



K R U G G

L I G H T I N G G U I D E

Create a beautiful and practical bathroom atmosphere by incorporating three types of lighting: ambient lighting, accent lighting, and task lighting.

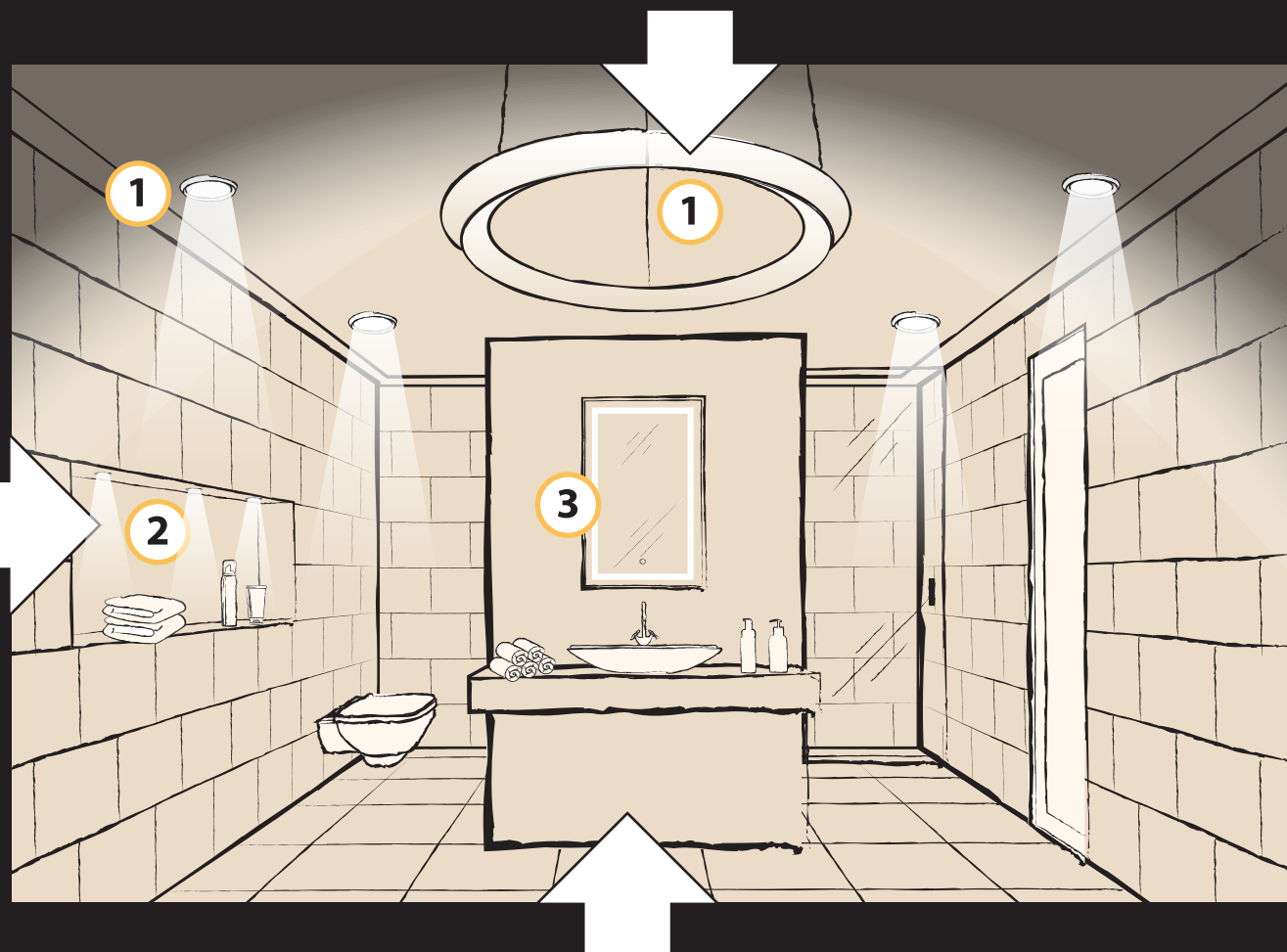
1 AMBIENT LIGHTING

Ambient lighting, also known as general lighting, is designed to illuminate an entire space and create a comfortable environment. It serves as the primary light source in a space and is best when soft rather than glaring. Ambient lighting is normally achieved through wall or ceiling-mounted lighting fixtures, recessed lights, and chandeliers. Use ambient lighting as the foundational light source for your room.

