



BSI Standards Publication

Photography — Photographic reflection prints

Part 2: Evaluation of colour variation in printing

National foreword

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Foreword

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This document was prepared by Technical Committee ISO/TC 42, *Photography*.

A list of all parts in the ISO 20791 series can be found on the ISO website.

Introduction

In photographic reflection colour prints, density and colour are essential quality attributes of an image. However, the density and colour of prints can fluctuate during repeated continuous printing or vary between two printings done at different times or days, even if the same input data and printer settings are used. This is a critical issue, particularly in the following cases:

- a) When the same photographic image is reprinted to make an extra copy and there is obvious difference in density and colour between the original and the reprint when they are compared side by side, the customer might be dissatisfied with this difference.
- b) When a photo book is produced by binding up photographic prints into different pages in a book, and the difference in the density and colour between adjacent pages is easily noticeable, this difference might be considered unsatisfactory by the customer.
- c) When a customer and a print shop agree to the image quality of prints based on a sample or a proof print, and the difference between the proof sample and the actual prints is discernible, this might lead to customer dissatisfaction.

Moreover, colour management for high quality printing is attainable only with a stable printing system. If the colour and density of the actual print differ from that of the designated proof print or sample used as the basis for the colour management, the quality of the actual print may be different from the desired image quality.

To improve the reproducibility of printing, or to select the appropriate printing system, the evaluation of colour variation in printing is crucial. Although the evaluation of colour variation in graphic printing is described in [ISO/TS 15311-1](#), standardized evaluation methods and procedures for quantifying colour variation specific to photographic prints are also necessary.

- test target design for the print ranging from a small size to large size;
- sampling procedures (within a job and between jobs);
- measurements and evaluation of colour variation and
- reporting (evaluation results, parameter and mode of printing).

The objective of this document is to provide standard procedures to evaluate colour variation in photographic printing.