



SHARE
Stations at High Altitude for Research on the Environment

METEOROLOGICAL NETWORK
2012
SHARE Project

MARCELLO ALBORGHETTI, ROBERTA TOFFOLON,
GIAN PIETRO VERZA, ELISA VUILLERMOZ
Ev-K2-CNR - Italy

GIACOMO AGRILLO, PAOLO BONASONI,
PAOLO CRISTOFANELLI, ANGELA MARINONI
*Institute of Atmospheric Sciences and Climate
of the Italian National Research Council (ISAC-CNR) - Italy*

PIERO DI CARLO
CETEMPS – University of Aquila, Italy

ISABEL MORENO, MARCOS ANDRADE
Laboratory for Atmospheric Physics UMSA, Bolivia

GUGLIELMINA DIOLAIUTI, ANTONELLA SENESE
*Department of Earth Sciences "A.Desio"
Università degli Studi di Milano, Italy*



1. INTRODUCTION	7
1.1 Aws quality control	9
2 SITES DESCRIPTION	10
2.1 Nepal	10
2.2 Pakistan	12
2.3 Italy	13
2.4 Uganda	15
2.5 Bolivia	16
3 PRESENTED DATA	17
3.1 Meteorological Data	19
3.1.1 NEPAL	19
AWS PYRAMID	19
Technical sheet	20
Air temperature (°C)	21
Relative humidity (%)	22
Atmospheric pressure (hPa)	23
Wind direction (prevailing sector)	24
Wind speed (m/s)	25
Rain precipitation (mm)	25
Global solar radiation (W/m ²)	26
AWS LUKLA	27
Technical sheet	27
Air temperature (°C)	28
Relative humidity (%)	29
Atmospheric pressure (hPa)	30
Wind direction (prevailing sector)	31
Wind speed (m/s)	32
Incoming shortwave radiation (W/m ²)	33
Incoming longwave radiation (W/m ²)	34
Outgoing longwave radiation (W/m ²)	35
AWS NAMCHE	37
Technical sheet	37
Air temperature (°C)	38
Relative humidity (%)	39
Atmospheric pressure (hPa)	40
Wind direction (prevailing sector)	41
Wind speed (m/s)	42
Rain precipitation (mm)	43
Global solar radiation (W/m ²)	44
AWS PHERICHE	45
Technical sheet	45
Air temperature (°C)	46
Relative humidity (%)	47
Atmospheric pressure (hPa)	48
Wind direction (prevailing sector)	49
Wind speed (m/s)	50

Rain precipitation (mm)	51
Global solar radiation (W/m ²)	52
AWS KALA PATTHAR	53
Technical sheet	53
Air temperature (°C)	54
Relative humidity (%)	55
Atmospheric pressure (hPa)	56
Wind direction (prevailing sector)	57
Wind speed (m/s)	58
Rain precipitation (mm)	59
Global solar radiation (W/m ²)	60
AWS CHANGRI NUP	61
Technical sheet	61
Air temperature (°C)	62
Relative humidity (%)	63
Wind direction (prevailing sector)	64
Wind speed (m/s)	65
Incoming shortwave radiation (W/m ²)	66
Outgoing shortwave radiation (W/m ²)	67
Incoming longwave radiation (W/m ²)	68
Outgoing longwave radiation (W/m ²)	69
3.1.2 PAKISTAN	71
AWS ASKOLE	71
Technical sheet	71
Air temperature (°C)	72
Relative humidity (%)	73
Atmospheric pressure (hPa)	74
Wind direction (prevailing sector)	75
Wind speed (W/m ²)	76
Rain precipitation (mm)	77
Global solar radiation (W/m ²)	78
AWS URDUKAS	79
Technical sheet	79
Incoming shortwave radiation (W/m ²)	80
Outgoing shortwave radiation (W/m ²)	81
Incoming longwave radiation (W/m ²)	82
Outgoing longwave radiation (W/m ²)	83
AWS CONCORDIA	85
Technical sheet	85
Air temperature (°C)	86
Relative humidity (%)	87
Wind direction (prevailing sector)	88
Wind speed (m/s)	89
Incoming shortwave radiation (W/m ²)	90
Outgoing shortwave radiation (W/m ²)	91
Incoming longwave radiation (W/m ²)	92
Outgoing longwave radiation (W/m ²)	93
3.1.3 ITALY	95



AWS BIANCO - OSRAM	95
Technical sheet	95
Air temperature (°C)	96
Relative humidity (%)	97
Atmospheric pressure (hPa)	98
Incoming shortwave radiation (W/m ²)	99
Outgoing shortwave radiation (W/m ²)	100
Outgoing longwave radiation (W/m ²)	101
AWS DOSDÈ-LEVISSIMA	103
Technical sheet	103
Air temperature (°C)	104
Atmospheric pressure (hPa)	105
Incoming shortwave radiation (W/m ²)	106
Outgoing shortwave radiation (W/m ²)	107
Incoming longwave radiation (W/m ²)	108
Outgoing longwave radiation (W/m ²)	109
AWS1 FORNI	111
Technical sheet	111
Air temperature (°C)	112
Relative humidity (%)	113
Atmospheric pressure (hPa)	114
Wind direction (prevailing sector)	115
Wind speed (m/s)	116
Rain precipitation (mm)	117
Incoming shortwave radiation (W/m ²)	118
Outgoing shortwave radiation (W/m ²)	119
Incoming longwave radiation (W/m ²)	120
Outgoing longwave radiation (W/m ²)	121
Snow level (cm)	
3.1.4 UGANDA	123
AWS RWENZORI	123
Technical sheet	123
4 ATMOSPHERIC COMPOSITION (OZONE AND BLACK CARBON) DATA	125
3.2.1 NEPAL	125
NCO-P	125
Technical sheet	125
Ozone (ppbv)	128
BLack Carbon (ng/m ³)	128
3.2.2 ITALY	129
O. VITTORI	129
Technical sheet	129
Ozone(ppbv)	130
Black carbon (ng/m ³)	131
PORTELLA CLIMATE OBSERVATORY	133
Technical sheet	133

Ozone (ppbv)	134
3.2.3 BOLIVIA	135
CHACALATAYA OBSERVATORY	135
Technical sheet	135
Ozone(ppbv)	136
4. ACKNOWLEDGEMENTS	139
5. BIBLIOGRAPHY	141

1. Introduction

SHARE - Stations at High Altitude for Research on the Environment – is an integrated environmental project funded by the Ministry of Education, University and Research (MIUR) and promoted by Ev-K2-CNR in 2005 with the support of Italian and International research institutions and in collaboration with the United Nations Environment Program (UNEP). The project is focused on mountain regions as primary indicators of climate change and it responds to the call of international and intergovernmental institutions for improving environmental research in high mountain regions. SHARE specific aim is to improve

scientific knowledge on climate variability in mountain regions, by ensuring the availability of long term, high quality data. Thirteen automatic weather stations (AWSs) and three atmospheric observatories (ATM) installed around the world at several altitudes contributed to the SHARE network, regularly sharing data on meteorological and atmospheric conditions.

Data collected at high altitude in the SHARE project provide unique information to several international climate-environmental monitoring programs, as like as UNEP-ABC, WMO-GAW, NASA AERONET.

Installation site	Country/Continent		Station	Characteristics	Altitude (m a.s.l.)
Mt. Cimone (Northern Apennines)	Italy	Europe	"Ottavio Vittori" Observatory (ISAC-CNR)	ATM	2165
Forni Glacier (<i>Central Alps</i>)	Italy	Europe	AWS1 Forni	AWS	2669
Dosdè Glacier (<i>Central Alps</i>)	Italy	Europe	AWS Dosdè-Levissima	AWS	2850
Gigante Glacier (<i>Western Alps</i>)	Italy	Europe	AWS Bianco- Osram	AWS	3430
Campo Imperatore (<i>Gran Sasso Apennines</i>)	Italy	Europe	Mt. Portella Observatory (CETEMPS)	ATM	2401
Pyramid Laboratory Observatory (<i>Lobuche, Khumbu Valley</i>)	Nepal	Asia	NCO-P (ABC-Pyramid)	ATM	5079
			AWS1	AWS	5050
Pheriche (<i>Khumbu Valley, Himalayas</i>)	Nepal	Asia	AWS2	AWS	4258
Namche Bazaar (<i>Khumbu Valley, Himalayas</i>)	Nepal	Asia	AWS NP	AWS	3560
Lukla (<i>Khumbu Valley, Himalayas</i>)	Nepal	Asia	AWS3	AWS	2660
Kala Patthar (<i>Khumbu Valley, Himalayas</i>)	Nepal	Asia	AWS-KP	AWS	5600
Changri Nup Glacier (<i>Khumbu Valley, Himalayas</i>)	Nepal	Asia	AWS-CNG	AWS	5700
Urdukas (<i>Baltoro Glacier, Karakorum</i>)	Pakistan	Asia	AWS PK1	AWS	3926
Askole (<i>Baltoro Glacier, Karakorum</i>)		Asia	AWS PK2	AWS	3015
Concordia (<i>Baltoro Glacier, Karakorum</i>)	Pakistan	Asia	AWS CO	AWS	4700
Mt. Stanley (<i>Elena Glacier, Rwenzori</i>)	Uganda	Africa	AWS RW	AWS	4750
Chacaltaya (<i>Cordillera Real, Ande</i>)	Bolivia	South America	Chacaltaya Laboratory (La Paz University)	ATM	5240

Tab.1 - Measurement stations (AWS: automatic weather stations, ATM: observatories for atmospheric composition measurements) contributing to the SHARE Project.

1.1 Aws quality control

Since spring 2011, in the framework of the SHARE project, the calibration activities of the automatic weather stations have been improving thanks to the use of a mobile Quality Control AWS (AWS QC).

This action, necessary to guarantee high quality measurements and check the state of the stations, was started in Nepal, where the most of AWSs are installed and then it will continue systematically in the other countries in order to calibrate all AWSs.

The AWS QC is equipped with sensors and acquisition systems with uncertainties, known and certified (see table below).

In 2012 the AWS QC was used to calibrate the AWSs installed at Periche and Lukla.



Fig. 1 - AWS QC installed near the AWS in Namche

Variable	Time Resolution	Manufacturer	Accuracy	Resolution	Certification
Data Logger	-	Campbell CR1000	-	-	-
Air temperature (°C)	10 s	Vaisala HUMICAP HMO155	±0.17 °C	0.1 °C	ISO 9001:2000 ISO/IEC 17025
Relative humidity (%)	10 s	Vaisala HUMICAP HMO155	±1 %	0.1 %	ISO 9001:2000 ISO/IEC 17025
Atmospheric pressure (hPa)	10 s	Vaisala BAROCAP PTB330	0.15 hPa	0,45 hPa	ISO 9001:2000 ISO/IEC 17025
Global solar radiation (W/m ²)	0.1 s	CMP21 pyranometer (Kipp & Zonen) CGR4 Pyrgeometer (Kipp & Zonen)	1 W/m ²	n.a	-
Wind speed (m/s)	4 s	WAV151	±0.5 m/s	-	-
Wind direction (degree)	4 s	WAA151	±0.3°	5.6°	-

Tab. 2 - AWS QC set-up

2. Sites description

2.1 NEPAL

The SHARE activities in Nepal are carried out mainly along the Khumbu Valley located in the central part of the Himalayan Range and partially included in the Sagarmatha National Park area. Thanks to its location, this valley represents a strategic area to study climate change and its effects on mountain ecosystems, containing the southern half of Mount Everest and its summit.

The area is characterized by poor annual mean precipitation mostly concentrated during the summer monsoon season. Winter synoptic circulation is dominated by western streams (westerly) bringing events which lead to snowfalls in the western and central Himalayan Range and the Tibetan Plateau. In summer, southern monsoon streams dominate carrying damp ocean air toward the interior of the continent. Throughout all seasons - except for the monsoon - an intense southern valley breeze blows during the day, contrasted by a less intense northern mountain breeze at night. During the monsoon, a valley breeze is also common at night (Ueno et al., 2008). Moreover, Himalayan high-altitude meteorology is strongly influenced by the Asian monsoon circulation and by local mountain wind system (Bonasoni et al., 2010).

In this region a network of six automatic weather stations and one atmospheric laboratory has been installed since 1994 and covers an altitudinal range from 2660 to 5700 m a.s.l. (Fig. 1). In particular, the meteorological stations that constitute the SHARE Network in Nepal are located

in Lukla (2660 m a.s.l.), Namche (3560 m a.s.l.), Pheriche (4258 m a.s.l.), Pyramid (5050 m a.s.l.), Kala Patthar (5600 m a.s.l.) and Changri Nup (5700 m a.s.l.).

The most of automatic weather stations take hourly measurements of seven standard meteorological parameters: temperature, relative humidity, atmospheric pressure, wind speed and direction, short-wave global radiation, rain precipitation.

At Pyramid the AWS was implemented by sensors for the determination of soil parameters (temperature, water content, and thermal flux) and four components of radiations. Kala Patthar AWS records also UVA radiation in addition to the standard meteorological parameters.

Since 2006, near the International Laboratory Observatory Pyramid, the Nepal Climate Observatory-Pyramid (NCO-P) is operative at 5079 m a.s.l. and regularly collects data concerning atmospheric composition variability. This station is installed in a key area to study the background atmospheric condition of Khumbu Valley and improve knowledge on Atmospheric Brown Cloud (ABC) phenomenon as reported in many papers (see Bonasoni et al., 2010; Marinoni et al., 2010; Duchi et al., 2011; Bonasoni et al., 2012; Bracci et al., 2012; Cristofanelli et al., 2010). Thanks to its contribution to research, the NCO-P represents the 34th Global Station in the framework of Global Atmosphere Watch – World Meteorological Organization (GAW-WMO).

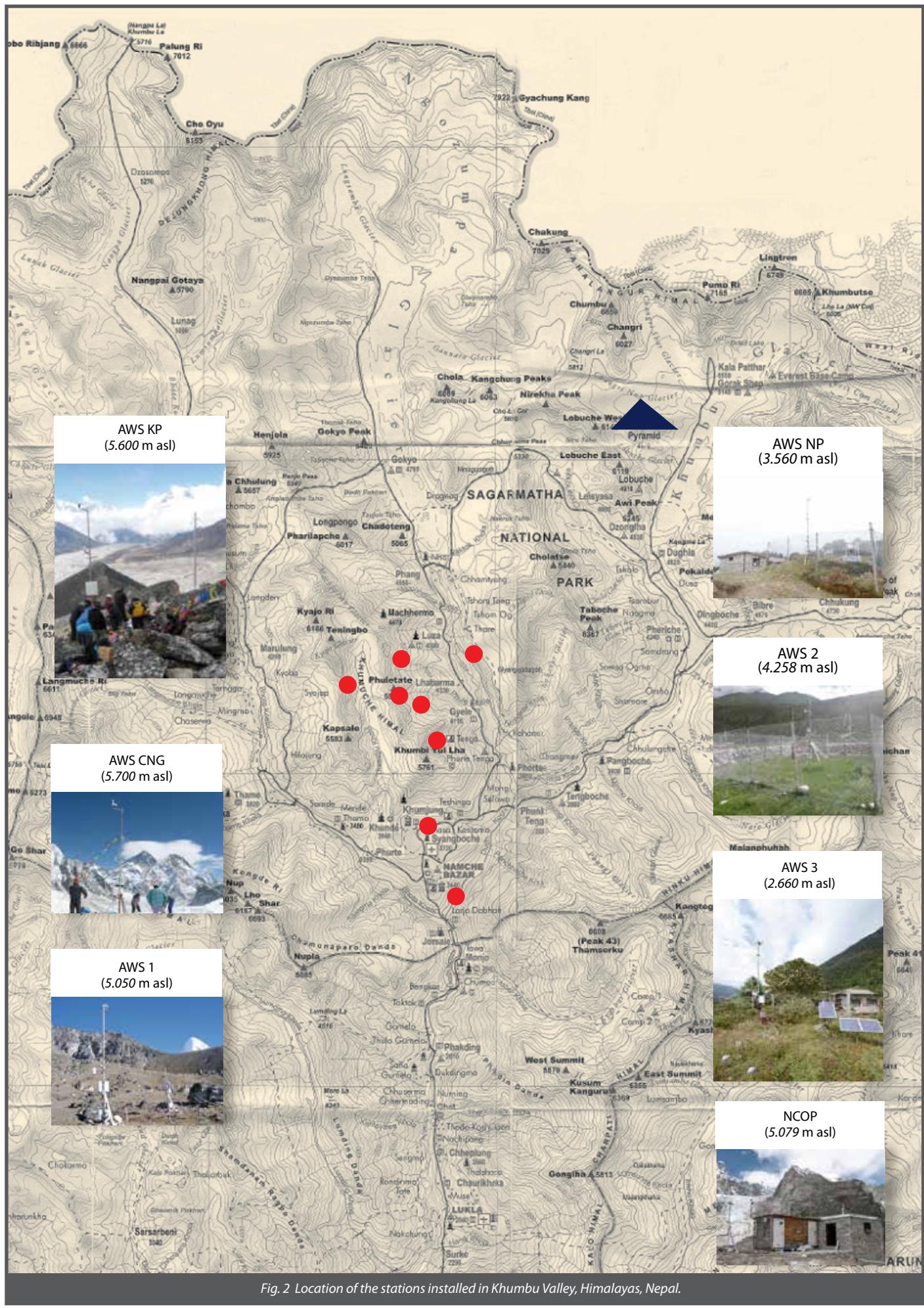


Fig. 2 Location of the stations installed in Khumbu Valley, Himalayas, Nepal.

2.2 PAKISTAN

In Pakistan, the SHARE activities are focused in Central Karakorum National Park on Baltoro Glacier, Karakorum.

During the winter and spring period, the Karakoram area is affected mainly by a broad scale weather system originating primarily from the Mediterranean or from the area of the Caspian Sea and from air mass convective storm in the pre-monsoon season (Archer, 2001; Archer and Fowler, 2004; Treydte et al., 2006; Syed et al., 2006).

In spite of climate changes, relatively recent studies carried out on this glacier in the last 50 years show small and limited variation concerning its extension in respect to most of the mountain glaciers on the Earth (Mihalcea et al., 2006, 2008).

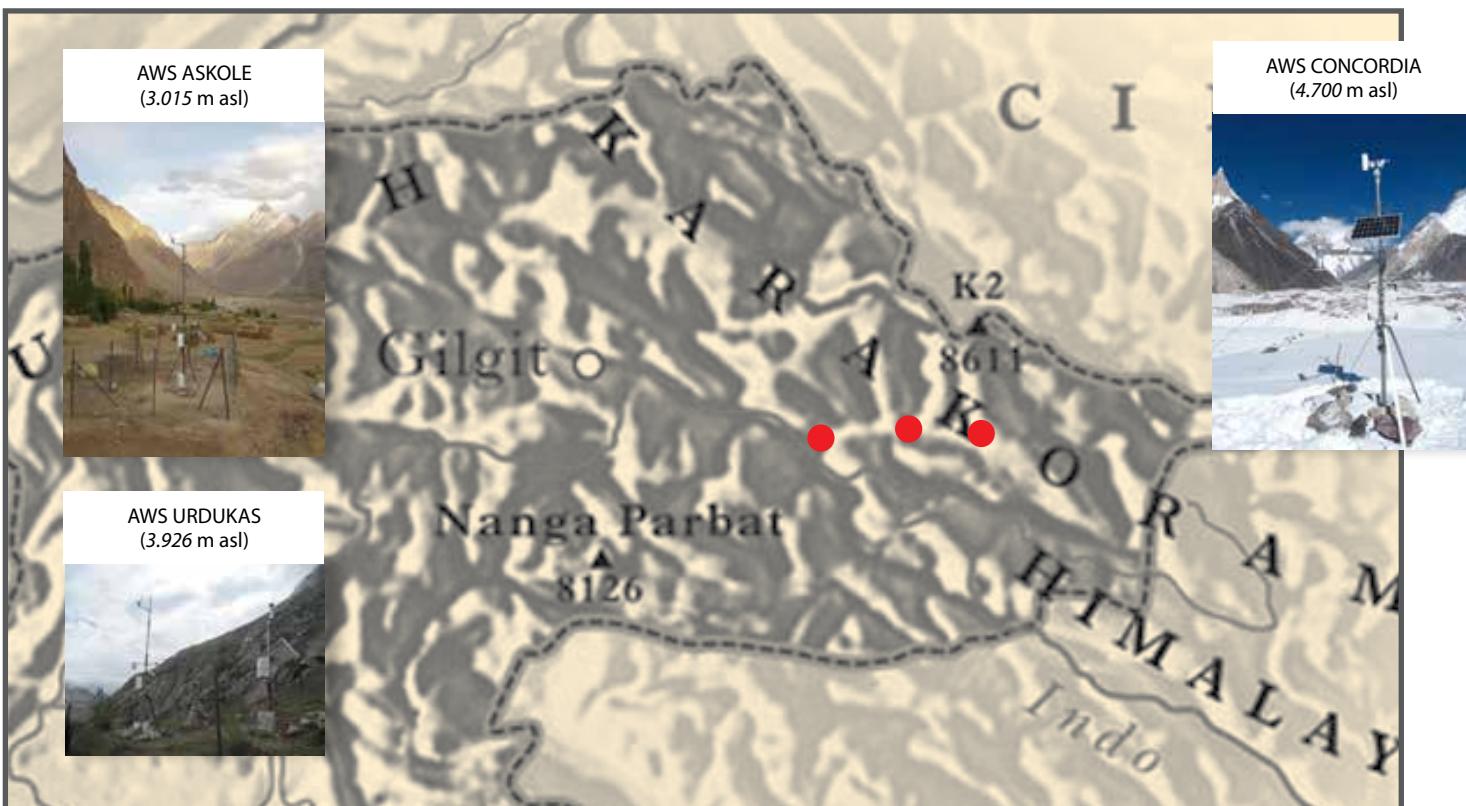
In fact, on the Baltoro Glacier the debris insulation effect allowed a large quantity of ice in the glacier tongue to be conserved. In this region climate is very wet and characterized by low temperatures.

Moreover it is poorly influenced by monsoon and precip-

itations show a regular trend (Archer, 2001).

In this region three AWS are operative. Specifically, in the Central Karakorum National Park, the AWS-Urdukas (3926 m a.s.l.) and the AWS-Askole (3015 m a.s.l.) have been working since 2004 and 2005, respectively. They are supplying unique information, useful to characterized meteorological condition of Baltoro Glacier. Both stations record standard meteorological parameters with hourly frequency. Moreover, since July 2011, Urdukas station has been implemented by the installation of sensors to investigate the of the short-wave and long-wave radiation budget.

The same parameters are recorded also by a new station installed in 2011 at Concordia (4700 m a.s.l.), in one of most impressive glacier basin in the world: the Baltoro. The glaciers flowing from K2, Broad Peak, and Gasherbrum I and II plus many others are joining in Concordia and flowing out to the Baltoro glacier for 60 km in total.



2.3 ITALY

In Italy the monitoring activities are focused on Alps and Apennines Area.

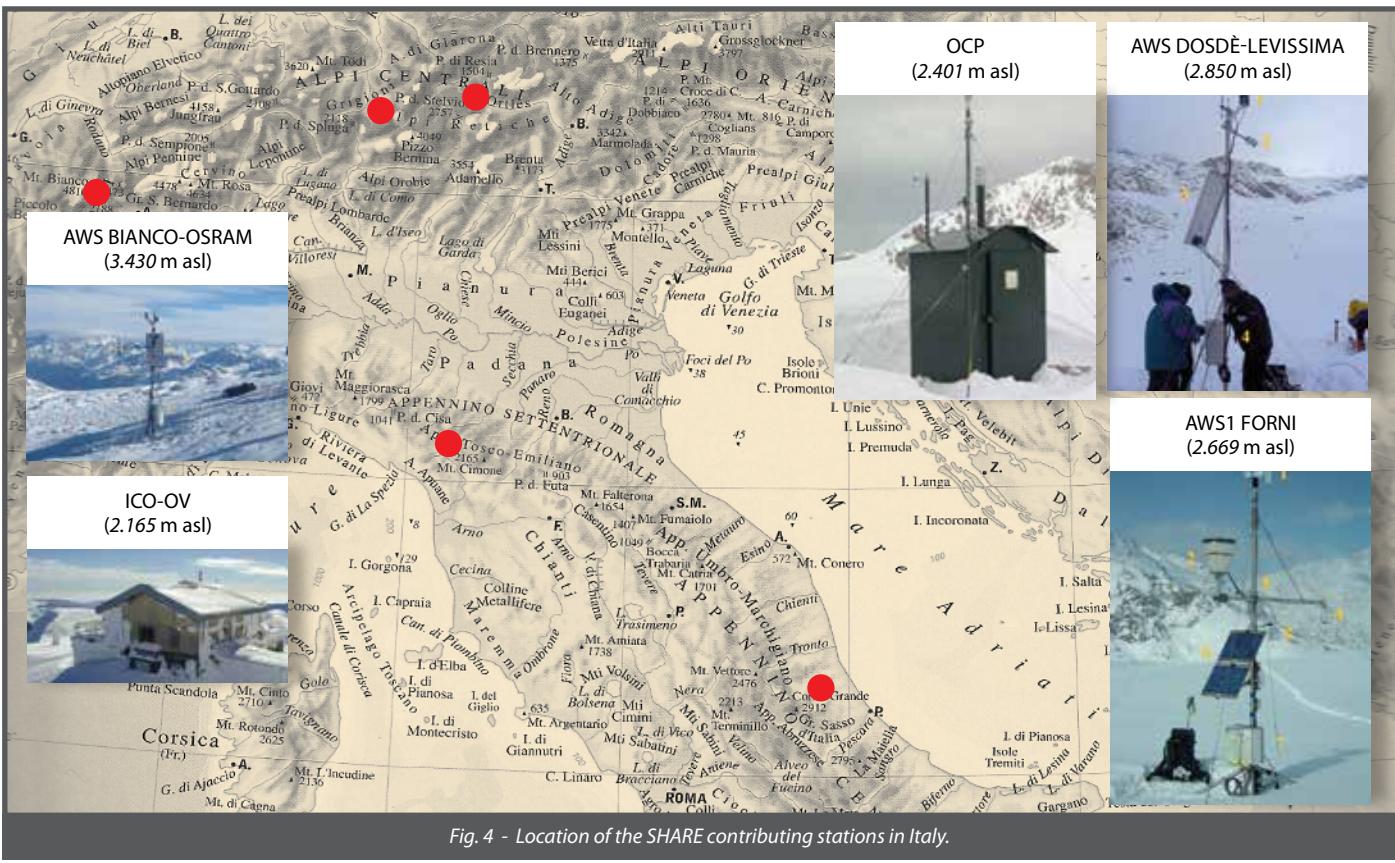
On Alps three AWSs are installed on three different Italian Glaciers. The AWS1 Forni has been installed on Forni Glacier on September 26, 2005 at 2669 m a.s.l. and its location is a good compromise between the needs for minimizing local topography effects and lowering the probability of avalanches destroying the AWS. This station represents the first Italian permanent above glacial AWS that supply a big number of information about micro-meteorological conditions on surface of an Italian Alpine glacier. In particular, this station is located in the glacial ablation area and permits to measure both the winter accumulation and the thermal conditions and in-coming/out-coming energetic fluxes that rules the losses of glacial masses during the summer period (Diolaiuti et al., 2012; Diolaiuti et al., 2011; Senese et al., 2010; Senese et al., 2010)

The AWS Dasdè – Levissima is the second Italian permanent station and it has been installed on August 14, 2007, on Dasdè Glacier. This station located at 2850 m

asl permits to collect data on above glacial thermal conditions and incoming and outgoing energetic fluxes. This automatic weather station represent the highest Lombardy permanent station on glacier and its data can be comparable to those collected by AWS Forni in order to verify the effects of climate change on glacial size and micro-meteorological parameters (Diolaiuti et al., 2011)

The AWS Monte Bianco – Osram is the third Italian permanent automatic weather station and has been installed on December 17, 2007 on Gigante Glacier (Mt. Bianco's group), one of the most important Italian glacier group. The AWS Monte Bianco, is located about 400 m from the "Punta Helbronner" and represents the highest Italian permanent AWS on glacier. Data collected by this station permit to improve knowledge both on local micro-meteorological knowledge and to support the periglacial researches.

Moreover, this station located at 3430 m asl permits to collect data on above glacial thermal conditions and incoming and outgoing energetic fluxes. Data collected by this station can be compared to the AWSs installed on Forni and Dasdè glaciers.



On Apennines, at Mt. Cimone the Italian Climate Observatory "Ottavio Vittori" (ICO-OV) is installed. Mt. Cimone is the highest peak of the Northern Apennines on the border line of two different climatic regions: the Continental Europe northwards and the Mediterranean Basin southwards.

The Italian Climate Observatory "O. Vittori" (ICO-OV) is a research infrastructure managed by the Institute of Atmospheric Sciences and Climate (ISAC) of the National Research Council (CNR).

It is the only high mountain station for atmospheric research both South of the Alps and the Po basin and it represents a strategic platform to study the chemical-physical characteristics and climatology of the South Europe and North Mediterranean basin. The ICO-OV is the only Global Station of the GAW-WMO over the Italian territory. At the ICO-OV, continuous monitoring of climate-altering compounds (trace gases and aerosol), solar radiation as well as meteorological parameters are carried out since 1996.

The ICO-OV activity can help to better monitor the chan-

ges of atmospheric composition, to investigate the processes influencing climate and to assess the contribution of short and long-range air mass transport to atmospheric variability (Cristofanelli P. & P. Bonasoni, 2009; Cristofanelli et al., 2012). ICO-OV is part of several international networks devoted to the long-term monitoring of atmospheric properties and climate change study. Data from ICO-OV are also used to calibrate and verify data from satellites and model simulations too.

On the Central Apennines, on one of the ridge of the Mt. Portella (2401 m a.s.l.), in the Gran Sasso chain, the Portella Climate Observatory (OCP) has been installed in June 2012. OCP is the highest atmospheric observatory of the Apennines, near the Calderone glacier (the southernmost of Europe). It is a strategic site to observe the chemical, physical and climatological changes of the atmosphere in the Mediterranean basin.

This station records in continuous the main meteorological parameters, ozone and NO_x concentrations and size particle distribution.

2.4 UGANDA

In Africa, the SHARE monitoring activities are focused in Uganda, in particular on Mt. Stanley in Rwenzori mountain area.

The Rwenzori Mountains (also called "Mountains of the Moon"), with heights of up to 5109 m a.s.l. are located in the central Africa, on the border between Uganda and the Democratic Republic of Congo, in the Ugandan National Park ,an UNESCO World Heritage Site.

In the Rwenzori Range some of the main peaks are covered with permanent snow and glacier, while the lower slopes are covered with dense forest. Besides there are several massifs such as Point Margherita, the third hi-

ghest African summit after Mt. Kilimanjaro and Mt. Kenya.

The AWS Rwenzori (RW) has been installed in the western part of the Stanley Plateau on 2006 This AWS worked until 2009 recording in continuous the standard meteorological parameters.

These data allowed to characterize meteorological conditions of the area and to analyse the air mass transport (Lentini et al., 2011).

Recently, on January 2013, the AWS was re-activated with an improved set-up also including measurements of snow level, short-wave and long-wave radiation budget, rain precipitation.



Fig. 5 - Map of the station installed in Rwenzori National Park

2.5 BOLIVIA

In Bolivia, SHARE contributed to the reinforcement of the GAW-WMO station at Chacaltaya, a new atmospheric observatory managed by the La Paz University. In particular, thanks to SHARE contributions, from December 2011, the atmospheric ozone concentration is measured at Chacaltaya Laboratory.

The Chacaltaya laboratory (5240 m asl) is the highest site for astrophysical and cosmic rays research in the world. For its location, the Chacaltaya laboratory is considered the viewpoint of Cordillera Real, on the Bolivian Andes.

Built on the Bolivian Andes plateau, this laboratory is surrounded by mountains higher than 5,000 m a.s.l., such as Illimani (6462 m a.s.l.), Mururata (5775 m a.s.l.), Condoriri (5696 m a.s.l.) and the beautiful Huayna Potosi (6088 m a.s.l.), one of the most scenic mountains in the world. On this mountain, the homonymous glacier found place and it has now completely disappeared, as Edson Ramirez, Professor at La Paz University, announced a couple of years ago. Therefore, studying climate evolution in this area of South America appears more important than ever.



Fig. 6 - Map of the Chacaltaya Observatory

3. Presented data

This report gathers the 2012 pre-validated data of all automatic weather stations and atmospheric observatory in Nepal, Pakistan, Italy and Bolivia in the framework of SHARE project.

For all stations there is a documentation sheet where technical information are shown, followed by tables collecting mean daily/total daily data for each standard meteorological parameter.

Daily rain precipitation corresponds to the sum of hourly rain of that day (if temperature value is under zero, the rain precipitation data can be underestimate) while daily wind direction data are represented by daily prevailing wind sector.

In mountain areas the wind system is characterized by mountain-valley breezes. In addition in several melting glacier surfaces during a large part of the summer and in high latitude areas in wintertime, like Antarctica, the glacier boundary layer can not show a clear daily cycle due to katabatic fluxes occurrence (i.e. winds that flow down the topographic gradient or out of a valley due to surface cooling that gives this air a greater density than the free atmospheric air).

In order to account this complex system, the days featuring more than one prevailing direction are indicated with "var".

For the atmospheric observatories, among several pa-

rameters, we decided to present here ozone and black carbon concentration data.

These parameters are two widely reognised **short-lived climate forcers and pollutants (SLCF/P)**, i.e. atmospheric compound able to exert a climate forcing by modifying the energy budget of the atmosphere, but having a shorter lifetimes than carbon dioxide.

Since both ozone and black carbon are dangerous air-pollutants, it has been assessed that reducing theri emissons can lead to immediate climate and social benefits, especially at regional scale.

Since most of the stations here considered are unmaned, it should be noted that for radiometric measurements data can be occasionally affected by the snow accumulation over the sensor.

Since the AWS experimental set-up is not specifically designed for the snow precipitation sampling, the precipitation data (here expressed as "rain precipitation") can be significantly underestimated when air-temperature is below the freezing point.

In the tables "not available" (n.a.) is indicated when the number of hourly data were insufficient (less than 75%) or the measurements were not performed.

The ten-day averages or total values are calculated when there are at least six days of daily data available.

