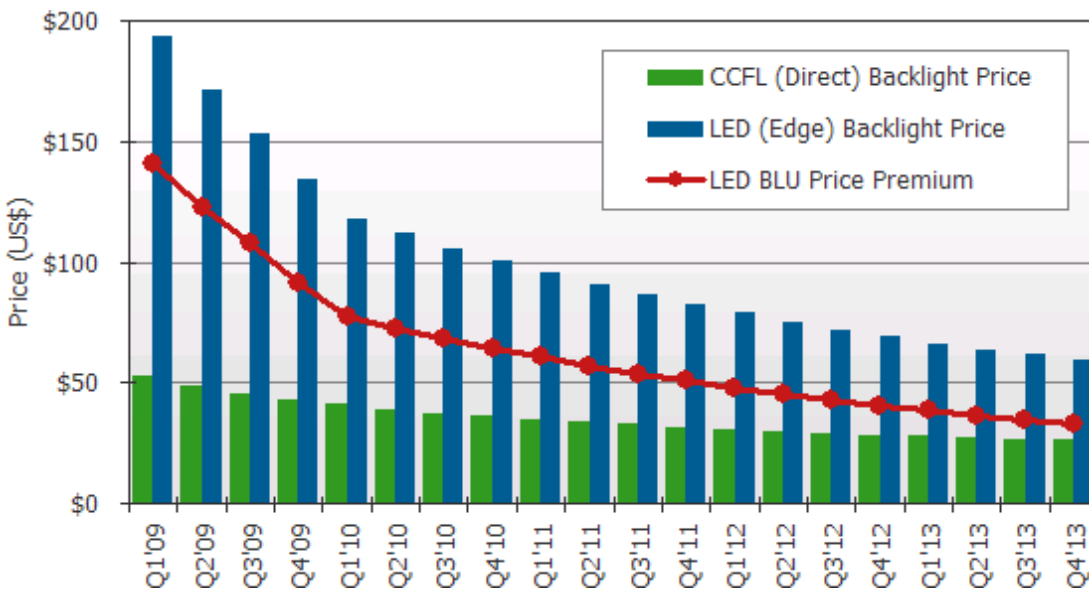


## LED Backlight Costs Falling Faster than Conventional LCD Backlights

AUSTIN, TEXAS, February 16, 2010—Most LCD panel and set makers are focusing on development of LED (light emitting diode) backlight units for improved visual performance, thinner form factor, and lower power consumption. The key issue has been reducing cost, in absolute terms and relative to the conventional CCFL (cold cathode fluorescent) backlights. The newly-released DisplaySearch [Quarterly LED & CCFL Backlight Cost Report](#), which is the only report to analyze and forecast the cost structure of CCFL and LED backlight costs, disclosed that the average cost of 40" edge LED backlight unit in Q1'10 is \$118, and will fall to \$100 by Q4'10 (see Figure 1). Cost reduction is driven by increasing production volumes, which affects LED and material costs, and by improvement in LED luminous intensity, which enables the use of fewer LED chips.

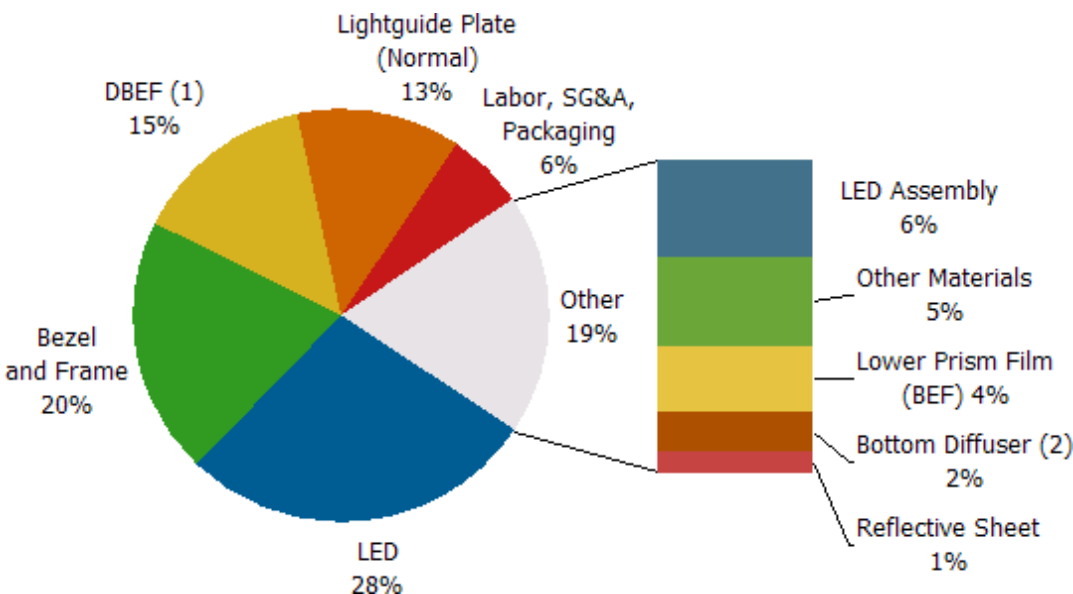
Figure 1: Backlight Cost Comparison for 40" Full HD LCD TV Panel