2 ACCENT LIGHTING

Accent lighting is designed to highlight a specific object or area. This type of lighting is typically three times as bright as ambient lights and draws attention to features in a room such as artwork, furnishings or architectural details.

Accent light fixtures should be angled or mounted to shield the direct glare of the light and ensure that objects or areas are properly highlighted.



3 TASK LIGHTING

Task lighting offers direct light to help with specific activities such as reading directions or accomplishing beauty and grooming tasks. This light is focused on a particular area where a task is performed and is brighter than ambient lighting. Effective task lighting is glare free and prevents eye strain.

BATHROOM AMBIENT LIGHTING



GENERAL LIGHTING LAYER

It's recommended to use a front lit mirror with LED band ceiling-mounted light fixtures, as well as recessed lights to properly illuminate your bathroom space with ambient lighting.

BATHROOM ACCENT LIGHTING



DECORATIVE LIGHTS

Add depth and dimension to your bathroom with accent lights that illuminate artwork or wall textures. Ceiling lights, lamps, and hidden light strips help you draw attention to specific focal points in your bathroom. LED lights work well as accent lights.




BATHROOM TASK LIGHTING

TASK FOCUSED

Use task lighting in your bathroom to ensure that you have ample light to accomplish tasks at your vanity. In a bathroom space, task lighting provides the perfect amount of light and prevents shadowing across your face.

RECOMMENDED WHITE LIGHT SOURCE USAGE CHART


Color temperature describes the warmth or coolness of a light source. It's measured in Kelvin degrees on a scale of 1,000 to 10,000. Certain color temperatures are superior for specific tasks. For example, white light sources with a color temperature between 3500-5500 Kelvin are most appropriate for bathroom task lighting.

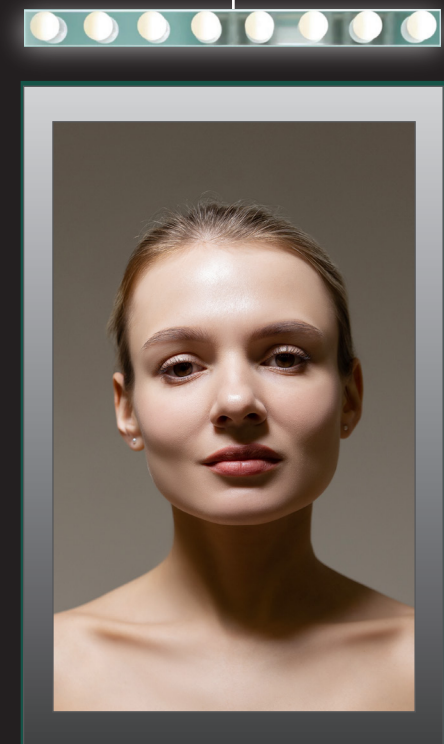
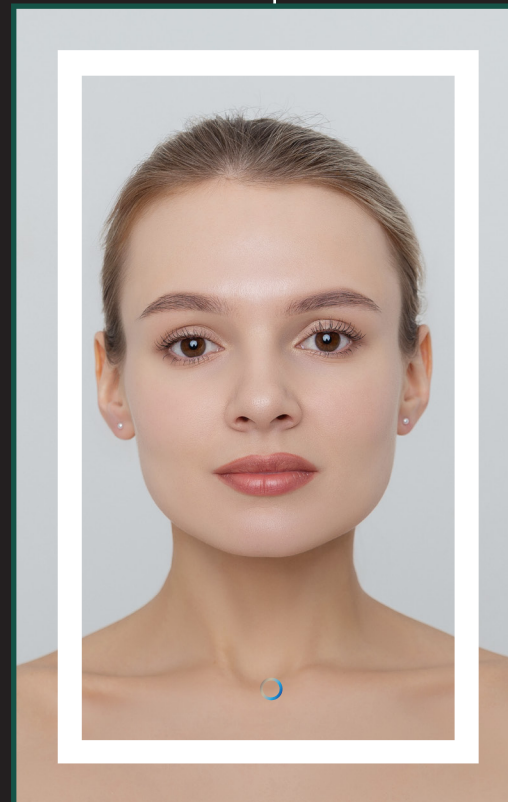
	Under 3500 Kelvin	4000-5500 Kelvin Neutral White 	Over 5500 Kelvin
RESIDENTIAL	Living rooms, bedrooms, dens, and intimate dining areas.	Bathrooms, kitchens, laundry rooms and home offices.	Kitchen task lights, garages, basements, attics and craft rooms.
COMMERCIAL	Luxury clothing, home goods, shoe and jewelry stores, coffee shops, waiting rooms, hotel lobbies and hotel rooms.	Offices, conference rooms, classrooms, restrooms and store ceiling lights.	Commercial kitchens, labs, surgery and treatment rooms, warehouses, manufacturing locations, high-tech stores, display cases, showrooms, hangers and garages.



