
**Photography — Transmission and
reflection densitometers — Method for
determining performance**

*Photographie — Densitomètres à transmission et à réflexion — Méthode
pour la détermination de la performance*

Sample Document

get full document from standards.iteh.ai



Reference number
ISO 14807:2001(E)

© ISO 2001

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

Sample Document

get full document from standards.iteh.ai

© ISO 2001

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Sampling and handling	5
5 Determination of performance	5
5.1 General.....	5
5.2 Repeatability determination.....	5
5.3 Stability determination	6
5.3.1 8 h stability determination	6
5.3.2 7 day stability determination	6
5.4 Bias estimate determination.....	7
6 Reporting (individual instrument performance).....	8
6.1 General.....	8
6.2 Repeatability reporting.....	8
6.3 Stability reporting	9
6.4 Bias estimate reporting.....	9
7 Reporting (performance specifications)	10
Bibliography	11

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14807 was prepared by Technical Committee ISO/TC 42, *Photography*.

Sample Document

get full document from standards.iteh.ai

Introduction

Over the past few years, the subject of densitometer performance specifications has been discussed at length, with the observation made that the densitometer customer is met with a plethora of claims and specifications, in a variety of formats, pertaining to densitometer performance. Furthermore, various manufacturers have often used different terminology for describing what is speculated to be the same characteristic. With this in mind, this International Standard was developed and it identifies three characteristics of performance: ISO repeatability, ISO stability and ISO bias estimate. Standardized methods for evaluating these characteristics are presented herein. Any or all three of these characteristics can be evaluated and used to describe the performance of an individual densitometer and will be useful in comparisons of the performance of densitometers.

The first two of these characteristics, ISO repeatability and ISO stability, are evaluated in such a way that, by use of suitable periodic sampling of production, a densitometer manufacturer can report average or typical repeatability and stability as specifications for a particular class, type or model of densitometer. However, ISO bias estimate cannot necessarily be meaningfully averaged over such a class, type or model, since by determining a mean bias estimate, any instruments that are biased positively will be offset by any that are biased negatively. Because of this, bias estimate for a class, type or model of densitometer (if determined as a simple arithmetic mean of the bias estimates determined for individuals of that class, type or model) is of limited (if any) value and should not be reported. If determined as such an arithmetic mean, it may only be meaningful if that entire class, type or model is fraught with a systematic design defect. There is currently no agreement as to the most meaningful way to provide an ISO bias estimate for a class, type or model of densitometer.

The standardized methods for determination of ISO repeatability and ISO stability provide manufacturers with a uniform basis for stating densitometer performance characteristics as specifications, thereby providing the customer with the most useful information.

To clarify and provide mutual understanding, a list of definitions applicable to the performance characteristics has been provided.