About Axis

Founded in 1991 and still family owned and managed, Axis is an important source for architectural lighting across North America and around the globe. Over the last decade, Axis has exhibited remarkable growth thanks to its Design Flexibility, Optimal Energy Efficiency and Responsive Customer Care.

On the strength of a broad and expanding product line, and pioneering technology such as SurroundLite, the company has successfully completed lighting projects for high-profile clients including Apple, Chrysler, The Empire State Building, Google, Hyundai, Time Warner and McGill University, among others.

Axis has the drive and the expertise to meet your needs and provide architectural lighting... your way.
When you look at light differently, when you shift your focus from the luminaire to the lighting and rethink how light is designed, you find new ways to get the most out of the materials and technology that produce light. Especially when you seek to create the best possible architectural lighting.

Axis has taken that path. With outstanding results.

Introducing SurroundLite™
**Surround Sound** creates a richer audio experience with additional speakers that surround the listener.

**SurroundLite** creates a richer visual experience with additional light distribution that opens a space and pleases the eye.
There’s a feeling you get when you walk into a space... You can’t quite put your finger on it because it’s all around you. It’s uniformly diffuse like natural light but it’s coming from the luminaires. It’s the special way light is being distributed, integrating well with architectural elements and sweeping the space with wide planes of light in all directions. On the ceiling, in corners, where the walls join the ceiling.

Welcome to SurroundLite, an evolving technology for general/ambient lighting exclusive to Axis, providing new and improved LED lighting tools to the design community.

Innovative technology to get much more out of LEDs

Axis SurroundLite is based on the fundamental physics of how light interacts with matter. The specially engineered lightguide is made of precisely coded and aligned molecules that shape LED output in all three dimensions.

A systems approach: The whole is greater than the sum of its parts

Inside luminaires using SurroundLite technology, optics components are specially designed to interact with each other in an optimal manner. Using a systems approach, the lightguide, edge-lit mid-flux LED light engines and integrated driver work together, complementing each other’s high-performance features and yielding unsurpassed application effectiveness.

**SurroundLite™**

Adding dimension to LED lighting

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**Integral Control-Ready Driver**

**LED Board**

Precision-coupled optics components work in synergy with the lightguide.

**Patented Leading-Edge Lightguide**

- Materials-based technology using molecular optics
- Creation of diffuse and uniform planes similar to natural light
- Effective batwing distribution with cutoff in all directions
- Elimination of shadowing from dust or bugs
- Up to 8-foot continuous lightguide extrusions available

www.axislighting.com
True Lighting Benefits of SurroundLite™

Slim SurroundLite Wall Mount version under development
Glare Mitigation
Regressed lens, VL Optic, louvers and lenses yield lower luminance on the luminaire’s light-emitting area.

Reduced ‘Cave Effect’, Increased Perceived Brightness
Wide 3D batwing uplight distribution lights up corners
Lighting at seam between ceiling and wall
3D light distribution from luminaire extremities lights up adjacent spaces and vertical planes

Use of Fewer Luminaires
The 3D nature of light distribution is well suited to checkerboard patterns, reducing the need for continuous rows.

Better Facial Modeling / Facial Recognition
Reflected light from illuminated surfaces within the space results in soft fill light on the vertical plane.

No Streaks or Hot Spots of Light
Axis SurroundLite technology spreads out light uniformly versus Lambertian distributions that put an intensity of light directly above and below the luminaire.

3D Polar Curve (SL 80/20)
SurroundLite spherical 3D light distribution

Key Features
• Wide 3D Distribution
• Visual Comfort
• High Efficiency
• Superior Sustainability.
THE LIGHTING MODEL
Wide 3D Distribution

One of the biggest challenges in lighting is achieving balanced illumination. With uniform brightness, a space is optically larger. When there are dark areas on the ceiling and near the top of walls – commonly known as the ‘cave effect’ – the room is optically smaller, limiting vision and potentially creating eye fatigue and lowering productivity.

With SurroundLite™ extra-wide, multidimensional light distribution, light is directed in all three planes and sent in every corner of the room. In retail aisles, down distribution provides excellent vertical light on store merchandise. In open-plan offices and libraries, rows can be spaced up to 15 feet on center for optimal power densities. SurroundLite brings the promise of balanced brightness, facilitating lighting design.

