MINI-DIFF V2
For 2D/3D scattered light measurements
Preliminary datasheet

Mini-Diff V2 is the latest version of our bestselling Mini-Diff instrument.

Some of the innovations in the Mini-Diff V2:
- Measurements of BSDF in red, green, and blue (RGB)
- TIS measurements for RGB
- Dynamic range has been increased from $10^4$ to $10^5$
- Colorimetric data: Lab or u'v'

BSDF Measurement Breakdown:
BRDF is measured for 4 angles of incidence (AOI): 0°, 20°, 40° and 60°.
BTDF transmissive module now measures 4 AOIs in BRDF.

The improvement that we are most excited about is the stability that we have built-in to the Mini-Diff V2. Your calibration will last longer, making it easier for you to take your measurements.

Software:
We have upgraded our software to provide a more intuitive interface, and we’ve added new software functions like a colorimetric viewing space and a sectional view for your 3D models.

Screenshots:
## Mini-Diff V2: Preliminary Datasheet

### Description

Handheld device for characterizing surface scattering (BSDF) and surface color.

### Light Sources

3 color collimated sources: Red, Green and Blue for RGB measurements.
- Red: 630nm [Δλ1/2=25nm]
- Green: 525nm [Δλ1/2=35nm]
- Blue: 465nm [Δλ1/2=25nm]

### Angle of Incidence

- For reflection measurements: 0°, 20°, 40° and 60°
- [Optional] For transmission measurements: 0°, 20°, 40° and 60°

### Dynamic Range

$10^5$

### BSDF Accuracy

< 5% (For Lambertian sample)

### BSDF Repeatability

< 2% (For Lambertian sample)

### Color Accuracy

Duv < 0.1

### Angular Aperture

-75° to +75° - Hemispherical measurement

### Effective Measured Area

$\Phi 1 \text{ mm}$

### Angular Resolution

1°

### Output Data

3D BSDF, 3D Angular Resolved Scatter (ARS)

### Exportation File Format

Exportation to optical simulation software (list available upon request)

### Package

- Mini-Diff V2 measurement device
- Standard reference materials (white and black)
- Measurement and post processing software + factory calibration
- USB cable
- Storage box
- User manual
- [Optional]: BTDF module + Standard BTDF Reference + RJ11 Cable

### Dimensions

- Storage box: 355*130*441 mm
- Mini-Diff V2 device: 100*100*300 mm
- [Optional] BTDF Module: 100*100*100 mm

### Weight

- Mini-Diff V2 device: 2 kg
- [Optional] BTDF Module: 0.5 kg