

## LIGHTING LAYOUT GUIDE SERIES

OFFICE GUIDE 1

### ROOM CHARACTERISTICS

Length: 60'

Width: 25'

Height: 9'

Reflectivity:

Ceiling = 80%

Walls = 50%

Floor = 20%

### PRODUCT SPECIFICATIONS



Dimensions: 24" x 48"

Optics: Refractor Lens

Lamps: (2) F32T8 HP

CCT: 3500K

CRI: 84

Lumens per Lamp: 3100

Ballast Factor: 0.88\*

Lamp Lumen Depreciation: 0.95

Luminaire Efficiency: 91%

Watts: 54.5

\* If the light levels are higher than required, consider a lower ballast factor (BF) for greater savings (see options on back).

# OPEN OFFICE

## T8 FLUORESCENT HIGH PERFORMANCE LENSED



Photo: Government Offices, Tallahassee, FL, Lithonia Lighting

### THE OPPORTUNITY

In a typical space with a 9' high, lay-in type ceiling, it's possible to provide high quality lighting that illuminates both horizontal and vertical surfaces, while meeting or beating the local energy codes. This layout directs the light to evenly illuminate the walls and task areas, producing a broader and brighter distribution pattern for occupants. Traditional, flat-lensed troffers or fixtures with parabolic louvers cannot achieve this type of distributed lighting.

### THE SOLUTION

Install 2' x 4' high performance lensed luminaires, equipped with high efficiency electronic ballasts and (2) T8 32w high performance lamps. This combination should meet the target of 35-50 average maintained footcandles. Though these solutions will not eliminate glare on older computer screens, they will work well with flat screen monitors, and other matte (non-specular) screens.

### DESIGN CONSIDERATIONS

In these examples, the highest light levels are possible only if the luminaires are placed over desks and work areas. Partitions can have a detrimental impact. Their vertical surfaces absorb and block light, creating shadows if installed off-center of the luminaires. Task lights may still be needed to provide additional illumination and eliminate shadows.



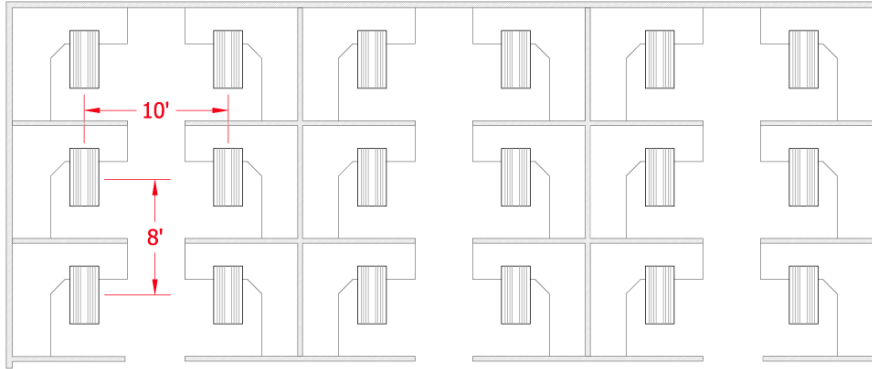
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## LAYOUT OPTIONS

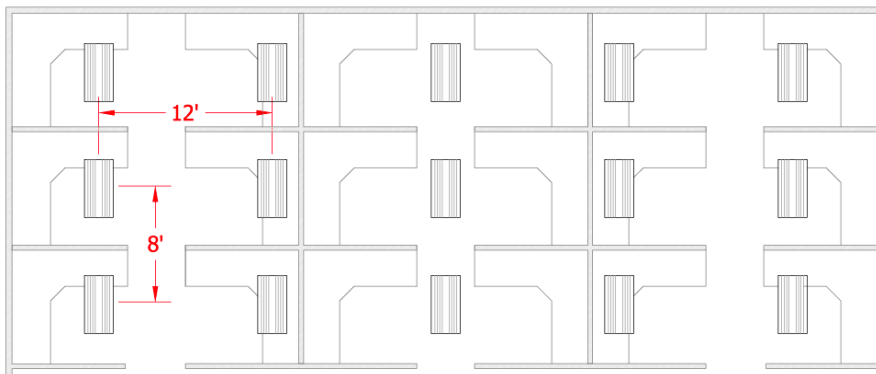
### Open Office (2) T8 Fluorescent High Performance Lensed | 8' x 10' Spacing



#### INSTALLATION SPECS

**Number of Luminaires:** 18  
**Luminaire Spacing:** 8' x 10'  
**Mounting Condition:** Recessed  
**Average Illumination:**  
 ~36 fc (30" AFF)  
**Watts/sq. ft.:** 0.65

### Open Office (2) T8 Fluorescent High Performance Lensed | 8' x 12' Spacing



#### INSTALLATION SPECS

**Number of Luminaires:** 15  
**Luminaire Spacing:** 8' x 12'  
**Mounting Condition:** Recessed  
**Average Illumination:**  
 ~30 fc (30" AFF)  
**Watts/sq. ft.:** 0.54

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

## CONTROLS STRATEGY

Though not required in an open office, occupancy controls can save energy, particularly in non-daylight zones. It's usually best to not turn fixtures all the way off during business hours. Luminaire level lighting controls can be a simplified way to address complex occupancy and daylighting patterns in an open office.

## ENERGY SAVING STRATEGIES

STRATEGY	BENEFIT	TECH NOTE
Daylight dimming ballasts in primary daylight zone	Can balance light levels within the space while using only enough wattage to maintain target light levels	Light levels maintained from daylight
Lower ballast factor	Can reduce wattage considerably	Be sure target light levels are not compromised

## ENERGY CODE INFORMATION

JURISDICTION	CODE	LIGHTING POWER ALLOWANCE
Seattle	2012 Seattle Energy Code	0.90 w/sq. ft. (0.98 space x space)
Washington	2012 WSEC	0.90 w/sq. ft. (0.98 space x space)
Oregon	2014 OEESC	0.91 w/sq. ft. (0.93 space x space)
Idaho	2012 IECC	0.90 w/sq. ft. (1.0 space x space)
Montana	2012 IECC	0.90 w/sq. ft. (1.0 space x space)