

Colorlight

LEDAnalyzer

Display Quality Test System

Specification V1.0



CONTENTS

01 Introduction	1
02 Features	2
03 Application	10
04 Software	11
05 Statement	12

01 Introduction

LEDAnalyzer is a professional LED display quality test system developed by Colorlight. It performs automated measurement of key LED display parameters—including color, brightness, color gamut, color temperature, PQ, consistency, color accuracy, and ramp transition—and generates detailed test reports to quantify display quality.

02 Features

- **Basic test**

- 256 grayscale test
 - ◆ Brightness & contrast
 - ◆ Color gamut
 - ◆ Color temperature
 - ◆ Gamma
 - ◆ PQ accuracy
- Color accuracy test
 - ◆ DE2000
- Refresh rate test
 - ◆ 1-255 grayscale refresh rate test

- **Consistency test**

- Uniformity
 - ◆ Brightness uniformity
 - ◆ Chroma uniformity

- **Manual test**

- High/Low brightness uniformity
- Ramp transition
- Ramp test pattern
- Black gloss
- Special test pattern
 - ◆ Grayscale
 - ◆ Low grayscale detail
 - ◆ Low gray uniformity view
 - ◆ Text view
- Viewing angle
- Thermal effect

● Test report

LEDAnalyzer Test Report

Certificate No.:CPCSBGZS-2025-0002

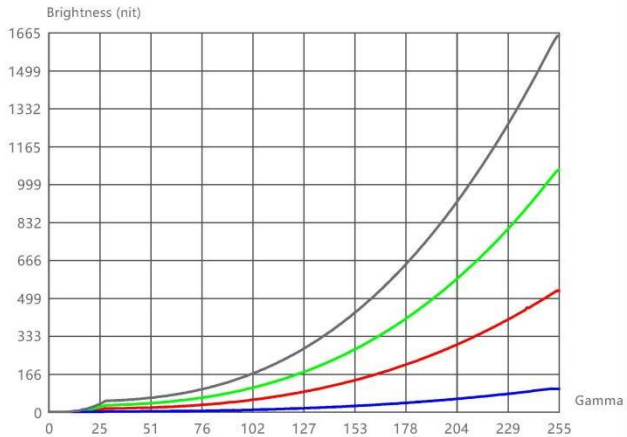
Test project: ScreenAnalyzer_SCL_256-256_2025-12-16 原始

Test date: 2025-12-16-17:38:54



Basic test

Brightness & contrast



Lit-up brightness (nit)

1.38671

Peak brightness (nit)

