

## 3D Textures

LucidShape 3D textures allow designers to model patterns of repeating structures on an optical surface to scatter light and produce a uniform lit appearance. This feature provides a high degree of control, speed, and flexibility to enhance a lighting system's performance. Designers can add up to one million elements on a surface. This feature is particularly useful for the design of signal lamps and projector headlamps.

## Surface Sensor Display Enhancements

It is often necessary to display surface sensor data such as illuminance on complex, multi-surface geometry. LucidShape CAA provides comprehensive solutions for designing complex sensor surfaces. This capability has been enhanced in this release with workflow updates:

- Support for Munsell color plots.
- Ability to display surface sensor data in grayscale to simulate human eye perception of light on the road during nighttime driving conditions.
- Preview button in sensor settings dialog box that instantly updates your 3D view.

## Advanced Analysis Enhancements

Upgrade your design process with LucidShape CAA Advanced Analysis to simplify workflows and improve interactive design troubleshooting. Latest features include:

- Analyze and compare lit appearance using bitmap images.
- Adjust UV range, add gradients, and perform automatic headlamp aiming with new preprocessing options.
- Evaluate headlight beam position using an aiming wall.
- Calculate the centroid of light distribution with new measurement tools.

## Z-Pole Intensity Sensor

Users can select the Z-Pole sensor as an additional option to display intensity distributions for Lambertian light sources. The Z-Pole sensor is particularly beneficial when the intensity data at the edges of the light distribution is more critical than the data at the center.

For more information, please contact Synopsys' Optical Solutions Group at (626) 795-9101, visit [www.synopsys.com/optical-solutions/lucidshape.html](http://www.synopsys.com/optical-solutions/lucidshape.html), or send an e-mail to [optics@synopsys.com](mailto:optics@synopsys.com).