

ATTESTATION OF CONFORMITY

No. 2088982-QUAL/TL 05-160
Page 1 of 2

Issued to: Swarco Futurit
Verkehrssignalsysteme G.m.b.H.
A-1140 Vienna
Austria

For the product: LED Class II traffic lights (200 and 300 mm)

Trade name: FUTURLED 3

Type/Model: FUTURLED 3

Manufactured by: Swarco Futurit
Verkehrssignalsysteme G.m.b.H.
A-1140 Vienna
Austria

Requirements: ASTRIN guideline "Interface definitions", Edition 3-2, January 2004

This Attestation is granted on account of an examination by KEMA, the results of which are laid down in a confidential report No. 2088982-QUAL/TL 05-160.

This Attestation implies that the examined samples are in accordance with the listed items of the Astrin Guideline "Interface definitions" edition 3-2, January 2004 and subreferenced standards as listed on page 2 of this Attestation.

The examination has been carried out on single specimens of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by KEMA is not the responsibility of KEMA

KEMA Quality B.V.
Arnhem,


W. van Laarhoven
Certification Manager

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The FUTURLED 3 class II traffic signal heads as mentioned on page 1 passed the following "Astrin Guideline "Interface Definitions " tests (class II):

- Degree of reliability
 - Voltage stabilisation
 - Nominal and dimming operating voltage
 - Power consumption
 - Current through an illuminated lamp
 - Switching behaviour (optical and electrical)
 - Failure behaviour, failure detection and monitoring response time
- Additional test: Current response time within 50ms below 33mA (open and short circuit)
- Electromagnetic compatibility (NEN-EN 50293:2001)
 - Total harmonic distortion and powerfactor

And in addition the following subreferenced EN12368 tests have been passed:

- Impact test class IR3
- Random vibration test
- Ingress class IP65
- Temperature range tests class B
- Luminous intensity performance level A3/1
- Luminous intensity distributions types "W"
- Luminance uniformity
- Phantom signal class 4
- Signal and combined colour

Remarks:

The tests were not performed in the prescribed order of EN12368 and the tests were performed on different samples.

Above mentioned photometric test results according to EN12368 are described in report No. 2037512-QUA/LTL 03-131. Above mentioned electromagnetic compatibility tests are described in report TGM-VA EE 29164 EMC as issued by TGM VAEE in Vienna, Austria.

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