

# **Test Verification of Conformity**

#### Verification Number: 230912103GZU-VOC002

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the regulation(s) listed on this verification at the time the tests were carried out. Other standards and Regulations may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it hem>.

Once compliance with all product relevant  $\square \cap$  mark regulations are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address: Ledworks SRL

Via Tortona, 37, 20144, Milan, Italy

Product Description: LED Lighting Chains

Models/Type References: Refer to appendix for detail information

Ratings & Principle Characteristics:

Refer to appendix for detail information

Brand Name(s): --

Standard(s)/Directive(s): EN IEC 55015:2019+A11:2020

EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021

EN 61547:2009

ETSI EN 300 328 V2.2.2 (2019-07) ETSI EN 301 489-1 V2.2.3(2019-11) ETSI EN 301 489-17 V3.2.4(2020-09)

EN 62479:2010 EN IEC 62311:2020

Radio Equipment Regulations 2017- CHAPTER 1 6(1)(a)(health), 6(1)(b) & 6(2)

Verification Issuing Office Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

Room 02, & 101/E201/E301/E401/E501/E601/E701/E801 of Room 01 1-8/F., No. 7-2. Caipin Road, Science City, GETDD, Guangzhou, Guangdong, China

Date of Tests: 31 August 2023 to 05 September 2023

Test Report Number(s): 190425162GZU-001, 002, 003, 004, 005, 006 Amendment 4

Additional information in Appendix.

Signature

Name & Address:

Name: Sky Zhu
Position: Supervisor
Date: 11 October 2023



This is an Appendix to Test Verification of Conformity Number: 230912103GZU-VOC002.

Models/Type References:

