

LUTRON®

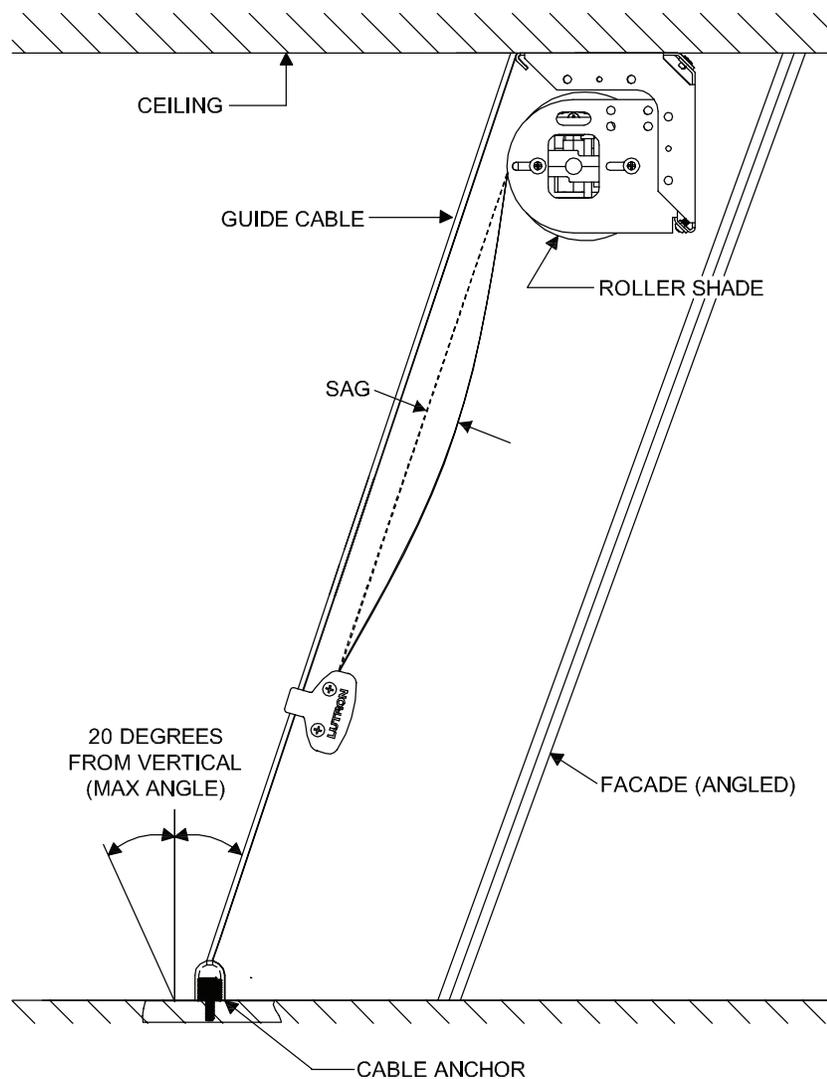
For Your Information ...

Cable Guided Shade Fabric Sag Application Note #404

048-404 REV A 02.28.11

Overview

Sag is the effect of gravity on an angled shade. The amount of sag depends on many different factors, the height of the shade, the weight of the fabric, the weight of the bottom bar, and the angle of the shade.



Reducing Sag

During configuration of the shade in the SCT, the amount of sag is indicated on the summary screen. Choosing one or more of the following four options can reduce the amount of sag.

1. **Select the “Reduce Sag” check box (see image below).** This will result in weight being added to the bottom bar, which will reduce the amount of sag. In larger shade applications, the torque required to operate the shade without additional weight may be too close to the capacity of the drive specified. In that case, additional weight cannot be added and sag cannot be reduced using this option. Choose option 3 or 4 to reduce sag an alternative way.
2. **Selecting the oval bottom bar.** The oval bottom bar allows for more reduction of sag through the ability to insert even more hem bar weights than the standard bottom bar, providing the drive has the capacity to lift the additional weight.
3. **Choosing a lighter weight fabric.** Heavier fabrics result in more sag. Changing the fabric to a lighter weight fabric will reduce the sag.
4. **Select a higher torque drive.** The amount of weight that can be added to the bottom bar is limited by the torque capacity of the drive. By selecting a drive with higher torque capacity and an oval bottom bar (option 2), more weight can be added to the bottom bar to reduce the sag.

