

WelchAllyn®

Light Matters

The Welch Allyn LED Difference

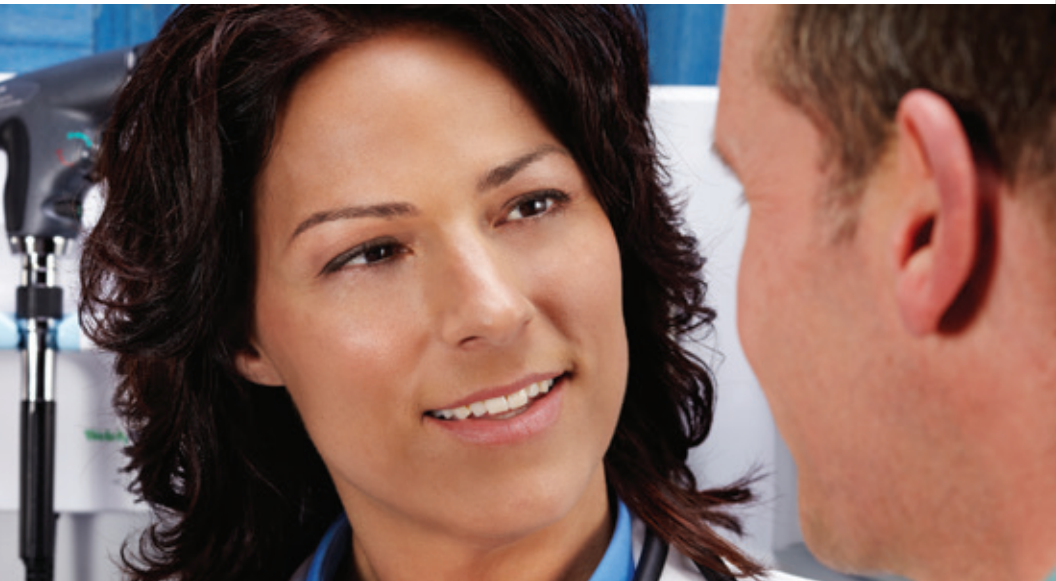


The Welch Allyn LED Difference

Help improve patient outcomes and enhance clinical efficiency by using the right light at the right time.

When it comes to engineering the right light for the intended exam, Welch Allyn has a 100-year track record in medical lighting of providing clinicians with the brightness and color they need to efficiently assess a range of conditions.

- All Welch Allyn LEDs deliver true tissue color, clarity and definition of landmarks
- Welch Allyn LEDs are optimized for the intended application to help simplify detection of abnormalities, aiding in efficient diagnoses, treatment and outcomes
- Our tightly controlled quality specifications minimize lamp-to-lamp variances in brightness and CRI



“We have many different Welch Allyn instruments with LED illumination, from otoscopes and ophthalmoscopes to vag specs. No matter which one I pick up, I know it will provide the perfect balance of light, so the tissue and structures I’m viewing look the way they are supposed to.”

—Karin Kroeger, MD
Family Physician, Elbridge, NY, USA



Facts about LEDs

LEDs have many benefits over other types of lights. They tend to last longer, use less energy and maintain light intensity better than traditional halogen bulbs. However, not all LEDs deliver the same light. These three LED lights show different colors and light intensities, and demonstrate the need to ensure proper calibration to fit the intended medical application.

Three factors impact light:

Color Rendering Index (CRI):
CRI measures how well light renders in comparison to daylight. A higher CRI number indicates the light delivers equivalent to an object in natural light.

Brightness (Lumens): A measure of the total “amount” of visible light. Typically the key factor in the brightness of light.

Color Temperature: High color temperatures will make the light appear more blue, while cooler color temperatures will have a hue with more red. For many medical applications, like otoscopy and ophthalmoscopy, optimizing color temperature is critical to ensure truer tissue color in dark cavities.

LUMENS

CRI

°K



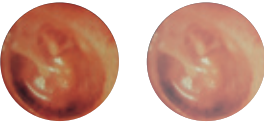
Ear, Eye, Nose, Throat (EENT)



EENT Instruments with SureColor™ LEDs

DEVICES	Otosopes, ophthalmoscopes, nose and throat illuminators
APPLICATIONS	Eye, ear, nose and throat exams
HOW LIGHT ENHANCES THE EXAM	The combination of brightness, CRI, and color temperature works with each instrument's optical system to deliver detailed views of various cavities like the ear canal and fundus.

