

# 3M™ Window Film Night Vision Series Saves Energy, Improves Views at L.A. Skyscraper

## CASE HISTORY

### PROBLEM

At 62 stories, the AON Center, towering over the sweeping vistas of Los Angeles, is one of the world's tallest buildings. Built in 1974, the AON Center features windows from top to bottom. To control heat and glare, the building's management had window film applied to the glass in the late 1980s. But while the film did improve energy efficiency, most window films at that time had one serious flaw—eventually they acquired an unwelcome purplish tint. Almost two decades later, the AON Center was due for a facelift.



### SOLUTION

Motivated to increase the building's energy efficiency and take advantage of new energy rebate offers, Operations Manager David Thompson called in 3M Window Films as well as a competing window film supplier to participate in an informal performance test. The authorized 3M Window Film dealer and his competitor each applied film to a test area. Building engineers then measured temperatures over a two-month period.

"The 3M Window Film outperformed the competing film in both energy efficiency and price," says Thompson. "In addition, the Department of Water and Power, which offered the rebates, wanted high light transmission. The 3M™ Sun Control Window Film — Night Vision Series offered that, plus the energy efficiency properties we wanted."

3M's Night Vision window film is an innovative line of window film that uses proprietary technology developed by 3M. "Often, films with the greatest sun control and glare reduction capabilities are so reflective that they are difficult to see through, especially at night," says Eric Askeland, 3M Senior Technical Service Engineer. "Night Vision reduces solar heat by up to 52 percent and UV rays by up to 99 percent, and it reduces glare by 73 percent, making it one of the top performers in the industry. And, when you're on the inside looking out, the film's low reflectivity gives you clear views — an important factor when you're in L.A."

### RESULTS

Preliminary results indicate that the AON Center will realize annual energy savings of more than \$200,000. Combining those savings with the energy rebates, Thompson expects the project's cost will be recovered in less than two years.

"We're now able to cool the building using outside air for more months out of the year," he says. "And, on the really hot summer days, we're able to run with one less chiller, which is a significant savings."

Other pleasing results include fewer tenant comfort complaints, positive feedback about clearer views — even at night, and a noticeable improvement in the building's exterior appearance.

### THE 3M DIFFERENCE

Thompson says he was impressed with the support that came from 3M's corporate offices: "3M really stepped up to the plate. Night Vision was a new product, and they wanted to be sure we had all of the information we needed. They even brought in the person at 3M who invented the technology to show us how the film works. It was much more than we expected."

### PROJECT SUMMARY

**Installation Date:** 2000

**Area Covered:** 4,788 total window panes, which included 168,000 square feet of glass on the south, east and west sides of the building. The north side was completed in 2003

**Installation Time:** 4 months

**Type of Film:** 3M™ Sun Control Window Film — Night Vision 25

**Remedies Considered Prior to Window Film:** None



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