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(54) Title: BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION

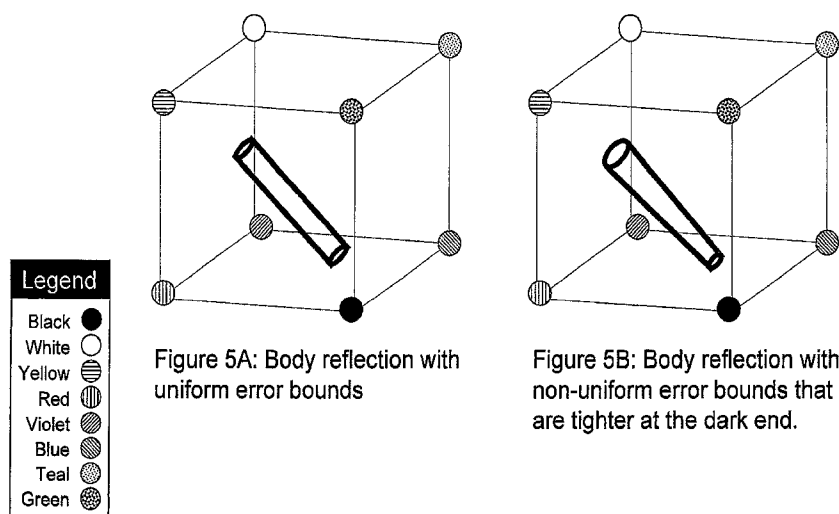


Figure 5A, 5B: Representation of Body Reflection with Noise

(57) **Abstract:** In a first exemplary embodiment of the present invention, an automated, computerized method for manipulating an image comprises the steps of manipulating the image to provide an intensity adjusted image, deriving a bi-illuminant dichromatic reflection model representation of the image and utilizing the bi-illuminant dichromatic reflection model representation to manipulate the intensity adjusted image to generate a color correct intensity adjusted image. In a preferred embodiment of the present invention, the step of manipulating the image to provide an intensity adjusted image is carried out by executing a gamma correction method.



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A. CLASSIFICATION OF SUBJECT MATTER

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USPC - 345/426

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 345/619; 382/274, 276 (text search)Electronic data base consulted during the international search (name of data base and; where practicable, search terms used)
WEST(USPT,PGPB,EPAB,JPAB); DialogPRO(Engineering); Google Search terms: dichromatic reflection BIDR adjust determine detect remove correct linearize dark shadow occlusion occluded intensity luminous illumination bright gamma color hue RGB spectral dark bright ratio cylinder space gamma

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 2006/0018539 A1 (SATO et al.) 26 January 2006 (26.01.2006), para [0014], [0015], [0095]-[0127], [0139]-[0143], [0148]-[0158], [0171]-[0173], [0195]-[0201], [0216], [0232]-[0234], [02241]-[0247], [0294], [0336].	1-23 and 26-33 ----- 24-25
Y	US 2002/0176023 A1 (HOFFLINGER et al.) 28 November 2002 (28.11.2002), fig 3; para [0059], [0062], [0063], [0069], [0075].	24-25
A	US 2002/0080148 A1 (UCHINO) 27 June 2002 (27.06.2002), para [0012], [0043], [0082], [0106], [0107], [0109].	1, 10, 18, 23, 26 and 32
A	US 2005/0117045 A1 (ABDELLATIF et al.) 02 June 2005 (02.06.2005), fig 36; para [0024], [0139], [0151], [0170].	1, 10, 18, 23, 26 and 32

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