

## Measurement report

# **Narva Linna Jooks**

10 km

Karen Aau  
WA - AIMS B grade measurer  
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## GENERAL INFORMATION

**Name of event:** Narva Linna Jooks

**City/Town:** Narva

**Country:** Estonia

**Advertised race distance:** 10000 m

**Race date:** 29.06.2025

**Race director:** Vladimir Vsivtsev

**Phone:** +372 5348 5279

**E-mail:** vovav@akkesport.net

**Name of measurement team leader:** Karen Aau, B grade measurer

**Phone:** +37253416303

**E-mail:** aau.karen@gmail.com

**Type of terrain (Flat/Undulating/Hilly):** Undulating

**Type of course (Loop/Lap/Point to Point/Out & Back):** point to point

**Race surface:** asphalt

**Separation:** 0,43%

**Altitude:**

Start – 5,5 m, Finish 5 m

Highest point – 37 m, Lowest point – 5 m

Difference in elevation highest > lowest point – 32 m

**Section of road available:** Mostly entire width of road, except:

P4>FINISH road splitted half with cones from Linnuse St. Corner until turn to Kreenholm  
Manufacture. Splitting marker is lane dividing line.

## DETAIL OF THE CALIBRATION COURSE

**Date:** 08.04.2019

**Location of calibration course:** Tallinna mnt light traffic road, Narva, Estonia

**Measure method:** steel taped

**Number of measurements:** 2

**Markers:** nails

**Start time:** 10:30

**Finish time:** 11:30

**Temperature:** *Start* +11°C, *Finish* +11°C, *Average* +11 °C

### MEASUREMENTS AND CALCULATIONS:

#### 1 First measurement.

|                |   |                          |   |                     |   |                   |
|----------------|---|--------------------------|---|---------------------|---|-------------------|
| 8              | x | 49,9 m                   | + | 0,8 m               | = | 400 m             |
| # tape lengths |   | distance per tape length |   | partial tape length |   | Measured distance |

#### 2 Second measurement.

|                |   |                          |   |                     |   |                   |
|----------------|---|--------------------------|---|---------------------|---|-------------------|
| 8              | x | 49,9 m                   | + | 0,783 m             | = | 399,983 m         |
| # tape lengths |   | distance per tape length |   | partial tape length |   | Measured distance |

#### 3 Average raw (uncorrected) measurement of course: 399,9915 m

#### 4 Temperature correction.

$$\text{Correction factor} = 1.0000000 + (.0000116 \times [11 - 20]) = 0,9998956$$

#### 5 Multiply the temperature correction factor by the average raw measurement of the course

|                   |   |                      |   |                       |
|-------------------|---|----------------------|---|-----------------------|
| 0,9998956         | x | 399,9915             | = | 399,949741 m          |
| correction factor |   | avg. raw measurement |   | corrected measurement |

#### 6 Final (adjusted) length of calibration course: 400 m

$$399,95 \text{ m} + 0,05 \text{ m} = 400\text{m}$$

**Summary:** To get 400 m length calibration course, added 5 cm with steel tape.

## BICYCLE CALIBRATION DATA SHEET

### PRE-CALIBRATION:

**Day:** 09.05.2025

**Time:** 12.50

**Temperature:** +7°C

| Start count | Finish count | Difference |
|-------------|--------------|------------|
| 347500      | 351888       | 4388       |
| 351888      | 356276       | 4388       |
| 356276      | 360664       | 4388       |
| 360664      | 365052       | 4388       |

Pre-measurement average count =  $(4388+4388+4388+4388) / 4 = 4388$

Counts per km =  $4388 \times 1000 / 400 = 10970$

Working Constant =  $10970 \times 1,001 / 1000 = 10,98097 \text{ c/m}$

### POST-CALIBRATION:

**Day:** 09.05.2025

**Time:** 17.05

**Temperature:** +9°C

| Start count | Finish count | Difference |
|-------------|--------------|------------|
| 525686      | 530071       | 4385       |
| 530071      | 534457       | 4386       |
| 534457      | 538842       | 4385       |
| 538842      | 543228       | 4386       |

