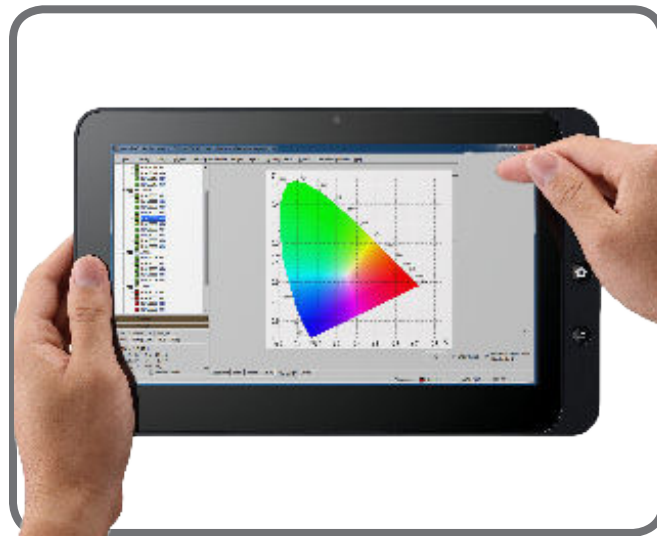


Quality assurance software



ColorLite ColorDaTra

ColorLite - The perfect solution to reliably control the colour quality of your products reliably.



The ColorDaTra software is a database in the field of quality assurance and is used together with the ColorLite handheld measuring instruments. It is available in two versions:

- ColorDaTra **Basic**
- ColorDaTra **Professional**

Innovative spectral Colour measurement technology
„Made in Germany“

The ColorDaTra software is the perfect complement to your ColorLite spectrophotometer

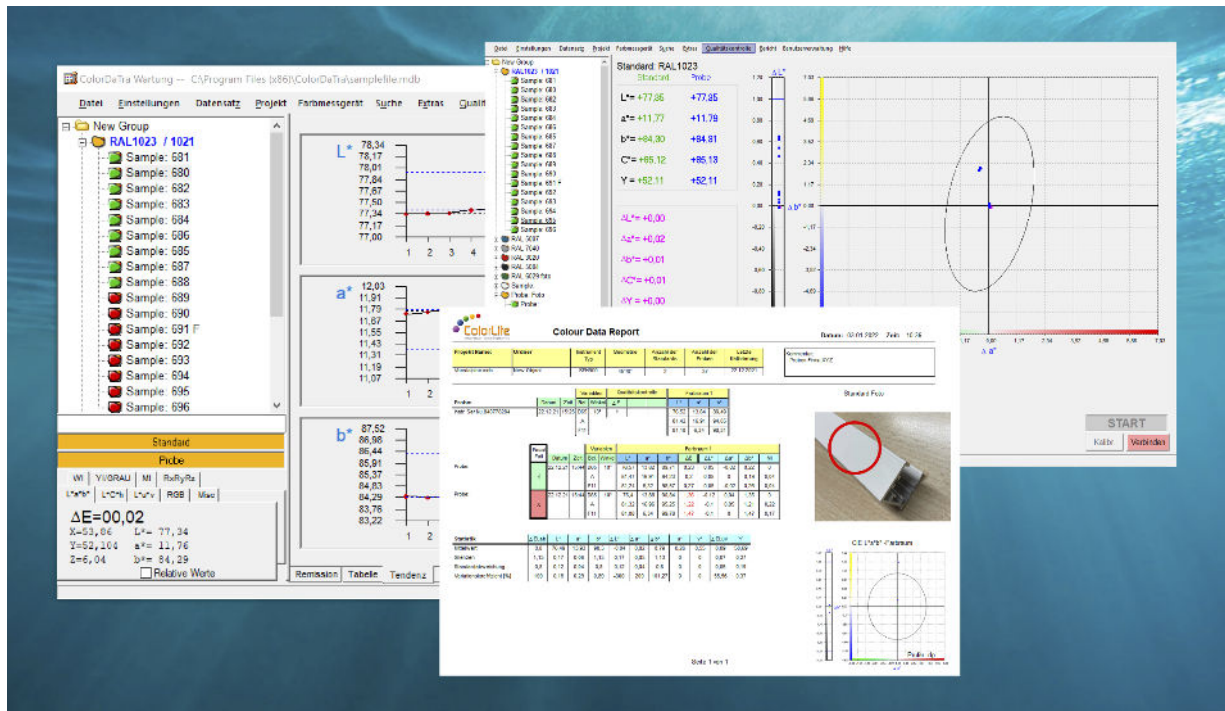
The **basic**-version offers the following functions:

- Archiving of reference colours as standards
- Visualisation of sample and production colours - CIE L*a*b* diagram, trend, spectrum.
- Creation of reports
- Exporting colour values to Excel© format.

The **professional**-version extends the above features by:

- Online window for direct operation of the spectrophotometer from the computer via USB or Bluetooth.
- Additional window with standard information and a photo option
- Search function with search criteria for colour values, date, name
- Advanced colour values like metamerism index, colour strength, transparency, opacity, white and yellow index
- Extended colour distance formula DE2000, DE CMC1:2 and DE CIE94

