Linear Features



whitegoods

Whitegoods has developed the most complete range of linear fittings and integration profiles to illuminate any interior space. The Linear range was conceived to apply the right quality and quantity of illumination to the space while minimizing the source of the light and eliminating obtrusive light spill - all while holding true to our brand philosophy:

- Reduction of detail
- Seamless architectural integration
- Logical, modular systems and families of products
- Ease of specification, installation and maintenance

Linear

Whitegoods is a language of light developed to bring illumination to surfaces in the simplest way possible. We believe in 'luminous surfaces and planes of light'.

It is critical to our approach that our luminaires have a minimal visual impact. Their job is to reveal the surfaces around them, while seamlessly integrating with the architectural envelope. Whitegoods offers the discerning specifier a range of lighting tools to facilitate this approach. The Linear range is the most flexible architectural lighting tool developed to allow designers the freedom to work with light in an instinctive way.

Utilizing the small form factor, the range includes a family of profiles all based around the same high performance linear LED technology, developed by Whitegoods specifically for this product line. Coves, coffers, perimeter wash and seamless lines, all beautifully rendered with smooth even light.

This is Whitegoods: this is Linear.



ProTools 60 Linear





ProTools 2.4" Linear Downlight Recessed



ProTools 2.4" Linear Downlight 6" / 12" Recessed



ProTools 2.4" Linear Wall Wash Recessed



ProTools 2.4" Linear Wall Graze Recessed



ProTools 2.4" Linear Perimeter Recessed



ProTools 2.4" Linear Downlight Suspended



ProTools 2.4" Linear Direct/Indirect Suspended



ProTools 2.4" Linear Downlight Surface Mount



ProTools 2.4" Linear Downlight 6" / 12" Surface Mount



ProTools 2.4" Linear Downlight Wall / Mullion Mount



ProTools 2.4" Linear Direct/Indirect Wall / Mullion Mount

60 Linear Flush Lens





2.4" Linear Recessed Flush Lens



2.4" Linear Suspended Flush Lens



2.4" Linear Direct/Indirect Suspended Flush Lens



2.4" Linear Surface Flush Lens



2.4" Linear Wall Direct or Indirect Flush Lens



2.4" Linear Wall Direct / Indirect Flush Lens

100 Linear Flush Lens





4" Linear Recessed Flush Lens



4" Linear Suspended Flush Lens



4" Linear Surface Flush Lens

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Linear

Applications include:

- General illumination
- Wall wash
- Wall graze
- Accent lighting
- Direct/indirect lighting
- Perimeter lighting

Recessed, surface, suspended and wall mounted to any surface type.

The ability to utilize the same form and technology throughout any multipurpose space to deliver a cohesive language of light.

Small scale to integrate invisibly into the architecture, close to the surface being illuminated for greater energy efficiency and minimal spill light.

Specifiable in standard and completely tailored lengths to fit any space.

Overview

ProTools 60 Linear 2.4" aperture family offers straight runs or configurations for linear downlighting, wall washing, wall grazing and perimeter lighting with ultimate performance, superb glare control, lens / louver options and the Whitegoods attention to integration with surrounding materials.

- Recessed
- Suspended
- Surface
- Wall

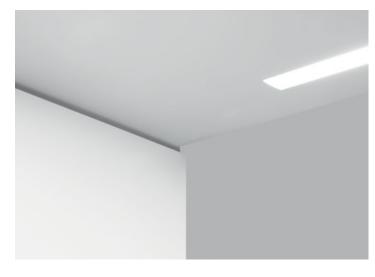


- Recessed
- Suspended
- Surface
- Wall



100 Linear 4" aperture flush lens family offers straight runs or configurations for linear downlighting with high-angle illumination, lens options and Whitegoods attention to integration with surrounding materials.

- Recessed
- Suspended
- Surface



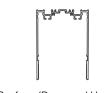




Linear Modularity

Whitegoods utilizes modularity throughout the range to ensure maximum efficiency of design, manufacture and maintenance. For the specifier this means absolute consistency across all product types and applications, as well as making sense economically.

60 / 100 Linear Flush Lens



Surface/Recessed Housing



Gear Tray



Diffuser



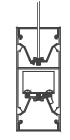
Recessed Plaster Trim



Recessed Bezel/Grid Trim



Suspended



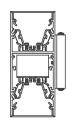
Suspended Direct/Indirect



Surface Mount

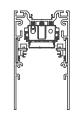


Wall/Mullion Mount

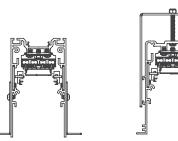


Wall/Mullion Mount Direct/Indirect

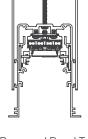
ProTools 60 Linear



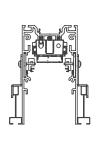
Surface/Recessed Housing



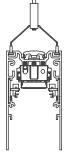
Recessed Plaster Trim



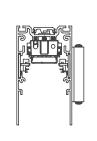
Recessed Bezel Trim



Recessed Grid



Suspended



Wall/Mullion Mount



Recessed Micro-prismatic Lens



Recessed Louver



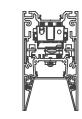
Wall Wash Lens



Regressed Opal Lens



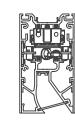
Recessed Narrow Optic



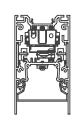
Recessed Micro-prismatic Lens

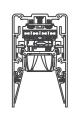


Recessed Louver



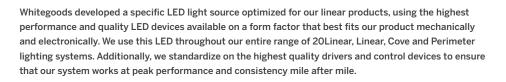
Recessed Lens + Wall Wash Regressed Opal Lens





Recessed Narrow Optic

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Whitegoods products are developed in a modular fashion that allows easy repair or replacement of the light source without upsetting the installation. We term this: future proofing.



