

TEST REPORT

The following tested product(s) were submitted and identified by the vendor as:

Applicant	:	Alphawave photonics corp.
Address of Applicant	:	1f, no.283, chang-an st., banciao dist., new taipei city, 22066, taiwan roc
Testing Laboratory	:	SGS Taiwan Ltd., Optics Laboratory
Laboratory Address	:	No. 33, Wu Chyuan Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24886, Taiwan (R.O.C.)
Product Name	:	3528/2835 led strips
Model / Serial Number	:	T120-3528(2835)-3000K-12V
Manufacturer	:	Alphawave photonics corp.
Test Standard/Method	:	According to Client's Methods
Rating	:	DC 12 V
Tested Condition	:	DC 12 V
Date of Issue	:	Sep. 25, 2019

- ◆ The test results are solely accountable for the testing samples.
- ◆ All reported contents shall not be used for advertising, publication, marketing strategies and legal proceedings.
- ◆ Excerpts taken from the report will not be valid unless otherwise stated in the laboratory agreement.

Test Results : -PLEASE SEE ATTACHED SHEETS-

Signed for and on behalf of
SGS TAIWAN Ltd.



Willie Yu
Sr. Engineer

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1 DATE(S) OF PERFORMANCE OF THE TEST

Sep. 22, 2019 ~ Sep. 25, 2019

2 IDENTITY OF SAMPLES

Quantity	Model	Serial Number
1	T120-3528(2835)-3000K-12V	# 1

3 TEST ITEMS**3.1 Luminous Efficacy (η)**

The test results were implemented referring to Clause 6 Measurement with an integrating sphere & Clause 8.7 Electrical measurements of CIE 84-1989 THE MEASUREMENT OF LUMINOUS FLUX (Photocopy Edition 1996).

3.2 Total Luminous Flux (ϕ_v)

The test results were implemented referring to Clause 3 Methods of measurement & Clause 6.5 Integrating sphere of Clause 6 Measurement with an integrating sphere of CIE 84-1989 THE MEASUREMENT OF LUMINOUS FLUX (Photocopy Edition 1996).

3.3 Correlated Color Temperature (CCT) & Color Rendering Index (Ra)

The test results of Correlated Color Temperature (CCT) were implemented referring to Clause 3 Methods of measurement, Clause 6 Measurements with an integrating sphere of CIE 84-1989 THE MEASUREMENT OF LUMINOUS FLUX (Photocopy Edition 1996), CIE 15: 2004 COLORIMETRY.

The test results of color rendering index were implemented referring to Clause 6 Measurements with an integrating sphere of CIE 84-1989 THE MEASUREMENT OF LUMINOUS FLUX (Photocopy Edition 1996) & CIE 13.3-1995 METHOD OF MEASUREMENT AND SPECIFYING COLOUR RENDERING PROPERTIES OF LIGHT SOURCES.

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3.4 Color coordinates (CIEx, CIEy)

The test results were implemented according to CIE 15 : 2004 COLORIMETRY, and the color coordinate measurements were performed in x, y parameters of color coordinates according to CIE 1931 color space diagram.

3.5 Electrical Quantities

The test results were implemented referring to ANSI C82.2-2002 METHOD OF MEASUREMENT OF FLUORESCENT LAMP BALLASTS, ANSI C82.77 HARMONIC EMISSION LIMITS – RELATED POWER QUALITY REQUIREMENTS FOR LIGHTING EQUIPMENT, and Clause 8.7 Electrical measurements of CIE 84-1989 THE MEASUREMENT OF LUMINOUS FLUX (Photocopy Edition 1996).

