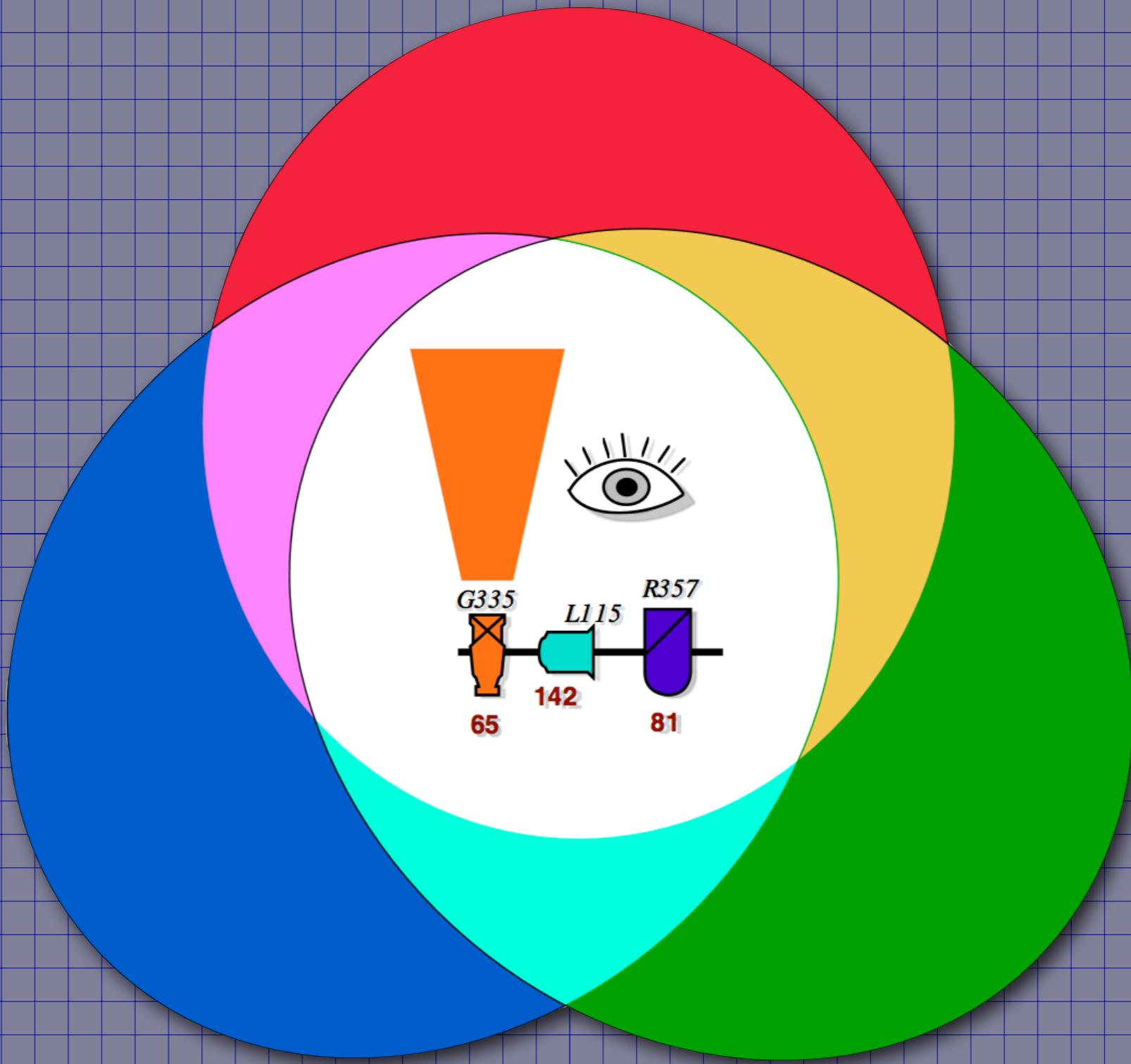
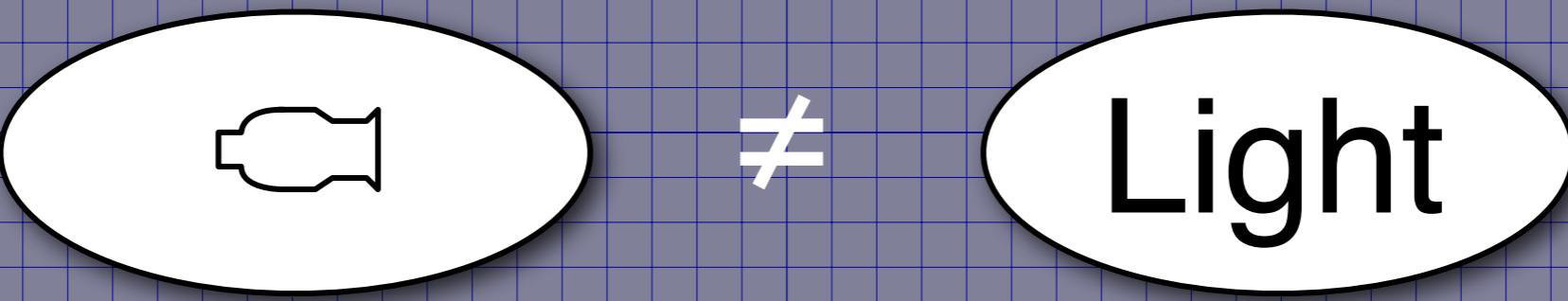


Object Relationships



IATSE 728 Workshop 2020

©2020



The graphic symbol represents a Light object.

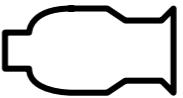


A diagram illustrating the 'Light' object. It features a white oval with a black border. Inside the oval, the word 'Light' is written in a bold, black, sans-serif font.

Light

A Light object is a collection of data
that represents a “real world” fixture.

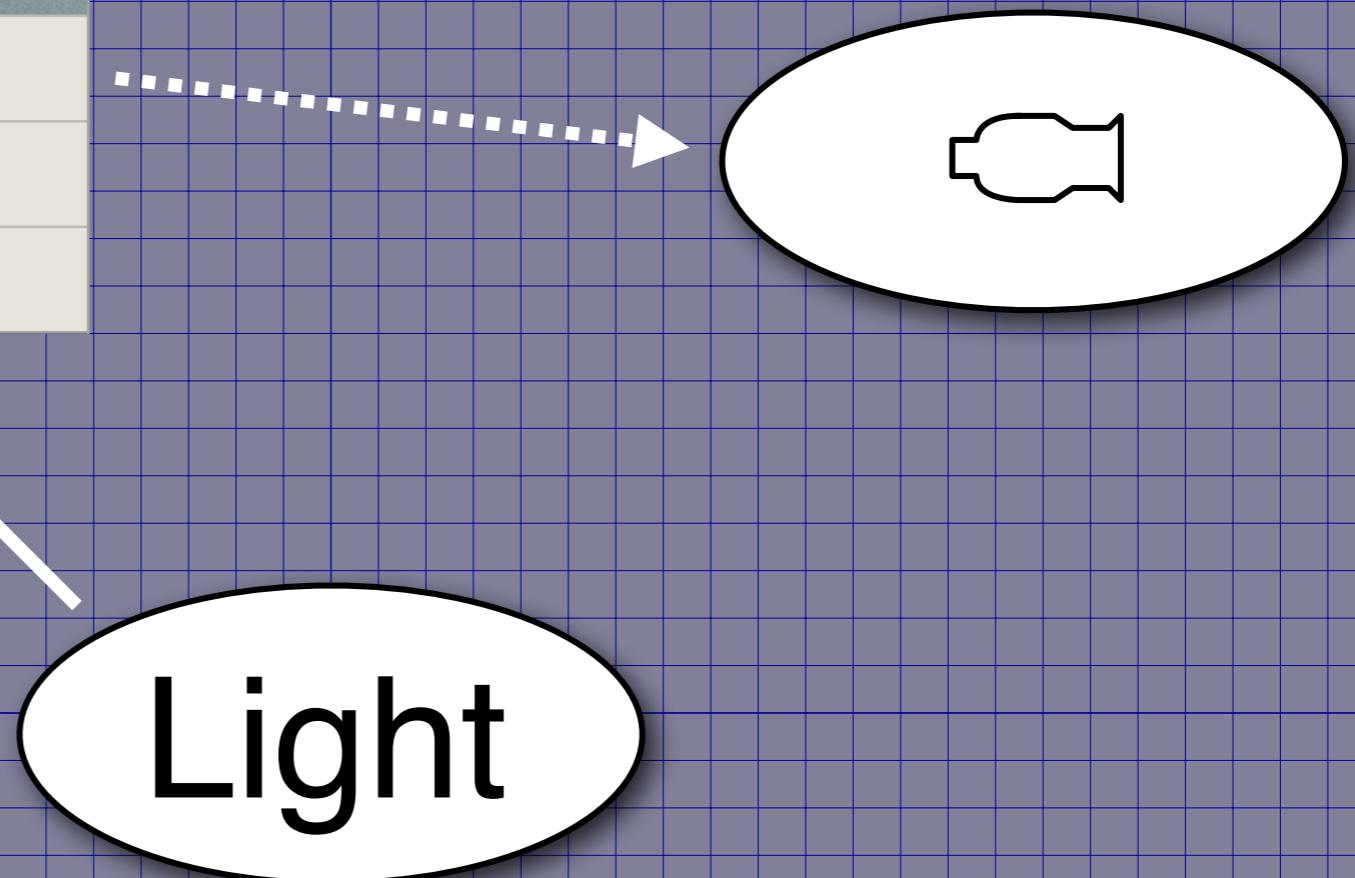
Light



One piece of data used by the Light object is an outline that is used draw a representation of the Light.

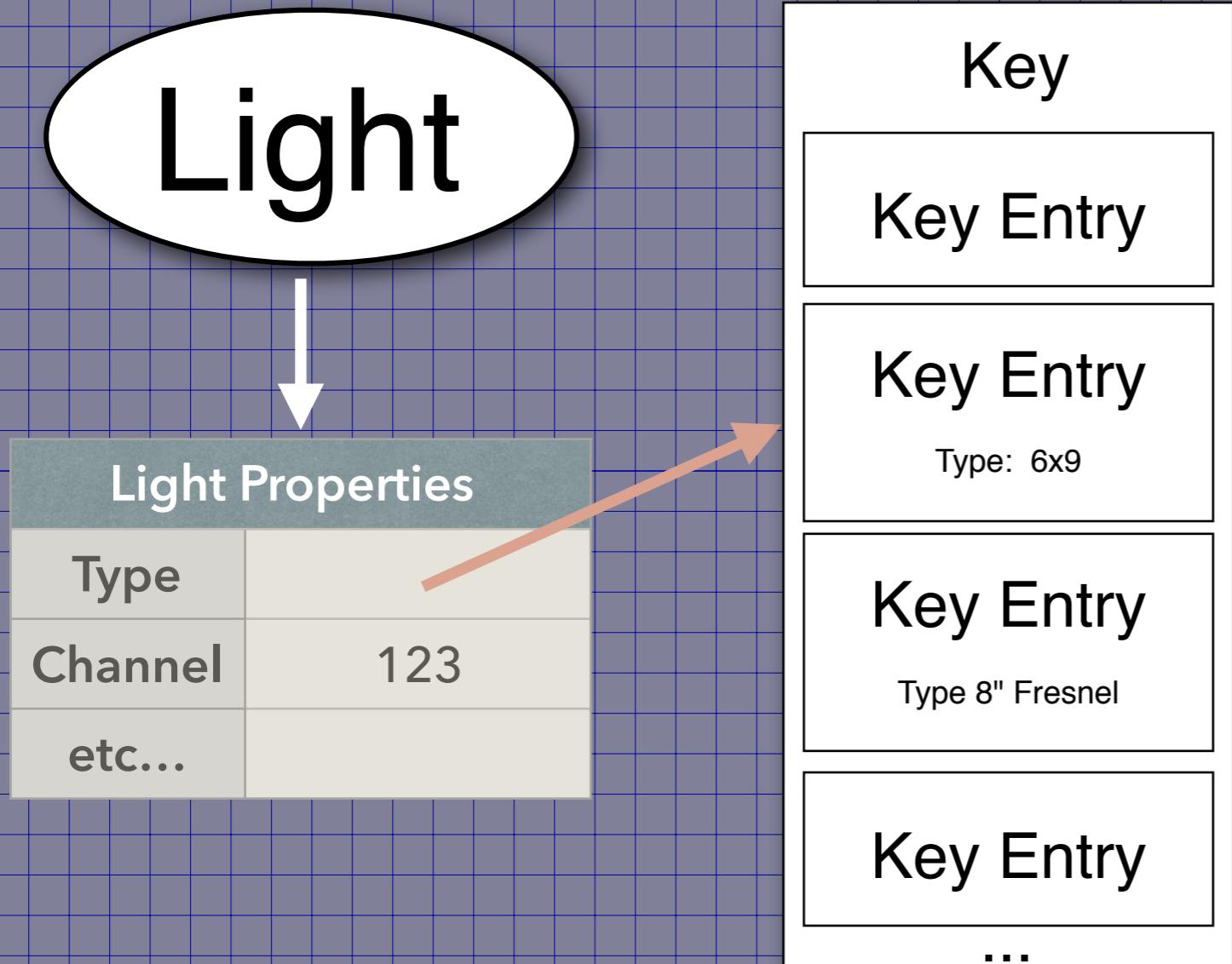
Drawing Properties

Location	(x , y)
Colors	Black / White
etc...	



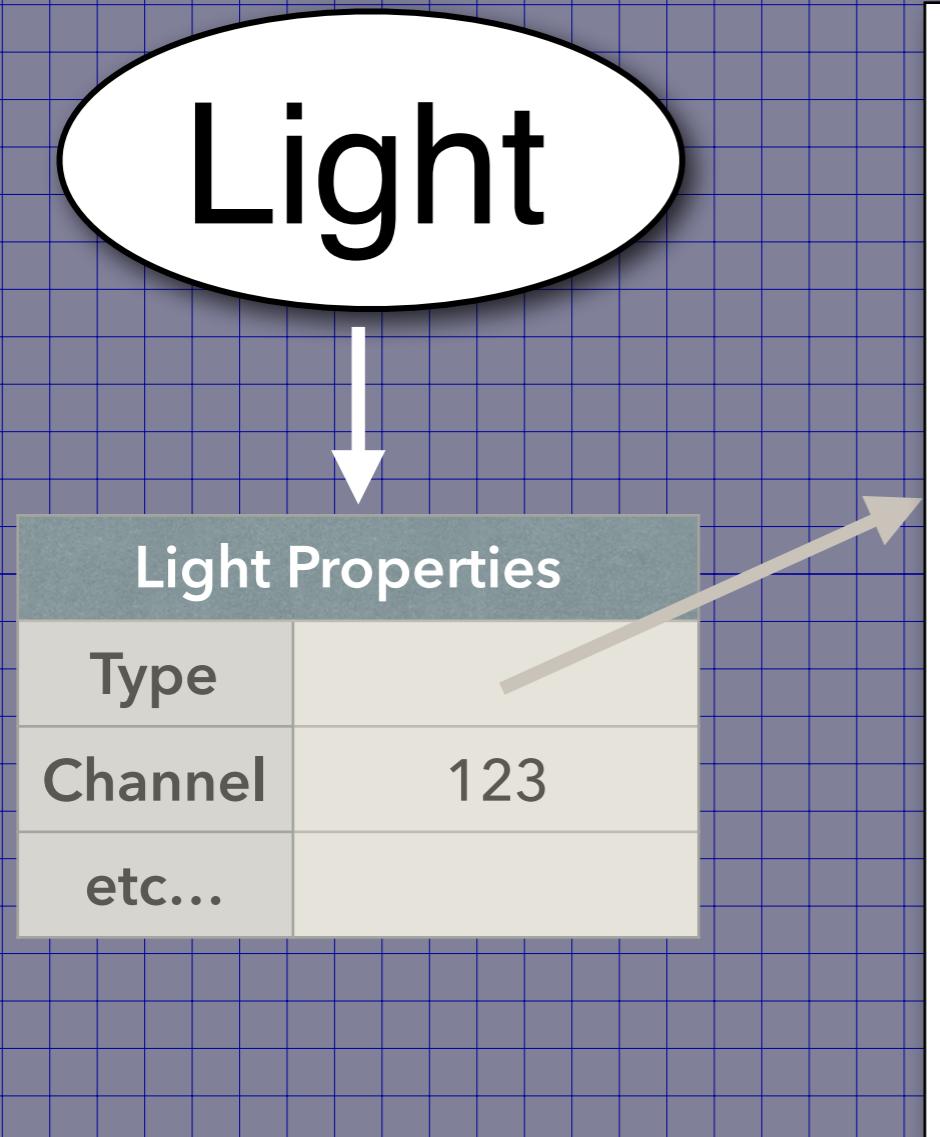
The Light has a table containing properties that tell LXBeams how to draw the representation .