Dare to compare
With SurroundLite, precision optics emit light where you need it: corners, at seam between ceiling and wall and on task. Wide spherical 3D distribution also occurs from luminaire extremities, sending light into support areas and adjacent walls.
THE LIGHTING QUALITY
Visual Comfort

By providing balanced illumination, SurroundLite™ creates improved visual comfort for ambient and general lighting applications. The three-dimensional light distribution is pleasant to the eye because of its diffuse characteristics that resemble natural lighting. In addition, the luminaire appearance in itself is appealing, given the uniformly diffuse light-emitting area and the softly lit luminaire extremities.

The highly uniform ceiling brightness opens up a space, illuminates vertical surfaces and invites the eye to explore, which is especially desirable in retail aisle applications. In conference rooms, private offices and open-plan areas, SurroundLite eliminates glare, reduces eye fatigue and supports effective facial recognition.

• Exceptionally uniform brightness on ceiling and on the work plane/task.
• Continuously lit aperture with illuminated luminaire extremities.
• Very diffuse light-emitting area, for a more natural appearance (no head-lamp effect or streaks of light).
• Spherical batwing distribution with cutoff eliminates bright spots directly under luminaire and dark spots between luminaires.
• High transmissivity shielding options available for added visual comfort.
High Efficiency

In addition to delivering wide distribution of glare-free, balanced LED light in all three lighting planes, SurroundLite™ technology ensures flexible, energy-efficient lighting design.

Light goes far and wide where you need it with performances reaching 105 LPW (at 3500K). Precision controlled 360-degree spherical distribution and exceptionally wide spacing further reduce the number of luminaires needed in a space without compromising uniformity.

With Axis SurroundLite, you take the guesswork out of designing low-energy quality lighting configurations, whether applications require uplight, downlight or a combination of the two.

• Efficacy up to 105 LPW (at 3500K) no matter the distribution.
• Unsurpassed application effectiveness.
• Extra-wide spacing: up to 15-foot centers.
• Power densities well below ASHRAE 90.1, New York City Building Code and Title 24 requirements.
• Choice of two lumen packages adds flexibility to meet energy requirements.
• SurroundLite compatible with various controls and integrated sensors for added energy savings.
• SurroundLite features optical efficiencies greater than 90% whereas most edge-lit systems offer less than 80%.
Superior Sustainability

What happens to LED luminaires after 50,000 hours of operation? Most will end up in landfills because their LED light engines cannot be replaced or upgraded. Unless they have SurroundLite™ technology inside.

SurroundLite is the product of ecodesign. Not only can luminaires be taken apart upon end of-life for recycling, but they can be updated over the years with easily removable, more advanced LED light engines. In other words, SurroundLite technology helps protect your investment in efficient lighting and preserve design integrity. In addition, because it incorporates LEDs, no mercury or hazardous materials are used in its manufacturing.

- Upgradeable and future-proof field-replaceable LED light engines.
- LED system efficiency to exceed 60,000 hours of service life with 85% lumen maintenance (L85).
- Axis ‘Spec-it-Forward’ policy, ensuring that customers receive the most up-to-date version of SurroundLite technology based on luminaire delivery date rather than ordering date.
- Worry-free coverage with Axis’s 5-year warranty on the LED board and driver.

Net Zero Ready

Efficient lighting is one of the main critical areas for meeting the Living Building Challenge for zero carbon emissions from buildings by 2030, set by the International Living Future Institute. With over 105 LPW (at 3500K) and its potential for less than 0.5 W/ft² power densities, SurroundLite technology is ideally suited to deliver long-lasting savings and help green building managers achieve realistic and cost-effective energy targets.
With its stylish, clean lines and ultra-thin 1 3/8” (3.5 cm) profile, Slim SurroundLite brings a contemporary solution for cost-effective quality lighting performance.

Creating beautiful linear visual statements, Slim SurroundLite is a versatile pendant suited to illuminating spaces with high or low ceiling heights, and for lighting concepts with or without daylight contribution.

**Shielding Options**

Different shielding media provide varying degrees of visual comfort, but also impact luminaire appearance. All shielding options yield a 3D batwing distribution with peak cutoff angle under 60°. The effects of shielding on downlight distributions are as shown:

**VL:** VL Optic™ provides optimal efficiency and visual comfort with 92% transmission and true 3D narrow batwing distribution with cutoff.

**PL:** Flat-blade louvers provide high visual comfort when used with higher lumen packages and direct component that is >50%.

**SM:** Smooth lens provides uniformity on the light-emitting area and yields more light directly below the luminaire.

**RE:** Regressed reveals the lightguide and results in the widest 3D batwing distribution (suited only for Semi-Indirect product).

