Auragami® Gen2

SUPPLEMENTAL LIGHT SHEET
LAYOUT GUIDE

ABOUT THIS GUIDE

The award-winning Auragami flexible light sheet is an incredible lighting tool that offers design flexibility and easy installations. This guide will help you plan your light sheet layouts so that your project goes smoothly. Please reference Auragami's **instruction manual** for detailed use.

Use this layout guide to:
- Plan accurate, optimized layouts
- Determine product quantities
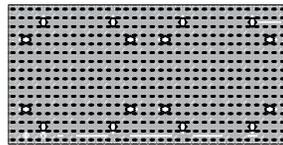- Eliminate layout errors and wasted sheets

Project by Lightpads Unlimited, Florida
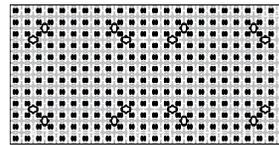
LIGHT SHEET DIMENSIONS

AG2's two-foot by one-foot size makes planning easy! Cut lines and terminal locations will vary by sheet type. Please refer to the product's Specification Sheet for further information.
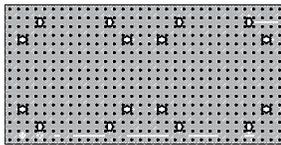
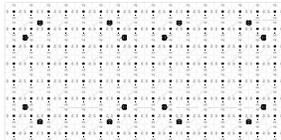**AG2.1 Single Color**
24" x 12" / 0.75" cut lines
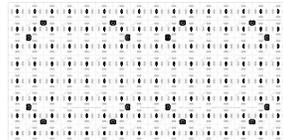
AG2.1 Tunable White
24" x 12" / 0.75" cut lines
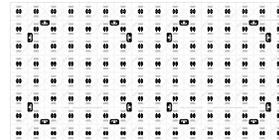
AG2.1 RGBW
24" x 12" / 1.0" cut lines

Square Foot Coverage
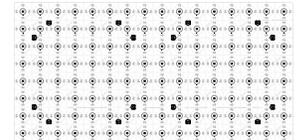2ft^2 per light sheet

$2ft^2$

AG2B Single Color
24" x 12" / 1.50" cut lines

**AG2B Tunable White**
24" x 12" / 1.50" cut lines

AG2B RGBW
24" x 12" / 1.50" cut lines

AG2B Lensed
24" x 12" / 1.50" cut lines

LIGHT SHEET ORIENTATION

Auragami Tunable White and RGBW light sheets have orientation arrows printed on them. These light sheets must be installed with the orientation arrows pointing in the same direction over the entire illuminated area. This helps maintain equal LED spacing across the installation area. Failure to do this will cause irregular color shifts.

Orientation Arrow
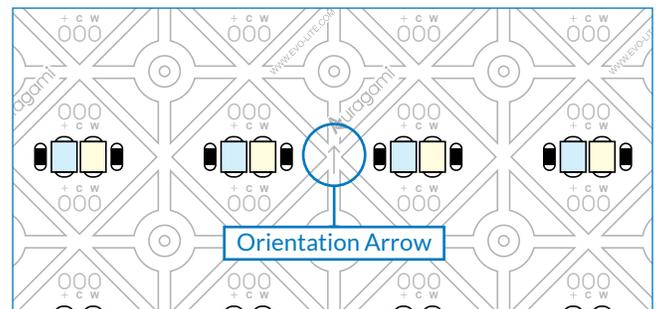
LIGHT SHEET SPECIFICATIONS

Knowing Auragami's specifications will help you plan your power supply location, type, and quantity. Please refer to the appropriate **Specification Sheet** for your Auragami product to review all technical details before starting.

Voltage	24VDC - Constant Voltage
Wattage	17.2 Watts per sheet
Light Output	Up to 1720 lumens per sheet

EXAMPLE PROJECT

We've chosen to backlight a kitchen island for the purposes of this demonstration. We will need to account for the kitchen sink cutout when planning our project.

This basic project will introduce us to many common scenarios in an Auragami installation including:
• Calculating product quantities
• Planning an optimized layout
• Making cuts to the light sheets
• Accounting for light sheet orientation
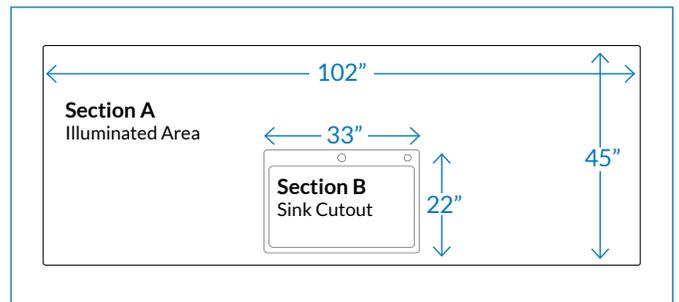• Accounting for edges and cutouts
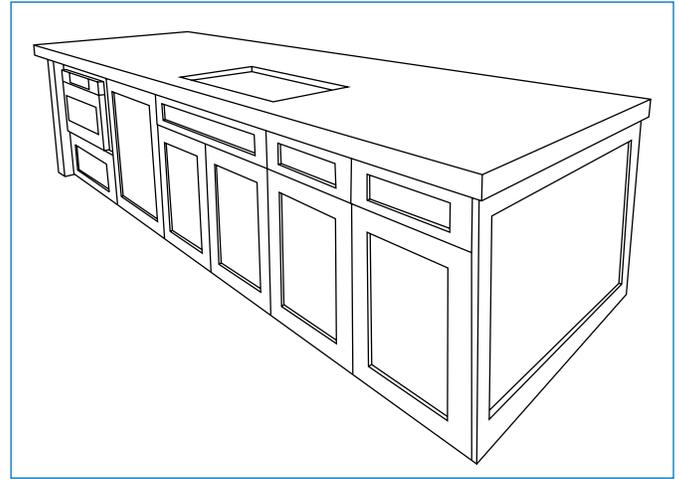
ESTIMATE LIGHT SHEET QUANTITY

