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Second edition  
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## **Optics and photonics — General optical test methods — Measurement of relative irradiance in the image field**

*Optique et photonique — Méthodes générales d'essai optique —  
Méthode de mesure de l'éclairement énergétique relatif dans le  
champ image*



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## Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 1, *Fundamental standards*.

This second edition cancels and replaces the first edition (ISO 13653:1996), which has been technically revised.

The main changes compared to the previous edition are as follows:

- A second option for measurement, which does not require a rotation of the specimen but allows to measure along an image diameter, has been included in [7.2.3](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

In every image projected by an optical or electro-optical system, the irradiance varies from the centre to the edge independently of the object structures. It generally decreases, i.e. even an object surface of uniform radiance will be imaged with an irradiance which decreases from the image centre to the edge. In special cases, it can, however, increase. In optical systems which are rotationally invariant, the variation will not always be rotationally invariant, for example if limiting apertures are not rotationally invariant.