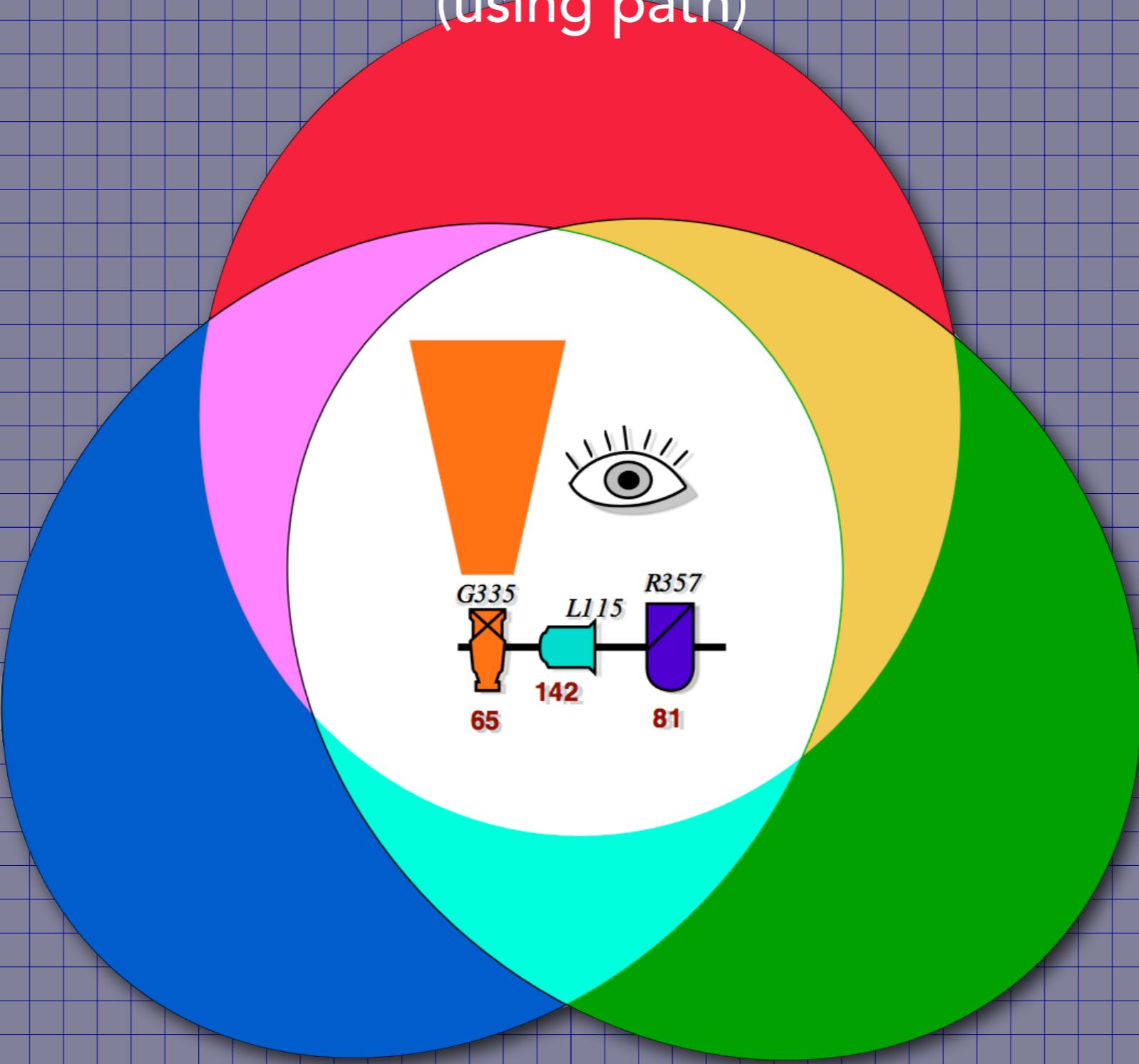


# Custom Symbol Part 2

(using path)



IATSE 728 Workshop 2020

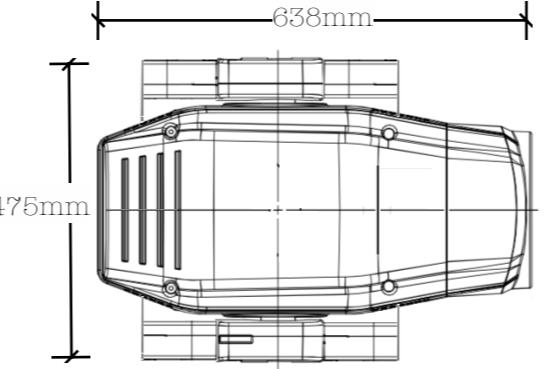
©2020

Before converting the graphic into a symbol/key entry, it is useful to have access to some basic information such as the name and what kind of fixture it is.

**Super Wash 2000**

Super Wash 2000	
LED Bright White Source	600w
DMX Channels	36
Pan	540°
Tilt	252°
Voltage	120v   240v
Power	8.6a   3.5a
Weight	42kg (92lbs)
Length	638mm
Width	475mm
Zoom Wash Mode	9°-51°
Zoom Beam Mode	5.5°-42°

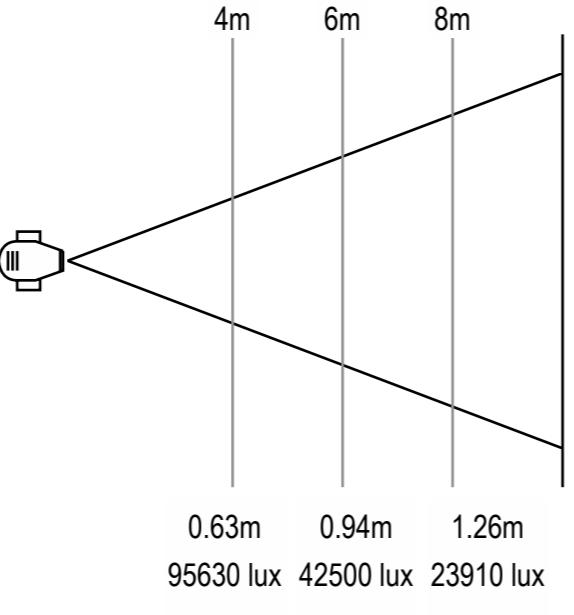
**Super Wash 2000**



**Super Wash 2000**

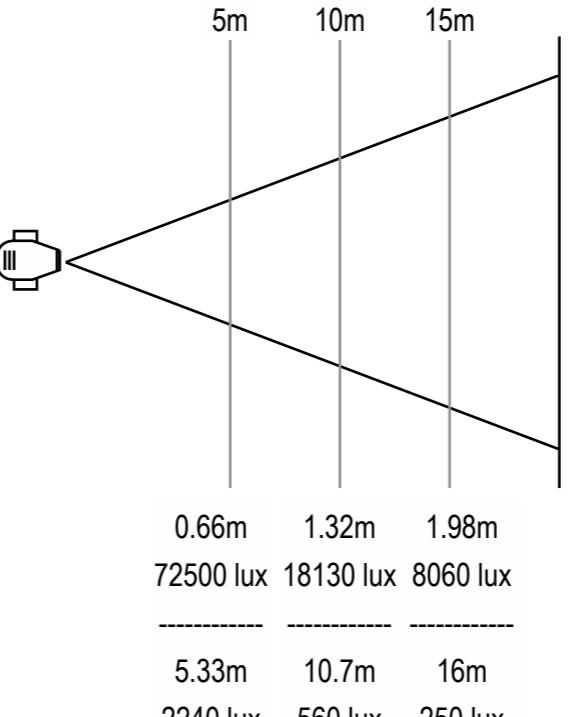
Function	Channel
Pan Coarse	1
Pan Fine	2
Tilt Coarse	3
Tilt Fine	4
Cyan	5
Magenta	6
Yellow	7
Focus	8
Zoom	9
Iris	10
Gobo	11

**Super Wash 2000 Wash Mode**



Distance (m)	Intensity (lux)
0.63m	95630 lux
0.94m	42500 lux
1.26m	23910 lux
3.9m	3000 lux
5.8m	1330 lux
7.7m	750 lux

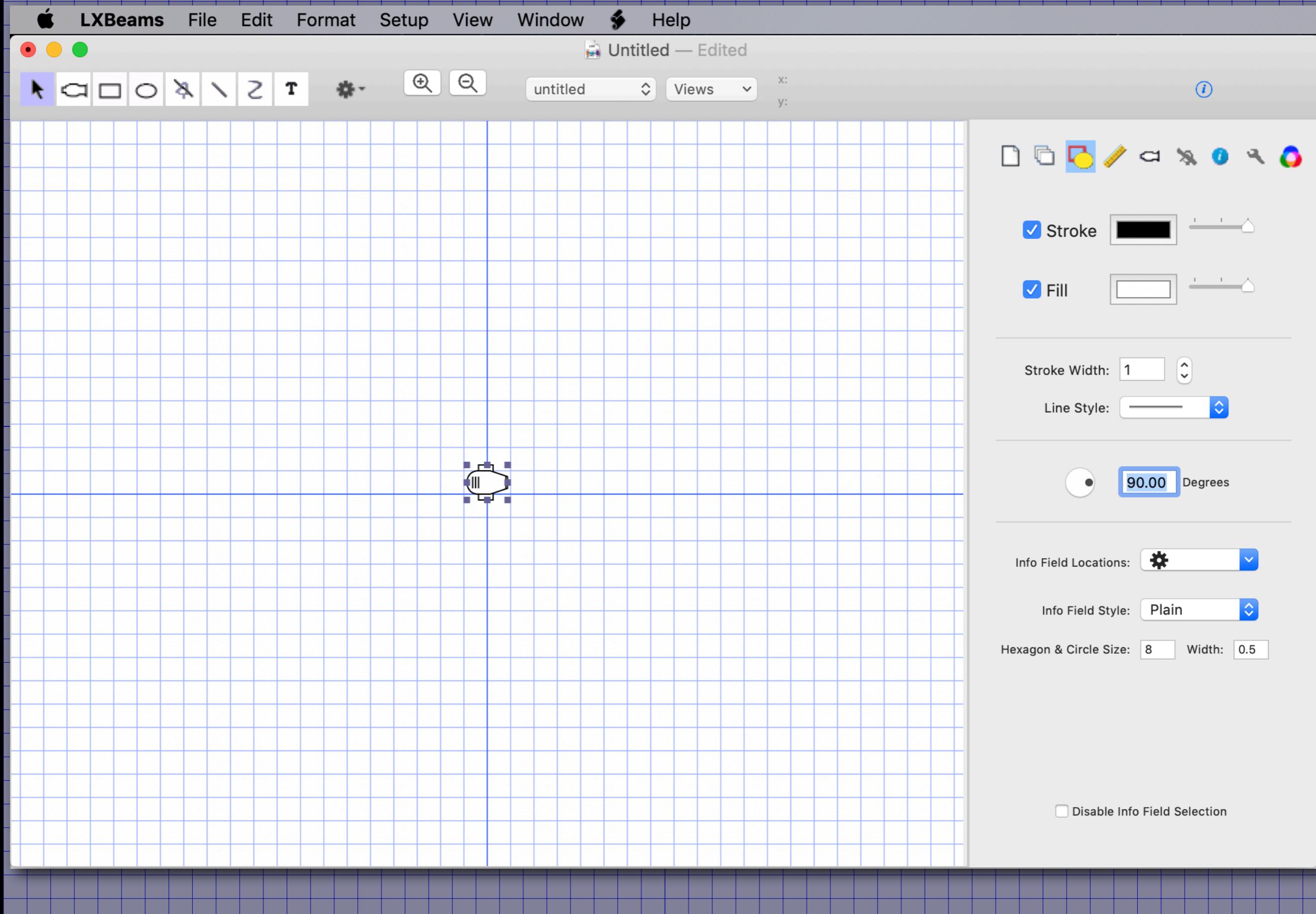
**Super Wash 2000 Beam Mode**



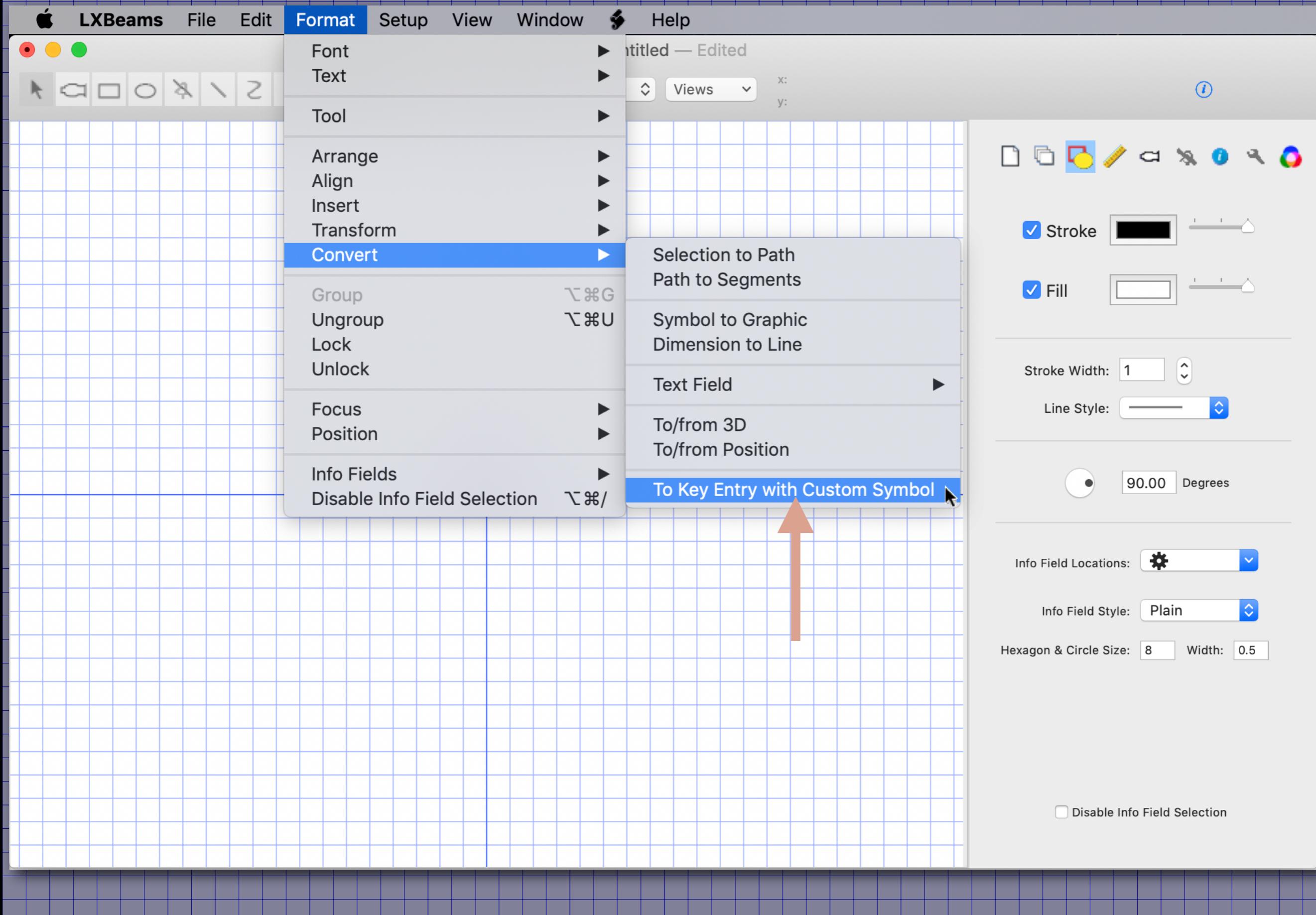
Distance (m)	Intensity (lux)
0.66m	72500 lux
1.32m	18130 lux
1.98m	8060 lux
5.33m	2240 lux
10.7m	560 lux
16m	250 lux

This "Super Wash 2000" is a mover with CMY color mixing.

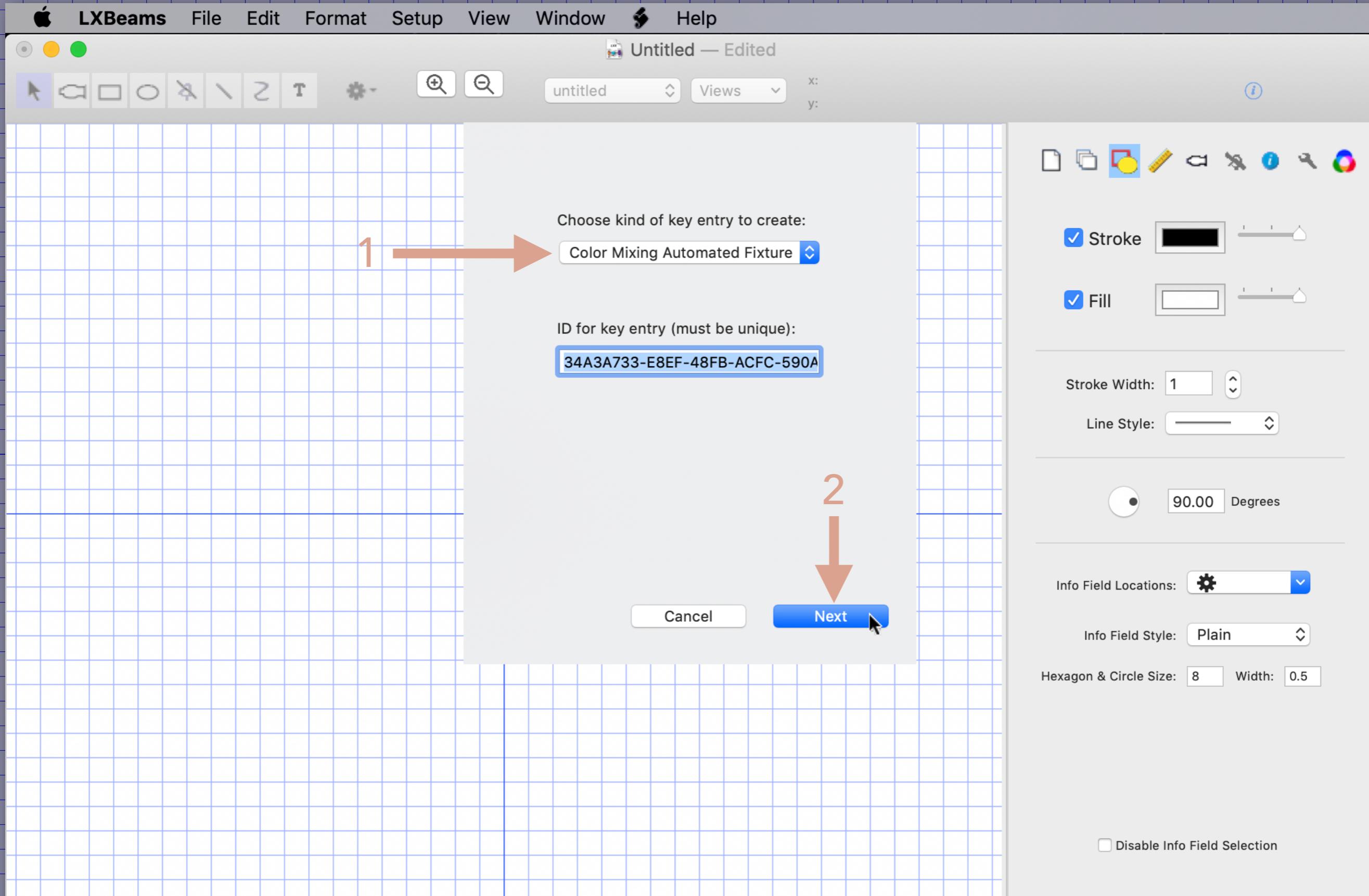
# Start with the path created in Part 1.



Choose Format → Convert → To Key Entry with Custom Symbol.

