Overview
The Finiré 3” fixtures are a diverse product offering that has many potential options that allow them to fit into different applications. While it does give the product a wide scope of potential uses, it can also cause confusion as to what options should be used in specific applications. This document will go through some of the different design options, explain the differences, and what applications these options might be best suited for.

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Downlight vs Adjustable vs Infinite Adjustable Fixtures

Downlight vs adjustable refers to the type of mechanism the LED module is mounted to. This cannot be changed after the fixture is shipped.

**Downlight Fixture**

Downlight fixtures should be used in applications where it is desired to have the light shine perpendicular to the front surface of the fixture (nadir). This encompasses a majority of general lighting applications that have a standard ceiling (parallel to the floor).

![Diagram of Downlight Fixture](image)

**Adjustable Fixture**

Adjustable fixtures are used in applications where it is desirable to have the light from the fixture shine at an angle other than straight down. The adjustable version of the Finiré 3" fixture allows the light module to be adjusted from 0° to 40° in 5° increments. The 5° increments allow multiple fixtures to be adjusted to the same tilt without going back and forth to fine tune the fixtures. Common applications are where light is to be pointed at something specific (e.g., artwork, vase, pedestal) or as a wall wash (e.g., hallway, accent wall).

![Diagram of Adjustable Fixture](image)

- 0° - 40°
- 5° increments
- Tool-less adjustment
Downlight vs Adjustable vs Infinite Adjustable Fixtures (continued)

Infinite Adjustable Fixture

Certain applications may require increments finer than 5°. To allow for this, Finiré 3” fixtures have an infinite adjustable option available. This option allows for continuous adjustment from 0° to 40°. It also allows for hot aiming via the provided tool. The applications for this option are those that require very detailed adjustability or applications where a designer wants hot aiming capability.

Sloped Ceiling Application

A specific application that adjustable and infinite adjustable fixtures are used is in sloped ceilings. In sloped ceiling applications, the design intent is often to provide a downlight look and feel. To achieve this when the ceiling is not parallel to the floor, adjust the fixture to counter the slope of the ceiling. For example, if you’re ceiling is slanted 25°, tilt the fixture to 25° to produce a downlight affect. Since the exact slope of the ceiling might not be known, adjusting the fixture to the correct tilt might require multiple rounds of adjusting the tilt and checking the result.
Non-IC vs IC vs Plenum Housings

IC vs Non-IC refers to whether or not the housing is able to be in contact with insulation. This cannot be changed after the fixture is shipped.

Non-IC (Non-Insulation contact) Housing
Non-IC housings either do not have a housing or the housing has ventilation slots that cannot be blocked. These housings can be used in applications that do not have insulation around the fixture. If there is insulation around the fixture, a fixture with an IC housing MUST be used.

IC (Insulation contact) Housing
IC housings are airtight and can come in contact with insulation. They have larger enclosures (check spec sheet for dimensions) to allow for heat dissipation. If a fixture is in contact with insulation, it CANNOT be an Non-IC fixture.

Plenum Housing
The term “plenum” describes air handling spaces above ceilings that are an active part of the air return for the HVAC system. To help protect the quality of the air, there are stricter requirements for anything going into these types of spaces. If the space above your ceiling is a plenum air handling space, you must use plenum rated fixtures.
Trimmed vs Trimless vs Wood/Stone Trimless Housings

When choosing different trim types (trimmed vs trimless), the housings are the same but ship with different hardware. A wood/stone trimless housing has a completely different housing design.

Trimmed Housing

A trimmed housing features a 0.5 in (13 mm) collar protruding from the bottom surface of the housing. This collar is there to provide a guide into the housing through the opening in the ceiling. The trim has clips that clip above this collar. A trimmed housing can be used for a normal trimless application if a mudring and screws are ordered.

Trimless Housing

A trimless housing is similar to a trimmed housing in that it features the above mentioned collar; however, the housing ships with additional hardware. A trimless housing comes with a mudring and mounting screws. The mudring gets installed after the drywall is installed and is screwed into mounting holes located around the collar of the housing. The trimless trim clips into the collar and assists in finishing the drywall surface around the hole. A trimless housing can be used for a trimmed installation without any adjustments but the mudring would not be used in this instance.
Trimmed vs Trimless vs Wood/Stone Trimless Housings (continued)

Wood/Stone Trimless Housing

The wood/stone trimless housing features an adjustable collar protruding from the housing. This allows for adjustability in aligning the bottom edge of the collar with the ceiling surface. A mudring cannot be used with wood, stone or other hard surfaces as it only works with mudded or plastered surfaces. A wood/stone trimless housing is unique and cannot be changed into a trimmed or standard trimless housing. Vice versa, a trimmed or standard trimless housing cannot be used as a wood/stone trimless housing.

Note: The adjustable collar on a wood/stone trimless housing will be the same color/finish as the trim chosen for that fixture. This is done to decrease the aesthetic impact of the collar in the space.

