

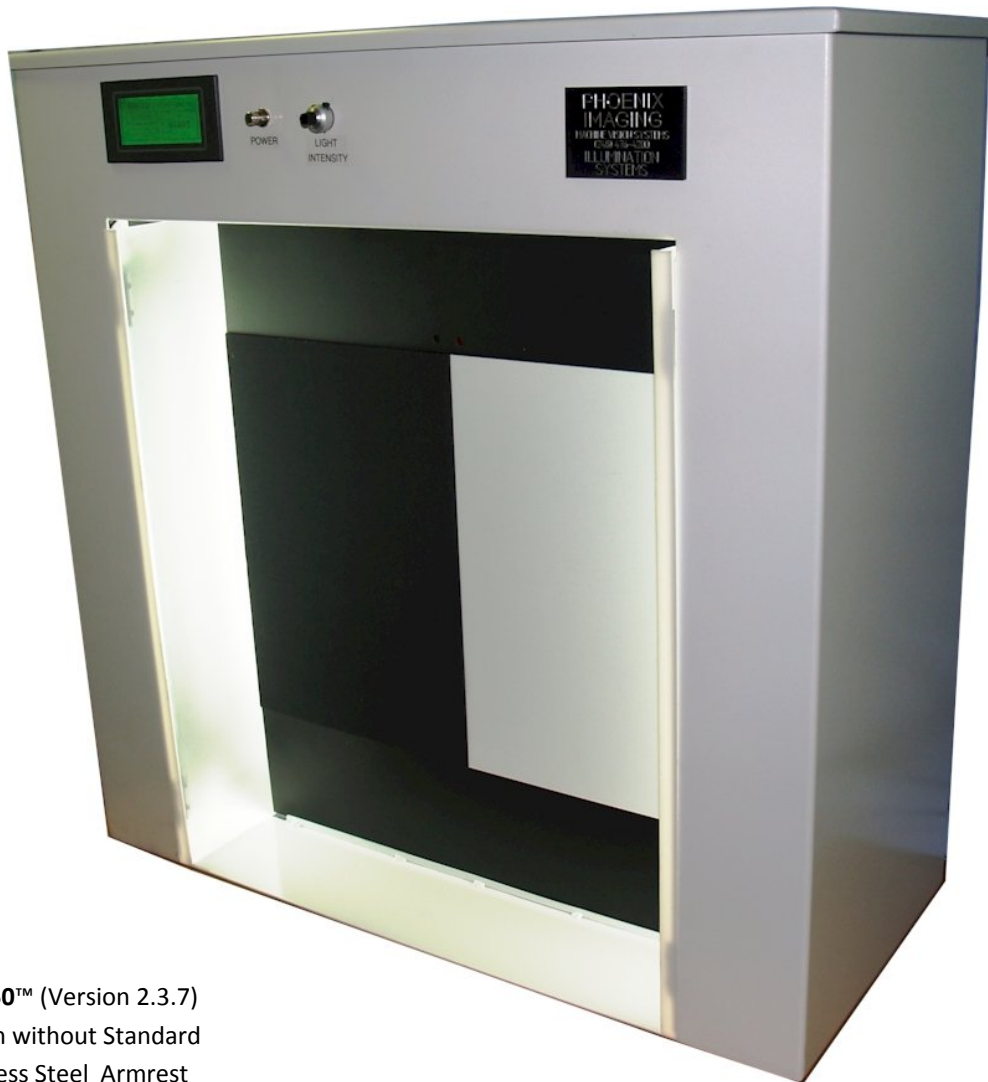


# PHOENIX IMAGING, LTD.

Providing Equipment and Tools for Manual Inspection

## MIB-50™

Precision Engineered Lighting Equipment



MIB-50™ (Version 2.3.7)  
shown without Standard  
Stainless Steel Armrest

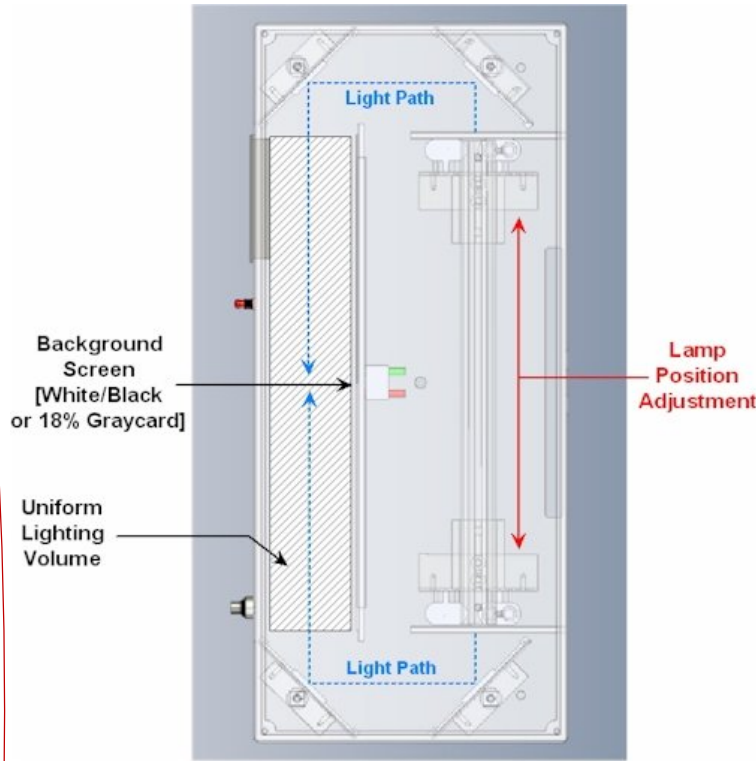
## Advanced Dual-Sided Lighting System

Left / Right Side Lamp Orientation  
Benchtop Unit

Manual  
Inspection  
Solutions  
That Work

# Technology at work for you

## MIB-50™ MANUAL INSPECTION BOOTH



MIB-50™ Folded Mirror Light Path

The latest iteration of the MIB-50™ is now offered after its second major revision since conception. The dual lighting configuration remains a key feature as well as the feedback circuitry to maintain constant luminous flux from the lamps. The folded mirror light path of the MIB-50™ permits a small foot print for the benchtop as well as maintaining the adjustable lamp positions.

The lamp position is adjusted by simply removing the White/Black Background and sliding the lamp plates to the desired position. The light intensity is decrease when the light plates are moved toward each other and increased when the light plates are moved away from each other. The light intensity can also be adjusted with the "Master Intensity Control" located on the front of the MIB-50™ enclosure.

The dual-sided lighting provide very uniform light intensity ( $\pm 10\%$ ) inside the inspection volume of about 6 L.

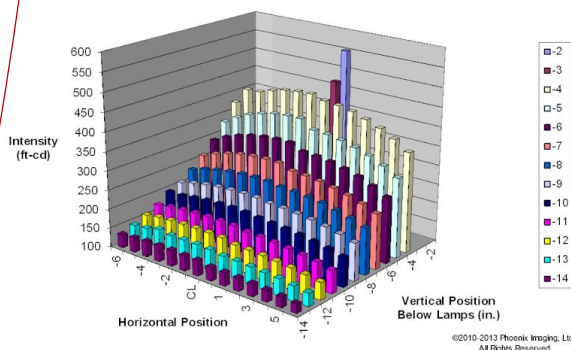
## flexible solutions for your inspection needs