In addition to data telling how to draw itself,
the Light has a collection of other properties.



The property that
describes what type
of light it is
(ellipsoidal or fresnel)
points to a record in
the key.

The key entry describes a type of fixture.

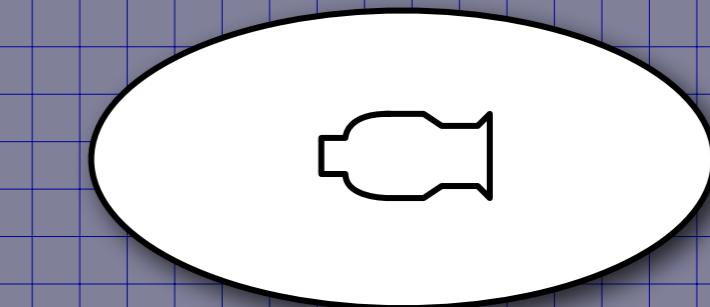
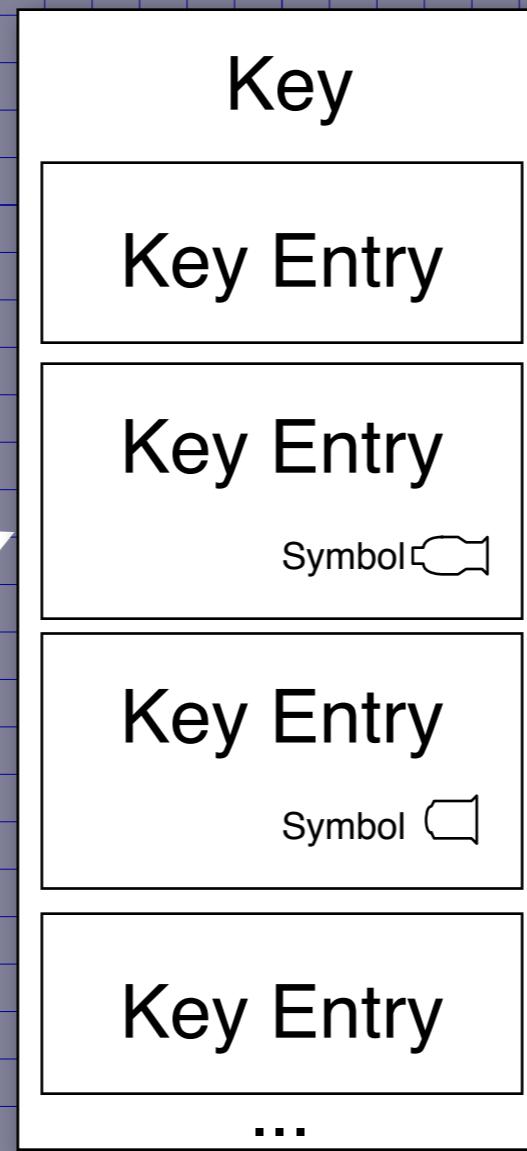


A key entry has its own list of properties.

The key entry decides what symbol to use.

Light

Light Properties	
Type	
Channel	123
etc...	



One of the properties of a key entry is what symbol to use to represent this type of fixture.

Drawing Properties

Location

(x , y)

Colors

Black / White

etc...

Light

Light Properties

Type

123

Channel

etc...

Key

Key Entry

Key Entry

Symbol 

Key Entry

Symbol 

Key Entry

...



This is actually how
the light gets
represented by a
symbol in the
drawing.

You can decide to change the type of fixture.

Light



Light Properties

Type	
Channel	123
etc...	

The light now
references a different
key entry.

Key

Key Entry

Key Entry

Symbol 

Key Entry

Symbol 

Key Entry

...



Key Entry Properties

Type	8" Fresnel
Watts	1000
etc...	
Symbol	

This key entry uses a
different symbol to
represent its fixture.

You can also change the key to use a different symbol to represent its type of fixture.

Light

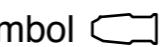


Light Properties	
Type	
Channel	123
etc...	

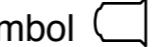
Key

Key Entry

Key Entry

Symbol 

Key Entry

Symbol 

Key Entry

...

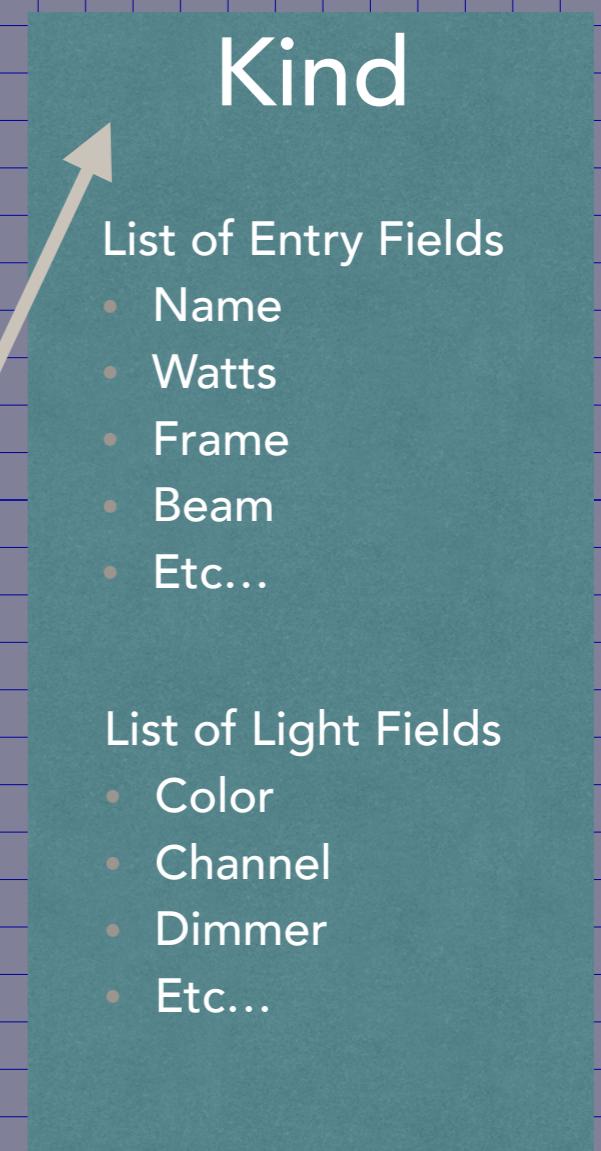
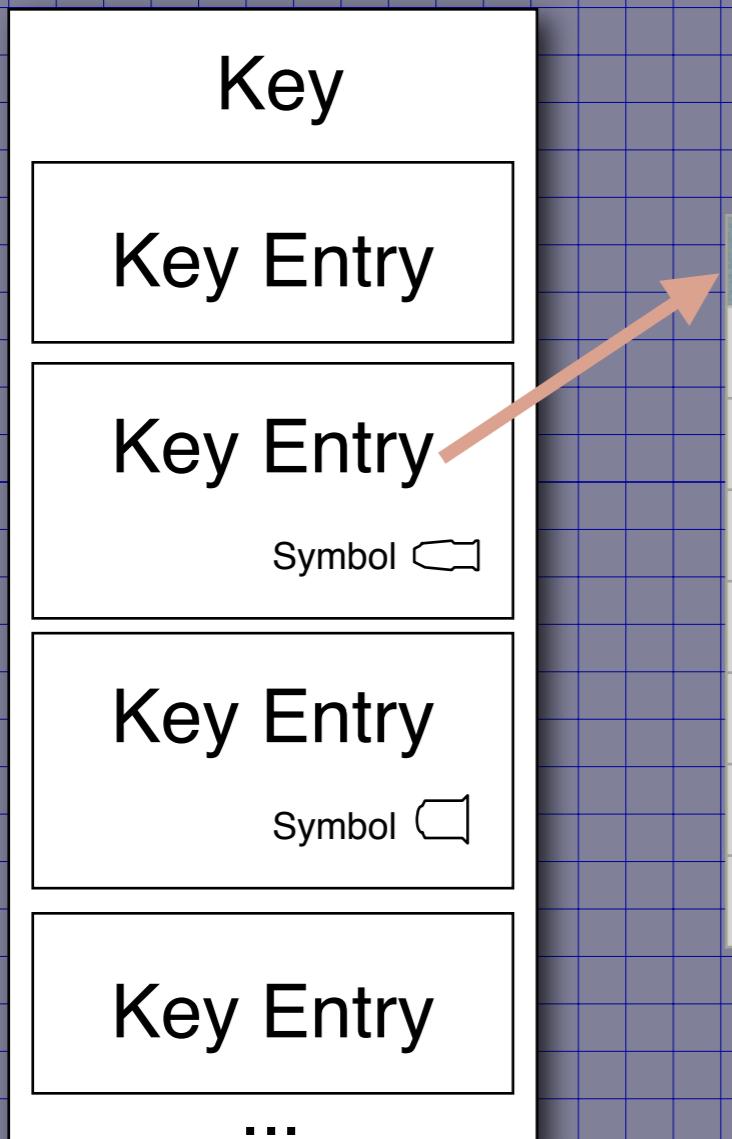


Key Entry Properties

Type	6x9
Watts	575
etc...	
Symbol	

This key entry uses a different symbol to represent its fixture.

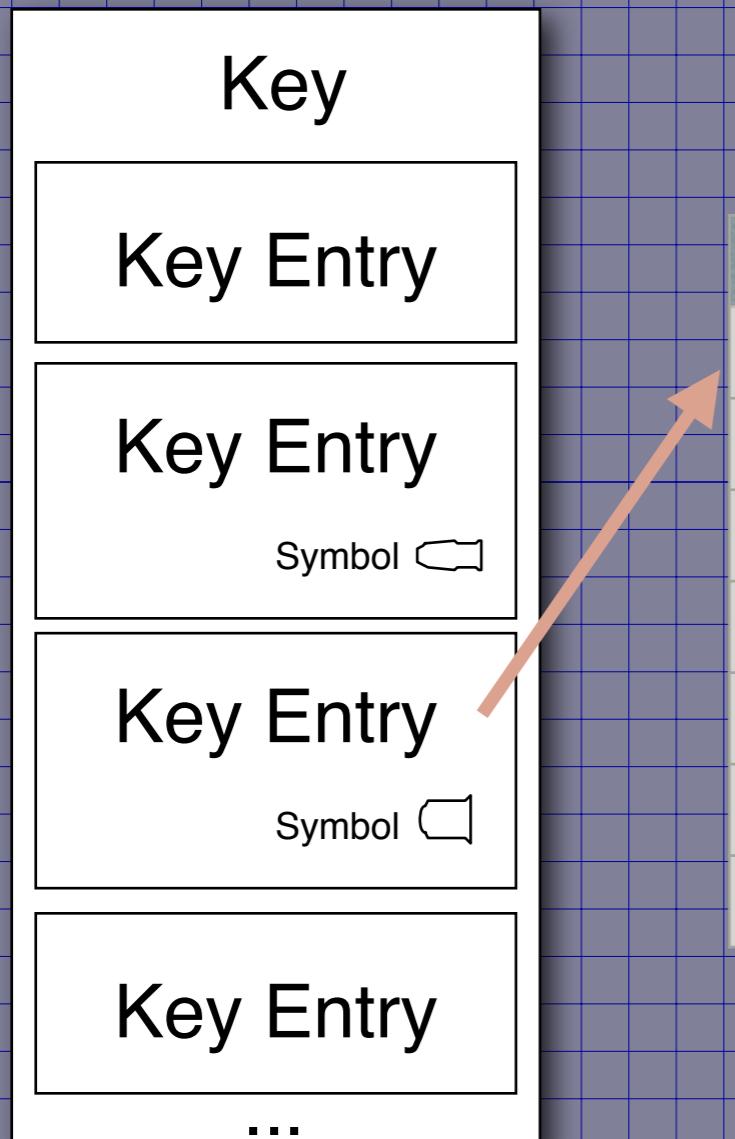
An important part of a key entry is what **Kind** of fixture it describes.



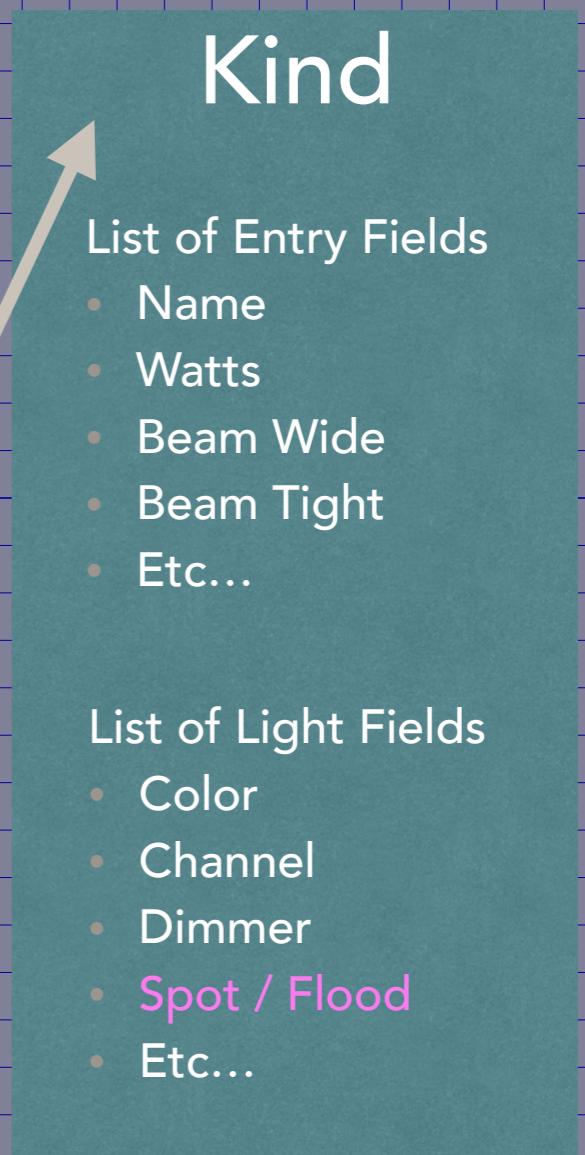
The kind of fixture
determines what fields
are used.

The Kind

describes the fields in the key entry's properties
and what fields are attached to a light.



Key Entry Properties	
Type	8" Fresnel
Watts	1000
Wide	37
Tight	6.7
etc...	
Symbol	
Kind	Fresnel / PC



(Spot / Flood does not appear for fixed focal length fixtures)

The Light's properties are **individual**.

The Key Entry's are the **same** for all lights of the type

Light

Light

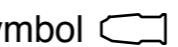
Light Properties

Type	36°
Channel	123
etc...	

