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

To generate the three primary colors in a DLP® laser phosphor projector, the laser diode shines laser light onto a phosphor wheel to create yellow and green light, while blue laser light passes through an opening in the phosphor wheel. The projector then sends the yellow and green light through a color wheel to generate red and green, while the blue laser light passes through a diffusion window.

These red, green, yellow and blue colors are then directed onto an imaging surface, such as a DLP chip which directs the light through a lens and onto the projection screen.

10 advantages of laser phosphor
- Low energy consumption
- 20,000+ hours operational life
- No lamp changes required
- Instant on/off capabilities
- No need for filters (no maintenance)
- Reduces down-time and maintenance
- No need for fans (no noise)
- High-brightness, high-contrast and wide color gamut
- Reduces costs over time
- Choice of entry level models to premium projectors
- 24x7 operation
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Laser phosphor is ideal for high-use applications
- Boardrooms
- Classrooms
- Cinema
- Location-based entertainment
- Retail

Click to learn more about Christie’s laser phosphor solutions.