



ENERGY EFFICIENCY CERTIFICATION (EEC): Test Report

Project Number: GZE150531-D

Customer Name: L-TECH CORPORTION

Address: SHAOGANGTOU DISTRICT.QIAOTOU TOWN.DONGGUAN
CITY.GUANGDONG PROVINCE,CHINA

Brand name(s): L-TECH CORP

CLED4P With TCLD4

Model name(s): CLED4A With TCLD4

CLED4R With TCLD4

Product category: SSL downlight

Electrical Ratings: 120~277Vac, 50/60Hz, 27W

Representative (Tested) Model: CLED4A With TCLD4

Model differences: The construction and ratings of Model CLKT4 are the same as
Model CLED4A, except ceiling mounting bracket

LED Manufacturer: EVERLIGHT ELECTRONICS CO.,LTD

LED Model: 62-217D

The Sample(s) tested is(are) compliant with the following applied standards/regulations:

ENERGY STAR[®] : ENERGY STAR[®] Program Requirements Product Specification for Luminaires - Version 2.0

Test & Report By:

Dendi Lin

Engineer: Dendi Lin

Date: Sep.01,2015

Review By:

Tommy Liang

Manager: Tommy Liang



Standard-Tech Co. Ltd Testing Center

STD/QR4910-A/1



NVLAP LAB CODE 201011-0

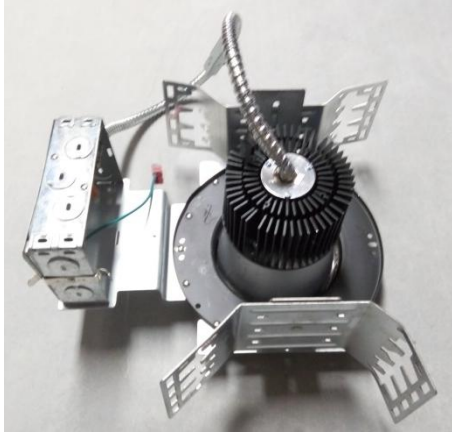
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<http://www.standard-tech.com>

