Republic of Bulgaria
Executive Agency
Bulgarian Accreditation Service

Signatory to the EA Multilateral Agreement in this field

ORDER

№ A 289

Sofia, 23.07.2024

Pursuant to Art. 10, para. 1, item 2, Art. 20, para. 6 of the Law on National Accreditation of Conformity Assessment Bodies and item 4 of the BAS QR 2 Accreditation Procedure, in connection with an open procedure reg. № 23-ЛИК/20.02.2023, assessment reports reg. № 23-ЛИК/7/В/30.10.2023, reg. № 23-ЛИК/8/В/24.11.2023, reg. № 23-ЛИК/6/В/01.04.2024, reg. № 23-ЛИК/10/В/11.07.2024, and statements of the Accreditation Commission reg. № 23-ЛИК/В/29.04.2024 and reg. № 23-ЛИК/11/В/22.07.2024, I hereby

ACCREDIT

TECHNICAL UNIVERSITY - GABROVO
LABORATORY COMPLEX FOR TESTING, MEASUREMENT AND CALIBRATION

Management address: 5300 Gabrovo, 4 Hadji Dimitar Str.
Laboratory address: 5300 Gabrovo, 5 Doktor Iliev-Detskiya Str.

To perform testing of:

Type of the scope: *flexible**			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	2	3	4
1.	METALS AND METAL ALLOYS	1.1.Tensile strength	БДС EN ISO 6892-1
		1.2.Yield strength	БДС EN ISO 6892-1
		1.3.Relative elongation at break	БДС EN ISO 6892-1
		1.4.Relative contraction at break	БДС EN ISO 6892-1
		1.5.Bending angle	БДС EN ISO 7438
		1.6. Vickers hardness and microhardness testing	БДС EN ISO 6507-1
2.	WELDED JOINTS OF METALLIC MATERIALS	2.1.Tensile strength – longitudinal to the weld seam	БДС EN ISO 5178
		2.2.Yield strength – longitudinal to the weld seam	БДС EN ISO 5178
		2.3.Relative elongation – longitudinal to the weld seam	БДС EN ISO 5178
		2.4.Relative contraction – longitudinal to the weld seam	БДС EN ISO 5178
		2.5.Bending angle	БДС EN ISO 5173
		2.6.Tensile strength – longitudinal to the weld seam	БДС EN ISO 4136
		2.7.Maximum strength – longitudinal to the weld seam	БДС EN ISO 4136
3.	LAMPS (LIGHT SOURCES)	3.1. Power	БДС EN 13032-1, cl. 5.3, Table 2 БДС EN 60809 cl. 4.8 and Appendix C БДС EN 13032-4+A1, IES LM-79, CIE 121

52 A "Dr. G. M. Dimitrov" Blvd. 1797 Sofia Bulgaria
phone: +359 2 9766 401; fax: +359 2 9766 415
e-mail: office@nab-bas.bg

Type of the scope: *flexible**			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	2	3	4
		3.2. Electric current	БДС EN 13032-1, cl. 5.3., Table 2 БДС EN 60809, cl. 4.8 and Appendix C БДС EN 13032-4+A1, IES LM-79, CIE 121
		3.3. Electric voltage	БДС EN 13032-1, cl. 5.3., Table 2 БДС EN 60809, cl. 4.8 and App. C БДС EN 13032-4+A1, IES LM-79, CIE 121
		3.4. Luminous flux	БДС EN 13032-1–cl. 5.5, cl. 6.1.2, cl.1.3, Table 3 БДС EN 60809, App. C БДС EN 13032-4 +A1, IES LM-79, CIE 84
		3.5. Luminous intensity, Light distribution (light distribution curves)	БДС EN 13032-1 – cl. 5.4, cl.5.7, cl.5.8, cl.6, cl.7, cl.8, Tables 2, 3 4, App. A,B БДС EN 13032-4+ A1, CIE 70
		3.6. Correlated colour temperature	IES LM-79, CIE 13.3, CIE 177:2007
		3.7. Colour rendering index	МКО public № 13.3 МКО public № 177
		3.8. Colour coordinates	БДС EN 60188, т.1.4.7, Appendices B and C БДС EN 61167, cl. 4.5 БДС EN ISO 11664-3 IES LM-79;CIE 15
		3.9. Power factor	БДС EN 13032-4, cl. 4.3 IES LM-79
		3.10. Harmonic current constituents	БДС EN 61000-3-2
4	LUMINARIES	4.1. Power	БДС EN 13032-1, cl. 5.3, Table 2 БДС EN 60809 cl. 4.8 and App. C БДС EN 13032-4+A1, IES LM-79, CIE 121
		4.2. Electric current	БДС EN 13032-1, cl. 5.3., Table 2 БДС EN 60809, cl. 4.8 and App. C БДС EN 13032-4+ A1, IES LM-79, CIE 121
		4.3. Electric voltage	БДС EN 13032-1, cl. 5.3., Table 2 БДС EN 60809, cl. 4.8 и App. C БДС EN 13032-4+ A1, IES LM-79, CIE 121
		4.4 Luminous flux	БДС EN 13032-1–cl. 5.5, cl. 6.1.2, cl. 6.1.3, Table 3 БДС EN 60809, App. C БДС EN 13032-4+ A1 IES LM-79, CIE 84
		4.5. Luminous intensity, Light distribution (light distribution curves)	БДС EN 13032-1 – cl. 5.4, cl. 5.7, cl. 5.8, cl. 6, cl. 7, cl. 8, Tables 2, 3, 4, Appendices A,B

