



INNOVACIÓN Y COMPROMISO

# LUMISO PHOTOMETERS



**Lumiso**  
A Palintest Product



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# SAFEGUARDING WATER

**At Palintest, we make water analysis technologies which help to safeguard water for everyone, every day.**

Palintest's history dates back over 100 years, but our pioneering moment happened in the 1950s as Dr Palin developed the use of DPD for field analysis of chlorine, making water analysis accessible for all.

In 1989 the company was renamed in honour of Dr Palin and his work in order to shine a light on our company's fantastic history.

By building on Dr Palin's legacy, we continue to grow and push the boundaries of innovation to make

water testing simple and obtainable for everyone, but still producing the reliability we have become world renowned for.

Our equipment empowers users to make water quality decisions with confidence. Designed and manufactured in the UK, our assured technologies are used all around the world in a variety of applications to help protect lives and the environment.

**Palintest**  
Water Analysis Technologies





Using industry standard methods and the most advanced photometric technology, reliable results are given in seconds



Expert in-situ testing at your fingertips



Handheld and benchtop models available with both single and multi-parameter testing options



Designed and manufactured in the UK

# INTRODUCING LUMISO PHOTOMETERS

## The Complete Range of Photometers for Rapid Analysis



Lumiso  
Chlorine



Lumiso Chlorine  
Dioxide



Lumiso  
Ozone



Lumiso  
Ammonia

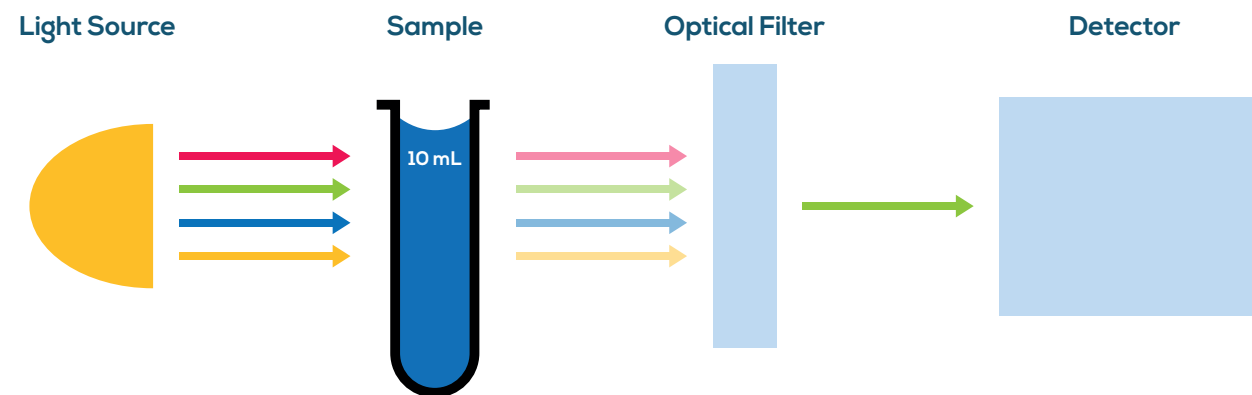


Lumiso  
Expert



# HOW DOES LUMISO WORK?

Lumiso works, like all photometers, by shining light through a sample and measuring the amount of that light which passes through to a detector.



The colour in the sample is usually formed by a reaction with the reagents that have been added to it. The darker the colour of the sample, the less light will make it through to the detector.

Initially all wavelengths of visible light come out of the light source.

These are reduced to a single wavelength using an optical filter. The photometer will measure the light passing through the sample in percentage transmission (%T), and this value is converted to a concentration using the internal calibration of the instrument.

# WHY CHOOSE LUMISO?



The Lumiso family of photometers set a new standard for photometry in water testing. Covering a single parameter through to multi parameter testing, Lumiso photometers are both durable and portable and provide accurate professional level results with minimal user training.

## Features of the Lumiso family:

-  The Lumiso Optical Engine uses innovative photometric technology and is utilised across the full Lumiso family, giving consistently accurate and reliable results across all models
-  Robust construction and IP67 Waterproof certification for in-situ testing in difficult conditions
-  Interchangeable reagents across the full Lumiso family range simplifies inventory
-  USB connectivity enables data management with the Palintest Connect platform
-  Simple user interface requires little to no prior knowledge or training
-  Logs test results with date and time for compliance and auditing



# IS LUMISO RIGHT FOR ME?

Each of our Lumiso photometers measure a different parameter or set of parameters. Therefore, the applications they are used in can vary.

