

# VISION SAVER™ CEILING FIXTURES



Vision Saver fixtures cut off glare to improve visual comfort and productivity. Two- and four-lamp models are available with 17W and 32W fluorescent light bulbs.

## Visually Comfortable Lighting for the High-Tech Workplace.

TheBancorp.com is a high-technology company offering state-of-the-art affinity banking services. So naturally when facilities manager Mike Molenhauer began searching for a lighting solution for their large new, open-floor plan facility, he turned to the Internet and found SIMKAR.

There is a PC on every desktop at TheBancorp.com. Consequently, one of Mike's key criteria was that the new lighting be comfortable for PC users — primarily by reducing on-screen glare — yet bright enough to illuminate the extensive office space. In addition, the lighting system had to be affordable within his overall construction budget and complement the proposed interior design, with its expressed structural elements, lofty ceilings and cool, neutral tones.

Mike's search brought him to the SIMKAR website and the Vision Saver™ Series of ceiling fixtures. Available in two- and four-lamp models, Vision Saver fixtures use a specially engineered louver and housing combination to shield their 17- or 32-watt T8 lamps from direct view and cut off light in the high angles of the glare zone.

## Eliminates the Primary Source of Eye Strain and Discomfort.

Recent studies show that 25 percent of video display terminal (VDT) users suffer from eye strain, fatigue or discomfort caused by glare. Vision Saver ceiling fixtures prevent those problems and, with their controlled brightness and overall photometric performance, meet the requirements of IESNA RP-1.

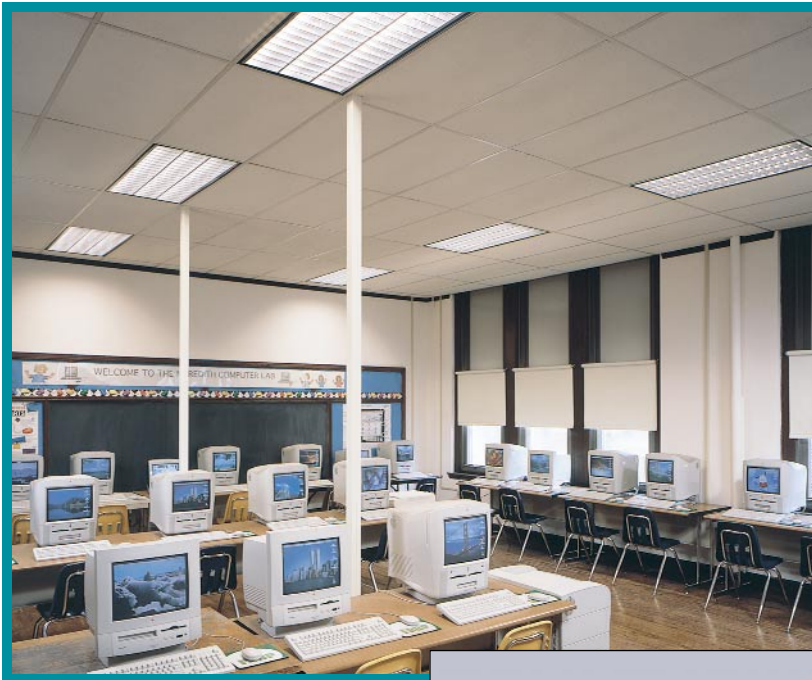
TheBancorp.com installed 80 1x4 Vision Saver fixtures in a 277-volt system, allowing electricians to cable more fixtures in longer runs and save installation time. The fixtures are suspended from narrow gauge aircraft cable. As Mike Molenhauer noted, the pendant mounted Vision Saver fixtures "blend in with the high tech decor and almost appear to be floating." In addition, he said, "They're tremendous for eliminating glare while still fully lighting the space."

As it turns out, the best proof of Vision Saver's ability to eliminate glare doesn't exist in photometric reports or certification to industry standards. It's much simpler: Mike hasn't had to buy any computer glare screens for the new facility. Consequently, he's installing more Vision Saver fixtures as other areas of the facility come online.

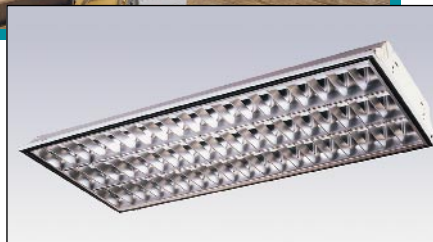
## CASE STUDY



# A Brighter Learning Environment.



**COMFORTABLE LIGHTING FOR COMPUTER USERS.** Designed to provide glare remediation and exceptional comfort in VDT areas, the shallow plenum TE3P is 3 3/4" deep and complies with IES RP-1, the standard for office lighting with intermittent use of computers.



