## 2ment 15f:



Auragami

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



## LIGHT SHEET DIMENSIONS

Cut lines and terminal locations will vary by sheet type. Please refer to the product's Specification Sheet and/or the printable Auragami Light Sheet template to find detailed measurements.


Single Color White (SCW) $19.8^{\prime \prime} \times 9.25^{\prime \prime}$ ( $503.4 \times 235 \mathrm{~mm}$ )


Tunable White (TW)
$19.8^{\prime \prime} \times 9.25^{\prime \prime}$
(503.4 x 235mm)


RGB+White (RGBW)
$19.8^{\prime \prime} \times 9.25^{\prime \prime}$ ( $503.4 \times 235 \mathrm{~mm}$ )


Square Foot Coverage
$1.27 \mathrm{ft}^{2}$ per light sheet
( $0.118 \mathrm{~m}^{2}$ )

## 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 color shifts and irregular lighting. Single Color White light sheets do not require a specific orientation.


## 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 | 11 Watts per sheet |
| Light Output | Up to 1100 lumens per sheet |

## RESTOCKING FEE

A $25 \%$ restocking fee will be applied to any unused, unopened, and resalable Auragami Light Sheet returns.

## 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 $\times$ Width $=$ Square feet Using inches: (Length $\times$ Width) $\div 144=$ Square feet

```
Section A Counter
Dimensions: 102" x 45"
    102\times45=4,590
4,590 \div144=31.88ft }\mp@subsup{}{}{2
```



## Required Coverage

Determine total square feet.

$$
31.88-5.04=26.84 \mathrm{ft}^{2}
$$

We need to backlight $27 \mathrm{ft}^{2}$

## Light Sheet Total

One sheet $=1.27 \mathrm{ft}^{2}$
$27 \div 1.27=21.26$
We need 22 light sheets.

## Adding overage

With our calculation, we know that 22 light sheets 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 white, 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 White

Sheet overage $=\geq 5 \%$
$22 \times 0.05=1.1$
We suggest ordering 1-2 extra sheets.

Tunable White
Sheet overage $=\geq 10 \%$

$$
22 \times 0.1=2.2
$$

We suggest ordering 2-3 extra sheets.

RGB+White
Sheet overage $=\geq 10 \%$
$22 \times 0.1=2.2$
We suggest ordering 2-3 extra sheets.

## LAYOUT RESULTS

As you can see, we likely could have gotten away with just 22 light sheets. However, that would have required us to piecemeal leftover cuts and potentially have to solder sheets together. We were able to place all the light sheets in the exact same orientation, making the LEDs and connectors perfectly aligned. If we messed up a cut or didn't have such an well planned layout, the extra sheets would have provided enough padding to keep our project on schedule.


## 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.

## 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 $\left(\mathrm{ft}^{2}\right)=0.00$ | Total $\left(\mathrm{ft}^{2}\right)=0.00$ | Total $\left(\mathrm{ft}^{2}\right)=0.00$ |
| Length: | Length: | Length: |
| Width: | Width: | Width: |
| Total $\left(\mathrm{ft}^{2}\right)=0.00$ | Total ( $\mathrm{ft}^{2}$ ) $=0.00$ | Total ( $\mathrm{ft}^{2}$ ) $=0.00$ |

Total Illuminated Area $(A)=0.00$

## Unlit Area / Cutouts

| Length: | Length: | Length: |
| :---: | :---: | :---: |
| Width: | Width: | Width: |
| Total ( $\mathrm{ft}^{2}$ ): 0.00 | Total ( $\mathrm{ft}^{2}$ ) : 0.00 | Total ( $\mathrm{ft}^{2}$ ) : 0.00 |
| Length: | Length: | Length: |
| Width: | Width: | Width: |
| Total ( $\mathrm{ft}^{2}$ ): 0.00 | Total ( $\mathrm{ft}^{2}$ ) : 0.00 | Total ( $\mathrm{ft}^{2}$ ) : 0.00 |

Total Unlit Area $(B)=0.00$
$A-B=C$ (actual illuminated area): 0.00
$\mathrm{C} \div 1.27=\mathrm{D}$ (Light sheet quantity): 0.00

SCW Overage: D x $0.05=0.00$
TW/RGBW Overage: D x $0.1=0.00$

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