

## Recycling Light Technology (RLT) at InfoComm

Written by Bob Snyder  
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At InfoComm, Wavien, Inc. showed its **Recycling Light Technology (RLT)** that increases brightness of LEDs for small target illumination in the digital projection.

We don't normally cover components but this one is a brightness-increase mechanism that lowers power consumption so it's especially important for battery-powered projectors.

This recycling collar is a very low-cost optical component that captures the wasted light in conventional optics designs, recycles the light and redirects it back into the output beam (so increasing efficiency, while reducing the power consumption).

The RLT technology improves brightness to LEDs with full color capability. The range of recycling can have an increase of brightness from 30% for the red, to over 180% for the white. This equates to an energy saving of 25% to 65% in power consumption or increase in battery lifetime by 30% to 280%.

"Wavien's RLT technology for LED offers outstanding energy saving by recovering unused high angle light from the LED. This recycling technique is a benefit for a wide range of applications including projectors and spot lights," says the inventor of the recycling technology , Dr. Kenneth Li, President and CEO of Wavien.

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The diameter of the aperture on the collar, which determines the amount of recycling, can be scaled to meet the user's needs and determines the beam angle. "Clearly the RLT technology will revolutionize the projection industry especially in battery operated devices where battery life is a very important factor." states Dr. Li.

This LED recycling technique is also being introduced into many other areas of illumination including medical light sources and consumer projectors.

Go [Wavien's RLT technology for LED](#)