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Nota di contenuto	Colour Reproduction in Electronic Imaging Systems; Contents; Preface; Acknowledgements; About the Companion Website; Introductions; The Book; The Colour Reproduction Workbook; Part 1 Colour - Perception, Characteristics and Definition; Introduction; 1 The Perception of Colour; 1.1 Introduction; 1.2 Setting the Scene; 1.2.1 The Historic Developments Leading to an Understanding of Colour Perception; 1.2.2 Surface Colours; 1.3 Characterising the Responses of the Eye to Light; 1.4 The Three Characteristics of the Eye Relevant to Reproduction 1.5 The Quantitative Response or Tonal Range of the Eye1.6 The Qualitative Response of the Eye; 2 Mapping, Mixing and Categorising Colours; 2.1 Primary Colours; 2.1.1 Additive Primaries; 2.1.2 Subtractive Primaries; 2.1.3 The Non-Primaries; 2.1.4 Primaries in Reproduction; 2.2 Colour Mixing; 2.2.1 Grassmans Law; 2.3 Colour in Three Dimensions; 2.3.1 The Simple Three-Dimensional Colour Space; 2.3.2 The Lightness Axis; 2.3.3 The Tone Scale; 2.4 Colour Terminology; 2.5 Categorising Colours; 2.5.1 The Munsell Colour System; 2.6 The Effects of Illumination on the Perception of Colour

Part 2 The Measurement and Generation of Colour Introduction; 3 A Practical Approach to the Measurement of Colour; 3.1 The Fundamentals of Colour Measurement; 3.1.1 Establishing a Method for the Measurement of Colour; 3.2 Colour Matching Functions; 3.2.1 Selecting the Primaries; 3.2.2 The Colorimeter for Deriving the Colour Matching Functions; 3.2.3 The Observers; 3.2.4 Matching the Spectrum; 3.2.5 Observer Results; 3.3 Measuring Colour with the CMFs; 3.4 Chromaticity Diagrams; 3.4.1 Reducing Colour to a Two-Dimensional Quantity; 3.4.2 Three Steps to Producing a Chromaticity Diagram 3.4.3 Characteristics of the Chromaticity Diagram 3.4.4 Plotting Colours on the Chromaticity Diagram; 4 Colour Measurement Standardisation - The CIE System of Colour Measurement; 4.1 Limitations of the Fundamental Approach to Colour Measurement; 4.2 The CIE; 4.3 The CIE 1931 Standard Observer; 4.4 The CIE 1931 X, Y, Z System of Colour Measurement; 4.4.1 Ensuring that One Primary Carries All the Luminance Information; 4.4.2 Transforming the R,G,B Diagram to the X, Y, Z Diagram; 4.4.3 The Transformation Process; 4.4.4 The X,Y,Z CMFs; 4.4.5 The 1931 CIE Chromaticity Diagram 4.4.6 Colour Measurement Using the  $x(\lambda)$ ,  $y(\lambda)$ ,  $z(\lambda)$  CMFs 4.5 Transforming the CIE X, Y, Z Parameters to Perceptually Related Parameters; 4.6 The CIE 1976 UCS Diagram; 4.6.1 Subjective Limitations of the CIE 1931 Chromaticity Diagram; 4.6.2 The UCS Diagram; 4.6.3 Comparing the Two CIE Chromaticity Diagrams; 4.7 The CIE 1976 ( $L^*$ ,  $u^*$ ,  $v^*$ ) Colour Space; 4.7.1 Establishing a Perceptively Uniform Colour Space; 4.7.2 Specifying the Lightness Characteristic; 4.7.3 Constructing the Perceptibly Uniform Colour Space; 4.7.4 Measuring Colour Difference 4.8 Surface Colours within the LUV Colour Space

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