



FEASA™ LED Spectrometer

The Innovative Solution for Testing LEDs



Feasa's LED Spectrometer

The Feasa LED Spectrometer has been designed specifically to allow testing of LEDs on populated PCBs where access is limited.

The Feasa LED Spectrometer includes customised on-board firmware for automatic colour calculation in multiple colour spaces. It uses a similar easy to use set of commands as the Feasa LED Analyser.

When your quality demands Traceable Measurements the Feasa LED Spectrometer provide an ideal solution. Traceable Measurements can be obtained for Luminous Flux (Lumens) and Wavelength.

The Spectrometer is compatible with all Feasa LED Analysers to ensure production setup meets customer requirements.

- ◆ Wavelength Operating Range - 380nm to 780nm
- ◆ Automatic exposure control and Range Selection built-in
- ◆ Ideal for testing RGB LED's and Colour Mixing
- ◆ Simple and easy Command structure
- ◆ Can be controlled by User Programs.
- ◆ Measurements are easily transferrable to the existing range of Feasa LED Analysers



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

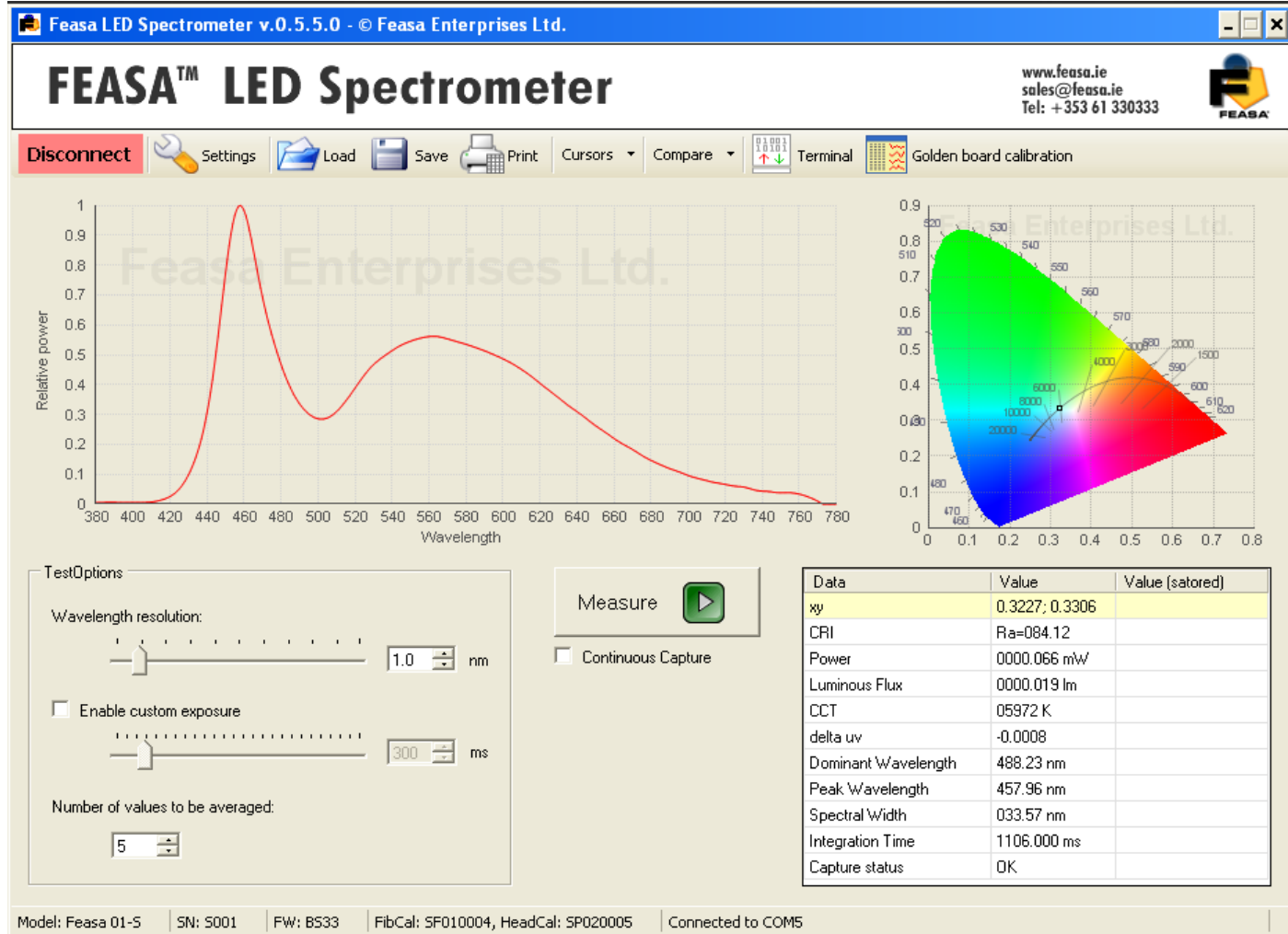
Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.



