



# *Polar Star*

## Section 1: Material Design

### 1.1 What is it for?

**Polar Star** is a polarized, angular reflective, ambient-light rejecting front projection screen for the Home Cinema and Commercial markets. It is also exceptional in its handling of Active and Passive 3D technologies.

### 1.2 How does it work?

**Polar Star** features a screen surface (**Airbright5D**) with a 1.8 gain which improves brightness and black levels for either Active shutter glass 3D systems or Passive 3D polarized dual projection systems. It is a PVC tensioned screen material for enhanced flatness and durability. The silver-gray protective surface coating is a reflective compound that is textured to ensure the depth of use in 3D presentations. It is designed to enhance a higher contrast ratio while playing in high definition video modes such as 4K, 1080P, 720P, WXGA and XGA formats. The angular reflective properties permit the projector's image to maintain its brightness levels in ambient light environments.

### 1.3 What is the proper projector placement for Polar Star?

In order to optimize your viewing experience, we recommend the following projector placement.

Since **angular reflective** means that your projected image will reflect at the mirror-opposite angle, it is important to position the projector so that the viewer will benefit by getting the best possible image performance from the projection screen.

**Step 1: Establish the general "eye level" of the audience**

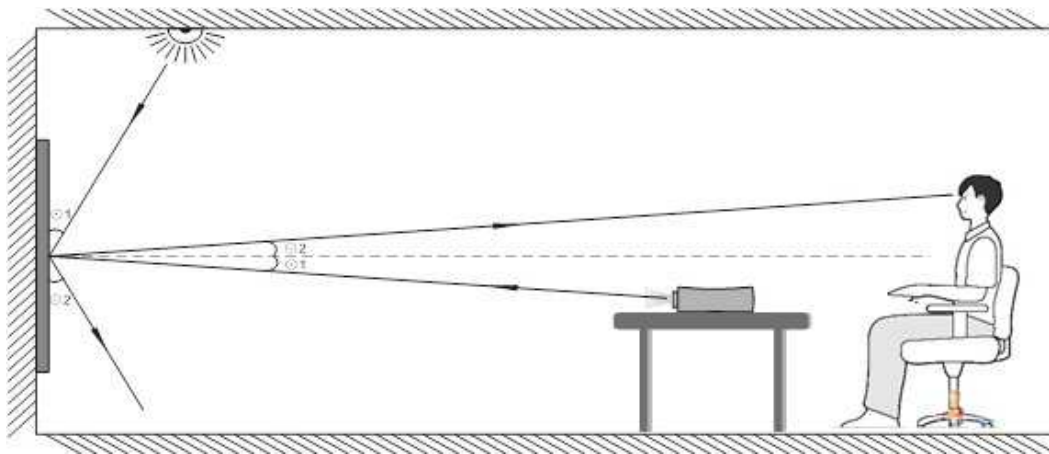
**Step 2: Set the appropriate projection level**

- "Desktop" or "Table-mounted", projects at an **upward** level
- Ceiling mount, projects at a **downward** level

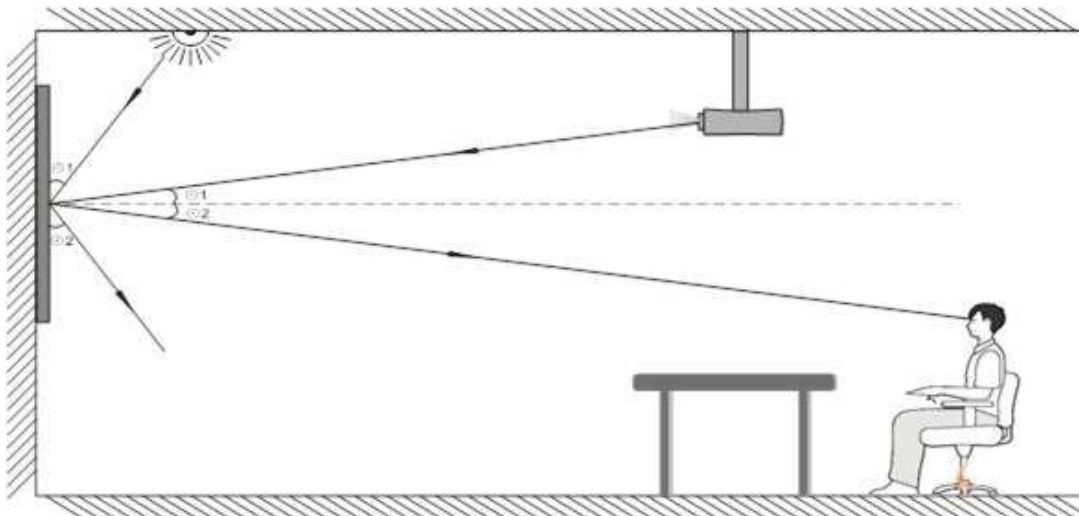
**Step 3: Adjust your screen height level and projection angle**

Input Angle ( $\Theta 1$  = Output Angle ( $\Theta 2$ )) aligns with the viewer's eye level.

