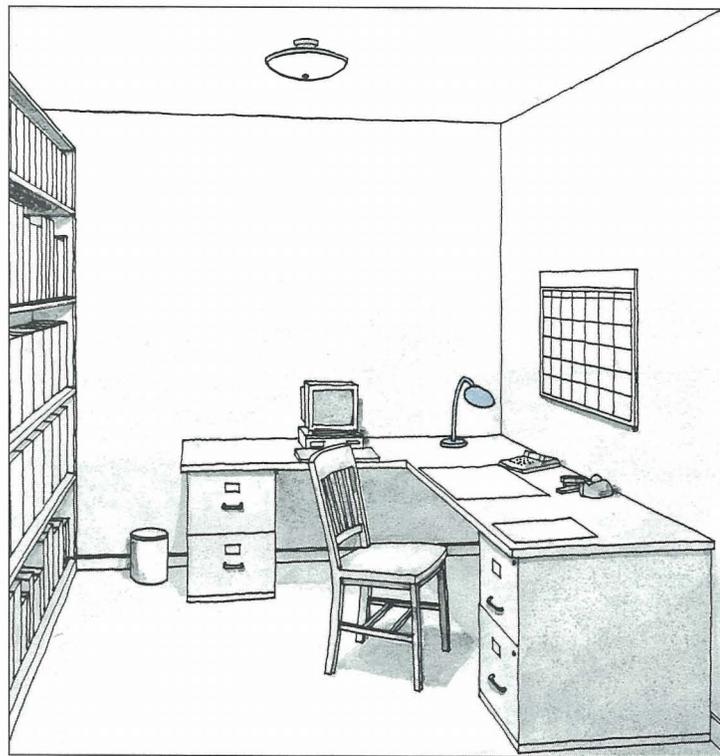


Home Office

Some homes contain an office. These home office designs also can be used for parts of family rooms or bedrooms that have a desk.

Supplement ambient lighting with a task light for the desk. To reduce reflected glare, avoid placing lamps or windows directly in front of the person at the desk. Locate the lamp to the left of a right-handed person and to the right of a left-handed person. Lighting from the side reduces glare and minimizes shadows on the task.

For home offices with a computer, use low-level ambient lighting. Use a supplementary task light when working simultaneously with printed material, shielding the lamp from the computer screen. Locate the terminal so that the images of lamps and windows are not reflected from the screen into the eyes of the viewer. For greater comfort, avoid windows and bright lamps and luminaires on the wall directly behind the computer screen.

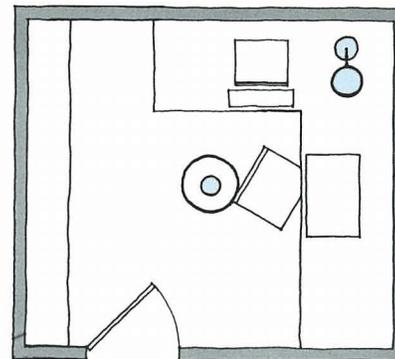


Typical

One ceiling-mounted diffuser containing four 60-watt A-lamps provides ambient lighting and is controlled by a wall-mounted switch. A desk lamp contains a 75-watt A-lamp.

Replace lamps

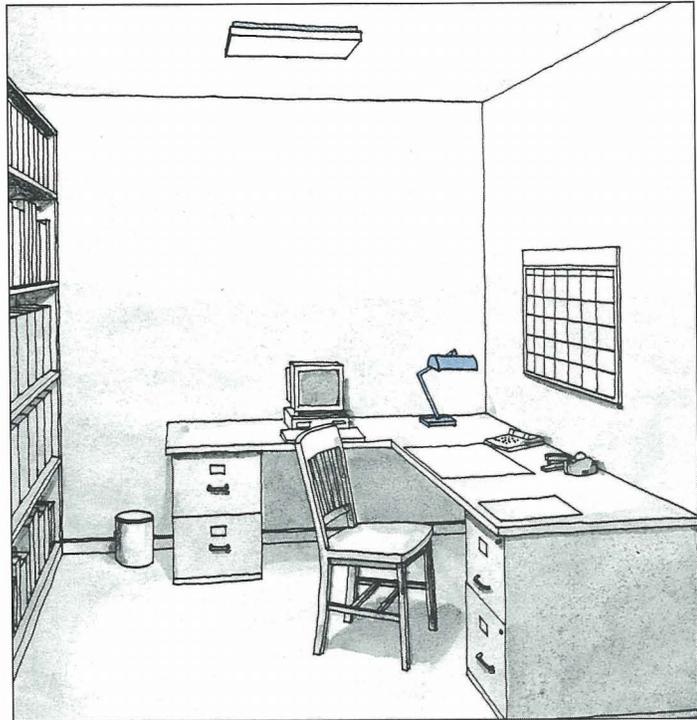
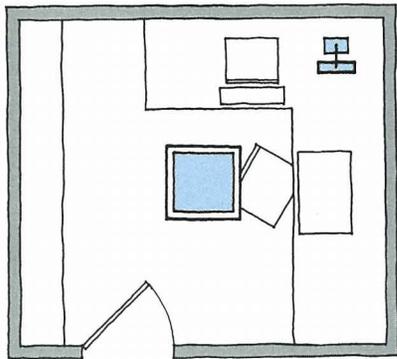
Replace the lamps in the diffuser with 52-watt halogen A-lamps. Replace the 75-watt lamp with an electronically ballasted 20-watt screwbase compact fluorescent quad-tube lamp. Check the fit of the compact fluorescent lamp in the desk lamp.