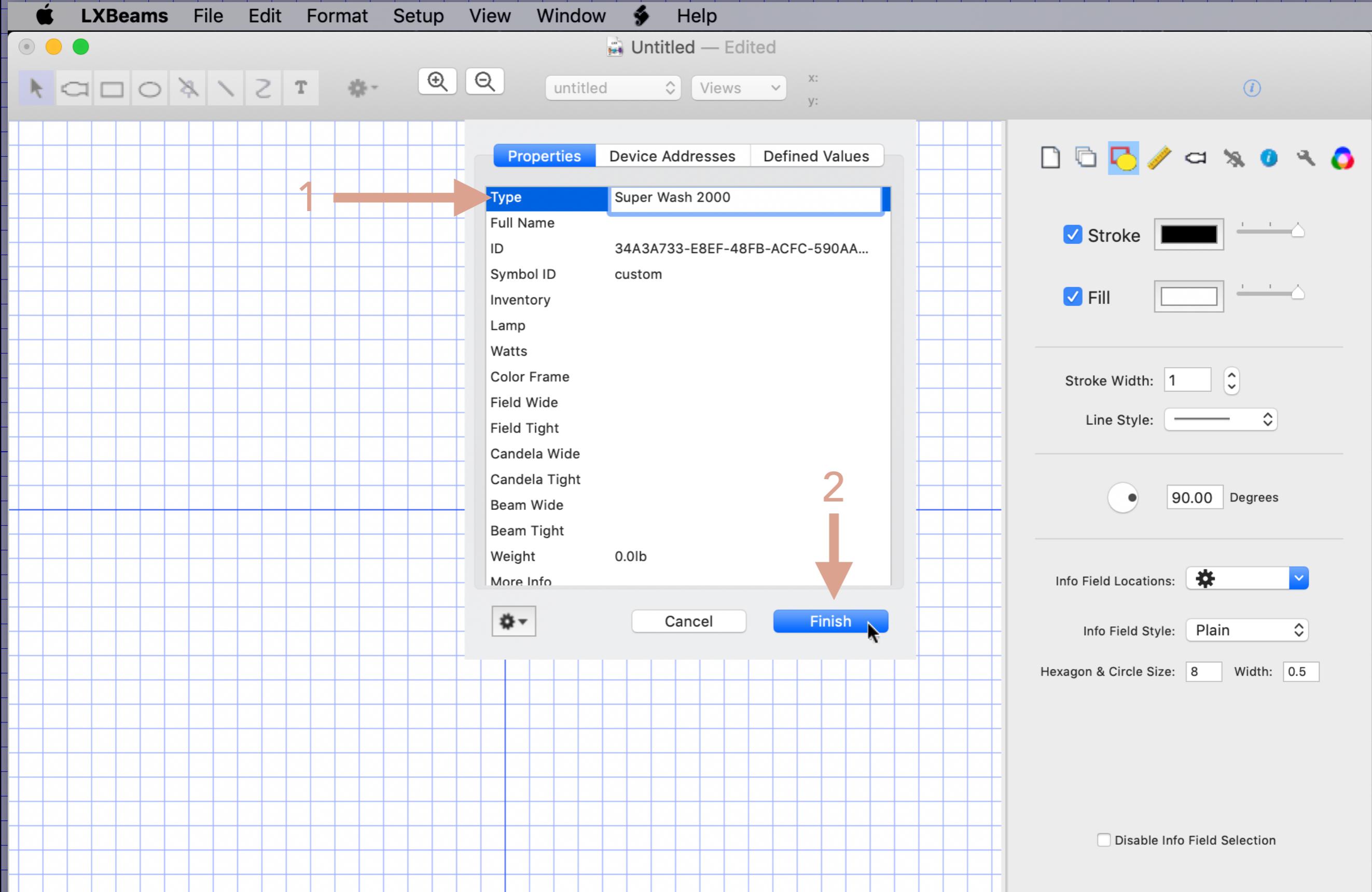


# Choose “Color Mixing Automated Fixture” from the list of kinds.



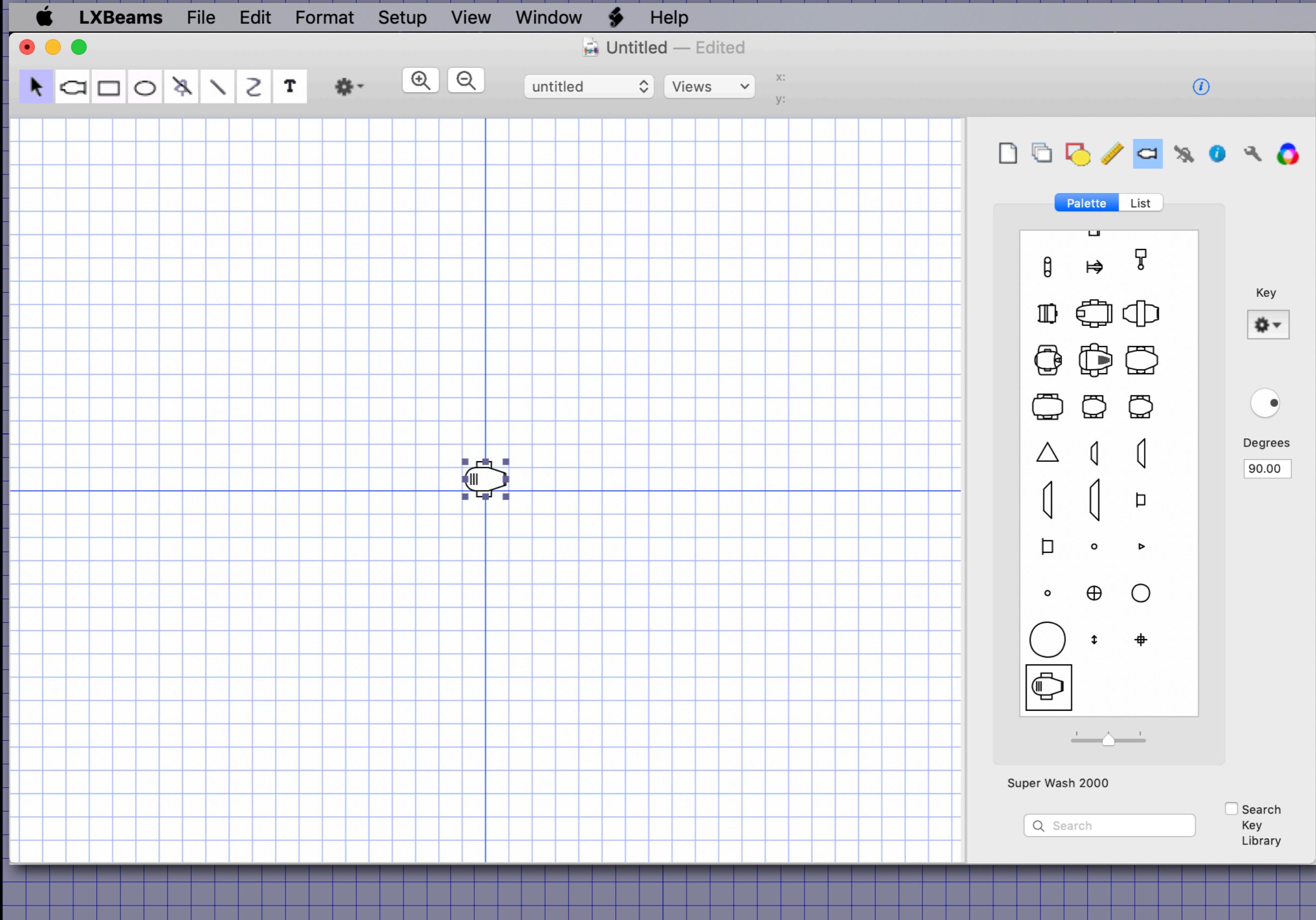
Leave the generated unique ID as it is. And then click Next.

# Fill in the type name.

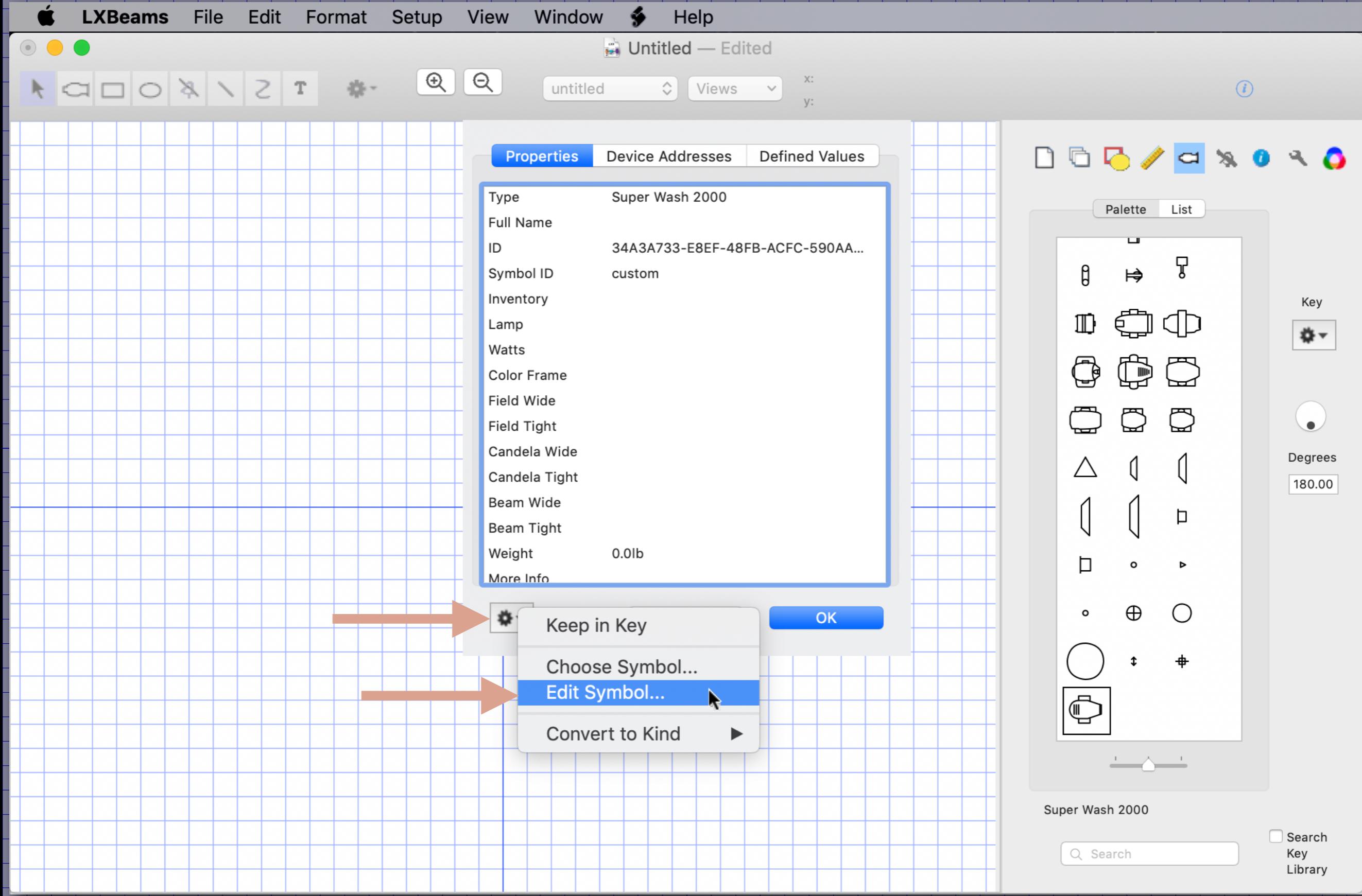


(You can edit the other properties later.)

The new symbol appears at the bottom of the palette.

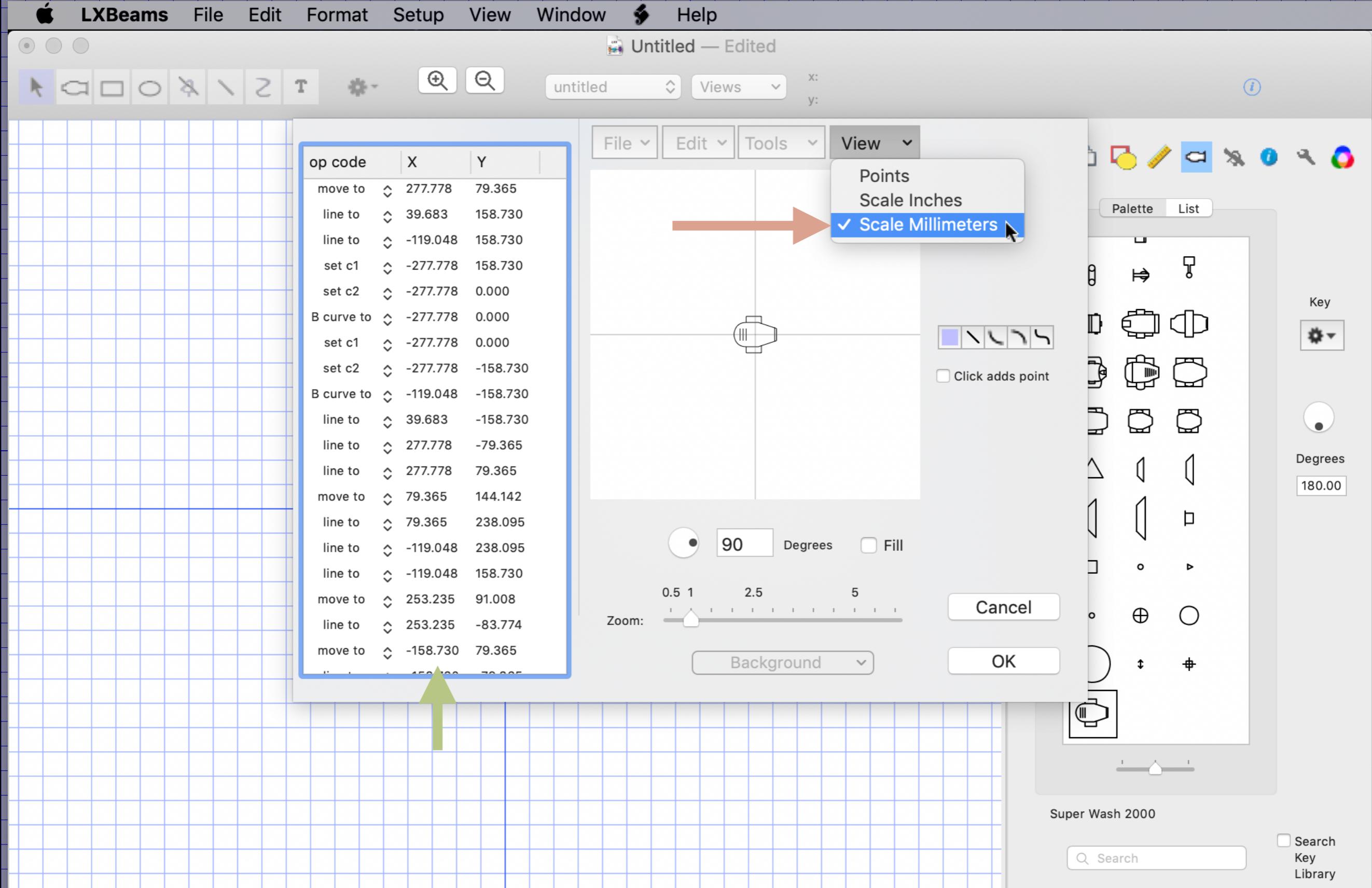


Double-click the new symbol in the palette to open the key entry sheet.



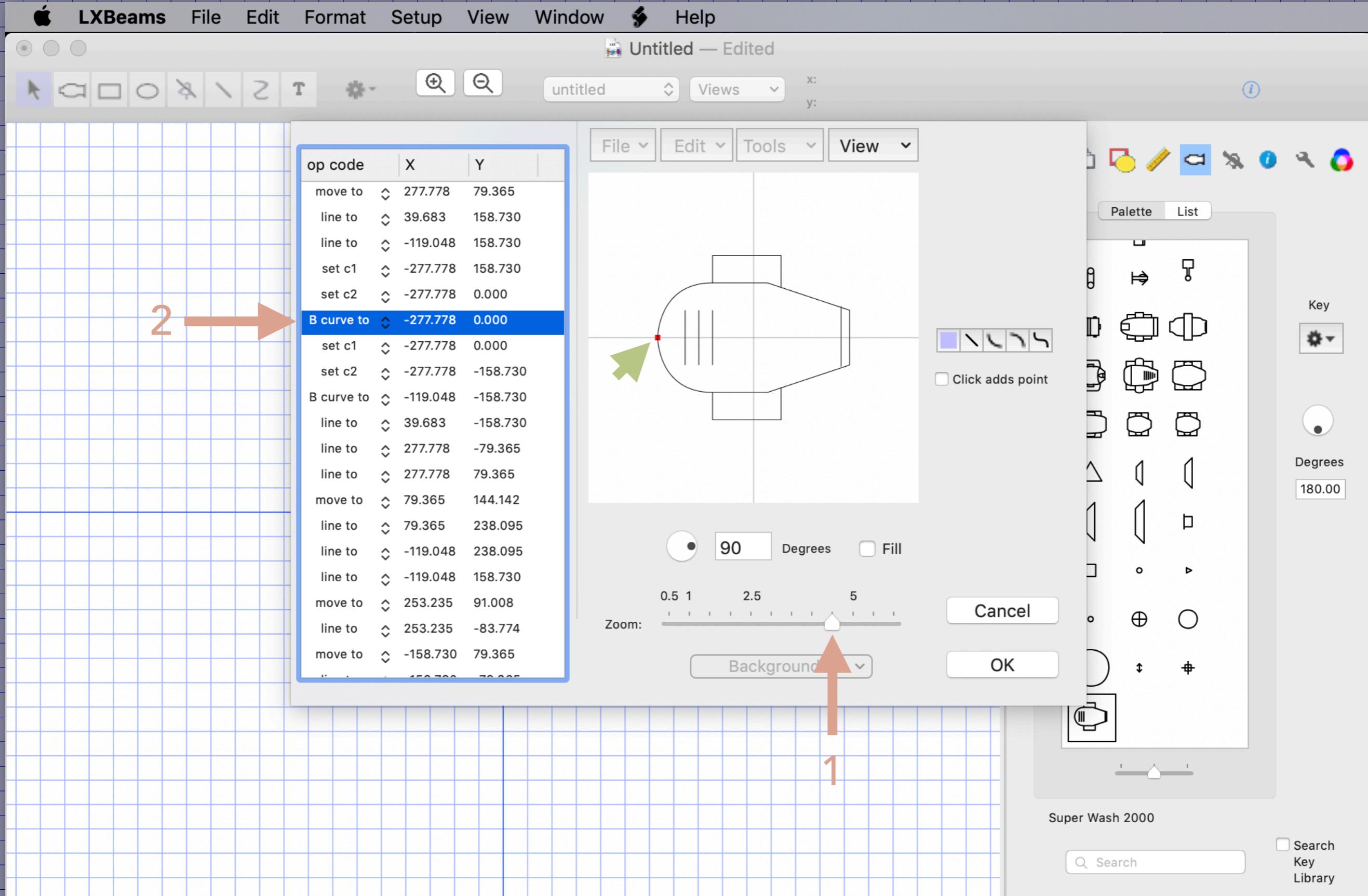
Choose “Edit Symbol...” from the popup menu.

The symbol editor shows the details of the graphic path of the symbol.