3.1 Meteorological Data

3.1.1 NEPAL

AWS PYRAMID

TECHNICAL SHEET					
Coordinates:					
Latitude: 27° 57' 33" N					
Longitude: 86° 48' 46" E					
Elevation: 5.050 m a.s.l					
Installation Time:					
September 2000					
Data Availability:					
From October 1 st , 2000					



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT ON POLE	MANUFACTURER
AWS1 Data Logger				2 m	LSI-Lastem Babuc ABC
Air Temperature	-30 - +70 °C	±0.1°C	60 min.	2 m	LSI-Lastem DMA570
Relative Humidity	0 - 100 %	±2.5%	60 min.	2 m	LSI-Lastem DMA570
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000	-	60 min.	2 m	Kipp & Zonen CM6B
CEOP Data Logger				2 m	LSI-Lastem E-Log
Heat Flux	<2000 Wm-2	3%	1 min	-5 cm	LSI-Lastem DPE260
Solar Radiations CNR1 sensor: (four components combined sensor+internal temperature with PT100)*	Pyranometer: 0 to 25 mV - Pyrgeometer: ±5 mV	±10% on daily totals - non linearity: < 1%	1 min	2 m	Kipp & Zonen CM3* pyranometer - Kipp & Zonen CG3 pyrgeometer
Snow level	0 to 8 m	0,1 % (FS)	1 min	2 m	Sommer USH-8
Soil Temperature	- 20 +70°C	0,15° (at 0°C)	1 min	-5 cm -20 cm	LSI- Lastem DLA400
Soil Moisture	0% from saturation point	1/10 of water amount	1 min	-5 cm	SDEC HMS 9000

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	-10.5	-4.0	-6.7	n.a.	3.2	4.7	2.5	1.7	-3.2	-4.6
2	n.a.	n.a.	-10.5	-3.6	-5.4	n.a.	3.8	4.9	1.5	1.8	-1.4	-4.0
3	n.a.	n.a.	-12.5	-5.6	-5.9	n.a.	3.0	3.0	2.6	1.2	-1.5	-1.5
4	n.a.	n.a.	-4.2	-4.4	-6.6	n.a.	2.1	3.0	2.2	0.1	-2.5	-1.0
5	n.a.	n.a.	-3.8	-5.0	-7.0	n.a.	2.9	3.4	1.9	-0.9	-2.7	-1.4
6	n.a.	n.a.	-3.7	-6.2	-6.4	n.a.	2.4	3.7	1.9	-1.7	-3.1	-0.8
7	n.a.	n.a.	-7.4	-6.2	-3.7	n.a.	2.4	4.5	2.1	-1.4	-4.2	-1.1
8	n.a.	n.a.	-7.2	-4.8	-1.7	n.a.	3.2	3.3	2.8	-1.2	-6.0	-2.4
9	n.a.	n.a.	-10.4	-4.4	-2.4	n.a.	4.0	1.8	2.4	-3.2	-6.5	-5.7
10	n.a.	n.a.	-9.9	-5.1	-2.9	n.a.	3.9	3.4	2.7	-2.5	-6.2	-6.6
Mean	n.a.	n.a.	-8.0	-4.9	-4.9	n.a.	3.1	3.6	2.3	-0.6	-3.7	-2.9
11	n.a.	n.a.	-7.2	5.2	1.9	n.a.	4.3	2.4	3.0	-3.4	-8.0	-7.3
12	n.a.	n.a.	-5.2	-4.5	-0.9	n.a.	3.5	2.5	3.1	-2.8	-10.0	-11.6
13	n.a.	n.a.	-8.6	-4.7	0.6	n.a.	3.8	2.3	2.7	-3.9	-9.3	-11.8
14	n.a.	n.a.	-8.5	-4.7	0.3	n.a.	3.9	3.6	2.3	-5.2	-8.2	-9.7
15	n.a.	-9.6	-10.8	-5.2	-1.3	n.a.	2.7	3.8	2.0	-4.2	-6.1	-4.7
16	n.a.	-9.9	-9.9	-4.9	-3.6	4.6	3.1	3.9	1.5	-3.9	-5.3	-4.2
17	n.a.	-10.3	-7.6	-3.4	-1.1	3.1	4.4	3.7	0.4	-5.3	-3.5	-1.4
18	n.a.	-9.8	-6.1	-2.8	-0.1	2.9	4.7	4.2	1.4	-3.4	-3.6	-1.2
19	n.a.	-8.6	0.3	-2.5	-1.1	3.8	3.2	3.4	2.0	-4.4	-4.9	-1.8
20	n.a.	-4.5	-1.0	-1.3	-1.2	4.2	3.5	1.8	2.0	-2.9	-4.0	-3.0
Mean	n.a.	-8.8	-6.5	-3.9	-1.0	3.7	3.7	3.2	2.0	-3.9	-6.3	-5.7
21	n.a.	-5.4	-0.5	-1.6	-0.2	3.7	4.4	2.4	2.2	-1.1	-3.5	-6.4
22	n.a.	-4.4	-0.3	-2.6	n.a.	3.8	4.8	2.4	1.5	-3.0	-1.3	-7.5
23	n.a.	-2.0	-0.1	-3.9	n.a.	3.4	4.8	2.4	1.3	-3.8	-3.0	-8.1
24	n.a.	-3.9	-1.2	-3.3	n.a.	3.8	3.5	3.0	0.2	-5.0	-6.4	-10.2
25	n.a.	-3.9	-2.4	-4.4	n.a.	3.7	3.6	3.1	0.1	-5.4	-4.8	-11.6
26	n.a.	-5.0	-3.6	-2.2	n.a.	2.7	4.0	2.3	0.6	-6.7	-4.5	-8.5
27	n.a.	-4.7	-4.3	-4.0	n.a.	2.4	3.9	2.6	0.8	-8.8	-4.4	-4.1
28	n.a.	-8.0	-2.8	-5.2	n.a.	3.1	3.9	3.6	1.4	-8.8	-3.6	-2.0
29	n.a.	-12.8	-5.3	-6.0	n.a.	4.0	3.9	3.4	1.7	-5.0	-3.9	-1.1
30	n.a.		-6.3	-6.4	n.a.	4.5	3.4	3.0	1.5	-5.0	-4.7	2.0
31	n.a.		-6.8		n.a.		3.9	2.9		-3.7		-0.6
Mean	n.a.	-5.6	-3.0	-4.0	n.a.	3.5	4.0	2.8	1.1	-5.1	-4.0	-5.3
MEAN	n.a.	-6.9	-5.7	-4.3	-2.8	3.6	3.6	3.2	1.8	-3.3	-4.7	-4.6
MIN	n.a.	-12.8	-12.5	-6.4	-7.0	2.4	2.1	1.8	0.1	-8.8	-10.0	-11.8
MAX	n.a.	-2.0	-0.3	-1.3	0.6	4.6	4.8	4.8	3.1	1.8	1.3	2.0

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	42.0	47.3	42.2	n.a.	99.8	96.9	96.1	88.1	45.9	9.8
2	n.a.	n.a.	58.5	51.8	54.4	n.a.	96.6	95.1	95.8	84.4	25.5	13.5
3	n.a.	n.a.	63.1	81.6	57.9	n.a.	99.2	99.4	86.5	78.7	22.1	7.3
4	n.a.	n.a.	35.1	74.8	67.2	n.a.	99.2	96.2	94.8	82.3	23.0	8.5
5	n.a.	n.a.	48.9	71.0	85.3	n.a.	99.9	94.8	97.4	77.8	24.1	13.0
6	n.a.	n.a.	36.0	84.5	80.3	n.a.	98.6	93.8	94.4	66.2	18.8	10.2
7	n.a.	n.a.	31.6	75.8	73.2	n.a.	97.9	89.3	94.0	74.2	16.6	9.9
8	n.a.	n.a.	31.8	72.1	66.7	n.a.	91.9	97.9	92.0	63.7	33.2	20.5
9	n.a.	n.a.	52.5	77.5	78.4	n.a.	91.2	99.0	95.2	84.3	35.1	12.5
10	n.a.	n.a.	25.9	88.8	90.3	n.a.	93.4	90.9	94.0	79.9	41.7	20.4
Mean	n.a.	n.a.	42.5	72.5	69.6	n.a.	96.8	95.3	94.0	78.0	28.6	12.6
11	n.a.	n.a.	14.8	81.8	82.2	n.a.	97.5	97.6	94.3	73.2	48.0	19.8
12	n.a.	n.a.	20.9	69.5	74.2	n.a.	97.4	96.4	95.9	46.2	63.7	48.6
13	n.a.	n.a.	67.9	56.9	48.6	n.a.	96.9	97.8	98.0	47.1	73.5	66.0
14	n.a.	n.a.	41.6	68.4	46.1	n.a.	97.5	89.3	97.8	77.2	57.5	29.3
15	n.a.	65.5	45.7	63.6	43.5	n.a.	99.2	90.3	99.1	67.0	27.3	12.5
16	n.a.	43.2	35.9	59.6	70.1	90.1	100.0	94.3	100.0	63.7	25.9	15.8
17	n.a.	29.7	47.7	59.2	64.1	97.4	97.9	96.6	100.0	73.6	24.4	11.7
18	n.a.	43.0	59.8	51.5	75.4	97.9	98.2	96.9	97.5	29.8	18.8	9.8
19	n.a.	45.3	24.8	64.7	77.8	91.7	100.0	98.2	92.9	41.3	15.2	7.3
20	n.a.	22.6	38.4	65.2	87.6	91.3	98.2	97.8	91.1	31.0	13.0	6.3
Mean	n.a.	41.5	39.8	64.0	66.9	93.7	98.3	95.5	96.7	55.0	36.7	22.7
21	n.a.	33.0	30.4	68.8	81.1	96.1	95.1	95.0	89.2	20.2	16.7	12.0
22	n.a.	24.1	22.1	40.8	n.a.	95.0	97.3	98.9	89.1	31.1	12.8	5.5
23	n.a.	7.6	23.4	35.9	n.a.	98.8	95.6	97.6	81.6	34.0	18.3	17.3
24	n.a.	7.2	29.1	38.6	n.a.	96.9	99.9	95.7	83.3	40.3	21.7	30.0
25	n.a.	12.2	33.7	62.9	n.a.	97.5	97.8	93.6	81.4	46.1	19.4	29.3
26	n.a.	19.9	42.6	45.8	n.a.	99.4	96.0	95.7	86.3	44.1	17.6	16.4
27	n.a.	18.5	58.1	64.6	n.a.	95.9	98.9	97.4	84.5	56.0	18.0	17.0
28	n.a.	34.3	39.9	65.8	n.a.	89.5	97.3	96.0	86.8	66.7	14.7	13.3
29	n.a.	60.9	44.3	71.1	n.a.	90.3	97.8	97.5	87.6	36.6	11.5	5.4
30	n.a.		49.6	59.3	n.a.	90.6	99.0	99.5	89.0	48.3	7.6	13.2
31	n.a.		63.3		n.a.		98.0	99.7		47.3		20.9
Mean	n.a.	24.2	39.7	55.4	n.a.	95.0	97.5	97.0	85.9	42.8	15.8	16.4
MEAN	n.a.	31.1	40.6	64.0	68.9	94.6	97.5	96.0	92.2	58.1	27.1	17.2
MIN	n.a.	7.2	14.8	35.9	42.2	89.5	91.2	89.3	81.4	20.2	7.6	5.4
MAX	n.a.	65.5	67.9	88.8	90.3	99.4	100.0	99.7	100.0	88.1	73.5	66.0

ATMOSPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	544.7	554.0	549.2	n.a.	553.1	552.9	554.0	555.5	553.0	549.5
2	n.a.	n.a.	543.4	554.6	550.0	n.a.	553.4	552.9	554.4	554.6	552.2	551.2
3	n.a.	n.a.	543.1	554.3	549.3	n.a.	552.4	552.5	554.0	553.0	551.8	551.6
4	n.a.	n.a.	545.4	552.6	549.2	n.a.	551.7	552.5	554.4	551.4	551.7	552.0
5	n.a.	n.a.	547.4	551.2	550.4	n.a.	552.0	553.2	554.9	552.1	551.4	553.1
6	n.a.	n.a.	546.7	549.5	551.0	n.a.	552.0	553.6	555.5	553.6	551.6	552.7
7	n.a.	n.a.	544.9	549.3	551.7	n.a.	551.8	554.1	555.7	554.4	550.4	551.6
8	n.a.	n.a.	545.6	549.7	552.9	n.a.	552.3	553.7	555.7	554.4	548.5	549.9
9	n.a.	n.a.	545.7	550.1	553.9	n.a.	553.4	553.3	555.4	553.3	549.0	548.8
10	n.a.	n.a.	547.2	550.2	554.1	n.a.	554.4	553.3	555.1	553.2	550.7	548.9
Mean	n.a.	n.a.	545.4	551.6	551.2	n.a.	552.6	553.2	554.9	553.6	551.0	550.9
11	n.a.	n.a.	549.6	550.6	552.9	n.a.	553.9	553.8	554.5	552.5	550.2	548.5
12	n.a.	n.a.	550.6	549.5	552.1	n.a.	553.5	553.7	554.1	552.3	549.6	546.5
13	n.a.	n.a.	549.3	550.3	551.7	n.a.	553.1	553.5	553.9	552.3	550.3	547.6
14	n.a.	n.a.	548.0	551.3	551.7	n.a.	552.4	553.8	552.7	552.0	549.4	549.5
15	n.a.	548.5	546.5	550.7	551.9	n.a.	552.7	554.3	552.1	553.0	550.4	551.2
16	n.a.	547.9	547.9	549.3	550.4	551.4	553.4	554.6	552.9	553.7	553.3	551.5
17	n.a.	547.7	548.9	549.7	551.3	551.6	553.3	554.4	554.8	553.4	553.8	551.8
18	n.a.	549.0	550.0	550.1	553.0	552.4	552.5	554.3	554.9	553.1	552.7	552.3
19	n.a.	547.7	552.1	551.0	553.5	551.8	552.2	554.2	554.2	553.2	551.9	549.3
20	n.a.	547.6	552.5	552.6	552.8	551.4	553.2	553.6	554.1	553.6	552.0	547.8
Mean	n.a.	548.1	549.5	550.5	552.1	551.7	553.0	554.0	553.8	552.9	551.3	549.6
21	n.a.	547.6	551.2	552.6	n.a.	552.2	554.3	553.5	554.1	554.0	552.0	548.4
22	n.a.	548.4	551.0	550.3	n.a.	553.0	553.5	554.3	554.0	553.8	551.3	549.0
23	n.a.	549.3	552.4	549.7	n.a.	552.0	552.2	554.2	553.3	552.6	550.9	551.7
24	n.a.	549.1	552.4	551.0	n.a.	550.8	552.1	554.2	552.7	550.8	548.2	549.6
25	n.a.	549.0	552.1	551.6	n.a.	550.6	553.1	554.8	553.3	549.9	547.7	546.5
26	n.a.	547.1	552.6	551.9	n.a.	550.4	553.3	554.6	555.2	550.7	548.9	547.2
27	n.a.	548.5	552.8	550.6	n.a.	551.2	552.5	554.0	556.2	551.0	548.6	548.6
28	n.a.	544.9	553.6	548.8	n.a.	552.1	552.9	554.6	556.0	551.6	549.3	548.2
29	n.a.	543.4	551.2	548.5	n.a.	552.6	558.3	555.2	556.0	552.9	548.7	548.8
30	n.a.		551.8	548.8	n.a.	552.6	553.0	555.0	555.6	553.3	548.0	549.3
31	n.a.		553.5		n.a.		552.8	554.2		553.6		548.2
Mean	n.a.	547.5	552.2	550.4	n.a.	551.7	553.4	554.4	554.6	552.2	549.3	548.7
MEAN	n.a.	547.7	549.2	550.8	551.7	551.7	553.0	553.9	554.5	552.9	550.6	549.7
MIN	n.a.	543.4	543.1	548.5	549.2	550.4	551.7	552.5	552.1	549.9	547.7	546.5
MAX	n.a.	549.3	553.6	554.6	554.1	553.0	558.3	555.2	556.2	555.5	553.1	553.1

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
2	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
3	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
4	n.a.	n.a.	N	S	S	n.a.	S	S	S	S	S	NE
5	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	NE
6	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	NE
7	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
8	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
9	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
10	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
Mode	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
11	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
12	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
13	n.a.	n.a.	S	S	S	n.a.	S	S	S	S	S	S
14	n.a.	S	SW	S	S	n.a.	S	S	S	S	S	S
15	n.a.	S	S	S	S	S	S	S	S	S	S	S
16	n.a.	S	N	S	S	S	S	S	S	S	S	NE
17	n.a.	S	S	S	S	S	S	S	S	S	S	S
18	n.a.	S	S	S	S	S	S	S	S	S	NE	S
19	n.a.	S	NW	S	S	S	S	S	S	S	S	S
20	n.a.	NE	S	S	S	S	S	S	S	S	S	S
Mode	n.a.	S	S	S	S	S	S	S	S	S	S	S
21	n.a.	S	S	S	S	S	S	S	S	S	S	NE
22	n.a.	NE	S	S	S	S	S	S	S	S	NE	NE
23	n.a.	E	S	S	n.a.	S	S	S	S	S	S	S
24	n.a.	NE	S	S	n.a.	S	S	S	S	S	S	S
25	n.a.	E	S	S	n.a.	S	S	S	S	S	SW	S
26	n.a.	S	S	S	n.a.	S	S	S	S	S	S	S
27	n.a.	S	S	S	n.a.	S	S	S	S	S	S	S
28	n.a.	S	S	S	n.a.	S	S	S	S	S	S	NE
29	n.a.	S	S	S	n.a.	S	S	S	S	S	S	NE
30	n.a.		S	S	n.a.	S	S	S	S	S	S	NE
31	n.a.		S		n.a.		S	S	S	NE		NE
Mode	n.a.	S	S	S	n.a.	S	S	S	S	S	S	NE
MODE	n.a.	n.a.	S	S	S	S	S	S	S	S	S	S

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	2.0	2.6	2.3	n.a.	2.4	1.1	1.5	2.4	2.0	2.0
2	n.a.	n.a.	2.2	2.3	2.6	n.a.	2.5	1.8	1.5	2.4	2.0	1.8
3	n.a.	n.a.	2.0	1.5	2.4	n.a.	1.1	2.4	2.6	2.5	2.3	2.3
4	n.a.	n.a.	4.5	1.9	2.1	n.a.	1.4	2.6	2.7	2.2	2.0	2.6
5	n.a.	n.a.	1.9	2.3	2.1	n.a.	2.3	2.6	2.5	2.5	1.9	2.0
6	n.a.	n.a.	3.9	1.8	2.2	n.a.	2.5	2.7	2.2	2.3	1.9	2.0
7	n.a.	n.a.	2.7	2.1	2.1	n.a.	2.6	2.3	2.1	1.9	2.5	2.1
8	n.a.	n.a.	2.5	2.4	2.5	n.a.	2.5	1.8	2.4	2.2	2.4	2.4
9	n.a.	n.a.	2.7	2.4	1.5	n.a.	2.6	2.0	2.7	1.3	1.9	2.3
10	n.a.	n.a.	3.3	1.9	1.8	n.a.	2.7	2.5	2.3	2.1	2.0	1.8
Mean	n.a.	n.a.	2.8	2.1	2.2	n.a.	2.2	2.2	2.3	2.2	2.1	2.1
11	n.a.	n.a.	3.0	1.8	2.3	n.a.	2.2	2.9	1.6	2.2	2.2	3.2
12	n.a.	n.a.	2.7	2.7	2.0	n.a.	1.8	2.6	2.0	2.5	2.1	2.3
13	n.a.	n.a.	4.0	1.9	2.5	n.a.	1.7	3.0	2.1	2.4	1.7	1.5
14	n.a.	n.a.	3.5	2.2	2.5	n.a.	2.0	2.2	2.2	2.1	1.9	2.0
15	n.a.	3.4	4.3	2.2	2.7	n.a.	2.3	2.2	2.3	2.0	2.7	2.7
16	n.a.	4.7	4.3	2.2	2.5	2.7	2.4	2.4	2.3	2.2	3.0	2.8
17	n.a.	3.3	2.3	2.4	2.5	2.2	2.0	2.2	2.1	2.1	2.0	2.4
18	n.a.	2.0	2.7	2.3	2.1	2.2	1.5	2.1	1.6	2.8	2.6	2.8
19	n.a.	2.4	3.7	2.2	2.3	2.5	2.2	2.2	1.4	2.0	2.1	3.4
20	n.a.	2.9	2.2	2.3	2.8	2.7	2.4	1.5	1.8	2.1	2.0	3.9
Mean	n.a.	3.1	3.3	2.2	2.4	2.5	2.0	2.3	1.9	2.2	2.2	2.7
21	n.a.	2.4	2.6	1.6	2.4	2.5	1.8	1.7	1.9	2.4	1.9	2.5
22	n.a.	2.8	2.7	3.1	n.a.	2.4	2.0	2.0	2.0	2.2	2.9	4.1
23	n.a.	3.8	2.5	2.6	n.a.	1.9	1.8	1.3	2.2	2.0	3.8	2.5
24	n.a.	4.6	2.2	3.2	n.a.	1.5	2.0	1.7	2.3	2.5	5.8	2.0
25	n.a.	4.2	2.3	2.3	n.a.	1.8	2.4	2.2	2.4	2.1	2.4	2.2
26	n.a.	4.7	2.5	2.7	n.a.	2.2	1.9	2.3	2.6	2.3	2.2	2.1
27	n.a.	2.8	2.1	2.2	n.a.	2.8	1.7	1.8	2.2	2.5	1.9	1.8
28	n.a.	3.4	3.4	2.7	n.a.	2.6	2.0	2.3	2.4	1.7	2.1	3.1
29	n.a.	1.8	2.9	2.3	n.a.	2.6	2.4	2.2	1.8	2.6	2.5	3.2
30	n.a.		3.5	2.8	n.a.	2.8	1.9	1.6	2.1	1.9	3.0	4.6
31	n.a.			2.0	n.a.		2.3	1.6		1.9		3.7
Mean	n.a.	3.4	2.6	2.6	n.a.	2.3	2.0	1.9	2.2	2.2	2.9	2.9
MEAN	n.a.	3.3	2.9	2.3	2.3	2.4	2.1	2.1	2.1	2.1	2.4	2.6
MIN	n.a.	1.8	1.9	1.5	1.5	1.5	1.1	1.1	1.4	1.4	1.7	1.5
MAX	n.a.	4.7	4.5	3.2	2.8	2.8	2.7	3.0	2.7	2.7	5.8	4.6

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	0.0	0.0	0.0	n.a.	3.0	2.2	6.2	0.2	0.0	0.0
2	n.a.	n.a.	0.0	0.0	0.0	n.a.	3.0	2.2	3.2	0.0	0.0	0.0
3	n.a.	n.a.	0.0	0.2	0.0	n.a.	21.0	5.4	0.2	0.2	0.0	0.0
4	n.a.	n.a.	0.0	0.0	0.8	n.a.	11.0	0.8	0.6	0.2	0.0	0.0
5	n.a.	n.a.	0.0	0.4	0.4	n.a.	5.0	1.6	0.4	0.0	0.0	0.0
6	n.a.	n.a.	0.0	6.0	0.4	n.a.	3.2	0.6	0.2	0.0	0.0	0.0
7	n.a.	n.a.	0.0	0.0	0.2	n.a.	5.8	2.6	0.2	0.2	0.0	0.0
8	n.a.	n.a.	0.0	0.2	0.2	n.a.	0.8	14.2	1.0	0.0	0.0	0.0
9	n.a.	n.a.	0.0	0.4	3.6	n.a.	0.8	9.4	0.4	0.0	0.0	0.0
10	n.a.	n.a.	0.0	0.2	2.2	n.a.	0.8	0.4	0.6	1.4	0.0	0.0
Mean	n.a.	n.a.	0.0	7.4	7.8	n.a.	54.4	39.4	13.0	2.2	0.0	0.0
11	n.a.	n.a.	0.0	1.4	0.4	n.a.	5.8	1.0	2.6	0.0	0.0	0.0
12	n.a.	n.a.	0.0	0.2	1.0	n.a.	14.4	1.2	3.8	0.0	0.0	0.0
13	n.a.	n.a.	0.0	0.2	0.0	n.a.	4.4	0.4	1.4	0.0	0.2	0.2
14	n.a.	n.a.	0.0	0.0	0.0	n.a.	0.4	0.4	3.6	0.0	0.0	0.0
15	n.a.	0.0	0.0	0.8	0.0	n.a.	6.6	1.2	3.8	0.0	0.0	0.0
16	n.a.	0.0	0.2	0.2	0.0	0.0	1.2	2.2	5.4	0.0	0.0	0.0
17	n.a.	0.0	0.0	0.0	0.4	1.0	1.2	1.6	5.0	0.2	0.0	0.0
18	n.a.	0.0	0.4	0.0	0.2	2.8	2.4	2.0	3.4	0.0	0.0	0.0
19	n.a.	0.0	0.0	0.0	0.8	0.8	1.6	3.6	1.2	0.0	0.0	0.0
20	n.a.	0.0	0.0	0.2	0.6	5.6	1.8	12.0	0.2	0.0	0.0	0.0
Mean	n.a.	0.0	0.6	3.0	3.4	10.2	39.8	25.6	30.4	0.2	0.2	0.2
21	n.a.	0.0	0.0	1.2	0.4	4.8	0.4	12.6	1.8	0.0	0.0	0.0
22	n.a.	0.0	0.0	0.4	n.a.	4.0	3.6	3.4	0.4	0.0	0.0	0.0
23	n.a.	0.0	0.0	0.0	n.a.	5.2	6.6	7.4	0.2	0.0	0.0	0.0
24	n.a.	0.0	0.0	0.0	n.a.	8.2	11.0	1.0	0.2	0.0	0.0	0.0
25	n.a.	0.0	0.0	0.2	n.a.	3.4	3.0	0.0	0.0	0.0	0.0	0.0
26	n.a.	0.0	0.0	0.0	n.a.	0.2	1.6	2.8	0.2	0.0	0.0	0.0
27	n.a.	0.0	2.0	0.0	n.a.	0.0	6.0	2.0	0.0	0.0	0.0	0.0
28	n.a.	0.0	0.0	0.4	n.a.	0.0	2.4	1.0	0.2	0.8	0.0	0.0
29	n.a.	2.8	0.0	0.6	n.a.	0.0	5.8	4.8	0.2	0.0	0.0	0.0
30	n.a.	0.0	0.0	0.0	n.a.	0.0	6.2	4.4	0.2	0.0	0.0	0.0
31	n.a.	0.0	0.0	n.a.	0.0	0.4	1.6	0.0	0.0	0.0	0.0	0.0
Mean	n.a.	2.8	2.0	2.8	n.a.	25.8	47.0	41.0	3.4	0.8	0.0	0.0
TOTAL	n.a.	2.8	2.6	13.2	11.6	36.0	141.2	106.0	46.8	3.2	0.2	0.0
MIN	n.a.	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
MAX	n.a.	2.8	2.0	6.0	3.6	8.2	21.0	14.2	6.2	1.4	0.2	0.2

GLOBAL SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	305.2	288.0	228.3	n.a.	128.3	114.3	189.1	258.3	240.8	199.0
2	n.a.	n.a.	272.9	278.8	304.5	n.a.	252.3	261.1	136.7	264.8	230.1	199.3
3	n.a.	n.a.	222.4	142.1	243.5	n.a.	95.2	134.3	309.3	280.7	242.5	199.3
4	n.a.	n.a.	289.3	163.2	275.3	n.a.	140.0	240.0	296.0	298.2	242.7	197.5
5	n.a.	n.a.	288.9	247.8	185.5	n.a.	173.0	279.3	253.6	278.0	239.4	195.1
6	n.a.	n.a.	289.0	99.6	257.9	n.a.	180.0	326.1	236.6	288.6	239.2	195.5
7	n.a.	n.a.	295.8	245.2	268.3	n.a.	245.4	313.8	275.2	309.5	237.6	197.7
8	n.a.	n.a.	301.1	277.5	274.7	n.a.	320.3	160.6	317.2	284.3	237.0	190.8
9	n.a.	n.a.	303.0	289.8	253.3	n.a.	286.9	213.3	287.3	n.a.	233.0	196.4
10	n.a.	n.a.	302.3	134.9	135.2	n.a.	319.2	297.9	270.5	239.5	231.6	194.4
Mean	n.a.	n.a.	287.0	216.7	242.6	n.a.	214.1	234.0	257.2	278.0	237.4	196.5
11	n.a.	n.a.	307.7	191.1	272.9	n.a.	264.8	240.4	207.3	255.4	219.5	184.7
12	n.a.	n.a.	281.4	246.3	280.2	n.a.	195.3	228.4	179.5	293.5	229.3	109.7
13	n.a.	n.a.	84.4	268.0	342.9	n.a.	190.6	212.1	217.8	247.8	194.0	86.6
14	n.a.	n.a.	268.1	235.3	290.6	n.a.	207.1	336.4	230.3	231.8	219.5	191.6
15	n.a.	n.a.	185.8	202.0	271.5	n.a.	129.1	288.7	176.8	268.0	221.2	193.4
16	n.a.	145.1	317.2	320.8	254.1	302.5	135.3	257.0	125.9	264.4	219.3	191.1
17	n.a.	232.1	252.8	264.0	232.7	114.3	305.3	219.8	77.0	222.5	217.0	191.8
18	n.a.	190.8	310.3	241.5	305.8	158.7	177.0	224.2	165.8	267.7	217.8	189.6
19	n.a.	277.1	316.3	278.3	244.8	308.3	105.2	123.3	153.2	238.8	216.3	186.1
20	n.a.	273.0	314.8	273.4	284.8	333.8	212.4	118.8	215.4	253.7	213.8	179.8
Mean	n.a.	223.6	263.9	252.1	278.0	243.5	192.2	224.9	174.9	254.3	216.8	170.4
21	n.a.	217.8	311.4	159.1	294.3	230.9	231.9	261.2	254.3	260.3	209.8	193.9
22	n.a.	255.2	320.8	361.9	n.a.	244.5	267.3	184.2	266.3	249.9	208.2	195.2
23	n.a.	275.1	314.8	319.2	n.a.	171.0	239.2	176.4	249.7	255.8	212.0	194.1
24	n.a.	279.3	320.3	274.9	n.a.	193.0	97.4	220.8	300.0	237.8	209.0	192.9
25	n.a.	225.3	278.3	238.4	n.a.	186.4	223.0	281.5	303.0	258.3	203.6	194.5
26	n.a.	275.5	213.3	284.0	n.a.	182.6	211.7	222.7	280.0	218.1	202.6	193.4
27	n.a.	279.6	256.9	214.6	n.a.	287.6	167.6	194.2	261.8	241.7	203.6	190.8
28	n.a.	216.5	250.5	264.1	n.a.	294.4	188.5	299.2	278.6	228.1	201.8	180.7
29	n.a.	294.0	289.5	240.8	n.a.	337.7	227.0	242.4	253.4	253.3	200.2	191.0
30	n.a.		192.8	252.1	n.a.	347.9	180.9	174.2	250.5	250.3	202.2	171.4
31	n.a.		181.5		n.a.		225.9	159.9		245.4		195.2
Mean	n.a.	257.6	266.4	260.9	n.a.	247.6	205.5	219.7	269.8	245.4	205.3	190.3
MEAN	n.a.	245.4	272.2	243.2	262.0	246.2	204.0	226.0	233.9	258.2	219.8	185.9
MIN	n.a.	145.1	84.4	99.6	135.2	114.3	95.2	114.3	77.0	218.1	194.0	86.6
MAX	n.a.	294.0	320.8	361.9	342.9	347.9	320.3	336.4	317.2	309.5	242.7	199.3

TECHNICAL SHEET					
Coordinates:					
Latitude: 27° 41' 48" N Longitude: 86° 43' 17" E Elevation: 2.660 m a.s.l					
Installation Time:					
September 2002					
Data Availability:					
From November 2 nd , 2002					



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
AWS3 Data Logger				2 m	LSI-Lastem Babuc ABC
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	60 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	±1.5% (5 ÷ 9,5%, 23°C)	60 min.	2 m	LSI-Lastem DMA572
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000		60 min.	2 m	Kipp & Zonen CM6B
CEOP Data Logger				2 m	LSI-Lastem E-Log
Heat Flux	<2000 Wm-2	3%	60 min	-5 cm	LSI-Lastem DPE260
Solar Radiations CNR1 sensor: (four components combined sensor+internal temperature with PT100)*	Pyranometer: 0 to 25 mV Pyrgeometer: ±5 mV	±10% on daily totals non linearity: < 1%	60 min	2 m	Kipp & Zonen CM3* pyranometer Kipp & Zonen CG3 pyrgeometer
Soil Temperature	-20 +70°C	0,15° (at 0°C)	60 min	-5 cm -20 cm	LSI- Lastem DLA400
Soil Moisture	0% from saturation point	1/10 of water amount	60 min	-5 cm	SDEC HMS 9000

Note: Outgoing Shortwave radiation and rain precipitation data are not available for 2012.

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	4.26	1.68	3.81	n.a.	n.a.	14.46	16.39	15.68	14.85	n.a.	n.a.	n.a.
2	1.83	3.28	2.71	n.a.	n.a.	13.59	16.73	15.53	14.07	n.a.	n.a.	n.a.
3	1.34	4.14	3.08	n.a.	n.a.	15.92	15.09	14.63	16.15	n.a.	n.a.	n.a.
4	0.19	4.73	4.63	n.a.	n.a.	15.66	14.56	14.85	14.92	n.a.	n.a.	n.a.
5	0.94	6.20	4.85	n.a.	n.a.	15.36	15.60	15.28	14.48	n.a.	n.a.	n.a.
6	1.68	6.11	7.88	n.a.	n.a.	14.75	14.71	15.55	13.31	n.a.	n.a.	n.a.
7	1.81	7.52	7.13	n.a.	n.a.	15.13	15.13	15.02	14.83	n.a.	n.a.	n.a.
8	1.18	3.90	7.31	n.a.	n.a.	14.61	14.72	14.64	15.48	n.a.	n.a.	n.a.
9	1.27	2.14	5.22	n.a.	n.a.	15.34	15.36	15.38	14.49	n.a.	n.a.	n.a.
10	1.74	3.87	5.82	n.a.	n.a.	15.51	16.21	15.27	15.55	n.a.	n.a.	n.a.
Mean	1.62	4.36	5.25	n.a.	n.a.	15.03	15.45	15.18	14.81	n.a.	n.a.	n.a.
11	1.11	2.35	7.27	n.a.	n.a.	15.74	14.46	14.31	15.68	n.a.	n.a.	n.a.
12	-0.54	1.91	n.a.	n.a.	n.a.	15.14	14.88	14.01	15.29	n.a.	n.a.	n.a.
13	-0.61	3.25	n.a.	n.a.	n.a.	15.26	14.31	14.37	14.98	n.a.	n.a.	n.a.
14	1.78	4.81	n.a.	n.a.	n.a.	15.76	14.18	17.12	13.66	n.a.	n.a.	n.a.
15	2.06	5.09	n.a.	n.a.	n.a.	15.41	14.67	15.81	13.39	n.a.	n.a.	n.a.
16	-0.44	5.46	n.a.	n.a.	n.a.	15.27	14.33	15.95	13.35	n.a.	n.a.	n.a.
17	0.97	4.90	n.a.	n.a.	n.a.	13.99	14.97	16.69	12.55	n.a.	n.a.	n.a.
18	0.75	7.59	n.a.	n.a.	n.a.	14.54	15.01	16.04	14.66	n.a.	n.a.	n.a.
19	1.38	6.05	n.a.	n.a.	n.a.	16.35	15.79	16.26	13.74	n.a.	n.a.	n.a.
20	1.15	5.21	n.a.	n.a.	n.a.	16.99	15.32	13.90	14.06	n.a.	n.a.	n.a.
Mean	0.76	4.66	7.27	n.a.	n.a.	15.45	14.79	15.45	14.14	n.a.	n.a.	n.a.
21	1.54	4.67	n.a.	n.a.	n.a.	16.47	15.70	14.36	13.24	n.a.	n.a.	n.a.
22	3.27	6.85	n.a.	n.a.	n.a.	15.42	15.16	13.74	14.11	n.a.	n.a.	n.a.
23	1.97	9.31	n.a.	n.a.	n.a.	14.92	15.97	13.83	14.90	n.a.	n.a.	n.a.
24	2.04	8.67	n.a.	n.a.	n.a.	13.87	14.92	15.01	14.34	n.a.	n.a.	n.a.
25	2.86	10.15	n.a.	n.a.	n.a.	14.21	15.17	15.01	13.91	n.a.	n.a.	n.a.
26	2.52	9.30	n.a.	n.a.	n.a.	13.68	17.03	15.39	14.95	n.a.	n.a.	n.a.
27	1.95	10.10	n.a.	n.a.	n.a.	14.17	15.59	16.12	14.63	n.a.	n.a.	n.a.
28	2.21	6.93	n.a.	n.a.	n.a.	15.41	15.98	15.31	15.37	n.a.	n.a.	n.a.
29	2.53	3.50	n.a.	n.a.	n.a.	15.82	14.93	14.51	n.a.	n.a.	n.a.	n.a.
30	2.57		n.a.	n.a.	16.45	15.53	15.32	14.59	n.a.	n.a.	n.a.	n.a.
31	2.93		n.a.		16.08		16.04	13.85		n.a.	n.a.	n.a.
Mean	2.40	7.72	n.a.	n.a.	16.27	14.95	15.62	14.70	14.43	n.a.	n.a.	n.a.
MEAN	1.6	5.5	5.4	n.a.	n.a.	15.1	15.3	15.1	14.5	n.a.	n.a.	n.a.
MIN	-0.6	1.7	2.7	n.a.	n.a.	13.6	14.2	13.7	12.5	n.a.	n.a.	n.a.
MAX	4.3	10.1	7.9	n.a.	n.a.	17.0	17.0	17.1	16.2	n.a.	n.a.	n.a.