Post-measurement average count =  $(4385+4386+4385+4386) / 4 = 4385,5$

Counts per km =  $4385,5 \times 1000 / 400 = 10963,75$

Working Constant =  $10963,75 \times 1,001 / 1000 = 10,97471375 \text{ c/m}$

**CONSTANT FOR THE DAY =  $(10,98097 + 10,97471375) / 2 = 10,97784187 \text{ c/m}$**

### PRE-CALIBRATION:

**Day:** 10.05.2025

**Time:** 13.10

**Temperature:** +10°C

| Start count | Finish count | Difference |
|-------------|--------------|------------|
| 536692      | 541078       | 4386       |
| 541078      | 545464       | 4386       |
| 545464      | 549850       | 4386       |
| 549850      | 554236       | 4386       |

Pre-measurement average count =  $(4386+4386+4386+4386) / 4 = 4386$

Counts per km =  $4386 \times 1000 / 400 = 10965$

Working Constant =  $10965 \times 1,001 / 1000 = 10,975965 \text{ c/m}$

### POST-CALIBRATION:

**Day:** 10.05.2025

**Time:** 14.25

**Temperature:** +11°C

| Start count | Finish count | Difference |
|-------------|--------------|------------|
| 587586      | 591973       | 4387       |
| 591973      | 596360       | 4387       |
| 596360      | 600747       | 4387       |
| 600747      | 605134       | 4387       |

Post-measurement average count =  $(4387 + 4387 + 4387 + 4387) / 4 = 4387$

Counts per km =  $4387 \times 1000 / 400 = 10967,5$

Working Constant =  $10967,5 \times 1,001 / 1000 = 10,9784675 \text{ c/m}$

**CONSTANT FOR THE DAY =  $(10,975965 + 10,9784675) / 2 = 10,9772162 \text{ c/m}$**

## COURSE MEASUREMENT DATA SHEET

### 10 km

| reading   | counts | distance        | adj.dist       | location   |
|---|--------|-----------------|----------------|--|
| <i>Measured in running direction, 09.05.2025, c=10,97784187 c/m</i> |        |                 |                |  |
| 374540  | 0      | 0.0 m           | 0.0 m          | START – at Raja St (detailed sketch attached)                    |
| 398595  | 24055  | <b>2191,2 m</b> | <b>0.0 m</b>   | P1 – pc sign post right hand before turn to Vestervalli St       |
| <i>Measured in running direction, 10.05.2025, c=10,9772162 c/m</i>  |        |                 |                |  |
| 565973  | 0      | 2191,2 m        | 0.0 m          | P1 – pc sign post right hand before turn to Vestervalli St       |
| 570751  | 4778   | <b>2626,5 m</b> | <b>0.0 m</b>   | P2 – „stopping not allowed“ sign post right hand before Rütli St |
| <i>Measured in running direction, 10.05.2025, c=10,9772162 c/m</i>  |        |                 |                |  |
| 570751  | 0      | 2626,5 m        | 0.0 m          | P2 – „stopping not allowed“ sign post right hand before Rütli St |
| 579651  | 8900   | <b>3437,3 m</b> | <b>0.0 m</b>   | P3 – parking sign post left hand before pc sign post             |
| <i>Measured in running direction, 09.05.2025, c=10,97784187 c/m</i> |        |                 |                |  |
| 419780  | 0      | 3437,3 m        | 0.0 m          | P3 – parking sign post left hand before pc sign post             |
| 430362  | 10582  | <b>4401,2 m</b> | <b>0.0 m</b>   | P4 – cycling path sign post left hand next to Narva Hotel        |
| <i>Measured in running direction, 09.05.2025, c=10,97784187 c/m</i> |        |                 |                |  |
| --- adjustment here with steel tape adds 28 m ---                   |        |                 |                |  |
| 430362  | 0      | 4401,2 m        | 4401,2 m       | P4 – cycling path sign post left hand next to Narva Hotel        |
| 491517  | 61155  | <b>9972</b>     | <b>10000 m</b> | FINISH – at Linnuse St (detailed sketch attached)                |

**Note any adjustments made to the course after measurement:**

P4 – FINIŠ (new finish line, added 28 m with steel tape).

## CALIBRATION COURSE – 400 m





## COURSE





## START LINE / FINISH LINE





## APPENDIX