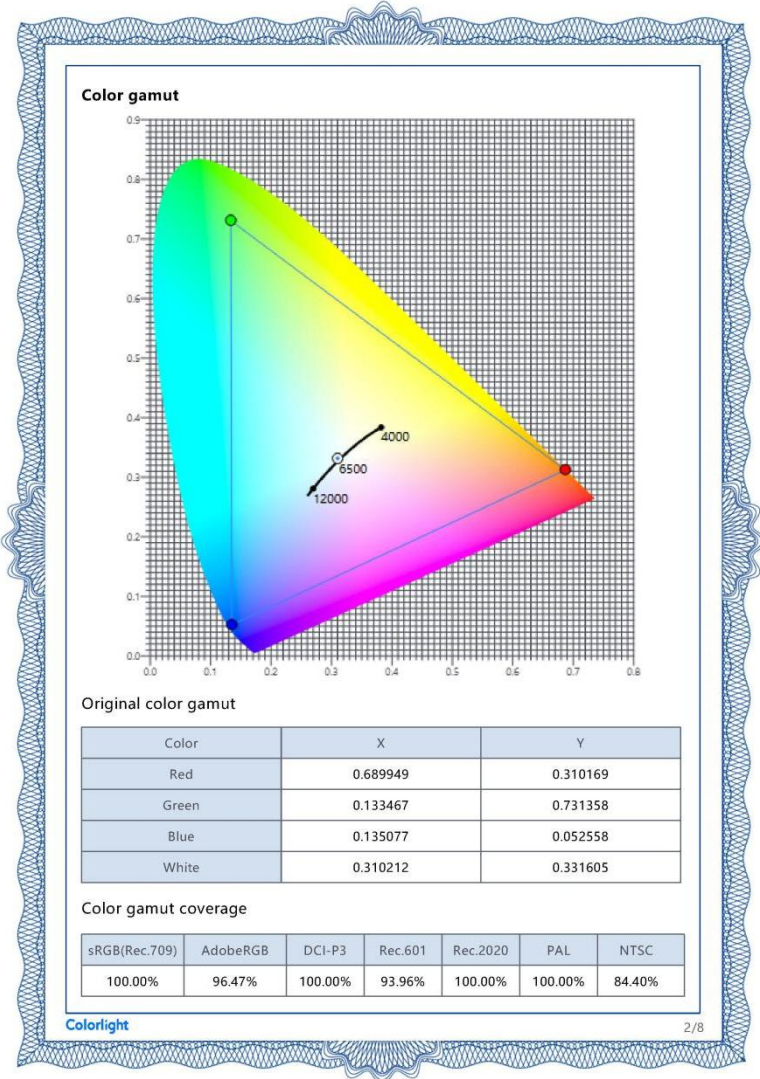
1655.6

Contrast

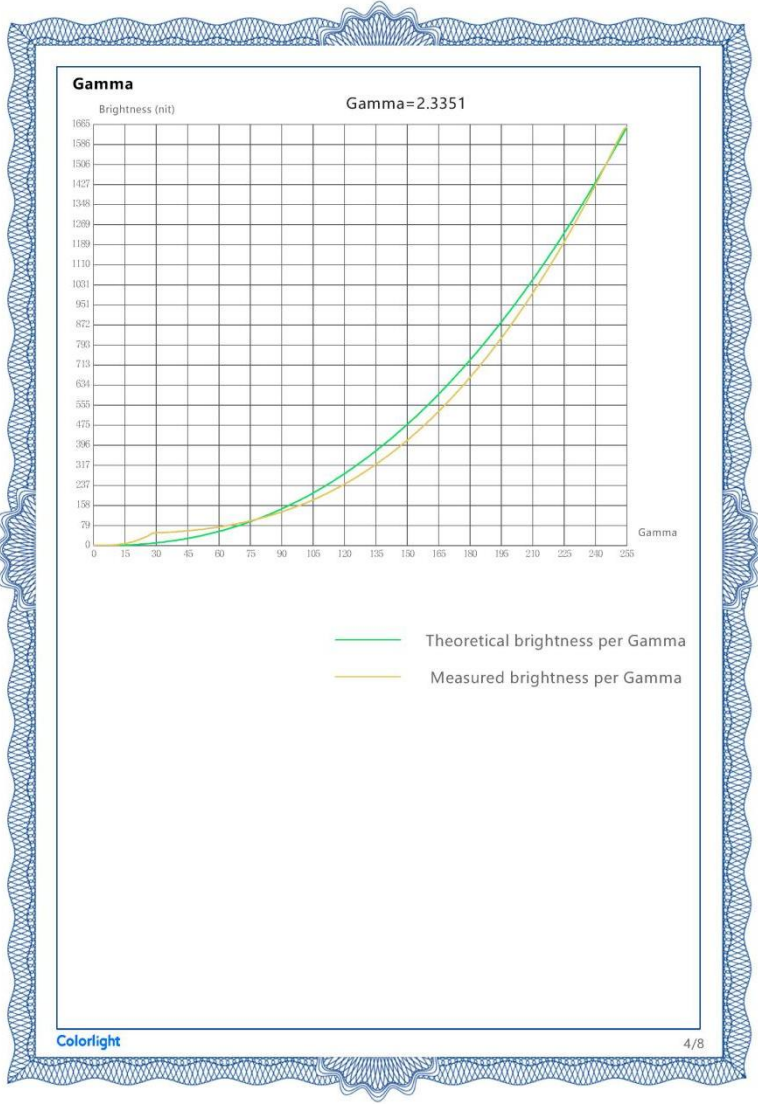
1193.9

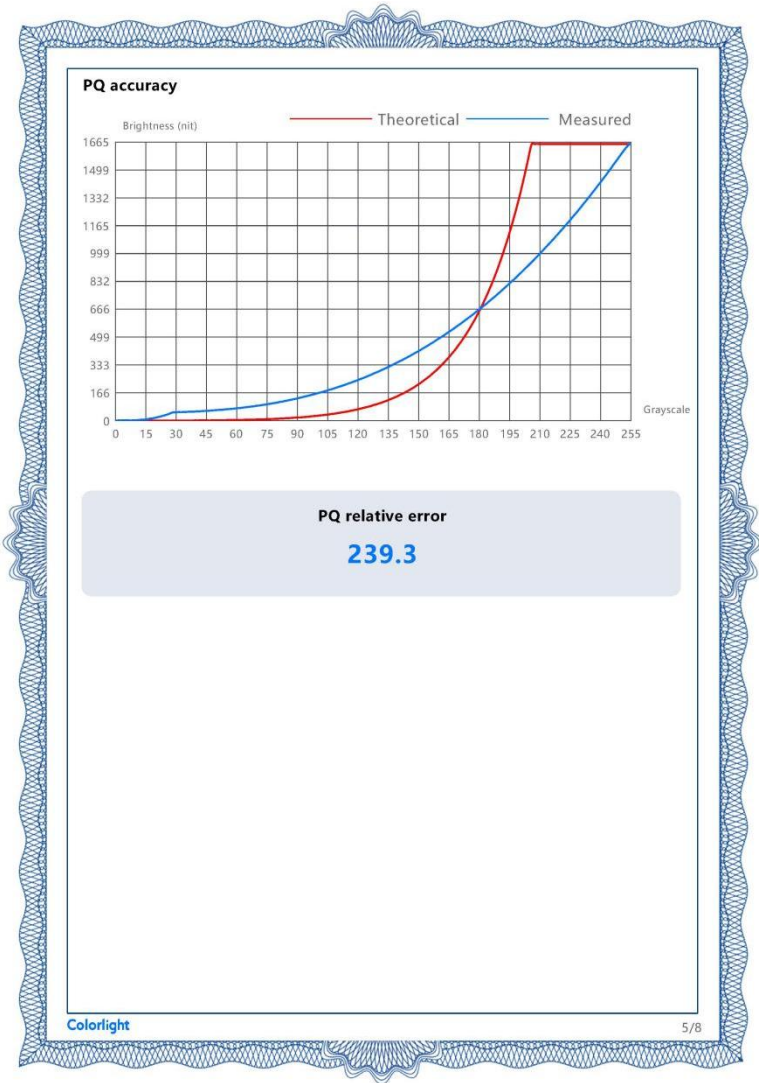
Colorlight

1/8









DE2000

Color gamut standard: Rec.709

Gamma: 2.8

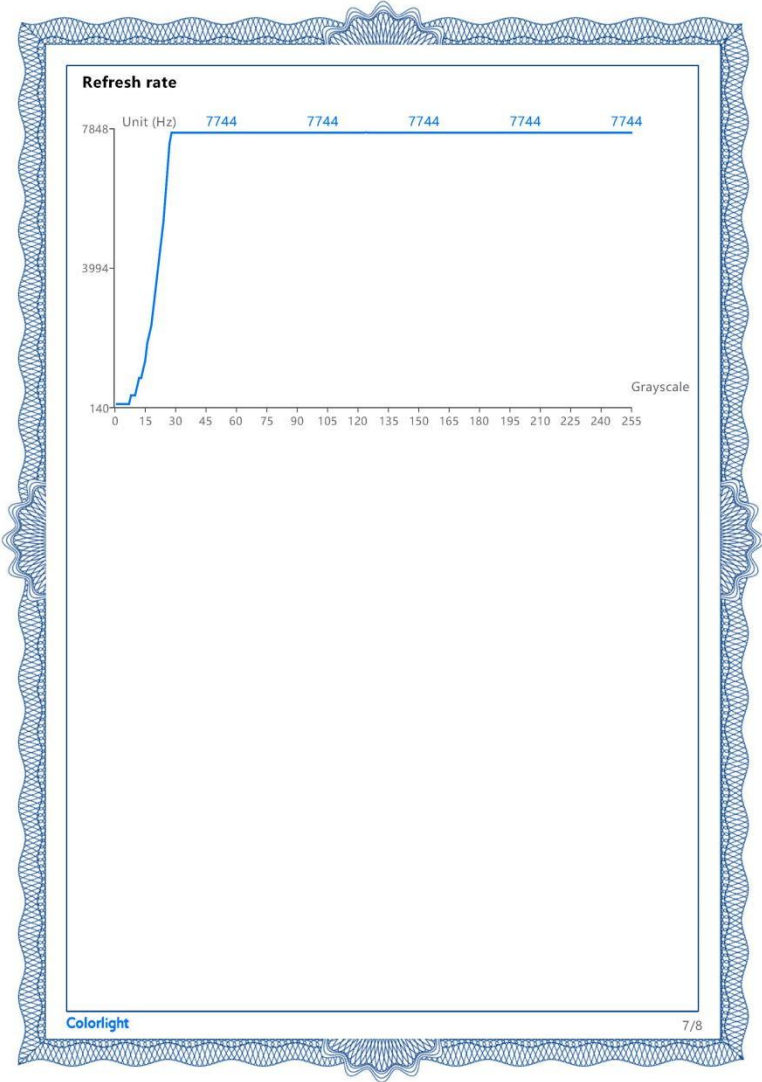
Color	ΔE	Color	ΔE	Color	ΔE	Color	ΔE	Color	ΔE
	3.68554		13.27414		38.07557		30.39907		27.51041
	5.66363		13.22534		21.34043		15.97748		35.44896
	5.59756		4.68442		32.76393		39.08841		19.76427
	5.96614		12.48999		81.37442		19.72931		31.51055
	6.64073		88.10499		68.43818		31.67289		47.73097
	7.49927		79.99734		75.04308		57.73544		17.89466
	8.58705		81.23944		20.20825		38.41360		42.29301
	10.01280		39.03164		47.55816		28.31180		36.28390
	10.64960		13.93219		17.94489		29.86793		32.65097
	10.36018		15.42612		48.59922		39.48875		16.96423
	10.45278		27.70709		24.29909		42.80174		42.60682
	10.98763		32.70561		94.14599		62.47308		55.77197
	12.13560		62.67054		21.32887		52.82870		17.06993

