URN etd-0407109-183703-130
Author CHANG WEN SHENG
Author's Email Address No Public.
Statistics This thesis had been viewed 74 times. Download 0 times.
Department
Year 2006
Semester 1
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title A typical example of vehicle headlight design flow
Date of Defense 0000-00-00
Page Count 118

Keyword
curved surface design of the car light
curved surface amount of car light examining

Abstract
The design trends of the vehicle headlight are high luminace and molding appearance. Therefore different types of molding lamps are developed to meet the need of market. Besides both appearance and luminance, the safety of a headlight is a more important issue in the industry. So the evolution of headlight design has shifted from traditional parabolic reflectors to multi-reflectors and elliptical reflectors. As for light sources, the trend has led to the rapid development of HIDs and LEDs technology.
In the process of designing and manufacturing a complicated optical system, such as vehicle headlight, the issue of error margin has become increasingly important. Traditional trial-and-error practice, totally depending on personal experience, has led to nowhere in today's competitive headlight industry environment in Taiwan. Computer simulation has gained recognition by being accurate and swift in solving the design problems of headlight. In this work, Lucidshape used to cross-examine the design problem of multi-reflectors.
A CAD model of a multi-reflectors headlight, comprising bulb, lens, and speculum, is constructed in Lucidshape in the first part of thesis. Optical parameters of each element are set according to measurements. Comparisons between the simulation results of these two softwares are transact to evaluate their performance.
In the second part of thesis, a prototype of headlight is constructed by NC. Measurements are performed by LMT 1300. Comparisons between the simulation results and the measured data are carried out to evaluate the accuracy of Lucidshape.
Advisory Committee Jeng Feng Lin - advisor

Chih Chieh Kang - advisor

Files No Any Full Text File.
Date of Submission 2007-01-31