Power Saving Design of WLED Backlit LCDs by the Use of Unequal-Area RGB Color Filters

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Abstract

The primary luminance of an LCD can be completely utilized by the use of unequal-area RGB color filters without the sacrifice for meeting white point condition. Results show that 26.4% and 6.8% electrical powers can be saved for the LCDs backlited with cool white and neutral white LEDs, respectively, using this method.

Keyword：Color filter, WLED backlight, Power consumption