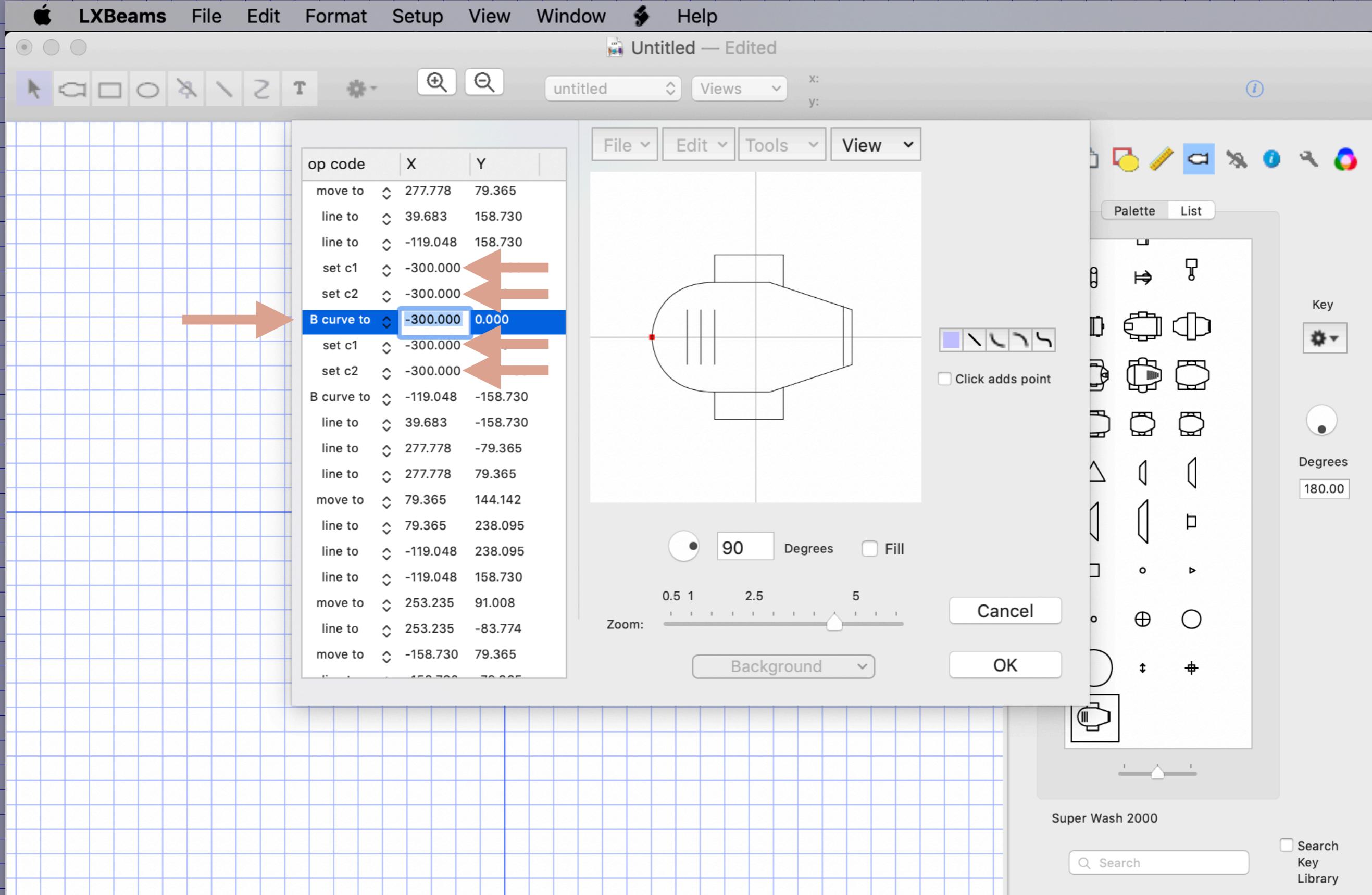
Change the view of the points to Scale Millimeters.

# Increase the zoom to see better detail.



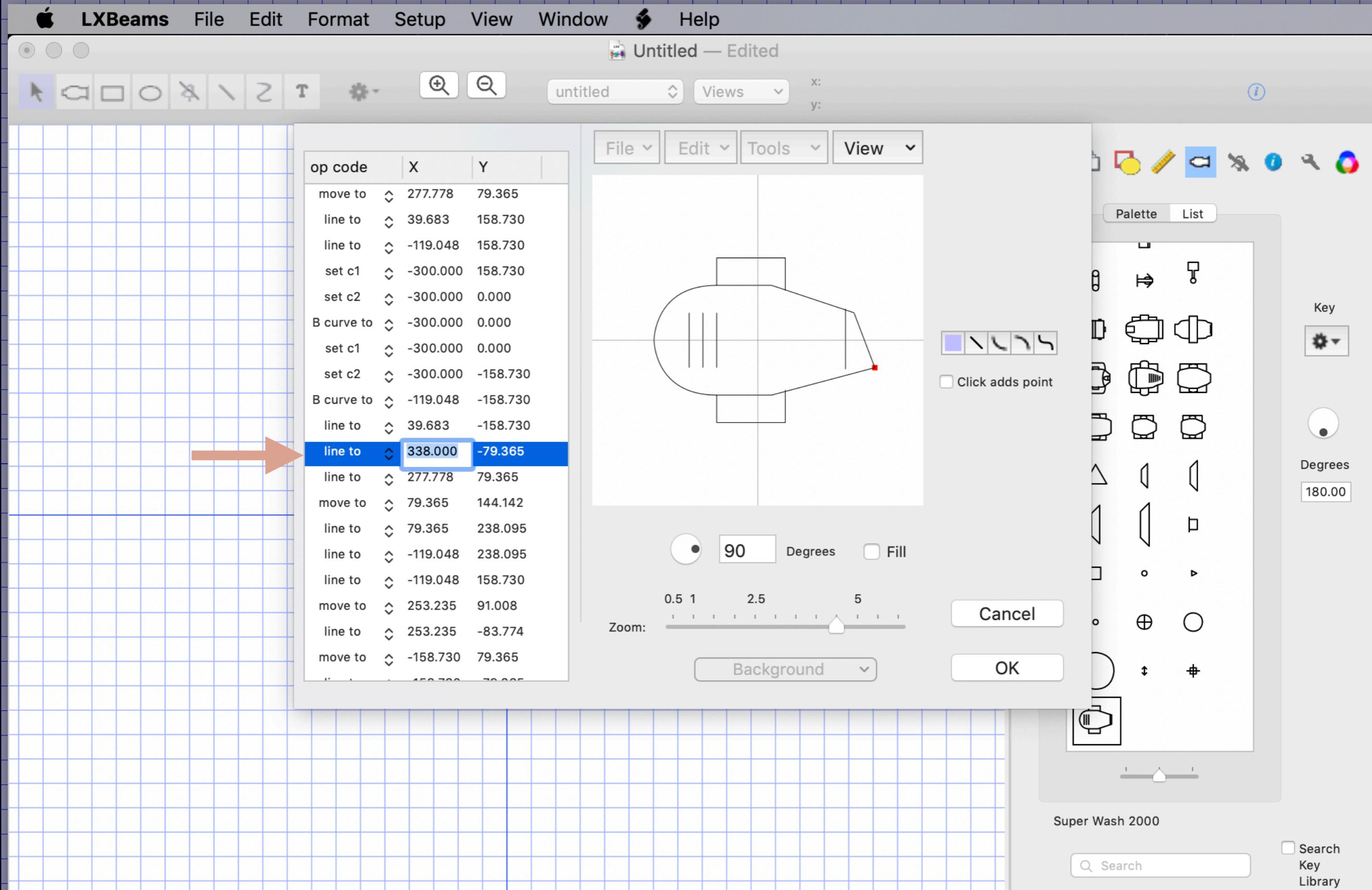
Click on a row in the table and then use the up/down arrow keys to traverse the path to the leftmost point .

# Set the X coordinate for the end of the curve to -300.



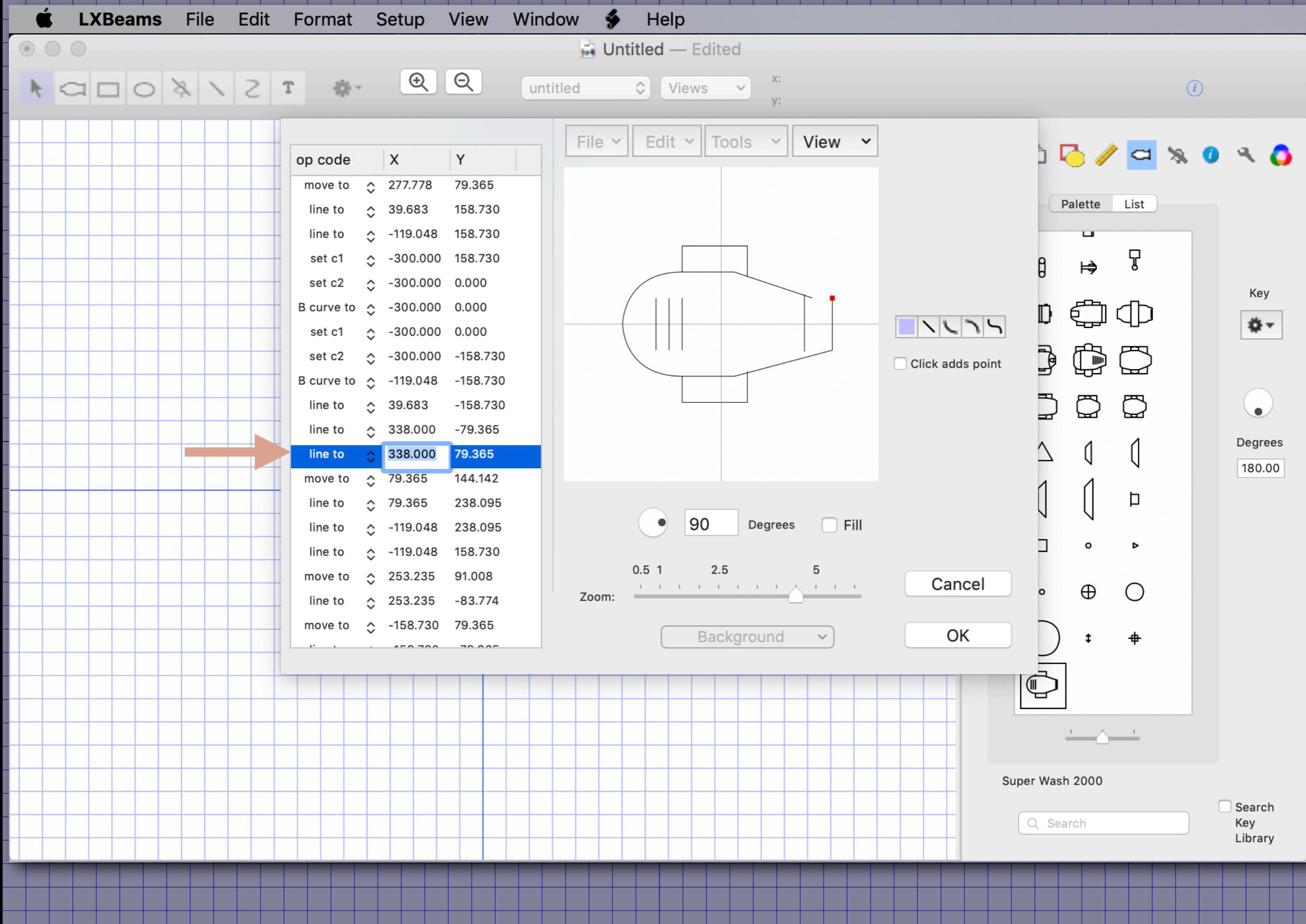
Also, set the four control points for the left curves to -300 as well

# Keep moving down the rows to find the first front point.

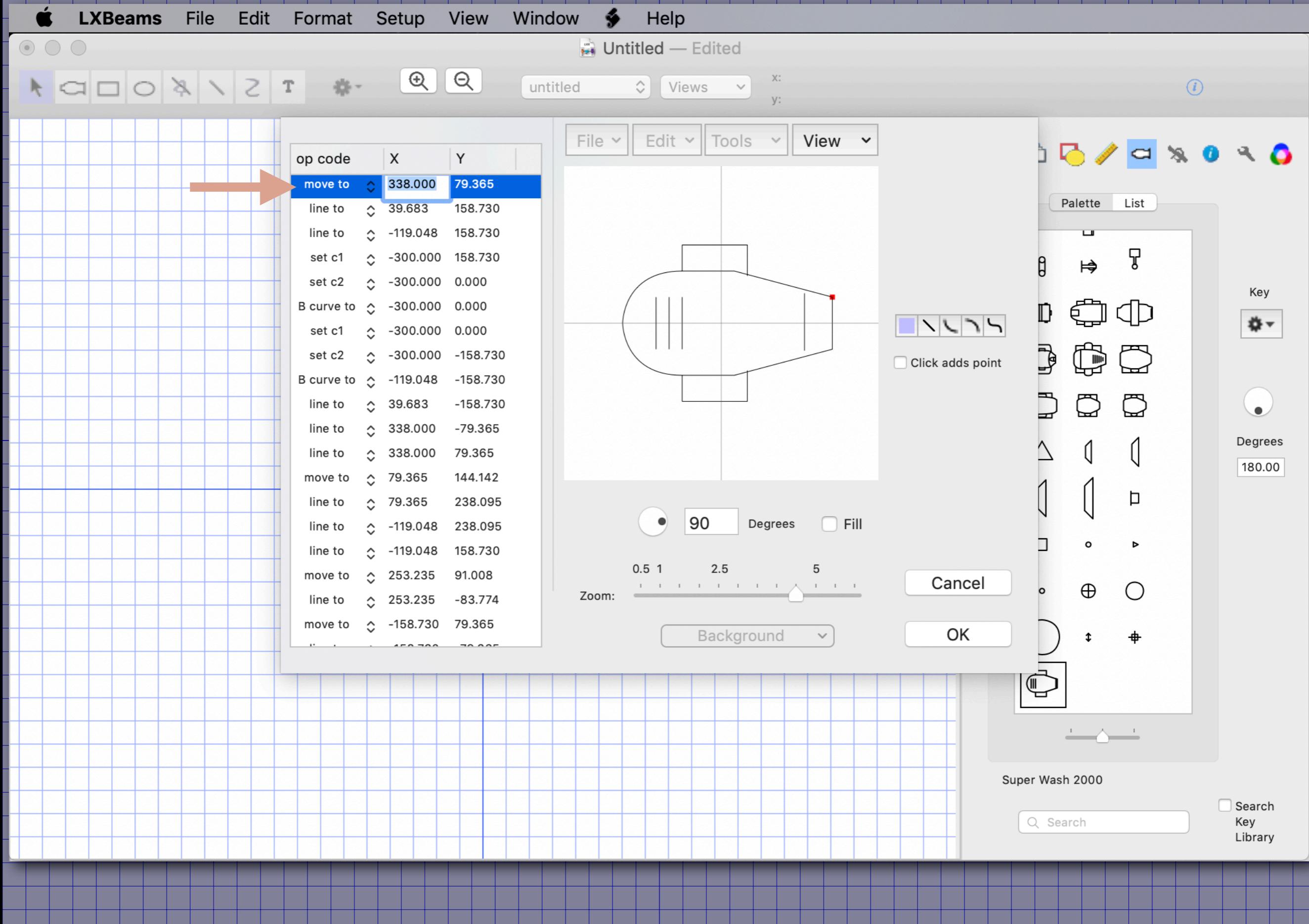


Change its X value to 338

# Change the X of the next point to 338 as well.



There's one more X point to change, the very first row.



The length from -300 to 338 is 638 mm as shown in the product information

**Super Wash 2000**

Super Wash 2000	
LED Bright White Source	600w
DMX Channels	36
Pan	540°
Tilt	252°
Voltage	120v   240v
Power	8.6a   3.5a
Weight	42kg (92lbs)
<b>Length</b>	<b>638mm</b>
Width	475mm
Zoom Wash Mode	9°-51°
Zoom Beam Mode	5.5°-42°

**Super Wash 2000**

638mm

475mm

**Super Wash 2000**

Function	Channel
Pan Coarse	1
Pan Fine	2
Tilt Coarse	3
Tilt Fine	4
Cyan	5
Magenta	6
Yellow	7
Focus	8
Zoom	9
Iris	10
Gobo	11

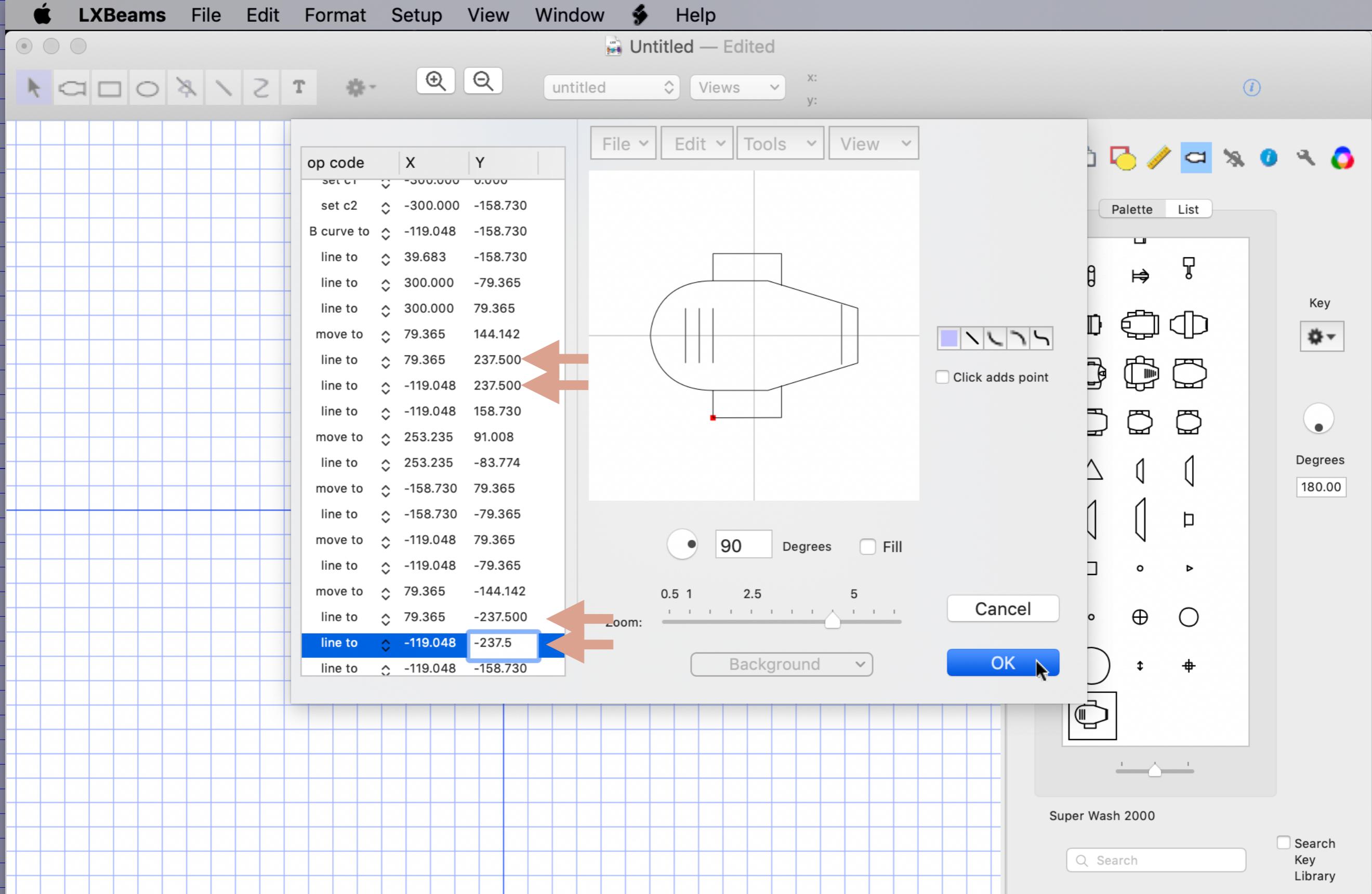
**Super Wash 2000 Wash Mode**

Distance (m)	Width (m)	Lux (lux)
0.63m	4.96m	95630 lux
0.94m	3.77m	42500 lux
1.26m	2.99m	23910 lux
3.9m	0.63m	3000 lux
5.8m	0.44m	1330 lux
7.7m	0.33m	750 lux