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	61.7	72.5	83.3	n.a.	n.a.	96.5	91.6	95.0	97.7	n.a.	n.a.	n.a.
2	97.9	57.0	84.9	n.a.	n.a.	96.7	93.3	97.6	94.5	n.a.	n.a.	n.a.
3	90.5	70.0	81.5	n.a.	n.a.	84.1	97.7	98.1	87.9	n.a.	n.a.	n.a.
4	90.9	73.0	81.0	n.a.	n.a.	69.8	99.0	97.5	93.2	n.a.	n.a.	n.a.
5	91.6	67.0	88.0	n.a.	n.a.	78.9	95.0	95.3	93.4	n.a.	n.a.	n.a.
6	90.2	60.8	67.5	n.a.	n.a.	88.8	97.6	94.3	97.7	n.a.	n.a.	n.a.
7	83.9	62.3	63.3	n.a.	n.a.	92.3	95.4	97.2	91.0	n.a.	n.a.	n.a.
8	85.3	85.7	58.4	n.a.	n.a.	96.4	95.4	98.5	88.9	n.a.	n.a.	n.a.
9	75.9	82.7	58.3	n.a.	n.a.	93.6	95.8	91.6	93.2	n.a.	n.a.	n.a.
10	72.3	58.4	42.8	n.a.	n.a.	90.2	92.1	93.0	93.4	n.a.	n.a.	n.a.
Mean	84.0	68.9	70.9	n.a.	n.a.	88.7	95.3	95.8	93.1	n.a.	n.a.	n.a.
11	67.1	73.5	28.3	n.a.	n.a.	88.6	99.7	95.6	95.1	n.a.	n.a.	n.a.
12	65.4	87.6	n.a.	n.a.	n.a.	93.0	99.0	97.5	95.0	n.a.	n.a.	n.a.
13	65.2	80.5	n.a.	n.a.	n.a.	97.4	99.7	98.0	96.0	n.a.	n.a.	n.a.
14	44.3	76.4	n.a.	n.a.	n.a.	95.3	99.7	89.7	96.8	n.a.	n.a.	n.a.
15	58.0	85.1	n.a.	n.a.	n.a.	96.2	98.9	96.5	99.3	n.a.	n.a.	n.a.
16	91.1	78.5	n.a.	n.a.	n.a.	96.5	99.4	93.7	99.6	n.a.	n.a.	n.a.
17	94.2	77.6	n.a.	n.a.	n.a.	99.7	97.8	92.0	99.6	n.a.	n.a.	n.a.
18	88.6	47.8	n.a.	n.a.	n.a.	96.7	99.5	95.6	90.9	n.a.	n.a.	n.a.
19	67.7	70.3	n.a.	n.a.	n.a.	90.3	97.3	93.2	95.1	n.a.	n.a.	n.a.
20	76.1	83.8	n.a.	n.a.	n.a.	91.2	97.8	98.9	96.2	n.a.	n.a.	n.a.
Mean	71.8	76.1	28.3	n.a.	n.a.	94.5	98.9	95.1	96.4	n.a.	n.a.	n.a.
21	78.1	92.4	n.a.	n.a.	n.a.	91.9	95.3	97.1	98.8	n.a.	n.a.	n.a.
22	69.5	82.9	n.a.	n.a.	n.a.	95.8	98.1	97.9	94.4	n.a.	n.a.	n.a.
23	83.1	52.3	n.a.	n.a.	n.a.	97.1	95.6	98.1	93.2	n.a.	n.a.	n.a.
24	82.1	54.2	n.a.	n.a.	n.a.	99.7	99.4	95.4	91.0	n.a.	n.a.	n.a.
25	86.6	32.7	n.a.	n.a.	n.a.	99.7	98.8	96.3	89.7	n.a.	n.a.	n.a.
26	79.5	34.6	n.a.	n.a.	n.a.	98.1	92.0	90.7	89.8	n.a.	n.a.	n.a.
27	87.3	42.5	n.a.	n.a.	n.a.	95.2	95.5	93.3	86.8	n.a.	n.a.	n.a.
28	80.8	60.0	n.a.	n.a.	n.a.	94.6	93.5	93.9	77.8	n.a.	n.a.	n.a.
29	69.4	79.4	n.a.	n.a.	n.a.	94.8	97.6	99.6	n.a.	n.a.	n.a.	n.a.
30	71.7		n.a.	n.a.	91.6	96.4	95.5	98.3	n.a.	n.a.	n.a.	n.a.
31	71.1		n.a.		89.2		94.6	99.7		n.a.		n.a.
Mean	78.1	59.0	n.a.	n.a.	90.4	96.3	96.0	96.4	90.2	n.a.	n.a.	n.a.
MEAN	78.0	68.3	67.0	n.a.	90.4	93.2	96.7	95.8	93.4	n.a.	n.a.	n.a.
MIN	44.3	32.7	28.3	n.a.	89.2	69.8	91.6	89.7	77.8	n.a.	n.a.	n.a.
MAX	97.9	92.4	88.0	n.a.	91.6	99.7	99.7	99.7	99.6	n.a.	n.a.	n.a.

ATMOSPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	750.7	748.9	745.0	n.a.	n.a.	747.6	747.4	746.4	748.5	n.a.	n.a.	n.a.
2	748.7	749.8	744.2	n.a.	n.a.	746.0	747.6	746.3	749.7	n.a.	n.a.	n.a.
3	747.1	749.9	744.2	n.a.	n.a.	744.4	746.3	746.7	749.2	n.a.	n.a.	n.a.
4	747.5	749.5	745.8	n.a.	n.a.	745.5	745.8	746.7	749.9	n.a.	n.a.	n.a.
5	748.2	749.1	746.6	n.a.	n.a.	746.4	746.2	747.4	750.6	n.a.	n.a.	n.a.
6	749.0	748.2	745.1	n.a.	n.a.	746.3	746.3	747.8	751.5	n.a.	n.a.	n.a.
7	750.6	748.5	744.0	n.a.	n.a.	746.7	746.1	748.4	751.5	n.a.	n.a.	n.a.
8	750.9	747.4	745.0	n.a.	n.a.	747.1	746.4	748.3	751.2	n.a.	n.a.	n.a.
9	750.1	746.8	746.7	n.a.	n.a.	746.8	747.5	748.0	751.1	n.a.	n.a.	n.a.
10	749.7	747.2	748.3	n.a.	n.a.	746.0	748.9	747.6	750.4	n.a.	n.a.	n.a.
Mean	749.3	748.6	745.5	n.a.	n.a.	746.3	746.8	747.4	750.4	n.a.	n.a.	n.a.
11	749.4	747.4	749.8	n.a.	n.a.	746.5	748.3	748.7	749.4	n.a.	n.a.	n.a.
12	747.6	747.8	n.a.	n.a.	n.a.	747.6	747.6	748.6	748.9	n.a.	n.a.	n.a.
13	747.1	748.8	n.a.	n.a.	n.a.	748.1	747.2	748.3	748.7	n.a.	n.a.	n.a.
14	746.8	749.4	n.a.	n.a.	n.a.	747.7	746.3	748.0	747.8	n.a.	n.a.	n.a.
15	746.4	748.6	n.a.	n.a.	n.a.	746.2	747.0	748.7	746.8	n.a.	n.a.	n.a.
16	745.2	748.6	n.a.	n.a.	n.a.	745.1	748.0	748.8	748.0	n.a.	n.a.	n.a.
17	744.1	749.0	n.a.	n.a.	n.a.	745.7	747.2	748.6	750.5	n.a.	n.a.	n.a.
18	744.6	748.9	n.a.	n.a.	n.a.	746.8	745.8	748.5	750.2	n.a.	n.a.	n.a.
19	746.2	747.9	n.a.	n.a.	n.a.	745.7	745.8	748.5	749.2	n.a.	n.a.	n.a.
20	746.2	747.0	n.a.	n.a.	n.a.	745.0	747.1	748.4	748.9	n.a.	n.a.	n.a.
Mean	746.4	748.3	749.8	n.a.	n.a.	746.4	747.0	748.5	748.8	n.a.	n.a.	n.a.
21	745.2	746.9	n.a.	n.a.	n.a.	746.1	748.2	748.5	749.1	n.a.	n.a.	n.a.
22	747.2	747.1	n.a.	n.a.	n.a.	747.3	747.2	749.6	749.4	n.a.	n.a.	n.a.
23	747.1	746.8	n.a.	n.a.	n.a.	746.1	745.4	749.2	748.5	n.a.	n.a.	n.a.
24	746.7	747.1	n.a.	n.a.	n.a.	744.5	745.5	748.9	748.3	n.a.	n.a.	n.a.
25	747.0	746.6	n.a.	n.a.	n.a.	744.1	746.8	749.9	749.2	n.a.	n.a.	n.a.
26	747.0	745.2	n.a.	n.a.	n.a.	744.5	746.7	749.6	751.6	n.a.	n.a.	n.a.
27	747.0	746.4	n.a.	n.a.	n.a.	745.8	746.2	748.8	752.6	n.a.	n.a.	n.a.
28	747.5	743.9	n.a.	n.a.	n.a.	746.6	746.2	749.5	752.5	n.a.	n.a.	n.a.
29	748.1	743.9	n.a.	n.a.	n.a.	746.8	747.0	750.2	n.a.	n.a.	n.a.	n.a.
30	749.3		n.a.	n.a.		748.1	746.7	746.9	750.1	n.a.	n.a.	n.a.
31	749.9		n.a.			747.8		746.4	748.9		n.a.	
Mean	747.7	745.8	n.a.	n.a.		748.0	745.8	746.4	749.5	750.3	n.a.	n.a.
MEAN	747.7	747.7	745.9	n.a.		748.0	746.2	746.8	748.4	749.7	n.a.	n.a.
MIN	744.1	743.9	744.0	n.a.		747.8	744.1	745.4	746.3	746.8	n.a.	n.a.
MAX	750.9	749.9	749.8	n.a.		748.1	748.1	748.9	750.2	752.6	n.a.	n.a.

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	NE	S	S	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
2	S	S	S	n.a.	n.a.	S	S	S	NE	n.a.	n.a.	n.a.
3	S	S	S	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
4	S	S	S	n.a.	n.a.	NE	S	S	S	n.a.	n.a.	n.a.
5	S	S	S	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
6	S	S	SE	n.a.	n.a.	S	S	S	E	n.a.	n.a.	n.a.
7	S	S	S	n.a.	n.a.	S	S	S	NE	n.a.	n.a.	n.a.
8	S	SE	S	n.a.	n.a.	S	NE	S	NE	n.a.	n.a.	n.a.
9	S	E	S	n.a.	n.a.	S	NE	NE	NE	n.a.	n.a.	n.a.
10	S	S	S	n.a.	n.a.	S	S	NE	S	n.a.	n.a.	n.a.
Mode	S	S	S	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
11	S	S	NE	n.a.	n.a.	S	S	NE	S	n.a.	n.a.	n.a.
12	S	S	NE	n.a.	n.a.	S	S	SE	S	n.a.	n.a.	n.a.
13	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
14	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
15	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
16	S	S	n.a.	n.a.	n.a.	S	S	NE	S	n.a.	n.a.	n.a.
17	S	S	n.a.	n.a.	n.a.	SE	S	S	NE	n.a.	n.a.	n.a.
18	S	S	n.a.	n.a.	n.a.	S	SE	S	NE	n.a.	n.a.	n.a.
19	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
20	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
Mode	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
21	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
22	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
23	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
24	S	NE	n.a.	n.a.	n.a.	SE	S	S	S	n.a.	n.a.	n.a.
25	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
26	S	S	n.a.	n.a.	n.a.	NE	S	S	S	n.a.	n.a.	n.a.
27	S	S	n.a.	n.a.	n.a.	S	S	S	NE	n.a.	n.a.	n.a.
28	NE	S	n.a.	n.a.	n.a.	S	S	S	NE	n.a.	n.a.	n.a.
29	S	N	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.	n.a.
30	S		n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.	n.a.
31	S		n.a.		S		S	SE		n.a.		n.a.
Mode	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.
MODE	S	S	n.a.	n.a.	n.a.	S	S	S	S	n.a.	n.a.	n.a.

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.4	0.9	0.7	n.a.	n.a.	0.6	0.5	0.4	0.6	n.a.	n.a.	n.a.
2	0.5	0.8	0.6	n.a.	n.a.	0.4	0.8	0.5	0.4	n.a.	n.a.	n.a.
3	0.5	0.7	1.1	n.a.	n.a.	0.7	0.6	0.7	1.0	n.a.	n.a.	n.a.
4	0.4	0.8	0.7	n.a.	n.a.	0.8	0.4	0.7	0.7	n.a.	n.a.	n.a.
5	0.4	0.7	0.8	n.a.	n.a.	0.8	0.6	0.7	0.6	n.a.	n.a.	n.a.
6	0.5	0.8	0.7	n.a.	n.a.	0.6	0.5	0.7	0.5	n.a.	n.a.	n.a.
7	0.7	1.0	0.7	n.a.	n.a.	0.6	0.6	0.6	0.5	n.a.	n.a.	n.a.
8	0.5	4.2	0.9	n.a.	n.a.	0.4	0.5	0.5	0.6	n.a.	n.a.	n.a.
9	0.8	0.7	0.9	n.a.	n.a.	0.5	0.7	0.4	0.4	n.a.	n.a.	n.a.
10	0.8	0.8	0.9	n.a.	n.a.	0.7	0.7	0.8	0.6	n.a.	n.a.	n.a.
Mean	0.5	1.1	0.8	n.a.	n.a.	0.6	0.6	0.6	0.6	n.a.	n.a.	n.a.
11	0.8	0.8	1.1	n.a.	n.a.	0.7	0.4	0.4	0.6	n.a.	n.a.	n.a.
12	0.6	0.6	n.a.	n.a.	n.a.	0.6	0.6	0.6	0.6	n.a.	n.a.	n.a.
13	0.8	0.8	n.a.	n.a.	n.a.	0.5	0.5	0.5	0.6	n.a.	n.a.	n.a.
14	0.8	0.8	n.a.	n.a.	n.a.	0.5	0.5	1.0	0.6	n.a.	n.a.	n.a.
15	0.7	0.6	n.a.	n.a.	n.a.	0.5	0.4	0.5	0.7	n.a.	n.a.	n.a.
16	0.4	1.3	n.a.	n.a.	n.a.	0.4	0.6	0.5	0.7	n.a.	n.a.	n.a.
17	0.5	0.7	n.a.	n.a.	n.a.	0.5	0.5	0.5	0.4	n.a.	n.a.	n.a.
18	0.7	1.1	n.a.	n.a.	n.a.	0.4	0.4	0.6	0.5	n.a.	n.a.	n.a.
19	0.8	0.8	n.a.	n.a.	n.a.	0.9	0.4	0.6	0.3	n.a.	n.a.	n.a.
20	0.7	0.7	n.a.	n.a.	n.a.	0.6	0.6	0.5	0.5	n.a.	n.a.	n.a.
Mean	0.7	0.8	1.1	n.a.	n.a.	0.6	0.5	0.6	0.6	n.a.	n.a.	n.a.
21	0.7	0.7	n.a.	n.a.	n.a.	0.5	0.5	0.6	0.4	n.a.	n.a.	n.a.
22	0.6	0.8	n.a.	n.a.	n.a.	0.8	0.6	0.5	0.7	n.a.	n.a.	n.a.
23	0.7	0.9	n.a.	n.a.	n.a.	0.8	0.6	0.5	0.8	n.a.	n.a.	n.a.
24	0.7	1.0	n.a.	n.a.	n.a.	0.5	0.6	0.6	0.7	n.a.	n.a.	n.a.
25	0.7	1.2	n.a.	n.a.	n.a.	0.4	0.6	0.4	0.7	n.a.	n.a.	n.a.
26	0.6	1.1	n.a.	n.a.	n.a.	0.4	0.8	0.7	0.9	n.a.	n.a.	n.a.
27	0.7	0.9	n.a.	n.a.	n.a.	0.5	0.5	0.7	0.6	n.a.	n.a.	n.a.
28	0.7	1.3	n.a.	n.a.	n.a.	0.5	0.6	0.6	0.7	n.a.	n.a.	n.a.
29	0.7	0.7	n.a.	n.a.	n.a.	0.5	0.7	0.5	n.a.	n.a.	n.a.	n.a.
30	1.0		n.a.	n.a.	0.8	0.6	0.4	0.5	n.a.	n.a.	n.a.	n.a.
31	1.0		n.a.		0.8		0.4	0.4	n.a.			n.a.
Mean	0.7	1.0	n.a.	n.a.	0.8	0.5	0.6	0.5	0.7	n.a.	n.a.	n.a.
MEAN	0.7	1.0	0.8	n.a.	n.a.	0.6	0.6	0.6	0.6	n.a.	n.a.	n.a.
MIN	0.4	0.6	0.6	n.a.	n.a.	0.4	0.4	0.4	0.3	n.a.	n.a.	n.a.
MAX	1.0	4.2	1.1	n.a.	n.a.	0.9	0.8	1.0	1.0	n.a.	n.a.	n.a.

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	39.3	158.8	172.3	261.5	193.8	82.5	166.7	131.6	103.9	n.a.	n.a.	n.a.
2	21.5	186.9	100.0	208.2	238.4	76.7	215.3	98.6	118.0	n.a.	n.a.	n.a.
3	109.0	184.4	135.7	48.1	157.6	233.2	97.4	82.2	259.8	n.a.	n.a.	n.a.
4	72.1	172.7	128.7	115.9	239.7	214.9	101.2	130.4	180.3	n.a.	n.a.	n.a.
5	75.8	194.3	125.1	143.9	167.0	219.8	133.9	143.2	169.3	n.a.	n.a.	n.a.
6	95.3	209.7	196.4	224.9	181.5	201.5	92.2	181.0	83.3	n.a.	n.a.	n.a.
7	125.0	218.8	249.0	207.1	281.0	158.9	131.9	125.8	151.8	n.a.	n.a.	n.a.
8	91.7	13.6	261.5	184.0	224.0	69.8	142.5	81.7	204.2	n.a.	n.a.	n.a.
9	133.7	129.6	188.7	148.9	197.2	130.9	152.0	141.4	120.0	n.a.	n.a.	n.a.
10	135.1	161.1	255.7	123.4	146.7	202.0	238.7	157.7	200.7	n.a.	n.a.	n.a.
Mean	89.9	163.0	181.3	166.6	202.7	159.0	147.2	127.4	159.1	n.a.	n.a.	n.a.
11	172.1	165.2	276.8	78.5	237.1	195.9	62.1	84.6	194.8	n.a.	n.a.	n.a.
12	135.4	117.2	108.1	166.0	153.3	129.6	77.7	88.3	150.4	n.a.	n.a.	n.a.
13	187.5	167.3	106.7	202.9	222.9	104.0	19.5	106.1	167.5	n.a.	n.a.	n.a.
14	190.1	185.4	192.8	120.5	187.0	101.0	41.4	333.5	119.4	n.a.	n.a.	n.a.
15	184.0	115.7	151.0	188.5	252.7	69.5	98.7	135.8	79.0	n.a.	n.a.	n.a.
16	43.6	208.0	257.6	201.9	188.0	73.4	91.7	143.3	62.1	n.a.	n.a.	n.a.
17	95.8	176.0	137.7	264.9	235.3	26.4	90.1	178.8	53.3	n.a.	n.a.	n.a.
18	140.7	234.6	195.5	187.9	238.0	85.2	62.1	146.5	190.6	n.a.	n.a.	n.a.
19	189.0	185.0	206.1	183.3	191.7	196.7	122.9	180.3	102.2	n.a.	n.a.	n.a.
20	135.5	154.8	143.7	181.4	244.9	242.2	113.5	59.9	110.3	n.a.	n.a.	n.a.
Mean	147.4	170.9	177.6	177.6	215.1	122.4	78.0	145.7	122.9	n.a.	n.a.	n.a.
21	177.7	99.6	183.9	135.6	256.3	186.2	157.3	110.4	53.2	n.a.	n.a.	n.a.
22	187.7	218.9	263.4	252.5	231.9	160.2	101.7	93.6	159.6	n.a.	n.a.	n.a.
23	160.5	244.4	241.8	283.1	211.3	118.4	161.4	91.3	182.4	n.a.	n.a.	n.a.
24	165.2	244.3	140.3	289.4	234.1	45.5	81.0	143.0	200.2	n.a.	n.a.	n.a.
25	178.1	253.2	80.1	224.8	123.1	48.9	97.0	127.8	241.8	n.a.	n.a.	n.a.
26	166.9	252.9	103.4	232.0	97.5	66.0	272.5	194.2	278.3	n.a.	n.a.	n.a.
27	110.5	248.7	149.2	211.8	97.1	82.3	131.6	213.5	229.9	n.a.	n.a.	n.a.
28	193.2	170.7	200.8	175.6	169.2	150.5	157.4	179.9	225.0	n.a.	n.a.	n.a.
29	185.0	114.7	227.3	235.4	119.9	127.6	114.5	67.2	n.a.	n.a.	n.a.	n.a.
30	181.2		135.1	221.5	215.0	102.5	136.8	85.7	n.a.	n.a.	n.a.	n.a.
31	185.4			125.0		251.3		125.2	40.6	n.a.		n.a.
Mean	171.9	205.3	168.2	226.2	182.4	108.8	139.7	122.5	196.3	n.a.	n.a.	n.a.
MEAN	137.5	178.9	175.5	190.1	199.5	130.1	122.2	131.5	156.8	n.a.	n.a.	n.a.
MIN	21.5	13.6	80.1	48.1	97.1	26.4	19.5	40.6	53.2	n.a.	n.a.	n.a.
MAX	193.2	253.2	276.8	289.4	281.0	242.2	272.5	333.5	278.3	n.a.	n.a.	n.a.

INCOMING LONGWAVE SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	287.5	282.2	312.9	274.1	268.7	375.5	373.5	370.8	380.1	n.a.	n.a.	n.a.
2	309.9	249.8	289.1	316.4	287.1	368.0	378.6	379.8	359.1	n.a.	n.a.	n.a.
3	292.7	230.7	297.1	310.8	296.9	337.5	380.0	379.6	355.8	n.a.	n.a.	n.a.
4	300.0	271.9	302.4	306.4	267.2	313.3	377.8	370.8	363.0	n.a.	n.a.	n.a.
5	306.6	261.4	314.0	306.1	316.8	342.9	375.9	362.7	356.3	n.a.	n.a.	n.a.
6	298.9	234.9	292.4	324.7	274.7	356.2	373.6	371.2	360.6	n.a.	n.a.	n.a.
7	294.7	238.7	271.4	328.9	281.7	368.0	365.9	369.2	331.8	n.a.	n.a.	n.a.
8	277.2	302.7	266.7	319.4	306.7	370.8	357.6	374.4	344.7	n.a.	n.a.	n.a.
9	281.0	n.a.	267.1	318.7	298.3	370.6	367.5	360.7	354.7	n.a.	n.a.	n.a.
10	261.7	n.a.	n.a.	324.2	320.4	369.2	357.0	363.5	362.3	n.a.	n.a.	n.a.
Mean	291.0	259.0	290.3	313.0	291.8	357.2	370.8	370.3	356.8	n.a.	n.a.	n.a.
11	281.2	n.a.	n.a.	319.3	303.2	369.2	379.6	366.8	377.6	n.a.	n.a.	n.a.
12	282.0	n.a.	272.0	304.2	318.7	371.1	382.2	368.9	372.7	n.a.	n.a.	n.a.
13	233.9	n.a.	284.2	301.7	309.0	375.2	383.5	369.2	377.5	n.a.	n.a.	n.a.
14	215.9	303.5	305.3	310.0	318.3	377.7	382.0	360.7	368.3	n.a.	n.a.	n.a.
15	216.8	295.6	274.8	292.3	293.1	380.5	377.4	378.2	372.2	n.a.	n.a.	n.a.
16	301.4	276.2	261.4	292.0	299.8	379.0	380.8	372.5	373.8	n.a.	n.a.	n.a.
17	300.2	266.3	283.9	307.5	294.4	376.7	379.4	371.8	370.6	n.a.	n.a.	n.a.
18	271.7	n.a.	302.8	306.1	321.6	370.8	385.0	380.3	345.6	n.a.	n.a.	n.a.
19	250.5	n.a.	328.2	314.0	318.8	352.3	379.8	373.1	349.3	n.a.	n.a.	n.a.
20	294.8	n.a.	321.9	319.4	329.6	379.4	373.2	373.4	362.5	n.a.	n.a.	n.a.
Mean	264.8	285.4	292.7	306.6	310.6	373.2	380.3	371.5	367.0	n.a.	n.a.	n.a.
21	302.7	323.6	290.9	314.4	315.3	376.0	362.7	372.4	366.1	n.a.	n.a.	n.a.
22	304.1	282.5	270.8	298.0	340.1	375.7	374.8	366.4	354.8	n.a.	n.a.	n.a.
23	307.4	237.5	288.8	267.8	355.0	377.8	378.8	371.5	366.8	n.a.	n.a.	n.a.
24	310.1	229.7	323.2	261.8	352.5	379.8	382.5	368.8	354.3	n.a.	n.a.	n.a.
25	298.7	n.a.	330.0	279.9	354.5	381.2	379.9	366.2	335.4	n.a.	n.a.	n.a.
26	310.7	242.7	317.7	304.5	372.4	372.1	371.0	355.1	350.3	n.a.	n.a.	n.a.
27	282.0	306.7	309.8	293.4	363.5	367.5	376.5	374.5	311.8	n.a.	n.a.	n.a.
28	273.8	279.5	315.0	297.3	351.0	375.1	371.8	370.9	285.5	n.a.	n.a.	n.a.
29	278.7	294.3	283.8	276.9	369.7	375.0	371.2	382.3	n.a.	n.a.	n.a.	n.a.
30	295.5		285.7	270.8	375.8	380.7	368.4	378.4	n.a.	n.a.	n.a.	n.a.
31	268.8		283.7		367.4		369.7	378.2		n.a.		n.a.
Mean	293.9	274.6	299.9	286.5	356.1	376.1	373.4	371.3	340.6	n.a.	n.a.	n.a.
MEAN	283.6	270.5	294.7	302.0	320.7	368.8	374.8	371.0	355.8	n.a.	n.a.	n.a.
MIN	215.9	229.7	261.4	261.8	267.2	313.3	357.0	355.1	285.5	n.a.	n.a.	n.a.
MAX	310.7	323.6	330.0	328.9	375.8	381.2	385.0	382.3	380.1	n.a.	n.a.	n.a.

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	329.0	n.a.	354.3	388.0	363.8	390.5	397.8	392.2	388.6	n.a.	n.a.	n.a.
2	320.6	n.a.	345.9	391.6	378.3	384.6	404.0	392.4	383.2	n.a.	n.a.	n.a.
3	n.a.	n.a.	351.9	347.9	363.0	398.7	392.1	387.3	396.8	n.a.	n.a.	n.a.
4	n.a.	n.a.	345.8	357.8	365.0	394.3	389.3	388.8	389.9	n.a.	n.a.	n.a.
5	n.a.	n.a.	357.1	358.9	361.9	397.5	393.5	390.1	387.0	n.a.	n.a.	n.a.
6	n.a.	380.8	360.2	370.0	357.6	395.3	389.2	393.5	379.6	n.a.	n.a.	n.a.
7	n.a.	358.9	370.0	375.0	381.0	395.3	390.8	388.7	383.6	n.a.	n.a.	n.a.
8	n.a.	325.3	373.9	366.8	386.4	389.0	388.9	387.0	390.4	n.a.	n.a.	n.a.
9	n.a.	307.6	351.5	363.2	380.1	394.4	392.6	389.0	384.4	n.a.	n.a.	n.a.
10	n.a.	n.a.	387.0	361.0	375.7	400.6	398.2	389.7	393.7	n.a.	n.a.	n.a.
Mean	324.8	343.1	359.7	368.0	371.3	394.0	393.6	389.9	387.7	n.a.	n.a.	n.a.
11	n.a.	n.a.	385.4	353.1	388.5	400.2	388.2	384.4	395.5	n.a.	n.a.	n.a.
12	n.a.	n.a.	362.9	364.4	380.3	394.1	389.6	382.1	391.3	n.a.	n.a.	n.a.
13	n.a.	n.a.	343.5	371.1	388.3	393.6	385.4	385.5	391.7	n.a.	n.a.	n.a.
14	n.a.	374.7	367.2	362.7	390.1	395.3	385.3	403.1	383.4	n.a.	n.a.	n.a.
15	n.a.	342.4	347.2	366.7	393.7	392.6	388.5	394.4	381.6	n.a.	n.a.	n.a.
16	n.a.	359.6	397.5	368.6	378.2	391.6	387.6	393.1	380.8	n.a.	n.a.	n.a.
17	n.a.	294.9	344.2	386.5	384.4	384.2	389.6	398.1	377.1	n.a.	n.a.	n.a.
18	n.a.	n.a.	360.5	377.4	390.1	387.5	389.9	395.6	386.9	n.a.	n.a.	n.a.
19	n.a.	n.a.	378.8	379.5	384.3	398.4	394.2	396.4	380.6	n.a.	n.a.	n.a.
20	n.a.	n.a.	373.1	384.5	394.6	407.2	391.8	383.6	383.5	n.a.	n.a.	n.a.
Mean	n.a.	342.9	366.0	371.5	387.3	394.5	389.0	391.6	385.2	n.a.	n.a.	n.a.
21	n.a.	348.4	373.6	375.4	397.7	400.5	392.8	385.4	379.1	n.a.	n.a.	n.a.
22	n.a.	353.4	386.3	385.0	401.7	396.6	391.2	382.2	384.7	n.a.	n.a.	n.a.
23	n.a.	366.6	387.9	386.7	401.5	391.5	396.3	383.0	391.3	n.a.	n.a.	n.a.
24	n.a.	364.3	370.5	389.6	407.8	384.6	390.1	389.0	388.1	n.a.	n.a.	n.a.
25	n.a.	370.7	360.4	379.7	395.4	386.4	390.8	388.3	386.0	n.a.	n.a.	n.a.
26	n.a.	367.5	362.9	387.8	390.2	383.6	403.8	391.0	393.3	n.a.	n.a.	n.a.
27	n.a.	372.3	373.2	384.7	389.9	385.0	393.9	397.4	387.1	n.a.	n.a.	n.a.
28	n.a.	352.4	386.9	374.3	398.3	393.5	394.3	392.4	386.8	n.a.	n.a.	n.a.
29	n.a.	329.9	375.7	379.8	406.2	395.3	390.2	387.5	n.a.	n.a.	n.a.	n.a.
30	n.a.		364.5	374.2	407.5	393.6	391.3	386.9	n.a.	n.a.	n.a.	n.a.
31	n.a.		361.9		405.5		393.2	382.9		n.a.		n.a.
Mean	n.a.	358.4	373.1	381.7	400.1	391.1	393.5	387.8	387.1	n.a.	n.a.	n.a.
MEAN	n.a.	351.2	366.5	373.7	386.7	393.2	382.1	389.7	386.6	n.a.	n.a.	n.a.
MIN	n.a.	294.9	343.5	347.9	357.6	383.6	385.3	382.1	377.1	n.a.	n.a.	n.a.
MAX	n.a.	380.8	397.5	391.6	407.8	407.2	404.0	403.1	396.8	n.a.	n.a.	n.a.

TECHNICAL SHEET					
Coordinates:					
<i>Latitude: 27° 48' 8.6" N</i>					
<i>Longitude: 86° 42' 52" E</i>					
<i>Elevation: 3.560 m a.s.l</i>					
Installation Time:					
<i>October 2001</i>					
Data Availability:					
<i>From October 27th, 2001</i>					



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				2 m	LSI-Lastem E-Log
Air Temperature	-30 - +70 °C	±0.1°C	60 min.	2 m	LSI-Lastem DMA570
Relative Humidity	0 - 100 %	±2.5%	60 min.	2 m	LSI-Lastem DMA570
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000		60 min.	2 m	Kipp & Zonen CM6B pyranometer

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.9	-4.7	-1.8	5.4	4.0	10.1	10.8	11.3	10.5	8.7	n.a.	n.a.
2	-3.1	-1.8	-3.3	5.8	4.8	8.7	11.4	11.9	9.2	n.a.	n.a.	n.a.
3	-4.5	-1.6	-3.3	2.9	3.0	10.1	10.8	10.0	9.9	n.a.	n.a.	n.a.
4	-5.5	-1.2	-2.1	3.9	2.7	10.1	10.0	10.5	9.7	n.a.	n.a.	n.a.
5	-4.7	0.7	0.0	4.2	2.1	9.8	10.3	10.8	9.5	n.a.	n.a.	n.a.
6	-4.9	-0.1	1.1	1.3	3.9	9.3	9.7	11.1	9.0	n.a.	n.a.	n.a.
7	-4.5	3.6	0.1	2.6	6.2	10.0	10.2	11.0	9.8	n.a.	n.a.	n.a.
8	-5.3	0.4	0.3	3.0	7.3	9.9	10.7	10.4	10.3	n.a.	n.a.	n.a.
9	-5.2	-3.9	-1.9	2.7	7.1	10.9	11.3	9.9	9.7	n.a.	n.a.	n.a.
10	-5.8	-2.9	-1.1	2.7	6.5	9.8	11.3	11.1	10.3	n.a.	n.a.	n.a.
Mean	-4.3	-1.1	-1.2	3.5	4.7	9.9	10.7	10.8	9.8	n.a.	n.a.	n.a.
11	-6.2	-3.6	0.8	2.8	7.5	10.2	10.8	10.1	10.5	n.a.	n.a.	n.a.
12	-7.3	-3.7	0.6	4.0	7.9	10.0	10.8	9.6	10.1	n.a.	n.a.	n.a.
13	-7.5	-3.2	-1.8	4.3	8.2	10.4	10.6	10.1	10.0	n.a.	n.a.	n.a.
14	-4.3	-2.4	-2.1	4.0	8.9	10.6	10.7	11.1	9.2	n.a.	n.a.	n.a.
15	-3.4	-1.0	-2.0	3.0	8.3	10.8	10.0	11.0	9.1	n.a.	n.a.	n.a.
16	-4.8	-1.4	0.4	3.8	6.8	10.8	10.1	11.9	8.9	n.a.	n.a.	n.a.
17	-5.1	-2.0	0.2	5.1	7.8	10.0	11.1	11.3	8.4	n.a.	n.a.	n.a.
18	-6.4	1.1	1.4	5.3	8.8	10.1	11.5	11.2	9.2	n.a.	n.a.	n.a.
19	-5.2	0.0	2.8	6.2	9.0	11.4	10.9	11.1	9.0	n.a.	n.a.	n.a.
20	-6.0	-0.4	3.0	7.1	8.0	11.3	11.1	9.9	9.7	n.a.	n.a.	n.a.
Mean	-5.6	-1.7	0.4	4.6	8.1	10.6	10.8	10.7	9.4	n.a.	n.a.	n.a.
21	-5.5	-0.2	4.3	6.9	8.7	10.8	11.5	9.6	9.3	n.a.	n.a.	n.a.
22	-2.0	1.1	5.3	7.5	9.3	10.9	11.3	9.6	9.1	n.a.	n.a.	n.a.
23	-2.6	3.0	6.3	6.3	9.6	10.5	11.6	9.6	9.3	n.a.	n.a.	n.a.
24	-3.4	2.9	4.1	6.3	9.0	10.4	10.8	10.1	8.6	n.a.	n.a.	n.a.
25	-2.7	3.4	2.7	6.1	9.6	10.4	11.3	10.4	8.4	n.a.	n.a.	n.a.
26	-2.5	3.5	3.3	6.4	9.5	9.2	11.7	10.4	8.8	n.a.	n.a.	n.a.
27	-4.4	4.1	5.0	6.4	10.0	8.7	10.8	10.5	9.1	n.a.	n.a.	n.a.
28	-3.5	0.6	5.5	4.7	10.8	10.1	11.5	10.3	9.2	n.a.	n.a.	n.a.
29	-4.4	-2.5	4.5	5.1	10.6	10.8	11.1	10.5	9.6	n.a.	n.a.	n.a.
30	-4.0		4.3	5.0	11.3	10.8	10.9	10.1	9.6	n.a.	n.a.	n.a.
31	-3.0			4.1	10.4		11.4	10.2		n.a.		
Mean	-3.5	1.8	4.5	6.1	9.9	10.3	11.3	10.1	9.1	n.a.	n.a.	n.a.
MEAN	-4.4	-0.4	1.3	4.7	7.7	10.2	10.9	10.5	9.4	n.a.	n.a.	n.a.
MIN	-7.5	-4.7	-3.3	1.3	2.1	8.7	9.7	9.6	8.4	n.a.	n.a.	n.a.
MAX	0.9	4.1	6.3	7.1	11.3	11.4	11.7	11.9	10.5	n.a.	n.a.	n.a.

