labodam


# Colorimeter

## LCC-A1 SERIES

www.labodam.com // info@labodam.com

## Colorimeter LCC-A10

The color card reading colorimeter LCC-A10 reads the colored samples. It is equipped with 2.4 inch screen to display the matching color card number on screen. It comes with built in color chart where after each measurement, instrument makes a match with three color numbers from the color charts for the colorist's reference.

### Features

- Equipped with color card for the measurement of the test sample
- 2.4 inch LCD display screen
- 8°/d (diffusion illumination system) with spectral components included (SCI)
- 100 sets of standard samples and 100 data groups for each sample storage capacity
- Display precision 0.01
- Repeatability precision $\triangle E$ standard deviation 0.08
- Whiteness values: hunter whiteness, Ganz whiteness, Yellowness values

### Applications

The color card reading colorimeter is widely used in printing and dyeing, clothing, decoration, food industry, plastic industry, Life science industry, pharmacy etc.

# Colorimeter

## Specifications

| Model no. | LCC-A10 |
|---|---|
| Color measurement method | Color card/ chart |
| Display mode | Colorimetric values: L*a*b, L*C*h, △E*ab, XYZ relative RGB values;<br>Color difference values: △(L*a*b), △(L*C*h);<br>Whiteness values: hunter whiteness,<br>Ganz whiteness<br>Yellowness value: YI |
| Display screen | 2.4 inch LCD display screen |
| Illumination system | 8°/d (diffusion illumination),<br>SCI (spectral components included) |
| Measuring calibration | About 8mm |
| Measuring condition | CIE $10^0$ standard observation/ CIE D65 light source |
| Measuring range | L* 1-100 |
| Storage | 100 sets of standard samples and<br>100 data groups for each sample |
| Measuring aperture | 8 mm |
| Repeatability | Standard deviation within △E*ab*<0.08<br>(Measuring condition: measuring white calibration board 80 times) |
| Measurement time | 0.5 s |
| Light source | LED halogen lamp |
| Power supply | Four 1.5V AA sized alkaline battery or nickel metal hydride batteries/DC5V |
| Interface | USB 2.0, printer |
| Weight | 550 g |
| Dimension (volume) | 77×86×210 mm |

# Colorimeter

## Colorimeter LCC-A11

The LCC-A11 is a cost effective product and is used for better test accuracy & measurement of YI yellowness or WI whiteness index. The measurement accuracy is enhanced through white & black calibration. Measurement can be done at multiple spots for average readings. This colorimeter gives ultra stable performance throughout the operations.

### Features

- Can manually set up L*a*b* value for standard samples
- 2.4 inch LCD display screen
- PC software & data control
- USB & Bluetooth for data transmission
- $8^0$/d (diffusion illumination system) with spectral components included (SCI)
- Provides accurate measuring time settings
- Display precision 0.01
- Large data storage space

### Applications

The colorimeter has applications in testing color of raw materials, products and its batches in Pharmacy, Life science, printing and dyeing, textile industry, decoration, food industry and plastic industry.

## Specifications

| Model no. | LCC-A11 |
|---|---|
| Display mode | Colorimetric values: L*a*b, L*C*h, △E*ab, XYZ, relative RGB values;<br>Color difference values: △(L*a*b), △(L*C*h);<br>Whiteness values: hunter whiteness,<br>Ganz whiteness<br>Yellowness value: YI |
| Display screen | 2.4 inch LCD display screen |
| Illumination system | $8^0$/d (diffusion illumination),<br>SCI (spectral components included) |
| Measuring calibration | About 8mm |
| Measuring condition | CIE $10^0$ standard observation/ CIE D65 light source |
| Measuring range: | L* 1-100 |
| Storage | 100 sets of standard samples and<br>100 data groups for each sample |
| Measuring aperture | 8 mm |
| Repeatability | Standard deviation within △E*ab*<0.08<br>(Measuring condition: measuring white calibration board 80 times) |
| Measurement time | 0.5 s |
| Light source | LED halogen lamp |
| Power supply | Four 1.5V AA sized alkaline battery or nickel metal hydride batteries/DC5V |
| Interface | USB 2.0, printer |
| Weight | 550 g |
| Dimension (volume) | 77×86×210 mm |

# Colorimeter

## Colorimeter LCC-A12

The LCC-A12 colorimeter comes with build-in micron camera for viewing the measuring area. It becomes convenient for operator to see & analyze the test measurement area. It is suitable for testing patterned and colorful samples. Measurement can be done at multiple spots for average readings. The colorimeter gives ultra stable performance throughout the operations.

### Features

- Equipped with camera viewing system
- Can manually set up L*a*b* value for standard samples
- 2.4 inch LCD display screen
- $8^0$/d (diffusion illumination system) with spectral components included (SCI)
- Display precision 0.01
- PC software & data control
- USB for data transmission
- Large storage data
- Provides accurate time measurement setting

### Applications

The colorimeter has applications in decoration, plastic, food, dyeing, printing, textile, chemical & other industries.

