

Contents

1	Introduction	2
2	Experiments	2
2.1	Geometry	2
2.2	Instrumentation.....	3
2.3	Hydraulic conditions and experimental procedures	4
3	Data processing methods	5
3.1	Velocity and turbulence data	5
3.2	Shear velocity	6
3.3	Damage of bed protection.....	7
4	Stone parameters.....	7
4.1	Artificial stones	7
4.2	Natural stones used to construct the flume bottom.....	14
4.3	Size distribution of the artificial and natural stones	16
5	Measured data and calculated variables	17
5.1	Water level data.....	17
5.2	Entrainment data.....	18
5.2.1	<i>Set-up 1 ($\alpha = 3^0$).....</i>	<i>18</i>
5.2.2	<i>Set-up 2 ($\alpha = 5^0$).....</i>	<i>30</i>
5.2.3	<i>Set-up 3 ($\alpha = 7^0$).....</i>	<i>42</i>
5.2.4	<i>Calculated dimensionless entrainment rate Φ_E.....</i>	<i>55</i>
5.3	Velocity data.....	59
5.3.1	<i>Set-up 1 ($\alpha = 3^0$).....</i>	<i>59</i>
5.3.2	<i>Set-up 2 ($\alpha = 5^0$).....</i>	<i>108</i>
5.3.3	<i>Set-up 3 ($\alpha = 7^0$).....</i>	<i>156</i>
6	References	195

1 Introduction

Previous research (e.g., Jongeling et al 2003; Hofland 2005) has shown that turbulence has an important influence on stone stability and in non-uniform flow it should be modeled explicitly. The dimensionless entrainment rate should be used to describe the bed response because of its complete dependence on local hydrodynamic conditions and independencies on time and bed material. In all studies where entrainment rate data are available, the correlation between the flow forces and the bed response still shows a high scatter level (e.g. the data of Jongeling et al (2003) and De Gunst (1999)). Therefore, more experiments are needed to increase understanding of this cause-and-effect relation and to verify the available stability parameters for non-uniform flow. In this research, experiments were carried out in which both the bed response (quantified by a dimensionless entrainment rate) and the flow field (velocity and turbulence intensity distributions) are measured. The flow in a gradual expansion open-channel and its influence on stone stability were chosen to study as in such a flow the turbulence intensity is high. Three experimental set-ups with different expansion dimensions were used to create different combinations of velocity and turbulence. The nine-month experiment¹ has resulted in a huge amount of data available. In this report the experiment arrangement and data processing methods that are employed are described and the measured data and some calculated variables are presented. The report is structured as follows. In Section 2 the experimental set-ups are described in addition to the instrumentation, hydraulic conditions and experimental procedures. Data processing methods is briefly described in Section 3. In Section 4 the measured data to determine stone parameters are presented. Finally in Section 5 the measured data and calculated variables are presented in detail.

2 Experiments

2.1 Geometry

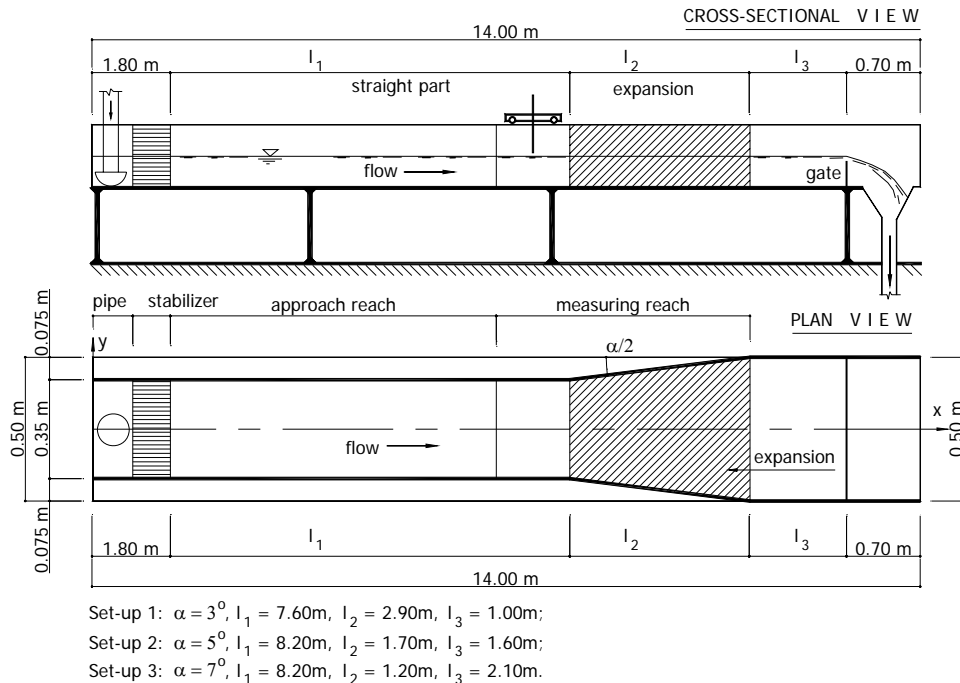


Figure 1. Experimental installation (not to scale)

¹ from June 2006 to March 2007

The experiment was undertaken in a laboratory open-channel flume with a length of 14.00 m, a height of 0.7 m and an available width of 0.5 m. The water is pumped through the flume from a central system in the laboratory and the water level is controlled at the downstream side using a manually controlled tailgate. To decelerate the flow, an expansion is made near the end of the flume. To this end, the first part of the flume was narrowed at both sides. Then the extension was made by gradually increasing the width from the first segment to the width of the flume. By changing the expansion length (expansion angle), different combinations of velocity and turbulence can be obtained. Three different configurations with expansion angles of 3, 5 and 7 degrees were built. The experimental installation is presented in Figure 1.

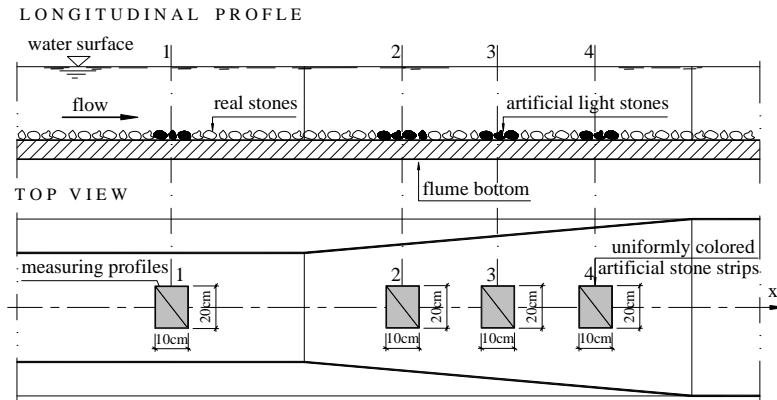


Figure 2. The first experimental set-up with indication to the placement of uniformly colored artificial stone strips (not to scale)

Figure 2 shows a schematic representation of the first experimental set-up. Natural stones having a nominal diameter d_{n50} of 0.80 cm and d_{n85}/d_{n15} of 1.27 were used to create a 4-cm-thick rough bottom. These stones are practically unmovable under the experimental flow conditions. To examine the stone stability, two-layer uniformly colored strips of artificial light stones were placed at the designated locations (before and along the expansion, see Figures 1, 2 and 3). These stones are made of epoxy resin having densities in the range of 1320 to 2023 kg/m³, mimicking shapes and sizes of natural stones. The artificial stones have a nominal diameter d_{n50} of 0.82 cm and d_{n85}/d_{n15} of 1.11. For more information on the stone parameters, see Section 5.

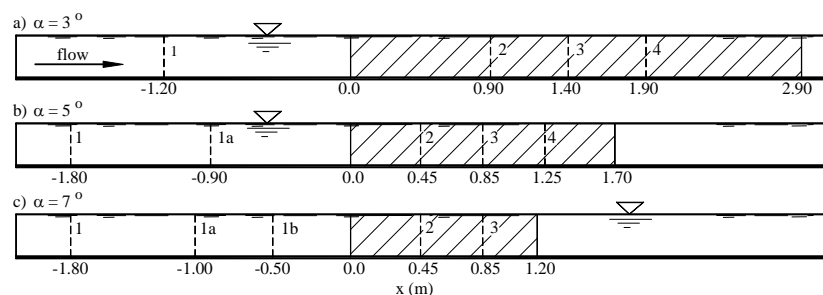


Figure 3. Longitudinal sections of the three experimental set-ups. Hatched areas depict the expansion regions. Dashed lines are stone entrainment-measurement locations.

2.2 Instrumentation

A 2-component, LDV-system was used, measuring u - and w - components of the velocity in the streamwise vertical plan. A light source Helium-Neon (HeNe) laser with a power of

15mW was used. The LDV uses the forward-scatter, reference-beam method. In the present study, a 400 mm lens was used, resulting in a measuring volume with dimensions of about 10 mm in spanwise direction and 1 mm in the other directions. Each time series lasted 2 minutes with a sampling frequency of 500 Hz.

As the flow structures in the present study are different from standard uniform open-channel flow, it is necessary to check the reliability of the LDV measurement. To this end, a measurement of a nearly-uniform open-channel flow on a smooth bed was conducted. The flow has a discharge of 12 l/s, a water depth of 5.9 cm and $B/h = 5.9$. The results are depicted in Figure 4, showing that the data agree well with the literature.

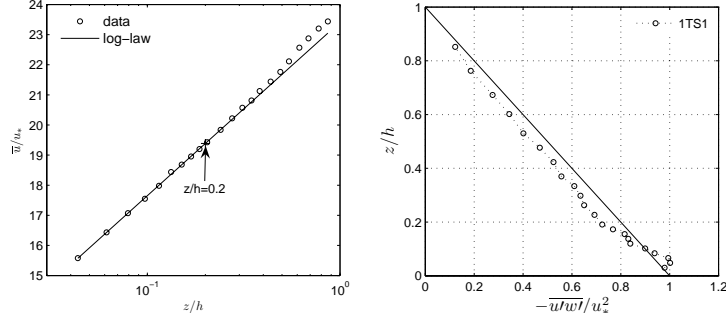


Figure 4. Distributions of velocity and Reynolds stress.

The water depth could be controlled by means of an adjustable gate at the end of the flume. The discharge could be regulated using an orifice plate in the water supply pipe. By measuring the difference in water pressure before and after the orifice plate, the discharge was determined. This pressure difference is expressed in the form of a water column difference. Due to the pressure fluctuations, the water column has an accuracy of about 0.5 cm. This means an accuracy of approximately 0.2 l/s. The water levels were measured by a needle. The needle has an accuracy of 0.1 mm. However, due to the presence of small surface waves in the flume the measurement accuracy is about 2 mm.

2.3 Hydraulic conditions and experimental procedures

The experiments consisted of 37 series of test. For the first 36 series, the artificial stones having the density from 1320 to 1384 kg/m³ were used, whereas in the last series, the artificial stones with the density of 1971 kg/m³ were used. The last series was dedicated to check for the influence of stone density. Of the first 36 series, twelve with different flow conditions (from A to L) were conducted for each set-up (3 set-ups). The hydraulic conditions are summarized in Table 1. The locations of the test sections are depicted in Figure 3, namely profile 1 to profile 4. In Table 1, Q is the discharge, h the water depth, $Re = Uh/\nu$ the Reynolds number, U mean bulk velocity, ν the kinematic viscosity and $F = U/\sqrt{gh}$ the Froude number. Series names consist of the set-up number, the flow condition and the type of flume bottom. Series 1AR, for example, indicates the experiment in set-up 1 with flow condition A ($Q = 22.0$ l/s, $h \approx 12$ cm) and a rough flume bottom (R stands for rough, S stands for smooth). The twelve flow conditions are denoted as letter A to L (with the water depth increases from approx. 12 cm to approx. 19 cm). Similarly, profile name consists of series name and profile number, i.e., 1AR2 is the name for profile 2 of series '1AR'.

Each series consists of five repetitive tests with the same flow conditions. The experimental procedure was as follows. First, the desired discharge was generated and the desired water depth was obtained by adjusting the weir at the downstream end of the flume. The water level and velocity measurements were carried out in this first test where the whole flume bottom was covered by natural stones. The same flow condition was reproduced and repeated for the

next four tests to measure stone entrainment. To this end, the uniformly colored strips of light artificial stones were placed at the designated locations. A 30-minute initial settling period was applied prior to the actual test to remove loose stones that do not determine the strength of the bed. To start an entrainment test the flume was flooded slowly to the designated condition. After two hours, the flow was topped and the number of displaced stones was registered. The entrainment rates obtained from the four tests are averaged to get a statistically reliable entrainment rate for the series.

3 Data processing methods

3.1 Velocity and turbulence data

The velocity data collected from the measurements can be used to directly compute the following properties of the turbulent flow: the mean velocity, the turbulence intensity and the turbulent kinetic energy. These are the basic quantities of the flow and could be used for further analysis for various properties such as the shear velocity, the mixing length, the stability parameters, etc. Following are the methods to derive these basic quantities from the measured data.

As previously mentioned, a time series with 60000 samples² was obtained for a given point velocity. From this data record of turbulent velocities $u(i)$, an estimate of the mean velocity \bar{u} is computed as:

$$\bar{u} = \frac{1}{N} \sum_{i=1}^N u(i) \quad (1)$$

where N is the number of samples. As the number of samples is high, the average is expected to converge to the true mean value. The velocity fluctuation u' are obtained by subtracting the mean value \bar{u} from the measured data u :

$$u' = u - \bar{u} \quad (2)$$

The turbulence intensity of u is defined as $\sqrt{u'^2}$ and is therefore identical to the standard deviation of u :

$$\sigma(u) = \sqrt{\frac{1}{N} \sum_{i=1}^N [u(i) - \bar{u}]^2} = \sqrt{(u')^2} \quad (3)$$

² 2 minute measuring duration with the sampling frequency of 500 Hz

Table 1. Summary of hydraulic conditions

	Q [l/s]	profile 1			profile 2			profile 3			profile 4		
		h [cm]	Re [10 ⁴]	Fr [-]	h [m]	Re [10 ⁴]	Fr [-]	h [m]	Re [10 ⁴]	Fr [-]	h [m]	Re [10 ⁴]	Fr [-]
1AR	22	11.7	6.2	0.498	12.1	5.5	0.423	12.1	5.2	0.394	12.3	4.9	0.362
1BR	20	12	5.7	0.439	12.1	5	0.385	12.2	4.7	0.357	12.3	4.4	0.331
1CR	23	13	6.5	0.448	13	5.7	0.396	13.2	5.4	0.363	13.3	5.1	0.338
1DR	26.5	13.9	7.5	0.466	14.3	6.6	0.395	14.5	6.2	0.363	14.5	5.9	0.343
1ER	24	13.9	6.8	0.422	13.9	6	0.371	14.1	5.6	0.344	14.3	5.3	0.316
1FR	27	15	7.6	0.425	14.8	6.7	0.381	15.2	6.3	0.346	15.3	6	0.323
1GR	31	15.7	8.8	0.456	16.1	7.7	0.385	16.2	7.3	0.361	16.2	6.9	0.338
1HR	28	15.8	7.9	0.407	15.9	7	0.355	16.2	6.6	0.324	16.5	6.2	0.299
1IR	31.5	17	8.9	0.412	17.1	7.9	0.359	17.4	7.4	0.329	17.8	7	0.3
1JR	35.5	17.9	10	0.428	18.1	8.9	0.372	18.3	8.3	0.343	18.5	7.8	0.318
1KR	32	18	9.1	0.383	18.1	8	0.333	18.3	7.5	0.308	18.5	7.1	0.287
1LR	35.5	19	10	0.391	19.1	8.9	0.343	19.1	8.3	0.321	19.3	7.8	0.298
2AR	22	11.6	6.2	0.507	11.6	5.6	0.459	11.6	5.1	0.419	11.8	4.7	0.379
2BR	20	12	5.7	0.442	11.9	5.1	0.401	11.8	4.7	0.373	11.8	4.3	0.341
2CR	23	12.8	6.5	0.459	12.6	5.8	0.42	12.7	5.4	0.382	12.9	5	0.345
2DR	26.5	13.8	7.5	0.471	13.8	6.7	0.424	13.7	6.2	0.391	13.9	5.7	0.355
2ER	24	13.2	6.8	0.458	13.2	6.1	0.409	13.3	5.6	0.373	13.3	5.2	0.343
2FR	27	14.4	7.6	0.448	14.1	6.9	0.418	14.2	6.3	0.379	14.3	5.8	0.345
2GR	31	16	8.8	0.443	15.9	7.9	0.402	15.9	7.2	0.368	16.1	6.7	0.335
2HR	28	15.9	7.9	0.404	15.8	7.1	0.367	15.9	6.5	0.332	15.9	6	0.308
2IR	31.5	16.9	8.9	0.413	16.7	8	0.379	16.6	7.3	0.35	16.8	6.8	0.318
2JR	35.5	17.5	10	0.442	18	9	0.382	17.9	8.3	0.351	18.1	7.6	0.32
2KR	32	17.8	9.1	0.39	17.9	8.1	0.347	17.8	7.5	0.32	17.9	6.9	0.293
2LR	35.5	18.6	10	0.405	18.2	9	0.375	18.5	8.3	0.335	18.6	7.6	0.306
3AR	22	12.1	6.2	0.474	12.6	5.4	0.393	12.8	4.8	0.343	-	-	-
3BR	20	12	5.7	0.438	12.7	5	0.351	13	4.4	0.303	-	-	-
3CR	23	12.9	6.5	0.454	13.3	5.7	0.379	13.4	5.1	0.333	-	-	-
3DR	26.5	13.8	7.5	0.474	14.4	6.6	0.387	14.7	5.8	0.332	-	-	-
3ER	24	14.1	6.8	0.411	14.7	5.9	0.34	15	5.3	0.292	-	-	-
3FR	27	14.9	7.6	0.428	15.5	6.7	0.355	15.6	5.9	0.31	-	-	-
3GR	31	15.7	8.8	0.456	16.4	7.7	0.373	16.8	6.8	0.319	-	-	-
3HR	28	15.8	7.9	0.406	16.4	6.9	0.336	16.6	6.2	0.294	-	-	-
3IR	31.5	16.9	8.9	0.412	17.8	7.8	0.335	17.5	6.9	0.305	-	-	-
3JR	35.5	17.5	10	0.442	18	8.8	0.37	18.5	7.8	0.316	-	-	-
3KR	32	17.7	9.1	0.391	18	7.9	0.335	18.2	7	0.292	-	-	-
3LR	35.5	18.3	10	0.414	19.2	8.8	0.336	19.5	7.8	0.293	-	-	-
3MR	36	12.4	10.2	0.752	11.8	8.9	0.71	12.7	7.9	0.562	-	-	-

3.2 Shear velocity

The shear velocity, u_* , is a fundamental velocity scale, widely used for scaling various flow quantities such as mean velocity and turbulence intensities. The shear velocity is also a key parameter representing the flow forces on the bed (i.e., in stone entrainment and sediment transport studies). The shear velocity can be determined in the three following ways: a) u_{*1} from the Reynolds stress distribution; b) u_{*2} from the log-law applied to the flow near the bottom and c) u_{*3} from the water level slope, i.e., $u_{*3} = \sqrt{ghi}$.

Of the three methods the last one is considered less reliable because of the uncertainty in the accuracy of the water level measurement. Due to the existence of small surface waves in the flume, this third method will not be used. The measured velocity data at a certain profile were used to determine u_{*2} . In the experiment, each profile consists of approx. 19 to 25 measuring points depending on the water depths (ranging from 12 cm to 19 cm). The measuring grid was made finest near the bed (1 mm) and coarser towards the surface (max. 15 mm). In the

inner region ($z < 0.2h$) there always exist 10 to 13 measuring points available, giving enough velocity data to evaluate the shear velocity. u_{*2} was determined so that the mean velocity data in the inner region gave the best fit to the log law. In the same manner, u_{*1} was determined with the least-square method so that the data $-\overline{u'w'}$ gave the best fit to Eq. (4).

$$\tau = -\rho \overline{u'w'} = \rho \left(1 - \frac{z}{h}\right) u_* \quad (4)$$

The results have shown that u_{*1} and u_{*2} are in fairly good agreement, especially for set-up 1 and 2. However, u_{*1} gives the least scatter in the $\Psi_s - \Phi_E$ relation (Ψ_s is the Shields stability parameter and Φ_E is the dimensionless entrainment rate).

3.3 Damage of bed protection

The damage of bed protection is quantified by the dimensionless entrainment rate Φ_E

$$\Phi_E = \frac{E}{\Delta g d} \quad (5)$$

Where $E = nd^3/AT$ is the entrainment rate. n is the number of displaced stones, A is the strip area, T is the experimental duration, d is the stone diameter. In the present study, the nominal diameter of the stone (d_{n50}) is used to present stone diameter. $\Delta = (\rho_s - \rho)/\rho$ is the specific submerged density of stone, ρ is the water density, ρ_s is the stone density and g is the gravitational acceleration. For each series the entrainment test was repeated 4 times, resulting in four values of the number of the entrained stones (n_1 , n_2 , n_3 and n_4) for each uniformly color stone strip. The representative value of the displaced stone number of that strip can be obtained as

$$n = \frac{n_1 + n_2 + n_3 + n_4}{4} \quad (6)$$

4 Stone parameters

4.1 Artificial stones

Artificial stones were made of a combination of epoxy resin ($\rho_s \sim 1500 \text{ kg/m}^3$ *Sneldrogende Houtreparatie* in Dutch, available from www.alabastine.nl), fine sand ($\rho_s \sim 2700 \text{ kg/m}^3$) and polyfit ($\rho_s \sim 1000 \text{ kg/m}^3$). With a different ratio of the three components, it is possible to make artificial stone with the density ranging from 1100 to 2500 kg/m^3 . The epoxy resin consists of two separate pasty components. When these two components are mixed to each others (and with sand or/and polyfit), the new material becomes hard after approximately 30 minutes. Before that line time, the mixed material is perfect to produce the artificial stones. The standard deviation of the density of the artificial stones ranges from 10 to 35 kg/m^3 which is small compared to that of natural stones. The shape and size of natural stones were copied to the artificial stones by using rubber moulds (see Figure 5). This rubber mould was made of silicon rubber. It consists of a pasty component and a liquid. When they are mixed to each other, the new material becomes a rubber after 24 hours. To make the rubber moulds, temporary rectangular wooden moulds were used and several natural stones (28 to 45) were placed at the bottom of the wooden mould. The mixed material of the silicon rubber was then poured on the wooden mould. After 24 hours the rubber moulds became dry and were taken out of the wooden moulds. All the natural stones were then removed from the rubber moulds and the moulds were ready to be used.

About 2000 artificial stones were made and used in the experiments. These artificial stones are the copies of approximately 100 stones taken from the natural stones used to construct the flume bottom. Because the flow condition varies along the flume and for the testing purpose, different stone densities are required. These are,

Type 1: Blue, green and yellow stones with the same density ($\rho_s = 1341 \text{ kg/m}^3$). The process of making these stones are identical except the paint color. This stones are placed as uniformly colored strips along the expansion.

Type 2 & 3: Pink ($\rho_s = 1384 \text{ kg/m}^3$) and [light] orange ($\rho_s = 1320 \text{ kg/m}^3$) stones. These stones with different densities are placed under the same flow condition (i.e., before the expansion, in the straight part of the flume) and therefore can also be used to check for the influence of stone density on the overall test results.

Type 4: [Heavy] orange stones ($\rho_s = 1971 \text{ kg/m}^3$). Though these stones have the same color and similar in shape and size with stone type 3, their density is much higher. These stones and the flow condition in series 3MR are specially designed to check for the influence of stone density on the overall results. These are the only artificial stones used in series 3MR.



Figure 5. The moulds used to make artificial stones

For each stone type, about fifty stones are randomly picked up for weighing. These data are used to determine stone parameters such as the density, the nominal diameter and the stone graduation curve. Below are the detail results of the measurement where m_r and m_w are the dry and submerged weight of the stone, respectively; ρ is the density of water, ρ_s is the density of the stone and d_n is the nominal stone density.

Weighing data for stone type 1: Blue

No	m _r [g]	m _w [g]	ρ [kg/m ³]	ρ _s [kg/m ³]	V [cm ³]	d _n [cm]
1	0.7781	0.1933	1000	1331	0.5848	0.836
2	0.6925	0.1694	1000	1324	0.5231	0.806
3	0.7375	0.2149	1000	1411	0.5226	0.805
4	0.7816	0.1952	1000	1333	0.5864	0.837
5	0.8232	0.2093	1000	1341	0.6139	0.850
6	0.8222	0.2094	1000	1342	0.6128	0.849
7	0.7014	0.1723	1000	1326	0.5291	0.809
8	0.6626	0.1704	1000	1346	0.4922	0.790
9	0.6919	0.1798	1000	1351	0.5121	0.800
10	0.7469	0.1873	1000	1335	0.5596	0.824
11	0.8519	0.2175	1000	1343	0.6344	0.859
12	0.6826	0.1716	1000	1336	0.5110	0.799
13	0.7329	0.1829	1000	1333	0.5500	0.819
14	0.6616	0.1589	1000	1316	0.5027	0.795
15	0.8006	0.2107	1000	1357	0.5899	0.839
16	0.6768	0.1632	1000	1318	0.5136	0.801
17	0.6697	0.1652	1000	1327	0.5045	0.796
18	0.8292	0.2322	1000	1389	0.5970	0.842
19	0.6768	0.1705	1000	1337	0.5063	0.797
20	0.7277	0.1865	1000	1345	0.5412	0.815
21	0.7422	0.1906	1000	1346	0.5516	0.820
22	0.6386	0.1608	1000	1337	0.4778	0.782
23	0.7149	0.1834	1000	1345	0.5315	0.810
24	0.7454	0.1865	1000	1334	0.5589	0.824
25	0.7179	0.1748	1000	1322	0.5431	0.816
26	0.6795	0.1684	1000	1329	0.5111	0.800
27	0.6164	0.1589	1000	1347	0.4575	0.771
28	0.7318	0.1842	1000	1336	0.5476	0.818
29	0.7683	0.1954	1000	1341	0.5729	0.831
30	0.7439	0.1769	1000	1312	0.5670	0.828
31	0.7375	0.1852	1000	1335	0.5523	0.820
32	0.6214	0.1554	1000	1333	0.4660	0.775
33	0.7866	0.1980	1000	1336	0.5886	0.838
34	0.7555	0.1926	1000	1342	0.5629	0.826
35	0.6708	0.1701	1000	1340	0.5007	0.794
36	0.6521	0.1622	1000	1331	0.4899	0.788
37	0.8383	0.2738	1000	1485	0.5645	0.826
38	0.7995	0.2091	1000	1354	0.5904	0.839
39	0.7189	0.1804	1000	1335	0.5385	0.814
40	0.7249	0.1806	1000	1332	0.5443	0.816
41	0.7336	0.1893	1000	1348	0.5443	0.816
42	0.7542	0.1870	1000	1330	0.5672	0.828
43	0.8221	0.2084	1000	1340	0.6137	0.850
44	0.7710	0.1906	1000	1328	0.5804	0.834
45	0.6059	0.1513	1000	1333	0.4546	0.769
46	0.7326	0.1849	1000	1338	0.5477	0.818
47	0.7803	0.1979	1000	1340	0.5824	0.835
48	0.7735	0.1960	1000	1339	0.5775	0.833
49	0.6642	0.1657	1000	1332	0.4985	0.793
50	0.7720	0.1939	1000	1335	0.5781	0.833
mean				1341		0.816
Stdev				26.00		0.021

Weighing data for stone type 1: Green

No	m _r [g]	m _w [g]	ρ [kg/m ³]	ρ _s [kg/m ³]	V [cm ³]	d _n [cm]
1	0.7636	0.2079	1000	1374	0.5557	0.822
2	0.6260	0.1544	1000	1327	0.4716	0.778
3	0.7565	0.1868	1000	1328	0.5697	0.829
4	0.7047	0.1788	1000	1340	0.5259	0.807
5	0.7826	0.1991	1000	1341	0.5835	0.836
6	0.7439	0.1842	1000	1329	0.5597	0.824
7	0.7225	0.1801	1000	1332	0.5424	0.816
8	0.7170	0.1792	1000	1333	0.5378	0.813
9	0.6130	0.1522	1000	1330	0.4608	0.772
10	0.7356	0.1891	1000	1346	0.5465	0.818
11	0.7914	0.2117	1000	1365	0.5797	0.834
12	0.7669	0.2001	1000	1353	0.5668	0.828
13	0.7893	0.2188	1000	1384	0.5705	0.829
14	0.8098	0.2030	1000	1335	0.6068	0.847
15	0.7538	0.1905	1000	1338	0.5633	0.826
16	0.7320	0.1865	1000	1342	0.5455	0.817
17	0.7849	0.2055	1000	1355	0.5794	0.834
18	0.6915	0.1639	1000	1311	0.5276	0.808
19	0.7475	0.1849	1000	1329	0.5626	0.826
20	0.7583	0.1870	1000	1327	0.5713	0.830
21	0.6362	0.1616	1000	1340	0.4746	0.780
22	0.7979	0.2070	1000	1350	0.5909	0.839
23	0.7369	0.2139	1000	1409	0.5230	0.806
24	0.7398	0.1931	1000	1353	0.5467	0.818
25	0.7416	0.1812	1000	1323	0.5604	0.824
26	0.6968	0.1770	1000	1341	0.5198	0.804
27	0.6892	0.1744	1000	1339	0.5148	0.801
28	0.6940	0.1711	1000	1327	0.5229	0.806
29	0.7325	0.1947	1000	1362	0.5378	0.813
30	0.6858	0.1711	1000	1332	0.5147	0.801
31	0.7920	0.2049	1000	1349	0.5871	0.837
32	0.7860	0.1972	1000	1335	0.5888	0.838
33	0.7387	0.1790	1000	1320	0.5597	0.824
34	0.7525	0.1924	1000	1344	0.5601	0.824
35	0.6733	0.1672	1000	1330	0.5061	0.797
36	0.6961	0.1764	1000	1339	0.5197	0.804
37	0.7447	0.1850	1000	1331	0.5597	0.824
38	0.8351	0.2133	1000	1343	0.6218	0.854
39	0.7119	0.1697	1000	1313	0.5422	0.815
40	0.7154	0.1821	1000	1341	0.5333	0.811
41	0.7428	0.1871	1000	1337	0.5557	0.822
42	0.7651	0.2024	1000	1360	0.5627	0.826
43	0.7286	0.1827	1000	1335	0.5459	0.817
44	0.7073	0.1772	1000	1334	0.5301	0.809
45	0.6720	0.1740	1000	1349	0.4980	0.793
46	0.7144	0.1767	1000	1329	0.5377	0.813
47	0.6715	0.1697	1000	1338	0.5018	0.795
48	0.6945	0.1727	1000	1331	0.5218	0.805
49	0.7916	0.1959	1000	1329	0.5957	0.841
50	0.6694	0.1677	1000	1334	0.5017	0.795
mean				1340		0.817
Stdev				17.10		0.017

Weighing data for stone type 2: Pink

No	m _r [g]	m _w [g]	ρ [kg/m ³]	ρ_s [kg/m ³]	V [cm ³]	d _n [cm]
1	0.8210	0.2273	1000	1383	0.5937	0.840
2	0.7407	0.2060	1000	1385	0.5347	0.812
3	0.6799	0.1879	1000	1382	0.4920	0.789
4	0.7453	0.2094	1000	1391	0.5359	0.812
5	0.8591	0.2303	1000	1366	0.6288	0.857
6	0.6733	0.1811	1000	1368	0.4922	0.790
7	0.7388	0.2060	1000	1387	0.5328	0.811
8	0.7683	0.2105	1000	1377	0.5578	0.823
9	0.7820	0.2145	1000	1378	0.5675	0.828
10	0.7988	0.2238	1000	1389	0.5750	0.832
11	0.7431	0.2087	1000	1391	0.5344	0.812
12	0.7954	0.2244	1000	1393	0.5710	0.830
13	0.7694	0.2049	1000	1363	0.5645	0.826
14	0.7929	0.2156	1000	1373	0.5773	0.833
15	0.7607	0.2096	1000	1380	0.5511	0.820
16	0.8281	0.2273	1000	1378	0.6008	0.844
17	0.6854	0.1904	1000	1385	0.4950	0.791
18	0.7950	0.2218	1000	1387	0.5732	0.831
19	0.7705	0.2214	1000	1403	0.5491	0.819
20	0.6987	0.1924	1000	1380	0.5063	0.797
21	0.8269	0.2361	1000	1400	0.5908	0.839
22	0.8240	0.2421	1000	1416	0.5819	0.835
23	0.8289	0.2372	1000	1401	0.5917	0.840
24	0.8029	0.2214	1000	1381	0.5815	0.835
25	0.7173	0.2018	1000	1391	0.5155	0.802
26	0.7469	0.2078	1000	1385	0.5391	0.814
27	0.7585	0.2073	1000	1376	0.5512	0.820
28	0.7438	0.2061	1000	1383	0.5377	0.813
29	0.8084	0.2189	1000	1371	0.5895	0.838
30	0.7379	0.2063	1000	1388	0.5316	0.810
31	0.7784	0.2096	1000	1368	0.5688	0.829
32	0.7291	0.2030	1000	1386	0.5261	0.807
33	0.7729	0.2102	1000	1374	0.5627	0.826
34	0.7581	0.2048	1000	1370	0.5533	0.821
35	0.7855	0.2204	1000	1390	0.5651	0.827
36	0.7311	0.2008	1000	1379	0.5303	0.809
37	0.7692	0.2140	1000	1385	0.5552	0.822
38	0.7329	0.2033	1000	1384	0.5296	0.809
39	0.7947	0.2192	1000	1381	0.5755	0.832
40	0.7315	0.1938	1000	1360	0.5377	0.813
41	0.7445	0.2042	1000	1378	0.5403	0.814
42	0.7441	0.2074	1000	1386	0.5367	0.813
43	0.7379	0.2032	1000	1380	0.5347	0.812
44	0.7199	0.2093	1000	1410	0.5106	0.799
45	0.7807	0.2183	1000	1388	0.5624	0.825
46	0.7330	0.2011	1000	1378	0.5319	0.810
47	0.7582	0.2095	1000	1382	0.5487	0.819
48	0.6652	0.1836	1000	1381	0.4816	0.784
49	0.8503	0.2400	1000	1393	0.6103	0.848
50	0.6877	0.1925	1000	1389	0.4952	0.791
mean				1384		0.819
Stdev				10.87		0.016

Weighing data for stone type 3: Orange (light stones)

No	m_r	m_w	ρ	ρ_s	V	d_n	Note
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]	
1	0.7039	0.1669	1000	1311	0.5370	0.813	orange light stones
2	0.7811	0.2057	1000	1357	0.5754	0.832	
3	0.7071	0.1719	1000	1321	0.5352	0.812	
4	0.7353	0.1733	1000	1308	0.5620	0.825	
5	0.8006	0.1964	1000	1325	0.6042	0.845	
6	0.6921	0.1680	1000	1321	0.5241	0.806	
7	0.6784	0.1655	1000	1323	0.5129	0.800	
8	0.7716	0.1884	1000	1323	0.5832	0.835	
9	0.6626	0.1541	1000	1303	0.5085	0.798	
10	0.766	0.1819	1000	1311	0.5841	0.836	
Mean				1320		0.820	
Stdeviation				15		0.02	

Weighing data for stone type 4: Orange (heavy stones)

No	m_r	m_w	ρ	ρ_s	V	d_n
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]
1	1.0361	0.5080	1000	1962	0.5281	0.808
2	1.1425	0.5599	1000	1961	0.5826	0.835
3	1.1606	0.5683	1000	1959	0.5923	0.840
4	1.0990	0.5437	1000	1979	0.5553	0.822
5	1.1171	0.5473	1000	1961	0.5698	0.829
6	0.9821	0.4820	1000	1964	0.5001	0.794
7	1.1610	0.5678	1000	1957	0.5932	0.840
8	0.9673	0.4752	1000	1966	0.4921	0.789
9	1.1427	0.5591	1000	1958	0.5836	0.836
10	1.1748	0.5791	1000	1972	0.5957	0.841
11	1.0666	0.5286	1000	1983	0.5380	0.813
12	1.1342	0.5566	1000	1964	0.5776	0.833
13	1.1217	0.5563	1000	1984	0.5654	0.827
14	1.0233	0.5026	1000	1965	0.5207	0.805
15	1.0491	0.5120	1000	1953	0.5371	0.813
16	1.1474	0.5631	1000	1964	0.5843	0.836
17	0.9941	0.4900	1000	1972	0.5041	0.796
18	1.1560	0.5677	1000	1965	0.5883	0.838
19	0.9276	0.4585	1000	1977	0.4691	0.777

Weighing data for stone type 4: Orange (heavy stones)

(Continue)						
No	m_r	m_w	ρ	ρ_s	V	d_n
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]
20	1.0127	0.4986	1000	1970	0.5141	0.801
21	1.1125	0.5495	1000	1976	0.5630	0.826
22	1.1557	0.5682	1000	1967	0.5875	0.838
23	1.1053	0.5411	1000	1959	0.5642	0.826
24	1.0475	0.5147	1000	1966	0.5328	0.811
25	1.0883	0.5348	1000	1966	0.5535	0.821
26	0.9442	0.4649	1000	1970	0.4793	0.783
27	1.2836	0.6415	1000	1999	0.6421	0.863
28	1.1752	0.5853	1000	1992	0.5899	0.839
29	1.1519	0.5687	1000	1975	0.5832	0.835
30	1.1804	0.5762	1000	1954	0.6042	0.845
31	1.1966	0.5959	1000	1992	0.6007	0.844
32	1.0203	0.5012	1000	1966	0.5191	0.804
33	1.1052	0.5417	1000	1961	0.5635	0.826
34	1.2272	0.6069	1000	1978	0.6203	0.853
35	1.2443	0.6152	1000	1978	0.6291	0.857
36	1.0529	0.5200	1000	1976	0.5329	0.811
37	1.1468	0.5733	1000	2000	0.5735	0.831
38	1.1088	0.5478	1000	1976	0.5610	0.825
39	1.1162	0.5553	1000	1990	0.5609	0.825
40	1.0726	0.5239	1000	1955	0.5487	0.819
41	1.1128	0.5510	1000	1981	0.5618	0.825
42	1.0872	0.5331	1000	1962	0.5541	0.821
43	1.0604	0.5167	1000	1950	0.5437	0.816
44	1.1592	0.5737	1000	1980	0.5855	0.837
45	0.9974	0.4908	1000	1969	0.5066	0.797
46	1.1994	0.5930	1000	1978	0.6064	0.846
47	0.9416	0.4645	1000	1974	0.4771	0.781
48	1.1149	0.5496	1000	1972	0.5653	0.827
49	1.0460	0.5155	1000	1972	0.5305	0.810
50	1.1677	0.5762	1000	1974	0.5915	0.839
51	0.9814	0.4818	1000	1964	0.4996	0.793
52	0.9868	0.4875	1000	1976	0.4993	0.793
53	1.1155	0.5491	1000	1969	0.5664	0.827
54	1.1208	0.5492	1000	1961	0.5716	0.830
Mean	1.0971	0.5404	1000	1971	0.5567	0.822
Stdeviation			0000	11		0.02

4.2 Natural stones used to construct the flume bottom

To determine the stone parameters of natural stones used in the experiments, 121 stones are picked up randomly for weighing. The measurement data are shown below.