- Replaceable light source guarantees sustainability.
- Available in any continuous length to accommodate exacting installations.
- Multiple wattages and lumen output for maximum flexibility within any application.
- Constant current, 90+ CRI, 3 step MacAdam.
- Four standard color temperatures from 2700K-4000K + Tunable White (2200K-4000K).

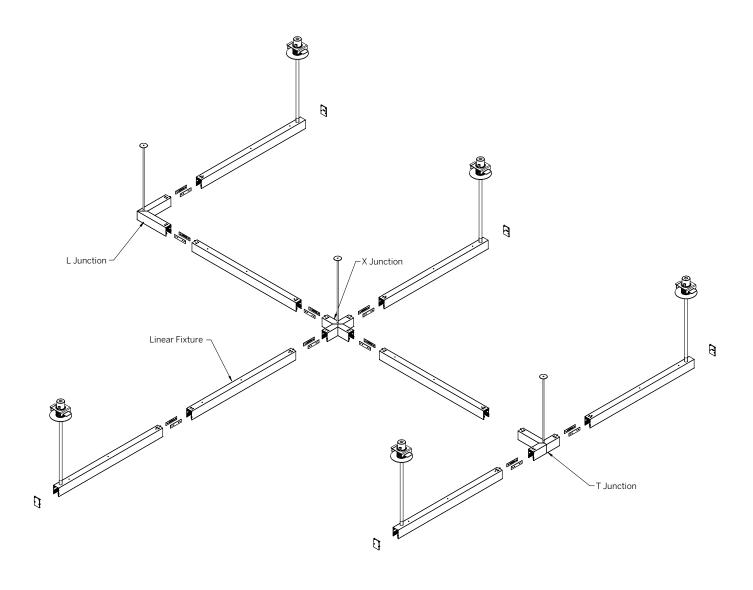
- Compatible with all common dimmer and control standards.
- High efficiency design delivers up to 120 lumens/watt
- L70 (TM21 Projected 85C) 72,000 hours.
- Used throughout Whitegoods 20 Linear, Linear, Cove and Perimeter products for color and performance consistency.
- 5-year warranty.

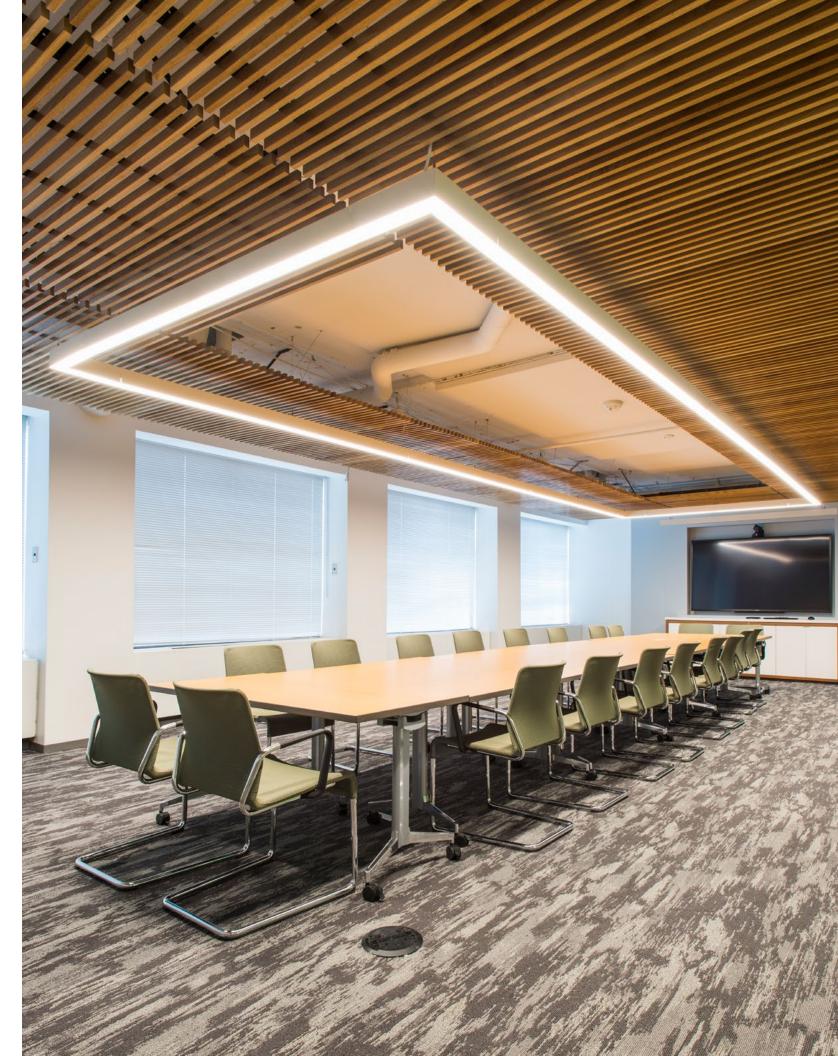


Hi

Linear System Configuration Logic

Whitegoods Linear systems can be specified to any length and in almost any pattern. Our purposedesigned configuration software determines the exact dimensions required for each and every section. Corners are prefabricated in our factory to keep things simple in the field.







