

## Measuring for Shades: Guidelines & Best Practices

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### Introduction

Use this document as a reference when measuring windows for Sivoia QS and Sivoia QS Wireless Roller 20, 64, 100, 150, 225, and 300 non coupled roller shades, as well as Sivoia QS Triathlon, Sivoia QS Triathlon WIDR, and Lutron Manual and Custom roller shading solutions. Here you'll find useful information specific to each of those systems, along with general guidelines for measuring windows and tips for using your own measuring tools in conjunction with the Lutron Shade Configuration Tool (SCT) to maximum effect. This will help to ensure accurate measurement and ordering to keep your projects on schedule and reduce the need for remakes.

Additional tools included at the end of this document: [Shade Type Worksheet](#) | [Shade Dimensions Worksheet](#)

For other shade types, supplemental information can be found in the appropriate selection guide:

[Horizontal Sheer Blind Selection Guide \(P/N 368-3304\)](#)

[Wood Blind and Venetian Blind Selection Guide \(P/N 367-2090\)](#)

[Pleated Shade and Fashion Honeycomb Shade Selection Guide \(P/N 368-2941\)](#)

[Sivoia QS Triathlon Selection Guide \(P/N 368-4408\)](#)

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### 1 Logistics

When measuring windows for Lutron Shading Solutions, it's important to take the final measurements at each and every location. Measurements should not be taken until the install site conditions are exactly the same as they will be when the actual shade installation is done. **If conditions at the install site change between the time measurements are taken, and the time the shade is installed, the shade may not fit properly, or at all. The addition of trim, drywall, joint compound, or even paint after measuring can affect the fit of the shade. NEVER base final measurements on dimensions shown on any drawing or plan; measurements must be taken on-site, at every individual window.**

**REMINDER:** If shades do not fit due to incorrect measurements, the installing dealer is responsible for the cost of remaking the shades.

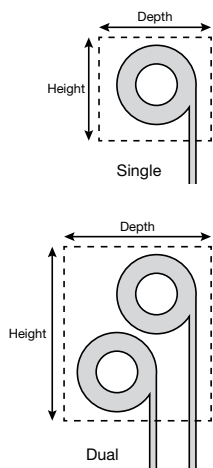
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### 2 Measuring Tools

When utilizing a traditional measuring tape, be sure to use a robust and undamaged tape that is rigid enough to stay straight over the length of the measurement. For long distances, two people may be necessary when measuring. Digital or laser measuring devices may be used. **The best practice is to verify the electronic measurements with a traditional measuring tape until you are comfortable with the tool and confident in the results.** Lutron recommends reducing measurements by 1/16 in (1.6 mm) when using a digital or laser measuring tool. Please be aware that shade measurements are typically specified in the SCT to the nearest 1/16 in (1.6 mm).

### 3 Space Requirements

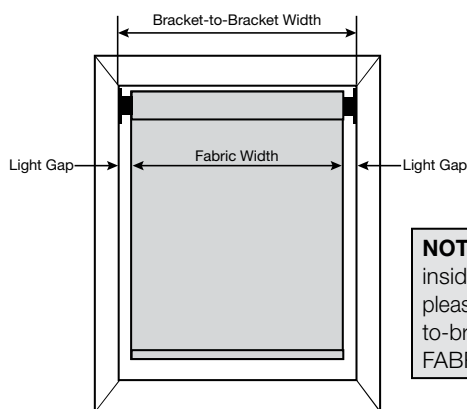
The minimum space required for mounting the shade hardware of various systems is shown in the table below.



