



COLORIMETER® CL 400

Courage & Khazaka

COLORIMETER® CL 400

BENEFITS

- Reproducible and accurate measurement of colour
- Quick measurement time
- Easy to handle
- Constant pressure for minimized effect on skin surface
- Does not require frequent, complicated and time consuming recalibration
- Calibration data stored in the probe
- Check calibration to ensure accuracy of measurements
- Specifically designed for measurements on skin with its unique reflective and absorption behaviour

Each of us is unique with a unique skin colour. The colour of our skin is made up of many different components including melanin (protective tanning pigment) and redness (erythema) and will vary depending on time of year and environmental influences. The human eye is very sensitive in assessing colour but if those colours are separated by space or time it is much less effective. This is where objective measurement of colour can be so valuable.

The Colorimeter specifically measures skin colour. The measuring values are expressed as xyz values and are calculated in L^*A^*B and RGB as index values provides a quick, easy and accurate method to measure melanin and erythema in the skin.

MEASUREMENT PRINCIPLE

The probe emits white LED light that is arranged circularly to uniformly illuminate the skin. The emitted light is scattered in all directions, some parts pass through the layers of the skin and are scattered out of the skin. The light that is reflected is measured by the probe. The raw data is processed with a special colour matrix and expressed as an xyz value (tristimulus) that can be calculated to provide an L^*a^*b related value (L =brightness, a and b are the coordinates in the colour space) and RGB (red green blue).

FIELDS OF APPLICATION

- Ideally suited for product development, claim support and efficacy testing
- Can be used for objective colour assessment for testing sun screen products, self tan-ners, skin lightening products, decorative cosmetics and carotene food supplements
- Can be used for investigating age spots, sun damage, and treatment of skin disease
- Suitable for medical surveys
- Assessing skin colour in a range of research applications

AVAILABLE FORMATS

MULTIPROBE ADAPTER SYSTEM

The Colorimeter® CL 400 probe can be plugged in to all of the computer driven MPA devices (MPA 2, MPA 6, MPA 10 & Cutometer® dual MPA 580)

MULTI DISPLAY DEVICE MDD 4

The Colorimeter® CL 400 is available as a stand alone device through the MDD 4. Supplied with a room condition sensor it is possible to add a further two measurements. In addition to the colour screen for displaying results the MDD 4 can be connected to a computer and measurements recorded using the MPA software.

WIRELESS PROBE

Measurements are transmitted via radio to a small receiver unit RR 200 which is connected to the computer at the USB port. The values can be transmitted from a distance of 5-10 m. The values are collected using special MPA Wireless software. The probes are battery operated.

TECHNICAL INFORMATION

Dimensions: Length 126 mm, Illumination: Ø 24mm, measuring area: Ø 8mm Weight: 85g, Illuminated area approx 17mm Ø Light: 8 white LED arranged circularly, range of emitted wavelengths: 440-670 nm. Calibration to skin colours with a special correction matrix. Technical changes may be made without prior notice.