

Tech Scouting Discovers Bright Solution for The Lighting Quotient



THE LIGHTING QUOTIENT

Background

The Lighting Quotient (LQ) is a leading architectural lighting manufacturer with a legacy of precise engineering and advanced design. LQ takes pride in creating lighting solutions that meet and exceed energy codes and sustainability goals, efficiently and beautifully light any plane or surface.

Established in 1977, The Lighting Quotient employs 160 people in its West Haven, CT facility. It is a certified Women's Business Enterprise and a certified Woman-Owned Small Business.

Situation

The company identified a need to find a way to bridge the gap between the different thermal expansion behavior of two materials integral to product performance.

A main product line, the elliptical asymmetric luminaire, used for indoor and outdoor lighting, was sometimes losing its seal due to the lens and housing expanding at different rates. This was permitting moisture to enter the light housing under certain environmental conditions, which was unacceptable.

LQ asked CONNSTEP to determine whether alternative materials could produce a product design incorporating a better watertight seal that would withstand the highest operating temperatures, while still retaining its current function and artistic design. Material recyclability and toxicity had to be considered as well, supporting LQ's Cradle to Cradle Silver Certification.

Solution

CONNSTEP teamed with RTI International, one of the world's leading technical research institutes, a research institute with international access to leading

Results for The Lighting Quotient:

- Used scouting results to identify new material options capable of mitigating unwanted effects
- Identified other materials that may be used in the future in the development of potential other products



Working with CONNSTEP and RTI has been a great experience. Through their tech scouting of different materials and processes, we were provided with a wide variety of potential solutions along with pros and cons for each, which helped us arrive at the best one.

Paul Ford
VP, Design Engineering
The Lighting Quotient, West Haven, CT

CONNSTEP has helped us immensely to develop lean manufacturing practices in CT. Great organization and a game-changer for us.

Allie Schieffelin
CEO and President
The Lighting Quotient, West Haven, CT



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edge research and a range of technologies including materials, to assist in scouting all possible avenues and zero in on the most promising solutions.

RTI undertook a variety of secondary and primary research methods to scout new technology. These included reviews of government and industry databases, patents, scientific and product literature, conferences and trade show proceedings, as well as conducting interviews with various experts from academia, industry and relevant “observer” organizations (such as trade associations, scientific associations, and government funding sources). All research was done with a focus on meeting LQ’s new technology objectives.

After presenting LQ with several options, RTI pursued the choices made by LQ for further exploration to provide sources for sampling and to obtain greater detail on pricing, availability and recyclability.



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