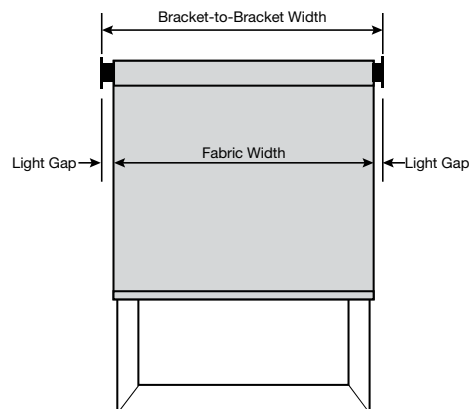
System type	Minimum Mounting Space Requirements			
	Single Shade		Dual Mount	
	Height	Depth	Height	Depth
Roller 20	3 in (76 mm)	3 in (76 mm)	9 in (229 mm)	6 in (152 mm)
Roller 64	3½ in (89 mm)	3½ in (89 mm)	9 in (229 mm)	6 in (152 mm)
Roller 100, 150, 300 (incl Armstrong Axiom Pocket)	5 in (127 mm)	5 in (127 mm)	11 in (279 mm)	7 in (178 mm)
Roller 225	7 in (178 mm)	7 in (178 mm)	14 in (356 mm)	8 in (203 mm)
Triathlon (incl WIDR)	5 in (127 mm)	5 in (127 mm)	N/A	N/A
Manual clutch with 1 in or 1½ in tube	3 in (76 mm)	3 in (76 mm)	9 in (229 mm)	8 in (203 mm)
Manual clutch with 1¾ in or 2 in tube	4 in (102 mm)	4 in (102 mm)	9 in (229 mm)	8 in (203 mm)
Custom Solutions...	Residential: <a href="mailto:shadingquotes@lutron.com">shadingquotes@lutron.com</a> Commercial: <a href="mailto:projects@lutron.com">projects@lutron.com</a>			

For more information on system mounting requirements refer to [Lutron Shading Solutions Product Guide \(P/N 367-1455\)](#)

### 4 System Light Gaps



**NOTE:** When ordering inside-mount shades, please specify bracket-to-bracket width; NOT FABRIC WIDTH



**Inside-mount:** Light Gap refers to the space between the fabric edge and the window jamb on each side

**Outside-mount:** Light Gap refers to the distance between the fabric edge and the outermost extent of the shade bracket on each side

Typical light gaps for Lutron Shading Solutions systems:

System type	Inside-mount		Outside-mount	
	Operator Side	Idler Side	Operator Side	Idler Side
Roller 20, 64	¼ in (19 mm)	¼ in (19 mm)	¼ in (19 mm)	¼ in (19 mm)
Roller 100, 150, 300, 225, 300	13/16 in (21 mm)	13/16 in (21 mm)	¼ in (19 mm)	¼ in (19 mm)
Triathlon w/o Fascia	9/16 in (14 mm)	9/16 in (14 mm)	½ in (13 mm)	½ in (13 mm)
Triathlon w/Fascia	11/16 in (17 mm)	11/16 in (17 mm)	5/8 in (16 mm)	5/8 in (16 mm)
Triathlon WIDR w/o Fascia	9/16 in (14 mm)	9/16 in (14 mm)	½ in (13 mm)	½ in (13 mm)
Triathlon WIDR w/Fascia	11/16 in (17 mm)	11/16 in (17 mm)	5/8 in (16 mm)	5/8 in (16 mm)
Cordless Manual w/o Fascia	½ in (13 mm)	½ in (13 mm)	7/16 in (11 mm)	7/16 in (11 mm)
Cordless Manual w/Fascia	11/16 in (17 mm)	11/16 in (17 mm)	5/8 in (16 mm)	5/8 in (16 mm)
Manual clutch with 1 in tube	5/8 in (16 mm)	11/16 in (17 mm)	9/16 in (14 mm)	5/8 in (16 mm)
Manual clutch with 1½ in or 1¾ in tube	11/16 in (17 mm)	11/16 in (17 mm)	5/8 in (16 mm)	5/8 in (16 mm)
Manual clutch with 2 in tube	¾ in (19 mm)	5/8 in (16 mm)	11/16 in (17 mm)	9/16 in (14 mm)
Manual clutch with 2 ½ in tube	7/8 in (22 mm)	15/16 in (24 mm)	13/16 in (21 mm)	7/8 in (22 mm)

