

Norwegian Athletic Federation

Ullevaal stadion
Sognsveien 75 J
0840 Oslo
NORWAY
E-mail: friidrett@friidrett.no
Phone: +47 94 83 33 26



COURSE MEASUREMENT REPORT

- REPORT FOR NATIONAL CERTIFIED COURSE -

INFORMATION ABOUT EVENT AND COURSE
Event: Sentrumsløpet
Technical Organiser: Idrottslaget i BUL
City/Place: Oslo, Norway
Date of Arrangement: 27.04.2024
Date and time for measurement: 11.04.2023 17:30
Measured distance(s): 5km
Length of calibration course: 300m
Terrain: Flat <input type="checkbox"/> Slightly hilly <input checked="" type="checkbox"/> Hilly <input type="checkbox"/> Terrain <input type="checkbox"/>
Type of course route: Closed loop <input type="checkbox"/> Back and forth <input type="checkbox"/> A to B <input checked="" type="checkbox"/> Other <input type="checkbox"/>
Race surface: tarmac roads
Elevation Start - Finish: 8,8m – 8,2m MSL
Description of start: Karl Johans Gate. At last lamp post before Frederiks gate
Description of finish: Karl Johans gate, 59,8m before lamp post at Rosenkrantz' gate
Distance, in a straight line, between start & finish: 200m
Start and Finish marked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Km-markings: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Measurement direction: Running direction <input checked="" type="checkbox"/> Opposite running direction <input type="checkbox"/>
National record can be approved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

CONTACT INFORMATION		
	Measured by:	Organizer:
Contact person:	Samuel Hafsahl	Simen Wifstad
Phone:	+47 970 46 905	+47 416 71 896
Email:	samuel.hafsahl@gmail.com	simen.wifstad@bul.no

It is hereby confirmed that the course has been measured by a nationally certified course measurer from Norwegian Athletics. The course is measured in accordance with Norwegian athletics regulations, and the distance(s) has the correct length(s). The survey is valid for 5 years, except if the route is changed.

12.04.2023 Samuel Hafsahl

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Date Signature by Course measurer Date Signature by NFIF

CALIBRATION COURSE AND PROCEDURE	
Length of measuring tape (steel measuring tape only)	50m
Length of calibration course 1st measurement	300m
Length of calibration course 2nd measurement	300m
Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd)	
Date and time for measurement	11.04.2022 16:00
Average of measurements before adjustments	300m
Temperature (road or measuring tape)	7
Adjustment cf. $D \cdot (1 + (\text{temp} - 20) \cdot 0,0000115)$	0,9998505
Measured calibration distance after adjustment	299,955m
Distance from start/finish to calibration distance	500m

CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m)						
	Pre-measurement:			Post measurement:		
	Date and Time: 11.04.2023 17:30			Date and Time: 11.04.2023 18:30		
	Start	End	Diff.	Start	End	Diff.
1st measure	51 362	54 900	3 538	65 944	69 481	3 537
2nd measure	54 900	58 439	3 539	69 481	73 017	3 536
3rd measure	58 439	61 978	3 539	73 017	76 554	3 537
4th measure	61 978	65 516	3 538	76 554	80 091	3 537

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	Pre measurement	Post measurement	
Average (1+2+3+4) / 4	3 538,5	3 536,8	Today's constant. Either highest or average of before and after measurement
Working constant 1 km	11 797,3	11 791,5	
Addn. +1‰	11,8	11,8	
Measurement constant (rounded)	11 809	11 803	11 806

MEASUREMENT PROCEDURE		
Measurement constant	11 806	
Measured Distance	Counter	Description of place
0m	1,0	Start, Karl Johans gate (at the lamp post)
5 059,8 m	59 737,0	Finish, Karl Johans gate (at the lamp post)
5 059,8 m	59 736,0	Total measured without adjustments
59,8m		Total measured adjustments
5 000m		Total measured corrected trail

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CONCLUSION OF MEASUREMENT

1. Measurement method

Cook-Jones counter mounted on bicycle wheel

2. Measurement procedure

Stopp counter - Start counter = total counts

57 737 - 1 = 57 736

Total counts / measurement constant * 1000 = total distance in meter

57 736 / 11 806 * 1000 = 5 059,8 meter

Race total length : 5 000 meter

Race is 59,8 meter to long.

3. Course adjustment

Finish line is moved 59,8 meters back.

Measured by measuring tape.

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CALIBRATION COURSE MAP

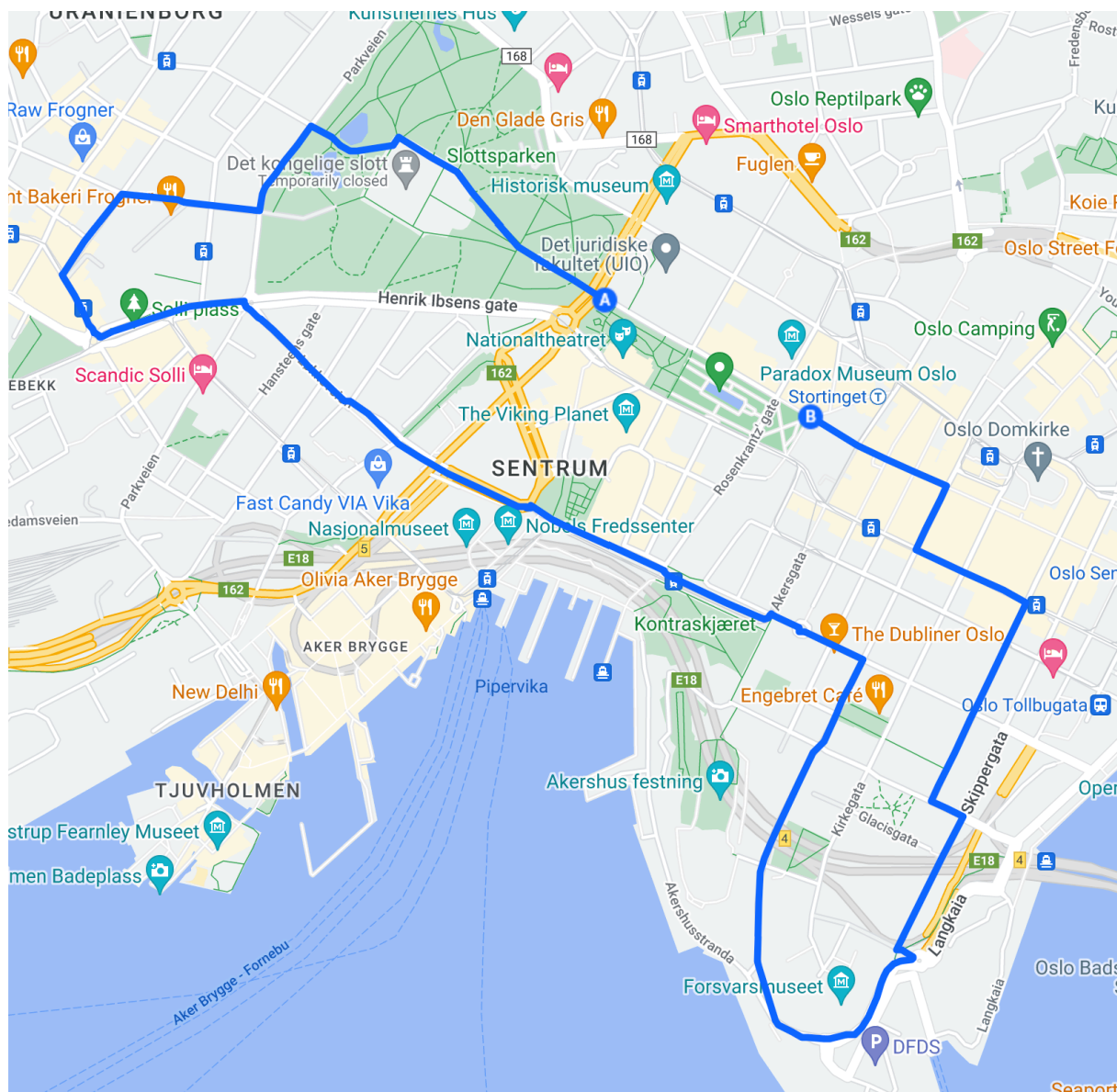


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COURSE MAP & DESCRIPTION



<https://www.google.com/maps/d/viewer?mid=1hewltA2Q8ogZP9oF2g0vtn1fkJNzbT8&usp=sharing>

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Start

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Finish

Karl Johans gate, 59,8m before lamp post before Rosenkrantz' gate.



The lamp post at Rosenkrantz' gate.