

3M™ Brightness Enhancement Films

(3M™ BEF)

- BEF2-T-155n Auto
- BEF3-T-155n Auto
- BEF3-T-205 ASn Auto
- AEF-155

Product Description

3M™ Brightness Enhancement Films (BEF) manage the angular output of light from liquid crystal display backlights. 3M BEF films use a prismatic structure to focus light towards on-axis viewers of the display. 3M BEF films can be used alone or two films can be crossed at 90 degrees to each other.



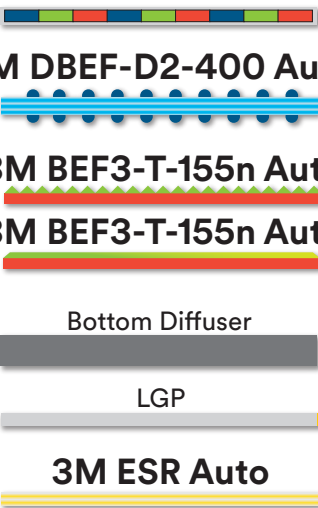
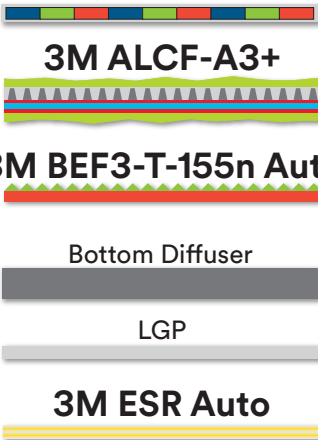
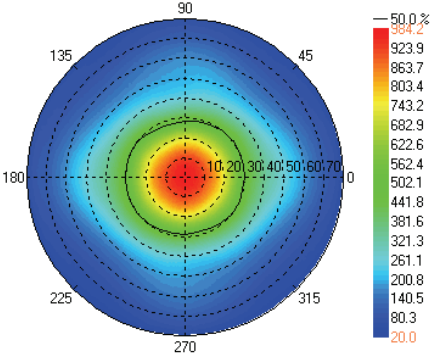
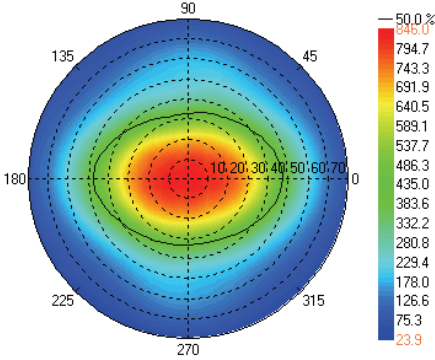
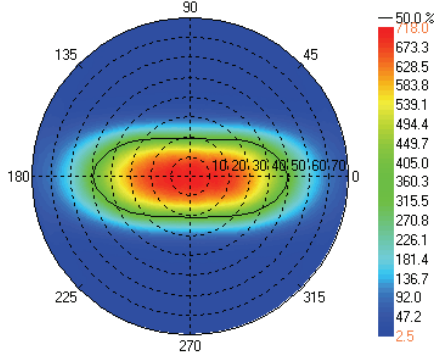
Construction/Performance

Product	3M BEF2-T-155n Auto	3M BEF3-T-155n Auto	3M BEF3-T-205 ASn Auto	3M AEF-155
Effective Transmission	1.56	1.53	1.5	1.6
Caliper (microns)	150 ± 10	155 ± 10	205 ± 15	152 ± 10
Prism Angle (degrees)	90	90	90	90
Prism Pitch (microns)	50	50	50	50
Non-halogenated	Yes	Yes	Yes	Yes

Automotive Environmental Testing

	Condition	Time
High Temperature	95°C	1000 hours
Low temperature	-40°C	1000 hours
Temperature/ Humidity	65°C/90%RH	1000 hours
Thermal Shock	-40°C to 95°C	1 hour dwell/ 100 cycles

Automotive Display – Recommended Solutions

Partial Instrument Cluster	Full Instrument Cluster	Center Stack
High Axial Brightness	High Efficiency	Minimal Windscreen Reflection
 3M DBEF-D2-400 Auto 3M BEF3-T-155n Auto 3M BEF3-T-155n Auto Bottom Diffuser LGP 3M ESR Auto	 3M DBEF-D2-400 Auto 3M BEF3-T-155n Auto Bottom Diffuser LGP 3M ESR Auto	 3M ALCF-A3+ 3M BEF3-T-155n Auto Bottom Diffuser LGP 3M ESR Auto
Axial Luminance = 974 nits Gain = 2.8	Axial Luminance = 836 nits Gain = 2.4	Axial Luminance = 706 nits Gain = 2.1
		

Technical Information

The technical information, recommendations and other statements contained in this document are based on tests or experience 3M believes reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within the user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for the user's method of application.

Warranty, Limited Remedy, and Disclaimer

Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability

Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.



3M Display Materials & Systems Division

3M Center, Building 235-1E-54
St. Paul, MN 55144-1000 U.S.A.

Phone 1-800-3M HELPS
Web 3M.com/displayfilms

3M is a trademark of 3M Company.
All other trademarks herein are the property of
their respective owners.

© 3M 2017. All rights reserved. dz22650