Type of the scope: *flexible**			
№	**Tested products**	**Type of test / characteristic**	**Testing methods (standard / validated method)**
1	2	3	4
			БДС EN 13032-4+ A1
		4.6. Correlated colour temperature	IES LM-79, CIE 13.3 CIE 177
		4.7. Colour rendering index	IES LM-79, CIE 13.3 CIE 177
		4.8. Colour coordinates	БДС EN 60188, cl. 1.4.7, Appendix B, C БДС EN 61167, т.4.5 БДС EN ISO 11664-3 IES LM-79, CIE 15
		4.9. Power factor	БДС EN 13032-4, cl. 4.3
		4.10. Harmonic current constituents	БДС EN 61000-3-2:2019
5	LIGHTING INSTALLATIONS	5.1. Illumination	БДС EN 12464-1,2 БДС EN 13201-4 CR 14380, cl. 9 and App. A БДС EN 1838, App. A БДС EN 12193, cl. 6
		5.2. Brightness	БДС EN 12464-1,2 БДС EN 13201-4 CR 14380, т.9 и Appendix A БДС EN 1838, App. A БДС EN 12193, cl. 6
		5.3. Illumination uniformity	БДС EN 12464-1,2 БДС EN 13201-4 CR 14380, cl. 9 and App. A БДС EN 1838, App. A БДС EN 12193, cl. 6
		5.4. Brightness uniformity	БДС EN 12464-1,2 БДС EN 13201-4 CR 14380, cl. 9 and App. A БДС EN 1838, App. A БДС EN 12193, cl. 6

Note: The testing activities referred to in items 1, 2, 3 and 4 shall only be carried out in the laboratory.
The testing activities referred to in item 5 shall be carried out only on the customer's premises.

***Flexible scope:** *Implementing a new version of standards/documents or standards/ documents replacing them is allowed. An updated list of standards/documents and their dated versions is provided by the laboratory.*

Flexible scope references:

1. IES LM-79 Electrical and Photometric Measurements of Solid-State Lighting Products
2. CIE 121 The Photometry & Goniophotometry of Luminaires
3. CIE 84 The Measurement of Luminous Flux
4. CIE 70 The Measurement of Absolute Luminous Intensity Distributions
5. CIE 13.3 Method of Measuring and Specifying Colour Rendering Properties of Light Sources
6. CIE 177 Colour Rendering of White LED Light Sources
7. CIE 15 Colorimetry
8. CR 14380 Lighting Applications - Tunnel Lighting

To perform calibration of:

Type of the scope: *fixed*					
№	**Measuring instrument**	**Measured value, unit of measure**	**Measurement range**	**Measurement uncertainty**	**Calibration method**
1	**2**	**3**	**4**	**5**	**6**
1.	Vernier instruments for measuring length (callipers, depth gauges and height gauges)	Length, m	от 0 mm до 300 mm	from 0,0297 mm to 0,0326mm	MK L-01 C
2.	Dial calliper instruments for measuring length (dial calliper, dial depth gauges, dial height gauges)	Length, m	от 0 mm до 300 mm	from 0,012 mm to 0,014 mm	MK L-01 C
3.	Electronic calliper instruments for measuring length (electronic callipers, electronic depth gauges, electronic height gauges)	Length, m	от 0 mm до 300 mm	from 0,0085 mm to 0,0114 mm	MK L-01 C
4.	Micrometers, micrometric instruments for measuring length (micrometers, lever micrometers: -analogue; -dial; -electronic)	Length, m	от 0 mm до 300 mm	from 0,003 mm to 0,0047 mm	MK L-02 M
5.	Callipers with indicating devices (gauges, indicator callipers)	Length, m	from 0 mm to 300 mm	from 0,0015 mm to 0,0065 mm	MK L-02 M
6.	Dial indicators: -gear dial indicators -lever gear dial indicators Measuring heads: - spring measuring head, - optical measuring head	Length, m	from 0 mm to 100 mm	 from 0,0061 mm to 0,0065 mm from 0,0012 mm to 0,0018 mm from 0,00031 mm to 0,0011 mm	MK L-03 I
7.	Internal micrometers: - two-contact internal micrometer - three-contact internal micrometer	Length, m	from 6 mm to 300 mm	 from 0,006 mm to 0,0146 mm from 0,0029 mm to 0,0043 mm	MK L-04 IM
8.	Gauge blocks for length measurement	Length, m	from 0,5 mm to 100 mm	from 0,00018 mm to 0,00039 mm	MK L-05 GB

Note: The calibration activity shall be carried out only on the premises of the laboratory.

Fixed scope references:

1. MK L-01 C Methodology for calibration of callipers 2023.
2. MK L-02 M Methodology for calibration of micrometers 2023.
3. MK L-03 I Methodology for calibration of measuring heads for linear measurements 2023.
4. MK L-04 IM Methodology for calibration of internal micrometers 2023.
5. MK L-05 GB Methodology for calibration of gauge blocks 2024.

I ORDER

To issue the certificate of accreditation reg. № 13 ЛИК/23.07.2024, valid until 23.07.2028, and this order as an integral part of it.

The certificate of accreditation with the enclosure to be received by the head of Laboratory Complex for Testing, Measurement and Calibration at Technical University - Gabrovo, or other authorized person in the office of EA BAS.

This order shall be notified to Laboratory Complex for Testing, Measurement and Calibration at Technical University - Gabrovo, within 3 (three) days from its issuance.

Eng. Irena Borislavova

Executive Director of EA BAS