Key

Key Entry

Key Entry

Symbol 

Key Entry Properties

Type	36°
Watts	575
etc...	
Symbol	

Light Properties

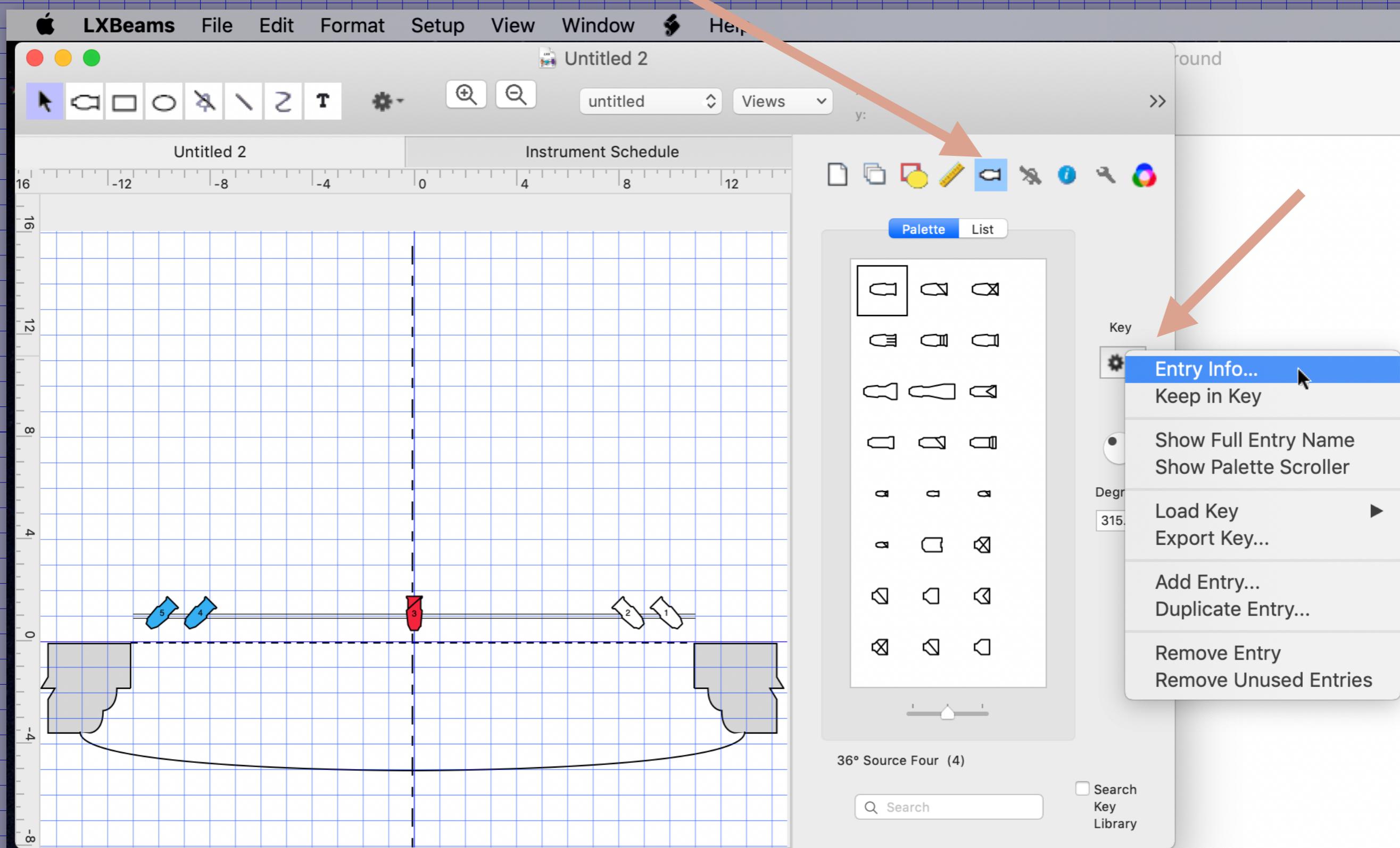
Type	36°
Channel	456
etc...	

Kind

List of Light Fields

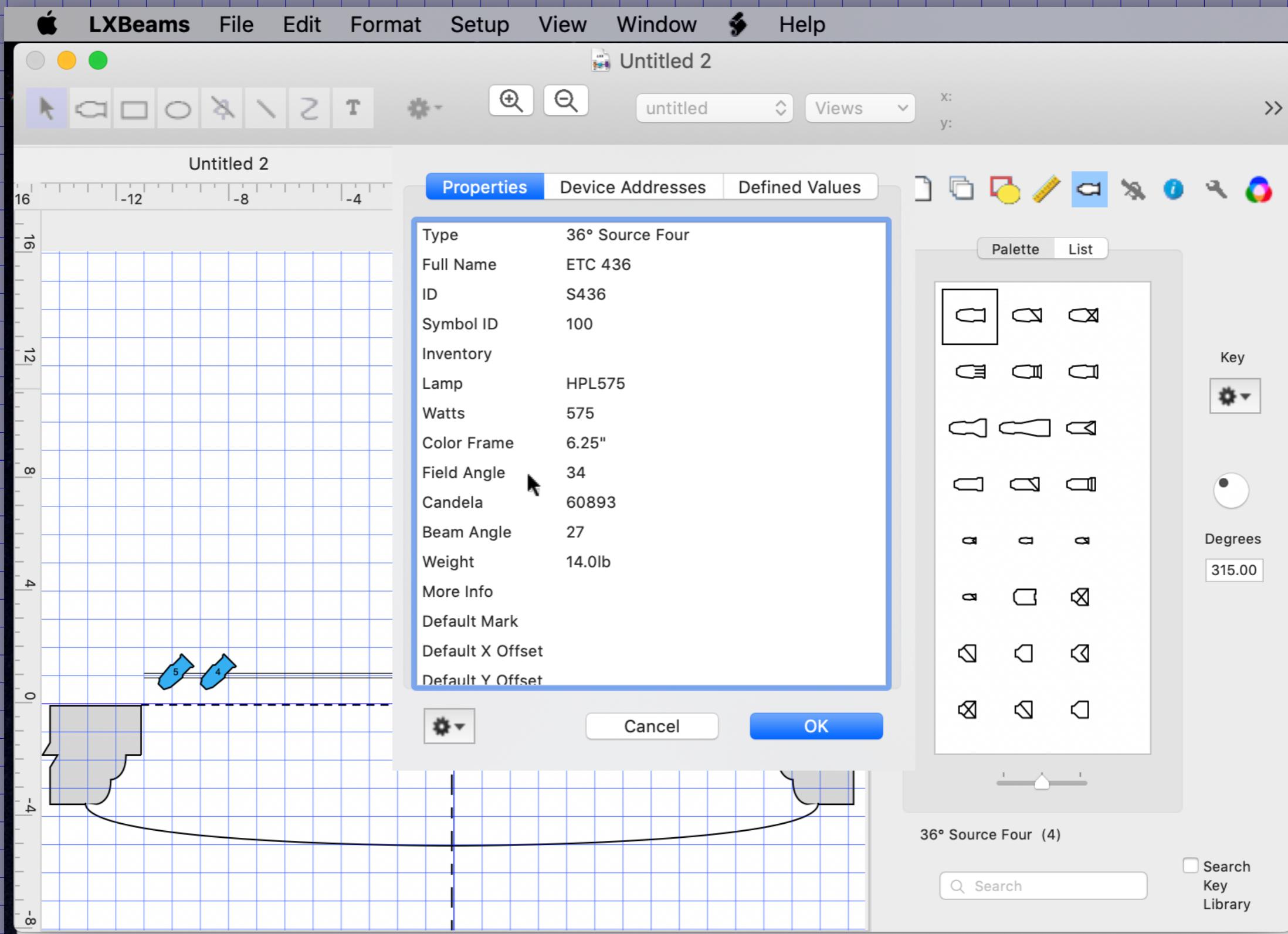
- Color
- Channel
- Dimmer
- Etc...

Select the Inspector's Symbols tab.



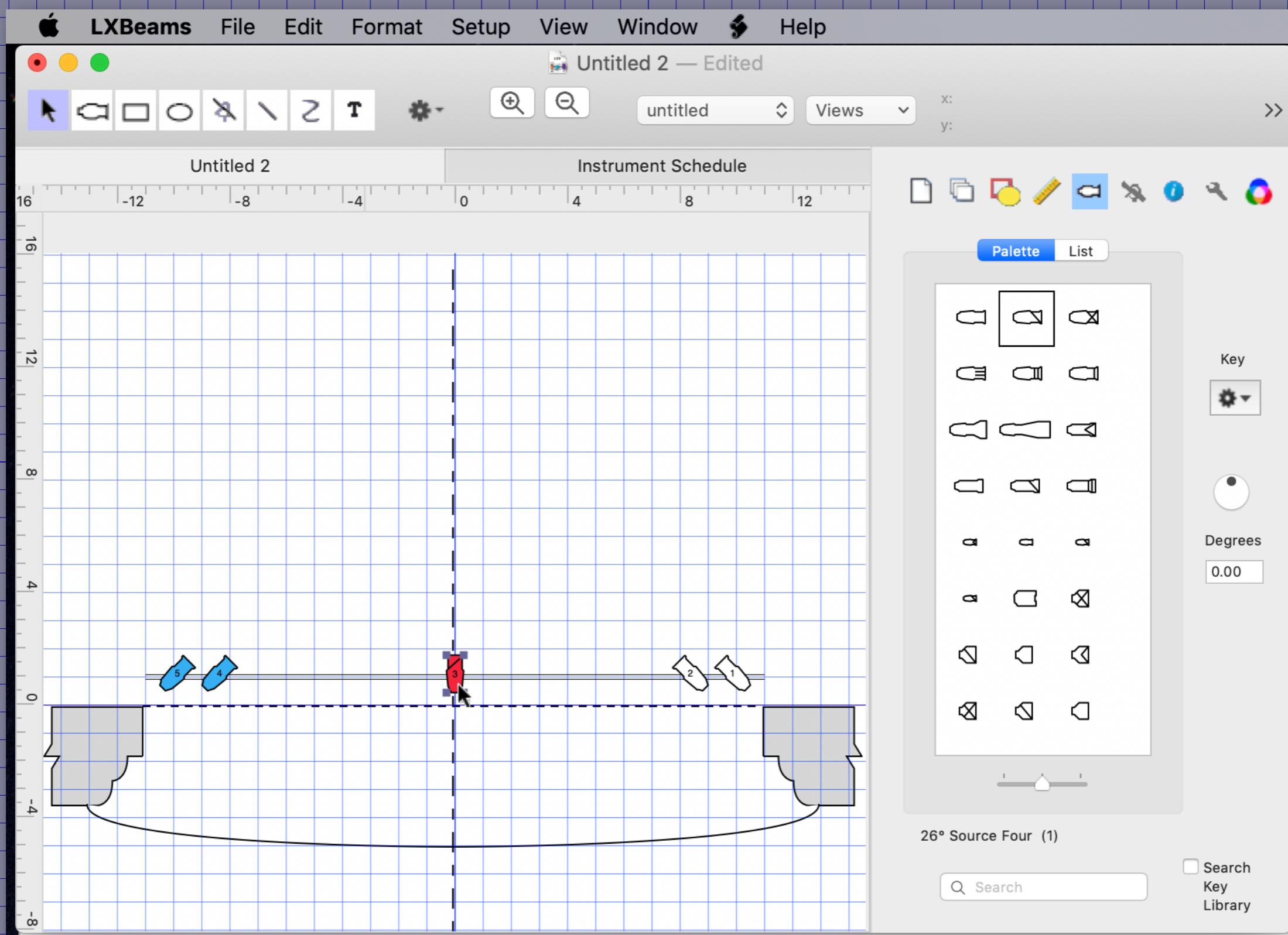
From the popup button, select Type Properties.

The Key Entry sheet shows the properties for the type of fixture .



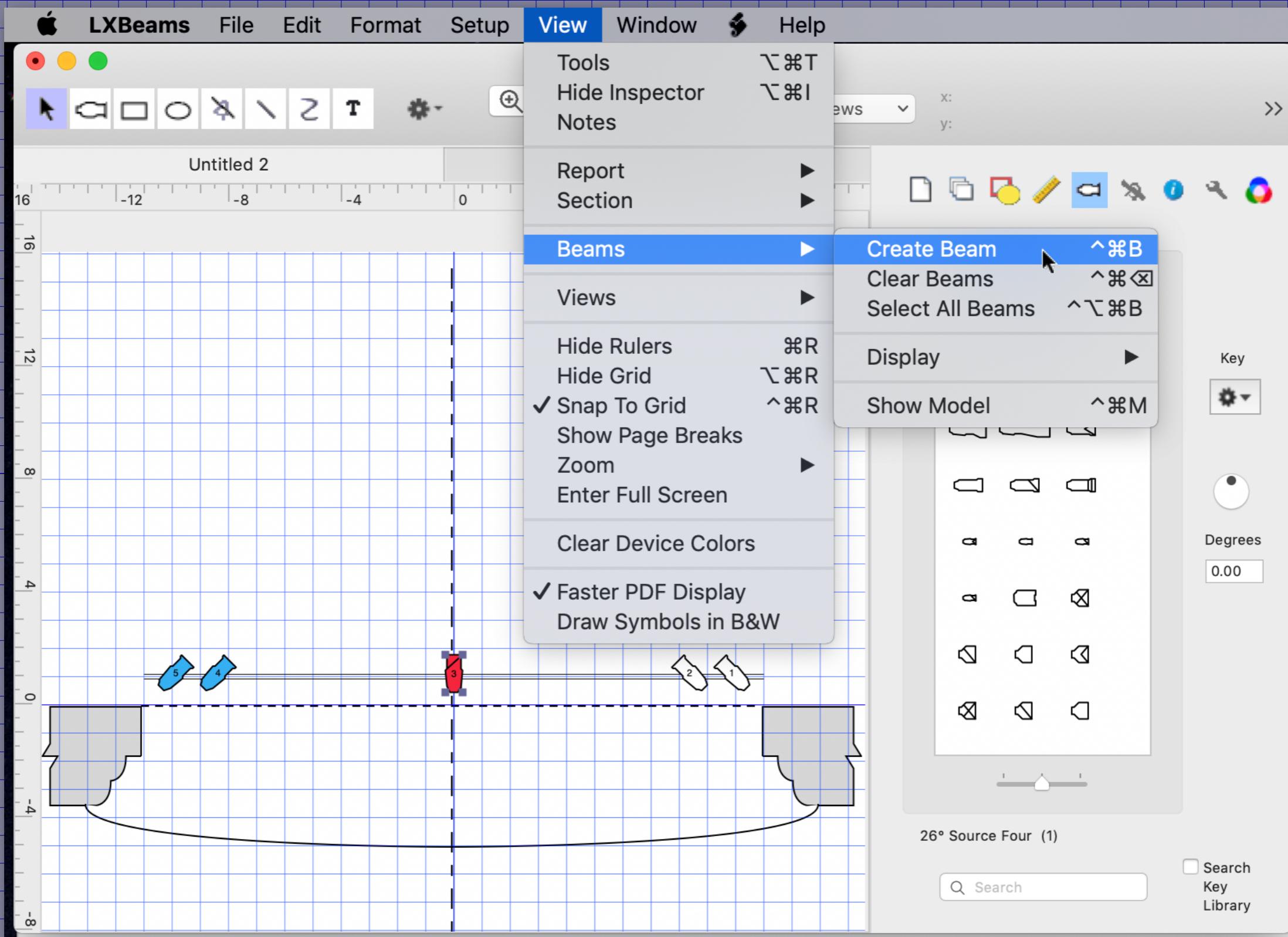
All lights this type share the same properties.

Click on the center light to select it.

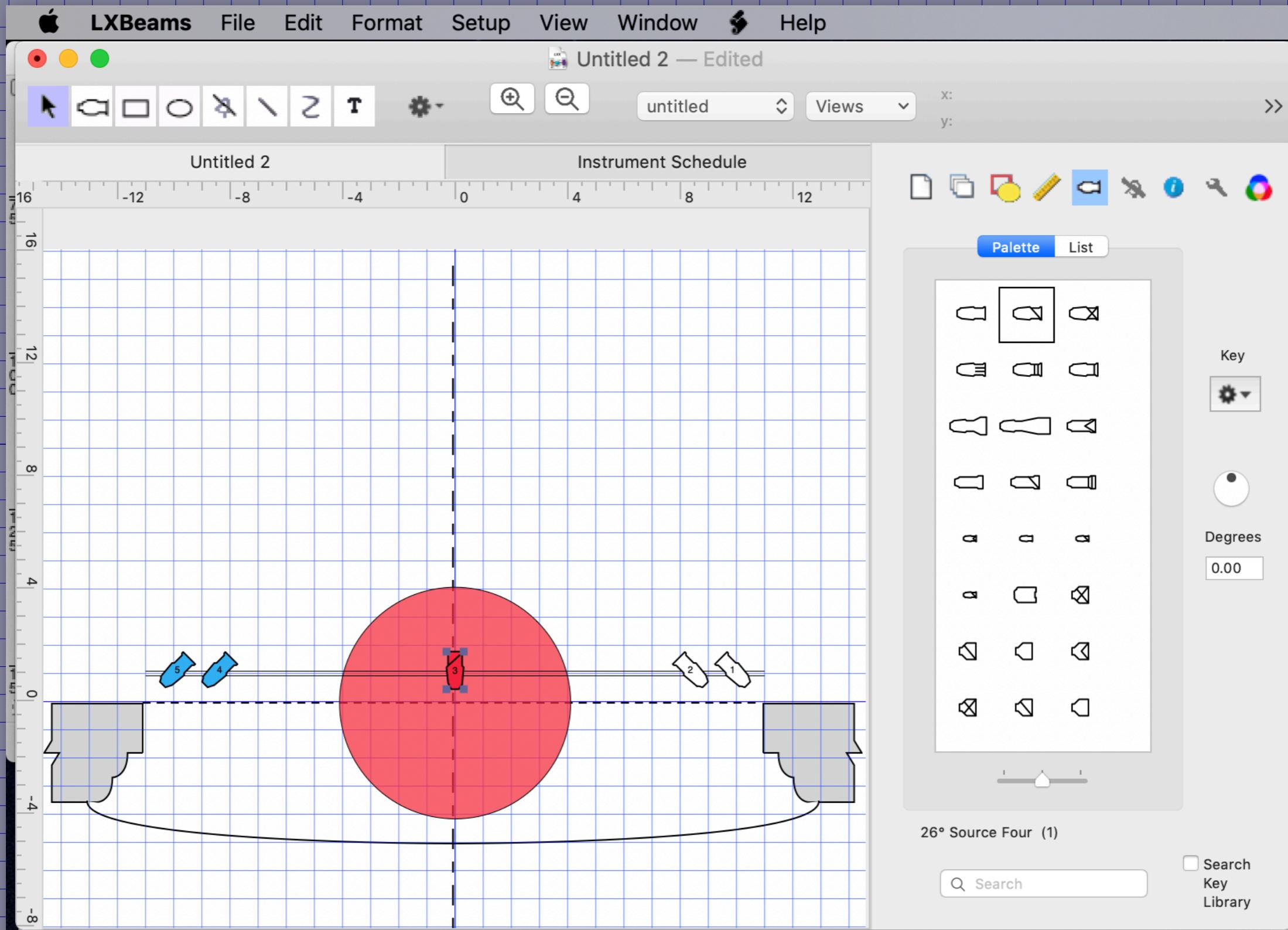


Notice that the selection in the symbols palette changes.