Average color difference

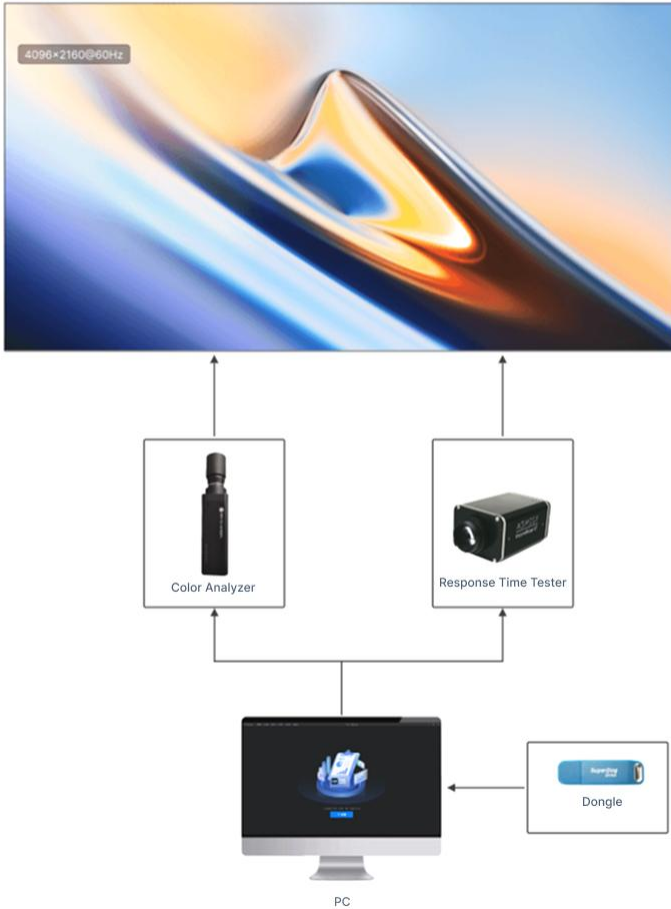
32.24824

Max color difference

94.14599



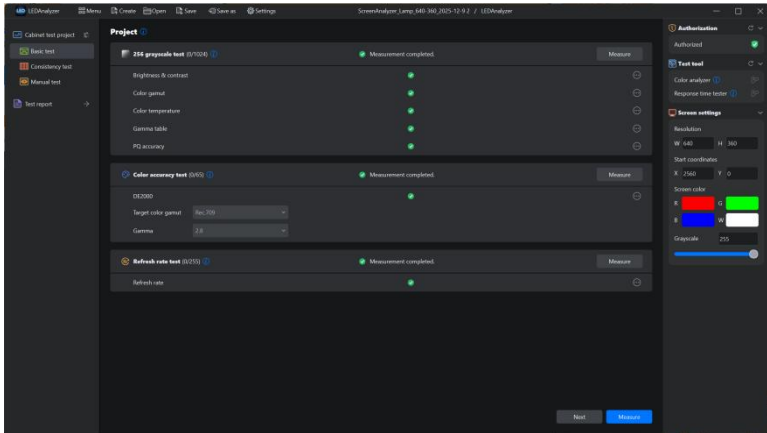
03 Application



Note: The image displayed is for illustrative purposes and may vary from the actual product.

04 Software

4.1 User Interface



4.2 Accessory

- **Dongle**

The encrypted USB drive contains the LEDAnalyzer software installation package and is used for software authorization.



05 Statement

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