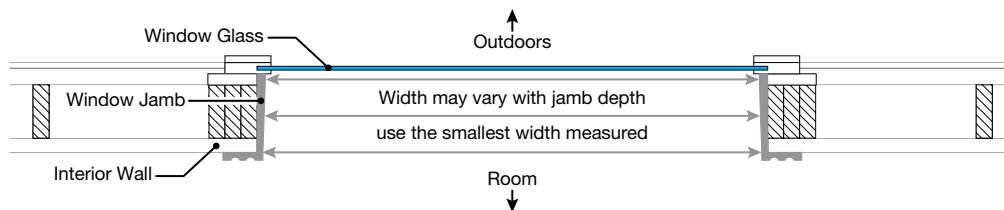
## 5 Light Gap/Shade Width Facts

- Bracket to Bracket Dimension = Fabric Width + Operator Side Light Gap + Idler Side Light Gap. These dimensions are calculated by the SCT and can be found in the summary page of each line item in the SCT.
- Inside-mount light gaps are typically 1/16 in (1.6 mm) larger than outside-mount light gaps. This reflects the standard factory deduction of 1/16 in (1.6 mm) per side (1/8 in [3.2 mm] total) on inside-mount shades, to allow more installation tolerance. Note that Roller 20 and Roller 64 do not require a standard factory deduction, due to the spring compliance in the idler end.
- For inside-mount shades to be made without a factory deduction, they can be specified as an outside-mount in the SCT.
- Inside-mount Roller 20, 64, 100, 150, 300 shades with fascia include end caps. If end caps are going to be used on an inside-mount application, the thickness of the end caps needs to be accounted for. Therefore, specify the shade as an outside-mount with a width that is 3/8 in (10 mm) smaller (3/16 in [5 mm] per side) than the measured opening. This will allow space for the end caps and installation clearance. The light gap in this condition will be 15/16 in (24 mm) per side.
- Shades that are 120" and taller, and/or have a height to width ratio of 4:1 and greater, will have larger light gaps. Refer to the SCT for specific light gap dimensions for these conditions.
- Custom light gaps, larger than the minimum, can be specified in SCT on most systems (currently not available on Triathlon and Triathlon WIDR products).

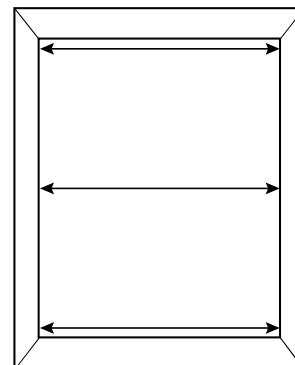
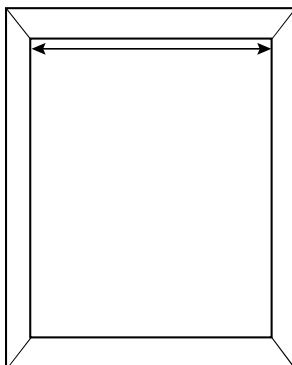
## 6 Measuring Width for Inside-mount Roller Shades

- Measure for the width of the roller shade at the exact bracket location across the top of the window jamb.

**NOTE:** The width of the window opening may vary along the jamb depth. For example, the width may be different close to the window glass, compared to the width closest to the room, or vice versa. Use the smallest width measured to ensure the finished shade will fit between the jambs.

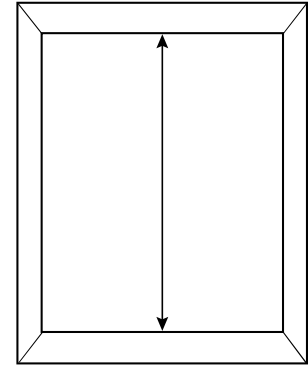


- When measuring for roller shades, it is sufficient to measure the width only at the top of the window opening, or shade mounting location. This is because the light gaps of a Lutron roller shade are at least 1/2 in (13 mm), and there is little risk of the width of the window opening deviating enough to result in the shade fabric interfering with the jamb.
- Other shade types with smaller light gaps require three width measurements; across the top, middle and bottom, as shown below. Use the smallest dimension to ensure the shade fabric doesn't interfere with the jamb.



