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**Information technology — Advanced
image coding and evaluation —**

**Part 2:
Evaluation procedure for nearly
lossless coding**

**AMENDMENT 1: Evaluation procedure
parameters for nearly lossless coding
of high dynamic range media and image
sequences**



Reference number
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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

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Information technology — Advanced image coding and evaluation —

Part 2: Evaluation procedure for nearly lossless coding

AMENDMENT 1: Evaluation procedure parameters for nearly lossless coding of high dynamic range media and image sequences

Introduction

Replace the text with:

This document normalizes evaluation and grading of a light coding system used for displays and display systems but is independent of the display technology. The procedure measures whether an observer can distinguish between an uncompressed reference and the reconstructed image or image sequence to a pre-determined, statistically meaningful level.

The procedure compares individual images or image sequences with two possible forced choice comparison test methods. The procedure relies on subjective evaluation methods designed to discern coding imperfections on electronic colour displays of any technology or size.

Selections for testing a specific coding system has bearing on the results this procedure will yield, but specific images or image sequences required for testing are not within scope, excluding an informative annex describing self-test certification. Content categories may vary between end-usage products. For example, content relevant to television manufacturers may or may not be relevant to computer display manufacturers. Due to the nature of this procedure as a visual psychophysical test, the observer's age is considered a meaningful parameter of the results.

Clause 3

After 3.18 add 3.19 to 3.23:

3.19 high dynamic range

image or image sequence format range conveying a larger range of perceptible shadow and highlight detail than in a standard dynamic range image or image sequence, with sufficient precision and sufficient separation of diffuse white and specular highlights

3.20 image sequence

plurality of images, either reference images or reconstructed test images, shown in progression

3.21 sensory feedback

audial, visual or haptic signal indicating the correctness of an observer's response

3.22

standard dynamic range

image or image sequence format conveying typical colour volume and rendering characteristics similar to those specified in Recommendations ITU-R BT.709 or ITU-R BT.1886 or IEC 61966-2-1 (sRGB)

3.23

wide colour gamut

image or image sequence format rendered a colour range larger than standard dynamic range systems, typically >75 % of the human visible spectrum

Clause 4

After AQL, add:

EOTF electro-optical transfer function

HDR high dynamic range

After RGB, add:

SDR standard dynamic range

WCG wide colour gamut

Subclause 5.1

Add a new row at the end of Table 1:

Annex H	forced choice paradigm with image sequences (no interleaving)	side-by-side, cropped image sequence comparison
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Subclause 5.2

Add a new paragraph at the end of 5.2:

Media mastered in high dynamic range should be processed following guidance in Annex G. If an HDR display capable of rendering the media colour and brightness is available, experimenters should opt for the procedure in an HDR display hardware processed workflow, see G.5. If an appropriate HDR display is not available, this document provides an HDR software processed workflow that is display-independent, see G.4.

Subclause 5.3.3

Replace list item a) with:

a) Explain the use of the software to record image or image sequence assessments.

Replace list item e) with:

e) Explain if sensory feedback is provided (see 5.9), and which signal is correct or incorrect.

Subclause 5.3.4

Replace list item a) with: