

# 3M™ Enhanced Specular Reflector Films

## ESR

- ESR 65 Auto
- ESR 80v2 Auto

### Product Description

3M™ Enhanced Specular Reflector Films (ESR) maximize the recycling efficiency of liquid crystal display backlights. 3M ESR is >98% reflective across the visible spectrum and contains no metal.

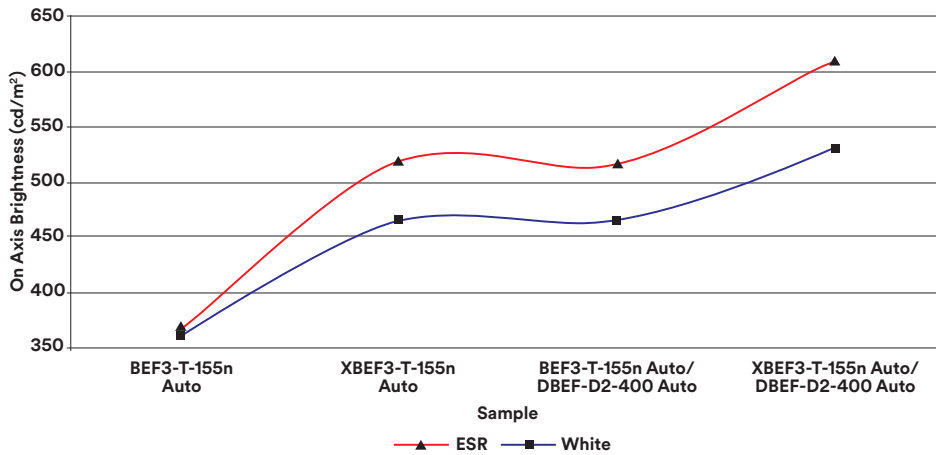


### Construction/Performance

Product	3M ESR 65 Auto	3M ESR 80v2 Auto
Reflectivity (minimum)	98%	98%
Caliper (microns)	65 +/- 4	82 +/- 4
Halogen Free	Yes	Yes

# Backlight Efficiency

Reflector Impact Comparison



# Automotive Display – Recommended Solutions

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

## 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

## 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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