LEDs for General Illumination: The State of the Science

DOI: 10.1582/leukos.2006.03.02.003
LEUKOS - Journal of Illuminating Engineering Society of North America, 2006, 3, 121-142.

#	Paper	IF	Citations
34	Solid-State Lighting: An Integrated Human Factors, Technology, and Economic Perspective. *Proceedings of the IEEE*, **2010**, 98, 1162-1179	14.3	104
33	Chromatic effects of metamers of D65 on art paintings. *Ophthalmic and Physiological Optics*, **2010**, 30, 632-7	4.1	7
32	Psychophysical optimization of lighting spectra for naturalness, preference, and chromatic diversity. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2012**, 29, A144-52	1.8	12
31	Differential evolution for the optimisation of multi-band white LED light sources. *Lighting Research and Technology*, **2012**, 44, 224-237	2	13
30	Best lighting for naturalness and preference. *Journal of Vision*, **2013**, 13, 4	0.4	16
29	Development of Dynamic Light Controller for Variable CCT White LED Light Source. *LEUKOS - Journal of Illuminating Engineering Society of North America*, **2015**, 11, 209-222	3.5	8
28	History of Light Sources. **2017**, 3-40		0
27	Development and Performance Assessment of White LED Dimmer. *Journal of the Institution of Engineers (India): Series B*, **2017**, 98, 461-466	0.9	1
26	Appropriate indices for color rendition and their recommended values for UHDTV production using white LED lighting. *Optics Express*, **2017**, 25, 15010-15027	3.3	2
25	Optimizing spectral compositions of multichannel LED light sources by IES color fidelity index and luminous efficacy of radiation. *Applied Optics*, **2017**, 56, 1962-1971	0.2	25
24	Evaluation of a light controller for a LED-based dynamic light source. *Lighting Research and Technology*, **2018**, 50, 571-582	2	3
23	Four-component, white LED with good colour quality and minimum damage to traditional Chinese paintings. *Lighting Research and Technology*, **2019**, 51, 1077-1091	2	1
22	A Low-Cost, Wide-Range, CCT-Tunable, Variable-Illuminance LED Lighting System. *LEUKOS - Journal of Illuminating Engineering Society of North America*, **2020**, 16, 157-176	3.5	5
21	Evaluation of a daylight-responsive, iterative, closed-loop light control scheme. *Lighting Research and Technology*, **2020**, 52, 257-273	2	4
20	Peak wavelength selection of chips for three-chip LED light sources with high color fidelity. *Optik*, **2020**, 224, 165725	2.5	4
19	Spectral damage model for lighting paper and silk in museum. *Journal of Cultural Heritage*, **2020**, 45, 249-253	2.9	4
18	Estimation of daylight availability in Kolkata and approximation of indoor daylight levels for different daylighting methods. *International Journal of Sustainable Energy*, 1-29	2.7	1

17	Tutorial: Background and Guidance for Using the ANSI/IES TM-30 Method for Evaluating Light Source Color Rendition. *LEUKOS - Journal of Illuminating Engineering Society of North America*, 1-41	3.5	5
16	LED Luminaires: Many Chips, Many Photometric and Lighting Simulation Issues to Solve. *Energies*, **2021**, 14, 4646	3.1	2
15	Optimal substrate design for thermal management of high power multi-chip LEDs module. *Optik*, **2021**, 242, 167179	2.5	1
14	Simulation and analysis of the effects of room surface reflectance combinations on a proposed retrofit illumination system of an office. *Journal of Engineering, Design and Technology*, **2021**, ahead-of-print,	1.5	0
13	Spectral design methods for multi-channel LED light sources based on differential evolution. *Applied Optics*, **2016**, 55, 7771-7781	0.2	13
12	Evaluating tradeoffs between energy efficiency and color rendition. *OSA Continuum*, **2019**, 2, 2308	1.4	4
11	A Narrow Beam Reflector for a Two-Dimensional Array of Power Light Emitting Diodes. *LEUKOS - Journal of Illuminating Engineering Society of North America*, **2008**, 4, 243-254	3.5	1
10	Status of Solid-State Lighting Based on Entries to the 2010 US DOE Next Generation Luminaire Competition. *LEUKOS - Journal of Illuminating Engineering Society of North America*, **2012**, 8, 237-259	3.5	21
9	History of Light Sources. **2014**, 1-31		
8	Light-Based IoT: Developing a Full-Duplex Energy Autonomous IoT Node Using Printed Electronics Technology. *Sensors*, **2021**, 21,	3.8	0
7	Research on COB-LED light source with tunable CCT based on screen printing and flip chip technology. *Optical and Quantum Electronics*, **2022**, 54, 1	2.4	0
6	Processing RGB Color Sensors for Measuring the Circadian Stimulus of Artificial and Daylight Light Sources. *Applied Sciences (Switzerland)*, **2022**, 12, 1132	2.6	1
5	Thermal modelling of multicolor LED luminaire via scaling of a heat sink to aid user wellness. **2022**, 74, 102270		
4	Design and development of a LED based outdoor luminaire with variable CCT and its performance analysis. **2022**,		0
3	Comparison of different RGB InP-quantum-dot-on-chip LED configuration.		0
2	Performance analysis of a variable flux and CCT-based outdoor LED luminaire.		0
1	Fast Neutron Irradiation on GaN-Based Light-Emitting Diodes From Near-Ultraviolet to Green Spectral Ranges. **2023**, 70, 686-693		0