# Anatomy of a laser phosphor projector



## What is laser phosphor illumination?

- » A solid-state, lampless projection illumination technology
- » Uses blue laser diodes as the primary light source

#### Types of laser phosphor illuminated projectors



Typical laser phosphor Employs blue laser diodes shining onto a phosphor wheel.





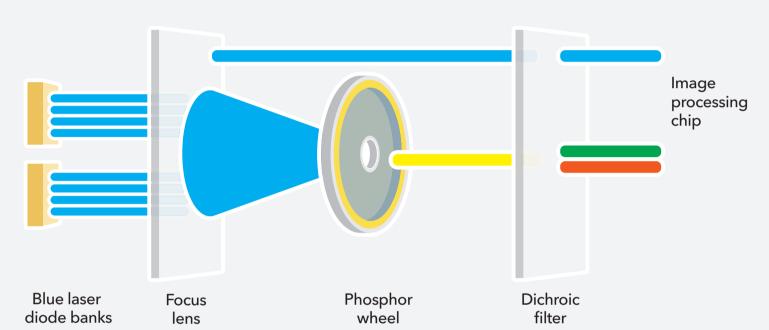
Laser phosphor hybrid Same as a typical laser phosphor projector but adds a red LED light source to boost the red color component.





Laser phosphor with red laser Similar to a laser hybrid, but employs a red laser diode instead of an LED to produce better overall saturation and realistic colors. Forms the basis for Christie® BoldColor Technology.

### Typical laser phosphor illumination system



The majority of laser phosphor projectors shine blue laser light onto a phosphor wheel to create yellow light. Blue light is then combined with the yellow light to create white light. This white light is split

into the three primary - red, green and blue - colors using a prism or a color wheel. From these primary colors, a laser phosphor projector is able to reproduce a wide variety of different colors.

#### 10 advantages of laser phosphor No lamp Low energy changes required consumption **20K** 20,000+ hours 24x7 operation operational life No need for filters Instant on/off (in most designs) capabilities Reduces down-time High-brightness, high-contrast and maintenance and wide color gamut Choice of entry-level models Reduces costs to premium projectors over time

#### Laser phosphor is ideal for high-use applications

- » Boardrooms
- » Auditoriums
- » Retail locations

- » Classrooms
- » Location-based entertainment venues
- » Houses of Worship

<u>Click</u> to learn more about Christie's laser phosphor solutions.