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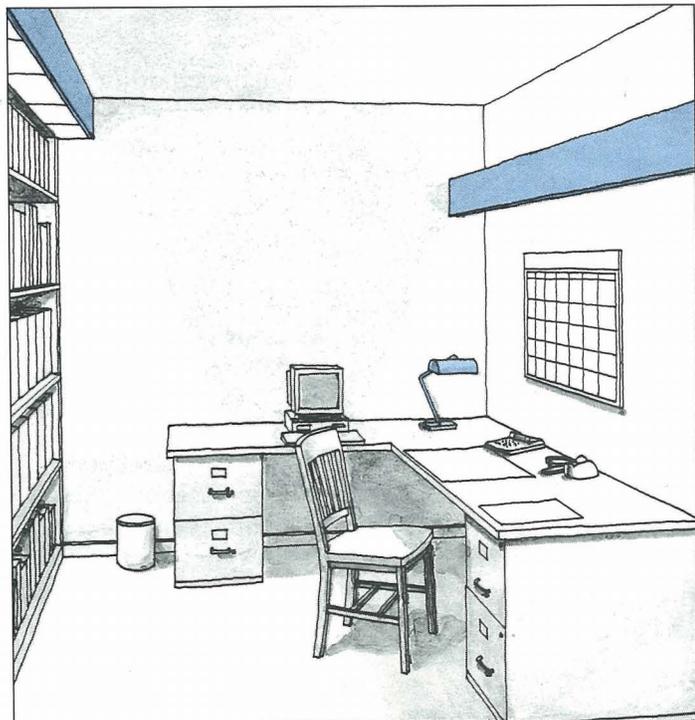
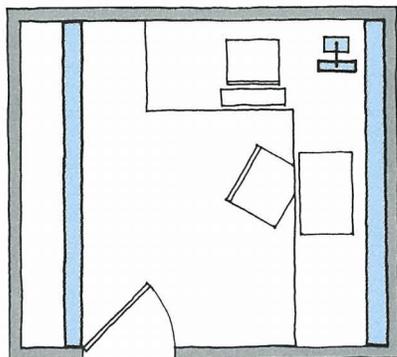
Replace luminaires

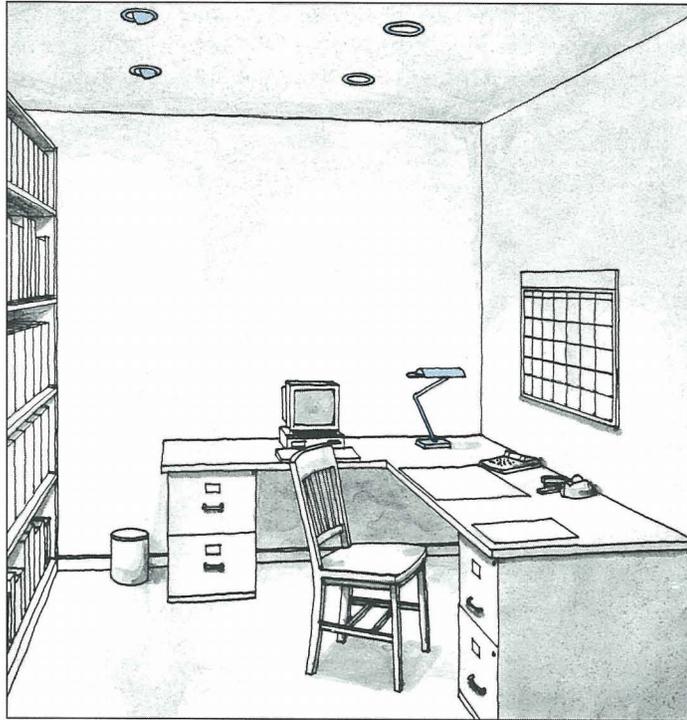
Replace the diffuser with a 2-foot by 2-foot ceiling-mounted luminaire that contains two 34-watt T12 RE730 U-shaped fluorescent lamps and one electronic ballast. Replace the desk lamp with one that contains an 18-watt compact fluorescent quad-tube lamp and one magnetic ballast.



Remodel or new construction

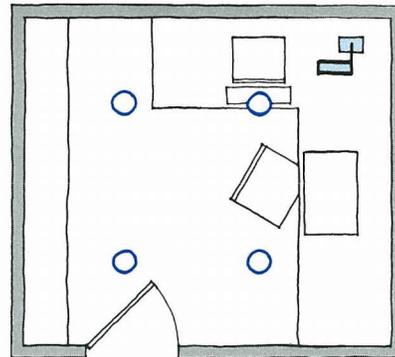
Install a valance over the desk. The valance contains two 32-watt, 4-foot T8 RE730 linear fluorescent lamps and one electronic ballast and is controlled by a wall-mounted switch. Optionally, use a dimming ballast and dimmer switch. For the option of higher light output over the desk area, use four lamps wired in pairs to separate switches. Install a soffit over the shelves. The soffit contains two 32-watt, 4-foot T8 RE730 linear fluorescent lamps and one electronic ballast and is controlled by a wall-mounted switch. Use a desk lamp that contains an 18-watt compact fluorescent quad-tube lamp and one magnetic ballast.





Remodel or new construction

Install two recessed wall wash luminaires near the shelves and two recessed downlights over the desk. Each luminaire contains two 13-watt compact fluorescent twin-tube lamps and one magnetic ballast. Each type of luminaire is controlled by a separate wall-mounted switch. Use a desk lamp that contains one 13-watt compact fluorescent twin-tube lamp and one magnetic ballast.



Annual Operating Cost at \$0.10 per kWh



CFT = compact fluorescent twin-tube
For all of the lamps, assume 2 hours of use per day and 2 hours per start.