

## LIGHTING LAYOUT GUIDE SERIES

# OPEN OFFICE

## 2-LAMP ACRYLIC LENSED

### ROOM CHARACTERISTICS

Length: 60'

Width: 25'

Height: 9'

Reflectivity:

Ceiling = 80%

Walls = 50%

Floor = 20%

### PRODUCT SPECIFICATIONS



Courtesy: Lithonia Lighting

**Dimensions:** 24" x 48"

**Lenses:** Refractor type

**Lamps:** (2) F32T8 High Performance

**Lumens per Lamp:** 3100

**Ballast Factor:** 0.88\*

**Lamp Lumen Depreciation:** 0.95

**Total Fixture Efficiency:** 84%

**Watts:** 54.5

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



Photo Credit: css2psd.com

### THE OPPORTUNITY

In a typical 8' to 9' lay-in type ceiling, it is possible to provide quality lighting that illuminates both horizontal and vertical surfaces, while meeting or beating the local energy code. Although High Performance Lensed fixtures are better at redirecting light to evenly illuminate the ceiling, wall and tasks, this layout produces a broad distribution pattern and performs better than traditional recessed fixtures with parabolic louvers.

### THE SOLUTION

Install 2' x 4' acrylic lensed luminaires, equipped with high performance electronic ballasts and (2) T8 32w. high performance lamps. This combination should meet the target of 35+ average maintained footcandles while keeping initial costs low. Though this solution can cause glare on traditional computer screens, it will work well with LCD monitors.

### 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 large 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.



The Lighting Design Lab is a Northwest utility sponsored education facility focused on quality energy efficient lighting solutions. Additional guides are available at the Lighting Design Lab website.

[WWW.LIGHTINGDESIGNLAB.COM](http://WWW.LIGHTINGDESIGNLAB.COM)

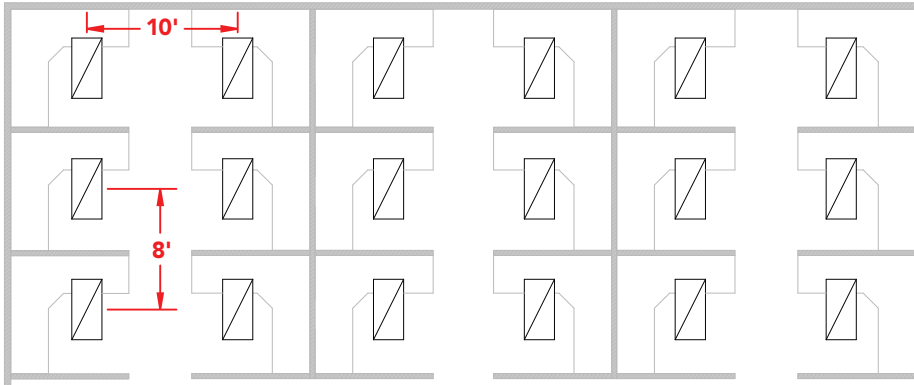
(206) 325-9711 or Toll Free: (800) 354-3864  
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## LAYOUT OPTIONS

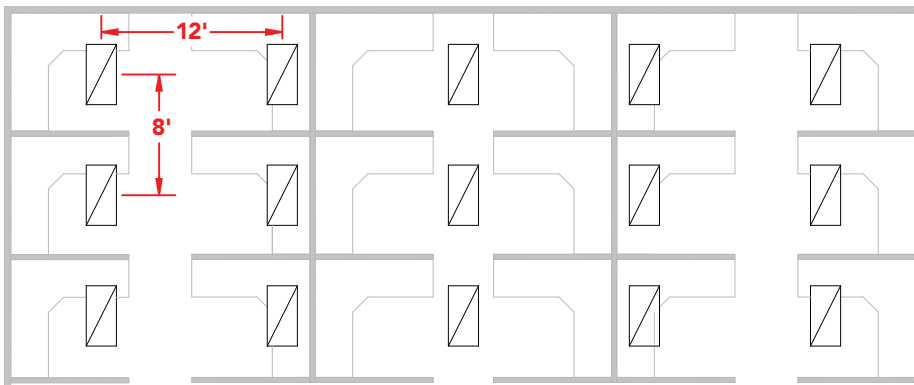
### Open Office 2-Lamp Acrylic Lensed | 8' x 10' Spacing



#### INSTALLATION SPECS

**Number of Luminaires:**  
18  
**Luminaire Spacing:**  
8' x 10' on center  
**Mounting Condition:**  
Recessed  
**Average Illumination:**  
~30 footcandles  
**Watts/sq. ft.:**  
0.65

### Open Office 2-Lamp Acrylic Lensed | 8' x 12' Spacing



#### INSTALLATION SPECS

**Number of Luminaires:**  
15  
**Luminaire Spacing:**  
8' x 12' on center  
**Mounting Condition:**  
Recessed  
**Average Illumination:**  
~30 footcandles  
**Watts/sq. ft.:**  
0.54

## ENERGY SAVING OPTIONS

STRATEGY	WATTS/LUMINAIRE	SAVINGS	LIGHT LEVELS
Daylight dimming ballasts (first row near windows)	~30w (@ 50% dimming)	50%	Maintained, from daylight
Lower factor ballast	48w (BF of 0.78)	12%	10% lower
Lower wattage lamps (28w T8)	44w (BF of 0.78)	21%	20% lower

## ADDITIONAL ENERGY CODE INFORMATION

JURISDICTION	CODE	LIGHTING POWER ALLOWANCE (OFFICES)
Seattle	2009 Seattle Energy Code	0.90 w/sq. ft.
Washington	2009 WSEC	0.91 w/sq. ft.
Oregon	2010 OEESC	0.91 w/sq. ft.
Idaho	2009 IECC	0.91 w/sq. ft.
Montana	2009 IECC	0.91 w/sq. ft.