Chevron Petroleum Station Goes Green with Cree LED Lighting

LED Upgrade to Deliver an Estimated 70 Percent Energy Savings.

Beaverton, Oregon's Highland Chevron gas station and ExtraMile food market recently underwent extensive eco-renovations, including the installation of energy-efficient interior and exterior LED lighting by Cree, Inc. The addition of Cree LED fixtures supports Highland Chevron's mission of becoming a zero-energy establishment.

Rebuilt from the ground up, the Highland Chevron store is fully lit with Cree LED luminaires under the exterior canopy and inside the convenience store—delivering energy savings estimated at nearly 70 percent over the old non-LED fixtures. According to Bob Barman, owner of the Highland Chevron, the indoor and outdoor LED lighting allows the station to consume a third less energy than typical 24-hour c-stores and petroleum stations. Barman estimates that the new Cree luminaires should provide payback in 2.5 years and the financial savings just add-up after that. The Beaverton Chevron anticipates more than a decade of virtually maintenance-free operation.

"The payoff is more than what is saved in energy consumption and cost," said Barman. "The payoff is also intangible – it's what your customers think of you as a leader in sustainability and how you think of yourself – it's just the right thing to do."

"The only time I'm going to think about my lighting is when I'm showing it off," said Barman. "The high-quality LED light makes everything appear brighter and safer—and that translates into a better customer experience."

Twenty-four Cree 304 Series™ recessed canopy luminaires with petroleum symmetric optics replaced the original 368-watt metal halide fixtures on the fueling canopy. Based on BetaLED® Technology, the 105-watt 304 Series™ luminaires provide superior NanoOptic® lighting control with little to no spill-off into neighboring areas, helping Highland Chevron comply with local light pollution ordinances. In addition, 330-watt fluorescent fixtures were replaced by 27 Cree 304 Series pendant-mount luminaires in the ExtraMile food market.

Other green features of the gas station and convenience store include 180 solar panels on the fueling canopy and store rooftop, capable of delivering nearly one-third of a typical gas station's electricity needs. Highland Chevron also installed a geothermal well that exchanges heat through groundwater to naturally cool water for the store's refrigeration cases, while water pipes store heat from cooling units underground for hot water usage.

“Energy efficient and near maintenance-free LED lighting is ideal for the 7/24 operations of gas stations and convenience stores,” said Andy Strickland, Cree vice president, petroleum lighting. “Cree’s LED products offer the Beaverton Chevron early payback and financial savings over their lifetime – they are the best choice for c-stores and gas stations.”

For more information, please visit www.CreeLEDLighting.com [1].

Posted by Ron M. Seidel, Editorial Intern

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