THE OPPORTUNITY

In large volume spaces, such as a warehouse or manufacturing facility, it is possible to provide high quality lighting that illuminates the stacks and floor area to recognized standards, as well as meet or beat local energy codes, and extend the maintenance schedule.

THE SOLUTION

Install industrial high bay LED luminaires equipped with broad optical distribution and superior color rendering properties. This type of fixture typically has options for integrally mounted occupancy sensors and photocells for additional energy savings.

DESIGN CONSIDERATIONS

Tall obstructions, such as stacks and large machinery, have a large impact on the illumination of the space. Vertical surfaces absorb and block light. If shelving stacks approach the ceiling height, fixtures should be centered in the aisles. Lower stacks allow more flexibility with luminaire layout.
LAYOUT OPTIONS

Cold Storage LED High Bay | 15' x 18' Spacing

INSTALLATION SPECS

Number of Luminaires: 28 (20 shown here)
Luminaire Spacing: 20' x 22'
Mounting Condition: 24" Pendant
Mounting Height: 26' 0" AFF
Average Illumination:
~17 fc horizontal
~5.5 fc vertical
Watts/sq. ft.: ~0.28

IES Recommended Footcandles (fc):
10 - 30 fc horizontal
5 - 15 fc vertical

CONTROLS STRATEGY

Significant energy savings can be gained by use of occupancy sensors to turn lights OFF automatically after hours, and when the space is empty during business hours. Consider selecting luminaries with integral occupancy sensors to minimize installation cost.

ENERGY SAVING STRATEGIES

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>BENEFIT</th>
<th>TECH NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated occupancy sensors</td>
<td>Simple to commission, minimizes installation costs</td>
<td>Not all sensors function in large environment</td>
</tr>
</tbody>
</table>

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>0.50 w/sq. ft. (0.58 space x space)</td>
</tr>
<tr>
<td>Washington</td>
<td>2012 WSEC</td>
<td>0.50 w/sq. ft. (0.58 space x space)</td>
</tr>
<tr>
<td>Oregon</td>
<td>2014 OEESC</td>
<td>0.66 w/sq. ft. (0.58 space x space)</td>
</tr>
<tr>
<td>Idaho</td>
<td>2012 IECC</td>
<td>0.60 w/sq. ft. (0.60 space x space)</td>
</tr>
<tr>
<td>Montana</td>
<td>2012 IECC</td>
<td>0.60 w/sq. ft. (0.60 space x space)</td>
</tr>
</tbody>
</table>

LIGHTING LAYOUT GUIDE SERIES

LARGE VOLUME SPACE | LED HIGH BAY

Rev. 08/2015