

San Francisco War Memorial Opera House & Halogená®

A • C A S E • S T U D Y

Lighting Designer Larry French, a principal with Auerbach + Associates, San Francisco, CA, wanted to add some sparkle and dramatically boost light levels during the recent renovation of the magnificent San Francisco War Memorial Opera House. His solution was to install Halogená® lamps from Philips Lighting Company in the fluted six-tier central chandelier, restoring the Beaux Arts masterpiece to its original grandeur. French also placed the Halogená lamps inside the elegant glass ceiling panels that light the balcony and orchestra levels; some 2,000 Halogená lamps were used throughout the project. For his design, French has earned the prestigious 1998 IES Guth Award of Excellence.

When the Opera House first opened in 1932 it was widely acclaimed by opera lovers and architectural critics alike as the most attractive and best opera house in America. The Loma Prieta earthquake that rocked San Francisco in 1989 caused major damage to the historic structure. The subsequent renovation, which shut down the house for the 1996 season, provided the opportunity to bring the Opera House, also home of the renowned San Francisco Ballet, up to date and bring back the splendor of its past.

French takes particular pride in the restoration of the six-tier, 14 ft. tall, 25 ft. diameter chandelier. When the building opened in 1932, the *San Francisco Call* described it as having "a ceiling of solid blue, illumined by hidden lights, clasping to its bosom the bright star-like jewel of a great chandelier." After 64 years, the once beautiful chandelier was dull and lifeless.

Auerbach + Associates calculated that though the chandelier's 540 standard incandescent A-lamps were still functioning, the light levels in the theater were woefully deficient — below the specifications in the original lighting design plans.

Today, the clean white light of Halogená sets off the bright facets of the chandelier. And with a CRI of 100, Halogená perfectly renders the blue of the ceiling and the rich red fabric and gold leaf of the refurbished decor. The long 3000 hr. life helps prevent unsightly lamp burnouts and reduces maintenance to a minimum.



ROBERT CANFIELD, PHOTOGRAPHER



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TINA PANZERA, PHOTOGRAPHER

"For the magnificent central chandelier, and in the recessed downlights along the balcony, we chose Philips Halogená lamp."

***—Larry French
Lighting Designer
and Principal,
Auerbach + Associates.***

Let's make things better.



PHILIPS

Philips Lighting Meets the Challenge

"The combination of disrepair and ancient dimming lighting controls had rendered the appearance of the interior a dull orange," French explained. "We had to restore some sparkle to the house lights to set off the softer, warmer, incandescent appearance of the wall sconces. So for the magnificent central chandelier, and in the recessed downlights along the balcony, we chose the Philips Halogená lamp. This way, with our new dimming system, we can dim the chandelier to extend the life of the lamps even further and still maintain high levels of white light."

The technique of dimming incandescent (and sometimes halogen) lamps to extend lifetime is well established. To achieve a 3000 hr. life in a standard incandescent would require a drastic 25% reduction in voltage. "But this would cut the light output by more than 15%, and the color of the lamp would go orange," French said. The Halogená lamp starts out at 3000 hrs., three times the rated life of a standard incandescent. Even when dimmed slightly, Halogená still produces white light with 10% more lumens than a standard incandescent at full voltage!

The combination of cleaning, repainting, recircuiting, restoring the uplighting component, and replacing the standard incandescent lamps in the chandelier with almost 600 Halogenás increased light levels by a factor of nine without increasing the wattage load. Everything looks better and brighter to the audience. The crisp white light of the chandelier complements and balances the warm glow of the sconces as well as the rich tones and textures of the interior finishes.

Halogená provides a direct screw-in retrofit for standard incandescent A-lamps. The outer envelope makes the lamp light in weight and easy to handle, while enclosing the halogen capsule inside. The compact size of the outer bulb, medium screw base, and variety of wattages are suited to application in millions of decorative fixtures.

While it can be applied wherever truly beautiful white light is desired, Halogená can also provide low maintenance and increased light output without increasing wattage. With the help of Halogená, the regilded decor of the Opera House sparkles like never before.



Benefits of Halogená®

- *Lasts three times longer than equivalent wattage standard incandescent lamps*
- *Elegant white light, 2900° Kelvin, from a halogen light source*
- *Directly replaces standard incandescent A-lamps*
- *Dimmable for design flexibility and energy savings*
- *Compact size with a medium screwbase, 4" maximum overall length (M.O.L.)*
- *Available in a variety of wattages — 60, 75, 100, 150W*

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