent in later years, is compromised by bad lighting. And bad lighting surrounds us all, everyday. Lighting touches each of us every day, and it can be used to make a positive difference in our lives.

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