



**ColorLite RG2**  
The „rugged“ spectrophotometer

## Highlights

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**Rugged aluminium housing** for use in harsh production environments

**One-handed operation:** positioning of the device and measurement single handed

**Colour measurement of inhomogeneous samples** with a measuring surface of 38 mm and a dust and water-proof housing with IP65 classification (d/0° variant)

**Wireless data transfer** via WLAN or stationary via USB 2.0

**High-performance LED light source** for maximum accuracy and stability of the measured values

Optional: **60° gloss measurement** in accordance with DIN EN ISO 2813 (d/8° measuring geometry only)

Optional: **Integrated QR / barcode -scanner**. Scan QR/barcode - measure sample - save data - Simple!

## Choice of measurement geometries



d/0° measurement geometry  
Measuring area 38 mm



d/8° measurement geometry  
Measuring area 6 or 10 mm

## The solution for a wide range of applications:

We endeavour to offer our customers real added value with all the products we develop.

The RG2 spectrophotometer (RG stands for „Rugged“) is the perfect solution for colour measurement in harsh environments. Be it in a cold store, at a desk, on the factory floor or on a building site, with the RG2 you always get reliable measurements.

For this reason, we have designed the device to be dust and waterproof in accordance with IP65 requirements.

The main housing unit is milled from a solid block of aluminium, sandblasted and finished with a hard anodised coating.

### Reliable power supply

The RG2 is powered by an easy-to-change standard 18650 lithium-ion battery. This allows the device to be used 24/7 without interruption. Alternatively, the device can also be charged via the USB interface.

### Simplest operation

The sph RG2 is easy and intuitive to use for every operator. The multi-language menu prompts provide clear instructions for all functions and settings.

Another highlight is the optionally available integrated camera for scanning QR and barcodes. This allows colour standards to be automatically selected quickly and without errors and the measurement results to be assigned to an order/batch number, for example, encoded in the QR code.

### Optional Features

- d/8° measurement geometry with 60° gloss measurement according to DIN EN ISO 2813.
- Accessories for non-contact colour measurement - example photo (right) - Support with drawer for samples ensures measurement at a fixed distance.



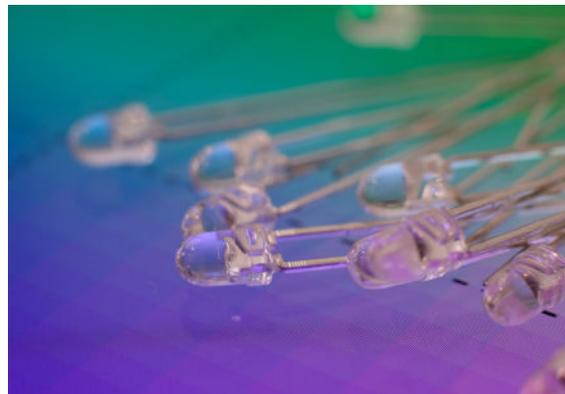
## Why do we only use LEDs as the light source for our probe heads?

In the past, newly developed light sources have repeatedly led to major advances in both the private and industrial sectors, including in spectral colour measurement.

Since the invention of the incandescent lamp, however, no other light source has revolutionised the lighting industry as lastingly as the LED.

David Pryor, founder of ColorLite GmbH, recognised and exploited the advantages of LEDs from the very first ColorLite product, the sph850 spectrophotometer. In the future, LED light sources will replace all other established lighting technologies such as halogen or xenon from the market.

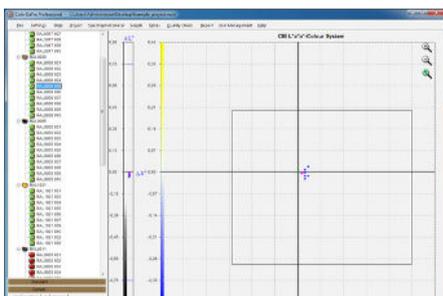
- The light-emitting diode (LED) is rugged, has a comparatively low power consumption and an almost endless lifespan.
- Replacement and maintenance of the light source is not necessary - therefore there are no costs for repair.
- The repeatability of the measured values is guaranteed by a LED light source permanently.



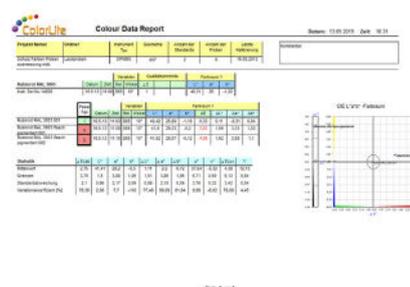
## QS database software ColorDaTra (ColorDataTransfer)

The measurement data is not only recorded quickly and precisely, it can also be managed using the software managed, evaluated and analysed in various colour space diagrams.

All your relevant information can then be summarised quickly and easily using the professional reporting function.



Online window for direct operation of the spectrophotometer from the computer via USB.



