

## 직하형 백라이트에서의 CCFL과 EEFL의 광학특성 비교

김병용, 김종연, 김영환, 이상극, 김종환, 한정민, 옥철호, 서대석  
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### Comparison of Optical Characteristics between CCFL and EEFL in Direct-Type Backlight Unit

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**Abstract :** In this study, It was studied about the luminance characteristics of 17inch direct-type back light using EEFL(External Electrode Fluorescent Lamp). EEFL has a long life time because the electrode is installed outside of lamp. And it is produced low price than conventional CCFL. It does not need process of installing internal electrode. But EEFL technology has several problems such as difficulty of design driving inverter, and prevents leakage current along the skin of lamps. Therefore, by the optimizing of inverter properties, 7525 nit center luminance was acquired in almost same power consumption condition. It was almost same luminance in CCFL backlight unit. And it was operated stably in low operating temperature such as the value of 40℃, so that it was adopted in conventional LCD-TV application.

**Key Words :** EEFL, CCFL, Backlight, optical simulation, LCD-TV