
Graphic technology — Requirements for printed matter for commercial and industrial production —

Part 1: Measurement methods and reporting schema

*Technologie graphique — Exigences relatives aux imprimés destinés à
la production commerciale et industrielle —*

Partie 1: Méthodes de mesure et schémas de rapport

ISO/TS 15311-1:2020

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

This third edition of cancels and replaces the second edition (ISO/TS 15311-1:2019), which has been technically revised.

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

- the following new subclauses have been added:
 - [4.3.2.8](#), Computing and analysing colour gamut
 - [4.3.5.3](#), Indoor light stability (display window)
 - [4.3.6.2](#), Contouring
 - [4.3.4.8](#), Perceived resolution
 - [4.3.3.8](#), Macroscopic uniformity
- [4.3.5.2](#), Indoor light stability (home and office display) has been modified.

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.

Introduction

When producing a colour reproduction, it is important that the persons responsible for data creation, colour separation, proofing and printing operations have previously agreed a minimum set of parameters that define the visual characteristics and other technical properties of the planned print product. This document identifies a number of metrics that can be applied to printed sheets and that can be used as the basis for such communication. The range of metrics is large, and it is not intended that all of these metrics are to be applied to any given printed product and for any given application. The range of metrics is to be carefully selected, for example based on subsequent parts of ISO/TS 15311.

The metrics described by this document can be applied to any type of print. They are likely most often to be applied to digitally printed prints.

When selecting the set of metrics, only those metrics that have a clear specification and that correlate well with human perception are included in this document. Since this is an area of significant research activity, new metrics are expected to emerge and existing metrics to be revised in the next few years. For this reason, we anticipate the need to revise this document within a very short time scale as new metrics are tested and found to be reliable.

Additional tests to those specified in this document, for example visual assessment of smoothness, images and other elements may be required when assessing print quality.

As with any parameter that is used as part of a product specification, it is important for readers to understand clearly what the metric means. For this reason, a reporting schema is to be followed when reporting measurements in conformance with this document.

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