Overview

A lighting development team was having difficulty creating a retroreflector part that followed the body design curvature. The team created exact textures in a CAD system, but this was time consuming and the results were unsatisfactory. The creation of a curved retroreflector caused all cells to have a different orientation.

The Challenge

The lighting development team needed to:

• Create a retroreflector on a curved 3D freeform surface. Explicit geometry creation was very time consuming
• Change cell types within the development process to find the best solution
• Verify the optical response required (testing)

The Solution

With LucidShape®, the team’s retroreflector design process became much easier:

• LucidShape’s FunGeo Retroreflector tool offers the right functionality for fast development, not only on planar faces, but also on 3D freeform design surfaces
• LucidShape provides automatic creation of the explicit geometry for several cell types
• LucidShape includes a ready-to-use regulation test application, with test tables for ECE and SAE regulations

As a result, the team’s design process was reduced to a few steps:

1. Import the design surfaces
2. Use the Retroreflector tool
3. Verify compliance of geometry with regulations

For more information, please contact Synopsys’ Optical Solutions Group at (626) 795-9101, visit synopsys.com/optical-solutions/lucidshape, or send an e-mail to lucidshapeinfo@synopsys.com.