Software overview

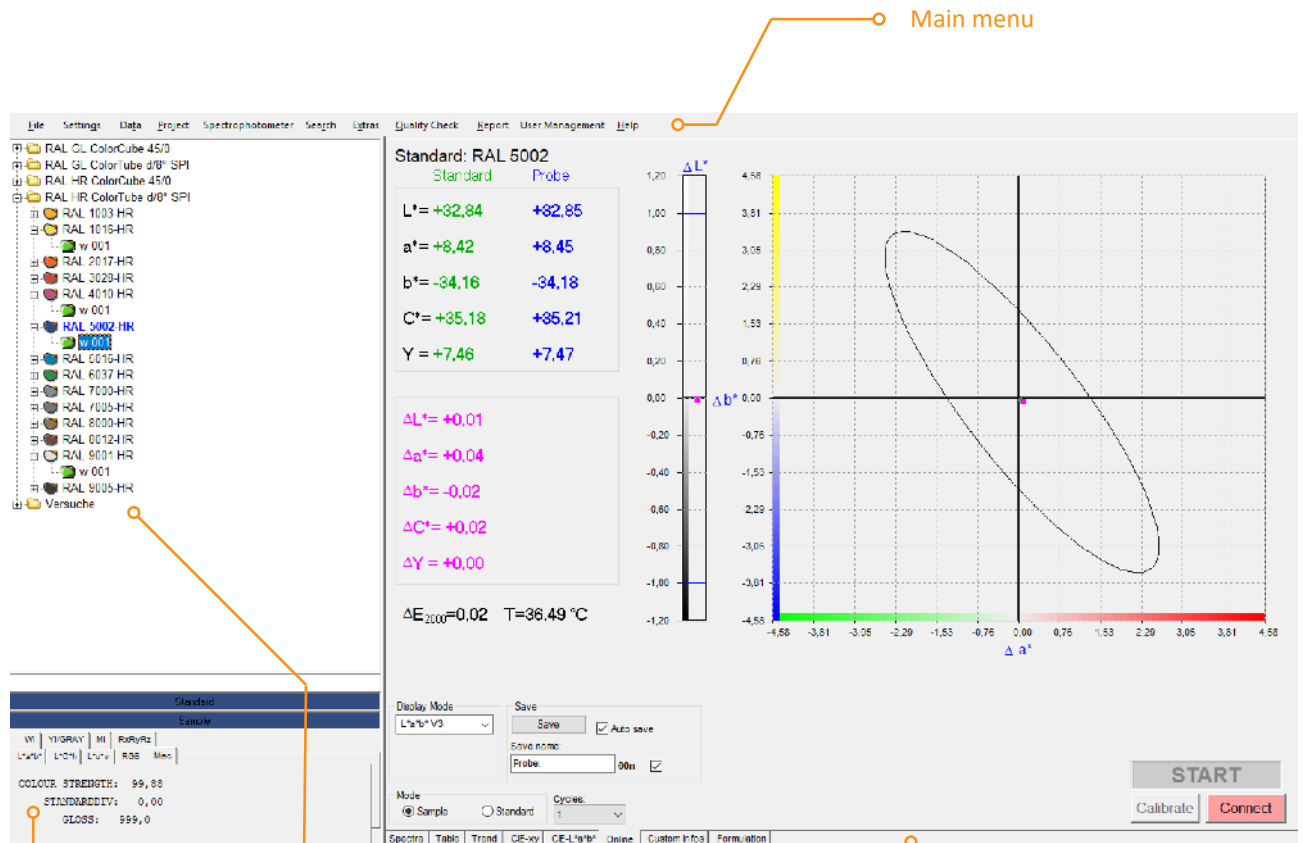


With the help of the software, measured values stored on the device can be transferred to and from a PC via USB 2.0, optionally Bluetooth. The software works with all versions of MS-Windows® and is continuously improved. Updates are free of charge and the software can be installed on any number of PCs. A download of the test version is available on our homepage.

<https://www.colorlite.de/download-center>

- MS-Access® database format
- measured values are stored in „project files“ on a central server and can be retrieved locally
- project files can be copied for reconciliation and sent to customers or suppliers
- and most important ... the software is easy to use!

Software overview



Various colour values

Displays:

- CIE L*a*b*
- CIE L*C*h*
- Standard deviation
- Metamerism index
- Colour strength
- X,Y,Z / Rx, Ry, Rz

Tree view of Standards and samples

Displays:

- Standard information
- Batch overview
- Pass/Fail
- Date/Time

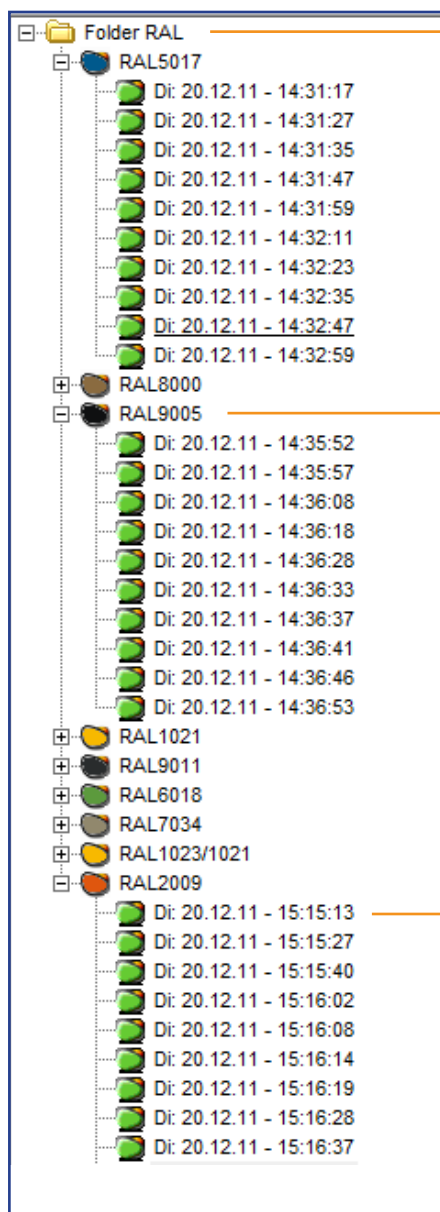
Main window with different options

Displays:

- Spectral range 400 to 700 nm
- Overview of all colour values
- Trend diagram: chronological overview
- CIE x-y colour diagram
- CIE L*a*b* diagram
- Online window for operating the spectrophotometer directly from the PC

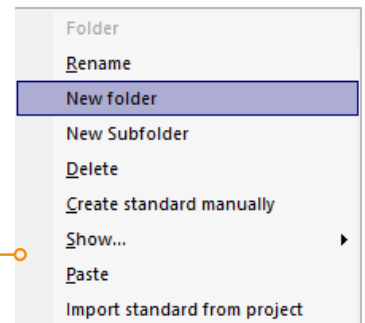
The tree view shows all standards and the corresponding samples within a colour project. To display the measured values in the main menu, it is only necessary to simply click on the standard or sample. When using ColorDaTra Professional, the measured values are automatically assigned to the selected standard.

Tree view of standards and samples



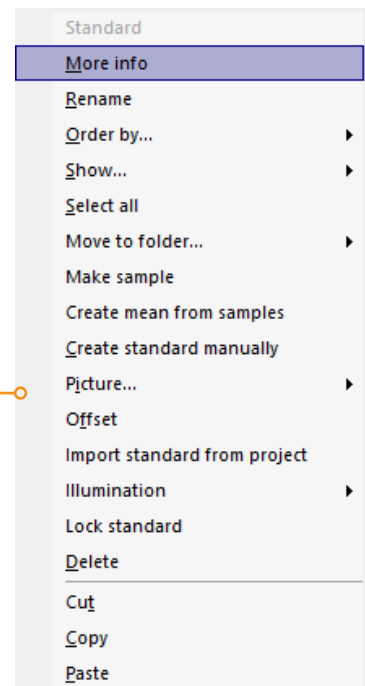
Folder. For managing colour standards in a separate folder. Multiple folders can be created with the Professional version.