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	50.9	67.7	72.5	54.9	46.7	96.6	96.5	94.0	99.7	99.7	n.a.	n.a.
2	97.6	53.3	92.2	73.7	57.1	98.9	95.6	99.2	95.0	n.a.	n.a.	n.a.
3	73.2	68.1	89.1	90.9	78.5	87.3	99.6	100.0	93.9	n.a.	n.a.	n.a.
4	80.5	67.4	94.1	84.2	72.6	73.6	98.6	98.3	96.7	n.a.	n.a.	n.a.
5	88.0	48.6	85.1	82.0	87.0	82.0	99.7	94.9	95.7	n.a.	n.a.	n.a.
6	89.6	58.7	75.7	96.2	66.1	92.4	99.9	94.8	99.3	n.a.	n.a.	n.a.
7	74.4	41.7	66.8	92.2	61.7	92.4	98.0	98.1	94.1	n.a.	n.a.	n.a.
8	85.4	70.1	70.0	89.0	74.2	96.5	93.5	99.7	91.9	n.a.	n.a.	n.a.
9	78.5	81.1	70.0	94.7	73.7	90.0	95.0	93.5	95.6	n.a.	n.a.	n.a.
10	76.9	46.0	45.4	98.3	80.9	94.2	95.8	90.9	96.9	n.a.	n.a.	n.a.
Mean	79.5	60.3	76.1	85.6	69.8	90.4	97.2	96.3	95.9	n.a.	n.a.	n.a.
11	61.1	61.0	24.9	98.0	81.0	91.4	100.0	93.6	98.5	n.a.	n.a.	n.a.
12	61.4	82.4	35.8	90.6	83.5	96.4	99.4	98.9	99.9	n.a.	n.a.	n.a.
13	53.2	77.5	82.4	80.0	79.3	96.3	100.0	97.4	99.7	n.a.	n.a.	n.a.
14	31.8	84.1	75.0	88.4	76.0	98.7	100.0	92.6	97.9	n.a.	n.a.	n.a.
15	53.5	82.6	78.5	89.5	69.1	98.9	99.9	97.2	100.0	n.a.	n.a.	n.a.
16	82.1	73.3	51.7	80.1	75.4	100.0	100.0	92.0	100.0	n.a.	n.a.	n.a.
17	96.1	81.0	72.7	84.6	75.4	100.0	100.0	93.3	97.3	n.a.	n.a.	n.a.
18	94.7	43.9	81.9	84.5	76.4	98.1	100.0	96.9	93.2	n.a.	n.a.	n.a.
19	55.3	66.6	85.4	82.9	68.9	89.7	98.9	95.1	96.9	n.a.	n.a.	n.a.
20	74.8	83.3	89.7	83.7	80.7	93.4	99.2	99.0	97.5	n.a.	n.a.	n.a.
Mean	66.4	73.6	67.8	86.2	76.6	96.3	99.7	95.6	98.1	n.a.	n.a.	n.a.
21	76.1	88.8	79.7	85.9	82.3	96.6	95.8	99.5	98.6	n.a.	n.a.	n.a.
22	51.0	78.1	59.1	59.8	86.3	96.2	98.2	99.6	94.5	n.a.	n.a.	n.a.
23	67.0	47.4	60.3	58.3	85.4	99.0	98.2	99.0	95.1	n.a.	n.a.	n.a.
24	72.1	39.4	82.2	55.8	88.6	100.0	100.0	98.8	94.8	n.a.	n.a.	n.a.
25	70.7	31.7	93.6	58.6	91.9	100.0	97.7	97.2	88.5	n.a.	n.a.	n.a.
26	70.0	29.2	88.0	71.5	95.7	100.0	96.8	91.5	93.2	n.a.	n.a.	n.a.
27	95.5	38.3	72.5	66.7	95.5	100.0	97.8	98.0	86.1	n.a.	n.a.	n.a.
28	58.3	57.0	75.0	68.3	89.6	98.7	92.6	98.4	87.5	n.a.	n.a.	n.a.
29	64.5	83.2	63.4	62.6	92.4	99.0	96.2	100.0	94.6	n.a.	n.a.	n.a.
30	65.2		54.7	44.4	91.3	99.7	96.4	100.0	98.1	n.a.	n.a.	n.a.
31	51.8		54.1		92.3		96.2	100.0		n.a.		n.a.
Mean	67.5	54.8	71.2	63.2	90.1	98.9	96.9	98.4	93.1	n.a.	n.a.	n.a.
MEAN	71.0	63.2	71.7	78.3	79.2	95.2	97.9	96.8	95.7	n.a.	n.a.	n.a.
MIN	31.8	29.2	24.9	44.4	46.7	73.6	92.6	90.9	86.1	n.a.	n.a.	n.a.
MAX	97.6	88.8	94.1	98.3	95.7	100.0	100.0	100.0	100.0	n.a.	n.a.	n.a.

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	662.9	659.4	655.5	666.3	660.3	661.2	661.6	660.7	662.9	666.2	n.a.	n.a.
2	659.9	661.1	654.3	667.1	661.1	659.5	661.8	660.6	664.3	n.a.	n.a.	n.a.
3	657.5	661.3	654.3	667.2	660.3	657.7	660.3	660.9	663.6	n.a.	n.a.	n.a.
4	657.8	661.0	656.5	664.4	660.4	659.0	659.7	660.8	664.3	n.a.	n.a.	n.a.
5	658.4	660.8	657.7	662.7	662.4	659.8	660.1	661.7	665.1	n.a.	n.a.	n.a.
6	659.4	659.6	656.5	661.0	662.8	659.7	660.3	662.3	666.0	n.a.	n.a.	n.a.
7	661.3	660.5	654.9	660.4	662.7	660.4	659.9	662.8	666.2	n.a.	n.a.	n.a.
8	661.5	657.0	656.1	660.5	663.8	661.0	660.4	662.6	665.8	n.a.	n.a.	n.a.
9	660.6	657.3	657.6	661.0	665.0	660.5	661.8	662.4	665.7	n.a.	n.a.	n.a.
10	660.1	658.0	659.5	661.0	665.7	659.5	663.3	661.9	665.0	n.a.	n.a.	n.a.
Mean	659.9	659.6	656.3	663.2	662.5	659.8	660.9	661.7	664.9	n.a.	n.a.	n.a.
11	659.7	657.9	661.7	661.6	663.6	660.0	662.5	663.1	663.8	n.a.	n.a.	n.a.
12	657.4	658.3	663.0	659.7	661.9	661.5	661.9	662.9	663.2	n.a.	n.a.	n.a.
13	656.7	659.7	661.9	660.9	661.2	662.1	661.4	662.5	663.0	n.a.	n.a.	n.a.
14	657.3	660.7	660.2	662.7	661.1	661.8	660.2	662.5	661.8	n.a.	n.a.	n.a.
15	656.8	660.2	658.5	662.0	662.1	660.1	661.1	663.3	660.7	n.a.	n.a.	n.a.
16	655.0	659.9	659.5	660.2	660.7	658.8	662.2	663.5	662.2	n.a.	n.a.	n.a.
17	653.7	660.2	660.5	659.9	661.1	659.5	661.4	663.3	665.2	n.a.	n.a.	n.a.
18	653.9	660.9	661.7	660.2	662.9	660.7	659.9	663.1	665.0	n.a.	n.a.	n.a.
19	656.2	659.4	663.3	661.4	663.9	659.5	660.1	663.0	663.7	n.a.	n.a.	n.a.
20	656.1	658.3	663.2	663.0	663.4	658.9	661.6	662.6	663.6	n.a.	n.a.	n.a.
Mean	656.3	659.6	661.4	661.2	662.2	660.3	661.2	663.0	663.2	n.a.	n.a.	n.a.
21	654.9	658.1	661.4	662.8	662.7	660.1	662.8	662.7	663.7	n.a.	n.a.	n.a.
22	658.0	658.5	660.9	659.5	662.0	661.3	661.5	663.9	663.9	n.a.	n.a.	n.a.
23	657.6	658.7	662.4	659.6	661.1	659.9	659.7	663.5	662.9	n.a.	n.a.	n.a.
24	657.0	658.9	663.1	661.6	660.6	658.0	659.8	663.3	662.4	n.a.	n.a.	n.a.
25	657.3	658.6	663.5	662.7	661.5	657.7	661.3	664.4	663.4	n.a.	n.a.	n.a.
26	657.6	656.8	664.1	663.0	662.8	657.9	661.3	664.1	666.2	n.a.	n.a.	n.a.
27	657.2	658.7	664.2	660.9	662.5	659.4	660.4	663.2	667.3	n.a.	n.a.	n.a.
28	657.9	655.2	665.1	659.3	662.3	660.5	660.5	663.9	667.0	n.a.	n.a.	n.a.
29	658.5	654.4	662.6	658.9	663.3	660.8	661.3	664.8	666.7	n.a.	n.a.	n.a.
30	659.9		663.4	659.6	662.1	660.7	661.3	664.5	666.2	n.a.	n.a.	n.a.
31	660.7		666.4		661.6		660.7	663.2		n.a.		n.a.
Mean	657.9	657.6	663.4	660.8	662.0	659.6	661.0	663.8	665.0	n.a.	n.a.	n.a.
MEAN	658.0	658.9	660.4	661.7	662.2	659.9	661.0	662.8	664.4	n.a.	n.a.	n.a.
MIN	653.7	654.4	654.3	658.9	660.3	657.7	659.7	660.6	660.7	n.a.	n.a.	n.a.
MAX	662.9	661.3	666.4	667.2	665.7	662.1	663.3	664.8	667.3	n.a.	n.a.	n.a.

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	SE	SE	SE	SE	S	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	SE	SE	SE	SE	N	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	SE	E	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10	SE	SE	S	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mode	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	S	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	SE	SE	SE	SE	SE	SE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	SE	SE	SE	SE	SE	n.a.						
14	SE	SE	SE	SE	SE	n.a.						
15	SE	NW	SE	SE	S	n.a.						
16	SE	S	NW	SE	S	n.a.						
17	SE	SE	SE	SE	SE	n.a.						
18	SE	SE	SE	SE	SE	n.a.						
19	SE	SE	SE	SE	SE	n.a.						
20	SE	SE	SE	SE	SE	n.a.						
Mode	SE	SE	SE	SE	SE	n.a.						
21	SE	SE	SE	SE	SE	n.a.						
22	SE	SE	NW	SE	SE	n.a.						
23	SE	SE	SE	SE	SE	n.a.						
24	SE	E	SE	S	SE	n.a.						
25	SE	E	SE	S	SE	n.a.						
26	SE	SE	SE	SE	SE	n.a.						
27	SE	SE	SE	SE	SE	n.a.						
28	SE	S	SE	SE	SE	n.a.						
29	SE	SE	SE	S	SE	n.a.						
30	SE		SE	S	SE	n.a.						
31	SE		S		SE		n.a.	n.a.		n.a.		n.a.
Mode	SE	SE	SE	SE	SE	n.a.						
MODE	SE	SE	SE	SE	SE	n.a.						

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	1.7	2.4	2.7	2.8	2.6	0.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1.6	2.0	3.0	2.8	2.9	1.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	1.5	1.8	2.6	1.3	2.4	1.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	1.5	2.7	2.4	2.4	2.6	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	3.5	3.3	2.1	2.8	2.1	2.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	1.8	4.3	3.4	2.1	2.4	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	2.1	3.3	3.0	2.6	2.9	2.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	1.6	8.6	2.5	2.7	3.1	1.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	2.1	2.7	2.8	2.1	2.7	0.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10	1.9	2.5	2.6	2.1	2.4	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	1.9	3.4	2.7	2.4	2.6	1.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	1.7	2.8	2.8	1.7	2.5	2.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	2.2	2.7	3.3	2.9	2.5	2.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	1.8	3.4	2.1	2.9	3.0	n.a.						
14	2.1	2.5	2.7	2.7	3.2	n.a.						
15	1.7	1.7	2.7	2.3	3.4	n.a.						
16	2.1	2.7	2.9	2.9	2.6	n.a.						
17	2.3	2.4	2.4	3.1	2.5	n.a.						
18	2.3	2.4	2.5	2.6	2.8	n.a.						
19	2.5	2.6	2.3	2.8	2.6	n.a.						
20	2.2	2.1	2.0	2.5	2.5	n.a.						
Mean	2.1	2.5	2.6	2.6	2.8	n.a.						
21	3.2	1.7	3.5	2.2	2.7	n.a.						
22	2.3	3.6	3.0	3.1	3.3	n.a.						
23	1.9	4.7	2.5	3.5	3.2	n.a.						
24	1.8	4.5	1.9	2.9	3.1	n.a.						
25	3.1	4.7	2.0	2.5	2.2	n.a.						
26	2.6	4.5	2.5	2.8	2.0	n.a.						
27	1.6	2.3	3.1	3.2	2.2	n.a.						
28	2.2	2.7	2.9	2.8	2.7	n.a.						
29	2.6	2.5	2.9	3.0	2.4	n.a.						
30	2.2		2.1	3.0	3.1	n.a.						
31	2.1		2.2		2.6		n.a.	n.a.				
Mean	2.3	3.47	2.6	2.9	2.7	n.a.						
MEAN	2.1	3.1	2.6	2.6	2.7	1.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MIN	1.5	1.7	1.9	1.3	2.0	0.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MAX	3.5	8.6	3.5	3.5	3.4	2.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.0	0.0	0.0	0.0	0.0	0.6	15.8	0.6	1.0	0.0	n.a.	n.a.
2	0.0	0.0	0.0	0.0	0.0	1.4	12.0	6.4	22.8	n.a.	n.a.	n.a.
3	0.0	0.0	0.0	2.2	0.6	0.8	10.4	18.0	0.6	n.a.	n.a.	n.a.
4	0.0	0.0	0.0	0.8	2.4	0.0	6.0	12.8	0.8	n.a.	n.a.	n.a.
5	0.0	0.0	0.4	1.2	0.2	1.0	6.2	6.4	2.6	n.a.	n.a.	n.a.
6	0.0	0.0	0.0	14.2	0.8	0.2	5.2	5.0	2.8	n.a.	n.a.	n.a.
7	0.0	0.0	0.0	0.4	0.0	0.2	6.4	3.0	0.0	n.a.	n.a.	n.a.
8	0.0	0.2	0.0	11.4	0.6	0.2	3.2	4.8	1.0	n.a.	n.a.	n.a.
9	0.0	0.0	0.0	0.0	0.6	0.2	4.2	11.0	1.6	n.a.	n.a.	n.a.
10	0.0	0.0	0.0	2.8	0.8	0.2	8.0	5.6	0.2	n.a.	n.a.	n.a.
Mean	0.0	0.2	0.4	33.0	6.0	4.8	77.4	73.6	33.4	n.a.	n.a.	n.a.
11	0.0	0.0	0.0	2.4	0.2	0.8	4.8	6.6	10.2	n.a.	n.a.	n.a.
12	0.0	0.0	0.0	0.0	0.6	3.8	22.0	13.8	3.2	n.a.	n.a.	n.a.
13	0.0	0.0	0.0	0.0	0.0	0.0	18.8	11.0	23.4	n.a.	n.a.	n.a.
14	0.0	0.0	0.0	1.8	0.2	1.0	17.4	0.2	1.6	n.a.	n.a.	n.a.
15	0.0	0.0	0.0	6.2	0.0	1.0	23.2	1.2	8.8	n.a.	n.a.	n.a.
16	0.0	0.0	0.2	0.2	0.0	1.6	4.8	4.6	17.2	n.a.	n.a.	n.a.
17	0.0	0.0	0.0	0.2	0.0	1.8	2.8	1.4	22.0	n.a.	n.a.	n.a.
18	0.0	0.0	0.4	0.2	2.0	0.4	5.4	3.8	0.8	n.a.	n.a.	n.a.
19	0.0	0.0	0.0	0.0	0.4	6.2	9.8	4.2	0.2	n.a.	n.a.	n.a.
20	0.0	0.0	0.0	0.0	1.2	11.4	11.0	4.2	0.2	n.a.	n.a.	n.a.
Mean	0.0	0.0	0.6	11.0	4.6	28.0	120.0	51.0	87.6	n.a.	n.a.	n.a.
21	0.0	0.2	0.2	1.2	0.0	15.4	1.6	14.2	1.0	n.a.	n.a.	n.a.
22	0.0	0.0	0.0	0.8	0.0	0.8	7.6	5.6	0.0	n.a.	n.a.	n.a.
23	0.0	0.0	0.0	0.0	0.0	9.2	9.0	7.8	0.0	n.a.	n.a.	n.a.
24	0.0	0.0	0.2	0.0	0.0	19.4	24.4	2.2	0.2	n.a.	n.a.	n.a.
25	0.0	0.0	0.2	0.0	0.0	3.0	15.6	11.6	10.0	n.a.	n.a.	n.a.
26	0.2	0.0	0.2	0.0	0.0	1.2	7.4	4.6	0.2	n.a.	n.a.	n.a.
27	0.0	0.0	0.0	0.0	0.0	0.6	14.0	12.2	0.0	n.a.	n.a.	n.a.
28	0.0	0.0	0.2	0.0	0.0	0.4	6.4	4.4	0.8	n.a.	n.a.	n.a.
29	0.0	0.0	0.0	0.0	0.2	0.8	7.2	12.2	0.2	n.a.	n.a.	n.a.
30	0.0			0.0	0.8	5.6	2.8	16.0	0.0	n.a.	n.a.	n.a.
31	0.0			0.0	2.0		3.0	12.6		n.a.		n.a.
Mean	0.20	0.20	1.00	2.00	3.00	56.40	99.00	103.40	12.40	n.a.	n.a.	n.a.
MEAN	0.2	0.4	2.0	46.0	13.6	89.2	296.4	228.0	133.4	n.a.	n.a.	n.a.
MIN	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.2	0.0	n.a.	n.a.	n.a.
MAX	0.2	0.2	0.4	14.2	2.4	19.4	24.4	18.0	23.4	n.a.	n.a.	n.a.

GLOBAL SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	43.3	223.2	245.0	293.2	279.9	247.8	213.4	191.5	167.4	166.2	n.a.	n.a.
2	50.0	203.5	197.8	277.0	352.2	123.3	278.7	206.4	124.2	n.a.	n.a.	n.a.
3	134.1	205.6	251.1	73.8	232.2	364.2	143.2	95.2	259.7	n.a.	n.a.	n.a.
4	160.6	103.6	153.1	214.7	247.0	347.3	117.2	245.8	243.4	n.a.	n.a.	n.a.
5	176.0	179.8	212.7	297.0	221.8	365.9	144.7	234.4	224.1	n.a.	n.a.	n.a.
6	189.7	223.3	238.9	174.6	285.3	286.8	128.9	247.7	142.5	n.a.	n.a.	n.a.
7	193.7	198.2	272.4	315.4	348.7	261.6	213.7	177.3	216.9	n.a.	n.a.	n.a.
8	85.2	13.0	274.3	280.8	310.4	143.3	244.1	172.9	251.3	n.a.	n.a.	n.a.
9	123.0	188.5	244.1	223.4	283.8	350.8	255.5	142.9	182.1	n.a.	n.a.	n.a.
10	195.6	237.5	270.9	177.8	215.4	253.3	281.8	241.6	230.6	n.a.	n.a.	n.a.
Mean	135.1	177.6	236.0	232.8	277.7	274.4	202.1	195.6	204.2	n.a.	n.a.	n.a.
11	162.0	231.9	284.2	144.5	320.5	300.0	158.6	185.3	250.8	n.a.	n.a.	n.a.
12	157.7	210.0	250.6	291.0	281.0	230.8	150.5	180.3	172.8	n.a.	n.a.	n.a.
13	197.7	162.8	53.9	312.2	372.7	165.7	76.4	209.1	147.6	n.a.	n.a.	n.a.
14	196.3	84.2	179.3	280.3	347.0	103.9	133.7	296.5	212.8	n.a.	n.a.	n.a.
15	193.5	38.3	139.4	193.8	313.7	109.0	127.6	232.0	129.3	n.a.	n.a.	n.a.
16	114.6	135.5	298.3	349.5	322.8	98.1	122.5	231.8	79.9	n.a.	n.a.	n.a.
17	152.2	178.9	200.0	333.0	324.9	65.7	192.5	206.2	75.7	n.a.	n.a.	n.a.
18	143.3	217.2	249.7	318.1	302.9	141.2	131.0	213.3	165.4	n.a.	n.a.	n.a.
19	196.6	252.0	253.2	332.5	309.0	251.7	129.3	211.7	121.6	n.a.	n.a.	n.a.
20	116.7	191.4	208.1	312.0	325.3	211.9	209.5	88.0	177.9	n.a.	n.a.	n.a.
Mean	163.1	170.2	211.7	286.7	322.0	167.8	143.2	205.4	153.4	n.a.	n.a.	n.a.
21	208.5	178.7	286.3	215.6	328.6	166.5	232.2	141.9	120.6	n.a.	n.a.	n.a.
22	201.7	247.1	289.0	347.1	335.1	231.1	205.2	152.3	242.2	n.a.	n.a.	n.a.
23	191.9	256.9	285.9	346.8	356.1	171.8	247.3	169.3	267.9	n.a.	n.a.	n.a.
24	195.0	257.2	210.3	315.7	241.2	146.7	91.9	177.9	256.5	n.a.	n.a.	n.a.
25	203.1	260.5	160.4	279.3	229.2	110.9	197.4	275.4	269.2	n.a.	n.a.	n.a.
26	204.6	258.9	208.7	339.9	138.3	84.0	254.0	290.8	274.2	n.a.	n.a.	n.a.
27	155.4	258.8	285.2	294.1	184.3	80.1	148.4	244.3	242.5	n.a.	n.a.	n.a.
28	208.5	179.4	235.0	262.6	295.8	205.0	211.2	213.5	223.1	n.a.	n.a.	n.a.
29	211.7	237.9	283.6	339.2	273.6	159.8	189.3	131.6	235.1	n.a.	n.a.	n.a.
30	209.6		176.3	278.8	313.6	125.8	175.5	145.1	232.6	n.a.	n.a.	n.a.
31	211.2		176.1		307.0		183.5	103.9		n.a.		n.a.
Mean	200.1	237.3	236.1	301.9	273.0	148.2	194.2	186.0	236.4	n.a.	n.a.	n.a.
MEAN	167.2	167.2	228.2	273.8	290.3	196.8	180.3	195.4	198.0	n.a.	n.a.	n.a.
MIN	43.3	43.3	53.9	73.8	138.3	65.7	76.4	88.0	75.7	n.a.	n.a.	n.a.
MAX	211.7	211.7	298.3	349.5	372.7	365.9	281.8	296.5	274.2	n.a.	n.a.	n.a.

AWS PHERICHE

TECHNICAL SHEET					
Coordinates:					
Latitude: 27° 53' 43" N					
Longitude: 86° 49' 7.5" E					
Elevation: 4.258 m a.s.l					
Installation Time:					
October 2001					
Data Availability:					
From October 25 th , 2001					



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				2 m	LSI-Lastem Babuc ABC
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	60 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	1.5% (5÷95%, 23°C)	60 min.	2 m	LSI-Lastem DMA572
Atmospheric Pressure	500 - 1100 hPa (1 hPa=1 mBar)	0,45 hPa	60 min.	2 m	Vaisala BAROCAP PTB330
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000		60 min.	2 m	Kipp & Zonen CM6B pyranometer

Note: Rain precipitation data are not available for 2012.

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	-2.9	n.a.	n.a.	8.5	7.2	5.8	-1.4	-3.7
2	n.a.	n.a.	n.a.	n.a.	-2.1	n.a.	n.a.	9.1	6.1	5.3	-0.6	-3.4
3	n.a.	n.a.	n.a.	n.a.	-1.4	n.a.	n.a.	7.3	6.2	4.7	-1.3	-1.4
4	n.a.	n.a.	n.a.	n.a.	-3.0	n.a.	n.a.	7.6	6.4	3.7	-1.5	-0.5
5	n.a.	n.a.	n.a.	n.a.	-2.6	n.a.	n.a.	7.7	6.3	2.9	-2.4	0.1
6	n.a.	n.a.	n.a.	n.a.	-1.7	n.a.	n.a.	8.0	5.9	1.5	-2.5	0.4
7	n.a.	n.a.	n.a.	n.a.	-4.3	n.a.	n.a.	8.5	6.0	1.7	-3.2	0.9
8	n.a.	n.a.	n.a.	-0.6	n.a.	n.a.	n.a.	7.4	7.3	2.5	-4.4	-1.5
9	n.a.	n.a.	n.a.	-1.2	n.a.	n.a.	8.1	6.4	6.5	0.9	-4.7	-5.0
10	n.a.	n.a.	n.a.	-1.0	n.a.	n.a.	8.2	7.8	7.4	1.9	-4.4	-5.4
Mean	n.a.	n.a.	n.a.	-0.9	-2.6	n.a.	8.2	7.8	6.5	3.1	-2.6	-1.9
11	n.a.	n.a.	n.a.	-0.7	n.a.	n.a.	8.1	6.9	7.8	1.3	-5.3	-5.7
12	n.a.	n.a.	n.a.	-0.1	n.a.	n.a.	7.9	6.8	7.7	0.5	-6.1	-8.2
13	n.a.	n.a.	n.a.	-0.1	n.a.	n.a.	7.9	7.2	7.4	-0.6	-5.0	-6.9
14	n.a.	n.a.	n.a.	-1.0	n.a.	n.a.	8.0	7.7	6.3	-0.6	-6.0	-7.8
15	-9.5	n.a.	n.a.	-2.0	n.a.	n.a.	7.2	7.6	6.4	-0.5	-4.0	-3.7
16	-10.1	n.a.	n.a.	-1.9	n.a.	n.a.	7.2	8.5	5.9	-1.2	-2.1	-3.7
17	-10.5	n.a.	n.a.	0.0	n.a.	n.a.	8.5	8.5	5.3	-0.9	-2.3	-1.6
18	n.a.	n.a.	n.a.	0.2	n.a.	n.a.	8.8	8.3	6.1	-1.9	-1.9	0.3
19	n.a.	n.a.	n.a.	0.7	n.a.	n.a.	7.7	8.0	5.3	-1.6	-3.8	0.1
20	n.a.	n.a.	n.a.	2.0	n.a.	n.a.	7.9	6.9	6.3	-1.6	-4.0	-0.8
Mean	n.a.	n.a.	n.a.	-0.3	n.a.	n.a.	7.9	7.6	6.4	-0.7	-4.0	-3.8
21	n.a.	n.a.	n.a.	1.6	n.a.	n.a.	8.5	6.9	6.2	-0.4	-2.4	-4.9
22	n.a.	n.a.	n.a.	1.8	n.a.	n.a.	8.6	6.6	5.4	-0.6	-0.7	-4.9
23	n.a.	n.a.	n.a.	-0.5	n.a.	n.a.	9.0	6.2	5.4	-1.9	-1.2	-5.9
24	n.a.	n.a.	n.a.	-0.4	n.a.	n.a.	7.8	7.3	4.8	-2.9	-3.7	-8.6
25	n.a.	n.a.	n.a.	-0.2	n.a.	n.a.	8.4	7.3	4.5	-3.2	-5.5	-9.9
26	n.a.	n.a.	n.a.	-0.1	n.a.	n.a.	8.4	7.1	5.3	-3.9	-4.5	-7.4
27	n.a.	n.a.	n.a.	0.4	n.a.	n.a.	8.0	7.4	5.2	-4.3	-4.3	-4.3
28	n.a.	n.a.	n.a.	-1.1	n.a.	n.a.	8.3	7.6	5.5	-4.3	-3.6	-1.3
29	n.a.	n.a.	n.a.	-0.6	n.a.	n.a.	8.2	7.7	5.5	-2.3	-3.2	-0.7
30	n.a.	n.a.	n.a.	-1.8	n.a.	n.a.	7.6	7.4	6.2	-2.0	-5.5	2.9
31	n.a.	n.a.	n.a.		n.a.		8.3	7.2		-1.6		0.4
Mean	n.a.	n.a.	n.a.	-0.1	n.a.	n.a.	8.3	7.2	5.4	-2.5	-3.5	-4.1
MEAN	n.a.	n.a.	n.a.	-0.3	-2.6	n.a.	8.1	7.5	6.1	-0.1	-3.4	-3.3
MIN	n.a.	n.a.	n.a.	-2.0	-4.3	n.a.	7.2	6.2	4.5	-4.3	-6.1	-9.9
MAX	n.a.	n.a.	n.a.	2.0	-1.4	n.a.	9.0	9.1	7.8	5-8	-0-6	2.9

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	62.8	n.a.	n.a.	95.5	92.5	92.9	58.0	27.3
2	n.a.	n.a.	n.a.	n.a.	82.2	n.a.	n.a.	96.7	92.6	91.7	51.0	28.9
3	n.a.	n.a.	n.a.	n.a.	86.9	n.a.	n.a.	97.6	93.8	88.0	47.0	27.5
4	n.a.	n.a.	n.a.	n.a.	90.7	n.a.	n.a.	93.5	94.0	88.5	41.2	24.0
5	n.a.	n.a.	n.a.	n.a.	99.0	n.a.	n.a.	93.4	95.8	87.9	41.2	24.7
6	n.a.	n.a.	n.a.	n.a.	89.3	n.a.	n.a.	91.9	97.0	78.4	48.5	26.9
7	n.a.	92.5	93.5	85.1	45.5	23.9						
8	n.a.	96.7	90.4	79.7	48.3	44.0						
9	n.a.	n.a.	n.a.	96.3	n.a.	n.a.	90.4	93.7	94.2	85.6	47.9	38.3
10	n.a.	n.a.	n.a.	99.7	n.a.	n.a.	91.6	91.8	89.9	88.9	58.4	32.5
Mean	n.a.	n.a.	n.a.	98.0	85.1	n.a.	91.0	94.3	93.4	86.7	48.7	29.8
11	n.a.	n.a.	n.a.	95.5	n.a.	n.a.	98.3	93.7	93.3	79.4	52.9	39.2
12	n.a.	n.a.	n.a.	92.4	n.a.	n.a.	95.8	95.0	94.8	71.9	51.7	50.1
13	n.a.	n.a.	n.a.	81.3	n.a.	n.a.	98.0	93.9	93.6	61.0	55.1	52.2
14	n.a.	n.a.	n.a.	91.5	n.a.	n.a.	97.7	89.7	95.5	75.4	57.8	48.5
15	74.7	n.a.	n.a.	93.7	n.a.	n.a.	96.7	92.8	97.4	75.4	46.2	25.7
16	83.1	n.a.	n.a.	93.9	n.a.	n.a.	99.0	90.9	97.4	73.8	32.0	28.5
17	n.a.	n.a.	n.a.	85.6	n.a.	n.a.	96.1	90.9	96.0	73.6	36.9	28.1
18	n.a.	n.a.	n.a.	86.6	n.a.	n.a.	98.2	94.9	91.9	64.1	32.3	19.8
19	n.a.	n.a.	n.a.	91.7	n.a.	n.a.	94.6	94.0	93.0	55.3	32.8	15.4
20	n.a.	n.a.	n.a.	87.2	n.a.	n.a.	95.3	91.7	90.8	55.8	29.4	20.8
Mean	n.a.	n.a.	n.a.	89.9	n.a.	n.a.	97.0	92.8	94.4	68.6	42.7	32.8
21	n.a.	n.a.	n.a.	92.2	n.a.	n.a.	93.6	95.9	92.7	55.3	30.5	24.3
22	n.a.	n.a.	n.a.	70.9	n.a.	n.a.	97.0	96.9	91.0	57.9	29.0	15.4
23	n.a.	n.a.	n.a.	75.9	n.a.	n.a.	95.6	96.6	89.1	58.2	42.5	23.2
24	n.a.	n.a.	n.a.	68.2	n.a.	n.a.	98.6	92.7	86.4	65.5	45.2	37.0
25	n.a.	n.a.	n.a.	82.1	n.a.	n.a.	93.7	93.8	85.5	65.8	50.7	43.5
26	n.a.	n.a.	n.a.	86.9	n.a.	n.a.	93.6	89.2	87.8	58.1	40.7	28.7
27	n.a.	n.a.	n.a.	88.1	n.a.	n.a.	95.8	93.6	86.3	51.7	39.7	27.4
28	n.a.	n.a.	n.a.	87.3	n.a.	n.a.	93.6	95.7	89.0	54.6	35.2	28.9
29	n.a.	n.a.	n.a.	85.4	n.a.	n.a.	94.1	96.0	92.0	47.3	32.0	16.1
30	n.a.		n.a.	80.4	n.a.	n.a.	96.6	98.0	88.3	50.9	39.9	20.7
31	n.a.		n.a.		n.a.		93.0	97.2		54.0		33.7
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	95.0	95.1	88.8	56.3	38.6	27.2
MEAN	n.a.	n.a.	n.a.	86.9	n.a.	n.a.	95.5	94.1	92.2	70.1	43.3	29.8
MIN	n.a.	n.a.	n.a.	68.2	n.a.	n.a.	90.4	89.2	85.5	47.3	29.0	15.4
MAX	n.a.	n.a.	n.a.	99.7	n.a.	n.a.	99.0	97.4	97.4	92.9	58.4	52.2