No	m_r	m_w	ρ	ρ_s	V	d_n
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]
1	1.9368	1.2193	1000	2699	0.7175	0.895
2	2.9471	1.8547	1000	2698	1.0924	1.030
3	2.7989	1.7610	1000	2697	1.0379	1.012
4	4.3076	2.7097	1000	2696	1.5979	1.169
5	4.1683	2.6276	1000	2705	1.5407	1.155
6	2.0843	1.3362	1000	2786	0.7481	0.908
7	1.9510	1.2338	1000	2720	0.7172	0.895
8	1.3627	0.8568	1000	2694	0.5059	0.797
9	1.4522	0.9140	1000	2698	0.5382	0.813
10	2.8865	1.8161	1000	2697	1.0704	1.023
11	2.1064	1.3270	1000	2703	0.7794	0.920
12	2.0758	1.3333	1000	2796	0.7425	0.906
13	1.5215	0.9545	1000	2683	0.5670	0.828
14	1.6265	1.0247	1000	2703	0.6018	0.844
15	1.3533	0.8612	1000	2750	0.4921	0.789
16	1.5785	0.9933	1000	2697	0.5852	0.836
17	1.4055	0.8857	1000	2704	0.5198	0.804
18	1.4130	0.8898	1000	2701	0.5232	0.806
19	1.3839	0.8687	1000	2686	0.5152	0.802
20	1.4089	0.8885	1000	2707	0.5204	0.804
21	1.2927	0.8139	1000	2700	0.4788	0.782
22	1.6448	1.0349	1000	2697	0.6099	0.848
23	1.4792	0.9292	1000	2689	0.5500	0.819
24	1.1005	0.6926	1000	2698	0.4079	0.742
25	1.2992	0.8187	1000	2704	0.4805	0.783
26	1.7261	1.0860	1000	2697	0.6401	0.862
27	1.6967	1.0605	1000	2667	0.6362	0.860
28	1.5572	0.9788	1000	2692	0.5784	0.833
29	1.2780	0.8045	1000	2699	0.4735	0.779
30	1.1944	0.7609	1000	2755	0.4335	0.757
31	1.0147	0.6408	1000	2714	0.3739	0.720
32	1.3300	0.8414	1000	2722	0.4886	0.788
33	1.5133	0.9558	1000	2714	0.5575	0.823
34	1.1143	0.7025	1000	2706	0.4118	0.744
35	1.4081	0.8852	1000	2693	0.5229	0.806
36	1.6708	1.0498	1000	2690	0.6210	0.853
37	0.9022	0.5715	1000	2728	0.3307	0.692
38	2.1941	1.3829	1000	2705	0.8112	0.933
39	1.4710	0.9234	1000	2686	0.5476	0.818
40	1.4715	0.9287	1000	2711	0.5428	0.816
41	1.2569	0.7922	1000	2705	0.4647	0.775
42	1.8055	1.1323	1000	2682	0.6732	0.876
43	0.9834	0.6205	1000	2710	0.3629	0.713
44	1.2816	0.8065	1000	2698	0.4751	0.780
45	1.1810	0.7413	1000	2686	0.4397	0.760

Continue						
No	m_r	m_w	ρ	ρ_s	V	d_n
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]
46	1.1493	0.7050	1000	2587	0.4443	0.763
47	1.3367	0.8440	1000	2713	0.4927	0.790
48	1.4513	0.9122	1000	2692	0.5391	0.814
49	0.9610	0.6056	1000	2704	0.3554	0.708
50	0.8431	0.5315	1000	2706	0.3116	0.678
51	1.3079	0.8249	1000	2708	0.4830	0.785
52	0.7050	0.4478	1000	2741	0.2572	0.636
53	2.1590	1.3593	1000	2700	0.7997	0.928
54	1.1210	0.7045	1000	2691	0.4165	0.747
55	1.7015	1.0712	1000	2700	0.6303	0.857
56	2.1680	1.3597	1000	2682	0.8083	0.932
57	1.4924	0.9385	1000	2694	0.5539	0.821
58	0.8122	0.5100	1000	2688	0.3022	0.671
59	1.2895	0.8132	1000	2707	0.4763	0.781
60	1.2075	0.7618	1000	2709	0.4457	0.764
61	1.2794	0.8067	1000	2707	0.4727	0.779
62	1.3623	0.8552	1000	2686	0.5071	0.797
63	1.4178	0.8957	1000	2716	0.5221	0.805
64	1.2337	0.7823	1000	2733	0.4514	0.767
65	1.0653	0.6727	1000	2713	0.3926	0.732
66	3.7415	2.3925	1000	2774	1.3490	1.105
67	2.0539	1.2886	1000	2684	0.7653	0.915
68	1.4122	0.8900	1000	2704	0.5222	0.805
69	1.3604	0.8578	1000	2707	0.5026	0.795
70	1.7528	1.1030	1000	2697	0.6498	0.866
71	2.4059	1.5149	1000	2700	0.8910	0.962
72	0.8697	0.5480	1000	2703	0.3217	0.685
73	1.4090	0.8861	1000	2695	0.5229	0.806
74	1.5172	0.9570	1000	2708	0.5602	0.824
75	1.2934	0.8109	1000	2681	0.4825	0.784
76	1.2695	0.8006	1000	2707	0.4689	0.777
77	1.5397	0.9758	1000	2730	0.5639	0.826
78	1.1968	0.7529	1000	2696	0.4439	0.763
79	1.2193	0.7621	1000	2667	0.4572	0.770
80	1.6415	1.0553	1000	2800	0.5862	0.837
81	1.8858	1.1888	1000	2706	0.6970	0.887
82	1.2995	0.8193	1000	2706	0.4802	0.783
83	1.1461	0.7224	1000	2705	0.4237	0.751
84	1.6159	1.0255	1000	2737	0.5904	0.839
85	1.0720	0.6743	1000	2695	0.3977	0.735
86	1.1777	0.7423	1000	2705	0.4354	0.758
87	1.5386	0.9707	1000	2709	0.5679	0.828
88	1.0611	0.6833	1000	2809	0.3778	0.723
89	1.4225	0.8983	1000	2714	0.5242	0.806
90	1.2743	0.8024	1000	2700	0.4719	0.779

Continue						
No	m_r	m_w	ρ	ρ_s	V	d_n
[-]	[g]	[g]	[kg/m ³]	[kg/m ³]	[cm ³]	[cm]
91	1.6531	1.0251	1000	2632	0.6280	0.856
92	1.3867	0.8723	1000	2696	0.5144	0.801
93	0.9872	0.6220	1000	2703	0.3652	0.715
94	0.9520	0.5975	1000	2685	0.3545	0.708
95	1.4191	0.8909	1000	2687	0.5282	0.808
96	1.3952	0.8759	1000	2687	0.5193	0.804
97	1.2985	0.8175	1000	2700	0.4810	0.784
98	1.7400	1.0977	1000	2709	0.6423	0.863
99	0.8786	0.5487	1000	2663	0.3299	0.691
100	1.8730	1.1781	1000	2695	0.6949	0.886
101	1.3507	0.8493	1000	2694	0.5014	0.794
102	1.5926	1.0005	1000	2690	0.5921	0.840
103	1.0650	0.6708	1000	2702	0.3942	0.733
104	0.8645	0.5450	1000	2706	0.3195	0.684
105	0.8250	0.5097	1000	2617	0.3153	0.681
106	0.8593	0.5975	1000	3282	0.2618	0.640
107	1.2562	0.7903	1000	2696	0.4659	0.775
108	1.3245	0.8326	1000	2693	0.4919	0.789
109	1.0582	0.6645	1000	2688	0.3937	0.733
110	0.9273	0.5854	1000	2712	0.3419	0.699
111	0.9312	0.5873	1000	2708	0.3439	0.701
112	0.8512	0.5372	1000	2711	0.3140	0.680
113	0.8510	0.5297	1000	2649	0.3213	0.685
114	0.8107	0.5090	1000	2687	0.3017	0.671
115	0.8218	0.5155	1000	2683	0.3063	0.674
116	0.6782	0.4270	1000	2700	0.2512	0.631
117	1.3667	0.8606	1000	2700	0.5061	0.797
118	1.0118	0.6428	1000	2742	0.3690	0.717
119	1.0920	0.6857	1000	2688	0.4063	0.741
120	1.1149	0.7002	1000	2688	0.4147	0.746
121	0.8740	0.5482	1000	2683	0.3258	0.688
mean				2707		0.801
Stdev				59.81		0.095

4.3 Size distribution of the artificial and natural stones

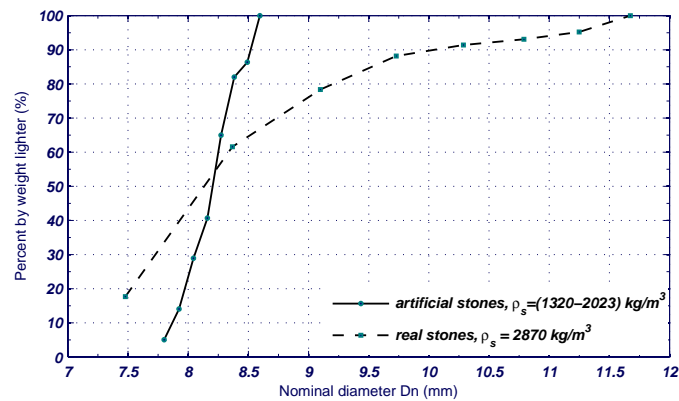


Figure 6. Size distribution of stones used in the experiments

5 Measured data and calculated variables

5.1 Water level data

Table 2. Summary of water level and water depth data

Series	Q [l/s]	Water depth (cm)				Water level (cm)			
		profile 1	profile 2	profile 3	profile 4	profile 1	profile 2	profile 3	profile 4
1AR	22	11.70	12.10	12.10	12.30	27.85	28.07	28.04	27.98
1BR	20	12.00	12.10	12.20	12.30	28.15	28.20	28.05	28.02
1CR	23	13.00	13.00	13.20	13.30	29.15	29.12	29.10	29.03
1DR	26.5	13.90	14.30	14.50	14.50	30.00	30.12	30.19	30.12
1ER	24	13.90	13.90	14.10	14.30	30.05	30.03	29.94	29.99
1FR	27	15.00	14.80	15.20	15.30	31.12	30.95	31.05	30.99
1GR	31	15.70	16.10	16.20	16.20	31.82	32.12	32.12	32.12
1HR	28	15.80	15.90	16.20	16.50	32.00	32.00	32.12	32.15
1IR	31.5	17.00	17.10	17.40	17.80	33.10	33.18	33.26	33.45
1JR	35.5	17.90	18.10	18.30	18.50	34.05	34.11	34.18	34.21
1KR	32	18.00	18.10	18.30	18.50	34.15	34.20	34.20	34.18
1LR	35.5	19.00	19.10	19.10	19.30	35.15	35.10	34.98	35.00
2AR	22	11.60	11.60	11.60	11.80	28.29	28.05	27.80	27.90
2BR	20	12.00	11.90	11.80	11.80	28.69	28.35	28.00	27.90
2CR	23	12.80	12.60	12.70	12.90	29.49	29.05	28.90	29.00
2DR	26.5	13.80	13.80	13.70	13.90	30.49	30.25	29.90	30.00
2ER	24	13.20	13.20	13.30	13.30	29.89	29.65	29.50	29.40
2FR	27	14.40	14.10	14.20	14.30	31.09	30.55	30.40	30.40
2GR	31	16.00	15.90	15.90	16.10	32.69	32.35	32.10	32.20
2HR	28	15.90	15.80	15.90	15.90	32.59	32.25	32.10	32.00
2IR	31.5	16.90	16.70	16.60	16.80	33.59	33.15	32.80	32.90
2JR	35.5	17.50	18.00	17.90	18.10	34.19	34.45	34.10	34.20
2KR	32	17.80	17.90	17.80	17.90	34.49	34.35	34.00	34.00
2LR	35.5	18.60	18.20	18.50	18.60	35.29	34.65	34.70	34.70
3AR	22	12.10	12.60	12.80	-	28.80	28.72	28.80	-
3BR	20	12.00	12.70	13.00	-	28.70	28.82	29.00	-
3CR	23	12.90	13.30	13.40	-	29.60	29.42	29.40	-
3DR	26.5	13.80	14.40	14.70	-	30.50	30.52	30.70	-
3ER	24	14.10	14.70	15.00	-	30.80	30.82	31.00	-
3FR	27	14.90	15.50	15.60	-	31.60	31.62	31.60	-
3GR	31	15.70	16.40	16.80	-	32.40	32.52	32.80	-
3HR	28	15.80	16.40	16.60	-	32.50	32.52	32.60	-
3IR	31.5	16.90	17.80	17.50	-	33.60	33.92	33.50	-
3JR	35.5	17.50	18.00	18.50	-	34.20	34.12	34.50	-
3KR	32	17.70	18.00	18.20	-	34.40	34.12	34.20	-
3LR	35.5	18.30	19.20	19.50	-	35.00	35.32	35.50	-
3MR	36	12.40	11.80	12.70	-	28.50	27.30	28.13	-

5.2 Entrainment data

5.2.1 Set-up 1 ($\alpha = 3^0$)

Series: 1AR 1//4 Date: 25/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:40-15:10	30	19	45	10	5
15:15-17:15	120	39	60	46	10

Series: 1AR 2//4 Date: 26/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:15-9:45	30	42	39	38	14
9:55-11:55	120	39	61	65	15

Series: 1AR 3//4 Date: 26/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
12:55-13:25	30	53	48	71	23
11:40-15:40	120	21	73	44	35

Series: 1AR 4//4 Date: 27/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
10:15-10:45	30	82	48	40	20
10:50-12:50	120	36	63	65	25

49 45 39.75 15.5
33.75 64.25 55 21.25

Series: 1BR 1//4 Date: 17/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:45-10:15	30	11	10	11	6
10:25-12:25	120	7	15	11	10

Series: 1BR 2//4 Date: 17/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
13:00-13:30	30	3	11	9	8
13:35-15:35	120	9	18	5	2

Series: 1BR 3//4 Date: 18/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:05-9:35	30	23	12	6	4
9:40-11:40	120	14	15	8	8

Series: 1BR 4//4 Date: 18/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
12:15-12:45	30	9	16	7	6
12:50-14:50	120	16	4	11	7

11.5 12.25 8.25 6
11.5 13 8.75 6.75

Series: 1CR 1//4 Date: 14/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:50-9:20	30	25	21	25	9
9:25-11:25	120	13	45	11	10

Series: 1CR 2//4 Date: 14/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:35-12:05	30	12	16	21	13
12:10-14:10	120	25	27	8	10

Series: 1CR 3//4 Date: 14/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:20-14:50	30	18	20	17	9
14:55-16:55	120	32	29	7	3

Series: 1CR 4//4 Date: 15/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:50-9:20	30	15	17	21	12
9:25-11:25	120	8	8	22	20

17.5 18.5 21 10.75
19.5 27.25 12 10.75

Series: 1DR 1//4 Date: 1/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:50-10:20	30	29	30	33	25
10:15-12:15	120	61	72	32	26

Series: 1DR 2//4 Date: 1/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
12:45-13:15	30	19	53	38	7
13:30-15:30	120	44	63	26	13

Series: 1DR 3//4 Date: 2/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
10:15-10:45	30	42	21	10	6
10:55-12:55	120	42	27	15	9

Series: 1DR 4//4 Date: 2/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
13:10-13:40	30	24	50	28	14
13:45-15:45	120	52	47	12	26

28.5 38.5 27.25 13
49.75 52.25 21.25 18.5

Series: 1ER 1//4 Date: 27/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:25-14:55	30	21	18	10	7
15:05-17:05	120	24	19	21	7

Series: 1ER 2//4 Date: 28/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:50-9:20	30	15	5	10	5
9:30-11:30	120	12	16	12	3

Series: 1ER 3//4 Date: 28/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:55-12:25	30	14	10	9	9
12:30-14:30	120	13	13	16	8

Series: 1ER 4//4 Date: 28/7/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:45-15:15	30	20	15	31	3
15:20-17:20	120	15	12	9	5

17.5 12 15 6
16 15 14.5 5.75

Series: 1FR 1//4 Date: 12/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:20-14:50	30	24	34	24	6
14:55-16:55	120	14	16	17	4

Series: 1FR 2//4 Date: 13/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:15-8:45	30	21	26	9	9
8:50-10:50	120	22	25	7	11

Series: 1FR 3//4 Date: 13/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:00-11:30	30	17	20	21	5
11:35-13:35	120	24	21	9	6

Series: 1FR 4//4 Date: 13/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
13:45-14:15	30	15	27	20	12
14:20-16:20	120	20	17	12	8

19.25 26.75 18.5 8
20 19.75 11.25 7.25

Series: 1GR 1//4 Date: 4/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:10-11:40	30	43	30	32	30
11:50-13:50	120	33	40	62	23

Series: 1GR 2//4 Date: 4/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:10-14:40	30	32	11	32	15
14:50-16:50	120	60	32	42	23

Series: 1GR 3//4 Date: 7/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:25-8:55	30	37	56	63	44
9:05-11:05	120	63	69	47	30

Series: 1GR 4//4 Date: 1/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:40-10:10	30	49	65	28	20
10:25-12:25	120	25	63	37	14

40.25 40.5 38.75 27.25
45.25 51 47 22.5

Series: 1HR 1//4 Date: 3/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:30-9:00	30	19	16	15	9
9:05-11:05	120	28	29	10	6

Series: 1HR 2//4 Date: 3/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:20-11:50	30	21	24	12	11
12:10-13:55	120	17	36	8	1

Series: 1HR 3//4 Date: 3/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:03-14:33	30	10	16	11	7
14:40-16:40	120	14	18	6	3

Series: 1HR 4//4 Date: 4/8/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:20-8:50	30	10	6	13	6
8:55-10:55	120	35	4	12	4

15 15.5 12.75 8.25
23.5 21.75 9 3.5

Series: 1IR 1//4 Date: 1/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
12:50-13:20	30	21	26	22	9
13:30-15:30	120	14	51	18	9

Series: 1IR 2//4 Date: 4/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:40-9:10	30	27	18	9	16
9:20-11:20	120	10	12	20	7

Series: 1IR 3//4 Date: 4/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:30-12:00	30	32	20	8	5
12:10-14:10	120	19	17	14	4

Series: 1IR 4//4 Date: 4/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:20-14:50	30	34	55	7	12
15:00-17:00	120	13	24	24	12

28.5 29.75 11.5 10.5
14 26 19 8

Series: 1JR 1//4 Date: 5/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:00-9:30	30	47	51	38	26
9:45-11:45	120	28	61	16	13

Series: 1JR 2//4 Date: 5/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
12:05-12:35	30	47	51	40	19
12:55-14:55	120	41	70	26	31

Series: 1JR 3//4 Date: 7/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
10:00-10:30	30	62	52	27	21
10:45-12:45	120	39	43	14	18

Series: 1JR 4//4 Date: 7/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
13:05-13:35	30	27	61	60	19
13:50-15:50	120	41	45	18	21

45.75 53.75 41.25 21.25
37.25 54.75 18.5 20.75

Series: 1KR 1//4 Date: 11/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:20-11:50	30	16	13	7	8
12:00-14:00	120	4	7	4	3

Series: 1KR 2//4 Date: 11/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:05-14:35	30	21	24	25	8
14:40-16:40	120	13	12	14	7

Series: 1KR 3//4 Date: 12/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:40-9:10	30	19	15	7	11
9:20-11:20	120	16	14	12	6

Series: 1KR 4//4 Date: 12/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:30-12:00	30	15	14	10	13
12:05-14:05	120	11	12	8	4

17.75 16.5 12.25 10
11 11.25 9.5 5

Series: 1LR 1//4 Date: 8/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
9:45-10:15	30	29	69	24	14
9:30-11:30	120	35	33	13	10

Series: 1LR 2//4 Date: 8/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
11:40-12:10	30	27	19	26	3
12:20-14:20	120	28	31	8	11

Series: 1LR 3//4 Date: 8/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
14:30-15:00	30	42	43	11	12
15:10-17:10	120	17	39	21	10

Series: 1LR 4//4 Date: 11/9/2006

time	duration	number of displaced stones at profile			
	(min)	1 [pink]	2 [green]	3 [blue]	4 [yellow]
8:25-8:55	30	41	44	12	11
9:05-11:05	120	20	15	13	9

34.75 43.75 18.25 10
25 29.5 13.75 10

5.2.2 Set-up 2 ($\alpha = 5^\circ$)

Series: 2AR 1//4 Date: 30/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:30-9:00	30	76	47	21	23	9
9:10-11:10	120	68	19	24	7	7

Series: 2AR 2//4 Date: 30/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:30-12:00	30	37	35	33	17	6
12:10-14:10	120	92	24	39	20	12

Series: 2AR 3//4 Date: 30/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:25-14:55	30	33	14	36	23	14
15:05-17:05	120	97	38	20	18	10

Series: 2AR 4//4 Date: 1/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:20-8:50	30	51	38	56	25	11
9:00-11:00	120	43	39	29	31	12

49.25 33.5 36.5 22 10
75 30 28 19 10.25

Series: 2BR 1//4 Date: 1/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:40-12:10	30	21	15	14	9	2
12:20-14:20	120	19	7	4	2	3

Series: 2BR 2//4 Date: 1/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:30-15:00	30	17	19	11	4	3
15:05-17:05	120	28	12	18	5	4

Series: 2BR 3//4 Date: 4/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:15-8:45	30	11	7	12	7	5
8:50-10:50	120	31	7	10	10	4

Series: 2BR 4//4 Date: 4+5/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:20-14:50	30	7	5	10	6	1
8:20-10:20	120	33	6	6	5	4

14 11.5 11.75 6.5 2.75
27.75 8 9.5 5.5 3.75

Series: 2CR 1//4 Date: 5/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:30-11:00	30	57	20	48	17	10
11:05-13:05	120	43	27	14	15	2

Series: 2CR 2//4 Date: 6/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:55-11:25	30	36	21	27	27	17
11:35-13:35	120	64	23	40	9	7

Series: 2CR 3//4 Date: 6/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:45-14:15	30	22	17	47	27	14
14:25-16:25	120	67	32	25	16	14

Series: 2CR 4//4 Date: 6+7/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:35-17:05	30	56	28	32	28	17
8:05-10:05	120	55	20	21	5	12

42.75 21.5 38.5 24.75 14.5
57.25 25.5 25 11.25 8.75

Series: 2DR 1//4 Date: 7/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:35-11:05	30	52	34	57	24	16
11:20-13:20	120	46	25	32	19	13

Series: 2DR 2//4 Date: 7/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:30-14:00	30	31	20	40	30	21
14:10-16:10	120	73	27	41	26	21

Series: 2DR 3//4 Date: 7+8/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:20-16:50	30	56	35	50	30	17
8:15-10:15	120	67	34	36	30	23

Series: 2DR 4//4 Date: 8/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:30-11:00	30	46	24	55	24	12
11:10-13:10	120	86	38	31	20	18

46.25 28.25 50.5 27 16.5
68 31 35 23.75 18.75

Series: 2ER 1//4 Date: 8/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:25-13:55	30	19	17	50	18	16
14:05-16:05	120	54	18	29	12	6

Series: 2ER 2//4 Date: 8+11/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:15-16:45	30	22	11	16	20	6
8:25-10:25	120	44	12	20	15	5

Series: 2ER 3//4 Date: 11/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:35-11:05	30	37	25	25	6	18
11:10-13:10	120	36	16	28	17	11

Series: 2ER 4//4 Date: 11/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:20-13:50	30	23	7	42	20	11
14:00-16:00	120	32	14	23	12	14

25.25 15 33.25 16 12.75
41.5 15 25 14 9

Series: 2FR 1//4 Date: 12/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:30-9:00	30	42	21	45	17	12
9:05-11:05	120	44	20	14	11	6

Series: 2FR 2//4 Date: 12/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:20-11:50	30	27	40	32	16	14
11:55-13:55	120	28	26	16	13	9

Series: 2FR 3//4 Date: 12/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:05-14:35	30	25	29	14	24	23
14:45-16:45	120	62	23	22	15	12

Series: 2FR 4//4 Date: 12+13/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:55-17:25	30	35	24	30	23	9
8:25-10:25	120	49	26	28	18	10

32.25 28.5 30.25 20 14.5
45.75 23.75 20 14.25 9.25

Series: 2GR 1//4 Date: 13/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:35-11:05	30	84	47	34	22	19
11:15-13:15	120	52	26	22	18	10

Series: 2GR 2//4 Date: 13/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:30-14:00	30	21	38	26	30	14
14:15-16:15	120	79	38	61	31	19

Series: 2GR 3//4 Date: 13+14/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:25-16:55	30	25	28	19	34	9
8:15-10:15	120	71	36	63	23	25

Series: 2GR 4//4 Date: 14/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:25-10:55	30	56	29	54	32	32
11:00-13:00	120	65	29	50	28	9

46.5 35.5 33.25 29.5 18.5
66.75 32.25 49 25 15.75

Series: 2HR 1//4 Date: 14/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:10-13:40	30	15	9	20	14	9
13:50-15:50	120	44	19	23	17	11

Series: 2HR 2//4 Date: 15/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:20-8:50	30	24	8	24	30	5
8:55-10:55	120	28	20	24	12	5

Series: 2HR 3//4 Date: 15/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:05-11:35	30	26	16	24	17	5
11:45-13:45	120	28	12	28	10	4

Series: 2HR 4//4 Date: 15/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:55-14:25	30	19	21	22	19	6
14:30-16:30	120	21	23	9	13	8

21 13.5 22.5 20 6.25
30.25 18.5 21 13 7

Series: 2IR 1//4 Date: 15/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:40-17:10	30	42	20	27	8	6
8:15-10:15	120	50	23	21	14	6

Series: 2IR 2//4 Date: 18/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:25-10:55	30	35	17	25	12	15
11:00-13:00	120	38	19	9	12	11

Series: 2IR 3//4 Date: 18/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:10-13:40	30	23	17	35	11	8
13:45-15:45	120	36	21	32	12	8

Series: 2IR 4//4 Date: 18+19/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
15:55-16:25	30	14	15	35	26	20
8:25-10:25	120	30	21	27	16	9

28.5 17.25 30.5 14.25 12.25
38.5 21 22.25 13.5 8.5

Series: 2JR 1//4 Date: 19+20/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:05-16:35	30	31	36	48	14	19
8:30-10:30	120	40	24	31	17	10

Series: 2JR 2//4 Date: 20/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
10:45-11:15	30	26	28	20	55	16
11:20-13:20	120	62	12	23	20	13

Series: 2JR 3//4 Date: 20/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:30-14:00	30	53	14	38	35	23
14:15-16:15	120	42	33	38	26	12

Series: 2JR 4//4 Date: 20+21/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
16:25-16:55	30	40	17	26	65	16
8:15-10:15	120	41	16	28	20	13

37.5 23.75 33 42.25 18.5
46.25 21.25 30 20.75 12

Series: 2KR 1//4 Date: 28/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
15:05-15:35	30	21	7	4	14	9
15:45-17:45	120	57	14	13	9	6

Series: 2KR 2//4 Date: 29/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
8:30-9:00	30	23	11	20	7	6
9:10-11:10	120	78	12	10	7	3

Series: 2KR 3//4 Date: 29/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:20-11:50	30	38	20	26	15	5
12:00-14:00	120	53	12	18	4	14

Series: 2KR 4//4 Date: 29/11/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:10-14:40	30	67	8	7	9	6
14:45-16:45	120	39	14	13	9	7

37.25 11.5 14.25 11.25 6.5
56.75 13 13.5 7.25 7.5

Series: 2LR 1//4 Date: 21/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
11:30-12:00	30	29	6	39	9	23
12:05-14:05	120	37	25	13	17	15

Series: 2LR 2//4 Date: 21/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
14:20-14:50	30	52	14	26	22	14
15:00-17:00	120	40	23	31	20	10

Series: 2LR 3//4 Date: 22/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
9:30-10:00	30	29	36	46	27	15
11:45-13:45	120	50	29	15	12	13

Series: 2LR 4//4 Date: 22/12/2006

time	duration	number of displaced stones at profile				
	(min)	0 [orange]	1 [pink]	2 [blue]	3 [green]	4 [yellow]
13:55-14:25	30	25	32	54	25	14
14:35-16:35	120	36	23	28	18	12

33.75 22 41.25 20.75 16.5
40.75 25 21.75 16.75 12.5

5.2.3 Set-up 3 ($\alpha = 7^\circ$)

Series: 3AR 1//4 Date: 14+15/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
15:35-16:05	30	13	12	11	6	13
8:45-10:45	120	23	48	38	9	12

Series: 3AR 2//4 Date: 15/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:55-11:25	30	7	28	23	14	12
11:30-13:30	120	27	51	37	13	17

Series: 3AR 3//4 Date: 15/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:35-14:05	30	10	25	30	16	7
14:10-16:10	120	33	31	55	12	7

Series: 3AR 4//4 Date: 16/2/2007 (30tet)

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
9:35-10:05	30	16	11	18	8	10
10:10-12:10	120	32	18	75	8	13

11.5 19 20.5 11 10.5
28.75 37 51.25 10.5 12.25

Series: 3BR 1//4 Date: 13/2/07

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:45-11:15	30	5	3	14	4	5
11:25-13:25	120	15	24	21	7	3

Series: 3BR 2//4 Date: 13/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:35-14:05	30	14	7	10	2	4
14:10-16:10	120	20	25	35	13	7

Series: 3BR 3//4 Date: 14/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:05-10:35	30	4	10	9	6	3
10:40-12:40	120	17	22	28	11	4

Series: 3BR 4//4 Date: 14/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
12:55-13:25	30	8	6	7	4	5
13:30-15:30	120	15	17	28	6	2

7.75 6.5 10 4 4.25
16.75 22 28 9.25 4

Series: 3CR 1//4 Date: 16/2/07 (30tet)

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
12:20-12:50	30	20	16	16	20	11
12:55-14:55	120	29	38	65	11	16

Series: 3CR 2//4 Date: 19/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:45-9:15	30	15	4	30	12	8
9:20-11:20	120	35	50	50	16	14

Series: 3CR 3//4 Date: 19/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:30-12:00	30	19	18	37	18	6
12:05-14:05	120	27	29	51	18	6

Series: 3CR 4//4 Date: 19/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
14:15-14:45	30	28	12	23	29	10
14:50-16:50	120	23	28	49	31	18

20.5 12.5 26.5 19.75 8.75
28.5 36.25 53.75 19 13.5

Series: 3DR 1//4 Date: 20/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:35-9:05	30	21	21	42	51	11
9:15-11:15	120	55	43	84	32	13

Series: 3DR 2//4 Date: 20/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:30-12:00	30	24	20	62	20	15
12:05-14:05	120	50	59	51	28	20

Series: 3DR 3//4 Date: 20/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
14:20-14:50	30	18	13	65	26	8
14:55-16:55	120	81	38	75	35	12

Series: 3DR 4//4 Date: 21/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:15-8:45	30	24	12	41	52	8
8:50-10:50	120	46	40	59	41	20

21.75 16.5 52.5 37.25 10.5
58 45 67.25 34 16.25

Series: 3ER 1//4 Date: 21/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:00-11:30	30	4	4	10	9	6
11:35-13:35	120	12	13	19	9	8

Series: 3ER 2//4 Date: 21/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:45-14:15	30	3	9	4	7	5
14:20-16:20	120	13	17	30	6	4

Series: 3ER 3//4 Date: 22/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:20-8:50	30	5	16	18	9	7
8:55-10:55	120	15	10	20	7	4

Series: 3ER 4//4 Date: 22/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:00-11:30	30	6	6	16	5	2
11:35-13:35	120	11	10	21	5	8

4.5 8.75 12 7.5 5
12.75 12.5 22.5 6.75 6

Series: 3FR 1//4 Date: 22/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:45-14:15	30	22	18	25	10	9
14:20-16:20	120	23	44	67	15	12

Series: 3FR 2//4 Date: 23/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:15-8:45	30	19	29	35	10	8
8:50-10:50	120	22	40	68	25	13

Series: 3FR 3//4 Date: 23/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:00-11:30	30	11	10	32	7	5
11:35-13:35	120	30	35	68	18	9

Series: 3FR 4//4 Date: 23/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:40-14:10	30	22	17	22	40	5
14:15-16:15	120	16	41	68	28	14

18.5 18.5 28.5 16.75 6.75
22.75 40 67.75 21.5 12

Series: 3GR 1//4 Date: 26/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:30-9:00	30	33	30	25	20	16
9:05-11:05	120	51	51	92	32	28

Series: 3GR 2//4 Date: 26/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:20-11:50	30	24	26	15	32	13
11:55-13:55	120	79	59	87	25	39

Series: 3GR 3//4 Date: 26/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
14:05-14:35	30	55	29	20	50	20
14:40-16:40	120	61	56	101	35	28

Series: 3GR 4//4 Date: 27/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:00-8:30	30	38	21	37	24	27
8:35-10:35	120	87	35	82	26	42

37.5 26.5 24.25 31.5 19
69.5 50.25 90.5 29.5 34.25

Series: 3HR 1//4 Date: 27/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:45-11:15	30	16	25	11	16	11
11:20-13:20	120	40	28	44	18	9

Series: 3HR 2//4 Date: 27/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:25-13:55	30	24	13	31	14	10
14:00-16:00	120	47	23	69	23	15

Series: 3HR 3//4 Date: 27+28/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
16:15-16:45	30	17	20	46	28	29
8:00-10:00	120	21	21	67	25	10

Series: 3HR 4//4 Date: 28/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:15-10:45	30	21	11	22	15	16
10:50-12:50	120	31	29	60	22	16

19.5 17.25 27.5 18.25 16.5
34.75 25.25 60 22 12.5

Series: 3IR 1//4 Date: 28/2/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:00-13:30	30	51	19	39	22	20
13:35-15:35	120	67	29	69	31	19

Series: 3IR 2//4 Date: 28/2/2007+1/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
15:50-16:20	30	16	16	65	41	23
8:20-10:20	120	39	51	87	14	27

Series: 3IR 3//4 Date: 1/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:30-11:00	30	21	37	56	26	16
11:05-13:05	120	60	44	95	29	28

Series: 3IR 4//4 Date: 1/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:20-13:50	30	22	16	30	30	24
13:55-15:55	120	32	32	94	30	16

27.5 22 47.5 29.75 20.75
49.5 39 86.25 26 22.5

Series: 3JR 1//4 Date: 1+2/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
16:10-16:40	30	89	49	99	85	51
8:10-10:10	120	102	104	145	77	45

Series: 3JR 2//4 Date: 2/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
10:25-10:55	30	90	52	86	88	36
11:00-13:00	120	85	75	132	58	30

Series: 3JR 3//4 Date: 2/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
13:15-13:45	30	60	20	75	61	39
13:50-15:50	120	93	143	151	70	35

Series: 3JR 4//4 Date: 2+5/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
16:05-16:35	30	47	14	90	32	38
	120	115	110	154	68	44
		71.5	33.75	87.5	66.5	41
		98.75	108	145.5	68.25	38.5

Series: 3KR 1//4 Date: 6/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:40-12:10	30	28	11	63	32	18
12:15-14:15	120	42	31	69	32	9

Series: 3KR 2//4 Date: 6/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
14:25-14:55	30	19	6	27	22	6
15:00-17:00	120	35	34	80	32	11

Series: 3KR 3//4 Date: 7/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:30-9:00	30	18	25	41	25	12
9:05-11:05	120	38	37	90	24	10

Series: 3KR 4//4 Date: 7/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
11:15-11:45	30	31	12	61	10	16
11:50-13:50	120	43	26	60	22	10

24 13.5 48 22.25 13
39.5 32 74.75 27.5 10

Series: 3LR 1//4 Date: 5/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
9:40-10:10	30	59	67	65	28	17
10:15-12:15	120	42	27	122	27	19

Series: 3LR 2//4 Date: 5/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
12:25-12:55	30	56	29	76	12	22
13:00-15:00	120	51	53	87	33	18

Series: 3LR 3//4 Date: 5/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
15:10-15:40	30	53	28	41	46	10
15:45-17:45	120	97	26	109	24	13

Series: 3LR 4//4 Date: 6/3/2007

time	duration	number of displaced stones at profile				
	(min)	1a [green]	1b [pink]	1 [orange]	2 [blue]	3 [yellow]
8:50-9:20	30	52	26	40	66	8
9:25-11:25	120	67	40	139	38	14

55 37.5 55.5 38 14.25
64.25 36.5 114.25 30.5 16

Series: 3MR Date: 9/3/2007 Series: 3MR Date: 12/3/2007 Series: 3MR Date: 13/3/2007

Time	duration (min)	Profile 1	time	duration (min)	Profile 2	time	duration (min)	Profile 3
8:30-9:00	30	79	11:25-11:55	30	42	14:00-14:30	30	35
9:10-11:10	120	26	11:55-13:55	120	53	14:30-16:30	120	27

Series: 3MR Date: 9/3/2007 Series: 3MR Date: 12/3/2007 Series: 3MR Date: 14/3/2007

Time	duration (min)	Profile 1	time	duration (min)	Profile 2	time	duration (min)	Profile 3
11:15-11:45	30	23	14:05-14:35	30	85	8:30-9:00	30	32
11:45-13:45	120	17	14:35-16:35	120	28	9:00-11:00	120	36

Series: 3MR Date: 9/3/2007 Series: 3MR Date: 13/3/2007 Series: 3MR Date: 14/3/2007

Time	duration (min)	Profile 1	time	duration (min)	Profile 2	time	duration (min)	Profile 3
13:50-14:20	30	35	8:40-9:10	30	69	11:10-11:40	30	30
14:20-16:20	120	9	9:10-11:10	120	47	11:40-13:40	120	19

Series: 3MR Date: 12/3/2007 Series: 3MR Date: 13/3/2007 Series: 3MR Date: 14/3/2007

Time	duration (min)	Profile 1	time	duration (min)	Profile 2	time	duration (min)	Profile 3
8:40-9:10	30	59	11:20-11:50	30	87	13:50-14:20	30	34
9:10-11:10	120	12	11:50-13:50	120	55	14:20-16:20	120	28

This series (3MR) is dedicated to check for the influence of stone density on the overall results.

5.2.4 Calculated dimensionless entrainment rate Φ_E

No	setup	series	profile	n	dn50	Δ	Φ_E
1	1	A	1	33.75	0.0082	0.384	7.3527E-07
2	1	A	2	64.25	0.0082	0.341	1.4854E-06
3	1	A	3	55.00	0.0082	0.341	1.2715E-06
4	1	A	4	21.25	0.0082	0.341	4.9127E-07
5	1	B	1	11.50	0.0082	0.384	2.5054E-07
6	1	B	2	13.00	0.0082	0.341	3.0054E-07
7	1	B	3	8.75	0.0082	0.341	2.0229E-07
8	1	B	4	6.75	0.0082	0.341	1.5605E-07
9	1	C	1	19.50	0.0082	0.384	4.2482E-07
10	1	C	2	27.25	0.0082	0.341	6.2998E-07
11	1	C	3	12.00	0.0082	0.341	2.7742E-07
12	1	C	4	10.75	0.0082	0.341	2.4852E-07
13	1	D	1	49.75	0.0082	0.384	1.0838E-06
14	1	D	2	52.25	0.0082	0.341	1.2079E-06
15	1	D	3	21.25	0.0082	0.341	4.9127E-07
16	1	D	4	18.50	0.0082	0.341	4.2769E-07
17	1	E	1	16.00	0.0082	0.384	3.4857E-07
18	1	E	2	15.00	0.0082	0.341	3.4678E-07
19	1	E	3	14.50	0.0082	0.341	3.3522E-07
20	1	E	4	5.75	0.0082	0.341	1.3293E-07
21	1	F	1	20.00	0.0082	0.384	4.3571E-07
22	1	F	2	19.75	0.0082	0.341	4.5659E-07
23	1	F	3	11.25	0.0082	0.341	2.6008E-07
24	1	F	4	7.25	0.0082	0.341	1.6761E-07
25	1	G	1	45.25	0.0082	0.384	9.8580E-07
26	1	G	2	51.00	0.0082	0.341	1.1790E-06
27	1	G	3	47.00	0.0082	0.341	1.0866E-06
28	1	G	4	22.50	0.0082	0.341	5.2017E-07
29	1	H	1	23.50	0.0082	0.384	5.1196E-07
30	1	H	2	21.75	0.0082	0.341	5.0283E-07
31	1	H	3	9.00	0.0082	0.341	2.0807E-07
32	1	H	4	3.50	0.0082	0.341	8.0915E-08
33	1	I	1	14.00	0.0082	0.384	3.0500E-07
34	1	I	2	26.00	0.0082	0.341	6.0108E-07
35	1	I	3	19.00	0.0082	0.341	4.3925E-07
36	1	I	4	8.00	0.0082	0.341	1.8495E-07
37	1	J	1	37.25	0.0082	0.384	8.1152E-07
38	1	J	2	54.75	0.0082	0.341	1.2657E-06
39	1	J	3	18.50	0.0082	0.341	4.2769E-07
40	1	J	4	20.75	0.0082	0.341	4.7971E-07
41	1	K	1	11.00	0.0082	0.384	2.3964E-07
42	1	K	2	11.25	0.0082	0.341	2.6008E-07
43	1	K	3	9.50	0.0082	0.341	2.1963E-07
44	1	K	4	5.00	0.0082	0.341	1.1559E-07
45	1	L	1	25.00	0.0082	0.384	5.4464E-07
46	1	L	2	29.50	0.0082	0.341	6.8200E-07
47	1	L	3	13.75	0.0082	0.341	3.1788E-07
48	1	L	4	10.00	0.0082	0.341	2.3119E-07

No	setup	series	profile	n	dn50	Δ	Φ_E
49	2	A	0	75.00	0.0082	0.32	1.7899E-06
50	2	A	1	30.00	0.0082	0.384	6.5357E-07
51	2	A	2	28.00	0.0082	0.341	6.4732E-07
52	2	A	3	19.00	0.0082	0.341	4.3925E-07
53	2	A	4	10.25	0.0082	0.341	2.3697E-07
54	2	B	0	27.75	0.0082	0.32	6.6226E-07
55	2	B	1	8.00	0.0082	0.384	1.7429E-07
56	2	B	2	9.50	0.0082	0.341	2.1963E-07
57	2	B	3	5.50	0.0082	0.341	1.2715E-07
58	2	B	4	3.75	0.0082	0.341	8.6695E-08
59	2	C	0	57.25	0.0082	0.32	1.3663E-06
60	2	C	1	25.50	0.0082	0.384	5.5554E-07
61	2	C	2	25.00	0.0082	0.341	5.7796E-07
62	2	C	3	11.25	0.0082	0.341	2.6008E-07
63	2	C	4	8.75	0.0082	0.341	2.0229E-07
64	2	D	0	68.00	0.0082	0.32	1.6228E-06
65	2	D	1	31.00	0.0082	0.384	6.7536E-07
66	2	D	2	35.00	0.0082	0.341	8.0915E-07
67	2	D	3	23.75	0.0082	0.341	5.4907E-07
68	2	D	4	18.75	0.0082	0.341	4.3347E-07
69	2	E	0	41.50	0.0082	0.32	9.9040E-07
70	2	E	1	15.00	0.0082	0.384	3.2679E-07
71	2	E	2	25.00	0.0082	0.341	5.7796E-07
72	2	E	3	14.00	0.0082	0.341	3.2366E-07
73	2	E	4	9.00	0.0082	0.341	2.0807E-07
74	2	F	0	45.75	0.0082	0.32	1.0918E-06
75	2	F	1	23.75	0.0082	0.384	5.1741E-07
76	2	F	2	20.00	0.0082	0.341	4.6237E-07
77	2	F	3	14.25	0.0082	0.341	3.2944E-07
78	2	F	4	9.25	0.0082	0.341	2.1385E-07
79	2	G	0	66.75	0.0082	0.32	1.5930E-06
80	2	G	1	32.25	0.0082	0.384	7.0259E-07
81	2	G	2	49.00	0.0082	0.341	1.1328E-06
82	2	G	3	25.00	0.0082	0.341	5.7796E-07
83	2	G	4	15.75	0.0082	0.341	3.6412E-07
84	2	H	0	30.25	0.0082	0.32	7.2192E-07
85	2	H	1	18.50	0.0082	0.384	4.0304E-07
86	2	H	2	21.00	0.0082	0.341	4.8549E-07
87	2	H	3	13.00	0.0082	0.341	3.0054E-07
88	2	H	4	7.00	0.0082	0.341	1.6183E-07
89	2	I	0	38.50	0.0082	0.32	9.1881E-07
90	2	I	1	21.00	0.0082	0.384	4.5750E-07
91	2	I	2	22.25	0.0082	0.341	5.1439E-07
92	2	I	3	13.50	0.0082	0.341	3.1210E-07
93	2	I	4	8.50	0.0082	0.341	1.9651E-07
94	2	J	0	46.25	0.0082	0.32	1.1038E-06
95	2	J	1	21.25	0.0082	0.384	4.6295E-07
96	2	J	2	30.00	0.0082	0.341	6.9356E-07
97	2	J	3	20.75	0.0082	0.341	4.7971E-07
98	2	J	4	12.00	0.0082	0.341	2.7742E-07
99	2	K	0	56.75	0.0082	0.32	1.3543E-06

No	setup	series	profile	n	dn50	Δ	Φ_E
100	2	K	1	13.00	0.0082	0.384	2.8321E-07
101	2	K	2	13.50	0.0082	0.341	3.1210E-07
102	2	K	3	7.25	0.0082	0.341	1.6761E-07
103	2	K	4	7.50	0.0082	0.341	1.7339E-07
104	2	L	0	40.75	0.0082	0.32	9.7250E-07
105	2	L	1	25.00	0.0082	0.384	5.4464E-07
106	2	L	2	21.75	0.0082	0.341	5.0283E-07
107	2	L	3	16.75	0.0082	0.341	3.8724E-07
108	2	L	4	12.50	0.0082	0.341	2.8898E-07
109	3	A	-1	28.75	0.0082	0.341	6.6466E-07
110	3	A	0	37.00	0.0082	0.384	8.0607E-07
111	3	A	1	51.25	0.0082	0.32	1.2231E-06
112	3	A	2	10.50	0.0082	0.341	2.4274E-07
113	3	A	3	12.25	0.0082	0.341	2.8320E-07
114	3	B	-1	16.75	0.0082	0.341	3.8724E-07
115	3	B	0	22.00	0.0082	0.384	4.7929E-07
116	3	B	1	28.00	0.0082	0.32	6.6822E-07
117	3	B	2	9.25	0.0082	0.341	2.1385E-07
118	3	B	3	4.00	0.0082	0.341	9.2474E-08
119	3	C	-1	28.50	0.0082	0.341	6.5888E-07
120	3	C	0	36.25	0.0082	0.384	7.8973E-07
121	3	C	1	53.75	0.0082	0.32	1.2827E-06
122	3	C	2	19.00	0.0082	0.341	4.3925E-07
123	3	C	3	13.50	0.0082	0.341	3.1210E-07
124	3	D	-1	58.00	0.0082	0.341	1.3409E-06
125	3	D	0	45.00	0.0082	0.384	9.8036E-07
126	3	D	1	67.25	0.0082	0.32	1.6049E-06
127	3	D	2	34.00	0.0082	0.341	7.8603E-07
128	3	D	3	16.25	0.0082	0.341	3.7568E-07
129	3	E	-1	12.75	0.0082	0.341	2.9476E-07
130	3	E	0	12.50	0.0082	0.384	2.7232E-07
131	3	E	1	22.50	0.0082	0.32	5.3696E-07
132	3	E	2	6.75	0.0082	0.341	1.5605E-07
133	3	E	3	6.00	0.0082	0.341	1.3871E-07
134	3	F	-1	22.75	0.0082	0.341	5.2595E-07
135	3	F	0	40.00	0.0082	0.384	8.7143E-07
136	3	F	1	67.75	0.0082	0.32	1.6169E-06
137	3	F	2	21.50	0.0082	0.341	4.9705E-07
138	3	F	3	12.00	0.0082	0.341	2.7742E-07
139	3	G	-1	69.50	0.0082	0.341	1.6067E-06
140	3	G	0	50.25	0.0082	0.384	1.0947E-06
141	3	G	1	90.50	0.0082	0.32	2.1598E-06
142	3	G	2	29.50	0.0082	0.341	6.8200E-07
143	3	G	3	34.25	0.0082	0.341	7.9181E-07
144	3	H	-1	34.75	0.0082	0.341	8.0337E-07
145	3	H	0	25.25	0.0082	0.384	5.5009E-07
146	3	H	1	60.00	0.0082	0.32	1.4319E-06
147	3	H	2	22.00	0.0082	0.341	5.0861E-07
148	3	H	3	12.50	0.0082	0.341	2.8898E-07
149	3	I	-1	49.50	0.0082	0.341	1.1444E-06
150	3	I	0	39.00	0.0082	0.384	8.4964E-07

No	setup	series	profile	n	d _{n50}	Δ	Φ_E
151	3	I	1	86.25	0.0082	0.32	2.0584E-06
152	3	I	2	26.00	0.0082	0.341	6.0108E-07
153	3	I	3	22.50	0.0082	0.341	5.2017E-07
154	3	J	-1	98.75	0.0082	0.341	2.2830E-06
155	3	J	0	108.00	0.0082	0.384	2.3529E-06
156	3	J	1	145.50	0.0082	0.32	3.4724E-06
157	3	J	2	68.25	0.0082	0.341	1.5778E-06
158	3	J	3	38.50	0.0082	0.341	8.9006E-07
159	3	K	-1	39.50	0.0082	0.341	9.1318E-07
160	3	K	0	32.00	0.0082	0.384	6.9714E-07
161	3	K	1	74.75	0.0082	0.32	1.7839E-06
162	3	K	2	27.50	0.0082	0.341	6.3576E-07
163	3	K	3	10.00	0.0082	0.341	2.3119E-07
164	3	L	-1	64.25	0.0082	0.341	1.4854E-06
165	3	L	0	36.50	0.0082	0.384	7.9518E-07
166	3	L	1	114.25	0.0082	0.32	2.7266E-06
167	3	L	2	30.50	0.0082	0.341	7.0512E-07
168	3	L	3	16.00	0.0082	0.341	3.6990E-07
169	3	M	1	16.00	0.0082	1.023	2.1356E-07
170	3	M	2	45.75	0.0082	1.023	6.1065E-07
171	3	M	3	27.50	0.0082	1.023	3.6706E-07

Note: Profiles “0”, “1” and “-1” are located before the expansion, in the straight part of the flume and therefore literally have the same flow condition.