The following options can be selected in the context menu (right mouse button):



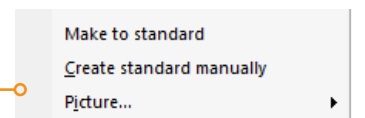
Standard. A standard is the reference colour, e.g. the target colour. A tolerance range can be assigned to each standard in the „Quality Control“ menu. The software is structured so that samples are always assigned to a standard.

The following options can be selected in the context menu (right mouse button):



Samples. These are the measured colours that are recorded as a batch under the respective standard. The standard is the reference colour. The colour of the icon acts as a PASS/FAIL indicator.

The context menu is the same as the standard menu with the difference that any sample can be converted into a standard.



Standard: RAL 1000 - IR

Date: Wed 23.06.22 - 13:40:36

SI all units: ☒ Yes

Angle: 11

Geometry: d6 SPM (MASSURE)

Cycles: 1

Xpt: 0.470 0.444

FWHM: 242.8 125.6 117.16

Offset: L= 0.0e+ 0.0e+ 0

Ref ID: 50

User ID: 0

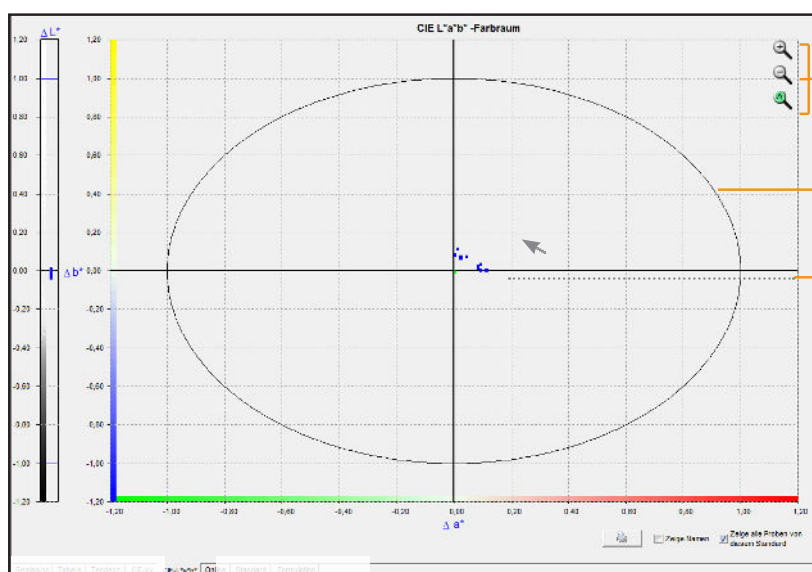
Serial No.: 00002932

File path: 2418-IR-173-1411

Comments:

The CIE L*a*b* diagram is often used in colorimetry to show an overview of the various deviations between a standard and one or all samples. By using the changeover key, another batch can also be compared with the first batch.

Main window - CIE L*a*b* diagram



Zoom. (+) and (-) keys are used to change the axis scaling. The auto-zoom function is activated with the (A) key.

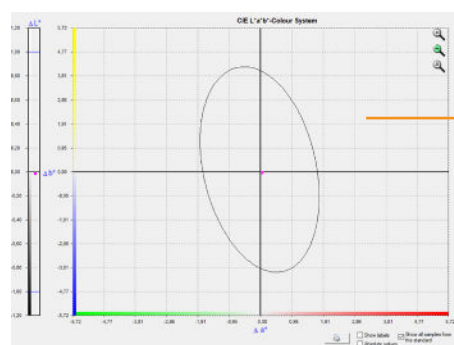
Range of tolerance. Specifies the PASS/FAIL range as DE or DL*, Da*, Db*.

Measurement values samples.

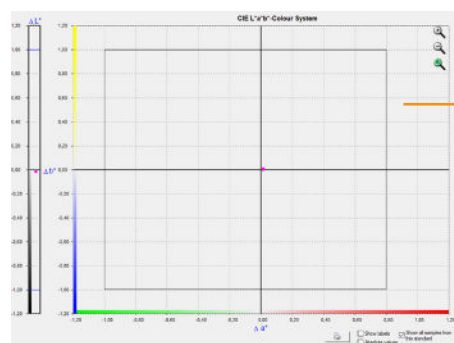
Each point of the diagram represents a sample, with the standard as the central point.

Three axes. Set the colour deviations in the ranges

DL* light(+) / dark(-),
Da* red(+) / green(-),
Db* yellow(+) / blue(-)
represent.



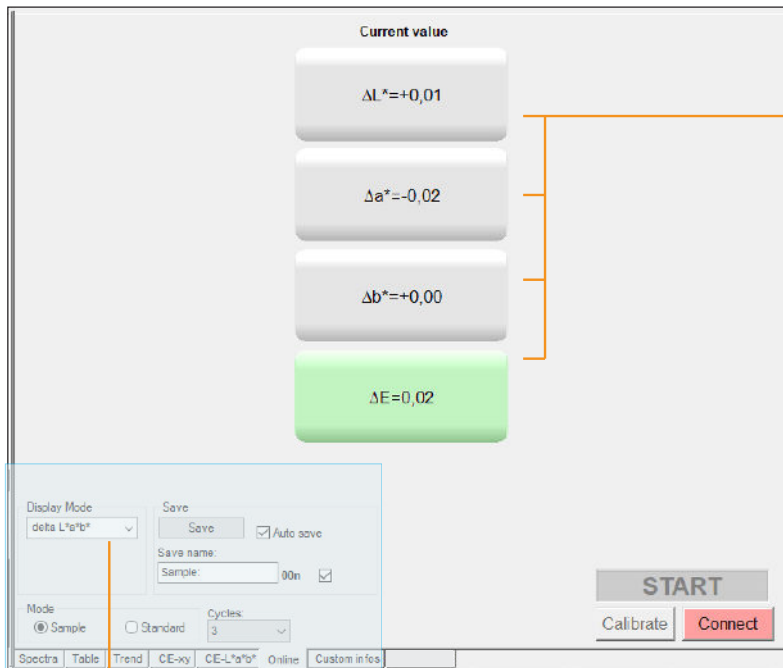
The diagram shows the limits set in the DE CMC area (only for ColorDaTra Professional).



The diagram shows the set limits in the DL*, Da*, Db* range.

