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HAVE THE "BEST OF LIGHT" IN YOUR HOME

By MARY S. PICKETT

The last article in this series discussed the amount of light needed in the home. Now let's consider the quality of home lighting. Lamps and fixtures properly selected and placed will give you the right light in the right place.

HAVE you considered quality of light in relation to your home lighting? The amount of light we have for everyday living is important, of course, but the quality of our light also is important.

Discomfort from indoor lighting is more often caused by poor quality than by too much light. There's much more light outdoors—even on the cloudiest of days—than we usually find indoors, but no one complains of too much light outdoors on such a day. Nature has balanced the light and dark. The shadows are softened, and we can move our eyes easily over the landscape. We should have the same effect in the home. Once we have enough light in the home, we can achieve quality largely by correct placement of the lighting and by eliminating glare.

The Right Place . . .

Lamps and fixtures, properly selected and correctly placed, give you the right light in the right place. Three general guides that may help you in good placement of light are:

- Light should be delivered to the place where it's needed;
- Light rays shouldn't shine or be reflected directly into the eyes; and
- There shouldn't be any shadows on the work area.

Recommendations as to the correct placement of light sources usually are given with the recommended amounts of light for certain areas of the home. These suggestions come from the work of many scientists and lighting specialists and have been tested by many thousands of homemakers. They are based on average eye heights of men and women, the common dimensions of equipment and furnishings, and the everyday activities in family living.

Each home, of course, is different. Rooms differ in furnishings and size. Living habits vary with individual families. But the suggestions are flexible and adaptable to your particular needs. The suggestions and principles make no attempt to dictate style or price—you use your own individuality in designs and style.

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An understanding of the seeing needs of the family in several areas of the home will help you to choose satisfying lighting solutions.

In the Kitchen

The homemaker does much of her kitchen work facing the walls, with her back toward the centre of the room. If light is supplied by only a central ceiling fixture, the worker casts a shadow on what she’s doing. To eliminate such shadows and to provide light just where it’s needed, additional fixtures need to be placed at the various work centres.

At the stove, light is needed to see into pans. This light may be located on the wall in a bracket. Light at the sink for food preparation and washing dishes may be supplied by light sources placed directly over the sink. This will also eliminate shadows on your work.

A fluorescent light unit mounted on the wall above counters and other work surfaces can eliminate working in your own shadow. These units should be shielded if the fluorescent tube can be seen when you’re working at the counter or seated nearby. Counter units provide light for reading recipes, easy seeing and accuracy in measuring foods and performing other tasks in this space. If there’s an eating area in the kitchen, a light should be centred over the dining table. This helps to define the dining area from the work areas and will provide light for critical eye tasks—such as sewing, reading and card games—which may be done at the dining table.

In the Laundry

The place where you do certain jobs dictates the best placement of light fixtures. Inspecting clothes before washing, and ironing them afterward, are the jobs that demand the most light in the laundry.

For close inspection of clothes and spot removal, the light source should be directly over the clothes. For ironing, a light source at the side of the board and in front of the worker will do the best job of detecting wrinkles. One good ceiling fixture might serve both tasks. But, as in the kitchen, work areas around the side of the room need extra light to eliminate shadows.

In the Living Areas

The placement of lighting in the living areas—such as the living room, den or family room—presents a real challenge. How can you provide the best light possible for your family, considering that members perform so many tasks at the same time in these areas? How can you provide both general light and light for specific tasks? And how can you keep the light that’s good for one person from annoying another?

Lighting for reading, writing or studying in the living areas should be placed to provide light at the task. This light most often is supplied with portable floor or table lamps. For watching television, lamps or balanced general lighting should be placed to avoid a reflection on the screen but to light the walls or behind the viewer.

Some activities in the living area may be served by well-balanced general lighting. Remember, however, that balanced over-all lighting is needed all through the house to supplement special light for
specific tasks. The conventional method is to place one or more fixtures in the ceiling. To add imagination and creativity to the use of ceiling fixtures, try placing an uneven number of fixtures someplace other than the centre of the room.

General light may also be supplied by "structural" lighting—cove, valance, cornice or bracket—along the walls, over the windows or to emphasise special features. When you have enough of this kind of light, there will be less need for moving portable lamps, and the usefulness of the area will be increased.

In the Bathroom

Correctly placed bathroom mirror lamps will supply ample lighting on both sides of the face, under the chin and on top of the head. Such lighting is desirable for shaving or applying make-up. A pair of vanity lamps on a dresser in the bedroom is an alternative solution for applying make-up. This arrangement provides even lighting on both sides of the face so you can see yourself as others see you.

For Close Work

Regardless of the task or areas to be lighted, an important rule to remember is that the amount of light decreases rapidly as you move away from a lamp. For a given source of light, the level of illumination decreases by the square of the distance from the source. If 60 footcandles of light are falling on a desk at 1 foot from the base of the lamp, slightly less than half as much light—about 27 footcandles—will be measured at 2 feet from the same lamp.

For this reason, when you're doing difficult eye work the lamp should be placed close.

Glare—What Is It?

Have you ever wondered why your eyes feel so strange when you come from a darkened theatre into the bright sun—or when someone turns on a light in the dark—or when a candle is the only light in a dark room? Almost everyone has experienced "blindness" at night from the bright headlamps of approaching cars. These sensations result from a condition known as glare. Probably the greatest contribution to lighting quality is the elimination of glare.

Any light coming to the eyes in such a way that it causes difficulty or discomfort in seeing is defined as glare. Conditions which often produce glare in the home are (1) viewing exposed light sources, such as bare bulbs (direct glare) and (2) bright reflection of light from glossy paper and from desk or table tops (reflected glare). Large differences between the amount of light on the work area and the amount of light in the surrounding area also will produce glare by contrast.

To eliminate direct glare, shade or shield exposed light sources. Or they can be diffused with translucent materials such as glass or plastics. Lights used on drop-cords have been the chief offenders in direct glare. Such a light might serve to light an area such as a closet where you don't view the source directly and spend just a short time in the area. On the other hand, this same arrangement on the stairway may be a safety hazard as well as a disturbing light source.
Other conditions producing direct glare occur when a shade is too small for a lamp, or when a lamp is incorrectly placed in relation to its use. Place the lamp so that the user can't see the bright bulb or diffusing bowl inside the shade from a standing or sitting position.

Glossy highly polished surfaces may be the source of much reflected glare. While it may be pleasing to have a beautiful, highly polished wooden dining table or other pieces of furniture, this same gloss or polish on a study desk or kitchen counter surface may produce a most uncomfortable seeing condition. Glossy paper has the same effect when viewed for some time.

Reflected glare may be reduced by increasing the over-all level of lighting, reducing the brightness of the source, changing the position of the work surface or the type of finish on the work surface, or directing the light source in a different direction. The use of dull matt-finish blotters often solves the problem on desks.

Glare by contrast results from continual adjustment of the eye between the task and darker or brighter surroundings. In casual seeing, such as reading newspapers, high brightness differences may seem more acceptable. But as soon as the task becomes difficult, such as with prolonged reading or sewing, the brightness difference becomes noticeable and causes eye fatigue. In a glance about your home on an evening of family activity, you might find many examples of such contrasts in brightness—where there are “pools” of light and dark edges all around.

To avoid contrasts, the brightness of the area near a task should not be greater than the brightness on the task and should not be less than one-fifth of the brightness on the task. For tasks of fairly long duration—such as sewing—or for jobs where accuracy is important, the surrounding brightness should not be less than one-third of the task brightness.

To illustrate this, let's consider the kitchen. The recommended amount of light at the sink is 10 to 15 footcandles; for the general surrounding area, it is 5 footcandles, or slightly less than half of the brightness level at the sink. This amount of general light is slightly more than half of the brightness needed for working at the range and counters. Such a relationship between the level of light provided for the task and the surrounding area will eliminate glare caused by contrasts in brightness.

The Plan . . .

To achieve good light throughout your home, you might plan for the immediate needs of your family as well as for the future. A plan that coordinates all areas of the house to serve all members of the family will provide the greatest satisfaction through the years.

Such a plan may be carried out by purchasing an item at a time—say, a good floor lamp—or it may be developed all at one time as a complete installation to meet the lighting needs in each area of the home. The method you choose to follow will depend on the needs of your family as well as your income.

We know what factors affect seeing—and the tools and methods to control and predetermine these factors are at your command.

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