Linear Lenses/Accessories

To further expand the applications that can be successfully achieved with the Linear, Whitegoods continues to develop optical accessories that increase efficiency, tighten the beam spread and shield the light source. The integration profiles available all accommodate optical accessories to allow the designer to combine attributes to successfully satisfy the application at hand.

Flush Lenses (wide-angle illumination)	
<u>8R</u>	<u> </u>
Opal Diffuser provides even, continuous line of light and general illumination (OD)	Satin Clear Diffuser for high efficiency soft edge beam, general illumination (SD)
Drop Diffuser of satin acrylic for general illumination and decorative effect (DD)	
Recessed Lenses (multiple distributions and bright	ness control)

Recessed Micro-prismatic lens - diffusion with maximum efficiency (RML)

Regressed Opal Lens - evenly illuminated line of light (ROL)



Recessed Elliptical Optic high efficiency graze (REO)



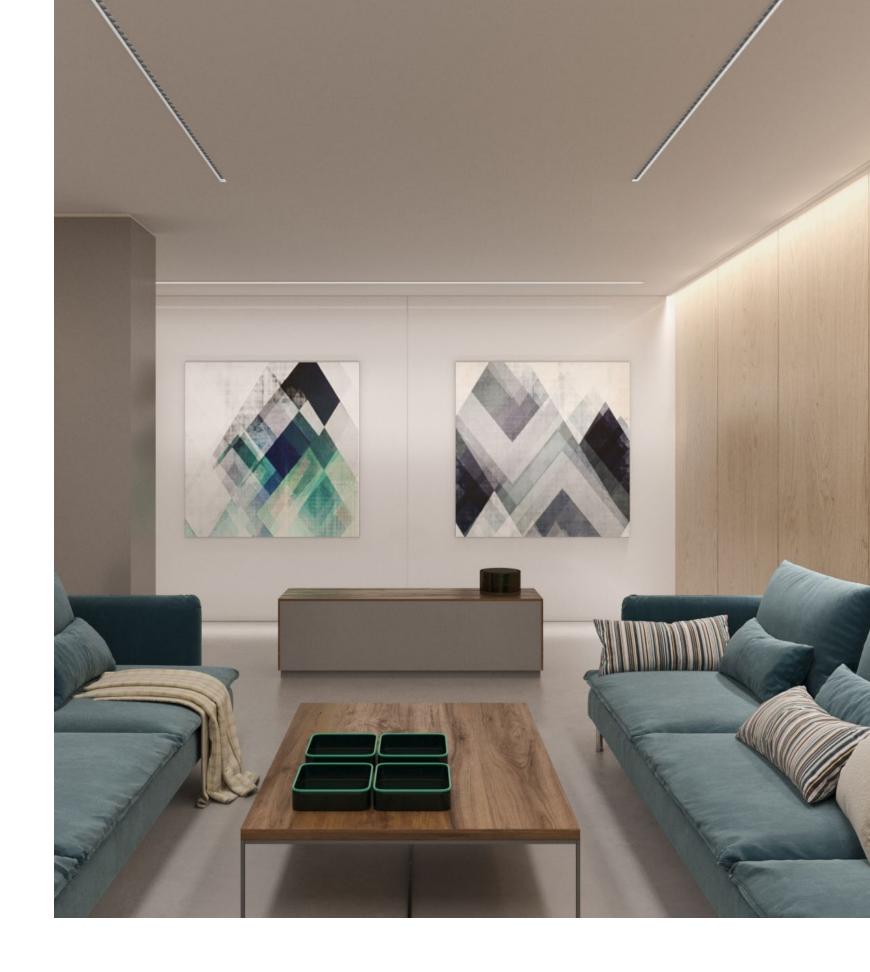
Recessed Louver in white or black - extreme cut-off (RLW/RLB)



Recessed Narrow Optic narrow beam (RNO)



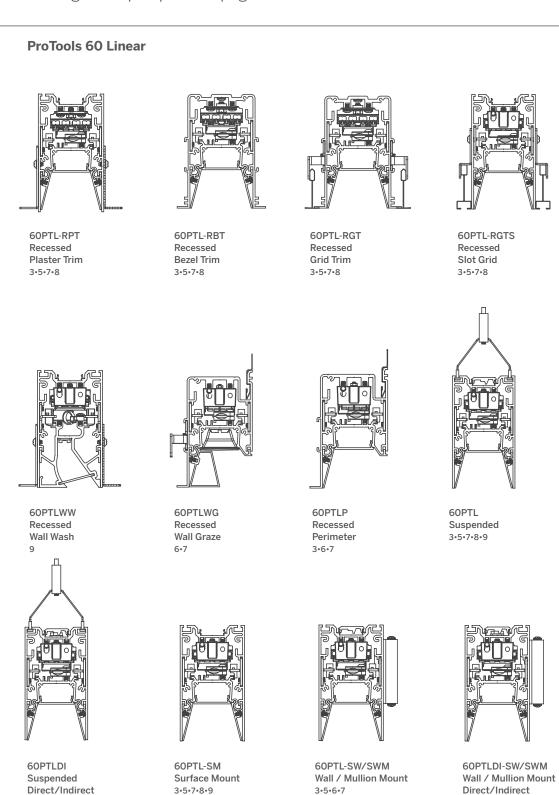
Linear Micro-prismatic Lens diffusion and high efficiency (LML)

