



**CONFORMANCE TEST REPORT
FOR
IEC62493:2009/EN62493:2010**

Report No.: 13-05-RBP-009

Client: **GlacialTech Inc**
Product: **LED Troffer Light**
Model: **GL-TL0606XYZ-30**
Manufacturer: **GlacialTech Inc**

Date test item received 2013/05/02

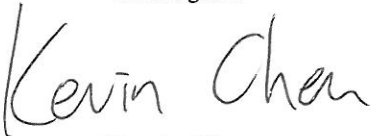

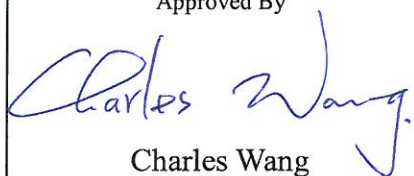
Date test campaign completed 2013/05/08

Date of issue 2013/05/08

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

Total number of pages of this test report: 11 pages

Total number of pages of this test photos: 01 pages

Test Engineer	Checked By	Approved By
 Kevin Chen	 Max Wu	 Charles Wang

ELECTRONICS TESTING CENTER, TAIWAN
NO. 34, LIN 5, DINGFU, LINKOU DIST.,
NEW TAIPEI COUNTY 24442,
TAIWAN, R.O.C

TEL:(02)26023052
INT:+886-2-26023052
FAX:(02)26010910
INT:+886-2-26010910



Laboratory Introduction: Electronics Testing Center, Taiwan is recognized, filed and mutual recognition arrangement as following:

- ① ISO9001: TÜV Product Service
- ② ISO/IEC 17025: BSMI, CNLA, NCC, NVLAP, CCIBLAC, UL, Compliance
- ③ Filing: FCC, Industry Canada, VCCI
- ④ MRA: Australia, Hong Kong, New Zealand, Singapore, USA, Japan, Korea, China, APLAC through CNLA
- ⑤ FCC Registration Number: 90589



CONTENTS

●	EMC TEST REPORT	1
●	CONTENTS.....	2
1	TEST REPORT CERTIFICATION.....	3
2	GENERAL INFORMATIONS	4
	2.1 Description of EUT	4
	2.2 Related Information of EUT	4
	2.3 Tested Configuration.....	4
	2.4 Deviation Record	4
	2.5 Modification Record	4
3	LIMITS	5
	3.1 Application of limits.....	5
4	GENERAL REQUIREMENTS	6
	4.1 Supply voltage.....	6
	4.2 Measurement frequency range	6
	4.3 Ambient temperature.....	6
	4.4 Measurement equipment requirements	6
5	MEASUREMENT PROCEDURE.....	7
	5.1 Measurement set-up	7
6	TEST INSTRUMENT	8
7	SUMMARY OF TEST RESULTS	9
	7.1 Emissions:	9
8	TEST DATA & RELATED INFORMATIONS	10
	8.1 Emissions:	10
	8.1.1 Household and Similar Electrical Appliance Electromagnetic Fields Test Data:	10
	ANNEX A: Measurement distances.....	A1
	ANNEX B: Location of Measurement test-head	A2
	ANNEX C: PHOTOS	A3



1 TEST REPORT CERTIFICATION

Client : GlacialTech Inc
Address : 9Fl.,No.352,Sec.2,Jung Shan Rd.,Jung He City, Taipei, Taiwan, 235, R.O.C
Manufacturer : GlacialTech Inc
Address : 9Fl.,No.352,Sec.2,Jung Shan Rd.,Jung He City, Taipei, Taiwan, 235, R.O.C
EUT : LED Troffer Light
Trade Name : ----
Model No. : GL-TL0606XYZ-30
Test Standard : Emissions
IEC62493:2009/EN62493:2010

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

2 GENERAL INFORMATION

2.1 Description of EUT

LED Troffer Light

2.2 Related Information of EUT

Power Supply : 100-240V,60/50Hz

Power Line : ☒ Nonshielded ☐ Shielded ☐ None, Length: 1.8 m

* For more detailed features, please refer to User's Manual.

2.3 Tested Configuration

No devices were required.

Product	Manufacturer	Model No.	Serial No.	I/O Cable
--	--	--	--	--

2.4 Deviation Record

(If any deviation from additions to or exclusions from test method must be stated)

N/A

2.5 Modification Record

No modifications were required. (That is the EUT complied with the requirement as tested.)

3 LIMITS

3.1 Application of limits

the measured (weighted and summarized) induced current density due to the electric field in the frequency range 20 kHz to 10 MHz does not exceed the factor (F) 0,85 as

$$\sum_{f_j = 20 \text{ kHz}}^{150 \text{ kHz}} \frac{J_{\text{cap}}(f_j, d)}{J_{\text{Lim}}(f_j)} + \sum_{f_j = 150 \text{ kHz}}^{10 \text{ MHz}} \frac{J_{\text{cap}}(f_j, d)}{J_{\text{Lim}}(f_j)} \leq 0,85$$

Step = 220 Hz Step = 10 kHz

4 GENERAL REQUIREMENTS

4.1 Supply voltage

Measurements shall be carried out within $\pm 2\%$ of the maximum rated supply voltage.