5.3 Velocity data

5.3.1 Set-up 1 ($\alpha = 3^\circ$)

PROFILE 1

Series: 1AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
11.75	0.35	0.498	62235	0.056	0.046	0.535

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.30	0.333	0.087	1.558	0.017	0.047	0.845	13.618
2	0.40	0.343	0.092	1.646	0.017	0.048	0.849	15.569
3	0.50	0.369	0.096	1.706	0.014	0.050	0.891	20.056
4	0.60	0.376	0.097	1.725	0.013	0.050	0.897	21.309
5	0.80	0.391	0.092	1.644	0.014	0.053	0.951	21.022
6	1.00	0.411	0.096	1.719	0.012	0.054	0.957	24.349
7	1.20	0.419	0.098	1.754	0.014	0.053	0.954	25.566
8	1.50	0.443	0.095	1.705	0.011	0.054	0.958	25.075
9	1.80	0.459	0.098	1.745	0.013	0.054	0.963	26.336
10	2.20	0.493	0.094	1.670	0.010	0.051	0.908	24.693
11	2.80	0.535	0.088	1.565	0.007	0.049	0.874	20.822
12	3.60	0.568	0.079	1.411	0.007	0.046	0.829	17.429
13	4.60	0.610	0.072	1.280	0.005	0.042	0.750	13.445
14	5.60	0.650	0.060	1.079	0.006	0.037	0.662	9.789
15	6.60	0.669	0.056	1.002	0.003	0.034	0.611	6.320
16	7.60	0.679	0.048	0.860	0.006	0.033	0.582	4.407
17	8.60	0.688	0.040	0.712	0.008	0.029	0.523	2.317
18	9.60	0.690	0.036	0.647	0.012	0.026	0.470	0.430
19	10.60	0.682	0.035	0.622	0.017	0.023	0.406	-0.931

PROFILE 2

Series: 1AR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
12.05	0.397	0.423	54867	0.052	0.061	0.46		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.30	0.250	0.091	1.732	0.009	0.046	0.872	18.665
2	0.40	0.272	0.094	1.799	0.007	0.046	0.883	19.013
3	0.50	0.269	0.092	1.763	0.010	0.047	0.901	18.941
4	0.60	0.290	0.096	1.841	0.008	0.047	0.900	19.465
5	0.70	0.306	0.097	1.846	0.009	0.049	0.942	20.041
6	0.90	0.336	0.099	1.887	0.008	0.049	0.945	21.926
7	1.10	0.355	0.099	1.887	0.006	0.049	0.942	21.950
8	1.30	0.385	0.093	1.776	0.006	0.050	0.958	21.923
9	1.60	0.402	0.092	1.764	0.004	0.049	0.931	21.197
10	1.90	0.426	0.091	1.737	0.004	0.047	0.899	20.087
11	2.30	0.448	0.090	1.718	0.006	0.048	0.924	21.297
12	2.90	0.489	0.082	1.573	0.002	0.046	0.877	18.155
13	3.70	0.521	0.073	1.398	0.004	0.043	0.817	14.295
14	4.70	0.559	0.067	1.282	0.002	0.039	0.738	10.252
15	5.70	0.590	0.058	1.107	0.000	0.036	0.691	7.692
16	6.70	0.610	0.053	1.012	0.003	0.034	0.648	6.088
17	7.70	0.622	0.045	0.869	0.005	0.031	0.597	3.044
18	8.70	0.633	0.039	0.737	0.006	0.029	0.548	1.750
19	9.70	0.634	0.039	0.750	0.011	0.027	0.513	0.338
20	10.70	0.632	0.039	0.753	0.019	0.027	0.520	-0.341

PROFILE 3

Series: 1AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.14	0.422	0.394	51617	0.05	0.044	0.429

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.40	0.300	0.085	1.714	0.002	0.043	0.864	14.059
2	0.50	0.321	0.089	1.781	0.000	0.044	0.892	15.727
3	0.60	0.321	0.085	1.714	-0.001	0.045	0.898	15.345
4	0.70	0.322	0.091	1.819	0.000	0.044	0.888	16.795
5	0.80	0.342	0.087	1.739	0.000	0.045	0.894	15.099
6	1.00	0.358	0.085	1.698	-0.001	0.045	0.906	15.979
7	1.20	0.368	0.084	1.683	0.000	0.046	0.930	16.911
8	1.40	0.378	0.084	1.694	0.000	0.045	0.910	17.268
9	1.70	0.411	0.081	1.629	-0.003	0.046	0.925	17.706
10	2.00	0.419	0.084	1.680	-0.001	0.046	0.918	18.465
11	2.40	0.442	0.085	1.707	-0.001	0.046	0.930	18.646
12	3.00	0.468	0.077	1.551	-0.002	0.044	0.879	15.355
13	3.80	0.506	0.075	1.507	-0.003	0.042	0.851	14.656
14	4.80	0.531	0.071	1.418	-0.005	0.041	0.830	13.074
15	5.80	0.560	0.064	1.276	-0.004	0.037	0.741	9.190
16	6.80	0.580	0.053	1.059	-0.005	0.035	0.709	6.253
17	7.80	0.594	0.045	0.908	-0.005	0.031	0.630	3.556
18	8.80	0.597	0.040	0.796	-0.007	0.029	0.588	2.568
19	9.80	0.596	0.035	0.709	-0.008	0.027	0.543	0.761
20	10.80	0.589	0.035	0.700	-0.009	0.026	0.513	-0.042

PROFILE 4

Series: 1AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.34	0.448	0.362	48621	0.05	0.045	0.398

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.60	0.272	0.083	1.657	0.004	0.041	0.828	13.303
2	0.70	0.294	0.077	1.542	0.002	0.043	0.855	12.713
3	0.80	0.305	0.083	1.667	0.009	0.045	0.899	16.055
4	0.90	0.307	0.082	1.640	0.003	0.043	0.852	13.657
5	1.10	0.322	0.086	1.713	0.004	0.043	0.849	13.821
6	1.30	0.340	0.082	1.629	0.003	0.045	0.896	15.143
7	1.50	0.347	0.087	1.733	0.005	0.044	0.887	16.845
8	1.70	0.354	0.086	1.723	0.005	0.045	0.900	16.052
9	2.00	0.384	0.084	1.671	0.002	0.045	0.892	16.907
10	2.30	0.391	0.083	1.658	0.005	0.047	0.933	17.692
11	2.70	0.424	0.082	1.634	0.004	0.045	0.904	17.577
12	3.30	0.444	0.079	1.589	0.004	0.045	0.895	16.619
13	4.10	0.472	0.074	1.487	0.001	0.042	0.837	14.291
14	5.10	0.502	0.067	1.343	0.001	0.041	0.816	11.859
15	6.10	0.530	0.061	1.227	-0.001	0.038	0.767	8.974
16	7.10	0.552	0.052	1.048	-0.001	0.035	0.690	5.974
17	8.10	0.569	0.046	0.928	-0.001	0.031	0.620	3.547
18	9.10	0.574	0.040	0.804	0.000	0.030	0.597	2.281
19	10.10	0.575	0.038	0.761	0.002	0.027	0.549	1.051
20	10.80	0.574	0.039	0.782	0.007	0.026	0.525	0.007

PROFILE 1

Series: 1BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12	0.35	0.439	56577	0.046	0.051	0.476			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.32	0.298	0.085	1.848	0.003	0.040	0.882	14.038	
2	0.42	0.302	0.085	1.860	0.004	0.040	0.878	14.132	
3	0.52	0.321	0.085	1.858	0.004	0.041	0.891	13.481	
4	0.62	0.333	0.085	1.847	0.005	0.041	0.899	14.318	
5	0.82	0.352	0.086	1.885	0.007	0.041	0.898	15.315	
6	1.02	0.370	0.084	1.836	0.008	0.043	0.939	15.688	
7	1.22	0.383	0.082	1.802	0.009	0.043	0.935	16.124	
8	1.52	0.410	0.081	1.760	0.007	0.043	0.946	15.805	
9	1.82	0.442	0.079	1.736	0.004	0.042	0.928	15.934	
10	2.22	0.457	0.078	1.712	0.004	0.043	0.946	16.423	
11	2.82	0.485	0.074	1.612	0.003	0.041	0.897	14.221	
12	3.62	0.519	0.070	1.520	0.002	0.040	0.864	13.021	
13	4.62	0.552	0.062	1.358	0.002	0.037	0.803	10.576	
14	5.62	0.575	0.057	1.249	0.002	0.034	0.742	8.600	
15	6.62	0.602	0.049	1.070	0.001	0.032	0.689	5.872	
16	7.62	0.618	0.040	0.881	0.001	0.028	0.605	3.314	
17	8.62	0.624	0.036	0.797	0.003	0.026	0.572	2.377	
18	9.62	0.629	0.029	0.642	0.006	0.022	0.477	0.307	
19	10.62	0.622	0.031	0.676	0.011	0.021	0.451	-0.405	

PROFILE 2

Series: 1BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.05	0.397	0.385	49879	0.043	0.043	0.418			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.240	0.074	1.695	0.009	0.033	0.757	8.596	
2	0.20	0.254	0.077	1.781	0.009	0.035	0.801	9.941	
3	0.30	0.267	0.078	1.802	0.010	0.036	0.832	10.395	
4	0.40	0.283	0.080	1.840	0.008	0.038	0.875	12.140	
5	0.50	0.297	0.078	1.789	0.010	0.038	0.884	10.771	
6	0.60	0.298	0.080	1.836	0.009	0.038	0.883	11.658	
7	0.80	0.326	0.079	1.820	0.009	0.040	0.923	12.797	
8	1.00	0.337	0.079	1.826	0.011	0.040	0.930	12.942	
9	1.20	0.363	0.078	1.787	0.009	0.042	0.962	13.642	
10	1.50	0.376	0.079	1.818	0.009	0.042	0.979	13.729	
11	1.80	0.399	0.073	1.693	0.007	0.042	0.968	12.862	
12	2.20	0.419	0.076	1.763	0.006	0.041	0.942	13.595	
13	2.80	0.450	0.070	1.620	0.005	0.040	0.926	12.999	
14	3.60	0.472	0.067	1.554	0.003	0.039	0.904	11.269	
15	4.60	0.505	0.063	1.459	0.003	0.036	0.837	10.231	
16	5.60	0.530	0.051	1.184	0.000	0.033	0.757	6.528	
17	6.60	0.552	0.045	1.042	-0.001	0.029	0.666	4.033	
18	7.60	0.563	0.039	0.892	-0.002	0.027	0.624	2.642	
19	8.60	0.570	0.031	0.710	-0.003	0.025	0.569	1.161	
20	9.60	0.567	0.031	0.720	-0.003	0.023	0.539	0.486	

PROFILE 3

Series: 1BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.15	0.422	0.357	46924	0.041	0.039	0.39			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.226	0.073	1.771	0.009	0.034	0.818	10.046	
2	0.20	0.243	0.073	1.753	0.008	0.035	0.847	10.510	
3	0.30	0.248	0.075	1.821	0.009	0.035	0.844	10.269	
4	0.40	0.260	0.078	1.870	0.008	0.036	0.874	10.860	
5	0.60	0.281	0.076	1.834	0.009	0.036	0.878	11.352	
6	0.80	0.292	0.077	1.847	0.010	0.039	0.930	12.059	
7	1.00	0.324	0.077	1.861	0.007	0.041	0.984	13.567	
8	1.20	0.333	0.076	1.844	0.007	0.040	0.969	13.189	
9	1.40	0.342	0.072	1.738	0.008	0.040	0.965	11.696	
10	1.70	0.360	0.077	1.852	0.007	0.040	0.971	13.133	
11	2.00	0.381	0.073	1.772	0.004	0.040	0.968	11.917	
12	2.40	0.393	0.075	1.798	0.005	0.041	0.994	13.101	
13	3.00	0.422	0.071	1.707	0.003	0.040	0.976	12.864	
14	3.80	0.450	0.066	1.601	0.001	0.040	0.965	11.749	
15	4.80	0.487	0.061	1.471	0.000	0.036	0.857	9.401	
16	5.80	0.510	0.054	1.301	-0.001	0.032	0.773	6.593	
17	6.80	0.523	0.050	1.202	-0.001	0.031	0.754	5.457	
18	7.80	0.543	0.041	0.982	-0.003	0.027	0.663	2.827	
19	8.80	0.544	0.038	0.916	-0.003	0.027	0.651	2.892	
20	9.80	0.548	0.032	0.761	-0.005	0.024	0.571	0.234	
21	10.80	0.541	0.033	0.796	-0.004	0.023	0.554	-0.160	

PROFILE 4

Series: 1BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.29	0.448	0.331	44201	0.039	0.040	0.363

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.215	0.066	1.669	0.007	0.030	0.768	7.886
2	0.30	0.224	0.067	1.697	0.008	0.031	0.778	7.720
3	0.40	0.239	0.068	1.728	0.008	0.032	0.810	7.893
4	0.50	0.244	0.069	1.747	0.008	0.034	0.854	8.887
5	0.60	0.250	0.069	1.763	0.008	0.034	0.865	8.574
6	0.80	0.268	0.071	1.813	0.009	0.035	0.891	9.381
7	1.00	0.289	0.071	1.799	0.007	0.037	0.931	10.312
8	1.20	0.305	0.073	1.864	0.006	0.039	0.988	12.170
9	1.40	0.315	0.076	1.945	0.006	0.039	0.982	12.023
10	1.60	0.329	0.072	1.821	0.008	0.039	0.985	11.223
11	1.90	0.341	0.073	1.857	0.007	0.040	1.028	12.867
12	2.20	0.367	0.070	1.781	0.005	0.039	0.985	11.721
13	2.60	0.381	0.069	1.757	0.004	0.039	0.983	10.953
14	3.20	0.406	0.067	1.704	0.004	0.038	0.960	10.938
15	4.00	0.428	0.062	1.575	0.004	0.037	0.945	10.649
16	5.00	0.460	0.058	1.486	0.001	0.035	0.903	9.015
17	6.00	0.486	0.052	1.329	0.000	0.033	0.845	6.536
18	7.00	0.504	0.045	1.149	0.000	0.031	0.778	4.776
19	8.00	0.512	0.043	1.107	0.001	0.029	0.743	3.587
20	9.00	0.522	0.035	0.894	0.000	0.026	0.665	2.207
21	10.00	0.520	0.033	0.828	0.000	0.025	0.638	1.173
22	11.00	0.516	0.034	0.876	0.001	0.022	0.570	0.188

PROFILE 1

Series: 1CR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13	0.35	0.448	65064	0.051	0.054	0.505			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.40	0.317	0.086	1.664	0.011	0.041	0.798	13.661	
2	0.50	0.330	0.088	1.719	0.011	0.043	0.834	14.827	
3	0.60	0.343	0.089	1.730	0.009	0.043	0.838	16.235	
4	0.80	0.361	0.090	1.746	0.009	0.044	0.851	16.606	
5	1.00	0.402	0.092	1.783	0.006	0.044	0.862	18.918	
6	1.20	0.401	0.090	1.739	0.007	0.046	0.903	19.087	
7	1.60	0.431	0.085	1.657	0.007	0.047	0.910	19.334	
8	1.90	0.461	0.084	1.626	0.004	0.047	0.918	18.974	
9	2.20	0.475	0.084	1.623	0.006	0.046	0.901	19.071	
10	2.80	0.501	0.081	1.575	0.005	0.046	0.891	18.634	
11	3.60	0.537	0.077	1.500	0.004	0.044	0.859	16.526	
12	4.60	0.580	0.070	1.357	0.001	0.040	0.776	13.190	
13	5.60	0.613	0.061	1.176	-0.001	0.037	0.713	9.356	
14	6.60	0.632	0.055	1.078	-0.001	0.035	0.684	7.735	
15	7.60	0.654	0.049	0.958	-0.002	0.032	0.625	5.223	
16	8.60	0.669	0.037	0.728	-0.001	0.028	0.540	2.287	
17	9.60	0.670	0.032	0.628	-0.003	0.027	0.530	1.047	
18	10.60	0.663	0.030	0.592	-0.006	0.026	0.502	-0.085	
19	11.60	0.650	0.033	0.643	0.000	0.026	0.502	-0.477	

PROFILE 2

Series: 1CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.97	0.397	0.396	57361	0.051	0.050	0.447			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.252	0.084	1.660	0.014	0.037	0.725	10.403	
2	0.30	0.275	0.083	1.634	0.014	0.038	0.753	11.395	
3	0.40	0.297	0.088	1.732	0.014	0.040	0.795	13.169	
4	0.50	0.313	0.086	1.688	0.013	0.041	0.801	12.694	
5	0.60	0.322	0.084	1.659	0.013	0.042	0.825	13.730	
6	0.80	0.332	0.086	1.694	0.012	0.042	0.835	14.515	
7	1.00	0.363	0.086	1.695	0.011	0.044	0.870	15.704	
8	1.20	0.374	0.085	1.670	0.010	0.045	0.891	15.474	
9	1.50	0.391	0.088	1.729	0.009	0.046	0.903	18.497	
10	1.80	0.424	0.081	1.604	0.005	0.045	0.881	15.434	
11	2.20	0.444	0.084	1.652	0.005	0.046	0.904	18.569	
12	2.80	0.463	0.082	1.619	0.004	0.044	0.862	16.807	
13	3.60	0.492	0.078	1.530	0.003	0.044	0.870	15.497	
14	4.60	0.531	0.069	1.361	0.001	0.040	0.783	11.839	
15	5.60	0.561	0.062	1.229	0.000	0.035	0.700	8.634	
16	6.60	0.585	0.053	1.045	-0.002	0.033	0.654	6.053	
17	7.60	0.596	0.046	0.916	-0.001	0.031	0.603	4.204	
18	8.60	0.603	0.042	0.828	0.000	0.031	0.613	3.521	
19	9.60	0.611	0.035	0.681	-0.001	0.027	0.533	0.550	
20	10.60	0.599	0.035	0.691	0.002	0.027	0.523	-0.161	
21	11.60	0.600	0.039	0.773	0.005	0.027	0.523	-0.767	

PROFILE 3

Series: 1CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.2	0.422	0.363	53963	0.046	0.044	0.413			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.25	0.254	0.078	1.684	0.009	0.036	0.783	10.732	
2	0.35	0.260	0.076	1.650	0.010	0.037	0.800	11.170	
3	0.45	0.272	0.079	1.713	0.008	0.039	0.833	12.199	
4	0.55	0.287	0.079	1.703	0.008	0.039	0.836	12.087	
5	0.65	0.301	0.083	1.797	0.006	0.040	0.854	13.378	
6	0.85	0.315	0.080	1.735	0.009	0.041	0.892	13.647	
7	1.05	0.332	0.081	1.747	0.007	0.042	0.910	13.928	
8	1.25	0.347	0.083	1.791	0.008	0.042	0.913	15.576	
9	1.45	0.362	0.083	1.782	0.008	0.042	0.914	14.763	
10	1.75	0.377	0.082	1.761	0.007	0.045	0.966	16.038	
11	2.05	0.398	0.081	1.742	0.006	0.045	0.972	15.871	
12	2.45	0.408	0.078	1.691	0.005	0.044	0.951	15.098	
13	3.05	0.441	0.074	1.595	0.003	0.042	0.913	13.728	
14	3.85	0.467	0.075	1.607	0.003	0.043	0.936	14.933	
15	4.85	0.510	0.064	1.387	-0.001	0.038	0.826	10.247	
16	5.85	0.530	0.062	1.342	0.001	0.037	0.805	10.100	
17	6.85	0.554	0.053	1.153	0.000	0.033	0.722	6.994	
18	7.85	0.568	0.045	0.971	-0.001	0.031	0.668	4.173	
19	8.85	0.579	0.039	0.848	-0.003	0.030	0.638	3.019	
20	9.85	0.582	0.034	0.732	-0.002	0.027	0.576	0.751	
21	10.85	0.576	0.035	0.751	-0.003	0.026	0.559	-0.166	
22	11.85	0.568	0.039	0.848	0.002	0.026	0.564	0.227	

PROFILE 4

Series: 1CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.3	0.448	0.338	50831	0.046	0.044	0.386			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.22	0.229	0.068	1.483	0.007	0.032	0.709	7.424	
2	0.32	0.234	0.070	1.533	0.007	0.032	0.701	7.788	
3	0.42	0.239	0.067	1.473	0.009	0.033	0.734	7.495	
4	0.52	0.255	0.074	1.612	0.009	0.035	0.767	9.265	
5	0.62	0.270	0.074	1.613	0.008	0.037	0.809	11.100	
6	0.82	0.282	0.076	1.655	0.009	0.038	0.839	10.640	
7	1.02	0.311	0.078	1.716	0.007	0.039	0.853	11.584	
8	1.22	0.315	0.079	1.739	0.006	0.041	0.890	12.952	
9	1.42	0.334	0.078	1.708	0.006	0.042	0.917	14.187	
10	1.62	0.339	0.080	1.743	0.008	0.042	0.927	14.197	
11	1.92	0.357	0.081	1.783	0.007	0.042	0.928	15.364	
12	2.22	0.377	0.080	1.744	0.005	0.043	0.934	14.576	
13	2.62	0.400	0.077	1.685	0.005	0.043	0.943	14.660	
14	3.22	0.413	0.078	1.708	0.006	0.042	0.927	13.911	
15	4.02	0.447	0.068	1.499	0.004	0.041	0.894	12.588	
16	5.02	0.479	0.064	1.399	0.001	0.039	0.848	10.114	
17	6.02	0.510	0.056	1.222	-0.001	0.036	0.779	7.366	
18	7.02	0.520	0.057	1.250	-0.001	0.035	0.759	6.996	
19	8.02	0.536	0.047	1.027	0.000	0.031	0.686	4.445	
20	9.02	0.550	0.039	0.851	-0.002	0.029	0.632	2.055	
21	10.02	0.554	0.036	0.785	-0.002	0.027	0.581	1.015	
22	11.02	0.548	0.034	0.747	0.001	0.027	0.582	-0.087	
23	11.82	0.543	0.038	0.826	0.001	0.025	0.555	0.177	

PROFILE 1

Series: 1DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.9	0.35	0.466	74965	0.053	0.050	0.545			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.15	0.304	0.090	1.707	0.013	0.041	0.780	10.882	
2	0.25	0.319	0.094	1.779	0.016	0.045	0.855	14.259	
3	0.35	0.331	0.097	1.840	0.017	0.046	0.866	16.313	
4	0.45	0.350	0.099	1.865	0.018	0.046	0.870	16.883	
5	0.65	0.371	0.097	1.831	0.017	0.046	0.872	16.921	
6	0.85	0.388	0.100	1.884	0.017	0.051	0.956	20.566	
7	1.05	0.416	0.096	1.817	0.015	0.051	0.961	22.980	
8	1.35	0.443	0.097	1.827	0.014	0.048	0.909	21.685	
9	1.65	0.458	0.096	1.820	0.015	0.050	0.940	22.483	
10	2.05	0.483	0.092	1.739	0.012	0.049	0.929	21.973	
11	2.65	0.520	0.088	1.667	0.011	0.049	0.928	21.752	
12	3.45	0.553	0.082	1.549	0.009	0.047	0.898	18.016	
13	4.45	0.590	0.076	1.440	0.008	0.045	0.861	15.326	
14	5.45	0.633	0.069	1.314	0.003	0.042	0.795	12.819	
15	6.45	0.661	0.067	1.271	0.004	0.039	0.739	11.462	
16	7.95	0.697	0.055	1.038	0.004	0.035	0.662	6.572	
17	9.45	0.718	0.044	0.827	0.004	0.032	0.610	3.042	
18	10.95	0.721	0.038	0.716	0.012	0.030	0.574	-0.037	
19	12.45	0.697	0.042	0.796	0.015	0.033	0.628	-3.489	

PROFILE 2

Series: 1DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.29	0.397	0.395	66090	0.052	0.051	0.467			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.22	0.251	0.095	1.809	0.000	0.044	0.839	19.783	
2	0.32	0.273	0.090	1.718	-0.002	0.045	0.848	17.658	
3	0.42	0.284	0.096	1.822	-0.002	0.043	0.825	18.608	
4	0.52	0.296	0.096	1.832	0.000	0.044	0.847	18.312	
5	0.72	0.318	0.097	1.850	0.000	0.046	0.873	18.812	
6	0.92	0.346	0.093	1.779	-0.001	0.047	0.898	19.284	
7	1.12	0.370	0.094	1.786	0.001	0.047	0.900	19.151	
8	1.42	0.381	0.093	1.780	0.002	0.048	0.919	20.160	
9	1.72	0.404	0.091	1.725	0.001	0.047	0.888	18.704	
10	2.12	0.433	0.089	1.693	-0.002	0.048	0.910	19.297	
11	2.72	0.460	0.086	1.641	-0.001	0.047	0.904	18.759	
12	3.52	0.483	0.084	1.607	0.001	0.047	0.896	18.707	
13	4.52	0.525	0.077	1.462	-0.001	0.046	0.869	15.726	
14	5.52	0.559	0.070	1.328	0.000	0.041	0.788	12.764	
15	6.52	0.586	0.066	1.256	-0.002	0.039	0.749	9.346	
16	8.02	0.623	0.053	1.003	-0.002	0.036	0.678	5.675	
17	9.52	0.641	0.044	0.840	-0.004	0.033	0.624	2.848	
18	11.02	0.650	0.037	0.711	-0.010	0.031	0.590	0.255	
19	12.52	0.643	0.042	0.802	-0.002	0.035	0.670	-0.201	

PROFILE 3

Series: 1DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
14.49	0.422	0.363	62174	0.050	0.045	0.433

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.22	0.261	0.094	1.869	0.034	0.040	0.800	3.626
2	0.32	0.283	0.089	1.785	0.035	0.040	0.791	4.406
3	0.42	0.301	0.087	1.737	0.005	0.042	0.842	14.644
4	0.52	0.307	0.087	1.730	0.005	0.042	0.830	14.627
5	0.72	0.328	0.089	1.781	0.005	0.043	0.859	15.458
6	0.92	0.347	0.090	1.797	0.005	0.044	0.871	15.750
7	1.12	0.360	0.088	1.751	0.005	0.045	0.889	16.123
8	1.42	0.379	0.087	1.741	0.004	0.045	0.897	16.589
9	1.72	0.403	0.085	1.703	0.005	0.044	0.888	15.790
10	2.12	0.426	0.087	1.739	0.002	0.047	0.934	17.939
11	2.72	0.450	0.079	1.576	0.000	0.045	0.908	16.115
12	3.52	0.474	0.077	1.547	0.003	0.046	0.911	16.049
13	4.52	0.506	0.075	1.507	0.002	0.044	0.873	15.286
14	5.52	0.533	0.068	1.360	0.001	0.041	0.822	11.668
15	6.52	0.565	0.063	1.255	-0.001	0.038	0.766	8.900
16	8.02	0.585	0.057	1.137	-0.002	0.035	0.708	7.026
17	9.52	0.607	0.042	0.844	-0.002	0.033	0.653	2.311
18	11.02	0.604	0.041	0.817	-0.003	0.032	0.648	0.181
19	12.52	0.592	0.044	0.870	-0.006	0.035	0.695	-0.183

PROFILE 4

Series: 1DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
14.47	0.448	0.343	58566	0.050	0.047	0.409		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.43	0.249	0.075	1.518	0.037	0.033	0.669	2.353
2	0.53	0.259	0.073	1.471	0.030	0.034	0.696	4.653
3	0.63	0.272	0.081	1.632	0.028	0.035	0.716	7.232
4	0.73	0.277	0.080	1.611	0.023	0.038	0.758	7.657
5	0.93	0.298	0.081	1.643	0.018	0.040	0.811	10.247
6	1.13	0.322	0.080	1.607	0.015	0.041	0.832	11.854
7	1.33	0.330	0.086	1.743	0.013	0.042	0.843	13.073
8	1.63	0.348	0.084	1.704	0.012	0.043	0.877	14.220
9	1.93	0.368	0.085	1.720	0.010	0.045	0.909	16.698
10	2.33	0.385	0.085	1.726	0.009	0.045	0.901	15.927
11	2.93	0.414	0.081	1.634	0.007	0.044	0.887	15.304
12	3.73	0.448	0.078	1.577	0.006	0.046	0.924	16.667
13	4.73	0.478	0.074	1.499	0.004	0.044	0.882	13.881
14	5.73	0.494	0.070	1.417	0.006	0.041	0.824	11.452
15	6.73	0.529	0.066	1.328	0.002	0.039	0.794	10.905
16	8.23	0.561	0.055	1.116	0.001	0.036	0.735	6.432
17	9.73	0.579	0.046	0.922	0.002	0.033	0.657	3.984
18	11.23	0.578	0.040	0.816	0.005	0.031	0.634	1.188
19	12.73	0.586	0.045	0.912	0.004	0.033	0.663	-0.693

PROFILE 1

Series: 1ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.9	0.35	0.422	67893	0.048	0.048	0.493			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.40	0.307	0.086	1.779	0.005	0.040	0.828	12.353	
2	0.50	0.316	0.085	1.754	0.004	0.041	0.845	13.695	
3	0.60	0.324	0.086	1.787	0.007	0.043	0.883	15.123	
4	0.80	0.351	0.087	1.794	0.004	0.043	0.894	15.503	
5	1.00	0.369	0.091	1.887	0.004	0.045	0.934	19.102	
6	1.20	0.388	0.090	1.858	0.005	0.044	0.914	18.094	
7	1.50	0.398	0.092	1.892	0.007	0.046	0.948	19.133	
8	1.80	0.425	0.086	1.783	0.004	0.045	0.934	19.047	
9	2.20	0.450	0.084	1.730	0.005	0.045	0.939	17.692	
10	2.80	0.490	0.078	1.618	0.002	0.043	0.887	16.896	
11	3.60	0.512	0.075	1.553	0.003	0.043	0.886	15.254	
12	4.60	0.555	0.068	1.404	0.002	0.040	0.832	13.174	
13	5.60	0.581	0.062	1.276	-0.001	0.037	0.766	10.285	
14	6.60	0.608	0.053	1.091	-0.002	0.034	0.709	7.389	
15	7.60	0.632	0.049	1.007	-0.003	0.032	0.658	6.100	
16	8.60	0.645	0.043	0.882	-0.004	0.030	0.612	4.156	
17	9.60	0.654	0.035	0.734	-0.004	0.028	0.572	2.183	
18	10.60	0.652	0.032	0.664	-0.004	0.027	0.556	0.192	
19	11.60	0.641	0.032	0.671	-0.003	0.027	0.561	-0.409	
20	12.60	0.627	0.034	0.694	0.001	0.029	0.592	-1.035	

PROFILE 2

Series: 1ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
13.94	0.397	0.371	59855	0.047	0.047	0.434

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.229	0.078	1.644	0.013	0.034	0.725	9.154
2	0.30	0.249	0.076	1.610	0.013	0.037	0.776	9.542
3	0.40	0.260	0.083	1.768	0.013	0.039	0.822	11.397
4	0.50	0.277	0.082	1.741	0.011	0.039	0.834	11.739
5	0.60	0.282	0.083	1.752	0.012	0.040	0.850	12.531
6	0.70	0.301	0.082	1.746	0.011	0.041	0.867	11.981
7	0.90	0.317	0.089	1.889	0.010	0.042	0.897	15.181
8	1.10	0.324	0.083	1.749	0.011	0.044	0.927	14.735
9	1.30	0.347	0.087	1.836	0.007	0.044	0.932	15.788
10	1.60	0.363	0.081	1.712	0.008	0.045	0.943	14.415
11	1.90	0.394	0.083	1.754	0.007	0.044	0.935	16.419
12	2.30	0.413	0.082	1.745	0.004	0.045	0.958	17.047
13	2.90	0.438	0.080	1.700	0.003	0.044	0.936	16.434
14	3.70	0.477	0.074	1.564	0.001	0.042	0.879	13.366
15	4.70	0.508	0.068	1.431	0.000	0.040	0.838	11.195
16	5.70	0.531	0.063	1.329	-0.002	0.037	0.791	9.547
17	6.70	0.561	0.053	1.132	-0.005	0.032	0.688	6.403
18	7.70	0.575	0.046	0.967	-0.005	0.031	0.647	4.529
19	8.70	0.585	0.042	0.896	-0.005	0.030	0.626	2.594
20	9.70	0.592	0.034	0.728	-0.006	0.027	0.571	1.337
21	10.70	0.592	0.031	0.666	-0.009	0.025	0.537	0.114
22	11.70	0.585	0.035	0.743	-0.008	0.025	0.535	0.104
23	12.70	0.579	0.037	0.789	-0.007	0.027	0.569	-0.111

PROFILE 3

Series: 1ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
14.06	0.422	0.344	56309	0.046	0.044	0.404

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.40	0.250	0.072	1.569	0.007	0.035	0.764	8.944
2	0.50	0.257	0.078	1.692	0.009	0.036	0.790	10.486
3	0.60	0.272	0.078	1.686	0.006	0.037	0.807	11.231
4	0.70	0.279	0.076	1.647	0.007	0.038	0.833	10.928
5	0.80	0.297	0.077	1.673	0.006	0.038	0.837	11.373
6	0.90	0.299	0.077	1.674	0.007	0.040	0.875	12.844
7	1.10	0.312	0.082	1.781	0.007	0.040	0.878	13.700
8	1.30	0.324	0.080	1.730	0.008	0.041	0.899	13.369
9	1.50	0.349	0.080	1.740	0.006	0.042	0.905	13.438
10	1.80	0.358	0.079	1.725	0.006	0.042	0.913	14.415
11	2.10	0.373	0.084	1.830	0.006	0.042	0.924	15.650
12	2.50	0.386	0.077	1.673	0.006	0.043	0.942	13.347
13	3.10	0.411	0.074	1.599	0.003	0.042	0.917	14.107
14	3.90	0.444	0.071	1.544	0.002	0.042	0.923	13.731
15	4.90	0.478	0.069	1.511	0.000	0.039	0.839	11.810
16	5.90	0.507	0.060	1.300	-0.002	0.038	0.816	9.359
17	6.90	0.531	0.055	1.203	-0.003	0.034	0.747	7.742
18	7.90	0.546	0.048	1.041	-0.005	0.032	0.693	4.660
19	8.90	0.557	0.041	0.893	-0.004	0.029	0.635	3.579
20	9.90	0.560	0.037	0.815	-0.005	0.029	0.626	2.253
21	10.90	0.559	0.033	0.710	-0.008	0.025	0.554	0.343
22	11.90	0.556	0.035	0.764	-0.007	0.026	0.564	-0.436
23	12.70	0.554	0.038	0.829	-0.006	0.028	0.601	-0.258

PROFILE 4

Series: 1ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.3	0.448	0.316	53041	0.044	0.044	0.375			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.50	0.240	0.071	1.621	0.005	0.034	0.775	8.771	
2	0.60	0.247	0.068	1.566	0.006	0.034	0.774	9.077	
3	0.70	0.261	0.071	1.623	0.004	0.035	0.796	9.426	
4	0.80	0.271	0.072	1.656	0.005	0.037	0.848	10.187	
5	0.90	0.283	0.074	1.710	0.004	0.037	0.858	10.795	
6	1.10	0.297	0.072	1.647	0.005	0.037	0.854	9.728	
7	1.30	0.312	0.075	1.713	0.005	0.038	0.883	10.957	
8	1.50	0.315	0.076	1.743	0.007	0.039	0.903	12.046	
9	1.70	0.336	0.079	1.812	0.006	0.041	0.931	13.640	
10	2.00	0.352	0.075	1.712	0.003	0.041	0.942	12.677	
11	2.30	0.358	0.074	1.699	0.006	0.040	0.930	12.556	
12	2.70	0.377	0.075	1.726	0.003	0.041	0.949	12.607	
13	3.30	0.406	0.072	1.655	0.003	0.040	0.930	12.378	
14	4.10	0.428	0.070	1.607	0.003	0.040	0.927	12.761	
15	5.10	0.450	0.065	1.503	0.002	0.038	0.874	10.619	
16	6.10	0.485	0.060	1.371	-0.001	0.035	0.794	7.465	
17	7.10	0.507	0.052	1.190	-0.001	0.034	0.783	6.601	
18	8.10	0.516	0.050	1.142	-0.002	0.032	0.736	5.417	
19	9.10	0.529	0.043	0.993	-0.001	0.030	0.696	4.122	
20	10.10	0.531	0.038	0.865	-0.003	0.028	0.644	1.618	
21	11.10	0.534	0.035	0.800	-0.004	0.027	0.611	0.539	
22	12.10	0.529	0.034	0.779	-0.001	0.026	0.590	0.089	
23	13.10	0.524	0.038	0.871	-0.001	0.027	0.609	-0.326	

PROFILE 1

Series: 1FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.97	0.35	0.425	76379	0.049	0.049	0.515			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.40	0.321	0.092	1.872	0.008	0.042	0.849	14.969	
2	0.50	0.336	0.088	1.783	0.007	0.042	0.853	13.714	
3	0.60	0.351	0.087	1.763	0.006	0.043	0.872	15.222	
4	0.80	0.365	0.090	1.831	0.007	0.043	0.865	16.072	
5	1.00	0.386	0.088	1.784	0.004	0.044	0.899	17.343	
6	1.20	0.406	0.087	1.755	0.005	0.044	0.902	17.447	
7	1.50	0.421	0.087	1.756	0.003	0.045	0.919	18.415	
8	1.80	0.440	0.086	1.736	0.003	0.046	0.941	18.196	
9	2.20	0.470	0.082	1.655	0.002	0.045	0.919	16.586	
10	2.80	0.491	0.080	1.622	0.003	0.045	0.910	18.053	
11	3.60	0.526	0.078	1.574	0.000	0.044	0.890	16.721	
12	4.60	0.559	0.071	1.440	0.000	0.042	0.849	13.734	
13	5.60	0.588	0.066	1.336	-0.001	0.041	0.823	12.396	
14	6.60	0.609	0.063	1.269	0.000	0.038	0.770	10.644	
15	7.60	0.640	0.056	1.131	-0.002	0.036	0.727	8.511	
16	8.60	0.660	0.050	1.017	-0.002	0.033	0.672	6.797	
17	9.60	0.674	0.046	0.930	-0.004	0.032	0.650	4.684	
18	10.60	0.687	0.040	0.808	0.000	0.029	0.592	1.675	
19	11.60	0.686	0.033	0.676	0.000	0.030	0.610	0.743	
20	12.60	0.676	0.038	0.764	0.005	0.030	0.600	-1.913	
21	13.60	0.660	0.042	0.851	0.006	0.037	0.744	-3.994	

PROFILE 2

Series: 1FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.8	0.397	0.381	67337	0.047	0.045	0.46			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.237	0.078	1.649	0.014	0.035	0.734	9.270	
2	0.20	0.249	0.084	1.767	0.014	0.036	0.760	10.215	
3	0.30	0.273	0.083	1.760	0.013	0.038	0.804	11.867	
4	0.40	0.290	0.084	1.769	0.011	0.038	0.811	12.238	
5	0.50	0.297	0.088	1.848	0.011	0.040	0.850	12.782	
6	0.60	0.306	0.086	1.821	0.010	0.043	0.897	14.643	
7	0.80	0.334	0.089	1.881	0.010	0.042	0.878	14.576	
8	1.00	0.352	0.088	1.851	0.010	0.044	0.922	15.399	
9	1.20	0.354	0.085	1.783	0.008	0.044	0.930	14.840	
10	1.50	0.370	0.090	1.895	0.009	0.045	0.947	17.118	
11	1.80	0.412	0.083	1.757	0.002	0.045	0.959	16.754	
12	2.20	0.417	0.084	1.763	0.004	0.046	0.971	16.309	
13	2.80	0.445	0.084	1.770	0.004	0.046	0.960	17.424	
14	3.60	0.481	0.078	1.639	0.003	0.043	0.917	15.225	
15	4.60	0.510	0.072	1.520	0.001	0.042	0.893	13.158	
16	5.60	0.545	0.062	1.305	-0.002	0.039	0.813	9.578	
17	6.60	0.559	0.063	1.326	0.000	0.039	0.816	10.309	
18	7.60	0.589	0.053	1.120	-0.004	0.034	0.711	5.635	
19	8.60	0.602	0.046	0.975	-0.003	0.034	0.713	4.720	
20	9.60	0.609	0.041	0.858	-0.005	0.031	0.657	3.018	
21	10.60	0.612	0.040	0.835	-0.006	0.031	0.659	2.611	
22	11.60	0.610	0.038	0.795	-0.006	0.031	0.648	0.292	
23	12.60	0.612	0.040	0.834	-0.005	0.031	0.657	0.558	
24	13.60	0.605	0.046	0.964	-0.007	0.036	0.763	-0.429	

PROFILE 3

Series: 1FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.15	0.422	0.346	63348	0.049	0.043	0.422			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.30	0.268	0.076	1.549	0.009	0.038	0.773	10.015	
2	0.40	0.273	0.078	1.578	0.009	0.038	0.771	11.395	
3	0.50	0.276	0.084	1.712	0.008	0.041	0.822	14.419	
4	0.60	0.295	0.085	1.727	0.007	0.040	0.804	13.184	
5	0.70	0.297	0.080	1.620	0.008	0.040	0.807	12.797	
6	0.80	0.312	0.083	1.690	0.008	0.041	0.830	13.822	
7	1.00	0.333	0.081	1.633	0.005	0.042	0.860	13.047	
8	1.20	0.348	0.081	1.643	0.005	0.043	0.865	14.655	
9	1.40	0.358	0.080	1.625	0.006	0.043	0.872	14.978	
10	1.70	0.373	0.085	1.715	0.005	0.045	0.906	15.793	
11	2.00	0.386	0.083	1.677	0.003	0.044	0.899	14.558	
12	2.40	0.405	0.083	1.679	0.003	0.045	0.902	15.283	
13	3.00	0.430	0.077	1.566	0.001	0.044	0.891	14.212	
14	3.80	0.456	0.081	1.633	0.002	0.045	0.916	16.834	
15	4.80	0.495	0.069	1.394	-0.003	0.040	0.820	12.128	
16	5.80	0.504	0.070	1.418	0.000	0.041	0.827	12.938	
17	6.80	0.536	0.061	1.232	-0.003	0.038	0.774	8.999	
18	7.80	0.553	0.057	1.151	-0.002	0.036	0.720	7.242	
19	8.80	0.570	0.047	0.961	-0.004	0.032	0.656	4.018	
20	9.80	0.574	0.044	0.885	-0.005	0.033	0.663	3.393	
21	10.80	0.581	0.038	0.763	-0.005	0.030	0.601	0.753	
22	11.80	0.578	0.038	0.772	-0.008	0.030	0.604	0.225	
23	12.80	0.572	0.038	0.766	-0.006	0.031	0.623	-0.332	
24	13.80	0.566	0.044	0.883	-0.009	0.035	0.708	-0.093	

PROFILE 4

Series: 1FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.26	0.448	0.323	59671	0.045	0.048	0.395			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.50	0.250	0.075	1.653	0.007	0.036	0.793	10.822	
2	0.60	0.256	0.078	1.724	0.008	0.036	0.804	11.429	
3	0.70	0.268	0.077	1.694	0.007	0.037	0.819	11.003	
4	0.80	0.279	0.075	1.661	0.007	0.039	0.856	12.551	
5	0.90	0.283	0.078	1.723	0.006	0.039	0.859	12.057	
6	1.00	0.296	0.078	1.727	0.006	0.040	0.877	12.730	
7	1.20	0.308	0.080	1.759	0.006	0.040	0.885	13.277	
8	1.40	0.323	0.083	1.835	0.006	0.041	0.907	14.560	
9	1.60	0.344	0.082	1.810	0.005	0.042	0.915	14.015	
10	1.90	0.349	0.077	1.689	0.005	0.042	0.921	12.705	
11	2.20	0.369	0.078	1.723	0.004	0.042	0.923	12.925	
12	2.60	0.393	0.075	1.644	0.003	0.041	0.914	12.529	
13	3.20	0.406	0.078	1.718	0.003	0.043	0.945	14.660	
14	4.00	0.440	0.074	1.623	0.001	0.041	0.901	12.836	
15	5.00	0.465	0.069	1.530	0.002	0.040	0.881	11.680	
16	6.00	0.491	0.065	1.434	0.000	0.039	0.853	9.779	
17	7.00	0.507	0.059	1.306	0.000	0.037	0.809	7.959	
18	8.00	0.524	0.056	1.238	0.000	0.035	0.776	7.094	
19	9.00	0.537	0.051	1.120	-0.001	0.034	0.741	4.813	
20	10.00	0.548	0.039	0.851	-0.002	0.031	0.674	2.521	
21	11.00	0.549	0.039	0.866	-0.001	0.031	0.686	1.396	
22	12.00	0.550	0.037	0.821	0.000	0.028	0.624	-0.695	
23	13.00	0.546	0.041	0.898	0.000	0.030	0.662	-1.497	
24	13.80	0.543	0.045	0.987	0.001	0.032	0.713	-1.402	

PROFILE 1

Series: 1GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.67	0.35	0.456	87694	0.053	0.047	0.565			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.327	0.091	1.719	0.006	0.042	0.801	13.497	
2	0.30	0.342	0.093	1.750	0.007	0.044	0.821	14.092	
3	0.40	0.354	0.093	1.759	0.009	0.047	0.888	16.279	
4	0.50	0.354	0.099	1.867	0.014	0.048	0.909	17.973	
5	0.60	0.359	0.099	1.860	0.012	0.048	0.913	19.688	
6	0.80	0.389	0.100	1.890	0.008	0.050	0.936	20.821	
7	1.00	0.407	0.100	1.893	0.009	0.050	0.941	23.926	
8	1.20	0.430	0.100	1.889	0.007	0.051	0.957	23.468	
9	1.50	0.450	0.098	1.843	0.006	0.052	0.990	23.741	
10	1.80	0.469	0.094	1.776	0.005	0.050	0.950	23.056	
11	2.20	0.486	0.091	1.721	0.007	0.050	0.938	22.182	
12	2.80	0.526	0.089	1.677	0.004	0.050	0.936	19.962	
13	3.60	0.560	0.085	1.614	0.003	0.048	0.907	19.530	
14	4.60	0.601	0.080	1.508	0.000	0.045	0.858	16.254	
15	5.60	0.625	0.074	1.392	0.002	0.044	0.825	14.229	
16	6.60	0.659	0.071	1.339	0.000	0.042	0.797	13.735	
17	8.10	0.701	0.060	1.131	0.000	0.038	0.712	8.775	
18	9.60	0.737	0.047	0.888	0.001	0.033	0.627	5.118	
19	11.10	0.745	0.037	0.706	0.000	0.031	0.588	1.136	
20	12.60	0.735	0.039	0.737	-0.002	0.030	0.573	-1.404	
21	14.10	0.709	0.044	0.822	0.014	0.031	0.578	-3.742	

PROFILE 2

Series: 1GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.12	0.397	0.385	77313	0.056	0.053	0.484

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.25	0.256	0.088	1.591	0.013	0.039	0.694	10.530
2	0.35	0.268	0.089	1.603	0.012	0.039	0.708	11.600
3	0.45	0.279	0.090	1.618	0.012	0.042	0.751	14.166
4	0.55	0.307	0.091	1.633	0.010	0.045	0.807	15.324
5	0.65	0.313	0.093	1.667	0.010	0.044	0.800	14.495
6	0.75	0.316	0.096	1.724	0.009	0.046	0.824	16.343
7	0.95	0.340	0.094	1.695	0.009	0.047	0.854	18.472
8	1.15	0.350	0.098	1.759	0.010	0.049	0.878	19.923
9	1.35	0.366	0.098	1.755	0.010	0.049	0.881	19.614
10	1.65	0.404	0.098	1.772	0.006	0.050	0.907	21.471
11	1.95	0.431	0.094	1.697	0.005	0.051	0.915	20.652
12	2.35	0.430	0.097	1.739	0.004	0.051	0.915	20.460
13	2.95	0.475	0.093	1.680	0.004	0.051	0.917	22.385
14	3.75	0.492	0.092	1.648	0.002	0.050	0.897	21.518
15	4.75	0.552	0.074	1.333	-0.005	0.047	0.841	14.464
16	5.75	0.579	0.075	1.345	-0.006	0.044	0.798	13.354
17	6.75	0.598	0.070	1.254	-0.005	0.042	0.760	11.545
18	7.75	0.622	0.066	1.188	-0.006	0.039	0.703	10.039
19	8.75	0.639	0.055	0.985	-0.008	0.038	0.679	6.503
20	9.75	0.657	0.047	0.843	-0.009	0.035	0.627	3.591
21	10.75	0.663	0.042	0.752	-0.010	0.033	0.599	0.548
22	11.75	0.653	0.038	0.692	-0.014	0.034	0.610	0.016
23	12.75	0.647	0.042	0.760	-0.016	0.032	0.570	-0.789
24	14.25	0.636	0.045	0.810	-0.019	0.036	0.640	-1.617

PROFILE 3

Series: 1GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.17	0.422	0.361	72732	0.053	0.038	0.454

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.17	0.281	0.088	1.642	0.005	0.044	0.817	15.345
2	0.27	0.289	0.096	1.792	0.002	0.044	0.816	17.028
3	0.37	0.300	0.089	1.670	0.004	0.043	0.795	13.911
4	0.47	0.317	0.093	1.746	0.003	0.045	0.838	16.877
5	0.57	0.315	0.093	1.738	0.002	0.046	0.863	17.882
6	0.77	0.346	0.097	1.813	0.002	0.046	0.864	18.936
7	0.97	0.349	0.093	1.741	0.005	0.046	0.866	18.311
8	1.17	0.369	0.090	1.678	0.004	0.047	0.874	17.310
9	1.37	0.369	0.090	1.678	0.003	0.048	0.893	16.886
10	1.67	0.396	0.088	1.640	0.003	0.048	0.907	18.047
11	1.97	0.412	0.086	1.604	0.004	0.048	0.905	18.072
12	2.37	0.422	0.083	1.550	0.002	0.049	0.911	17.498
13	2.97	0.450	0.081	1.510	0.001	0.050	0.928	16.885
14	3.77	0.481	0.084	1.577	0.001	0.048	0.898	18.116
15	4.77	0.523	0.079	1.485	-0.001	0.045	0.846	15.834
16	5.77	0.536	0.075	1.401	0.001	0.045	0.848	14.739
17	6.77	0.566	0.066	1.238	-0.001	0.041	0.772	10.455
18	8.27	0.594	0.057	1.062	-0.002	0.039	0.720	6.268
19	9.77	0.610	0.049	0.913	-0.001	0.037	0.685	4.383
20	11.27	0.617	0.041	0.761	-0.002	0.032	0.598	-0.295
21	12.27	0.614	0.040	0.747	0.000	0.032	0.602	-0.294

PROFILE 4

Series: 1GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.24	0.448	0.338	68511	0.05	0.046	0.426

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.221	0.086	1.733	0.001	0.043	0.863	17.653
2	0.30	0.234	0.082	1.646	0.000	0.042	0.854	15.488
3	0.40	0.248	0.087	1.757	0.002	0.045	0.900	18.430
4	0.50	0.269	0.085	1.711	0.001	0.046	0.930	18.909
5	0.60	0.271	0.090	1.817	0.003	0.046	0.921	19.535
6	0.80	0.289	0.086	1.743	0.002	0.047	0.938	17.719
7	1.00	0.308	0.092	1.848	0.002	0.046	0.929	18.303
8	1.20	0.328	0.090	1.818	0.002	0.046	0.927	18.017
9	1.40	0.343	0.088	1.779	0.001	0.046	0.932	18.258
10	1.60	0.358	0.089	1.802	0.000	0.046	0.922	17.136
11	1.90	0.375	0.087	1.758	0.001	0.045	0.915	15.855
12	2.20	0.384	0.081	1.639	0.003	0.047	0.950	16.327
13	2.60	0.406	0.085	1.712	0.003	0.045	0.908	15.352
14	3.20	0.422	0.084	1.692	0.003	0.049	0.979	18.477
15	4.00	0.459	0.078	1.571	0.000	0.045	0.916	15.165
16	5.00	0.492	0.077	1.550	-0.001	0.043	0.874	14.662
17	6.00	0.518	0.066	1.337	-0.001	0.041	0.825	10.340
18	7.00	0.531	0.068	1.363	0.000	0.041	0.821	10.784
19	8.50	0.561	0.056	1.126	-0.002	0.037	0.753	7.191
20	10.00	0.579	0.048	0.975	-0.002	0.034	0.691	4.131
21	11.50	0.583	0.041	0.828	-0.003	0.032	0.650	1.213
22	13.00	0.584	0.040	0.814	-0.005	0.031	0.616	-0.767
23	14.50	0.573	0.044	0.885	-0.004	0.034	0.686	-0.346

PROFILE 1

Series: 1HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
15.8	0.35	0.407	79208	0.048	0.044	0.506		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.05	0.252	0.079	1.629	0.005	0.035	0.716	8.827
2	0.15	0.266	0.083	1.720	0.006	0.035	0.721	10.106
3	0.25	0.280	0.081	1.686	0.007	0.037	0.771	11.197
4	0.35	0.287	0.086	1.787	0.007	0.038	0.791	12.747
5	0.55	0.313	0.087	1.808	0.007	0.041	0.850	14.518
6	0.75	0.348	0.089	1.849	0.007	0.043	0.891	16.788
7	0.95	0.367	0.091	1.885	0.006	0.044	0.916	18.245
8	1.25	0.383	0.088	1.826	0.007	0.044	0.918	17.021
9	1.55	0.398	0.086	1.782	0.009	0.044	0.918	17.498
10	1.95	0.428	0.086	1.782	0.007	0.046	0.955	18.184
11	2.55	0.456	0.079	1.641	0.005	0.045	0.937	16.642
12	3.35	0.488	0.077	1.590	0.006	0.045	0.940	17.194
13	4.35	0.522	0.077	1.596	0.003	0.043	0.898	16.333
14	5.35	0.558	0.070	1.458	0.002	0.041	0.850	13.636
15	6.35	0.583	0.063	1.302	0.000	0.039	0.817	11.425
16	7.85	0.621	0.056	1.158	0.000	0.035	0.730	8.037
17	9.35	0.654	0.049	1.016	0.000	0.032	0.656	6.440
18	10.85	0.677	0.036	0.738	0.001	0.027	0.564	1.893
19	12.35	0.673	0.033	0.684	0.000	0.028	0.579	-0.733
20	13.85	0.662	0.039	0.810	0.016	0.027	0.570	-3.201
21	14.85	0.636	0.042	0.877	0.010	0.036	0.742	-3.712

PROFILE 2

Series: 1HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.92	0.397	0.355	69831	0.048	0.039	0.443			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.17	0.258	0.080	1.691	-0.002	0.037	0.775	11.240	
2	0.27	0.263	0.084	1.774	0.000	0.038	0.793	12.512	
3	0.37	0.282	0.084	1.765	0.000	0.039	0.829	13.924	
4	0.47	0.282	0.085	1.795	0.001	0.040	0.852	13.662	
5	0.67	0.301	0.087	1.822	0.001	0.041	0.856	14.165	
6	0.87	0.327	0.087	1.828	0.002	0.042	0.885	14.615	
7	1.07	0.339	0.087	1.832	0.002	0.042	0.893	15.572	
8	1.37	0.363	0.083	1.752	0.003	0.043	0.899	14.643	
9	1.67	0.378	0.085	1.785	0.003	0.045	0.951	16.049	
10	2.07	0.392	0.082	1.735	0.004	0.044	0.924	14.764	
11	2.67	0.418	0.082	1.719	0.002	0.045	0.948	15.944	
12	3.47	0.454	0.081	1.694	0.001	0.044	0.924	15.186	
13	4.47	0.478	0.072	1.523	0.002	0.042	0.890	13.202	
14	5.47	0.506	0.070	1.468	0.000	0.041	0.855	12.240	
15	6.47	0.527	0.063	1.332	0.000	0.040	0.833	10.488	
16	7.97	0.560	0.055	1.159	-0.001	0.036	0.762	6.957	
17	9.47	0.579	0.044	0.930	-0.003	0.034	0.715	3.771	
18	10.97	0.581	0.042	0.884	-0.005	0.032	0.671	1.627	
19	12.47	0.577	0.039	0.823	-0.002	0.030	0.632	-0.946	
20	13.97	0.562	0.042	0.890	-0.002	0.030	0.640	-1.258	

PROFILE 3

Series: 1HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
16.24	0.422	0.324	65694	0.047	0.040	0.409			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.24	0.246	0.081	1.733	0.002	0.036	0.767	11.569	
2	0.34	0.254	0.077	1.641	0.005	0.036	0.778	10.735	
3	0.44	0.267	0.081	1.729	0.008	0.036	0.763	9.787	
4	0.54	0.277	0.080	1.706	0.010	0.036	0.779	10.343	
5	0.64	0.289	0.079	1.683	0.009	0.038	0.811	10.294	
6	0.84	0.296	0.079	1.695	0.012	0.039	0.826	11.317	
7	1.04	0.322	0.081	1.738	0.011	0.040	0.852	11.874	
8	1.24	0.325	0.078	1.674	0.009	0.041	0.866	11.652	
9	1.54	0.350	0.080	1.719	0.005	0.041	0.868	12.426	
10	1.84	0.369	0.076	1.621	0.006	0.041	0.877	12.620	
11	2.24	0.380	0.076	1.636	0.006	0.044	0.932	14.405	
12	2.84	0.404	0.072	1.545	0.006	0.043	0.925	12.983	
13	3.64	0.432	0.078	1.665	0.005	0.044	0.941	15.324	
14	4.64	0.459	0.072	1.546	0.003	0.041	0.875	12.635	
15	5.64	0.480	0.069	1.479	0.001	0.041	0.869	11.754	
16	6.64	0.506	0.063	1.338	0.001	0.038	0.820	9.792	
17	8.14	0.534	0.056	1.192	-0.001	0.036	0.767	6.840	
18	9.64	0.550	0.046	0.994	-0.002	0.033	0.712	3.931	
19	11.14	0.553	0.040	0.851	-0.002	0.032	0.691	1.902	
20	12.64	0.548	0.037	0.781	-0.003	0.029	0.630	-0.362	
21	14.14	0.539	0.041	0.875	0.001	0.031	0.664	-1.130	

PROFILE 4

Series: 1HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.45	0.448	0.299	61881	0.045	0.043	0.38

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.38	0.218	0.070	1.564	0.006	0.031	0.705	7.915
2	0.48	0.224	0.072	1.606	0.009	0.033	0.732	8.980
3	0.58	0.235	0.072	1.604	0.006	0.034	0.759	9.711
4	0.68	0.242	0.078	1.745	0.006	0.035	0.782	11.089
5	0.88	0.261	0.080	1.801	0.006	0.037	0.838	12.484
6	1.08	0.284	0.079	1.777	0.006	0.038	0.851	11.305
7	1.28	0.307	0.075	1.685	0.006	0.039	0.875	11.059
8	1.58	0.309	0.076	1.707	0.006	0.040	0.902	12.233
9	1.88	0.320	0.075	1.682	0.006	0.041	0.909	11.500
10	2.28	0.347	0.076	1.709	0.006	0.042	0.945	13.376
11	2.88	0.369	0.075	1.690	0.005	0.041	0.912	12.836
12	3.68	0.397	0.073	1.639	0.006	0.041	0.913	12.682
13	4.68	0.422	0.073	1.624	0.004	0.042	0.930	12.290
14	5.68	0.445	0.067	1.510	0.003	0.039	0.865	10.544
15	6.68	0.471	0.060	1.354	0.002	0.038	0.854	9.616
16	8.18	0.500	0.056	1.257	0.001	0.035	0.793	7.570
17	9.68	0.516	0.047	1.044	0.001	0.032	0.725	3.918
18	11.18	0.524	0.040	0.896	-0.001	0.029	0.653	0.819
19	12.68	0.523	0.036	0.817	-0.001	0.029	0.639	-0.132

PROFILE 1

Series: 1IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
16.95	0.35	0.412	89109	0.049	0.047	0.531			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.40	0.300	0.086	1.763	0.005	0.038	0.778	11.566	
2	0.50	0.322	0.086	1.760	0.004	0.040	0.828	13.124	
3	0.60	0.332	0.088	1.797	0.003	0.042	0.855	15.061	
4	0.80	0.352	0.091	1.863	0.003	0.044	0.900	16.834	
5	1.00	0.377	0.088	1.803	0.002	0.044	0.912	17.057	
6	1.20	0.378	0.088	1.808	0.004	0.045	0.920	17.525	
7	1.50	0.397	0.089	1.827	0.005	0.047	0.958	19.517	
8	1.80	0.416	0.090	1.851	0.005	0.046	0.934	19.209	
9	2.20	0.443	0.083	1.711	0.004	0.047	0.956	17.818	
10	2.80	0.475	0.083	1.713	0.005	0.046	0.937	18.644	
11	3.60	0.502	0.077	1.576	0.005	0.046	0.939	17.141	
12	4.60	0.540	0.075	1.535	0.001	0.044	0.909	15.282	
13	5.60	0.580	0.070	1.429	-0.001	0.041	0.848	12.735	
14	6.60	0.602	0.068	1.394	0.000	0.041	0.832	13.736	
15	7.60	0.635	0.060	1.228	-0.002	0.037	0.755	9.224	
16	8.60	0.655	0.059	1.216	-0.002	0.036	0.729	8.825	
17	9.60	0.681	0.051	1.036	-0.003	0.033	0.673	6.591	
18	11.10	0.718	0.040	0.828	-0.005	0.027	0.564	3.668	
19	12.60	0.739	0.030	0.613	-0.007	0.025	0.522	1.118	
20	14.10	0.745	0.031	0.639	-0.012	0.028	0.568	0.357	
21	15.60	0.739	0.042	0.867	-0.012	0.036	0.733	-1.737	

PROFILE 2

Series: 1IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.09	0.397	0.359	78559	0.051	0.045	0.464

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.224	0.079	1.550	0.013	0.035	0.678	8.579
2	0.30	0.245	0.083	1.611	0.012	0.037	0.723	11.060
3	0.40	0.257	0.084	1.637	0.013	0.039	0.763	11.597
4	0.50	0.273	0.085	1.661	0.011	0.041	0.792	12.159
5	0.60	0.278	0.085	1.665	0.011	0.041	0.808	13.642
6	0.70	0.296	0.087	1.709	0.010	0.042	0.817	13.455
7	0.90	0.300	0.087	1.694	0.010	0.042	0.815	12.853
8	1.10	0.336	0.088	1.716	0.009	0.045	0.872	15.126
9	1.30	0.338	0.087	1.709	0.007	0.045	0.886	15.639
10	1.60	0.358	0.087	1.695	0.006	0.046	0.906	15.059
11	1.90	0.366	0.091	1.784	0.008	0.048	0.928	18.215
12	2.30	0.388	0.091	1.780	0.005	0.048	0.940	18.949
13	2.90	0.433	0.084	1.645	0.003	0.048	0.942	17.314
14	3.70	0.450	0.087	1.698	0.003	0.047	0.926	18.735
15	4.70	0.493	0.084	1.637	0.002	0.046	0.889	17.910
16	5.70	0.526	0.081	1.579	0.000	0.044	0.860	15.930
17	6.70	0.549	0.073	1.422	-0.001	0.042	0.829	12.456
18	7.70	0.569	0.066	1.281	-0.002	0.041	0.793	10.677
19	8.70	0.593	0.062	1.205	0.001	0.039	0.759	8.710
20	9.70	0.611	0.054	1.054	-0.002	0.037	0.719	6.611
21	11.20	0.626	0.049	0.958	-0.002	0.036	0.702	3.733
22	12.70	0.632	0.044	0.855	-0.001	0.032	0.634	0.284
23	14.20	0.617	0.046	0.893	0.005	0.033	0.652	-1.412
24	15.70	0.610	0.055	1.083	0.012	0.037	0.715	-2.421

PROFILE 3

Series: 1IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.38	0.422	0.329	73905	0.051	0.043	0.429			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.50	0.269	0.080	1.573	0.006	0.038	0.741	10.767	
2	0.60	0.255	0.081	1.588	0.008	0.037	0.729	10.993	
3	0.70	0.273	0.084	1.656	0.007	0.039	0.772	12.709	
4	0.80	0.284	0.081	1.593	0.007	0.041	0.799	12.222	
5	0.90	0.301	0.083	1.629	0.007	0.041	0.806	13.602	
6	1.10	0.301	0.082	1.615	0.007	0.042	0.831	13.035	
7	1.30	0.330	0.081	1.601	0.005	0.044	0.860	14.177	
8	1.50	0.329	0.087	1.717	0.008	0.044	0.861	15.053	
9	1.80	0.362	0.083	1.624	0.005	0.045	0.886	14.615	
10	2.10	0.358	0.080	1.581	0.006	0.046	0.896	15.446	
11	2.50	0.378	0.081	1.600	0.005	0.046	0.907	14.434	
12	3.10	0.406	0.084	1.654	0.004	0.048	0.940	17.729	
13	3.90	0.437	0.081	1.591	0.003	0.047	0.928	16.342	
14	4.90	0.457	0.079	1.564	0.001	0.046	0.896	16.422	
15	5.90	0.491	0.075	1.470	-0.001	0.044	0.872	14.157	
16	6.90	0.524	0.067	1.324	-0.003	0.042	0.823	11.613	
17	7.90	0.539	0.069	1.359	-0.001	0.041	0.813	11.881	
18	8.90	0.562	0.064	1.253	-0.002	0.041	0.799	10.079	
19	9.90	0.581	0.055	1.087	-0.004	0.037	0.729	6.572	
20	11.40	0.593	0.046	0.906	-0.007	0.035	0.697	3.037	
21	12.90	0.595	0.040	0.786	-0.009	0.032	0.622	0.164	
22	14.40	0.584	0.045	0.887	-0.006	0.033	0.652	-0.652	
23	15.90	0.581	0.050	0.987	-0.006	0.038	0.747	-0.478	

PROFILE 4

Series: 1IR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
17.76	0.448	0.3	69616	0.045	0.042	0.396		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.40	0.234	0.070	1.580	0.004	0.033	0.741	8.737
2	0.50	0.249	0.069	1.543	0.003	0.034	0.757	8.204
3	0.60	0.256	0.076	1.715	0.004	0.035	0.778	10.547
4	0.70	0.250	0.076	1.705	0.006	0.035	0.791	10.244
5	0.90	0.279	0.079	1.783	0.004	0.039	0.871	12.261
6	1.10	0.286	0.081	1.810	0.005	0.039	0.884	12.384
7	1.30	0.302	0.082	1.845	0.008	0.041	0.919	14.007
8	1.50	0.306	0.081	1.824	0.005	0.041	0.927	13.856
9	1.70	0.323	0.082	1.831	0.005	0.041	0.930	13.250
10	2.00	0.342	0.087	1.962	0.003	0.042	0.945	15.821
11	2.30	0.362	0.080	1.794	0.004	0.043	0.969	14.403
12	2.70	0.376	0.083	1.867	0.002	0.043	0.966	15.393
13	3.30	0.395	0.079	1.778	0.002	0.044	0.984	14.227
14	4.10	0.422	0.073	1.645	0.000	0.044	0.976	12.219
15	5.10	0.447	0.072	1.606	0.001	0.044	0.983	12.890
16	6.10	0.467	0.071	1.602	0.001	0.043	0.970	13.250
17	7.10	0.497	0.066	1.474	0.002	0.041	0.922	11.741
18	8.00	0.502	0.070	1.572	0.001	0.042	0.943	11.938
19	9.10	0.527	0.061	1.365	-0.002	0.037	0.839	8.312
20	10.10	0.537	0.054	1.216	-0.002	0.037	0.824	6.493
21	11.60	0.557	0.046	1.035	-0.002	0.035	0.785	2.960
22	13.10	0.553	0.043	0.970	-0.001	0.035	0.777	1.644
23	14.60	0.551	0.044	0.984	0.000	0.033	0.747	-1.747
24	16.10	0.541	0.051	1.137	0.000	0.037	0.829	-1.401

PROFILE 1

Series: 1JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.89	0.35	0.428	100424	0.054	0.051	0.567			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.30	0.313	0.091	1.702	0.010	0.042	0.776	13.218	
2	0.40	0.319	0.092	1.712	0.010	0.044	0.820	14.381	
3	0.50	0.327	0.094	1.751	0.011	0.044	0.828	16.236	
4	0.60	0.344	0.092	1.710	0.009	0.047	0.872	17.417	
5	0.80	0.374	0.096	1.788	0.005	0.047	0.885	19.609	
6	1.00	0.390	0.098	1.827	0.007	0.048	0.901	22.275	
7	1.20	0.405	0.096	1.792	0.008	0.051	0.945	23.912	
8	1.50	0.432	0.096	1.794	0.005	0.050	0.931	23.065	
9	1.80	0.448	0.098	1.831	0.005	0.052	0.967	25.161	
10	2.20	0.467	0.092	1.716	0.008	0.052	0.966	23.251	
11	2.80	0.504	0.089	1.654	0.005	0.051	0.956	22.581	
12	3.60	0.541	0.084	1.571	0.003	0.048	0.903	19.939	
13	4.60	0.578	0.080	1.487	0.002	0.047	0.875	17.423	
14	5.60	0.621	0.075	1.406	0.000	0.045	0.834	16.161	
15	6.60	0.651	0.070	1.313	0.000	0.043	0.795	13.496	
16	7.60	0.678	0.065	1.211	0.000	0.039	0.731	10.799	
17	8.60	0.709	0.057	1.069	-0.001	0.036	0.667	8.703	
18	9.60	0.733	0.049	0.911	-0.001	0.032	0.602	6.222	
19	10.60	0.747	0.043	0.794	0.000	0.030	0.551	4.348	
20	12.10	0.768	0.030	0.551	-0.001	0.025	0.464	1.590	
21	13.60	0.771	0.031	0.573	-0.001	0.025	0.469	0.371	
22	15.10	0.759	0.039	0.718	0.006	0.027	0.499	-0.802	
23	16.60	0.748	0.048	0.892	0.012	0.036	0.669	0.177	

PROFILE 2

Series: 1JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.06	0.397	0.372	88535	0.055	0.049	0.495

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.244	0.087	1.590	0.011	0.037	0.671	9.918
2	0.30	0.249	0.086	1.567	0.012	0.037	0.678	10.510
3	0.40	0.268	0.091	1.661	0.012	0.041	0.745	13.843
4	0.50	0.285	0.091	1.659	0.010	0.042	0.774	14.496
5	0.60	0.292	0.092	1.674	0.010	0.043	0.792	15.403
6	0.70	0.299	0.089	1.626	0.009	0.045	0.819	14.759
7	0.90	0.323	0.093	1.701	0.009	0.046	0.845	16.521
8	1.10	0.337	0.091	1.661	0.009	0.047	0.854	15.212
9	1.30	0.350	0.090	1.650	0.009	0.048	0.874	16.812
10	1.60	0.376	0.095	1.729	0.008	0.051	0.923	20.462
11	1.90	0.406	0.089	1.634	0.005	0.049	0.888	17.639
12	2.30	0.408	0.095	1.740	0.006	0.051	0.941	20.102
13	2.90	0.460	0.093	1.697	-0.001	0.051	0.935	21.841
14	3.70	0.486	0.090	1.638	0.000	0.050	0.907	20.448
15	4.70	0.514	0.086	1.562	0.001	0.049	0.903	19.263
16	5.70	0.560	0.077	1.404	-0.002	0.046	0.842	14.315
17	6.70	0.587	0.074	1.348	-0.002	0.043	0.787	13.403
18	7.70	0.599	0.070	1.286	-0.001	0.043	0.784	11.722
19	8.60	0.631	0.061	1.116	-0.004	0.040	0.722	7.927
20	9.70	0.649	0.056	1.019	-0.003	0.037	0.679	6.397
21	10.70	0.653	0.048	0.884	-0.003	0.036	0.666	3.934
22	12.20	0.657	0.044	0.803	-0.005	0.034	0.623	0.179
23	13.70	0.645	0.045	0.818	-0.004	0.032	0.588	-2.831
24	15.20	0.628	0.049	0.894	-0.003	0.035	0.633	-2.919
25	16.70	0.614	0.055	1.004	0.010	0.037	0.683	-2.043

PROFILE 3

Series: 1JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.32	0.422	0.343	83290	0.055	0.051	0.459			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.55	0.267	0.085	1.545	0.009	0.039	0.716	11.450	
2	0.65	0.280	0.085	1.541	0.008	0.041	0.744	12.843	
3	0.75	0.294	0.085	1.548	0.007	0.041	0.747	12.611	
4	0.85	0.306	0.090	1.632	0.007	0.042	0.765	15.563	
5	0.95	0.301	0.087	1.580	0.007	0.043	0.777	14.340	
6	1.15	0.320	0.088	1.601	0.005	0.045	0.809	16.121	
7	1.35	0.342	0.085	1.542	0.006	0.045	0.816	15.687	
8	1.55	0.347	0.091	1.660	0.007	0.046	0.843	17.132	
9	1.85	0.369	0.091	1.661	0.005	0.048	0.870	17.888	
10	2.15	0.393	0.091	1.645	0.002	0.049	0.885	18.553	
11	2.65	0.412	0.091	1.649	0.004	0.051	0.917	19.605	
12	3.15	0.439	0.086	1.564	0.001	0.049	0.898	19.095	
13	3.95	0.448	0.085	1.546	0.004	0.050	0.913	19.268	
14	4.95	0.496	0.081	1.466	0.000	0.049	0.883	17.232	
15	5.95	0.525	0.078	1.420	-0.001	0.046	0.843	16.278	
16	6.95	0.545	0.077	1.395	-0.001	0.045	0.813	15.254	
17	7.95	0.574	0.068	1.231	-0.002	0.043	0.773	11.479	
18	8.95	0.590	0.060	1.098	-0.005	0.041	0.744	7.594	
19	9.95	0.606	0.052	0.940	-0.005	0.038	0.681	5.088	
20	10.95	0.612	0.051	0.922	-0.006	0.037	0.680	3.828	
21	12.45	0.614	0.046	0.836	-0.008	0.034	0.626	0.441	
22	14.15	0.602	0.046	0.827	-0.011	0.033	0.594	-1.807	
23	15.45	0.588	0.045	0.809	-0.009	0.032	0.588	-2.634	
24	16.95	0.578	0.055	0.992	-0.008	0.037	0.674	-2.074	

PROFILE 4

Series: 1JR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.51	0.448	0.318	78457	0.049	0.045	0.428			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.47	0.252	0.077	1.572	0.005	0.036	0.731	10.934	
2	0.57	0.263	0.077	1.568	0.002	0.036	0.741	11.381	
3	0.67	0.275	0.080	1.634	0.003	0.038	0.769	10.917	
4	0.77	0.290	0.083	1.688	0.003	0.040	0.807	13.418	
5	0.87	0.286	0.084	1.698	0.003	0.041	0.834	13.332	
6	1.07	0.309	0.086	1.755	0.004	0.041	0.841	14.107	
7	1.27	0.317	0.083	1.687	0.005	0.042	0.858	13.609	
8	1.47	0.333	0.086	1.744	0.004	0.043	0.882	15.217	
9	1.67	0.356	0.089	1.810	0.002	0.044	0.901	16.699	
10	1.97	0.366	0.082	1.661	0.004	0.045	0.918	15.232	
11	2.27	0.370	0.087	1.760	0.005	0.047	0.956	17.643	
12	2.67	0.399	0.083	1.679	0.003	0.045	0.923	16.024	
13	3.27	0.408	0.082	1.662	0.004	0.048	0.974	17.049	
14	4.07	0.434	0.078	1.576	0.003	0.046	0.939	14.704	
15	5.07	0.468	0.079	1.611	-0.001	0.047	0.948	15.790	
16	6.07	0.492	0.072	1.458	-0.002	0.046	0.938	13.382	
17	7.07	0.521	0.070	1.412	-0.002	0.043	0.871	11.806	
18	8.07	0.539	0.068	1.374	0.000	0.041	0.831	11.180	
19	9.07	0.544	0.066	1.337	-0.001	0.043	0.871	11.123	
20	10.07	0.575	0.054	1.091	-0.003	0.037	0.759	4.976	
21	11.07	0.580	0.047	0.957	-0.004	0.037	0.744	3.192	
22	12.57	0.577	0.042	0.849	-0.004	0.034	0.695	0.809	
23	14.07	0.569	0.043	0.875	-0.006	0.033	0.667	-1.421	
24	15.57	0.557	0.046	0.939	-0.004	0.031	0.640	-1.801	
25	17.07	0.550	0.052	1.050	0.002	0.035	0.706	-2.068	

PROFILE 1

Seires: 1KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.99	0.35	0.383	90523	0.049	0.048	0.508			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.40	0.283	0.079	1.618	0.005	0.037	0.752	11.171	
2	0.50	0.287	0.083	1.714	0.006	0.038	0.781	12.223	
3	0.60	0.301	0.083	1.705	0.006	0.039	0.801	13.007	
4	0.80	0.319	0.082	1.682	0.006	0.039	0.808	12.925	
5	1.00	0.342	0.086	1.779	0.005	0.042	0.866	14.751	
6	1.20	0.366	0.085	1.741	0.004	0.044	0.896	15.470	
7	1.50	0.377	0.085	1.747	0.006	0.046	0.948	17.614	
8	1.80	0.398	0.088	1.807	0.005	0.044	0.914	18.482	
9	2.20	0.420	0.080	1.652	0.005	0.044	0.904	15.654	
10	2.80	0.442	0.083	1.703	0.004	0.047	0.969	20.336	
11	3.60	0.471	0.077	1.574	0.004	0.044	0.911	15.904	
12	4.60	0.505	0.072	1.478	0.004	0.042	0.872	14.425	
13	5.60	0.543	0.071	1.462	0.002	0.041	0.846	14.536	
14	6.60	0.565	0.064	1.318	0.002	0.038	0.780	11.659	
15	7.60	0.599	0.059	1.206	-0.001	0.036	0.736	9.136	
16	8.60	0.620	0.053	1.085	-0.003	0.033	0.687	7.733	
17	9.60	0.636	0.052	1.078	-0.001	0.031	0.637	6.616	
18	10.60	0.658	0.044	0.898	0.000	0.028	0.571	4.711	
19	12.10	0.680	0.034	0.705	-0.005	0.026	0.533	2.901	
20	13.60	0.690	0.029	0.591	-0.006	0.026	0.525	0.992	
21	15.10	0.684	0.030	0.616	0.001	0.030	0.615	-1.057	
22	16.60	0.658	0.041	0.834	0.000	0.038	0.785	-1.169	

PROFILE 2

Seires: 1KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.15	0.397	0.333	79806	0.050	0.042	0.444

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.216	0.074	1.484	0.009	0.032	0.633	8.137
2	0.30	0.219	0.077	1.536	0.011	0.034	0.674	9.454
3	0.40	0.236	0.081	1.611	0.011	0.036	0.718	10.798
4	0.50	0.252	0.081	1.621	0.010	0.038	0.765	11.774
5	0.60	0.276	0.085	1.693	0.007	0.040	0.789	12.668
6	0.70	0.269	0.083	1.649	0.010	0.039	0.786	11.560
7	0.90	0.288	0.087	1.736	0.010	0.041	0.824	12.975
8	1.10	0.299	0.084	1.688	0.009	0.041	0.812	13.481
9	1.30	0.320	0.083	1.657	0.009	0.044	0.884	14.374
10	1.60	0.342	0.084	1.678	0.007	0.043	0.869	13.926
11	1.90	0.351	0.084	1.686	0.007	0.044	0.881	14.142
12	2.30	0.358	0.082	1.646	0.007	0.045	0.895	14.642
13	2.90	0.392	0.089	1.778	0.006	0.047	0.930	17.402
14	3.70	0.428	0.082	1.635	0.003	0.044	0.889	15.708
15	4.70	0.447	0.080	1.604	0.006	0.046	0.923	17.783
16	5.70	0.481	0.077	1.547	0.003	0.044	0.885	14.830
17	6.70	0.511	0.071	1.418	0.001	0.043	0.849	13.446
18	7.70	0.538	0.065	1.296	0.000	0.041	0.810	10.880
19	8.70	0.559	0.065	1.295	0.000	0.038	0.758	9.593
20	9.70	0.572	0.062	1.233	0.000	0.038	0.762	9.858
21	10.70	0.591	0.055	1.095	-0.001	0.036	0.725	6.677
22	12.20	0.610	0.043	0.865	-0.001	0.034	0.679	2.723
23	13.70	0.603	0.042	0.836	-0.001	0.032	0.649	-0.121
24	15.20	0.598	0.047	0.947	0.004	0.034	0.675	-0.579
25	16.70	0.586	0.057	1.135	0.006	0.039	0.784	0.803

PROFILE 3

Seires: 1KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.34	0.422	0.308	75079	0.052	0.045	0.413			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.55	0.239	0.077	1.474	0.009	0.036	0.692	10.689	
2	0.65	0.249	0.072	1.376	0.008	0.037	0.698	9.834	
3	0.75	0.251	0.076	1.445	0.006	0.038	0.719	10.928	
4	0.85	0.260	0.076	1.451	0.008	0.038	0.715	10.525	
5	0.95	0.272	0.077	1.474	0.007	0.038	0.726	11.933	
6	1.15	0.287	0.074	1.414	0.007	0.040	0.763	11.836	
7	1.35	0.300	0.079	1.504	0.005	0.039	0.748	11.409	
8	1.55	0.315	0.084	1.594	0.004	0.043	0.814	14.229	
9	1.85	0.328	0.083	1.573	0.004	0.042	0.805	14.815	
10	2.15	0.341	0.087	1.654	0.004	0.043	0.818	15.157	
11	2.55	0.360	0.077	1.473	0.002	0.043	0.816	13.134	
12	3.15	0.388	0.079	1.506	0.001	0.045	0.859	13.695	
13	3.95	0.399	0.077	1.472	0.004	0.044	0.841	13.178	
14	4.95	0.434	0.079	1.502	0.004	0.046	0.869	16.458	
15	5.95	0.459	0.073	1.395	0.001	0.044	0.832	15.099	
16	6.95	0.487	0.072	1.375	0.001	0.043	0.820	13.430	
17	7.95	0.503	0.070	1.343	0.000	0.043	0.810	13.334	
18	8.95	0.528	0.063	1.195	-0.001	0.041	0.772	10.013	
19	9.95	0.548	0.057	1.081	-0.003	0.037	0.708	7.227	
20	10.95	0.563	0.052	0.990	-0.003	0.037	0.698	5.660	
21	12.45	0.577	0.042	0.796	-0.004	0.035	0.658	1.951	
22	13.95	0.575	0.042	0.803	-0.005	0.033	0.626	0.165	
23	15.45	0.567	0.045	0.864	-0.006	0.033	0.635	-0.658	
24	16.95	0.557	0.054	1.032	-0.005	0.037	0.705	-0.111	

PROFILE 4

Seires: 1KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.48	0.448	0.287	70721	0.048	0.035	0.387			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.37	0.212	0.068	1.409	0.004	0.032	0.660	8.520	
2	0.47	0.229	0.070	1.449	0.002	0.032	0.672	8.846	
3	0.57	0.241	0.071	1.488	0.003	0.034	0.710	9.289	
4	0.67	0.247	0.070	1.461	0.004	0.035	0.721	9.757	
5	0.77	0.258	0.072	1.507	0.003	0.036	0.741	9.175	
6	0.87	0.261	0.076	1.582	0.004	0.036	0.752	11.067	
7	1.07	0.279	0.074	1.546	0.006	0.038	0.784	10.543	
8	1.27	0.288	0.075	1.554	0.004	0.039	0.816	11.096	
9	1.47	0.296	0.077	1.595	0.003	0.040	0.827	12.597	
10	1.67	0.314	0.076	1.579	0.004	0.040	0.826	11.401	
11	1.97	0.312	0.077	1.599	0.006	0.040	0.842	12.644	
12	2.27	0.329	0.084	1.753	0.004	0.043	0.885	13.876	
13	2.67	0.341	0.078	1.635	0.004	0.042	0.878	13.049	
14	3.27	0.363	0.075	1.566	0.004	0.042	0.880	13.178	
15	4.07	0.397	0.075	1.554	0.000	0.043	0.896	14.508	
16	5.07	0.413	0.074	1.542	0.003	0.043	0.905	14.549	
17	6.07	0.434	0.074	1.533	0.001	0.042	0.874	13.904	
18	7.07	0.464	0.067	1.402	-0.002	0.041	0.854	11.961	
19	8.07	0.481	0.071	1.480	0.000	0.041	0.853	11.979	
20	9.07	0.496	0.061	1.270	0.000	0.039	0.810	8.870	
21	10.07	0.517	0.054	1.128	-0.003	0.037	0.766	6.131	
22	11.07	0.529	0.050	1.044	-0.002	0.036	0.752	4.807	
23	12.57	0.535	0.046	0.963	-0.002	0.035	0.720	2.932	
24	14.07	0.539	0.040	0.838	-0.005	0.031	0.650	0.168	
25	15.57	0.532	0.044	0.915	0.000	0.032	0.672	-1.279	
26	17.07	0.531	0.052	1.082	0.000	0.038	0.798	0.685	

PROFILE 1

Series: 1LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.99	0.35	0.391	100424	0.052	0.050	0.534

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.30	0.300	0.085	1.644	0.009	0.041	0.782	12.415
2	0.40	0.319	0.091	1.751	0.008	0.042	0.804	15.569
3	0.50	0.320	0.090	1.734	0.009	0.043	0.821	14.651
4	0.60	0.347	0.094	1.809	0.005	0.044	0.853	16.986
5	0.80	0.358	0.096	1.852	0.005	0.045	0.875	18.732
6	1.00	0.383	0.094	1.809	0.003	0.046	0.877	18.579
7	1.20	0.398	0.092	1.771	0.006	0.048	0.929	19.919
8	1.50	0.418	0.094	1.819	0.005	0.049	0.939	21.660
9	1.80	0.436	0.095	1.830	0.004	0.049	0.948	22.022
10	2.20	0.456	0.088	1.696	0.005	0.048	0.933	20.568
11	2.80	0.483	0.088	1.691	0.006	0.050	0.962	20.672
12	3.60	0.521	0.085	1.631	0.003	0.048	0.919	19.667
13	4.60	0.559	0.080	1.537	0.001	0.046	0.886	17.188
14	5.60	0.585	0.072	1.385	0.003	0.045	0.857	15.517
15	6.60	0.624	0.071	1.359	0.000	0.042	0.805	13.729
16	7.60	0.653	0.062	1.186	-0.001	0.038	0.724	9.667
17	8.60	0.677	0.057	1.099	-0.002	0.036	0.697	8.051
18	9.60	0.693	0.050	0.968	-0.001	0.033	0.630	6.330
19	11.10	0.723	0.038	0.723	-0.001	0.028	0.535	2.790
20	12.60	0.734	0.030	0.571	0.000	0.023	0.451	0.901
21	14.10	0.725	0.029	0.563	0.005	0.023	0.443	-0.809
22	15.60	0.713	0.038	0.731	0.008	0.027	0.512	-3.219
23	17.10	0.691	0.048	0.927	0.016	0.035	0.680	-4.337

PROFILE 2

Series: 1LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
19.05	0.397	0.343	88535	0.051	0.048	0.469

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.233	0.082	1.596	0.013	0.037	0.714	9.605
2	0.30	0.253	0.087	1.706	0.013	0.038	0.748	12.643
3	0.40	0.262	0.085	1.659	0.011	0.039	0.769	12.473
4	0.50	0.275	0.086	1.672	0.011	0.041	0.801	12.328
5	0.70	0.298	0.089	1.739	0.012	0.042	0.818	14.308
6	0.90	0.321	0.086	1.680	0.008	0.045	0.871	15.203
7	1.10	0.333	0.090	1.762	0.009	0.044	0.857	14.899
8	1.30	0.355	0.092	1.792	0.008	0.047	0.916	16.736
9	1.60	0.364	0.089	1.736	0.008	0.048	0.928	17.748
10	1.90	0.388	0.091	1.782	0.007	0.047	0.928	17.927
11	2.30	0.407	0.088	1.727	0.004	0.048	0.944	17.687
12	2.90	0.429	0.091	1.773	0.003	0.049	0.963	19.054
13	3.70	0.472	0.088	1.725	0.001	0.049	0.949	20.202
14	4.70	0.506	0.081	1.581	-0.001	0.046	0.904	15.479
15	5.70	0.531	0.075	1.463	-0.001	0.044	0.853	13.980
16	6.70	0.563	0.074	1.452	-0.002	0.043	0.845	14.215
17	7.70	0.583	0.068	1.320	-0.003	0.041	0.804	10.644
18	8.70	0.605	0.063	1.239	-0.003	0.038	0.746	8.766
19	9.70	0.612	0.058	1.140	-0.003	0.039	0.765	6.878
20	11.20	0.637	0.044	0.851	-0.007	0.033	0.654	2.140
21	12.70	0.636	0.043	0.845	-0.008	0.033	0.651	0.139
22	14.20	0.622	0.045	0.872	-0.010	0.033	0.638	-2.214
23	15.70	0.612	0.048	0.929	-0.006	0.032	0.631	-2.180
24	17.20	0.600	0.052	1.014	-0.004	0.038	0.741	-1.655

PROFILE 3

Series: 1LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
19.12	0.422	0.321	83290	0.051	0.046	0.44			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.35	0.239	0.079	1.540	0.010	0.036	0.707	9.802	
2	0.45	0.251	0.082	1.600	0.009	0.038	0.744	11.416	
3	0.55	0.265	0.081	1.584	0.009	0.039	0.757	11.171	
4	0.65	0.266	0.083	1.617	0.007	0.039	0.763	12.652	
5	0.75	0.287	0.085	1.664	0.006	0.040	0.785	13.303	
6	0.95	0.301	0.083	1.623	0.007	0.042	0.824	14.226	
7	1.15	0.306	0.081	1.586	0.008	0.042	0.816	13.229	
8	1.35	0.342	0.087	1.693	0.005	0.043	0.843	14.532	
9	1.55	0.351	0.084	1.636	0.004	0.044	0.856	14.404	
10	1.85	0.362	0.084	1.643	0.003	0.045	0.883	15.706	
11	2.15	0.366	0.085	1.670	0.005	0.047	0.911	16.653	
12	2.55	0.394	0.088	1.712	0.003	0.048	0.936	19.268	
13	3.15	0.417	0.082	1.605	0.002	0.048	0.928	17.152	
14	3.95	0.448	0.083	1.630	0.001	0.046	0.906	16.901	
15	4.95	0.475	0.082	1.600	-0.001	0.046	0.906	17.127	
16	5.95	0.500	0.077	1.503	-0.001	0.046	0.902	16.457	
17	6.95	0.530	0.075	1.458	-0.002	0.043	0.845	13.987	
18	7.95	0.544	0.068	1.336	-0.002	0.043	0.831	11.099	
19	8.95	0.575	0.058	1.126	-0.003	0.038	0.752	8.295	
20	9.95	0.584	0.054	1.047	-0.004	0.038	0.750	6.081	
21	11.45	0.597	0.046	0.890	-0.005	0.034	0.660	2.207	
22	12.95	0.600	0.042	0.824	-0.006	0.033	0.645	-0.446	
23	14.45	0.590	0.041	0.808	-0.005	0.031	0.597	-1.441	
24	15.95	0.578	0.046	0.901	-0.004	0.032	0.634	-1.702	
25	17.45	0.566	0.055	1.073	0.000	0.036	0.711	-1.620	

PROFILE 4

Series: 1LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
19.3	0.448	0.298	78457	0.047	0.038	0.411		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.47	0.246	0.072	1.525	0.002	0.035	0.730	8.534
2	0.57	0.264	0.077	1.623	0.001	0.035	0.747	10.243
3	0.67	0.259	0.080	1.684	0.004	0.036	0.762	11.329
4	0.77	0.279	0.078	1.635	0.003	0.037	0.782	10.910
5	0.87	0.279	0.080	1.688	0.003	0.039	0.814	12.031
6	1.07	0.293	0.079	1.670	0.003	0.039	0.829	11.772
7	1.27	0.311	0.081	1.697	0.004	0.042	0.883	14.167
8	1.47	0.307	0.080	1.696	0.006	0.041	0.871	13.326
9	1.67	0.333	0.083	1.741	0.003	0.043	0.900	14.195
10	1.97	0.347	0.082	1.726	0.004	0.044	0.919	14.339
11	2.27	0.347	0.079	1.661	0.005	0.044	0.919	13.903
12	2.67	0.372	0.077	1.628	0.004	0.045	0.954	13.354
13	3.27	0.383	0.082	1.729	0.004	0.046	0.965	16.019
14	4.07	0.416	0.076	1.592	0.003	0.046	0.977	14.923
15	5.07	0.456	0.073	1.536	-0.001	0.043	0.906	12.836
16	6.07	0.478	0.072	1.521	-0.003	0.043	0.903	12.567
17	7.07	0.497	0.071	1.493	-0.002	0.042	0.880	11.698
18	8.07	0.513	0.067	1.415	-0.001	0.042	0.880	11.318
19	9.07	0.540	0.057	1.198	-0.003	0.038	0.810	7.163
20	10.07	0.552	0.055	1.151	-0.003	0.037	0.783	5.992
21	11.57	0.563	0.048	1.014	-0.004	0.035	0.735	2.621
22	13.07	0.562	0.041	0.865	-0.004	0.033	0.686	0.288
23	14.57	0.555	0.043	0.906	-0.005	0.031	0.662	-0.669
24	16.07	0.541	0.046	0.964	-0.003	0.033	0.693	-2.163
25	17.57	0.533	0.048	1.021	0.001	0.036	0.749	-1.496

PROFILE 1

Series: 1TS

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}	Q		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]	[l/s]		
5.9	0.35	0.826	33946	0.027	0.030	0.612	12		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
	1	0.17	0.462	0.055	2.079	0.009	0.023	0.882	6.920
	2	0.27	0.487	0.054	2.049	0.006	0.024	0.888	7.081
	3	0.37	0.506	0.054	2.037	0.005	0.024	0.899	7.025
	4	0.47	0.521	0.054	2.013	0.005	0.024	0.891	6.632
	5	0.57	0.533	0.053	1.989	0.005	0.023	0.881	6.358
	6	0.67	0.547	0.052	1.950	0.005	0.023	0.876	5.929
	7	0.77	0.554	0.051	1.913	0.005	0.023	0.874	5.870
	8	0.87	0.562	0.050	1.899	0.006	0.023	0.876	5.766
	9	0.97	0.569	0.049	1.859	0.006	0.023	0.871	5.428
	10	1.07	0.576	0.048	1.806	0.005	0.023	0.863	5.118
	11	1.27	0.588	0.047	1.759	0.006	0.023	0.868	4.893
	12	1.47	0.600	0.045	1.709	0.006	0.023	0.851	4.595
	13	1.67	0.610	0.045	1.699	0.005	0.022	0.843	4.487
	14	1.87	0.617	0.044	1.646	0.006	0.022	0.830	4.309
	15	2.07	0.627	0.042	1.563	0.005	0.022	0.816	3.939
	16	2.37	0.636	0.040	1.505	0.005	0.021	0.802	3.706
	17	2.67	0.645	0.037	1.408	0.006	0.021	0.781	3.313
	18	2.97	0.656	0.036	1.336	0.006	0.020	0.748	2.838
	19	3.37	0.669	0.032	1.215	0.006	0.019	0.698	2.429
	20	3.77	0.678	0.029	1.108	0.006	0.017	0.657	1.948
	21	4.27	0.688	0.026	0.964	0.008	0.016	0.597	1.316
	22	4.77	0.695	0.022	0.843	0.009	0.014	0.532	0.865

This series is used to test for the reliability of the LDV instrument. See Section 2.2 for more information.

