

TEST REPORT

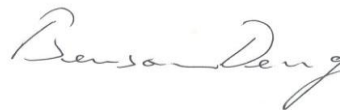
The following tested product(s) were submitted and identified by the vendor as:

Applicant : Orangtek International Pty Ltd
Address of Applicant : 46 Stanley Street, Peakhurst, NSW 2210, Australia
Testing Laboratory : SGS Taiwan Ltd., Optics Laboratory
Laboratory Address : 33, Wu Chyuan Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24886, Taiwan
Product Name : LED Street Light
Model / Serial Number : VOYAGER 24-300mA
Manufacturer : Orangtek Limited Taiwan Branch
Rating : AC 220 V to 240 V (50 / 60) Hz, 24 W
Tested Condition : AC 240 V 50 Hz
Test Standard/Method : Clause 8 & Clause 9 of IEC 62384 DC or AC supplied electronic control gear for LED modules – Performance requirements
Date of Issue : May 26, 2016

- ◆ 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.



Benson DENG
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

1 DATE OF RECEIPT OF SAMPLES

May 20, 2016

2 DATE(S) OF PERFORMANCE OF THE TEST

May 23, 2016

3 IDENTITY OF SAMPLES

| Quantity | Model | Serial Number |
|----------|------------------|---------------|
| 10 | VOYAGER 24-300mA | # 1 - # 10 |

4 TEST ITEMS

4.1 Total circuit power

The test results were implemented referring to Clause 8 Total circuit power of IEC 62384 DC or AC supplied electronic control gear for LED modules – Performance requirements.

4.2 Circuit power factor

The test results were implemented referring to Clause 9 Circuit power factor of IEC 62384 DC or AC supplied electronic control gear for LED modules – Performance requirements.

5 TEST CONDITIONS

Main Test Equipment:

| Name | Brand | Model | S/N | Calibration Due Date |
|---------------------------------|----------------|-------------------|------------------------|----------------------|
| Digital Power Meter / AC Source | YOKOGAWA / apc | WT-210 / AFC-500W | 91J837766 / F312080105 | 2017/2/23 |

Environmental Conditions:

Ambient temperature: (20 to 27) °C
 Relative humidity: (60 ± 20) %RH

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

DUT Conditions:

| | |
|---------------------|---|
| Power input: | <u>AC 240 V 50 Hz</u> |
| Dimension: | <u>L 630 mm x W 165 mm x H 70 mm</u> |
| Warm-up time: | <u>> 120 minutes</u> |
| Stabilization time: | <u>30 minutes</u> |
| Control Gear: | <u>PHILIPS / XITANIUM 27W 1.0A Prog 230V-J sXt / 1 pc</u> |
| Control Gear Spec: | <u>I/P: AC (220 to 240) V 0.16 A, (50 / 60) Hz</u> <u>O/P: DC (0.1 to 1) A, (10 to 38) V</u> |

LED Module Conditions:

| | |
|------------------|--------------------------------|
| Model Number: | <u>30 LED PCB with 24 LEDs</u> |
| Input condition: | <u>DC 300 mA, 24 W</u> |
| Dimension: | <u>L 134 mm x W 94 mm</u> |

6 TEST RESULTS

| S/N | Input Voltage (Vac) | Input Current (A) | Total circuit power (W) (Lamp Circuit Power) | Circuit power factor | Serial No. |
|------|---------------------|-------------------|---|----------------------|-------------------------|
| # 1 | 240.00 | 0.1039 | 23.640 | 0.9478 | 101046 Y T 1621-0176 |
| # 2 | 240.02 | 0.1039 | 23.626 | 0.9476 | 101046 Y T 1621-0175 |
| # 3 | 240.05 | 0.1042 | 23.718 | 0.9483 | 101046 Y T 1621-0178 |
| # 4 | 240.00 | 0.1047 | 23.878 | 0.9501 | 101046 Y T 1621-0177 |
| # 5 | 240.03 | 0.1037 | 23.589 | 0.9476 | 101046 Y T 1621-0173 |
| # 6 | 240.05 | 0.1039 | 23.664 | 0.9490 | 101046 Y T 1621-0174 |
| # 7 | 240.00 | 0.1039 | 23.657 | 0.9488 | 101046 Y T 1621-0179 |
| # 8 | 240.04 | 0.1036 | 23.535 | 0.9467 | 101046 Y T 1621-0180 |
| # 9 | 240.01 | 0.1035 | 23.596 | 0.9496 | 101046 Y T 1621-0169 |
| # 10 | 240.00 | 0.1047 | 23.819 | 0.9478 | 101046 Y T 1621-0170 |
| Avg. | 240.02 | 0.1040 | 23.672 | 0.9483 | -- |

