



FLEX Lighting Front Light Handling Guide

Summary

The following document describes the handling requirements for Flex Lighting's front light products to avoid damage that might negatively affect functionality or product performance. Failure to follow these guidelines may result in diminished brightness, uneven lighting or a fully inoperable unit.

- The protective mask should remain on the front lit display until its removal is necessary for final installation. Once the mask is removed, avoid touching the exposed top layer of the front light film. Transfer of particulate matter or liquids, particularly oils, to the top layer of the front light film can result in uneven lighting performance. Clean room grade gloves are recommended when handling units.
- Standard ESD precautions should be followed when handling Flex front lit displays. Both the front light LED and the LCD are susceptible to ESD damage if handled improperly.
- Ensure there is adequate clearance within the intended device for the rolled portion of the front light film. The film is flexible and can be rolled or curved to fit into custom applications, but hard creases or physical damage can lead to losses in lighting performance. A minimum bend radius of 1 mm should be maintained for optimal performance.
- Avoid creating deep scratches or gouges in the light blocking film, which can negatively impact brightness and uniformity.



Properly rolled -01



Properly rolled -03



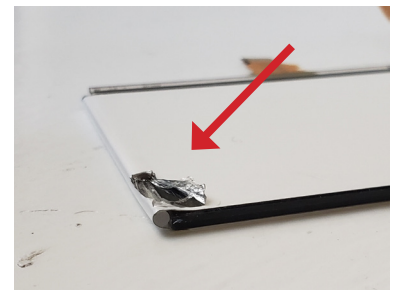
Properly rolled -06



Damaged -01 unit



Damaged -03 unit



Damaged -06 unit

- Refer to the product data sheet for LED FPC polarity, max current ratings, and connector options.
- Refer to LCD manufacturer's data sheet for LCD FPC minimum bend radius as well as bending direction and cycle restrictions.