



Auto Dealership - Upgrade and New Construction

Michael Jordan Nissan

Durham, NC

Michael Jordan Nissan is breaking new ground as one of the first Nissan® dealerships to incorporate almost all LED lighting from Cree as part of their recently completed upgrade and expansion.

- Anticipated exterior energy savings of 58 percent
- Interior lighting energy usage expected to decrease 34 percent
- Exterior payback in approximately 2.8 years
- Virtually maintenance-free for over 10 years



CREE® LED LIGHTING PUTS DEALERSHIP ON CLOUD NINE

OPPORTUNITY

In 1990, when Michael Jordan Nissan opened in Durham, NC, the facility was state-of-the-art. But times change, and in 2010, the management team partnered with Eddie Gontram, Principal of Gontram Architecture, to begin planning for a renovation using the architect-led design and build model.

At Michael Jordan Nissan, their motto is, “We strive to be the best.” In that spirit, Managing Partner Ray Vrscak and Gontram wanted the best for their renovation, so they selected an LED lighting solution from Cree, a leader in the LED lighting revolution. As a result, Michael Jordan Nissan became one of the first Nissan dealerships to use LED lighting almost exclusively, both inside and out.

Prior to the renovation, Vrscak had to deal with constant bulb and ballast outages, color shifting lighting, and high maintenance and energy costs. To address these issues, the remodeled dealership included an upgrade to the exterior lot lighting, as well as a reconfiguration of the entire interior space.”

SOLUTION

Dealerships typically follow a Nissan spec during construction projects. However, Vrscak worked closely with Nissan Corporate to evaluate how Cree’s LED lighting solutions could fit within that spec. One interesting result was a change for the L1 fixtures, also known as the Nissan cloud. Michael Jordan Nissan became the first dealership to use an LED solution for the cloud – a decision that was so successful Nissan is considering adopting the Cree solution for the corporate spec.

The cloud is a Nissan design element that features a group of fixtures – typically fluorescents – sitting directly over the showroom cars. With the traditional cloud configuration, according to Gontram, mismatch becomes a problem. “The cloud fixture may be nice right out of the box, but give it ...just a year, they start replacing lamps. They only replace what burns out and sometimes they replace with the wrong color lamp.” Since the Cree solution offers lower energy usage with much longer lamp life, the quality of light coming from the cloud remains consistent for years. As Vrscak confirms: “LEDs provide that nice, even illumination. And, it’s nice not having that maintenance above all those cars.”

The dealership is currently about 75 percent LED lighting, with the mechanics’ shop next in line. To date, the installation includes almost 300 Cree LED fixtures throughout the complex. The interior solution includes the SR6™ LED architectural downlights; CR22™ and CR24™ LED troffers (some with emergency backup), and LR6™ LED downlights. All fixtures feature Cree TrueWhite® Technology, delivering beautiful, high-quality light with exceptional optical control and color rendering – displaying the true colors of the latest models while providing energy-efficient and near maintenance-free lighting. The exterior lot features the Cree Edge™ High Output LED area, Cree Edge™ LED flood and Cree Edge™ LED security luminaires. Ideal for auto dealerships, the Cree Edge™ High Output solution features Automotive FrontlineOptic™ Technology, delivering light precisely on target while being capable of reducing energy consumption by more than 50 percent over traditional technologies.

BENEFITS

Backed by Cree’s industry-leading 10-year limited warranty, the Cree LED lighting is offering Michael Jordan Nissan a more reliable light source, increased uniformity, improved color rendering with no color shift, and a virtually maintenance-free solution for over 10 years.

According to Vrscak, “There’s nothing worse than customers walking out into a dark lot to look at a new car and they can’t see.” When asked about benefits over the previous metal halide solution, Vrscak replies: “It’s really the maintenance. Every time the wind blew here, I’d lose a ballast. I was spending about \$12,000 a year, which now, that goes to zero. Every car dealer understands driving off his lot at night and there are three poles out. It’s painful because it looks bad and you’ve got to make that phone call the next morning. It’s a thousand bucks...every time. And since we’ve installed these lights, I haven’t had a light out. I don’t expect to have a light out for a long, long time. That’s payback.”

