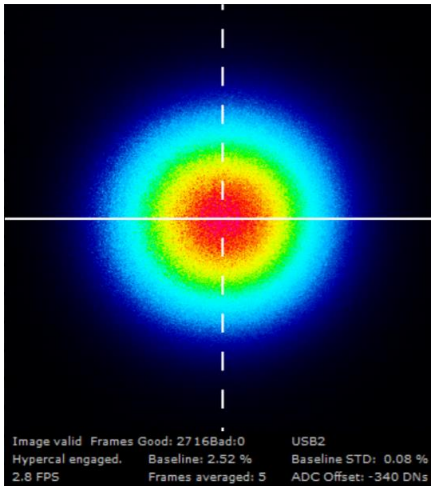


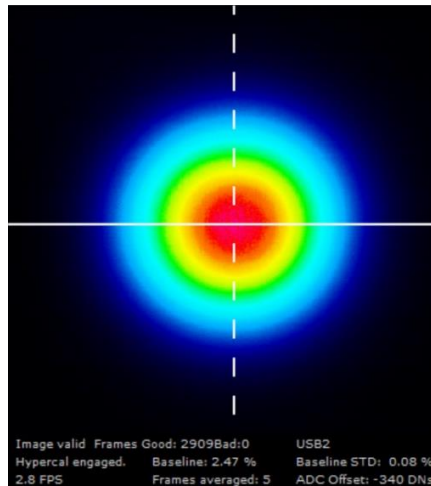
# Large Beam Profiling System

Analysis of beams up to 200 mm in diameter, with no effect of speckle

The Large Beam Profiling System is a complete solution for measuring large beams by illuminating a rotating diffusely reflective surface with the beam and using a high quality lens to reimage the intensity distribution onto the camera sensor. The LBPS overcomes typical problems with this method by eliminating the effect of speckle, calculating an accurate pixel multiplication factor, and correcting for geometric beam distortion.



A stationary laminate viewing screen results in a speckle effect due to optical interference



The rotating laminate viewing screen eliminates the effect of speckle

The LBPS is compatible with DataRay's full-featured, highly customizable, user-centric software which has no license fees, unlimited installations, and free software updates. The sensor used in the LBPS is DataRay's flagship WinCamD-LCM4 beam profiling camera; the LBPS extends its capabilities to measure large beams.

## APPLICATIONS

- Large beam laser profiling
- Full intensity distribution analysis
- Major/minor diameter measurements

## SYSTEM FEATURES | LBPS-300

- 355 to 1150 nm, CMOS detector
- Image plane (sensor): 4.2 MPixel, 2048 x 2048 pixels, 11.3 x 11.3 mm active area
  - 5.5 μm pixel size
- Reimaging Lens: 12.5 mm focal length, f/1.4-f/16
- Object plane (disk): 300 mm diameter
  - 170 μm effective pixel size
- *Rotating* laminate disk to eliminate the effect of speckle due to interference of waves
- 12 fps 2048 x 2048
- 30 fps 1024 x 1024
- 60 fps 512 x 512
- **HyperCal™** – Dynamic Noise and Baseline Correction software
- 2,500:1 Signal to RMS Noise
- Global shutter with optical and TTL trigger
- Electronic auto-shutter, 79 μs to 2 sec (34dB)
- 12-bit ADC
- Window-free sensors standard for no fringing

Please contact DataRay to discuss options for custom requirements

