OPEN OFFICE
T8 FLUORESCENT HIGH PERFORMANCE LENSED

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).

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.
## LAYOUT OPTIONS

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

![Layout Diagram](image)

**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

![Layout Diagram](image)

**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

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

## ENERGY CODE INFORMATION

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>CODE</th>
<th>LIGHTING POWER ALLOWANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle</td>
<td>2012 Seattle Energy Code</td>
<td>0.90 w/sq. ft. (0.98 space x space)</td>
</tr>
<tr>
<td>Washington</td>
<td>2012 WSEC</td>
<td>0.90 w/sq. ft. (0.98 space x space)</td>
</tr>
<tr>
<td>Oregon</td>
<td>2014 OEESC</td>
<td>0.91 w/sq. ft. (0.93 space x space)</td>
</tr>
<tr>
<td>Idaho</td>
<td>2012 IECC</td>
<td>0.90 w/sq. ft. (1.0 space x space)</td>
</tr>
<tr>
<td>Montana</td>
<td>2012 IECC</td>
<td>0.90 w/sq. ft. (1.0 space x space)</td>
</tr>
</tbody>
</table>

LIGHTING LAYOUT GUIDE SERIES  
OPEN OFFICE | T8 HP HIGH PERFORMANCE LENSED