The easiest way to determine how many light sheets your project requires is to use square footage.

Square foot formula:

Using feet: Length x Width = Square feet
Using inches: (Length x Width) ÷ 144 = Square feet

Section A Counter	Section B Sink Cutout	Required Coverage	Light Sheet Total
Dimensions: 102" x 45"	Dimensions: 33" x 22"	Determine total square feet.	One sheet = 2ft^2
102 x 45 = 4,590	33 x 22 = 726	31.88 – 5.04 = 26.84ft^2	27 ÷ 2 = 13.5
4,590 ÷ 144 = **31.88ft^2**	726 ÷ 144 = **5.04ft^2**	We need to backlight **27ft^2**	**We need 14 light sheets.**

Adding overage

With our calculation, we know that <u>14 light sheets</u> will provide enough coverage for our installation. However, keep in mind that due to cutting and layout decisions, we may not be able to use every single part of each light sheet. Adding overage helps ensure you've ordered enough light sheets and provides some additional padding in the case of miscut sheets or layout issues.

For single color, we suggest adding at least 5% more light sheets. For tunable white and RGBW, we suggest adding at least 10% more light sheets. Tunable white and RGBW light sheets require identical sheet orientation, which will limit our flexibility when cutting and fitting them to our layout.

Single Color Sheet overage = ≥5%	Tunable White Sheet overage = ≥10%	RGBW Sheet overage = ≥10%
14 x 0.05 = 0.7	14 x 0.1 = 1.4	14 x 0.1 = 1.4
We suggest ordering 1-2 extra sheets.	We suggest ordering 2-3 extra sheets.	We suggest ordering 2-3 extra sheets.

LAYOUT RESULTS

As you can see, the extra light sheet made our install much easier by eliminating the need to piecemeal cutoffs together. We were able to place all the light sheets in the exact same orientation, making the LEDs and connectors perfectly aligned. Note that some of the sheet connection terminals may need to be removed for best results (see instruction manual). Last, check out the color zones to see how we would connect the sheets in each Class 2 circuit. Tidy, preplanned layouts pay off immensly in the end - so take your time planning!
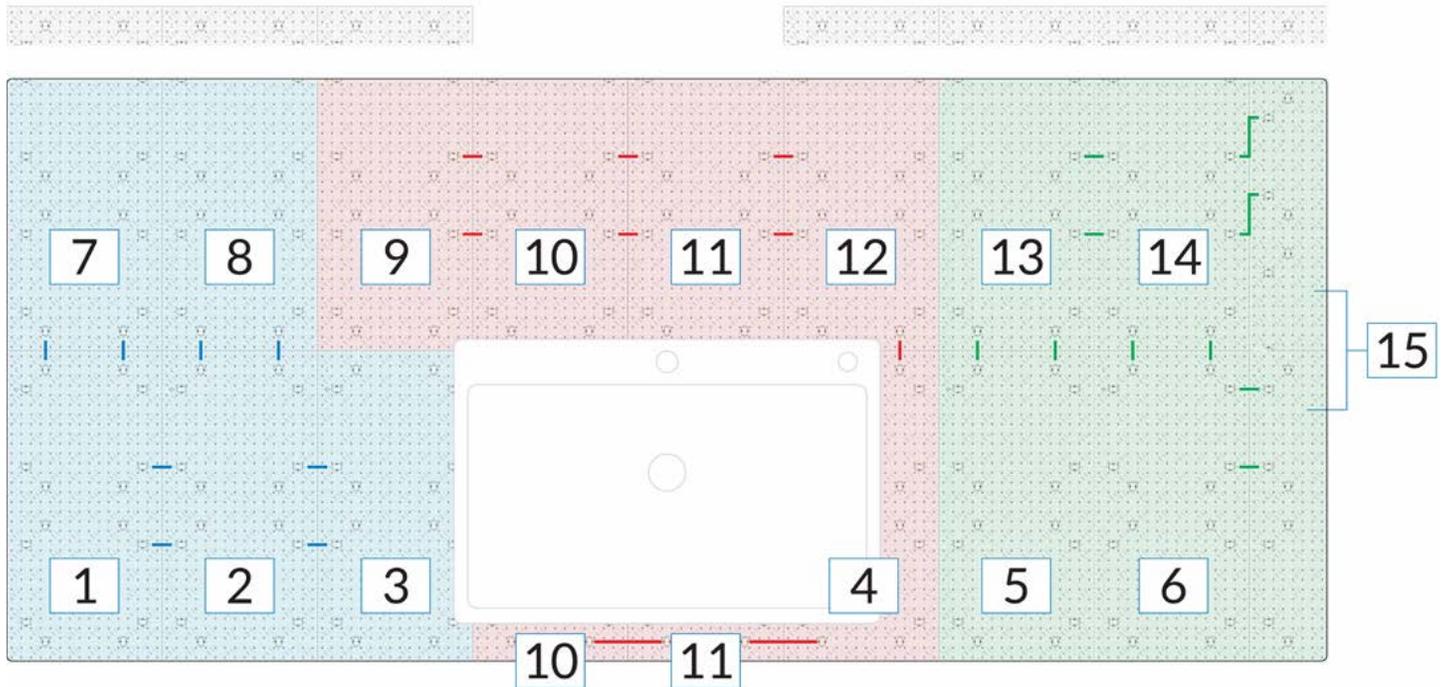