Choose View→Beams→Create Beam.

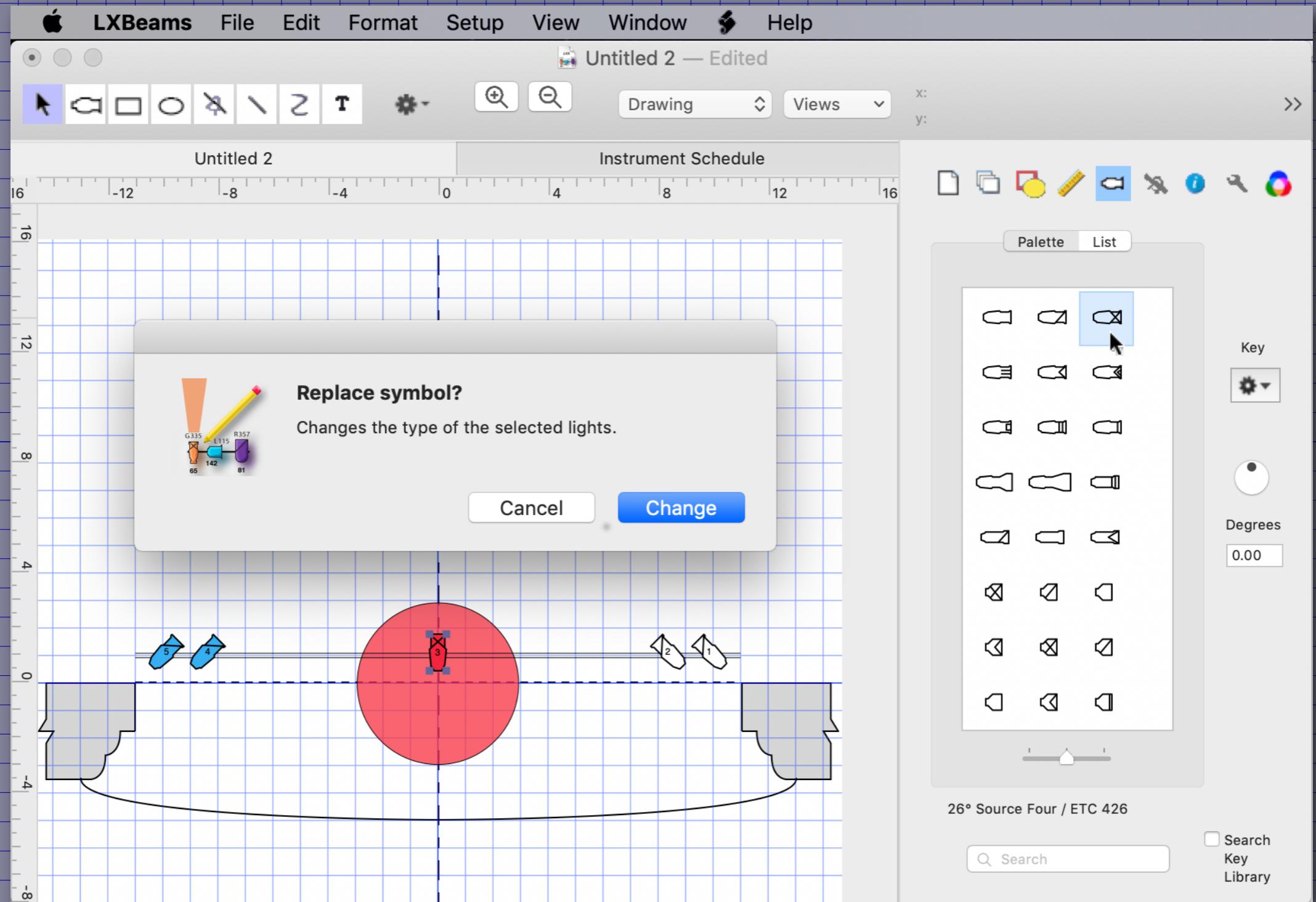


The beam is displayed using the field angle from the key entry's properties.



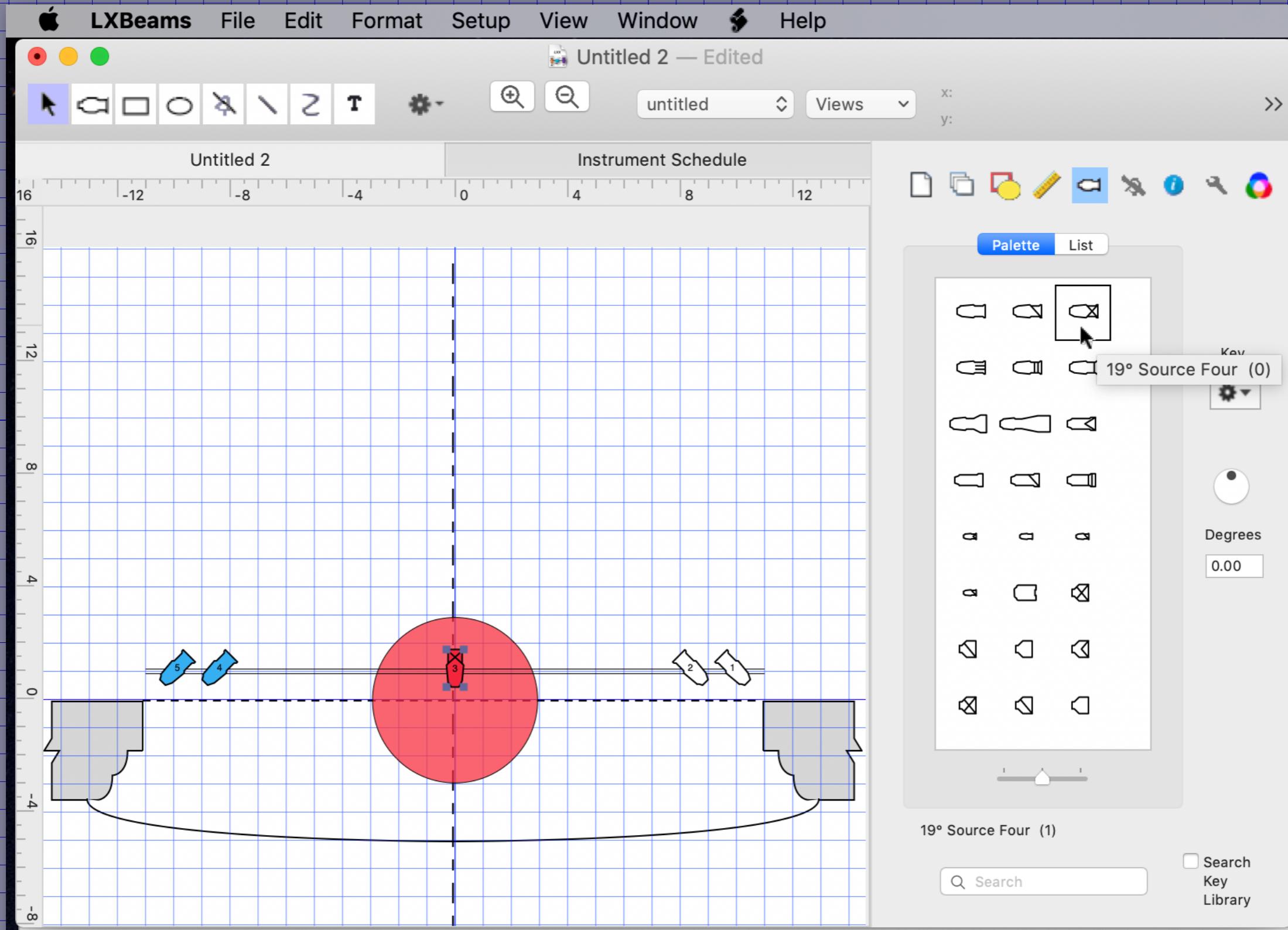
The color comes from the light's properties

With the center light selected,
click on a different type in the palette.



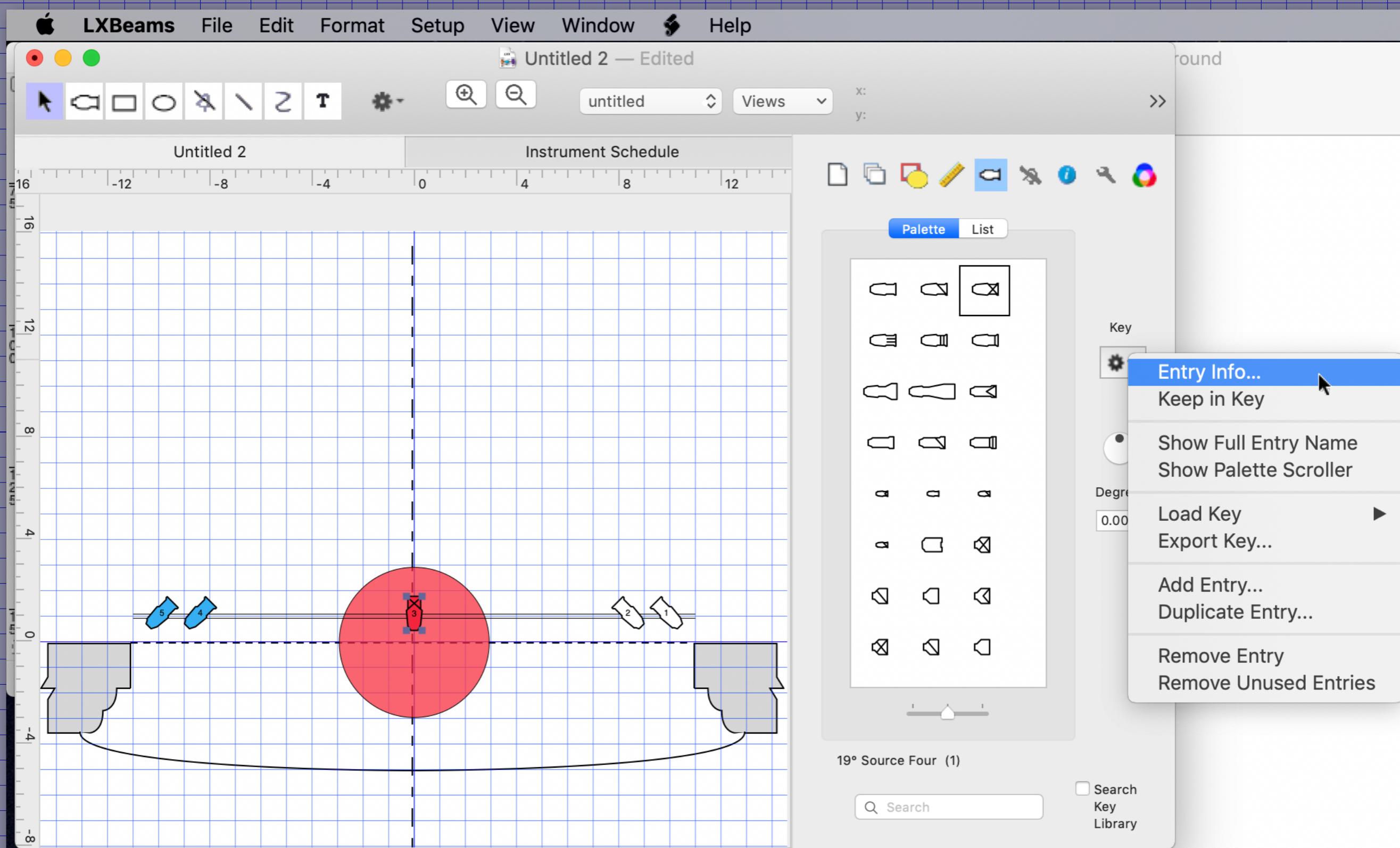
You are asked if you want to change the type of the selected light.

Click “Change” to replace the key entry used to determine the light’s properties.



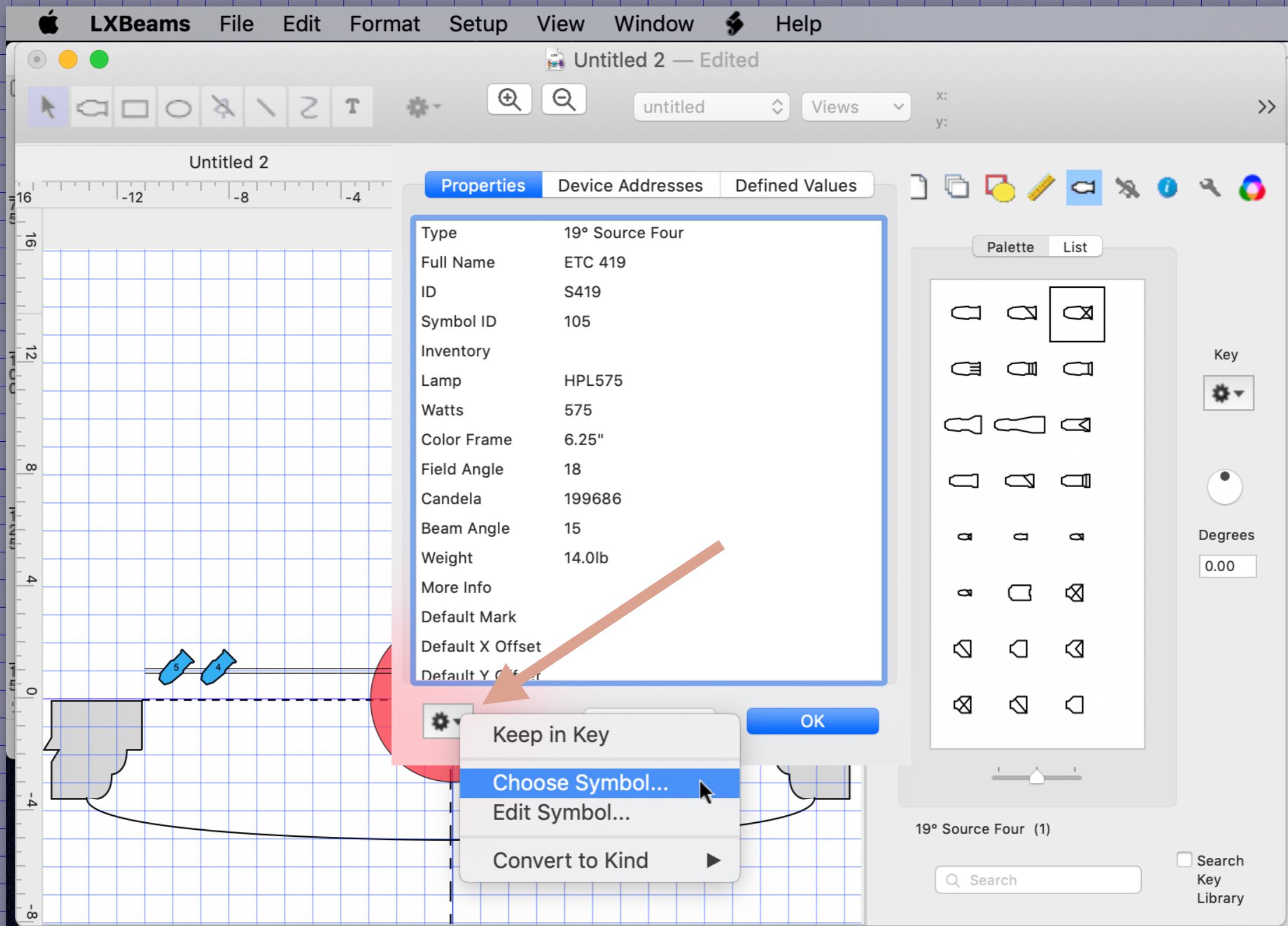
The light will have a different size beam and symbol.

Open the entry properties sheet for the new type.