Below are some examples of where our Lumiso can be used successfully:



## Lumiso Chlorine

- Contractors to the drinking water industry to test low levels of chlorine
- Water Utilities for in-situ testing of drinking water.



## Lumiso Chlorine Dioxide

- Ships for onboard ballast water testing
- Water Utilities for drinking water testing after disinfection.



## Lumiso Ammonia

- Water Utilities for wastewater testing
- Environmental agencies for wastewater testing and pollution monitoring.



## Lumiso Ozone

- Food and Beverage companies in fruit and vegetable washing
- Bottling companies testing for ozone as part of production line control.



## Lumiso Expert

- For users operating in water maintenance industries, such as drinking water and wastewater who need to perform water analysis testing in-situ or in laboratory environments, across a full variety of frequent and less frequently used parameters.





## 12

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# LUMISO CHLORINE PHOTOMETER






Rapid accurate analysis of chlorine. Lightweight, yet robust for field use, the Lumiso Chlorine offers simple reliable testing for drinking and process water applications.

Technical Specification	
Product Code	LUM051
Instrument Type	Colorimeter offering direct-reading of pre-programmed test calibrations
Peak Wavelengths	530 nm
Accuracy	±1.0% T
Display	226 x 138 pixels LCD with backlight
User Interface	Language free, on screen visual icons
Size (W x L x H) and Weight	163 mm x 70 mm x 45 mm, 275 g
IP Rating	IP67
Power Supply	3 x AA 1.5V Batteries
Connectivity	USB for data download and software updates
Memory Capacity	Up to 50 data sets

Lumiso Chlorine can test the following parameters:

- Chlorine (free and total) 0-5 mg/L
- Chlorine High Range (total) 0-250 mg/L

## Features

-  **Lightweight kit**, designed with a reusable water-resistant reagent box for convenient storage and space for spare test tubes and Check Standards
-  **USB connectivity** to enable data management and compliance with live date and time stamping
-  **Easy to operate** with a large display and quick delivery of accurate results
-  **Tablet Reagents**
-  **Liquid Reagents**



Kit Contents	LUM051 Lumiso Chlorine
Lumiso Chlorine Photometer	✓
Test tubes	5
Test tube brush	✓
Lint free cloth	✓
10 mL syringe	✓
Crush/stir rods	4
USB cable	✓
Reusable reagent box *	✓
Instruction booklet	✓
Hard plastic carry case	✓

\*Reagents to be purchased separately, see page 30

To find out more about  
Lumiso Chlorine, visit  
[www.palintest.com/lumiso](http://www.palintest.com/lumiso)








# LUMISO CHLORINE DIOXIDE PHOTOMETER

Rapid accurate analysis of chlorine dioxide and chlorine. Lightweight, yet robust, the Lumiso Chlorine Dioxide offers simple reliable testing for drinking water, wastewater treatment and food and beverage applications.

Technical Specification	
Product Code	LUM052
Instrument Type	Colorimeter offering direct-reading of pre-programmed test calibrations
Peak Wavelengths	530 nm
Accuracy	±1.0% T
Display	226 x 138 pixels LCD with backlight
User Interface	Language free, on screen visual icons
Size (W x L x H) and Weight	163 mm x 70 mm x 45 mm, 275 g
IP Rating	IP67
Power Supply	3 x AA 1.5V Batteries
Connectivity	USB for data download and software updates
Memory Capacity	Up to 50 data sets

Lumiso Chlorine Dioxide uses the DPD method to offer reliable results up to 10 mg/L for chlorine dioxide and 0-5 mg/L for chlorine.

### Features

-  **Lightweight kit**, designed with a reusable water-resistant reagent box for convenient storage and space for spare test tubes and Check Standards
-  **USB connectivity** to enable data management and compliance with live date and time stamping
-  **Easy to operate** with a large display and quick to delivery of accurate results
-  **Tablet Reagents**
-  **Liquid Reagents**



Kit Contents	LUM052 Lumiso Chlorine Dioxide
Lumiso Chlorine Dioxide Photometer	✓
Test tubes	5
Test tube brush	✓
Lint free cloth	✓
10 mL syringe	✓
Crush/stir rods	4
USB cable	✓
Reusable reagent box	✓
100 x DPD No 1 tablets	✓
100 x Glycine tablets	✓
Instruction booklet	✓
Hard plastic carry case	✓

To find out more about  
Lumiso Chlorine Dioxide visit  
[www.palintest.com/lumiso](http://www.palintest.com/lumiso)





# LUMISO OZONE PHOTOMETER

Rapid accurate analysis of ozone. Lightweight, yet robust, the Lumiso Ozone offers simple reliable testing for drinking and wastewater treatment and also food and beverage production.

