UL has published UL 2802, the standard for performance testing of camera image quality. UL 2802 establishes performance requirements based on a camera’s operational specifications. The results of a product evaluated to UL 2802 are objective performance ratings.

Safety and security systems are incorporating video technology to enhance the ability for end users to detect and respond to security issues faced today. Commercial, residential and governmental institutions are deploying more and more video security products today and the choices available to them are expanding exponentially. UL's certification program to UL 2802 offers an ability to have an independent validation of camera specifications and establish a performance scoring of individual camera image quality attributes.

As the quantity of video cameras in the security space grows, so too does an increased awareness of the quality of the images they produce. Poor quality video imagery can mask incident details that could delay an effective initial response by safety or security officials, potentially resulting in the loss of life or property. Poor quality video images can also hamper efforts to reconstruct a security or safety incident in order to determine an actual cause, or compromise the video's usefulness as evidence in criminal proceedings.

Efforts to procure video cameras that produce images of suitable quality for the intended use case can be confusing and technically challenging due to the multitude of video cameras offered for sale in the marketplace, and the seemingly infinite variety of camera features and options available. Procurement complexity is further compounded by the absence of video quality standards that would enable objective, quantitative comparisons to be made between seemingly similar video cameras. A certification to UL 2802 helps to solve this problem.

This program can differentiate your camera capabilities by independently validating the image quality attributes of your camera.

UL 2802 provides specific criteria for objectively assessing the image quality of individual camera models. The standard details a method for assessing image quality using a series of performance-based tests conducted with production camera samples. The result of each test is a specific performance score in the range between a minimum of 0 and a maximum of 100.

**Video Camera Performance Tests**

- Image resolution/sharpness
- Field of view confirmation
- Signal to noise ratio
- TV distortion
- Relative illumination
- Dynamic range
- Maximum frame rate
- Grey level
- Sensitivity
- Bad pixel
- Veiling glare

**Getting started with UL**

To begin the process and open up new opportunities and new markets for your products, please contact UL's Customer Service. UL's knowledgeable staff will assist you in determining a project scope to meet your needs. Once the scope is agreed upon, your product and documentation are submitted to the UL Lab.