DIRECT LIGHTING VS INDIRECT LIGHTING




Direct lighting - lighting that falls directly on a specific person, object, or area - is ideal for accomplishing detailed tasks and activities. Direct lighting can be perfectly created when combined with the right color temperature and when the light fixture is aimed at an area that needs more focus.

SIDE LIGHTING	DIRECT LIGHTING 	OVER THE MIRROR LIGHTING
<p>Indirect light on two sides of a mirror causes undesirable, dark shadows across the center portion of the face.</p>	<p>Direct mirror lighting, built into the mirror frame, evenly distributes light across the face and creates the ideal reflection.</p>	<p>Indirect lighting above a mirror creates unwanted brightness on the forehead and shadows under the eyebrows and on the sides of the face.</p>



WHAT IS CRI?

Color rendering index (CRI) is a measure of how accurately a light source displays colors. The higher the CRI, the better the artificial light source is at rendering colors accurately. The lower the CRI value, the more unnatural colors appear when illuminated by the light source. The CRI runs on a scale of 0-100, and the higher the index number, the better light source is at rendering color. Light sources with a CRI of 85-90 are good, while 90 is excellent. CRI is dependent on color temperature as the hue of the light cast can affect perception of the object's color.

CRI: 70 FAIR	CRI: over 90 EXCELLENT	CRI: 80 GOOD
<p>A CRI of 70, while fair, results in a reflection with pale and unrealistic colors.</p>	<p>A CRI of 90 captures natural color perfectly and offers a warm, ideal reflection.</p>	<p>A CRI of 80 reflects warmer tones, but still doesn't perfectly capture natural colors.</p>
		

