PD ISO/TR 20278:2015

BSI Standards Publication

Unwanted reflections from the active and inactive areas of display surfaces visible during use

bsi.

...making excellence a habit.™

National foreword

This Published Document is the UK implementation of ISO/TR 20278:2015.

The UK participation in its preparation was entrusted to Technical Committee PH/9, Applied ergonomics.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

ISBN 978 0 580 91824 7

ICS 13.180; 35.180

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 December 2015.

Amendments issued since publication

Date	Text affected

PD ISO/TR 20278:2015

TECHNICAL REPORT

ISO/TR 20278

First edition
2015-12-01

Unwanted reflections from the active and inactive areas of display surfaces visible during use

Réflexions non désirées des zones actives et inactives des surfaces de l'écran visibles durant l'utilisation

Reference number
ISO/TR 20278:2015(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

Unwanted reflections from the active and inactive areas of display surfaces visible during use

1 Scope

This Technical Report provides users a summary of the existing knowledge about ergonomics requirements for unwanted reflections on electronic displays. The document furthermore provides some guidance on specification of unwanted reflections.

NOTE ISO 9241 contains normative requirements related to unwanted reflections. It is possible that the information contained in this Technical Report will be used for a future update of ISO 9241.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
asthenopia
weakness or tiring of the eyes accompanied by pain, headache, and dim vision

Note 1 to entry: Symptoms include pain in or around the eyes; headache, usually aggravated by using the eyes for close work; fatigue; vertigo; and reflex symptoms such as nausea, twitching of facial muscles, or migraine.

[SOURCE: Taber's Medical Dictionary]

2.2
disability glare
glare that impairs the vision of objects without necessarily causing discomfort

2.3
direct glare
glare caused by self-luminous objects located in the visual field, especially near the line of sight

2.4
discomfort glare
glare that causes discomfort without necessarily impairing the vision of objects

2.5
glare
condition of vision in which there is discomfort or a reduction in the ability to see details or objects, caused by an unsuitable distribution or range of luminance, or by extreme contrasts

2.6
glare by reflection
glare produced by reflections, particularly when the reflected images appear in the same or nearly the same direction as the object viewed

2.7
gloss (of a surface)
mode of appearance by which reflected highlights of light sources of objects are perceived as superimposed on the surface due to the directionally selective properties of that surface

2.8
glossmeter
instrument for measuring the various photometric properties of a surface giving rise to gloss