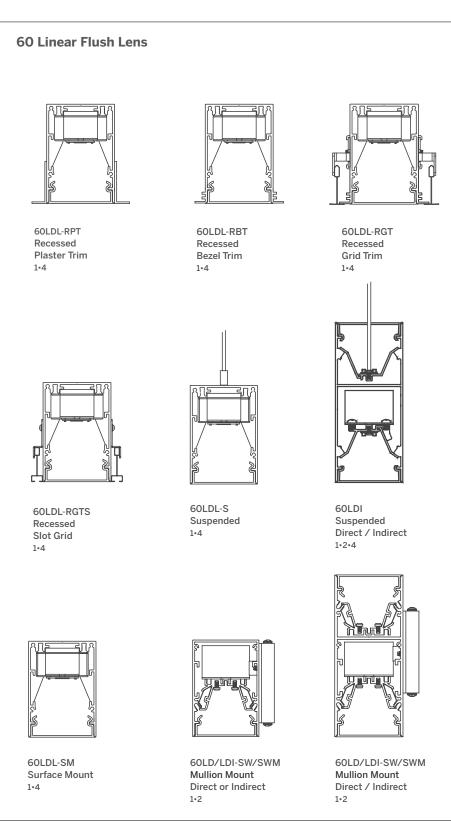


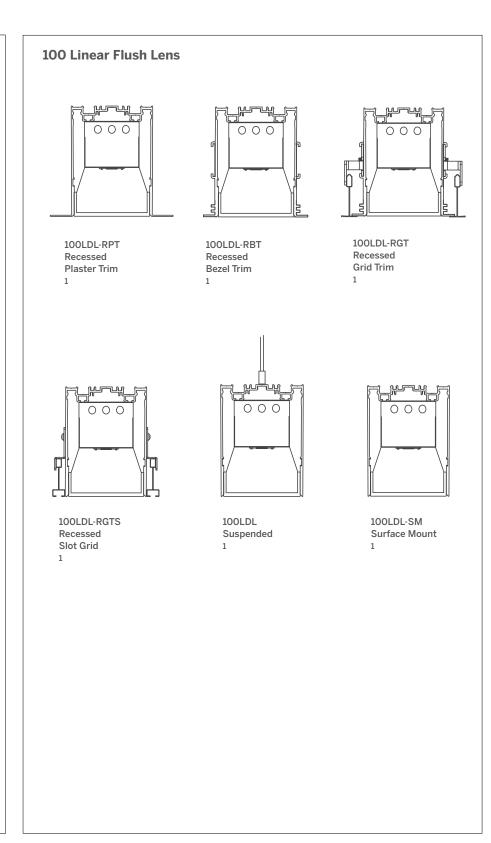
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Linear Interactive Product Overview

click images to open product pages







1 = Opal Diffuser (OD) 2 = Satin Diffuser (SD)

3 = Recessed Micro-prismatic (RML)

4 = Drop Diffuser (DD)

5 = Regressed Opal Lens (ROL)







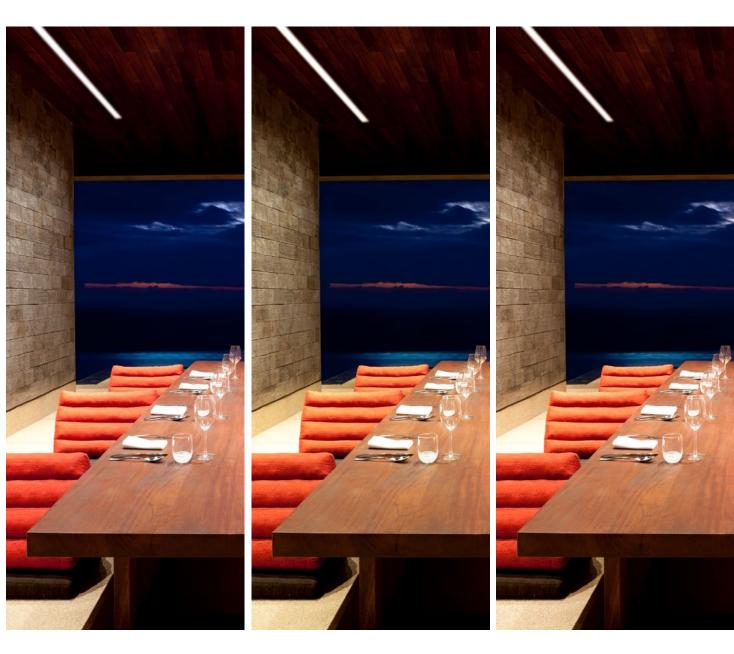
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Tunable White

Tunable White allows you to select any color temperature between 2200K and 4000K, while maintaining the same high quality color rendering as the standard LED. This feature is often used in health and wellness applications, as well as work spaces to increase productivity, architectural spaces to match natural light, and for design focus in retail and hospitality environments.