Thick Ceiling Applications

A thick ceiling application is any application in which the total thickness of all ceiling materials is greater than 5/8 in (16 mm). In these applications, special considerations must be taken in order to allow a Finiré 3" fixture to be used. A Finiré 3" fixture can accommodate ceilings up to 2 in (51 mm) thick using either of the thick ceiling options noted below. For ceilings thicker than 2 in (51 mm), contact fixtures@lutron.com.

Trimless

If the application is a thick ceiling and the trimless flange is being used, the Trimless Thick Ceiling (TT) option must be chosen. This option comes with longer screws that allow the mudring to be mounted further away from the housing than in a standard application. The trimless trim remains unchanged and clips into the mudring as it normally would. The thickness of the ceiling must be specified when ordering.

Trimmed

If the application is a thick ceiling and the trimmed flange is being used, the Thick Ceiling (TC) option must be chosen. This option comes with longer spring arms that allow the trim to be mounted further away from the housing than in a standard application. Due to the longer arms, the trim itself is different. The thickness of the ceiling must be specified when ordering.
Beam Spread Options

Finiré 3” fixtures have a number of different beam spreads to meet the needs of any application. The 28°, 40°, and 60° options are interchangeable and can be used with the Standard, High Output, and High Plus light engines. This provides flexibility to change the beam spread in the field quickly and easily if the chosen option does not give the desired effect.

15° Spread

A 15° beam spread is meant for applications where a narrow spot of light is required, typically to highlight a specific point/object. The 15° option can only be used with the Narrow Spot light engine, as the point of light must be smaller to achieve this narrow beam. This option can be seen below and is rendered in a 10 ft x 10 ft (3 m x 3 m) room with a 9 ft (2.75 m) ceiling.

28° Spread

The 28° beam spread can be used on any light engine except Narrow Spot. It can illuminate applications that require high lumen output light engines but do not require wider spreads of light (40° / 60°). It is commonly used in high ceiling applications because it keeps the light concentrated so that it looks like a pool of light on the floor and allows higher lumen output light engines to be used. This option can be seen below and is rendered in a 10 ft x 10 ft (3 m x 3 m) room with a 9 ft (2.75 m) ceiling.
Beam Spread Options (continued)

40° Spread

The 40° beam spread is the most common option. It is normally used in general lighting applications with standard height ceilings. It provides a good balance between narrow/focused lighting and flood/area lighting. This option can be seen below and is rendered in a 10 ft x 10 ft (3 m x 3 m) room with a 9 ft (2.75 m) ceiling.

60° Spread

The 60° beam spread is meant for flood lighting applications. In these applications, the light needs to be spread out as much as possible to create even distribution of light between the fixtures. This could include low ceilings or other applications where the number of fixtures need to be reduced. This option can be seen below and is rendered in a 10 ft x 10 ft (3 m x 3 m) room with a 9 ft (2.75 m) ceiling.
Correlated Color Temperature (CCT)

CCT refers to how warm or cool a particular light source appears. CCT is measured in degrees Kelvin (K). Finiré Prime offers two different options to meet the preference of the end-user.

2700 K
2700 K is the warmer option and represents a color temperature roughly equivalent to that of a standard incandescent bulb at high-end. This option is the most popular because the warm feel is what most people are familiar with in residential applications.

3000 K
3000 K is a slightly cooler color temperature and is more equivalent to newer high efficiency halogen bulbs. This cooler temperature can be used in specific applications where a cooler, brighter feel is desired (e.g., kitchen, bathroom, back of house space).

3500 K
3500 K is a neutral and cooler color temperature that is close to neutral fluorescent lamps. This color can be used if a bright white feel is desired. Of the three color options available, 3500 K has the highest efficiency.

Finiré 3” Fixtures with Warm Dimming

Finiré 3” fixtures with warm dimming offers the most incandescent-like experience on the market. Lutron technology provides a smooth, continuous dimming curve down to 1%. 2700 K or 3000 K options allow it to match perfectly with other Lutron fixtures at high-end and it can replace standard incandescent or halogen bulbs. When used with an EcoSystem control, the Soft-on, Fade-to-Black technology gives this fixture a performance similar to an incandescent bulb but with the savings of an LED bulb. See the next page for more information about Soft-on, Fade-to-Black technology.

In the graph below shows a graphical representation of the 2700 K and 3000 K Finire 3” with warm dimming options compared to a standard incandescent bulb. For each intensity, the corresponding CCT values of the fixtures are shown.

Note: Adjusting certain system variables (e.g., high-end and low-end trim) will not only affect the intensity of the fixture, but also the maximum and minimum achievable color temperature.

Note: Color is related to dimming percentage. If a high output module is dimmed to the same lumen output (different dimming percentages) as a standard module, they will have differing colors.
Trim Color / Finish

Finiré 3” fixtures are available in a variety of trim colors / finishes that allow the aesthetics of both the trim and the light output to be tailored to the space. See actual product images below.

Matte White Finish

The Matte White finish is the most common finish. It is standard with recessed fixtures, and works well with any ceiling color. It also offers one of the highest relative light outputs compared to the other finishes.

