Real scene illumination and testing

Many image quality factors are best measured with test charts. There are a few though, such as white balance that are better analyzed using a real scene. The lightSTUDIO contains multiple objects of various colors and textures for an accurate visual analysis.

Main Features

- iQ-LED, fluorescent and halogen light options
- Same interior for easy comparison between labs
- Moving targets to measure motion artifacts
- Evaluate high contrast scenes
- UI software for full control of all components

lightSTUDIO lighting options

Every lightSTUDIO is delivered with the same objects to make cross lab testing and comparison more efficient. However, the standard light head can be exchanged for an iQ-LED based light head known as the lightSTUDIO-L. This option can spectrally tune the light to a very accurate standard e.g., A, D50, D65 illumination.

The lightSTUDIO offers many different options for performing numerous measurements and comparisons all within a small compact space. It is also possible to control all components of the lightSTUDIO with an API.

Standard features of the lightSTUDIO
lightSTUDIO setup options

The lightSTUDIO-M has built-in moving targets including a moving frame for different test charts. These features are beneficial when measuring motion artifacts and blur in photos and videos.

The lightSTUDIO-H or HDR option has two LG4 light boxes with transparent test charts to create and test a high contrast scene. This setup can provide a contrast ratio of > 65000:1.

The lightSTUDIO-T or twin option has a dividing wall in the middle of the scene for easy side by side comparison of two independent illuminants.

Subjective assessment of image quality by visual comparison of the lightSTUDIO interior

1. Resolution
2. Texture loss
3. Sharpness
4. Near infrared sensitivity
5. Details in highlights
6. Details in shadows
7. Moiré
8. Distortion
9. Human skin tone color reproduction
10. Color reproduction
11. Natural and known colors
12. Low contrast details