**Legend**

<table>
<thead>
<tr>
<th>VL Optic</th>
<th>Open office</th>
<th>Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC Controls</td>
<td>Airport</td>
<td>Retail</td>
</tr>
<tr>
<td>Private office</td>
<td>Education</td>
<td>Healthcare</td>
</tr>
</tbody>
</table>
Industry first: Shown here with integrated PL flat-blade louver option in a shallow fixture
Direct

Lighting Profile
Higher light levels on work plane. • Efficient narrow 3D batwing distribution with cutoff • Luminaires spaced closer together to achieve uniformity

Typical Application
Open area or high-ceiling spaces with horizontal tasks requiring good visibility or tasks requiring attention to detail (e.g. lab work)

Task Lighting
Not needed

Dimensions

3D Polar Curve (SL 0/100)

www.axislighting.com
Indirect

Shown here with continuous extrusion without breaks (up to 12ft)
Indirect

Lighting Profile
Lower light levels on work plane • Wide 3D batwing distribution • Luminaires spaced furthest apart (up to 15-foot centers) • Greatest ceiling uniformity

Typical Application
Executive office with strong daylight contribution / Open office areas with low ceilings

Task Lighting
Recommended

Dimensions

3D Polar Curve (SL 100/0)
Shown here with patented Axis VL Optic for efficient cutoff and mitigated glare in all planes.
Semi-Direct

Lighting Profile
Downlight > Uplight • High light levels on work plane • Wide 3D batwing uplight distribution / Narrow 3D batwing downlight with cutoff • Good visual comfort

Typical Application
Private office requiring high light levels, library or open office area without partitions

Task Lighting
Optional

Dimensions

<table>
<thead>
<tr>
<th>3D Polar Curve (SL 25/75)</th>
<th>3D Polar Curve (SL 35/65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% UP</td>
<td>75% DOWN</td>
</tr>
<tr>
<td>35% UP</td>
<td>65% DOWN</td>
</tr>
</tbody>
</table>
Semi-Indirect

Industry first: Regressed lens with integral driver and no view of particles through the lightguide
Semi-Indirect

Lighting Profile
Uplight > Downlight • High light levels on work plane • Wide 3D batwing uplight distribution / Narrow 3D batwing downlight with cutoff • Optimal visual comfort

Typical Application
Private offices, open office area without partitions

Task Lighting
Optional

Dimensions

3D Polar Curve (SL 80/20)
Industry first: Semi-Direct shown here with up to 8ft continuous smooth lens
## Slim Family Specification Guide

### SLIM SURROUNDLITE™ PENDANT DIRECT LED

<table>
<thead>
<tr>
<th>1 PRODUCT ID</th>
<th>2 VERSION</th>
<th>3 LIGHT ENGINE</th>
<th>4 NOM. LUMENS/FT</th>
<th>5 COLOR TEMP</th>
<th>6 SHIELDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLLED</td>
<td>B3</td>
<td>SL 0/100</td>
<td>1000</td>
<td>30</td>
<td>VL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>surroundlite 0%up/100%down</td>
<td>800</td>
<td>35</td>
<td>PL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SL 0/100</td>
<td>1000</td>
<td>35</td>
<td>Flat-blade louvers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>surroundlite 0%up/100%down</td>
<td>800</td>
<td>40</td>
<td>SM</td>
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</tbody>
</table>

Consult factory for other lumen packages.

### SLIM SURROUNDLITE PENDANT INDIRECT LED

<table>
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<tbody>
<tr>
<td>SLLED</td>
<td>B3</td>
<td>SL 100/0</td>
<td>1000</td>
<td>SL 3000 K</td>
<td>VL Optic</td>
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<td>35</td>
<td>Flat-blade louvers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SL 100/0</td>
<td>1000</td>
<td>40</td>
<td>Smooth lens</td>
</tr>
</tbody>
</table>

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### SLIM SURROUNDLITE PENDANT SEMI - DIRECT LED

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<td></td>
<td>SL 35/65</td>
<td>1000</td>
<td>40</td>
<td>Smooth lens</td>
</tr>
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<td></td>
<td>SL 80/20</td>
<td>1000</td>
<td>40</td>
<td>Smooth lens</td>
</tr>
</tbody>
</table>

Consult factory for other lumen packages.

### SLIM SURROUNDLITE WALL MOUNT LED - COMING SOON

**B3** refers to the current version/generation of LEDs available. As LEDs improve in performance, so too will the version of LEDs used in this and other Axis products (B4, B5, etc). With Axis Spec-It-Forward, you can always specify the latest in LED technology regardless of your project timeline. Consult factory for more details.

www.axislighting.com
Its minimalist design is big on energy efficiency and visual comfort, and its many options ensure superior lighting design flexibility.