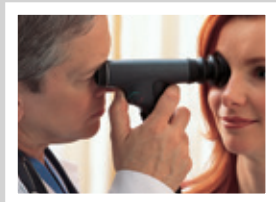
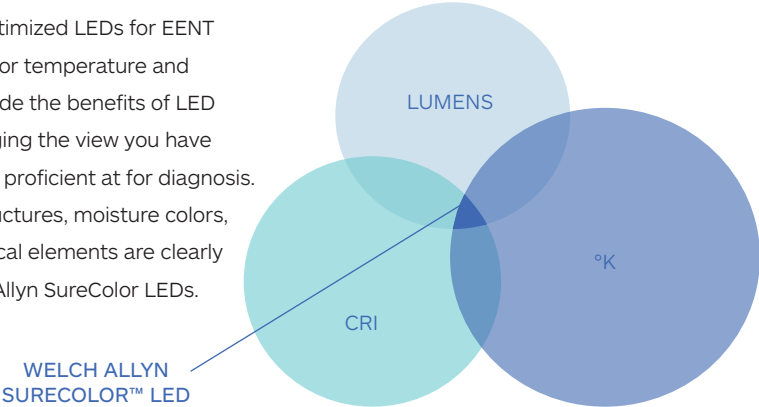
Optimizing Light for the Application



In EENT applications, light too bright or too white can wash out or cause unwanted glare or reflections which may hinder diagnoses. Here, the LED on the right is too bright, washing out critical details and making visualization of the tympanic membrane difficult.

How Welch Allyn does it better:

Welch Allyn has optimized LEDs for EENT instruments for color temperature and brightness to provide the benefits of LED light without changing the view you have learned on and are proficient at for diagnosis. Cavities, tissue structures, moisture colors, and other anatomical elements are clearly visible with Welch Allyn SureColor LEDs.



Medical Exam Lighting



Green Series™ Medical Exam Lights

DEVICES	Portable and procedure headlights, exam lights, minor procedure, and procedure lights
APPLICATIONS	Skin-surface exam lighting, minor procedures
HOW LIGHT ENHANCES THE EXAM	Brighter, whiter light gives you truer tissue rendition and uniform spot—no dark or hot spots—for enhanced visualization of the exam area.



LED VS. HALOGEN

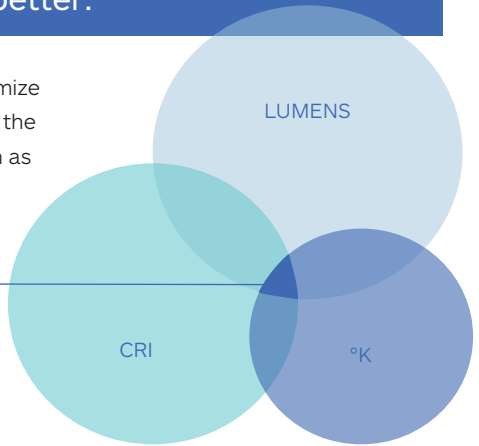
LED vs. Halogen

Bright, white LEDs are ideal for most skin-surface examinations. Some LEDs, similar to traditional halogen lights, tend to have a yellow tint.

How Welch Allyn does it better:

Welch Allyn Green Series LED Lights maximize the brightness of the light to help you see the area of interest and aid in detail work such as suturing or removal of skin structures.

