International Standard

ISO 7921

First edition
2024-02

Ophthalmic optics and instruments — Near reading charts

Optique et instruments ophtalmiques — Tableaux d'optotypes utilisés pour la mesure de l'acuité de lecture en vision de près

Reference number
ISO 7921:2024(en)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword

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This document was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

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

This document provides the terms, definitions, and requirements for standardized charts for the assessment of near reading acuity. Reading is a complex visual task that involves more than the mere identification or recognition of individual letters, symbols, or other optotypes. The charts used to assess near reading acuity are intended for the practical purpose of demonstrating whether or not a patient can read sentences or paragraphs of text of a particular size. This document is not meant to replace or supplant standards for visual acuity charts for research or for basic clinical assessments, such as visual acuity measurements before and after cataract surgery.

A patient's reading ability can be labelled using terms such as "difficult" or "easy", or "with errors" or "fluent" or "error-free". Proper assessment of reading ability requires the use of text that is appropriate for the patient, for example, based on the patient's age or educational level. However, the actual determination of a patient's near reading acuity based on these and possibly other factors involves clinical evaluation that is beyond the scope of this document.

This document bases the nominal near reading acuity grade on values given as the logarithm of reading acuity determination (logRAD). LogRAD is similar to the logarithm of minimum angle of resolution (logMAR), used in standard visual acuity testing, in that both are based on the angular size of the test target at a particular viewing distance. However, logRAD specifically depends on the height of lowercase letters, which occur more frequently than uppercase letters, numbers, and symbols in typical text. On the other hand, logMAR is determined by the width of an individual line or the size of a gap. For ease of clinical application, equivalent near reading acuity grades are provided for several common recording notations, including decimal reading acuity, M size, N size, and reduced Snellen fractions.

This document allows for the use of any typeface that is similar in appearance to either of two common typefaces: Times New Roman, a typeface with serifs, which is widely used for printed text; and Helvetica, a sans serif typeface, which is commonly used for both printed charts and electronic displays, such as computer monitors, laptops, and smartphones.

This document applies to the Latin alphabet. It can also apply to similar alphabets, such as Greek and Cyrillic, that can be expressed with typefaces similar to Times New Roman or Helvetica. For other writing systems, such as Arabic, Chinese, Hebrew, Japanese, and Korean, this document can be used as a reference, especially for researchers who wish to demonstrate equivalence of near reading charts using those writing systems with charts using the Latin alphabet.