

**Advances in mirror technology leading to performance increases in metalized film collimated systems**

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**ABSTRACT**

Metalized film mirrors have dominated the cross cockpit collimated display (CCCD) market for decades due to good performance, light weight, seamless field of view, and relatively low cost as compared to glass mirrors.

Historically, large field of view film mirrors suffered from surface accuracy problems such as the well-known "w-effect" (also known as the "bathtub effect"). This paper discusses new technological advances in film mirror construction that have redefined the state of the art for cross cockpit display mirrors. The new method minimizes the mirror envelope and inherently eliminates the need for adjustments. More importantly, it significantly improves the edge performance and minimizes the "w-effect" allowing film mirrors to be consistently manufactured to the highest quality.