

# جراي ماكنزي للخدمات الهندسية (ش.ذ.م.م) Gray Mackenzie Engineering Services L.L.C.

مرب ۱۲۲۱۳، به المتمدلا الإمارات المربية المتمدلا الإمارات المربية المتمدلا المنازات المربية المتمدلا المنازات المربية المتمدلا المنازات ا

# **TEST REPORT**

Reference Standard: IEC 60598-2-2 Luminaires - Part 2-2: Particular requirements - Recessed luminaires

Report Reference No:	47039
Date of issue:	27 June 2018
Total Number of Pages:	8
Applicant's Name:	LITE-TECH INDUSTRIES LLC
Address	13-B, Ras Al Khor Ind. No.1, PO. Box: 60305, Dubai, UAE.
Test specification:	
Standard(s):	IEC 60598-2-2, IEC 60598-1
Test Report Form No:	GMES/LAB/FRM/-021 Rev 01, Jan'18
Test Report Form(s) Originator:	Gray Mackenzie Engineering Services LLC
Master TRF	04-January-2018
Client Document No	N/A
Client Reference No:	N/A
Lab Reference No:	N/A
Job No	23759
Data Sheet No:	16038
Test Item Description:	Recessed LED Down Light
Trademark/Identification mark:	LITE-TECH
Manufacturer name:	LITE-TECH INDUSTRIES L.L.C
Model/Type reference:	30-SNOWPLAN-LTS4X1-40-840
Serial Number	Not Indicated
Ratings	220V-240V, 50/60Hz, 40W, IP44, Ta.45°C, 4000K, 4100lm







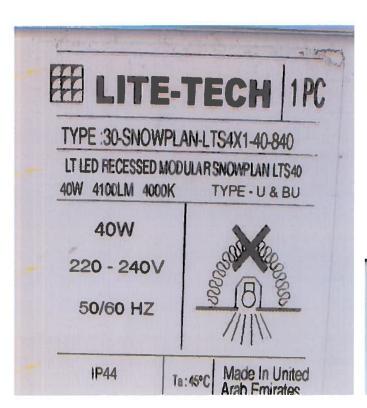
Testi	ing Procedure and Testing Location:		
$\boxtimes$	Testing Laboratory:	Gray Ma	ackenzie Engineering Services LLC
Teste	d By (name+signature):	Jhay Fig	uerrez
Appro	oved By (name+signature):	La Harish N	I. Vasavan
		7	7.1.

### **Summary of Testing:**

- ☑ The product complies with the requirements of the tests performed as per IEC 60598-2-2, IEC 60598-1.
- ☑ The product complies with the KUCAS and SASO Essential Requirements.

Note: Clause No 4 & 12 of IEC 60598-1 are not covered under GAC Scope of accreditation.

### Copy of Marking Plate:



Manufactured By
LITE-TECH INDUSTRIES L.L.C
DUBAI U.A.E





## **Possible Test Case Verdicts:**

- test case not conducted to the test object...... N/C

- test case does not apply to the test object...... N/A

- test object does meet the requirement ...... P (Pass)

- test object does not meet the requirement..... F (Fail)

Testing .....

Laboratory Temperature 23±2°C

#### **General Remarks:**

The test results presented in this report relate only to the object tested.

This report shall not be reproduced in full/partial without the written approval of the Issuing testing laboratory.

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.





	IEC 60598-2-2				
Clause	Requirement - Test	Result - Remark	Verdic		
2.6 (3)	MARKING:		Р		
3.1	GENERAL:		Р		
	Any written instructions related to safety shall be in a language which is acceptable in the country in which the equipment is to be installed.		Р		
3.2	MARKING ON LUMINAIRES:		Р		
	Mark of origin	LITE-TECH	Р		
	Rated voltage(s) in volts	220-240V	Р		
	rated maximum ambient temperature ta	Ta 45°C	Р		
	Symbol for class II luminaires		N/A		
	Symbol for class III luminaires		N/A		
	Marking with IP numbers	IP44	Р		
	Model number or type reference	30-SNOWPLAN-LTS4X1- 40-840	Р		
	Rated wattage or the designation	40W	Р		
	Symbol for luminaires for lamps of similar shape to "cool beam"		N/A		
	Except for type Z attachments, terminations shall be marked to identify live, neutral and earth		Р		
	Symbol for minimum distance from lighted objects		N/A		
	Symbol for rough service luminaires		N/A		
	Symbol for luminaires for cracked protective shield		N/A		
11.00	Luminaires incorporating a protective shield		N/A		
	maximum number of luminaires that may be interconnected or the maximum total current		N/A		
	Relevant symbol for luminaires not suitable for covering with thermally insulated material.		Р		
3.3	Additional information:		Р		
	All details which are necessary to ensure proper installation, use and maintenance shall be given		Р		
3.3.2	Nominal Frequency:	50/60Hz	Р		
3.3.3	Operating temperature:	Ta 45°C	Р		
3.3.17	Supply cord replacement instruction		N/A		
2.6 (3.4)	TEST OF MARKING:		P		
	After the test, the marking shall be legible,		Р		
	marking labels shall not be easily removable and		Р		
	They shall show no curling.		Р		



