Hybrid diffractive/refractive optics simulator: method and device

Abstract
The invention relates to a system and to a method for characterizing, designing and/or modifying optical properties of hybrid diffractive/refractive lenses with no need of manufacturing such a lens.
- Useful to characterize, in optical bench, the diffractive profile independently and/or in combination of the refractive element.
- Useful to design new optical components and evaluate their properties before production.
- Useful to characterise an already manufactured hybrid optical component and to compare it with its original design.

Preferred applications: testing physically new diffractive intraocular lens designs: Extended focus, trifocal, bifocal, aberration compensation. Also applicable to diffractive contact lenses.

Innovative and advantages aspects
The hybrid diffractive/refractive optics simulator is a rapid, economical and low consumption system in optical bench. Unlike numerical simulation, the proposed system provides empirical results, which are closer to the final behaviour of an optical component. This versatile system permits to characterize a diffractive profile independently or in combination with a refractive element before production.