With the exterior lighting plan, Gontram and Vrscak did not want to tear up the parking lot or add more poles. With the new Cree Edge™ High Output fixtures, the light levels are very similar to the previous solution, but seem much brighter because of the quality of the LED light. Full light cutoff ensures no light pollution spilling onto adjacent properties. Wattage levels will also decrease significantly, delivering an anticipated annual energy savings of 58 percent. By lowering energy bills and maintenance costs, the exterior lighting solution has an estimated payback of 2.8 years.

Another pleasant surprise for Vrscak was noise reduction: “I do notice how quiet [the interior fixtures] are. You don’t have the buzz of the ballast. Definitely on the exterior as well. Those old metal halide things were very, very noisy. These are just silent.”

When asked about the light quality, Vrscak replied, “When you walk the rows of cars and you can actually see the colors and the colors really stand out – that is the biggest difference I notice.” Vrscak and Gontram aren’t the only one noticing the benefits. According to Vrscak: “Everybody loves the LED lighting. My parts manager was kind of left out because no customers ever go in the parts department. He said, ‘I’d really like to have those LED lights like everybody else.’ ”

Cree also played an important role in securing rebates for the project, with up to 15 percent of the project paid for by utility incentives. As Vrscak states: “When you get a check from your power company – I’ve never seen one of those before – that’s a really good day.”



“Walking down the asphalt, actually seeing the colors of the cars and reading the window stickers is much easier now... You can definitely see the detail a lot better.”

Ray Vrscak, *Managing Partner,*
Michael Jordan Nissan



“Just the reaction from my subcontractor has been interesting. Everybody that I’ve talked to seems to be very impressed with the light. It’s noticeable, and they very much like the quality of the LED fixtures.”

Eddie Gontram

Principal, Gontram Architecture



IN THIS CASE STUDY

LR Series

DOWNLIGHT

- Minimum 90 CRI
- CCT: 2700K, 3000K, 3500K or 4000K
- 650 or 1000 lumens
- Utilizes Cree TrueWhite® Technology
- Shallow and deep recess options
- Dimmable with Triac dimmers at 120V



SR Series

ARCHITECTURAL DOWNLIGHT

- Minimum 90 CRI
- CCT: 3000K, 3500K or 4000K
- 1200 or 1800 lumens
- Utilizes Cree TrueWhite® Technology
- 30° or 45° shield angles
- 0 to 10V dimming to 5%



CR Series

TROFFERS

- Minimum 90 CRI (Cree TrueWhite® Technology)
- 80+ CRI (High Definition)
- CCT: 3000K, 3500K, 4000K or 5000K
- 2000 to 5000 lumen options
- Step level to 50%, 0-10V dimming to 5% or Lutron EcoSystem® enabled to 5%



Cree Edge™ Series

AREA

- Minimum 70 CRI
- CCT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes Cree BetaLED® Technology
- UL wet listed
- Two-Level options
- Modular, low-profile design



Cree Edge™ Series

FLOOD

- Minimum 70 CRI
- CT: 4000K (+/-300K), 5700K (+/-500K)
- Utilizes Cree BetaLED® Technology
- UL wet listed
- Modular, low-profile design



Cree IS LED Lighting

Learn more at: www.cree.com/lighting | info@cree.com | 800.236.6800

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Cree TrueWhite® Technology begins with the highest performing commercially available LEDs. Cree TrueWhite® Technology mixes the light from red and unsaturated yellow LEDs to create beautiful, warm, white light. This patented approach enables color management to preserve high color consistency over the life of the product. Cree TrueWhite® Technology also enables a CRI of at least 90 while maintaining high luminous efficacy - a no compromise solution.



Cree BetaLED® Technology uses a total systems approach combining the most advanced LED sources, driver technologies, optics and form into each product. The patented NanoOptic® technology, available in more than 20 distributions, provides a level of optical control and thermal management that traditional light source technology cannot provide. Combined with the DeltaGuard® Finish, the finest industrial-grade finish available, the result is outstanding target illumination, lasting performance and optimum energy efficiency.

PARTICIPANTS

End User: Michael Jordan Nissan

Architect: Gontram Architecture

General Contractor: Ten Penny Construction