

Screen surface technical datasheet

Material tested: Black Diamond II 1.4 HD front projection screen material

Testing Conducted on: May 9, 2009

By:

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Equipment utilized:

JVC DLA-HD100
Sekonic L-508c
Sencore VP 401
Sencore ColorPro III

General Description:

Black Diamond II HD is an updated version of the original Black Diamond front projection material which is intended for use in both light controlled and high ambient light environments where contrast enhancement is desired. Black Diamond II provides dramatically enhanced contrast, color saturation, black level, and depth of field through an advanced formulation of multiple optical laminations. The advanced reflective layer in Black Diamond II has a resolution optimized for 1080p HD projectors that also focuses more projected light to the viewer and wastes less illuminating the room. Black Diamond II HD is available on Reference Edition projection screens in both 1.4 and 0.8 gains.

Gain: 1.4

Max screen sizes:

- 2.35:1 - 142" diagonal
- 16:9 - 113" diagonal
- 4:3 - 93" diagonal

Special thanks to:

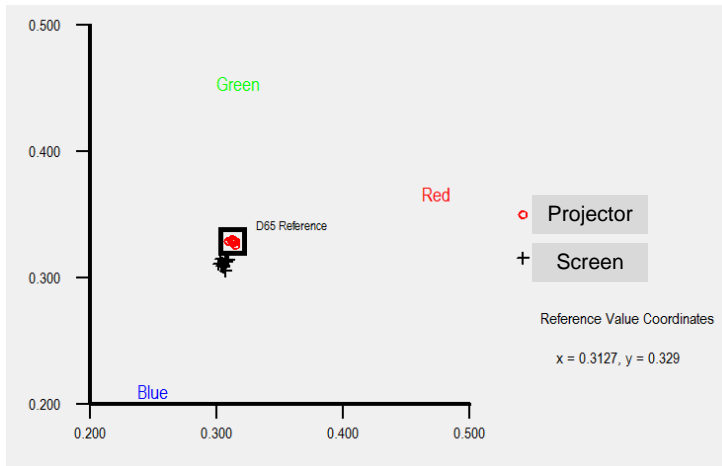


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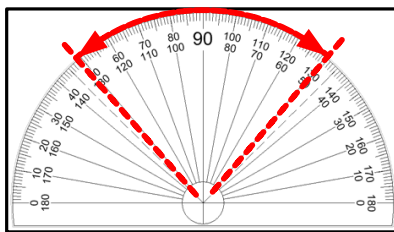
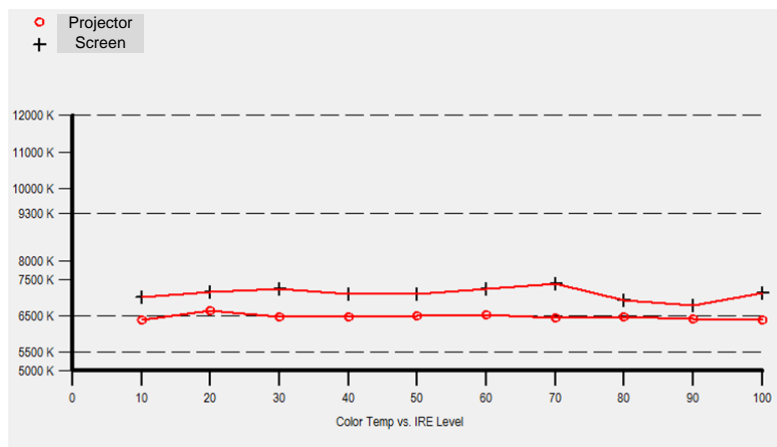
Color Shift by xy coordinates



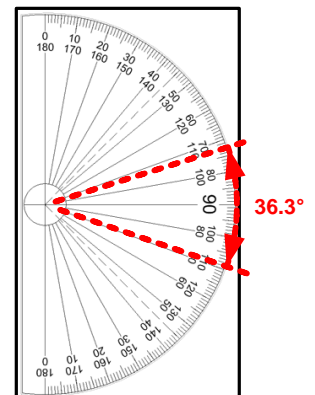
Colorimetry:

Average color neutrality: 97.1%

Color shift by Kelvin color temperature



Horizontal Viewing Angle



Vertical Viewing Angle

Conclusion:

Black Diamond 1.4 HD's excellent contrast enhancement (up to 300% of traditional materials), controlled light dispersion pattern, HD resolution, and brightness uniformity combine to make it an excellent multi-purpose screen when used with a projector having sufficient light output to properly combat the ambient light. The screen increases contrast through preservation of the black level. The projector still must have enough light output to work within the environment and achieve SMPTE recommended brightness levels.

Black Diamond 1.4 HD front projection screen material has benefits in both light controlled and high ambient environments with average to bright projectors. Even bright ambient light may be present if not located behind the projector. In dark environments, the controlled dispersion pattern increases immersion by not illuminating the room as do traditional materials. When compared to the original Black Diamond, there is a sufficient increase in both color accuracy and uniformity. Refer to SI's Screen Wizard online for further advice on attaining SMPTE standards in each different situation.