**Desktop Installation**



**Ceiling Installation**



## PRODUCT WHITE PAPER

<http://www.elitescreens.com>



### Section 2: Specifications

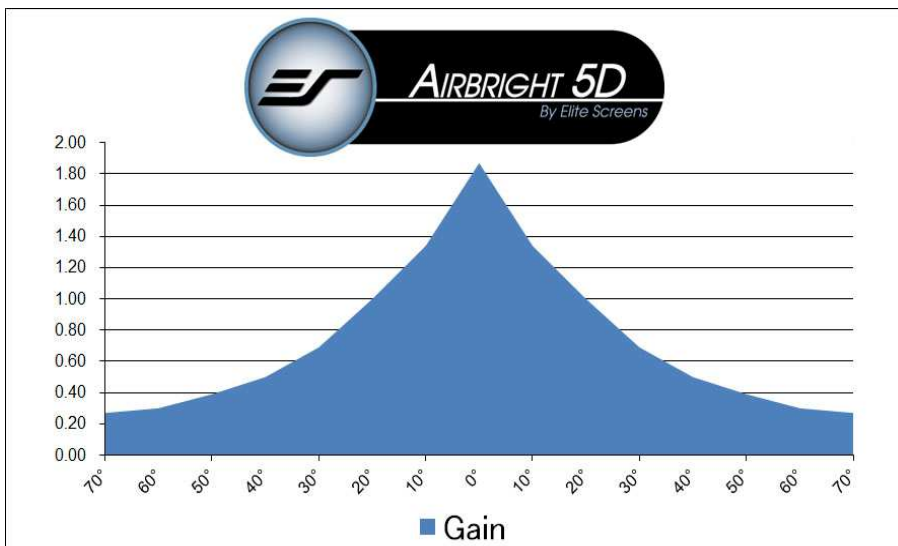
#### 2.1 Features & Benefits

- Gain: 1.8
- Viewing Angle: 120° (60° L/R)
- 92% Polarization Retention
- Silver texture coating allows for deeper polarization in Passive 3D environments
- Wide half gain angle increases a brighter picture for Active 3D glasses light loss
- Designed for both 2D and 3D content
- Wide diffusion uniformity with excellent black level enhancement
- Angular reflective and Ambient Light Rejecting front projection material
- Mildew resistant, washable with mild soap and water



**Polar Star** and **Airbright 5D** material are exclusive **Elite Prime Vision** products and are available through its network of authorized distributors and resellers.

#### 2.2 Gain Chart



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### 2.3 Airbright 5D Material Specs:

SPECIFICATION:	
Composition	100% PVC
Thickness (mm)	0.35mm
Weight(g/M2 )	473g/m2
D (g/cm3)	1.379
Width	304 cm
Roll length	100 yards

### 3.1 Company Description

**Elite Screens Inc.** is a US based company with its world headquarters in Los Angeles County, California and satellite offices in China, Taiwan, Japan, Germany, and the Baltic States. Elite is an ISO9000-2001 certified manufacturer that specializes in producing **retail, commercial** and **home-theater** projection screens for the specific needs of these three sales channels. As a leading American projection screen company, Elite delivers its promise of award winning quality and aggressive pricing on products for today's discerning video enthusiasts. Elite makes a variety of front, rear and acoustically transparent projection screen materials for virtually every projection environment.

The Elite staff believes that when a customer gets their projection screen, it should include the full package instead of being "accessorized" for an additional cost like some other manufacturers do. Elite products include what is needed to set up the screen and have it working without having to buy anything extra. There is black-backing on the front projection matte white screens to eliminate light penetration. There is velour surfacing on the "EZ" fixed frame screens prevent reflective glare. Critical items like IR & RF wireless remotes, low voltage wall switches, RJ45 Ethernet control packages and built-in 5-12 volt trigger ports are also included.

In our continued devotion to excellence in products and service, we are committed to implementing green practices with our production. We have adopted manufacturing methods that promote conservative regulation of our energy needs. Our simple product designs combined with the expertise of our permanent staff ensures that our entire line of products are made by experienced hands devoted to the high standards of today's audio-video consumer.

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