Revealed within the newly-opened doors of Minnesota’s Bell Museum is much more than simply Minnesota’s largest and sole public planetarium. Having undergone an extensive $79 million renovation, it now boasts North America’s first, state-of-the-art, ‘seamless’ dome planetarium: The Whitney and Elizabeth MacMillan Planetarium, which is powered by Digital Projection’s INSIGHT Dual Laser 4K projection system.

Digital Projection’s INSIGHT Dual Laser 4K has become an industry staple of the planetarium design roadmap due to its true 4K resolution, its super bright 27,000 lumens and 20,000 hours of dependable laser phosphor illumination. Offering superior image quality from a long lasting light source with minimal running costs, it offers an unbeatable package at a very low overall cost.

That cutting-edge specification called for a 4K, dual projector system that reflected 2.0 ft. lambert of brightness straight back off the dome of 45% reflectivity, whilst projecting white at full power. The successful solution required more than 10M unique pixels on the dome and less than or equal to 3.0 average arc minutes per pixel, as well as a native contrast ratio of 2000:1 and brightness at 5,000 Lux per projector.

The installed solution for the 16-metre, 120-seat planetarium features an Astro-Tec Ulteria Seam Dome onto which Digital Projection’s INSIGHT Dual Laser 4K projectors delivers real-time rendering and full-dome videos, custom-created for the planetarium, using Uniview software and ColorSpace Theatre Control.

Sciss project director, Paul Tetu, adds: “Digital Projection’s 4K laser offering was the right choice because the customer was very interested in reduced operational costs. We did our research, saw demos, ran some in-house tests, and felt comfortable with Digital Projection. We were able to convey this trust to our customer.”

The choice was indeed right, as the difference between the image quality of the offered solutions was quite disparate, as Brummel states: “Every time I’d seen demonstrations of laser projectors at conferences, I was astonished by how much better the image was than the lamp-based projectors. The form seemed so much richer in colour in comparison. The laser system was our preference because of its superior image quality and long-lasting light source. The final visual aspect is very impressive and the image is as rich and bright as I’ve expected.”

**INSIGHT Laser Projector**

**Key Features of the INSIGHT Laser 4K**

- Native 4K Resolution
- Laser Illumination
- Up to 27,000 Lumens
- 20,000 hours illumination