Technical Specification	
Product Code	LUM053
Instrument Type	Colorimeter offering direct-reading of pre-programmed test calibrations
Peak Wavelengths	530 nm
Accuracy	±1.0% T
Display	226 x 138 pixels LCD with backlight
User Interface	Language free, on screen visual icons
Size (W x L x H) and Weight	163 mm x 70 mm x 45 mm, 275 g
IP Rating	IP67
Power Supply	3 x AA 1.5V Batteries
Connectivity	USB for data download and software updates
Memory Capacity	Up to 50 data sets

Using the DPD method, Lumiso Ozone can test ozone up to 3 mg/L.

### Features

-  **Lightweight kit**, designed with a reusable water-resistant reagent box for convenient storage and space for spare test tubes and Check Standards
-  **USB connectivity** to enable data management and compliance with live date and time stamping
-  **Easy to operate** with a large display and quick delivery of accurate results
-  **Tablet Reagents**



Kit Contents	LUM053 Lumiso Ozone
Lumiso Ozone Photometer	✓
Test tubes	5
Test tube brush	✓
Lint free cloth	✓
10 mL syringe	✓
Crush/stir rods	4
USB cable	✓
Reusable reagent box	✓
100 DPD 4 tablets	✓
Instruction booklet	✓
Hard plastic carry case	✓

To find out more about Lumiso Ozone visit [www.palintest.com/lumiso](http://www.palintest.com/lumiso)





# LUMISO AMMONIA PHOTOMETER






Rapid accurate analysis of ammonia. Lightweight, yet robust, the Lumiso Ammonia offers simple reliable testing for drinking and wastewater treatment and environmental samples.

Technical Specification	
Product Code	LUM050
Instrument Type	Dual light source colorimeter offering direct-reading of pre-programmed test calibrations
Peak Wavelengths	620 nm, 465 nm
Accuracy	±1.0% T
Display	226 x 138 pixels LCD with backlight
User Interface	Language free, on screen visual icons
Size (W x L x H) and Weight	163 mm x 70 mm x 45 mm, 275 g
IP Rating	IP67
Power Supply	3 x AA 1.5V Batteries
Connectivity	USB for data download and software updates
Memory Capacity	Up to 50 data sets

Lumiso Ammonia offers testing using both Nessler and Indophenol methods with a wide choice of test ranges.

Reagent Type	Range mg/L	Method
Tablet	0-1	Indophenol
Liquid	0-12	Indophenol
Liquid	0-50	Indophenol
Liquid	0-15	Nessler
Liquid	0-50	Nessler
Liquid	0-100	Nessler

## Features

-  **Lightweight kit**, designed with a reusable water-resistant reagent box for convenient storage and space for spare test tubes and Check Standards
-  **USB connectivity** to enable data management and compliance with live date and time stamping
-  **Easy to operate** with a large display and quick to deliver accurate results
-  **Tablet Reagents**
-  **Tubetest Liquid Reagents**



Kit Contents	LUM050 Lumiso Ammonia
Lumiso Ammonia Photometer	✓
Test tubes	2
Test tube brush	✓
Lint free cloth	✓
5 mL syringe	✓
Crush/stir rods	2
Adapter for Tubetests	✓
USB cable	✓
Reusable reagent box*	✓
Instruction booklet	✓
Hard plastic carry case	✓

\*Reagents to be purchased separately, see page 30

To find out more about Lumiso Ammonia visit [www.palintest.com/lumiso](http://www.palintest.com/lumiso)

# LUMISO CHLORINE & TURBIDITY KIT

Rapid accurate analysis of chlorine and turbidity. Lightweight, yet robust for field use, the Lumiso Chlorine and Turbidity Kit offers simple reliable testing for drinking water and wastewater compliance monitoring.