The screenshot shows the 'SCT 6.3.17 - [Bottom Bar and Fabric Options]' window. The title bar includes 'File Report Help'. The main header features the Lutron logo and 'Shade Configuration Tool' with fields for 'Estimate: Job24', 'Room Mark: 2', and 'Area #: 2'. The main content area is titled 'Bottom Bar and Fabric Options' and is divided into four columns: 'Bottom Bar', 'Fabric Orientation', 'Seam Location', and 'Batten(s)'.
- **Bottom Bar:** Includes a 'Cable Guided Exposed Oval Bottom B.' dropdown menu and a checked 'Reduce Sag' checkbox with 'Estimated Sag: 8"'.
- **Fabric Orientation:** Shows 'Fabric will be Railroaded (rotated 90 deg.)' with a 'Change' button.
- **Seam Location:** Shows 'Seam 1: 76 1/4' and 'Seam 2: 152' with a 'Customize' button and a checked 'Use Tool Placed Seams' option.
- **Batten(s):** Shows 'No Battens' with the text 'Typically battens are not needed.' and a 'Change' button.
At the bottom, there is a 'Possible Aesthetic Characteristics' section with a 'View Shade Aesthetics PDF' link and a small image of a shade. Navigation buttons for 'Help', 'Cancel', '< Back', and 'Next >' are at the very bottom.

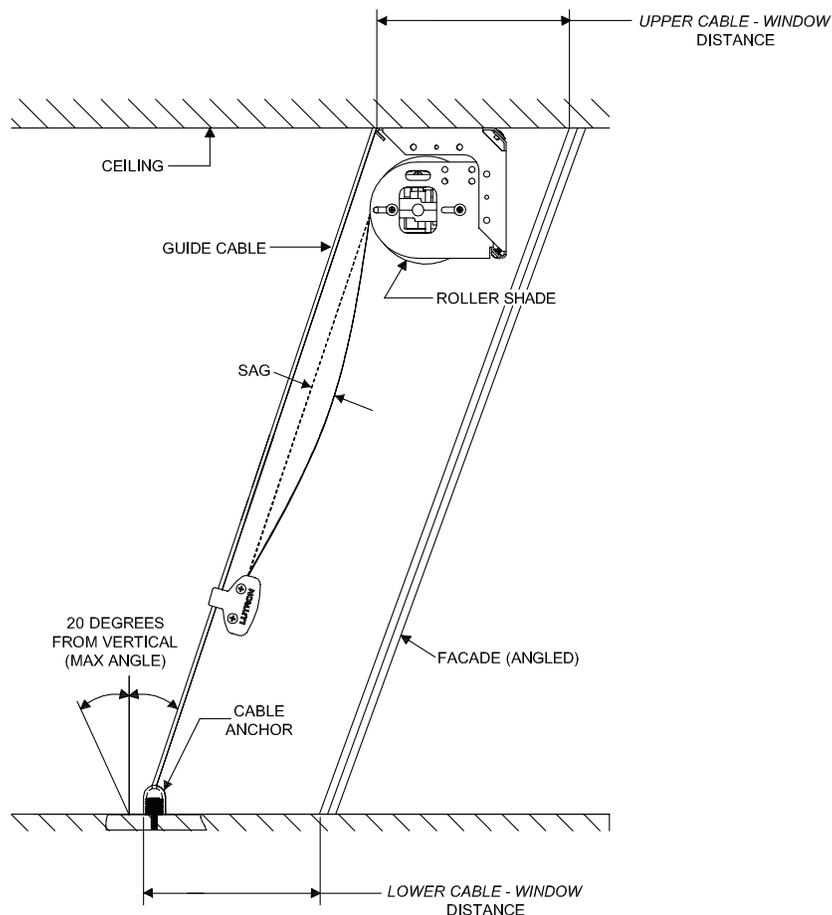
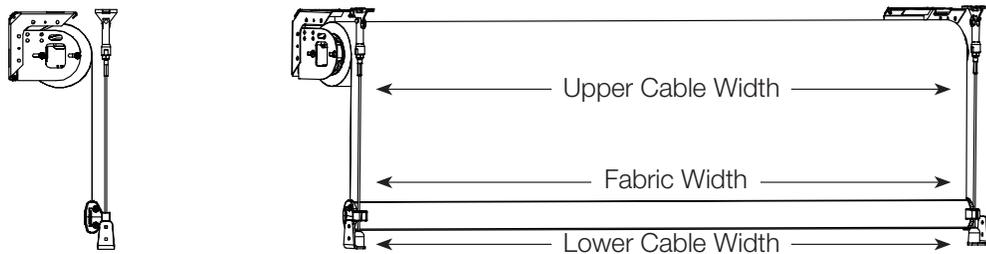
Uneven Sag