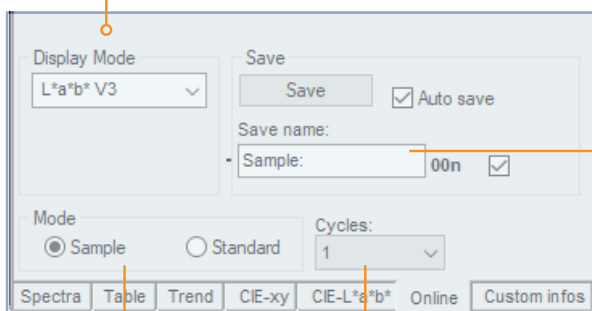
The "Online" window allows the user to connect his handheld instrument directly to the PC and operate it like a laboratory instrument.

Main window - Online mode (Professional only)



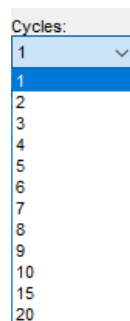
Colour values. Are displayed based on the settings in the „Display Mode“ window, among others:

- CIE L*, a*, b*, DE
- CIE DL*, Da*, Db*, DE
- CIE L*, C*, h*, DE
- CIE DL*, DC*, DH*, DE
- RGB
- White and yellow index
- Transparency, Opacity
- Density
- Hazen, iod...
- ...

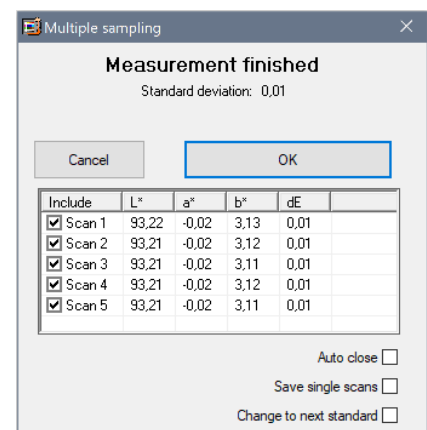


Name. Easy entry of a name for the sample/standard (later modification possible).

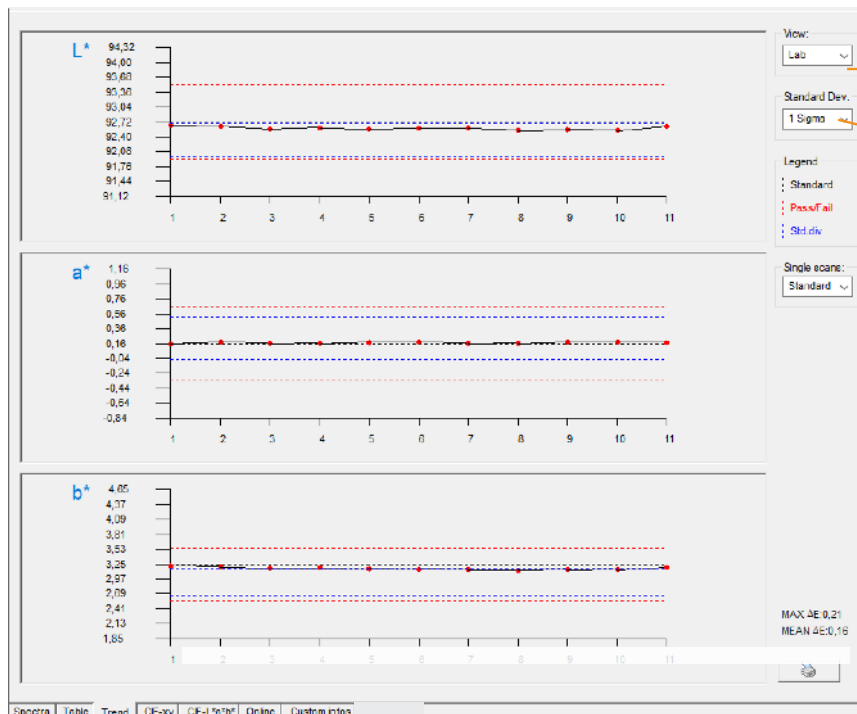
Mode. Selection of the calibration of a standard or a sample



Cycles. Selection of the number of measurements per measuring cycles: 1 to 20.



Main window - tendency



View. Selection between DE or CIE L^* , a^*b^* , $L^*u^*v^*$ or XYZ Trend.

Standard deviation. Selects a limit range which will be displayed. This selection has no influence on defined tolerance ranges from the quality management.

The tendency diagram is used to display a chronological progression of the colour values of a batch. It shows how a colour changes over time.

The diagram on the left shows 11 measurements.

Main window - table

Name	Illum.	Date	Time	DE	dL*	da*	db*	L*	a*	b*
195 mit TK	D65/10°	12.10.22	11:54:00	00.00	0.00	0.00	0.00	92.72	0.16	3.25
195 mit TK 001	D65/10°	12.10.22	11:54:02	00.09	-0.08	-0.01	-0.03	92.65	0.15	3.21
195 mit TK 002	D65/10°	12.10.22	11:54:05	00.10	-0.09	0.02	-0.05	92.63	0.17	3.20
195 mit TK 003	D65/10°	12.10.22	11:54:07	00.17	-0.15	0.00	-0.07	92.58	0.16	3.18
195 mit TK 004	D65/10°	12.10.22	11:54:09	00.14	-0.12	0.01	-0.07	92.60	0.17	3.19
195 mit TK 005	D65/10°	12.10.22	11:54:11	00.18	-0.15	0.01	-0.09	92.56	0.17	3.16
195 mit TK 006	D65/10°	12.10.22	11:54:13	00.17	-0.14	0.02	-0.09	92.58	0.17	3.16
195 mit TK 007	D65/10°	12.10.22	11:54:15	00.16	-0.12	0.00	-0.10	92.60	0.16	3.15
195 mit TK 008	D65/10°	12.10.22	11:54:17	00.21	-0.10	0.01	-0.11	92.55	0.17	3.14
195 mit TK 009	D65/10°	12.10.22	11:54:19	00.20	-0.17	0.03	-0.10	92.56	0.18	3.15
195 mit TK 010	D65/10°	12.10.22	11:54:21	00.21	-0.18	0.02	-0.11	92.54	0.18	3.14
195 mit TK 011	D65/10°	12.10.22	11:54:24	00.11	-0.09	0.01	-0.06	92.63	0.17	3.19

Select values to display

Available columns:

- UseID
- X
- Y
- Z
- L*
- a*
- b*
- DE
- dL*
- da*
- db*
- L*
- a*
- b*
- 145/
- KONTRAST
- STRENGTH
- YL 313
- JUD
- WHITENESS
- (D50)
- STRENGTH

Selected columns:

- Name
- Illum.
- Date
- Time
- DE
- dL*
- da*
- db*
- L*
- a*
- b*

Default

OK

Cancel

Edit columns

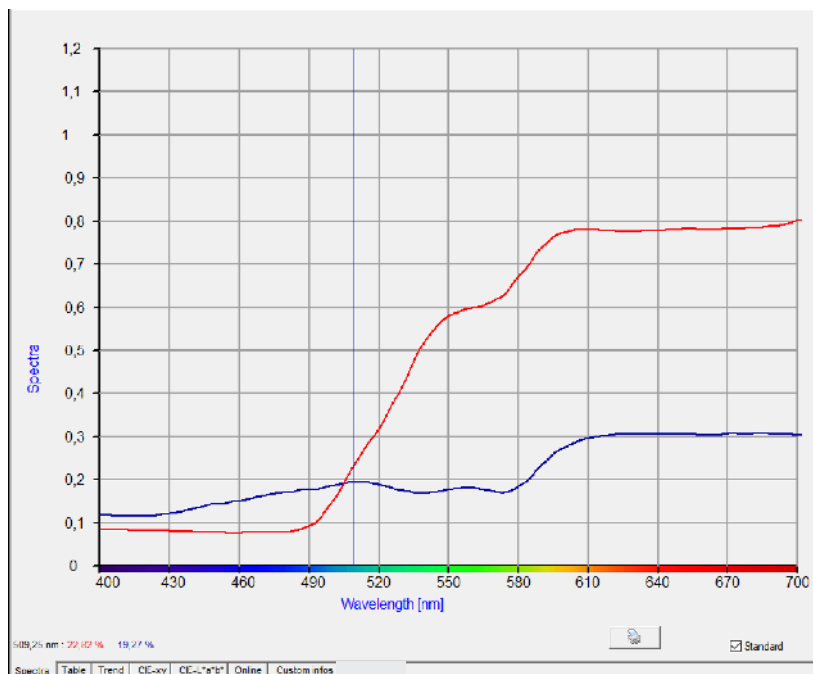
The table window shows all values of a batch.

By pressing the "Copy" key, the data can also be transferred to other programs.

Press the "Edit columns" button to open a selection window.

In this window you can select which colour values are displayed

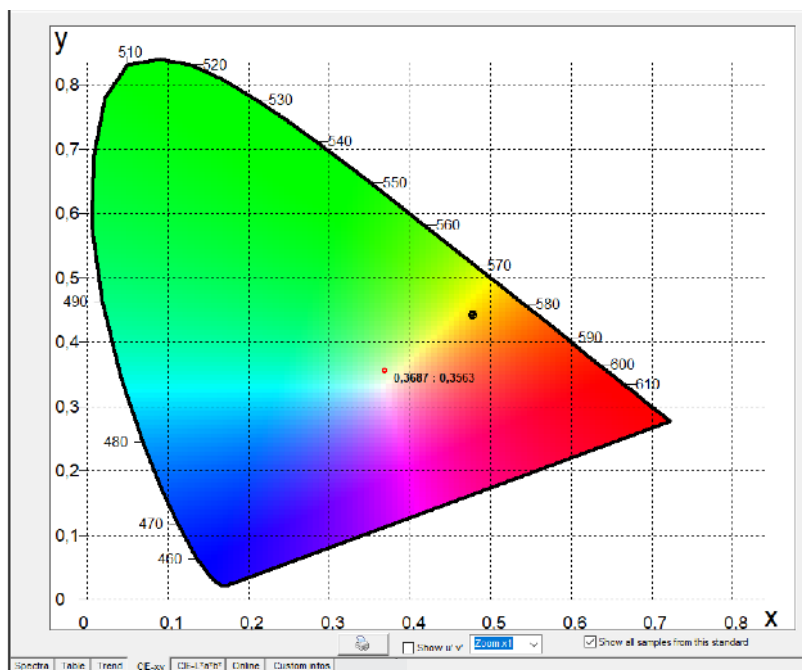
Main window - Spectral diagram



The spectral diagram shows the reflectance data of the standard and the sample in the spectral range from 400 to 700 nm.

Samples to be displayed are selected in the tree view.

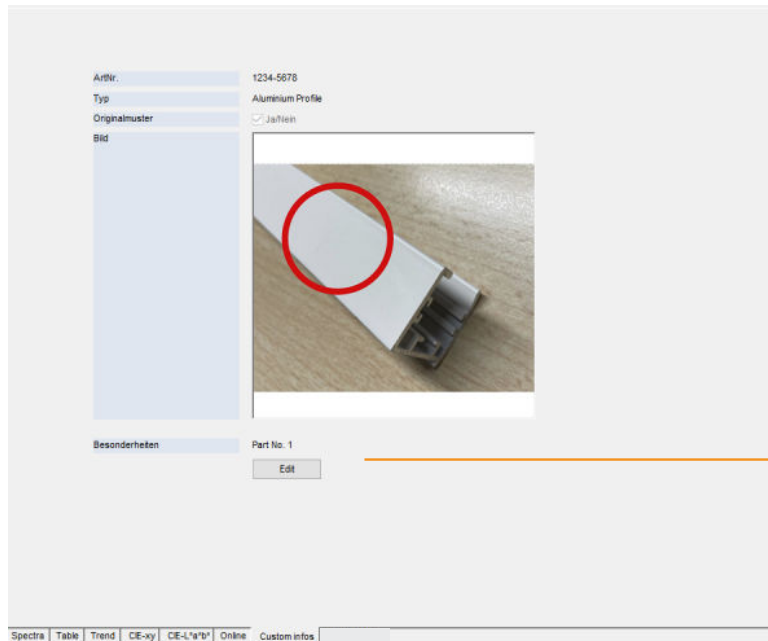
Main window - CIE x,y diagram



The CIE x,y diagram from 1931 was one of the first colour scales used to display measured values. The brightness axis is perpendicular to the surface.



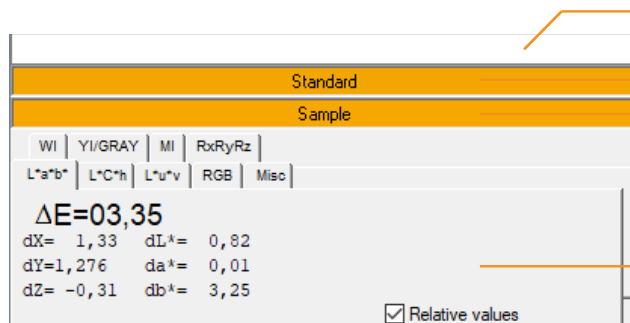
Main window - standard information (Professional only)



The standard information window can be used to store additional information about the standard. Also a photo can be inserted, on which e.g. the exact measuring position is shown.

Click the „Edit“ button to add a new text box or change the information.