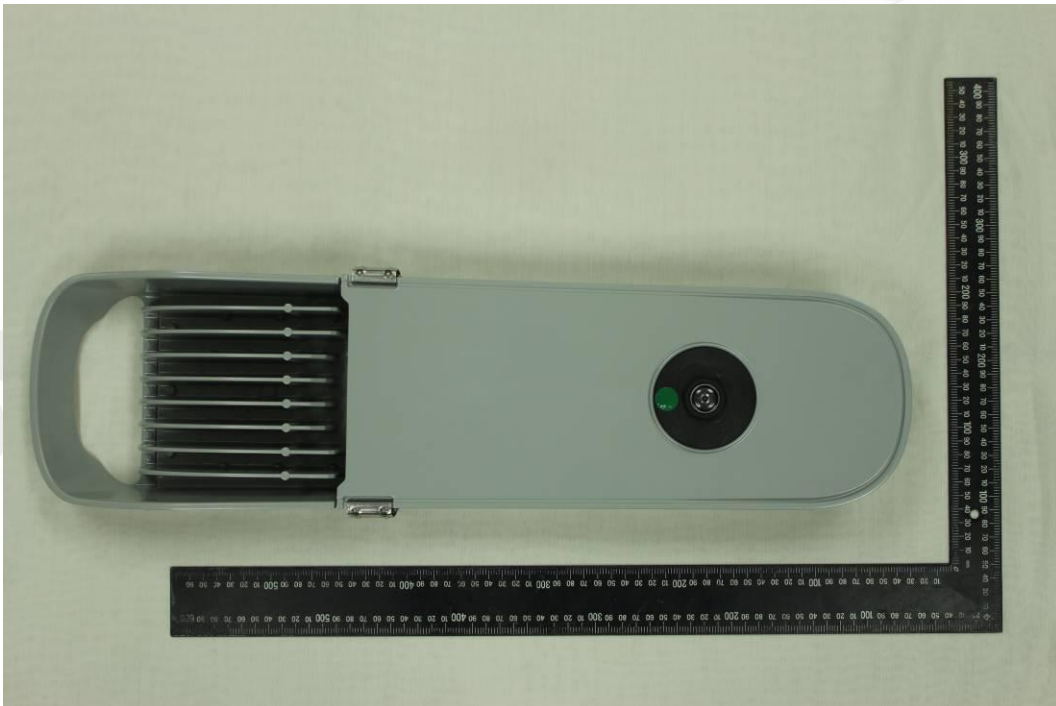
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

7 PHOTO



Front View



Back View

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



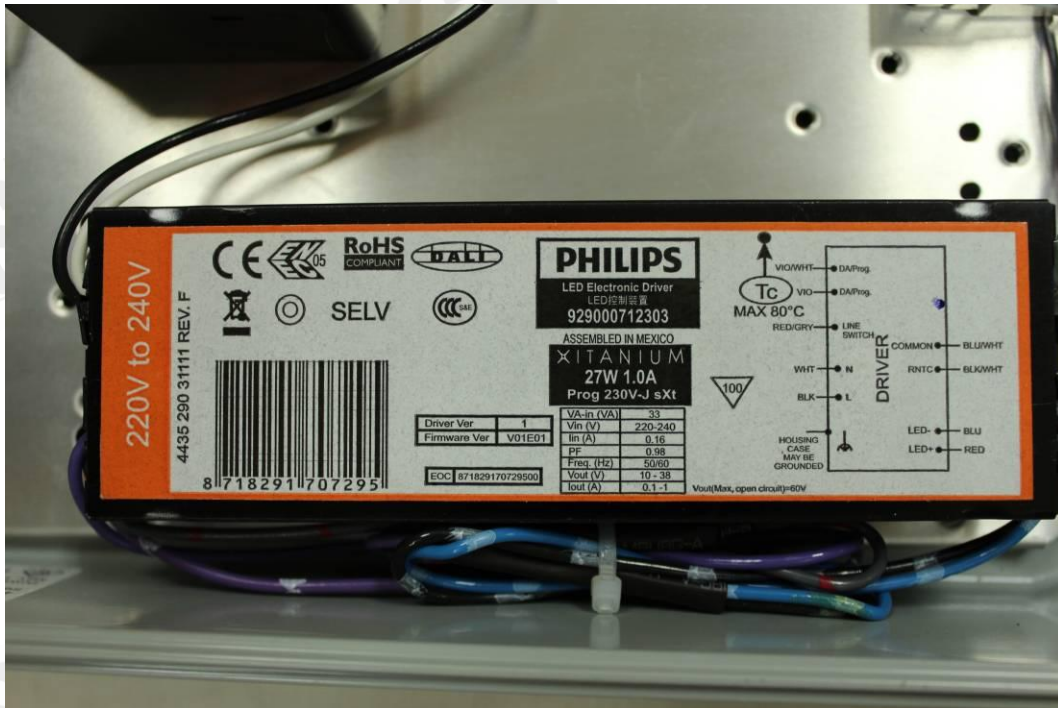
DUT



LED module

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Control Gear
- End of Report -

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.