

## **TECHNICAL GUIDELINE**

This document outlines how to use Omnify Matrix LED sheets to backlight Cambria quartz surfaces.

To contact Omnify Technical Support, please call 1-866-766-0509, email <a href="mailto:hello@omnifynow.com">hello@omnifynow.com</a>, or visit <a href="mailto:omnifynow.com">omnifynow.com</a>.

1. **Figure 1** shows designs and thicknesses that can be backlit with Omnify Matrix Sheets (150 LUX).

DESIGN	APPROVED THICKNESS(ES)
Brittanicca Gold Warm™	1cm
Brittanicca Warm™	1cm
Skara Brae™	1cm
Brighton™	2cm

Figure 1

- 2. Color temperature of a light source impacts the surface tone of backlit Cambria. Omnify Matrix Sheets can be purchased in 6500K, 5300K, 4100K, and 3000K temperatures. Backlit Cambria tends to warm transmitted light. Because of this, Cambria recommends 6500K sheets.
- 3. When using the Omnify Matrix, a proper substrate support structure is required to secure LED sheets in place. Cambria recommends using a sheet on Masonite or plywood at least ½" thick on top of the cabinet. **See Figure 2.**



Figure 2





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4. Omnify Matrix sheets are backed with 3M tape. This allows sheets to be adhered directly to the surface of the substrate. Screws are not required, but can be used to more permanently secure sheets to the substrate. Insert screws into Matrix squares with a cross. **See Figure 3.** Use only pan head, coned, or round head screws. Tapered screws such as wood or drywall screws will ruin the product.

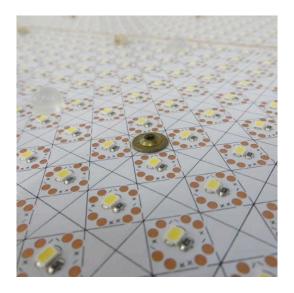


Figure 3

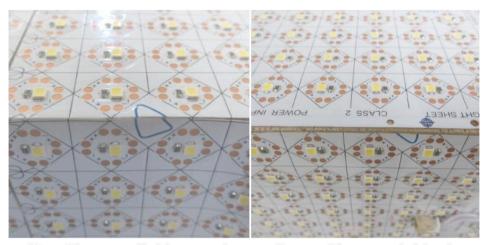
- 5. Matrix sheets can be cut and folded to match contours of the substrate. When cutting Matrix sheets, only cut along straight, black lines with a scissors symbol. Cutting outside these lines could cause sheet failure. Similarly, when folding Matrix sheets, fold along the straight, black cut lines.
- 6. Ensure that Matrix sheets are placed flush to straight edges. The Matrix is designed in such a way that LEDs are offset from cut edges at the proper distance for lighting mitered drops.

**NOTE:** Each Matrix sheet has an outer strip of material that must be removed if placed flush to a straight edge. If this material is not removed, LEDs will be too far offset from the edge and will cause a shadow to appear. **See Figure 4.** 





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Correct (excess material removed, LEDs close to edge)

Incorrect (excess material not removed, LEDs too far from edge)

Figure 4

7. Place Matrix sheets such that they overlap to form one continuous sheet. **See Figure 5.** Gaps or discontinuities will produce a shadow line. This is most effectively completed by utilizing cut lines to properly align sheets.

**NOTE:** When placing Matrix sheets, be mindful of 2-pin connector location. This ensures that sheets can easily be connected with Omnify-provided jumper cables.

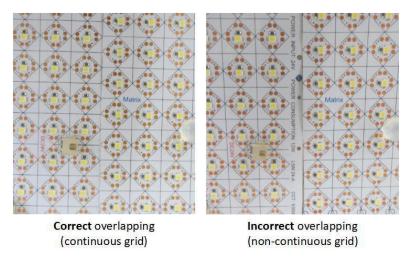


Figure 5





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8. If the substrate has a curved edge, cut Matrix sheet so that no diode overhangs the edge. **See**Figure 6. The red line represents the curved edge of the substrate. Diodes that are outside this line have been removed. The remaining, overhanging material can be folded (not cut) along the edge to remove the possibility of shadow lines.

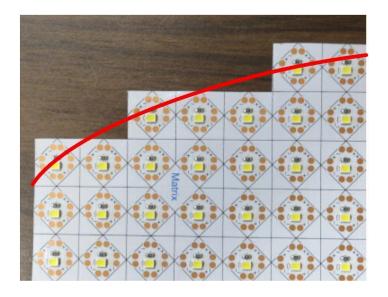


Figure 6

9. Cambria is properly raised above the Omnify Matrix sheet using rubber bumpers and a 1.5mm thick diffusive acrylic layer. Bumpers must be spaced no more than 3" apart to achieve full support per Cambria installation standards. For Omnify Matrix sheets, this means that a bumper must be placed every fourth square. The diffusive acrylic layer is placed between the bumpers and Cambria. **See Figure 7.** 





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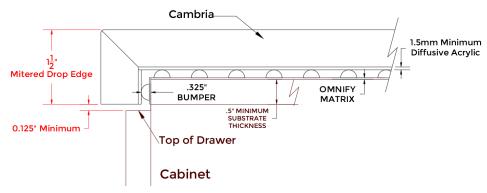


Figure 7

**NOTE:** Rubber bumpers are recommended to be sourced from Omnify.

**NOTE:** The diffusive layer is what is commonly called frosted acrylic. This layer must be at least 1.5mm thick. Frosted acrylic can be purchased directly from Omnify, from hardware stores such as The Home Depot or Lowes, or it can be purchased from third-party acrylic sheet providers such as Delvie's Plastics and PLASKOLITE.

10. Silicone must not be placed between the diffusive layer and back of the Cambria. Doing this can cause hot spots of light to appear on the surface. However, it is possible to apply silicone to the back of the diffusive layer. Apply silicone to the back of the diffusive layer only in small, strategic areas. A large area of silicone will reduce the overall brightness of backlit Cambria.

If you have any questions, please contact Cambria at 1-866-CAMBRIA (1-866-226-2742).

