

# REA25412-45P300 7.5 Joule Laser Amplifier

THE VALUE OF PERFORMANCE.

**NORTHROP GRUMMAN**



Northrop Grumman – Cutting Edge Optonics

# REA25412-45P300 Overview



- Laser Diode Operation: QCW
- Rod Aperture: 25.4mm Diameter
- Rod Material: Nd:YAG
- Pump Length: 120mm
- Peak Pump Power: 110kW
- Pump Energy: 25J
- Output Energy: >9J
- Stored Energy: 7.5J
- Small Signal Gain: 10

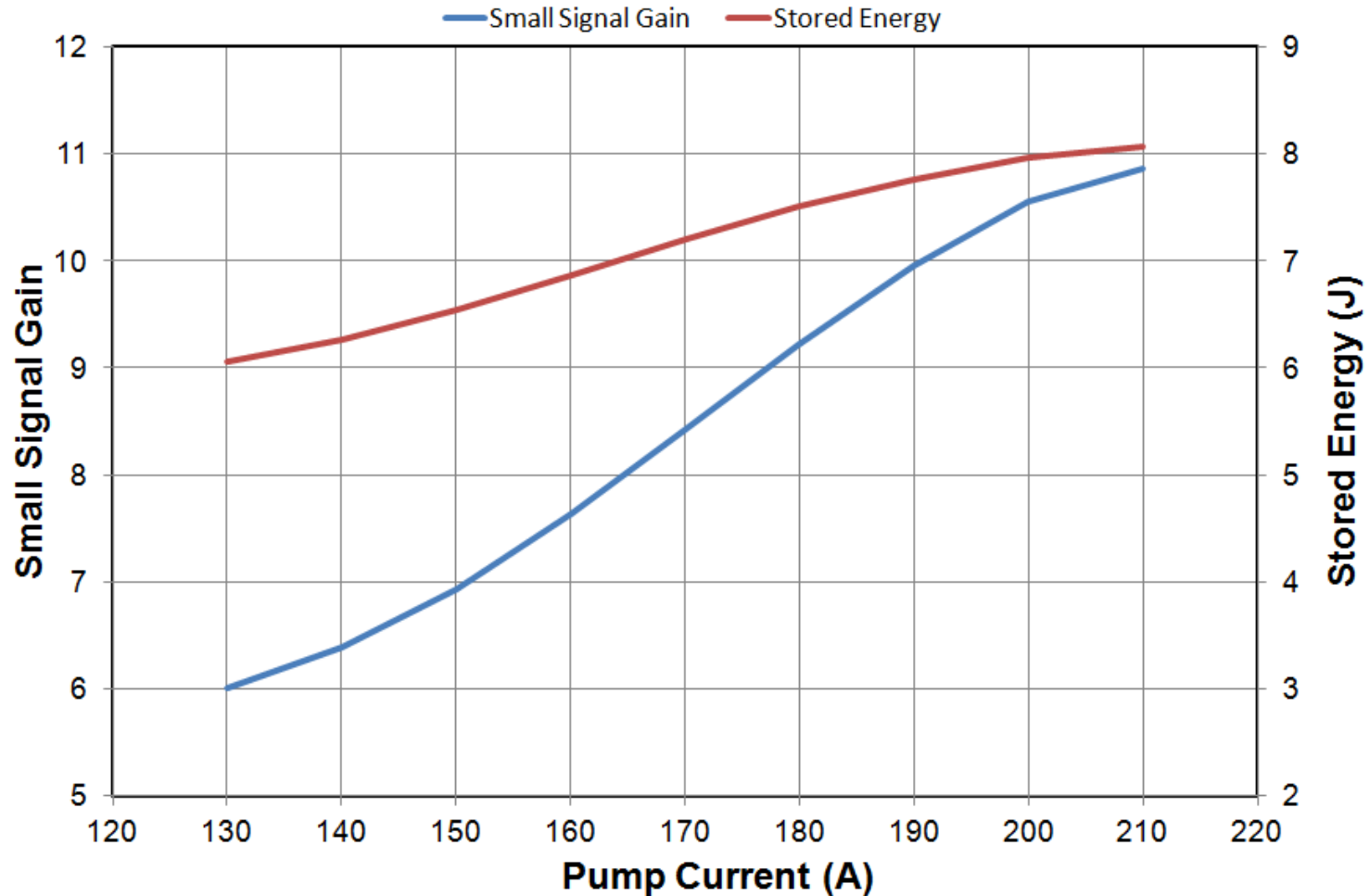


Customized Options Available

Northrop Grumman – Cutting Edge Optronics / Phone: (636) 916-4900 / Email: [st-ceolaser-info@ngc.com](mailto:st-ceolaser-info@ngc.com)