Color Temperature	Description	Typical Usage
4000K	Cool	Office, Exterior
3500K	Neutral Cool	Office
3000K	Neutral Warm	Office, Residential
2700K	Warm: Halogen Incandescent	Residential, Hotel
2200K	Very Warm Incandescent	Residential



RGBW

The ability to add dynamic color-changing to a very small scale product is an exclusive benefit of LED lighting. When used in conjunction with the 60/100 Linear range, colored light can be introduced into the space for accent, health and mood-setting results.



Application Guide

Whitegoods Linear products integrate into any space utilizing a multitude of mounting options, and deliver the right illumination where it is intended.

Through the use of multiple optical accessories, Linears are used for many applications including general illumination of a space, wash of light on vertical surfaces, accent lighting on features and grazing of textured surfaces.

Within the Application Guide, we strive to explain the diversity of applications that can be satisfied with Linears by breaking those applications into the most common lighting performance categories.

Integration. Versatlity.



Downlight



Regressed Opal Lens

Delivers wide angle general illumination for open spaces such as offices, corridors and classrooms.

Recessed Micro-prismatic Lens

General illumination with greater brightness control. Spaces where wide angle illumination is required and the source of illumination is not intended as a feature of the space.

Recessed Louver

This optic delivers narrow to wide angle illumination and a deep recessed louver that eliminates any direct source of brightness. Most applicable for spaces where the object to be illuminated is intended to be the most visible object in the space.

Flush Opal Lens

Performance includes the highest angle illumination perpendicular to the length of the luminaire while delivering even illumination to the space.

Flush Microprismatic Lens

Also delivering high angle as well as general illumination, this specially designed lens reduces visual brightness while increasing overall luminaire efficiency.

Mounting Options

- Recessed in any ceiling type
- Suspended
- Wall mounted

Surface mounted

Perimeter mounting

Linear Wallwash Optic

Wall Wash

Spaced appropriately from the wall, accent levels of light are evenly distributed on the subject wall. The wallwash optic delivers light from the very top of the wall, starting with a soft blend of light, to the bottom of the wall evenly, with the maximum light levels found in the mid-wall visual zone. By minimizing the aperture of the lumninaire, all brightness from normal viewing angles is eliminated. And with the use of a room-side kicker reflector, all of the light is distributed on the wall without light trespass on the room side. This is all accomplished with a flush to the ceiling plane aperture - the Whitegoods way

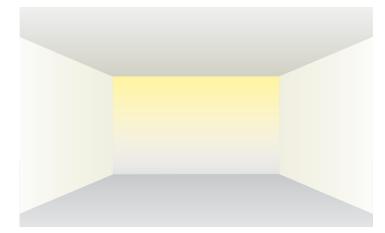
Flush Opal or Micro-prismatic Lens

Often accent levels of light are not needed for a balanced scheme that includes illuminating vertical surfaces. In that case, flush lens Linear will deliver even illumination to adjacent walls by virtue of their soft, high-angle light distribution.

Mounting Options

- Recessed in any ceiling type
- Surface mounted
- Suspended

Wall Graze



Perimeter Application

Recessing a continuous linear luminaire at the perimeter of a space is an effective way to provide vertical illuminance that will increase the perceived brightness of the space. The wall side flange of the fixture is removed which allows the wall to continue past the ceiling plane, seemingly to infinity.

Recessed Louver

By adding a tighter beam of light to the wall graze distribution, light is driven further down the wall and delivers a sheet of light from above the finished ceiling to the base of the wall. The recessed louver cuts viewing angles to the light source when viewed from any angle, and the choice of low or no brightness finishes on the wall-side reflector ensures that the wall is the brightest object in the space.

Soft-Graze

This feature simply extends the optic further from the wall and softens the contrast effect on the wall. All texture or imperfections of the wall will be less noticeable while you still have the option of using this fine grazing light.

Recessed Elliptical Optic

The recessed elliptical optic has a very similar light distribution to that of the Recessed Louver versions but will provide 30% more lumens to allow for use in taller ceiling height applications.

Mounting Options

- Recessed in any ceiling type
- Perimeter mounting

Recessed Micro-prismatic Lens

A continuous perimeter lighting system that delivers an even wash of light at the top of the wall, from above the finished ceiling, and gradually diminishes closer to the floor. The Perimeter system can be used to illuminate corridors and provide definition to feature walls.

Recessed Louver

Perimeter

Adding narrow beam optics and a deeply recessed louver in the perimeter system can deliver high levels of light to accent a wall feature up to 30 feet high, and illuminate objects below such as furniture or plant walls, while minimizing glare.

Soft-Graze

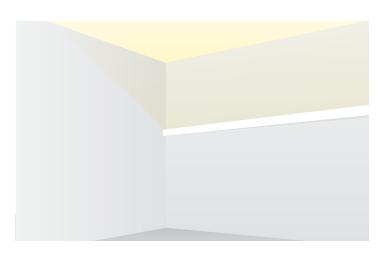
This feature simply extends the optic further from the wall, softens the contrast effect on the wall and projects more light to horizontal surfaces and features on the floor below. In addition, it can compensate for feature wall thickness and put the light exactly where it is needed.

