Soraa LED light may dim 50-watt halogen rivals

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(PhysOrg.com) -- Soraa, a Fremont, California company founded in 2008, this week launched its first product, a light that uses LEDS (light emitting diodes). The "Soraa LED MR16 lamp" is the "perfect" replacement for traditional halogen lamps, according to the release. The company says it is an ideal replacement for 50-watt halogen because the Soraa product delivers better beam and light quality. Soraa LED lamps use 75 percent less energy, deliver 10x lamp life, and produce higher quality light than halogen lamps, according to the company.

The MR16 is used in the commercial sector by restaurants, retail sites, and museums. These are lighting's especially demanding, finicky customers, as they need lighting to enhance their décor, inspire mood, highlight merchandise, and complement works of art.

"It's more difficult to do this MR16 light, so we choose to do this first to showcase our technology," Eric Kim, CEO of Soraa, told Forbes.

Beyond challenge, though, the commercial sector is a good business move because it will help the company to grow. Commercial customers have to think about initial costs and longer term payback in lighting, at prices that may turn off noncommercial customers. Retail owners, for example, depend on exceptionally good lighting systems to lure people into their shops.

The company was started by lighting experts focused on work with LEDs and lasers. Shuji Nakamura, one of the founders, was key to the technology that gives Soraa its core competency. Nakamura is regarded as a pioneer in modern LED lighting; he is known for his work with gallium-nitride. The material gallium nitride (GaN) has been used in bright light-emitting diodes since the 1990s.

"We believe that with GaN on GaN, we have truly entered the next chapter in LED technology: LED 2.0." said Nakamura in a Wednesday news release.

Soraa is betting its future on its different development approach to LED lighting to put it ahead of competition. The difference is in the LED crystal structure. Soraa's technology enables the LED to generate more lumens per area. Soraa's lamp is based on its trademarked "GaN on GaN" materials, "a perfect crystal structure," according to the company. Translation: The Soraa team figured out a way to create a combination of gallium-nitride top layer on gallium-nitride substrate.

The competitive difference is that LEDs based on dissimilar crystal structures elsewhere result in lower performance. Soraa's pure GaN crystal is up to one thousand times purer than GaN on sapphire or GaN on silicon carbide substrates, according to the company.

The MR16 will be available this quarter. Pricing information was not available at the time of this writing.

More information: Soraa's press release