

TECHNICAL BULLETIN Optimizing Lighting in Commercial Spaces | What is LRV?

Shedding Light on the Situation

A color's light reflectance value (LRV) measures the amount of visible and usable light that reflects from or absorbs into a painted surface. Simply put, LRV measures the percentage of light a paint color reflects.

Light Reflectance Value

LRV is measured on a scale that ranges from zero (absolute black, absorbing all light and heat) to 100 percent (pure white, reflecting all light). Building and design professionals—from architects and engineers to interior designers and color consultants—use these measurements as guidelines to predict how light or dark a color will appear. The values are also used by lighting designers to calculate the number and type of light fixtures needed to provide a certain amount of light for interior spaces.

The Americans with Disabilities Act (ADA) Accessibility Guidelines recommend a 70% light reflectance value or higher for those with impaired vision, but this is not a strict requirement.

Knowing a color's LRV is helpful when coordinating colors or creating a mood. It also helps businesses, schools, and homes stay energy efficient. Choosing a color with a larger LRV often won't require as much lighting or air conditioning as a color that soaks up light and warms easily.

Light Reflectance Value Scale (LRV)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Enhancing Safety Through LRV

Safety should always be a priority in commercial spaces, and LRV can play a role. In the event of power failures or other emergencies, having as much available light reflecting from surfaces can assist occupants to safe exits and emergency equipment. High LRV values on ceilings and walls can enhance natural daylight in dim lighting conditions.



Parking ramp ceilings benefit from high value LRV coatings.



High value LRV coatings enhance lighting in warehouses, gymnasiums, and manufacturing facilities.

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