Equipment which can be operated from an AC- and/or DC supply shall be measured from one AC supply at a single frequency

4.2 Measurement frequency range

The measurement frequency range considered is from 20 kHz to 10 MHz.

4.3 Ambient temperature

Measurements shall be carried out in the ambient temperature range 15 °C to 25 °C.

4.4 Measurement equipment requirements

An electromagnetic interference (EMI) test receiver or spectrum analyzer according to CISPR 16-1-1 is required, with the settings given in Table 2:

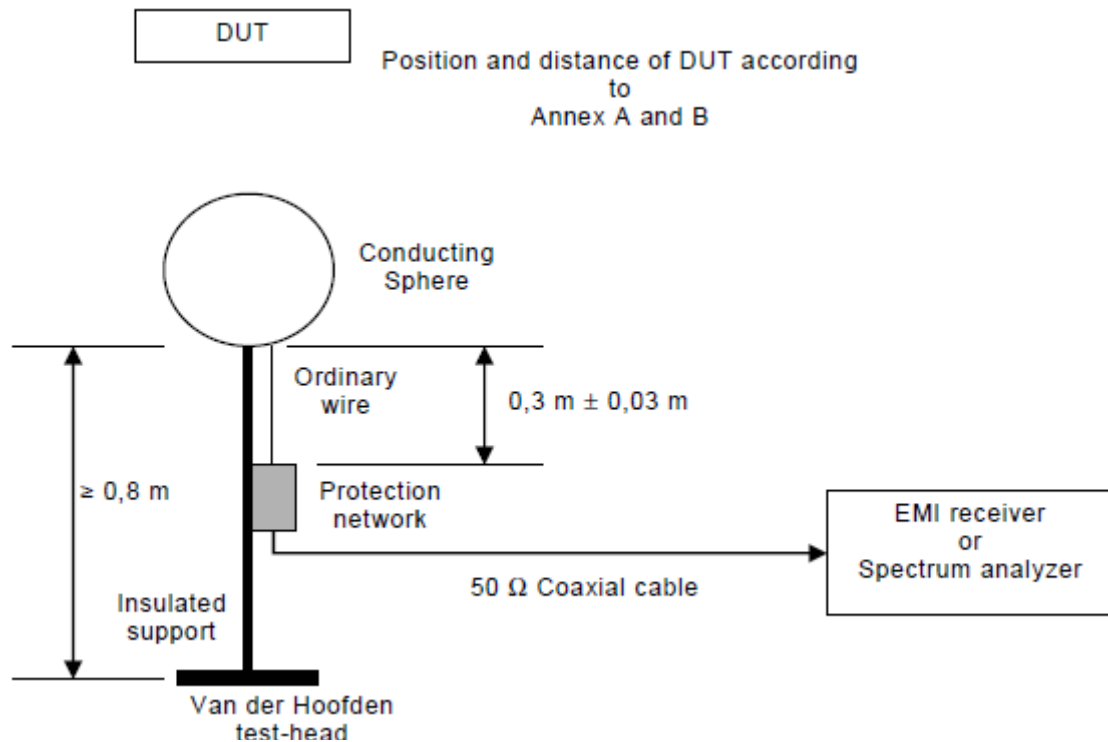
Table 2 – Receiver or spectrum analyzer settings

Frequency range	B_6 according to CISPR 16-1-1	Measurement time	f_{step}	Detector
20 kHz – 150 kHz	200 Hz	100 ms	220 Hz	Peak
150 kHz – 10 MHz	9 kHz	20 ms	10 kHz	Peak

5 MEASUREMENT PROCEDURE

5.1 Measurement set-up

The measurement set-up is given in Figure 3.



DUT = device under test.

NOTE The EMI receiver or spectrum analyzer must be powered by mains including protective earth.