Lumiso Chlorine and Turbidity can test the following parameters:

Chlorine (free and total) 0-5mg/L      Chlorine High Range (total) 0-250mg/L      Turbidity 0.01-1050 NTU

Lumiso Chlorine Technical Specification	
Instrument Type	Colorimeter offering direct-reading of pre-programmed test calibrations
Peak Wavelengths	530 nm
Accuracy	±1.0% T
Display	226 x 138 pixels LCD with backlight
User Interface	Language free, on screen visual icons
Size (W x L x H) and Weight	163 mm x 70 mm x 45 mm, 275 g
IP Rating	IP67
Power Supply	3 x AA 1.5V Batteries
Connectivity	USB for data download and software updates
Memory Capacity	Up to 50 data sets

Turbimeter Plus Technical Specification	
Optical System	QuadoptiX™ optical system with two independent 860nm LED sources, ISO 7027 Compliant
Instrument Range	0.01 – 1050 NTU
Display	High clarity LCD with backlight
User Interface	Soft key access with English, French and Spanish
Result Units	NTU, FNU, FTU, mg/L (TSS mode)
Modes	Turbidity (normal, average, continuous capture), Total Suspended Solids
Data Storage	1000 results including date, time, sample ID, operator ID and mode. Last 12 successful calibrations including Operator ID
Size (W x L x H) and Weight	82 x 225 x 50mm, 340 g
Power Supply	2 x AA 1.5V Batteries or via USB

Kit Contents	LUM7051 Lumiso Chlorine and Turbidity
Lumiso Chlorine Photometer	✓
Turbimeter Photometer	✓
Test tubes	5
Test tube brush	✓
Lint free cloth	✓
10 mL syringe	✓
Crush/stir rods	4
Silicone Oil	10 mL
Dilution Tube	✓
USB cable	✓
Reusable reagent box *	✓
Instruction booklet	✓
Hard plastic carry case	✓

\*Reagents to be purchased separately, see page 30



To find out more about Lumiso Chlorine and Turbidity Kit visit [www.palintest.com/lumiso](http://www.palintest.com/lumiso)













# LUMISO EXPERT

A robust multi-parameter photometer with an extensive range of testing parameters, for those needing to perform testing of drinking and wastewater and obtain accurate and reliable results.

Technical Specification	
Instrument Type	Multiparameter Photometer
Wavelengths	430 nm, 465 nm, 530 nm, 575 nm, 620 nm
Peak Wavelengths	±2nm
Accuracy	+/-1%T
Display	Full Colour TFT - 16:9 ratio screen, resolution 800 x 480 pixels
User Interface	PCAP touch panel
Size (W x L x H) and Weight	220mm x 200mm x 55mm, 850g
IP Rating and Standards	IP67
Power Supply	6 x AA 1.5V Batteries or Standalone USB
Connectivity	Via Windows App (USB) or Mobile App (QR Code)
Memory Capacity	Access 1,000 results via device's screen
Battery Life	5,000 tests from a set of batteries
Certifications	EN61326, EN61010, IP67 and EN60068-2-78

## Features

-  **Robust construction** - Impact tested to IK08 as part of EN61010. Scratch and chemical resistant coating
-  **IP67 waterproof design** - Designed for use in wet and humid environments
-  **Large touchscreen interface** - Intuitive and accessible with easy navigation, also works with wet and gloved hands
-  **Multilingual onscreen instructions** - Step-by-step instructions on performing tests with little to no prior training required
-  **Data logging** - Results are saved automatically, including test data, user, labels, and notes for audit and compliance
-  **Data retrieval** - Easy access to data via Palintest Connect
-  **Recycled Materials** - Case is made with recycled plastic
-  **Tablet Reagents**
-  **Tubetest Liquid Reagents**
-  **Liquid Reagents**



Kit Contents	LUM7210 Lumiso Expert
Lumiso Expert Benchtop Instrument	✓
Dilution Tube	✓
Syringe, Luer Slip, 10 mL	✓
Polishing Cloth	✓
Test Tube Brush, 12 cm	✓
USB lead	✓
Quick Start Guide	✓
Absorbent cloth	✓
Crush/Stir Rod	10
Cap for 15 mL Vial	10
15 mL Snap Cap Vial	10
Lumiso Expert recycled plastic case	✓
Reusable Reagent Box*	✓

\*Reagents to be purchased separately, see page 30

To find out more about Lumiso Expert, visit [www.palintest.com/lumiso](http://www.palintest.com/lumiso)





# PALINTEST CONNECT

Upload, view and manage your data easily with our cloud-based data management software.



**Product registration** – register your Lumiso and receive the latest firmware update when you connect your instrument



**Data management** – upload and view test results and create reports for monitoring over time



**Remote supervision** – create a collaboration group to share and monitor test results



**Corrective actions** – trigger email notifications to advise when test results don't meet target values



**Compliance** – automatically create an auditable data log when uploading your data



**Training** – access training materials with step-by-step instructions to help you get the most from your Lumiso

[www.palintestconnect.com](http://www.palintestconnect.com)



# LUMISO SUPPORT



LMC005D



LMCEXP

## Check Standards

Validate the performance of your Lumiso instrument with Palintest Neutral Density Filter Check Standards.

