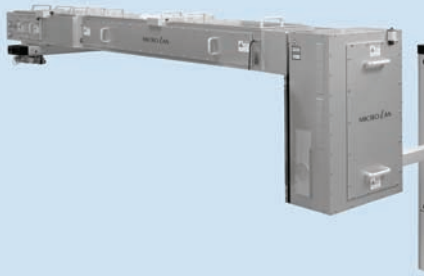




# LineBeam Series 3

## Deep-UV Optical System



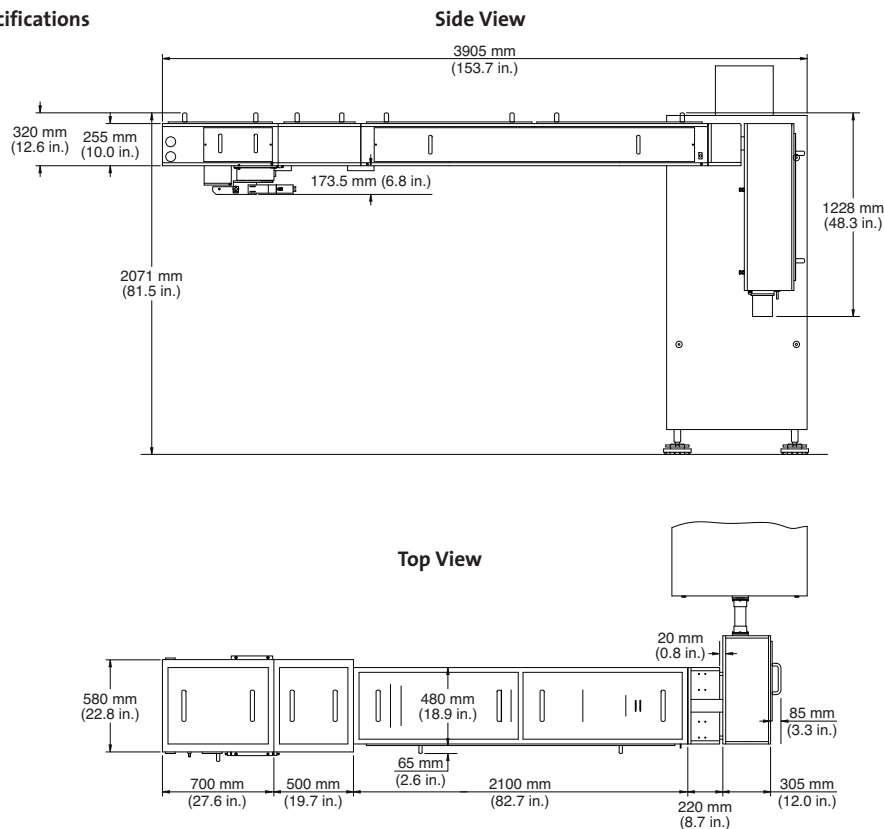
### Features

- Excellent beam profile homogeneity
- Outstanding optical lifetime performance
- Display industry proven technology, large installation base world wide
- Standard technology for silicon annealing process (LTPS-LCD, OLED)
- Flexible and adaptable for various applications (e.g. ELA, LLO, Activation)
- Perfect match with LAMBDA SX and LEAP excimer lasers

### Options

- Micro Smoothing Device
- Beam Profiler
- Pulse Duration Extender
- Alignment Tool
- Energy Density Monitor