TWS100STP-BEU; TWS100STP-BUK; TWS100STP-BFR; TWS150STP-BEU; TWS150STP-BUK; TWS150STP-BUS; TWS150STP-BAU; TWS150STP-BFR; TWS250STP-BEU; TWS250STP-BUK; TWS250STP-BUS; TWS250STP-BAU; TWS250STP-BFR; TWS400STP-BEU; TWS400STP-BUK; TWS400STP-BUS; TWS400STP-BAU; TWS400STP-BFR; TWS600STP-BEU; TWS600STP-BUK; TWS600STP-BFR; TWS250SPP-BEU; TWS250SPP-BUK; TWS250SPP-BUS; TWS250SPP-BAU; TWS250SPP-BFR; TWS250SPP-TFR; TWS250SPP-TEU; TWS250SPP-TUK; TWS250SPP-TUS; TWS250SPP-TAU; TWS400SPP-BEU; TWS400SPP-BUK; TWS400SPP-TFR; TWS250GOP-BEU; TWS250GOP-BUK; TWS250GOP-BUS; TWS250GOP-BAU; TWS250GOP-TFR; TWI190STP-TAU EU; TWS400GOP-BUK; TWS400GOP-TFR; TWI190STP-TEU; TWI190STP-TUK; TWI190STP-TUS; TWI190STP-TAU; TWI190STP-TFR; TWI190SPP-TEU; TWI190SPP-TUK; TWI190SPP-TUS; TWI190SPP-TAU; TWI190SPP-TFR; TWI190GOP-TEU; TWI190GOP-TUK; TWI190GOP-TUS; TWI190GOP-TAU; TWI190GOP-TFR; TWF020STP-BEU; TWF020STP-BUK; TWF020STP-BUS; TWF020STP-BAU; TWF020STP-BFR; TWF020ADP-BEU; TWF020ADP-BUS; TWF020ADP-BFR; TWW210SPP-TEU; TWW210SPP-TUK; TWW210SPP-TFR; TWB200STP-WEU; TWB200STP-WUK; TWB200STP-WFR; TWB200STP-WAU; TWC400STP-BEU; TWC400STP-BUK; TWC400STP-BFR; TWC400GOP-BEU; TWC400GOP-BUK; TWC400GOP-BFR; TWT250STP-BEU; TWT250STP-BUK; TWT250STP-BFR; TWT250STP-BAU; TWT250GOP-BEU; TWT250GOP-BUK; TWT250GOP-BFR; TWT250GOP-BAU; TWT400SPP-BEU; TWT400SPP-BUK; TWT400SPP-BFR; TWT400SPP-BAU; TWT400STP-BEU; TWT400STP-BUK; TWT400STP-BFR; TWT400STP-BAU; TWT400GOP-BEU; TWT400GOP-BUK; TWT400GOP-BFR; TWT400GOP-BAU; TWT500STP-BEU; TWT500STP-BUK; TWT500STP-BFR; TWT500STP-BAU; TWT500GOP-BEU; TWT500GOP-BUK; TWT500GOP-BFR; TWT500GOP-BAU; TWR050SPP-BEU; TWR050SPP-BUK; TWR050SPP-BFR; TWG050SPP-BEU; TWG050SPP-BUK; TWG050SPP-BFR; TWS100STP-BAU; TWS600STP-BAU; TWS400SPP-BAU; TWS400SPP-TAU; TWS400GOP-BAU; TWW210SPP-TAU; TWC400STP-BAU; TWC400GOP-BAU; TWR050SPP-BAU; TWG050SPP-BAU, TWS050STP-GEU; TWS050STP-GUK; TWS075STP-BEU; TWS075STP-BUK; TWS100STP-GEU; TWS100STP-GUK; TWS100STP-TEU; TWS100STP-TUK; TWS150STP-GEU; TWS150STP-GUK; TWS175STP-BEU; TWS175STP-BUK; TWS175STP-GEU; TWS175STP-GUK; TWS200STP-BEU; TWS200STP-BUK; TWS200STP-GEU; TWS200STP-GUK; TWS250STP-GEU; TWS250STP-GUK; TWS250STP-TEU; TWS250STP-TUK; TWS400STP-GEU; TWS400STP-GUK; TWS400STP-TEU; TWS400STP-TUK; TWS600STP-GEU; TWS600STP-GUK; TWS600STP-TEU; TWS600STP-TUK; TWS100SPP-BEU; TWS100SPP-BUK; TWS100SPP-GEU; TWS100SPP-GUK; TWS175SPP-BEU; TWS175SPP-BUK; TWS175SPP-GEU; TWS175SPP-GUK; TWS250SPP-GEU; TWS250SPP-GUK; TWS400SPP-GEU; TWS400SPP-GUK; TWS600SPP-BEU; TWS600SPP-BUK; TWS600SPP-GEU; TWS600SPP-GUK; TWS250GOP-GEU; TWS250GOP-GUK; TWS250GOP-TEU; TWS250GOP-TUK;



This is an Appendix to Test Verification of Conformity Number: 230912103GZU-VOC002.

Models/Type References:

TWS400GOP-GEU; TWS400GOP-GUK; TWS400GOP-TEU; TWS400GOP-TUK; TWI190STP-BEU; TWI190STP-BUK; TWI190SPP-BEU; TWI190SPP-BUK; TWI190SPPRU-TEU; TWI190SPPRU-TUK; TWI380SPP-TEU; TWI380SPP-TUK; TWI190GOP-BEU; TWI190GOP-BUK; TWW210STP-TEU; TWW210STP-TUK; TWW210SPP-BEU; TWW210SPP-BUK; TWW400SPP-TEU; TWW400SPP-TUK; TWC400STP-GEU; TWC400STP-GUK; TWC400STP-TEU; TWC400STP-GEU; TWC400GOP-GEU; TWC400GOP-GUK; TWC400SPP-BEU; TWC400SPP-BUK; TWC400SPP-GEU; TWC400SPP-GUK; TWR050SPP-GEU; TWR050SPP-GUK; TWG050SPP-GEU; TWG050SPP-GUK; TWF040STP-BEU; TWF040STP-BUK; TWF020GOP-BEU; TWF020GOP-BUK; TWF040GOP-BEU; TWF040GOP-BUK; TWWT050SPP-BEU; TWWT050SPP-BUK; TWD200STP-BEU; TWD200STP-BUK; TWD200STP-TEU; TWD200STP-TUK; TWD400STP-BEU; TWD400STP-BUK; TWD400STP-TEU; TWD400STP-TUK; TWT400STP-GEU; TWT400STP-GUK; TWT400SPP-GEU; TWT400SPP-GEK; TWT500STP-GEU; TWT500STP-GUK; TWT500GOP-GEU; TWT500GOP-GUK; TWS050STP-GAU; TWS100STP-GAU; TWS075STP-BAU; TWS100STP-TAU; TWS150STP-GAU; TWS250STP-GAU; TWS600STP-TAU; TWS250SPP-GAU; TWS400GOP-TAU; TWW210SPP-BAU; TWS200STP-BAU; TWS400STP-TAU; TWS175SPP-BAU; TWS600SPP-GAU; TWS250GOP-TAU; TWI190SPPRU-TAU; TWI190GOP-BAU; TWC400SPP-BAU; TWR050SPP-GAU; TWWT050SPP-BAU; TWD200STP-TAU; TWT500STP-GAU; TWS175STP-BAU; TWS250STP-TAU; TWS100SPP-BAU; TWS400SPP-GAU; TWF040STP-BAU; TWD400STP-TAU; TWT400SPP-GAU; TWS175STP-GAU; TWS400STP-GAU; TWS100SPP-GAU; TWS600SPP-BAU; TWI190SPP-BAU; TWC400STP-GAU; TWC400GOP-GAU; TWF040GOP-BAU; TWI190STP-BAU; TWW400SPP-TAU; TWC400STP-TAU; TWF020GOP-BAU; TWT400STP-GAU; TWS200STP-GAU; TWS600STP-GAU; TWS175SPP-GAU; TWS250GOP-GAU; TWS400GOP-GAU; TWI380SPP-TAU; TWW210STP-TAU; TWC400STP-GAU; TWC400SPP-GAU; TWG050SPP-GAU; TWD200STP-BAU; TWD400STP-BAU; TWT500GOP-GAU; TWR050STP-GAU; TWR050STP-GEU, TWR050STP-GUK. Remark: the suffix of EU refers to Europe plug for EU market, UK refers to UK plug for UK market; US refers to US plug for US market; FR refers to French plug for French market, AU refers to Australia plug for AU market.



This is an Appendix to Test Verification of Conformity Number: 230912103GZU-VOC002.

Ratings & Principle Characteristics:

For drivers input: 220-240  $V^{\sim}$  or 100-240  $V^{\sim}$ ; 50/60 Hz; Class II; SELV; independent; TA: 25 C for AU market models.

For luminaire body input of models TWF020STP-BEU; TWF020STP-BUK; TWF020STP-BUS; TWF020STP-BAU; TWF020STP-BFR; TWF020ADP-BEU; TWF020ADP-BUS; TWF020ADP-BFR; TWF020GOP-BEU; TWF020GOP-BUK; TWF020GOP-BAU: 24 VDC; Class III; IP44; 20 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWF040STP-BEU; TWF040STP-BUK; TWF040GOP-BEU; TWF040GOP-BUK; TWF040STP-BAU; TWF040GOP-BAU: 24 VDC; Class III; IP44; 40 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWR050SPP-BEU; TWR050SPP-BUK; TWR050SPP-BFR; TWR050SPP-BAU; TWG050SPP-BEU; TWG050SPP-BUK; TWG050SPP-BFR; TWG050SPP-BAU; TWS050STP-GEU; TWS050STP-GUK, TWR050SPP-GEU; TWR050SPP-GUK; TWG050SPP-GUK; TWWT050SPP-BEU; TWWT050SPP-BEU; TWR050SPP-GAU; TWR050SPP-GAU; TWR050SPP-GAU; TWR050SPP-GAU; TWR050STP-GAU; TWR050STP-GEU, TWR050STP-GEU, TWR050STP-GUK: 24 VDC; Class III; IP44; 50 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWS075STP-BEU; TWS075STP-BUK; TWS075STP-BAU: 24 VDC; Class III; IP44; 75 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWS100STP-BEU; TWS100STP-BUK; TWS100STP-BFR; TWS100STP-BAU; TWS100STP-GEU; TWS100STP-GUK; TWS100STP-TEU; TWS100STP-TUK; TWS100SPP-BEU; TWS100SPP-BUK; TWS100SPP-GEU; TWS100SPP-GUK; TWS100STP-TAU; TWS100SPP-BAU; TWS100SPP-GAU; TWS100STP-GAU: 24 VDC; Class III; IP44; 100 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWS150STP-BEU; TWS150STP-BUK; TWS150STP-BUS; TWS150STP-BAU; TWS150STP-BFR; TWS150STP-GEU; TWS150STP-GUK; TWS150STP-GAU: 24 VDC; Class III; IP44; 150 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWS175STP-BEU; TWS175STP-BUK; TWS175STP-GEU; TWS175STP-GUK; TWS175SPP-BEU; TWS175SPP-BUK; TWS175SPP-GEU; TWS175SPP-GUK; TWS175SPP-BAU; TWS175STP-BAU; TWS175STP-GAU; TWS175SPP-GAU: 24 VDC; Class III; IP44; 175 pcs non-replaceable LEDs; adapter rated power 24 W.