Quick and easy to use, Palintest Check Standards are traceable to national standards and supplied with a certificate.

Check Standards Ordering Codes	
LMC005D	Check Standards for Lumiso Chlorine, Chlorine Dioxide, Ozone
LMC005N	Check Standards for Lumiso Ammonia
LMCEXP	Check Standards for Lumiso Expert

## Servicing & Repairs

Ensure your photometer remains in optimal condition with an instrument service. To get the best out of your photometer, Palintest recommends an annual service.

### What is included in a Palintest service?

- Thorough evaluation and inspection of your instrument
- Comprehensive clean of the test chamber and optical bench
- Recalibration of your instrument
- Update of the latest software to optimise the performance of your instrument

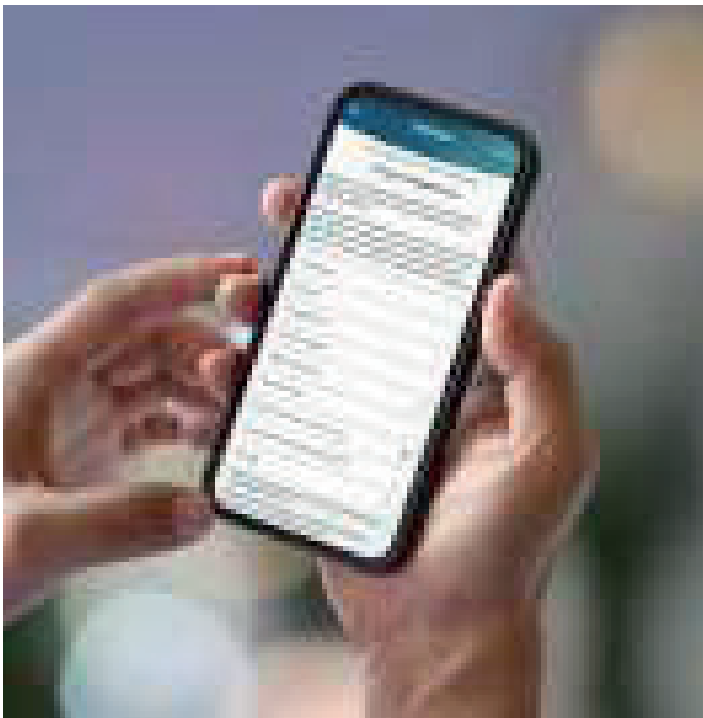
Contact [sales@palintest.com](mailto:sales@palintest.com) for further information on servicing and repairs.

## Product Registration and Warranty

Each of our photometers come with a two year warranty from date of manufacture, excluding accidental damage or damage caused by unauthorised repair or misuse.

To receive updates about your instrument, register the device online at

[www.palintest.com/en/product-registration](http://www.palintest.com/en/product-registration).



# LUMISO REAGENTS

Description	Part code (AP) 250 Tablets	Part code (PM) 50 Tablets	Part code (PL) Tubetest	Part Code AT (Liquid)	Range
Absorbance					0-2.3 Abs
Acid Demand	AP188	PM188			
Alkalinity, Total	AP188	PM188			0-500 mg/L
Aluminium	AP166	PM166			0-0.5 mg/L
Ammonia (Tablet Indophenol)	AP152	PM152			0-1 mg/L
Ammonia/12N Tubetest Indophenol			PL400		0-12 mg/L
Ammonia/15N Tubetest Nessler			PL420		0-15 mg/L
Ammonia/50N Tubetest Indophenol			PL400		0-50 mg/L
Ammonia/100N Tubetest Nessler			PL425		0-100 mg/L
Ammonia/50N Tubetest Nessler			PL424		0-50 mg/L
Bromine, Total	AP060				0-10 mg/L
Bromine, Total (+ Cl2, F.C & T)	AP060				0-10 mg/L
Bromine, Total (Cl2 present)	AP060				0-10 mg/L
Calcium Hardness	AP252	PM252			0-500 mg/L
Calcium Hardness (Salt Pools)	AP252	PM252			0-500 mg/L
Chloride	AP268	PM268			0-50 mg/L
Chloride	AP268	PM268			0-500 mg/L
Chlorine HR	AP162	PM162			0-250 mg/L
Chlorine, F, C & T (Liquid)				AT015 / AT035	0-5 mg/L