## 7 Measuring Height for Inside-Mount Roller Shades

- Measure the height from the header to the sill, as shown at right. Adding an inch or two to this dimension will not affect the fit of the roller shade, as the lower limit can be set to compensate for the additional fabric length. For other window treatment types that stack at the top, like insulating honeycombs, pleated shades, and wood blinds, overstating the height may result in an undesirable aesthetic appearance when the shade is closed.
- All roller shades are constructed with 1½ wraps of fabric around the tube that are not included in the customer-specified shade height. This additional fabric is added by Lutron to ensure robust attachment to the tube. The intent is that this extra fabric will never be unrolled to reach the closed position of the shade.



## 8 Measuring for Outside-Mount Roller Shades

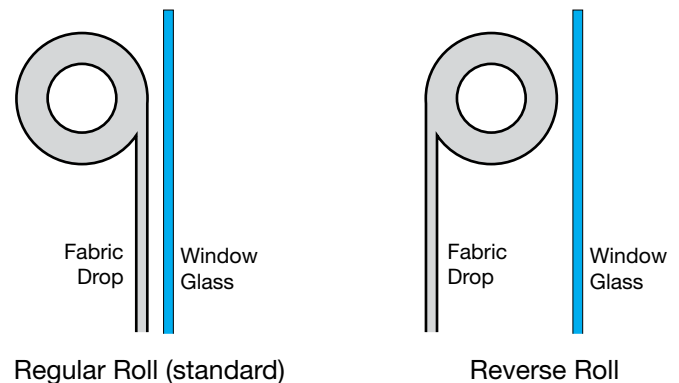
- The height of the shade is specified from the top of the mounting hardware to the closed position. To account for this hardware height in the specified measurement, refer to the chart under Space Requirements on [page 1](#).
- The width is typically specified so the fabric edges will line up with, or slightly overlap the trim around the window. The overall width of the mounting hardware will be the fabric width, plus the outside-mount light gaps in the chart under System Light Gaps on [page 2](#). This will increase with shades over 120 in (3048 mm) high and shades with a height to width ratio over 4:1, as stated in section 5.

## 9 Fabric Drop/Roll Direction

- Reverse roll may be specified to add space between the fabric-drop and the window. This is helpful when additional clearance may be needed to prevent interference with the shade fabric and window cranks, handles and other hardware.

**NOTE:** Reverse roll is not compatible with the use of fascia.

- For aesthetic consistency, it is recommended that all the shades sharing a façade are specified with the same roll direction.



## Contact Lutron

Commercial Shade Dealers - [projects@lutron.com](mailto:projects@lutron.com) | Residential Shade Dealers - [shadingquotes@lutron.com](mailto:shadingquotes@lutron.com)

### Worldwide Headquarters | USA

Lutron Electronics Co., Inc. 7200 Suter Road, Coopersburg, PA 18036-1299 USA

Customer Assistance: 1.844.LUTRON1 (588-7661)

Online: [www.lutron.com/help](http://www.lutron.com/help) | Email: [support@Lutron.com](mailto:support@Lutron.com)

### Europe Headquarters | United Kingdom

In EEA imported by: Lutron EA Ltd, 6 Sovereign Close, London, E1W 3JF UK

TEL: +44.(0)20.7702.0657 | FAX: +44.(0)20.7480.6899

Technical Support: +44.(0)20.7680.4481 | FREEPHONE: 0800.282.107

# Shade Type Worksheet

Shade Type #: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

Use this Shade Type Worksheet to specify common shade parameters shared by multiple shades. Make one selection for each of the 16 product features in the table below. The unique parameters (Room Mark, Area #, Qty, Drive Side and Dimensions) for a particular Shade Type # will be specified on the [Shade Dimension Worksheet](#).