### Mechanical Specifications



### Superior Reliability & Performance

# LineBeam™ Series 3

## Deep-UV Optical System

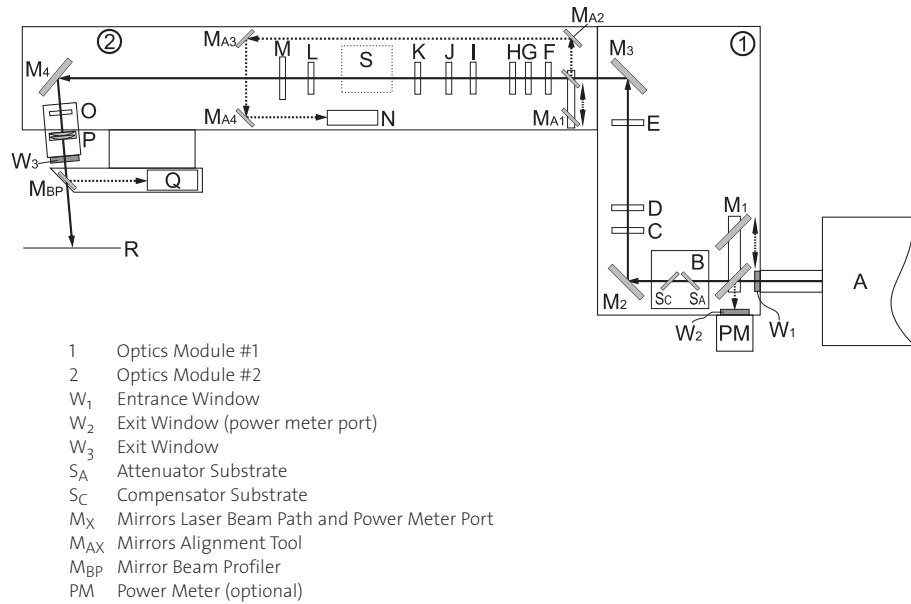
### System Specifications

| LineBeam                                                            | LB250          | LB275          | LB370          | LB380          |
|---------------------------------------------------------------------|----------------|----------------|----------------|----------------|
| Wavelength (nm)                                                     | 308            | 308            | 308            | 308            |
| Energy Density (mJ/cm <sup>2</sup> )(at laser pulse energy 1050 mJ) |                |                |                |                |
| Specification                                                       | ≥650           | ≥620           | ≥450           | ≥430           |
| Typical Value                                                       | ~800           | ~720           | ~550           | ~530           |
| Beam Length (mm)                                                    | 250            | 275            | 370            | 380            |
| (at 96% from mean value)                                            | (+10/-0)       | (+10/-0)       | (+10/-0)       | (+10/-0)       |
| Beam width (μm)                                                     | 400            | 400            | 400            | 400            |
| (at 96% from mean value)                                            | (±10)          | (±10)          | (±10)          | (±10)          |
| Homogeneity Long Axis (at 96% from mean value)                      |                |                |                |                |
| Specification                                                       | ≤1.4%, 2 sigma | ≤1.4%, 2 sigma | ≤1.4%, 2 sigma | ≤1.4%, 2 sigma |
| Typical Value                                                       | ≤1.0%, 2 sigma | ≤1.0%, 2 sigma | ≤1.0%, 2 sigma | ≤1.0%, 2 sigma |
| Steepness short axis (μm)                                           | ≤100           | ≤100           | ≤100           | ≤100           |
| (90% to 10%), open slit                                             |                |                |                |                |
| Depth of focus (DOF)(μm)                                            | ±200           | ±200           | ±200           | ±200           |

### System Overview

#### LineBeam Optics 380

- A Laser
- B Attenuator Module
- C Telescope Lens TL1
- D Telescope Lens TL2
- E Telescope Lens TL3
- F Homogenizer Array (LAH1)
- G Homogenizer Array (LAH2)
- H Condenser Lens (CLLA)
- I Homogenizer Array (SAH1)
- J Homogenizer Array (SAH2)
- K Condenser Lens (CLSA)
- L Field Lens (FL)
- M Slit Mask
- N CCD Camera Alignment Tool
- O Field Curvature Correction Lens (FCCL)
- P Projection Lens Doublet
- Q Beam Profiler CCD Camera and Power Meter
- R Substrate Surface
- S Micro Smoothing Device (optional)



Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all LineBeam optical systems. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative.



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