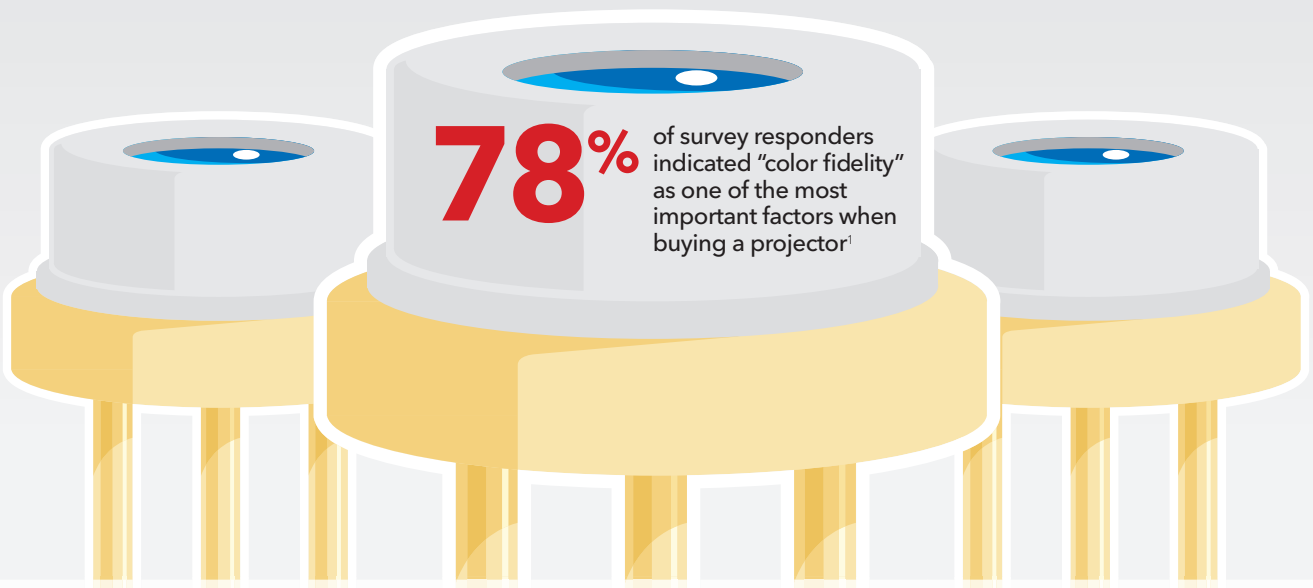
Christie BoldColor Technology

Color fidelity and laser phosphor illumination

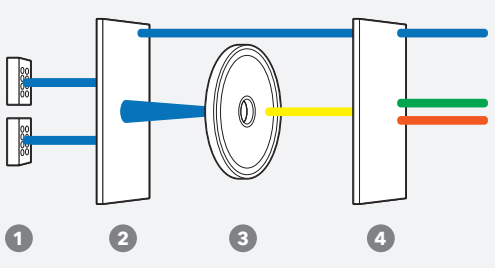
Laser phosphor is a solid-state, lampless projection illumination platform that uses blue laser diodes as the primary light source. Offering a long life, minimal maintenance and a low cost of operation, laser phosphor projectors are gaining popularity in the ProAV industry.



Christie BoldColor Technology creates the color balance needed to accurately reproduce colorful images, without sacrificing brightness.

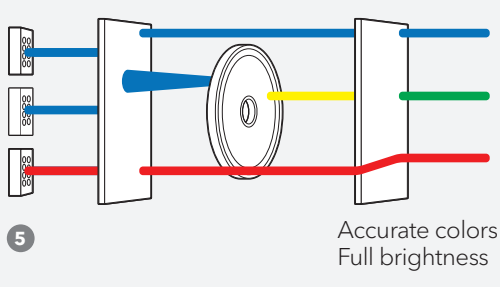
An industry first, Christie® BoldColor Technology employs blue and red laser diodes as well as a patented optical chamber, video processing and specialized software to produce enhanced color and saturation and more lifelike visuals when compared to typical laser phosphor projectors.