FEASA™ LED Spectrometer

The Innovative Solution for Testing LEDs



Included Software

Feasa User Graphical Display Program
Datalogging, Compare Function
Terminal and Scripting Program export CSV format
Compatible with Windows 7, 8, XP, Vista



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.



FEASA™ LED Spectrometer

The Innovative Solution for Testing LEDs

SPECIFICATIONS

OPTICAL Spectral Range Minimum Wavelength Step Integration Time	380nm to 780nm 0.1nm 2ms to 100s
ACCURACY xy Chromaticity ^{*1, *2} Power (Watts) ^{*1, *2} Luminous Flux (Lumens) ^{*1, *2} Peak Wavelength	±0.005 10% 10% ±1nm
REPEATABILITY Wavelength Chromaticity xy Intensity	±0.5nm ±0.0005 < 1%
ELECTRICAL USB Powered	Current drawn 100mA
PHYSICAL Dimensions of Spectrometer Fiber Length Fiber Diameter Operating Temperature Range	86mm x 57mm x 75mm 0.6m 5.1mm, incl. cladding 0°C to +40°C

^{*1} – Immediately after calibration relative to the calibration standard

^{*2} – When calibrated with a Miniature Integrating Sphere.



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.



FEASA™ LED Spectrometer - Integrating Spheres

The Innovative Solution for Testing LEDs



Feasa's Range of Integrating Spheres specifically designed for testing LEDs

The Feasa range of Integrating Spheres have been specifically designed to test LEDs on Printed Circuit Boards and to measure LEDs in a Laboratory.

- ◆ Used in conjunction with the Feasa Spectrometer to generate absolute and traceable measurements for Chromaticity, Luminous Flux and Power.
- ◆ Allows the Test Engineer to generate a LED board with known values for Colour and Intensity (Known Good Reference Board).
- ◆ The compact size of the Spheres allow access to LEDs placed in close proximity to other components on the PCB.
- ◆ Measurements are easily transferable to the existing range of Feasa LED Analysers.
- ◆ Various Entrance Port sizes available. Customized Spheres available on request.



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.



FEASA™ LED Spectrometer - Luminance Head (cd/m²)

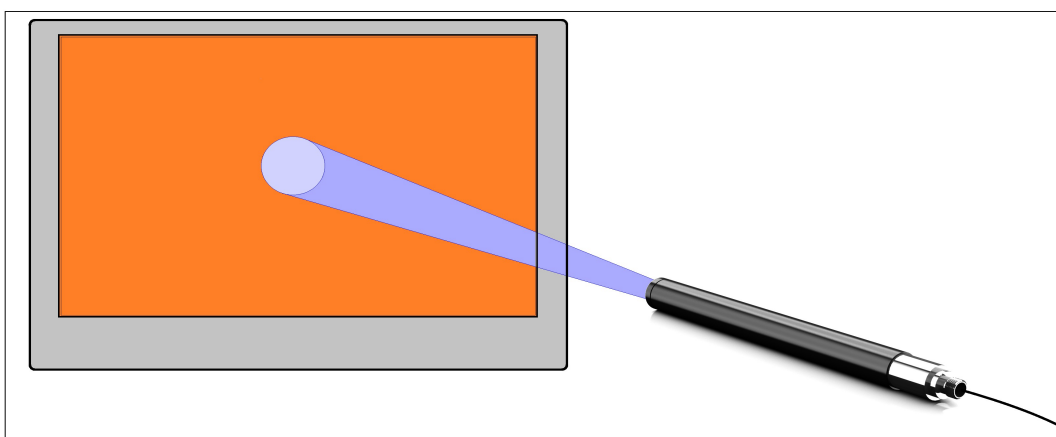
The Innovative Solution for Testing LEDs



Feasa's Luminance Head for Measuring Automotive Displays.