This is an Appendix to Test Verification of Conformity Number: 230912103GZU-VOC002.

Ratings & Principle Characteristics:

For luminaire body input of models TWI190STP-TEU; TWI190STP-TUK; TWI190STP-TUS; TWI190STP-TAU; TWI190STP-TFR; TWI190SPP-TEU; TWI190SPP-TUK; TWI190SPP-TUS; TWI190SPP-TAU; TWI190SPP-TAU; TWI190GOP-TAU; TWI190GOP-TEU; TWI190GOP-TEU; TWI190GOP-TEU; TWI190STP-BEU; TWI190STP-BEU; TWI190SPP-BEU; TWI190SPP-BEU; TWI190SPP-BUK; TWI190SPPRU-TEU; TWI190SPPRU-TUK; TWI190SPP-BAU; TWI190GOP-BAU; TWI190SPP-BAU; TWI190SPP-BAU; TWI190SPP-BAU; TWI190STP-BAU; TWI190STP-BA

For luminaire body input of models TWB200STP-WEU; TWB200STP-WUK; TWB200STP-WFR; TWB200STP-WAU; TWS200STP-BEU; TWS200STP-BUK; TWS200STP-GEU; TWS200STP-GUK; TWD200STP-BEU; TWD200STP-BUK; TWD200STP-TEU; TWD200STP-TUK; TWS200STP-BAU; TWD200STP-TAU; TWS200STP-GAU; TWD200STP-BAU: 24 VDC; Class III; IP44; 200 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWW210SPP-TEU; TWW210SPP-TUK; TWW210SPP-TFR; TWW210SPP-TAU; TWW210STP-TEU; TWW210STP-TUK; TWW210SPP-BEU; TWW210SPP-BUK; TWW210SPP-BAU; TWW210STP-TAU: 24 VDC; Class III; IP44; 210 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWT250STP-BEU; TWT250STP-BUK; TWT250STP-BFR; TWT250STP-BAU; TWT250GOP-BEU; TWT250GOP-BUK; TWT250GOP-BFR; TWT250GOP-BAU; TWS250GOP-BEU; TWS250GOP-BUK; TWS250GOP-BUS; TWS250GOP-BAU; TWS250GOP-TFR; TWS250SPP-BEU; TWS250SPP-BEU; TWS250SPP-BHI; TWS250SPP-BFR; TWS250SPP-TR; TWS250SPP-TEU; TWS250SPP-TUK; TWS250SPP-TUS; TWS250SPP-TAU; TWS250STP-BEU; TWS250STP-BUK; TWS250STP-BUS; TWS250STP-BU; TWS250STP-GEU; TWS250STP-GUK; TWS250STP-TUK; TWS250STP-TUK; TWS250STP-TUK; TWS250STP-TUK; TWS250GOP-TEU; TWS250GOP-TUK; TWS250GOP-TUK; TWS250GOP-TUK; TWS250GOP-TUK; TWS250GOP-TAU; TWS250STP-TAU; TWS250GOP-GAU: 24 VDC; Class III; IP44; 250 pcs non-replaceable LEDs; adapter rated power 24 W.