5.3.2 Set-up 2 ($\alpha = 5^\circ$)

PROFILE 1

Series: 2AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
11.62	0.35	0.507	62235	0.046	0.049	0.541

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.280	0.077	1.682	0.009	0.038	0.820	9.810
2	0.30	0.306	0.082	1.784	0.010	0.039	0.854	10.465
3	0.40	0.319	0.083	1.810	0.011	0.041	0.886	11.567
4	0.50	0.347	0.082	1.794	0.010	0.041	0.903	12.004
5	0.60	0.360	0.085	1.855	0.009	0.043	0.938	14.553
6	0.70	0.367	0.083	1.811	0.008	0.043	0.939	14.156
7	0.90	0.390	0.082	1.791	0.010	0.044	0.952	15.315
8	1.10	0.410	0.082	1.782	0.008	0.045	0.974	16.155
9	1.30	0.419	0.079	1.725	0.008	0.045	0.977	15.987
10	1.60	0.442	0.079	1.732	0.009	0.046	1.011	17.998
11	1.90	0.466	0.078	1.712	0.005	0.045	0.987	16.965
12	2.30	0.488	0.080	1.752	0.004	0.046	0.999	18.352
13	2.90	0.513	0.075	1.640	0.004	0.044	0.952	16.144
14	3.50	0.546	0.067	1.466	0.001	0.040	0.878	12.097
15	4.20	0.569	0.064	1.401	0.001	0.038	0.831	11.310
16	5.20	0.601	0.054	1.170	0.001	0.035	0.765	7.742
17	6.20	0.626	0.048	1.047	-0.002	0.032	0.696	5.330
18	7.20	0.646	0.042	0.927	-0.003	0.029	0.643	3.779
19	8.70	0.660	0.034	0.747	-0.004	0.027	0.597	1.760
20	10.20	0.665	0.033	0.720	-0.007	0.024	0.534	-0.412

PROFILE 2

Series: 2AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
11.55	0.39	0.459	55852	0.049	0.048	0.488			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.205	0.081	1.650	0.000	0.040	0.821	15.750	
2	0.15	0.234	0.083	1.678	0.000	0.040	0.807	14.085	
3	0.25	0.254	0.088	1.786	0.002	0.040	0.813	14.127	
4	0.35	0.259	0.087	1.767	0.004	0.041	0.834	13.822	
5	0.45	0.276	0.084	1.710	0.004	0.043	0.864	13.906	
6	0.55	0.290	0.087	1.764	0.003	0.043	0.873	14.105	
7	0.75	0.308	0.090	1.837	0.005	0.043	0.883	15.634	
8	0.95	0.339	0.089	1.811	0.004	0.046	0.941	16.001	
9	1.15	0.351	0.090	1.833	0.004	0.044	0.899	16.012	
10	1.45	0.376	0.093	1.897	0.004	0.048	0.972	19.918	
11	1.75	0.397	0.090	1.833	0.007	0.047	0.953	18.642	
12	2.15	0.415	0.089	1.813	0.007	0.048	0.981	19.427	
13	2.55	0.448	0.085	1.723	0.003	0.046	0.929	17.701	
14	3.15	0.478	0.082	1.661	0.002	0.045	0.912	17.100	
15	3.75	0.508	0.079	1.614	0.000	0.042	0.858	15.459	
16	4.55	0.538	0.072	1.462	0.001	0.040	0.823	13.704	
17	5.55	0.571	0.060	1.211	0.000	0.036	0.732	8.743	
18	6.55	0.595	0.052	1.052	-0.002	0.032	0.647	5.760	
19	7.55	0.616	0.042	0.862	-0.003	0.028	0.575	3.218	
20	9.05	0.631	0.033	0.664	-0.002	0.026	0.518	1.462	
21	10.55	0.637	0.033	0.665	-0.005	0.024	0.495	0.314	

PROFILE 3

Series: 2AR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
11.59	0.425	0.419	51252	0.048	0.042	0.447		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.217	0.072	1.494	0.008	0.032	0.666	6.184
2	0.20	0.240	0.072	1.493	0.006	0.034	0.713	6.953
3	0.30	0.245	0.075	1.551	0.007	0.035	0.724	8.148
4	0.40	0.265	0.081	1.670	0.006	0.038	0.778	9.753
5	0.50	0.268	0.079	1.646	0.007	0.039	0.802	10.092
6	0.60	0.282	0.082	1.698	0.007	0.040	0.837	12.038
7	0.70	0.284	0.083	1.731	0.008	0.040	0.819	11.039
8	0.90	0.307	0.085	1.762	0.007	0.043	0.898	13.678
9	1.10	0.318	0.081	1.684	0.007	0.044	0.904	13.376
10	1.30	0.338	0.085	1.767	0.005	0.044	0.915	14.004
11	1.60	0.366	0.083	1.726	0.006	0.046	0.949	15.877
12	1.90	0.378	0.085	1.768	0.006	0.047	0.968	16.852
13	2.30	0.397	0.081	1.686	0.003	0.046	0.946	15.997
14	2.70	0.419	0.081	1.679	0.004	0.046	0.946	15.723
15	3.30	0.439	0.081	1.686	0.005	0.046	0.952	17.500
16	3.90	0.463	0.076	1.568	0.004	0.044	0.902	14.485
17	4.70	0.496	0.071	1.464	0.003	0.042	0.873	13.781
18	5.70	0.532	0.066	1.368	0.001	0.038	0.792	10.858
19	6.70	0.556	0.057	1.181	-0.001	0.035	0.726	7.747
20	7.70	0.577	0.046	0.958	-0.001	0.031	0.634	4.148
21	9.20	0.593	0.036	0.754	-0.004	0.027	0.563	1.741
22	10.70	0.597	0.033	0.677	0.001	0.025	0.520	0.751

PROFILE 4

Series: 2AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
11.76	0.46	0.379	47353	0.046	0.044	0.407

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.35	0.212	0.069	1.487	0.014	0.034	0.740	8.386
2	0.45	0.227	0.074	1.587	0.014	0.036	0.786	9.630
3	0.55	0.240	0.077	1.649	0.012	0.037	0.788	9.970
4	0.65	0.254	0.073	1.579	0.010	0.037	0.794	9.417
5	0.75	0.256	0.078	1.685	0.012	0.039	0.837	11.231
6	0.85	0.269	0.077	1.661	0.011	0.038	0.820	9.873
7	0.95	0.271	0.076	1.648	0.013	0.039	0.849	10.811
8	1.15	0.289	0.079	1.694	0.011	0.041	0.879	11.720
9	1.35	0.293	0.079	1.707	0.013	0.043	0.916	11.895
10	1.55	0.317	0.078	1.682	0.010	0.043	0.919	12.535
11	1.85	0.341	0.081	1.747	0.010	0.044	0.943	13.209
12	2.15	0.352	0.079	1.698	0.008	0.045	0.971	14.675
13	2.55	0.363	0.081	1.742	0.011	0.045	0.970	14.495
14	2.95	0.392	0.082	1.777	0.008	0.045	0.966	16.387
15	3.55	0.408	0.078	1.672	0.007	0.044	0.945	14.172
16	4.15	0.440	0.070	1.509	0.006	0.044	0.941	13.143
17	4.95	0.469	0.069	1.485	0.005	0.041	0.877	11.903
18	5.95	0.494	0.065	1.400	0.004	0.038	0.829	10.583
19	6.95	0.519	0.060	1.284	0.002	0.037	0.789	8.546
20	7.95	0.539	0.050	1.070	0.004	0.034	0.730	6.460
21	9.45	0.564	0.037	0.795	0.002	0.028	0.608	2.218
22	10.95	0.561	0.038	0.814	0.005	0.026	0.553	1.118

PROFILE 1

Series: 2BR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
11.95	0.35	0.442	56577	0.043	0.047	0.478			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.251	0.068	1.574	0.006	0.034	0.779	7.811	
2	0.30	0.274	0.071	1.656	0.006	0.035	0.807	8.776	
3	0.40	0.287	0.074	1.727	0.007	0.036	0.825	9.495	
4	0.50	0.303	0.076	1.763	0.007	0.036	0.831	9.825	
5	0.60	0.306	0.076	1.759	0.009	0.037	0.855	9.747	
6	0.70	0.322	0.075	1.744	0.008	0.037	0.861	10.621	
7	0.90	0.339	0.073	1.695	0.008	0.038	0.884	10.433	
8	1.10	0.355	0.073	1.686	0.010	0.039	0.904	10.754	
9	1.30	0.371	0.075	1.736	0.010	0.041	0.957	13.584	
10	1.60	0.395	0.075	1.746	0.007	0.041	0.952	14.209	
11	1.90	0.410	0.075	1.738	0.009	0.041	0.949	14.262	
12	2.30	0.435	0.068	1.586	0.006	0.040	0.938	12.995	
13	2.90	0.458	0.068	1.568	0.007	0.040	0.918	12.651	
14	3.50	0.482	0.061	1.412	0.004	0.038	0.876	11.091	
15	4.20	0.509	0.059	1.370	0.003	0.036	0.833	10.183	
16	5.20	0.535	0.050	1.161	0.002	0.032	0.735	7.122	
17	6.20	0.554	0.046	1.065	0.004	0.029	0.676	5.132	
18	7.20	0.574	0.038	0.882	0.003	0.026	0.610	3.518	
19	8.70	0.587	0.027	0.636	0.002	0.023	0.532	0.775	
20	10.20	0.585	0.027	0.625	0.005	0.021	0.484	0.163	

PROFILE 2

Series: 2BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
11.86	0.39	0.401	50774	0.046	0.045	0.432

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.05	0.175	0.072	1.571	0.002	0.036	0.789	13.374
2	0.15	0.199	0.071	1.544	0.002	0.035	0.768	10.628
3	0.25	0.220	0.075	1.629	0.002	0.035	0.763	9.935
4	0.35	0.234	0.074	1.613	0.002	0.036	0.776	9.832
5	0.45	0.251	0.077	1.668	0.002	0.038	0.817	10.964
6	0.55	0.251	0.077	1.677	0.004	0.038	0.816	11.778
7	0.75	0.275	0.078	1.686	0.003	0.039	0.843	11.670
8	0.95	0.297	0.077	1.665	0.002	0.040	0.877	11.752
9	1.15	0.304	0.081	1.753	0.005	0.041	0.898	13.171
10	1.45	0.333	0.084	1.823	0.005	0.041	0.896	14.054
11	1.75	0.355	0.080	1.745	0.004	0.041	0.898	13.478
12	2.15	0.385	0.078	1.692	0.002	0.041	0.882	13.256
13	2.55	0.398	0.076	1.657	0.003	0.041	0.884	13.139
14	3.15	0.416	0.076	1.650	0.005	0.041	0.895	14.576
15	3.75	0.445	0.068	1.471	0.002	0.040	0.864	12.980
16	4.55	0.471	0.065	1.403	0.002	0.036	0.789	10.497
17	5.55	0.504	0.054	1.175	0.000	0.034	0.731	6.932
18	6.55	0.530	0.048	1.036	-0.001	0.029	0.640	5.027
19	7.55	0.546	0.038	0.835	-0.002	0.026	0.558	2.519
20	9.05	0.552	0.030	0.658	-0.001	0.023	0.493	0.922
21	10.55	0.549	0.028	0.618	0.002	0.021	0.466	-0.017

PROFILE 3

Series: 2BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
11.76	0.425	0.373	46593	0.039	0.035	0.4			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.199	0.061	1.555	0.006	0.029	0.730	5.588	
2	0.20	0.209	0.066	1.686	0.005	0.030	0.773	7.240	
3	0.30	0.224	0.068	1.743	0.005	0.032	0.822	7.555	
4	0.40	0.246	0.073	1.872	0.005	0.035	0.887	8.353	
5	0.50	0.243	0.072	1.837	0.004	0.033	0.857	8.641	
6	0.60	0.252	0.071	1.813	0.005	0.035	0.900	8.855	
7	0.70	0.260	0.074	1.906	0.006	0.037	0.935	10.874	
8	0.90	0.275	0.071	1.809	0.006	0.037	0.952	9.896	
9	1.10	0.289	0.074	1.900	0.005	0.038	0.971	10.161	
10	1.30	0.304	0.077	1.972	0.005	0.040	1.026	11.695	
11	1.60	0.313	0.075	1.921	0.007	0.040	1.014	11.910	
12	1.90	0.332	0.073	1.867	0.006	0.040	1.026	10.758	
13	2.30	0.350	0.073	1.878	0.005	0.040	1.020	11.817	
14	2.70	0.373	0.074	1.882	0.004	0.041	1.048	12.662	
15	3.30	0.403	0.068	1.750	0.001	0.039	1.006	10.676	
16	3.90	0.425	0.068	1.749	0.002	0.039	0.996	11.051	
17	4.70	0.443	0.065	1.664	0.002	0.037	0.950	10.250	
18	5.70	0.471	0.059	1.508	0.001	0.034	0.865	8.743	
19	6.70	0.492	0.056	1.430	0.000	0.032	0.813	6.965	
20	7.70	0.517	0.040	1.025	-0.002	0.027	0.698	3.495	
21	9.20	0.525	0.032	0.816	-0.002	0.024	0.604	1.356	
22	10.70	0.522	0.030	0.778	0.000	0.022	0.552	0.141	

PROFILE 4

Series: 2BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
11.83	0.46	0.341	43048	0.041	0.041	0.368

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.35	0.190	0.063	1.557	0.011	0.031	0.773	7.581
2	0.45	0.208	0.065	1.601	0.011	0.032	0.782	8.075
3	0.55	0.213	0.066	1.637	0.011	0.033	0.810	7.986
4	0.65	0.221	0.067	1.657	0.011	0.033	0.823	8.140
5	0.75	0.234	0.067	1.663	0.010	0.035	0.854	9.201
6	0.85	0.237	0.067	1.655	0.010	0.034	0.841	7.979
7	0.95	0.249	0.071	1.755	0.009	0.036	0.888	9.853
8	1.15	0.260	0.067	1.650	0.009	0.036	0.883	9.139
9	1.35	0.276	0.072	1.777	0.010	0.037	0.911	10.660
10	1.55	0.285	0.070	1.733	0.008	0.038	0.931	9.641
11	1.85	0.301	0.073	1.795	0.008	0.039	0.951	11.550
12	2.15	0.323	0.076	1.868	0.006	0.039	0.971	11.930
13	2.55	0.334	0.069	1.713	0.008	0.039	0.973	11.197
14	2.95	0.354	0.068	1.669	0.007	0.040	0.981	11.140
15	3.55	0.363	0.069	1.713	0.006	0.039	0.969	11.297
16	4.15	0.388	0.067	1.663	0.007	0.039	0.956	11.049
17	4.95	0.414	0.065	1.608	0.004	0.038	0.940	10.170
18	5.95	0.448	0.055	1.351	0.002	0.034	0.840	7.129
19	6.95	0.466	0.052	1.275	0.001	0.032	0.785	6.123
20	7.95	0.482	0.045	1.119	0.001	0.029	0.725	4.440
21	9.45	0.496	0.031	0.773	0.000	0.025	0.626	1.199
22	10.95	0.495	0.031	0.754	0.002	0.022	0.549	0.167

PROFILE 1

Series: 2CR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.78	0.35	0.459	65064	0.048	0.048	0.514			
point	Z	U	σ(u)	σ(u)/u _*	W	σ(w)	σ(w)/u _*	-upwp	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.290	0.084	1.761	0.009	0.038	0.788	10.486	
2	0.30	0.310	0.083	1.740	0.009	0.040	0.833	10.766	
3	0.40	0.331	0.083	1.750	0.007	0.042	0.876	12.831	
4	0.50	0.351	0.087	1.829	0.006	0.042	0.890	14.880	
5	0.60	0.355	0.086	1.797	0.009	0.043	0.894	14.555	
6	0.70	0.375	0.090	1.889	0.006	0.045	0.938	17.590	
7	0.90	0.396	0.083	1.750	0.007	0.044	0.918	16.241	
8	1.10	0.419	0.086	1.812	0.006	0.046	0.960	18.152	
9	1.30	0.430	0.083	1.750	0.006	0.045	0.942	16.312	
10	1.60	0.455	0.080	1.675	0.004	0.045	0.946	17.432	
11	1.90	0.469	0.081	1.690	0.004	0.045	0.935	16.610	
12	2.30	0.488	0.081	1.694	0.006	0.045	0.948	18.110	
13	2.90	0.521	0.074	1.552	0.004	0.044	0.919	14.960	
14	3.50	0.547	0.073	1.522	0.001	0.041	0.865	13.778	
15	4.20	0.568	0.069	1.450	0.001	0.040	0.832	12.177	
16	5.20	0.599	0.064	1.349	0.001	0.038	0.791	10.270	
17	6.20	0.632	0.054	1.123	-0.001	0.034	0.717	7.163	
18	7.20	0.653	0.047	0.980	-0.002	0.032	0.679	4.797	
19	8.20	0.669	0.040	0.837	-0.001	0.030	0.627	3.020	
20	9.70	0.676	0.035	0.728	0.003	0.028	0.585	0.827	
21	11.20	0.675	0.036	0.765	0.001	0.028	0.589	-0.558	

PROFILE 2

Series: 2CR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.62	0.39	0.42	58390	0.050	0.050	0.467			
point	Z	U	σ(u)	σ(u)/u*	W	σ(w)	σ(w)/u*	-upwp	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.196	0.082	1.644	0.001	0.041	0.829	16.759	
2	0.15	0.225	0.087	1.742	0.000	0.041	0.817	15.996	
3	0.25	0.253	0.087	1.749	0.001	0.041	0.828	14.109	
4	0.35	0.269	0.086	1.725	0.000	0.043	0.851	14.072	
5	0.45	0.274	0.085	1.699	0.001	0.042	0.837	13.701	
6	0.55	0.293	0.082	1.652	0.002	0.043	0.863	12.026	
7	0.75	0.319	0.092	1.851	0.000	0.045	0.900	16.158	
8	0.95	0.333	0.090	1.809	0.003	0.045	0.904	15.738	
9	1.15	0.357	0.088	1.758	0.003	0.046	0.927	16.602	
10	1.45	0.382	0.090	1.803	0.002	0.046	0.930	17.441	
11	1.75	0.404	0.087	1.741	0.002	0.048	0.952	17.561	
12	2.15	0.415	0.090	1.807	0.004	0.047	0.949	19.458	
13	2.55	0.447	0.085	1.699	0.002	0.047	0.947	17.832	
14	3.15	0.477	0.082	1.633	0.001	0.046	0.912	17.359	
15	3.75	0.502	0.082	1.650	0.001	0.044	0.889	16.697	
16	4.55	0.530	0.075	1.496	0.000	0.041	0.825	13.974	
17	5.55	0.571	0.063	1.263	-0.002	0.037	0.746	10.082	
18	6.55	0.599	0.051	1.017	-0.003	0.032	0.635	6.188	
19	7.55	0.617	0.045	0.907	-0.003	0.030	0.610	4.595	
20	8.55	0.626	0.040	0.811	-0.003	0.028	0.567	2.371	
21	10.05	0.636	0.032	0.639	-0.003	0.026	0.524	0.902	
22	11.55	0.639	0.036	0.713	-0.004	0.028	0.569	-0.071	

PROFILE 3

Series: 2CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.69	0.425	0.382	53582	0.049	0.039	0.426			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.227	0.071	1.448	0.003	0.033	0.666	6.803	
2	0.20	0.229	0.070	1.430	0.006	0.034	0.691	7.150	
3	0.30	0.252	0.079	1.616	0.004	0.036	0.731	9.610	
4	0.40	0.262	0.080	1.636	0.004	0.037	0.763	9.857	
5	0.50	0.264	0.076	1.558	0.005	0.038	0.780	9.444	
6	0.60	0.283	0.081	1.652	0.005	0.040	0.815	10.955	
7	0.70	0.289	0.079	1.614	0.005	0.040	0.817	10.493	
8	0.90	0.296	0.084	1.708	0.005	0.041	0.835	12.269	
9	1.10	0.317	0.084	1.720	0.006	0.043	0.881	13.098	
10	1.30	0.335	0.085	1.734	0.004	0.045	0.909	14.495	
11	1.60	0.357	0.085	1.726	0.004	0.045	0.926	15.569	
12	1.90	0.378	0.088	1.784	0.005	0.046	0.936	17.770	
13	2.30	0.385	0.085	1.725	0.006	0.046	0.947	16.699	
14	2.70	0.412	0.081	1.644	0.006	0.048	0.971	16.647	
15	3.30	0.443	0.082	1.669	0.002	0.046	0.934	16.381	
16	3.90	0.461	0.077	1.576	0.003	0.045	0.909	15.112	
17	4.70	0.490	0.076	1.557	0.002	0.043	0.873	15.134	
18	5.70	0.524	0.066	1.353	0.000	0.039	0.798	10.634	
19	6.70	0.548	0.060	1.227	-0.001	0.037	0.748	9.173	
20	7.70	0.576	0.050	1.029	-0.003	0.032	0.659	5.671	
21	8.70	0.593	0.041	0.836	-0.002	0.029	0.598	2.477	
22	10.20	0.599	0.036	0.726	-0.003	0.028	0.563	1.206	
23	11.70	0.603	0.037	0.755	-0.001	0.028	0.564	0.608	

PROFILE 4

Series: 2CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
12.89	0.46	0.345	49505	0.047	0.046	0.388		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
1	0.35	0.21685	0.06791	1.44394	0.00976	0.03576	0.76039	8.48663
2	0.45	0.219	0.071	1.505	0.012	0.037	0.785	10.715
3	0.55	0.235	0.073	1.550	0.011	0.038	0.816	10.909
4	0.65	0.241	0.077	1.632	0.011	0.039	0.826	11.605
5	0.75	0.249	0.075	1.600	0.011	0.039	0.839	10.257
6	0.85	0.262	0.078	1.657	0.010	0.039	0.830	11.870
7	0.95	0.269	0.078	1.667	0.010	0.041	0.869	12.227
8	1.15	0.289	0.079	1.672	0.010	0.041	0.870	12.372
9	1.35	0.305	0.080	1.705	0.010	0.042	0.900	11.964
10	1.55	0.316	0.082	1.751	0.010	0.043	0.905	13.999
11	1.85	0.338	0.078	1.648	0.010	0.043	0.920	12.810
12	2.15	0.344	0.080	1.708	0.009	0.044	0.931	14.433
13	2.55	0.365	0.081	1.722	0.010	0.046	0.968	15.760
14	2.95	0.383	0.081	1.716	0.006	0.045	0.958	14.037
15	3.55	0.419	0.077	1.629	0.002	0.044	0.932	13.283
16	4.15	0.434	0.077	1.631	0.005	0.045	0.959	15.530
17	4.95	0.461	0.071	1.517	0.004	0.043	0.906	13.106
18	5.95	0.496	0.065	1.391	0.004	0.040	0.859	11.808
19	6.95	0.518	0.060	1.282	0.004	0.037	0.794	8.916
20	7.95	0.541	0.052	1.110	0.003	0.034	0.713	5.769
21	8.95	0.556	0.041	0.861	0.001	0.030	0.634	2.948
22	10.45	0.561	0.040	0.854	0.004	0.027	0.583	0.831
23	11.95	0.551	0.040	0.842	0.007	0.030	0.632	-0.929

PROFILE 1

Series: 2DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.82	0.35	0.471	74965	0.051	0.042	0.548			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.297	0.083	1.611	0.015	0.040	0.771	9.331	
2	0.30	0.323	0.087	1.696	0.014	0.041	0.807	12.658	
3	0.40	0.351	0.088	1.720	0.010	0.043	0.841	14.484	
4	0.50	0.357	0.091	1.776	0.010	0.044	0.865	16.645	
5	0.60	0.379	0.092	1.800	0.008	0.045	0.885	17.867	
6	0.70	0.387	0.090	1.751	0.008	0.045	0.883	17.108	
7	0.90	0.411	0.090	1.762	0.009	0.046	0.898	18.889	
8	1.10	0.427	0.090	1.746	0.010	0.047	0.913	19.533	
9	1.30	0.454	0.087	1.702	0.006	0.046	0.895	18.733	
10	1.60	0.461	0.087	1.700	0.007	0.048	0.937	20.502	
11	1.90	0.483	0.089	1.734	0.008	0.047	0.921	20.120	
12	2.30	0.497	0.090	1.762	0.008	0.049	0.952	22.421	
13	2.90	0.525	0.087	1.696	0.010	0.047	0.925	20.806	
14	3.50	0.548	0.082	1.588	0.008	0.046	0.905	17.614	
15	4.20	0.578	0.075	1.464	0.007	0.045	0.876	16.349	
16	5.20	0.615	0.066	1.284	0.006	0.041	0.805	11.880	
17	6.20	0.640	0.063	1.236	0.006	0.040	0.773	10.422	
18	7.20	0.669	0.060	1.164	0.008	0.038	0.731	8.869	
19	8.70	0.708	0.050	0.980	0.010	0.035	0.678	6.763	
20	10.20	0.727	0.048	0.942	0.018	0.032	0.617	4.399	
21	11.70	0.733	0.044	0.855	0.030	0.028	0.549	1.122	

PROFILE 2

Series: 2DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.79	0.39	0.424	67276	0.057	0.053	0.493			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.15	0.231	0.092	1.615	0.001	0.044	0.771	18.197	
2	0.25	0.253	0.090	1.574	0.002	0.044	0.764	15.046	
3	0.35	0.268	0.095	1.663	0.002	0.044	0.775	16.024	
4	0.45	0.282	0.097	1.699	0.003	0.045	0.784	16.634	
5	0.55	0.292	0.098	1.724	0.005	0.047	0.830	20.188	
6	0.75	0.321	0.098	1.718	0.003	0.049	0.863	19.013	
7	0.95	0.344	0.098	1.725	0.004	0.050	0.883	20.152	
8	1.15	0.365	0.099	1.732	0.004	0.050	0.879	20.916	
9	1.45	0.384	0.099	1.728	0.005	0.051	0.898	22.479	
10	1.75	0.392	0.103	1.806	0.003	0.052	0.920	23.748	
11	2.15	0.441	0.097	1.707	0.001	0.051	0.902	22.238	
12	2.55	0.457	0.100	1.761	0.003	0.052	0.903	24.400	
13	3.15	0.491	0.093	1.638	0.001	0.051	0.887	22.727	
14	3.75	0.523	0.087	1.530	-0.002	0.048	0.846	19.274	
15	4.55	0.558	0.082	1.443	-0.003	0.046	0.813	16.887	
16	5.55	0.577	0.079	1.385	-0.001	0.044	0.775	15.411	
17	6.55	0.621	0.068	1.190	-0.005	0.039	0.681	10.330	
18	7.55	0.645	0.058	1.021	-0.006	0.036	0.626	7.135	
19	9.05	0.670	0.045	0.793	-0.010	0.034	0.589	3.334	
20	10.55	0.678	0.039	0.678	-0.016	0.031	0.538	0.768	
21	12.05	0.680	0.041	0.714	-0.014	0.035	0.622	0.331	

PROFILE 3

Series: 2DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.74	0.425	0.391	61736	0.053	0.042	0.454			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.233	0.078	1.472	0.006	0.035	0.657	6.856	
2	0.20	0.241	0.082	1.530	0.005	0.037	0.688	9.296	
3	0.30	0.259	0.084	1.583	0.004	0.039	0.729	10.929	
4	0.40	0.259	0.082	1.534	0.004	0.039	0.734	10.749	
5	0.50	0.270	0.085	1.590	0.005	0.042	0.779	11.772	
6	0.60	0.279	0.089	1.674	0.006	0.043	0.807	14.273	
7	0.70	0.303	0.089	1.677	0.004	0.044	0.827	13.600	
8	0.90	0.319	0.092	1.734	0.002	0.046	0.858	15.144	
9	1.10	0.332	0.088	1.658	0.005	0.046	0.867	15.899	
10	1.30	0.346	0.093	1.740	0.003	0.049	0.926	18.050	
11	1.60	0.357	0.092	1.724	0.006	0.051	0.950	19.528	
12	1.90	0.369	0.095	1.785	0.006	0.050	0.940	20.012	
13	2.30	0.412	0.098	1.834	0.002	0.050	0.947	20.613	
14	2.70	0.425	0.093	1.736	0.001	0.051	0.952	19.311	
15	3.30	0.448	0.093	1.749	0.003	0.051	0.965	20.158	
16	3.90	0.478	0.088	1.649	0.001	0.050	0.934	20.290	
17	4.70	0.512	0.084	1.574	-0.002	0.046	0.864	16.841	
18	5.70	0.535	0.078	1.464	0.000	0.046	0.869	15.842	
19	6.70	0.577	0.069	1.293	-0.005	0.041	0.769	11.603	
20	7.70	0.603	0.059	1.112	-0.006	0.038	0.712	8.012	
21	9.20	0.622	0.053	0.994	-0.007	0.036	0.667	5.078	
22	10.70	0.631	0.042	0.796	-0.008	0.033	0.616	1.824	
23	12.20	0.629	0.040	0.751	-0.009	0.033	0.617	0.350	

PROFILE 4

Series: 2DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.89	0.46	0.355	57038	0.051	0.048	0.415			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.35	0.221	0.077	1.493	0.010	0.037	0.718	9.990	
2	0.45	0.223	0.079	1.538	0.011	0.037	0.724	10.412	
3	0.55	0.239	0.077	1.493	0.010	0.039	0.760	9.392	
4	0.65	0.254	0.080	1.560	0.010	0.040	0.780	11.473	
5	0.75	0.268	0.082	1.598	0.010	0.041	0.796	11.080	
6	0.85	0.267	0.082	1.593	0.010	0.043	0.837	12.114	
7	0.95	0.277	0.085	1.653	0.009	0.043	0.832	12.585	
8	1.15	0.293	0.086	1.672	0.009	0.045	0.884	14.893	
9	1.35	0.315	0.087	1.703	0.007	0.046	0.888	15.118	
10	1.55	0.335	0.090	1.750	0.006	0.046	0.891	15.871	
11	1.85	0.346	0.091	1.777	0.007	0.047	0.918	17.167	
12	2.15	0.356	0.088	1.724	0.008	0.048	0.936	16.436	
13	2.55	0.382	0.089	1.739	0.005	0.049	0.963	17.794	
14	2.95	0.401	0.090	1.759	0.004	0.049	0.965	18.074	
15	3.55	0.423	0.085	1.652	0.001	0.049	0.964	17.399	
16	4.15	0.448	0.083	1.615	0.002	0.049	0.962	18.120	
17	4.95	0.469	0.081	1.581	0.004	0.048	0.945	18.082	
18	5.95	0.506	0.080	1.564	0.000	0.046	0.894	15.525	
19	6.95	0.535	0.070	1.357	0.000	0.042	0.823	12.271	
20	7.95	0.558	0.066	1.279	-0.001	0.039	0.768	8.720	
21	9.45	0.583	0.052	1.009	0.001	0.037	0.717	5.213	
22	10.95	0.597	0.043	0.835	-0.006	0.033	0.644	1.552	
23	12.45	0.588	0.042	0.815	-0.004	0.035	0.688	0.580	

PROFILE 1

Series: 2ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.17	0.35	0.458	67893	0.046	0.050	0.521			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.276	0.078	1.681	0.007	0.036	0.784	9.768	
2	0.30	0.297	0.079	1.710	0.005	0.038	0.822	10.274	
3	0.40	0.314	0.082	1.784	0.005	0.039	0.847	12.204	
4	0.50	0.325	0.080	1.743	0.006	0.040	0.859	11.637	
5	0.60	0.340	0.085	1.845	0.005	0.040	0.874	13.211	
6	0.70	0.351	0.085	1.841	0.006	0.042	0.903	13.839	
7	0.90	0.375	0.082	1.779	0.005	0.042	0.915	14.206	
8	1.10	0.389	0.082	1.772	0.006	0.044	0.944	15.288	
9	1.30	0.409	0.083	1.794	0.004	0.044	0.962	16.243	
10	1.60	0.427	0.083	1.803	0.006	0.044	0.962	16.693	
11	1.90	0.438	0.079	1.716	0.006	0.045	0.980	16.764	
12	2.30	0.472	0.075	1.623	0.003	0.044	0.956	15.393	
13	2.90	0.492	0.077	1.679	0.004	0.043	0.923	15.439	
14	3.50	0.516	0.071	1.548	0.002	0.041	0.880	14.019	
15	4.20	0.543	0.068	1.468	0.000	0.039	0.855	12.064	
16	5.20	0.573	0.061	1.329	-0.003	0.037	0.807	10.164	
17	6.20	0.603	0.055	1.188	-0.003	0.034	0.730	7.374	
18	7.20	0.625	0.048	1.045	-0.005	0.031	0.665	5.376	
19	8.70	0.649	0.042	0.915	-0.009	0.030	0.641	3.686	
20	10.20	0.659	0.035	0.764	-0.014	0.027	0.580	1.029	
21	11.70	0.648	0.039	0.837	-0.020	0.025	0.539	0.865	

PROFILE 2

Series: 2ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
13.21	0.39	0.409	60929	0.050	0.050	0.466

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.05	0.185	0.079	1.578	0.001	0.040	0.802	16.754
2	0.15	0.210	0.081	1.627	0.001	0.040	0.790	14.674
3	0.25	0.238	0.083	1.656	0.001	0.040	0.799	13.603
4	0.35	0.250	0.083	1.667	0.000	0.040	0.796	13.619
5	0.45	0.269	0.088	1.767	0.001	0.042	0.835	15.028
6	0.55	0.279	0.085	1.693	0.001	0.042	0.848	14.035
7	0.75	0.282	0.083	1.654	0.003	0.043	0.855	12.709
8	0.95	0.318	0.086	1.723	0.002	0.045	0.906	15.191
9	1.15	0.339	0.084	1.688	0.003	0.046	0.914	15.204
10	1.45	0.357	0.088	1.764	0.005	0.046	0.922	16.142
11	1.75	0.378	0.087	1.742	0.002	0.046	0.926	16.832
12	2.15	0.408	0.087	1.732	0.002	0.047	0.935	17.286
13	2.55	0.431	0.084	1.688	0.003	0.046	0.927	16.894
14	3.15	0.455	0.086	1.710	0.001	0.046	0.912	16.880
15	3.75	0.491	0.076	1.521	0.000	0.043	0.859	15.110
16	4.55	0.509	0.075	1.499	0.001	0.042	0.836	14.318
17	5.55	0.542	0.068	1.354	0.000	0.038	0.757	11.261
18	6.55	0.567	0.059	1.188	0.000	0.035	0.690	8.144
19	7.55	0.585	0.050	0.995	-0.001	0.031	0.624	5.016
20	9.05	0.610	0.036	0.723	0.000	0.028	0.558	2.190
21	10.55	0.613	0.032	0.648	0.002	0.026	0.510	0.389
22	12.05	0.606	0.035	0.708	0.011	0.027	0.547	-0.174

PROFILE 3

Series: 2ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.28	0.425	0.373	55911	0.049	0.039	0.425			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.211	0.071	1.443	0.004	0.032	0.648	6.767	
2	0.20	0.222	0.070	1.436	0.004	0.035	0.706	7.875	
3	0.30	0.248	0.073	1.495	0.002	0.035	0.716	7.626	
4	0.40	0.246	0.074	1.518	0.004	0.036	0.736	8.965	
5	0.50	0.259	0.078	1.594	0.004	0.038	0.777	10.222	
6	0.60	0.271	0.081	1.664	0.004	0.040	0.807	11.672	
7	0.70	0.278	0.081	1.655	0.005	0.041	0.830	11.887	
8	0.90	0.291	0.080	1.642	0.004	0.042	0.857	12.782	
9	1.10	0.311	0.083	1.694	0.002	0.042	0.853	12.816	
10	1.30	0.319	0.084	1.720	0.002	0.044	0.892	14.567	
11	1.60	0.336	0.086	1.761	0.005	0.045	0.913	15.393	
12	1.90	0.358	0.082	1.669	0.004	0.045	0.913	14.706	
13	2.30	0.385	0.084	1.715	0.003	0.045	0.915	15.595	
14	2.70	0.391	0.083	1.694	0.004	0.046	0.939	15.718	
15	3.30	0.426	0.082	1.667	0.002	0.046	0.942	16.350	
16	3.90	0.446	0.080	1.627	0.002	0.044	0.889	15.246	
17	4.70	0.477	0.075	1.527	0.001	0.042	0.856	14.602	
18	5.70	0.507	0.068	1.381	0.000	0.040	0.811	11.299	
19	6.70	0.536	0.058	1.192	-0.001	0.036	0.737	7.423	
20	7.70	0.559	0.051	1.044	-0.002	0.032	0.656	5.465	
21	9.20	0.579	0.037	0.748	-0.001	0.027	0.561	2.125	
22	10.70	0.578	0.036	0.732	0.000	0.026	0.537	0.730	
23	12.20	0.571	0.038	0.774	0.009	0.026	0.525	-0.842	

PROFILE 4

Series: 2ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
13.32	0.46	0.343	51657	0.047	0.046	0.392

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.35	0.212	0.070	1.481	0.009	0.034	0.725	9.228
2	0.45	0.211	0.072	1.518	0.011	0.036	0.752	10.390
3	0.55	0.227	0.069	1.453	0.007	0.036	0.758	10.273
4	0.65	0.236	0.072	1.525	0.008	0.037	0.782	10.171
5	0.75	0.246	0.077	1.617	0.009	0.038	0.796	11.252
6	0.85	0.250	0.078	1.649	0.011	0.038	0.806	11.276
7	0.95	0.262	0.078	1.653	0.007	0.040	0.836	11.707
8	1.15	0.276	0.079	1.668	0.008	0.040	0.834	11.669
9	1.35	0.289	0.076	1.612	0.007	0.042	0.886	11.814
10	1.55	0.305	0.083	1.754	0.007	0.041	0.862	12.791
11	1.85	0.322	0.078	1.652	0.008	0.044	0.919	14.292
12	2.15	0.345	0.078	1.639	0.008	0.044	0.919	13.618
13	2.55	0.365	0.080	1.683	0.005	0.044	0.937	14.291
14	2.95	0.372	0.082	1.741	0.005	0.044	0.926	15.227
15	3.55	0.396	0.079	1.657	0.006	0.044	0.936	13.770
16	4.15	0.420	0.076	1.605	0.004	0.044	0.939	15.421
17	4.95	0.436	0.076	1.594	0.003	0.042	0.884	12.720
18	5.95	0.477	0.065	1.379	0.003	0.040	0.848	10.228
19	6.95	0.499	0.063	1.328	0.000	0.038	0.796	9.841
20	7.95	0.520	0.053	1.113	-0.001	0.034	0.720	6.766
21	9.45	0.542	0.042	0.883	-0.001	0.029	0.621	2.832
22	10.95	0.546	0.035	0.744	-0.004	0.027	0.574	0.731
23	12.45	0.538	0.036	0.750	-0.007	0.029	0.602	0.457

PROFILE 1

Series: 2FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
14.45	0.35	0.448	76379	0.048	0.051	0.534

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.278	0.080	1.658	0.012	0.038	0.790	8.780
2	0.30	0.292	0.081	1.677	0.011	0.039	0.806	9.520
3	0.40	0.317	0.084	1.754	0.009	0.040	0.841	11.922
4	0.50	0.327	0.086	1.781	0.011	0.042	0.866	13.147
5	0.60	0.342	0.085	1.769	0.009	0.042	0.871	13.236
6	0.70	0.357	0.085	1.766	0.009	0.042	0.884	14.078
7	0.90	0.377	0.085	1.769	0.009	0.044	0.910	15.373
8	1.10	0.391	0.085	1.779	0.010	0.045	0.938	16.047
9	1.30	0.409	0.086	1.797	0.010	0.046	0.949	17.473
10	1.60	0.437	0.086	1.784	0.008	0.047	0.980	18.783
11	1.90	0.441	0.084	1.752	0.009	0.047	0.974	18.888
12	2.30	0.469	0.084	1.750	0.007	0.047	0.987	19.238
13	2.90	0.501	0.081	1.684	0.006	0.046	0.957	18.056
14	3.40	0.515	0.075	1.571	0.008	0.045	0.938	15.482
15	4.20	0.547	0.075	1.553	0.005	0.044	0.912	15.542
16	5.20	0.581	0.069	1.441	0.003	0.042	0.865	13.337
17	6.20	0.608	0.063	1.303	0.003	0.039	0.816	10.891
18	7.20	0.636	0.055	1.141	0.003	0.036	0.741	7.767
19	8.70	0.673	0.050	1.044	0.003	0.032	0.673	6.660
20	10.20	0.705	0.040	0.830	0.003	0.030	0.622	3.606
21	11.70	0.719	0.036	0.756	0.009	0.028	0.584	2.199
22	13.20	0.720	0.042	0.873	0.020	0.031	0.649	1.260

PROFILE 2

Series: 2FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.09	0.39	0.418	68545	0.051	0.048	0.491			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.187	0.084	1.643	0.002	0.043	0.841	18.429	
2	0.15	0.208	0.089	1.732	0.001	0.041	0.801	16.444	
3	0.25	0.235	0.087	1.701	0.001	0.041	0.805	14.134	
4	0.35	0.251	0.085	1.663	0.000	0.042	0.808	13.185	
5	0.45	0.269	0.088	1.721	0.002	0.043	0.846	14.822	
6	0.55	0.283	0.090	1.754	0.000	0.044	0.848	14.720	
7	0.75	0.297	0.095	1.852	0.001	0.045	0.875	17.933	
8	0.95	0.325	0.096	1.876	0.001	0.046	0.903	17.587	
9	1.15	0.327	0.095	1.850	0.005	0.047	0.912	16.962	
10	1.45	0.371	0.095	1.846	0.002	0.049	0.952	18.576	
11	1.75	0.373	0.092	1.794	0.005	0.049	0.956	19.318	
12	2.15	0.399	0.098	1.910	0.004	0.049	0.954	20.269	
13	2.55	0.421	0.093	1.810	0.003	0.048	0.935	18.307	
14	3.15	0.454	0.090	1.751	0.000	0.049	0.952	20.250	
15	3.75	0.488	0.090	1.744	0.000	0.047	0.913	19.480	
16	4.55	0.525	0.077	1.504	-0.003	0.044	0.849	15.276	
17	5.55	0.547	0.072	1.392	-0.002	0.042	0.811	11.944	
18	6.55	0.575	0.067	1.307	-0.003	0.040	0.769	11.422	
19	7.55	0.604	0.060	1.168	-0.004	0.036	0.702	7.693	
20	9.05	0.629	0.048	0.929	-0.008	0.033	0.646	4.309	
21	10.55	0.636	0.040	0.772	-0.009	0.031	0.604	1.619	
22	12.05	0.633	0.038	0.739	-0.012	0.032	0.616	-0.029	
23	13.05	0.627	0.043	0.844	-0.016	0.033	0.634	0.889	

