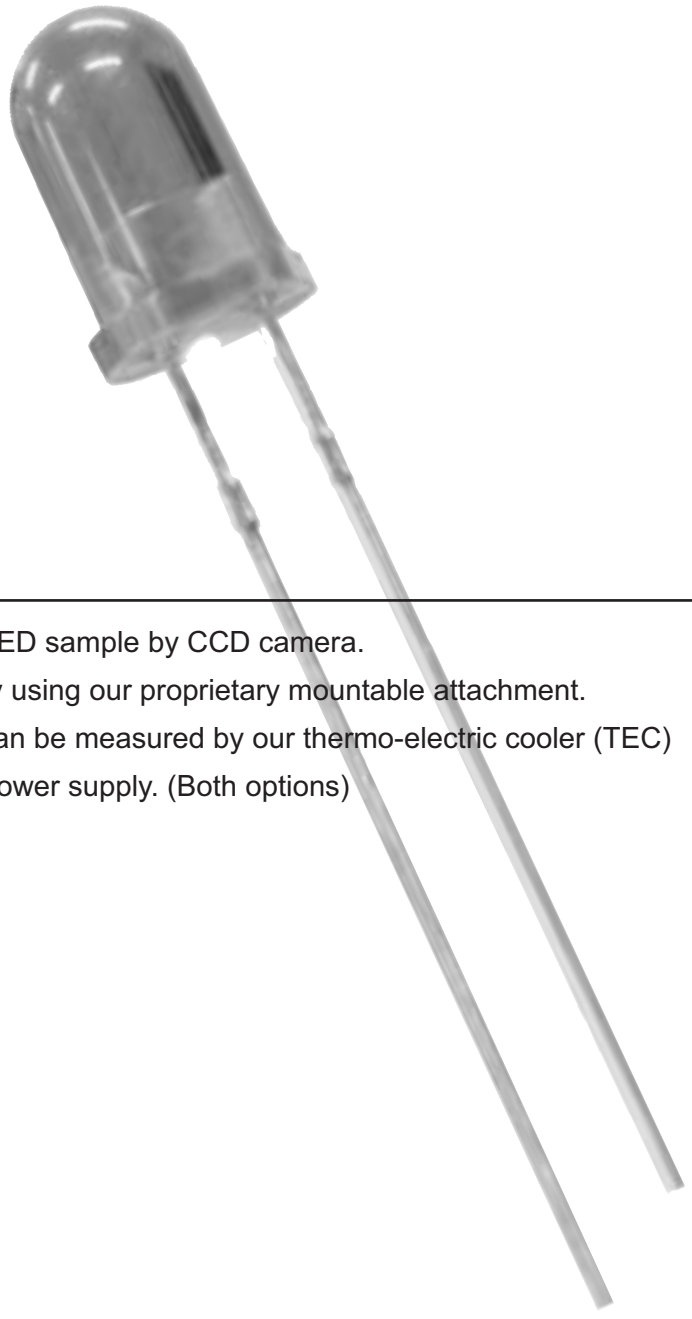
GMP
General Microtechnology & Photonics
Systems for Industry, Research, Telecom & Medicine

ASAHI SPECTRA USA

# LED Profiler

## IMS-5000

## Features

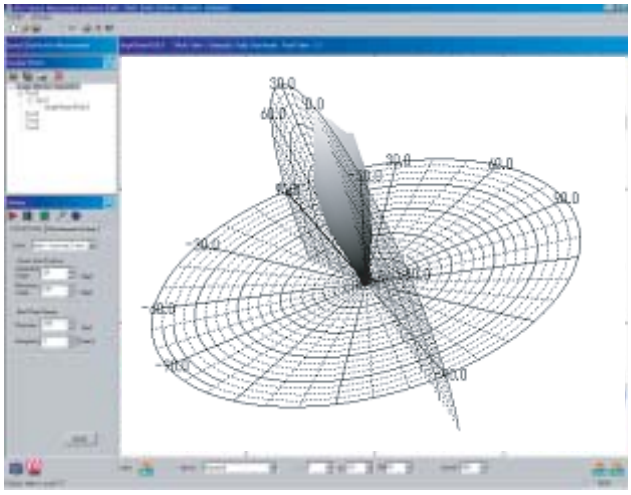
I) Precise alignment of LED sample by CCD camera.

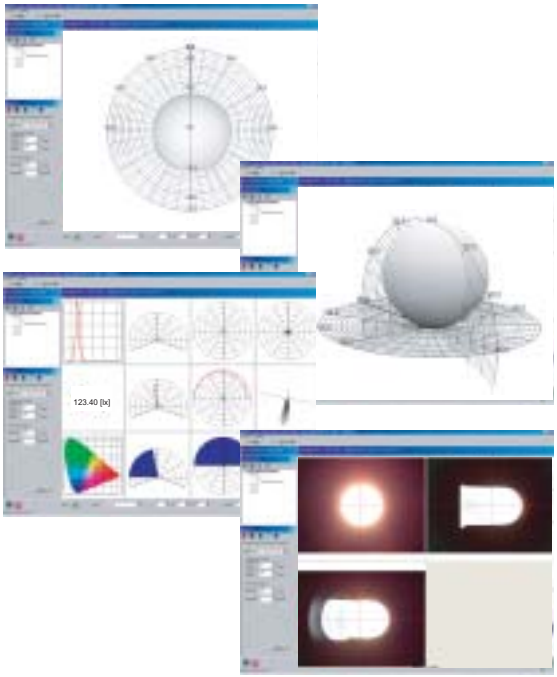
II) Easy setting of LED by using our proprietary mountable attachment.

III) Genuine LED profile can be measured by our thermo-electric cooler (TEC) and constant current power supply. (Both options)

**www.asahi-spectra.com**

## Software





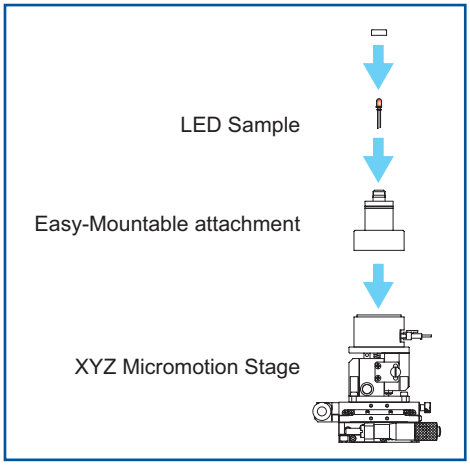
The proprietary software can show various types of graphs such as spectroradiometry, photometry, or colorimetry with 2D/3D polar/rectangular view.

## Easy-Mountable attachment for LEDs

Recently many kinds of LEDs with various size are available as LEDs market is growing up. We will offer two typical mountable attachments as standard set and they must help your easy mounting. Also any custom attachments available through Asahi Spectra. For more detail please contact us, info@asahi-spectra.com

**Standard Set**

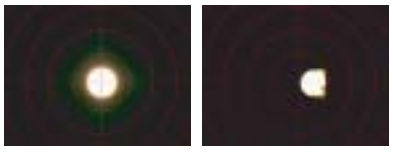
- **Oval LED, 3mm diameter**
- **Oval LED, 5mm diameter**



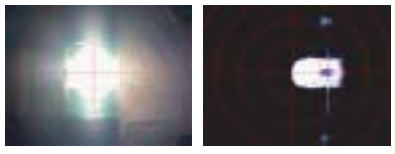

*Easy-mountable attachment for SMT LEDs available.

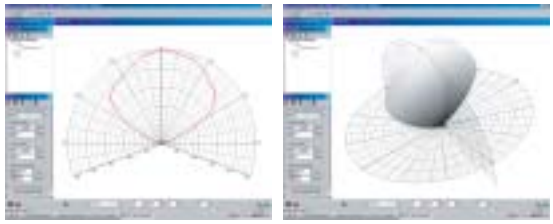
## Actual example

1. Sample: Oval LED 5mm diameter (Green)

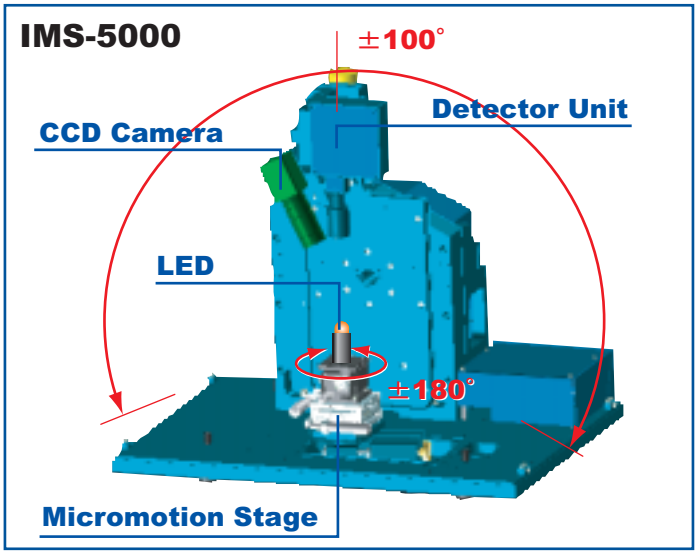


2. Sample: SMT LED (White)



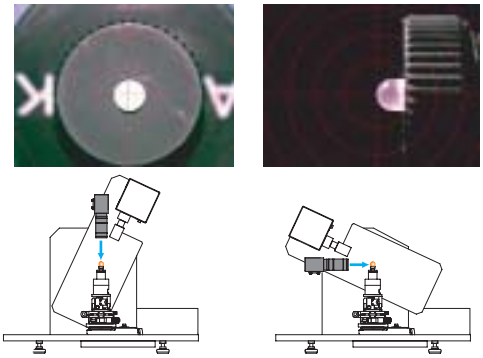


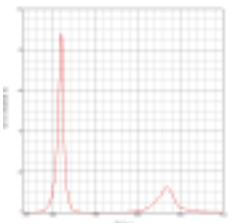
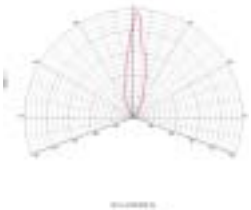
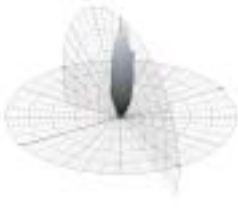
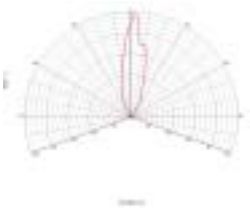
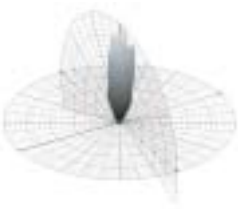
LED Profiler, IMS-5000 has released by Asahi Spectra as the most powerful instrument to evaluate unknown LED output characteristics among similar devices. The IMS-5000 can measure a spacial distribution in terms of spectral performance, illuminance, and CIE chromaticity of any illuminating object including but not limited LED. All operations are controlled by PC and the measurement is automatic.




## CCD Camera

As precise positioning is one of the most important factor to measure the sample, the IMS-5000 allow real time alignment of the sample while watching the PC monitor as seen from the CCD camera.



| | Optical Property | Spatial Distribution (2D Polar View) | Spatial Distribution (3D Polar View) | Others |
|---|---|---|---|---|
| Spectroradiometry |  |  |  | - Peak Wavelength [nm]<br>- Center Wavelength [nm]<br>- FWHM [nm]<br>- Spectral irradiance [$\mu$W/m$^2$] |
| Photometry | 123.40 [lx] |  |  | - Illuminance [lx]<br>- Luminous Intensity [cd] |
| Colorimetry |  |  |  | - Tristimulus Value (X, Y, Z)<br>- Chromaticity Diagram (x, y)<br>- Dominant Wavelength [nm]<br>- Color Purity [%]<br>- Correlated Color Temperature [K] |

## Standard Set

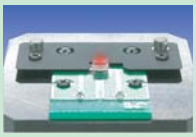
- LED Profiler
- Software (CD-ROM)
- Grating Polychromator for VIS (350-850nm)
- Communication Cable
- AC Cable
- Easy-Mountable attachments for oval LED with 3mm/5mm diameter
- CCD camera for positioning
- XYZ micromotion stage
-Desktop PC (Preinstalled Win XP, MS Office, and IMS-5000 Software)
-LCD Display (17 inch)

## Accessories

- Printer
- Any kinds of Easy-Mountable Attachment (SMT LEDs or others)
- Thermo-electric cooler **(Recommended)**
- Constant Current Power Supply **(Recommended)**
- Grating Polychromator for UV (250-740nm)
- Grating Polychromator for NIR (530-1000nm)
- Bandpass Filter
- Neutral Density Filter
- Exclusive Counter

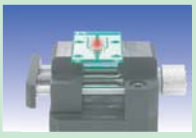
## Basic example of Custom Attachment


Mountable attachment Type-A


Mountable attachment Type-B


Mountable attachment Type-C


Mountable attachment Type-D (Oval Type)

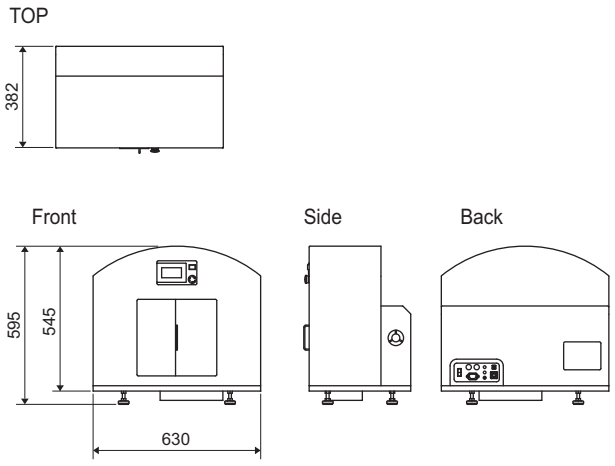

Mountable attachment Type-E

## Specifications

Model : IMS5000
Detector Unit : Grating Polychromator
: Single, Czerny-Turner
Focal Length : 75mm
F-number : 5.6
Wavelength : 350-850nm
Resolution : 5.5nm at 546.1nm
Wavelength Precision : +/-1.2nm
Wavelength Reproducibility : +/-0.6nm
Stray Light : 0.1%
Sensor : NMOS (Linear Image Sensor ,1024 elements)
Exposure Time : 20 msec - 30 sec

Minimum Measurable Angle : Detector Arm 1 degree
: Stage 1 degree
Operational Range : Detector Arm +/-100 degree
: Stage +/-180 degree
Method of Scanning : Step Scan
Stage : XYZ Micromotion Stage
: X-axis Direction Stroke +/-12.5mm (Manual)
: Y-axis Direction Stroke +/-12.5mm (Manual)
: Z-axis Direction Stroke +/-5mm (Manual)
XYZ Indication : Analog Indication by Micrometer

Input Voltage : AC85V - 264V 50/60Hz
Power Consumption : 80VA
Interface : RS485
Environmental Conditions : Temperature 5-35 degree celsius
(Operating within performance specifications) : Humidity 20-80% (non-condensing)
Dimentions : 630(W) x 382(D) x 595(H) mm
Weight : 64 kg



Units : mm

*We accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation.

ASAHI SPECTRA USA
23505 Crenshaw Blvd., Suite 229 Torrance, CA 90505 USA
TEL : 310.530.5855 / FAX : 310.325.8974
Email : info@asahi-spectra.com
www.asahi-spectra.com

GMP
General Microtechnology & Photonics
Systems for Industry, Research, Telecom & Medicine
www.gmp.ch
GMP SA Siège principale: Avenue des Baumettes 17 CH-1020 Renens +41 21 633 21 21 Fax. +41 21 633 21 29 info@gmp.ch
GMP SA Succursale de Zürich: Dübendorfstrasse 11a CH-8117 Fällanden +41 44 825 34 00 Fax. +41 44 825 34 01 info@gmp.ch