***Simkar school lighting retrofit gets high marks for energy efficiency and superior illumination.***

Today's education news largely concerns the use of computers to create greater learning opportunities and prepare students for the workplace of the future. The familiar image of children working at their desks is quickly being replaced by one of students using networked computer workstations. As a result, it's easy to overlook the fact that **70% of schools were built before 1970, in the pre-computer era. This has broad implications for facility managers and lighting contractors alike.**

**First**, most schools—including many built after 1970—could realize great energy savings from new efficient lighting technology. **Second**, as older schools are equipped with computers, energy efficient lighting upgrades may be required to offset the increased electrical demand. **Third**, few schools have either appropriate lighting for computer learning environments or new-design fluorescent fixtures that provide aesthetically superior room illumination. **For one or all of these reasons, most schools could benefit greatly from an energy-efficient, application-specific lighting retrofit.**



**A MORE PRODUCTIVE LEARNING ENVIRONMENT.** Installed in classrooms, Simkar's TDPW fixture improved maintained levels of illumination from 35 fc to 55 fc, and boosted the color rendering index from 62 to 85.



## ENERGY SAVINGS WITH SIMKAR FIXTURES

Computer Room (30' x 23')	Description	# Fixtures	KWH Used	KWH Saved	\$ Saved
Existing System	4 - 40W T12	8	4128		
New Simkar TE3P	3 - 32W T8	8	2112	2016	\$250.59
Classroom (30' x 23')	Description	# Fixtures	KWH Used	KWH Saved	\$ Saved
Existing System	4 - 40W T12	8	4128		
New Simkar TDPW	2 - 40W TT	12	2664	1464	\$181.98

Annual energy costs for Simkar fixtures vs. four-tube fixtures with 40-watt T12 lamps over 3000 hours at 12.43¢ per kwh, the commercial utility rate in Philadelphia as of 3/99. Actual savings will vary with KWH cost and usage.

### ***Retrofitting classrooms and computer labs.***

Simkar recently participated in a retrofit program at the Meredith School in Philadelphia, Pa., a 46,000 square-foot elementary school built in 1931. Working with a team of parents, school administrators and an energy efficiency consulting firm, Simkar provided TDPW direct/indirect fixtures for use in classrooms and TE3P low-brightness fixtures for use in the computer room. The initial objective was to offset the electricity demand of the computers through the use of energy efficient fluorescent lighting, but the actual results of the installation have surpassed that goal in many ways.

Beyond calculations of kilowatts and footcandles, the immediate effect of improved lighting is a better learning environment. According to the principal of the Meredith School, the “bright and cheery” illumination provided by the Simkar fixtures is reflected in the improved spirits of students and teachers. The numbers support his observations. *Before the retrofit, measured illumination in the second grade classroom with eight four-tube fluorescent troffer fixtures operating was 35 footcandles (fc) with a color rendering index (CRI) of 62. After the installation of 12 Simkar TDPW fixtures, work-surface readings were initially boosted to approximately 70 fc with a CRI of 85. Taking lamp depreciation and related factors into account, this should provide 55 fc of maintained illumination.*

Simkar TE3P fixtures were specified for the computer lab. The TE3P is a shallow-plenum three-lamp parabolic that complies with IES RP-1, the standard for office lighting with intermittent use of computers. The TE3P’s precision multi-cell aluminum louver directs light downward for efficient work-surface illumination, while producing low brightness from oblique

angles. This lowers reflected glare in computer screens. According to photometric tests, the fixture’s Visual Comfort Probability ratings are above 90 in both the 0-degree and 90-degree planes for an 8.5-foot ceiling.

*The Simkar lighting upgrade in the computer lab and classroom has successfully met energy efficiency and lighting performance objectives. If the school’s 11 other classrooms are similarly outfitted with TDPW fixtures, annual savings will increase to \$2434.00, at the current kwh rate.*

### ***Immediate savings for schools and colleges.***

The Meredith School installation is a model for the kind of retrofit that could benefit many schools and similar facilities. Simkar fixtures use energy efficient ballasts and T5 twin-tube or T8 lamps. Replacing old technology T10 and T12 fixtures will provide the immediate benefit of significantly lowering energy consumption. In addition, Simkar fixtures are designed to provide appropriate lighting and options for specific applications, including visual comfort, compatibility with control systems and directed illumination.

*For more information about energy-saving retrofits and our complete line of fluorescent fixtures for commercial/industrial applications, contact the Simkar Corporation at 1-800-523-3602 ext. 7740.*



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