Colour information window



Search by name option

Standard colour field. Click to enlarge

Samples colour field. Click to enlarge

Colour values. Displayed are:

CIE L*, a*, b*, DE

CIE DL*, Da*, Db*

CIE L*, C*, h*

CIE DL*, DC*, DH*

CIE XYZ

White and yellow index

RGB

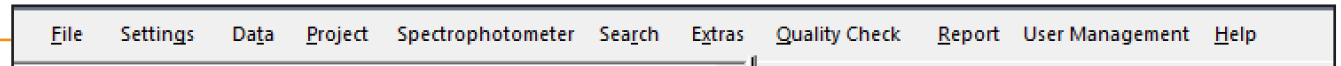
CIE DL*, Du*, Dv*

Rx, Ry, Rz

Standard deviation

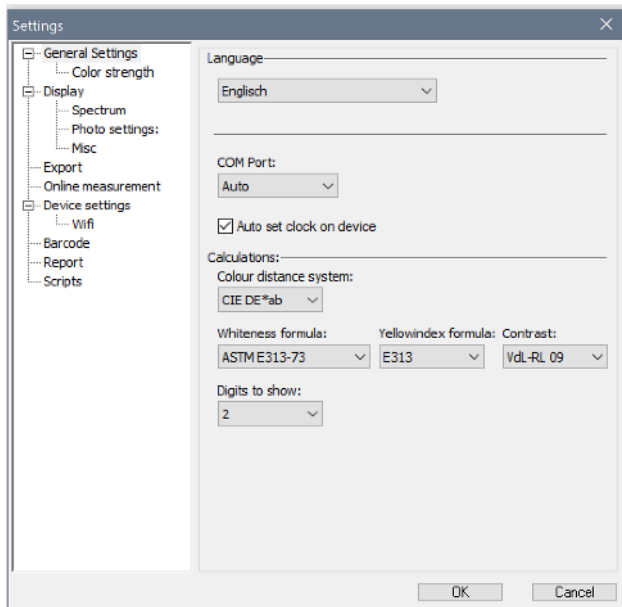
Colour strength

Main menu - overview

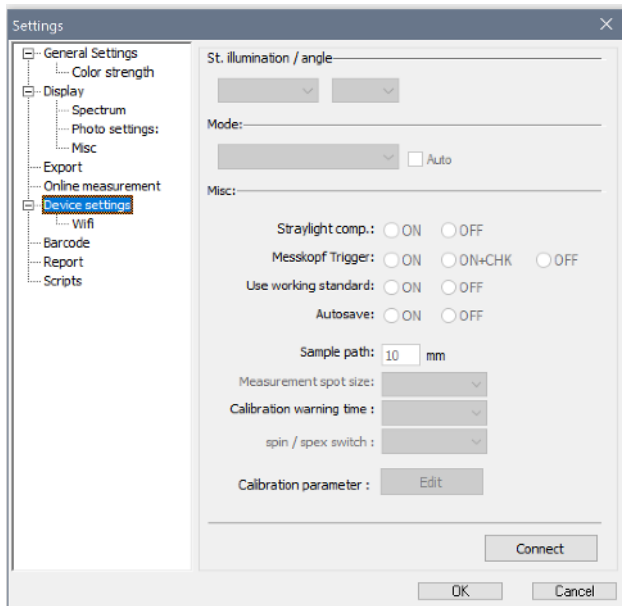


○ File	> Export and import functions
○ Settings	> Various settings possible, e.g. language etc.
○ Data	> Context menu depends on tree view selection
○ Project	> Project (File) management - Open, New, Copy etc.
○ Spectrophotometer	> Device instructions - download and standard management
○ Search	> Search for samples using various parameters
○ Extras	> Colour tool - converts Colour values
○ Quality Check	> QC - Definition of pass/fail boundaries
○ Report	> Report options
○ User Management	> Definition of user rights
○ Help	> Help window

Main window - Settings



- **General.** Selection of language, interface, Delta E mode and whiteness calculation.
- **Display.** Selection of the spectrum options, photo settings and tree view fonts size.
- **Export.** Options for exporting from the table
- **Online measurement.** Selection of different variables
- **Device settings.** Set variables via the PC, e.g. D65, 10° etc.
- **Report.** Company logo and headline text

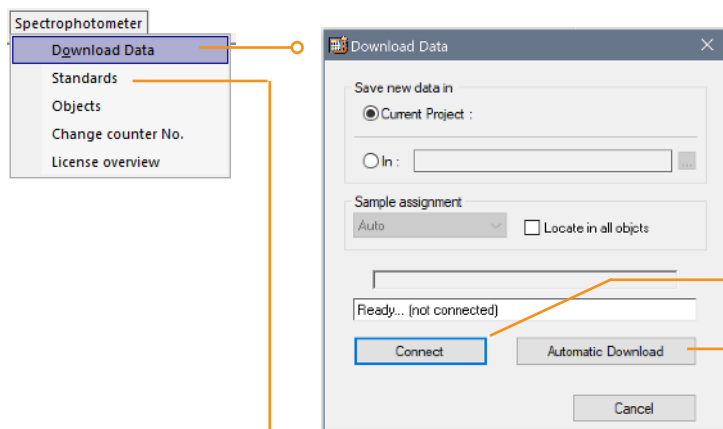


○

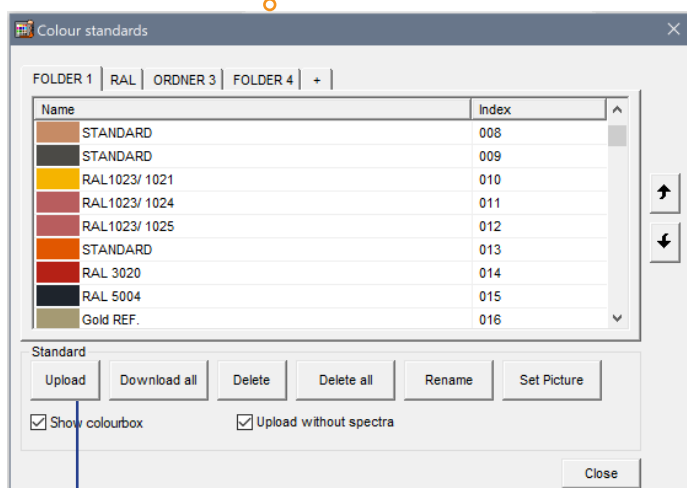
The window shows the standard memory of the spectrophotometer. Standards can be stored in up to five folders. This function is used to load standards from ColorDaTra to the colorimeter.

Sample photos can also be uploaded to the instrument.