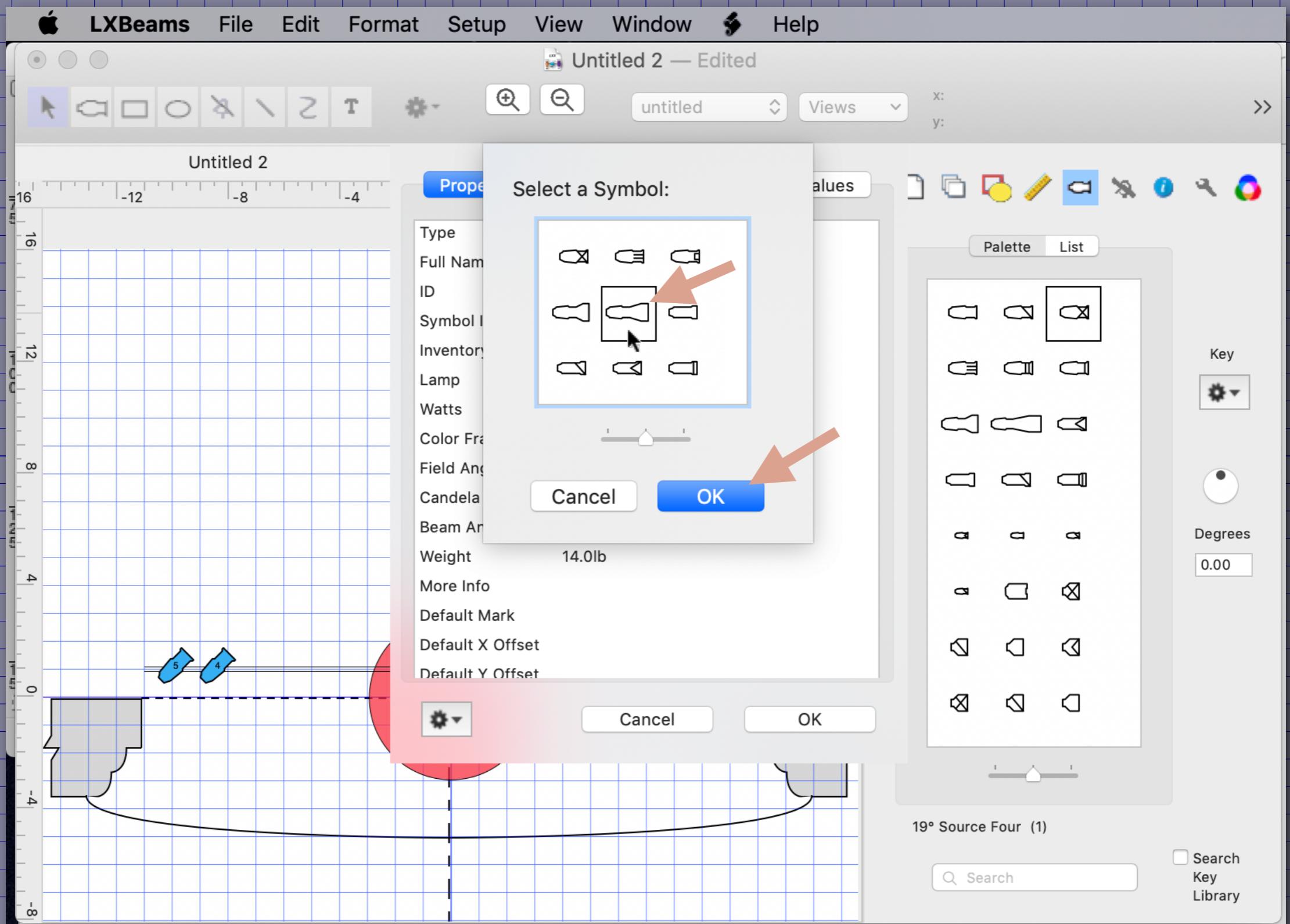


You can also double-click the symbol in the palette.

From the popup menu select “Choose Symbol”.

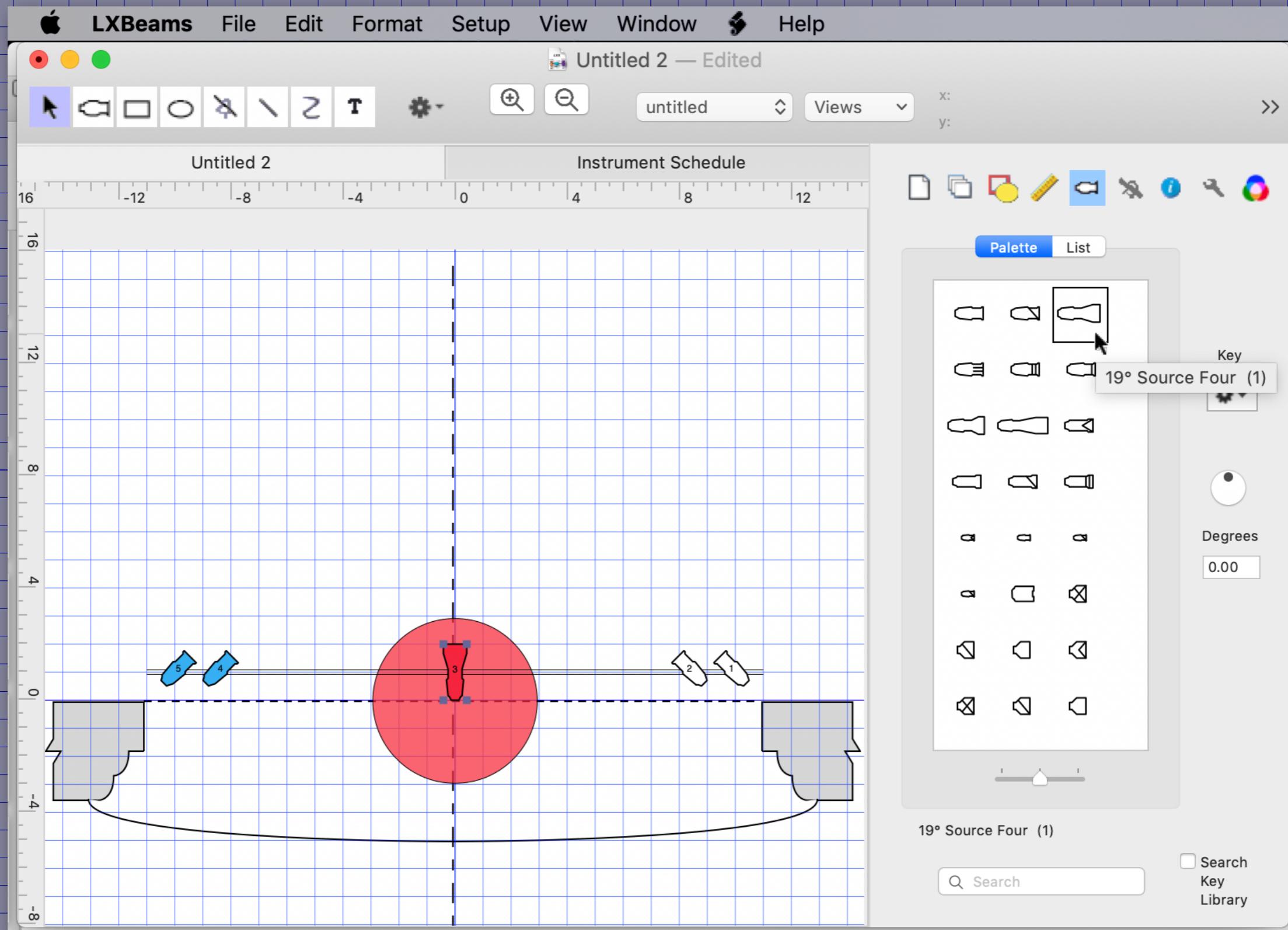


Choose a new symbol to represent this type of light.

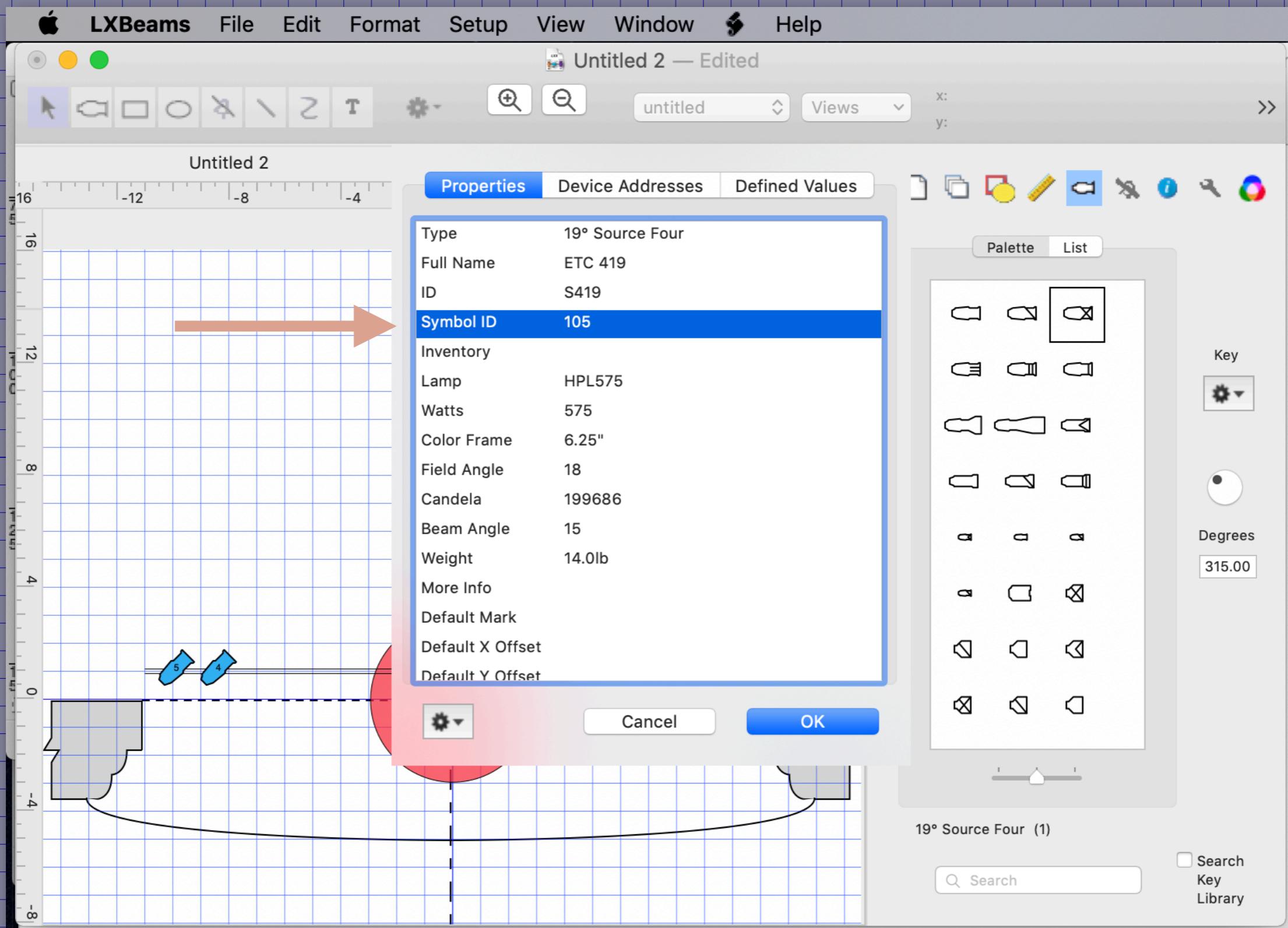


Just click on your selection and click OK (and then OK again to close the properties sheet).

The new symbol is being used to represent the same type.

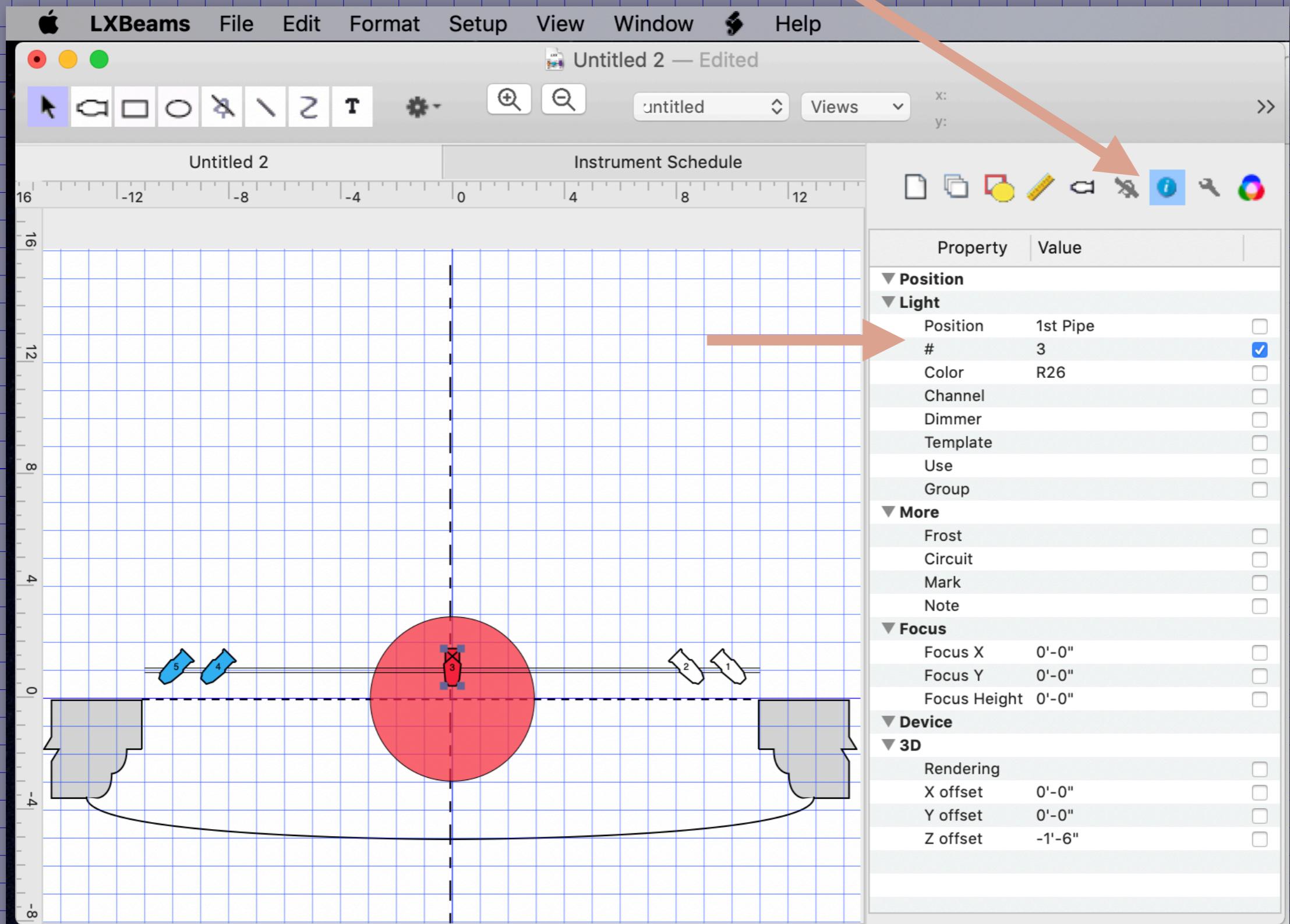


Repeat and change the symbol back to what it was.



