



A picture is worth a thousand words and to the Kavanaugh family, they turned a famous quote into a prestigious business. Owners Dan and Carole Kavanaugh have been dealing in fine art from around the globe since 1989. The 9,500 square foot showroom is located in the historic Valley Junction shopping district in Des Moines, Iowa. They carry 4,000 fine art pieces with over 150 sculptures. Customers can spend hours walking the showroom admiring the collection and the Kavanaughs understand just how important a role lighting can play to impact the presentation.

With artwork in the gallery that can sell for \$500,000, each piece must be protected from heat and harmful ultraviolet light that could fade colors and make paper fibers brittle. The previous lighting system consisted of 254 track heads, each using a 90 Watt halogen bulb. These bulbs are not only inefficient but also emit an intense amount of heat. This caused continual operation of the air conditioner in an effort to maintain a constant temperature for the gallery. Since halogen bulbs only have a life expectancy of 2,500 hours, frequent changes were required and only added to the increased maintenance costs.

LED LIGHTING CASE STUDY

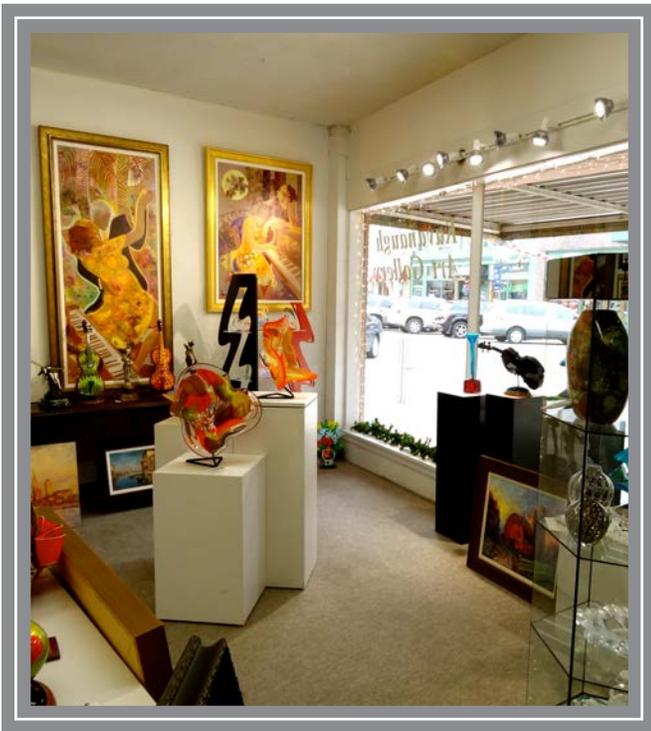


TOSHIBA

Kavanaugh Art Gallery turned to LED Source® for a more efficient lighting solution. The goal was to provide a retrofit LED lamp that would reduce energy consumption and maintenance costs, emit virtually no heat or ultraviolet light, and fits into the existing track head. The 20 Watt Toshiba PAR38 LED lamp with a color temperature of 4000k, proved to be the best solution. The owners were impressed when they saw the true colors revealed in the paintings. The new LED Lamps, with a life span of 50,000 hours and a 5 year warranty, reduced energy usage by 78% and lowered maintenance costs by an estimated 95%.



“The light dispersal and color from the LEDs are great. The artwork shows true color as opposed to the incandescent we had prior. We’re also very happy with the lower energy costs on our monthly bill.” - Dan Kavanaugh, Owner



At LED Source®, the primary goal is to maximize the savings for their clients. This can be achieved through the use of federal, state, and local energy rebates. Rebates provide an added incentive for businesses to make the switch to energy-efficient LED lighting, however they are often hard to find, have specific requirements, and are in limited supply. The LED lighting experts at LED Source® were able to provide Kavanaugh Art Gallery with a local utility rebate, thus reducing the cost of the LED lamps by 70%. They will receive a return on their investment in less than two years and see immediate savings in their energy bills.

Annual Savings

Lighting Energy	\$4,040
Air Conditioning Energy	\$518
Maintenance and Labor	\$4,296
Total Annual Savings*	\$8,854

*Savings shown is an estimate only and based upon information provided.



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