**Super Wash 2000 Beam Mode**

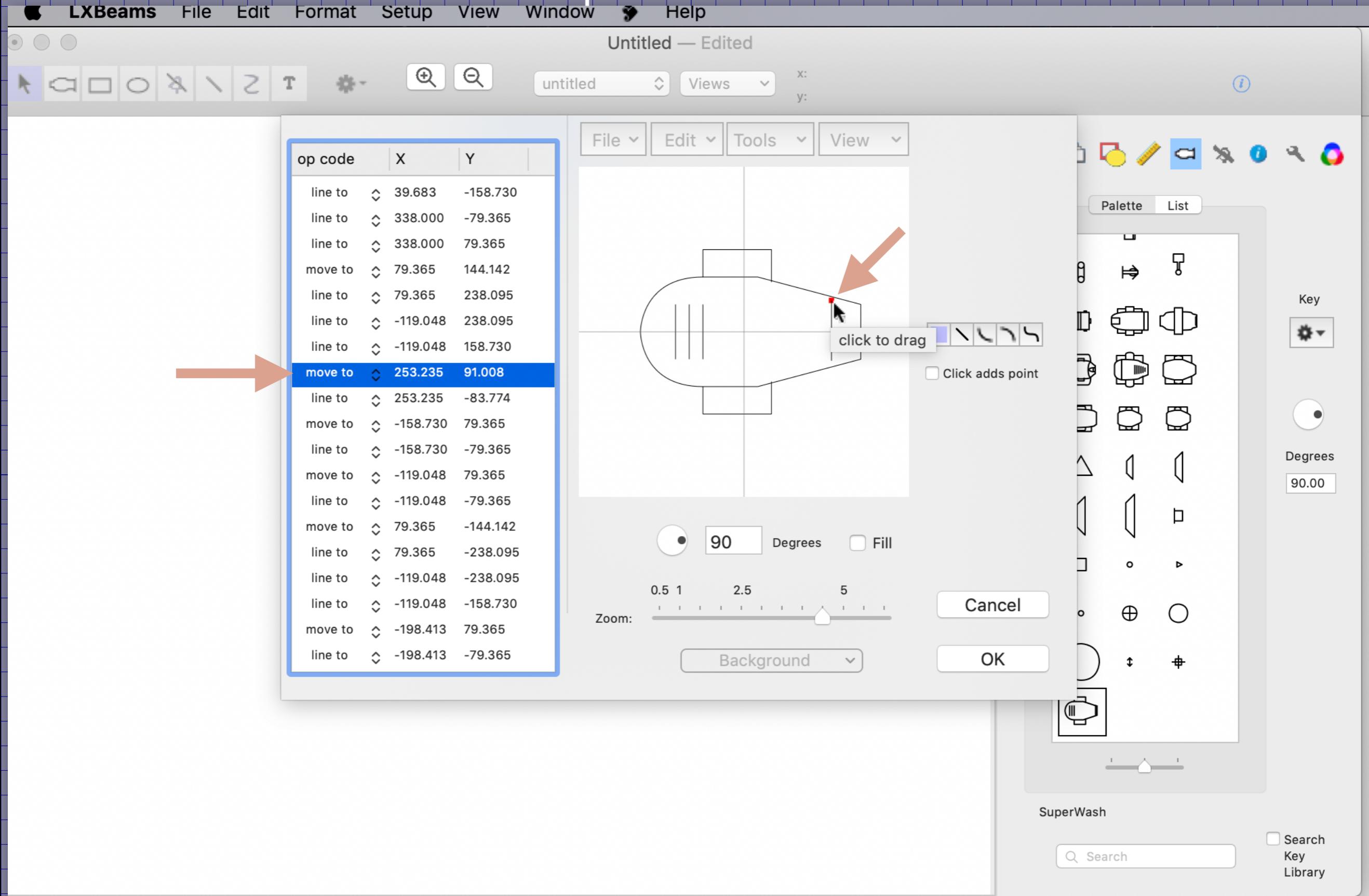
Distance (m)	Width (m)	Lux (lux)
0.66m	7.5m	72500 lux
1.32m	3.75m	18130 lux
1.98m	2.5m	8060 lux
5.33m	0.66m	2240 lux
10.7m	0.33m	560 lux
16m	0.25m	250 lux

If you like, you can edit the top-most and bottom-most Y values.



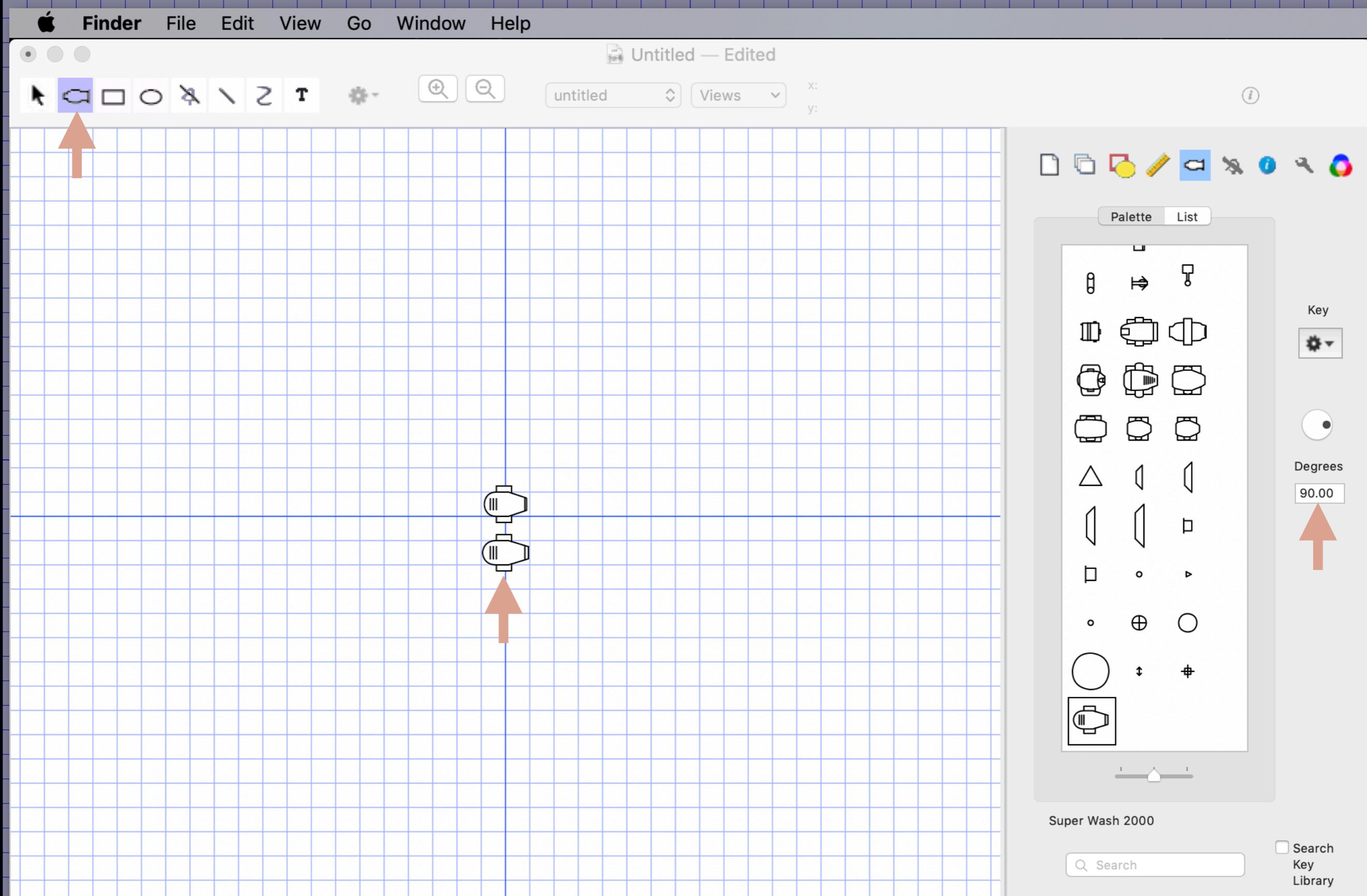
At 238, they are already very close to being correct,  $475 \div 2 = 237.5$   
Click OK to complete the editing.

You can also find the points for the line near the front.



A selected point can be dragged to be positioned.  
So these points can be moved to connect with the outline.

Close the Key entry sheet by clicking OK again.



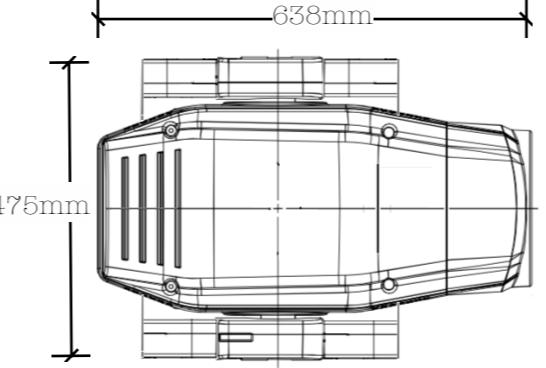
Use the light tool to draw a symbol next to the original path.

Double-click the symbol in the palette to re-open the key entry sheet.

**Super Wash 2000**

Super Wash 2000 Specifications	
LED Bright White Source	600w
DMX Channels	36
Pan	540°
Tilt	252°
Voltage	120v   240v
Power	8.6a   3.5a
Weight	42kg (92lbs)
Length	638mm
Width	475mm
Zoom Wash Mode	9°-51°
Zoom Beam Mode	5.5°-42°

## Super Wash 2000



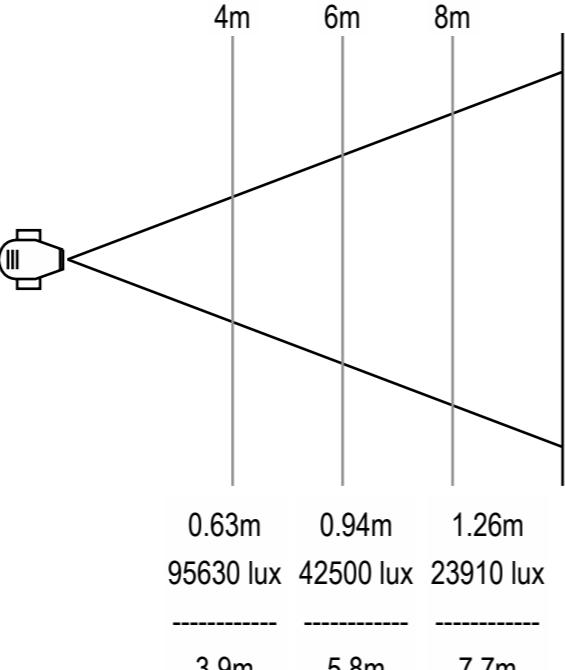
638mm

475mm

**Super Wash 2000**

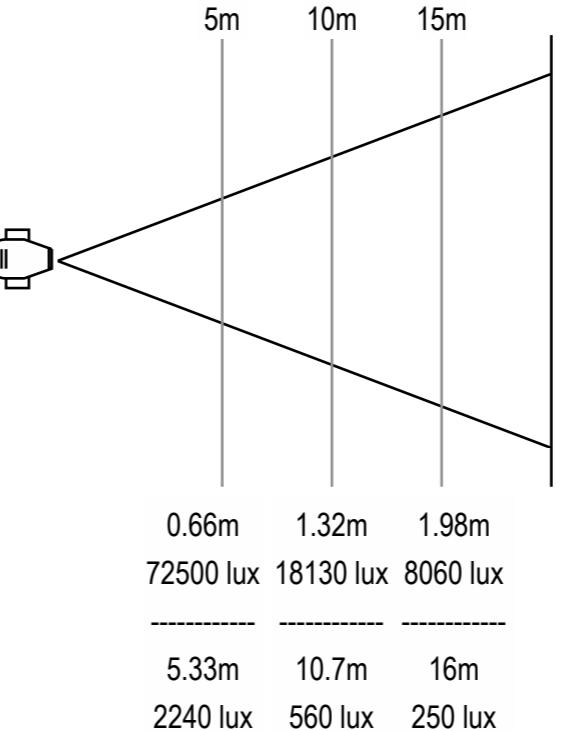
Function	Channel
Pan Coarse	1
Pan Fine	2
Tilt Coarse	3
Tilt Fine	4
Cyan	5
Magenta	6
Yellow	7
Focus	8
Zoom	9
Iris	10
Gobo	11

**Super Wash 2000 Wash Mode**



Distance (m)	Beam Angle (°)	Light Level (lux)
0.63m	9°	95630 lux
0.94m	12°	42500 lux
1.26m	18°	23910 lux
3.9m	25°	3000 lux
5.8m	35°	1330 lux
7.7m	51°	750 lux

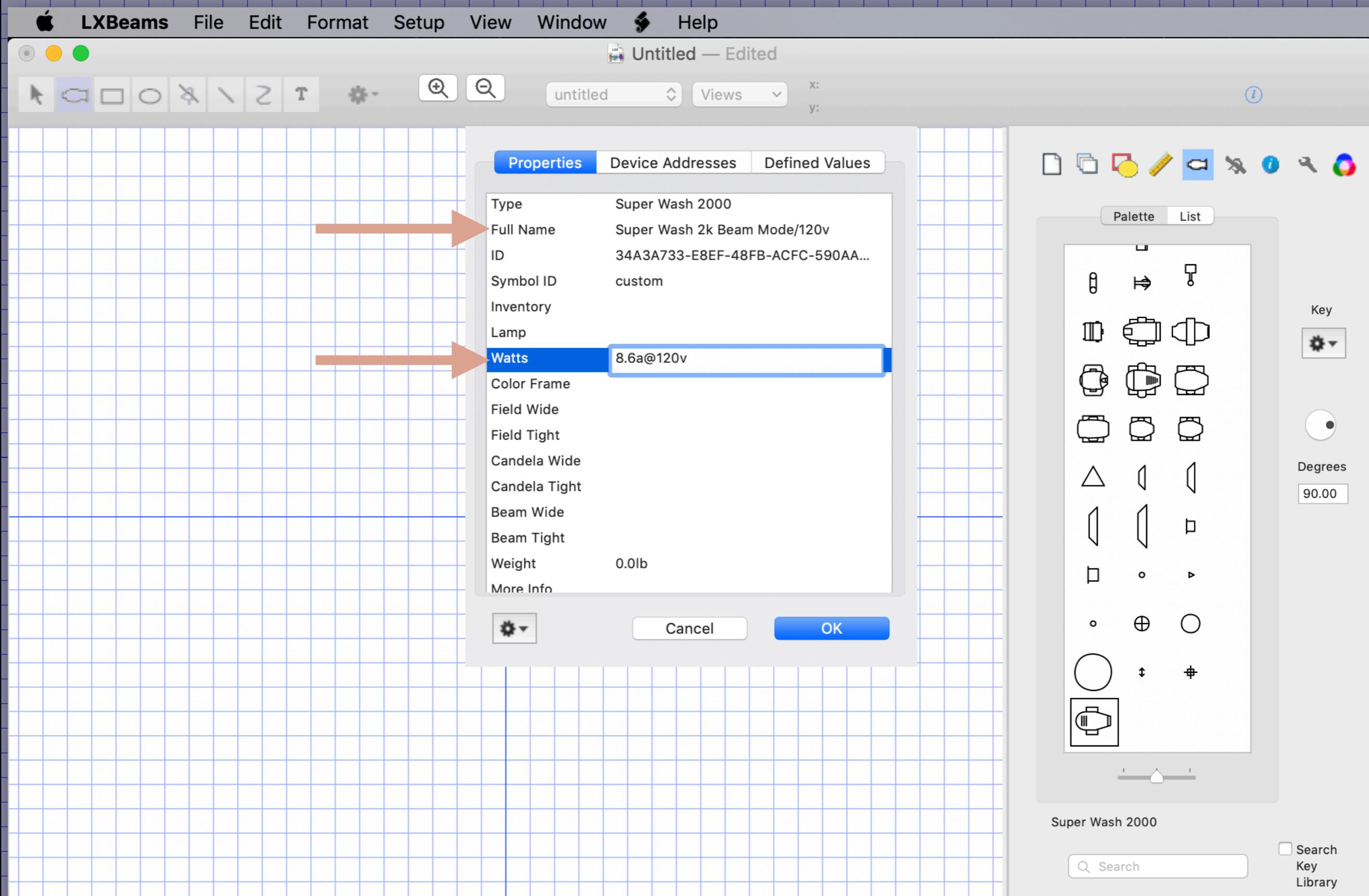
**Super Wash 2000 Beam Mode**



Distance (m)	Beam Angle (°)	Light Level (lux)
0.66m	5.5°	72500 lux
1.32m	10°	18130 lux
1.98m	15°	8060 lux
5.33m	20°	2240 lux
10.7m	35°	560 lux
16m	42°	250 lux

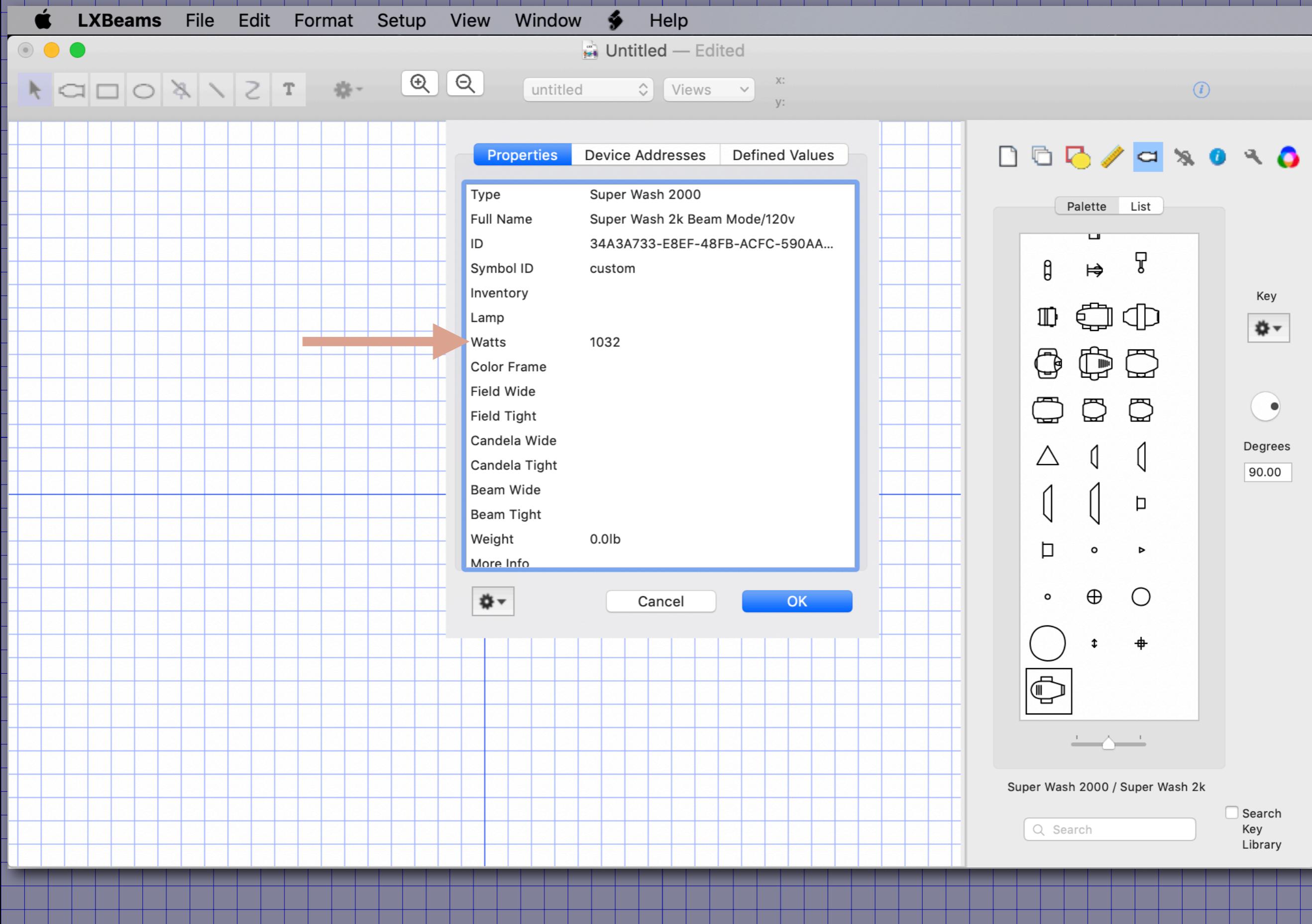
The “Super Wash” has 2 modes, beam and wash, as well as dual voltage.