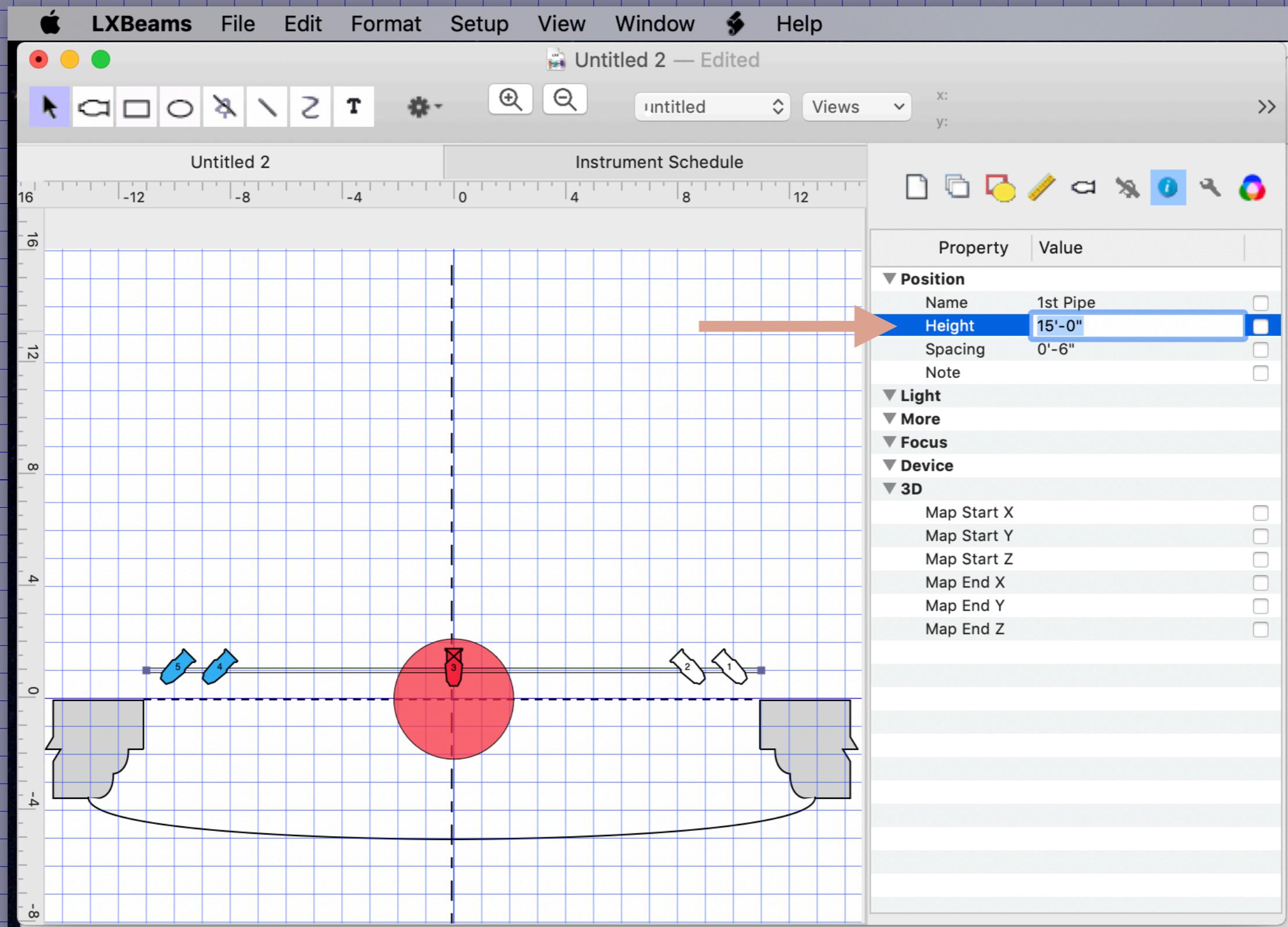
Notice as you do how the symbol ID field changes.

Select the Inspector's Info tab.



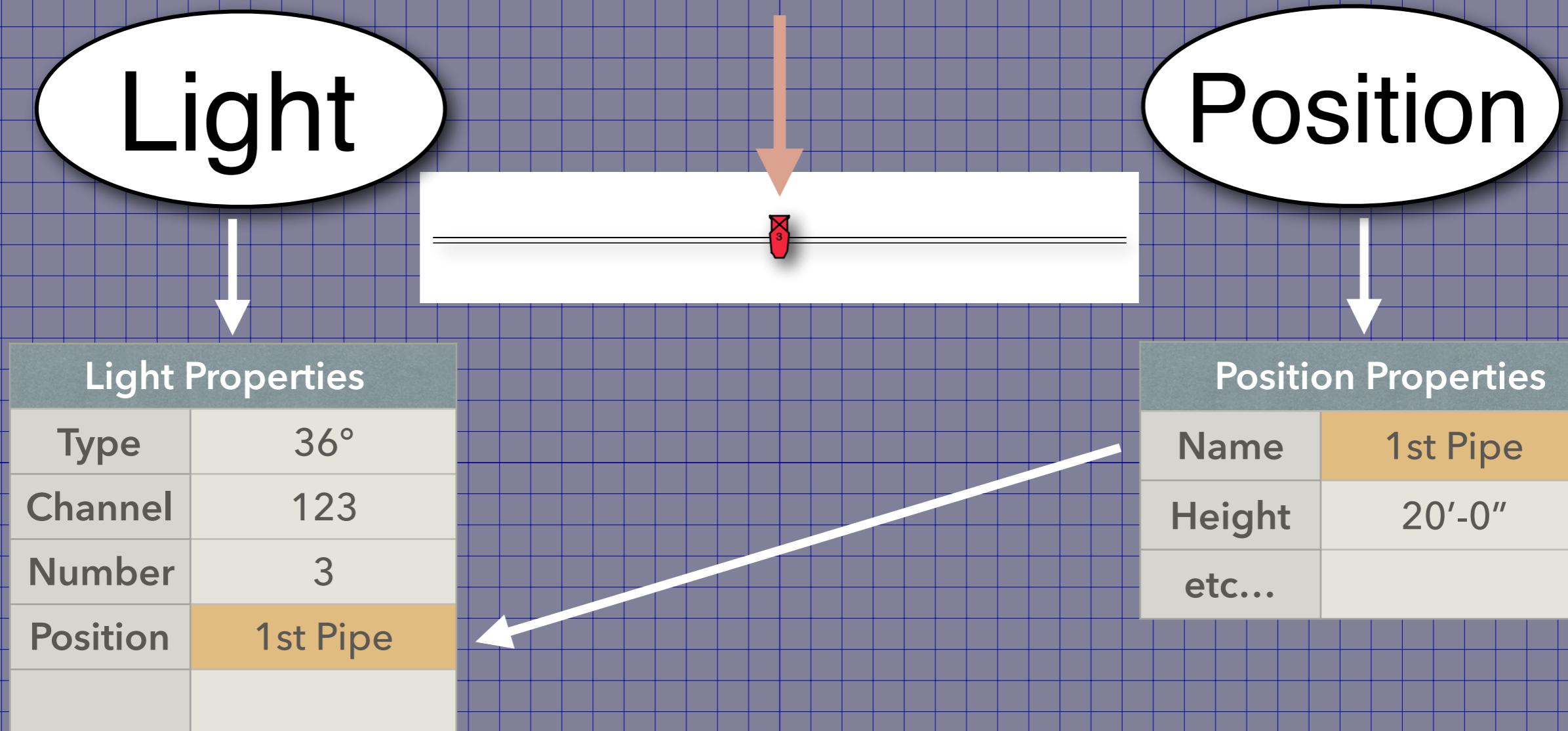
Notice that the position and number have been filled in.
Also, notice that info properties are grouped by category.

Click on the position line to select it.



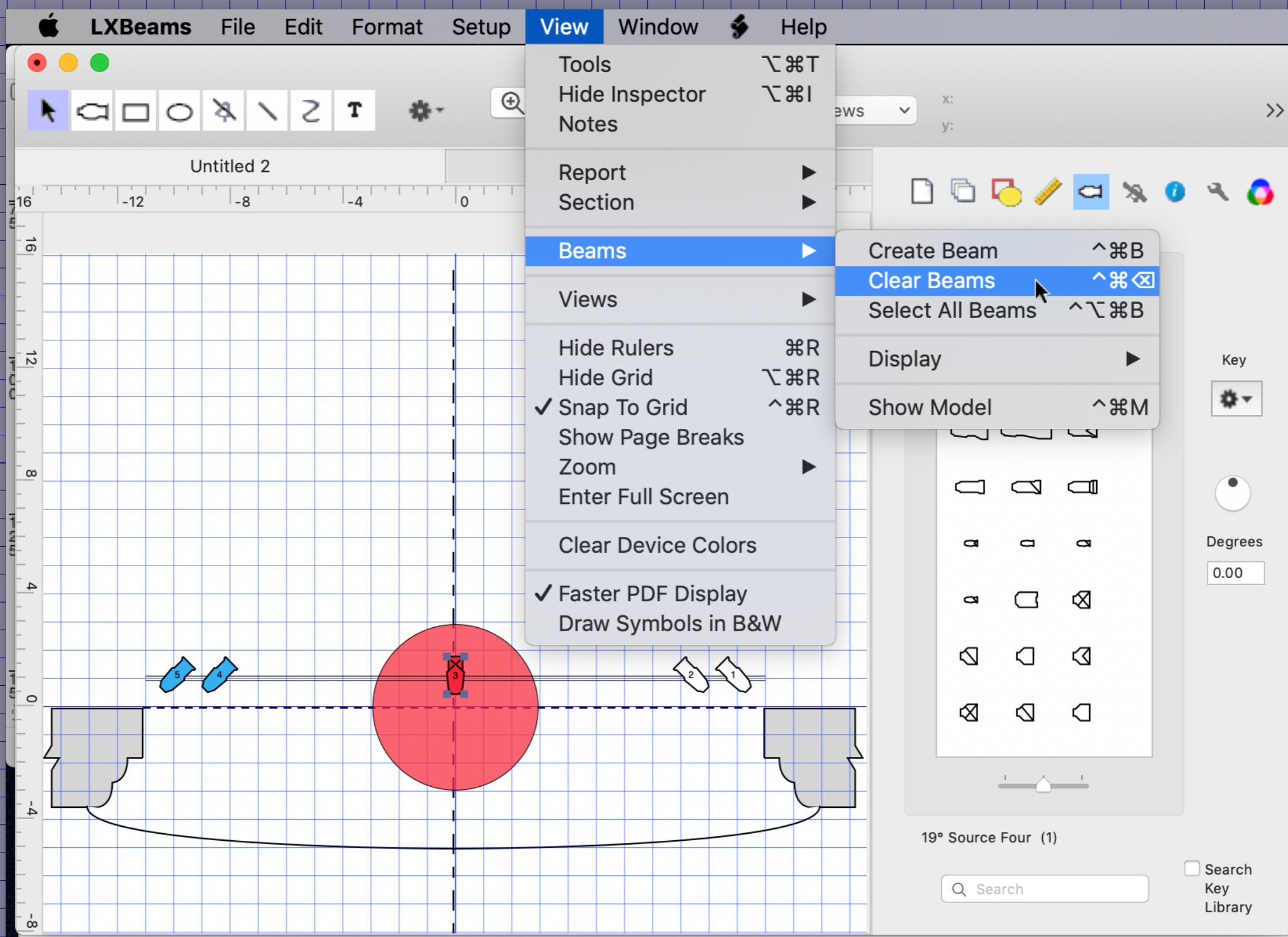
A position's info appears in the "Position" category.
Try changing the height property.

Lights and positions interact when the light's symbol intersects the position's line.

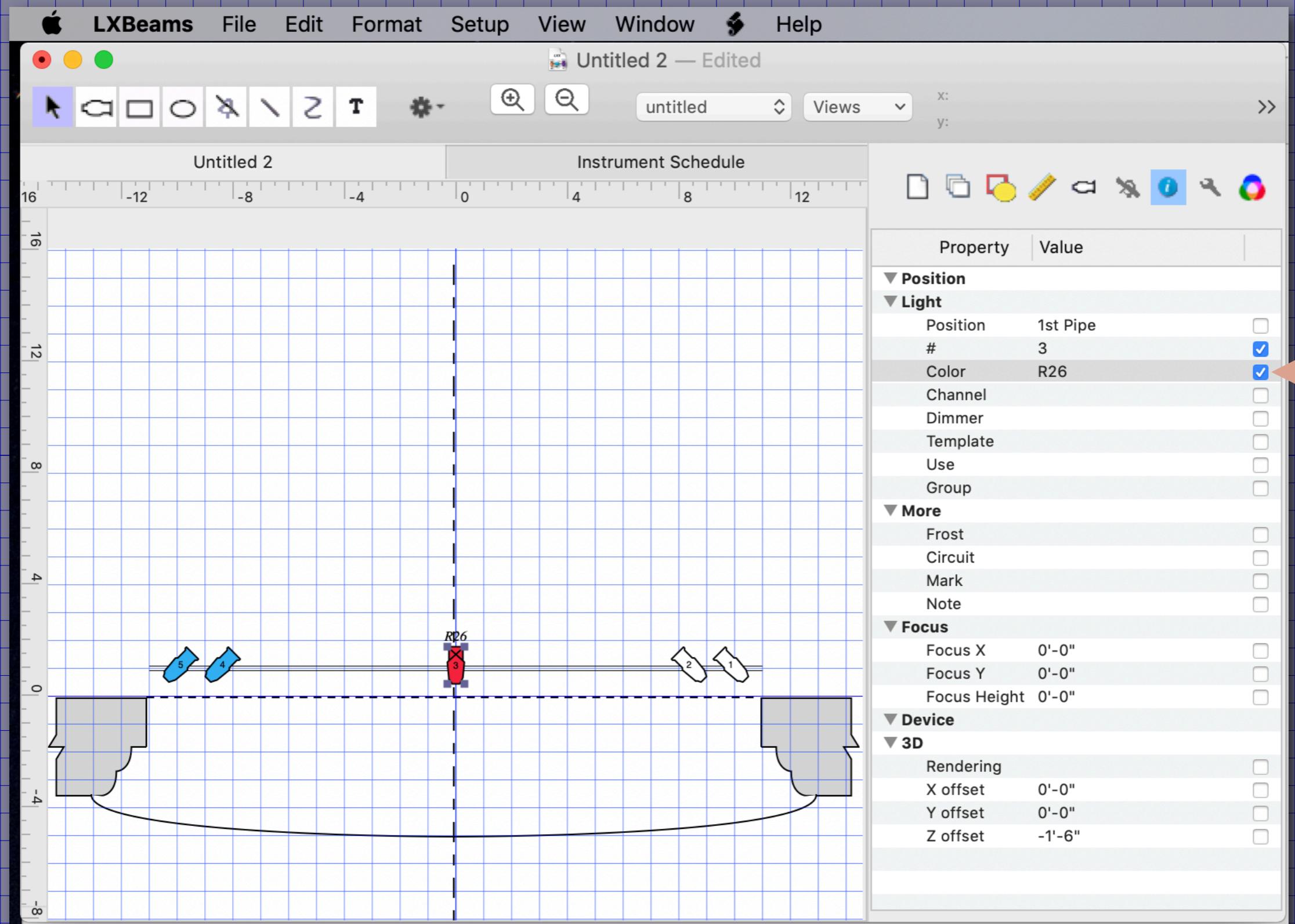


When this happens, the position fills in the light's Position and Number fields.

Choose View→Beams→Clear Beams.



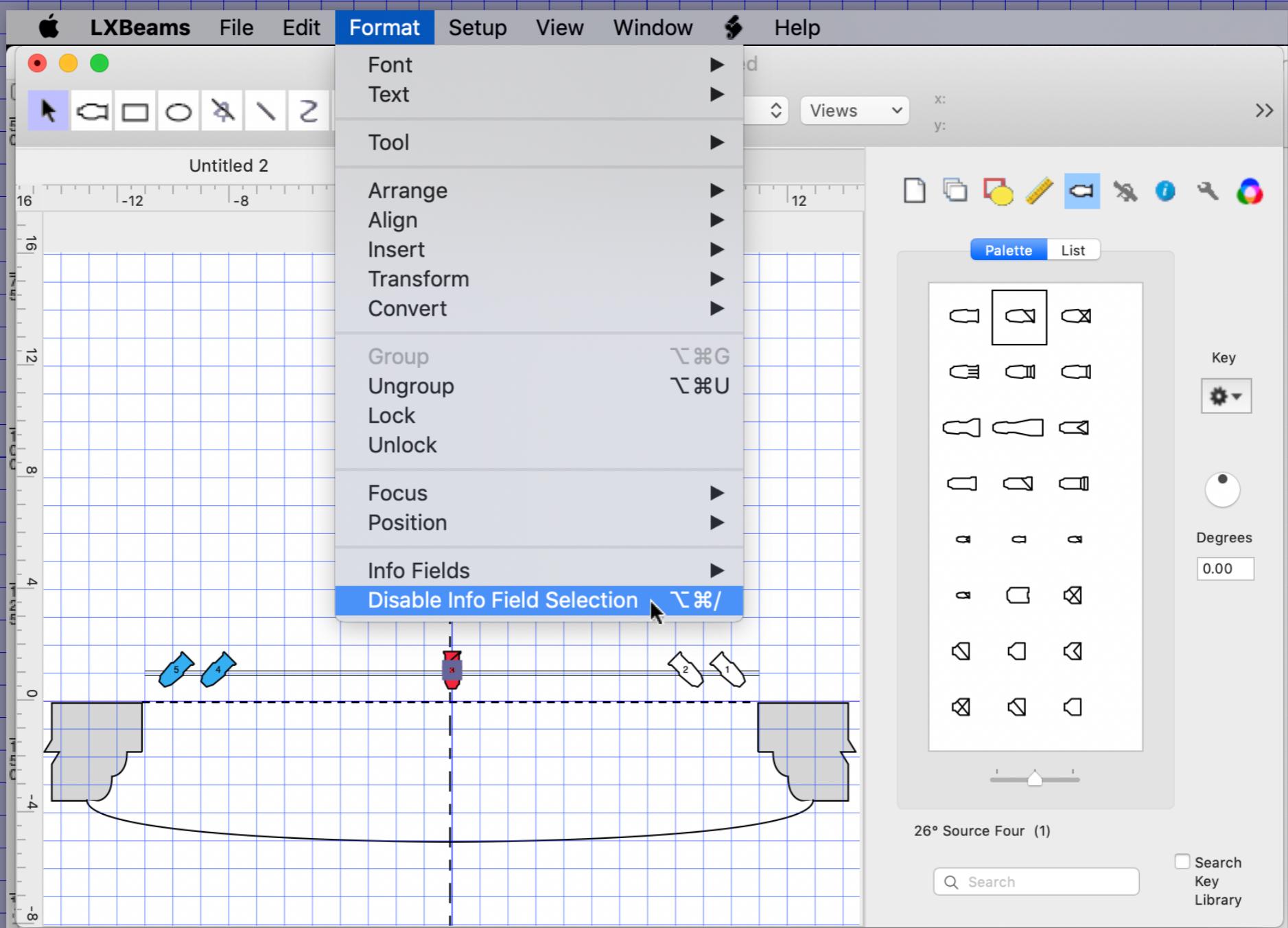
In the Info tab, check the box for the color field.



