

26TH SESSION OF THE CIE BEIJING - 4 JULY - 11 JULY 2007

PROCEEDINGS Volume 1 Part 2



CIE 178:2007

ISBN 978 3 901 906 59 6

© CIE 2007 - All rights reserved

CIE Central Bureau
Kegelgasse 27
A-1030 Vienna
Austria
Tel.: +43 1 714 3187 0
Fax: +43 1 714 3187 18
e-mail: ciecb@cie.co.at
Web: www.cie.co.at

CONTENTS

VOLUME 1 Part 1

	Page
Objectives of the CIE	III
CIE-CHINA Organizing Committee	V
Contents	VII
List of CIE Administrative Bodies	XXII
Divisions and Technical Committees	XXIII
Current CIE Publications	XXXV
Session Programme	XXXIX
Posters Programme	XLV

PAPERS:

Author	Title	Paper No.	Page
Invited Papers			
Sagawa, K.	Vision of the Elderly and visually impaired - For accessible Design in Light and Lighting -	Inv-1	I-2
Schanda, J.	One Hundred years of solid state electroluminescence – a challenge for the CIE	Inv-2 [▲]	I-11
Zhan, Q. et al.	A brighter China and a more colorful life	Inv-3	I-20
Division 1 Presented Papers			
Szabó, F. et al.	Visual experiments on colour harmony: a formula and a rendering index	2A-P1	D1-2
Yaguchi, H. et al.	Relation between elementary color scaling and the perceptive attributes specified with ciecam02	2A-P2	D1-6
Coppel, L. et al.	Whiteness assessment of paper samples at the vicinity of the upper CIE whiteness limit	2A-P3	D1-10
Li, C. et al.	A new method for quantifying colour rendering	2A-P4	D1-14
Szabó, F. et al.	A comparative study of new solid state light sources	2A-P5	D1-18
Françoise, V. et al.	Grading LED illumination : from colour rendering indices to specific light quality indices	2A-P6 [▲]	D1-22
Van der Burg, P.J.M., van Kemenade J.T.C.	About colour rendition of light sources. The balance between simplicity and accuracy.	2A-P7 [▲]	D1-26
Boissard, S. et al.	Optimisation of mixing of LED-based light for object presentation	2A-P8	D1-30
Pasi, O. et al.	Mesopic spectral sensitivity and related CIE standardisation work	3A-P1	D1-34
Sabine, R., Martin, L.	Models of mesopic photometry applied to the contrast threshold of peripheral and foveal objects	3A-P2	D1-38

Note: * full paper has not been received. [▲] the extended or revised paper is included in Volume II

Author	Title	Paper No.	Page
Goodman, T., Forbes, A.	A performance-based model for mesopic photometry	3A-P3	D1-42*
Chen,Z. et al.	Maximum Spectral Luminous Efficacy under Mesopic Conditions and Application	3A-P4	D1-43
Wang, X., Lian, Y.	Prediction of chinese color system appearance scales using various color appearance models	3A-P5	D1-47*
Kim,Y.J. et al.	Measurement of Perceived Brightness and Contrast Sensitivity for outdoor condition	3A-P6	D1-48
Itoh,N. et al.	Visual property of people with low vision (1): Span of color similarity	3A-P7	D1-52
Fekete, J. et al.	Optimizing spectral power distribution of car headlamp lighting	3A-P8	D1-56

Division 1 Presented Posters

Masako,S. et al.	Visual perceiving experiment on color rendering of white leds	PO-101	D1-62
Zhang,S. et al.	Application Threshold Brightness Contrast Experiments of Human Eyes for Study on the Visibility	PO-102 [▲]	D1-66
Komatsubara, H.	New color-difference formula based on uniform color-difference space	PO-103	D1-70*
Khanh, T.Q.	On some latest visual experiments on the color rendering issues of light sources and the correlation with the color difference according ciede2000	PO-104	D1-71*
Schanda,J.,Madár,G.	Light source quality assessment	PO-105	D1-72
Yao,J. et al.	Contrast sensitivity under different surround luminance	PO-106	D1-76
Takahashi,H. et al.	Discomfort glare and annoyance caused by white Led lamp	PO-107	D1-80
Wang,X. et al.	Uniformity research on cie1931 chromaticity diagram	PO-108	D1-84*
JAÉN, M., KIRSCHBAUM, C.	Lighting Temporal Modulation and Visual Performance	PO-109	D1-85
O'Donnell, B.M., Colombo, E.M.	The influence of color in visual performance model measured as reaction times	PO-110	D1-89
Wang,J.	Three attributes uniform color space in a new color-difference software	PO-111	D1-93
Hirschler,R., Oliveira,D.F.	Evaluation and classification of daylight simulators – problems and recommendations	PO-112	D1-97
Sik Lányi,C. et al.	Virtual world – “a brave new world”, but what kind of colours are used in these virtual environments?	PO-113	D1-99
He, G., Zhou, M.	Colorimetric color matching based on new two-constant theory	PO-114	D1-103
Itoh,N. et al.	Visual property of people with low vision (2): contrast sensitivity function	PO-115	D1-107
Fotios, S., Houser, K.	Research of Lamp SPD Effects on the Perception of Interior Spaces: The Current State of Knowledge	PO-116	D1-111
Hu.Y. et al.	Mesopic luminous efficiency functions based on reaction time experiments	PO-117	D1-115*

Note: * full paper has not been received. [▲] the extended or revised paper is included in Volume II

