

SDERC Lighting Display

Office Lighting: Finelite Series 15 Suspended Indirect

Location: Fixture #7

Technology Description: Finelite's Series 15 suspended indirect fixture has been specially designed to work well in low ceilings (8 feet high). This fixture, which can be mounted directly to the ceiling, provides good uniformity across the ceiling. Performance is improved if it can be mounted at least a few inches down. Most other suspended indirect fixtures require at least 9 or 9.5 foot high ceilings. The display unit is a 4 foot Finelite Series 15 with one Philips F32T8/ADV850/ALTO lamp (86 CRI, 5000 K and 3100 lumen) and a Sylvania QT2x32T8/277ISH-SC ballast, which provides about a 1.02 BF and consumes about 38W. Using an extra efficient instant start ballast, such as the Sylvania QHE, could save about 3W. Typically, suspended indirect fixture arrays are at least 8 feet long, which allows tandem wiring of ballasts and saves on initial costs and energy savings. Often extra efficient high (1.14 – 1.20) BF ballasts are used in suspended indirects that have one F32T8 per cross section.

Applications: Individual and open offices with low ceilings, but this fixture can also be used in higher than 9 foot ceilings.

Energy Savings: When extra efficient 2, 3 and 4 lamp ballasts can be used in conjunction with single cross section high lumen 5000K F32T8s, power density can be as low as 0.6-0.8 W/sqft. in many office applications. This is a lower power density that can be achieved with most direct lighting systems, such as troffers.

Donated Product: SDREO would like to formally thank Kim Shaffer at Finelite, Inc (www.finelite.com) for donating the fixtures. For more information please contact Kim at (650) 961-0700 or kshaffer@finelite.com.

Discussion: Check out the lighting with these suspended direct/indirect lighting fixtures compared to the basket troffers and recessed cans in this room. Which do you like the best? In medium size projects, many suspended indirect fixtures (not the expensive cast aluminum ones) cost about \$20 - \$30 per lineal foot at distribution level. With contractor mark up and installation the cost to end customer often ranges from \$40 - \$60 per lineal foot. In new construction and gut rehabs the installed cost with suspended indirects is usually less than with direct troffers, especially in large rooms that can have long rows of suspended indirects. Although the parts cost of suspended indirects is usually considerably more, the labor savings more than compensate, because there can be one power feed per row and each fixture section can be up to 12ft long.

There is a debate over which lamps are better, T5HOs or T8s. Many manufacturers, light reps, lighting designers, and architects have jumped on the T5HO bandwagon, sometimes for good reasons, such as wanting smaller fixtures or requiring fewer fixtures. But often high performance T8 suspended indirects can achieve a lower power density. Plus, maintenance costs can be lower with suspended indirects that have T8s. In open air suspended indirects, T8s may be closer to their optimal ambient

temperature of 77°F than T5HOs are to their optimal ambient temperature of 95°F. But some suspended fixture manufacturers have developed sleeves or other thermal management systems to increase T5HO lamp performance in typical office ambient temperature applications. Although Finelite offers T5HO suspended indirects (which is a general term and also includes semi-indirects and direct-indirects) they have focused on designing high performance T8 suspended indirects. Some other manufacturers have focused on, or only make, T5HO or T5 suspended indirects.