



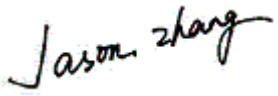

# Test Report

Customer Company & Address:			
LIGHT EMITTING DESIGNS, DIV OF TADD L L C			
ADD: 108 S. Wynstone Park Drive, Suite 103 North Barrington, IL 60010 USA			
<b>Contact Person:</b>		Frank	
<b>Telephone:</b>	(847) 380-3540	<b>Fax:</b>	(847) 380-3542

<b>Manufacturer:</b>	Sunny Solar Technology Ltd.
<b>Country of Origin:</b>	CHINA
<b>Country of Export:</b>	USA
<b>Product Description:</b>	Integral LED lamp, total 80 LED packages, the manufacturer of LED is JING NA Technology Ltd., the model number of LED is JNS3528KMGP2W5515JP-CB3.
<b>Model Number:</b>	LED-1717- DL- R40
<b>Electrical Specification:</b>	Rated Voltage :120V AC Frequency : 60Hz Wattage : 13W

Test Laboratory & Address:			
UL Verification Services (Guangzhou) Co., Ltd.			
ADD: Building A1, 1F & 2F, Nansha Science and Technology Innovation Center, No. 25, South Huanshi Avenue , Nansha District, Guangzhou 511458, China			
<b>Telephone:</b>	+86 20 28667188	<b>Fax:</b>	+86 20 83486605

<b>Receipt of Test Samples :</b>	Sep 9, 2011	<b>Test Period:</b>	Sep 12, 2011 ~ Sep 14, 2011
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Tested By	Approved By
 / Jason.Zhang	 / Johnson.Zhao
Test Personnel Name & Signatory	Approval Name & Signatory

The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.



# Test Report

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## **Statement of Results**

Test Flow	Test Method	Sample ID (Lab)	Sample Serial No	Pass/Fail/NA
1.	Integrating Sphere Test	1193406-S1	N/A	Evaluate by customer

## **Deviation from Test Method** *(if any)*

N/A

## **Remark** *(if any)*

N/A



# Test Report

## Test No. 1 : Integrating Sphere Test

### Environmental Conditions

Temperature: 25.1 °C

### Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
GVS-LE-PE001	Integrating Sphere	Before Use	Before Use
GVS-LE-FS008	Measurement Standard Lamp	9/25/2010	9/25/2011

### Test Sample

1193406-S1

### Test Method

The sample was tested according to the IES LM-79-2008. Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C ± 1° C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

### Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
Input	120.0	60	0.120	13.30	0.921

Test Type	Correlated Color Temperature (K)	Color Rendering Index (Ra)	R9	Duv
Output	6400	83.4	12	0.0015



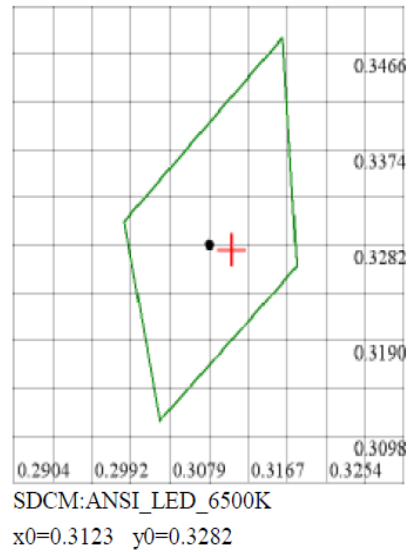
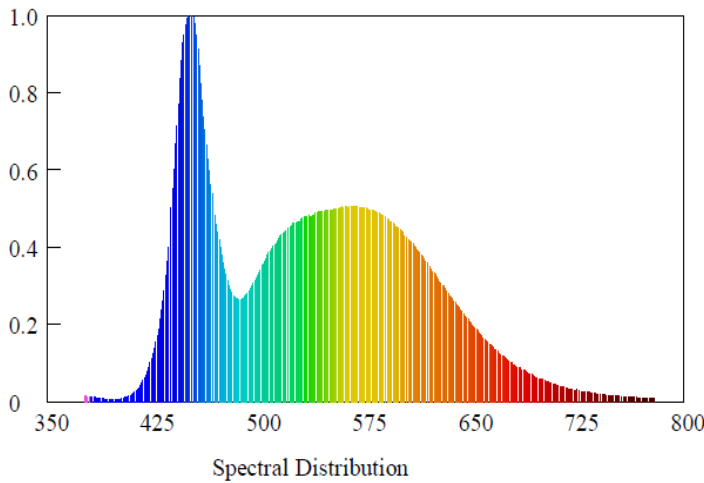
# Test Report

## Test Condition

Temperature: 25.1°C  
 Spectrum Range: 380-780 nm

RH: %  
 Scan Step: 1 nm

## Spectroradiometric Parameters



Chromaticity Coordinates:  $x=0.3148$   $y=0.3277$   $u'=0.1998$   $v'=0.4679$

Correlated Color Temperature: 6400 K

Dominant Wavelength: 487.0 nm(E)

Luminous Flux: 857.117 lm

Purity: 0.0664

Chromaticity Difference: +0.00145Duv

Peak Wavelength: 453.2 nm

Color Ratio:  $K_r=30.8\%$   $K_g=56.6\%$   $K_b=12.6\%$

Color Tolerance: 0.0 SDCM

Bandwidth: 26.8nm

Radiant Flux: 2.75 W

Rendering Index: Ra=83.4

R1=82 R2=89 R3=91 R4=82 R5=82 R6=82 R7=88 R8=71

R9=12 R10=72 R11=80 R12=58 R13=85 R14=95 R15=79



# Test Report

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## Photos of sample



\*\*\*\*\***END OF TEST REPORT**\*\*\*\*\*