

LucidShape Application: Switching Facets

Overview

A lighting engineer had problems meeting ECE regulations for a low-beam headlamp. The engineer changed the spread parameters of the reflector facets, but the changes were not visible in the light distribution view because each facet's spread light overlapped other spread lights. The engineer was unable to see the exact influence of a single facet when changing the parameter.

The Challenge

- Finding the best parameter for sufficient light distribution was very time consuming
- Light from all facets of the reflector overlapped

The Solution

- The LucidShape® MacroFocal reflector allowed user to switch facets on or off separately
- Individual contributions of parts of the reflector could be simulated and analyzed
- Groups of facets could be switched on and off to see their combined performance in the light pattern

As a result, the output simulation provided rapid information about the spread light of single facets. Each facet could be shaped to the right light spread to combine the entire pattern.

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.

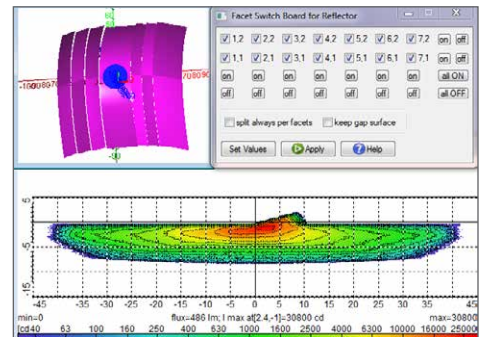


Figure 1: Light distribution of a low beam reflector. The reflector consists of 7x2 facets

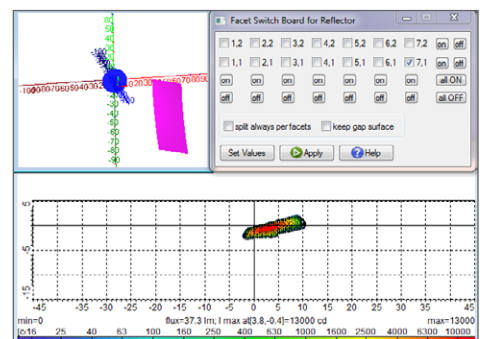


Figure 2: Light distribution of a single facet of a low beam reflector. With one facet simulation, the parameter changes are shown exactly