Navitar has leapfrogged the current 180 degree and 360 degree projection optics technologies with the creation of the new HemiStar fisheye lenses used for dome presentation, it allows for single projector/lens presentation solutions for multiple applications. This fish eye projection lens provides maximum projection flexibility for the installer and maximum image "snap", contrast and brightness for the end user. HemiStar lenses may be used off axis and will still maintain focus even though there is a varying projection distance to the screen.
**HemiStar lens features:**

- 6.75 mm focal length
- F# 3.05
- Compatible with a LCD or single chip DLP projector
- 95% center to edge relative illumination
- Focus range 15” to infinity
- Resolution with 1.3” XGA Projector will be 768 x 768
- Resolution with 0.95” SXGA+ will be 1050 x 1050
- 1:1 throw ratio with 1.3” format projector
- 180 degree field of view (FOV)
- On-axis or off-axis projection

**Currently in Development & Prototype Stage at Navitar:**

*New* HemiStar 180° Projection lens for use with 0.65” single chip DLP projectors and resolution of 1920: IN5534L with 7000 lumens.

*New* HemiStar 180° Projection lens for use with 0.67” single chip DLP projectors with a resolution of 12 PT-DW6300ULS with 6000 lumens.

**Custom Lenses**

Navitar offers custom optical projection solutions for use in dome and curved-screen applications including dome presentation, immersive displays, simulation applications, and planetariums. Our design team of optical, mechanical and electrical engineers have years of experience and are ready to design and seamlessly integrate a custom projection lens into your system.

---

**Navitar’s new HemiStar lens line is solving optical challenges that**

For years, AV professionals have had to use multiple projector systems in order to project very wide and only achievable solution to hold the focus on a curved surface was to stitch together multiple images on t sought, was to find a single fisheye lens which could project a bright and sharp image, using just one pro

**Meeting the Need for Sharp & Clear Immersive Dome Systems**

People began to look for an immersive dome display solution as a way to visually place themselves in a 3 models were not very bright or sharp. Typical dome size was approximately 1.5-2 meters wide and the us systems, offering a near diffraction limited projection lens for curved surfaces. This solution is ideal for fl

**More Efficient Planetarium Presentation Systems**

The oldest functioning planetarium in the world was designed in 1774 by Dutch astronomer, Eise Eisinga
large planetarium dome surface. Later slide projectors were replaced by video projectors, which enabled the use of JVC 4k and Sony 4K projectors with custom Navitar lenses for large installations. For smaller installations, the HemiStar lens is a perfect choice.

**Overcoming Early Video Globe and 360° Projection Limitations**

Years ago, finding a workable globe projection solution for large sphere presentations, interactive touch screens, and digital video globes was near impossible. Early digital video globes were extremely expensive and often not evenly in focus from top to bottom. The HemiStar lens provides a solution to this problem, offering the ability to project 360 degrees into a globe. Navitar customers are utilizing the HemiStar for globe projection for a variety of projects including special effects for theater and events.

**Digital Signage Applications for Projection Non-Flat Surfaces**

The next trend in digital signage and special effect displays is to create eye-catching, memorable images by projecting onto non-flat surfaces. To create an attention-grabbing effect, designers of digital signage are developing displays on curvy and wavy surfaces, rather than standard flat surfaces. The HemiStar is a cost-effective solution for projecting onto non-flat surfaces of all shapes and sizes, such as a wavy surfaced wall or a life-size tunnel that you can walk right through. Non-flat projection is commonly used for special displays in retail showrooms, at tradeshows, casinos, sporting arenas, and science centers.