PROFILE 3

Series: 2FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.19	0.425	0.379	62900	0.052	0.043	0.448			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.206	0.073	1.418	0.004	0.033	0.635	7.120	
2	0.20	0.235	0.074	1.434	0.003	0.035	0.675	8.241	
3	0.30	0.232	0.080	1.542	0.004	0.036	0.704	10.011	
4	0.40	0.253	0.083	1.609	0.004	0.038	0.739	10.711	
5	0.50	0.262	0.081	1.563	0.003	0.039	0.765	11.404	
6	0.60	0.272	0.084	1.624	0.004	0.040	0.770	12.065	
7	0.70	0.283	0.082	1.588	0.003	0.042	0.811	11.835	
8	0.90	0.303	0.088	1.709	0.005	0.043	0.831	14.625	
9	1.10	0.310	0.084	1.637	0.002	0.045	0.872	12.929	
10	1.30	0.335	0.087	1.684	0.004	0.045	0.881	14.427	
11	1.60	0.342	0.087	1.695	0.003	0.046	0.896	14.812	
12	1.90	0.364	0.091	1.768	0.002	0.047	0.919	16.816	
13	2.30	0.391	0.088	1.707	0.001	0.049	0.942	16.808	
14	2.70	0.406	0.087	1.695	0.000	0.048	0.932	17.188	
15	3.30	0.433	0.092	1.785	0.000	0.048	0.925	19.039	
16	3.90	0.462	0.083	1.606	-0.002	0.048	0.928	17.032	
17	4.70	0.475	0.084	1.631	-0.001	0.047	0.909	17.905	
18	5.70	0.511	0.079	1.526	-0.001	0.043	0.838	13.439	
19	6.70	0.528	0.075	1.461	0.000	0.043	0.830	14.500	
20	7.70	0.564	0.061	1.189	-0.004	0.038	0.744	8.819	
21	8.70	0.581	0.056	1.087	-0.006	0.035	0.680	6.838	
22	10.20	0.599	0.042	0.814	-0.008	0.032	0.611	2.417	
23	11.70	0.596	0.038	0.733	-0.011	0.030	0.573	0.391	
24	13.20	0.592	0.043	0.828	-0.015	0.031	0.610	-1.168	

PROFILE 4

Series: 2FR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.35	0.46	0.345	58115	0.049	0.044	0.409			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.25	0.195	0.068	1.402	0.009	0.033	0.676	7.785	
2	0.35	0.211	0.074	1.516	0.009	0.035	0.711	8.634	
3	0.45	0.217	0.074	1.513	0.009	0.036	0.735	10.377	
4	0.55	0.238	0.075	1.532	0.008	0.037	0.751	9.534	
5	0.65	0.246	0.078	1.607	0.008	0.038	0.786	9.464	
6	0.75	0.247	0.081	1.658	0.009	0.039	0.808	10.907	
7	0.95	0.280	0.079	1.612	0.006	0.040	0.829	11.093	
8	1.15	0.287	0.081	1.666	0.008	0.043	0.883	12.858	
9	1.35	0.297	0.084	1.721	0.008	0.044	0.906	13.573	
10	1.55	0.308	0.081	1.656	0.008	0.043	0.878	11.934	
11	1.85	0.332	0.083	1.711	0.006	0.044	0.910	12.205	
12	2.15	0.343	0.085	1.744	0.004	0.045	0.924	15.338	
13	2.55	0.364	0.081	1.667	0.007	0.045	0.927	14.545	
14	2.95	0.375	0.089	1.834	0.004	0.049	0.999	18.369	
15	3.55	0.400	0.083	1.693	0.006	0.049	0.996	17.430	
16	4.15	0.422	0.083	1.693	0.004	0.047	0.964	16.505	
17	4.95	0.440	0.080	1.636	0.004	0.046	0.943	15.233	
18	5.95	0.476	0.073	1.504	0.001	0.044	0.912	14.407	
19	6.95	0.506	0.067	1.379	0.001	0.041	0.845	12.357	
20	7.95	0.530	0.063	1.282	-0.002	0.037	0.768	8.411	
21	8.95	0.548	0.057	1.167	-0.004	0.036	0.732	6.004	
22	10.45	0.564	0.045	0.915	-0.002	0.033	0.676	3.350	
23	11.95	0.569	0.041	0.842	-0.004	0.031	0.640	1.509	
24	13.45	0.573	0.044	0.902	-0.008	0.033	0.686	0.044	

PROFILE 1

Series: 2GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.97	0.35	0.443	87694	0.051	0.049	0.555			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.273	0.081	1.573	0.006	0.038	0.745	9.055	
2	0.30	0.293	0.081	1.588	0.007	0.039	0.751	9.475	
3	0.40	0.320	0.092	1.795	0.007	0.042	0.814	13.304	
4	0.50	0.325	0.089	1.742	0.007	0.041	0.793	13.597	
5	0.60	0.346	0.091	1.771	0.006	0.042	0.822	14.465	
6	0.70	0.352	0.092	1.789	0.007	0.043	0.846	15.271	
7	0.90	0.375	0.089	1.742	0.006	0.043	0.845	15.958	
8	1.10	0.385	0.084	1.636	0.010	0.045	0.878	15.176	
9	1.30	0.412	0.091	1.776	0.007	0.046	0.900	18.515	
10	1.60	0.424	0.089	1.740	0.009	0.046	0.902	18.710	
11	1.90	0.432	0.087	1.690	0.012	0.048	0.940	20.069	
12	2.30	0.459	0.090	1.751	0.009	0.084	1.637	10.096	
13	2.90	0.497	0.084	1.642	0.008	0.048	0.935	20.324	
14	3.50	0.508	0.080	1.568	0.010	0.048	0.938	19.283	
15	4.20	0.539	0.079	1.534	0.008	0.047	0.907	17.781	
16	5.20	0.578	0.072	1.399	0.006	0.044	0.851	14.473	
17	6.20	0.615	0.064	1.253	0.004	0.040	0.773	10.700	
18	7.20	0.629	0.070	1.362	0.008	0.041	0.807	13.485	
19	8.20	0.661	0.059	1.148	0.006	0.037	0.721	8.908	
20	9.70	0.693	0.050	0.975	0.007	0.033	0.641	5.855	
21	11.20	0.720	0.042	0.813	0.014	0.029	0.574	3.831	
22	12.70	0.736	0.035	0.674	0.018	0.027	0.520	0.785	
23	14.20	0.720	0.039	0.756	0.032	0.026	0.498	-1.625	

PROFILE 2

Series: 2GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
15.85	0.39	0.402	78700	0.056	0.053	0.501		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.05	0.159	0.080	1.436	0.005	0.046	0.828	20.168
2	0.15	0.184	0.083	1.492	0.003	0.045	0.807	18.239
3	0.25	0.215	0.094	1.694	0.004	0.044	0.797	19.007
4	0.35	0.236	0.094	1.688	0.004	0.044	0.795	16.583
5	0.45	0.239	0.093	1.667	0.005	0.043	0.781	15.129
6	0.55	0.273	0.096	1.730	0.004	0.045	0.815	16.474
7	0.75	0.276	0.092	1.655	0.004	0.046	0.833	16.547
8	0.95	0.298	0.100	1.807	0.005	0.048	0.857	19.814
9	1.15	0.322	0.099	1.780	0.004	0.047	0.855	16.516
10	1.45	0.342	0.102	1.831	0.006	0.051	0.920	21.114
11	1.75	0.381	0.099	1.779	0.002	0.052	0.928	20.821
12	2.15	0.393	0.093	1.671	0.005	0.050	0.899	17.939
13	2.55	0.410	0.096	1.731	0.005	0.052	0.938	21.946
14	3.15	0.441	0.094	1.690	0.006	0.052	0.940	22.335
15	3.75	0.473	0.092	1.656	0.003	0.051	0.919	22.184
16	4.55	0.506	0.087	1.574	0.001	0.048	0.873	18.981
17	5.55	0.540	0.081	1.450	0.001	0.046	0.828	15.761
18	6.55	0.570	0.079	1.419	0.000	0.045	0.802	15.571
19	7.55	0.599	0.070	1.257	-0.001	0.040	0.725	11.185
20	8.55	0.623	0.064	1.151	-0.001	0.040	0.713	9.045
21	10.05	0.648	0.054	0.965	0.000	0.037	0.670	5.612
22	11.55	0.659	0.045	0.804	0.000	0.034	0.607	2.212
23	13.05	0.662	0.044	0.784	0.005	0.034	0.603	-0.226
24	14.55	0.664	0.053	0.959	0.017	0.039	0.696	-0.749

PROFILE 3

Series: 2GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
15.89	0.425	0.368	72219	0.054	0.037	0.459		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.213	0.078	1.453	0.004	0.034	0.626	8.101
2	0.20	0.229	0.079	1.462	0.004	0.035	0.650	8.314
3	0.30	0.232	0.079	1.466	0.003	0.036	0.678	8.990
4	0.40	0.241	0.080	1.490	0.004	0.038	0.706	9.901
5	0.50	0.254	0.084	1.556	0.004	0.040	0.746	10.389
6	0.60	0.267	0.085	1.575	0.002	0.040	0.747	11.907
7	0.70	0.271	0.087	1.614	0.003	0.041	0.770	12.922
8	0.90	0.286	0.086	1.598	0.003	0.044	0.816	14.166
9	1.10	0.309	0.091	1.690	0.002	0.045	0.828	13.946
10	1.30	0.318	0.090	1.666	0.003	0.046	0.846	15.409
11	1.60	0.329	0.095	1.765	0.004	0.048	0.896	16.639
12	1.90	0.354	0.091	1.690	0.004	0.050	0.924	19.601
13	2.30	0.357	0.096	1.784	0.005	0.051	0.946	20.697
14	2.70	0.380	0.091	1.691	0.005	0.051	0.957	17.566
15	3.30	0.401	0.093	1.737	0.006	0.052	0.971	21.555
16	3.90	0.435	0.091	1.698	0.002	0.053	0.977	21.761
17	4.70	0.457	0.090	1.672	0.003	0.050	0.922	19.911
18	5.70	0.510	0.079	1.459	-0.003	0.047	0.865	15.049
19	6.70	0.521	0.081	1.504	0.001	0.046	0.846	16.559
20	7.70	0.556	0.073	1.356	0.000	0.044	0.817	14.115
21	8.70	0.578	0.067	1.239	0.000	0.042	0.772	10.881
22	10.20	0.613	0.052	0.963	-0.003	0.037	0.679	5.312
23	11.70	0.628	0.045	0.836	-0.006	0.034	0.640	2.019
24	13.20	0.625	0.045	0.830	0.001	0.033	0.618	-0.185
25	14.70	0.615	0.052	0.972	0.000	0.039	0.717	-1.584

PROFILE 4

Series: 2GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.05	0.46	0.335	66724	0.051	0.042	0.42

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.25	0.185	0.071	1.393	0.009	0.033	0.651	8.067
2	0.35	0.192	0.071	1.393	0.009	0.035	0.676	8.744
3	0.45	0.214	0.076	1.477	0.009	0.036	0.699	9.416
4	0.55	0.227	0.077	1.505	0.009	0.037	0.731	8.572
5	0.65	0.229	0.075	1.473	0.010	0.038	0.746	10.012
6	0.75	0.240	0.081	1.588	0.008	0.039	0.767	10.591
7	0.95	0.251	0.084	1.645	0.009	0.040	0.786	11.363
8	1.15	0.275	0.084	1.647	0.008	0.041	0.807	11.409
9	1.35	0.276	0.085	1.651	0.010	0.044	0.850	12.946
10	1.55	0.300	0.088	1.708	0.007	0.047	0.909	14.771
11	1.85	0.314	0.086	1.685	0.008	0.046	0.902	14.794
12	2.15	0.316	0.086	1.675	0.007	0.046	0.907	12.931
13	2.55	0.341	0.090	1.766	0.004	0.048	0.934	17.305
14	2.95	0.362	0.085	1.668	0.006	0.050	0.983	17.114
15	3.55	0.393	0.087	1.695	0.004	0.050	0.972	16.977
16	4.15	0.407	0.085	1.658	0.004	0.049	0.952	17.583
17	4.95	0.430	0.084	1.640	0.005	0.051	1.003	18.653
18	5.95	0.461	0.083	1.622	0.002	0.049	0.958	18.355
19	6.95	0.488	0.079	1.543	0.003	0.047	0.912	15.341
20	7.95	0.512	0.079	1.532	0.001	0.046	0.895	15.715
21	8.95	0.530	0.068	1.334	0.000	0.044	0.850	10.951
22	10.45	0.558	0.062	1.210	0.001	0.040	0.783	8.619
23	11.95	0.586	0.047	0.925	0.000	0.035	0.686	2.759
24	13.45	0.583	0.045	0.884	0.005	0.035	0.690	0.014
25	14.95	0.580	0.049	0.962	0.002	0.039	0.754	0.656

PROFILE 1

Series: 2HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.87	0.35	0.404	79208	0.049	0.046	0.504			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.253	0.075	1.536	0.020	0.037	0.765	7.976	
2	0.30	0.273	0.077	1.574	0.010	0.037	0.754	8.643	
3	0.40	0.287	0.083	1.698	0.010	0.038	0.782	10.207	
4	0.50	0.301	0.080	1.630	0.011	0.039	0.793	9.067	
5	0.60	0.315	0.079	1.620	0.008	0.039	0.808	11.158	
6	0.70	0.322	0.083	1.706	0.008	0.039	0.804	12.515	
7	0.90	0.345	0.084	1.729	0.010	0.042	0.853	13.581	
8	1.10	0.360	0.082	1.676	0.010	0.042	0.861	13.787	
9	1.40	0.376	0.082	1.678	0.010	0.042	0.866	14.670	
10	1.80	0.404	0.083	1.708	0.008	0.045	0.917	16.670	
11	2.20	0.419	0.079	1.621	0.009	0.045	0.922	16.226	
12	2.80	0.448	0.080	1.649	0.010	0.045	0.931	18.026	
13	3.40	0.478	0.078	1.592	0.007	0.044	0.910	16.118	
14	4.20	0.494	0.074	1.515	0.008	0.044	0.904	15.595	
15	5.20	0.530	0.070	1.439	0.006	0.044	0.908	15.866	
16	6.20	0.559	0.064	1.316	0.005	0.041	0.838	12.430	
17	7.20	0.593	0.058	1.184	0.000	0.035	0.724	9.412	
18	8.20	0.609	0.060	1.234	-0.001	0.036	0.746	9.736	
19	9.70	0.638	0.048	0.992	-0.001	0.032	0.651	5.655	
20	11.20	0.665	0.035	0.727	-0.006	0.027	0.564	2.643	
21	12.70	0.666	0.029	0.601	-0.012	0.028	0.577	1.039	
22	14.20	0.647	0.032	0.650	0.000	0.031	0.640	-1.253	

PROFILE 2

Series: 2HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.75	0.39	0.367	71084	0.051	0.052	0.456			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.143	0.076	1.493	0.007	0.045	0.879	18.851	
2	0.15	0.172	0.080	1.575	0.005	0.043	0.838	17.541	
3	0.25	0.190	0.085	1.670	0.006	0.041	0.799	15.879	
4	0.35	0.213	0.090	1.767	0.006	0.041	0.808	15.324	
5	0.45	0.239	0.085	1.670	0.004	0.041	0.808	12.809	
6	0.55	0.250	0.089	1.750	0.005	0.042	0.834	14.591	
7	0.75	0.259	0.092	1.806	0.005	0.044	0.857	16.540	
8	0.95	0.273	0.087	1.718	0.006	0.043	0.853	13.837	
9	1.15	0.313	0.089	1.749	0.004	0.044	0.872	15.011	
10	1.45	0.333	0.090	1.771	0.004	0.046	0.899	15.640	
11	1.75	0.356	0.088	1.732	0.004	0.047	0.929	16.150	
12	2.15	0.373	0.092	1.805	0.004	0.048	0.946	18.836	
13	2.55	0.384	0.089	1.752	0.006	0.048	0.954	17.969	
14	3.15	0.415	0.086	1.690	0.005	0.048	0.944	18.584	
15	3.75	0.452	0.083	1.634	0.002	0.046	0.904	17.000	
16	4.55	0.470	0.079	1.559	0.001	0.045	0.889	15.389	
17	5.55	0.509	0.078	1.544	0.000	0.043	0.847	15.868	
18	6.55	0.537	0.070	1.385	-0.001	0.040	0.794	12.781	
19	7.55	0.558	0.063	1.248	-0.002	0.038	0.756	9.890	
20	8.55	0.589	0.053	1.044	-0.004	0.035	0.686	6.554	
21	10.05	0.606	0.047	0.927	-0.007	0.033	0.641	4.900	
22	11.55	0.614	0.037	0.733	-0.008	0.030	0.587	0.972	
23	13.05	0.609	0.038	0.754	-0.009	0.029	0.575	-0.111	
24	14.55	0.604	0.044	0.876	-0.012	0.034	0.674	-0.663	

PROFILE 3

Series: 2HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
15.88	0.425	0.332	65230	0.049	0.035	0.415

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.200	0.074	1.496	0.006	0.032	0.651	6.861
2	0.20	0.222	0.071	1.437	0.005	0.034	0.685	8.223
3	0.30	0.220	0.075	1.522	0.005	0.033	0.676	8.614
4	0.40	0.239	0.079	1.591	0.004	0.036	0.728	8.552
5	0.50	0.244	0.076	1.539	0.005	0.037	0.758	9.929
6	0.60	0.254	0.082	1.659	0.005	0.038	0.773	11.891
7	0.70	0.259	0.083	1.670	0.005	0.040	0.805	11.752
8	0.90	0.272	0.084	1.698	0.005	0.041	0.830	13.486
9	1.10	0.291	0.085	1.724	0.004	0.044	0.885	14.504
10	1.30	0.288	0.085	1.710	0.006	0.044	0.881	13.321
11	1.60	0.319	0.090	1.818	0.004	0.046	0.922	14.467
12	1.90	0.333	0.086	1.731	0.004	0.044	0.900	14.548
13	2.30	0.340	0.089	1.793	0.006	0.046	0.937	15.734
14	2.70	0.370	0.087	1.765	0.003	0.048	0.967	16.650
15	3.30	0.398	0.085	1.713	0.000	0.048	0.963	17.037
16	3.90	0.416	0.082	1.655	0.002	0.046	0.936	15.647
17	4.70	0.442	0.081	1.646	0.001	0.047	0.950	17.390
18	5.70	0.470	0.078	1.580	0.001	0.046	0.921	16.530
19	6.70	0.505	0.068	1.373	-0.002	0.041	0.834	11.942
20	7.70	0.524	0.067	1.362	-0.001	0.039	0.798	10.552
21	8.70	0.547	0.059	1.191	-0.003	0.037	0.744	8.253
22	10.20	0.569	0.050	1.013	-0.006	0.034	0.682	4.990
23	11.70	0.578	0.039	0.784	-0.004	0.031	0.619	1.446
24	13.20	0.575	0.039	0.787	-0.002	0.030	0.603	-0.151
25	14.70	0.565	0.048	0.971	-0.004	0.037	0.739	1.255

PROFILE 4

Series: 2HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.86	0.46	0.308	60267	0.048	0.040	0.384			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.25	0.179	0.067	1.392	0.011	0.032	0.660	7.176	
2	0.35	0.190	0.069	1.443	0.011	0.034	0.708	8.257	
3	0.45	0.207	0.074	1.540	0.010	0.034	0.716	9.306	
4	0.55	0.218	0.070	1.464	0.010	0.036	0.752	9.284	
5	0.65	0.224	0.073	1.521	0.010	0.037	0.771	9.913	
6	0.75	0.229	0.076	1.578	0.009	0.037	0.772	9.713	
7	0.95	0.251	0.075	1.568	0.011	0.040	0.827	11.315	
8	1.15	0.269	0.080	1.665	0.008	0.040	0.828	11.069	
9	1.35	0.268	0.079	1.646	0.006	0.041	0.852	11.688	
10	1.55	0.291	0.081	1.691	0.008	0.042	0.873	11.625	
11	1.85	0.307	0.080	1.674	0.005	0.042	0.882	11.516	
12	2.15	0.316	0.078	1.626	0.006	0.044	0.912	12.560	
13	2.55	0.330	0.083	1.733	0.006	0.044	0.926	15.378	
14	2.95	0.337	0.080	1.678	0.006	0.045	0.934	14.006	
15	3.55	0.371	0.082	1.713	0.004	0.045	0.950	14.538	
16	4.15	0.380	0.082	1.720	0.005	0.047	0.984	15.027	
17	4.95	0.392	0.084	1.764	0.006	0.047	0.974	17.809	
18	5.95	0.441	0.079	1.641	0.001	0.044	0.909	14.989	
19	6.95	0.463	0.068	1.423	0.000	0.043	0.903	12.532	
20	7.95	0.478	0.069	1.433	0.002	0.042	0.886	12.192	
21	8.95	0.505	0.063	1.307	0.000	0.037	0.774	8.216	
22	10.45	0.527	0.049	1.025	-0.001	0.034	0.718	4.961	
23	11.95	0.539	0.038	0.791	-0.002	0.030	0.634	0.878	
24	13.45	0.527	0.040	0.836	-0.004	0.031	0.641	0.180	
25	14.45	0.527	0.042	0.884	0.001	0.032	0.661	-0.334	

PROFILE 1

Series: 2IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
16.91	0.35	0.413	89109	0.050	0.046	0.532		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.267	0.077	1.542	0.005	0.036	0.720	8.227
2	0.30	0.270	0.074	1.494	0.006	0.036	0.727	8.146
3	0.40	0.304	0.081	1.633	0.005	0.038	0.767	10.303
4	0.50	0.317	0.082	1.646	0.004	0.040	0.807	11.518
5	0.60	0.328	0.086	1.718	0.005	0.041	0.830	12.776
6	0.70	0.331	0.087	1.751	0.006	0.041	0.826	13.628
7	0.90	0.362	0.083	1.659	0.006	0.043	0.854	13.737
8	1.10	0.377	0.086	1.718	0.006	0.044	0.880	15.441
9	1.30	0.395	0.083	1.659	0.007	0.044	0.888	15.519
10	1.60	0.411	0.083	1.662	0.007	0.047	0.934	17.024
11	1.90	0.437	0.084	1.688	0.006	0.046	0.914	18.402
12	2.30	0.437	0.085	1.697	0.010	0.046	0.931	18.887
13	2.90	0.470	0.081	1.618	0.009	0.046	0.917	17.844
14	3.50	0.492	0.080	1.610	0.007	0.046	0.917	17.839
15	4.20	0.517	0.076	1.523	0.007	0.045	0.909	16.619
16	5.20	0.548	0.073	1.461	0.006	0.044	0.889	16.134
17	6.20	0.584	0.066	1.334	0.003	0.041	0.820	12.447
18	7.20	0.603	0.064	1.293	0.004	0.039	0.778	11.851
19	8.70	0.641	0.059	1.177	0.004	0.035	0.706	9.111
20	10.20	0.668	0.049	0.992	0.003	0.033	0.653	6.501
21	11.70	0.696	0.035	0.711	0.006	0.027	0.548	1.705
22	13.20	0.702	0.032	0.647	0.009	0.027	0.545	0.171
23	14.70	0.704	0.036	0.725	0.020	0.029	0.572	-2.858
24	15.70	0.691	0.044	0.884	0.026	0.037	0.741	-6.560

PROFILE 2

Series: 2IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
16.67	0.39	0.379	79970	0.053	0.053	0.485			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.141	0.077	1.449	0.006	0.043	0.813	18.246	
2	0.15	0.184	0.086	1.608	0.002	0.044	0.826	20.099	
3	0.25	0.201	0.088	1.643	0.004	0.041	0.778	16.571	
4	0.35	0.227	0.086	1.621	0.003	0.042	0.780	14.414	
5	0.45	0.240	0.089	1.675	0.003	0.043	0.799	15.207	
6	0.55	0.248	0.090	1.693	0.004	0.043	0.802	14.258	
7	0.75	0.267	0.091	1.714	0.006	0.044	0.829	15.552	
8	0.95	0.295	0.095	1.787	0.005	0.046	0.862	16.862	
9	1.15	0.312	0.096	1.806	0.003	0.046	0.872	16.461	
10	1.45	0.332	0.097	1.828	0.003	0.048	0.905	19.491	
11	1.75	0.358	0.092	1.724	0.002	0.049	0.922	18.182	
12	2.15	0.371	0.095	1.778	0.006	0.050	0.936	19.344	
13	2.55	0.406	0.092	1.722	0.001	0.048	0.906	17.457	
14	3.15	0.439	0.096	1.804	0.000	0.048	0.897	20.121	
15	3.75	0.450	0.087	1.639	0.003	0.048	0.909	19.133	
16	4.55	0.477	0.088	1.651	0.002	0.046	0.871	18.954	
17	5.55	0.511	0.081	1.522	-0.001	0.046	0.863	15.873	
18	6.55	0.534	0.081	1.516	0.002	0.045	0.838	16.312	
19	7.55	0.579	0.069	1.291	-0.004	0.040	0.753	12.321	
20	8.55	0.603	0.058	1.096	-0.005	0.038	0.708	9.022	
21	10.05	0.629	0.054	1.022	-0.007	0.036	0.673	6.523	
22	11.55	0.645	0.043	0.815	-0.008	0.033	0.616	2.986	
23	13.05	0.645	0.042	0.796	-0.011	0.034	0.633	0.669	
24	14.55	0.641	0.044	0.831	-0.018	0.034	0.637	-0.347	
25	15.55	0.632	0.050	0.929	-0.013	0.038	0.715	-0.806	

PROFILE 3

Series: 2IR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
16.6	0.425	0.35	73384	0.052	0.039	0.446		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.205	0.071	1.375	0.003	0.033	0.634	6.913
2	0.20	0.211	0.072	1.399	0.004	0.033	0.645	7.142
3	0.30	0.227	0.078	1.504	0.003	0.036	0.692	9.145
4	0.40	0.232	0.081	1.566	0.004	0.037	0.714	9.931
5	0.50	0.244	0.082	1.593	0.003	0.038	0.741	9.641
6	0.60	0.248	0.081	1.576	0.004	0.040	0.768	11.424
7	0.70	0.264	0.081	1.573	0.004	0.040	0.779	11.051
8	0.90	0.278	0.085	1.649	0.003	0.045	0.865	14.015
9	1.10	0.293	0.087	1.678	0.002	0.044	0.854	14.308
10	1.30	0.303	0.085	1.643	0.002	0.045	0.867	13.398
11	1.60	0.319	0.092	1.792	0.003	0.046	0.888	16.255
12	1.90	0.339	0.092	1.782	0.001	0.047	0.906	15.664
13	2.30	0.351	0.089	1.724	0.003	0.048	0.923	16.381
14	2.70	0.373	0.093	1.799	0.004	0.049	0.952	17.853
15	3.30	0.401	0.087	1.683	0.002	0.048	0.935	16.210
16	3.90	0.415	0.086	1.659	0.004	0.050	0.963	17.336
17	4.70	0.446	0.089	1.718	0.001	0.049	0.957	20.461
18	5.70	0.478	0.083	1.608	0.000	0.047	0.916	16.837
19	6.70	0.514	0.077	1.497	-0.002	0.043	0.834	13.639
20	7.70	0.537	0.072	1.387	0.000	0.042	0.816	13.020
21	8.70	0.559	0.068	1.308	-0.003	0.040	0.769	10.061
22	10.20	0.587	0.054	1.048	-0.006	0.037	0.713	6.551
23	11.70	0.603	0.046	0.898	-0.006	0.035	0.671	3.505
24	13.20	0.607	0.042	0.812	-0.011	0.033	0.634	0.451
25	14.70	0.605	0.042	0.816	-0.011	0.034	0.667	0.088
26	15.70	0.601	0.051	0.987	-0.011	0.039	0.747	0.289

PROFILE 4

Series: 2IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
16.8	0.46	0.318	67800	0.049	0.041	0.408		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.25	0.176	0.071	1.452	0.010	0.032	0.657	7.150
2	0.35	0.194	0.068	1.396	0.008	0.034	0.702	7.854
3	0.55	0.214	0.078	1.584	0.008	0.036	0.740	10.336
4	0.65	0.220	0.076	1.554	0.009	0.038	0.766	10.645
5	0.75	0.233	0.076	1.561	0.006	0.038	0.771	10.079
6	0.95	0.248	0.079	1.612	0.008	0.040	0.807	11.587
7	1.15	0.267	0.082	1.672	0.007	0.041	0.847	12.632
8	1.35	0.278	0.082	1.671	0.005	0.042	0.852	12.061
9	1.55	0.280	0.079	1.618	0.007	0.044	0.903	12.709
10	1.85	0.307	0.085	1.730	0.006	0.044	0.900	13.118
11	2.15	0.318	0.081	1.652	0.006	0.046	0.930	12.392
12	2.55	0.327	0.085	1.738	0.006	0.047	0.951	15.032
13	2.95	0.349	0.087	1.771	0.004	0.048	0.987	16.976
14	3.55	0.371	0.088	1.788	0.004	0.048	0.987	15.948
15	4.15	0.383	0.086	1.752	0.003	0.049	0.994	16.295
16	4.95	0.408	0.084	1.713	0.004	0.049	0.992	16.792
17	5.95	0.435	0.085	1.740	0.003	0.049	0.997	18.386
18	6.95	0.468	0.077	1.577	0.002	0.046	0.937	14.980
19	7.95	0.496	0.075	1.536	0.000	0.045	0.922	14.417
20	9.45	0.523	0.070	1.437	-0.002	0.041	0.845	11.156
21	10.95	0.563	0.052	1.068	-0.002	0.037	0.762	5.769
22	12.45	0.572	0.045	0.921	-0.005	0.034	0.695	2.593
23	13.95	0.570	0.042	0.866	-0.004	0.033	0.665	0.561
24	15.45	0.564	0.049	0.997	-0.003	0.037	0.763	0.088

PROFILE 1

Series: 2JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.52	0.35	0.442	100424	0.051	0.051	0.579

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.280	0.081	1.602	0.008	0.037	0.739	8.810
2	0.30	0.300	0.084	1.660	0.008	0.039	0.764	9.428
3	0.40	0.308	0.082	1.622	0.009	0.041	0.802	10.729
4	0.50	0.336	0.085	1.670	0.006	0.042	0.827	12.397
5	0.60	0.346	0.087	1.721	0.007	0.043	0.853	14.209
6	0.70	0.360	0.088	1.746	0.007	0.044	0.869	15.065
7	0.90	0.372	0.089	1.751	0.007	0.044	0.866	14.947
8	1.10	0.397	0.089	1.760	0.007	0.047	0.922	18.086
9	1.30	0.412	0.091	1.796	0.008	0.048	0.947	19.390
10	1.60	0.422	0.087	1.715	0.009	0.047	0.922	17.508
11	1.90	0.452	0.087	1.721	0.006	0.049	0.963	20.881
12	2.30	0.467	0.085	1.682	0.007	0.048	0.948	18.848
13	2.90	0.494	0.086	1.695	0.008	0.050	0.986	20.586
14	3.50	0.529	0.080	1.578	0.004	0.048	0.939	18.348
15	4.20	0.551	0.076	1.492	0.004	0.047	0.933	17.124
16	5.20	0.582	0.073	1.443	0.002	0.045	0.886	15.162
17	6.20	0.608	0.071	1.396	0.001	0.044	0.864	14.399
18	7.20	0.643	0.066	1.304	-0.001	0.041	0.800	11.296
19	8.20	0.671	0.061	1.200	-0.004	0.037	0.734	9.166
20	9.70	0.704	0.051	1.007	-0.006	0.033	0.651	6.458
21	11.20	0.736	0.041	0.815	-0.012	0.028	0.558	4.107
22	12.70	0.759	0.033	0.650	-0.017	0.025	0.483	1.505
23	14.20	0.768	0.028	0.555	-0.025	0.023	0.450	-0.037
24	15.70	0.768	0.038	0.746	-0.033	0.025	0.500	-0.817

PROFILE 2

Series: 2JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.96	0.39	0.382	90124	0.055	0.055	0.507			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.15	0.184	0.087	1.575	0.006	0.045	0.813	18.668	
2	0.25	0.202	0.090	1.632	0.006	0.043	0.772	16.312	
3	0.35	0.243	0.097	1.758	0.005	0.045	0.814	16.696	
4	0.45	0.247	0.094	1.696	0.006	0.045	0.812	16.314	
5	0.55	0.248	0.093	1.690	0.007	0.045	0.809	16.554	
6	0.75	0.293	0.100	1.817	0.003	0.047	0.851	18.284	
7	0.95	0.310	0.100	1.812	0.004	0.050	0.902	19.974	
8	1.15	0.326	0.099	1.801	0.005	0.050	0.905	19.130	
9	1.45	0.335	0.098	1.779	0.006	0.051	0.920	20.317	
10	1.75	0.367	0.101	1.829	0.004	0.051	0.918	20.135	
11	2.25	0.406	0.100	1.815	0.003	0.051	0.930	23.042	
12	2.55	0.418	0.098	1.768	0.005	0.052	0.949	23.794	
13	3.15	0.450	0.092	1.660	0.003	0.051	0.928	20.768	
14	3.75	0.473	0.097	1.750	0.003	0.052	0.943	22.651	
15	4.55	0.499	0.090	1.639	0.004	0.049	0.896	20.325	
16	5.55	0.544	0.083	1.510	0.000	0.047	0.851	16.951	
17	6.55	0.576	0.082	1.483	-0.001	0.045	0.822	16.186	
18	7.55	0.593	0.075	1.356	-0.001	0.044	0.793	14.263	
19	8.55	0.625	0.068	1.234	-0.001	0.041	0.748	10.584	
20	10.05	0.664	0.056	1.017	-0.004	0.037	0.663	6.463	
21	11.55	0.679	0.051	0.929	0.000	0.037	0.671	4.778	
22	13.05	0.682	0.043	0.783	-0.002	0.035	0.629	0.956	
23	14.55	0.673	0.043	0.787	0.000	0.035	0.628	-1.594	
24	16.05	0.654	0.051	0.932	-0.010	0.040	0.732	-2.687	

PROFILE 3

Series: 2JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
17.95	0.425	0.351	82702	0.056	0.038	0.465		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.208	0.078	1.387	0.005	0.034	0.610	8.562
2	0.20	0.218	0.082	1.452	0.007	0.036	0.637	9.109
3	0.30	0.237	0.080	1.422	0.004	0.037	0.662	9.766
4	0.40	0.248	0.085	1.510	0.004	0.038	0.677	10.439
5	0.50	0.254	0.084	1.495	0.004	0.040	0.713	12.128
6	0.70	0.270	0.090	1.607	0.005	0.042	0.739	14.307
7	0.90	0.286	0.091	1.613	0.006	0.045	0.793	14.276
8	1.10	0.305	0.092	1.635	0.002	0.046	0.809	14.639
9	1.30	0.324	0.094	1.670	0.004	0.046	0.824	15.635
10	1.60	0.328	0.095	1.681	0.006	0.050	0.881	18.078
11	1.90	0.346	0.098	1.749	0.005	0.050	0.887	19.993
12	2.30	0.377	0.092	1.630	0.004	0.050	0.888	17.845
13	2.70	0.374	0.096	1.714	0.006	0.053	0.936	21.784
14	3.30	0.397	0.096	1.702	0.006	0.054	0.963	23.562
15	3.90	0.441	0.093	1.644	0.003	0.052	0.917	19.382
16	4.70	0.474	0.086	1.530	-0.001	0.051	0.901	19.221
17	5.70	0.499	0.088	1.563	0.001	0.050	0.889	20.585
18	6.70	0.538	0.085	1.507	-0.001	0.049	0.875	18.294
19	7.70	0.557	0.076	1.347	-0.001	0.046	0.809	13.856
20	8.70	0.585	0.074	1.316	-0.001	0.044	0.790	13.161
21	10.20	0.626	0.059	1.057	-0.002	0.039	0.693	8.065
22	11.70	0.641	0.052	0.916	-0.001	0.036	0.640	4.847
23	13.20	0.645	0.044	0.786	-0.003	0.034	0.612	0.219
24	14.70	0.636	0.048	0.861	0.004	0.034	0.597	-2.658
25	16.20	0.621	0.056	0.994	0.006	0.038	0.680	-4.062

PROFILE 4

Series: 2JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
18.09	0.46	0.32	76410	0.053	0.042	0.427		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.25	0.191	0.074	1.405	0.010	0.034	0.638	8.668
2	0.35	0.212	0.073	1.391	0.010	0.036	0.684	8.283
3	0.45	0.211	0.077	1.455	0.010	0.037	0.696	10.330
4	0.55	0.227	0.079	1.495	0.010	0.037	0.709	9.781
5	0.65	0.243	0.082	1.548	0.010	0.039	0.737	11.661
6	0.75	0.243	0.087	1.644	0.009	0.038	0.714	11.167
7	0.95	0.261	0.083	1.577	0.008	0.041	0.782	12.519
8	1.15	0.276	0.083	1.577	0.007	0.042	0.803	12.802
9	1.35	0.297	0.091	1.732	0.009	0.046	0.863	14.505
10	1.55	0.302	0.091	1.727	0.005	0.046	0.864	14.817
11	1.85	0.317	0.089	1.688	0.006	0.047	0.897	14.826
12	2.15	0.335	0.089	1.692	0.007	0.050	0.942	16.426
13	2.55	0.336	0.088	1.665	0.007	0.050	0.949	16.168
14	2.95	0.360	0.093	1.764	0.006	0.050	0.950	18.098
15	3.55	0.387	0.086	1.634	0.001	0.052	0.978	17.849
16	4.15	0.415	0.091	1.715	0.004	0.051	0.962	19.009
17	4.95	0.431	0.091	1.728	0.004	0.051	0.962	20.062
18	5.95	0.458	0.091	1.723	0.004	0.052	0.990	21.793
19	6.95	0.501	0.081	1.540	-0.001	0.048	0.906	17.088
20	7.95	0.526	0.084	1.583	0.002	0.046	0.880	16.806
21	8.95	0.547	0.078	1.475	-0.001	0.046	0.865	15.002
22	10.45	0.581	0.062	1.177	0.001	0.043	0.806	9.609
23	11.95	0.594	0.054	1.024	-0.001	0.039	0.748	5.274
24	13.45	0.611	0.046	0.861	-0.001	0.034	0.650	0.166
25	14.95	0.598	0.047	0.891	0.003	0.035	0.654	-0.885
26	16.45	0.591	0.056	1.055	0.007	0.038	0.722	-3.488

PROFILE 1

Series: 2KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.77	0.35	0.39	90523	0.047	0.046	0.515

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.245	0.073	1.556	0.005	0.034	0.720	8.097
2	0.30	0.260	0.074	1.583	0.006	0.035	0.749	8.791
3	0.40	0.285	0.077	1.646	0.004	0.036	0.777	9.749
4	0.50	0.297	0.076	1.634	0.005	0.037	0.800	9.466
5	0.60	0.300	0.078	1.670	0.005	0.037	0.792	10.103
6	0.70	0.308	0.077	1.653	0.008	0.038	0.815	10.349
7	0.90	0.338	0.081	1.731	0.005	0.039	0.841	11.849
8	1.10	0.351	0.083	1.772	0.009	0.041	0.887	13.551
9	1.30	0.361	0.082	1.747	0.007	0.043	0.921	14.859
10	1.60	0.382	0.080	1.722	0.009	0.042	0.910	14.238
11	1.90	0.396	0.083	1.780	0.009	0.044	0.939	16.474
12	2.20	0.414	0.077	1.654	0.009	0.044	0.937	14.866
13	2.90	0.438	0.076	1.631	0.009	0.044	0.936	16.111
14	3.50	0.464	0.074	1.582	0.009	0.045	0.955	16.727
15	4.20	0.492	0.070	1.498	0.006	0.043	0.920	14.435
16	5.20	0.521	0.067	1.445	0.004	0.040	0.853	12.960
17	6.20	0.547	0.063	1.341	0.004	0.039	0.839	11.798
18	7.20	0.571	0.060	1.277	0.004	0.037	0.788	9.994
19	8.70	0.613	0.053	1.145	0.003	0.032	0.694	8.107
20	10.20	0.642	0.045	0.975	0.003	0.029	0.626	5.709
21	11.70	0.672	0.033	0.708	0.002	0.024	0.511	2.410
22	13.20	0.692	0.028	0.602	0.002	0.023	0.502	1.937
23	14.70	0.692	0.030	0.633	0.012	0.022	0.474	0.359
24	16.20	0.699	0.039	0.829	0.015	0.033	0.704	1.533

PROFILE 2

Series:
2KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
17.87	0.39	0.347	81239	0.049	0.049	0.459		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.05	0.141	0.072	1.456	0.004	0.041	0.830	15.903
2	0.15	0.161	0.074	1.500	0.005	0.041	0.822	14.877
3	0.25	0.191	0.081	1.636	0.003	0.039	0.785	13.896
4	0.35	0.202	0.084	1.710	0.004	0.039	0.788	13.418
5	0.45	0.228	0.086	1.737	0.003	0.040	0.806	13.830
6	0.55	0.243	0.086	1.750	0.003	0.041	0.829	13.823
7	0.75	0.254	0.084	1.697	0.004	0.041	0.826	12.896
8	0.95	0.278	0.088	1.790	0.003	0.043	0.866	13.754
9	1.15	0.293	0.091	1.854	0.005	0.044	0.883	14.911
10	1.45	0.319	0.086	1.751	0.004	0.045	0.914	15.380
11	1.75	0.336	0.084	1.699	0.005	0.045	0.905	14.373
12	2.15	0.351	0.092	1.864	0.005	0.046	0.930	16.185
13	2.55	0.375	0.091	1.839	0.004	0.046	0.936	17.324
14	3.15	0.401	0.086	1.753	0.003	0.048	0.972	17.811
15	3.75	0.419	0.085	1.727	0.005	0.047	0.957	17.356
16	4.55	0.459	0.076	1.549	0.001	0.046	0.923	14.143
17	5.55	0.485	0.076	1.538	0.000	0.043	0.876	14.887
18	6.55	0.511	0.073	1.489	0.001	0.041	0.822	12.968
19	7.55	0.534	0.069	1.404	0.001	0.041	0.826	12.392
20	9.05	0.577	0.062	1.266	-0.001	0.036	0.723	9.553
21	10.55	0.599	0.051	1.039	-0.003	0.033	0.674	5.732
22	12.05	0.619	0.044	0.898	-0.003	0.031	0.637	2.649
23	13.55	0.622	0.040	0.805	-0.004	0.031	0.621	-0.284
24	15.05	0.615	0.043	0.864	-0.004	0.031	0.626	-1.546
25	16.55	0.597	0.050	1.023	0.004	0.037	0.744	-1.574

PROFILE 3

Series: 2KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.79	0.425	0.32	74549	0.050	0.036	0.423

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.10	0.182	0.069	1.386	0.004	0.030	0.603	6.493
2	0.20	0.194	0.069	1.383	0.005	0.032	0.640	7.583
3	0.30	0.216	0.071	1.424	0.004	0.035	0.692	8.242
4	0.40	0.227	0.075	1.501	0.003	0.035	0.702	8.257
5	0.50	0.227	0.076	1.517	0.003	0.036	0.713	8.893
6	0.70	0.242	0.078	1.550	0.004	0.037	0.745	10.078
7	0.90	0.260	0.083	1.660	0.005	0.040	0.796	11.438
8	1.10	0.278	0.086	1.711	0.002	0.041	0.813	11.854
9	1.30	0.282	0.082	1.640	0.003	0.044	0.872	13.702
10	1.60	0.301	0.086	1.727	0.004	0.043	0.862	12.909
11	1.90	0.312	0.086	1.714	0.005	0.046	0.926	14.763
12	2.30	0.334	0.087	1.733	0.003	0.047	0.933	15.398
13	2.70	0.345	0.086	1.721	0.007	0.046	0.922	14.545
14	3.30	0.369	0.083	1.664	0.003	0.048	0.954	16.164
15	3.90	0.373	0.091	1.814	0.006	0.049	0.969	18.628
16	4.70	0.424	0.085	1.705	0.001	0.046	0.922	16.461
17	5.70	0.452	0.080	1.608	-0.001	0.045	0.904	15.368
18	6.70	0.469	0.079	1.574	0.001	0.044	0.884	14.850
19	7.70	0.501	0.071	1.415	0.001	0.042	0.846	13.133
20	9.20	0.536	0.065	1.296	0.000	0.039	0.783	10.964
21	10.70	0.570	0.051	1.021	-0.004	0.035	0.694	5.937
22	12.20	0.582	0.043	0.849	-0.004	0.032	0.636	2.315
23	13.70	0.584	0.040	0.806	-0.004	0.030	0.605	0.137
24	15.20	0.578	0.044	0.885	-0.004	0.032	0.630	-1.302

