

FF360 – A FAR FIELD MEASUREMENT MODULE



FF360 is a state of the art instrument for emitted light far field scanning and profiling. The scanner is a compact stand-alone module with fully integrated electronics and opto-mechanics.

FF360 has been designed to fulfill the increasing demands on light emitting component beam quality analysis and testing. The extremities of newly developed FF360 include widest operating and measuring ranges in the industry. This all can be done without sacrificing speed performance, a typical measurement cycle takes only seconds making it suitable for production testing of light emitting components.

APPLICATIONS

- Laser diode and LED light spread angle analysis
- Fiber output profiling
- LED color vs angle analysis
- Automated Laser or LED quality assurance testing
- Far field characterization in R & D

HIGHLIGHTS

- Industry's widest wavelength range
- Goniometric detector design
- Fast scanning speed up to 200 degs/s
- Sampling resolution down to 0.01°
- Noise free measurement of pulsed light through adjustable sample integration time
- High dynamic range as standard feature

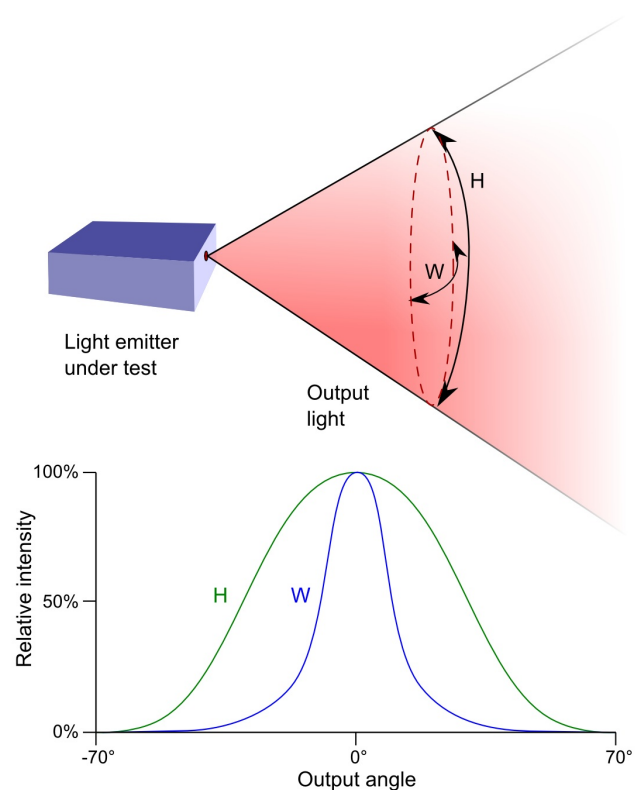


Fig.1. Typical light beam shape to be measured with FF360

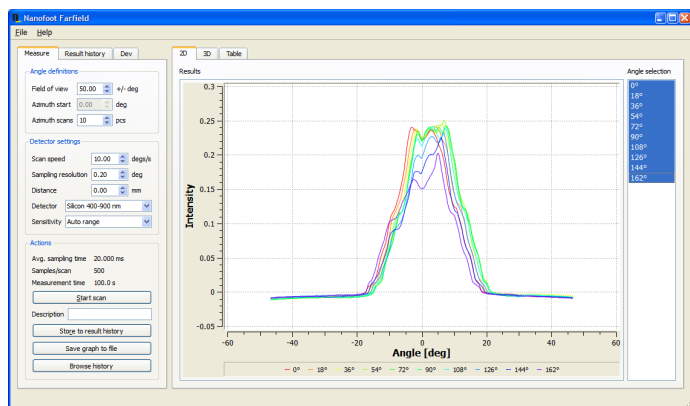


Fig.2. Scanner user interface displaying 2D scan graphs of LED

SOFTWARE FEATURES

- Easy setting of scan parameters
- Automatic archiving of results
- Advanced plotting features: 1D, 2D and 3D plots, contour plot, polar plot
- Exportation of data into various file formats: CSV, PDF, PNG, PS, XML, etc.
- Numerical analysis of results
- Customizable to match customer's needs
- Integrable to automated measurement system

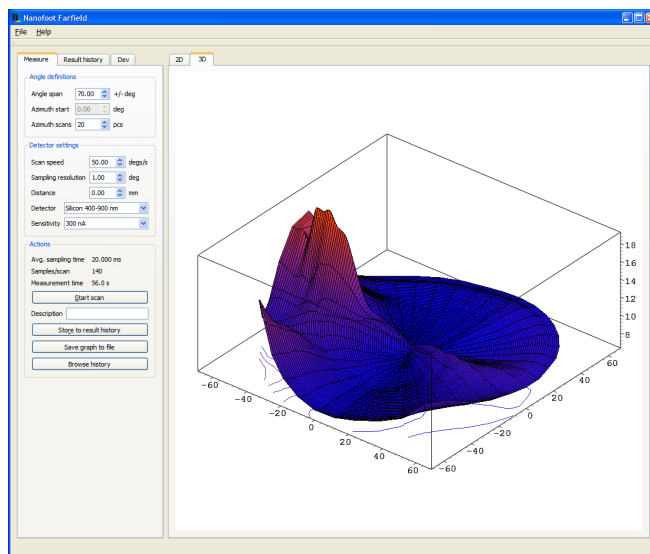


Fig.3. Scanner user interface displaying 3D scan plot

DELIVERY, PRICING, CONTACT DETAILS

We shall be pleased to make an application proposal and at the same time provide you pricing and delivery time information. Please contact Nanofoot:

Contact: tero.kontkanen@nanofoot.fi; or call + 358-50-595 4147

Web: www.nanofoot.fi

TECHNICAL DATA

	FF360-VIS-IR	FF360-RGB	Customized models
Wavelength range	400 – 1700 nm	Separate channels for red, green, blue	From 200 to 3000 nm
Field of view	± 90°		Up to ± 110°
Light input aperture	10 mm or SMA/FC fiber connector		1 – 50 mm, custom shape
Angle resolution ¹	0.01°		
Azimuth resolution	0.01°		
Input light power range	50 μW – 5W		10 μW – 50 W
Dynamic range ²	> 60 dB		Up to 90 dB
Sampling time ³	1 – 1000 ms		1 μs – 1 h
Scanning speed	0.5 – 200 °/s		
Photodiode sensitivity ranges	5 decades		
PC connection	USB		USB or Custom
Programming interface	Text commands through virtual COM port		Standard or custom
Power	12 Vdc 1.5 A		
Dimensions (L × W × H)	260 × 150 × 170 mm		

1) Angle is measured by internal angle sensor to guarantee accuracy

2) Dynamic range with single photodetector sensitivity setting. Combined with photodiode gain settings the total range exceeds 140 dB.

3) Integration/averaging time of single sample. Can be adjusted to cancel pulsed light noise.