# The full name allows for details like beam mode and 120v.



Enter "8.6a@120v" in the row for the Watts property.

# LXBeams calculates the watts given volts and amps.



The specifications show the zoom range of the beam but not the field.

**Super Wash 2000**

Super Wash 2000 Specifications	
LED Bright White Source	600w
DMX Channels	36
Pan	540°
Tilt	252°
Voltage	120v   240v
Power	8.6a   3.5a
Weight	42kg (92lbs)
Length	638mm
Width	475mm
Zoom Wash Mode	9°-51°
Zoom Beam Mode	5.5°-42°

**Super Wash 2000**

638mm

475mm

**Super Wash 2000**

Function	Channel
Pan Coarse	1
Pan Fine	2
Tilt Coarse	3
Tilt Fine	4
Cyan	5
Magenta	6
Yellow	7
Focus	8
Zoom	9
Iris	10
Gobo	11

**Super Wash 2000 Wash Mode**

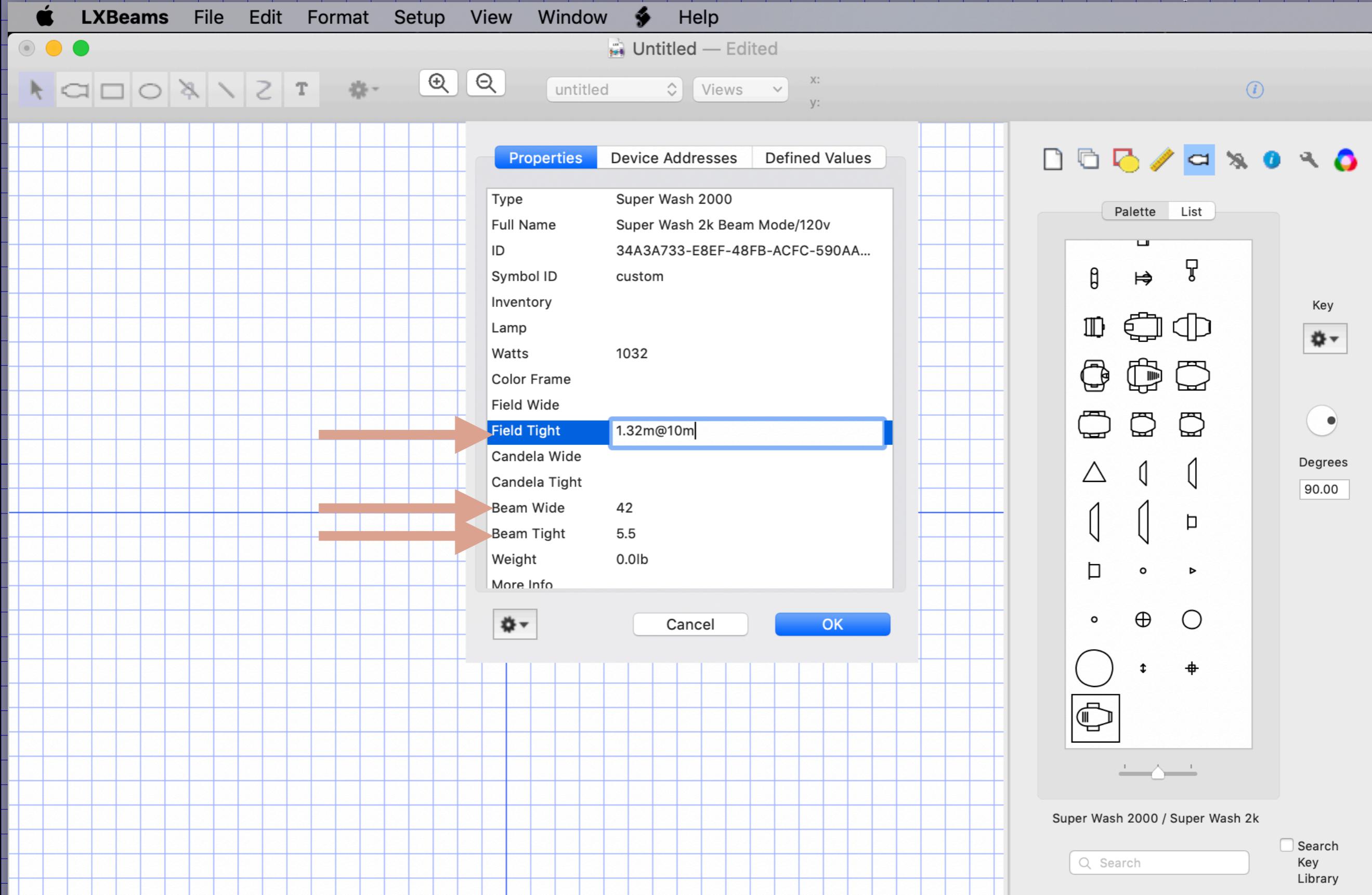
Distance (m)	Beam Angle (degrees)	Lux (lux)
0.63	9.56	95630
0.94	12.5	42500
1.26	16.5	23910
3.9	39	3000
5.8	58	1330
7.7	77	750

**Super Wash 2000 Beam Mode**

Distance (m)	Beam Angle (degrees)	Lux (lux)
0.66	7.25	72500
1.32	14.5	18130
1.98	21.5	8060
5.33	53.3	2240
10.7	107	560
16	160	250

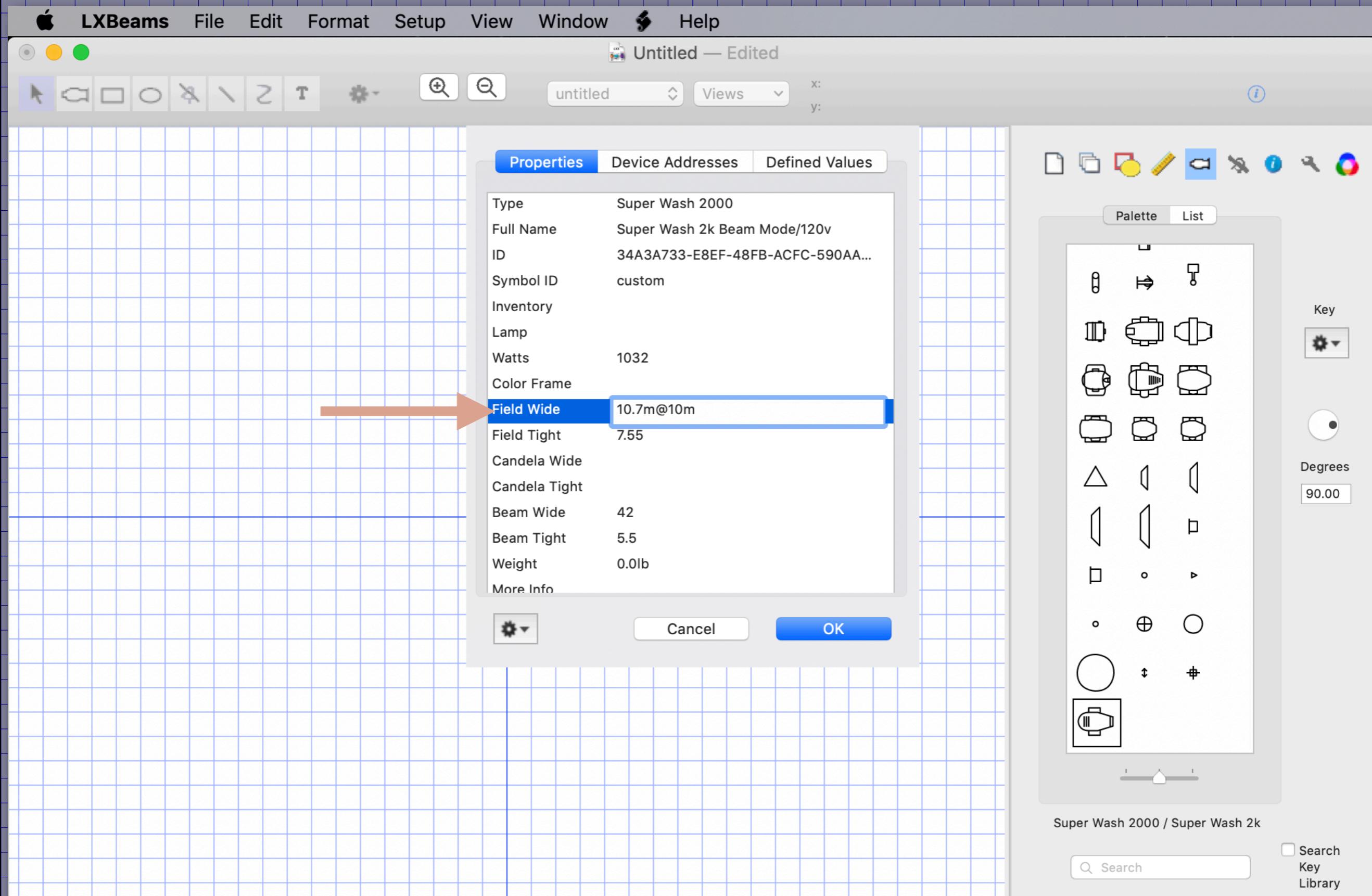
However, the size at various distances is shown.

You can directly enter 42 and 5.5 for the beam (from the specs).



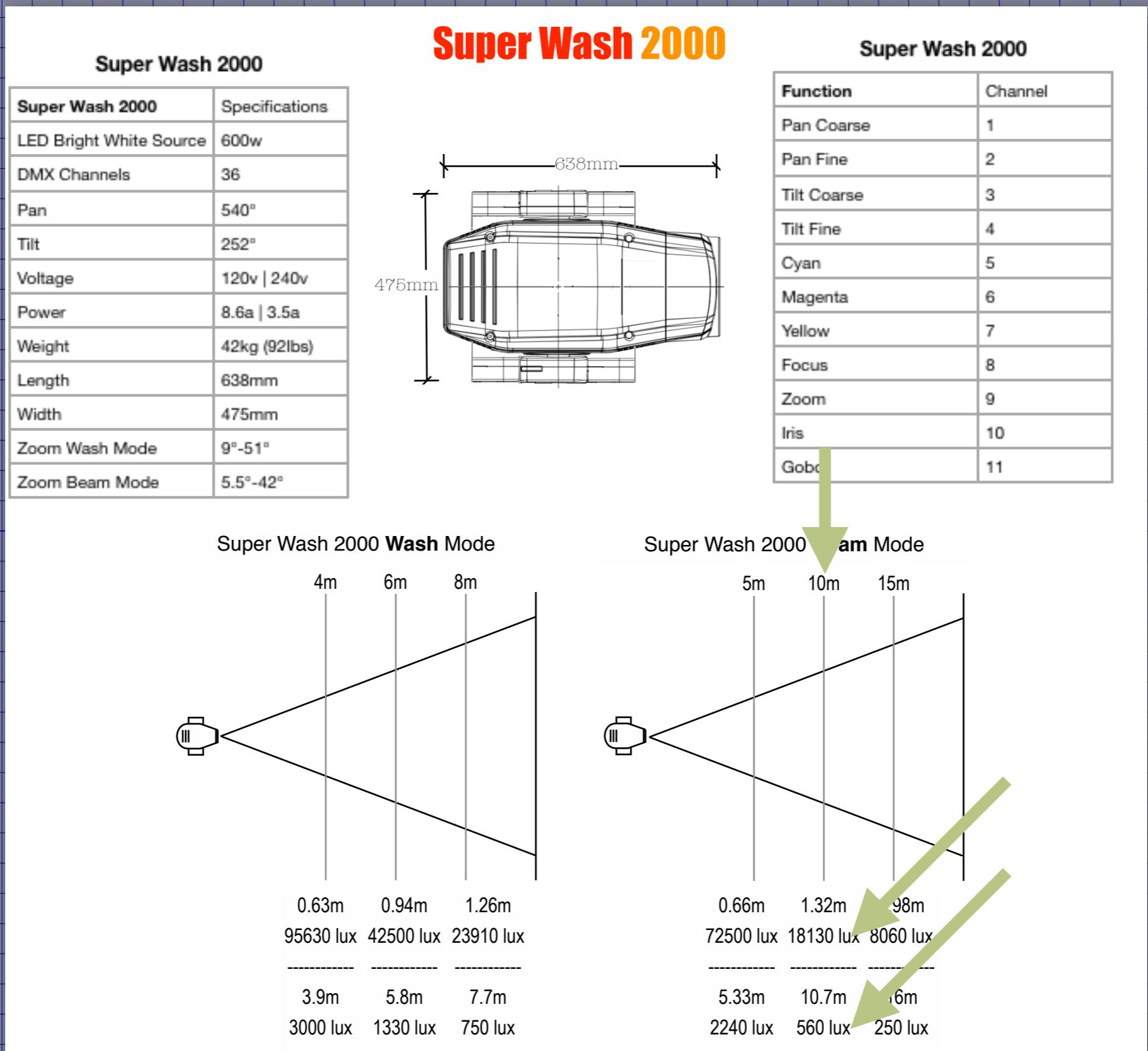
And, you can enter 1.32m@10m for the Field Tight property.

# LXBeams does the math and comes up with 7.55 degrees.



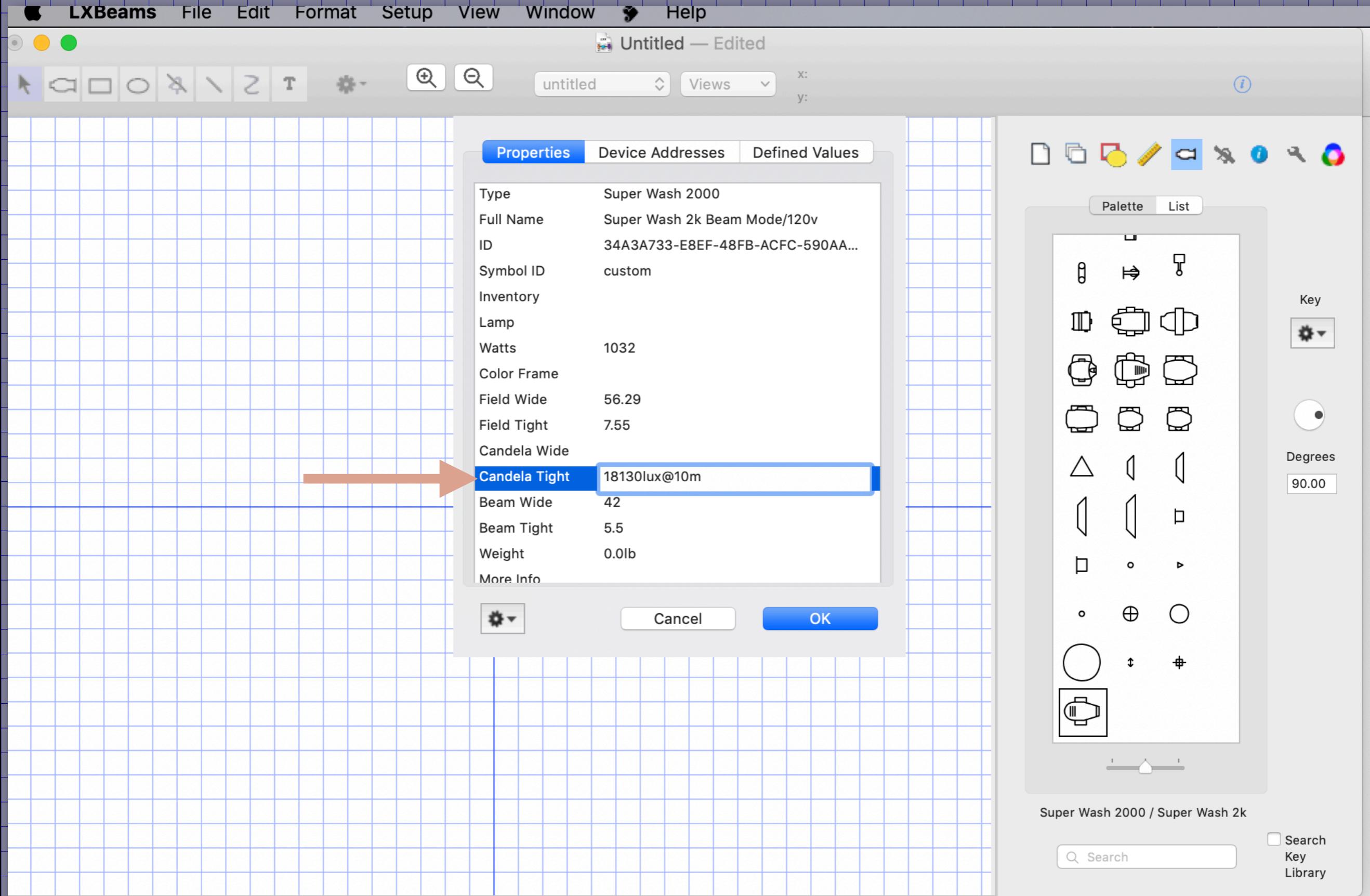
Similarly, you can enter 10.7m@10m for the field wide.

Candela, if not given, can be calculated as well.

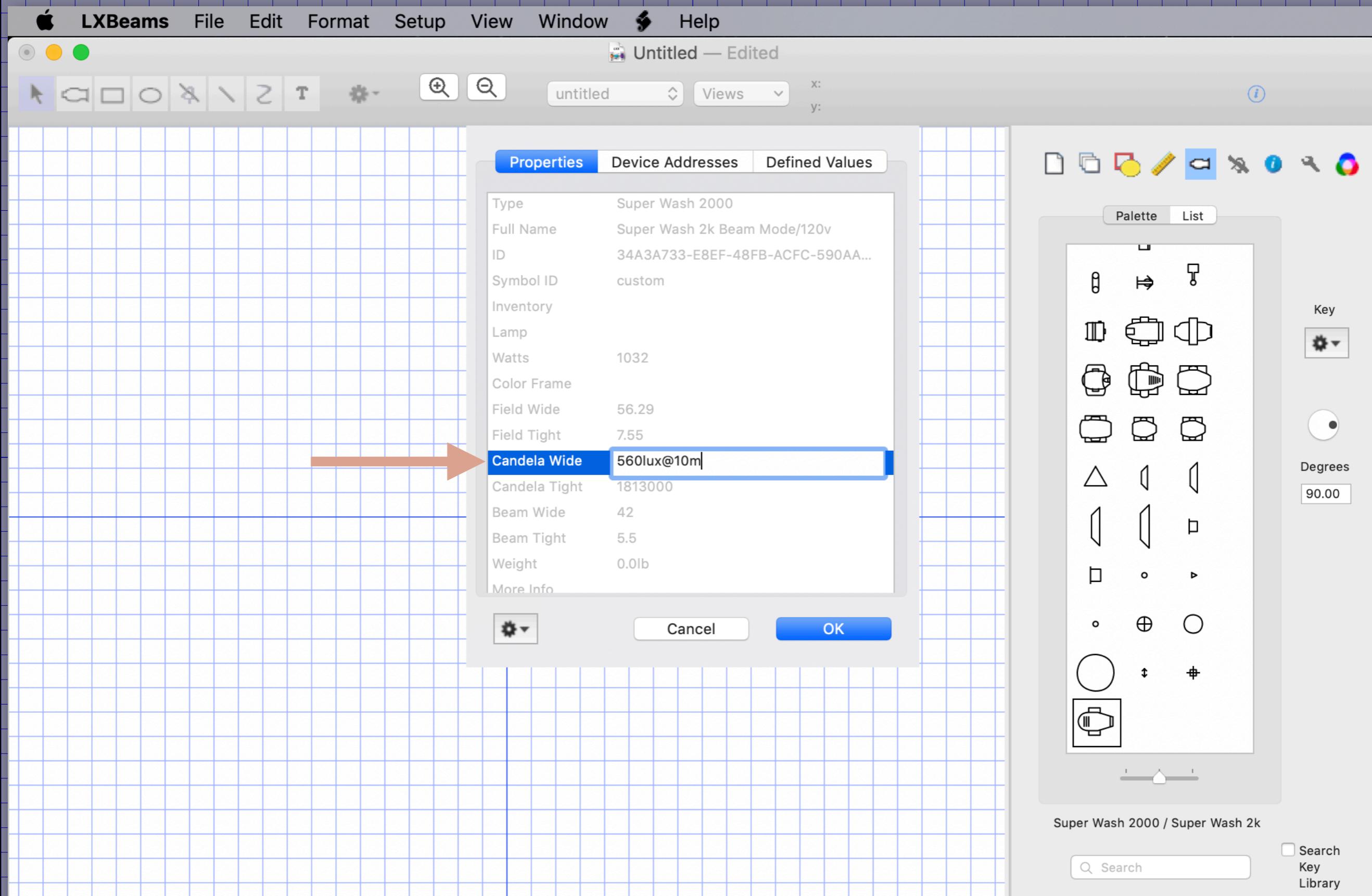


You can calculate it if you know the illumination at a given distance.