Source: [Quarterly LED & CCFL Backlight Cost Report](#)

The core components in a TV with an LED backlight unit—LED chips, LGP (light guide plate), and DBEF (dual brightness enhancement film)—are not used in conventional CCFL backlight units for LCD TVs. In the 40" LED backlight cost, the light source including the LED assembly accounts for 34% of the BOM, the LGP is 13%, and the DBEF is 15% (see Figure 2), so it is clear that LED design, output, and chip cost will be key for LED backlight cost reduction.

Figure 2: Cost Breakdown for 40" FHD Edge-LED Backlight Unit (Q1'10)



Source: [Quarterly LED & CCFL Backlight Cost Report](#)

"To reduce LED backlight costs, manufacturers need to develop innovative LED backlight structures with minimal use of LED chips, LGPs with optimized patterns, and effective optical film stacks," noted [Kevin Kwak](#), DisplaySearch Director of LED Backlight Unit Research. "Analyzing developments throughout the supply chain, we have built an LED and CCFL backlight cost simulation model," Kwak continued. "Based on this model we can forecast that the cost of a 40" LED backlight will reach \$100 in Q4'10, a 2.8x premium over the equivalent CCFL backlight, down from 3.7x at the beginning of 2009."

The DisplaySearch [Quarterly LED & CCFL Backlight Cost Report](#) covers backlight unit cost structures and trends, with detailed cost breakdowns for 17 different configurations of notebook backlight units from 10.1" to 17.3", 21 configurations of monitor backlight units from 15.6" to 27.0", and 27 configurations of LCD TV backlight units from 26.0" to 60.0".

For more information on the report, contact Charles Camaroto at 1.888.436.7673 or 1.516.625.2452, email [contact@displaysearch.com](mailto:contact@displaysearch.com), or contact your contact your regional DisplaySearch office in [China, Japan, Korea or Taiwan](#).

The DisplaySearch 12th Annual [USFPD Conference](#), called "Laying the Foundations for the Next Wave of Growth: Energy Efficient & Low Cost Alternatives Lead the Way" will be held March 2-3, 2010 at the Hilton San Diego Resort in San Diego, California. The event will focus on all major and emerging flat panel display applications, as well as key components and materials related to the supply chain. To view the agenda and register, visit [www.displaysearch.com/usfpd](http://www.displaysearch.com/usfpd). Media interested in attending the [USFPD Conference](#) should contact Stacey Voorhees-Harmon at [stacey@savvypublicrelations.net](mailto:stacey@savvypublicrelations.net) or call +1.925.336.9592.

#### About DisplaySearch

Since 1996, DisplaySearch has been recognized as a leading global market research and consulting firm specializing in the \$770 billion display supply chain, as well as the emerging photovoltaic/solar cell industries. DisplaySearch provides trend information, forecasts and analyses developed by a global team of experienced analysts with extensive industry knowledge and resources. In collaboration with the NPD Group, its parent company, DisplaySearch uniquely offers a true, end-to-end view of the display supply chain from materials and components to shipments of electronic devices with displays to sales of major consumer and commercial channels. For more information on DisplaySearch analysts, reports and industry events, visit us at <http://www.displaysearch.com/>. Read our blog at <http://www.displaysearchblog.com/> and follow us on Twitter at [@DisplaySearch](#).

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