Info properties can be displayed in special “info text fields” adjacent to an object.

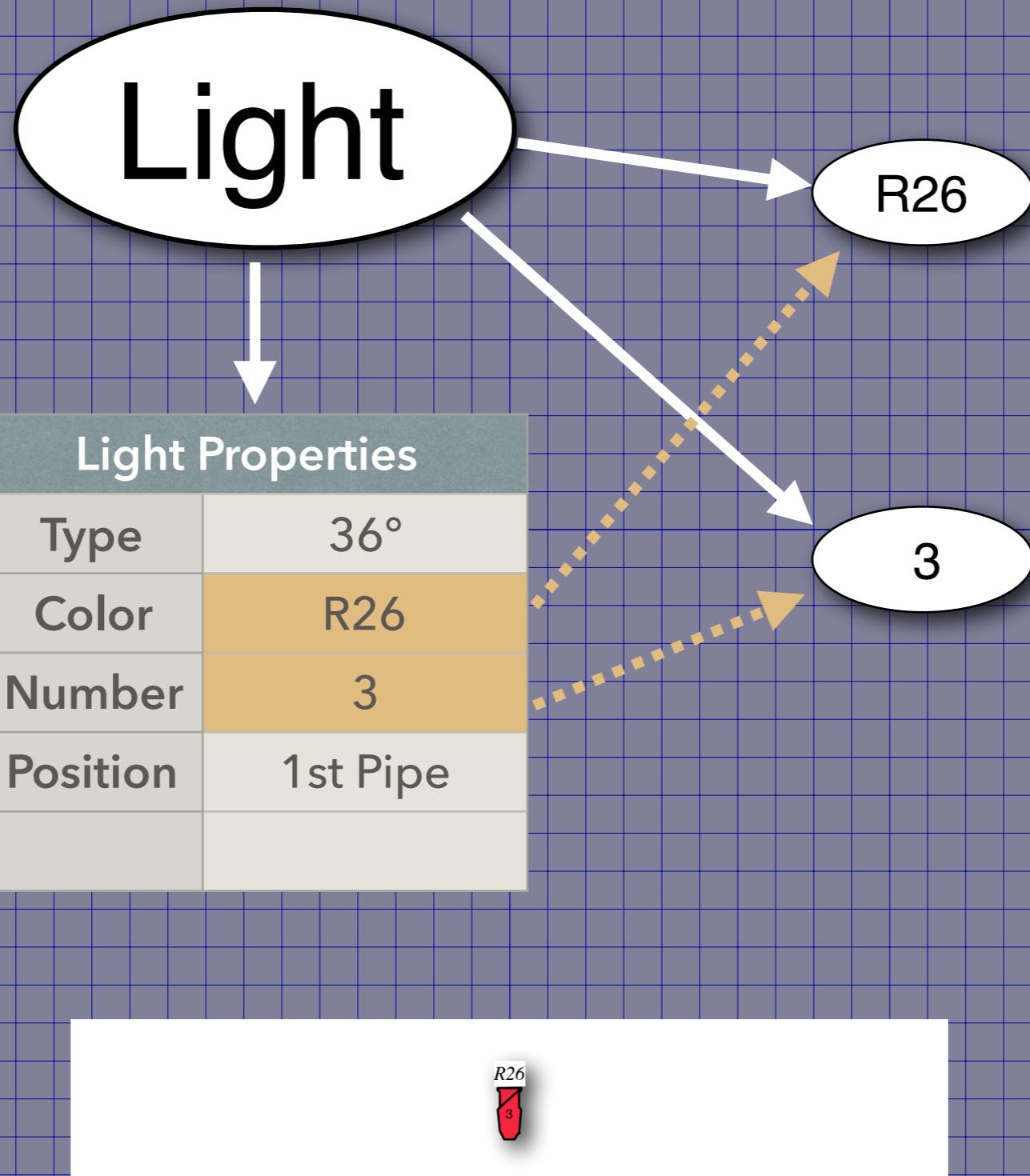
Because it can be difficult to avoid the number field,
selecting it is disabled by default.

You can also disable selection of all info fields.

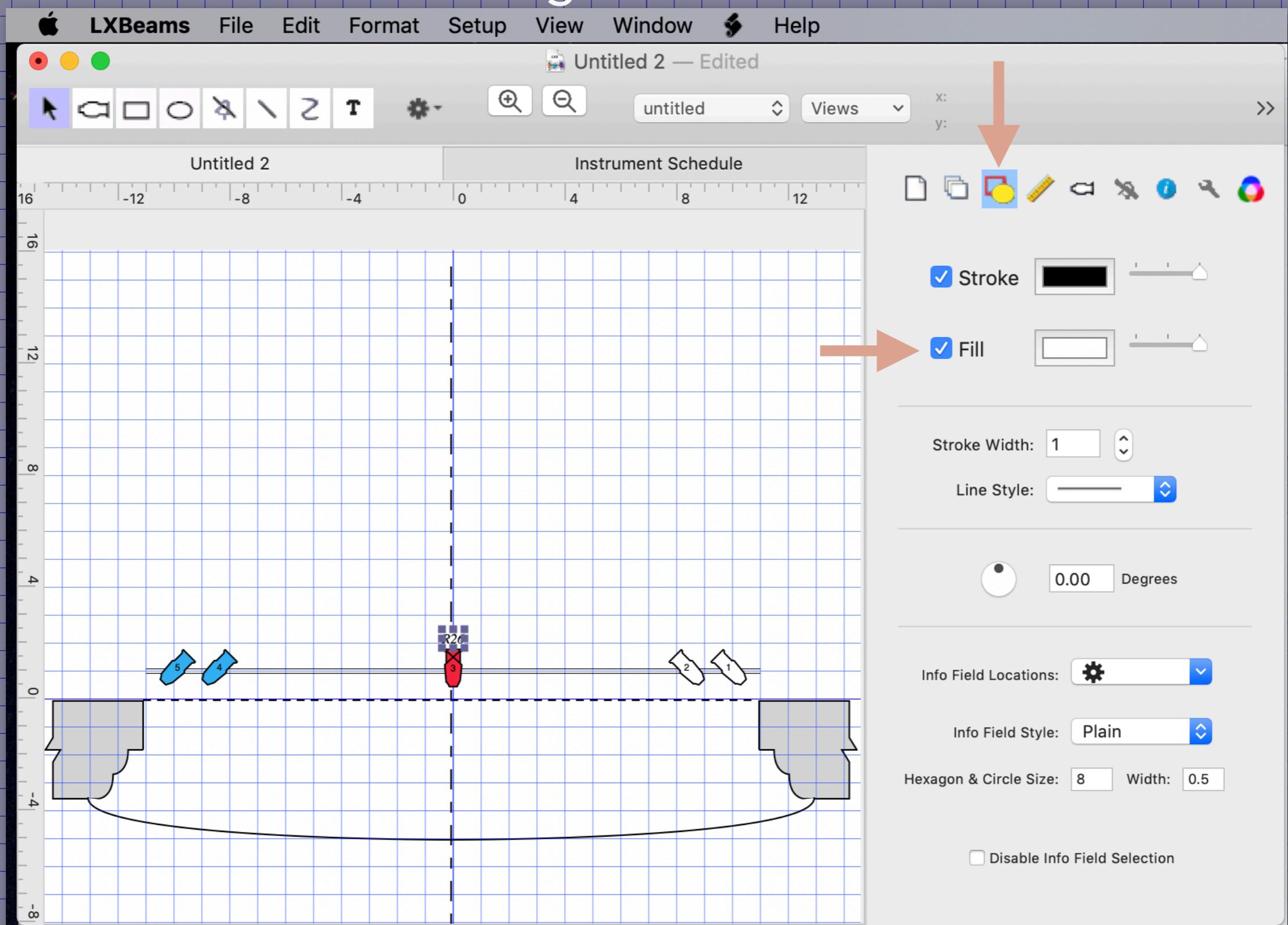


When info field selection is disabled, holding down the **option** key
allows you to click and select an info field.

The light “owns” the text fields displaying it’s properties

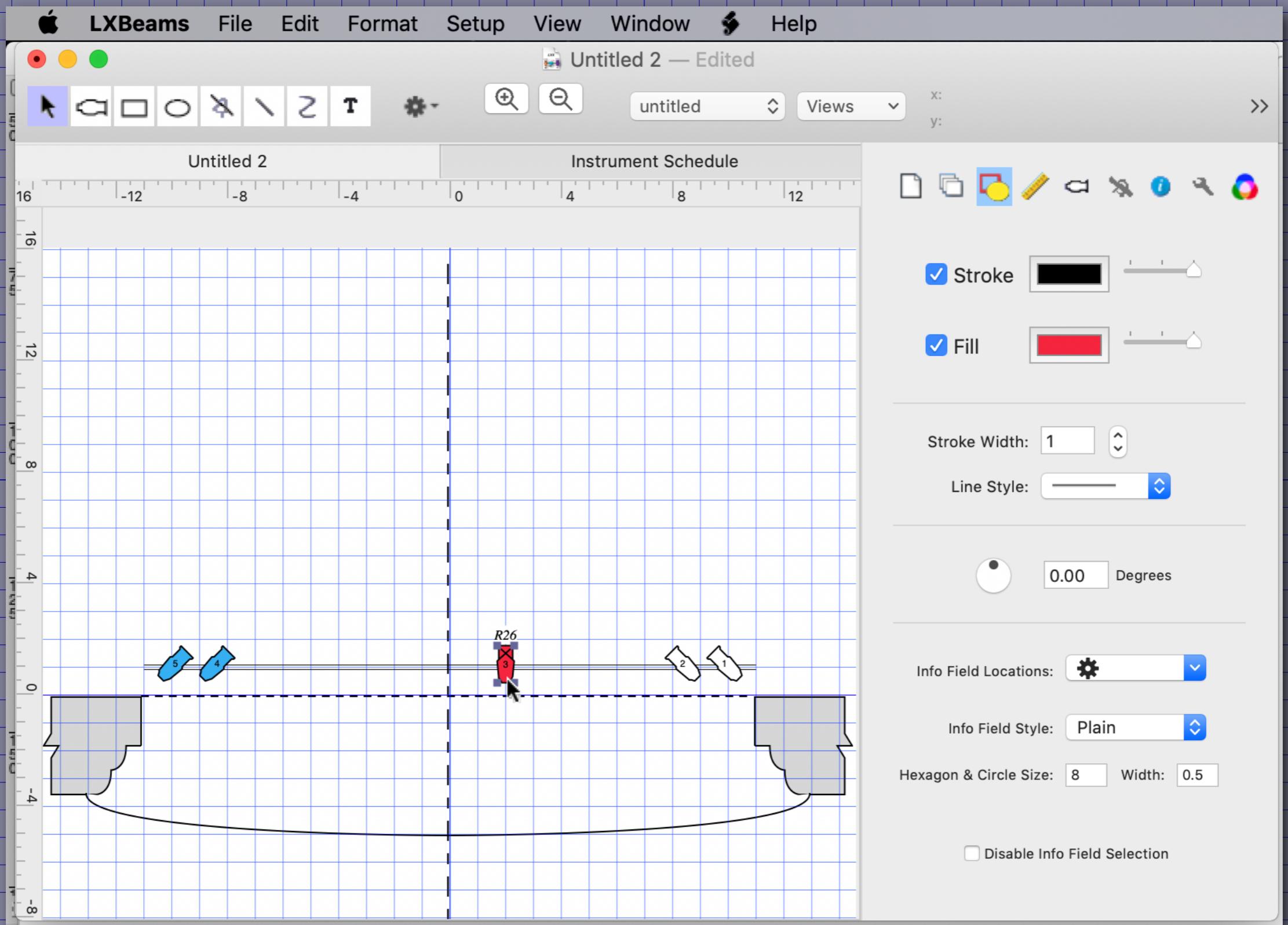


Select the color field by clicking on it,
Switch to the drawing tab and click the “Fill” box.



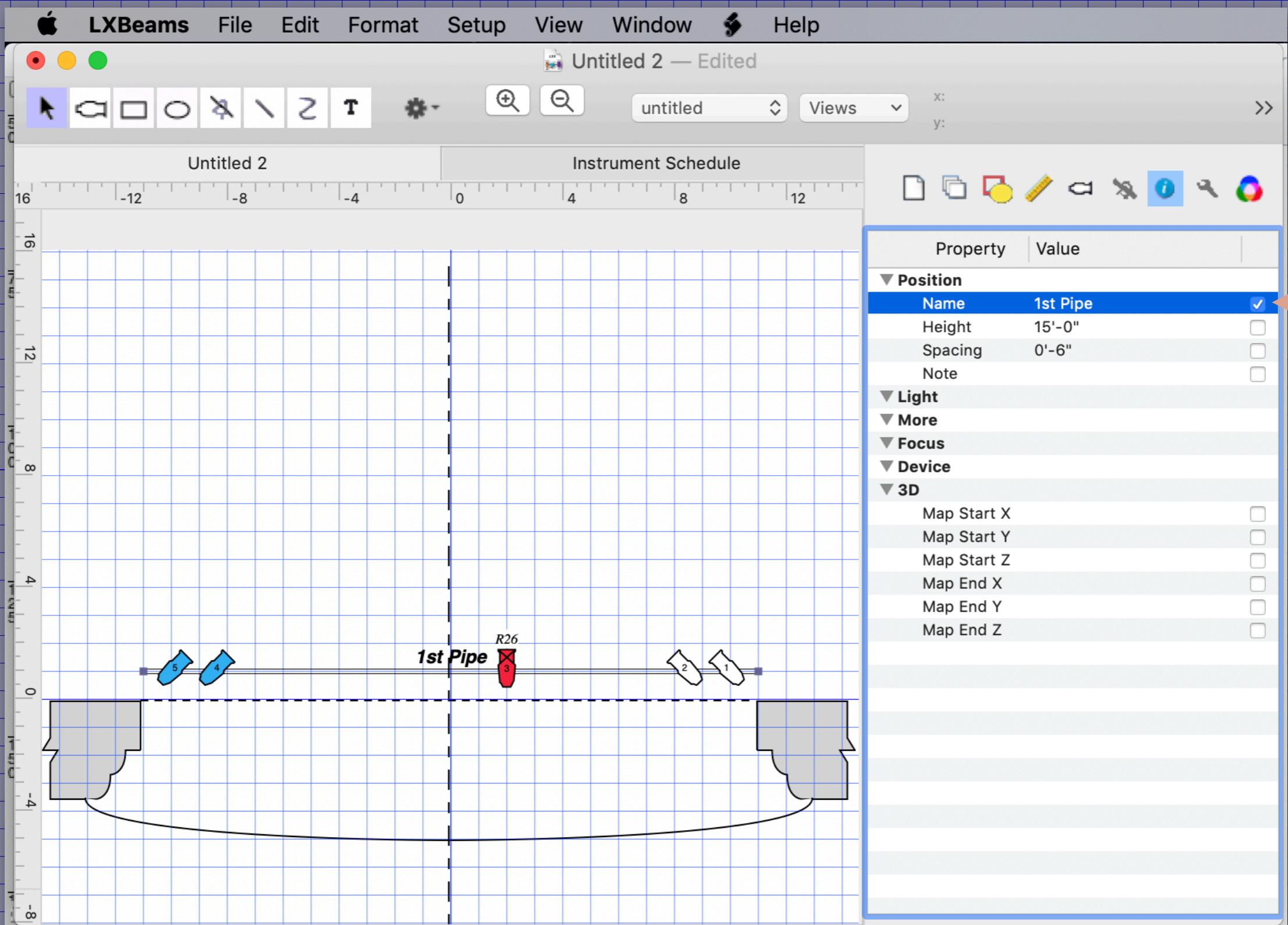
Info fields are like other graphic objects, despite being owned by a light or position.

