

# Re-lighting the Hall of Governors

**F**eaturing portraits of New York State's past governors dating back to 1797, the second floor of the state Capitol serves as a rich historical gallery. The Hall of Governors recently underwent a lighting facelift, destined to reduce energy costs and enrich the observers' experience.

The original lighting, combined with dark paint and wood tones, rendered an overall gloomy effect over the exhibit. Halogen portrait lights, using 160 to 240 watts per luminaire, cast heat and glare directly onto each painting, obscuring color, details, and texture. Glass pendants, originally installed as central hall lighting, detracted from the portraits by drawing the eye to hot spots created by clusters of CFLs at their center.

Contracted to redesign the lighting, LRC DesignWorks used high CRI (color rendering index) 2700 K, 25-50 watt LEDs to enhance the artwork and reduce degradation.



Spill light from portraits allows observers to read the descriptive plaques and vinyl lettering of the timeline. Spread lenses, louvers, and custom baffles were used to refine beam spreads, reduce glare from light sources, and soften frame shadows.



**Before:** Halogen lights cast heat and glare on portraits and the overall effect in the hall is gloomy due to dark tones.



**After:** LED lighting provides a brighter effect, while enhancing portrait details and reducing energy use and maintenance.

The new lighting system was integrated into the existing architectural cornices. The glass pendants were retrofitted with a single, long, compact fluorescent lamp (CFL) to soften their effect.

Annual energy costs are reduced by 68% from the original design. Combined with reduced lamp replacement and maintenance costs, savings total more than \$15,000 per year.



The portraits of Theodore Roosevelt (above) and Franklin Roosevelt show considerable improvement. Color and fine details, such as pin-striped trousers, are more noticeable.

	Wattage	Annual Consumption (kWh)	Annual Electric Cost (USD)*
Before	10208	59615	10731
After	3460	19376	3488
Annual Savings	6748	40239	\$7243
Maintenance savings due to reduced lamp replacement			7819
<b>Total Annual Savings</b>			<b>\$15,062</b>

\* Cost based on \$0.18/kWh, 16 hrs/day



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