



International
Standard

ISO 10110-11

**Optics and photonics — Preparation
of drawings for optical elements
and systems —**

**Part 11:
Non-toleranced data**

*Optique et photonique — Indications sur les dessins pour
éléments et systèmes optiques —*

Partie 11: Données non tolérancées

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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 document 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).

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

This third edition cancels and replaces the second edition (ISO 10110-11:2016), which has been technically revised.

The main changes are as follows:

- a) the default category “Clear aperture to part edge (mm),” which was in the second row of [Table 1](#), has been removed;
- b) more information is given in [4.2](#) and [Table 1](#) to clarify how to apply surface form defaults;
- c) homogeneity and striae defaults have been updated based on the creation of, and technical changes in ISO 10110-18;
- d) a footnote has been added to [Table 1](#) that defines the default for edge chips;
- e) [4.2](#) has been added and includes basic rules for using [Table 1](#);
- f) defaults for surface texture have been added to [Table 1](#);
- g) stress birefringence default tolerances for large optics have been changed to more commonly occurring values;
- h) the default for coatings is now explicitly defined as “uncoated”;
- i) the default for angular tolerances has been clarified;
- j) [4.4](#) has been added to summarize drawing specifications for which default (implicit) values are not given in this document.

A list of all parts in the ISO 10110 series can be found on the ISO website.

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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.

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Introduction

This document addresses cases in which information required to fabricate optical elements is not included on drawings. They present the default values for the standard (ISO 10110 series), which, in many cases, are dependent on the size of the optic. These defaults are intentionally chosen to be values deemed as loose fabrication requirements for industry. These values do not represent absolute limits, however, and can be made looser for given drawings and applications.

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