## Specifications

| Model no. | LCC-A12 |
|---|---|
| Characteristic function | Camera viewing system for measurement |
| Display mode | Colorimetric values: L*a*b, L*C*h, △E*ab, XYZ relative RGB values;<br>Color difference values: △(L*a*b), △(L*C*h);<br>Whiteness values: hunter whiteness,<br>Ganz whiteness<br>Yellowness value: YI |
| Display screen | 2.4 inch LCD display screen |
| Illumination system | $8^0$/d (diffusion illumination),<br>SCI (spectral components included) |
| Measuring calibration | About 8mm |
| Measuring condition | CIE $10^0$ standard observation/ CIE D65 light source |
| Measuring range: | L* 1-100 |
| Storage | 100 sets of standard samples and<br>100 data groups for each sample |
| Measuring aperture | 8 mm |
| Repeatability | Standard deviation within △E*ab*<0.08<br>(Measuring condition: measuring white calibration board 80 times) |
| Measurement time | 0.5 s |
| Light source | LED halogen lamp |
| Power supply | Four 1.5V AA sized alkaline battery or nickel metal hydride batteries/DC5V |
| Interface | USB 2.0, printer |
| Weight | 550 g |
| Dimension (volume) | 77×86×210 mm |

# Colorimeter

## Colorimeter LCC-A13

The colorimeter LCC-A13 offers the specular component excluded SCE measurement condition, specially designed for color measurement of powders, pasty materials, colloids and highly reflective materials. Both the yellowness & whiteness measurement can be done using this colorimeter. This colorimeter gives ultra stable performance throughout the operations.

### Features

- Can precisely test pasty material, powders
- $8^0$/d (diffusion illumination) system, SCE (spectral components excluded)
- 2.4 inch LCD display screen
- Measurement can be done at multiple spots for average readings
- Can perform both yellowness & whiteness measurement
- Can manually set up L*a*b* value for standard samples
- PC software & data control
- USB & Bluetooth for data transmission

### Applications

This colorimeter has major applications in dye and painting, decoration, Biotechnology, pharmacy food, printing industries for measurement of pasty materials & powders.

# Colorimeter

## Specifications

| Model no. | LCC-A13 |
|---|---|
| Characteristic function | Can precisely test pasty material, powders |
| Display mode | Colorimetric values: L*a*b, L*C*h, △E*ab, XYZ relative RGB values;<br>Color difference values: △(L*a*b), △(L*C*h);<br>Whiteness values: hunter whiteness,<br>Ganz whiteness<br>Yellowness value: YI |
| Display screen | 2.4 inch LCD display screen |
| Illumination system | 8°/d (diffusion illumination),<br>SCE (spectral components excluded) |
| Measuring calibration | About 8mm |
| Measuring condition | CIE $10^0$ standard observation/ CIE D65 light source |
| Measuring range: | L* 1-100 |
| Storage | 100 sets of standard samples and<br>100 data groups for each sample |
| Measuring aperture | 8 mm |
| Repeatability | Standard deviation within △E*ab*<0.08<br>(Measuring condition: measuring white calibration board 80 times) |
| Measurement time | 0.5 s |
| Light source | LED halogen lamp |
| Power supply | Four 1.5V AA sized alkaline battery or nickel metal hydride batteries/DC5V |
| Interface | USB 2.0, printer |
| Weight | 550 g |
| Dimension (volume) | 77×86×210 mm |

## Colorimeter LCC-A14

Colorimeter LCC-A14 can set L*a*b* value manually for standard samples. The measurement accuracy is assured through the white & black calibration. The colorimeter can be connected to PC software for color management, saving reports & other data control also it has USB connections for data transmission.

## Features

- 2.4 inch LCD display screen
- Use of white & black calibration assures accuracy
- Display precision 0.01
- PC software & data control
- USB for data transmission
- Provides accurate measuring time setting
- Can manually set up L*a*b* value for standard samples

## Applications

The colorimeter has applications in is clothing, testing color of materials, production and final batches in Pharmacy, Life science industries, printing and dyeing, decoration, food industry, plastic industry, etc.

## Specifications

| Model no. | LCC-A14 |
|---|---|
| Display mode | Colorimetric values: L*a*b, L*C*h, △E*abXYZ relative RGB values;<br>Color difference values: △(L*a*b), △(L*C*h) |
| Display screen | 2.4 inch LCD display screen |
| Illumination system | $8^0$/d (diffusion illumination),<br>SCI (spectral components included) |
| Measuring calibration | About 8mm |
| Measuring condition | CIE $10^0$ standard observation/ CIE D65 light source |
| Storage | 10 samples and 100 data groups for each sample |
| Measuring range: | L* 1-100 |
| Measuring aperture | 8 mm |
| Repeatability | Standard deviation within △E*ab*<0.1<br>(Measuring condition: measuring white calibration board 80 times) |
| Measurement time | 0.5 s |
| Light source | LED halogen lamp |
| Power supply | Four 1.5V AA sized alkaline battery or nickel metal hydride batteries/DC5V |
| Interface | USB 2.0, printer |
| Weight | 550 g |
| Dimension (volume) | 77×86×210 mm |