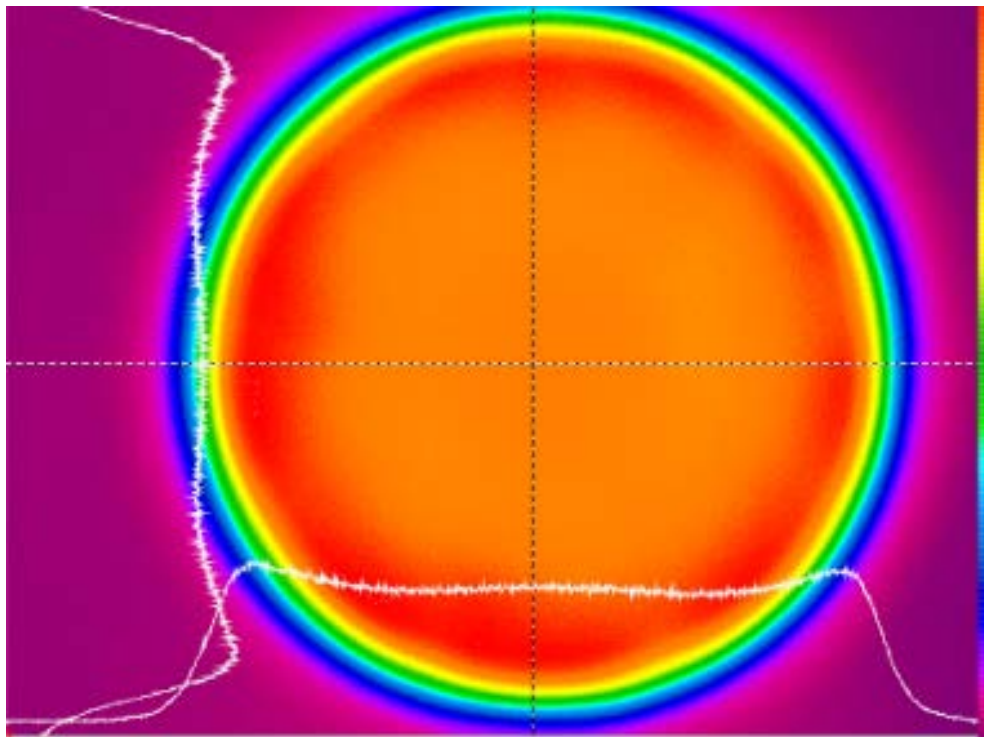
# Small Signal Gain and Stored Energy

**Small Signal Gain And Stored Energy vs. Pump Current**  
REA25412-45P300, 20Hz, 230 $\mu$ s, 18°C



# Gain Uniformity

REA25412-45P300 Fluorescence Profile



Nd:YAG Rod Diameter 25.4mm



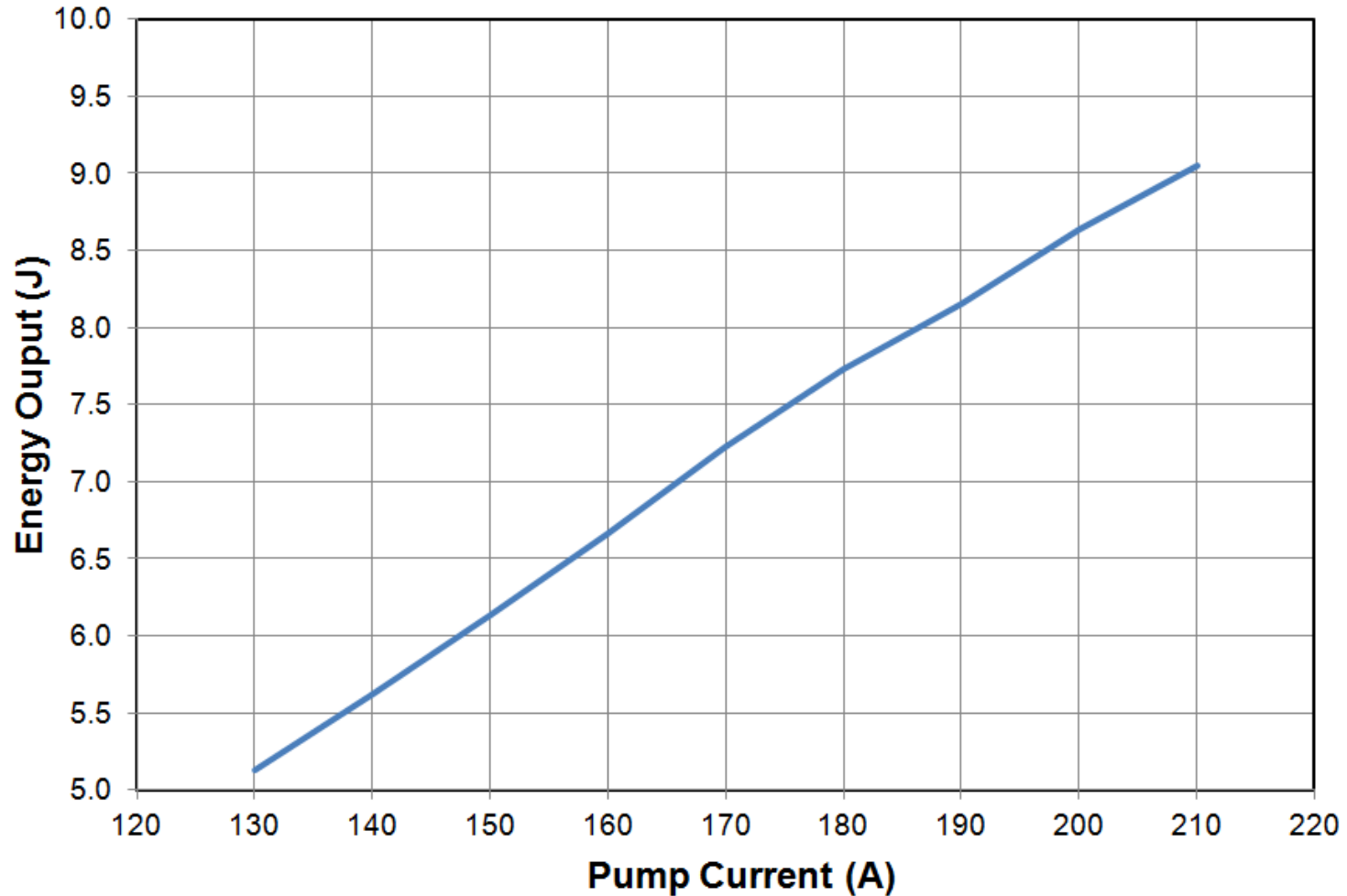
US Quarter Dollar Diameter 24.26mm

- Fluorescence Profile Indicates Gain Uniformity
- Less than 10% Edge-to-Center

# Short Cavity Gain Switched Energy

280mm cavity, 50%R Output Coupler

**Short Cavity Gain Switched Energy vs. Pump Current**  
REA25412-45P300, 20Hz, 230 $\mu$ s, 18°C



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