<b>1. Product Family</b>	Roller Shades
<b>2. Operator Type</b>	<input type="checkbox"/> Sivoia QS <input type="checkbox"/> Sivoia QS Wireless/Triathlon
<b>3. Tube Size</b>	<input type="checkbox"/> Roller 20 <input type="checkbox"/> Roller 64 <input type="checkbox"/> Roller 100 <input type="checkbox"/> Roller 100 WIDR <input type="checkbox"/> Roller 150 <input type="checkbox"/> Roller 150 WIDR <input type="checkbox"/> Roller 225 <input type="checkbox"/> Roller 300 <input type="checkbox"/> Roller 300 WIDR
<b>4. Fabric #</b>	
<b>5. Fabric Face</b>	<input type="checkbox"/> Fabric Face Away From Glass (Std) <input type="checkbox"/> Fabric Face Towards Glass
<b>6. System Mount</b>	<input type="checkbox"/> Inside-mount <input type="checkbox"/> Outside-mount
<b>7. Drop</b>	<input type="checkbox"/> Regular <input type="checkbox"/> Reverse
<b>8. Bottom Bar</b>	<input type="checkbox"/> Designer Bottom Bar <input type="checkbox"/> 3/16 in x 1 in Sealed <input type="checkbox"/> Half-Wrap Architectural Bottom Bar <input type="checkbox"/> Exposed Architectural Bottom Bar <input type="checkbox"/> 1 in Exposed <input type="checkbox"/> 7/16 in x 1 1/8 in Sealed
<b>9. IHA</b>	<input type="checkbox"/> Yes
<b>10. Seam Location</b>	<input type="checkbox"/> None <input type="checkbox"/> Default Location <input type="checkbox"/> Specified Location: _____
<b>11. Battens</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes
<b>12. Side Channels</b>	<input type="checkbox"/> None <input type="checkbox"/> 2 1/2 in x 1 in Side Channel
<b>13. Sill Angle</b>	<input type="checkbox"/> None <input type="checkbox"/> 1 1/2 in x 1 in Sill Angle
<b>14. Metal finish</b>	<input type="checkbox"/> Black <input type="checkbox"/> Bronze <input type="checkbox"/> Silver <input type="checkbox"/> White <input type="checkbox"/> Custom
<b>15. Power Supply</b>	<input type="checkbox"/> Junction Box Single Power Supply <input type="checkbox"/> 10 Output Smart Panel <input type="checkbox"/> Single Output Plug-In Supply <input type="checkbox"/> Use Existing Power Supply

<b>Roller 20</b>
<input type="checkbox"/> Universal Brackets
<input type="checkbox"/> Dual Bracket Capable
<input type="checkbox"/> Universal Brackets w/White Endcaps
<input type="checkbox"/> 2 3/4 in Fascia - Round
<input type="checkbox"/> 2 3/4 in Fascia - Square
<input type="checkbox"/> 2 3/4 in Fascia - Round / 2 3/4 in Top Back
<input type="checkbox"/> 2 3/4 in Fascia - Square / 2 3/4 in Top Back
<input type="checkbox"/> 2 3/4 in Top Back
<input type="checkbox"/> 3 1/2 in x 3 1/2 in Pocket/Brackets
<input type="checkbox"/> 4 3/4 in x 5 in Pkt/Bkts
<input type="checkbox"/> No Top Treatment - (Pkt Bkts & HW only)
<b>Roller 64</b>
<input type="checkbox"/> Universal Brackets
<input type="checkbox"/> Dual Bracket Capable
<input type="checkbox"/> For Use With Kirbé
<input type="checkbox"/> Universal Brackets w/White Endcaps
<input type="checkbox"/> 3 1/2 in Fascia - Round
<input type="checkbox"/> 3 1/2 in Fascia - Square
<input type="checkbox"/> 3 1/2 in Fascia / TB Cover - Round
<input type="checkbox"/> 3 1/2 in Fascia / TB Cover - Square
<input type="checkbox"/> 3 1/2 in x 3 1/2 in Pocket/Brackets
<input type="checkbox"/> 3 1/2 in Top-Back Cover
<input type="checkbox"/> 4 3/4 in x 5 in Pocket/Brackets
<input type="checkbox"/> No Top Trtmt - (Bkts & HW only - 3.5 Fascia & TB)
<input type="checkbox"/> No Top Treatment - (Pkt Bkts & HW only)
<b>Roller 100, 100WIDR, 150, 150WIDR, 300, 300 WIDR</b>
<input type="checkbox"/> Ceiling Brackets
<input type="checkbox"/> Dual Bracket Capable
<input type="checkbox"/> For Use With Kirbé (not available with Roller 300)
<input type="checkbox"/> Jamb/Recess Brackets
<input type="checkbox"/> Wall Brackets
<input type="checkbox"/> 4 in Fascia/Brackets
<input type="checkbox"/> 4 in Fascia/4" TB Cover/Brackets
<input type="checkbox"/> 4 in Top-Back Cover/Bkts
<input type="checkbox"/> 4 3/4 in x 5 in Pocket Brackets
<input type="checkbox"/> 7 in x 7 in pocket (R100 Jamb Bracket)
<input type="checkbox"/> Armstrong Axiom Compatible Bracket
<input type="checkbox"/> No Top Treat - (Bkts & HW only - 4 in Fascia)
<input type="checkbox"/> No Top Treat - (Pkt Bkts & HW only)
<input type="checkbox"/> No Top Treat - (R100 Jamb Brkts Only 7 x 7 Pkt)
<b>Roller 225</b>
<input type="checkbox"/> Jamb/Recess Brackets
<input type="checkbox"/> Dual Bracket Capable
<input type="checkbox"/> 7 in x 7 in pocket (R225 Jamb Bracket)
<input type="checkbox"/> No Top Treat - (R225 Jamb Brkts only 7 x 7 Pkt)