PROFILE 4

Series: 2KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.91	0.46	0.293	68876	0.046	0.039	0.388			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.25	0.178	0.069	1.490	0.008	0.031	0.671	7.312	
2	0.35	0.174	0.070	1.507	0.010	0.031	0.676	8.135	
3	0.45	0.191	0.069	1.482	0.007	0.033	0.723	8.293	
4	0.55	0.203	0.070	1.503	0.007	0.034	0.737	7.948	
5	0.65	0.215	0.075	1.619	0.008	0.036	0.769	9.263	
6	0.75	0.211	0.073	1.569	0.008	0.036	0.774	9.621	
7	0.95	0.230	0.076	1.643	0.008	0.037	0.805	10.189	
8	1.15	0.239	0.076	1.637	0.007	0.040	0.859	11.460	
9	1.35	0.273	0.077	1.656	0.004	0.041	0.887	10.171	
10	1.55	0.270	0.077	1.672	0.007	0.041	0.886	11.066	
11	1.85	0.270	0.079	1.709	0.009	0.042	0.905	11.792	
12	2.15	0.297	0.083	1.790	0.006	0.043	0.933	13.392	
13	2.55	0.311	0.078	1.675	0.003	0.045	0.972	11.946	
14	2.95	0.329	0.080	1.738	0.005	0.046	0.985	14.022	
15	3.55	0.348	0.079	1.715	0.005	0.046	0.998	12.777	
16	4.15	0.370	0.084	1.820	0.003	0.046	0.990	16.598	
17	4.95	0.390	0.076	1.644	0.002	0.047	1.006	14.088	
18	5.95	0.425	0.073	1.566	0.001	0.046	0.997	14.922	
19	6.95	0.436	0.079	1.707	0.004	0.044	0.960	14.923	
20	7.95	0.460	0.074	1.593	0.002	0.042	0.915	13.224	
21	9.45	0.499	0.065	1.401	0.000	0.040	0.870	10.612	
22	10.95	0.534	0.052	1.131	-0.002	0.036	0.771	5.754	
23	12.45	0.548	0.044	0.943	-0.003	0.034	0.744	3.765	
24	13.95	0.548	0.041	0.891	-0.003	0.032	0.694	1.055	
25	15.45	0.542	0.042	0.900	-0.006	0.030	0.655	-0.139	

PROFILE 1

Series: 2LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.55	0.35	0.405	100424	0.051	0.050	0.547

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.267	0.077	1.510	0.007	0.036	0.703	8.671
2	0.30	0.279	0.080	1.567	0.007	0.038	0.743	9.762
3	0.40	0.302	0.084	1.649	0.008	0.040	0.786	11.128
4	0.50	0.313	0.085	1.664	0.008	0.039	0.775	10.508
5	0.70	0.342	0.088	1.721	0.009	0.042	0.832	13.625
6	0.90	0.356	0.088	1.727	0.009	0.043	0.852	15.169
7	1.10	0.383	0.085	1.666	0.009	0.045	0.895	15.220
8	1.30	0.385	0.085	1.679	0.010	0.046	0.906	16.241
9	1.60	0.406	0.087	1.716	0.011	0.047	0.932	18.545
10	1.90	0.429	0.089	1.745	0.011	0.047	0.917	19.127
11	2.20	0.448	0.085	1.678	0.008	0.047	0.932	19.872
12	2.80	0.473	0.086	1.683	0.008	0.047	0.929	19.313
13	3.40	0.501	0.082	1.616	0.008	0.047	0.922	18.434
14	4.20	0.523	0.077	1.509	0.008	0.045	0.886	16.387
15	5.20	0.560	0.072	1.426	0.007	0.044	0.864	15.323
16	6.20	0.586	0.071	1.400	0.005	0.044	0.861	14.667
17	7.20	0.619	0.064	1.255	0.004	0.040	0.786	11.593
18	8.70	0.653	0.056	1.098	0.003	0.036	0.712	8.411
19	10.20	0.682	0.045	0.891	0.002	0.031	0.607	5.130
20	11.70	0.706	0.033	0.645	0.002	0.025	0.501	2.207
21	13.20	0.712	0.025	0.487	0.007	0.021	0.415	0.407
22	14.70	0.715	0.031	0.603	0.010	0.023	0.449	0.403
23	16.20	0.692	0.037	0.733	0.021	0.028	0.543	-1.115

PROFILE 2

Series: 2LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.17	0.39	0.375	90124	0.053	0.052	0.501			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.05	0.153	0.079	1.493	0.005	0.044	0.842	19.398	
2	0.15	0.186	0.085	1.623	0.004	0.044	0.845	19.226	
3	0.25	0.197	0.088	1.682	0.005	0.043	0.813	17.768	
4	0.35	0.226	0.088	1.677	0.004	0.043	0.812	16.530	
5	0.45	0.241	0.087	1.653	0.005	0.042	0.798	14.361	
6	0.55	0.262	0.094	1.792	0.005	0.046	0.866	16.690	
7	0.75	0.275	0.094	1.785	0.004	0.045	0.856	16.928	
8	0.95	0.300	0.092	1.755	0.006	0.047	0.893	16.461	
9	1.15	0.309	0.094	1.794	0.004	0.047	0.895	17.325	
10	1.45	0.339	0.100	1.897	0.005	0.049	0.923	20.333	
11	1.75	0.352	0.094	1.792	0.006	0.049	0.934	17.257	
12	2.15	0.377	0.098	1.869	0.008	0.050	0.944	19.879	
13	2.55	0.406	0.095	1.804	0.004	0.049	0.935	19.263	
14	3.15	0.435	0.091	1.722	0.004	0.050	0.950	18.822	
15	3.75	0.471	0.085	1.615	0.001	0.048	0.919	18.456	
16	4.55	0.488	0.083	1.581	0.002	0.047	0.896	17.744	
17	5.55	0.532	0.082	1.552	-0.001	0.045	0.852	16.367	
18	6.55	0.557	0.075	1.430	-0.002	0.042	0.806	14.957	
19	7.55	0.585	0.067	1.281	-0.003	0.041	0.775	11.192	
20	8.55	0.610	0.061	1.166	-0.005	0.037	0.709	8.498	
21	10.05	0.635	0.051	0.961	-0.006	0.035	0.665	4.953	
22	11.55	0.650	0.041	0.789	-0.007	0.032	0.606	2.027	
23	13.05	0.648	0.038	0.715	-0.009	0.030	0.576	-0.260	
24	14.55	0.638	0.041	0.786	-0.012	0.029	0.558	-1.644	
25	16.05	0.622	0.044	0.838	-0.010	0.032	0.600	-1.069	

PROFILE 3

Series: 2LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.49	0.425	0.335	82702	0.054	0.039	0.452			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.10	0.207	0.073	1.343	0.003	0.033	0.599	6.966	
2	0.20	0.223	0.075	1.382	0.004	0.034	0.628	7.557	
3	0.30	0.225	0.078	1.434	0.004	0.035	0.651	8.943	
4	0.40	0.235	0.082	1.501	0.005	0.037	0.673	9.387	
5	0.50	0.234	0.077	1.422	0.007	0.038	0.698	9.552	
6	0.70	0.273	0.083	1.523	0.003	0.040	0.743	11.036	
7	0.90	0.292	0.088	1.623	0.003	0.044	0.811	14.415	
8	1.10	0.292	0.089	1.639	0.005	0.045	0.820	15.139	
9	1.30	0.301	0.091	1.676	0.004	0.044	0.811	15.732	
10	1.60	0.332	0.092	1.686	0.003	0.046	0.846	16.424	
11	1.90	0.340	0.092	1.693	0.006	0.048	0.881	16.997	
12	2.30	0.370	0.089	1.639	0.004	0.050	0.923	19.206	
13	2.70	0.376	0.094	1.729	0.004	0.049	0.909	18.261	
14	3.30	0.395	0.089	1.632	0.005	0.051	0.939	19.891	
15	3.90	0.428	0.090	1.661	0.003	0.051	0.930	19.378	
16	4.70	0.461	0.086	1.578	0.001	0.050	0.916	19.144	
17	5.70	0.487	0.083	1.527	-0.001	0.047	0.861	16.379	
18	6.70	0.521	0.077	1.414	-0.002	0.044	0.812	13.919	
19	7.70	0.535	0.077	1.409	-0.001	0.043	0.798	13.830	
20	8.70	0.562	0.069	1.267	-0.001	0.040	0.739	10.622	
21	10.20	0.600	0.051	0.946	-0.004	0.036	0.654	5.135	
22	11.70	0.607	0.042	0.773	-0.005	0.032	0.594	2.175	
23	13.20	0.609	0.038	0.708	-0.006	0.030	0.556	-0.897	
24	14.70	0.598	0.040	0.739	-0.008	0.031	0.568	-1.257	
25	16.20	0.585	0.046	0.846	-0.009	0.032	0.595	-1.460	

PROFILE 4

Series: 2LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.64	0.46	0.306	76410	0.051	0.042	0.414			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.25	0.175	0.071	1.399	0.010	0.032	0.638	7.944	
2	0.35	0.196	0.073	1.433	0.010	0.034	0.678	9.187	
3	0.45	0.208	0.073	1.433	0.009	0.036	0.699	9.401	
4	0.55	0.228	0.080	1.574	0.008	0.037	0.735	11.259	
5	0.65	0.235	0.074	1.460	0.010	0.038	0.739	9.241	
6	0.75	0.231	0.079	1.554	0.008	0.037	0.735	10.105	
7	0.95	0.252	0.080	1.574	0.009	0.040	0.785	10.964	
8	1.15	0.262	0.079	1.555	0.010	0.041	0.801	10.688	
9	1.35	0.278	0.081	1.593	0.008	0.042	0.833	11.612	
10	1.55	0.303	0.086	1.685	0.005	0.044	0.868	13.525	
11	1.85	0.297	0.086	1.702	0.006	0.045	0.883	14.478	
12	2.15	0.326	0.089	1.744	0.006	0.047	0.921	16.458	
13	2.55	0.342	0.086	1.693	0.004	0.048	0.955	16.874	
14	2.95	0.340	0.086	1.696	0.006	0.047	0.927	15.632	
15	3.55	0.374	0.088	1.737	0.005	0.049	0.963	16.308	
16	4.15	0.386	0.083	1.626	0.008	0.048	0.954	15.019	
17	4.95	0.426	0.084	1.662	0.005	0.049	0.959	17.532	
18	5.95	0.453	0.084	1.653	0.002	0.049	0.957	17.884	
19	6.95	0.494	0.072	1.423	0.001	0.044	0.874	13.182	
20	7.95	0.506	0.072	1.424	0.001	0.045	0.890	13.938	
21	8.95	0.532	0.069	1.363	-0.001	0.042	0.831	10.570	
22	10.45	0.554	0.059	1.158	-0.001	0.039	0.771	7.498	
23	11.95	0.573	0.046	0.915	-0.002	0.034	0.675	2.399	
24	13.45	0.570	0.043	0.849	-0.003	0.032	0.623	0.097	
25	14.95	0.559	0.043	0.855	-0.004	0.031	0.609	-2.295	
26	16.45	0.545	0.047	0.928	-0.003	0.032	0.626	-1.049	

5.3.3 Set-up 3 ($\alpha = 7^\circ$)

PROFILE 1

Series: 3AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.14	0.35	0.474	62235	0.048	0.058	0.518

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.264	0.071	1.478	0.014	0.034	0.705	4.595
2	0.30	0.279	0.080	1.664	0.013	0.035	0.730	6.570
3	0.40	0.292	0.081	1.684	0.011	0.037	0.769	8.897
4	0.50	0.311	0.081	1.688	0.011	0.038	0.794	9.763
5	0.60	0.332	0.085	1.765	0.010	0.040	0.825	11.156
6	0.70	0.346	0.084	1.753	0.010	0.041	0.853	12.675
7	0.90	0.376	0.087	1.803	0.008	0.043	0.898	15.391
8	1.10	0.394	0.086	1.781	0.008	0.043	0.885	14.945
9	1.30	0.412	0.084	1.734	0.006	0.044	0.919	16.291
10	1.60	0.430	0.085	1.762	0.005	0.046	0.961	18.811
11	1.90	0.450	0.083	1.724	0.006	0.044	0.920	17.499
12	2.30	0.464	0.080	1.652	0.005	0.045	0.941	17.197
13	2.90	0.496	0.078	1.611	0.003	0.045	0.942	17.636
14	3.50	0.525	0.071	1.464	-0.001	0.042	0.872	13.651
15	4.20	0.549	0.069	1.441	-0.001	0.041	0.857	12.854
16	5.20	0.581	0.066	1.369	-0.001	0.038	0.795	11.458
17	6.20	0.607	0.057	1.180	0.000	0.036	0.738	8.196
18	7.20	0.627	0.052	1.082	-0.002	0.034	0.700	6.781
19	8.70	0.650	0.042	0.867	-0.001	0.030	0.624	2.519
20	10.20	0.643	0.036	0.748	-0.004	0.031	0.640	-0.253
21	11.20	0.640	0.039	0.815	0.012	0.030	0.626	-3.579

PROFILE 2

Series: 3AR

H	B	Fr	Re	u* ₁	u* ₂	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.6	0.4	0.393	54455	0.050	0.057	0.437			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.95	0.292	0.088	1.754	0.000	0.042	0.840	13.897	
2	1.05	0.295	0.088	1.768	0.000	0.044	0.877	13.835	
3	1.15	0.315	0.089	1.779	0.000	0.044	0.879	14.516	
4	1.25	0.319	0.090	1.810	0.000	0.044	0.888	15.934	
5	1.35	0.317	0.089	1.788	0.000	0.046	0.913	16.484	
6	1.45	0.328	0.097	1.947	0.000	0.045	0.910	17.564	
7	1.65	0.347	0.093	1.864	0.000	0.045	0.908	17.137	
8	1.85	0.361	0.090	1.805	0.000	0.046	0.927	16.552	
9	2.05	0.377	0.090	1.807	-0.003	0.046	0.922	16.672	
10	2.35	0.394	0.090	1.794	-0.001	0.046	0.919	17.297	
11	2.65	0.404	0.090	1.810	0.000	0.047	0.944	19.438	
12	3.05	0.437	0.085	1.698	-0.004	0.045	0.899	16.057	
13	3.65	0.455	0.081	1.621	-0.002	0.044	0.871	15.572	
14	4.25	0.487	0.075	1.506	-0.003	0.043	0.854	15.111	
15	4.95	0.510	0.068	1.356	-0.004	0.040	0.801	11.310	
16	5.95	0.541	0.065	1.302	-0.004	0.038	0.757	9.991	
17	6.95	0.565	0.055	1.095	-0.005	0.033	0.669	6.844	
18	7.95	0.587	0.047	0.931	-0.005	0.030	0.594	4.125	
19	9.45	0.596	0.041	0.824	-0.004	0.029	0.577	2.411	
20	10.95	0.592	0.034	0.672	-0.013	0.026	0.518	0.354	

PROFILE 3

Series: 3AR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.75	0.45	0.343	48405	0.049	0.047	0.383			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.208	0.072	1.476	0.000	0.034	0.707	9.746	
2	0.52	0.223	0.071	1.453	-0.001	0.035	0.722	8.165	
3	0.62	0.230	0.072	1.489	-0.001	0.036	0.733	9.190	
4	0.72	0.237	0.074	1.519	-0.001	0.036	0.749	9.857	
5	0.82	0.253	0.074	1.529	-0.001	0.037	0.771	9.525	
6	0.92	0.256	0.077	1.595	0.000	0.038	0.785	10.680	
7	1.02	0.270	0.080	1.657	-0.001	0.040	0.833	12.310	
8	1.22	0.284	0.086	1.772	0.000	0.041	0.846	12.892	
9	1.42	0.294	0.080	1.643	-0.001	0.043	0.882	12.439	
10	1.62	0.317	0.085	1.754	-0.003	0.044	0.902	14.871	
11	1.92	0.324	0.083	1.718	0.000	0.045	0.925	15.807	
12	2.22	0.348	0.083	1.716	-0.003	0.044	0.915	14.327	
13	2.62	0.371	0.082	1.693	-0.003	0.046	0.942	14.706	
14	3.02	0.378	0.084	1.721	0.000	0.046	0.955	16.012	
15	3.62	0.403	0.084	1.730	-0.001	0.046	0.942	15.993	
16	4.22	0.434	0.084	1.725	-0.002	0.045	0.919	17.017	
17	5.02	0.467	0.072	1.474	-0.005	0.043	0.881	12.718	
18	6.02	0.494	0.069	1.428	-0.006	0.040	0.819	10.274	
19	7.02	0.513	0.064	1.322	-0.006	0.038	0.791	9.937	
20	8.02	0.536	0.054	1.116	-0.006	0.034	0.690	5.903	
21	9.52	0.558	0.038	0.788	-0.006	0.029	0.607	2.194	
22	11.02	0.558	0.036	0.738	-0.006	0.027	0.565	-0.148	

PROFILE 1

Series: 3BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.02	0.35	0.438	56577	0.042	0.052	0.475			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.243	0.064	1.514	0.013	0.031	0.739	4.517	
2	0.30	0.255	0.069	1.642	0.011	0.032	0.756	5.540	
3	0.40	0.276	0.070	1.672	0.009	0.033	0.793	6.395	
4	0.50	0.287	0.074	1.747	0.009	0.034	0.811	8.298	
5	0.60	0.303	0.074	1.755	0.009	0.035	0.842	8.779	
6	0.70	0.320	0.072	1.714	0.007	0.036	0.858	9.140	
7	0.90	0.334	0.076	1.800	0.008	0.038	0.898	10.515	
8	1.10	0.364	0.078	1.862	0.004	0.040	0.950	12.684	
9	1.30	0.368	0.080	1.905	0.006	0.039	0.932	13.086	
10	1.60	0.399	0.077	1.824	0.003	0.041	0.964	13.911	
11	1.90	0.405	0.076	1.801	0.004	0.041	0.973	13.144	
12	2.30	0.443	0.072	1.722	-0.001	0.039	0.938	13.183	
13	2.90	0.456	0.070	1.665	0.000	0.040	0.950	12.821	
14	3.50	0.481	0.068	1.606	-0.002	0.038	0.912	12.595	
15	4.20	0.508	0.061	1.460	-0.005	0.037	0.881	10.345	
16	5.20	0.542	0.055	1.300	-0.008	0.032	0.769	7.169	
17	6.20	0.557	0.052	1.225	-0.007	0.032	0.753	6.835	
18	7.20	0.577	0.041	0.973	-0.010	0.029	0.680	3.864	
19	8.70	0.597	0.030	0.721	-0.012	0.025	0.596	1.485	
20	10.20	0.594	0.030	0.706	-0.018	0.023	0.554	0.676	

PROFILE 2

Series: 3BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.73	0.4	0.351	49505	0.045	0.055	0.393

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.95	0.268	0.082	1.809	0.000	0.040	0.879	12.651
2	1.05	0.278	0.078	1.736	0.000	0.040	0.878	12.566
3	1.15	0.289	0.080	1.768	-0.001	0.040	0.878	12.183
4	1.25	0.288	0.080	1.771	0.000	0.040	0.878	11.067
5	1.35	0.304	0.080	1.761	-0.001	0.040	0.876	12.486
6	1.45	0.308	0.081	1.786	-0.001	0.040	0.880	12.022
7	1.65	0.315	0.084	1.867	-0.001	0.041	0.916	14.170
8	1.85	0.336	0.081	1.799	-0.003	0.041	0.917	14.235
9	2.05	0.353	0.076	1.675	-0.001	0.041	0.916	12.194
10	2.35	0.368	0.080	1.778	-0.003	0.041	0.911	13.016
11	2.65	0.386	0.076	1.690	-0.003	0.041	0.901	13.061
12	3.05	0.397	0.078	1.731	-0.003	0.040	0.878	13.469
13	3.65	0.427	0.075	1.653	-0.004	0.039	0.874	13.666
14	4.25	0.447	0.070	1.547	-0.004	0.037	0.822	11.321
15	4.95	0.465	0.066	1.454	-0.004	0.036	0.799	10.438
16	5.95	0.498	0.059	1.316	-0.006	0.033	0.733	8.395
17	6.95	0.516	0.049	1.076	-0.007	0.030	0.667	5.180
18	7.95	0.532	0.043	0.941	-0.006	0.027	0.602	3.590
19	9.45	0.550	0.032	0.699	-0.007	0.024	0.523	0.858
20	10.95	0.543	0.030	0.662	-0.008	0.024	0.526	0.120

PROFILE 3

Series: 3BR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13	0.45	0.303	44004	0.042	0.037	0.342			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.207	0.066	1.577	-0.002	0.032	0.764	7.621	
2	0.52	0.208	0.065	1.540	-0.001	0.032	0.768	7.235	
3	0.62	0.224	0.067	1.606	-0.001	0.033	0.792	7.980	
4	0.72	0.225	0.068	1.627	0.001	0.033	0.791	7.624	
5	0.82	0.243	0.072	1.719	-0.002	0.035	0.834	9.939	
6	0.92	0.237	0.072	1.717	0.001	0.036	0.865	9.583	
7	1.02	0.248	0.070	1.672	0.000	0.035	0.847	8.691	
8	1.22	0.271	0.075	1.792	-0.001	0.037	0.893	10.403	
9	1.42	0.268	0.077	1.847	0.002	0.038	0.919	10.981	
10	1.62	0.288	0.074	1.772	0.001	0.039	0.920	10.661	
11	1.92	0.299	0.071	1.696	-0.001	0.039	0.925	9.926	
12	2.22	0.314	0.070	1.678	-0.002	0.040	0.950	10.195	
13	2.62	0.336	0.074	1.766	-0.003	0.041	0.978	11.387	
14	3.02	0.353	0.074	1.775	-0.001	0.041	0.982	11.995	
15	3.62	0.373	0.072	1.727	-0.001	0.040	0.961	11.079	
16	4.22	0.389	0.073	1.747	-0.003	0.041	0.979	12.146	
17	5.02	0.419	0.065	1.563	-0.004	0.038	0.918	10.028	
18	6.02	0.455	0.059	1.413	-0.004	0.036	0.849	8.245	
19	7.02	0.471	0.056	1.327	-0.003	0.033	0.798	7.748	
20	8.02	0.495	0.043	1.036	-0.006	0.029	0.690	3.588	
21	9.52	0.510	0.036	0.864	-0.005	0.025	0.597	1.621	
22	11.02	0.509	0.033	0.789	-0.003	0.023	0.560	0.021	

PROFILE 1

Series: 3CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.87	0.35	0.454	65064	0.049	0.058	0.511			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.263	0.078	1.577	0.016	0.035	0.701	5.991	
2	0.30	0.287	0.080	1.626	0.013	0.037	0.750	8.057	
3	0.40	0.303	0.082	1.670	0.012	0.038	0.771	9.263	
4	0.50	0.327	0.084	1.711	0.011	0.040	0.809	10.325	
5	0.60	0.334	0.086	1.738	0.011	0.041	0.829	11.724	
6	0.70	0.359	0.084	1.712	0.010	0.043	0.862	13.836	
7	0.90	0.370	0.086	1.748	0.011	0.044	0.884	15.158	
8	1.10	0.399	0.089	1.797	0.009	0.045	0.908	17.448	
9	1.30	0.416	0.085	1.726	0.008	0.044	0.898	17.106	
10	1.60	0.448	0.086	1.736	0.004	0.044	0.891	16.831	
11	1.90	0.460	0.087	1.763	0.004	0.045	0.918	19.214	
12	2.30	0.477	0.083	1.686	0.005	0.045	0.902	18.252	
13	2.90	0.509	0.079	1.606	0.003	0.045	0.922	16.869	
14	3.50	0.530	0.075	1.511	0.002	0.045	0.905	15.738	
15	4.20	0.563	0.070	1.410	0.001	0.042	0.844	13.258	
16	5.20	0.595	0.066	1.346	0.001	0.039	0.788	11.466	
17	6.20	0.630	0.060	1.226	0.000	0.037	0.743	9.543	
18	7.20	0.650	0.054	1.104	0.002	0.034	0.685	7.277	
19	8.70	0.677	0.042	0.843	0.005	0.030	0.606	3.094	
20	10.20	0.681	0.039	0.782	0.011	0.028	0.562	0.315	
21	11.70	0.672	0.042	0.843	0.024	0.027	0.552	-1.527	

PROFILE 2

Series: 3CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
13.29	0.4	0.379	56931	0.049	0.052	0.433

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.95	0.277	0.085	1.723	0.000	0.042	0.844	13.170
2	1.05	0.286	0.088	1.785	0.000	0.041	0.835	13.960
3	1.15	0.287	0.079	1.603	-0.001	0.041	0.822	12.034
4	1.25	0.302	0.083	1.680	0.001	0.041	0.824	12.148
5	1.35	0.314	0.080	1.608	-0.002	0.042	0.840	12.365
6	1.45	0.310	0.085	1.711	0.001	0.042	0.848	13.382
7	1.65	0.325	0.088	1.782	0.000	0.043	0.861	15.055
8	1.85	0.325	0.087	1.763	0.001	0.044	0.883	15.330
9	2.05	0.344	0.086	1.742	0.000	0.042	0.849	14.306
10	2.35	0.383	0.090	1.828	0.000	0.045	0.914	17.117
11	2.65	0.409	0.088	1.771	-0.001	0.047	0.942	17.323
12	3.05	0.432	0.085	1.728	-0.001	0.047	0.955	17.466
13	3.65	0.460	0.087	1.760	-0.004	0.046	0.923	17.402
14	4.25	0.464	0.077	1.551	-0.004	0.040	0.813	13.303
15	4.95	0.509	0.072	1.453	-0.005	0.042	0.848	13.375
16	5.95	0.552	0.065	1.307	-0.007	0.039	0.788	10.226
17	6.95	0.575	0.062	1.249	-0.008	0.036	0.734	8.416
18	7.95	0.600	0.051	1.023	-0.012	0.033	0.670	5.445
19	9.45	0.617	0.040	0.817	-0.013	0.030	0.599	2.322
20	10.95	0.616	0.036	0.731	-0.018	0.029	0.582	1.051
21	11.95	0.612	0.037	0.741	-0.023	0.031	0.621	-0.107

PROFILE 3

Series: 3CR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.4	0.45	0.333	50605	0.050	0.042	0.381			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.222	0.075	1.490	-0.001	0.037	0.734	10.287	
2	0.52	0.240	0.080	1.587	-0.001	0.037	0.736	10.396	
3	0.62	0.240	0.082	1.636	-0.001	0.038	0.756	10.912	
4	0.72	0.258	0.078	1.549	-0.002	0.039	0.784	10.359	
5	0.82	0.261	0.079	1.575	-0.001	0.040	0.804	11.110	
6	0.92	0.264	0.081	1.614	0.000	0.040	0.800	11.023	
7	1.02	0.282	0.085	1.704	-0.001	0.042	0.839	13.840	
8	1.22	0.282	0.085	1.695	0.001	0.044	0.867	13.396	
9	1.42	0.292	0.087	1.728	0.000	0.044	0.868	14.207	
10	1.62	0.318	0.084	1.670	0.000	0.045	0.903	14.633	
11	1.92	0.330	0.089	1.769	0.001	0.045	0.905	15.482	
12	2.22	0.352	0.083	1.651	-0.001	0.049	0.975	16.885	
13	2.62	0.360	0.089	1.775	0.000	0.047	0.938	17.397	
14	3.02	0.391	0.087	1.739	-0.001	0.047	0.944	17.106	
15	3.62	0.414	0.086	1.705	-0.002	0.046	0.927	16.972	
16	4.22	0.440	0.076	1.511	-0.004	0.045	0.899	14.634	
17	5.02	0.464	0.073	1.450	-0.004	0.043	0.847	13.615	
18	6.02	0.481	0.066	1.310	-0.005	0.039	0.775	11.087	
19	7.02	0.508	0.059	1.168	-0.006	0.035	0.702	7.781	
20	8.02	0.522	0.052	1.033	-0.005	0.033	0.652	6.299	
21	9.52	0.544	0.039	0.786	-0.008	0.027	0.544	2.170	
22	11.02	0.544	0.036	0.718	-0.005	0.027	0.529	1.118	

PROFILE 1

Series: 3DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
13.75	0.35	0.474	74965	0.05	0.056	0.551			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.272	0.077	1.539	0.016	0.035	0.705	4.638	
2	0.30	0.285	0.082	1.632	0.013	0.036	0.718	6.926	
3	0.40	0.302	0.082	1.627	0.011	0.038	0.767	8.951	
4	0.50	0.326	0.089	1.768	0.010	0.040	0.808	12.040	
5	0.60	0.336	0.088	1.764	0.010	0.042	0.829	12.989	
6	0.70	0.353	0.090	1.794	0.008	0.044	0.869	14.540	
7	0.90	0.379	0.088	1.754	0.008	0.045	0.895	16.037	
8	1.10	0.390	0.093	1.861	0.009	0.045	0.907	18.245	
9	1.30	0.423	0.090	1.798	0.003	0.046	0.912	18.341	
10	1.60	0.429	0.088	1.751	0.006	0.047	0.933	17.956	
11	1.90	0.456	0.088	1.760	0.005	0.047	0.937	18.176	
12	2.30	0.478	0.085	1.698	0.003	0.048	0.961	19.220	
13	2.90	0.511	0.080	1.598	-0.001	0.048	0.950	17.880	
14	3.50	0.524	0.083	1.663	0.000	0.047	0.937	18.515	
15	4.20	0.561	0.077	1.539	-0.003	0.045	0.901	16.611	
16	5.20	0.593	0.074	1.474	-0.007	0.044	0.884	14.693	
17	6.20	0.629	0.067	1.328	-0.008	0.041	0.822	12.002	
18	7.20	0.656	0.063	1.260	-0.012	0.037	0.748	9.353	
19	8.70	0.689	0.054	1.073	-0.018	0.035	0.700	6.847	
20	10.20	0.722	0.044	0.879	-0.026	0.031	0.613	3.794	
21	11.70	0.730	0.039	0.784	-0.038	0.027	0.534	1.553	
22	12.70	0.722	0.044	0.885	-0.043	0.029	0.580	1.071	

PROFILE 2

Series: 3DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
14.39	0.4	0.387	65594	0.053	0.069	0.46

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.95	0.283	0.093	1.752	0.001	0.045	0.845	15.626
2	1.05	0.289	0.095	1.783	0.001	0.045	0.849	15.408
3	1.15	0.318	0.098	1.851	0.000	0.047	0.893	19.453
4	1.25	0.309	0.098	1.853	0.002	0.048	0.896	18.586
5	1.35	0.322	0.099	1.872	0.001	0.048	0.896	18.000
6	1.45	0.347	0.097	1.826	-0.002	0.048	0.907	18.577
7	1.65	0.363	0.097	1.831	-0.001	0.049	0.932	18.614
8	1.85	0.364	0.100	1.877	0.000	0.049	0.924	19.678
9	2.05	0.388	0.103	1.935	-0.001	0.050	0.947	21.821
10	2.35	0.405	0.094	1.778	-0.003	0.051	0.951	19.852
11	2.65	0.423	0.101	1.903	-0.003	0.049	0.931	21.556
12	3.05	0.440	0.096	1.817	-0.003	0.049	0.919	20.283
13	3.65	0.464	0.090	1.694	-0.004	0.049	0.924	18.360
14	4.25	0.496	0.088	1.658	-0.006	0.047	0.885	18.486
15	4.95	0.513	0.083	1.568	-0.005	0.045	0.843	16.400
16	5.95	0.557	0.078	1.470	-0.007	0.043	0.802	13.929
17	6.95	0.581	0.069	1.290	-0.008	0.039	0.736	10.849
18	7.95	0.605	0.060	1.123	-0.010	0.037	0.692	6.965
19	9.45	0.626	0.051	0.954	-0.012	0.035	0.657	4.729
20	10.95	0.639	0.041	0.778	-0.015	0.032	0.603	1.514
21	12.45	0.630	0.040	0.760	-0.025	0.032	0.595	0.923
22	13.45	0.630	0.044	0.836	-0.024	0.035	0.655	0.568

PROFILE 3

Series: 3DR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
14.75	0.45	0.332	58306	0.053	0.044	0.399

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.42	0.222	0.082	1.539	0.000	0.037	0.692	10.589
2	0.52	0.228	0.078	1.470	0.000	0.038	0.711	10.776
3	0.62	0.250	0.087	1.641	-0.001	0.040	0.743	12.764
4	0.72	0.245	0.086	1.613	-0.001	0.040	0.758	12.110
5	0.82	0.271	0.086	1.614	-0.003	0.041	0.769	13.038
6	0.92	0.277	0.085	1.608	-0.002	0.042	0.791	12.356
7	1.02	0.288	0.086	1.619	-0.002	0.043	0.802	12.296
8	1.22	0.298	0.090	1.699	-0.003	0.044	0.832	13.552
9	1.42	0.306	0.091	1.707	-0.001	0.046	0.859	15.746
10	1.62	0.311	0.090	1.690	-0.002	0.046	0.860	14.590
11	1.92	0.330	0.092	1.736	0.000	0.047	0.891	16.223
12	2.22	0.355	0.089	1.681	-0.002	0.050	0.934	16.359
13	2.62	0.363	0.091	1.718	-0.001	0.050	0.936	17.879
14	3.02	0.388	0.093	1.756	-0.002	0.051	0.957	19.328
15	3.62	0.414	0.092	1.723	-0.004	0.050	0.941	20.431
16	4.22	0.439	0.086	1.614	-0.003	0.049	0.921	16.701
17	5.02	0.474	0.086	1.626	-0.005	0.048	0.901	18.126
18	6.02	0.495	0.080	1.508	-0.006	0.045	0.845	14.058
19	7.02	0.525	0.074	1.386	-0.006	0.044	0.820	13.606
20	8.02	0.551	0.067	1.265	-0.008	0.039	0.741	9.530
21	9.52	0.583	0.051	0.961	-0.010	0.036	0.681	5.849
22	11.02	0.591	0.045	0.849	-0.011	0.034	0.633	2.767
23	12.52	0.596	0.041	0.770	-0.015	0.032	0.606	-0.809
24	13.52	0.587	0.046	0.864	-0.020	0.035	0.653	0.098

PROFILE 1

Series: 3ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.15	0.35	0.411	67893	0.044	0.052	0.485			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.241	0.066	1.511	0.014	0.031	0.712	3.885	
2	0.30	0.259	0.073	1.656	0.013	0.033	0.744	5.804	
3	0.40	0.280	0.073	1.660	0.009	0.034	0.773	7.172	
4	0.50	0.294	0.075	1.704	0.008	0.036	0.810	8.622	
5	0.60	0.295	0.075	1.701	0.008	0.036	0.825	8.736	
6	0.70	0.317	0.078	1.764	0.008	0.038	0.856	9.837	
7	0.90	0.342	0.077	1.759	0.006	0.039	0.886	10.267	
8	1.10	0.352	0.082	1.867	0.006	0.040	0.908	12.970	
9	1.30	0.377	0.079	1.797	0.005	0.041	0.929	13.490	
10	1.60	0.393	0.080	1.823	0.005	0.042	0.957	14.824	
11	1.90	0.415	0.078	1.770	0.003	0.042	0.956	15.243	
12	2.30	0.437	0.077	1.745	0.002	0.043	0.967	14.477	
13	2.90	0.457	0.075	1.705	0.001	0.043	0.968	14.059	
14	3.50	0.483	0.071	1.604	-0.001	0.041	0.932	12.968	
15	4.20	0.505	0.067	1.529	-0.002	0.040	0.917	11.928	
16	5.20	0.535	0.065	1.473	-0.003	0.038	0.866	11.549	
17	6.20	0.562	0.058	1.320	-0.006	0.036	0.826	8.994	
18	7.20	0.588	0.054	1.236	-0.008	0.033	0.754	7.419	
19	8.70	0.619	0.044	1.005	-0.011	0.029	0.666	4.207	
20	10.20	0.630	0.035	0.796	-0.016	0.027	0.605	1.615	
21	11.70	0.623	0.035	0.791	-0.021	0.027	0.613	0.464	
22	12.70	0.607	0.037	0.835	-0.021	0.027	0.615	0.364	

PROFILE 2

Series: 3ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
14.7	0.4	0.34	59406	0.046	0.052	0.408			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.95	0.261	0.079	1.727	0.000	0.040	0.873	12.070	
2	1.05	0.281	0.084	1.848	-0.002	0.040	0.885	12.495	
3	1.15	0.283	0.087	1.892	0.000	0.041	0.898	12.891	
4	1.25	0.293	0.086	1.879	0.000	0.040	0.882	12.919	
5	1.35	0.300	0.085	1.859	0.000	0.041	0.902	12.820	
6	1.45	0.303	0.086	1.881	0.002	0.042	0.923	13.964	
7	1.65	0.312	0.085	1.869	-0.001	0.042	0.914	13.717	
8	1.85	0.330	0.087	1.898	0.000	0.043	0.945	14.598	
9	2.05	0.337	0.087	1.899	0.001	0.043	0.941	14.676	
10	2.35	0.360	0.089	1.956	0.001	0.044	0.961	15.577	
11	2.65	0.373	0.083	1.815	-0.001	0.042	0.922	15.296	
12	3.05	0.399	0.082	1.790	-0.001	0.043	0.946	15.126	
13	3.65	0.432	0.080	1.742	-0.004	0.041	0.901	12.949	
14	4.25	0.433	0.075	1.632	-0.002	0.041	0.890	13.274	
15	4.95	0.469	0.070	1.526	-0.005	0.040	0.878	12.274	
16	5.95	0.503	0.065	1.432	-0.006	0.036	0.786	9.634	
17	6.95	0.518	0.057	1.249	-0.004	0.034	0.754	7.923	
18	7.95	0.543	0.049	1.066	-0.007	0.030	0.666	5.181	
19	9.45	0.557	0.043	0.948	-0.006	0.028	0.617	2.804	
20	10.95	0.564	0.033	0.725	-0.008	0.026	0.567	0.978	
21	12.45	0.562	0.033	0.729	-0.006	0.025	0.539	-0.042	
22	13.45	0.558	0.036	0.782	-0.003	0.028	0.609	0.171	

PROFILE 3

Series: 3ER

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.05	0.45	0.292	52805	0.045	0.040	0.354			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.205	0.073	1.651	-0.001	0.033	0.750	8.734	
2	0.52	0.211	0.067	1.515	-0.001	0.034	0.771	8.921	
3	0.62	0.216	0.071	1.605	-0.001	0.035	0.776	9.634	
4	0.72	0.234	0.074	1.663	-0.002	0.035	0.795	9.839	
5	0.82	0.238	0.076	1.707	0.000	0.036	0.806	9.491	
6	0.92	0.250	0.075	1.684	-0.001	0.037	0.831	10.448	
7	1.02	0.253	0.073	1.642	-0.001	0.037	0.821	9.587	
8	1.22	0.263	0.074	1.670	-0.001	0.040	0.893	10.412	
9	1.42	0.275	0.078	1.759	0.000	0.040	0.900	11.335	
10	1.62	0.295	0.077	1.725	-0.002	0.042	0.934	11.037	
11	1.92	0.299	0.076	1.709	0.000	0.043	0.960	11.843	
12	2.22	0.318	0.077	1.725	-0.003	0.043	0.965	12.316	
13	2.62	0.334	0.079	1.776	-0.002	0.044	0.997	14.322	
14	3.02	0.359	0.077	1.725	-0.003	0.043	0.965	13.003	
15	3.62	0.380	0.076	1.708	-0.003	0.043	0.956	13.524	
16	4.22	0.404	0.079	1.782	-0.003	0.042	0.953	14.459	
17	5.02	0.418	0.070	1.575	-0.004	0.042	0.937	11.483	
18	6.02	0.456	0.066	1.477	-0.005	0.038	0.851	10.696	
19	7.02	0.470	0.061	1.365	-0.003	0.037	0.825	8.872	
20	8.02	0.498	0.052	1.173	-0.006	0.034	0.773	6.912	
21	9.52	0.515	0.046	1.031	-0.006	0.030	0.679	4.069	
22	11.02	0.524	0.037	0.834	-0.007	0.027	0.612	1.169	
23	12.52	0.522	0.032	0.728	-0.006	0.025	0.566	-0.397	
24	13.52	0.515	0.037	0.829	-0.007	0.028	0.630	-0.958	

PROFILE 1

Series: 3FR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
14.9	0.35	0.428	76379	0.048	0.053	0.518		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.251	0.074	1.536	0.014	0.033	0.686	5.637
2	0.30	0.273	0.076	1.581	0.012	0.034	0.716	6.207
3	0.40	0.292	0.079	1.636	0.011	0.036	0.757	8.111
4	0.50	0.296	0.082	1.705	0.010	0.037	0.772	9.708
5	0.60	0.309	0.080	1.666	0.009	0.039	0.809	9.509
6	0.70	0.340	0.085	1.776	0.009	0.040	0.837	11.463
7	0.90	0.358	0.088	1.823	0.007	0.042	0.875	13.982
8	1.10	0.388	0.087	1.817	0.007	0.044	0.906	15.720
9	1.60	0.408	0.086	1.783	0.006	0.045	0.939	16.911
10	1.90	0.425	0.086	1.795	0.003	0.045	0.931	16.280
11	2.30	0.442	0.082	1.712	0.004	0.046	0.950	17.381
12	2.90	0.481	0.082	1.705	0.000	0.045	0.939	16.393
13	3.50	0.492	0.081	1.694	0.002	0.045	0.946	17.920
14	4.20	0.520	0.076	1.579	0.001	0.045	0.931	15.309
15	5.20	0.564	0.069	1.446	-0.006	0.042	0.875	13.856
16	6.20	0.583	0.067	1.400	-0.005	0.041	0.851	12.838
17	7.20	0.607	0.062	1.283	-0.006	0.037	0.776	9.851
18	8.70	0.651	0.052	1.082	-0.014	0.034	0.706	7.546
19	10.20	0.677	0.042	0.879	-0.019	0.031	0.637	3.684
20	11.70	0.683	0.038	0.790	-0.027	0.029	0.599	2.531
21	13.20	0.673	0.038	0.791	-0.033	0.029	0.609	1.731

PROFILE 2

Series: 3FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
15.45	0.4	0.355	66832	0.051	0.056	0.437

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.95	0.279	0.089	1.762	0.000	0.043	0.843	12.920
2	1.05	0.289	0.094	1.859	0.000	0.044	0.867	15.054
3	1.15	0.295	0.091	1.797	0.002	0.043	0.843	14.725
4	1.25	0.304	0.090	1.777	0.000	0.045	0.879	14.196
5	1.35	0.301	0.097	1.916	0.002	0.045	0.888	17.162
6	1.45	0.318	0.096	1.887	0.001	0.046	0.917	16.250
7	1.65	0.328	0.096	1.902	0.001	0.046	0.917	17.512
8	1.85	0.353	0.089	1.759	0.000	0.046	0.908	15.986
9	2.15	0.365	0.093	1.836	-0.001	0.047	0.935	17.288
10	2.35	0.380	0.090	1.779	-0.003	0.047	0.934	16.402
11	2.65	0.384	0.095	1.866	0.001	0.047	0.931	19.632
12	3.05	0.407	0.092	1.808	0.000	0.047	0.934	17.562
13	3.65	0.436	0.090	1.784	-0.002	0.046	0.911	17.522
14	4.25	0.455	0.082	1.622	-0.002	0.046	0.903	16.261
15	4.95	0.486	0.077	1.521	-0.002	0.044	0.866	14.725
16	5.95	0.516	0.076	1.493	-0.002	0.043	0.840	14.131
17	6.95	0.540	0.070	1.386	-0.003	0.040	0.783	10.817
18	7.95	0.572	0.058	1.142	-0.006	0.037	0.729	7.262
19	9.45	0.591	0.051	1.007	-0.005	0.035	0.684	5.406
20	10.95	0.602	0.043	0.853	-0.007	0.032	0.635	1.688
21	12.45	0.596	0.040	0.792	-0.006	0.032	0.635	-0.252
22	13.95	0.589	0.046	0.917	0.004	0.035	0.696	-0.984

PROFILE 3

Series: 3FR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.62	0.45	0.31	59406	0.051	0.042	0.384			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.209	0.076	1.474	-0.001	0.036	0.699	10.028	
2	0.52	0.219	0.078	1.518	-0.001	0.036	0.705	9.989	
3	0.62	0.221	0.079	1.527	-0.001	0.037	0.722	10.335	
4	0.72	0.226	0.078	1.523	0.000	0.039	0.754	11.209	
5	0.82	0.241	0.082	1.586	0.000	0.039	0.751	11.486	
6	0.92	0.247	0.079	1.528	-0.001	0.040	0.768	11.446	
7	1.02	0.246	0.083	1.621	-0.001	0.040	0.782	11.678	
8	1.22	0.270	0.085	1.651	-0.002	0.043	0.827	14.644	
9	1.42	0.284	0.088	1.705	0.000	0.042	0.822	13.117	
10	1.62	0.296	0.087	1.693	-0.001	0.044	0.851	14.251	
11	1.92	0.311	0.083	1.618	0.000	0.045	0.875	13.285	
12	2.22	0.331	0.089	1.720	-0.002	0.046	0.894	15.199	
13	2.62	0.337	0.093	1.810	0.000	0.050	0.963	17.997	
14	3.02	0.354	0.090	1.746	0.001	0.050	0.963	18.127	
15	3.62	0.384	0.090	1.740	-0.002	0.049	0.956	18.735	
16	4.22	0.407	0.087	1.695	-0.002	0.047	0.921	16.487	
17	5.02	0.435	0.082	1.594	-0.004	0.046	0.888	14.498	
18	6.02	0.463	0.083	1.621	-0.003	0.044	0.858	15.319	
19	7.02	0.494	0.073	1.427	-0.005	0.042	0.813	13.403	
20	8.02	0.522	0.064	1.238	-0.006	0.039	0.749	10.317	
21	9.52	0.547	0.054	1.053	-0.009	0.036	0.703	5.993	
22	11.02	0.560	0.042	0.808	-0.007	0.032	0.630	2.062	
23	12.52	0.560	0.039	0.765	-0.008	0.031	0.604	-0.162	
24	14.02	0.551	0.044	0.856	-0.008	0.034	0.664	-0.163	