Photo

CLED4A With TCLD4



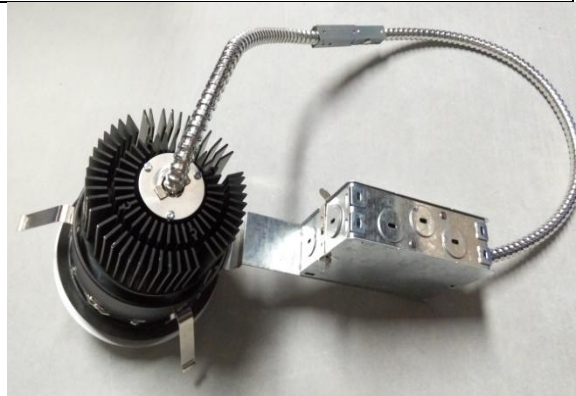
Luminaire CLKT4



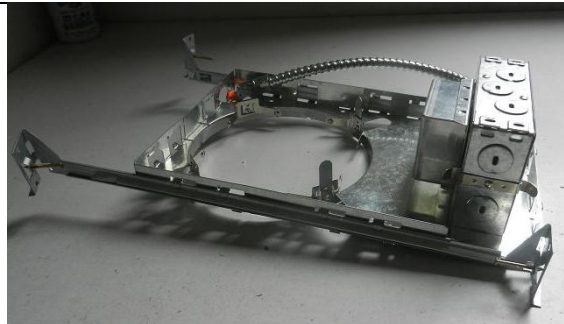
CLED4P With TCLD4



CLED4R With TCLD4



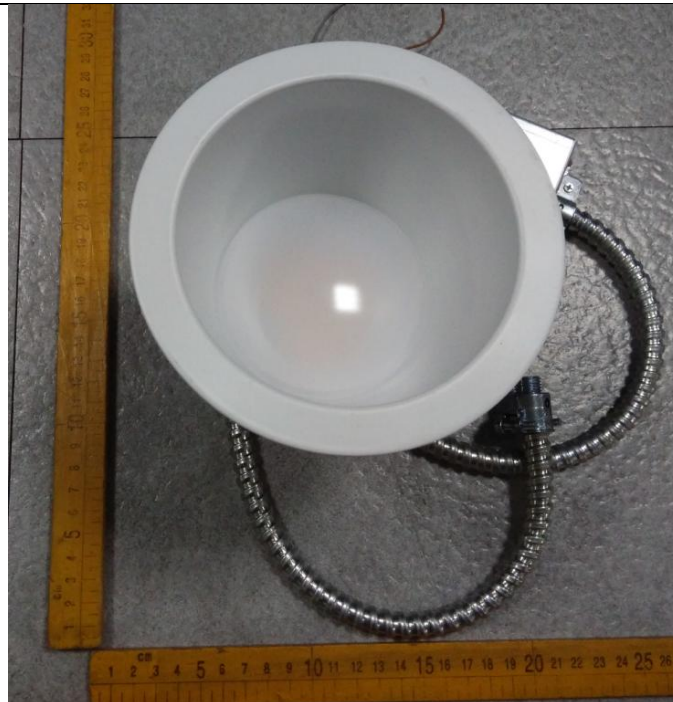
Mounting fitting





Attachment

Photo of CLKT4



Annex

Regulatory Body	Tests to Determine Compliance	The Type Luminaires	Test Limit per Regulation or Program Requirement	Measured Efficiency or Limit Level	Pass / Or Fail
ENERGY STAR	Luminaire Minimum Light Output	SSL downlight	$\leq 4.5''$ aperture: 345 lumens $> 4.5''$ aperture: 575 lumens	1725.1lm	Pass
ENERGY STAR	Input Wattage	All	\leq Rated Wattage	26.88W	Pass
ENERGY STAR	Luminous Efficacy	SSL downlight/ SSL downlight retrofits	≥ 60 lm/W ≥ 55 lm/W	64.18 lm/W	Pass
ENERGY STAR	Zonal Lumen Density	SSL downlight	$\geq 75\%$ of total initial lumens within the 0-60° zone	89.5%	Pass
ENERGY STAR	Correlated Color Temperature (CCT)	Shall be capable of providing at least one of the following nominal correlated color temperatures (CCTs): 2700 Kelvin 3000 Kelvin 3500 Kelvin 4000 Kelvin 5000 Kelvin	3045 ± 175 K Duv 0.0001 \pm 0.006	3071K Duv=-0.0031	Pass
ENERGY STAR	Color Rendering Index (CRI)	All	$R_a \geq 80$ $R_9 > 0$	$R_a = 85.8$ $R_9 = 28$	Pass
ENERGY STAR	Color Maintenance	Solid State	$\Delta u'v' \leq 0.007$	See LM-80	Pass



ENERGY STAR	Color Angular Uniform	SSL downlight	The variation of chromaticity shall be within 0.006 from the weighted average point on the CIE 1976 (u',v') diagram	Refer to Model CLKT4	Pass
ENERGY STAR	Start Time	Solid State	< 750 ms	Refer to Model CLKT4	Pass
ENERGY STAR	Power Factor	Solid State	Total luminaire input power ≤ 5 watts: PF ≥ 0.5 Total luminaire input power > 5 watts: PF ≥ 0.7	0.9777	Pass

Annex					
ENERGY STAR	Transient Protection	All Luminaires	The line transient shall consist of seven strikes of a 100 kHz ring wave, 2.5 kV level, for both common mode and differential mode.	Comply	Pass
ENERGY STAR	Dimming	Solid State	The luminaire and its components shall provide continuous dimming from 100% to 35% of total light output.	Comply	Pass
ENERGY STAR	Operating Frequency Requirements - Directional and Non-Directional Luminaires	Solid State	Frequency \geq 120 Hz	Refer to Model CLKT4	Pass
ENERGY STAR	Driver Replaceability	Solid State	Drivers shall be accessible and removable by an electrician without the cutting of wires and without damage to the luminaire housing, trim, decorative elements or the carpentry (e.g., ceiling drywall) to which the luminaire is attached.	N/A	Pass
ENERGY STAR	Maximum Measured Ballast or Driver Case Temperature	Solid State	\leq 105 °C	Refer to Model CLKT4	Pass
ENERGY STAR	Maximum In-Situ Source Temperature	Solid State	\leq 95°C	Refer to Model CLKT4	Pass
ENERGY STAR	Warranty	Solid State	\geq 5 years	5 years	Pass



ENERGY STAR	Safety	Solid State	N/A	N/A	Pass
ENERGY STAR	Lighting Toxics Reduction Requirements	Solid State	N/A	RoHS report has been verified	Pass
ENERGY STAR	Packaging Requirement				
ENERGY STAR	CCT	Solid State	Packaging shall clearly describe the nominal color designation in units of Kelvin (e.g. 2700K, 3000K).	3000K	Pass

---- End of Report ----