Author	Title	Paper No.	Page
Richter,K.	Colorimetric model of logarithmic colour spaces lmslab	PO-118 [▲]	D1-117
KIM,D.	Mathematical transformation of ncs notations to ciela b coordinates in d65/10° illuminant/observer condition	PO-119	D1-121*
WU, B. et al.	Research of the Influence of Neutral Background on Color Appearance	PO-120	D1-122
Naoya,H., Yuya,K.	Influence of color vision difference on readability and equivalent luminance contrast of chromatic documents	PO-121	D1-126
Cook, G. K. et al.	Innovation in light reflectance value – measurement and application	PO-122	D1-130
Beke, L., Bodrogi,P.	Spatiotemporal characteristics of the afterimage process	PO-123	D1-134
Beke,L. et al.	Color image preference to aged and young observers	PO-124	D1-138
Ma, J. et al.	A primary research on quantification of chromatic light preference in landscape illumination	PO-125	D1-142
Koichi,I., Masaharu,N.	Prediction of colour differences in uniform Colour spaces and colour appearance models	PO-126	D1-146
Hideki,Y., Hiroyuki,S.	Evaluation of space brightness based on the border luminance of color appearance mode	PO-127	D1-150
Koichi,I., keiichi,S.	Colour rendering properties of light emitting diode and fluorescent lamp	PO-128	D1-154
Takatoshi,M., Hiroyuki S.	Judging Color Appearance Mode of a stimulus with short duration	PO-129	D1-158
Li,C. et al.	Evaluation of LED Sources Based on Colour Appearance Data	PO-130	D1-162
Chiara,A. et al.	A skylight simulator for assessing cockpit display and ambient visibility for day time and night time conditions	PO-131 [▲]	D1-166
Yoko,I. et al.	Adaptation luminance of the complex luminance distribution:directionality and additivity of the adaptation luminance increase	PO-132	D1-170
Da Pos, O., et al.	Lightness constancy with 3d objects of different shape and reflectance	PO-133	D1-174
ISHIDA, T. et al.	Psychological Evaluation of Lighting with a Wide Range of Color Temperatures and Illuminances	PO-134	D1-178
Division 2 Presented Papers			
Mou, T. et al.	Luminance contrast measurement of Fpds under daylight ambient condition	1A-P1	D2-2
Ikonen, E. et al.	Modeling distance dependence of LED illuminance	1A-P2	D2-6
Nägele,T.	Spectroradiometric measurements of pulsed high power leds	1A-P3	D2-10
OHNO, Y, MILLER,C.	Measurement of Solid-State-Lighting Products	1A-P4	D2-14
Qian, W. et al.	Total luminous flux measurement of leds using an integrating sphere with an external standard source	1A-P5 [▲]	D2-18
Pan, J. et al.	Uncertainties in the Led luminous flux measurement using integrating sphere	1A-P6	D2-20
BOULENGUEZ,P. et al.	On luminaire's near field photometry measurement	1A-P7 [▲]	D2-24
Zhang, J.	Luminaire photometry for temperature-sensitive light sources	1A-P8	D2-28

Note: * full paper has not been received. [▲] the extended or revised paper is included in Volume II

Author	Title	Paper No.	Page
Meena D. Lysko	An approach for determining the responsivity of peak irradiance pulse detectors	1A-P9 [▲]	D2-32
Zong, Y. et al.	Correction of stray light in spectroradiometers and imaging Instruments	1A-P10	D2-33
Park, S. et al.	Calculation of spatial response distribution function of an integrating sphere for LED total luminous flux measurement using a commercial Monte-Carlo ray-tracing simulator	1A-P11	D2-37
SHITOMI, H., SAITO, I.	Extending the calibration range of the NMIJ spectral diffuse reflectance standard with respect to the wavelength and reflectance level	1A-P13	D2-41
Goodman, T., Montgomery, R.	Measurement of naturalness	1A-P14	D2-45*
Pons, A. et al.	Reflectance changes in white reflectance standards measured in different instruments with 0/d geometry	1A-P15	D2-46
Rastello, M.L.	Surface color measurements by active vision systems	1A-P16	D2-50

Division 2 Presented Posters

Marx, P.	A new digital illuminance- meter with a special luminance –tubeadapter for universal applications in lighting engineering	PO-201 [▲]	D2-56
Kohmoto, K.	Considerations on measurement of led radiance and luminance	PO-202	D2-60
Makai, J.P. et al.	Surface topography of Large area mirror-like surfaces by the Makyoh (magic mirror) method	PO-203	D2-62
Vladimir, K., Konstantin, T.	Measuring of color and effective values by means of integral and spectrophotometric method	PO-204	D2-66
Alonso, A. P. et al.	Reflectance values of plaster board in the uv, vis and near ir	PO-205	D2-70*
Dariusz, S.	The Area Light Source Modeling for Determining the Light Point Figure Using Ray Tracing Method	PO-206	D2-71
Pan, J. et al.	Research on the detector-based high stable color tunable LED standard source	PO-207	D2-75
Mou, T. et al.	The apparent sources determination for leds	PO-208	D2-79
Gan, X. et al.	Standardisation of calibration of broadband uv radiometers	PO-209	D2-83
Alexey, K.	The Light-tube Method for Lighting Calculations in a Near Field	PO-210	D2-85
Jaén, M. et al.	Temporal modulation meter to assess lit environments	PO-211	D2-89
BASTIE, J.	Measurements and units for photobiological and photochemical quantities	PO-212	D2-93
Zhou, J. et al.	Synthesis and luminescent properties of oxyfluoride yof:eu ³⁺ phosphors	PO-213	D2-97
Eppeldauer, G. P. et al.	New photometer standards for low uncertainty illuminance scale realization	PO-214	D2-99

Note: * full paper has not been received. [▲] the extended or revised paper is included in Volume II