SPANNING MULTIPLE PLANES

Auragami's flexible and foldable PCB makes it easy to span across sides. The ideal place to fold the light sheet is on the cut lines. Do not fold the light sheet on any rigid component such as the LEDs, transistors, or terminal blocks. Doing so may affect light sheet functionality.

Terminal blocks may be removed if they are in the way of a fold and not required for a sheet to sheet connection. Use a pair of pliers to gently twist the terminal block back and forth until it breaks free. Cover the area with electronic grade silicone.

MASTERING CORNERS

The cuttability of Auragami makes lighting corners easy. Simply measure the height of the adjacent surfaces and cut an equally sized notch out of the light sheet.

Be sure to line up the light sheet's folds with the depth of the cut as demonstrated to the right.
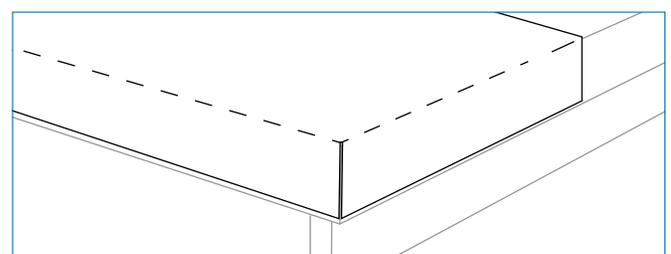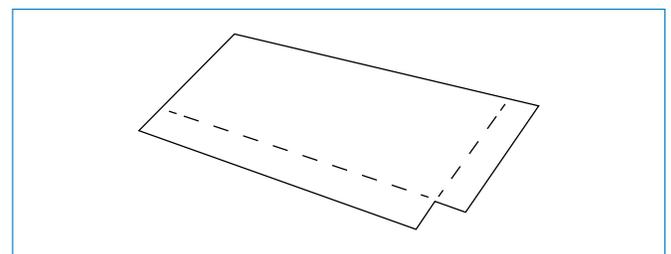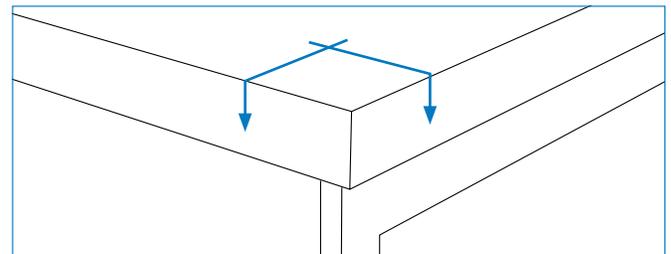
LAYOUT WORKSHEET

Calculate the square footage of the entire area that needs to be illuminated. Refer to the square foot formula on page three. Be sure to account for the following aspects of your project: sheet orientation, terminal locations, lit edges / sides, layout obstructions, and unlit areas within the illuminated area.

Note – If using the interactive PDF, list all measurements in inches.

Illuminated Area Dimensions

Length:	Length:	Length:
Width:	Width:	Width:
Total (ft^2):	Total (ft^2):	Total (ft^2):
Length:	Length:	Length:
Width:	Width:	Width:
Total (ft^2):	Total (ft^2):	Total (ft^2):

Total Illuminated Area (A):

Unlit Area / Cutouts

Length:	Length:	Length:
Width:	Width:	Width:
Total (ft^2):	Total (ft^2):	Total (ft^2):
Length:	Length:	Length:
Width:	Width:	Width:
Total (ft^2):	Total (ft^2):	Total (ft^2):

Total Unlit Area (B):

A – B = C (actual illuminated area):

C ÷ 2.0 = D (Light sheet quantity):

Single color overage: D x 0.05 =   **TW/RGBW Overage: D x 0.1 =**

Total single color light sheet quantity =   **Total TW/RGBW light sheet quantity =**

RESTOCKING FEE   A 25% restocking fee will be applied to any unused, unopened, and resalable Auragami returns.

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