

# Test Report

Applicant & Address			
Applicant Name	LED One Distribution Inc.		
Address	45885 Hotchkiss Street. Fremont, CA 94539		
Contact	Jonathan Chu		
Telephone		Fax/ E-mail Address	

Country of Origin	China
Country of Export	USA, Canada
Product Description	Lamp type: Four-Foot Linear Replacement Lamps - Dual Mode Internal Driver (UL Type A or B) Manufacturer of Light Source: Shineon (Beijing) Technology Co., Ltd. Model Number of Light Source: SOW2835
Model Number	LOD-GDMT84F-12W50KF YM2
Electrical Specification	Rated Voltage: 120-277Vac
	Frequency: 60 Hz
	Wattage: 12W
	Nominal CCT: 5000K
Test Laboratory & Address	
Test Laboratory	Deliver Co., Ltd.
Address	Block 11, 78 Keling Road, SSTP, Suzhou, China, 215000

Telephone	0512-6680 1969	Fax	0512-6680 1916
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Receipt Date of Test Samples	2016/12/10	Test Period	See individual test page
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Test by	Approved by
<i>Wangzun Zhu</i> /Wangzun Zhu	<i>Kevin Jia</i> /Kevin Jia
Test Personnel Name & Signatory	Approved Name & Signatory



## Test Results

### Statement of Results

Test No.	Test Method	Sample No.	Sample Serial No.	Result (Pass/Fail/NA)
1	Integrating Sphere	B1	DLF1612104	Evaluated by Customer

### Deviation from Test Method (if any)

N/A

### Remark (if any)

This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.

*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

Test No.1: Integrating Sphere Test (Type A)

### Environmental Conditions

Temperature (°C)	25.0	Relative Humidity (%)	58
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### Test Equipment

Equipment ID	Equipment Name	Date	Calibration Due Date
DLF107	Integrating Sphere System	2016/1/5	2017/1/4
DLF108	Auxiliary Lamp	2016/1/5	2017/1/4
DLF122	Measurement Standard Lamp	2016/1/5	2017/1/4
	Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-directional		
DLF116	AC Power Source	2016/1/5	2017/1/4
DLF113	Power Meter	2016/1/5	2017/1/4
DLF112	Temperature Recorder	2016/1/5	2017/1/4
DLF114	Temperature & Humidity Datalogger	2016/1/5	2017/1/4

Test Sample B1

Test Date 2016/12/15

### Test Method

The samples were 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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ .

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 voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within  $\pm 0.2$  percent under load.

The sample was measured using  $4\pi$  geometry and operated at rated voltage and 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.

The sample is operated off ballast Model QHE 2x32T8/UNV ISN-SC, manufactured by OSRAM.

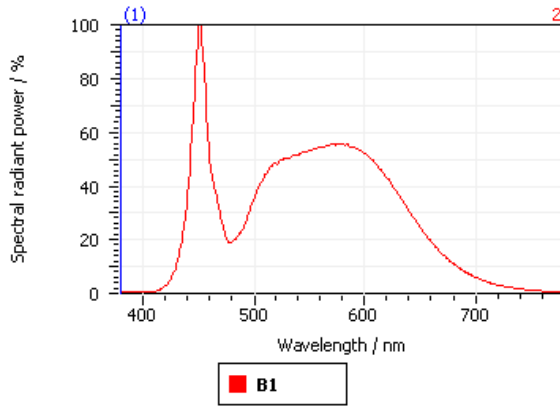
### Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current* (A)	Power* (W)	Power Factor	Orientation	Operate time (Min.)	Stabilization time (Min.)
Input	119.98	60	0.102	12.14	0.996	Light Down	40	30

Test Type	CCT (K)	CRI	R9	Luminous Flux (lm)	Luminous Efficacy (lm/W)
Output	5125	80.9	-3.0	1945	160.2

**Spectroradiometric Parameters**

**Results**



**Spectral values**

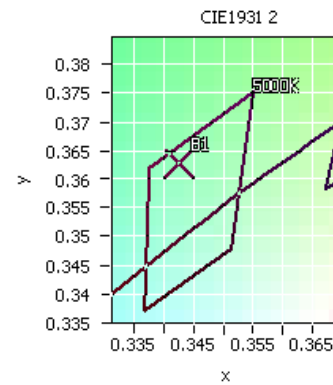
ResultsPhotometric	1.945 klm
DominantWavelength	565.69 nm
Purity	0.117
PeakWavelength	451.45 nm
Radiant Power	5.913 W
Width50%:	17.38 nm

**Color Coordinates**

Correlated Color Temperature 5125 K

x: 0.3427    u: 0.2056    u': 0.2056  
 y: 0.3627    v: 0.3264    v': 0.4896

ResultsCRICRI01	78.2	ResultsCRICRI09	-3.0
ResultsCRICRI02	85.8	ResultsCRICRI10	67.2
ResultsCRICRI03	92.0	ResultsCRICRI11	79.8
ResultsCRICRI04	80.6	ResultsCRICRI12	56.5
ResultsCRICRI05	79.0	ResultsCRICRI13	80.1
ResultsCRICRI06	80.8	ResultsCRICRI14	95.9
ResultsCRICRI07	86.6	ResultsCRICRI15	71.2
ResultsCRICRI08	64.4	ResultsCRICRI16	70.0
ResultsCRI	80.9		



