

JNI ARMOR

TECHNICAL BULLETIN

SAFESIGHT 360 Viewports remove ballistic vulnerability of traditional viewport designs

Revision September 15, 2026

Category Vulnerability Removal

Applies to Shield Viewports

Threat Level 0108.01 NIJ III and ASTM 3141/3347 RF1

1. Purpose

This bulletin compares three JNI Armor 3.5 x 9.5 inch viewport configurations by design and complete assembly weight. The two JDC-461 SafeSight 360 Series configurations provide ballistic protection at the viewport interface and address direct, seam, and angled shots. Both JDC-461 configurations shown are ambient-temperature solutions at the stated weights.



Figure 1. SafeSight 360 removes the vulnerable angled shot path.

TRADITIONAL VIEWPORT VULNERABILITY

A traditional viewport interface leaves an angled path through the shield. This path is directly in front of the operator's head. Also, bullets can pass through the composite near the viewport if the distance to cutout is too short. SafeSight 360 closes that path with continuous ballistic overlap.

2. Configuration and Weight Comparison

		
JDC-132 Traditional Design	JDC-461 Rear Mounted SafeSight 360	JDC-461 Front Mounted SafeSight 360 with UHMWPE ring

Design	Description	Overall weight
JDC-132	Standard viewport solution with updated back plate.	4 lb 2.3 oz
JDC-461 Rear	Rear-mounted SafeSight 360 Series. The shield-blade composite participates in the seam-and-angle stopping system.	4 lb 10.3 oz
JDC-461 Front	Front-mounted SafeSight 360 Series with UHMWPE ballistic ring and two-bolt interface.	4 lb 10.8 oz

Weight note. The rear-mounted JDC-461 is 8.0 oz heavier than the JDC-132. The front-mounted JDC-461 is 8.5 oz heavier than the JDC-132 and 0.5 oz heavier than the rear-mounted JDC-461.

3. Mounting Configuration Comparison

Design	Integration benefits	Validation
Traditional	A conventional frame can leave a vulnerable angled path at the viewport seam, directly in front of the operator.	The exposed interface is the design flaw addressed by SafeSight 360.
Rear Mounted	Viewport and customer's shield composite work together to stop seam and angled shots.	Test with the composite used in the finished shield. JNI composite data is available when applicable.
Front Mounted	UHMWPE ring stops direct, seam, and angled shots without relying on blade composite. Larger cutout and two bolts can reduce installed weight.	Ambient design and platform for JNI Armor's all-temperature ASTM solution.

AMBIENT-TEMPERATURE CONFIGURATIONS

Both JDC-461 designs shown are ambient-temperature solutions at the listed weights. JNI Armor also has all temperature solutions for SafeSight 360 viewport series.

A ballistic shield stands between an officer and a lethal threat. Every component must provide dependable protection, especially the viewport directly in front of the officer's face and head.

Traditional viewport designs can leave vulnerable seams and angled shot paths around the transparent armor. A shield may stop direct shots and still expose the officer at this critical interface. Shield manufacturers must ask: Is it acceptable to continue using a design with a known vulnerability when a more protective solution is available?

Officers expect protection across the blade, seams, edges, mounting points, and viewport.

SafeSight 360 was developed to close vulnerable shot paths and provide complete viewport-interface protection for the validated threat and configuration. Its engineered ballistic overlap addresses direct, seam, and angled shots through rear- or front-mounted configurations.

The choice is clear: specify a viewport engineered to eliminate it or accept a preventable vulnerability directly in front of the officer's head.

Set a Higher Standard for Officer Protection

Specify SafeSight 360 viewports—and Protect Everything

Contact your JNI Armor Sales Representative for pricing, availability, application guidance, and additional information.