Mounting Options

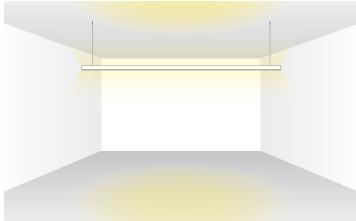
- Recessed in any ceiling type
- Perimeter mounting

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Indirect



Direct/Indirect



Batwing

ProTools 60 Linear uplight optics are accomplished through high efficiency refractor lenses specially designed for our LED boards. The Batwing is the wide angle lens that also delivers an even level of light directly above the luminaire. Use this lens when you are as close to the ceiling as 6 inches, use low power LED and still get light out into the space. Typical distances from the ceiling would be 12 inches and more for higher light output.

Asymmetric

The asymmetric lens is used to direct the majority of the light to one direction. Using this uplight option in a wall mount luminaire will put much less light on the wall and more into the space being illuminated.

Diffuse Opal Lens or Clear Satin

In applications where the luminaire may be viewed from above, or the application simply calls for general, diffuse illumination, an opal or clear satin lens will obscure the LED pattern and deliver diffuse light to the surface above.

Direct Light

The downlight component of any Direct/Indirect luminaire utilizes the same optical inserts, thus the same optics as previously referenced under: Downlight.

Indirect Light

The uplight component of any Direct/Indirect luminaire utilizes the same optical inserts, thus the same optics as previously referenced under: Indirect.

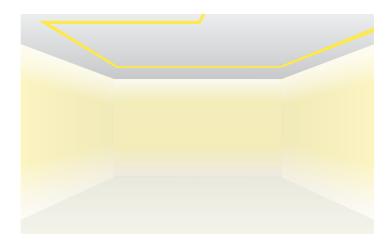
Mounting Options

- Suspended
- Wall Mount

Mounting Options

- Suspended
- Wall Mount

Configurations



Combinations

Combinations

Some applications call for multiple light distributions within a continuous channel. ProTools 60 Linear has been designed in such a modular fashion, so we can populate the housings with different optical inserts even in a single luminaire or run of multiple luminaires. As long as you specify in minimum 24 inch lengths, we can accommodate your space with a multiple function linear solution.

A Combination is appropriate in spaces where a clean, low brightness, continuous appearance in combination with different lighting applications are required, such as retail, conference rooms and lobbies.

Modularity and Flexibility. Challenge us..

Configurations

All Linear products are capable of being combined to produce continuous runs of any length. Our Housings can be produced to exact dimensions, the illuminated lenses (Regressed and Recessed) can fill the entire housing with light. Only the Recessed Louver has practical length limitations and cannot accommodate any length - so the LED/louver is provided in 6 inch increments and the difference is filled with a recessed snap-in cover and evenly applied to both ends of a run. Of course we can customize that. We provide corners in 90 degree standard as well as custom. In the same plane, or in two planes such as wall-to-ceiling and wall-to-wall.

Standard or Tailored - the Whitegoods way.

Mounting Options

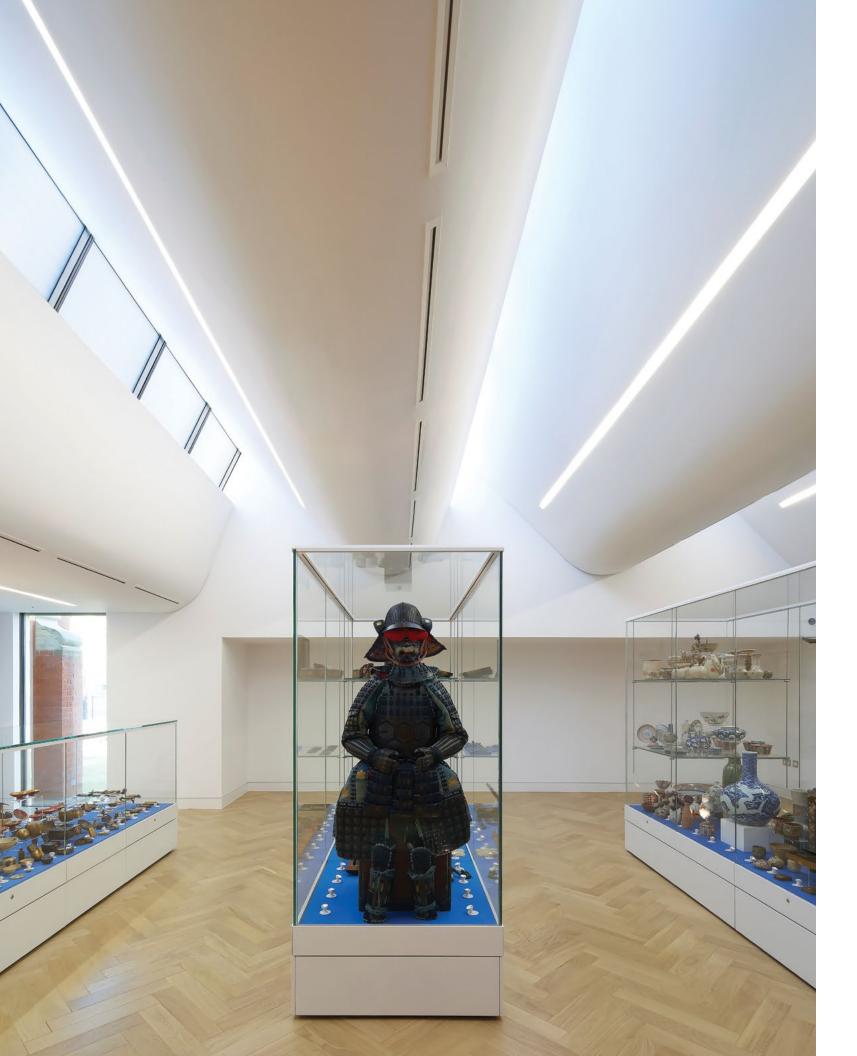
- Recessed
- Surface Mount
- Suspended ■ Wall Mount
- Perimeter