Figure 3 – Measurement set-up



6 TEST INSTRUMENT

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2013/04/26	2014/04/26
Van der Hoofden Test-Head Protection Network/VDH30	AFJ	VDH30	2013/03/29	2014/03/29

7 SUMMARY OF TEST RESULTS

7.1 Emissions:

	APPLICATION OF LIMITS (Test summary)		
	Specific absorption rate (SAR)		
a)	CISPR 15 clause 4.3.1 Disturbance voltage mains terminals 20 kHz – 30 MHz	13A032606E-EL	
b)	CISPR 15 clause 4.4 Radiated electromagnetic disturbances 100 kHz – 30 MHz	13A032606E-EL	
c)	CISPR 15 clause 4.4.2 Radiated electromagnetic disturbances 30 MHz – 300 MHz	13A032606E-EL	
*)	<input checked="" type="checkbox"/> See separate Test Report for measurements of a), b) and c) above Test Report with Ref. No.: <input type="checkbox"/> Only measurement of d) below. See measurement results below. In this case this test report does not show compliance with IEC62493:2009/EN62493:2010.		—
	Induced current density		
d)	Induced current density 20 kHz – 10 MHz	See measurement results below	

8 TEST DATA & RELATED INFORMATION

8.1 Emissions:

8.1.1 Household and Similar Electrical Appliance Electromagnetic Fields Test Data:

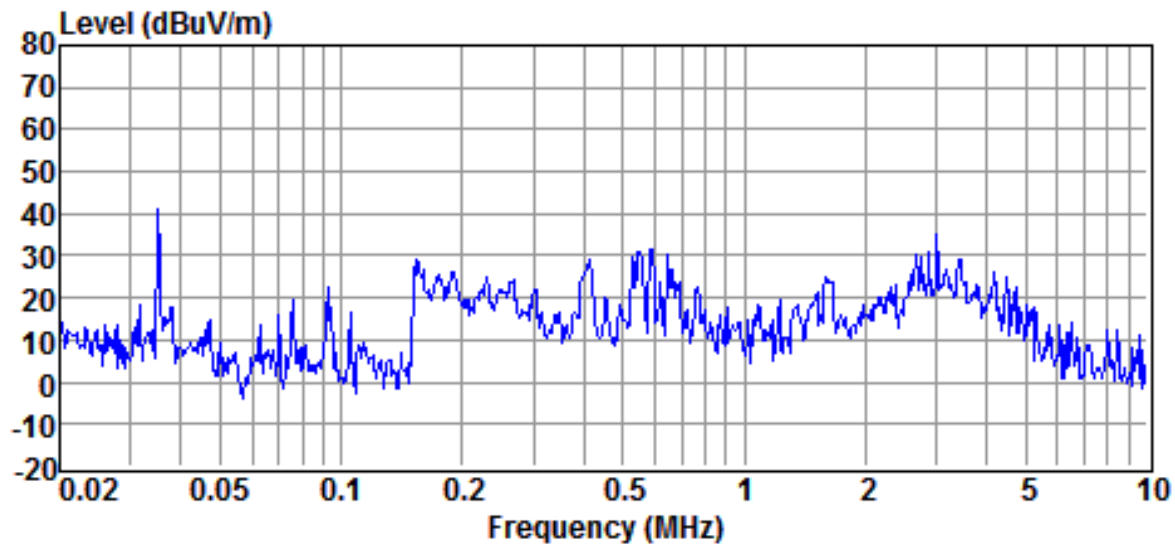
A. Operating Conditions of the EUT: Operation Mode

Test Date: May. 08, 2013

Test Specification	IEC62493:2009/EN62493:2010		
Climatic Condition	Ambient Temperature: <u>23</u> °C	Relative Humidity: <u>52</u> %RH	Atmospheric Pressure: <u>990</u> mbar
Power Supply System	AC Power: <u>230</u> Vac <u>50</u> Hz		

Measuring Distance(cm): <u>50</u>		
Test Value	Limit	Test Results
0.122637	0.85	PASS

B. Graph and data please see next page.



Site	:Chamber#2	Date	:2013-05-08
Limit	:CISPR CLASS-B	Ant. Pol.	:
EUT	:LED Troffer Light	Temp.	:23
Power Rating	:230V/50Hz	Humi.	:52
Model	: GL-TL0606XYZ-30	Engineer.	:Kevin
Test Mode	:Light on		
Test Mode	:		

Annex A (normative)

Measurement distances

The measurement distances in Table A.1 have been defined, based upon the expected location of the general public during normal operation.

Table A.1 – Lighting equipment and measurement distances

Type of lighting equipment	Measurement distance (cm)
Hand lamps ^a	5 ^a
Table lighting equipment	30
Wall lighting equipment	50
Up lighter	50
Suspended lighting equipment	50
Ceiling and/or recessed lighting equipment for fluorescent lamps with an input power ^b ≤ 180 W	50
Ceiling and/or recessed lighting equipment for fluorescent lamps with an input power ^b > 180 W	70
Ceiling and/or recessed lighting equipment for discharge lamps with an input power ^b ≤ 180 W	70
Ceiling and/or recessed lighting equipment for discharge lamps with an input power ^b > 180 W	100
Portable lighting equipment	50
Flood lights	200
Lighting equipment for road and street Lighting	200
Lighting chains	50
Lighting equipment for swimming-pools and similar applications	50
Lighting equipment for stage lighting, television and film studios (outdoor and indoor)	100
Lighting equipment for use in clinical areas of hospitals and health care buildings	50
Ground recessed lighting equipment	50
Aquarium lighting equipment	50
Plug- in night lights	50
Self ballasted lamps	30
UV and IR radiation equipment	50
Transport lighting (installed in the passenger compartment of buses and trains)	50
Other lighting equipment not mentioned in this table	50
^a Measurement distance should be 30 cm and the measured value should be calculated to a distance of 5 cm (équation; $1/r^3$).	
^b Total nominal power of the lighting equipment.	