Matte Black, Silver, Bronze, and Silver / White Finishes

Matte Black, Silver, Bronze, and Silver / White finishes are the other powder coated finishes. They do reduce lumen output compared to the White finish, but allow the trim to have its aesthetic affect minimized or have it compliment the colors in the space.
Trim Color / Finish (continued)

Clear Chrome and Black Chrome Finishes
With Chrome finishes (Clear and Black), the trim has a glossy finish. When a glossy trim is used, it has an interesting effect on the way the fixture looks in the ceiling while powered. There will be some reduction in lumen output compared to Matte White finish, but not as much as with the Matte Black, Silver, or Bronze finishes. A glossy finishes minimizes the glare that can be seen when looking up at a fixture.

![Clear Chrome Finish](image1)
![Black Chrome Finish](image2)

Clear Anodized Finish
Very similar to the chrome finishes, the Clear Anodized finish minimizes the glare that can be seen while looking up at a fixture. In addition, it helps resolve a common complaint with chrome finishes. Reflections can be seen in chrome finishes as people move about the space. The Clear Anodized finish helps reduce glare and has the added benefit of not showing reflections.

![Clear Anodized Finish](image3)
Lens Options
Finiré 3” fixtures offer different lens options for different applications. Each of those lens are described below, including an image showing what the light output looks like as well as information regarding the differences and common applications.

The images below were taken with the same round, adjustable, 2700 K, Finiré 3” fixture, tilted at 40° towards the wall to show effect. This same effect can be viewed on the floor with a downlight fixture. The orange lines in each picture are in the same position and can be used as a point of reference.

The height of the ceiling and the distance from the wall will affect the dimensions of the beam of light as it spreads out. These images should be viewed relative to each other to understand the intrinsic differences between each lens, not to determine the true size of the spread in your application.

No Lens
Offers no transition between primary and secondary beams of light. The primary beam has a distinct cutoff. This option will provide the highest lumen output, but can be harsh when the fixture is viewed directly and can have a “halo” effect on the top of the trim. Please note that this option is not rated for wet locations.

Solite Lens
Offers some transition between the primary and secondary beams of light. There is approximately 4% decrease in light output vs. no lens. This option gives a softer look to the light output as well as to the fixture (if viewed directly). It also eliminates the “halo” effect at the top of the trim. The aesthetic of this lens is similar to that of a halogen source.

Primary Applications:
Residential - kitchens and bathrooms.
Commercial - conference rooms

Lens Configuration Model Number: SO
Lens Options (continued)

Frosted Lens
Offers the softest transition between the primary and secondary beams of light. There is approximately 15% decrease in light output for a frosted glass lens vs. no lens. The aesthetic of this lens is similar to that of an incandescent source.

![No Beam difference]

Primary Applications:
Bedrooms, living rooms, home theaters, or other areas where softer light is desired.

Lens Configuration Model Number: FG

Wall Wash Lens
Offers a soft transition similar to the frosted lens; however, a micro-prism film pulls the light higher and wider on the wall to help create a more even wash of light across the surface. There is approximate a 40% decrease in light output vs. no lens. The aesthetic of this lens is similar to that of an incandescent source.

![Wider and Higher]

Primary Applications:
Areas where a higher, wider light is desired to more evenly illuminate a wall.

Lens Configuration Model Number: WW
Wall Wash Fixture Spacing

When using the Wall Wash Lens, it is commonly asked what the spacing of the fixtures should be. There are a few variables that go into determining this, including the beam spread of the fixture as well as the distance from the wall that the fixtures will be located.

Distance from the Wall

The distance from the wall that the fixture should be is partially determined by how far up the wall it is desired to have the beam of light. While moving the fixtures closer will raise the beam of light, it will also result in needing more fixtures.

Distance Between Fixtures

Once it has been determined how far from the wall the fixtures should be, the amount of space in between them can be found by examining how wide the beam of light for each fixture should be.

For this application, the fixtures are positioned 3 ft (0.92 m) from the wall and are spaced 4 ft (1.22 m) between each fixture. A round adjustable fixture was used with a 40° beam spread, full tilt, and a wall wash lens.

As can be seen, the wash along the wall is fairly even. In the spacing described above, light starts 12 in (305 mm) from the ceiling on the wall. To achieve light higher on the wall, the fixtures would have to move closer to the wall and then closer together to avoid scalloping. Lutron suggests modeling your Wall Wash application in design software to confirm spacing for the specific application. IES and REVIT files can be found at www.lutron.com.
Soft-on, Fade-to-Black Technology

Soft-on, Fade-to-Black technology is featured in the LED drivers used for the EcoSystem control option. This technology fades smoothly between 0% and 1% when the fixture is turned on or off thus providing an incandescent-like experience. This eliminates the “pop-on” and “pop-off” which can be experienced with LEDs as they transition from off to low-end or vice-versa.

Fade-to-Off Profiles

![Fade-to-Off Profiles Graph](image-url)
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