### MIB-50™ DESIGN BENEFITS

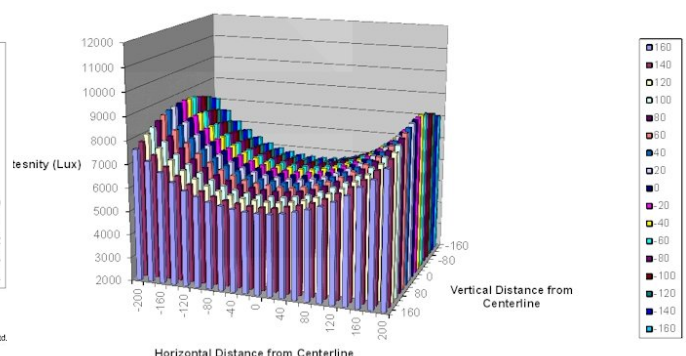
The core of the MIB-50™ design is the Dual-Sided which provides a large inspection volume (>8 L) in which the light intensity varies by less than 10%. This is made possible by the light entering the inspection volume from both the left and right sides. As one moves further from one light source, the light intensity from that source will decrease while the light intensity from the opposite source will increase, keeping the total light intensity approximately the same. The advantage of this configuration is that the intensity in front of the White and Black backgrounds can be made equal. The lighting system uses advanced lighting controllers with lamp monitoring feedback to maintain constant light intensity for the life of the lamps. As the lamps age, the lighting system will automatically adjust the current to keep the lamp output at the user specified intensity. The lighting controllers drive the lamps at 55 KHz to provide "flicker-free" lighting inside the inspection volume. The light intensity in the inspection volume can be adjusted between 2,000 and 8,000 Lux.

The MIB-50™ product is superior to other lighting configurations because it offers a uniform inspection volume that is much larger. The Light Intensity Maps shown below are for the common inspection booth with two lamps mounted above the inspection volume (left diagram) and that of the MIB-50™ inspection volume (right diagram). The inspector is not required to hold the product in exactly one position for consistent light intensity.

Intensity vs. Distance from Lamps (2 x 40 Watts)



MIB-50 Light Intensity Map [Black Left / White Right]



# MIB-50™

## Standard Components

The MIB-50™ includes all of the features as standard equipment, all you have to provide is power.

### Master Intensity Control:

The Master Intensity Control is used in conjunction with the internal light plate slides to adjust the light intensity in the inspection volume. The Master Intensity Control can adjust the booth intensity by about 50%. It is used for precise adjustment of the light intensity.

### Touch Screen Operator Interface:

The Operator Interface provides access to the MIB-50™ Setup menus. It also displays the current inspection time for the electronic pacer and counts for "Accept" and "Reject" products. The screen is normally Green when system is functional, Red with alarm condition or during inspection sequence.

### Stainless Steel Armrest:

The stainless steel armrest attached to the front of the MIB-50™ is used to front-arm position to align with the center of the inspection volume. The height of the armrest can be adjusted by loosening the two knobs and moving the serrated brackets up or down to the desired position.

### Replaceable White / Black Background:

Easy to install / easy to remove and replace White / Black Inspection Background. The background is attached using Velcro fasteners. Should the background get damaged during use, it can be easily changed without tools.

### Light Curtain Option: (Version 3.1+, mounted inside enclosure)

The light curtains are used to Start / Stop Inspection Sequence. It requires that the product in held in the inspection volume of MIB-50™ for pacer to count down.

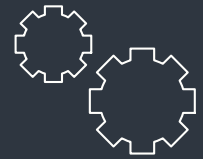
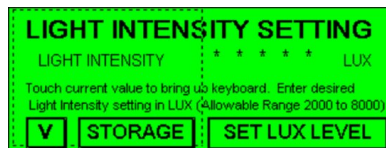
### Heavy Duty 2 Position Foot Pedal: (cable connection in rear)

The foot pedal is used to Start / Stop Inspection Sequence and to register Accept and Defect product conditions. Standard component on the MIB-50™.

### Digital Intensity Control:

This is a new option for the MIB-50™ that allows the user to simply input the desired intensity value for the center of the booth and the system will go to that intensity. This option is only available on the MIB-50™ (Version 3.1 or later).

