

ISO/TS 22028-5:2023-06 (E)

Photography and graphic technology - Extended colour encodings for digital image storage, manipulation and interchange - Part 5: High dynamic range and wide colour gamut encoding for still images (HDR/WCG)

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms, definitions and acronyms	1
4 Requirements	4
4.1 General introduction.....	4
4.2 Colour image encoding.....	4
4.2.1 General.....	4
4.2.2 Colour primaries and white point.....	4
4.2.3 Baseline colour encoding.....	5
4.3 Transfer functions.....	7
4.3.1 General.....	7
4.3.2 Hybrid Log-Gamma (HLG) system.....	7
4.3.3 Perceptual quantizer (PQ) system.....	7
4.4 Reference viewing environment.....	8
4.5 Reference display.....	8
4.5.1 General.....	8
4.5.2 Default reference display colour primaries.....	8
4.5.3 Default nominal peak luminance.....	9
4.5.4 Default black point.....	9
4.5.5 Default nominal diffuse white luminance.....	9
4.6 Metadata.....	9
4.6.1 General.....	9
4.6.2 Coding-independent code points for video signal type identification: CICP metadata.....	9
4.6.3 Reference environment metadata.....	10
4.6.4 Colour volume metadata.....	10
4.6.5 Diffuse white luminance metadata.....	11
4.6.6 Scene-referred metadata.....	11
5 Colour mapping	11
5.1 General.....	11
5.2 Colour conversions.....	11
Annex A (normative) Extended HDR/WCG colour encoding	13
Annex B (informative) ITU-R transfer functions	14
Annex C (informative) HDR signalling	15
Annex D (informative) Workflows for the different transfer functions	16
Annex E (informative) Image states and linear light colorimetric interpretations	18
Annex F (informative) Display tone mapping	20
Bibliography	21