The Feasa Luminance Head has been specifically designed to measure the Luminance/Radiance and colour of Automotive Displays.

- ◆ Used in conjunction with the Feasa Spectrometer to generate absolute and traceable measurements for Chromaticity and Luminance (cd/m²).
- ◆ Uses Industry Standard Fiber Optic Connectors and Patch Cords.
- ◆ Various Aperture sizes available.



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.



FEASA™ LED Spectrometer - Luminous Intensity Head (mcd)

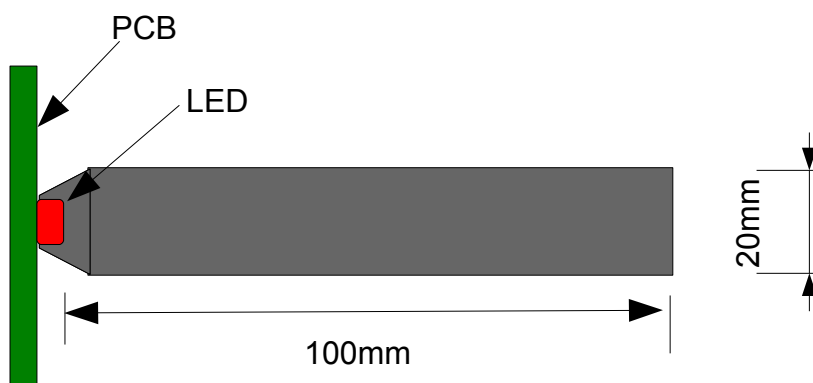
The Innovative Solution for Testing LEDs



Feasa's Luminous Intensity Head is specifically designed for measuring Luminous Intensity.

The Feasa Luminous Intensity Head has been specifically designed to measure the luminous intensity of LEDs.

- ◆ Used in conjunction with the Feasa Spectrometer to generate absolute and traceable measurements for Chromaticity, Luminous Intensity and Radiant Intensity.
- ◆ Uses Industry Standard Fiber Optic Connectors and Patch Cords.
- ◆ Complies to CIE Condition B.





FEASA™ LED Spectrometer

The Innovative Solution for Testing LEDs

ORDERING INFORMATION

Feasa Spectrometer

Part Number	Dimensions	Fiber Length	Fiber Diameter
S1	86mm x 57mm x 75mm	0.6m	5.1mm inc cladding

Integrating Spheres (lm)

Part Number	Dimensions	Maximum LED Diameter	Connector	Optical Range Based on Cool White LEDs
SP13	Diameter 25mm Length 39mm	10mm	SMA	0.1lm - 100lm
SP23	Diameter 25mm Length 43mm	10mm	SMA	50lm – 2500lm
SP8025	Diameter 80mm Length 95mm	25mm	SMA	10lm – 1000lm
SP8035	Diameter 80mm Length 95mm	35mm	SMA	10lm – 1000lm
SP8045	Diameter 80mm Length 95mm	45mm	SMA	10lm - 1000lm

Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.

Page 7 of 8

Rev No. 2.00 – 15th March, 2018





FEASA™ LED Spectrometer

The Innovative Solution for Testing LEDs

ORDERING INFORMATION

Luminance Head (cd/m²)

Part Number	Dimensions	Minimum Measuring Area	Connector	Acceptance Angle
LU07	Diameter 12mm Length 147mm	7mm	SMA	1.7°
LU04	Diameter 12mm Length 147mm	4mm	SMA	1.7°

Luminous Intensity Head (mcd)

Part Number	Dimensions	Minimum Measuring Area	Connector	Fiber Access
CD04	Diameter 20mm Length 130mm	4mm	SMA	Top
CD08	Diameter 20mm Length 130mm	8mm	SMA	Top

Armoured Fiber Optic Cable

Part Number	Length	Connector A	Connector B	Metal Clad Fiber Diameter
FP02	600mm	FC-PC Plug	SMA-Plug	5.1mm



Feasa Enterprises Ltd.

Castletroy • Limerick • Ireland

Telephone: + 353 61 330333 - Fax : + 353 61 330452 - Website: www.feasa.ie

Registered Office: Feasa Enterprises Limited, Holland Road, National Technology Park, Castletroy, Co.Limerick, Ireland.
Registered in Ireland, No. 106933. Copyright © 2011 Feasa Enterprises Limited. All rights reserved.