This option must be ordered at the time of system fabrication.



## CUSTOM SOLUTIONS

Not all manual inspection projects can be performed using standard products. Some of the applications require custom hardware or system calibration. Phoenix Imaging will work with customers to create a Custom Tailored Solution (CTS) to meet exact customer requirements for both fit and function.



## CALIBRATION SERVICES

When customer service is required we offer both On-Site and On-Line whenever possible. The Calibration service provides customers with the knowledge that their lighting system has been balanced and functioning correctly. All calibrations are performed using NIST traceable light meters and instrumentation.



## EBUSINESS SOLUTIONS

Continuous product improvements often require modifications to the inspection software. Any changes to a customer's application are automatically logged in the secure project server. Any version of a customer's application is available for download upon request.



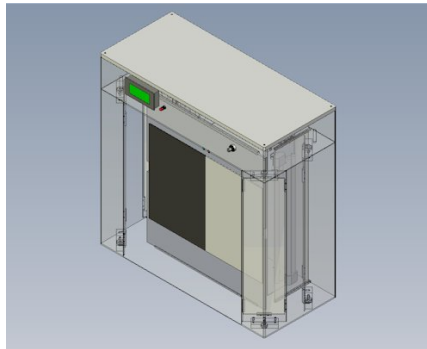
# MIB-50™

## MIB-50™ Specifications

### System Power Requirements:

115VAC, 4.5 A, 1 Ø  
220VAC, 2.25 A, 1 Ø

Width (without armrest):	978 mm (38.50")
Width (with armrest):	978 mm (38.50")
Depth (without armrest):	428 mm (16.88")
Depth (with armrest):	584 mm (23.0")
Height:	812 mm (32.0")



The MIB-50™ system is offered in both 100—120 VAC and 200—220 VAC editions. Please specify the geographical region in which the MIB-50™ will be used at the time of order. All of the MIB Lighting Controllers are now equipped with Power Factor Correction (PFC) to meet European and world standards for operation. The Operator Interface Display now has a built in SD slot to allow easy software upgrades. The lamp mounting plates are now equipped with roller bearing guides for easy lamp position adjustment. The new **Digital Intensity Control** makes changing the light intensity as simple as a push of a button.

Our instrument laboratory is equipped with the latest optical, illumination and image processing technology. We have designed over 500 different types of lighting modules, including Custom and Standard models of High Frequency Fluorescent and LED lighting. A full line of advanced machine vision systems using the latest image processing technology. Whether the applications requires intelligent vision sensors or high speed multiple-core vision processors, Phoenix Imaging offers a solution for your unique application.

optical  
gaging  
technology  
& consulting



### Other Phoenix Imaging PRODUCTS

- MIB-40™ Low Cost Entry Top-lighting Unit, Benchtop
- MIB-50™ Dual-Sided Lighting System, Benchtop, Left-Right Light Path. Pacer PLC standard.
- MIB-70™ Dual-Sided Lighting System, Benchtop, Top-Bottom Light Path. Pacer PLC and Light Curtain Control Available.
- MIB-75™ Dual-Sided Lighting System, Benchtop, Top-Bottom Light Path, Basic System, No PLC.
- MIB-90™ Dual-Sided Lighting System, Floor Standing, Top-Bottom Light Path, stainless steel arm-rest, large hooded work area, hydraulic height adjustment.
- MIB-100™ Dual-Sided Lighting System, Floor Standing, Top-Bottom Light Path, Corian arm-rest, PLC and Pacer Controls, (this model is the Industry Standard).
- RLPS™ Referee Level Particle Standards.

Phoenix Imaging offers a wide range of special machine vision tools for a wide range of applications. From simple filter paper particle counters to non-destructive in-situ vial / cartridge particle detection / measurement systems. Phoenix Imaging will offer to perform an in-depth evaluation of your project for a nominal fee. The engineering fee may be applied to the project cost if feasibility is demonstrated and the customer decides to



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