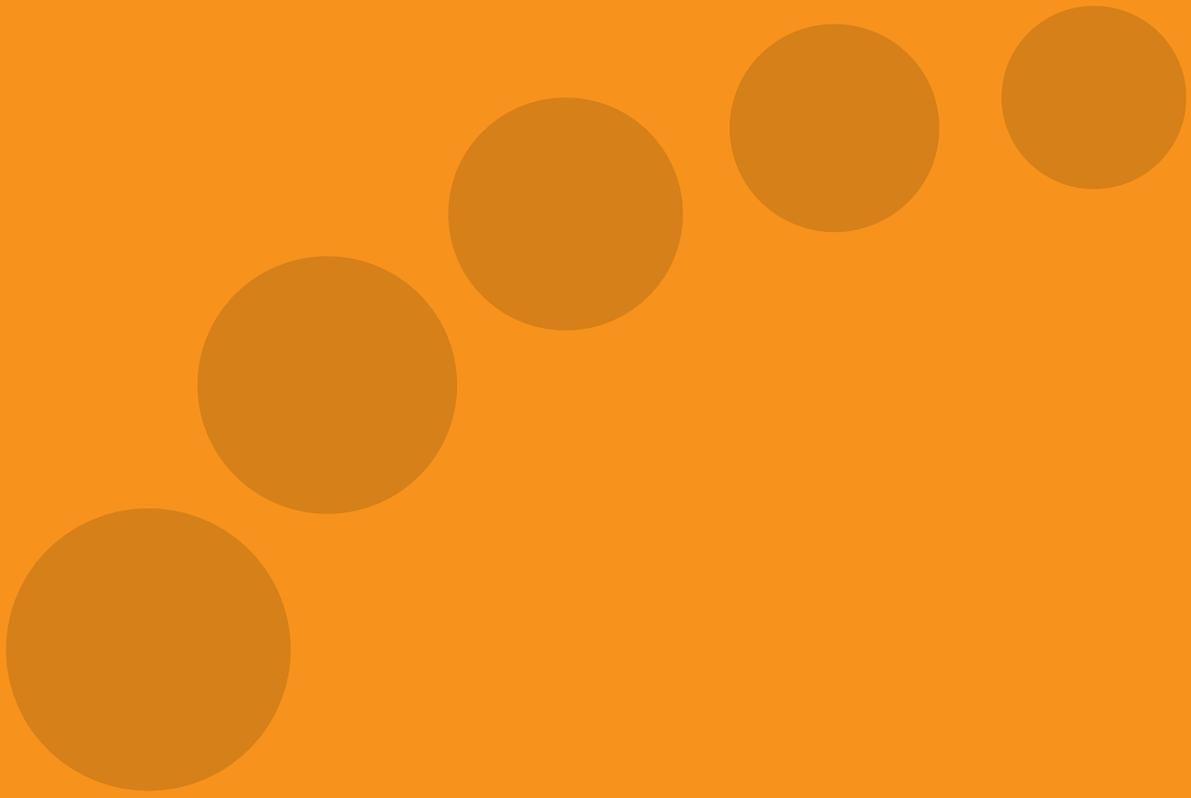
Visualisation and reporting function of sample and production colours - CIE L\*a\*b\* diagram, trend, spectrum.

## Technical Data - ColorLite sph RG2

Measurement Geometry	sph RG2 - d/0° 40mm scan area sph RG2 - d/8° 6mm scan area according to DIN 5033	Measurement time	Complete measuring cycle with calculation and readout time: < 1 s
Standard Observer	2° and 10°	Multiple measurements	Average value calculation from 1 to 20 individual readings are displayed statistically with colour values and standard deviation
Standard illuminant	D65, D55, D50, A, C, F11, C1, C2, C3	Light source	White and blue LED's Life span > 20 years
Data output / Colour scales	XYZ, Yxy, $\Delta E$ CIE L*a*b*, L*u*v*, L*C*h, Hunter Lab Remission spectrum with cursor Wavelength in %, CIE-L*a*b* Diagram incl. Pass / Fail limits	Memory	Memory for 1000 standard colours Memory for 1000 colour values Memory for 300 spectra (400-700nm / 3.5nm) Memory for 350 sample photos (160 x 120 pixels)
Quality control Tolerance limits and colour differences	$\Delta E$ CIELab; $\Delta L$ , $\Delta a$ , $\Delta b$ ; $\Delta L$ , $\Delta u$ , $\Delta v$ ; $\Delta L$ , $\Delta C$ , $\Delta h$ ; Min/Max, PASS/FAIL $\Delta E$ CMC (1:1 and 1:2), CIE $\Delta E$ 94 Metamerie-Index for D65/A and D65/F11 according to DIN 6172	Calibration	With white standard, certified by the PTB (Physikalisch-Technische Bundesanstalt Federal Institute) Optional 2-stage calibration with working standard
Other values	Contrast: LRV (light reflectance value) in accordance with - BS 8493:2008 Various white index values Various yellow index values Grey index	Power supply	Replaceable standard 18650 Lithium-ion battery Operating time at least 20 hours
Visible spectral range	400 to 700 nm	Colour standards management	Load standards: - with the Best-Match Tool - by entering the index number - by entering names
Spektral resolution	Holographic grating spectrometer FWHM** @ 500 nm < 10 nm Measurement in 3.5 nm steps 115 x 16-bit values per measurement	Printer connection	Direct label printing via USB or WiFi
Display	High-resolution O-LED colour display: High contrast and energy-saving 1/4-VGA, 320 x 240 Pixel	PC-Connection	USB 2.0, WiFi
Scanner	QR and Barcode-scanner - Optional	Ambient temperature	5°C to 45°C
Repeatability	< 0,03 $\Delta E$ CIELab (ideal conditions)	Dimensions	Device with battery: 230mm x 130mm x 85mm Weight 830g

### Service & Support

Our commitment to the highest quality and customer satisfaction is reflected in the ColorLite service. With annual maintenance and calibration, we give a 12-month guarantee on the perfect functionality of the colour measuring device.



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**Ihr Spezialist für Farbmesstechnik**  
Your specialist for colour measurement