For NC State’s Campus Life department, adding Cree SmartCast® Technology to an ambitious energy-savings initiative assures energy is being used only when required.
Opportunity
Lighting is a 24-7 operation for North Carolina State University’s Campus Life department. Between thousands of residence hall rooms and suites, common recreation areas for residents and computer labs open around the clock, finding ways to reduce energy consumption and operating costs is always top of mind. In its continued efforts to integrate energy-saving features into its student housing, the university once again turned to Cree for a solution.

Solution
As part of an ongoing campus-wide sustainability effort, NC State installed Cree’s CR22™ LED architectural troffers equipped with SmartCast® Technology on the first floor of North Hall, located on main campus. Cree’s CR22 LED architectural troffers deliver up to 5000 lumens of exceptional 90+ CRI light while achieving up to 130 lumens per watt, accomplished by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. Their compact, lightweight design easily accommodates recessed, surface mount or suspended installations, making the CR22 troffer a perfect fit for North Hall’s needs.

Luminaires enabled with Cree SmartCast Technology, Cree’s intelligent light solution providing extreme energy productivity and code compliance, remove the initial and ongoing complexity associated with lighting controls. Featuring Cree’s innovative OneButton™ Setup, luminaires enabled with SmartCast Technology create their own secure network, learn about their environment and form groups to maximize savings, all with the push of a single button.

Benefits
A lobby, recreation area and computer lab make the first floor of North Hall area heavily trafficked, and in need of light 24 hours a day, 7 days a week. Cree SmartCast Technology with vacancy sensing turns lights out when spaces are empty, and allows North Hall to only use the crisp, warm LED light they need, when they need it.

“When overseeing dozens of campus housing environments, it is critical to keep expenses to a minimum,” says Pete Fraccaroli, Facilities Manager of Campus Life with North Carolina State University. “Fixtures that turn off automatically guarantee we are saving energy when students are away.”

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Pete Fraccaroli | Facilities Manager — Campus Life, North Carolina State University
North Hall also benefits from the daylight harvesting feature of SmartCast Technology, which allows fixtures to detect extra daylight and adjust output as necessary to maintain consistent light levels.

“The daylight sensing feature helps make sure we’re considering the light coming in from outside and are only using the amount of light from the fixtures that we need. The consistency and quality of the light we’re seeing is great,” says Mark Sorrell, head electrician with NC State’s Campus Life department.

Maintenance cost savings is a major benefit of switching any fixture to Cree® LED lighting. Cree fixtures provide longer lasting light, reducing the amount of time and money spent on replacing lamps. With its innovative OneButton™ Setup, Cree SmartCast Technology simplifies the configuration process commonly found with traditional lighting controls.

Sorrell considers maintenance savings and simplicity of installation to be major benefits of the new Cree fixtures: “One of the biggest bonuses to using these fixtures with SmartCast™ Technology is the time we’re saving with installation and maintenance. Also, the OneButton Setup of the controls system was a tremendous feature. It’s simple to configure, and very impressive.”

With Cree CR22 architectural troffers and SmartCast Technology, NC State continues to be on the forefront of campus energy-saving initiatives utilizing intelligent lighting solutions, setting the standard for environmental stewardship in university campus life across the country.

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Mark Sorrell | Head Electrician — Campus Life, North Carolina State University
Cree® LED Lighting Used

CR Series LED Troffer

Participants

End User: N.C. State University North Hall, Raleigh, NC

Visit lighting.cree.com/smartcast or contact a Cree lighting representative to learn more.