For luminaire body input of models TWI380SPP-TEU; TWI380SPP-TUK; TWI380SPP-TAU: 24 VDC; Class III; IP44; 380 pcs non-replaceable LEDs; adapter rated power 36 W.



This is an Appendix to Test Verification of Conformity Number: 230912103GZU-VOC002.

Ratings & Principle Characteristics:

For luminaire body input of models TWT400SPP-BEU; TWT400SPP-BUK; TWT400SPP-BFR; TWT400SPP-BAU; TWT400STP-BEU; TWT400STP-BUK; TWT400STP-BFR; TWT400STP-BAU; TWT400GOP-BEU; TWT400GOP-BUK; TWT400GOP-BFR; TWT400GOP-BAU; TWC400STP-BEU; TWC400STP-BUK; TWC400STP-BFR; TWC400STP-BAU; TWC400GOP-BEU; TWC400GOP-BUK; TWC400GOP-BFR; TWC400GOP-BAU; TWS400GOP-BEU; TWS400GOP-BUK; TWS400GOP-BAU; TWS400GOP-TFR; TWS400SPP-BEU; TWS400SPP-BUK; TWS400SPP-BAU; TWS400SPP-TFR; TWS400SPP-TAU; TWS400STP-BEU; TWS400STP-BUK; TWS400STP-BUS; TWS400STP-BAU; TWS400STP-BFR; TWS400STP-GEU; TWS400STP-GUK; TWS400STP-TEU; TWS400STP-TUK; TWS400SPP-GEU; TWS400SPP-GUK; TWS400GOP-GEU; TWS400GOP-GUK; TWS400GOP-TEU; TWS400GOP-TUK; TWW400SPP-TEU; TWW400SPP-TUK; TWC400STP-GEU; TWC400STP-GUK; TWC400STP-TEU; TWC400STP-GEU; TWC400GOP-GEU; TWC400GOP-GUK; TWC400SPP-BEU; TWC400SPP-BUK; TWC400SPP-GEU; TWC400SPP-GUK; TWD400STP-BEU; TWD400STP-BUK; TWD400STP-TEU; TWD400STP-TUK; TWT400STP-GEU; TWT400STP-GUK; TWT400SPP-GEU; TWT400SPP-GEK; TWS400GOP-TAU; TWS400STP-TAU; TWC400SPP-BAU; TWS400SPP-GAU; TWD400STP-TAU; TWT400SPP-GAU; TWS400STP-GAU; TWC400STP-GAU; TWC400GOP-GAU; TWW400SPP-TAU; TWC400STP-TAU; TWT400STP-GAU; TWS400GOP-GAU; TWC400STP-GAU; TWC400SPP-GAU; TWD400STP-BAU: 24 VDC; Class III; IP44; 400 pcs nonreplaceable LEDs; adapter rated power 36 W.

For luminaire body input of models TWT500STP-BEU; TWT500STP-BUK; TWT500STP-BFR; TWT500STP-BAU; TWT500GOP-BEU; TWT500GOP-BUK; TWT500GOP-BFR; TWT500GOP-BAU; TWT500STP-GEU; TWT500STP-GUK; TWT500GOP-GEU; TWT500GOP-GAU: 24 VDC; Class III; IP44; 500 pcs non-replaceable LEDs; adapter rated power 36 W.

For luminaire body input of models TWS600STP-BEU; TWS600STP-BUK; TWS600STP-BFR; TWS600STP-BAU; TWS600STP-GEU; TWS600STP-GUK; TWS600STP-TEU; TWS600STP-TUK; TWS600SPP-BEU; TWS600SPP-BUK; TWS600SPP-GEU; TWS600SPP-GUK; TWS600SPP-GAU; TWS600SPP-GAU; TWS600SPP-GAU: 24 VDC; Class III; IP44; 600 pcs non-replaceable LEDs; adapter rated power 36 W.

**Signature** 

Name: Sky Zhu
Position: Supervisor
Date: 11 October 2023