

ISO 14096-1:2026-09 (E)

Non-destructive testing - Qualification of radiographic film digitisation systems - Part 1: Definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control

Contents

Page

Foreword.....	iv
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Symbols and abbreviated terms.....	4
5 Evaluation procedures.....	5
5.1 Evaluation of the characteristic transfer curve, density range, pixel size and density contrast sensitivity.....	5
5.1.1 Stepped density target.....	5
5.1.2 Characteristic transfer curve (CTC).....	5
5.1.3 Density range (D_R).....	6
5.1.4 Pixel size (P).....	6
5.1.5 Density contrast sensitivity (ΔD_{CS}).....	6
5.2 Evaluation of the spatial frequency maximum value, digitiser unsharpness, basic spatial resolution of the digitiser and modulation transfer function.....	8
5.2.1 General.....	8
5.2.2 Spatial frequency maximum value (f_C).....	8
5.2.3 Digitiser unsharpness (U_D).....	8
5.2.4 Determination of the modulation transfer function (MTF).....	8
5.2.5 Determination of the basic spatial resolution (SR_b^D) of the digitiser.....	8
5.3 Other evaluations.....	9
5.3.1 Blooming or flare.....	9
5.3.2 Digitisation artefacts.....	9
5.3.3 Geometric distortions.....	9
6 Presentation of results.....	9
7 Qualitative control and long-term stability of the digitisation system.....	11
7.1 Normal check.....	11
7.2 Extended check.....	12
7.3 Test periods and long-term stability.....	12
Annex A (informative) MTF calculation.....	13
Annex B (normative) Standard reference film.....	15
Bibliography.....	18