LED STRIP COMPARISON

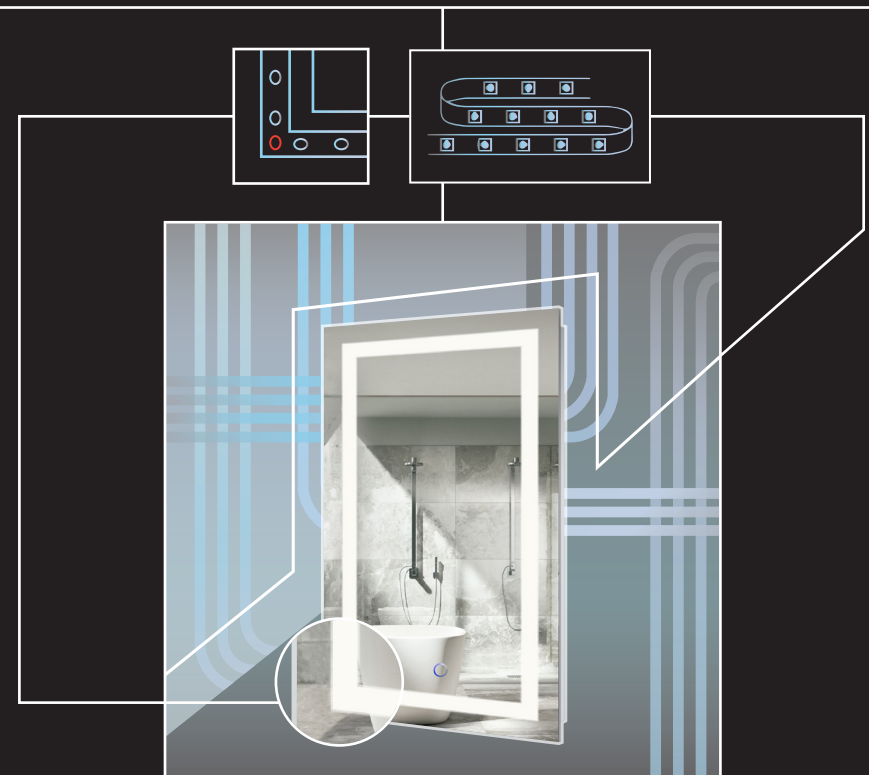
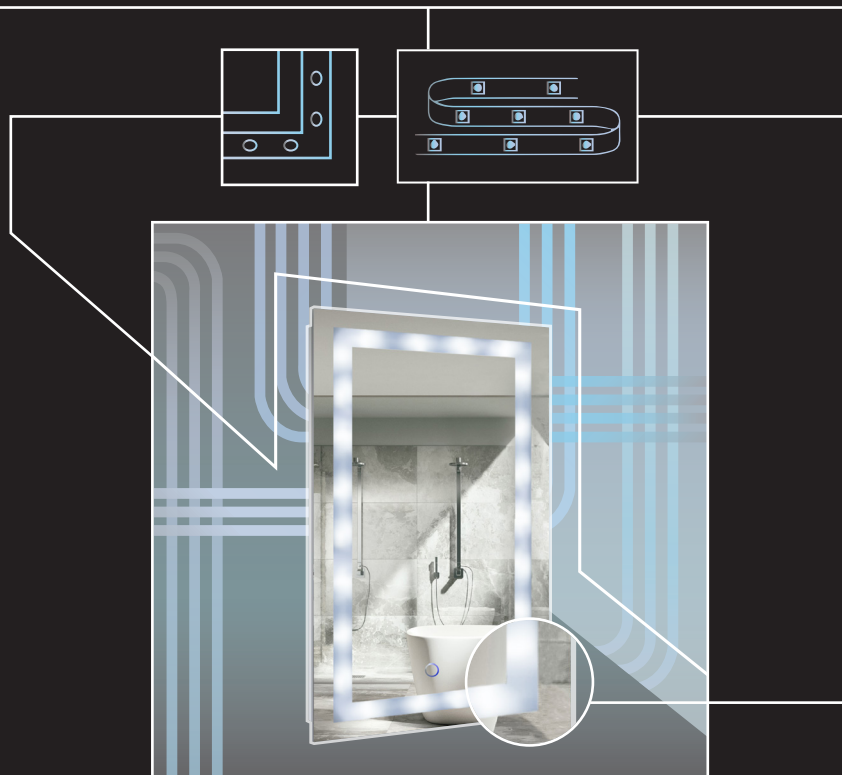
The right LED strip for backlighting mirrors subtly illuminates and creates the perfect amount of light for grooming and beauty tasks. Long operation life, high density lighting, proper LED chip placement, and hidden bulbs are all key features of the KRUGG Reflections LED strip, making it the ideal solution for any backlighting mirror.

LOW DENSITY LED STRIP

- A low density LED strip creates undesirable, uneven lighting across the face.
- Mirror corners are typically missing LED chips which impact reflection quality.
- LED bulbs are unwantedly visible through the glass.
- Average lifespan of low density LED lights are only **30,000 hours**.

DOUBLE DENSITY LED STRIP

- Double density LED strip provides **solid, evenly distributed lighting across the mirror**, creating the perfect reflection.
- LED chips are placed strategically to ensure that all mirror corners are well lit.
- Bulbs are carefully hidden, no matter the angle.
- Average lifespan of double density LED lights are **50,000 hours**.





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