	IEC 60598-2-2					
Clause	Requirement - Test	Res	sult -	Rema	rk	Verdict
2.7 (4.13)	MECHANICAL STRENGTH:					Р
			Applied impact energy			
4.13.1	Luminaires shall have adequate mechanical strength and be so constructed as to be safe after such rough handling	Frag	gile	Ot	her	Р
	as may be expected in normal use.	0.20	Nm	0.35	Nm	
4.13.2	Metal parts enclosing live parts shall have adequate mechanical strength.	N	lo Live	Parts		Р
2.7 (4.14)	SUSPENSION AND ADJUSTING DEVICES:					Р
4.14.1	Mechanical suspensions shall have adequate factors of safety.		82			Р
4.14.2	The mass of the luminaire suspended by flexible cables or cords shall not exceed 5 kg.					N/A
	The total nominal cross-sectional area of the conductors of flexible cables or cords suspending pendants shall be such that the stress in the conductors does not exceed 15 N/mm2					N/A
4.14.3	Adjusting devices and means of adjustment shall be so constructed that cords or cables are not pressed, clamped, damaged or twisted along the longitudinal axis by more than 360° during operation					N/A
2.7 (4.21)	PROTECTIVE SHIELD:					N/A
4.21.4	inspection and by the following tests:					N/A
	the protective shield shall comply with the impact test of 4.13.1 with the impact energy of Table 4.3 for fragile parts:	i.				N/A
	<ul> <li>parts of the lamp compartment, if of insulating material, shall comply with the resistance to flame and ignition test of 13.3.2.</li> </ul>					N/A
2.8(11)	CREEPAGE DISTANCES AND CLEARANCES					P
(11)	Creepage and clearances distance (mm) between	Meas	ured	Limit	(mm)	 P
	Current carrying parts of different polarity	3.0Cr	3.0Cl	1.2Cr	0.2CI	' P
	Live parts and mounting surface	1.5Cr	1.5CI	1.2Cr	0.2CI	Р
2.9 (7.2.1)	PROVISION FOR EARTHING:					P
	Metal parts separated from live parts by double insulation or by reinforced insulation, are not regarded as likely to become live in the event of an insulation fault.					N/A
	The earthing connections shall be of low resistance.		0.01	1Ω		Р
	Functional earth circuit shall be separated from live parts or accessible metal parts by double or reinforced insulation.		Constitution of the Consti			N/A





IEC 60598-2-2				
Clause	Requirement - Test	Result - Remark	Verdict	
2.11 (5.2)	SUPPLY CONNECTION AND OTHER EXTERNAL WIRING	G	Р	
	Luminaires shall be provided with one of the following m	neans of connection to the supply:	-	
	- fixed luminaires	Terminal	Р	
	- portable luminaires		N/A	
	- track-mounted luminaires		N/A	
	- semi-luminaires		N/A	
2.12 (8.2)	PROTECTION AGAINST ELECTRIC SHOCK:		P	
	Luminaires shall be so constructed that their live parts are not accessible when		Р	
	the luminaire has been installed and		P	
	wired as in normal use, and		Р	
	when it is opened as necessary for replacing lamps or (replaceable) starters		N/A	
2.13 (12.4)	THERMAL TEST: (normal use)			
	Ambient Temperature: 45.0°C			
	LED Driver:	47.5°C		
	Enclosure:	47.8°C	Р	
	Internal wire:	46.4°C		
2.14 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTU	RE	Р	
9.3.1	All luminaires shall be proof against humid conditions which may occur in normal use.	25°C 93%Rh 48h	Р	
2.15 (10.2)	INSULATION RESISTANCE AND ELECTRIC STRENGTH:			
	The insulation resistance and the electric strength of luminaires shall be adequate.	Between live parts and Enclosure	Р	
	500V DC Insulation Resistance:	>99.99 <b>M</b> Ω	Р	
	1480V AC 60Sec Electric Strength:	No Breakdown	Р	
2.15 (10.3)	LEAKAGE CURRENT/TOUCH CURRENT:		Р	
	The touch current or protective conductor current that may occur during normal operation of the luminaire shall not exceed the values given in Table 10.3	0.03mA	Р	





IEC 60598-2-2				
Clause	Requirement - Test	Result - Remark	Verdict	
2.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		Р	
13.2	External parts of insulating material providing protection against electric shock,		N/A	
	and parts of insulating material retaining current-carrying parts or SELV parts in position shall be sufficiently resistant to heat.	BPT 125°C	Р	
13.3	Parts of insulating material retaining current-carrying parts or		Р	
	SELV parts in position		N/A	
_	And external parts of insulating material providing protection against electric shock	GWT 650°C	Р	
	shall be resistant to flame and ignition.	No Flame	Р	

Kucas	ESSENTIAL REQUIREMENTS:		Р
	Rated Voltag	je: 220-240V	Р
<u> </u>	Rated Frequence	cy: 50/60Hz	Р
	Plu	ıg:	N/A
	Country of Orig	in: UAE	Р
	Instruction Manu	al:	Р

SASO	ESSENTIAL REQUIREMENTS:		Р
	Rated Voltage:	220-240V	Р
	Rated Frequency:	50/60Hz	Р
	Plug:		N/A
	Country of Origin:	UAE	Р
	Instruction Manual:		Р



# PHOTOGRAPH OF TEST OBJECT:

