Lighting can ...

- Create a cohesive "warm" or "cool" look in your home
- Make skin tones look more natural
- Help you closely match colors (for dressing, sewing, arts and crafts, or laundry)
- Enhance colors in your home

Consider how the color rendering index and the color temperature affect your home.

Color Rendering Index (CRI)

Specific types of light sources create different effects on colored objects in your home.

Color Temperature

Specific types of light sources create different cool and warm atmospheres in your home.



WANT MORE INFORMATION? PLEASE CONTACT YOUR LOCAL EXTENSION OFFICE:



Illuminating Engineering Society Color Committee. (1992). Color and illumination. New York: Illuminating Engineering Society of North America

Holtzschue, L. (2002). Understanding color: An introduction for designers (2nd ed.). New York: John Wiley & Sons.

Karlen, M., & Benya, J. (2004). Lighting design basics. Hoboken, NJ: John Wiley

Williams, B. (2000). Light Sources for Architectural Lighting. Professional Lighting Resources, Retrieved November 22, 2011, from http://www.mts.net/~william5/library/sources.htm

Winchip, S. M. (2008). Fundamentals of lighting. New York: Fairchild

AUTHORS:

Paulette Hebert, Ph.D.

Professor

Design, Housing & Merchandising

Gina Peek, Ph.D.

Assistant Professor, Extension Specialist Housing & Consumer

Mihyun Kang, Ph.D.

Associate Professor

Design, Housing & Merchandising

REVIEWERS:

Barbara Denney

Oklahoma Cooperative Extension Service

Brenda Miller

Oklahoma Cooperative Extension Service

Emma Rose Moore

Oklahoma Consumer, Member Oklahoma Home and Community Education (OHCE)

Pamela Turner, Ph.D.

University of Georgia

GRAPHIC DESIGN:

Sylvia Chaney

TEXT LAYOUT: Jessy Kramp



Family and Consumer Sciences

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, the Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 75 cents per copy. 0113

Light & Color

CHOOSING LIGHTING WITH COLOR IN MIND IS AN IMPORTANT DECISION.



appropriate lighting choices that consider light and color in your home!

Important Information

Color Rendering Index:

Describes the way light makes colored objects look.



 For example, incandescent (97-100 CRI) has an excellent color rendering index!

Color Temperature:

Describes the way the light source appears.

2700	6000
warmer	cooler

 For example, the color temperature of incandescent light is warm, about 2700 degrees kelvin. Other sources are cooler. Some fluorescent lights are about 4000 degrees kelvin.

Purchasing:

- Carefully read the package before you purchase the bulb. The package will tell you the color rendering index and color temperature.
- Be sure to purchase light bulbs from a reputable manufacturer.
- Spending a little extra time at the store can save you aggravation when you get home!

When Thinking of Light and Color, Consider...

Appearance:

Different light sources may affect colors. For example, the same color might look different when viewed under incandescent and compact fluorescent lights.

Color Critical Areas:

 Lighting affects color. Color critical areas include dining rooms, family rooms, bathrooms, closets, bedrooms, laundry rooms, craft and hobby areas, and places where art is displayed.

Initial Cost:

How much will the light cost when you first buy it?

Control:

• Dimming might change the color of some lights. For example, dimming incandescent lights makes the light appear more orange.

Remember:

- Lighting can produce warm or cool atmospheres. For color sensitive activities, such as applying make-up and selecting fabrics, consider warm light.
- The color of daylight varies at different times of the day, across seasons, and in geographic locations.

Approximate ranges for color rendering index and color temperature for common home interiors light sources

	Color Rendering Index	Color Temperature (K)
Compact Fluorescent	70-82	2500-6000
Incandescent	97-100	2500-3000
Light emitting diode	70-90	2700-4200
(Linear) fluorescent	52-90	3000-6500
Tungsten halogen	97-100	2800-3000
Xenon	95	2800-6000