PROFILE 1

Series: 3GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
15.67	0.35	0.456	87694	0.049	0.053	0.565			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.266	0.076	1.535	0.005	0.035	0.714	7.462	
2	0.30	0.298	0.085	1.726	0.006	0.038	0.772	10.012	
3	0.40	0.300	0.083	1.673	0.008	0.039	0.792	10.076	
4	0.50	0.316	0.089	1.794	0.007	0.041	0.825	12.772	
5	0.60	0.343	0.088	1.789	0.007	0.042	0.851	13.574	
6	0.70	0.349	0.092	1.853	0.006	0.043	0.872	15.628	
7	0.90	0.380	0.091	1.849	0.007	0.044	0.894	15.916	
8	1.10	0.385	0.088	1.789	0.009	0.046	0.930	16.982	
9	1.30	0.404	0.085	1.715	0.007	0.046	0.936	15.871	
10	1.60	0.427	0.088	1.789	0.006	0.047	0.945	17.971	
11	1.90	0.448	0.089	1.807	0.005	0.047	0.960	19.581	
12	2.30	0.474	0.088	1.780	0.003	0.048	0.970	19.148	
13	2.90	0.496	0.084	1.697	0.003	0.047	0.956	19.254	
14	3.50	0.521	0.079	1.599	0.003	0.046	0.926	16.730	
15	4.20	0.547	0.079	1.603	0.000	0.047	0.950	17.377	
16	5.20	0.577	0.073	1.468	-0.002	0.045	0.911	14.622	
17	6.20	0.609	0.070	1.408	-0.004	0.044	0.892	13.676	
18	7.20	0.643	0.063	1.266	-0.007	0.040	0.801	9.961	
19	8.20	0.676	0.058	1.172	-0.011	0.037	0.746	8.300	
20	9.70	0.713	0.048	0.970	-0.008	0.033	0.658	5.490	
21	11.20	0.740	0.040	0.814	-0.016	0.030	0.607	3.325	
22	12.70	0.757	0.032	0.641	-0.021	0.028	0.570	1.149	
23	14.20	0.764	0.037	0.739	-0.022	0.031	0.626	-0.965	

PROFILE 2

Series: 3GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.38	0.4	0.373	76733	0.054	0.056	0.473

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.85	0.285	0.087	1.612	0.001	0.044	0.809	13.893
2	0.95	0.286	0.092	1.703	0.001	0.046	0.846	15.726
3	1.05	0.288	0.091	1.698	0.003	0.045	0.843	14.855
4	1.15	0.294	0.095	1.768	0.001	0.045	0.842	16.054
5	1.25	0.315	0.100	1.848	0.001	0.047	0.873	17.634
6	1.35	0.320	0.102	1.899	0.002	0.047	0.878	18.486
7	1.45	0.311	0.098	1.816	0.003	0.047	0.877	17.863
8	1.65	0.329	0.100	1.856	0.001	0.048	0.888	18.668
9	1.85	0.343	0.099	1.838	0.000	0.049	0.919	19.126
10	2.05	0.356	0.101	1.881	0.000	0.049	0.919	20.386
11	2.35	0.392	0.097	1.798	-0.001	0.050	0.932	20.923
12	2.65	0.408	0.098	1.815	-0.001	0.050	0.924	21.263
13	3.05	0.410	0.096	1.779	0.002	0.049	0.918	19.898
14	3.65	0.451	0.095	1.756	-0.003	0.048	0.891	18.305
15	4.25	0.473	0.093	1.730	-0.002	0.050	0.927	21.481
16	4.95	0.494	0.088	1.635	0.000	0.049	0.905	20.065
17	5.95	0.530	0.079	1.476	-0.003	0.046	0.861	16.471
18	6.95	0.560	0.078	1.441	-0.004	0.043	0.791	13.750
19	7.95	0.589	0.071	1.317	-0.006	0.042	0.779	11.549
20	9.45	0.620	0.060	1.118	-0.009	0.038	0.707	7.748
21	10.95	0.645	0.047	0.873	-0.011	0.035	0.647	3.720
22	12.45	0.650	0.041	0.763	-0.014	0.034	0.623	0.928
23	13.95	0.643	0.044	0.822	-0.020	0.034	0.626	-0.573
24	15.45	0.639	0.053	0.979	-0.022	0.038	0.699	1.021

PROFILE 3

Series: 3GR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
16.81	0.45	0.319	68207	0.056	0.042	0.41			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.203	0.079	1.425	0.002	0.036	0.651	10.276	
2	0.52	0.207	0.080	1.430	0.002	0.036	0.654	9.354	
3	0.62	0.223	0.082	1.479	0.001	0.038	0.681	11.097	
4	0.72	0.231	0.082	1.469	0.002	0.039	0.702	10.047	
5	0.82	0.260	0.084	1.507	-0.001	0.041	0.727	11.903	
6	0.92	0.263	0.085	1.520	0.001	0.042	0.753	11.901	
7	1.02	0.263	0.084	1.510	0.001	0.043	0.763	13.156	
8	1.22	0.272	0.089	1.606	0.000	0.045	0.801	14.317	
9	1.42	0.293	0.092	1.646	0.002	0.045	0.805	15.542	
10	1.62	0.287	0.089	1.591	0.003	0.046	0.831	14.705	
11	1.92	0.299	0.091	1.636	0.003	0.046	0.828	14.099	
12	2.22	0.338	0.093	1.676	0.000	0.049	0.886	18.266	
13	2.62	0.338	0.097	1.745	0.002	0.050	0.901	19.426	
14	3.02	0.367	0.091	1.639	-0.002	0.051	0.919	18.050	
15	3.62	0.384	0.095	1.701	0.003	0.053	0.950	20.256	
16	4.22	0.419	0.095	1.697	-0.002	0.050	0.901	19.862	
17	5.02	0.444	0.086	1.547	-0.002	0.050	0.906	18.193	
18	6.02	0.466	0.090	1.620	-0.002	0.049	0.882	20.205	
19	7.02	0.506	0.087	1.569	-0.005	0.046	0.832	17.031	
20	8.02	0.538	0.073	1.318	-0.004	0.045	0.800	13.572	
21	9.52	0.571	0.064	1.153	-0.008	0.040	0.709	7.527	
22	11.02	0.594	0.050	0.902	-0.007	0.037	0.662	4.007	
23	12.52	0.602	0.045	0.814	-0.011	0.034	0.605	1.304	
24	14.02	0.599	0.043	0.764	-0.011	0.033	0.597	0.082	
25	15.52	0.593	0.052	0.939	-0.018	0.040	0.710	-1.503	

PROFILE 1

Series: 3HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
15.82	0.35	0.406	79208	0.046	0.050	0.506		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.236	0.068	1.458	0.012	0.032	0.678	5.130
2	0.30	0.250	0.071	1.521	0.011	0.032	0.699	5.761
3	0.40	0.274	0.077	1.653	0.010	0.035	0.755	8.212
4	0.50	0.280	0.077	1.654	0.011	0.036	0.773	8.378
5	0.60	0.300	0.081	1.736	0.010	0.037	0.791	9.259
6	0.70	0.306	0.080	1.729	0.010	0.037	0.806	10.352
7	0.90	0.329	0.082	1.769	0.009	0.040	0.850	12.058
8	1.10	0.351	0.085	1.833	0.008	0.041	0.882	13.524
9	1.30	0.362	0.080	1.723	0.008	0.042	0.912	13.668
10	1.60	0.381	0.085	1.818	0.010	0.045	0.964	16.925
11	1.90	0.407	0.082	1.755	0.007	0.044	0.949	16.238
12	2.30	0.425	0.077	1.659	0.006	0.046	0.986	15.197
13	2.90	0.456	0.079	1.690	0.004	0.044	0.956	16.365
14	3.50	0.479	0.078	1.669	0.004	0.044	0.954	16.545
15	4.20	0.489	0.075	1.609	0.005	0.045	0.972	17.053
16	5.20	0.526	0.074	1.598	0.002	0.043	0.925	15.567
17	6.20	0.563	0.067	1.448	-0.003	0.041	0.887	13.324
18	7.20	0.589	0.065	1.400	-0.005	0.039	0.846	12.181
19	8.70	0.634	0.057	1.237	-0.011	0.034	0.721	8.222
20	10.20	0.663	0.046	0.997	-0.015	0.030	0.652	5.139
21	11.70	0.683	0.040	0.852	-0.023	0.027	0.576	3.606
22	13.20	0.685	0.032	0.691	-0.032	0.025	0.538	0.712

PROFILE 2

Series: 3HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.43	0.4	0.336	69307	0.052	0.050	0.426

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.95	0.254	0.085	1.645	0.001	0.041	0.798	11.921
2	1.05	0.274	0.086	1.671	0.001	0.042	0.820	13.087
3	1.15	0.271	0.093	1.795	0.002	0.043	0.829	14.769
4	1.25	0.285	0.086	1.657	0.000	0.043	0.830	12.265
5	1.35	0.290	0.090	1.747	0.000	0.044	0.844	15.265
6	1.45	0.297	0.089	1.715	-0.001	0.044	0.849	14.286
7	1.65	0.321	0.090	1.741	0.000	0.045	0.870	14.284
8	1.85	0.325	0.089	1.723	0.000	0.047	0.908	15.720
9	2.05	0.323	0.085	1.655	0.001	0.044	0.858	13.600
10	2.35	0.346	0.098	1.898	0.002	0.047	0.915	17.263
11	2.65	0.366	0.091	1.769	-0.001	0.046	0.893	16.655
12	3.05	0.398	0.091	1.767	-0.002	0.046	0.900	17.116
13	3.65	0.407	0.090	1.735	0.001	0.047	0.910	17.868
14	4.25	0.442	0.086	1.663	-0.003	0.045	0.875	17.181
15	4.95	0.470	0.082	1.595	-0.003	0.045	0.871	16.075
16	5.95	0.483	0.077	1.494	-0.001	0.045	0.862	15.430
17	6.95	0.524	0.071	1.373	-0.005	0.040	0.782	11.729
18	7.95	0.548	0.066	1.278	-0.005	0.039	0.757	10.528
19	9.45	0.575	0.055	1.067	-0.006	0.036	0.696	6.878
20	10.95	0.596	0.046	0.891	-0.011	0.032	0.629	3.381
21	12.45	0.604	0.040	0.781	-0.013	0.031	0.598	1.156
22	13.95	0.593	0.040	0.771	-0.017	0.032	0.618	-0.669
23	14.95	0.587	0.045	0.879	-0.019	0.038	0.733	0.115

PROFILE 3

Series: 3HR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}		
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]		
16.6	0.45	0.294	61606	0.052	0.037	0.375		
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.42	0.193	0.071	1.358	0.000	0.033	0.640	8.292
2	0.52	0.207	0.075	1.436	0.000	0.036	0.686	9.592
3	0.62	0.213	0.081	1.542	0.001	0.035	0.677	10.041
4	0.72	0.215	0.076	1.454	0.000	0.037	0.703	9.539
5	0.82	0.226	0.083	1.583	0.000	0.038	0.723	11.040
6	0.92	0.236	0.083	1.585	0.000	0.038	0.722	11.007
7	1.02	0.243	0.077	1.478	0.001	0.040	0.762	10.863
8	1.22	0.255	0.081	1.557	0.000	0.041	0.788	12.679
9	1.42	0.264	0.085	1.636	0.001	0.042	0.804	13.203
10	1.62	0.264	0.082	1.573	0.002	0.041	0.790	11.375
11	1.92	0.284	0.086	1.645	0.001	0.045	0.860	14.140
12	2.22	0.293	0.085	1.632	0.000	0.046	0.871	14.357
13	2.62	0.327	0.086	1.653	-0.001	0.047	0.891	14.523
14	3.02	0.324	0.087	1.660	0.002	0.047	0.901	16.299
15	3.62	0.354	0.087	1.666	0.001	0.049	0.944	17.800
16	4.22	0.393	0.089	1.708	-0.003	0.048	0.914	18.577
17	5.02	0.418	0.083	1.598	-0.002	0.046	0.889	16.358
18	6.02	0.448	0.081	1.545	-0.002	0.044	0.851	16.020
19	7.02	0.468	0.076	1.445	-0.004	0.044	0.839	13.436
20	8.02	0.498	0.069	1.313	-0.005	0.042	0.807	12.655
21	9.52	0.531	0.060	1.139	-0.005	0.038	0.729	8.315
22	11.02	0.550	0.046	0.876	-0.006	0.032	0.618	2.788
23	12.52	0.553	0.042	0.808	-0.005	0.031	0.601	1.092
24	14.02	0.553	0.042	0.796	-0.002	0.032	0.604	0.061
25	15.02	0.544	0.049	0.932	0.004	0.036	0.684	-1.839

PROFILE 1

Series: 3IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
16.93	0.35	0.412	89109	0.049	0.053	0.532

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.20	0.256	0.076	1.575	0.005	0.034	0.694	7.614
2	0.30	0.278	0.077	1.581	0.006	0.035	0.727	7.678
3	0.40	0.295	0.080	1.652	0.007	0.038	0.782	9.888
4	0.50	0.305	0.082	1.692	0.007	0.038	0.789	9.469
5	0.60	0.325	0.082	1.699	0.009	0.041	0.841	12.386
6	0.70	0.329	0.088	1.816	0.008	0.041	0.851	13.260
7	0.90	0.351	0.085	1.758	0.008	0.041	0.850	13.114
8	1.10	0.369	0.088	1.820	0.009	0.043	0.894	15.308
9	1.30	0.386	0.090	1.851	0.008	0.044	0.907	16.560
10	1.60	0.416	0.088	1.802	0.006	0.046	0.943	17.617
11	1.90	0.440	0.084	1.738	0.005	0.046	0.956	18.177
12	2.30	0.448	0.085	1.758	0.005	0.047	0.971	18.573
13	2.90	0.482	0.084	1.728	0.002	0.046	0.945	17.289
14	3.50	0.493	0.078	1.617	0.005	0.046	0.946	17.159
15	4.20	0.531	0.077	1.582	0.001	0.044	0.910	15.694
16	5.20	0.558	0.073	1.498	0.003	0.045	0.920	15.158
17	6.20	0.586	0.070	1.441	0.000	0.042	0.855	12.983
18	7.20	0.618	0.063	1.292	0.001	0.039	0.803	9.767
19	8.70	0.657	0.059	1.214	0.004	0.035	0.729	8.629
20	10.20	0.686	0.048	0.988	0.000	0.031	0.649	5.057
21	11.70	0.708	0.039	0.801	0.001	0.029	0.592	2.591
22	13.20	0.722	0.034	0.697	0.011	0.027	0.554	-0.031
23	14.70	0.714	0.034	0.700	0.012	0.035	0.727	-3.628

PROFILE 2

Series: 3IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.78	0.4	0.335	77970	0.055	0.053	0.443

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.85	0.265	0.089	1.628	0.003	0.043	0.787	12.856
2	0.95	0.281	0.091	1.665	0.000	0.042	0.767	13.467
3	1.05	0.279	0.088	1.611	0.002	0.043	0.790	13.594
4	1.15	0.291	0.091	1.669	-0.001	0.045	0.816	15.122
5	1.25	0.300	0.098	1.801	0.002	0.045	0.822	16.520
6	1.35	0.304	0.091	1.673	0.002	0.045	0.830	15.127
7	1.45	0.311	0.094	1.729	0.003	0.046	0.848	16.153
8	1.65	0.322	0.095	1.742	0.001	0.047	0.857	16.795
9	1.85	0.334	0.097	1.773	0.003	0.048	0.880	18.025
10	2.05	0.351	0.101	1.856	0.000	0.048	0.880	20.072
11	2.35	0.369	0.099	1.820	0.001	0.049	0.898	20.453
12	2.65	0.377	0.092	1.684	0.001	0.048	0.880	17.831
13	3.05	0.402	0.092	1.692	0.001	0.048	0.871	17.808
14	3.65	0.422	0.097	1.777	0.001	0.049	0.893	20.589
15	4.25	0.448	0.089	1.626	0.000	0.049	0.902	19.708
16	4.95	0.471	0.088	1.618	0.002	0.047	0.868	18.679
17	5.95	0.519	0.082	1.501	0.000	0.044	0.807	15.972
18	6.95	0.538	0.076	1.393	-0.002	0.043	0.780	13.652
19	7.95	0.567	0.070	1.281	-0.003	0.041	0.759	12.113
20	9.45	0.595	0.063	1.150	-0.003	0.039	0.714	9.006
21	10.95	0.630	0.051	0.938	-0.005	0.036	0.653	5.129
22	12.45	0.641	0.043	0.785	-0.006	0.034	0.628	1.481
23	13.95	0.636	0.044	0.799	-0.002	0.035	0.635	-1.462
24	15.45	0.619	0.047	0.857	0.001	0.040	0.737	-2.824

PROFILE 3

Series: 3IR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.5	0.45	0.305	69307	0.054	0.041	0.4			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.196	0.077	1.414	0.000	0.036	0.655	10.588	
2	0.52	0.211	0.078	1.427	0.001	0.036	0.654	9.339	
3	0.62	0.225	0.081	1.491	-0.001	0.038	0.707	11.210	
4	0.72	0.237	0.077	1.410	0.000	0.038	0.704	9.691	
5	0.82	0.243	0.084	1.539	0.001	0.039	0.725	11.737	
6	0.92	0.249	0.080	1.462	0.001	0.041	0.753	11.564	
7	1.02	0.258	0.090	1.656	0.000	0.042	0.770	14.156	
8	1.22	0.269	0.086	1.589	0.002	0.043	0.785	12.545	
9	1.42	0.272	0.085	1.556	0.001	0.044	0.816	13.336	
10	1.62	0.302	0.089	1.642	0.001	0.044	0.812	14.025	
11	1.92	0.299	0.088	1.618	0.001	0.047	0.872	14.547	
12	2.22	0.311	0.093	1.718	0.001	0.047	0.865	16.332	
13	2.62	0.341	0.091	1.680	0.002	0.049	0.908	17.831	
14	3.02	0.345	0.091	1.676	0.002	0.049	0.907	16.629	
15	3.62	0.383	0.091	1.676	-0.001	0.050	0.919	18.932	
16	4.32	0.407	0.092	1.682	-0.003	0.049	0.902	18.478	
17	5.02	0.426	0.087	1.596	0.001	0.050	0.911	17.719	
18	6.02	0.455	0.095	1.741	-0.002	0.050	0.916	20.052	
19	7.02	0.479	0.084	1.541	-0.001	0.047	0.861	17.072	
20	8.02	0.510	0.081	1.494	-0.002	0.046	0.848	17.314	
21	9.52	0.557	0.067	1.226	-0.004	0.040	0.732	9.863	
22	11.02	0.578	0.058	1.071	-0.007	0.039	0.717	6.504	
23	12.52	0.591	0.045	0.822	-0.009	0.035	0.639	2.618	
24	14.02	0.587	0.043	0.799	-0.010	0.035	0.638	0.205	
25	15.52	0.578	0.051	0.929	0.000	0.038	0.707	-2.453	

PROFILE 1

Series: 3JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.5	0.35	0.442	100424	0.05	0.057	0.58			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.284	0.083	1.662	0.004	0.037	0.746	9.525	
2	0.30	0.305	0.087	1.740	0.006	0.038	0.765	10.500	
3	0.40	0.324	0.092	1.848	0.007	0.041	0.811	12.503	
4	0.50	0.349	0.094	1.879	0.007	0.044	0.877	15.741	
5	0.60	0.354	0.091	1.816	0.008	0.044	0.876	14.765	
6	0.70	0.363	0.094	1.888	0.008	0.044	0.880	16.235	
7	0.90	0.394	0.093	1.859	0.007	0.047	0.934	17.826	
8	1.10	0.414	0.094	1.884	0.006	0.046	0.930	19.166	
9	1.30	0.436	0.095	1.895	0.005	0.047	0.936	19.506	
10	1.60	0.453	0.095	1.892	0.007	0.050	1.002	21.859	
11	1.90	0.476	0.092	1.844	0.003	0.049	0.978	20.992	
12	2.30	0.487	0.090	1.799	0.003	0.049	0.981	20.103	
13	2.90	0.532	0.086	1.716	-0.001	0.049	0.974	19.279	
14	3.50	0.545	0.081	1.614	0.000	0.046	0.929	16.854	
15	4.20	0.569	0.083	1.671	-0.004	0.048	0.954	18.813	
16	5.20	0.598	0.077	1.536	-0.003	0.046	0.930	15.441	
17	6.20	0.639	0.070	1.406	-0.005	0.043	0.853	12.532	
18	7.20	0.664	0.069	1.387	-0.005	0.041	0.821	12.259	
19	8.70	0.699	0.058	1.162	-0.005	0.038	0.754	8.563	
20	10.20	0.736	0.051	1.023	-0.010	0.032	0.648	6.364	
21	11.70	0.764	0.039	0.771	-0.016	0.028	0.570	3.056	
22	13.20	0.770	0.034	0.674	-0.018	0.028	0.558	2.255	
23	14.70	0.762	0.031	0.625	-0.023	0.028	0.560	0.076	
24	16.20	0.737	0.037	0.741	-0.026	0.034	0.681	0.815	

PROFILE 2

Series: 3JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.03	0.4	0.37	87871	0.056	0.062	0.492

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.85	0.276	0.099	1.747	0.003	0.046	0.810	16.022
2	0.95	0.296	0.100	1.778	0.001	0.046	0.816	16.364
3	1.05	0.316	0.100	1.777	0.001	0.047	0.837	17.767
4	1.15	0.305	0.105	1.864	0.003	0.048	0.858	19.832
5	1.25	0.324	0.100	1.774	0.000	0.050	0.883	18.866
6	1.35	0.329	0.109	1.935	0.003	0.050	0.887	20.813
7	1.45	0.327	0.102	1.813	0.003	0.050	0.890	19.466
8	1.65	0.356	0.105	1.853	0.002	0.052	0.915	21.090
9	1.85	0.373	0.110	1.949	0.001	0.053	0.941	24.153
10	2.05	0.395	0.108	1.914	-0.001	0.052	0.915	23.312
11	2.35	0.390	0.108	1.923	0.002	0.053	0.935	24.512
12	2.65	0.416	0.099	1.753	0.000	0.051	0.912	19.850
13	3.05	0.438	0.101	1.797	0.000	0.053	0.945	23.205
14	3.65	0.480	0.100	1.777	-0.004	0.052	0.919	23.510
15	4.25	0.495	0.096	1.696	-0.002	0.051	0.897	22.321
16	4.95	0.528	0.090	1.604	-0.003	0.048	0.857	18.406
17	5.95	0.573	0.084	1.486	-0.006	0.046	0.812	16.044
18	6.95	0.586	0.078	1.383	-0.004	0.045	0.797	14.575
19	7.95	0.610	0.077	1.361	-0.005	0.044	0.778	13.362
20	9.45	0.650	0.065	1.153	-0.005	0.040	0.715	9.252
21	10.95	0.671	0.058	1.023	-0.009	0.039	0.684	6.086
22	12.45	0.689	0.045	0.800	-0.011	0.036	0.637	1.624
23	13.95	0.681	0.046	0.814	-0.015	0.035	0.618	-0.514
24	15.45	0.666	0.046	0.813	-0.013	0.036	0.639	-1.679
25	16.95	0.645	0.056	0.989	-0.025	0.038	0.665	-0.226

PROFILE 3

Series: 3JR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
18.52	0.45	0.316	78108	0.056	0.046	0.426

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.42	0.221	0.084	1.504	0.001	0.039	0.687	11.530
2	0.52	0.226	0.082	1.468	0.001	0.038	0.674	10.476
3	0.62	0.232	0.087	1.546	0.002	0.040	0.705	11.037
4	0.72	0.264	0.089	1.590	-0.002	0.043	0.761	12.950
5	0.82	0.257	0.087	1.541	0.001	0.043	0.762	12.583
6	0.92	0.262	0.091	1.627	0.001	0.044	0.785	15.158
7	1.02	0.273	0.089	1.584	-0.001	0.045	0.794	13.423
8	1.22	0.295	0.094	1.677	-0.001	0.046	0.827	15.024
9	1.42	0.294	0.096	1.711	0.000	0.046	0.827	15.307
10	1.62	0.319	0.100	1.783	0.001	0.049	0.868	18.033
11	1.92	0.329	0.098	1.742	0.001	0.051	0.909	17.751
12	2.22	0.340	0.100	1.774	0.000	0.051	0.908	19.169
13	2.62	0.366	0.097	1.724	-0.002	0.053	0.941	18.387
14	3.02	0.387	0.098	1.747	-0.001	0.053	0.940	19.251
15	3.62	0.408	0.094	1.682	-0.002	0.054	0.953	19.586
16	4.22	0.428	0.095	1.699	-0.001	0.054	0.961	20.306
17	5.02	0.468	0.097	1.725	-0.002	0.052	0.925	20.915
18	6.02	0.510	0.092	1.636	-0.005	0.052	0.917	19.248
19	7.02	0.531	0.086	1.539	-0.005	0.048	0.862	16.407
20	8.02	0.551	0.084	1.488	-0.005	0.048	0.847	17.070
21	9.52	0.603	0.068	1.211	-0.007	0.042	0.745	10.501
22	11.02	0.625	0.058	1.037	-0.007	0.039	0.692	6.033
23	12.52	0.635	0.047	0.844	-0.008	0.035	0.628	1.681
24	14.02	0.627	0.046	0.822	-0.011	0.035	0.624	-0.020
25	15.52	0.612	0.046	0.827	-0.015	0.035	0.623	-1.351
26	17.02	0.593	0.056	0.999	-0.007	0.041	0.727	-2.575

PROFILE 1

Series: 3KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
17.72	0.35	0.391	90523	0.047	0.051	0.516			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.252	0.074	1.587	0.004	0.033	0.716	7.758	
2	0.30	0.271	0.079	1.690	0.006	0.035	0.754	7.938	
3	0.40	0.285	0.081	1.724	0.006	0.036	0.780	9.025	
4	0.50	0.303	0.080	1.703	0.006	0.038	0.816	9.565	
5	0.60	0.312	0.081	1.739	0.007	0.038	0.822	11.169	
6	0.70	0.322	0.081	1.741	0.008	0.039	0.841	11.277	
7	0.90	0.352	0.085	1.820	0.006	0.040	0.864	13.398	
8	1.10	0.367	0.087	1.860	0.006	0.043	0.915	15.091	
9	1.30	0.382	0.082	1.761	0.007	0.044	0.950	15.702	
10	1.60	0.398	0.086	1.836	0.007	0.046	0.976	18.052	
11	1.90	0.413	0.083	1.774	0.007	0.044	0.950	16.199	
12	2.30	0.449	0.084	1.794	0.002	0.045	0.973	17.720	
13	2.90	0.467	0.082	1.748	0.005	0.047	1.003	18.523	
14	3.50	0.498	0.076	1.616	-0.001	0.045	0.958	15.980	
15	4.20	0.521	0.075	1.599	-0.001	0.044	0.949	15.065	
16	5.20	0.550	0.071	1.513	0.001	0.043	0.922	13.743	
17	6.20	0.576	0.069	1.481	-0.001	0.041	0.871	12.830	
18	7.20	0.597	0.067	1.436	0.001	0.040	0.860	13.013	
19	8.70	0.639	0.057	1.223	-0.001	0.036	0.767	8.762	
20	10.20	0.675	0.050	1.077	-0.001	0.031	0.654	5.996	
21	11.70	0.708	0.037	0.788	0.000	0.027	0.588	3.680	
22	13.20	0.726	0.029	0.624	0.007	0.024	0.511	1.309	
23	14.70	0.736	0.033	0.703	0.004	0.030	0.635	1.260	
24	16.20	0.739	0.044	0.952	0.013	0.038	0.809	1.576	

PROFILE 2

Series: 3KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
17.98	0.4	0.335	79208	0.052	0.050	0.445

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]
1	0.85	0.263	0.089	1.721	0.001	0.040	0.774	12.587
2	0.95	0.275	0.092	1.777	-0.001	0.042	0.813	14.386
3	1.05	0.267	0.090	1.735	0.003	0.042	0.810	13.615
4	1.15	0.275	0.089	1.705	0.003	0.043	0.830	14.374
5	1.25	0.297	0.089	1.719	-0.001	0.044	0.851	14.845
6	1.35	0.296	0.093	1.787	0.000	0.045	0.874	16.048
7	1.45	0.321	0.092	1.772	-0.002	0.045	0.871	15.173
8	1.65	0.308	0.095	1.828	0.002	0.046	0.877	17.042
9	2.05	0.330	0.099	1.901	-0.001	0.046	0.878	17.690
10	2.35	0.359	0.094	1.813	0.001	0.049	0.936	18.250
11	2.65	0.379	0.096	1.845	-0.002	0.048	0.923	19.121
12	3.05	0.383	0.096	1.847	0.001	0.049	0.951	19.594
13	3.65	0.415	0.094	1.804	0.001	0.048	0.919	19.056
14	4.25	0.441	0.087	1.668	-0.001	0.047	0.897	17.831
15	4.95	0.467	0.087	1.681	-0.001	0.047	0.905	18.293
16	5.95	0.493	0.082	1.575	-0.001	0.045	0.859	16.343
17	6.95	0.529	0.073	1.413	-0.004	0.040	0.777	12.452
18	7.95	0.546	0.074	1.423	-0.003	0.041	0.793	12.454
19	9.45	0.587	0.062	1.202	-0.005	0.037	0.713	8.337
20	10.95	0.609	0.054	1.048	-0.003	0.037	0.703	6.499
21	12.45	0.626	0.045	0.861	-0.007	0.034	0.655	2.412
22	13.95	0.624	0.043	0.818	-0.007	0.033	0.644	-0.238
23	15.45	0.611	0.047	0.902	-0.008	0.035	0.682	-2.124
24	16.95	0.597	0.055	1.067	0.000	0.046	0.891	-3.440

PROFILE 3

Series: 3KR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.2	0.45	0.292	70407	0.054	0.039	0.391			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.201	0.076	1.397	-0.001	0.034	0.630	8.904	
2	0.52	0.207	0.073	1.354	0.001	0.035	0.654	10.022	
3	0.62	0.223	0.078	1.439	0.000	0.037	0.692	9.836	
4	0.72	0.230	0.079	1.462	0.000	0.038	0.705	11.371	
5	0.82	0.230	0.077	1.424	-0.001	0.038	0.704	10.258	
6	0.92	0.233	0.082	1.519	-0.001	0.040	0.730	10.967	
7	1.02	0.238	0.082	1.516	0.002	0.041	0.760	12.583	
8	1.22	0.270	0.083	1.528	-0.002	0.042	0.772	11.893	
9	1.42	0.275	0.091	1.689	-0.001	0.043	0.803	13.435	
10	1.62	0.269	0.082	1.514	0.002	0.044	0.806	13.797	
11	1.92	0.287	0.095	1.759	0.002	0.046	0.846	17.257	
12	2.22	0.300	0.090	1.657	0.001	0.045	0.825	15.327	
13	2.62	0.322	0.091	1.688	0.001	0.048	0.879	17.254	
14	3.02	0.351	0.091	1.689	0.000	0.048	0.893	16.905	
15	3.62	0.352	0.096	1.777	0.002	0.051	0.950	21.356	
16	4.22	0.375	0.092	1.697	0.001	0.050	0.930	18.535	
17	5.02	0.421	0.090	1.663	-0.003	0.048	0.880	17.521	
18	6.02	0.438	0.085	1.573	0.000	0.048	0.886	18.001	
19	7.02	0.469	0.087	1.609	-0.001	0.047	0.866	17.102	
20	8.02	0.500	0.075	1.381	-0.003	0.043	0.799	12.724	
21	9.52	0.534	0.067	1.242	-0.004	0.040	0.747	10.973	
22	11.02	0.567	0.055	1.014	-0.006	0.037	0.682	6.169	
23	12.52	0.584	0.048	0.880	-0.007	0.035	0.643	3.017	
24	14.02	0.581	0.044	0.807	-0.007	0.035	0.648	0.702	
25	15.52	0.573	0.048	0.886	-0.008	0.035	0.646	-1.102	
26	17.02	0.562	0.055	1.009	-0.004	0.044	0.817	-2.142	

PROFILE 1

Series: 3LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
18.3	0.35	0.414	100424	0.051	0.052	0.554			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.20	0.275	0.078	1.536	0.006	0.036	0.702	7.106	
2	0.30	0.293	0.086	1.679	0.007	0.038	0.748	9.778	
3	0.40	0.316	0.087	1.707	0.007	0.041	0.796	12.086	
4	0.50	0.312	0.084	1.655	0.008	0.040	0.782	11.465	
5	0.60	0.332	0.092	1.803	0.009	0.041	0.808	13.773	
6	0.70	0.340	0.087	1.713	0.008	0.042	0.829	13.009	
7	0.90	0.376	0.090	1.765	0.005	0.044	0.860	15.659	
8	1.10	0.393	0.089	1.740	0.007	0.046	0.897	16.230	
9	1.30	0.407	0.093	1.832	0.006	0.046	0.906	18.536	
10	1.60	0.423	0.090	1.759	0.006	0.047	0.914	18.039	
11	1.90	0.450	0.088	1.719	0.002	0.048	0.934	18.264	
12	2.30	0.471	0.086	1.694	0.003	0.048	0.933	19.130	
13	2.90	0.493	0.087	1.711	0.002	0.048	0.939	19.519	
14	3.50	0.523	0.082	1.602	0.000	0.047	0.925	18.444	
15	4.20	0.551	0.079	1.547	-0.002	0.047	0.916	16.763	
16	5.20	0.579	0.073	1.437	-0.002	0.044	0.863	15.478	
17	6.20	0.608	0.070	1.365	-0.004	0.041	0.807	12.957	
18	7.20	0.629	0.067	1.321	-0.003	0.041	0.800	13.064	
19	8.70	0.674	0.054	1.058	-0.009	0.035	0.680	7.448	
20	10.20	0.702	0.047	0.919	-0.011	0.031	0.605	5.410	
21	11.70	0.728	0.033	0.648	-0.015	0.025	0.496	2.662	
22	13.20	0.735	0.026	0.513	-0.016	0.022	0.441	1.370	
23	14.70	0.736	0.028	0.553	-0.025	0.022	0.427	0.103	
24	16.20	0.718	0.033	0.642	-0.031	0.028	0.540	0.648	
25	17.70	0.692	0.040	0.790	-0.039	0.036	0.716	2.092	

PROFILE 2

Series: 3LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
19.24	0.4	0.336	87871	0.053	0.053	0.461			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.85	0.271	0.092	1.745	0.003	0.043	0.824	13.585	
2	0.95	0.277	0.091	1.728	0.002	0.045	0.855	14.698	
3	1.05	0.284	0.095	1.801	0.002	0.044	0.839	14.789	
4	1.15	0.301	0.096	1.817	0.000	0.046	0.870	15.535	
5	1.25	0.309	0.097	1.844	0.001	0.046	0.883	16.849	
6	1.35	0.304	0.099	1.873	0.001	0.047	0.884	16.622	
7	1.45	0.320	0.095	1.804	0.001	0.048	0.908	15.749	
8	1.65	0.336	0.096	1.822	0.000	0.049	0.928	17.402	
9	1.85	0.339	0.101	1.915	0.003	0.048	0.913	18.605	
10	2.05	0.345	0.100	1.902	0.002	0.050	0.958	19.095	
11	2.35	0.378	0.096	1.824	0.001	0.050	0.952	19.365	
12	2.65	0.382	0.096	1.828	0.004	0.050	0.957	20.123	
13	3.05	0.407	0.096	1.824	0.003	0.050	0.959	20.745	
14	3.65	0.444	0.096	1.830	-0.001	0.050	0.944	20.824	
15	4.05	0.453	0.086	1.633	-0.001	0.048	0.911	17.558	
16	4.95	0.496	0.087	1.662	-0.001	0.047	0.894	18.164	
17	5.95	0.522	0.078	1.476	-0.001	0.045	0.860	14.933	
18	6.95	0.547	0.076	1.446	-0.002	0.044	0.839	13.421	
19	7.95	0.576	0.070	1.321	-0.002	0.042	0.807	13.373	
20	9.45	0.616	0.063	1.189	-0.006	0.039	0.748	9.338	
21	10.95	0.643	0.052	0.985	-0.006	0.036	0.676	5.309	
22	12.45	0.657	0.045	0.863	-0.007	0.033	0.624	2.324	
23	13.95	0.656	0.042	0.797	-0.010	0.032	0.600	-0.557	
24	15.45	0.646	0.045	0.862	-0.010	0.032	0.606	-1.510	
25	16.95	0.619	0.054	1.028	-0.015	0.035	0.664	-0.376	
26	17.95	0.608	0.056	1.055	-0.005	0.042	0.806	-2.438	

PROFILE 3

Series: 3LR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
19.47	0.45	0.293	78108	0.056	0.040	0.405			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
	[cm]	[m/s]	[m/s]	[-]	[m/s]	[m/s]	[-]	[cm ² /s ²]	
1	0.42	0.201	0.077	1.371	0.000	0.036	0.635	9.902	
2	0.52	0.224	0.082	1.453	0.001	0.037	0.661	10.638	
3	0.62	0.224	0.087	1.541	0.001	0.039	0.699	12.426	
4	0.72	0.234	0.084	1.497	0.002	0.040	0.713	12.520	
5	0.82	0.242	0.082	1.453	0.003	0.039	0.694	10.496	
6	0.92	0.249	0.088	1.558	0.001	0.041	0.735	13.538	
7	1.02	0.255	0.085	1.509	0.001	0.043	0.759	12.678	
8	1.22	0.276	0.085	1.516	0.000	0.044	0.774	13.457	
9	1.42	0.285	0.088	1.555	-0.001	0.046	0.816	14.953	
10	1.62	0.297	0.089	1.579	0.001	0.046	0.823	14.066	
11	1.92	0.307	0.093	1.657	0.003	0.049	0.874	17.646	
12	2.22	0.310	0.092	1.633	0.003	0.048	0.861	17.044	
13	2.62	0.336	0.096	1.704	0.003	0.050	0.885	18.224	
14	3.02	0.346	0.096	1.704	0.001	0.052	0.923	18.471	
15	3.62	0.371	0.097	1.716	0.003	0.053	0.945	22.593	
16	4.22	0.396	0.094	1.674	0.000	0.052	0.930	19.899	
17	5.02	0.422	0.098	1.748	0.004	0.052	0.925	21.637	
18	6.02	0.461	0.088	1.571	0.000	0.050	0.879	18.488	
19	7.02	0.504	0.079	1.399	-0.002	0.046	0.823	15.110	
20	8.02	0.536	0.072	1.273	-0.006	0.043	0.771	12.306	
21	9.52	0.571	0.063	1.122	-0.006	0.040	0.712	9.041	
22	11.02	0.593	0.055	0.983	-0.006	0.038	0.667	6.055	
23	12.52	0.602	0.048	0.855	-0.007	0.037	0.651	3.479	
24	14.02	0.606	0.046	0.817	-0.010	0.034	0.600	-0.532	
25	15.52	0.591	0.047	0.842	-0.009	0.033	0.579	-2.062	
26	17.02	0.575	0.054	0.962	-0.006	0.037	0.654	-2.903	
27	18.02	0.581	0.059	1.055	-0.003	0.044	0.789	-0.205	

PROFILE 1

Series: 3MR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
12.4	0.35	0.752	101839	0.072	0.085	0.829			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
1	0.40	0.486	0.122	1.688	0.020	0.061	0.842	33.653	
2	0.50	0.511	0.128	1.783	0.017	0.061	0.841	37.004	
3	0.60	0.532	0.125	1.737	0.015	0.062	0.859	35.904	
4	0.70	0.551	0.129	1.796	0.016	0.063	0.873	38.979	
5	0.90	0.583	0.125	1.741	0.019	0.063	0.881	34.599	
6	1.10	0.626	0.124	1.726	0.014	0.066	0.911	35.956	
7	1.30	0.655	0.125	1.731	0.010	0.065	0.898	33.654	
8	1.60	0.673	0.120	1.669	0.011	0.066	0.914	33.154	
9	1.90	0.716	0.119	1.652	0.008	0.066	0.922	33.704	
10	2.30	0.740	0.119	1.658	0.007	0.066	0.919	33.342	
11	2.90	0.794	0.114	1.581	0.001	0.066	0.910	33.615	
12	3.50	0.827	0.109	1.506	-0.002	0.065	0.896	31.964	
13	4.20	0.871	0.104	1.439	-0.005	0.062	0.859	32.679	
14	5.20	0.915	0.094	1.307	-0.010	0.059	0.812	27.557	
15	6.20	0.954	0.084	1.159	-0.013	0.054	0.744	21.430	
16	7.20	0.996	0.073	1.019	-0.019	0.048	0.669	16.303	
17	8.70	1.043	0.051	0.711	-0.026	0.038	0.533	6.144	
18	10.20	1.052	0.040	0.562	-0.029	0.032	0.449	1.604	
19	11.20	1.040	0.043	0.592	-0.029	0.029	0.400	0.186	

PROFILE 2

Series: 3MR

H	B	Fr	Re	u _{*1}	u _{*2}	U _{bulk}			
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]			
11.78	0.4	0.711	89109	0.105	0.153	0.764			
Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$	
1	1.05	0.406	0.167	1.593	0.019	0.087	0.827	53.027	
2	1.15	0.457	0.170	1.616	0.013	0.089	0.852	65.460	
3	1.25	0.456	0.172	1.636	0.014	0.091	0.863	65.017	
4	1.35	0.484	0.177	1.689	0.014	0.093	0.890	71.960	
5	1.45	0.504	0.179	1.700	0.014	0.094	0.893	73.414	
6	1.65	0.539	0.183	1.742	0.014	0.093	0.885	73.857	
7	1.85	0.587	0.182	1.732	0.013	0.094	0.898	72.455	
8	2.05	0.601	0.195	1.854	0.017	0.094	0.894	79.042	
9	2.35	0.648	0.191	1.814	0.018	0.092	0.875	74.484	
10	2.65	0.709	0.192	1.825	0.018	0.089	0.852	76.378	
11	3.05	0.761	0.179	1.701	0.017	0.086	0.817	70.009	
12	3.65	0.819	0.165	1.569	0.022	0.080	0.758	54.899	
13	4.25	0.897	0.145	1.385	0.022	0.073	0.693	47.214	
14	4.95	0.961	0.117	1.118	0.027	0.064	0.610	31.672	
15	5.95	0.998	0.108	1.028	0.034	0.059	0.561	26.487	
16	6.95	1.037	0.087	0.832	0.039	0.052	0.492	14.961	
17	7.95	1.074	0.064	0.609	0.047	0.043	0.409	6.818	
18	9.45	1.077	0.051	0.490	0.063	0.037	0.354	1.608	

PROFILE 3

Series: 3MR

H	B	Fr	Re	u_{*1}	u_{*2}	U_{bulk}
[cm]	[m]	[-]	[-]	[m/s]	[m/s]	[m/s]
12.73	0.45	0.562	79208	0.097	0.090	0.628

Point	Z	\bar{u}	$\sigma(u)$	$\sigma(u)/u_*$	\bar{w}	$\sigma(w)$	$\sigma(w)/u_*$	$-\overline{u'w'}$
1	0.42	0.294	0.151	1.550	-0.012	0.075	0.767	52.709
2	0.52	0.305	0.152	1.561	-0.008	0.072	0.734	50.706
3	0.62	0.326	0.156	1.604	0.005	0.079	0.815	45.527
4	0.72	0.368	0.158	1.623	0.052	0.061	0.624	2.167
5	0.82	0.395	0.147	1.513	0.057	0.066	0.672	8.386
6	0.92	0.410	0.149	1.531	0.056	0.070	0.717	19.411
7	1.02	0.407	0.149	1.526	0.051	0.073	0.745	27.490
8	1.12	0.411	0.149	1.529	0.048	0.072	0.743	28.758
9	1.22	0.448	0.153	1.570	0.040	0.077	0.787	35.761
10	1.42	0.474	0.153	1.568	0.035	0.079	0.807	42.154
11	1.62	0.488	0.157	1.609	0.029	0.082	0.838	46.414
12	1.92	0.525	0.152	1.561	0.025	0.083	0.854	50.955
13	2.22	0.556	0.160	1.641	0.020	0.085	0.873	54.345
14	2.62	0.600	0.157	1.615	0.016	0.088	0.900	59.322
15	3.02	0.624	0.158	1.623	0.015	0.089	0.917	60.156
16	3.62	0.673	0.160	1.647	0.017	0.089	0.909	64.441
17	4.32	0.726	0.156	1.598	0.017	0.090	0.924	57.822
18	5.02	0.800	0.142	1.460	0.017	0.083	0.850	50.564
19	6.02	0.848	0.138	1.419	0.026	0.076	0.782	46.102
20	7.02	0.920	0.112	1.147	0.030	0.066	0.675	29.564
21	8.02	0.972	0.081	0.835	0.036	0.054	0.557	13.958
22	9.52	0.986	0.063	0.644	0.052	0.045	0.460	4.244
23	11.02	0.980	0.054	0.555	0.070	0.036	0.372	-2.879

6 References

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