A cable-guided shade which has uneven sag, (more sag on one side than the other) may be caused by two possible issues

1. Cable alignment
2. Unlevel shade mounting

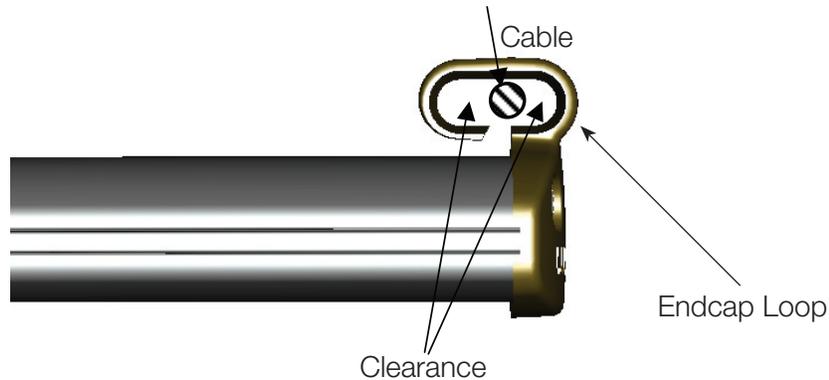
Corrective Action #1

If an angled cable guided shade has uneven sag, the first thing to check is the alignment of the cables. For an ideal installation, the cables should be in line with the edge of the shade fabric and parallel to each other (i.e upper cable width = lower cable width = fabric width) and in a plane parallel to the window.



Corrective Action #1 (continued)

To check for misaligned cables, operate the shade from open to closed position and observe the location of the hem bar end cap loop relative to the cable. To maintain clearance between the cable and the endcap loop for the entire travel of the shade, the upper cable width must be equal to the lower cable width.



If the cable is contacting the inner or outer edge of the end cap loop, this will create extra drag on one side of the shade and the sag will increase when the shade is lowered. To correct this situation, consider moving the upper or lower cable anchors laterally so that the cable does not contact the sides of the loop during shade travel.

Corrective Action #2

If the cables have been adjusted per Corrective Action #1 and there is still uneven sag, the shade tube may not be level. The sensitivity to an unlevel shade tube is much greater for an angled cable guided shade. Shades that are unlevel by more than $\frac{1}{4}$ inch over 10 feet (0.12 degrees) may exhibit uneven fabric sag. A standard bubble level does not have the precision required. A digital or laser level will provide the best results. To equalize the amount of sag on both sides of shade, raise the side of the shade with the most sag. Conversely, the side with less sag can be lowered. Level the shade tube by either shimming the brackets or by using the level adjust feature of the bracket system, if equipped.