Mounting Options

- Recessed
- Surface Mount
- Suspended
- Wall Mount

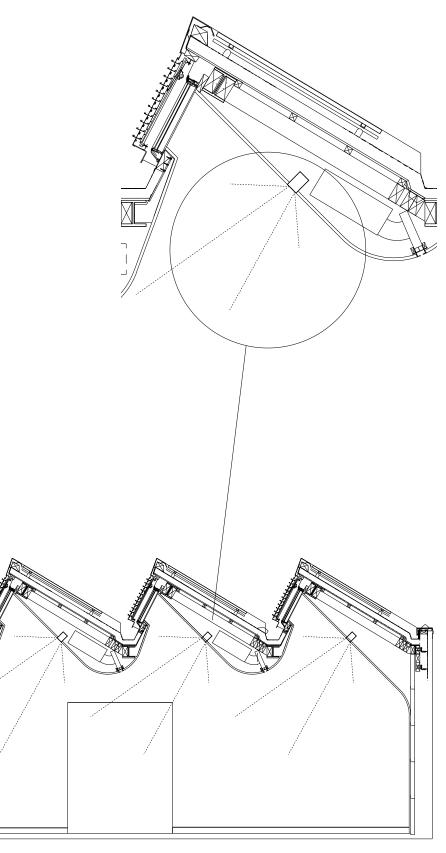
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Integration

Balancing the natural light within the space, continuous linear recessed luminaires are mounted directly opposite the clerestory north lights. As daylight fades the luminaires fade in to provide enough ambient light to the gallery space. The light in effect still comes from the same position, mimicking the natural light effect.



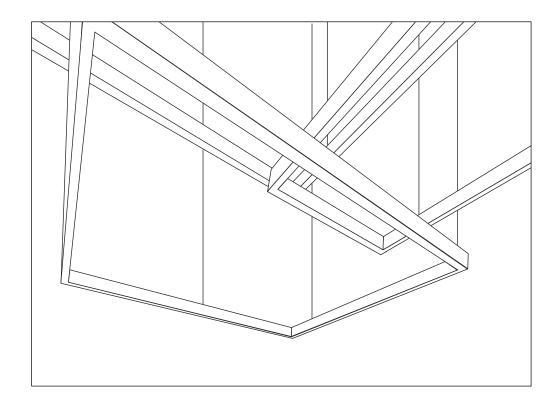
Suspended Configurations

Linear configurations can take many shapes, sizes and patterns. Designed for nearly any mounting option, coupled with unlimited length and corner possibilities, the designer's only limitation is the space where the product will live.

Here overlapping rectangles are suspended to illuminate a reading space day and night through a combination of direct and indirect light set to appropriate levels and maintained by an ambient light sensor attached to the control gear. Additionally, the system is designed to provide a portion of the required light levels for the feature grow wall.

The system is mechanically held together by active tension cross joiners that apply constant force to fixture connections eliminating light leak. The suspensions are located most anywhere along the system to minimize the clutter and afford the designer maximum freedom.

Modularity + Flexibility + Design





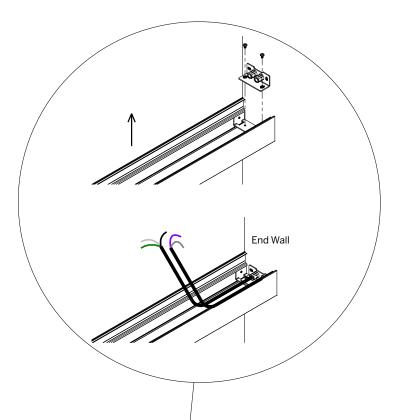


Clear Span Solution

Balancing the natural light within the space, continuous linear surface mounted luminaires are mounted directly beneath the skylights. As daylight fades the luminaires fade in to provide enough ambient light to the library space. The light in effect still comes from the same position, mimicking the natural light effect.

Without a solid ceiling above to anchor the fixture runs, a stiffener was developed to maintain rigidity across the clear-span. And the standard end-wall detail was applied to provide mechanical and electrical service to the system.

WOW



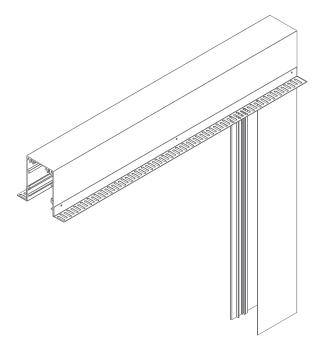


Recessed Configurations

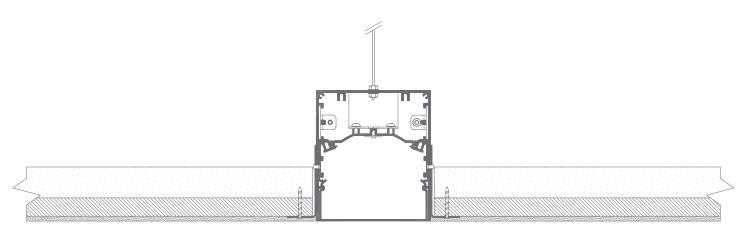
Whitegoods products have been designed to be 'tailored' to suit the needs of architects and designers seeking to use light as an integrated architectural element.

