

## 3M Optical Systems

### Vikuiti™ Transmissive Right Angle Film II (TRAF II)



All the  
Right Angles to do  
Two Jobs



Vikuiti™ Transmissive Right Angle Film II (TRAF II) from 3M is a dual-purpose, transparent optical composite.

In edge-lit systems, you can use it to redirect light coming in from the side back toward the on-axis viewer. While in displays with multiple or serpentine light sources, you can use Vikuiti TRAF II as a beam splitter to create a more uniform light source. In this configuration, the prisms are directed toward the light source, where they split the incoming light rays.

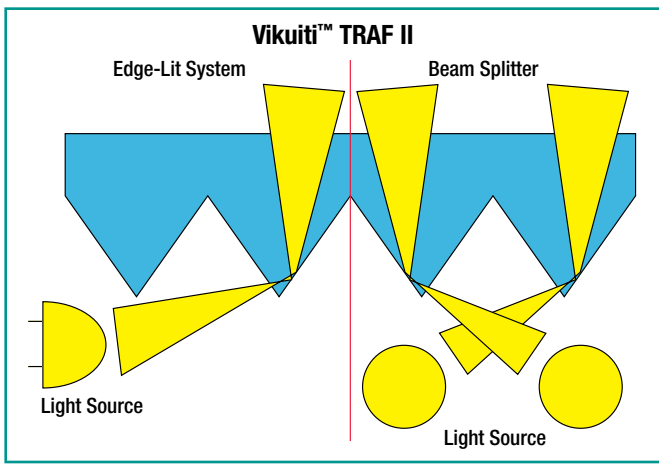
You can easily combine Vikuiti TRAF II with other Vikuiti™ Display Enhancement Films for even more dramatic gains in display lighting efficiency. You can combine it with a sheet of Vikuiti™ Brightness Enhancement Film (BEF) to significantly increase overall display brightness. Add two sheets of Vikuiti BEF, crossed at 90°, and you can boost screen brightness by up to 120%.



# Vikuiti™ Transmissive Right Angle Film II (TRAF II)

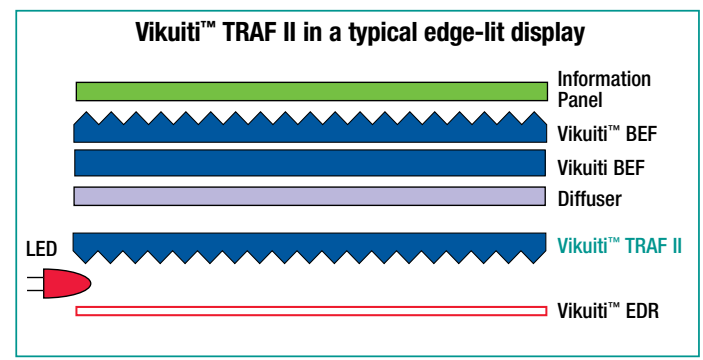
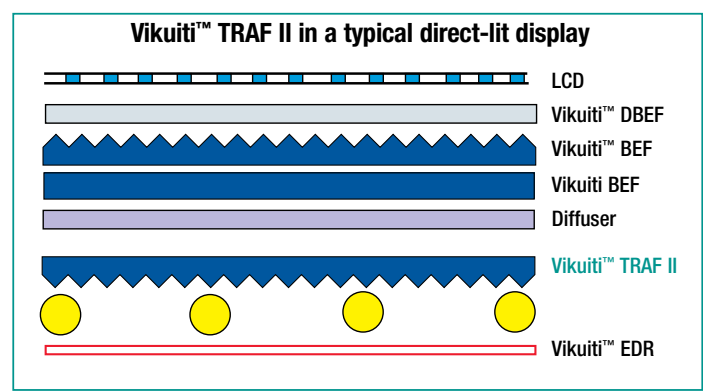
## How it works

The diagram below illustrates how Vikuiti TRAF II works both in an edge-lit system and as a beam splitter. In an edge-lit system, light enters the film at an angle of 0° to 20° off the horizontal, and is turned at an angle of roughly 90° back toward the viewer. In a multiple or serpentine lighting system, light enters the grooved side of Vikuiti TRAF II and the beams are split into multiple rays. The result is a much more uniform light source.



## Vikuiti TRAF II in typical displays

The diagrams below illustrate how you can use Vikuiti TRAF II in conjunction with other Vikuiti™ Display Enhancement Films to increase display brightness, enhance lighting uniformity and improve the angle of view.



## Nominal film properties

Film properties	Vikuiti™ TRAF II
Repeating Micro-replicated Prism <ul style="list-style-type: none"> <li>• Deviation Angle</li> <li>• Prism Pitch</li> </ul>	71° 50µm
Material <ul style="list-style-type: none"> <li>• Prismatic Structure</li> <li>• Substrate Backing</li> </ul>	Modified Acrylic Resin Polyester
Acceptance Angle of Light	0° – 20°
Physical Characteristics <ul style="list-style-type: none"> <li>• Form</li> <li>• Nominal Thickness</li> </ul>	Film 155µm

The technical data for the products described are typical, based on information accumulated during their life, and are not to be used in the generation of purchase specifications which define property limits rather than typical performance.

## Important Notice to Purchaser

**The following is made in lieu of all warranties, express or implied, including any implied warranties of merchantability or fitness for a particular purpose.** 3M warrants that, at the time of shipment, product will meet 3M's published specification or that specification agreed in writing between 3M and purchaser. Should product not meet specifications at time of shipment, 3M will replace or refund the purchase price of such quantity of the product found not to meet specifications. Purchaser shall determine the suitability of the 3M product for purchaser's application. 3M shall not be liable under any legal theory, including in contract or in tort, for any injury, loss, or damage, whether direct, indirect, incidental, special or consequential, arising out of the use of or the inability to use the product. **The warranties and remedies set forth herein are purchaser's sole and exclusive warranties and remedies.**



**Optical Systems Division**  
3M Center, Building 235-1E-54  
St. Paul, MN 55144-1000



For more information, visit our website  
[3M.com/displayfilms](http://3M.com/displayfilms)

Vikuiti and the Vikuiti "Eye" symbol are trademarks of 3M.  
Please recycle. Printed in U.S.A.  
© 3M 2010. All rights reserved.  
75-0500-1689-0