

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.

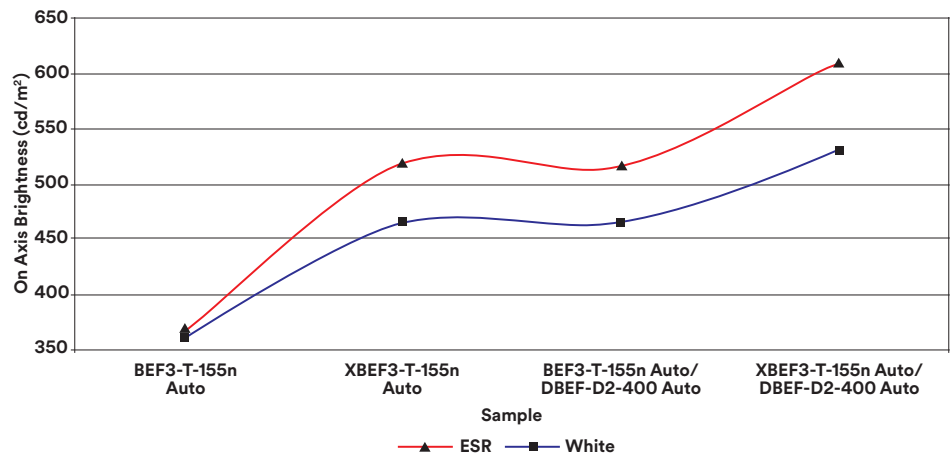


Construction/Performance

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

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