# Enter 18130lux@10m for the Candela Tight property

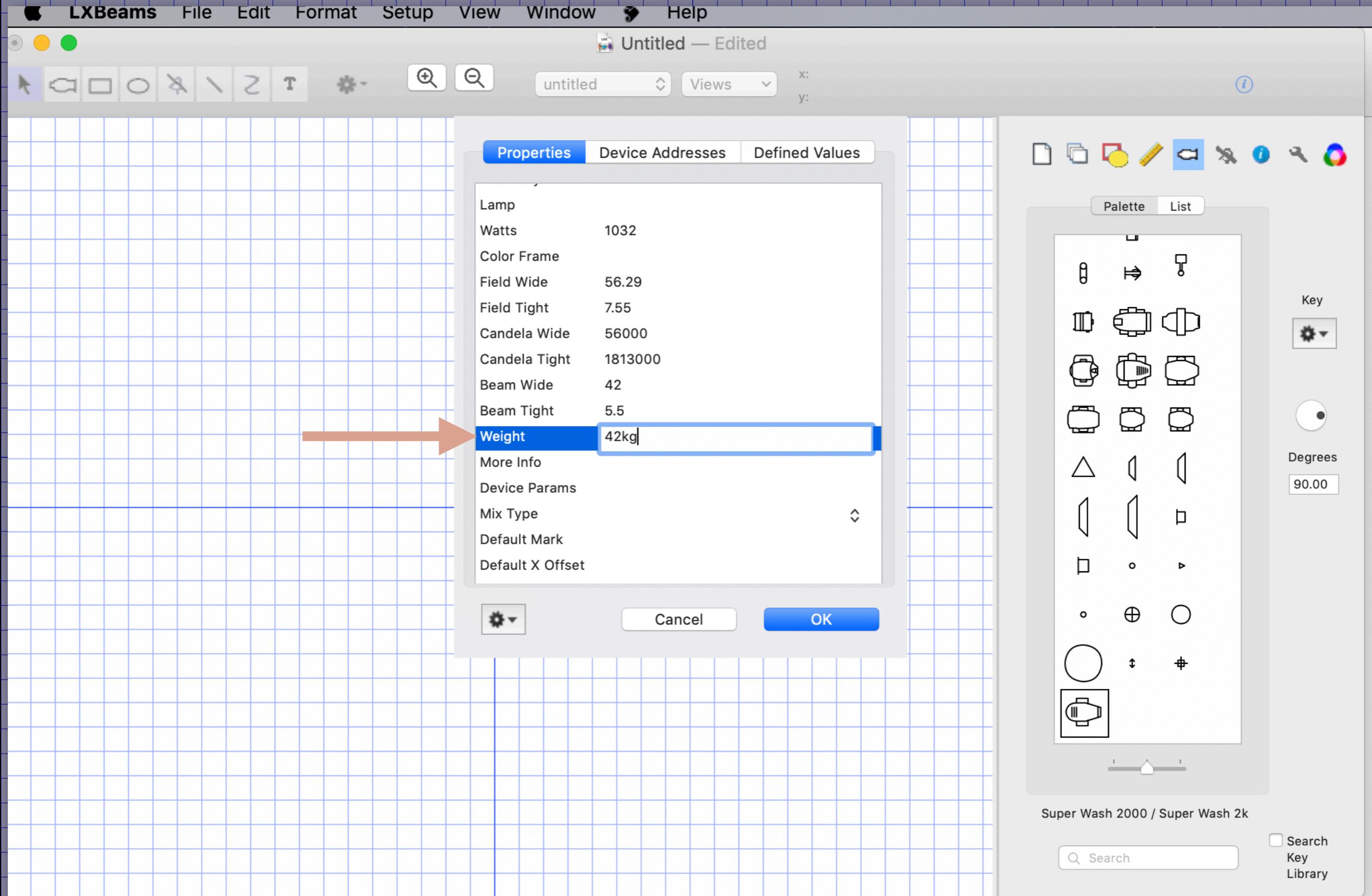


# Enter 560lux@10m for the Candela Wide property



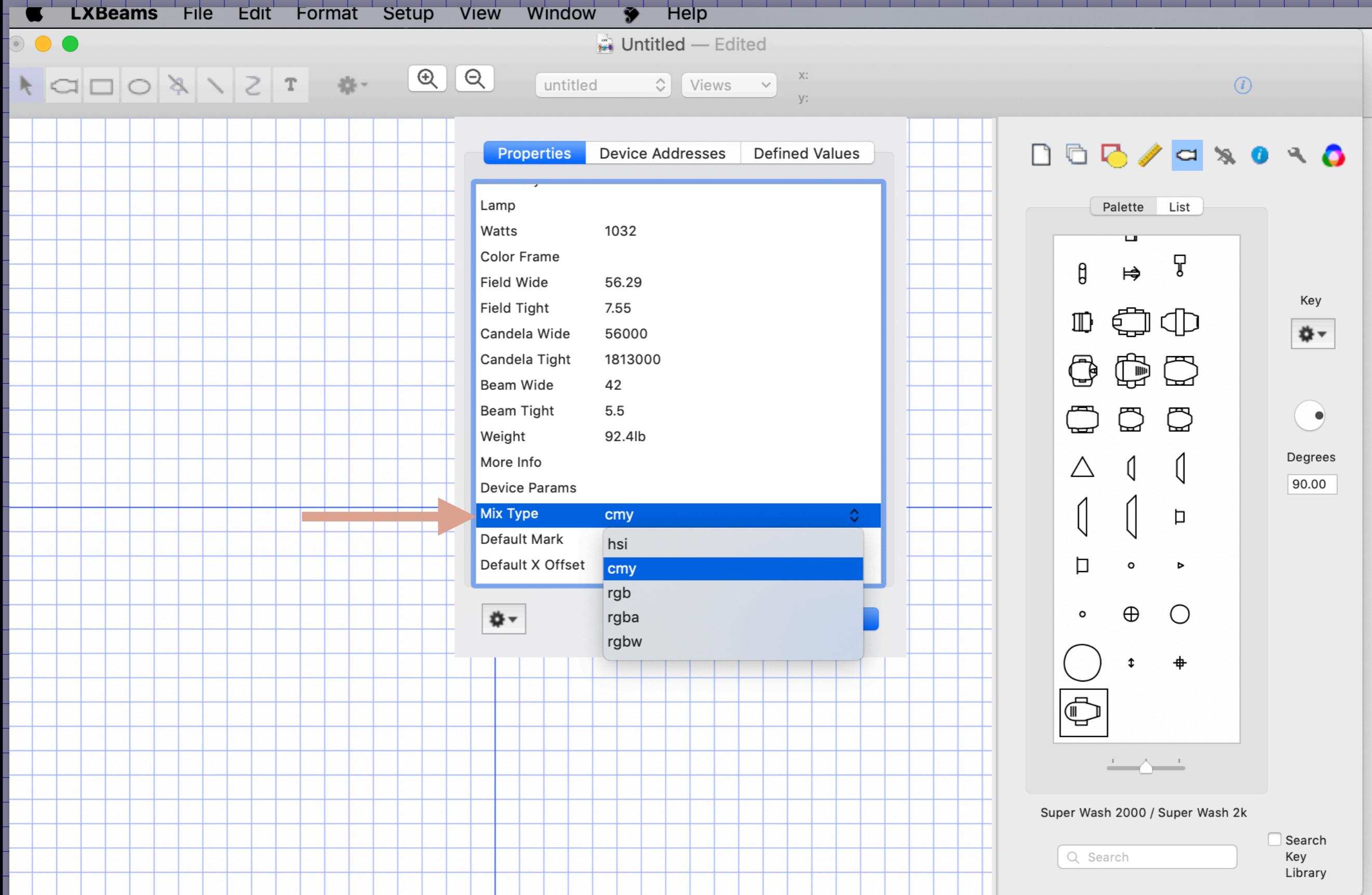
(The math for lux @ 10m is pretty easy)

# Enter 42kg for the Weight property

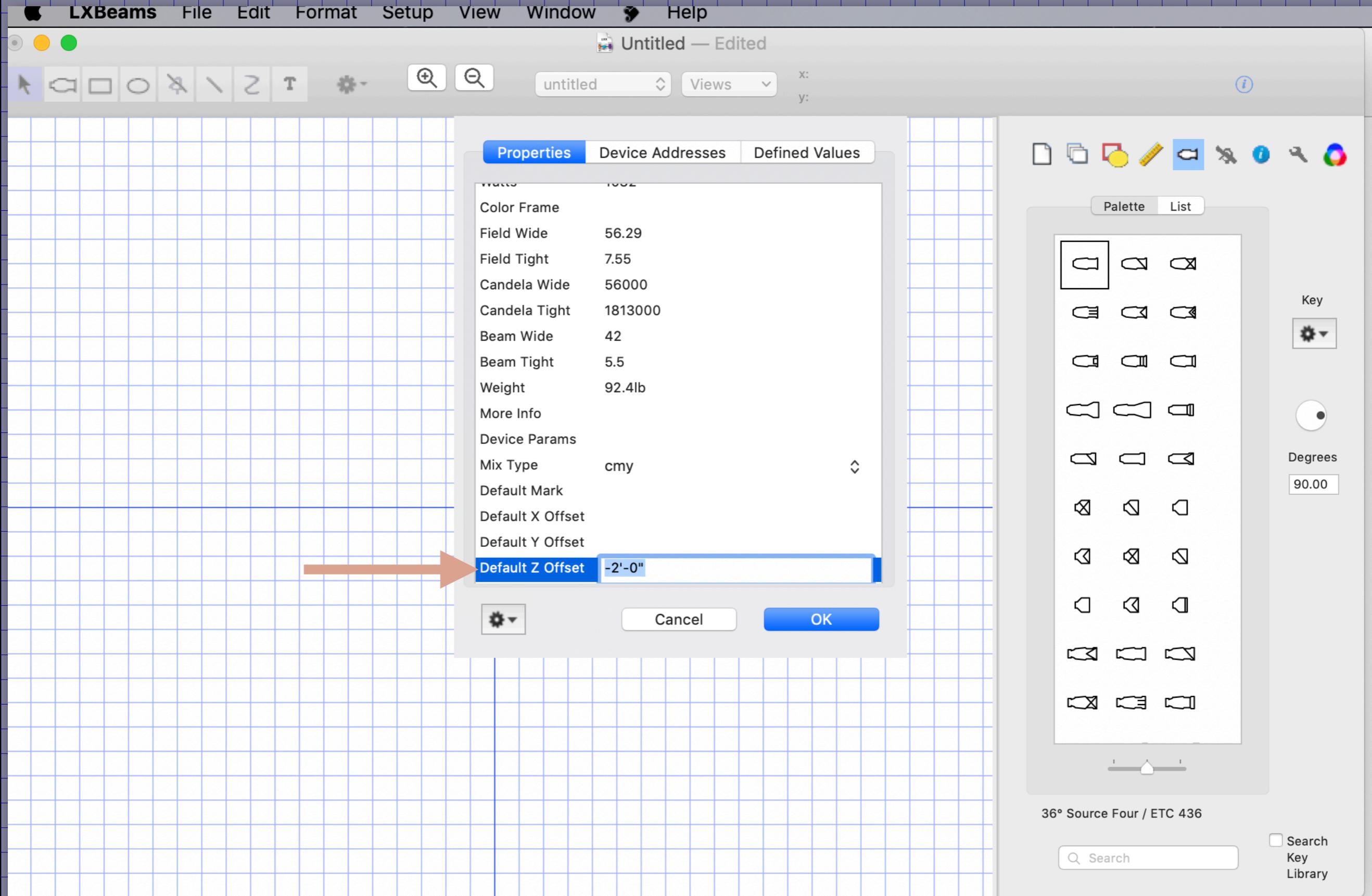


(The weight will be shown in the system for the computer)

# Use the popup for the Mix Type to set the property to cmd



The distance from the center below a pipe is not shown.



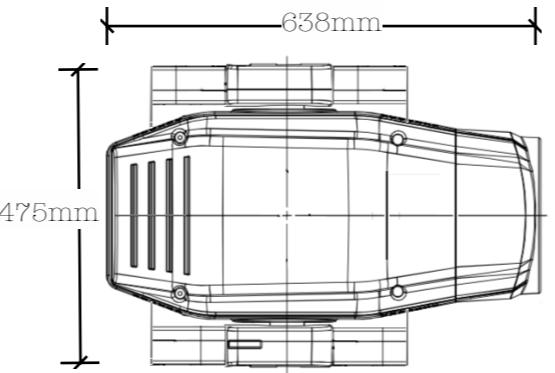
It depends on the clamp. But 2'-0" is a good estimate.

The DMX channels can be read from the table in the specs.

### Super Wash 2000

Super Wash 2000 Specifications	
LED Bright White Source	600w
DMX Channels	36
Pan	540°
Tilt	252°
Voltage	120v   240v
Power	8.6a   3.5a
Weight	42kg (92lbs)
Length	638mm
Width	475mm
Zoom Wash Mode	9°-51°
Zoom Beam Mode	5.5°-42°

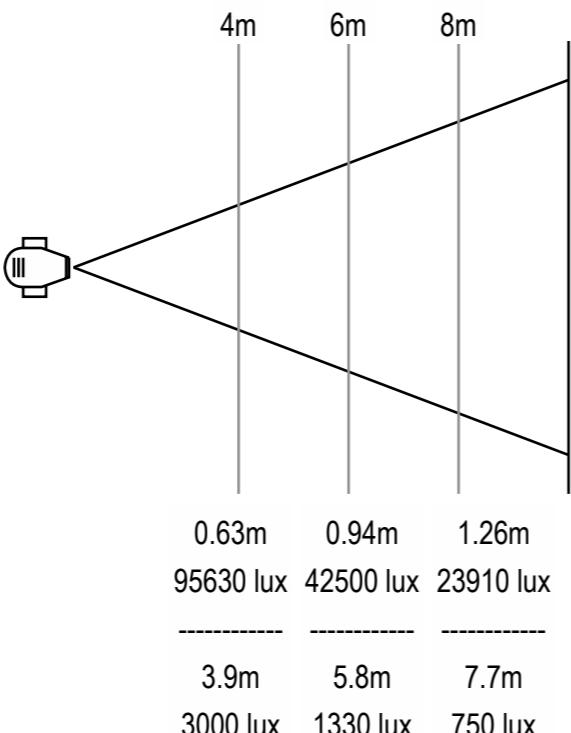
## Super Wash 2000



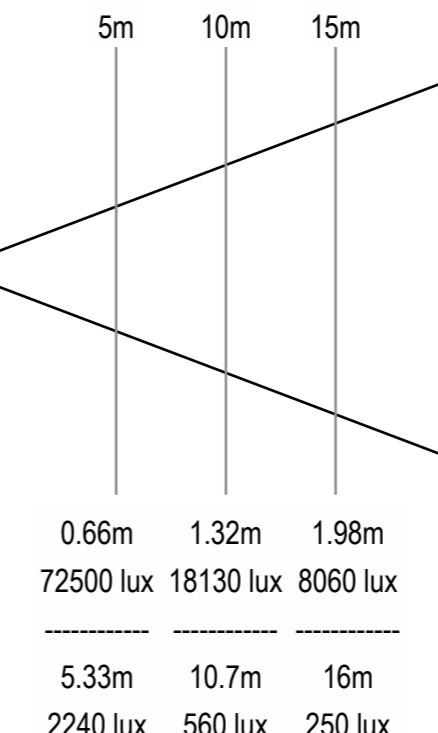
### Super Wash 2000

Function	Channel
Pan Coarse	1
Pan Fine	2
Tilt Coarse	3
Tilt Fine	4
Cyan	5
Magenta	6
Yellow	7
Focus	8
Zoom	9
Iris	10
Gobo	11