In this case, our 100 Linear luminaire (100LDL) has been integrated into a wood finish wall paneling system, and then transitions seamlessly via a factory prefabricated corner section into a gypsum ceiling surface. As if this were not enough, the luminaire is completely trimless by way of the Plaster Trim. The lens is continuous and evenly illuminated with no shadows or gaps apparent to the viewer, who perceives only the light, rather than the luminaires used to deliver it.

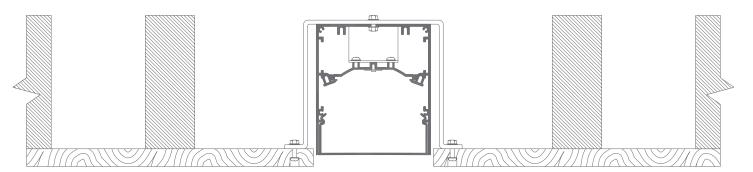
Whitegoods: Reduction of detail, and seamless architectural integration.



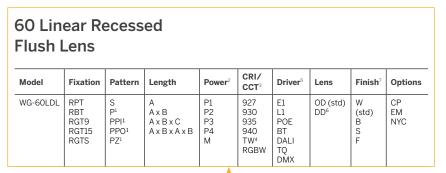
Section View of Ceiling Integration



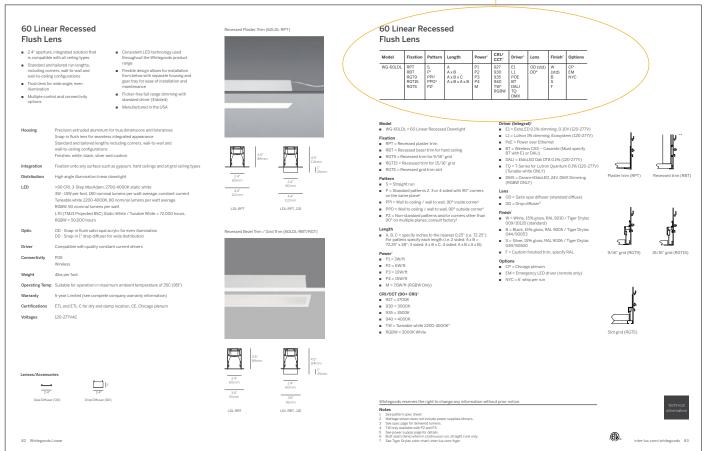
Plan View of Wall System Integration

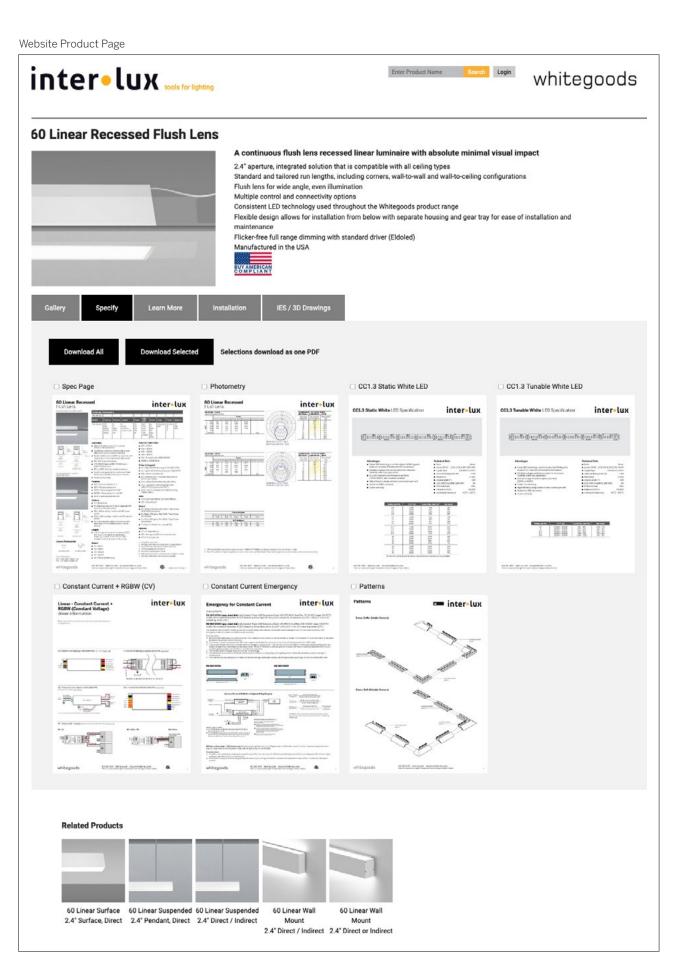


Details not to scale unless specified inter-lux.com/whitegoods 41



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The application of light to the surfaces around us is a critical factor in our perception of any space.

When proper consideration is given to the architecture, function and the desired atmosphere, lighting can become a truly integrated part of the overall environment being created, often unseen although defining and enhancing the space.