Click on the light and drag it slightly on the position.

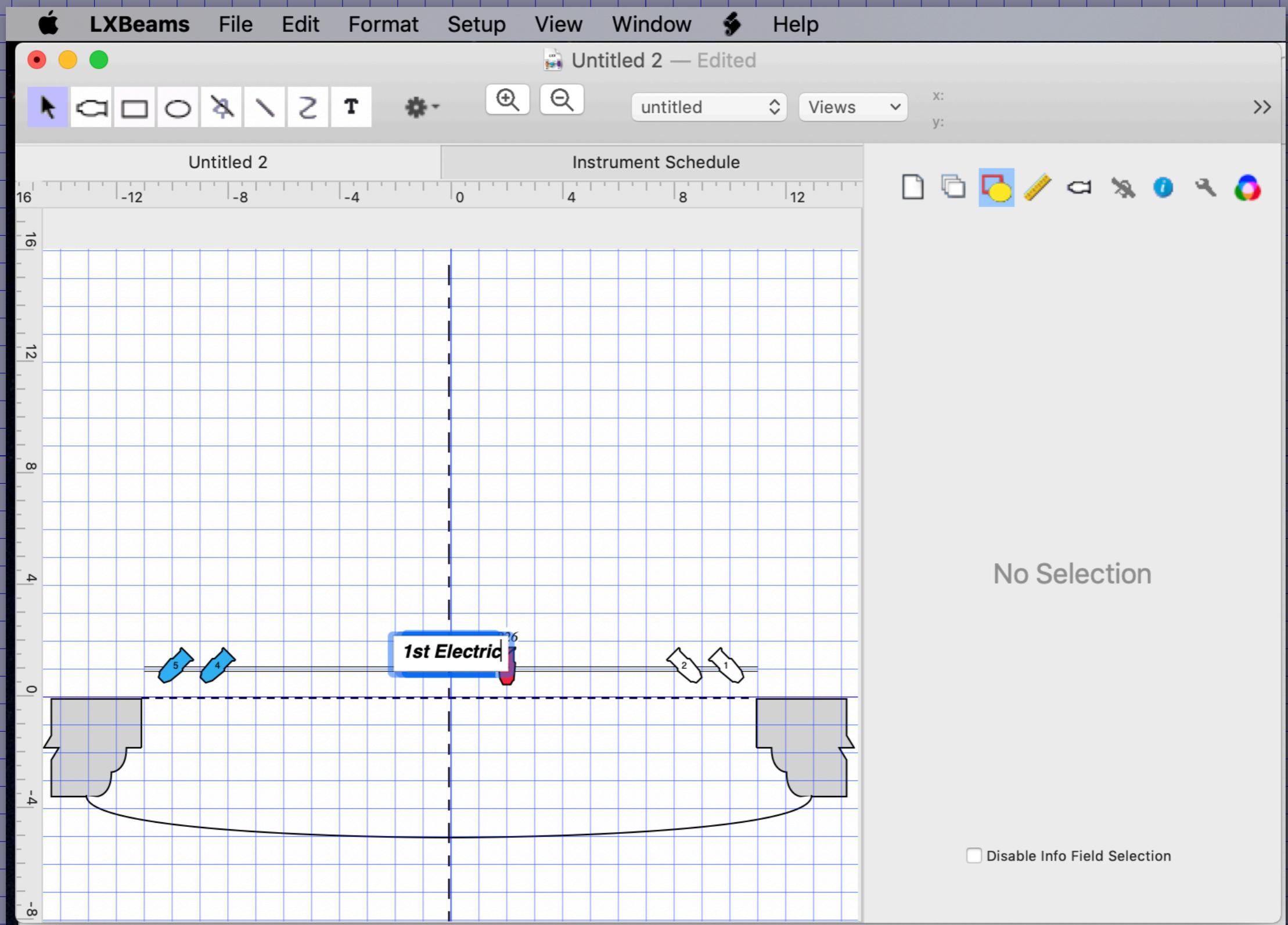


Info fields are attached to the light and move with it.

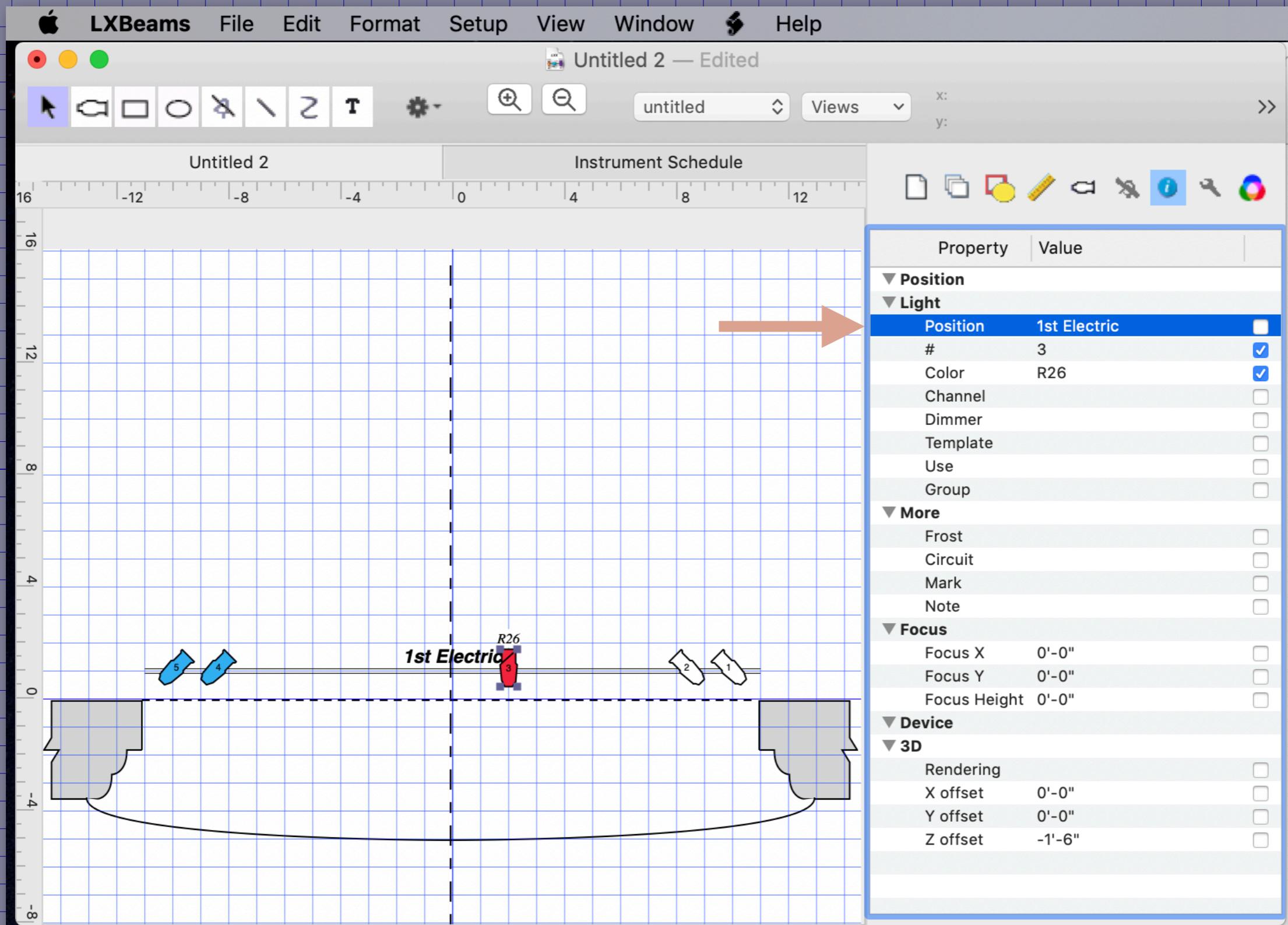
Select the position and check the box to display its name.



Double-click the position name field and change its name.

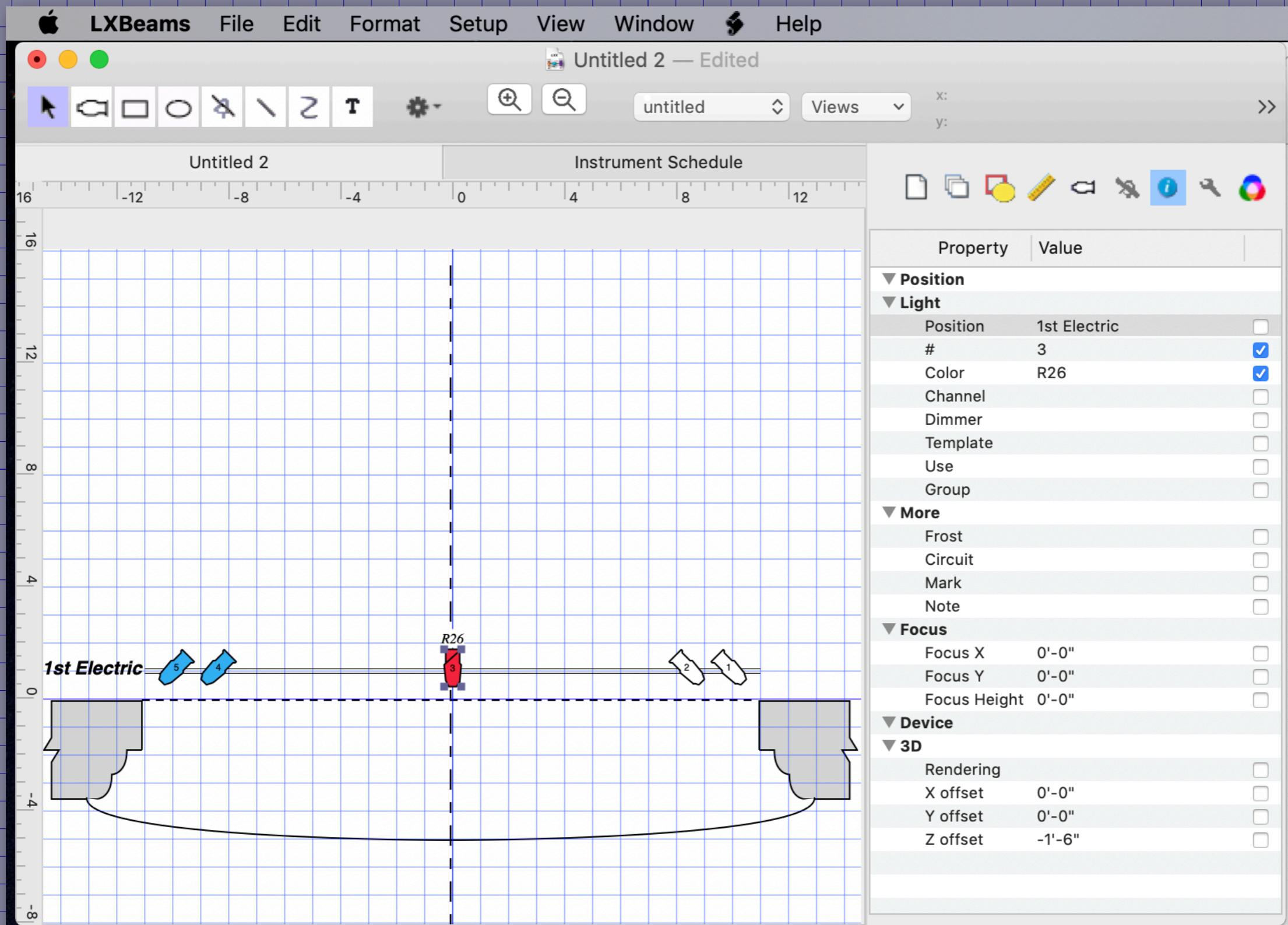


Select the center light and look at its properties.



Notice that the position has updated the light with its new name.

Drag the position name to the side.



You could also move the center light back to the center.

In this section we've looked at
the relationships between
lights and key entries.

- How the key entry has properties common to all lights of the same type.
- How a symbol comes from the key entry
But is drawn in a location determined by the light.
- How changing the type changes the symbol.
(But, you can change the symbol used for the type.)

In this section we've looked at
the relationships between
lights and positions.

- How lights and positions are associated when the graphics intersect (symbol overlaps line).
- How a light gets some properties from its associated position.

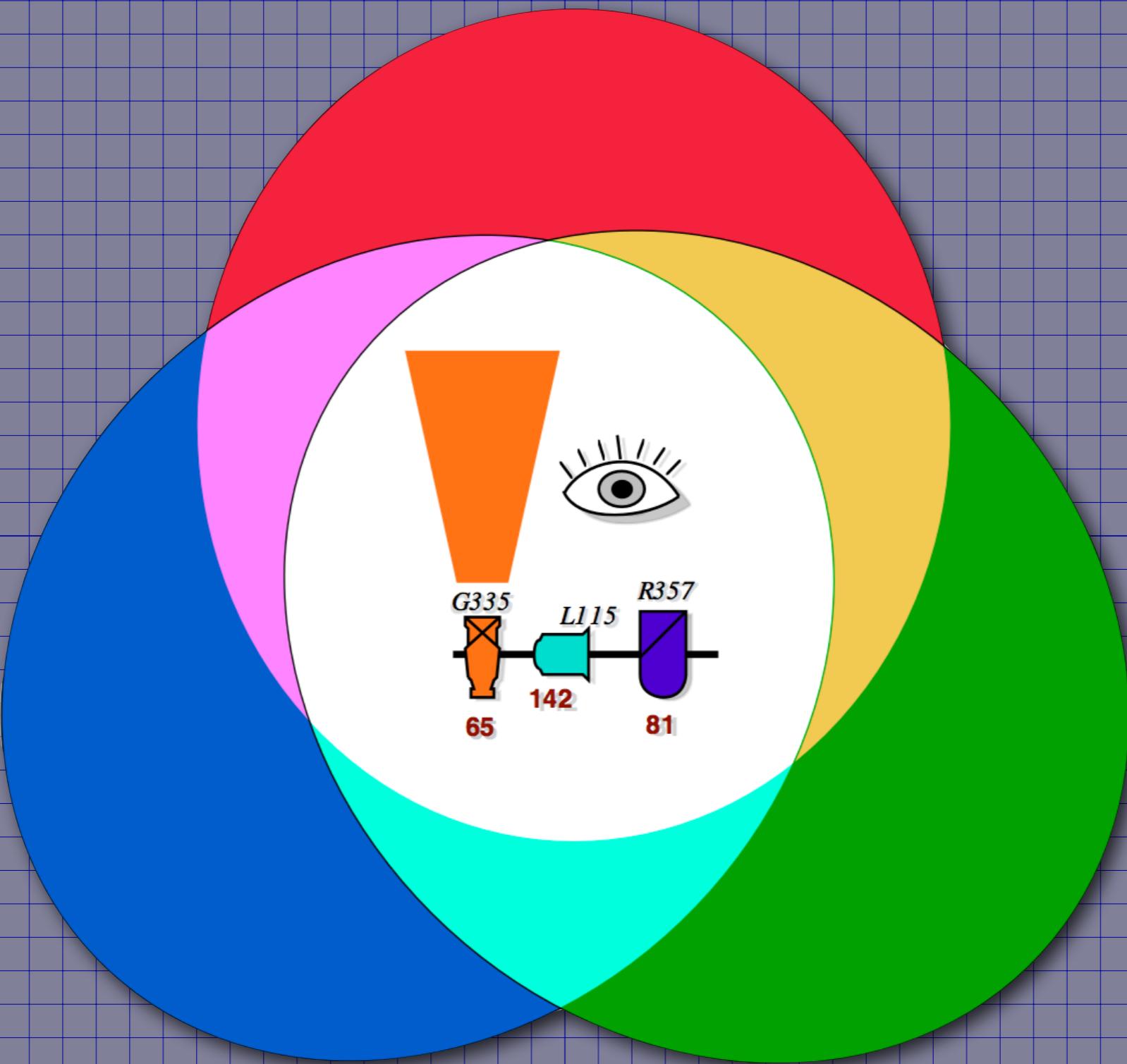
In this section we've also looked at
the ability of lights and positions
to display their properties in info fields.

- How info fields get their text from the property they display
- How info fields move when their “owner” is moved.
- How editing an info field changes the property it is derived from.

Try It Yourself

- Change the center light back to a 26°
- Display the color fields of the blue pipe ends

<https://www.claudeheintzdesign.com/lx>



claudeheintzdesign@gmail.com

©2020