Typical laser phosphor illumination

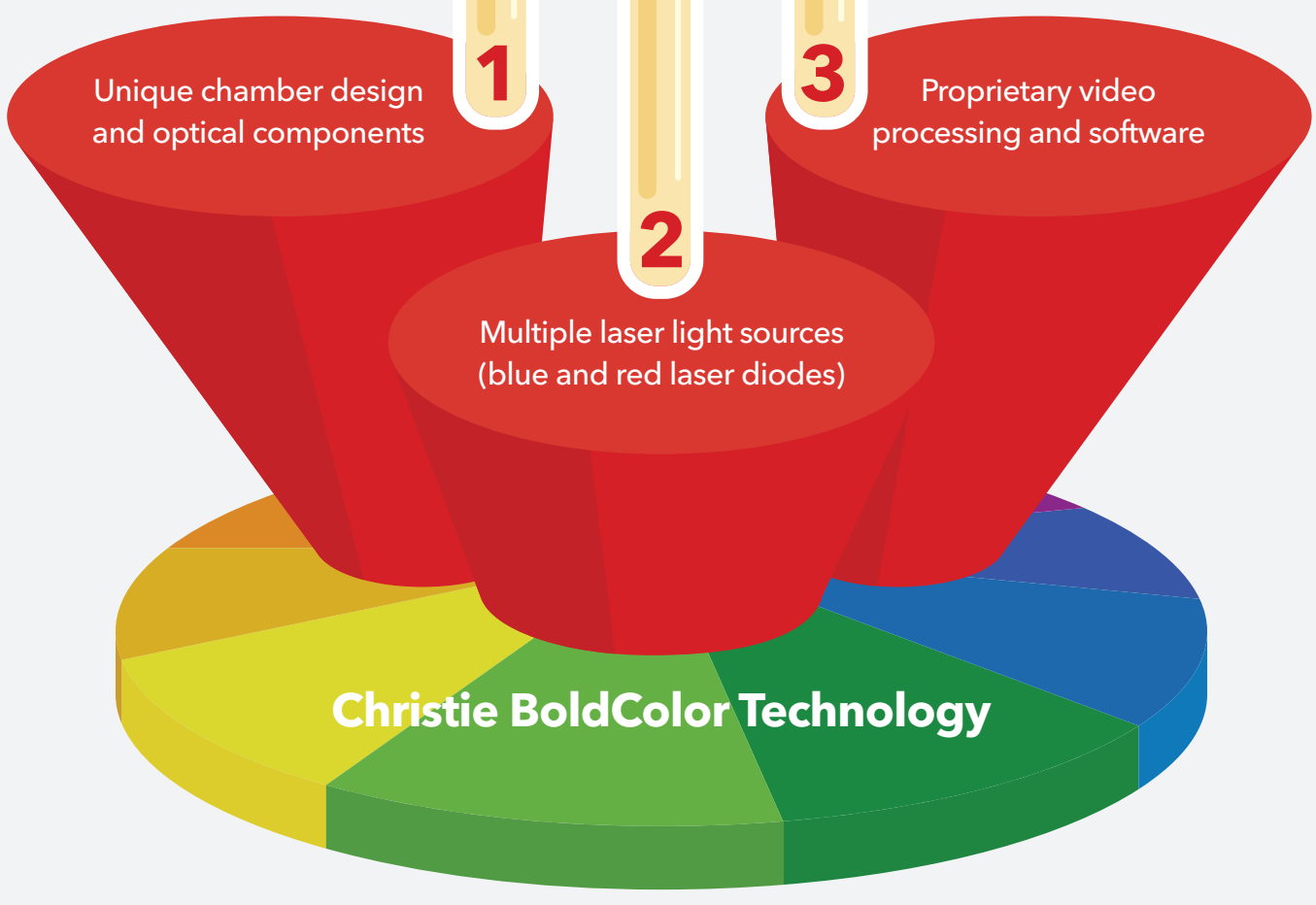


1. Blue laser diode banks
2. Focus lens
3. Phosphor wheel
4. Dichroic filter

Laser phosphor illumination with Christie BoldColor Technology



5. Red laser diode bank



Color fidelity shootout

Christie BoldColor Technology equipped projector vs. competing 1DLP® laser phosphor projector.

Christie BoldColor Technology	Competitor
	
Accurate color reproduction Accurate detail in white and darks Looks like original content	Oversaturated colors – green is boosted Greens have a more yellow hue Loss of detail in whites and darks Modified original content – can seem appealing
	
Accurate color reproduction Full brightness and good whites Accurate detail in whites and darks	Yellowish reds and greens Loss of detail in whites and darks
	
Accurate color reproduction Color balance is maintained Full detail in highlights and darks	Yellowish greens Boosted blue and greens – unnatural Loss of detail in highlights and darks
	
Accurate color reproduction Great skin tones Beautiful color balance	Yellowish reds and greens Boosted greens Skin tones unnatural

With about a **30%** loss in brightness, it is possible to improve the color of the competing product by changing settings, however, it never matches the original content or the color balance achievable with Christie BoldColor Technology.

Comparing laser phosphor projectors?

Be aware of these 6 color manipulations that distort content to gain brightness.

1. Oversaturated greens
2. Crushed whites
3. Crushed blacks
4. Whites that appear yellowish
5. Reds that appear more orange
6. One color appearing much stronger/more saturated than the others

Need help choosing a projector? Contact Christie today.

Want to know more about laser phosphor? Visit our resources page for more information.

Share

[1] Survey conducted by Christie and rAVe Publications.