Nominal CCT:5000K

PlanckDistance                      6.4E-003

## Test Report

Test No.2: Integrating Sphere Test (Type B)

### Environmental Conditions

Temperature (°C)	25.0	Relative Humidity (%)	58
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### Test Equipment

Equipment ID	Equipment Name	Date	Calibration Due Date
DLF107	Integrating Sphere System	2016/1/5	2017/1/4
DLF108	Auxiliary Lamp	2016/1/5	2017/1/4
DLF122	Measurement Standard Lamp	2016/1/5	2017/1/4
	Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-directional		
DLF116	AC Power Source	2016/1/5	2017/1/4
DLF113	Power Meter	2016/1/5	2017/1/4
DLF112	Temperature Recorder	2016/1/5	2017/1/4
DLF114	Temperature & Humidity Datalogger	2016/1/5	2017/1/4

Test Sample B1

Test Date 2016/12/15

### Test Method

The samples were 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  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ .

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 voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within  $\pm 0.2$  percent under load.

The sample was measured using  $4\pi$  geometry and operated at rated voltage and 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.

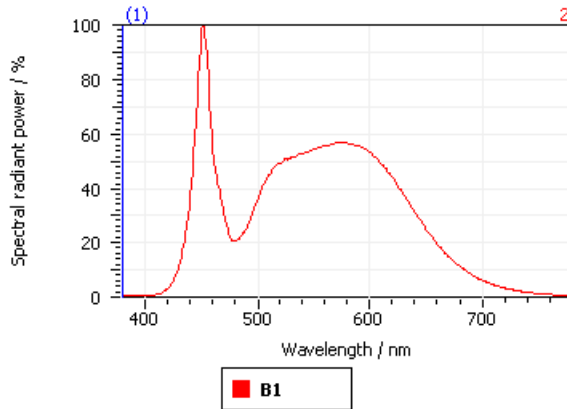
### Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current* (A)	Power* (W)	Power Factor	Orientation	Operate time (Min.)	Stabilization time (Min.)
Input	120.02	60	0.105	11.94	0.989	Light Down	40	30

Test Type	CCT (K)	CRI	R9	Luminous Flux (lm)	Luminous Efficacy (lm/W)
Output	5160	81.6	0.1	1854	155.3

## Spectroradiometric Parameters

### Results



#### Spectral values

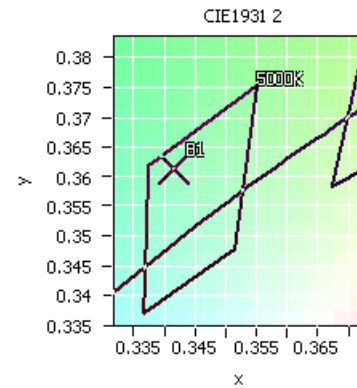
ResultsPhotometric	1.854 klm
DominantWavelength	565.12 nm
Purity	0.109
PeakWavelength	451.96 nm
Radiant Power	5.659 W
Width50%:	18.43 nm

#### Color Coordinates

Correlated Color Temperature 5160 K

x: 0.3416    u: 0.2055    u': 0.2055  
 y: 0.3612    v: 0.3258    v': 0.4887

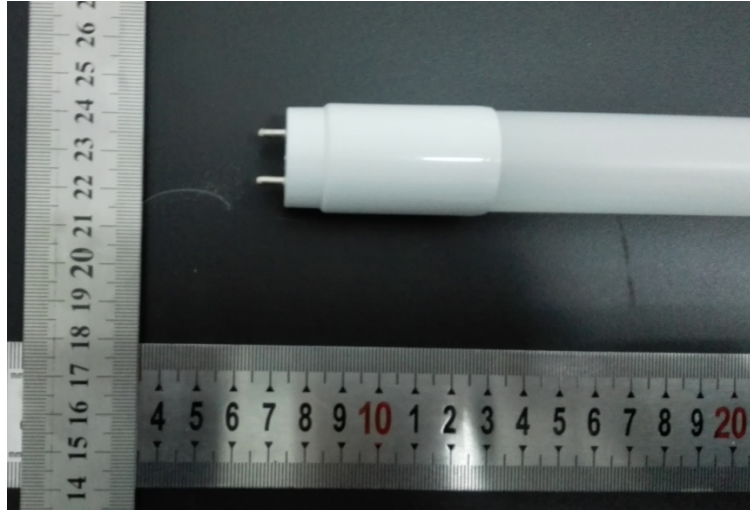
ResultsCRICRI01	79.1	ResultsCRICRI09	0.1
ResultsCRICRI02	86.2	ResultsCRICRI10	67.6
ResultsCRICRI03	91.9	ResultsCRICRI11	80.6
ResultsCRICRI04	81.5	ResultsCRICRI12	56.3
ResultsCRICRI05	79.6	ResultsCRICRI13	80.8
ResultsCRICRI06	80.8	ResultsCRICRI14	95.7
ResultsCRICRI07	87.5	ResultsCRICRI15	72.5
ResultsCRICRI08	66.0	ResultsCRICRI16	71.2
ResultsCRI	81.6		



Nominal CCT:5000K

PlanckDistance                      6.1E-003

<b>Test Report</b>	
Test Sample	B1
Photos of Sample	



\*\*\*\*\* End of Test Report\*\*\*\*\*