

# 3M™ Brightness Enhancement Films

## (BEF)

- 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.

















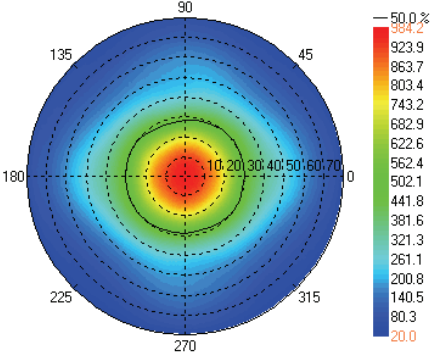
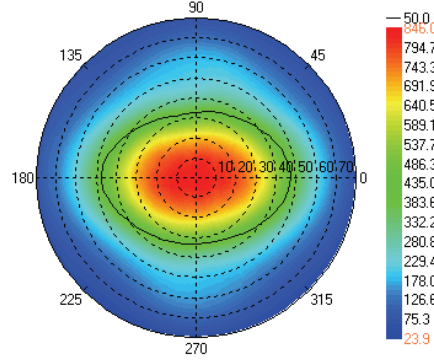
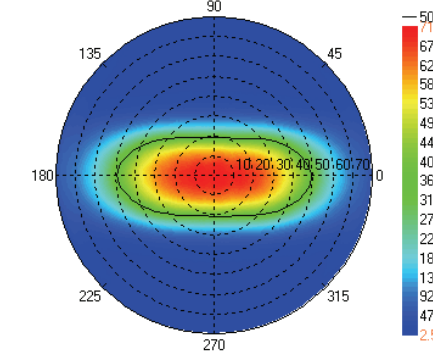
### Construction/Performance

| Product                | 3M BEF3-T-155n Auto | 3M BEF3-T-205 ASn Auto | 3M AEF-155 |
|------------------------|---------------------|------------------------|------------|
| Effective Transmission | 1.53                | 1.52                   | 1.69       |
| Caliper (microns)      | 155 ± 10            | 205 ± 15               | 155 ± 10   |
| Prism Angle (degrees)  | 90                  | 90                     | 90         |
| Prism Pitch (microns)  | 50                  | 50                     | 50         |
| Non-halogenated        | Yes                 | Yes                    | Yes        |

## Automotive Environmental Testing

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

## Automotive Display – Recommended Solutions

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

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