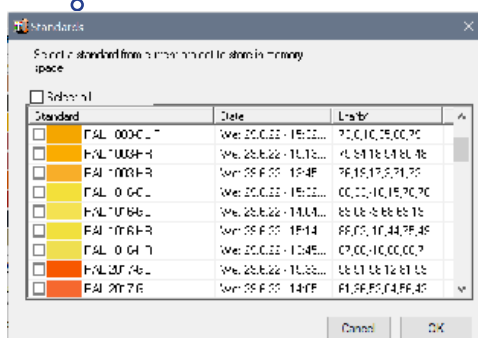
Main window - Spectrophotometer



Connect. Measured values are downloaded from the spectrophotometer. Samples are automatically assigned to existing

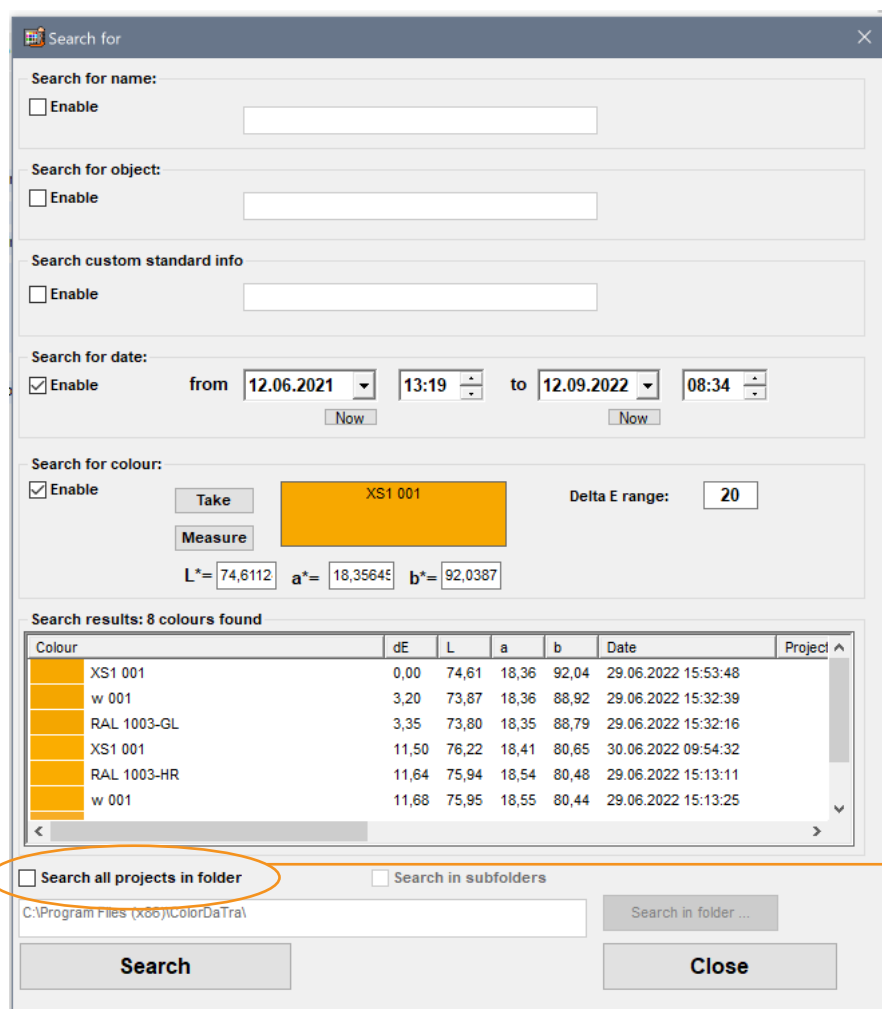


Automatic Download. Automatically downloads data when it is saved on the device.



Standard Upload - shows the list of standards in the opened project.

Main window - Search



Search for name:
☐ Enable

Search for object:
☐ Enable

Search custom standard info
☐ Enable

Search for date:
☒ Enable from 12.06.2021 13:19 to 12.09.2022 08:34
Now Now

Search for colour:
☒ Enable
Take Measure XS1 001 Delta E range: 20
L* = 74,6112 a* = 18,3564 b* = 92,0387

Search results: 8 colours found

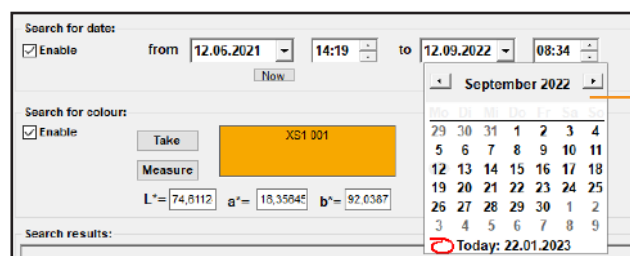
Colour	dE	L	a	b	Date	Project
XS1 001	0,00	74,61	18,36	92,04	29.06.2022 15:53:48	
w 001	3,20	73,87	18,36	88,92	29.06.2022 15:32:39	
RAL 1003-GL	3,35	73,80	18,35	88,79	29.06.2022 15:32:16	
XS1 001	11,50	76,22	18,41	80,65	30.06.2022 09:54:32	
RAL 1003-HR	11,64	75,94	18,54	80,48	29.06.2022 15:13:11	
w 001	11,68	75,95	18,55	80,44	29.06.2022 15:13:25	

☐ Search all projects in folder ☐ Search in subfolders
C:\Program Files (x86)\ColorDaTra\ Search in folder ...

Search **Close**

This function helps to search for stored values in the ColorDaTra database. The colour of a sample can be easily imported and then searched for a matching sample in the opened database.

It is also possible to search in several projects. For this purpose, the location of the ColorDaTra projects on the PC must be selected.



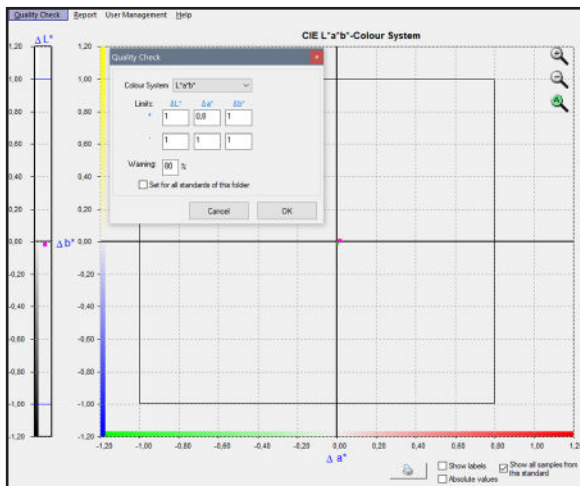
Search for date:
☒ Enable from 12.06.2021 14:19 to 12.09.2022 08:34
Now