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	604.4	n.a.	n.a.	608.6	610.4	612.8	610.3	605.8
2	n.a.	n.a.	n.a.	n.a.	604.8	n.a.	n.a.	608.4	611.3	611.7	609.0	607.9
3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	608.3	610.6	609.5	608.4	608.0
4	n.a.	n.a.	n.a.	n.a.	604.0	n.a.	n.a.	608.3	611.3	607.5	608.5	608.3
5	n.a.	n.a.	n.a.	n.a.	604.8	n.a.	n.a.	609.2	611.9	608.8	608.1	609.7
6	n.a.	n.a.	n.a.	n.a.	605.7	n.a.	n.a.	609.8	612.8	611.0	608.5	609.1
7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	610.4	613.1	612.0	607.1	607.7
8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	610.0	612.8	612.1	604.9	605.8
9	n.a.	n.a.	n.a.	604.1	n.a.	n.a.	609.3	609.7	612.6	610.7	605.6	604.9
10	n.a.	n.a.	n.a.	604.8	n.a.	n.a.	610.7	609.4	612.1	610.5	607.8	605.2
Mean	n.a.	n.a.	n.a.	604.5	604.7	n.a.	610.0	609.2	611.9	610.7	607.8	607.2
11	n.a.	n.a.	n.a.	605.2	n.a.	n.a.	610.0	610.3	611.1	609.8	607.6	604.9
12	n.a.	n.a.	n.a.	603.9	n.a.	n.a.	609.4	610.1	610.5	609.5	607.1	603.2
13	n.a.	n.a.	n.a.	604.0	n.a.	n.a.	608.9	609.8	610.3	609.6	607.9	604.5
14	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	607.9	610.0	608.9	609.5	606.6	606.9
15	n.a.	n.a.	n.a.	605.7	n.a.	n.a.	608.6	610.7	608.0	610.7	607.4	607.9
16	600.9	n.a.	n.a.	603.9	n.a.	n.a.	609.6	611.1	609.2	611.7	611.1	608.3
17	599.7	n.a.	n.a.	603.8	n.a.	n.a.	609.1	610.8	612.0	611.4	611.4	608.2
18	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	607.9	610.6	612.0	610.8	609.9	608.5
19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	607.8	610.6	610.9	610.9	609.2	604.9
20	n.a.	n.a.	n.a.	606.5	n.a.	n.a.	609.1	610.0	610.8	611.3	609.2	603.0
Mean	600.3	n.a.	n.a.	604.7	n.a.	n.a.	608.8	610.4	610.4	610.5	608.7	606.0
21	n.a.	n.a.	n.a.	607.3	n.a.	n.a.	610.5	609.8	610.8	611.5	608.9	604.5
22	n.a.	n.a.	n.a.	604.3	n.a.	n.a.	609.3	611.0	610.8	611.5	607.7	605.3
23	n.a.	n.a.	n.a.	603.0	n.a.	n.a.	607.5	610.7	609.9	610.1	607.4	609.3
24	n.a.	n.a.	n.a.	604.4	n.a.	n.a.	607.6	610.6	609.3	607.9	605.0	607.0
25	n.a.	n.a.	n.a.	605.9	n.a.	n.a.	609.0	611.6	610.1	606.9	603.7	603.1
26	n.a.	n.a.	n.a.	606.3	n.a.	n.a.	609.0	611.3	612.7	608.1	605.0	603.3
27	n.a.	n.a.	n.a.	605.0	n.a.	n.a.	608.1	610.5	613.9	608.9	604.6	604.3
28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	608.2	611.1	613.6	609.6	605.3	603.4
29	n.a.	n.a.	n.a.	602.3	n.a.	n.a.	609.0	612.0	613.5	610.7	604.6	604.0
30	n.a.	n.a.	n.a.	603.2	n.a.	n.a.	608.9	611.7	613.1	611.2	604.1	604.2
31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	608.5	610.6	n.a.	611.3	n.a.	603.3
Mean	n.a.	n.a.	n.a.	604.6	n.a.	n.a.	608.7	611.0	611.8	609.8	605.6	604.7
MEAN	n.a.	n.a.	n.a.	604.6	n.a.	n.a.	608.9	610.2	611.3	610.3	607.4	605.9
MIN	n.a.	n.a.	n.a.	602.3	n.a.	n.a.	607.5	608.3	608.3	606.9	603.7	603.0
MAX	n.a.	n.a.	n.a.	607.3	n.a.	n.a.	610.7	612.0	613.9	612.8	611.4	609.7

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	S	n.a.	nn.a.	SE	SE	S	N	N
2	n.a.	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N
3	n.a.	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N
4	n.a.	n.a.	n.a.	n.a.	N	n.a.	n.a.	S	SE	S	N	N
5	n.a.	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N
6	n.a.	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	N	N	N
7	n.a.	n.a.	n.a.	n.a.	N	n.a.	n.a.	SE	SE	S	N	N
8	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
9	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	N	N	N
10	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
Mode	n.a.	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N
11	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	S
12	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	N	N	S
13	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	S	S
14	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
15	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
16	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	N	S	N
17	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
18	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
19	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	N	N	S
20	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	N	N	N
Mode	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N
21	n.a.	n.a.	n.a.	N	n.a.	n.a.	S	SE	N	S	N	N
22	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	N	N	N	N
23	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	S	N	N
24	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	N	SE	N
25	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	S	SE	N
26	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	N	N	N
27	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	N	N	N
28	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	N	N	N
29	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N	N
30	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	N	N
31	n.a.	n.a.	n.a.	S	n.a.	n.a.	SE	SE	S	N	S	
Mode	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	S	N	N	N
MODE	n.a.	n.a.	n.a.	S	n.a.	n.a.	S	SE	SE	S	N	N

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	0.9	0.9	1.9	3.0	2.7
2	n.a.	n.a.	n.a.	n.a.	3.6	n.a.	n.a.	1.3	0.6	2.5	2.7	2.3
3	n.a.	n.a.	n.a.	n.a.	3.6	n.a.	n.a.	2.4	1.4	2.1	2.8	2.5
4	n.a.	n.a.	n.a.	n.a.	3.3	n.a.	n.a.	2.2	1.5	2.7	2.9	2.6
5	n.a.	n.a.	n.a.	n.a.	2.9	n.a.	n.a.	2.3	1.7	2.4	3.1	2.4
6	n.a.	n.a.	n.a.	n.a.	3.2	n.a.	n.a.	2.2	1.5	2.8	2.9	2.2
7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.4	1.3	2.6	2.6	2.7
8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.8	1.5	2.9	3.0	2.7
9	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	3.3	1.7	1.5	1.2	2.8	2.7
10	n.a.	n.a.	n.a.	2.6	n.a.	n.a.	3.2	1.7	1.4	2.0	2.4	2.7
Mean	n.a.	n.a.	n.a.	3.0	3.3	n.a.	3.2	1.8	1.3	2.3	2.8	2.6
11	n.a.	n.a.	n.a.	2.6	n.a.	n.a.	2.6	2.2	1.3	2.8	2.8	2.6
12	n.a.	n.a.	n.a.	2.9	n.a.	n.a.	2.6	2.0	1.5	3.0	2.6	2.1
13	n.a.	n.a.	n.a.	3.7	n.a.	n.a.	2.1	1.6	1.5	3.7	2.4	2.7
14	n.a.	n.a.	n.a.	3.5	n.a.	n.a.	2.1	1.7	2.6	2.9	2.7	2.7
15	n.a.	n.a.	n.a.	3.3	n.a.	n.a.	2.3	1.4	2.5	2.8	3.2	2.7
16	n.a.	n.a.	n.a.	3.1	n.a.	n.a.	2.3	1.5	2.7	2.6	2.9	2.6
17	n.a.	n.a.	n.a.	3.5	n.a.	n.a.	2.3	1.5	1.7	2.9	2.8	3.1
18	n.a.	n.a.	n.a.	3.7	n.a.	n.a.	2.4	1.6	2.2	2.9	2.9	3.0
19	n.a.	n.a.	n.a.	3.9	n.a.	n.a.	1.9	1.4	1.6	3.5	2.6	4.0
20	n.a.	n.a.	n.a.	4.0	n.a.	n.a.	2.2	1.5	1.8	3.2	2.7	2.4
Mean	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	2.3	1.6	1.9	3.0	2.8	2.8
21	n.a.	n.a.	n.a.	2.5	n.a.	n.a.	1.9	1.3	2.5	2.6	2.6	2.7
22	n.a.	n.a.	n.a.	3.3	n.a.	n.a.	2.0	1.3	2.3	3.1	2.6	5.2
23	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	2.1	1.2	2.5	2.9	2.5	3.2
24	n.a.	n.a.	n.a.	3.6	n.a.	n.a.	2.0	1.1	2.7	3.1	2.9	3.0
25	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	2.4	1.2	2.6	2.5	2.2	3.1
26	n.a.	n.a.	n.a.	3.5	n.a.	n.a.	2.0	1.7	2.4	3.3	2.5	2.4
27	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	2.0	1.1	2.5	3.2	2.4	2.2
28	n.a.	n.a.	n.a.	3.8	n.a.	n.a.	2.3	1.3	2.2	2.6	2.3	2.8
29	n.a.	n.a.	n.a.	4.2	n.a.	n.a.	2.6	1.1	2.3	3.1	2.6	2.8
30	n.a.		n.a.	3.6	n.a.	n.a.	2.0	0.9	2.5	3.1	2.0	3.2
31	n.a.		n.a.		n.a.		1.7	0.9		3.2		3.9
Mean	n.a.	n.a.	n.a.	3.5	n.a.	n.a.	2.1	1.2	2.4	3.0	2.5	3.1
MEAN	n.a.	n.a.	n.a.	3.4	n.a.	n.a.	2.3	1.5	1.9	2.8	2.7	2.8
MIN	n.a.	n.a.	n.a.	2.5	n.a.	n.a.	1.7	0.9	0.6	1.2	2.0	2.1
MAX	n.a.	n.a.	n.a.	4.2	n.a.	n.a.	3.3	2.4	2.7	2.7	3.2	5.2

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	2.0	1.8	0.0	0.2	0.0						
2	n.a.	2.6	6.8	0.2	0.0	0.0						
3	n.a.	3.6	0.0	0.0	0.0	0.0						
4	n.a.	0.2	1.0	0.2	0.0	0.0						
5	n.a.	2.6	0.8	0.0	0.0	0.0						
6	n.a.	3.2	1.4	0.2	0.0	0.0						
7	n.a.	0.2	0.2	0.2	0.0	0.0						
8	n.a.	8.4	0.0	0.0	0.0	0.0						
9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.0	13.8	1.0	2.6	0.0	0.0
10	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.6	1.0	0.0	0.2	0.0	0.0
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	6.6	37.6	13.0	3.6	0.2	0.0
11	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.8	3.4	0.8	0.0	0.2	0.0
12	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17.8	1.2	2.8	0.2	0.0	0.0
13	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.2	2.0	5.8	0.0	0.0	0.0
14	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.0	0.2	2.0	0.2	0.2	0.0
15	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12.4	1.8	3.2	0.0	0.0	0.0
16	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.2	1.2	5.4	0.2	0.0	0.0
17	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.2	3.0	7.2	0.0	0.0	0.0
18	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.2	8.2	0.4	0.2	0.0	0.0
19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.8	1.4	0.6	0.0	0.0	0.0
20	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.0	7.0	0.8	0.0	0.0	0.0
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	58.6	29.4	29.0	0.8	0.4	0.0
21	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.4	10.2	1.8	0.0	0.0	0.0
22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.4	2.8	0.2	0.0	0.0	0.0
23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.2	3.2	0.2	0.0	0.0	0.0
24	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10.0	1.4	0.2	0.0	0.0	0.0
25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8.8	0.8	0.4	0.4	0.0	0.0
26	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2.0	6.2	0.0	0.2	0.0	0.0
27	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8.6	1.8	0.0	0.2	0.0	0.0
28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.0	1.2	0.2	0.6	0.0	0.0
29	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.6	1.6	0.2	0.0	0.0	0.0
30	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.8	0.8	0.0	0.2	0.0	0.0
31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.2	0.4	0.0	0.0	0.0	0.0
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	59.0	30.4	3.2	1.6	0.0	0.0
MEAN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	124.2	97.4	45.2	6.0	0.6	0.0
MIN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.2	0.2	0.0	0.0	0.0	0.0
MAX	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17.8	13.8	7.2	2.6	0.2	0.0

GLOBAL SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	269.0	n.a.	n.a.	133.5	185.8	206.0	232.0	184.4
2	n.a.	n.a.	n.a.	n.a.	305.6	n.a.	n.a.	251.0	123.5	258.1	214.4	184.1
3	n.a.	n.a.	n.a.	n.a.	244.0	n.a.	n.a.	158.7	297.3	238.0	231.8	190.8
4	n.a.	n.a.	n.a.	n.a.	322.9	n.a.	n.a.	284.0	286.7	270.1	234.0	183.8
5	n.a.	n.a.	n.a.	n.a.	203.8	n.a.	n.a.	276.0	258.5	246.0	229.7	181.7
6	n.a.	n.a.	n.a.	n.a.	300.9	n.a.	n.a.	292.2	214.7	263.0	229.3	182.8
7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	272.8	300.8	261.0	219.2	182.4
8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	168.0	318.8	276.2	223.7	179.2
9	n.a.	n.a.	n.a.	306.1	n.a.	n.a.	314.5	197.0	237.4	53.9	213.1	178.5
10	n.a.	n.a.	n.a.	138.7	n.a.	n.a.	328.6	283.5	268.4	236.5	216.4	179.1
Mean	n.a.	n.a.	n.a.	222.4	274.4	n.a.	321.6	231.7	249.2	230.9	224.3	182.7
11	n.a.	n.a.	n.a.	154.2	n.a.	n.a.	168.6	217.6	279.0	278.1	223.3	157.0
12	n.a.	n.a.	n.a.	266.1	n.a.	n.a.	191.3	235.6	287.0	263.0	210.0	82.5
13	n.a.	n.a.	n.a.	308.0	n.a.	n.a.	208.7	293.8	212.4	254.5	200.4	119.2
14	n.a.	n.a.	n.a.	216.7	n.a.	n.a.	181.8	330.9	235.9	267.0	214.0	190.9
15	n.a.	n.a.	n.a.	208.1	n.a.	n.a.	139.6	270.8	190.3	259.8	198.4	178.5
16	n.a.	n.a.	n.a.	357.6	n.a.	n.a.	139.8	277.6	128.6	254.3	203.9	176.2
17	n.a.	n.a.	n.a.	279.2	n.a.	n.a.	296.5	250.3	87.1	255.9	199.7	176.7
18	n.a.	n.a.	n.a.	257.0	n.a.	n.a.	198.9	260.3	246.1	264.5	199.5	175.3
19	n.a.	n.a.	n.a.	321.3	n.a.	n.a.	122.7	191.5	134.3	263.7	198.3	175.9
20	n.a.	n.a.	n.a.	307.7	n.a.	n.a.	194.1	121.3	192.3	249.5	195.9	175.5
Mean	n.a.	n.a.	n.a.	267.6	n.a.	n.a.	184.2	245.0	199.3	261.0	204.3	160.8
21	n.a.	n.a.	n.a.	183.5	n.a.	n.a.	280.9	238.0	279.1	243.8	193.0	178.5
22	n.a.	n.a.	n.a.	347.2	n.a.	n.a.	194.0	192.9	280.6	254.0	192.5	180.1
23	n.a.	n.a.	n.a.	287.0	n.a.	n.a.	303.4	166.4	269.9	242.9	187.8	179.6
24	n.a.	n.a.	n.a.	223.2	n.a.	n.a.	86.0	216.9	279.8	230.8	182.1	177.5
25	n.a.	n.a.	n.a.	304.7	n.a.	n.a.	288.9	312.5	283.4	239.7	173.6	177.3
26	n.a.	n.a.	n.a.	246.0	n.a.	n.a.	246.6	245.9	280.0	255.0	187.6	176.5
27	n.a.	n.a.	n.a.	223.7	n.a.	n.a.	177.4	272.9	272.3	256.6	186.0	175.6
28	n.a.	n.a.	n.a.	257.3	n.a.	n.a.	249.5	247.5	266.7	232.0	186.4	179.4
29	n.a.	n.a.	n.a.	266.8	n.a.	n.a.	207.9	218.0	237.2	243.7	185.4	178.7
30	n.a.			243.7	n.a.	n.a.	203.6	238.0	275.8	242.2	185.6	187.9
31	n.a.			n.a.	n.a.	n.a.	207.2	171.0	n.a.	241.8	n.a.	179.4
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	222.3	229.1	272.5	243.9	186.0	179.1
MEAN	n.a.	n.a.	n.a.	259.3	274.4	n.a.	214.4	235.0	240.3	245.2	204.9	174.4
MIN	n.a.	n.a.	n.a.	138.7	203.8	n.a.	86.0	121.3	87.1	53.9	173.6	82.5
MAX	n.a.	n.a.	n.a.	357.6	322.9	n.a.	328.6	330.9	318.8	278.1	234.0	190.9

AWS KALA PATTAR

TECHNICAL SHEET

Coordinates:

Latitude: 27° 59' 24" N

Longitude: 86° 49' 48" E

Elevation: 5.600 m a.s.l

Installation Time:

May 2008

Data Availability:

From May 13th, 2008



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger			10 min.	2 m	LSI-Lastem E-Log
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	10 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	±1.5% (5÷95%, 23°C)	10 min.	2 m	LSI-Lastem DMA572
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	10 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	Max 10 mm/min	1÷10mm/min: ±1%	10 min.	1.5 m	LSI-Lastem DQA030
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	10 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000		10 min.	2 m	Kipp & Zonen CM6B pyranometer
UVA Radiation	0.100 Wm-2	5%±/°C	10 min		LSI-Lastem DPA-516 C502

Note: UVA radiation data are not available for 2012.

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-10.3	-15.4	-14.1	-8.2	-10.8	-0.7	0.7	1.7	-0.6	-1.0	-6.1	-7.9
2	-14.4	-13.5	-13.9	-7.5	-8.7	-0.4	0.9	1.5	-1.5	-1.3	-4.1	-7.0
3	-16.4	-11.9	-15.1	-9.0	-9.8	-1.2	0.2	0.2	-0.5	-1.4	-4.5	-5.2
4	-16.1	-10.9	-5.8	-8.5	-10.5	-2.4	0.1	0.3	-0.7	-2.1	-5.2	-4.8
5	-14.0	-10.7	-4.6	-8.9	-9.7	-2.5	0.0	0.6	-1.0	-2.4	-5.2	-5.1
6	-15.1	-7.2	-7.1	-9.9	-9.8	-2.2	-0.4	0.9	-0.9	-4.3	-6.3	-4.6
7	-16.3	-9.5	-10.1	-9.8	-7.3	-0.1	-0.3	1.6	-0.8	-2.4	-8.2	-5.3
8	-15.7	-14.0	-9.1	-8.7	-5.2	0.6	-0.2	0.3	-0.1	-3.2	-9.9	-6.5
9	-16.9	-15.9	-10.6	-8.1	-5.8	0.4	1.0	-0.7	-0.5	-5.7	-9.4	-9.7
10	-16.4	-16.1	-13.5	-8.5	-6.0	-0.9	1.0	0.1	-0.2	-5.0	-8.3	-9.0
Mean	-15.2	-12.5	-10.4	-8.7	-8.4	-0.9	0.3	0.6	-0.7	-2.9	-6.7	-6.5
11	-20.5	-16.4	-11.4	-9.0	-5.3	-0.6	1.4	-0.3	-0.2	-6.3	-11.4	-11.6
12	-19.9	-13.9	-9.7	-8.7	-3.9	-0.1	0.5	-0.5	0.1	-6.5	-13.2	-14.4
13	-20.3	-13.9	-13.2	-9.1	-2.8	0.7	0.4	-0.2	-0.2	-8.2	-11.6	-14.2
14	-17.6	-12.4	-12.5	-8.3	-3.6	1.5	0.7	0.6	-0.5	-8.5	-9.9	-12.7
15	-13.5	-14.8	-15.9	-9.3	-5.3	2.2	0.2	1.0	-0.8	-7.0	-9.7	-9.3
16	-13.0	-15.6	-14.8	-7.9	-7.3	2.1	0.7	1.3	-0.7	-6.2	-8.3	-8.6
17	-12.6	-15.7	-11.5	-6.7	-4.4	0.4	1.5	0.7	-1.5	-8.1	-6.1	-4.9
18	-14.6	-14.5	-7.7	-7.0	-3.0	0.3	1.6	0.9	-1.6	-7.5	-7.6	-5.3
19	-17.0	-11.3	-3.3	-6.2	-4.5	0.9	0.8	0.5	-1.5	-7.9	-8.5	-6.7
20	-18.3	-8.6	-3.3	-4.5	-4.2	1.1	1.0	-0.9	-1.1	-6.2	-7.0	-7.5
Mean	-16.7	-13.7	-10.3	-7.7	-4.4	0.9	0.9	0.3	-0.8	-7.3	-9.3	-9.5
21	-12.2	-8.7	-3.9	-5.3	-3.3	1.0	1.6	-0.6	-1.0	-5.0	-6.8	-10.6
22	-12.0	-9.2	-4.1	-6.6	-2.5	0.7	1.7	-0.6	-1.6	-6.6	-6.5	-12.0
23	-8.4	-7.6	-3.8	-8.1	-2.5	0.6	1.5	-0.9	-1.6	-7.0	-8.2	-11.1
24	-4.6	-9.0	-4.4	-7.8	-1.4	0.8	1.0	-0.4	-3.1	-8.9	-11.1	-13.8
25	-7.8	-9.6	-5.7	-8.3	-0.4	0.7	0.9	-0.1	-3.2	-8.2	-7.9	-15.4
26	-10.0	-10.1	-8.2	-5.6	-0.3	-0.1	0.8	-0.5	-2.4	-11.2	-8.2	-11.0
27	-13.1	-8.5	-7.6	-7.2	-0.4	0.1	0.9	-0.5	-2.1	-12.7	-7.6	-6.4
28	-14.5	-12.7	-7.5	-8.7	0.4	0.7	1.1	0.7	-1.5	-12.7	-7.0	-6.5
29	-13.7	-16.8	-9.5	-8.6	0.6	1.4	1.2	0.4	-1.1	-9.4	-8.0	-4.9
30	-12.6		-11.0	-10.2	0.0	2.1	0.9	0.0	0.0	-8.2	-9.0	-3.3
31	-12.6		-11.0		-0.3		1.6	-0.2		-6.9		-4.8
Mean	-11.0	-10.2	-7.0	-7.6	-0.9	0.8	1.2	-0.3	-1.8	-8.8	-8.0	-9.1
MEAN	-14.2	-12.2	-9.2	-8.0	-4.5	0.2	0.8	0.2	-1.1	-6.4	-8.0	-8.4
MIN	-20.5	-16.8	-15.9	-10.2	-10.8	-2.5	-0.4	-0.9	-3.2	-12.7	-13.2	-15.4
MAX	-4.6	-7.2	-3.3	-4.5	0.6	2.2	1.7	1.7	0.1	-1.0	-4.1	-3.3

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	54.9	20.0	28.2	43.0	38.4	90.4	99.9	99.4	95.9	82.6	35.4	6.7
2	46.5	25.5	37.7	48.8	38.7	91.1	98.7	97.3	99.4	80.6	12.7	6.5
3	33.6	21.0	50.9	83.8	49.3	60.9	100.0	100.0	83.9	69.1	10.8	37.5
4	22.8	26.0	10.6	82.7	69.3	49.2	99.1	97.7	97.3	62.6	8.7	n.a.
5	17.6	22.3	18.9	69.4	81.3	82.6	99.9	97.4	98.5	44.7	7.5	n.a.
6	10.4	9.8	12.0	81.8	77.9	83.6	100.0	96.4	96.9	46.5	7.2	n.a.
7	11.8	25.5	12.6	73.5	67.4	61.1	99.0	90.5	95.0	41.3	8.1	n.a.
8	37.8	71.2	8.1	69.2	62.5	68.1	97.0	100.0	93.2	39.7	18.7	n.a.
9	48.1	29.2	13.1	77.1	80.1	48.2	92.5	99.5	98.7	72.1	21.4	n.a.
10	18.7	14.6	16.1	84.0	90.6	82.8	96.6	96.1	95.7	55.2	16.5	n.a.
Mean	30.2	26.5	20.8	71.3	65.5	71.8	98.3	97.4	95.5	59.4	14.7	16.9
11	41.6	16.3	12.0	81.7	84.7	79.6	96.9	99.9	98.2	44.2	30.6	n.a.
12	35.5	21.8	22.8	61.5	58.9	84.6	99.9	99.8	98.0	22.2	54.5	n.a.
13	37.4	22.5	73.1	50.8	39.2	81.2	100.0	98.4	99.2	41.5	57.3	n.a.
14	11.8	42.0	34.4	57.9	36.2	83.7	99.6	91.9	99.7	74.1	26.5	n.a.
15	20.6	77.4	48.6	55.3	32.3	80.6	100.0	90.7	100.0	47.8	14.8	n.a.
16	27.5	52.6	30.8	41.7	65.8	87.2	100.0	96.2	100.0	38.3	19.8	n.a.
17	5.6	34.3	43.4	45.8	63.3	96.9	99.7	100.0	99.9	41.2	13.7	n.a.
18	7.9	41.9	32.3	47.4	65.9	99.6	99.9	100.0	99.7	19.8	11.6	n.a.
19	14.3	22.5	11.2	59.6	72.4	94.1	100.0	100.0	95.3	25.6	8.0	n.a.
20	30.6	14.6	18.1	56.4	89.6	95.5	98.7	99.8	89.2	14.6	7.9	n.a.
Mean	23.3	34.6	32.7	55.8	60.8	88.3	99.5	97.7	97.9	36.9	24.5	n.a.
21	6.7	20.7	14.3	65.7	74.7	98.8	96.7	99.6	89.5	11.3	9.9	n.a.
22	19.2	24.9	11.9	32.0	68.7	98.1	99.8	100.0	90.5	15.3	13.5	n.a.
23	8.5	8.2	13.0	25.4	70.6	99.9	99.9	99.9	63.9	15.8	21.9	n.a.
24	3.9	9.0	12.9	38.7	73.3	99.2	100.0	99.2	79.4	25.4	19.1	n.a.
25	3.2	16.2	18.6	57.5	73.2	98.5	99.3	96.9	78.9	15.5	7.7	n.a.
26	12.8	19.5	43.9	29.9	80.0	98.7	99.1	99.9	85.7	42.5	12.6	n.a.
27	9.0	9.0	42.4	44.9	82.4	91.9	100.0	100.0	83.4	52.3	10.5	n.a.
28	7.2	33.5	37.4	58.4	77.2	88.9	99.9	98.9	84.1	62.0	9.8	n.a.
29	6.4	52.4	32.8	45.1	68.1	90.8	100.0	100.0	83.1	30.3	8.6	n.a.
30	10.1		56.0	46.1	75.8	88.8	100.0	100.0	66.9	35.4	4.9	n.a.
31	6.7		64.3		82.8		98.8	100.0		34.7		n.a.
Mean	8.5	21.5	31.6	44.4	75.2	95.4	99.4	99.5	80.5	31.0	11.8	n.a.
MEAN	20.3	27.7	28.5	57.2	67.4	85.1	99.1	98.2	91.3	42.1	17.0	n.a.
MIN	3.2	8.2	8.1	25.4	32.3	48.2	92.5	90.5	63.9	11.3	4.9	n.a.
MAX	54.9	77.4	73.1	84.0	90.6	99.9	100.0	100.0	100.0	82.6	57.3	n.a.

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	508.5	503.8	502.0	514.1	508.0	513.7	514.9	515.1	515.8	517.3	513.4	508.8
2	503.6	506.9	500.3	514.9	509.2	512.1	515.2	514.9	516.2	516.3	512.8	511.0
3	501.4	507.5	500.1	514.3	508.3	510.7	514.0	514.2	515.8	514.2	512.4	511.4
4	500.9	508.0	504.5	512.3	508.2	511.0	513.1	514.2	516.2	512.2	512.1	512.3
5	502.4	507.6	506.7	510.5	509.7	511.6	513.6	515.1	516.8	513.0	511.7	513.7
6	502.6	507.9	505.1	508.5	510.5	511.9	513.4	515.7	517.5	514.4	511.7	513.0
7	503.9	508.2	502.9	508.4	511.7	513.1	513.2	516.4	517.8	515.7	510.0	511.7
8	504.3	502.6	503.9	508.8	513.4	513.8	513.9	515.7	517.8	515.5	507.5	509.1
9	502.9	501.8	503.3	509.7	514.4	513.2	515.4	515.0	517.4	514.0	508.2	507.6
10	502.8	503.1	505.0	509.6	514.6	512.0	516.4	515.2	517.1	513.8	510.3	507.8
Mean	503.3	505.7	503.4	511.1	510.8	512.3	514.3	515.2	516.9	514.7	511.0	510.6
11	501.2	502.4	507.8	510.0	513.5	512.6	516.0	515.8	516.4	512.8	509.1	506.6
12	499.0	503.6	509.3	508.7	512.5	514.0	515.3	515.5	516.0	512.5	508.2	504.1
13	499.5	505.1	507.1	509.5	512.3	514.9	514.9	515.3	515.6	512.3	509.2	505.5
14	501.7	507.0	505.8	510.8	512.1	515.0	514.1	515.8	514.2	511.9	508.5	508.0
15	503.4	506.2	503.8	510.0	512.0	513.9	514.5	516.5	513.4	513.4	509.9	510.3
16	501.4	504.2	506.2	508.6	510.0	513.0	515.4	516.8	514.5	514.2	513.4	511.0
17	500.0	505.1	507.4	509.2	n.a.	513.1	515.3	516.6	516.6	513.6	514.2	512.1
18	499.5	507.0	509.5	509.8	513.8	513.9	514.5	516.5	516.7	513.4	512.6	512.2
19	499.7	505.9	512.8	511.0	514.2	513.1	514.0	516.2	516.1	513.5	511.5	508.0
20	500.1	506.2	512.9	513.2	513.5	512.9	515.1	515.3	516.0	514.3	512.1	506.0
Mean	500.6	505.3	508.3	510.1	512.7	513.6	514.9	516.0	515.5	513.2	510.9	508.4
21	501.3	506.3	511.2	512.9	513.4	513.8	516.5	515.3	515.9	514.8	512.0	507.1
22	505.1	507.2	511.0	509.7	513.3	514.8	515.6	516.2	515.7	514.3	511.0	507.8
23	504.7	508.1	512.8	509.0	512.6	513.6	514.1	516.0	514.6	512.8	510.2	510.8
24	505.0	507.6	512.6	510.4	512.4	512.2	513.9	516.1	513.7	510.3	505.7	507.7
25	505.9	507.5	512.0	511.2	513.6	512.0	515.0	516.8	514.5	509.4	506.4	504.0
26	503.9	505.5	512.3	511.9	514.8	511.7	515.1	516.5	516.8	509.9	508.1	505.7
27	503.0	507.3	512.8	510.2	514.8	512.6	514.4	515.9	518.0	509.9	508.1	508.0
28	503.3	502.2	513.3	507.9	515.0	513.8	514.5	516.7	517.9	510.8	508.9	507.2
29	503.6	500.2	510.5	507.5	515.7	514.4	515.2	517.4	517.9	512.8	507.5	508.3
30	505.5		510.8	507.6	514.7	514.5	514.9	517.0	517.6	513.5	506.8	508.8
31	505.7		513.1		514.1		514.8	516.1		514.1		507.6
Mean	504.3	505.8	512.0	509.8	514.0	513.3	514.9	516.4	516.3	512.1	508.5	507.5
MEAN	502.8	505.6	508.0	510.3	512.5	513.1	514.7	515.9	516.2	513.3	510.1	508.8
MIN	499.0	500.2	500.1	507.5	508.0	510.7	513.1	514.2	513.4	509.4	505.7	504.0
MAX	508.5	508.2	513.3	514.9	515.7	515.0	516.5	517.4	518.0	517.3	514.2	513.7

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	W	S	S	W	SW	SW	SW	W	E	SW	W	SW
2	SW	S	S	SW								
3	SW	S	S	SW								
4	SW	S	S	SW	SW	SW	N	SW	SW	SW	SW	SW
5	SW	S	S	SW	W	SW	SW	SW	SW	SW	SW	NE
6	SW	S	S	SW	SW	SW	SW	SW	N	SW	SW	SW
7	SW	S	S	S	SW	SW	N	SW	N	SW	SW	SW
8	SW	S	S	SW	SW	SW	SW	W	SW	W	SW	SW
9	SW	S	S	S	SW	SW	SW	N	SW	W	W	SW
10	SW	S	S	W	SW	SW	SW	SW	SW	W	SW	SW
Mode	SW	S	S	SW								
11	SW	S	S	SW	SW	SW	SW	N	SW	SW	SW	SW
12	SW	S	S	SW	SW	W	W	SW	N	SW	W	SW
13	W	S	S	SW	SW	SW	W	SW	SW	SW	W	SW
14	NE	S	S	SW	SW	SW	SW	SW	N	SW	SW	SW
15	SW	S	S	SW	SW	SW	W	W	N	W	SW	SW
16	SW	S	S	SW	SW	SW	SW	SW	W	SW	S	SW
17	SW	S	S	SW	W	SW	SW	SW	N	SW	SW	NE
18	SW	S	S	SW	W	W	W	SW	SW	SW	SW	W
19	SW	S	S	SW	SW	SW	W	SW	W	SW	SW	W
20	SW	S	S	NE	SW	SW	W	SW	W	SW	SW	W
Mode	SW	S	S	SW	SW	SW	W	SW	N	SW	SW	SW
21	SW	S	S	SW	SW	SW	SW	N	W	SW	SW	SW
22	SW	S	S	SW	SW	SW	SW	N	SW	SW	SW	SW
23	S	S	S	SW	W							
24	E	S	S	SW	SW	W	SW	SW	SW	SW	W	SW
25	SW	S	S	SW								
26	W	S	S	SW	SW	SW	W	SW	SW	SW	SW	W
27	S	S	S	SW	SW	SW	W	SW	SW	W	SW	SW
28	S	S	S	SW	W							
29	S	S	S	SW	SW	SW	SW	SW	SW	W	SW	W
30	S		S	SW	SW	SW	SW	SW	SW	W	SW	W
31	S		SW		SW		SW	SW		SW		W
Mode	S	S	S	SW	W							
MODE	SW	S	S	SW								

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	3.0	4.3	4.2	3.1	3.9	3.1	2.8	1.2	0.9	1.6	1.7	6.2
2	6.0	5.1	6.6	2.3	4.9	2.3	2.7	1.7	0.6	2.0	2.2	4.8
3	2.5	4.4	2.3	1.5	4.7	4.1	0.7	1.6	2.2	3.0	3.3	8.6
4	3.2	6.5	6.1	3.0	3.8	4.5	1.3	2.9	2.6	2.7	2.8	4.4
5	7.6	9.0	3.0	4.3	1.8	2.7	2.0	2.3	1.9	3.8	4.2	1.8
6	4.4	12.0	8.4	2.0	2.6	2.3	1.9	1.9	1.6	4.6	5.0	3.9
7	5.4	10.0	3.4	1.7	2.1	2.9	2.4	2.2	2.1	2.1	5.1	4.2
8	3.6	16.7	4.2	3.7	3.1	4.2	2.5	1.3	2.5	3.4	3.8	7.3
9	6.2	8.0	6.6	2.1	2.4	5.2	2.5	1.0	2.7	1.7	2.4	3.1
10	4.5	6.7	5.9	1.9	2.4	2.9	2.3	1.8	2.4	4.2	2.5	2.9
Mean	4.6	8.3	5.1	2.6	3.2	3.4	2.1	1.8	1.9	2.9	3.3	4.7
11	2.9	4.8	9.5	2.8	1.8	3.1	2.2	1.6	1.5	4.3	4.8	6.4
12	5.1	4.9	7.1	5.3	3.6	2.5	1.4	1.6	1.5	6.4	2.8	4.9
13	1.2	7.7	6.1	5.0	4.0	2.2	1.5	2.4	2.0	4.4	1.8	2.6
14	2.8	6.2	7.5	5.6	5.6	2.2	1.7	2.2	2.4	3.6	2.1	5.1
15	2.1	4.8	5.6	3.8	5.6	2.3	2.0	2.1	1.2	1.7	3.5	6.7
16	6.0	9.7	3.2	3.8	3.1	2.4	2.7	2.5	1.1	2.9	1.7	5.7
17	6.4	4.7	3.0	5.0	2.8	1.9	1.6	1.6	0.5	3.9	2.9	2.7
18	8.8	3.3	3.0	4.3	3.3	1.5	1.5	1.7	1.6	5.6	4.9	5.6
19	10.5	2.5	4.6	3.0	3.4	3.0	1.7	2.0	0.8	3.8	5.5	3.4
20	7.4	4.4	2.9	2.2	2.4	2.1	3.3	0.8	1.6	3.5	3.9	n.a
Mean	5.3	5.3	5.3	4.1	3.6	2.3	2.0	1.9	1.4	4.0	3.4	4.8
21	7.3	3.6	6.8	3.4	3.5	2.9	1.9	1.2	2.5	5.8	4.4	n.a
22	4.1	5.4	5.5	5.9	2.5	2.4	1.7	1.0	1.6	4.2	8.0	n.a
23	4.7	9.3	4.7	5.1	2.5	1.8	2.2	0.8	3.8	4.1	8.1	n.a
24	4.2	8.6	3.8	6.8	2.0	1.4	2.1	1.4	3.6	5.5	12.3	n.a
25	7.3	8.7	5.5	4.4	2.4	1.9	2.8	2.0	3.0	6.4	7.8	n.a
26	8.9	6.9	4.7	6.3	2.5	1.5	1.8	1.7	3.5	4.9	4.0	n.a
27	6.2	4.2	3.6	3.8	2.7	2.5	1.3	1.2	2.0	4.0	2.2	n.a
28	7.7	6.9	6.3	3.8	2.1	2.4	1.9	2.0	1.7	1.8	3.0	n.a
29	5.3	2.9	4.1	4.8	2.5	2.7	1.8	2.1	1.6	3.0	7.3	n.a
30	2.4		2.4	5.5	2.8	2.6	2.5	1.4	1.7	1.6	5.4	n.a
31	8.1		2.2		3.0		2.1	1.7		1.8		n.a
Mean	6.0	6.3	4.5	5.0	2.6	2.2	2.0	1.5	2.5	3.9	6.2	n.a
MEAN	5.3	6.6	4.9	3.9	3.1	2.6	2.0	1.7	2.0	3.6	4.3	4.8
MIN	1.2	2.5	2.2	1.5	1.8	1.4	0.7	0.8	0.5	1.6	1.7	1.8
MAX	10.5	16.7	9.5	6.8	5.6	5.2	3.3	2.9	3.8	6.4	12.3	8.6

