

# SynJet® Thermal Management for Retail Lighting



## Project Statistics:

End User: Auchan Hypermarkets

Application: Retail Downlights

Products: 160 EasyLum LED  
FORCE ONE 4000 luminaires

Partner: EasyLum



## Situation:

Auchan hypermarkets are known throughout Europe and Asia for their innovative retail areas and great prices. Recently, the company has been working to distinguish itself in another area – sustainable development.

The company is working towards sustainability in all facets of its operations – from reducing the carbon emissions of its shipping vehicles to reducing the energy consumption of its stores. To help with the latter, Auchan has designed and built a new store in Lacrois St-Ouen, France, that will utilize techniques such as rainwater harvesting, solar energy and improved insulation to minimize energy costs and environmental impact.

One of the main sources of a building's energy consumption is lighting. To make sustainable lighting plausible for the store, Auchan needed a lighting system that would be energy efficient, but also provide the brightness and quality needed to highlight the attractiveness and comfort of the retail area. To achieve this, the stores used EasyLum LED lighting cooled by the Nuventix SynJet.

*“The SynJet is able to cool the LED module more effectively and efficiently, increasing the quality and brightness of the light which using a fraction of the power of a conventional fan – in some cases, up to an 80 percent reduction in power consumption.”*

**Solution:**

160 recessed EasyLum LED fixtures were installed in the main hall of Auchan’s Lacrois St-Ouen store. A Nuventix SynJet cools each of these fixtures.

The Nuventix Synjet provides superior thermal management for LED cooling, making the already green LED even greener, with better energy efficiency and fewer materials used.

By using turbulent pulses of air, the SynJet is able to cool the LED module more effectively and efficiently, increasing the quality and brightness of the light while using a fraction of the power of a conventional fan – in some cases, up to an 80 percent reduction in power consumption.

The SynJet’s efficiency also allows designers to drastically reduce the size of the light’s metal heat sink – by up to two-thirds – allowing for a smaller, lighter fixture that uses fewer natural resources. This smaller, lighter fixture also requires less energy to manufacture and ship – an added benefit that should not be overlooked.

The green benefits of the Nuventix SynJet are numerous, but the end results are the same: users get a thermal management solution that improves the quality of light and increases the life of the LED, all while providing better energy efficiency and increased cost savings.

The Nuventix SynJet, coupled with EasyLum LED fixtures and the store’s other energy-saving procedures, will allow Auchan’s Lacrois St-Ouen location to reduce energy consumption by 50 percent when compared to its conventional stores, helping the company realize its goal of sustainable development.