Search for colour:
☒ Enable
Take Measure XS1 001
L* = 74,6112 a* = 18,3564 b* = 92,0387

Search results:

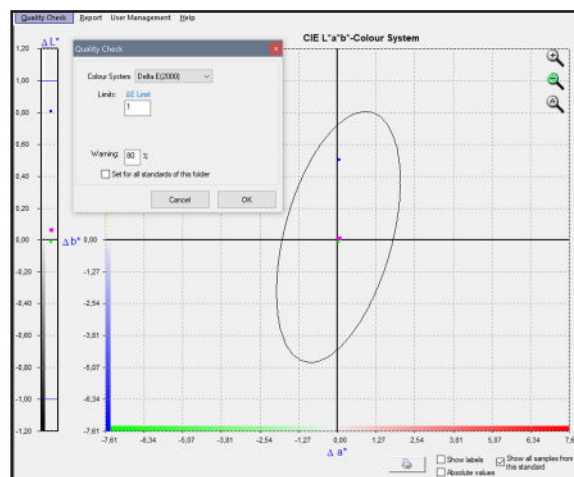
Search. By selecting several fields, it is possible to search, for example, for a specific colour that has been measured within a specific time period.

Hauptfenster - Qualitätskontrolle



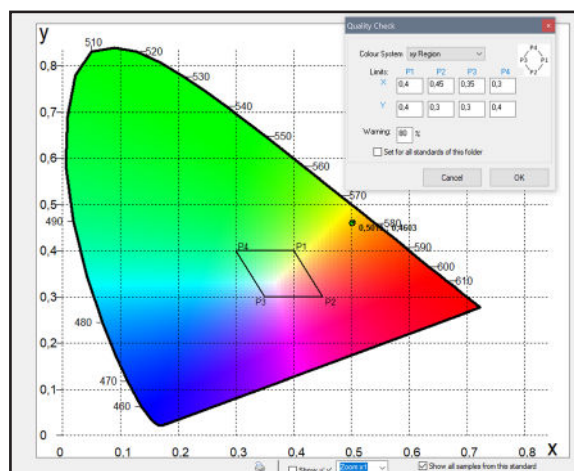
This function is used for defining limit values (Pass/Fail), which are assigned to the sample.

These values and the sample status are output in the report.



CIE L*a*b*. For determination of CIE L*, a* and b* limits. Sample pass/fail status is dependent on these settings. These limits remain when the standards are loaded onto the spectrophotometer.

CIE DE and DE2000. For determining the Delta-E limits of samples. DE2000 limits are only available in the Professional version.



x,y region. Four points can be entered to specify a tolerance range in the x,y diagram.

Report

This function allows the user to create individual reports with the colour values. An output as PDF as well as the input of a heading or a company logo are possible.

Report [X]

Select standards to print:

Standard	Date
☐ RAL 9005-GL	We: 29.6.22 - 15:39:51
☐ RAL 8012-GL	We: 29.6.22 - 15:38:59
☐ RAL 8000-GL	We: 29.6.22 - 15:38:05
☒ RAL 7005-GL	We: 29.6.22 - 15:37:06
☐ RAL 7000-GL	We: 29.6.22 - 15:35:40
☒ RAL 5015-GL	We: 29.6.22 - 15:35:03
☐ RAL 3028-GL	We: 29.6.22 - 15:34:10

Only show last

Colour System

Display

☒ Statistics ☒ Project header on each page

☐ Tristimulus Values ☐ D65-A-F11 Illumination

☐ Metamerism tested by

☐ Single scans

Comments

☐ Take from standard

Selection of standards to be displayed in the report.

Selection of how many measurements are to be output in the report.

Selection of which colour scales are to be displayed.

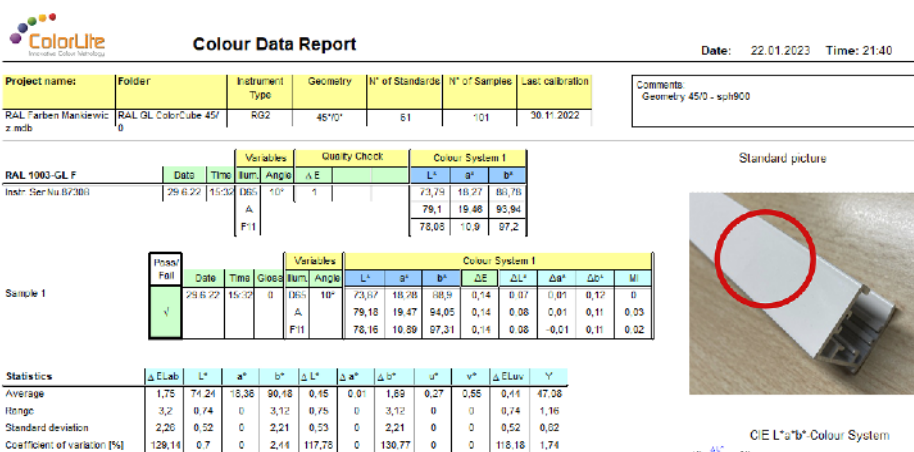
Name of tester

Text input possible

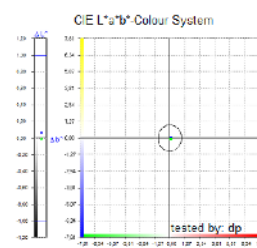
Or the use of individual texts, which are assigned to the standards
(see „Standard information window“)

L*a*b* Graphic

None
L*a*b*
L*u*v*
L*C*h*
Yxy
Bxy
RGB
Kontrast/Transp./Density
Standard picture
L*a*b* Graphic
xy Graphic
YI/GRAY/G_ISD105
wI
IOD/HAZEN/GARDNER
Spectra
ADCS
HLab
RrYrRz
Mu Mc dm



Page 1 from 1



We are constantly working to improve ColorDaTra, especially the Professional version is constantly updated.

A large number of the suggestions for improvement and ideas come from you, our customers. This makes it possible to offer you software that is individually tailored to your applications. And because ColorDaTra-updates are free of charge, everyone benefits from them - even years after the purchase of their device.

You can find a free demo version on our homepage.

Why choose ColorLite as your partner to ensure the quality of your product colours??

We offer you:

- Unique products with perfect handling
- Widest range of accessories for colour measurement
- Innovative solutions such as integrated QR scanners for input of product data
- Customized solutions for difficult applications
- Online measurement technology integrated into your production lines with adaptation to individual requirements
- Development of company specific software
- Best possible service through individual free consultation, trial measurements, training
- Family owned buissness offering - Quality „Made in Germany“

We are happy to support you in finding the best solution for your company ... guaranteed.