Larry Boxler

Professional Experience

2024-Present	Sr. Staff Optical Engineer
2021-2024	Optical Simulation Engineer, Luminar Technologies
2014-2021	Optical Engineer, Valeo Lighting Systems
2007-2014	Optical Engineer, Musco Sports Lighting
2005-2007	Optical Engineer, Breault Research
1999-2005	Optical Engineer, Valeo Sylvania
1996-1999	Program Manager, Ford Motor Company
1994-1996	Injection Molding Process Engineer, Ford Motor Company
1991-1994	Lighting Engineer, Ford Motor Company

Education

1991	B.S. Degree in Optical Engineering, Rose Hulman Institute of Technology

Larry Boxler is an accomplished Optical Engineer with extensive experience in optical component design, analysis, and testing. He excels in customizing applications and performing advanced analysis through scripting. His expertise spans a wide range of optical systems, including illumination devices, LCD projector components, lidar systems, and stray light control. Additionally, Larry has significant experience with the injection molding of plastic optical components and their radiometric and photometric performance testing in laboratory settings.

Professionally, Larry has developed and verified optical models for various systems, led optical component design, simulation, and testing initiatives, and supported production processes. He has also contributed to software development for optical engineering applications, enhancing tools used for non-imaging optical design and stray light analysis. His roles have seen him lead projects from initial concept through to production, ensuring designs meet stringent performance and manufacturability requirements.

Throughout his career, Larry has contributed to several notable projects and holds multiple patents related to LED lighting systems and optical designs. His key skills include non-sequential ray trace analysis, scattering and stray light analysis, non-imaging optical design, plastic optical fabrication, and programming in Matlab, Python, and C#. Larry's comprehensive expertise and innovative contributions make him a highly valuable professional in the field of optical engineering.

Patents

Varying Color of LED Light Using Metamers
Apparatus and method for pathway or similar lighting
Apparatus, method, and system for highly controlled light distribution using multiple light sources
Apparatus, method, and system for independent aiming and cutoff steps in illuminating a target area
Apparatus, system, and method for aiming LED modules
Compact LED light source and lighting system
Method, system and apparatus for highly controlled light distribution from light fixture using multiple light sources (LEDS)
Providing, measuring and demonstrating highly effective uplighting
Single lens for LED signal light
Variable spot size lenses and lighting systems

Publications

Larry Boxler "Optical design and lighting application of an LED-based sports lighting system", Proc. SPIE 8123, Eleventh International Conference on Solid State Lighting, 812303 (8 September 2011

Lawrence H. Boxler, Glen Brown, and Arthur B. Western "Practical use of reference mirror rotation in holographic interferometry", Proc. SPIE 1396, Applications of Optical Engineering: Proceedings of OE/Midwest '90, (1 March 1991)

Glen Brown, Lawrence H. Boxler, Patrick K. C. Chun, and Arthur B. Western "Study of human cardiac cycle using holographic interferometry", Proc. SPIE 1396, Applications of Optical Engineering: Proceedings of OE/Midwest '90, (1 March 1991)

Awards

Jean M. Bennett Award for Excellence in Applied Optics, outstanding Graduate or Undergraduate Optical Engineering Major

Professional Activities

Member of IES Discomfort Glare in Outdoor Nighttime Environment (DGONE) Technical Committee