

LIGHTING LAYOUT GUIDE SERIES

OFFICE GUIDE 6

ROOM CHARACTERISTICS

Length: 14'

Width: 14'

Height: 9'

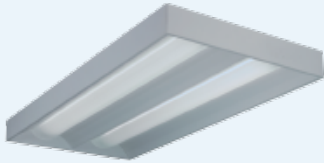
Reflectivity:

Ceiling = 80%

Walls = 50%

Floor = 20%

PRODUCT SPECIFICATIONS



Dimensions: 24" x 48"

Optics: Volumetric Distribution

Light Source: High output LED

CCT: 3500K

CRI: 82

Lumens: ~5400 delivered

Depreciation: 0.90 @ 60,000 hrs.

Rated Life: 60,000 hrs.

Watts: 55

PRIVATE OFFICE

LED 2' x 4' Troffer



THE OPPORTUNITY

In a private offices with 9' high ceilings it is possible to provide soft, uniform ambient lighting that illuminates both the task plane and the perimeter walls. Recessed high performance fixtures offer occupant controllable lighting that meets or beats the local energy codes.

THE SOLUTION

A centrally located pair of fixtures provides diffuse light that illuminates the work space. These fixtures provide excellent horizontal illuminance levels while also lighting the perimeter walls.

Install 2' x 4' acrylic lensed luminaires with high output LEDs. This combination meets the target illumination level of 35+ average maintained footcandles.

DESIGN CONSIDERATIONS

The inherent ease of LED dimming allows for a wide range of control (and the associated energy savings) by the office occupant. It should be noted that this fixture can cause distracting glare on specular screens, but works well for flat and matte screen monitors. Depending on the furniture layout, older occupants may require supplemental task lighting at the work surface.



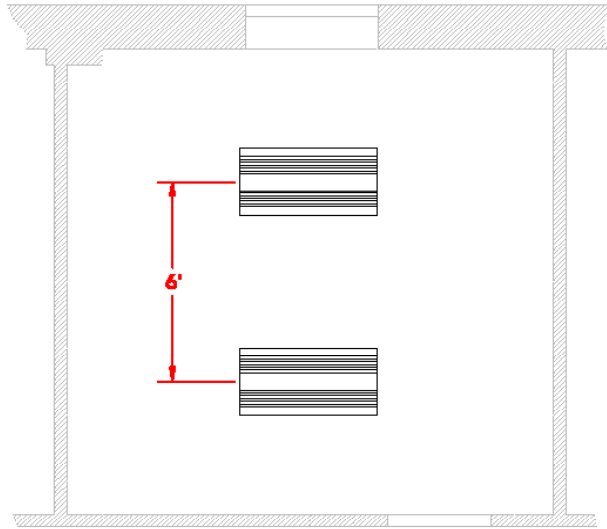
www.lightingdesignlab.com

NORTHWEST
LIGHTING NETWORK

www.nwlightingnetwork.com

LAYOUT OPTIONS

Private Office LED 2' x 4' | 6' Spacing



INSTALLATION SPECS

Number of Luminaires: 2
Luminaire Spacing: 6' on center
Mounting Condition: Recessed
Mounting Height: 9'
Average Illumination: ~36 fc (30" AFF)
Watts/sq. ft.: ~0.56

IES Recommended Footcandles (fc):
 30 - 50 fc (30" AFF)

CONTROLS STRATEGY

In an office with daylight, significant energy savings can be gained by using a vacancy sensor or an occupancy sensor that automatically turns the lights ON to 50% power when entering the space. Consider using a photocell to control the lighting in the daylight zone, and add task lighting to allow occupants to keep the ambient light at low power.

ENERGY SAVING STRATEGIES

STRATEGY	BENEFITS	LIGHT LEVELS
Daylight dimming in primary daylight zone	Can balance light levels within a space while using only enough wattage to maintain target light levels.	Light levels maintained from daylight.
Luminaire Level Lighting (LLLC) Controls	Combines multiple controls into one device.	Target light levels maintained during occupancy and non-daylit times.
Integrated occupancy sensor	Simple to commission and minimizes installation cost.	Light levels remain equal to base design.

ENERGY CODE INFORMATION

JURISDICTION	CODE	LIGHTING POWER ALLOWANCE
Seattle	2012 Seattle Energy Code	0.90 w/sq. ft. (1.11 space x space)
Washington	2012 WSEC	0.90 w/sq. ft. (1.11 space x space)
Oregon	2014 OEESC	0.91 w/sq. ft. (0.97 space x space)
Idaho	2012 IECC	0.90 w/sq. ft. (1.10 space x space)
Montana	2012 IECC	0.90 w/sq. ft. (1.10 space x space)