Lighting a Vertical Surface

• Lighting vertical surfaces, such as walls, emphasizes the spatial perception of a room

Types of Lighting Solutions:
  – Wall Wash Lighting
  – Wall Grazing Lighting
  – Art Accent Lighting
Lighting a Vertical Surface: Wall Washing
Lighting a Vertical Surface: Wall Washing

Mounting Choices:

- Surface to the ceiling
- Surface to Track
- Recessed
Lighting a Vertical Surface: Wall Washing

Layout Choices:

- Individuals (designed to work together)

- Continuous
Lighting a Vertical Surface: Wall Washers

- Recessed
- Surface or Track
Lighting a Vertical Surface: Wall Washers

1. Rule of Thumb: Mounting Distance = Spacing Distance
2. Rule of Thumb: Mounting Distance = 1/3 the Ceiling height
   1. Mount the wall wash fixtures 2 to 3 feet from the wall on ceilings up to 9 feet high.
   2. Mount the wall wash fixtures 3 to 4 feet from the wall on ceilings up to 9 feet and 11 feet high.
3. Follow Manufactures Recommendations!
4. Optional corner and double wall (corridor) housing available
Lighting a Vertical Surface: Wall Washers

CANDLEPOWER DISTRIBUTION
Lighting a Vertical Surface: Wall Washing
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Lighting a Vertical Surface: Wall Washing
Wall Washing: Uniform Distribution of Light on a Vertical Surface
Wall Grazing: High Gradient of Light on a Vertical Surface
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Lighting a Vertical Surface: Wall Grazing

**WHAT IS WALL GRAZING**

Wall grazing is the technique of projecting an even pattern of light at very steep angles down the full height of a wall, to illuminate the wall and to accentuate its contour.

**WHAT IS NOT WALL GRAZING**

- Fluorescent strips in coves lack the punch to graze walls fully, lighting the cap of the wall far more than the base, and they are limited to fluorescent colors.
- Track fixtures in coves may use lamps with enough punch but they must be individually aimed, resulting in an inconsistent pattern down the wall, especially after relamping.
- Wallwashers, fixtures meant to light a wall from points some distance away, wash rather than graze; the effect may be a well-illuminated wall, but one whose texture is downplayed rather than accented.
What Makes A Good Wall for Grazing

TEXTURED
Any wall surface with an interesting texture is a good candidate for wall grazing, including:
- stone, like matte marble, granite or travertine
- wood, especially with expressed grainings
- fabric, either stretched or draped
- tile, particularly mosaics
- glass with an etched pattern
- plaster or stucco, but only when well executed

SMOOTH
Smooth wall surfaces, like polished stone, are often best illuminated by wall grazing because the technique minimizes annoying lamp reflections. In comparison, lighting a slick wall with ceiling-mounted wallwash fixtures results in a pattern of bright reflections visible from all angles below.

WHAT MAKES A BAD WALL
Any wall surface with an unpleasant texture is a bad candidate for wall grazing. A common example is a badly taped and spackled sheet rock wall. All of the wall’s imperfections will be highlighted.

Any wall to which things will be mounted should be considered carefully before grazing. Two of the more annoying effects possible are pronounced shadows, as those from framed paintings, and blinding reflections, as those from a chrome-trimmed building directory.
Lighting a Vertical Surface: Wall Grazing

For dramatic shadows on textured surfaces (such as draperies, stone, or brick) mount the fixtures 6 to 12 inches from the wall, with the fixtures the same distance apart and aimed downward for a grazing effect.

The effect should be gradiant from Top to Bottom.
Lighting a Vertical Surface: Wall Grazing
Vertical Surface - Wall Gazing
Lighting a Vertical Surface: Wall Grazing

Wall Section - Option B
Lighting a Vertical Surface: Wall Grazing
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Vertical Surface - Wall Gazing
Light washes and brightens the ceiling while making the room appear larger.

Light washes the wall to brighten the space and create a feeling of definition.
Accent Lighting
Accent Lighting

Generally Rule of Thumb

- fixtures should be aimed at a 30 degree angle from the vertical to prevent light from shining in anyone's eyes and to avoid disturbing reflections on the surface of the object.
Accent Lighting

Generally Rule of Thumb

- Usually, one fixture is required for each object being accented, but two can provide soften shadows and provide a wider wash of light.
# Accent Lighting

## MR16 Bare Lamp Data / Guide

### Accent Lighting Performance Data

(FC) is initial footcandles at center of beam. Beam length (L) and beam width (W) are to where the candlepower is reduced to 50% of the center beam candlepower. CBCP is center beam candlepower. (C) is distance to center of the beam. Lamp data shown is typical, and is based on bare lamp photometrics. Contact lamp manufacturers for availability and performance.

### MR16 Low Voltage Halogen Bi-Pin Lamps

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Beam Spread (Bi-Pin 23°)</th>
<th>CBCP</th>
<th>Rated Life (Hrs)</th>
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<tr>
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<td>7°</td>
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Accent Lighting – Framing Projector