GREEN SERIES
LED LIGHTS



Women's Health

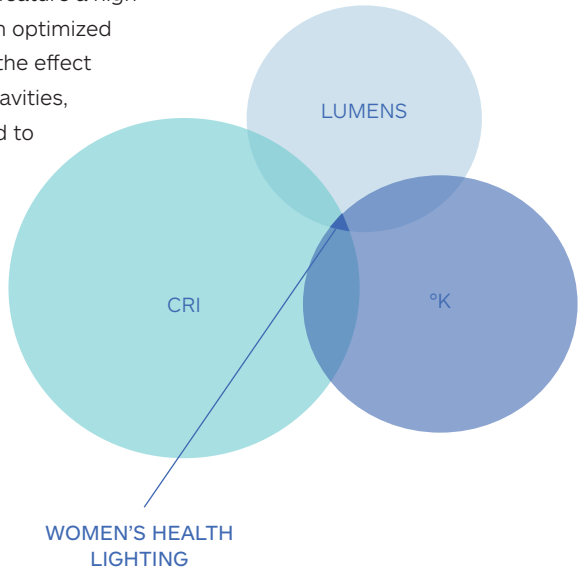


Women's Health

DEVICES	Vaginal specula, cordless illumination system, examination lights
APPLICATIONS	Gynecological examinations
HOW LIGHT ENHANCES THE EXAM	A whiter, brighter light demonstrates truer tissue color and a uniform spot, enhancing visualization of the exam area.

How Welch Allyn does it better:

Welch Allyn women's health LEDs feature a high color rendering index (CRI) with an optimized color temperature ($^{\circ}\text{K}$), which has the effect of delivering natural light in dark cavities, helping to deliver visibility required to conduct complete examinations.



Experts in Light

All Welch Allyn instruments with LED lights meet the following standards:

UL60601-1, CAN / CSA C22.2 No. 601.1

IEC 62471/CIES009

IEC/EN 60601-1

ISO 15004-2



Welch Allyn has nearly 50 years of experience developing over 40 patented medical lighting innovations.

Tightly calibrated combination of color temperature, CRI (Color Rendering Index), and brightness (lumens) to deliver optimal performance for each intended clinical application.

EENT INSTRUMENTS



23820-L MacroView™ Otoscope with Throat Illuminator



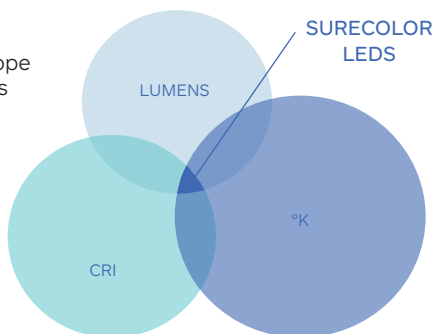
25020-L Diagnostic Otoscope with Throat Illuminator



11820-L PanOptic™ Ophthalmoscope with Corneal Viewing Lens and Cobalt Blue Filter



11720-L Coaxial Ophthalmoscope



GREEN SERIES™ MEDICAL EXAM LIGHTS AND HEADLIGHTS



4440X GS 300™ Exam Light

4460X GS 600™ Minor Procedure Light



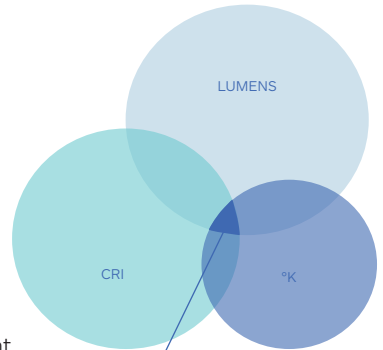
4490X GS 900™ Procedure Light



4607X Green Series Portable Headlight



4902X Green Series Minor Procedure Headlight



GREEN SERIES
LED LIGHTS

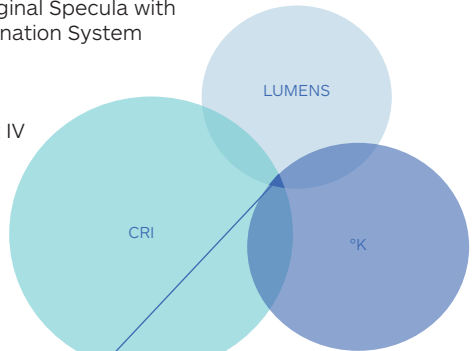
WOMEN'S HEALTH LIGHTING



7991X KleanSpec® Vaginal Specula with Cordless Illumination System



4881X GS Exam Light IV



WOMEN'S HEALTH
LIGHTING

**For international configurations, replace the 'X' with numbers as follows:
0 = US; 2 = EU; 4 = UK; 6 = AU.*



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