4 TEST CONDITIONS

Main Test Equipment:

Name	Brand	Model	S/N	Calibration Due Date
Digital Power Analyzer / DC Source	YOKOGAWA / Agilent	WT-1800 / E3634A	OPT-0084 / OPT-0107	2020/03/05
Spectroradiometer / Integrating Sphere	OTSUKA / Labsphere	MCPD-9800 / LMS 760	OPT-0101 / OPT-0007	2020/01/01

Environmental Conditions:

Ambient temperature: (25 ± 1) °C
Relative humidity: (60 ± 20) %RH

DUT Conditions:

Power input: DC 12 V
Dimension: L 300 mm x W 8 mm x H 2 mm
Warm up time: > 60 minutes

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5 TEST RESULTS

5.1 Luminous Efficacy (η)

S/N	Luminous Efficacy	Note
# 1	86.6 lm/W	Stabilization

5.2 Total Luminous Flux (ϕ_v)

S/N	Total Luminous Flux	Note
# 1	282.4 lm	Stabilization

5.3 Correlated Color Temperature (CCT) & Color Rendering Index (Ra)

S/N	CCT	CRI (Ra)	Note
# 1	2999 K	92.9	Stabilization

R1	R2	R3	R4	R5	R6	R7
93.9	98.0	97.6	91.4	93.4	95.5	90.7
R8	R9	R10	R11	R12	R13	R14
82.6	63.7	93.9	91.4	79.5	95.2	99.2

5.4 CIE Color Coordinate (CIEx, CIEy)

S/N	CIEx	CIEy	Note
# 1	0.4316	0.3929	Stabilization

5.5 Electrical Quantities

S/N	Voltage	Current	Input Power	Note
# 1	12.00 Vdc	0.2716 A	3.26 W	Stabilization

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6 PHOTO



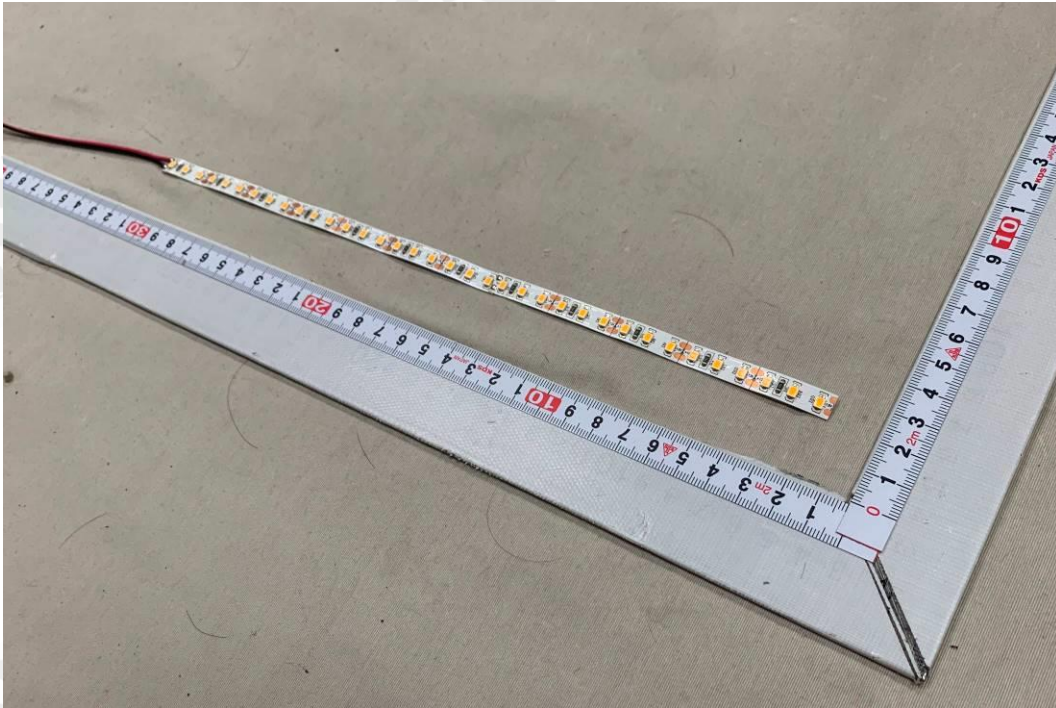
Front View



Back View

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DUT

- End of Report -

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