# Rite-lite PR MULTISPECTRAL/HI CRI SHADE LIGHT

AdDent advancing Dentistry.

Through innovative award winning products



Precise Shade Matching using exclusive CRI technology that simulates all lighting environments including fluorescence values for adjacent teeth and restorations

Higher accuracy regardless of the patient's future environments means greater long-term patient and clinician satisfaction

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# Why should you examine different lighting environments when making a shade selection?

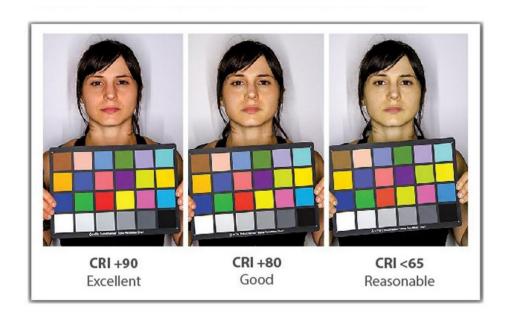
We cannot control the lifestyle of the patient! Different light environments can expose values we may not have seen at the time the shade was taken. When making a shade selection under one environment of light, you run the risk that the shade will not match under other lighting environments. This is caused by metamerism.

**Metamerism** is a phenomenon that occurs when two colors appear to match under one lighting condition, but not when the light color changes. When a shade matches under multiple lighting conditions, we can insure a better shade match.

### What is Hi CRI?

The Color Rendering Index (CRI) of a light source in general terms, is a measure of a light source's ability to show object colors "realistically" or "naturally" compared to a familiar reference source, such as daylight.

The Rite-Lite PRO HI CRI LEDs recreate the closest possible color match as if taken under natural daylight in optimal conditions.



## CRI, Color Rendering Index

DAYLIGHT - for initial shade taking. Daylight that is seen in an outdoor environment on a cloudy bright day is an industry standard color temperature of 5500°Kelvin.



**AMBIENT LIGHT** for verification of shade taking. Mixed lighting conditions of daylight and room light that exist in many indoor environments. Approximately 3900°Kelvin.



#### RESTORATION VIEWED WITH BLACK LIGHT:

Research shows that natural teeth fluoresce at wavelengths below 400 nm, i.e.- black light. Wavelengths below 400 nm are part of the spectrum of various indoor and outdoor lighting environments. Therefore, if we are to get a perfect shade match for porcelain or composite materials, they should fluoresce in the same manner as natural teeth. The cell phone photos show the effect of this mismatch when viewed with the Rite-Lite PRO





Clinical

Black Light

## What does Multispectra Mean?

The Rite-Lite PRO has four modes of light for shade taking to simulate varying lighting conditions found in indoor and outdoor environments. It also has a black light feature to match restoration to natural tooth fluorescence.

- 1. Color-corrected light (daylight) 5500°K
- 2. Incandescent (Room Light) 3200°K
- 3. Ambient Light, a combination of room light and daylight 3900°K
  - 4. Black light 395 nm

The higher the degree Kelvin, the whiter the **color temperature**. However, the white lights will appear brighter than those of a lower Kelvin degree. And thus, **CRI affects** the **color** of the object we perceive while **color temperature** is the **color** of the lights emitted.

# How we capture all light environments for precise shades

- Four modes of light for shade taking to simulate varying lighting conditions found in indoor and outdoor environments.
  - 1. The Daylight is for initial shade taking at 5500°K
  - 2. Incandescent (Room Light) is for verification at 3200°K
  - 3. Ambient Light, a combination of room light and daylight for verification 3900°K

#### Each above mode has Three intensity settings

- 4. Black Light mode for examining restoration fluorescence
- HI CRI LEDs recreate the visual spectrum produced by natural sunlight
- Easily move between the 4 modes of light by pressing the gray button and change the intensity of each mode of light by pressing the purple button.



Features	Benefits
Three modes of visible light for shade taking to simulate varying lighting conditions found in indoor and outdoor environments	Shade matching under multiple lighting conditions insures a better shade match
Visible light spectra produced with Hi CRI LED's	Recreate the visual spectrum produced by natural sunlight
Three selectable intensity levels for visible spectra modes	Better visualization and control of glare
Black Light mode for examining restoration fluorescence	Match restoration to natural tooth fluorescence
Accessory cross polarizing filter attachment to permit observation of tooth characterization without surface reflection	Reduces glare and reflective highlights to visualize natural anatomic defects
Regulated Output: Rite-Lite PRO features a voltage regulator	Ensures consistent light output over the useful battery life
Rechargeable Li-Ion battery	Lasts for approximately 5 years with normal use
Five-minute auto shutoff feature conserves battery power	Prolongs battery life
USB power supply for charging unit	Reduces operation cost
LED Battery charge and battery status indicator	Indicates when to recharge unit

## SHADE TAKING issues and Why Rite-lite

- 1. 60% of remakes are blamed on poor color match
- 2. It takes 5 new crown cases to cover the cost of one remake
- Improper color selection causes great frustration for the doctor, the laboratory and the patient, losing time and money for the dentist and laboratory
- Rite-lite Pro resolves the patients lighting environment issues.
   Patient lifestyle choices are no longer a concern

RITE-LITE PRO will save your practice money and keep your patients satisfied by getting the shade right the first time.

### Polarizing Filter Attachment



- 1. Eliminates Reflection
- 2. Provides enhanced visualization of tooth for color, depth and transparencies
- 3. Enhances the visualization of internal details and individual characterization

### **Neutral Color Tabs**

Used to standardize the background while shade taking.

