

## Laser Damage Threshold Test

Product: High-Power Polarizing Beamsplitter Cube

Substrate Material: UV Fused Silica

Coating Type: Polarizing BeamSplitter coating + AR coating

Part No.: PBS-HP-1064C Lot No.: 151003

Wavelength: 1064 nm

Repetition Freq.: 20 Hz

Incidence Angle(deg.): Normal

Axial Modes: Multiple

No. Sites Tested: 50

Preparation: Acetone Drag Wipe

Damage Definition: Permanent surface change

Spot Diam.(FW/e2): 0.5 mm

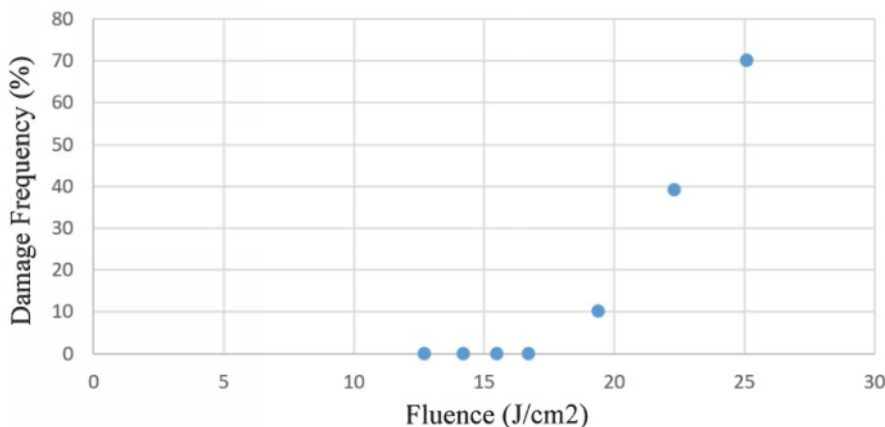
Pulse Width(FWHM): 20 ns

Polarization State: Linear

Transverse Modes: TEM<sub>00</sub>

No. Shots/Site: 200

Inspection Method: Nomarski/Darkfield 150X



J/cm <sup>2</sup>	MW/cm <sup>2</sup>	%Fail
12.7	577	0
14.2	645	0
15.5	704	0
<b>16.7</b>	<b>759</b>	<b>0</b>
19.4	881	10
22.3	1013	39
25.1	1140	70

Test Results:

Damage Threshold: **16.7 J/cm<sup>2</sup>** or **759 MW/cm<sup>2</sup>**

Damage Type: Propagating pit(s) on the hypotenuse

Tested by: Yan Huang

Date: 12/17/2015



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