

## **SDERC Lighting Display**

**Office Lighting:** Lightolier Lytespread Alpha Suspended Indirect

Location: Fixture #11

Technology Description: This suspended indirect lighting fixture has two special features and corresponding benefits. One is that light distribution is nearly the same with both lamps on or the right or left lamp turned off. This is great for daylight harvesting or peak load shedding without requiring expensive and typically high energy consuming dimming ballasts. The second is that with two T5HO lamps per cross section, good batwing distribution, and at least a 24 inch suspension, rows of these fixtures can be spaced further apart while still providing uniform lighting. Display unit is fitted with two Philips F54T5HO/850 lamps and an Advance ICN-2S54 program start ballast with a 1.0 BF. The fixture consumes 120W.

Applications: Open bay offices, circulation areas, auditoriums.

Energy Savings: Energy usage can be reduced to 0.79 W/sqft with an average light level of 37 foot-candles (fixtures suspended at 30 inches on 24 ft centers).

Donated Product: SDREO would like to formally thank Scott MacElwee at Lightolier San Diego for donating the fixture. For more information please contact Scott MacElwee at (951) 334-6735 and [smacelwee@genlyte.com](mailto:smacelwee@genlyte.com). SDREO would also like to thank John Templer at Wesco for donating the lamps. He can be reached at (858) 279-0233 and [jtempler@wesco.dist.com](mailto:jtempler@wesco.dist.com).

Discussion: Significant initial parts and labor costs can be saved with this type of T5HO suspended indirect fixture compared to high performance T8 suspended indirects. However, due to T5HO's low lamp and ballast efficacy, a lower power density can often be achieved with high performance T8 suspended indirects. Many fixture manufacturers, rep agencies, lighting designers, architects, engineering firms and end customers are jumping on the T5HO and T5 bandwagon because it is newer technology and the fixtures can be smaller; however, high performance T8 fixtures are often a better total solution, including initial costs, wattage, and replacement lamp & ballasts costs. Typically less wattage can be used with suspended indirects, semi-indirects or direct/indirects than with direct troffers. A suspended indirect fixture can have up to 10% downlight. There are also suspended semi-indirects, which provide 20-40% downlight, suspended direct/indirects, which provide about 50% uplight and 50% downlight, etc. Several manufacturers make ceiling tiles with higher reflectivity that are designed for uplight fixtures.