### Super Wash 2000 Wash Mode

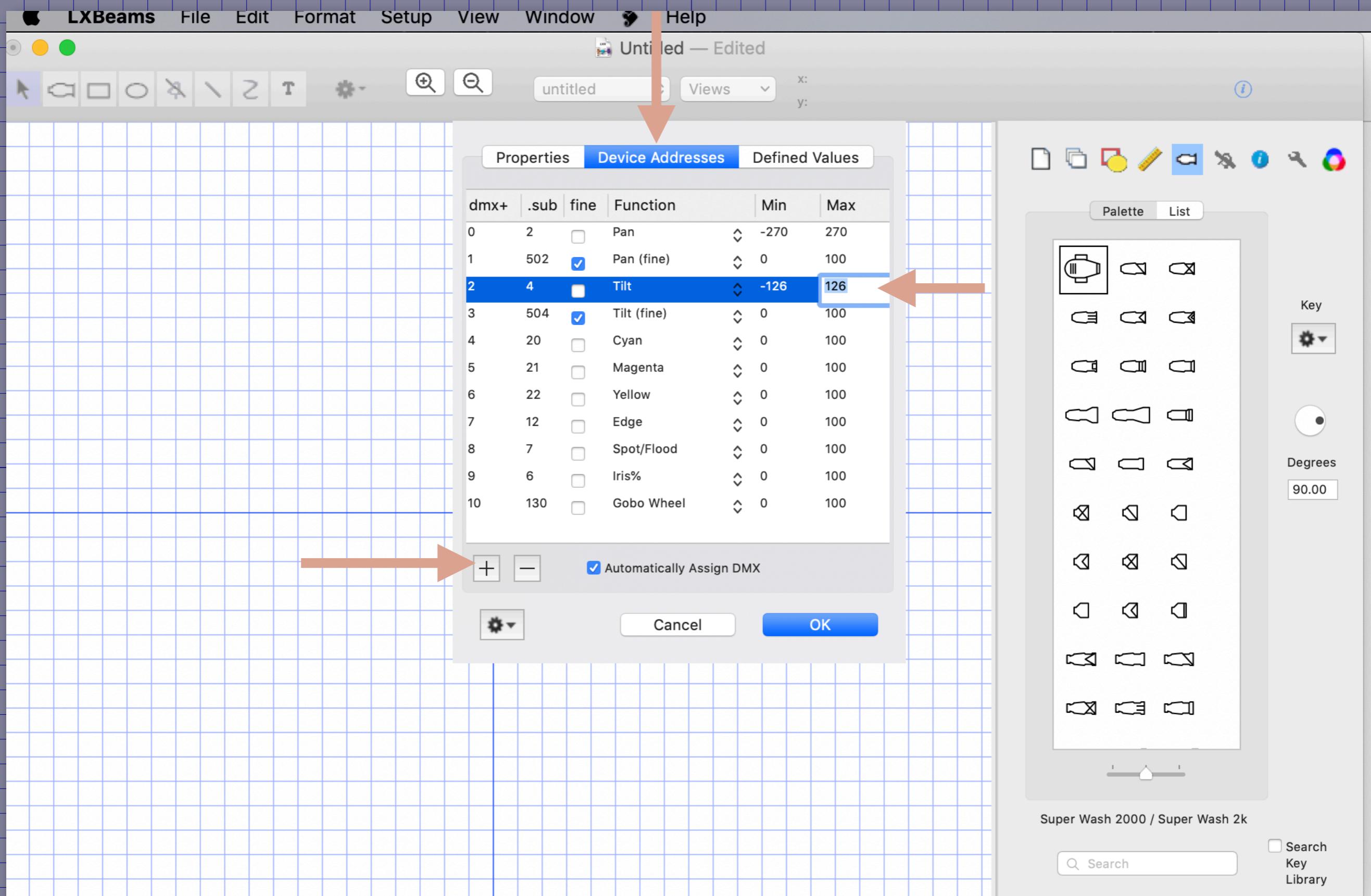


### Super Wash 2000 Beam Mode



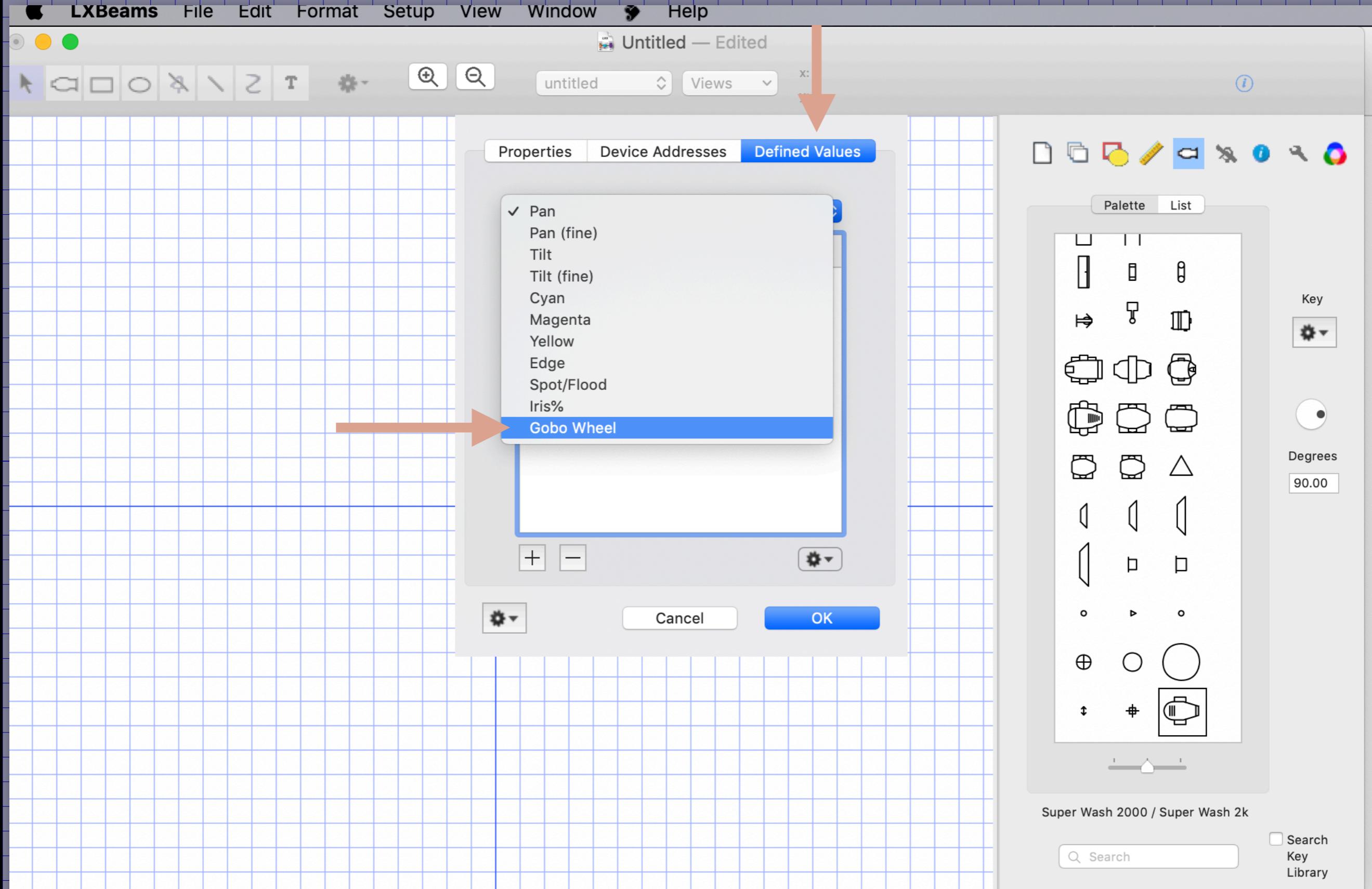
Note the values for the Pan and Tilt range.

Use the plus button to add addresses. Use the popup to select their function.



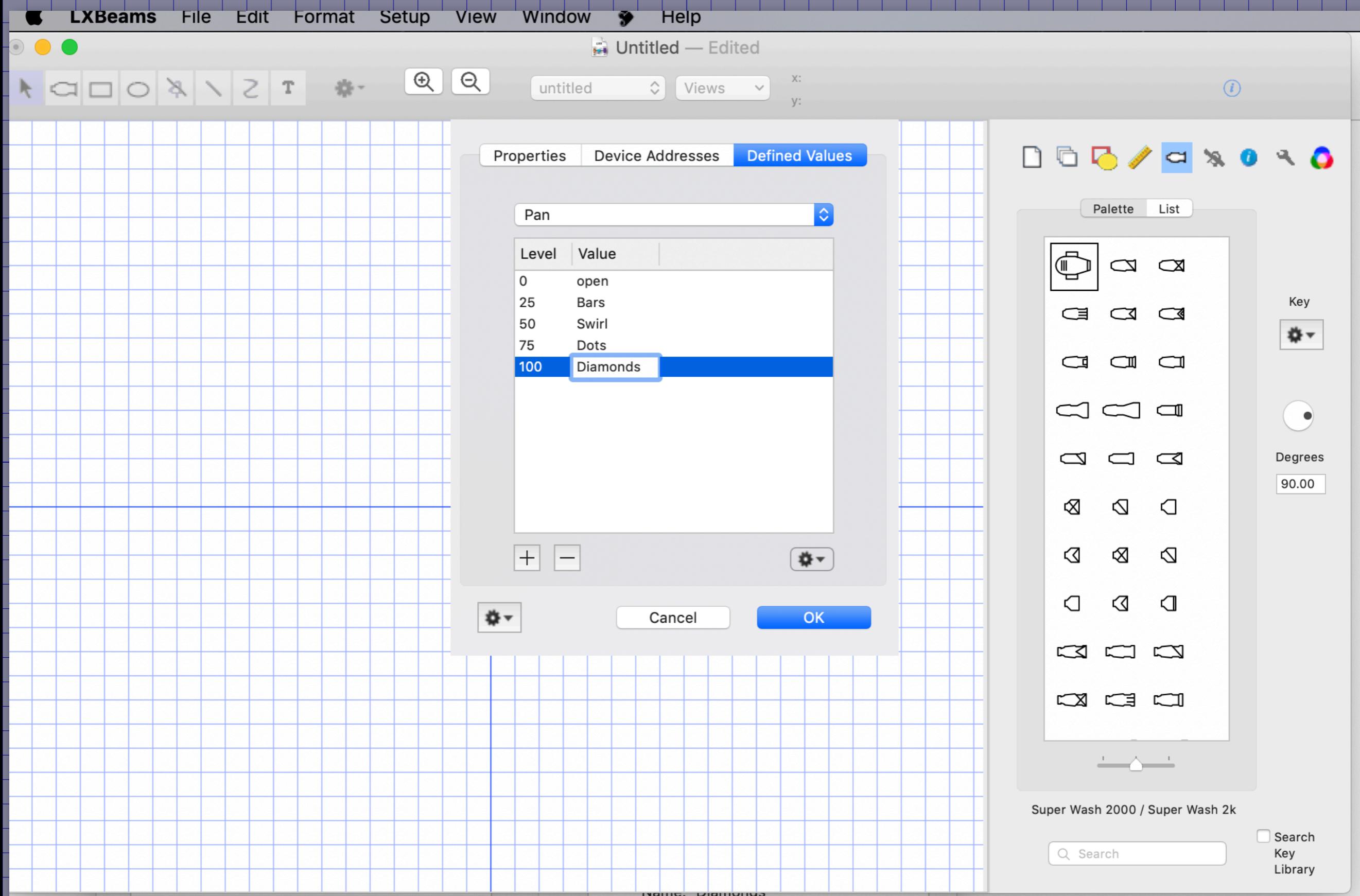
The max/min values for pan and tilt are half the range, +/- 270 pan and +/- 126 tilt.

# Switch to the Defined Values Tab.



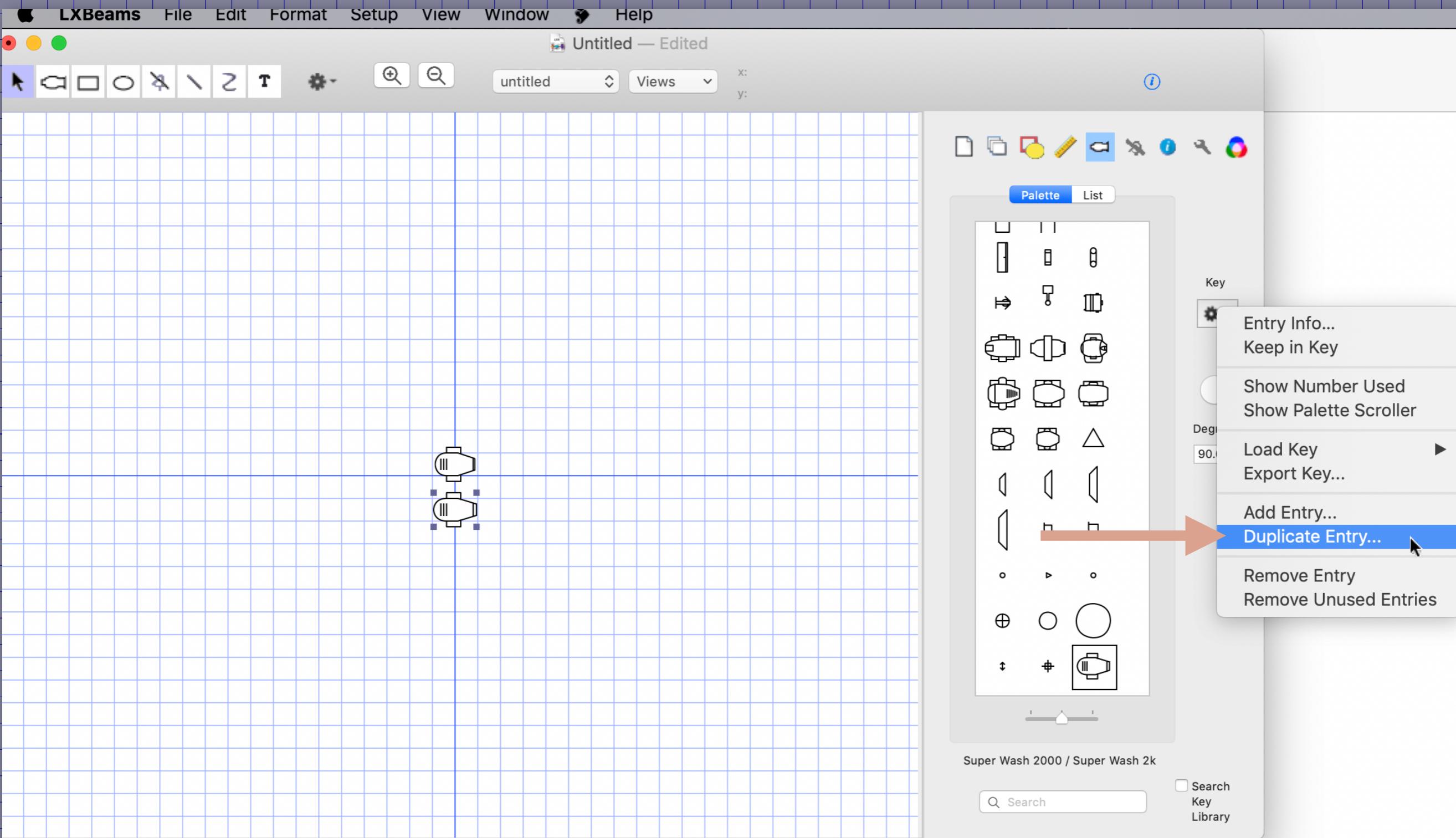
Use the popup to select the Gobo Wheel parameter.

The products documentation usually lists the DMX levels for the slots in the wheel.



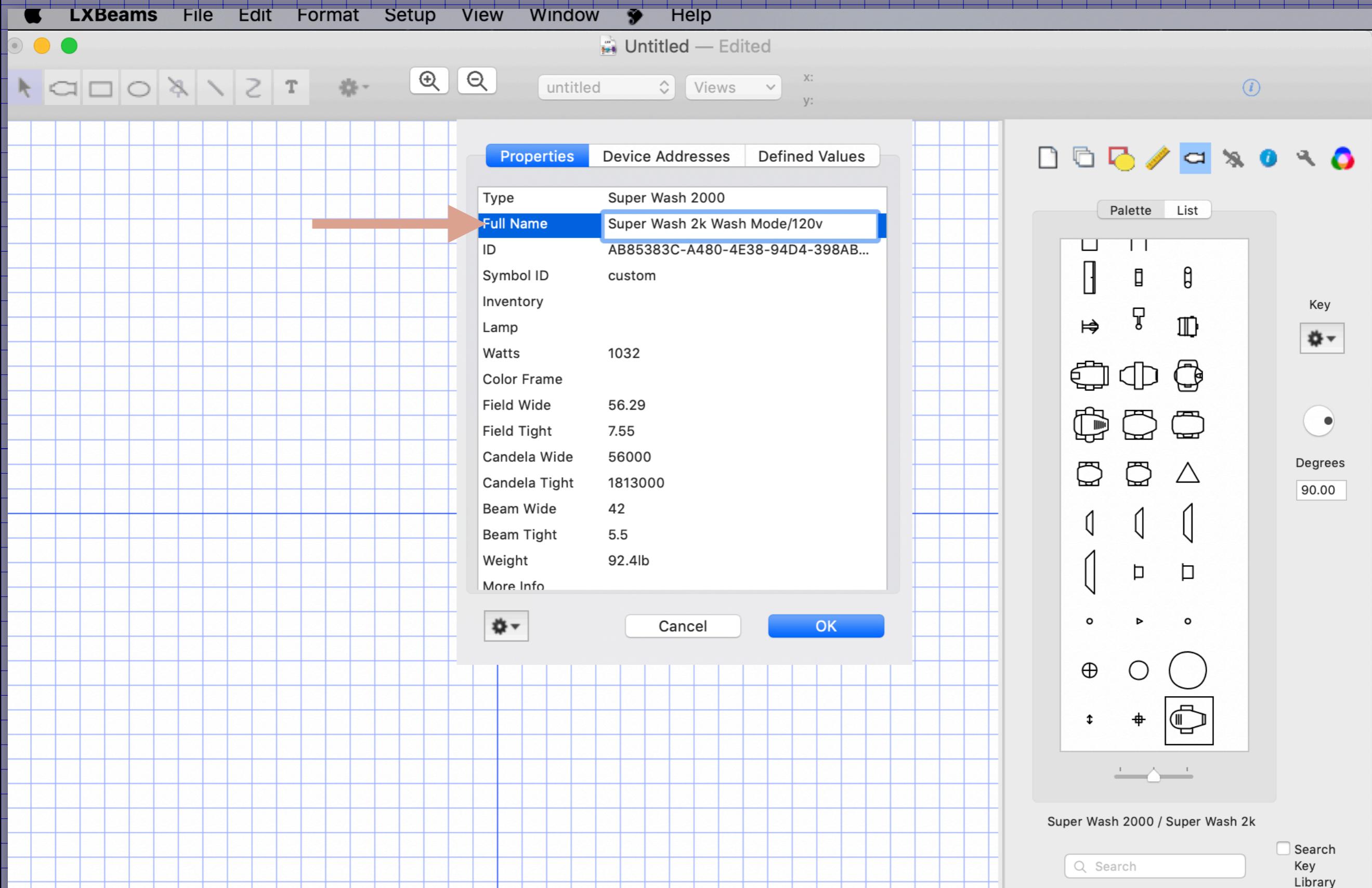
This example shows possible values for a gobo wheel with 5 positions.

The “Super Wash” also has a Wash Mode,  
which needs a separate key entry and possibly a variation on the symbol.

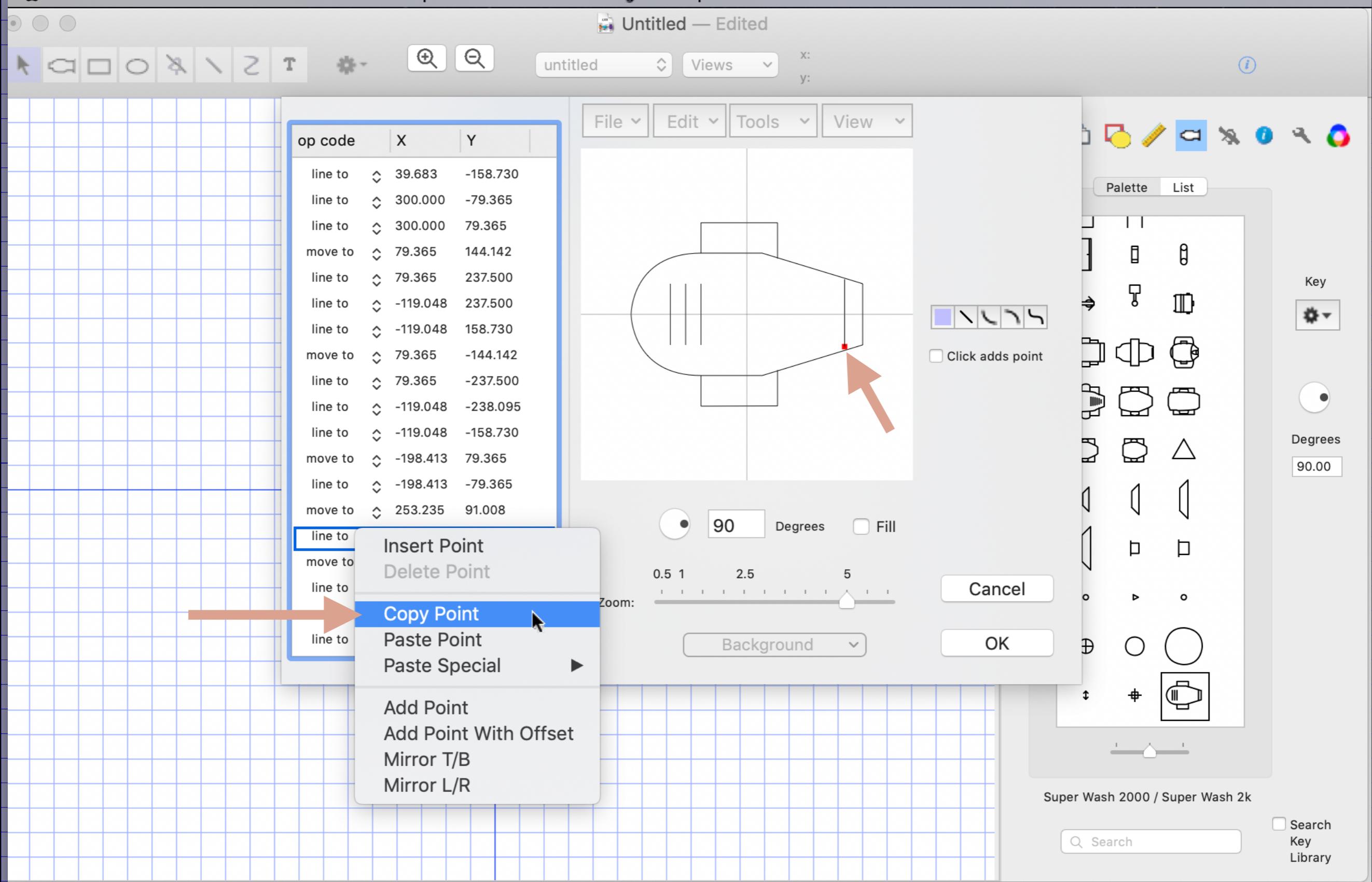


Choose Duplicate Entry from the popup in the symbols tab.