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.0	0.0	0.0	0.0	0.0	0.4	2.6	4.2	4.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.2	5.4	0.0	0.0	0.0
3	0.0	0.0	0.0	0.2	0.0	0.0	10.2	4.4	0.0	0.0	0.0	0.0
4	0.0	0.0	2.8	1.0	0.0	0.0	27.2	3.0	1.2	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	1.4	0.0	5.8	0.8	2.0	0.0	0.0	0.0
6	0.0	0.6	2.0	4.4	0.0	0.2	1.8	3.6	0.2	0.0	0.0	0.0
7	0.0	0.4	0.0	0.0	0.8	0.0	0.6	1.8	1.2	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	4.0	7.8	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	2.4	0.0	0.6	20.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	1.6	0.0	2.0	0.6	0.6	1.8	0.0	0.0
Mean	0.0	1.0	4.8	5.6	6.2	0.6	56.4	47.4	14.8	1.8	0.0	0.0
11	0.0	0.0	0.0	1.0	0.0	0.0	2.2	1.6	1.4	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	11.8	3.2	10.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	8.4	1.6	2.0	0.0	0.0	0.0
14	0.0	0.0	0.2	0.0	0.0	0.0	3.0	0.2	2.2	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	5.8	2.8	2.4	0.0	0.2	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.6	6.4	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	2.6	1.0	5.4	2.8	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	4.4	3.6	3.8	0.6	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.4	1.2	6.4	1.0	0.0	0.0	0.2
20	0.0	0.0	0.0	4.0	0.8	4.2	0.2	9.8	0.0	0.0	0.0	0.4
Mean	0.0	0.0	0.2	5.0	0.8	11.6	37.8	39.4	28.8	0.0	0.2	0.6
21	0.0	0.0	0.0	0.0	0.0	1.8	1.0	10.6	0.2	0.0	0.0	0.0
22	0.0	0.0	0.0	1.0	0.0	2.6	9.4	11.8	1.2	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	6.8	9.8	3.8	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	9.2	3.8	3.8	0.2	0.0	0.2	0.0
25	0.0	0.0	0.0	0.0	0.0	3.0	3.2	2.0	0.0	0.0	0.0	0.0
26	1.8	0.0	0.0	0.0	0.0	1.8	4.4	3.6	0.0	0.0	0.0	0.0
27	0.0	0.0	0.2	0.0	0.0	0.2	7.4	5.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.8	0.0	0.0	0.0	0.2
29	0.0	0.0	0.0	0.0	0.0	0.0	6.4	2.0	0.2	0.0	0.2	0.0
30	0.0		0.2	0.0	0.0	0.0	2.8	2.2	0.2	0.0	0.0	0.0
31	0.0		0.0	0.0	0.0		1.4	1.0		0.0		0.0
Mean	1.8	0.0	0.4	1.0	0.0	25.4	54.2	46.6	2.0	0.0	0.4	0.2
MEAN	n.a.	1.0	5.4	11.6	7.0	37.6	148.4	133.4	45.6	1.8	0.6	0.8
MIN	n.a.	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
MAX	n.a.	0.6	2.8	4.4	2.4	9.2	27.2	20.0	10.0	1.8	0.2	0.4

GLOBAL SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	61.4	96.6	124.1	293.8	285.1	266.9	171.6	103.7	160.4	56.1	264.6	237.1
2	178.9	63.2	135.5	275.4	378.8	262.5	193.6	172.3	47.8	68.5	258.5	238.8
3	220.2	90.3	134.5	136.1	265.3	287.5	72.9	150.8	228.7	81.6	272.0	231.1
4	220.6	46.6	161.2	197.6	295.6	319.1	102.3	250.9	56.2	77.8	270.7	235.4
5	221.1	121.5	144.9	306.9	190.2	301.8	141.5	261.6	52.8	76.9	269.3	231.1
6	221.3	106.0	101.1	56.3	273.6	259.7	132.6	229.2	63.4	76.6	267.6	230.3
7	221.0	88.7	102.0	62.5	216.6	279.8	222.4	330.4	65.9	75.8	266.1	236.5
8	59.6	10.5	101.3	164.6	314.6	301.0	241.2	94.6	71.6	137.1	264.3	232.5
9	155.1	132.4	99.5	285.3	232.5	349.0	308.9	89.7	46.2	64.4	262.9	233.1
10	225.9	119.9	101.4	164.3	162.4	350.6	239.2	250.5	60.6	295.2	262.4	232.0
Mean	178.5	87.6	120.5	194.3	261.5	297.8	182.6	193.4	85.4	101.0	265.8	233.8
11	230.5	110.2	132.5	194.2	235.4	377.1	221.7	167.4	42.3	324.6	260.8	172.3
12	213.9	118.5	81.4	254.2	301.7	331.2	111.0	156.6	41.8	266.5	254.9	179.3
13	209.6	56.4	52.8	313.3	381.3	340.7	110.4	273.4	38.4	312.2	263.0	148.3
14	228.0	31.2	114.0	324.2	367.4	307.4	160.2	371.7	49.9	285.6	254.9	230.0
15	225.5	53.3	76.4	209.0	309.9	329.2	110.4	275.4	39.7	289.5	252.9	228.6
16	215.5	62.6	95.6	380.6	291.0	276.5	180.0	253.3	31.9	314.7	252.5	226.0
17	232.6	131.4	64.0	309.4	280.4	87.5	161.8	104.7	23.4	270.4	251.0	226.8
18	231.3	114.6	118.0	266.2	266.6	164.3	108.7	116.8	39.6	283.6	251.2	224.1
19	83.9	125.3	124.0	277.0	313.7	323.3	112.8	106.5	37.7	289.0	251.2	221.7
20	62.7	128.0	130.8	283.0	260.7	231.3	243.3	65.0	47.1	295.4	249.6	216.1
Mean	193.4	93.2	98.9	281.1	300.8	276.9	152.0	189.1	39.2	293.2	254.2	207.3
21	102.2	125.5	148.7	207.9	340.7	254.5	225.5	119.2	63.8	276.7	247.0	231.0
22	96.7	95.6	155.7	387.8	327.9	220.5	135.2	86.3	54.2	284.8	227.8	230.9
23	93.3	113.8	128.1	331.6	320.0	131.8	151.0	110.2	75.7	285.7	218.6	230.1
24	90.6	146.1	143.6	335.4	350.0	183.8	97.2	119.6	74.2	252.2	241.1	229.8
25	86.2	92.3	95.8	312.9	334.9	164.0	191.0	264.2	69.1	278.8	242.1	224.0
26	91.4	93.9	59.6	335.8	323.0	186.7	180.2	166.8	68.2	211.7	241.6	223.1
27	109.7	99.5	130.2	252.1	281.6	315.8	112.1	119.9	60.1	226.7	242.1	227.3
28	96.2	52.7	76.7	313.1	301.3	309.9	168.0	214.5	53.2	222.9	239.9	227.8
29	93.7	166.1	283.6	355.0	334.7	316.7	130.7	158.1	58.4	274.5	239.9	228.6
30	93.5		140.9	281.8	313.4	327.2	193.3	134.8	77.1	272.2	240.7	201.0
31	111.9		192.0		276.0		218.9	166.0		265.2		234.5
Mean	96.9	109.5	141.4	311.4	318.5	241.1	163.9	150.9	65.4	259.2	238.1	226.2
MEAN	154.3*	96.3*	121.0*	262.2	294.4	271.9	166.1	176.9	63.3*	291.1	252.7	222.6
MIN	59.6	10.5	52.8	56.3	162.4	87.5	72.9	65.0	23.4	56.1	218.6	148.3
MAX	232.6	166.1	283.6	381.3	381.3	377.1	308.9	371.7	228.7	324.6	272.0	238.8

* Data could be influenced by snow accumulation over the sensor that leads an underestimation of solar radiation fluxes.

AWS CHANGRI NUP

TECHNICAL SHEET

Coordinates:

Latitude: 27° 58' 54.5" N
 Longitude: 86° 45' 53.8" E
 Elevation: 5.700 m a.s.l

Installation Time:
 February 2010

Data Availability:
 From February 24th, 2010



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger			30 min.	2 m	LSI-Lastem E-Log
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	30 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	1.5% (5÷95%, 23°C)	30 min.	2 m	LSI-Lastem DMA572
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	30 min.	5 m	LSI-Lastem DNA022
Solar Radiations CNR1 sensor: (four components combined sensor+internal temperature with PT100)*	Pyranometer: 0 to 25 mV Pyrgeometer: ±5 mV	±10% on daily totals non linearity: < 1%	30 min.	2 m	Kipp & Zonen CM3* pyranometer Kipp & Zonen CG3 pyrgeometer

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-11.0	-16.1	-15.1	-8.3	-11.3	-0.6	0.4	1.5	-0.3	-0.8	-6.5	-9.8
2	-15.5	-14.2	-14.6	-7.7	-9.4	-0.8	0.9	1.4	-0.7	-1.3	-5.0	-8.7
3	-17.8	-13.4	-15.8	-9.1	-10.3	-1.7	0.3	0.2	-0.1	-2.1	-5.7	-7.0
4	-17.9	-11.9	-6.8	-8.6	-9.8	-2.7	0.1	0.0	-0.5	-2.7	-6.2	-6.8
5	-15.7	-12.2	-5.6	-9.2	-10.6	-3.0	0.4	0.7	-0.4	-3.1	-6.7	-5.7
6	-16.9	-8.4	-8.8	-10.4	-9.2	-1.9	-0.3	1.1	-0.9	-4.6	-7.7	-6.3
7	-17.9	-10.6	-12.2	-9.7	-6.8	-0.4	-0.3	1.3	-0.6	-2.9	-9.8	-7.0
8	-16.5	-14.3	-10.8	-8.6	-4.8	0.3	0.6	0.4	-0.1	-3.1	-11.2	-8.3
9	-17.7	-17.1	-11.2	-7.8	-5.6	-0.3	1.1	-0.5	-0.6	-5.6	-10.1	-11.3
10	-17.2	-17.2	-14.6	-8.7	-6.0	-1.0	1.2	0.7	-0.4	-5.4	-9.5	-10.7
Mean	-16.4	-13.5	-11.6	-8.8	-8.4	-1.2	0.4	0.7	-0.5	-3.2	-7.8	-8.1
11	-21.1	-17.5	-12.4	-9.1	-4.3	-1.2	1.2	-0.1	-0.1	-7.2	-12.0	-13.2
12	-21.0	-15.4	-10.8	-8.8	-4.1	-0.7	1.1	-0.4	0.3	-7.0	-14.0	-16.0
13	-21.9	-14.6	-13.6	-9.7	-3.8	0.1	0.8	-0.4	-0.2	-8.6	-12.0	-15.9
14	-18.3	-13.2	-13.3	-8.8	-4.6	0.5	0.9	0.6	-0.3	-9.3	-11.1	-14.8
15	-14.7	-15.0	-16.2	-9.5	-6.1	1.5	0.5	1.0	-0.7	-7.6	-11.1	-11.0
16	-14.8	-16.1	-15.5	-8.9	-7.3	1.5	0.7	1.3	-0.9	-6.7	-9.2	-10.3
17	-14.6	-16.8	-11.7	-7.6	-5.0	0.0	1.8	0.8	-1.7	-8.7	-7.0	-6.5
18	-16.3	-15.3	-7.8	-7.8	-2.9	0.0	1.4	0.9	-1.5	-8.6	-8.6	-7.2
19	-18.3	-12.5	-4.0	-6.4	-3.8	0.8	0.5	0.6	-0.8	-8.5	-9.6	-7.8
20	-18.7	-10.3	-4.1	-4.5	-3.7	1.6	0.8	-0.5	-0.6	-7.2	-8.7	-8.6
Mean	-18.0	-14.7	-10.9	-8.1	-4.6	0.4	1.0	0.4	-0.6	-7.9	-10.3	-11.1
21	-13.7	-10.1	-5.4	-5.5	-3.4	1.1	1.2	0.1	-1.0	-6.1	-8.1	-12.0
22	-13.9	-10.5	-5.7	-7.5	-2.5	0.4	1.7	-0.5	-1.5	-7.5	-7.9	-13.7
23	-10.7	-9.0	-5.4	-9.3	-2.5	0.5	1.6	0.0	-2.1	-8.0	-9.6	-12.4
24	-6.3	-10.5	-5.7	-8.5	-1.4	0.7	0.6	0.4	-3.6	-9.9	-12.0	-14.0
25	-10.1	-10.6	-7.2	-8.8	-0.7	0.8	0.8	0.1	-3.0	-9.3	-9.2	-16.3
26	-11.3	-11.2	-8.7	-6.7	-0.4	0.1	0.6	-0.2	-2.6	-11.7	-9.7	-12.3
27	-14.9	-9.6	-8.1	-7.5	-0.9	-0.3	0.8	-0.2	-2.4	-13.1	-9.2	-8.3
28	-15.9	-13.6	-8.2	-8.9	0.4	0.0	1.0	0.6	-1.8	-13.0	-8.3	-8.0
29	-14.7	-17.4	-10.2	-9.0	0.1	0.7	1.0	0.6	-1.4	-10.1	-9.4	-6.6
30	-13.6		-11.7	-10.2	-0.1	1.4	0.6	0.0	-0.3	-8.5	-10.7	-4.7
31	-13.7		-11.3		-0.4		1.3	-0.3		-7.3		-6.6
Mean	-12.6	-11.4	-8.0	-8.2	-1.1	0.5	1.0	0.1	-2.0	-9.5	-9.4	-10.5
MEAN	-15.6	-13.3	-10.1	-8.4	-4.6	0.8	0.4	-1.1	-1.0	-6.9	-9.2	-9.9
MIN	-21.9	-17.5	-16.2	-10.4	-3.0	-0.3	-0.5	-3.2	-3.6	-13.1	-14.0	-16.3
MAX	-6.3	-8.4	-4.0	-4.5	0.6	1.8	1.7	1.5	0.3	-0.8	-5.0	-4.7

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	82.9	36.7	74.0	71.4	80.3	100.0	100.0	100.0	100.0	98.2	61.6	25.1
2	83.6	53.7	82.6	79.1	79.9	100.0	100.0	100.0	100.0	100.0	28.2	22.8
3	77.3	63.2	92.0	100.0	84.6	98.4	100.0	100.0	99.7	99.9	23.9	18.4
4	62.4	85.2	35.5	100.0	97.5	83.2	100.0	100.0	100.0	91.5	21.0	24.7
5	60.1	73.9	44.3	99.0	99.7	100.0	100.0	100.0	100.0	77.8	21.7	32.0
6	23.0	39.3	37.6	100.0	98.9	100.0	100.0	100.0	100.0	61.7	24.7	28.9
7	28.0	88.9	38.5	98.0	97.4	90.4	100.0	100.0	100.0	62.4	25.9	33.1
8	71.4	100.0	21.1	93.6	95.5	100.0	100.0	100.0	100.0	56.0	43.9	56.0
9	93.0	75.7	26.0	98.4	99.7	84.9	100.0	100.0	100.0	82.9	54.3	21.3
10	37.9	36.2	43.7	100.0	100.0	99.2	100.0	100.0	100.0	98.4	35.6	26.2
Mean	62.0	65.3	49.5	93.9	93.4	95.6	100.0	100.0	100.0	82.9	34.1	28.9
11	68.5	47.5	35.8	100.0	100.0	100.0	100.0	100.0	100.0	92.1	54.5	41.8
12	66.1	71.4	61.2	99.7	93.0	100.0	100.0	100.0	100.0	53.2	77.8	67.5
13	69.7	52.4	100.0	84.0	81.6	100.0	100.0	100.0	100.0	65.8	89.8	89.2
14	30.1	89.0	87.0	98.9	76.7	100.0	100.0	100.0	100.0	100.0	52.4	55.0
15	54.7	100.0	85.2	95.0	72.9	100.0	100.0	100.0	100.0	73.7	42.8	37.3
16	95.0	97.8	71.1	80.4	91.0	100.0	100.0	100.0	100.0	56.3	45.7	53.8
17	23.9	80.2	74.4	86.4	99.9	100.0	100.0	100.0	100.0	74.8	39.7	35.1
18	24.0	87.8	65.8	84.9	97.9	100.0	100.0	100.0	100.0	60.5	33.6	32.7
19	37.7	60.5	35.2	91.1	90.8	100.0	100.0	100.0	100.0	58.7	24.1	23.1
20	76.2	50.2	44.9	91.0	99.8	100.0	100.0	100.0	100.0	42.1	27.9	20.1
Mean	54.6	73.7	66.1	91.1	90.4	100.0	100.0	100.0	100.0	67.7	48.8	45.6
21	23.6	60.5	53.7	98.5	98.4	100.0	100.0	100.0	100.0	31.2	33.3	21.3
22	69.4	77.0	38.6	66.6	90.0	100.0	100.0	100.0	100.0	41.3	47.4	12.5
23	36.8	32.8	44.9	64.9	84.9	100.0	100.0	100.0	91.2	40.9	73.0	21.4
24	15.4	32.3	40.0	76.0	100.0	100.0	100.0	100.0	99.5	60.7	54.0	27.1
25	15.3	57.3	55.0	90.8	96.1	100.0	100.0	100.0	90.2	40.6	23.9	37.4
26	38.6	60.0	85.3	79.3	100.0	100.0	100.0	100.0	100.0	78.8	43.2	24.2
27	30.8	37.7	83.1	82.3	100.0	100.0	100.0	100.0	100.0	80.6	32.8	46.6
28	25.6	35.4	78.2	95.4	97.0	100.0	100.0	100.0	100.0	91.2	31.0	36.7
29	14.9	94.0	66.4	79.5	94.0	100.0	100.0	100.0	100.0	74.5	29.5	14.8
30	19.9		95.4	83.9	99.4	100.0	100.0	77.1	97.7	60.2	15.9	57.5
31	15.8		98.9		100.0		100.0	100.0		71.2		46.0
Mean	27.8	54.1	67.2	81.7	96.3	100.0	100.0	97.9	97.9	61.0	38.4	31.4
MEAN	47.5	64.7	61.1	88.9	93.4	98.5	100.0	99.3	99.3	70.2	40.4	35.2
MIN	14.9	32.3	21.1	64.9	72.9	83.2	100.0	77.1	90.2	31.2	15.9	12.5
MAX	95.0	100.0	89.8	89.2								

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	NW	NW	NE	NW	NE	NE	N	N	N	N	S	SE
2	NE	W	NE	NW	NE	N	N	N	N	N	SW	SE
3	NW	E	E	NW	NE	N	N	N	N	N	SW	SE
4	E	SE	E	NW	N	NE	N	N	N	N	SW	SW
5	E	NE	NE	NW	N	N	N	N	N	N	S	SW
6	NE	SE	E	N	N	N	N	N	N	N	S	S
7	NE	SE	NW	NE	N	NE	N	N	N	N	S	SE
8	NE	NE	NE	N	N	N	N	N	N	N	E	SW
9	NE	NE	NE	N	N	N	N	N	N	N	SW	SW
10	NW	NE	NE	N	N	SE	N	N	N	N	SE	S
Mode	NE	NE	NE	NW	N	N	N	N	N	N	S	SE
11	NW	NE	NE	N	N	N	N	N	N	N	SW	E
12	NW	E	NE	NE	NE	N	N	N	N	N	NW	E
13	NW	NE	NE	NE	NE	SE	N	N	N	N	S	SE
14	W	E	E	NE	NE	N	N	N	N	N	S	SE
15	W	NE	NE	NE	NE	N	N	N	N	N	SW	S
16	E	NE	E	NE	N	N	N	N	N	N	SW	SW
17	SE	NE	NW	NE	N	N	N	N	N	N	SW	SE
18	E	NW	SW	E	N	N	N	N	N	N	SW	S
19	NE	NW	E	N	N	N	N	N	N	N	NE	SE
20	NE	E	W	NE	N	N	N	N	N	N	SW	S
Mode	NW	NE	NE	NE	N	N	N	N	N	N	SW	SE
21	E	E	SE	N	N	N	N	N	N	N	SE	SW
22	SE	SE	E	NE	N	N	N	N	N	N	SE	SW
23	SW	SE	E	NE	N	N	N	N	N	N	SE	SW
24	S	SE	SE	SE	N	N	N	N	N	N	NE	S
25	SE	SE	NE	N	N	N	N	N	N	N	SE	S
26	E	E	NE	NE	N	N	N	N	N	N	SE	SW
27	E	W	E	NE	N	N	N	N	N	N	SW	SE
28	NE	E	E	NE	N	NE	N	N	N	N	SW	SE
29	NE	NE	NE	N	N	N	N	N	N	N	E	SE
30	W		NW	NE	N	N	N	N	N	N	S	SE
31	W		NW		NE		N	N	N	N		SE
Mode	E	SE	E	NE	N	N	N	N	N	N	SE	SE
MODE	NE	NE	NE	NE	N	N	N	N	N	N	SW	SE

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	2.2	1.9	2.2	2.1	1.8	1.7	0.9	n.a.	n.a.	1.1	1.9	3.3
2	2.0	2.0	3.2	0.8	2.2	1.6	0.9	n.a.	n.a.	1.6	1.4	2.8
3	1.1	1.7	2.1	0.7	1.8	2.0	0.2	n.a.	0.8	1.5	1.8	4.5
4	1.7	3.8	4.0	1.0	1.4	1.9	0.8	n.a.	0.6	1.1	1.3	3.0
5	3.7	5.5	2.7	1.5	0.9	1.6	0.6	n.a.	0.6	1.8	1.7	1.7
6	2.0	6.1	4.6	1.0	0.7	1.1	1.1	n.a.	0.6	1.4	1.4	2.5
7	1.6	6.8	2.0	1.2	0.9	1.6	0.8	n.a.	0.4	1.0	2.2	2.8
8	2.0	4.0	2.2	1.3	1.1	1.6	0.5	n.a.	0.5	1.3	1.7	3.6
9	1.8	4.8	2.1	1.4	1.5	1.9	0.8	n.a.	0.4	0.9	0.9	2.4
10	1.2	3.3	2.4	0.9	1.4	1.6	0.6	n.a.	0.6	1.1	1.4	2.0
Mean	1.9	4.0	2.7	1.2	1.4	1.7	0.7	n.a.	0.6	1.3	1.6	2.9
11	0.7	3.0	4.1	1.3	1.3	1.4	0.7	n.a.	0.6	1.2	1.4	3.3
12	1.3	2.8	3.9	1.8	1.1	1.3	0.4	n.a.	0.6	1.5	1.4	2.6
13	1.6	3.9	2.5	1.8	2.0	1.3	0.4	0.7	0.4	1.2	0.5	0.9
14	2.4	3.5	4.2	1.6	2.6	1.2	n.a.	0.7	1.0	0.9	1.0	2.2
15	1.3	2.8	3.5	1.6	2.2	1.0	n.a.	0.6	0.8	0.9	1.9	3.0
16	3.0	5.6	3.8	1.6	1.4	1.2	n.a.	0.5	0.9	1.2	1.1	2.9
17	3.4	2.7	1.3	1.9	1.2	0.5	n.a.	0.4	1.3	1.6	1.6	2.5
18	4.5	1.3	2.7	2.3	1.2	0.7	n.a.	0.5	0.9	1.9	2.3	3.6
19	4.7	1.9	2.8	1.4	1.5	0.9	n.a.	n.a.	0.7	1.2	1.8	7.7
20	2.3	3.8	1.8	1.3	1.6	1.1	n.a.	n.a.	0.8	1.2	1.9	7.0
Mean	2.5	3.1	3.1	1.7	1.6	1.1	0.5	0.6	0.8	1.3	1.5	3.6
21	4.1	2.9	4.0	1.4	1.5	0.9	n.a.	n.a.	1.1	1.8	2.4	2.4
22	2.4	2.9	3.6	2.3	1.3	0.6	n.a.	n.a.	0.9	1.2	4.1	2.8
23	2.5	5.4	2.6	3.0	1.5	n.a.	n.a.	n.a.	1.4	1.3	3.6	2.3
24	2.3	5.6	2.4	3.2	1.5	0.5	n.a.	n.a.	1.1	1.8	6.8	1.7
25	3.0	5.3	2.5	2.0	1.2	0.8	n.a.	n.a.	1.0	2.2	5.3	2.3
26	6.7	4.8	2.2	2.6	1.2	1.1	n.a.	n.a.	0.8	2.2	2.8	1.9
27	2.2	2.1	2.1	2.1	1.4	1.3	n.a.	n.a.	1.0	1.6	2.1	1.9
28	2.7	3.2	2.7	1.5	1.6	1.0	n.a.	n.a.	0.9	1.0	1.7	4.7
29	2.4	1.3	2.3	1.9	1.3	1.0	n.a.	n.a.	0.9	0.9	4.4	4.3
30	1.7		1.4	2.0	1.2	1.1	n.a.	n.a.	1.1	0.9	3.8	5.8
31	2.2		0.6		1.2		n.a.	n.a.		0.8		4.1
Mean	2.9	3.7	2.4	2.2	1.4	0.9	n.a.	n.a.	1.0	1.4	3.7	3.1
MEAN	2.5	3.6	2.7	1.7	1.4	1.2	0.7	0.6	0.8	1.3	2.3	3.2
MIN	0.7	1.3	0.6	0.7	0.7	0.5	0.2	0.4	0.4	0.8	0.5	0.9
MAX	6.7	6.8	4.6	3.2	2.6	2.0	1.1	0.7	1.4	2.2	6.8	7.7

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	66.0	179.6	286.8	306.2	347.8	387.4	123.2	117.9	137.6	238.9	176.9	128.2
2	131.2	178.7	269.0	224.9	374.9	286.6	159.0	230.3	154.6	222.8	159.9	125.1
3	147.3	183.2	274.9	178.5	308.0	274.8	82.4	106.7	312.0	240.8	174.2	124.4
4	149.3	131.3	263.8	149.0	296.2	331.7	153.4	157.5	241.8	292.7	171.8	123.0
5	149.1	102.4	272.4	290.5	184.8	347.6	151.3	230.4	240.7	298.9	165.8	119.8
6	150.8	192.6	280.4	286.6	293.8	277.5	135.9	199.3	256.5	300.7	160.6	120.9
7	149.6	189.7	279.7	321.6	302.5	344.1	146.6	265.1	244.3	291.1	160.5	122.2
8	71.9	21.4	281.4	329.0	273.8	305.8	210.5	117.3	228.1	292.6	157.3	118.3
9	114.0	146.9	282.8	292.0	322.1	391.5	236.6	185.7	163.3	68.8	155.1	119.4
10	153.7	210.2	279.6	144.4	213.9	398.8	203.3	244.4	182.9	237.5	155.3	116.9
Mean	128.3	153.6	277.1	252.3	291.8	334.6	160.2	185.5	216.2	248.5	163.7	121.8
11	162.5	214.2	287.8	200.7	372.6	337.6	192.3	187.8	195.7	240.8	153.2	136.4
12	165.9	213.2	294.3	255.0	305.0	371.0	166.1	170.6	206.9	294.7	169.6	84.0
13	159.9	204.7	100.9	346.3	389.9	361.8	136.4	151.2	143.4	281.3	118.5	79.5
14	161.4	82.9	275.7	292.8	369.7	337.6	171.4	255.4	202.3	204.3	135.2	117.5
15	155.8	84.3	245.0	231.0	366.4	344.2	135.7	227.7	159.5	210.4	146.7	117.6
16	167.4	154.1	317.8	359.5	293.0	332.3	138.0	241.0	129.2	262.1	142.5	116.3
17	160.9	155.0	325.3	300.5	269.0	88.7	192.7	131.3	118.4	243.3	140.6	116.0
18	162.0	177.5	309.7	275.3	240.6	214.5	100.5	120.2	133.5	258.9	141.9	115.1
19	163.0	233.1	303.6	349.9	327.9	273.1	91.9	113.5	144.6	254.4	140.2	114.7
20	169.5	222.6	301.4	350.4	346.0	358.7	174.1	119.9	202.6	254.8	139.3	120.3
Mean	162.8	174.2	276.1	296.1	328.0	302.0	149.9	171.9	163.6	250.5	142.8	111.7
21	162.7	214.2	308.5	174.0	388.1	248.1	168.6	228.1	237.3	64.3	137.2	116.1
22	160.3	238.0	312.6	376.8	377.9	168.6	179.2	127.6	246.6	191.0	131.2	117.6
23	164.8	232.9	309.6	339.8	359.1	156.3	152.5	167.9	295.7	190.5	148.7	116.5
24	164.3	237.8	312.0	341.3	386.4	180.9	85.5	183.5	251.1	192.1	135.2	116.3
25	166.3	241.2	302.8	322.2	362.9	202.0	163.3	204.0	281.6	191.6	130.1	117.7
26	176.1	239.1	262.2	349.8	349.5	229.7	116.6	199.2	269.4	200.5	128.5	115.4
27	170.0	242.3	337.4	235.8	272.9	354.8	108.6	210.1	270.6	200.5	130.7	114.1
28	172.1	255.1	307.0	313.1	384.8	300.2	156.2	176.4	223.2	182.0	126.5	111.3
29	174.8	288.1	333.0	338.3	363.4	308.0	123.1	150.2	205.7	184.3	128.3	115.1
30	175.7		199.1	337.2	383.3	315.4	147.1	114.1	270.5	181.4	128.0	136.1
31	178.5		169.6		303.3		194.7	122.6		178.3		121.2
Mean	169.6	243.2	286.7	312.8	357.4	246.4	145.0	171.2	255.2	177.9	132.4	118.0
MEAN	154.1*	188.5*	280.2	287.1	326.8	294.3	151.5	176.9	211.7	224.1	146.3*	117.2*
MIN	66.0	21.4	100.9	144.4	184.8	88.7	82.4	106.7	118.4	64.3	118.5	79.5
MAX	178.5	288.1	337.4	376.8	389.9	398.8	236.6	265.1	312.0	300.7	176.9	136.4

* Data could be influenced by snow accumulation over the sensor that leads an underestimation of solar radiation fluxes.