Annex B (informative)

Location of measurement test-head

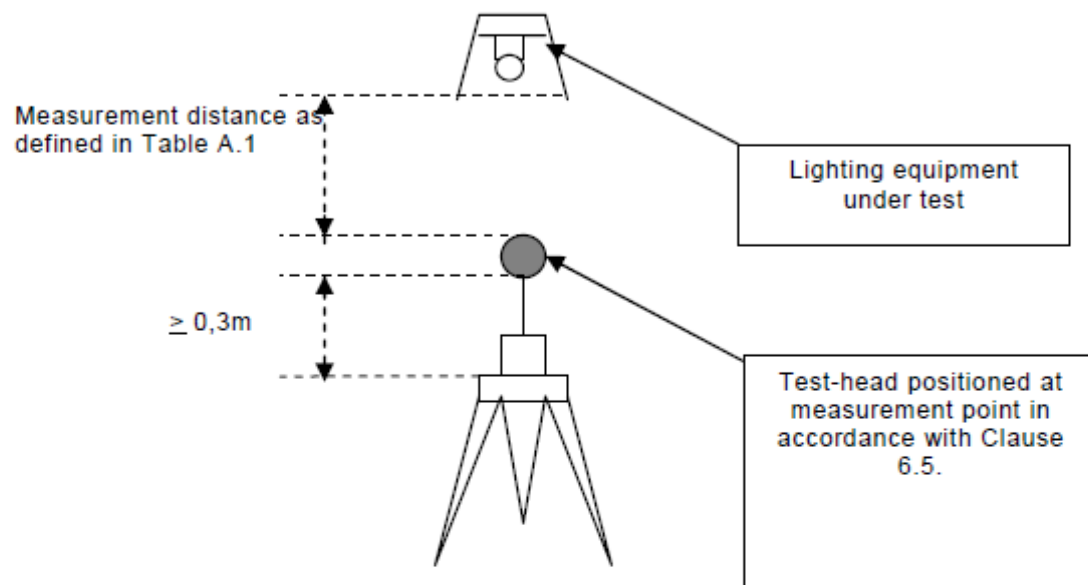
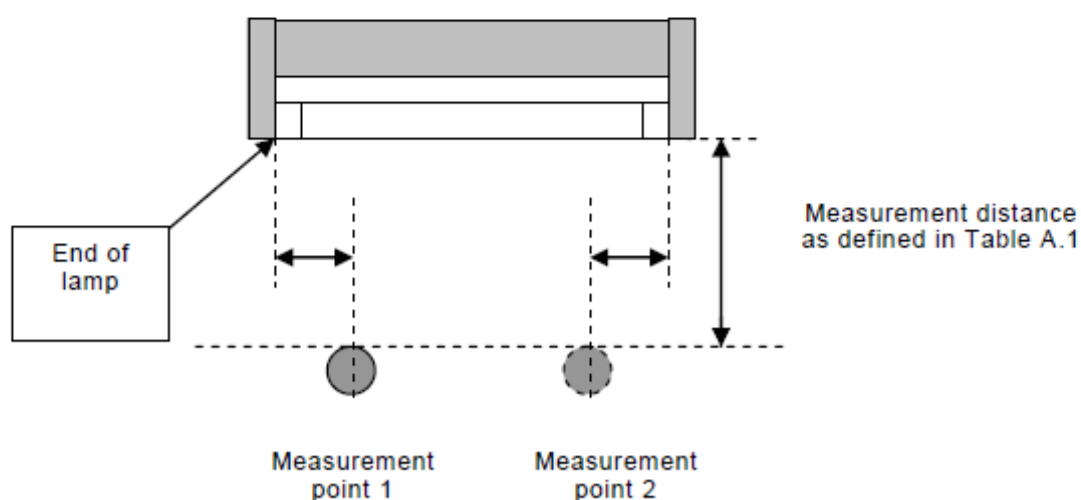


Figure B.1 – Typical measurement arrangement

IEC 2334/09



IEC 2335/09

Figure B.2a – Location of measurement point for lighting equipment with double capped fluorescent lamp(s) (recessed, surface or pole mounted)

ANNEX C: PHOTOS**1. Household and Similar Electrical Appliance Electromagnetic Fields Test Setup Photos**