Description	Part code (AP) 250 Tablets	Part code (PM) 50 Tablets	Part code (PL) Tubetest	Part Code AT (Liquid)	Range
Chlorine, F, C & T (Tablet)	AP031	PM031			0-5 mg/L
Chlorine, Free	AP011	PM011			0-5 mg/L
Chlorine, Free & Total (XF, XT)	AP033	PM033			0-10 mg/L
Chlorine, Free (XF)	AP013	PM013			0-10 mg/L
Chlorine, Total	AP041	PM041			0-5 mg/L
Chromium (VI)	AP281	PM281			0-1 mg/L
COD/1000			PL453, PL463, PL468		0-1000 mg/L
COD/150			PL450, PL460, PL461		0-150 mg/L
COD/2000			PL454, PL464, PL465		0-2000 mg/L
COD/20000			PL456, PL466, PL467		0-20000 mg/L
COD/400			PL452, PL462		0-400 mg/L
COD Mn	AP295				0-10 mg/L
Colour		PM269			10-500 mg/L
Copper, Free	AP187				0-5 mg/L
Copper, Free and Total	AP186	PM186			0-5 mg/L
Cyanuric Acid	AP087	PM087			0-200 mg/L
Fluoride	AP179	PM179			0-1.5 mg/L
Hardness, Total	AP254	PM254			0-300 mg/L
Hydrogen Peroxide HR	AP105	PM105			0-100 mg/L
Hydrogen Peroxide LR	AP104	PM104			0-2 mg/L

# LUMISO REAGENTS

Description	Part code (AP) 250 Tablets	Part code (PM) 50 Tablets	Part code (PL) Tubetest	Part Code AT (Liquid)	Range
Iron HR	AP156	PM156			0-10 mg/L
Iron LR	AP155	PM155			0-1 mg/L
Iron MR	AP292	PM292			0-5 mg/L
Iron MR (Molybdate present)	AP292	PM292			0-5 mg/L
Iron MR (Nitrite present)	AP292	PM292			0-5 mg/L
Langelier Water Balance Index	N/A	N/A			
Magnesium	AP193	PM193			0-50 mg/L
Manganese HR	AP174	PM174			0-5 mg/L
Manganese LR	AP173	PM173			0-0.03 mg/L
Nickel	AP284	PM284			0-10 mg/L
Nitrate	AP163	PM163			0-1 mg/L
Nitrate/30N Tubetest			PL404		0-30 mg/L
Nitrite	AP109	PM109			0-0.5 mg/L
Nitrite	AP260	PM260			0-1500 mg/L
Ozone	AP056	PM056			0-3 mg/L
Ozone (Cl2 or Br2 present)	AP056	PM056			0-2 mg/L
Phosphate/12P Tubetest			PL412		0-12 mg/L
Phosphate LR	AP177	PM177			0-1.3 mg/L
pH-Phenol Red	AP130	PM130			6.8 - 8.4
Potassium	AP189	PM189			0-12 mg/L

Description	Part code (PM) 250 Tablets	Part code (PM) 50 Tablets	Part code (PL) Tubetest	Part Code AT (Liquid)	Range
Salt LR	AP268	PM268			0-10000 mg/L
Salt HR	AP268	PM268			0-50000 mg/L
Sulfate	AP154	PM154			0-200 mg/L
Total Nitrogen/30 Tubetest			PL404		0-30 mg/L
Transmittance					0-100 %T
Turbidity HR		PM269			5-400 TU
Zinc	AP148	PM148			0-2 mg/L
Zinc (copper present)	AP148	PM148			0-2 mg/L

To find out more about Lumiso visit [www.palintest.com/lumiso](http://www.palintest.com/lumiso)



# LUMISO ACCESSORIES

Description	Code
Glass Test Tubes for Lumiso Photometer and Turbimeter Plus, Pack of 5	PT555
SDVB Turbimeter Plus Calibration Standards	PTC092
Test Tube Rack for 8 x Lumiso Test Tubes	PT545
Crush/Stirring Rods, Pack of 10	PT502
Syringe 10 mL	PT369
Syringe 5 mL	PT365
Sample Tube Brush	PT663
Polishing Cloth	PT399
Absorbent Cloth, Pack of 5	PT122
Silicone Oil, 10 mL	PT120
USB lead*	PT749
Sample Container/ Dilution Tube	PT512

\*Lumiso Expert specific accessory





# GET IN TOUCH

For further information and support, please  
get in touch with a member from our team:



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# Palintest

Water Analysis Technologies

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