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	51.6	107.4	209.8	216.2	229.9	142.2	74.9	41.7	88.5	132.1	126.8	69.3
2	95.3	107.1	188.8	165.4	241.0	100.1	83.6	62.4	126.9	111.0	114.9	68.6
3	98.2	121.3	189.7	142.9	203.1	100.4	44.4	67.0	199.0	117.0	120.4	69.3
4	98.4	93.5	177.8	123.9	230.8	116.2	115.9	102.6	152.1	137.5	115.8	67.1
5	97.4	67.8	178.5	214.6	158.0	114.6	115.0	138.6	154.8	142.3	112.4	64.5
6	98.7	113.4	183.4	217.1	237.7	100.4	98.6	130.8	153.1	141.6	108.3	66.0
7	97.3	115.6	184.2	249.5	223.1	109.2	101.9	138.4	156.7	134.7	108.0	66.8
8	63.0	19.5	182.9	246.1	200.7	85.3	144.0	70.1	136.1	135.4	104.7	65.0
9	94.2	116.1	182.8	220.1	233.8	111.1	142.7	138.0	105.0	47.7	102.3	65.3
10	107.1	140.6	182.2	123.3	165.7	100.6	129.4	158.6	116.6	142.4	102.5	63.5
Mean	90.1	100.2	186.0	191.9	212.4	108.0	105.1	104.8	138.9	124.2	111.6	66.6
11	112.7	138.7	186.8	171.4	255.1	85.4	107.3	117.9	119.6	126.5	102.3	76.3
12	115.2	145.8	196.6	205.9	198.1	75.1	105.7	112.8	125.3	149.1	113.4	49.8
13	109.4	143.1	94.3	264.4	263.2	63.3	91.7	106.6	94.8	137.1	86.8	67.9
14	107.1	71.1	211.5	227.8	219.8	49.9	98.0	149.8	120.2	106.5	96.0	91.0
15	99.7	77.6	191.7	193.8	207.0	47.6	89.9	125.8	106.8	106.1	101.2	82.7
16	113.2	120.1	226.4	264.8	172.1	42.1	83.8	141.4	96.7	126.2	95.4	76.6
17	103.3	118.0	228.4	230.7	168.5	14.3	105.0	81.9	101.3	121.9	93.9	74.5
18	103.6	135.8	210.2	220.0	136.4	93.9	50.3	71.3	105.9	124.4	93.7	74.2
19	104.8	160.8	198.3	249.6	213.0	142.9	55.0	66.5	109.4	118.4	91.0	73.1
20	114.1	150.3	188.8	244.2	190.3	162.8	101.2	100.5	134.1	116.1	89.7	72.4
Mean	108.3	126.1	193.3	227.3	202.3	77.7	88.8	107.5	111.4	123.2	96.3	73.9
21	101.7	150.8	191.6	138.0	171.7	79.3	86.7	159.2	142.8	39.2	87.6	67.0
22	99.2	157.2	189.9	273.1	156.1	49.3	76.2	96.9	149.8	131.4	84.7	67.5
23	99.8	150.1	183.6	254.7	147.1	66.2	75.4	110.2	165.2	131.9	94.3	66.1
24	97.6	150.7	179.8	244.7	150.6	78.6	36.7	123.1	136.7	135.3	84.6	66.0
25	99.3	160.5	179.5	233.5	142.1	93.0	86.7	129.2	150.6	138.6	75.6	69.1
26	107.2	152.4	161.9	245.3	138.2	45.4	63.4	131.5	139.2	143.8	73.5	68.1
27	103.2	149.8	234.8	175.0	108.3	45.5	58.9	130.2	142.2	143.5	74.2	66.4
28	103.3	165.4	212.8	225.1	145.3	41.8	71.6	110.8	116.5	141.0	70.5	65.2
29	104.0	224.6	230.1	242.4	134.0	39.1	58.9	97.6	112.2	137.5	71.8	66.7
30	103.8		148.9	225.7	139.5	40.3	70.2	66.4	137.9	131.0	70.0	76.8
31	105.5		136.1		112.4		76.0	80.3		128.8		81.1
Mean	102.2	162.4	186.3	225.7	140.5	57.9	69.2	112.3	139.3	127.4	78.7	69.1
MEAN	100.3	128.4	188.5	215.0	183.6	81.2	87.1	108.3	129.9	125.0	95.5	69.8
MIN	51.6	19.5	94.3	123.3	108.3	14.3	36.7	41.7	88.5	39.2	70.0	49.8
MAX	115.2	224.6	234.8	273.1	263.2	162.8	144.0	159.2	199.0	149.1	126.8	91.0

INCOMING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D	
1	233.8	131.5	155.3	212.4	184.4	1280.5	314.9	322.8	313.3	259.9	170.5	154.0	
2	184.6	165.5	159.5	216.9	178.8	275.7	324.3	311.4	306.7	233.6	184.9	153.5	
3	141.9	156.6	151.4	269.2	199.9	238.2	318.2	315.9	277.4	225.5	162.9	160.6	
4	134.7	196.1	166.0	251.7	198.8	220.8	316.0	309.8	298.1	221.3	155.7	159.9	
5	140.9	191.3	172.3	222.7	258.6	264.5	324.1	308.5	300.6	192.9	159.2	168.4	
6	126.5	164.6	156.2	249.8	238.7	279.2	313.7	299.6	300.2	196.1	156.6	166.8	
7	125.9	208.4	147.1	218.1	246.8	240.3	315.6	294.0	297.1	198.2	152.3	166.5	
8	207.5	247.2	141.9	232.2	241.3	250.1	303.8	312.4	295.2	186.5	154.0	173.0	
9	226.4	164.5	142.1	251.0	268.4	227.8	317.5	313.9	308.5	256.2	157.2	145.6	
10	149.6	131.7	142.1	271.2	274.7	262.0	310.5	296.7	300.3	235.6	152.3	148.6	
Mean	167.2	175.7	153.4	239.5	229.0	253.9	315.8	308.5	299.7	220.6	160.6	159.7	
11	137.1	140.0	146.9	249.6	236.8	263.0	317.4	311.0	304.4	186.9	152.6	169.9	
12	158.7	154.3	184.7	219.2	222.7	264.0	317.6	314.9	301.2	176.0	180.0	163.8	
13	170.9	170.3	250.9	219.3	193.7	262.2	317.9	317.1	312.9	187.2	199.0	241.3	
14	129.8	223.6	181.0	218.4	194.4	283.8	315.3	301.1	308.6	214.2	152.0	167.0	
15	146.3	248.9	194.5	211.7	191.0	269.2	319.2	297.7	308.6	184.3	153.3	154.4	
16	160.9	217.8	163.0	185.8	211.9	286.4	323.6	310.5	308.8	177.3	156.9	162.0	
17	132.1	189.3	198.9	203.0	232.2	307.9	318.5	319.1	306.3	182.8	165.8	166.6	
18	130.7	186.5	187.5	213.6	250.1	318.5	323.9	313.2	301.8	170.3	156.0	164.6	
19	136.0	154.2	174.8	205.2	237.0	299.6	318.3	316.2	289.0	146.2	153.9	160.4	
20	156.9	164.9	174.9	215.4	280.0	301.5	317.3	318.0	262.3	141.4	156.7	162.5	
Mean	145.9	185.0	185.7	214.1	225.0	285.6	318.9	311.9	300.4	176.7	162.6	171.2	
21	134.8	172.5	175.9	244.7	236.9	305.5	314.7	303.3	269.5	179.6	162.0	142.3	
22	150.2	169.4	168.9	201.5	212.8	323.5	323.0	312.6	257.8	168.9	172.0	133.2	
23	143.7	155.4	173.4	179.4	224.5	315.7	320.8	304.1	232.8	161.8	181.6	135.7	
24	148.9	152.1	169.8	193.5	250.9	309.4	320.1	306.8	242.6	178.2	174.6	136.7	
25	142.7	170.5	175.2	212.6	260.9	324.8	316.5	303.0	246.9	158.6	153.8	138.1	
26	155.3	170.6	213.0	190.9	262.8	300.5	312.0	312.0	254.6	171.7	159.2	145.3	
27	133.4	154.3	216.3	203.0	266.0	283.8	318.7	311.1	261.7	191.7	156.4	166.5	
28	129.8	183.4	209.0	207.9	254.5	282.6	323.1	311.0	262.4	202.9	158.4	166.5	
29	125.9	203.1	186.3	206.8	238.6	294.5	317.3	316.3	266.8	162.6	155.6	161.1	
30	128.8		215.1	180.7	250.7	294.8	314.3	287.5	233.2	163.8	145.6	212.5	
31	131.1			265.2		275.7		309.3	310.5		169.1		187.3
Mean	138.6	170.1	197.1	202.1	248.6	303.5	317.2	307.1	252.8	173.5	161.9	156.8	
MEAN	150.2	177.2	179.3	218.6	234.7	281.0	317.3	309.1	284.3	189.7	161.7	162.4	
MIN	125.9	131.5	141.9	179.4	178.8	220.8	303.8	287.5	232.8	141.4	145.6	133.2	
MAX	233.8	248.9	265.2	271.2	280.0	324.8	324.3	322.8	313.3	259.9	199.0	241.3	

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	254.8	217.8	223.3	259.5	259.1	317.8	316.0	318.7	308.3	303.9	246.1	239.4
2	226.8	230.7	231.8	255.4	260.4	314.4	318.8	322.7	304.6	296.0	251.8	240.2
3	201.7	227.7	223.2	268.0	258.4	303.4	315.3	314.4	304.1	292.7	246.3	247.1
4	199.8	240.5	248.6	264.6	256.9	299.4	313.2	315.2	312.2	289.2	241.2	248.0
5	214.7	243.6	252.8	266.7	259.8	308.6	314.8	317.7	310.3	276.8	240.6	248.6
6	200.7	249.4	242.5	260.4	266.1	306.9	313.6	316.0	311.4	275.4	239.7	247.7
7	197.9	256.4	226.1	258.8	273.2	311.1	313.4	321.1	303.3	280.8	236.4	247.0
8	226.9	251.5	231.5	270.9	281.5	314.2	310.6	316.3	312.1	278.0	236.6	250.7
9	228.9	223.1	230.3	267.7	283.1	312.5	318.0	312.0	311.7	276.0	234.8	231.5
10	195.8	215.1	226.5	264.8	285.9	321.5	319.0	315.3	309.7	269.6	235.1	233.3
Mean	214.8	235.6	233.7	263.7	268.4	311.0	315.3	316.9	308.8	283.8	240.9	243.4
11	193.1	219.1	235.6	261.5	289.9	318.4	322.2	316.4	313.6	261.6	230.8	235.9
12	198.9	225.8	250.5	260.7	280.8	323.2	316.4	313.1	314.3	259.0	233.6	230.2
13	200.1	233.1	249.7	253.7	276.3	323.7	315.7	312.9	312.2	260.8	227.9	226.7
14	202.2	246.4	235.8	259.4	277.1	326.7	319.1	315.9	316.7	262.9	225.9	217.0
15	213.9	250.4	233.9	252.2	272.9	326.8	315.3	315.6	312.6	255.6	229.9	231.0
16	224.6	244.7	227.0	248.8	274.5	327.1	318.2	318.9	309.9	259.0	233.2	236.9
17	216.1	229.4	244.8	259.3	283.9	316.1	322.3	317.2	306.7	257.8	241.9	242.0
18	215.4	230.3	247.8	262.3	290.0	314.4	318.4	317.8	302.8	253.1	239.3	243.0
19	215.4	226.6	259.3	268.5	288.0	319.1	315.5	318.0	295.1	256.3	235.4	245.9
20	219.6	238.0	258.9	276.7	301.3	322.2	318.4	311.7	294.9	254.1	237.4	247.9
Mean	209.9	234.4	244.3	260.3	283.5	321.8	318.2	315.8	307.9	258.0	233.5	235.6
21	222.6	241.7	260.9	271.1	297.0	322.8	321.5	312.7	298.9	248.2	240.3	230.6
22	224.5	240.1	258.4	259.1	294.3	318.2	323.2	312.2	293.6	248.1	248.9	222.8
23	228.1	244.0	263.8	251.4	297.2	317.7	320.2	309.0	292.6	244.9	249.6	226.8
24	238.1	241.0	259.0	261.8	303.9	318.5	317.0	310.4	291.6	244.6	246.9	221.4
25	230.1	247.9	258.7	265.2	308.5	318.7	317.2	315.2	293.8	240.1	243.9	216.9
26	240.3	245.3	264.3	263.9	311.8	318.8	316.6	315.4	302.9	244.4	240.8	225.2
27	218.5	239.4	260.8	261.5	310.4	323.4	317.9	316.2	299.0	242.7	238.2	239.0
28	218.2	241.8	265.2	266.1	312.0	323.8	320.5	316.0	299.2	239.9	241.4	246.4
29	218.0	228.5	251.8	258.0	307.8	325.6	318.0	315.8	301.1	235.8	242.6	246.5
30	216.8		252.2	259.1	313.5	326.7	317.6	287.5	297.1	238.0	239.2	267.5
31	218.6		246.6		315.7		321.7	310.7		242.0		254.6
Mean	224.9	241.1	258.3	261.7	306.6	321.4	319.2	311.0	297.0	242.6	243.2	236.2
MEAN	216.8	236.9	245.9	261.9	286.8	318.1	317.6	314.5	304.5	260.9	239.2	238.3
MIN	193.1	215.1	223.2	248.8	256.9	299.4	310.6	287.5	291.6	235.8	225.9	216.9
MAX	254.8	256.4	265.2	276.7	315.7	327.1	323.2	322.7	316.7	303.9	251.8	267.5

3.2 PAKISTAN

AWS Askole

TECHNICAL SHEET					
Coordinates:					
Latitude: 35° 40' 50" N					
Longitude: 75° 48' 55" E					
Elevation: 3.015 m a.s.l					
Installation Time:					
October 2005					
Data Availability:					
From October 7 th , 2002					



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				2 m	LSI-Lastem Babuc ABC
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	60 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	1,5% (5÷95%, 23°C)	60 min.	2 m	LSI-Lastem DMA572
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	0-2000		60 min.	2 m	Kipp & Zonen CM6B pyranometer

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-6.3	-4.0	-2.5	7.0	-6.9	-9.3	15.9	21.1	n.a.	10.3	5.4	-5.6
2	-6.3	-4.0	-3.7	7.2	7.8	9.6	17.6	20.5	n.a.	10.7	5.9	-6.1
3	-4.9	-4.5	-2.6	7.3	8.4	11.2	18.9	20.1	n.a.	n.a.	5.0	-4.5
4	-4.7	-4.4	-2.2	7.6	8.8	13.0	18.8	12.8	16.3	16.4	4.0	-2.8
5	-5.3	-2.7	0.6	6.8	10.0	14.0	18.7	13.1	13.0	11.7	3.6	-2.8
6	-5.3	-3.0	-0.1	7.3	9.6	14.2	18.1	14.0	14.1	7.6	2.8	-1.6
7	-5.1	-3.4	-1.7	6.2	10.4	11.4	17.9	14.4	12.9	8.1	2.4	-1.2
8	-5.5	-4.3	-2.6	6.9	8.0	10.4	15.6	17.2	12.8	7.2	2.3	-2.8
9	-6.7	-5.5	-2.8	5.0	8.4	10.6	15.8	17.8	12.1	7.7	2.2	-3.4
10	-8.4	-3.9	-1.9	5.4	8.4	9.8	17.6	15.6	11.4	6.4	n.a.	-5.2
Mean	-5.8	-4.0	-1.9	6.7	8.7	11.4	17.5	16.7	13.3	9.6	3.7	-3.6
11	-9.0	-3.6	-1.9	4.4	7.5	8.9	18.8	13.8	14.6	6.2	n.a.	-4.6
12	-7.9	-3.8	-0.9	2.4	8.7	10.0	17.6	15.9	15.5	6.3	2.2	-3.3
13	-8.2	-3.3	0.1	2.5	7.4	7.5	17.3	17.8	15.2	4.7	2.2	-3.4
14	-7.0	-2.5	-0.1	3.3	9.5	10.3	17.2	17.3	14.3	4.5	2.8	-4.0
15	-7.1	-3.7	-0.9	3.8	9.0	11.8	15.0	15.1	13.0	6.3	1.2	-3.0
16	-6.1	-4.8	-3.2	4.9	11.1	13.8	12.7	14.2	11.7	5.1	1.5	-2.9
17	-7.1	-4.7	-2.3	5.4	9.7	13.8	16.6	18.2	9.7	4.1	1.1	-2.7
18	-7.1	-6.0	0.0	7.0	9.9	13.9	16.5	20.3	9.0	3.5	0.5	-3.7
19	-7.4	-5.8	1.6	8.2	9.7	13.7	14.0	21.2	9.1	2.8	0.4	-2.0
20	-7.1	-4.5	0.1	10.3	10.0	15.1	13.4	21.2	9.0	2.2	-0.3	-3.7
Mean	-7.4	-4.3	-0.7	5.2	9.3	11.9	15.9	17.5	12.1	4.6	1.3	-3.3
21	-7.7	-0.5	0.6	9.7	8.1	16.8	15.2	21.6	10.4	3.5	-1.2	-6.3
22	-7.6	-1.5	-0.2	8.6	7.0	16.9	18.1	21.1	10.1	3.6	-0.3	-6.4
23	-6.8	-1.7	1.2	8.5	6.0	14.6	19.5	n.a.	8.2	2.1	0.1	-7.0
24	-7.5	-2.6	1.8	8.3	9.9	13.1	19.3	n.a.	7.8	2.2	-2.1	-4.3
25	-5.5	-4.3	2.1	9.0	10.3	10.9	16.0	n.a.	10.2	2.6	-2.6	-4.8
26	-4.4	-3.8	1.5	8.4	7.9	9.9	15.6	n.a.	9.2	2.8	-1.6	-6.2
27	-6.1	-4.3	1.2	7.7	10.1	11.7	17.4	n.a.	9.5	3.1	0.0	-5.9
28	-6.3	-2.8	2.2	8.8	12.2	11.6	18.8	n.a.	9.1	4.5	-0.9	-5.6
29	-7.2	-3.6	3.3	7.2	13.8	13.2	19.8	n.a.	9.1	5.2	-1.2	-5.1
30	-7.2			4.4	6.2	14.4	14.9	20.4	n.a.	9.5	5.0	-4.4
31	-5.0			6.0		11.8		21.2	n.a.		5.6	
Mean	-6.5	-2.8	2.2	8.2	10.1	13.4	18.3	21.4	9.3	3.7	-1.4	-6.3
MEAN	-6.6	-3.7	-0.1	6.7	9.4	12.2	17.3	17.5	11.4	5.7	1.1	-4.5
MIN	-9.0	-6.0	-3.7	2.4	6.0	7.5	12.7	12.8	7.8	2.1	-4.4	-10.1
MAX	-4.4	-0.5	6.0	10.3	14.4	16.9	21.2	21.6	16.3	16.4	5.9	-1.2

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	29.4	40.4	49.5	47.5	39.7	70.8	38.0	34.5	33.3	38.8	25.2	26.7
2	32.0	36.5	42.6	48.4	27.2	58.4	33.1	37.0	55.5	29.0	26.4	27.4
3	46.4	80.4	44.8	51.3	28.4	39.2	28.4	34.1	63.2	67.7	34.1	34.9
4	60.7	86.9	84.9	39.9	28.9	29.2	29.1	72.2	47.7	45.4	25.6	40.5
5	58.7	64.2	69.7	35.4	26.1	23.7	30.8	66.7	75.0	40.4	22.7	37.9
6	56.8	43.8	52.4	34.1	42.5	28.6	32.8	62.2	72.7	55.4	23.2	55.8
7	47.9	50.5	51.1	42.8	42.6	51.3	33.8	50.9	72.2	42.4	24.3	47.4
8	50.9	44.0	52.4	47.9	60.6	59.5	33.4	39.0	81.7	32.2	24.6	93.4
9	39.6	35.7	42.8	69.2	53.7	60.6	39.1	29.1	77.8	30.6	23.5	55.9
10	40.5	40.3	31.1	73.4	60.8	59.2	34.8	41.2	89.3	38.5	n.a.	41.8
Mean	46.3	52.3	52.1	49.0	41.1	48.0	33.3	46.7	66.9	42.0	25.5	46.2
11	29.5	45.7	35.3	71.9	68.5	58.0	26.7	62.0	65.7	43.1	n.a.	49.0
12	35.7	64.4	41.7	78.4	48.8	59.3	33.9	54.7	52.9	41.3	23.1	50.9
13	29.8	64.8	42.9	71.3	56.0	74.3	34.6	39.3	65.1	62.7	25.1	59.5
14	63.9	41.7	41.5	57.8	35.0	63.0	33.1	42.5	65.5	68.5	30.0	82.6
15	85.0	34.5	30.7	37.9	43.7	44.3	52.1	61.8	60.8	40.3	20.2	83.4
16	84.7	37.8	64.4	35.8	45.9	35.9	67.3	65.3	57.7	60.8	23.7	62.5
17	75.2	34.7	91.5	23.0	48.2	34.6	41.5	46.3	76.3	66.9	49.4	49.3
18	60.7	78.3	92.6	20.7	49.5	37.2	35.1	34.3	83.1	62.4	74.4	75.0
19	62.8	88.0	88.4	20.6	42.5	53.3	49.3	29.8	61.1	73.9	53.7	46.6
20	49.4	88.3	n.a.	27.7	43.0	39.6	61.8	28.8	55.5	85.1	40.4	36.6
Mean	57.7	57.8	58.8	44.5	48.1	49.9	43.5	46.5	64.4	60.5	37.8	59.5
21	38.2	50.8	70.6	46.3	52.5	34.2	47.5	28.5	54.0	60.6	57.9	30.3
22	53.5	63.8	56.9	33.0	61.0	35.2	43.5	27.2	50.2	40.0	78.3	31.2
23	64.9	57.7	50.2	34.1	66.6	46.1	34.0	n.a.	61.2	29.7	60.3	34.9
24	43.4	48.9	69.6	41.5	42.7	52.0	37.5	n.a.	59.3	26.7	47.9	40.6
25	43.1	59.7	76.1	35.0	42.5	68.7	50.1	n.a.	41.8	26.8	31.5	40.7
26	44.0	71.6	83.7	43.1	68.4	67.6	47.4	n.a.	55.0	26.2	37.5	36.6
27	46.7	90.6	62.9	50.6	51.7	57.9	47.7	n.a.	55.4	26.6	41.7	84.2
28	51.5	74.9	72.9	39.0	34.3	50.4	33.0	n.a.	53.7	28.7	80.1	91.3
29	40.6	43.6	38.9	56.7	30.0	46.3	26.8	n.a.	52.1	30.4	74.9	88.5
30	31.0		34.5	55.9	28.5	39.1	28.2	n.a.	54.2	28.1	33.5	55.4
31	37.0		35.2		50.8		32.0	34.7		26.4		45.7
Mean	44.9	62.4	59.2	43.5	48.1	49.8	38.9	n.a.	53.7	31.8	54.4	52.7
MEAN	49.5	57.3	56.7	45.7	45.8	49.2	38.6	44.4	61.6	44.4	39.8	52.8
MIN	29.4	34.5	30.7	20.6	26.1	23.7	26.7	27.2	33.3	26.2	20.2	26.7
MAX	85.0	90.6	92.6	78.4	68.5	74.3	67.3	72.2	89.3	85.1	80.1	93.4

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	706.9	708.2	700.7	713.1	702.1	708.6	705.2	701.8	n.a.	711.7	n.a.	n.a.
2	706.7	709.1	702.8	712.7	704.9	707.3	706.0	701.1	n.a.	709.5	n.a.	n.a.
3	704.6	707.0	702.5	712.7	705.0	704.6	703.5	698.8	n.a.	n.a.	n.a.	n.a.
4	701.8	700.2	698.9	710.6	705.2	705.0	701.2	701.4	705.7	n.a.	n.a.	n.a.
5	701.6	700.1	696.6	708.2	706.3	704.8	701.1	704.6	707.4	711.2	n.a.	n.a.
6	699.8	702.1	698.1	706.5	707.6	701.6	700.7	706.0	708.5	710.0	n.a.	n.a.
7	699.9	700.2	697.0	707.0	707.1	704.0	700.1	706.7	708.2	711.8	n.a.	n.a.
8	703.8	698.5	697.3	707.3	708.4	705.0	702.4	705.7	708.5	710.9	n.a.	n.a.
9	702.9	703.5	700.5	707.0	711.2	704.8	704.6	703.2	709.9	708.9	n.a.	n.a.
10	706.4	702.3	701.3	704.6	711.2	704.5	706.1	703.7	710.6	709.2	n.a.	n.a.
Mean	703.4	703.1	699.6	709.0	706.9	705.0	703.1	703.3	708.4	710.4	n.a.	n.a.
11	706.8	701.2	705.3	702.6	708.5	705.0	705.0	706.2	708.2	709.1	n.a.	n.a.
12	705.8	698.6	703.7	703.4	705.3	706.7	703.5	705.6	706.9	708.1	n.a.	n.a.
13	708.1	696.6	702.0	703.8	707.1	709.1	702.0	703.7	706.2	708.6	n.a.	n.a.
14	705.8	698.8	703.8	706.4	706.5	709.2	701.1	703.9	703.2	710.3	n.a.	n.a.
15	698.2	700.2	707.7	706.1	707.1	707.7	702.4	705.9	703.2	710.2	n.a.	n.a.
16	696.5	700.5	709.2	706.2	706.3	705.1	706.1	707.7	705.0	709.4	n.a.	n.a.
17	698.2	706.4	706.6	706.3	705.9	704.5	706.3	706.6	704.9	710.7	n.a.	n.a.
18	697.1	707.4	707.5	707.2	707.4	704.6	703.9	705.1	705.5	710.6	n.a.	n.a.
19	696.5	705.1	702.7	708.9	708.3	704.0	702.4	703.6	708.7	710.3	n.a.	n.a.
20	698.8	700.2	697.2	708.8	707.7	703.3	704.2	703.1	708.7	709.7	n.a.	n.a.
Mean	701.2	701.5	704.6	706.0	707.0	705.9	703.7	705.1	706.1	709.7	n.a.	n.a.
21	702.3	696.1	703.7	706.8	706.3	703.3	707.1	702.8	707.8	710.7	n.a.	n.a.
22	702.3	693.7	708.5	703.4	707.3	704.5	706.0	702.7	707.9	710.6	n.a.	n.a.
23	704.2	696.2	709.3	703.3	708.7	704.5	701.9	n.a.	708.2	710.0	n.a.	n.a.
24	705.1	699.5	710.1	705.8	709.2	702.7	700.2	n.a.	708.5	708.6	n.a.	n.a.
25	703.1	702.4	708.2	705.9	707.1	702.8	703.1	n.a.	708.0	708.0	n.a.	n.a.
26	701.7	707.0	705.7	706.0	707.2	703.4	703.7	n.a.	711.2	709.2	n.a.	n.a.
27	703.8	702.7	710.4	704.7	708.6	704.5	703.1	n.a.	713.1	710.9	n.a.	n.a.
28	704.0	699.4	711.3	701.0	708.2	705.8	703.1	n.a.	712.9	711.7	n.a.	n.a.
29	707.6	699.6	714.0	699.7	708.5	705.9	702.9	n.a.	712.2	712.0	n.a.	n.a.
30	708.2		713.2	700.5	708.3	705.0	702.4	n.a.	711.5	713.0	n.a.	n.a.
31	706.0			713.1		707.0		701.4	710.5		712.6	n.a.
Mean	704.4	699.6	709.8	703.7	707.9	704.2	703.2	705.3	710.1	710.7	n.a.	n.a.
MEAN	703.0	701.5	704.8	706.2	707.3	705.1	703.3	704.4	708.2	710.3	n.a.	n.a.
MIN	696.5	693.7	696.6	699.7	702.1	701.6	700.1	698.8	703.2	708.0	n.a.	n.a.
MAX	708.2	709.1	714.0	713.1	711.2	709.2	707.1	710.5	713.1	713.0	n.a.	n.a.

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	E	NW	W	E	W	W	E	E	E	E	E	E
2	E	E	E	E	E	E	E	E	E	E	E	E
3	W	NW	W	W	E	E	E	E	E	N	E	E
4	NW	NW	W	E	E	E	E	E	E	E	E	NE
5	NW	NW	NW	E	E	E	E	E	NW	E	E	E
6	NW	NW	W	E	W	E	E	E	E	E	E	E
7	W	NW	W	E	W	W	W	E	NW	E	E	E
8	NW	NW	W	W	E	W	E	E	NW	SE	E	NE
9	NW	E	W	W	E	NW	E	E	W	E	E	E
10	E	W	NW	W	E	E	E	E	NW	E	E	E
Mode	NW	NW	W	E	E	E	E	E	E	E	E	E
11	E	NW	W	E	W	E	E	E	W	E	E	NW
12	W	NW	NW	W	W	NW	E	E	E	E	E	W
13	E	NW	W	W	W	W	NE	E	NE	W	E	NW
14	NW	W	NW	E	E	W	W	E	E	W	E	NW
15	NW	NW	E	E	E	E	NW	E	E	E	E	NW
16	W	NW	NW	E	W	E	W	E	E	W	E	NW
17	NW	W	NW	E	E	E	E	E	NW	W	W	W
18	NW	W	NW	E	W	E	E	E	NW	NW	W	NW
19	NW	NW	NW	E	W	E	E	E	NW	W	NW	NW
20	NW	NW	NW	E	E	E	E	E	E	W	NW	NW
Mode	NW	NW	NW	E	W	E	E	E	E	W	E	NW
21	NW	NW	W	W	W	E	E	E	NE	E	NW	E
22	W	NW	E	E	W	E	E	E	NW	E	W	E
23	NW	NW	E	E	W	W	E	E	W	E	NW	E
24	E	NW	W	E	W	W	E	n.a.	E	E	E	NW
25	NW	W	W	E	E	NW	E	n.a.	W	E	E	E
26	NW	W	NW	E	NW	NW	E	n.a.	E	E	E	E
27	NW	NW	W	W	W	W	E	n.a.	E	E	NE	NW
28	W	NW	NW	E	E	E	E	n.a.	E	E	NW	E
29	E	E	E	W	E	E	E	n.a.	E	E	NW	NE
30	E		E	NW	E	E	E	SE	E	E	E	E
31	NW		E		E		E	E	E	E	E	E
Mode	NW	NW	E	E	W	E	E	n.a.	E	E	NW	E
MODE	NW	NW	W	E	E	E	E	E	E	E	E	E

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	1.47	2.03	2.39	1.33	3.02	2.43	1.41	1.58	1.40	2.18	1.53	1.15
2	1.37	1.64	1.94	1.66	1.77	1.54	1.49	1.41	2.86	1.32	1.60	1.28
3	1.12	1.38	2.42	1.96	1.71	1.31	1.44	1.26	1.36	1.78	1.47	0.60
4	1.79	2.76	3.96	1.48	2.04	1.59	1.52	0.96	1.29	2.22	1.68	1.04
5	1.99	2.57	3.75	2.12	1.83	1.64	1.50	1.45	1.55	1.82	1.40	1.23
6	1.73	2.44	3.03	1.96	3.11	1.41	1.81	1.19	1.24	2.83	1.30	0.26
7	2.14	3.20	2.42	1.60	2.09	2.53	2.82	1.35	1.36	2.08	1.42	1.48
8	2.34	2.24	2.22	1.53	1.90	3.61	1.65	1.47	1.35	1.35	1.44	n.a.
9	1.89	1.70	1.77	1.96	1.96	2.44	2.08	1.51	1.83	1.28	1.44	0.60
10	1.61	3.04	1.75	2.35	1.48	1.18	1.26	1.21	1.68	1.73	n.a.	0.78
Mean	1.75	2.30	2.56	1.80	2.09	1.97	1.70	1.34	1.59	1.86	n.a.	0.93
11	1.70	2.37	1.96	2.03	2.02	2.50	1.50	1.08	3.56	1.95	n.a.	1.22
12	1.27	3.33	2.08	2.40	2.21	1.73	1.97	1.35	1.42	1.55	1.06	2.20
13	1.35	1.93	2.67	2.37	2.36	1.61	2.21	1.74	1.36	1.78	1.24	1.71
14	2.74	2.64	2.58	1.54	1.64	2.30	1.97	1.29	1.44	2.25	1.57	4.09
15	2.77	2.73	1.93	1.64	1.78	1.04	1.46	2.09	0.99	1.24	1.19	4.37
16	1.82	2.48	1.53	1.74	1.80	1.63	1.55	0.83	1.46	1.93	0.70	3.03
17	2.19	2.31	2.10	1.89	1.80	1.63	1.60	1.50	1.42	1.91	1.42	2.24
18	2.71	2.47	2.46	1.78	2.27	1.39	1.69	1.28	1.95	2.28	1.78	5.20
19	3.26	n.a.	2.62	2.09	3.05	1.54	1.40	1.33	1.78	1.68	2.44	4.17
20	2.25	1.44	n.a.	1.63	2.47	1.70	1.48	1.24	1.35	n.a.	1.54	2.19
Mean	2.20	2.41	2.22	1.91	2.14	1.71	1.68	1.37	1.67	1.84	1.44	3.04
21	2.57	3.19	1.67	1.88	2.60	1.64	1.47	1.47	1.40	1.47	1.99	0.95
22	3.29	4.04	1.52	2.10	3.06	1.67	1.15	1.34	1.79	1.59	1.34	1.29
23	3.20	3.31	1.54	1.99	2.80	1.82	1.45	n.a.	1.63	1.33	1.80	0.49
24	2.40	2.84	1.47	1.85	2.67	2.46	2.02	n.a.	1.78	1.43	1.07	1.42
25	2.84	3.25	1.66	2.10	1.68	2.54	1.00	n.a.	1.72	1.47	0.93	0.87
26	2.54	2.71	2.31	1.82	3.40	2.27	1.07	n.a.	1.71	1.49	0.67	0.82
27	1.86	2.53	1.66	2.50	3.17	2.68	1.84	n.a.	1.87	1.52	0.80	n.a.
28	2.15	1.71	2.16	1.86	1.82	1.57	1.35	n.a.	1.48	1.44	n.a.	0.57
29	1.77	1.99	1.99	2.53	1.84	1.36	1.43	n.a.	1.59	1.49	2.79	0.16
30	2.29		1.82	3.32	1.80	1.84	1.29	n.a.	1.91	1.59	1.02	0.50
31	1.88		1.96		2.28		1.56	1.24		1.53		0.83
Mean	2.4	2.8	1.8	2.2	2.5	2.0	1.4	1.3	1.7	1.5	1.4	0.8
MEAN	2.1	2.5	2.2	2.0	2.2	1.9	1.6	1.4	1.7	1.7	1.4	1.6
MIN	1.1	1.4	1.5	1.3	1.5	1.0	1.0	0.8	1.0	1.2	0.7	0.2
MAX	3.3	4.0	4.0	3.3	3.4	3.6	2.8	2.1	3.6	2.8	2.8	5.2

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	8.6	0.8	0.0	0.0	0.0
5	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.2	3.2	0.0	0.0	0.0
6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	1.4	1.4	0.6	0.0	0.0
7	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	0.0	1.0
9	0.0	0.0	0.0	0.2	0.4	0.2	0.0	0.0	1.4	0.0	0.0	1.0
10	0.0	0.0	0.0	0.4	0.4	1.0	0.0	0.0	7.0	0.0	n.a	0.0
Mean	0.0	2.0	0.2	0.6	1.0	7.2	0.0	10.2	15.0	0.6	0.0	2.0
11	0.0	0.0	0.0	1.6	1.2	1.2	0.0	0.8	0.0	0.0	n.a.	0.0
12	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	1.8	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.4	7.6	0.0	0.0	0.8	1.2	0.0	0.0
14	0.0	0.0	0.0	0.2	0.0	1.2	0.0	0.0	1.0	0.2	0.0	0.0
15	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2	0.8	0.0	0.0	0.0
16	0.0	0.0	0.2	0.0	0.0	0.0	1.8	1.0	0.2	0.4	0.0	0.0
17	0.0	0.0	4.2	0.0	0.2	0.0	0.2	0.0	4.8	1.2	0.0	0.0
18	0.0	0.0	1.6	0.0	0.2	0.0	0.0	0.0	6.2	0.0	0.0	0.0
19	0.0	1.2	1.2	0.0	0.0	4.4	0.0	0.0	1.4	0.0	0.0	0.0
20	0.0	2.4	0.6	0.0	1.8	0.0	2.6	0.0	0.0	1.6	0.0	0.0
Mean	0.0	3.6	7.8	1.8	4.0	15.0	4.8	2.4	17.0	4.6	0.0	0.0
21	0.0	0.2	15.2	0.4	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
22	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0
23	0.0	0.0	0.0	0.0	4.0	0.0	0.0	n.a.	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.a.	2.6	0.0	0.0	0.0
25	0.0	0.0	0.2	0.0	0.8	1.2	0.2	n.a.	0.0	0.0	0.0	0.0
26	1.8	0.0	2.6	0.0	3.6	7.8	0.0	n.a.	0.2	0.0	0.0	0.0
27	0.0	2.4	0.0	0.0	0.2	0.0	0.2	n.a.	0.4	0.0	0.0	0.0
28	0.0	0.8	0.0	0.0	0.0	0.0	0.0	n.a.	0.2	0.0	1.4	0.8
29	0.0	0.0	0.2	0.0	0.0	0.0	0.0	n.a.	0.0	0.0	0.0	5.2
30	0.0		0.0	0.2	0.0	0.0	0.0	n.a.	0.2	0.0	0.0	1.6
31	0.0		0.0		1.8		0.0	0.0		0.0		0.0
Mean	0.0	3.4	18.2	0.6	10.8	9.0	0.4	0.0	3.6	0.2	2.2	7.6
MEAN	0.0	9.0	26.2	3.0	15.8	31.2	5.2	12.6	35.6	5.4	2.2	9.6
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	2.4	15.2	1.6	1.6	7.8	2.6	8.6	7.0	1.6	1.4	5.2

GLOBAL SOLAR RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	136.8	192.0	237.3	175.3	301.2	258.8	270.4	297.5	346.2	270.4	199.5	147.0
2	79.4	154.3	262.5	223.3	352.6	260.9	336.0	230.8	160.3	240.3	177.0	144.9
3	58.3	58.4	191.9	244.6	322.0	307.5	371.6	301.3	236.5	157.9	188.8	91.7
4	60.0	64.1	99.2	294.6	317.4	405.8	287.0	54.8	177.3	213.9	192.8	139.9
5	56.4	80.0	88.0	251.5	347.4	391.6	272.3	210.5	87.3	222.0	180.0	89.4
6	46.0	70.6	101.6	326.0	282.5	264.2	305.4	194.8	168.0	183.4	187.1	71.5
7	65.5	107.5	143.1	245.8	279.3	205.0	335.9	201.5	93.2	202.7	185.7	107.8
8	78.8	207.7	182.6	231.6	105.9	192.5	227.1	353.2	108.0	196.0	184.9	32.0
9	86.8	215.5	236.7	103.8	263.0	234.4	241.8	302.1	114.7	231.8	184.2	88.5
10	140.7	133.2	155.0	161.7	176.5	185.6	380.7	116.2	138.0	143.4	258.1	113.4
Mean	80.9	128.3	169.8	225.8	274.8	270.6	302.8	226.3	163.0	206.2	193.8	102.6
11	129.9	89.4	181.5	131.0	137.3	183.1	355.3	113.3	281.9	160.8	277.6	95.1
12	150.8	82.6	75.6	139.6	174.6	228.3	232.8	256.4	218.3	182.8	178.3	98.5
13	132.7	55.6	201.0	180.8	231.3	129.6	253.9	245.0	225.6	105.4	169.7	41.5
14	89.1	79.3	176.6	235.1	287.7	315.7	273.2	158.8	143.3	184.1	174.6	62.6
15	63.9	91.5	294.8	266.1	243.0	286.8	171.9	110.0	127.8	198.3	173.8	36.2
16	84.0	61.5	54.6	294.4	391.2	358.9	189.8	135.5	150.6	125.7	117.7	55.3
17	114.6	153.0	111.4	366.7	184.8	287.0	371.8	339.3	90.0	163.7	48.7	100.9
18	111.4	74.6	74.8	364.7	214.4	251.8	270.3	344.3	77.8	138.0	91.0	54.1
19	91.7	68.9	54.1	348.8	266.9	280.8	171.8	340.0	257.8	94.1	69.7	130.6
20	83.0	44.0	8.0	286.0	307.8	356.5	213.4	338.3	162.3	61.6	138.8	131.3
Mean	105.1	80.1	123.2	261.3	243.9	267.9	250.4	238.1	173.5	141.4	144.0	80.6
21	137.1	146.0	136.2	250.2	161.0	334.0	176.2	335.5	185.0	110.6	54.2	132.1
22	79.4	60.3	301.8	298.8	170.5	224.3	301.0	335.3	161.4	154.8	106.9	132.6
23	81.2	45.0	185.5	270.4	260.3	175.3	320.9	253.0	218.5	186.7	56.7	58.4
24	174.1	179.3	130.8	257.7	397.8	244.0	254.6	n.a.	238.5	217.2	111.9	57.5
25	77.3	86.2	136.8	291.1	200.5	162.0	112.0	n.a.	246.8	215.0	150.1	125.2
26	71.4	166.3	102.0	196.9	167.1	210.8	172.1	n.a.	174.1	212.0	88.9	108.9
27	92.6	112.7	185.8	227.8	345.6	269.0	280.5	n.a.	236.8	208.9	147.6	12.8
28	100.3	183.9	187.1	260.5	340.1	230.5	339.3	n.a.	193.0	193.2	53.5	17.6
29	184.9	259.3	326.9	249.0	363.9	261.6	350.3	n.a.	162.1	203.2	49.7	22.3
30	188.9		320.0	216.7	335.1	301.1	335.9	429.8	152.0	200.9	140.9	33.8
31	98.9		287.5		198.5		309.6	358.8		196.1		48.7
Mean	116.9	137.7	209.1	251.9	267.3	241.3	268.4	347.2	202.7	203.7	99.9	53.9
MEAN	101.5	114.6	168.7	246.3	262.2	259.9	273.7	254.2	177.8	179.8	144.6	83.3
MIN	46.0	44.0	8.0	103.8	105.9	129.6	112.0	54.8	77.8	61.6	48.7	12.8
MAX	188.9	259.3	326.9	366.7	397.8	405.8	380.7	429.8	346.2	270.4	277.6	147.0

TECHNICAL SHEET					
Coordinates:					
Latitude: 35° 43' 41" N Longitude: 76° 17' 10" E Elevation: 3.926 m a.s.l					
Installation Time:					
June 2004					
Data Availability:					
From June 17 th , 2004					

VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
AWS Data Logger				2 m	LSI-Lastem E-Log
Air Temperature	-30 - +70 °C	±0.001°C	60 min.	2 m	LSI-Lastem DMA570
Relative Humidity	0 - 100 %	±1%	60 min.	2 m	LSI-Lastem DMA570
Atmospheric Pressure	500 - 800 hPa (1 hPa=1 mBar)	1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
CNR1 Data Logger					LSI-Lastem E-Log
Solar Radiations CNR1 sensor: (four components combined sensor+internal temperature with PT100)*	Pyranometer: 0 to 25 mV - Pyrgeometer: ±5 mV	±10% on daily totals - non linearity: < 1%	60 min.	2 m	Kipp & Zonen CM3* pyranometer - Kipp & Zonen CG3 pyrgeometer
Snow level	0 to 8 m	0,1 % (FS)	60 min.	2 m	Sommer USH-8

Note: The parameters recorded by the AWS DATA logger (air temperature, relative humidity, atmospheric pressure, rain precipitation and wind observations) are not available for 2012 year.