**16. Mounting Hardware & Top Trim**

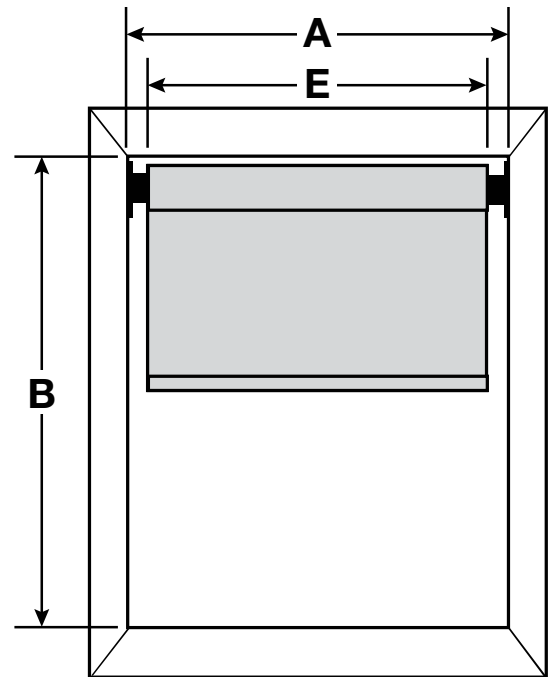
# Shade Dimensions Worksheet

Use this Shade Dimensions Worksheet to specify unique parameters for a particular Shade Type #.

Shade Type #: \_\_\_\_\_

Room Mark		
Area #		
Quantity		
Drive Side	<input type="checkbox"/>	Left
	<input type="checkbox"/>	Right
Bracket to Bracket Width*	<b>A</b>	
OR		
Fabric Width*	<b>E</b>	
Height (B)	<b>B</b>	

\* When you enter either Bracket to Bracket or Fabric Width, SCT automatically calculates the other based on standard minimum light gaps, or other custom light gaps you enter.



Shade Type #: \_\_\_\_\_

Room Mark		
Area #		
Quantity		
Drive Side	<input type="checkbox"/>	Left
	<input type="checkbox"/>	Right
Bracket to Bracket Width*	<b>A</b>	
OR		
Fabric Width*	<b>E</b>	
Height (B)	<b>B</b>	

\* When you enter either Bracket to Bracket or Fabric Width, SCT automatically calculates the other based on standard minimum light gaps, or other custom light gaps you enter.