**Light Distribution**
Spherical 3D batwing distribution with cutoff in all directions. Uniformity on horizontal and vertical planes. 3D lighting from luminaire extremities resulting in wide spacing.

**Integrated Driver**
Easy access from above. Choice of three drivers: Axis control-ready 0-10V, Lutron or other.

### SLIM SurroundLite™ Features

### 1 - Optics
- VL VL Optic
- PL Flat-blade louvers
- SM Smooth lens

### 2 - Color Temperature
- 3000K
- 3500K
- 4000K

**Color Consistency:**
In-plane mixing with 3-step MacAdam ellipse within fixture and between fixtures.

**Shielding options for added visual comfort**
Construction:
Aluminum extrusion with die-cast end caps

3 - IC Controls
- DS Daylight sensor
- OS Occupancy sensor
- DOS Daylight & Occupancy sensor

Integrated sensors for added energy conservation

4 - Finish
- AP alum. paint
- W white
- C custom

LED system
Up to 105 LPW at 3500K
Proprietary LED engine.
Removable and upgradable system components.
Minimum 60,000 hours at L85.

Maintenance
No dust cover needed – debris / dust on lightguide not visible from below.

Electrical
Emergency battery pack or emergency circuit available
120V, 277V, 347V, UNV.
# Mounting & Dimensions

<table>
<thead>
<tr>
<th>Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SLIM 4ft (4)</strong></td>
</tr>
<tr>
<td>8 1/4&quot;</td>
</tr>
<tr>
<td>49&quot;</td>
</tr>
<tr>
<td>For all fixture lengths</td>
</tr>
<tr>
<td><strong>SLIM 8ft (with 4' shielding)</strong></td>
</tr>
<tr>
<td>8 1/4&quot;</td>
</tr>
<tr>
<td>97&quot;</td>
</tr>
<tr>
<td><strong>SLIM 8ft Continuous (with 8' shielding)</strong></td>
</tr>
<tr>
<td>8 1/4&quot;</td>
</tr>
<tr>
<td>97&quot;</td>
</tr>
<tr>
<td><strong>SLIM 12ft (with 4' shielding)</strong></td>
</tr>
<tr>
<td>8 1/4&quot;</td>
</tr>
<tr>
<td>145&quot;</td>
</tr>
</tbody>
</table>

Suspension points up to 12ft apart result in fewer installation points and savings in construction costs.

Seismic mounting accessories also available.
Mounting along entire length of luminaire facilitates installation especially in retrofit applications.

Axis aligner system lines up luminaires in straight long continuous rows.

<table>
<thead>
<tr>
<th>Row Configurations - Mounting Spacing</th>
<th>Mounting Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominal run size</td>
<td>actual run size</td>
</tr>
<tr>
<td>4' 49&quot;</td>
<td></td>
</tr>
<tr>
<td>8' 97&quot;</td>
<td></td>
</tr>
<tr>
<td>8' 97&quot;</td>
<td></td>
</tr>
<tr>
<td>12' 145&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Installation sheets for all mounting options are available at: www.axislighting.com under 'Downloads' tab.
Average light levels: 43 fc
Power density: 0.53 W/ft²
Semi-Direct 35% up 65% down,
10ft spacing continuous, 1000 lm/ft
Being customer-oriented drives our efforts to meet your most demanding luminaire design needs. To facilitate the delivery of architecturally detailed luminaires, Axis has developed three manufacturing strategies that feature a “building-block” approach.

Build To Order, Design To Order and Codevelopment projects entail increasing degrees of complexity and custom manufacturing.

**Design Flexibility**

These luminaires include numerous standard options as found on product specification sheets.

**Build To Order**

These luminaires entail slight design adjustments to technical aspects, performance options or housing characteristics.

**Design To Order**

These selected projects involve a win-win partnership between you and Axis to design and build a new luminaire based on specific engineering or architectural requirements.

**Codevelopment**
Continuous rows:
Average light levels: 47 fc
Power density: 0.58 W/ft²
Semi-Direct: 35% up 65% down
2 x 32ft continuous rows
10ft spacing, 1000 lm/ft

Checkerboard pattern (inset photo):
Average light levels: 35 fc
Power density: 0.44 W/ft²
Semi-Direct: 35% up 65% down
2 rows, 6 luminaires per row
4ft pendant, 1000 lm/ft

With 7 luminaires per row, this same checkerboard setup will generate 41 fc and a power density of 0.51 W/ft².