



J.P. Morgan
North American Equity Research
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Alternative Energy
Shedding Some Light on LED Development in Lighting
- A Visit with Lighting Science Group

Lighting Science Group Corporation (“LSG”) has been provided the attached analyst report. Please note that any opinions, estimates or forecasts regarding LSG’s performance or the LED lighting market made by this analyst is the analyst’s alone and does not represent opinions, forecasts or predictions of LSG or its management. LSG does not by its reference to or posting of the report imply or suggest LSG’s concurrence with the information, conclusions, or recommendations contained therein. The report is posted with the permission of J.P. Morgan.

Alternative Energy

Shedding Some Light on LED Development in Lighting - A Visit with Lighting Science Group

Recently we had a chance to visit Lighting Science Group (LSCG, OTC, not covered) an LED light fixture/bulb replacement manufacturer located in Satellite Beach, Florida. Lighting Science has developed a suite of bulb replacement products as well as a number of LED-based lighting fixtures for public infrastructure and commercial applications. We think LSG is part of a new wave of early-stage companies that see the huge business opportunity for LED-based general lighting and are trying to establish an early position in this emerging market. Recently, the company was awarded \$18.8mn in recovery zone facility bonds to expand production and create jobs. This will help the company to increase its headcount from current levels and accelerate its manufacturing capacity buildout and product development.

- **A mix of conventional lighting & tech.** The one item that struck us the most about our visit to LSG was the mix of veteran staff formerly from lighting fixture makers such as AcuityBrands coupled with more technical personnel in the fields of physics, material science, electrical engineering & from leading LED makers. The added complexity of harnessing & powering an LED light engine, in addition to the basic requirements of developing a lighting product that can last as long as 5 years, steps up the technical requirement, in our view, vs. what has been needed within the lighting industry until now.
- **Only using tier 1 LED maker product** due to the performance and reliability requirements needed for an LED-based lighting product to last 50k hours and, more importantly, to be warrantied for that period of time. This is consistent with commentary made by other leading LED lighting product makers and reinforces our view that it will take some time before second tier/emerging LED makers will be able to supply into the general lighting market in mass for quite some time. We think this is bullish for Cree.
- **LSG is an OEM for major global lighting companies**, which is a sign that larger established lighting companies may be slow to develop their own LED-based lighting products. Given the significantly different requirements for LED-based lighting development, we think the leveraging of smaller, more nimble companies is likely to occur for quite some time and provides an opportunity for companies such as LSG to access large distribution channels that otherwise could take years to develop. In addition, LSG sells its own branded products directly to wholesalers/distributors and soon expects to be sold in select big box retail stores.
- **Price points for the latest-generation LSG products look compelling**, with estimated retail prices for par 30 bulb replacements in the \$30 range and the price point for par 38 bulbs (an equivalent 65 watt bulb replacement) below \$40. These prices are about half that for comparable products available for purchase today with 50-100% higher lumen output per watt. Since the up-front cost of LED-based lighting products is the primary determinant in the overall cost of ownership, this material reduction in the purchase price significantly improves the overall competitiveness of LED-based lighting vs. conventional technologies.
- **Overall, we think smaller more nimble companies such as LSG are likely to drive LED general lighting development/improvement over the next few years** and think the rapid cost reduction that is expected to occur over time will stimulate increased demand and drive earnings growth for both OW CREE and VECO.

See page 3 for analyst certification and important disclosures.

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Companies Recommended in This Report (all prices in this report as of market close on 21 April 2010)

Cree (CREE/\$76.22/Overweight), Veeco Instruments (VECO/\$48.70/Overweight)

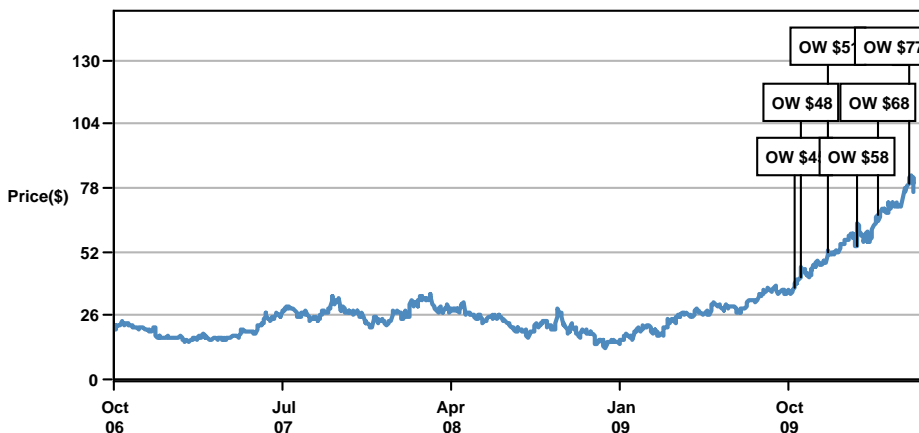
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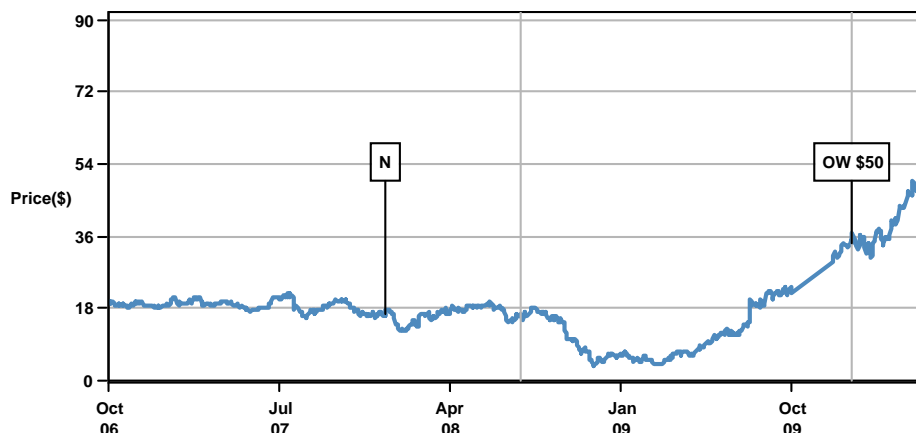
Cree (CREE) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
09-Oct-09	OW	37.10	45.00
21-Oct-09	OW	41.16	48.00
04-Dec-09	OW	51.70	51.00
20-Jan-10	OW	54.21	58.00
23-Feb-10	OW	66.77	68.00
14-Apr-10	OW	79.24	77.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage Oct 09, 2009. This chart shows J.P. Morgan's continuing coverage of this stock; the current analyst may or may not have covered it over the entire period. J.P. Morgan ratings: OW = Overweight, N = Neutral, UW = Underweight.

Veeco Instruments (VECO) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
19-Dec-07	N	16.39	-
08-Jan-10	OW	34.51	50.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends. Initiated coverage Dec 19, 2007. Break in coverage Jul 24, 2008 - Jan 08, 2010. This chart shows J.P. Morgan's continuing coverage of this stock; the current analyst may or may not have covered it over the entire period. J.P. Morgan ratings: OW = Overweight, N = Neutral, UW = Underweight.

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