# Change the Full Name to note the difference

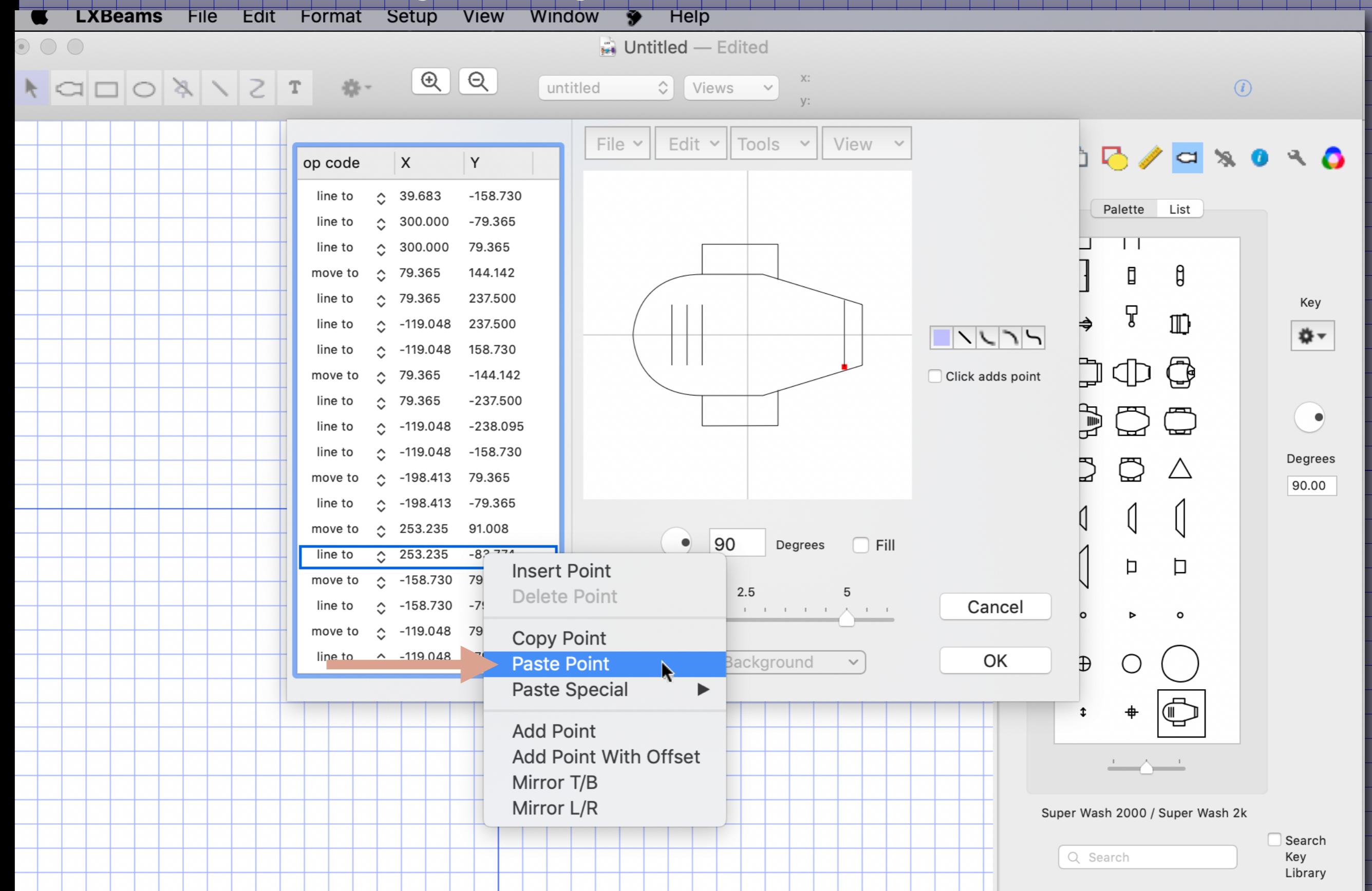


From the popup in the Key Entry sheet, choose Edit Symbol.



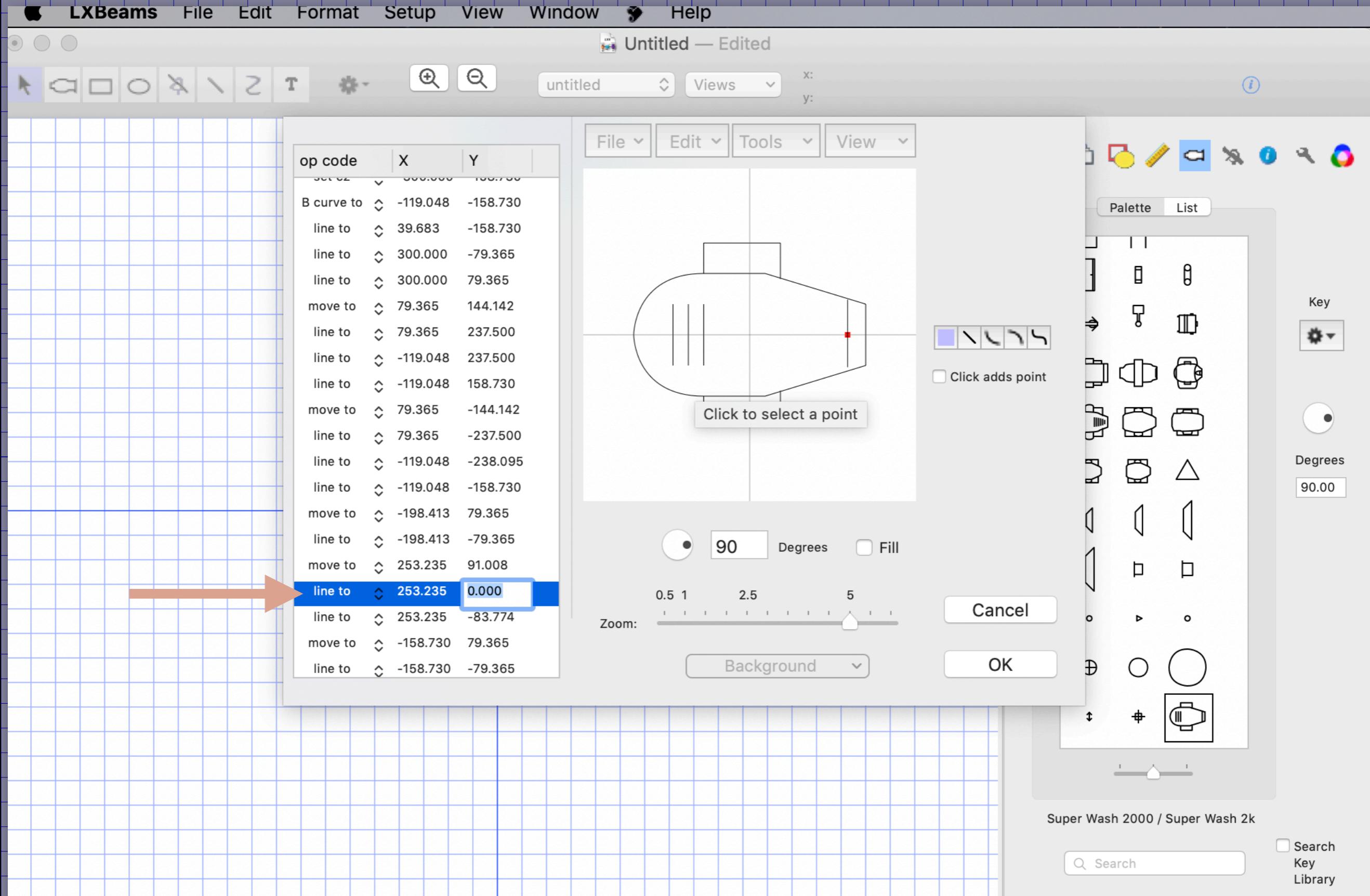
Find the row for the end of the small line near the front.  
Right-click and choose Copy Point.

# Right-click again and choose Paste Point.



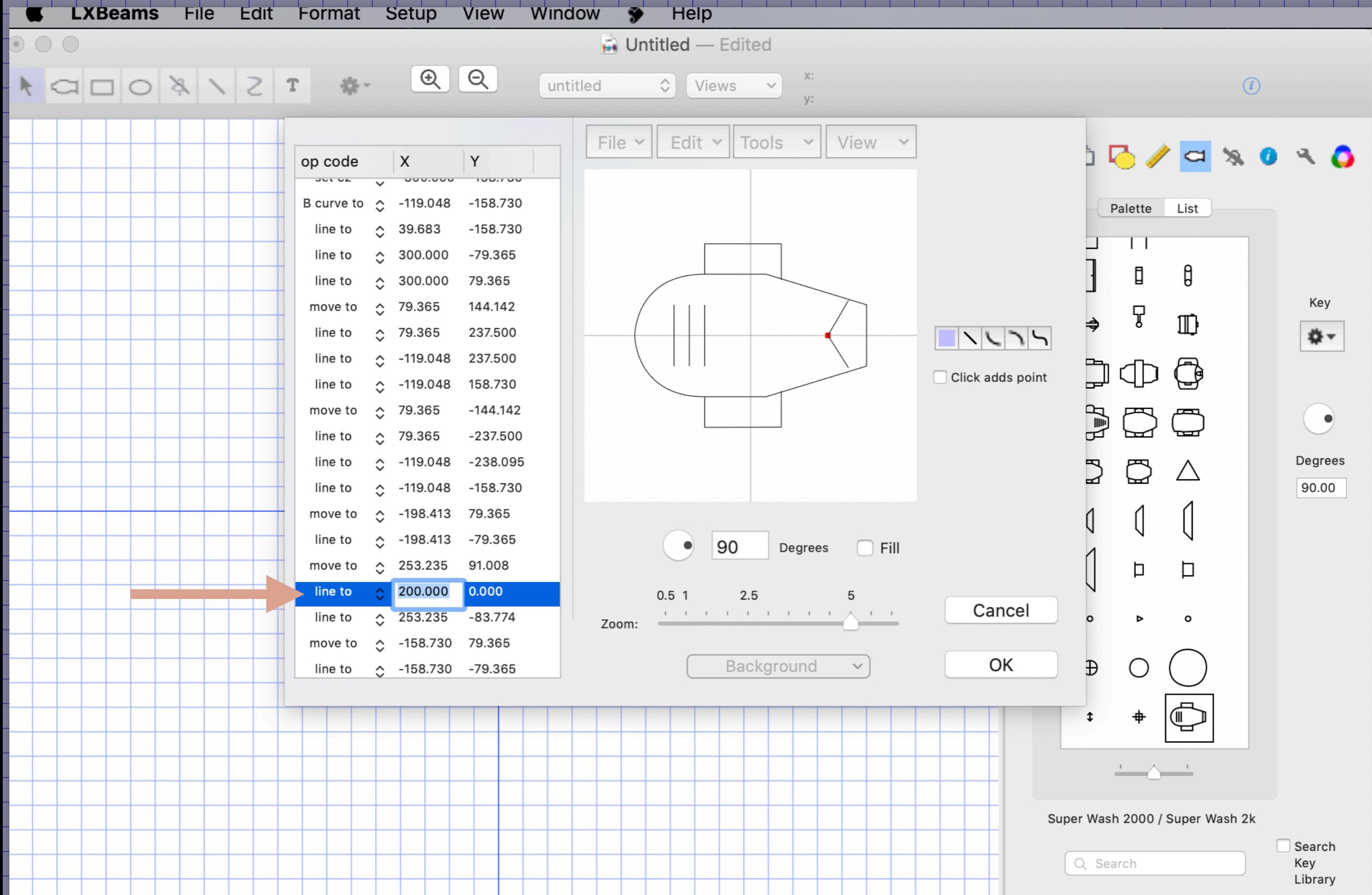
Holding the control key down while you click is the same as a right-click (or two finger tap.)

# Edit the Y value of the first duplicate "Line To" point.



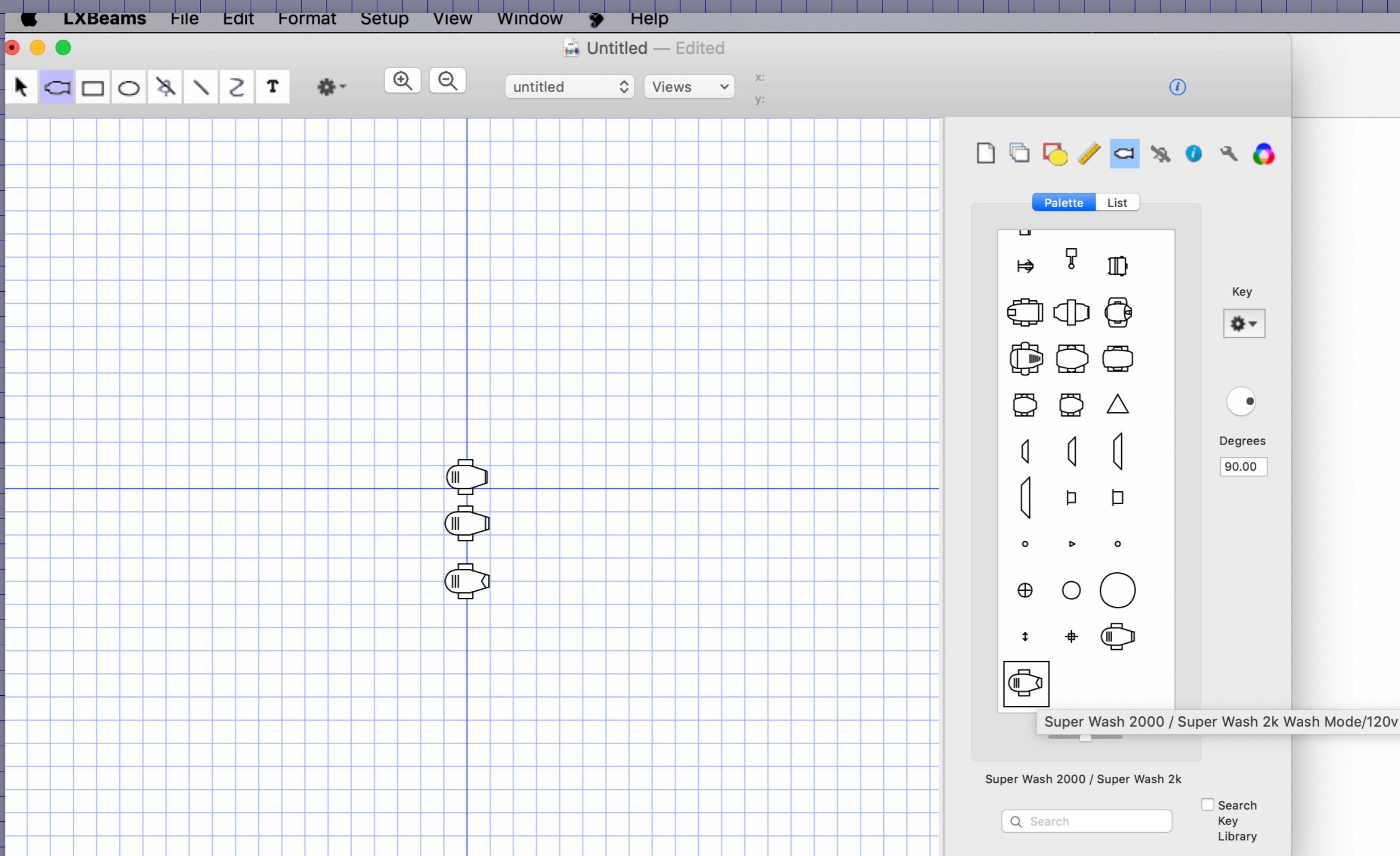
Set the Y to 0.00.

# Edit the X value of the first duplicate "Line To" point.



Set the X to 200.0

Close the symbol edit sheet and the key entry sheet by clicking OK.



Use the Light tool to draw one of the wash type symbols.

# In this section we've looked at

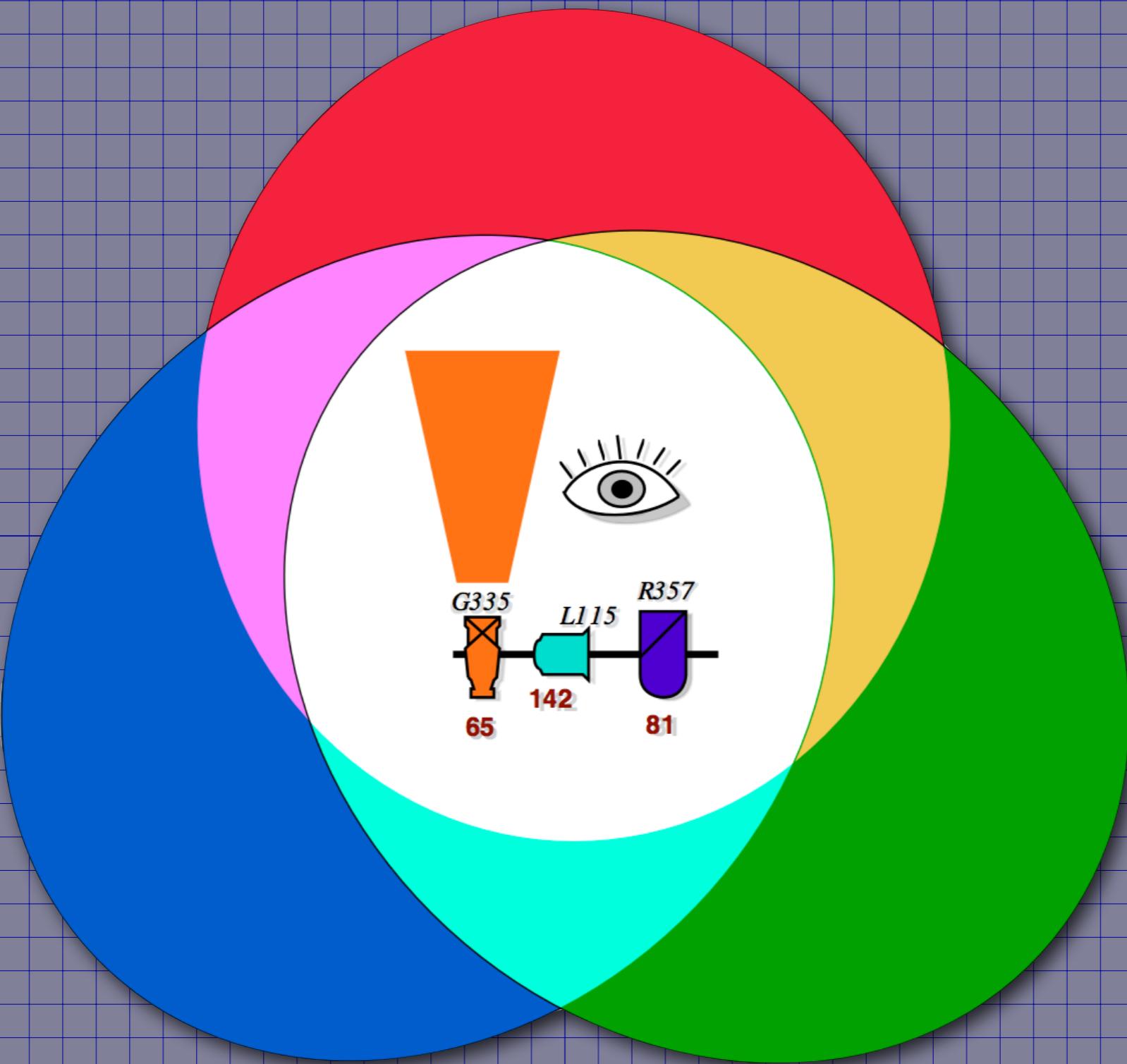
## Creating a custom symbol.

- Ways of making a path (part 1).
- Converting the path into a Key Entry with a custom symbol.
- Using the symbol editor to precisely edit the symbol's path.

# In this section we've looked at Filling out the properties of a Key Entry.

- Entering basic information from a datasheet.
- Using the built-in conversions to calculate watts, field angle and candela.
- Filling in the DMX table including defined values.

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