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	38.4	99.6	116.6	122.3	166.0	188.3	n.a.	n.a.	309.1	82.4	112.8	n.a.
2	23.1	73.7	147.2	146.4	277.3	109.6	n.a.	n.a.	124.3	89.3	54.7	n.a.
3	57.8	63.4	134.0	135.1	232.2	271.9	n.a.	n.a.	93.3	98.1	39.2	n.a.
4	43.4	58.8	54.3	145.4	251.5	311.9	n.a.	n.a.	92.3	57.6	101.7	n.a.
5	53.5	40.1	91.5	148.1	259.8	352.5	n.a.	n.a.	60.1	27.6	61.4	n.a.
6	38.0	48.4	103.8	126.1	126.1	168.6	n.a.	n.a.	87.7	51.6	n.a.	n.a.
7	70.2	62.0	95.2	100.4	249.7	99.7	n.a.	n.a.	65.9	105.6	n.a.	n.a.
8	60.5	74.7	102.2	138.8	101.8	160.6	n.a.	n.a.	54.8	143.3	n.a.	n.a.
9	60.1	132.8	145.1	81.6	180.8	124.0	n.a.	n.a.	79.8	82.1	n.a.	n.a.
10	30.8	87.1	102.6	86.1	160.2	95.1	n.a.	n.a.	68.4	71.4	n.a.	n.a.
Mean	47.6	74.1	109.2	123.0	200.6	188.2	n.a.	n.a.	103.6	80.9	73.9	n.a.
11	74.4	76.1	140.3	219.3	112.4	111.4	n.a.	n.a.	153.1	82.1	n.a.	n.a.
12	41.3	59.3	96.2	109.8	130.6	106.7	n.a.	n.a.	140.5	80.9	n.a.	n.a.
13	63.7	49.7	100.6	138.9	119.5	79.0	n.a.	n.a.	109.3	59.9	n.a.	n.a.
14	55.1	69.5	92.3	136.1	238.5	120.4	n.a.	n.a.	52.6	103.6	n.a.	n.a.
15	38.2	71.5	214.0	138.4	201.2	195.0	n.a.	n.a.	74.6	126.6	n.a.	n.a.
16	59.8	64.0	64.3	308.2	224.4	252.9	n.a.	n.a.	74.8	120.6	n.a.	n.a.
17	45.6	86.7	129.5	328.2	151.1	n.a.	n.a.	n.a.	43.5	38.7	n.a.	n.a.
18	48.5	61.5	80.6	354.4	165.3	n.a.	n.a.	n.a.	28.4	77.4	n.a.	n.a.
19	59.9	77.1	47.2	329.7	177.5	n.a.	n.a.	n.a.	88.5	75.5	n.a.	n.a.
20	75.6	68.6	50.4	166.0	251.8	n.a.	n.a.	n.a.	85.7	41.9	n.a.	n.a.
Mean	56.2	68.4	101.5	222.9	177.2	144.2	n.a.	n.a.	85.1	80.7	n.a.	n.a.
21	77.1	93.4	160.7	134.1	115.4	n.a.	n.a.	n.a.	74.6	52.8	n.a.	n.a.
22	50.0	47.1	171.6	180.3	109.5	n.a.	n.a.	n.a.	89.7	47.3	n.a.	n.a.
23	77.6	42.7	101.3	228.9	176.1	n.a.	n.a.	n.a.	57.4	52.8	n.a.	n.a.
24	50.4	99.9	115.6	195.7	212.6	n.a.	n.a.	n.a.	97.9	63.6	n.a.	n.a.
25	69.3	62.2	94.3	172.1	208.1	n.a.	n.a.	n.a.	86.4	70.2	n.a.	n.a.
26	56.0	90.3	72.1	146.1	111.7	n.a.	n.a.	n.a.	69.2	103.2	n.a.	n.a.
27	65.2	78.8	158.4	155.6	249.1	n.a.	n.a.	n.a.	126.5	101.2	n.a.	n.a.
28	80.1	96.4	128.5	230.2	305.7	n.a.	n.a.	n.a.	89.0	80.4	104.4	n.a.
29	71.6	102.6	299.5	132.5	162.3	n.a.	n.a.	n.a.	133.8	64.3	88.5	n.a.
30	95.3		248.2	117.2	251.1	n.a.	n.a.	n.a.	151.8	88.7	136.8	n.a.
31	81.5		217.3		89.5		n.a.	n.a.	311.7		126.2	
Mean	70.4	79.3	160.7	169.3	181.0	n.a.	n.a.	171.6	83.5	86.1	n.a.	n.a.
MEAN	58.5*	73.7*	125.0*	171.7*	186.1*	171.7*	n.a.	n.a.	90.7*	82.7*	n.a.	n.a.
MIN	23.1	40.1	47.2	81.6	89.5	79.0	n.a.	n.a.	28.4	27.6	n.a.	n.a.
MAX	95.3	132.8	299.5	354.4	305.7	352.5	n.a.	n.a.	309.1	143.3	n.a.	n.a.

* Data could be influenced by snow accumulation over the sensor that leads an underestimation of solar radiation fluxes.

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	15.4	44.7	78.9	40.6	98.5	34.2	n.a.	n.a.	51.6	12.2	30.2	n.a.
2	10.5	39.1	82.8	43.8	67.6	17.9	n.a.	n.a.	21.3	13.5	16.9	n.a.
3	21.4	36.0	80.9	38.6	38.5	49.6	n.a.	n.a.	15.6	15.6	n.a.	n.a.
4	31.1	42.9	39.8	35.5	42.5	58.1	n.a.	n.a.	14.6	11.3	28.9	n.a.
5	31.1	26.3	59.1	35.6	43.6	65.8	n.a.	n.a.	9.4	12.4	19.3	n.a.
6	22.0	25.5	54.5	28.2	19.9	29.8	n.a.	n.a.	13.6	18.6	n.a.	n.a.
7	46.1	27.8	47.5	21.8	41.2	17.5	n.a.	n.a.	10.0	41.6	n.a.	n.a.
8	41.2	29.7	67.5	28.5	19.2	27.7	n.a.	n.a.	8.7	30.1	n.a.	n.a.
9	42.6	38.6	73.6	16.2	33.0	20.7	n.a.	n.a.	12.9	15.7	n.a.	n.a.
10	20.3	33.0	52.9	16.4	27.5	16.8	n.a.	n.a.	10.8	14.8	n.a.	n.a.
Mean	28.2	34.4	63.7	30.5	43.1	33.8	n.a.	n.a.	16.8	18.6	23.8	n.a.
11	44.2	29.0	63.4	78.5	29.7	17.1	n.a.	n.a.	22.6	17.6	n.a.	n.a.
12	27.8	35.1	43.2	72.6	23.9	17.2	n.a.	n.a.	20.1	13.6	n.a.	n.a.
13	38.9	23.6	37.1	89.3	35.5	11.3	n.a.	n.a.	16.9	23.6	n.a.	n.a.
14	34.3	25.0	34.1	78.8	41.1	19.1	n.a.	n.a.	9.0	44.4	n.a.	n.a.
15	33.0	23.0	60.6	68.5	35.2	33.7	n.a.	n.a.	12.1	29.0	n.a.	n.a.
16	40.9	20.4	24.1	107.1	39.5	47.0	n.a.	n.a.	11.7	54.2	n.a.	n.a.
17	33.5	25.0	84.6	80.8	25.8	n.a.	n.a.	n.a.	6.8	45.0	n.a.	n.a.
18	33.7	45.1	59.2	71.1	28.1	n.a.	n.a.	n.a.	5.3	39.7	n.a.	n.a.
19	42.2	62.8	33.0	59.1	31.7	n.a.	n.a.	n.a.	14.1	33.2	n.a.	n.a.
20	46.2	53.0	38.1	27.5	46.2	n.a.	n.a.	n.a.	12.8	25.4	n.a.	n.a.
Mean	37.5	34.2	47.7	73.3	33.7	n.a.	n.a.	n.a.	13.1	32.6	n.a.	n.a.
21	45.1	55.5	100.8	33.8	22.2	n.a.	n.a.	n.a.	13.9	38.6	n.a.	n.a.
22	34.6	20.5	86.9	29.5	28.0	n.a.	n.a.	n.a.	15.8	29.7	n.a.	n.a.
23	47.9	17.0	57.3	37.5	31.5	n.a.	n.a.	n.a.	11.4	32.8	n.a.	n.a.
24	26.5	38.9	63.3	31.4	38.3	n.a.	n.a.	n.a.	15.1	55.5	n.a.	n.a.
25	40.8	26.6	51.8	28.6	37.2	n.a.	n.a.	n.a.	13.4	41.0	n.a.	n.a.
26	33.0	50.0	46.4	28.6	53.7	n.a.	n.a.	n.a.	14.2	49.4	n.a.	n.a.
27	36.2	65.4	84.2	28.6	63.9	n.a.	n.a.	n.a.	18.8	45.8	n.a.	n.a.
28	47.4	82.1	74.1	38.7	52.3	n.a.	n.a.	n.a.	15.1	15.9	36.1	n.a.
29	32.1	80.0	118.6	21.7	28.5	n.a.	n.a.	n.a.	21.2	9.4	27.5	n.a.
30	42.5		88.6	59.7	44.9	n.a.	n.a.	n.a.	22.8	24.0	38.2	n.a.
31	44.6		71.9		15.4		n.a.	n.a.	50.5		33.5	n.a.
Mean	39.2	48.4	76.7	33.8	37.8	n.a.	n.a.	27.4	15.2	38.9	n.a.	n.a.
MEAN	35.1	38.7	63.2	45.9	38.2	30.2	n.a.	n.a.	15.1	30.3	n.a.	n.a.
MIN	10.5	17.0	24.1	16.2	15.4	11.3	n.a.	n.a.	5.3	11.3	n.a.	n.a.
MAX	47.9	82.1	118.6	107.1	98.5	65.8	n.a.	n.a.	51.6	55.5	n.a.	n.a.

INCOMING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	171.1	202.2	199.3	250.4	248.9	285.0	n.a.	n.a.	93.5	378.1	338.8	n.a.
2	163.8	198.7	183.1	234.5	207.5	259.8	n.a.	n.a.	219.3	241.7	222.2	n.a.
3	230.5	248.0	219.4	248.3	221.2	226.7	n.a.	n.a.	199.3	214.5	234.8	n.a.
4	258.8	252.4	272.8	223.2	225.7	218.5	n.a.	n.a.	260.7	220.7	n.a.	n.a.
5	233.5	232.5	240.0	232.7	221.4	220.2	n.a.	n.a.	435.2	144.0	n.a.	n.a.
6	220.7	229.5	222.8	216.1	260.0	271.0	n.a.	n.a.	284.7	405.2	n.a.	n.a.
7	251.7	220.5	210.3	233.5	254.0	271.8	n.a.	n.a.	406.8	216.3	n.a.	n.a.
8	220.3	182.0	240.3	243.5	266.4	285.1	n.a.	n.a.	319.5	302.8	n.a.	n.a.
9	242.0	172.1	216.0	260.3	250.1	274.5	n.a.	n.a.	394.9	188.5	n.a.	n.a.
10	203.2	208.9	215.1	278.0	282.3	275.9	n.a.	n.a.	407.5	379.0	n.a.	n.a.
Mean	219.6	214.7	221.9	242.0	243.7	258.9	n.a.	n.a.	302.2	269.1	265.2	n.a.
11	182.1	220.0	209.4	285.8	271.7	293.8	n.a.	n.a.	325.2	213.6	n.a.	n.a.
12	200.2	248.4	238.7	271.7	271.9	275.4	n.a.	n.a.	327.2	249.1	n.a.	n.a.
13	171.0	235.0	229.5	271.9	259.8	303.1	n.a.	n.a.	239.9	390.2	n.a.	n.a.
14	221.1	226.5	215.9	247.7	227.2	272.5	n.a.	n.a.	376.2	514.6	n.a.	n.a.
15	250.5	204.8	219.7	220.3	259.5	240.2	n.a.	n.a.	429.6	255.1	n.a.	n.a.
16	235.6	217.5	239.9	211.4	257.1	232.3	n.a.	n.a.	360.6	359.5	n.a.	n.a.
17	225.7	197.7	264.2	179.8	252.5	224.7	n.a.	n.a.	520.9	267.5	n.a.	n.a.
18	187.1	259.3	265.3	182.0	264.8	n.a.	n.a.	n.a.	244.6	432.3	n.a.	n.a.
19	211.3	266.3	276.7	191.5	254.0	n.a.	n.a.	n.a.	236.0	279.4	n.a.	n.a.
20	188.9	260.5	269.9	245.7	245.8	n.a.	n.a.	n.a.	164.3	332.1	n.a.	n.a.
Mean	207.3	233.6	242.9	230.8	256.4	263.2	n.a.	n.a.	322.5	329.3	n.a.	n.a.
21	192.7	240.0	215.4	259.8	271.2	n.a.	n.a.	n.a.	248.3	358.1	n.a.	n.a.
22	243.4	247.8	176.9	224.8	286.4	n.a.	n.a.	n.a.	332.6	189.8	n.a.	n.a.
23	202.5	245.0	247.8	237.3	275.3	n.a.	n.a.	n.a.	291.4	192.0	n.a.	n.a.
24	159.3	211.6	249.7	233.5	243.1	n.a.	n.a.	n.a.	137.3	129.1	n.a.	n.a.
25	215.1	227.3	267.8	234.4	278.7	n.a.	n.a.	n.a.	345.5	166.2	n.a.	n.a.
26	217.1	250.0	262.0	262.7	290.0	n.a.	n.a.	n.a.	354.1	672.8	n.a.	n.a.
27	207.0	271.5	239.6	245.5	241.8	n.a.	n.a.	260.2	315.2	160.0	n.a.	n.a.
28	218.5	270.6	248.1	241.7	232.6	n.a.	n.a.	351.4	225.8	228.3	n.a.	n.a.
29	149.7	248.9	182.1	257.8	241.3	n.a.	n.a.	290.7	457.1	395.0	n.a.	n.a.
30	167.9		185.1	295.8	247.7	n.a.	n.a.	253.2	372.0	252.0	n.a.	n.a.
31	215.9		219.3		284.7		n.a.	475.8		184.6		
Mean	199.0	245.9	226.7	249.3	263.0	n.a.	n.a.	326.2	307.9	266.2	n.a.	n.a.
MEAN	208.3	230.9	230.4	240.7	254.7	260.6	n.a.	n.a.	310.8	287.5	n.a.	n.a.
MIN	149.7	172.1	176.9	179.8	207.5	218.5	n.a.	n.a.	93.5	129.1	n.a.	n.a.
MAX	258.8	271.5	276.7	295.8	290.0	303.1	n.a.	n.a.	520.9	672.8	n.a.	n.a.

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	234.5	234.4	245.4	303.5	294.3	332.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	227.3	244.3	241.6	301.7	310.6	326.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	256.3	262.0	256.7	305.3	320.0	337.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	251.8	260.5	274.0	303.9	324.0	354.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
5	249.7	258.3	274.6	302.5	332.5	363.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6	248.2	256.3	267.8	302.0	320.2	351.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
7	248.0	255.5	257.7	300.0	338.1	328.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8	243.6	246.4	253.4	308.4	319.8	337.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9	233.9	238.4	249.8	304.7	325.3	340.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10	209.0	255.6	255.7	309.0	323.9	322.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	240.2	251.2	257.7	304.1	320.9	339.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	224.5	255.3	259.9	294.5	313.5	324.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	217.3	258.8	268.1	287.1	318.7	327.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	221.1	259.7	271.3	280.2	314.0	321.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	243.9	259.1	266.8	281.2	329.7	331.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	256.6	254.2	266.6	284.6	331.7	338.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	255.8	252.2	267.2	295.2	341.2	351.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	234.7	250.1	276.2	302.7	329.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	227.5	257.0	283.1	312.1	331.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	238.1	258.3	289.0	319.0	332.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	234.7	266.0	283.9	322.7	338.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	235.4	257.1	273.2	297.9	328.0	332.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	234.1	267.8	268.9	313.3	320.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	243.5	269.8	261.0	317.1	313.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	239.4	266.0	274.2	324.1	329.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	219.9	259.1	283.6	326.7	342.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	246.7	255.4	287.6	321.4	343.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	248.0	260.7	278.4	316.1	306.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	237.9	265.2	277.0	320.0	328.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	241.9	259.6	283.5	326.0	350.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	219.3	239.9	276.3	318.4	339.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	228.4		285.8	300.2	355.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	248.8		297.6		330.5		n.a.	n.a.		n.a.	n.a.	n.a.
Mean	237.1	260.4	279.5	318.3	332.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	237.6	256.1	270.4	306.8	327.4	336.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MIN	209.0	234.4	241.6	280.2	294.3	321.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MAX	256.6	269.8	297.6	326.7	355.9	363.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

TECHNICAL SHEET

Coordinates:

Latitude: 35° 44' 38.98" N

Longitude: 76° 30' 49.71" E

Elevation: 4.700 m a.s.l

Installation Time:

July 2011

Data Availability:

From January 17th 2012



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				2 m	LSI-Lastem E -Log
Air Temperature	-30 - +70 °C	±0.001°C	60 min.	2 m	LSI-Lastem DMA570
Relative Humidity	0 - 100 %	±1%	60 min.	2 m	LSI-Lastem DMA570
Rain Precipitation	180 mm/hr	0-1 mm/min: 1% 1-3 mm/min: 2% 3-5 mm/min: 4% 5-10 mm/min: 8%	60 min.	1.5 m	LSI-Lastem DQA035
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Data Logger					LSI-Lastem E -Log
Solar Radiations CNR1 sensor: (four components combined sensor+internal temperature with PT100)*	Pyranometer: 0 to 25 mV Pyrgeometer: ±5 mV	±10% on daily totals non linearity: < 1%	60 min.	2 m	Kipp & Zonen CM3* pyranometer Kipp & Zonen CG3 pyrgeometer
Snow level	0 to 8 m	0,1 % (FS)	60 min.		Sommer USH-8

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	-19.6	-16.7	-7.0	-7.6	-2.1	2.4	7.4	4.1	-4.6	-11.1	n.a.
2	n.a.	-18.1	-18.6	-8.0	-7.8	-3.0	3.9	7.0	5.1	-3.7	-9.9	n.a.
3	n.a.	-14.8	-16.9	-7.8	-7.1	-3.0	5.1	6.8	4.1	-4.9	-10.6	n.a.
4	n.a.	-13.6	-11.4	-8.6	-7.0	-2.6	5.2	1.5	3.9	-6.5	-10.4	n.a.
5	n.a.	-13.9	-10.0	-9.4	-5.4	-1.5	4.5	0.8	2.4	-6.3	n.a.	n.a.
6	n.a.	-15.9	-13.3	-8.6	-4.3	-0.6	4.5	0.8	2.7	-6.1	n.a.	n.a.
7	n.a.	-15.4	-16.2	-9.0	-4.3	-2.2	3.5	1.9	1.5	-6.8	n.a.	n.a.
8	n.a.	-17.7	-17.9	-7.6	-4.8	-1.9	2.5	4.1	2.1	-7.2	n.a.	n.a.
9	n.a.	-20.4	-18.2	-7.2	-5.6	-1.0	2.2	3.7	1.9	-7.1	n.a.	n.a.
10	n.a.	-18.0	-17.2	-6.4	-4.5	-3.0	3.9	2.1	1.2	-8.2	n.a.	n.a.
Mean	n.a.	-16.7	-15.6	-7.9	-5.8	-2.1	3.8	3.6	2.9	-6.1	-10.5	n.a.
11	n.a.	-17.7	-16.6	-7.1	-5.2	-3.5	4.7	2.0	4.3	-8.5	n.a.	n.a.
12	n.a.	-16.4	-14.6	-9.4	-4.9	-2.9	3.9	3.1	3.5	-8.8	n.a.	n.a.
13	n.a.	-15.8	-13.6	-10.6	-5.8	-3.1	4.1	4.9	4.0	-8.4	n.a.	n.a.
14	n.a.	-16.1	-14.9	-12.0	-5.9	-2.2	4.3	3.9	1.4	-8.6	n.a.	n.a.
15	n.a.	-17.2	-16.9	-13.7	-5.1	-2.1	1.0	2.4	0.2	-9.0	n.a.	n.a.
16	n.a.	-18.2	-14.3	-11.9	-3.4	-0.7	1.4	3.1	-1.1	-9.2	n.a.	n.a.
17	n.a.	-19.4	-9.9	-12.3	-3.6	-0.3	3.3	5.7	-1.2	-11.8	n.a.	n.a.
18	-19.4	-17.0	-8.8	-9.9	-4.1	1.2	3.0	6.4	-2.5	-11.3	n.a.	n.a.
19	-19.6	-14.1	-7.8	-8.7	-4.0	0.5	0.8	7.0	-3.9	-9.4	n.a.	n.a.
20	-20.7	-11.9	-8.5	-4.9	-4.5	1.8	0.7	6.9	-4.7	-8.8	n.a.	n.a.
Mean	-19.9	-16.4	-12.6	-10.0	-4.6	-1.1	2.7	4.5	0.0	-9.4	n.a.	n.a.
21	-20.8	-12.9	-10.7	-5.8	-4.7	3.2	2.5	6.9	-3.7	-10.6	n.a.	n.a.
22	-17.8	-12.8	-13.5	-7.1	-5.6	3.8	4.6	7.1	-3.7	-13.2	n.a.	n.a.
23	-18.8	-14.1	-12.4	-6.5	-5.5	1.4	5.4	6.7	-5.3	-15.3	n.a.	n.a.
24	-19.7	-15.9	-10.7	-4.8	-4.4	0.1	5.7	4.9	-5.7	-15.4	n.a.	n.a.
25	-17.5	-16.4	-9.5	-6.1	-2.5	-0.8	3.3	4.6	-4.8	-14.6	n.a.	n.a.
26	-17.7	-15.5	-9.9	-6.3	-4.7	-2.0	2.5	3.7	-4.3	-14.9	n.a.	n.a.
27	-20.0	-13.0	-12.5	-6.5	-3.4	-0.4	3.4	4.1	-3.8	-13.8	n.a.	n.a.
28	-20.2	-14.7	-9.9	-6.8	-1.9	-1.6	5.2	3.1	-4.4	-10.9	n.a.	n.a.
29	-22.1	-18.6	-13.5	-6.8	-2.2	0.0	5.9	3.3	-3.8	-11.8	n.a.	n.a.
30	-21.2		-11.8	-8.1	-0.4	1.1	6.2	2.1	-3.5	-12.2	n.a.	n.a.
31	-16.5		-8.6		-1.8		7.4	3.6		-11.5		
Mean	-19.3	-14.9	-11.2	-6.5	-3.4	0.5	4.7	4.5	-4.3	-13.1	n.a.	n.a.
MEAN	-19.4	-16.0	-13.1	-8.1	-4.6	-0.9	3.8	4.2	-0.5	-9.7	n.a.	n.a.
MIN	-22.1	-20.4	-18.6	-13.7	-7.8	-3.5	0.7	0.8	-5.7	-15.4	n.a.	n.a.
MAX	-16.5	-11.9	-7.8	-4.8	-0.4	3.8	7.4	7.4	5.1	-3.7	n.a.	n.a.

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	57.5	59.7	65.5	70.9	76.4	59.5	54.4	42.0	55.6	42.7	n.a.
2	n.a.	55.7	54.4	69.7	55.5	79.1	52.0	59.8	48.1	45.8	46.4	n.a.
3	n.a.	72.8	59.8	69.0	53.5	64.0	45.1	60.8	73.9	51.1	51.6	n.a.
4	n.a.	77.6	80.0	61.8	53.3	51.4	47.5	94.0	69.4	60.5	37.2	n.a.
5	n.a.	47.9	58.6	62.0	47.5	38.6	55.9	90.4	91.1	57.3	n.a.	n.a.
6	n.a.	53.3	65.1	63.9	67.6	55.7	56.1	93.0	82.9	80.6	n.a.	n.a.
7	n.a.	33.8	55.6	67.9	66.3	81.9	59.1	82.0	93.9	65.1	n.a.	n.a.
8	n.a.	52.5	57.4	70.6	84.7	76.6	57.6	65.2	88.6	46.2	n.a.	n.a.
9	n.a.	47.6	49.7	82.3	68.7	77.6	75.9	54.6	91.2	45.8	n.a.	n.a.
10	n.a.	62.6	61.5	80.5	74.0	78.0	59.6	77.9	94.7	54.8	n.a.	n.a.
Mean	n.a.	56.1	60.2	69.3	64.2	67.9	56.8	73.2	77.6	56.3	44.4	n.a.
11	n.a.	66.5	42.5	88.4	68.9	82.3	45.3	89.8	69.3	59.3	n.a.	n.a.
12	n.a.	77.5	59.3	80.8	68.4	78.3	65.7	82.3	64.0	62.0	n.a.	n.a.
13	n.a.	70.6	66.1	74.8	74.9	84.6	56.5	65.7	72.5	80.0	n.a.	n.a.
14	n.a.	53.7	67.5	70.3	52.0	75.0	49.6	74.9	91.1	70.8	n.a.	n.a.
15	n.a.	47.1	49.8	59.7	62.7	67.0	88.7	89.9	90.8	53.1	n.a.	n.a.
16	n.a.	43.3	67.3	56.7	65.2	53.3	85.4	87.5	83.7	78.4	n.a.	n.a.
17	n.a.	54.4	87.1	47.9	61.4	55.6	61.5	69.5	84.1	65.7	n.a.	n.a.
18	55.7	80.7	84.5	40.3	65.2	55.9	59.6	56.6	92.6	66.2	n.a.	n.a.
19	52.5	80.2	84.5	39.5	68.0	80.1	87.2	48.3	65.9	77.7	n.a.	n.a.
20	43.3	80.2	82.2	51.7	60.2	55.8	88.9	48.9	69.7	86.2	n.a.	n.a.
Mean	50.5	65.4	69.1	61.0	64.7	68.8	68.8	71.3	78.4	69.9	n.a.	n.a.
21	37.0	56.8	44.6	74.5	70.7	52.6	77.4	49.4	72.4	79.9	n.a.	n.a.
22	57.3	63.4	38.8	54.9	77.1	58.4	72.7	45.0	65.9	51.6	n.a.	n.a.
23	54.6	67.1	64.5	60.3	72.3	82.4	59.6	48.2	82.6	50.7	n.a.	n.a.
24	29.0	47.0	81.5	63.2	56.5	86.9	65.6	65.8	63.4	43.9	n.a.	n.a.
25	58.0	64.6	81.7	61.4	57.1	94.7	80.3	76.1	56.0	47.3	n.a.	n.a.
26	58.6	69.8	79.0	72.0	86.0	87.0	80.9	83.3	82.8	46.9	n.a.	n.a.
27	63.3	81.4	61.2	72.5	59.4	72.8	78.1	72.1	69.5	47.3	n.a.	n.a.
28	63.9	82.6	80.2	58.9	50.8	81.0	60.7	76.2	73.2	54.8	n.a.	n.a.
29	49.1	57.0	55.0	71.3	58.4	63.5	48.7	75.1	69.5	53.3	n.a.	n.a.
30	35.3		45.6	81.7	48.0	69.7	49.7	79.1	71.9	49.3	n.a.	n.a.
31	38.7		45.1		79.3		51.4	48.3		43.1		
Mean	49.5	65.5	61.6	67.1	65.1	74.9	65.9	65.3	70.7	51.6	n.a.	n.a.
MEAN	49.7	62.3	63.6	65.8	64.7	70.5	63.9	69.8	75.6	59.0	n.a.	n.a.
MIN	29.0	33.8	38.8	39.5	47.5	38.6	45.1	45.0	42.0	43.1	n.a.	n.a.
MAX	63.9	82.6	87.1	88.4	86.0	94.7	88.9	94.0	94.7	86.2	n.a.	n.a.

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	E	W	E	W	W	E	E	E	E	E	n.a.
2	n.a.	E	SE	E	E	E	E	E	W	E	E	n.a.
3	n.a.	E	W	E	E	E	E	E	E	E	E	n.a.
4	n.a.	SW	W	E	E	E	E	W	W	E	E	n.a.
5	n.a.	W	S	E	E	E	E	W	SW	E	E	n.a.
6	n.a.	W	SW	E	W	E	E	E	W	W	n.a.	n.a.
7	n.a.	W	SE	E	E	E	W	E	E	E	n.a.	n.a.
8	n.a.	W	E	SE	E	W	W	W	W	E	n.a.	n.a.
9	n.a.	SE	E	W	E	W	E	E	E	E	n.a.	n.a.
10	n.a.	SE	SW	W	E	E	E	E	E	E	n.a.	n.a.
Mode	n.a.	W	W	E	n.a.							
11	n.a.	SW	SE	W	E	W	E	E	E	E	n.a.	n.a.
12	n.a.	W	SE	W	E	SE	E	E	E	E	n.a.	n.a.
13	n.a.	SW	W	W	W	W	E	E	E	E	n.a.	n.a.
14	n.a.	W	SE	E	E	W	E	E	SE	E	n.a.	n.a.
15	n.a.	SW	E	E	E	E	W	E	SE	E	n.a.	n.a.
16	n.a.	SE	W	E	SE	E	SW	E	W	E	n.a.	n.a.
17	W	W	W	E	E	E	E	E	W	E	n.a.	n.a.
18	W	W	W	E	SE	W	E	E	E	E	n.a.	n.a.
19	SW	W	SE	E	W	W	E	E	E	SE	n.a.	n.a.
20	W	W	SW	E	SE	E	E	E	E	W	n.a.	n.a.
Mode	n.a.	W	SE	E	E	W	E	E	E	E	n.a.	n.a.
21	SE	SW	W	E	E	E	E	E	E	W	n.a.	n.a.
22	W	SW	E	E	SE	W	W	E	E	E	n.a.	n.a.
23	W	SW	W	E	W	W	E	E	E	E	n.a.	n.a.
24	E	W	W	E	SE	W	E	E	E	E	n.a.	n.a.
25	W	W	W	E	E	W	SW	SE	E	E	n.a.	n.a.
26	SE	W	SW	E	E	E	W	E	SE	E	n.a.	n.a.
27	W	W	E	E	N	W	SW	E	E	E	n.a.	n.a.
28	E	W	W	E	E	E	E	E	E	E	n.a.	n.a.
29	SE	E	E	E	E	E	E	W	E	E	n.a.	n.a.
30	E		E	W	E	E	E	E	E	E	n.a.	n.a.
31	W		E		W		E	E	E	E	n.a.	n.a.
Mode	W	W	W	E	n.a.	n.a.						
MODE	n.a.	W	W	E	n.a.	n.a.						

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	1.7	1.8	2.3	2.3	2.8	3.2	3.3	3.5	3.1	3.6	n.a.
2	n.a.	1.8	2.6	3.2	2.7	2.0	3.2	3.2	3.5	3.4	3.4	n.a.
3	n.a.	1.2	2.0	2.8	2.9	3.9	3.1	2.6	2.3	3.6	3.1	n.a.
4	n.a.	2.1	2.4	3.0	3.2	3.4	3.0	2.4	3.5	3.6	3.1	n.a.
5	n.a.	3.5	3.7	2.7	2.6	3.0	2.8	1.4	2.4	3.0	n.a.	n.a.
6	n.a.	3.2	2.6	2.5	2.9	2.3	3.1	2.0	2.4	1.6	n.a.	n.a.
7	n.a.	2.9	1.6	2.2	2.3	2.4	3.4	2.0	1.4	3.0	n.a.	n.a.
8	n.a.	2.2	2.0	1.7	1.4	3.2	3.1	2.8	1.8	3.2	n.a.	n.a.
9	n.a.	2.1	1.9	3.4	1.3	2.3	3.1	3.3	1.4	3.5	n.a.	n.a.
10	n.a.	1.4	1.5	1.4	2.4	3.3	2.6	2.7	1.0	3.4	n.a.	n.a.
Mean	n.a.	2.2	2.2	2.5	2.4	2.9	3.1	2.6	2.3	3.1	3.3	n.a.
11	n.a.	1.2	1.8	2.0	2.8	2.7	2.7	2.2	2.7	3.3	n.a.	n.a.
12	n.a.	1.9	3.9	1.8	2.9	2.5	3.5	2.5	3.5	3.7	n.a.	n.a.
13	n.a.	2.5	1.9	2.4	2.5	2.3	3.1	2.4	2.3	2.3	n.a.	n.a.
14	n.a.	3.6	2.3	2.4	2.9	3.1	3.5	2.6	1.8	2.5	n.a.	n.a.
15	n.a.	3.2	2.4	3.3	3.2	3.3	1.9	2.4	1.2	3.2	n.a.	n.a.
16	n.a.	3.8	1.9	2.9	2.2	3.3	2.6	2.6	1.4	2.5	n.a.	n.a.
17	n.a.	2.6	1.9	3.3	2.6	3.0	2.7	3.0	3.1	3.1	n.a.	n.a.
18	1.4	1.3	1.8	3.1	2.4	2.9	3.2	3.3	2.8	2.3	n.a.	n.a.
19	1.9	1.1	3.8	3.2	2.5	2.9	2.9	3.4	2.6	1.4	n.a.	n.a.
20	2.4	2.1	4.5	2.4	2.8	3.0	2.9	3.2	2.8	1.3	n.a.	n.a.
Mean	1.9	2.3	2.6	2.7	2.7	2.9	2.9	2.8	2.4	2.6	n.a.	n.a.
21	2.0	4.6	3.1	3.0	2.8	3.3	2.3	3.4	2.3	2.2	n.a.	n.a.
22	2.6	3.6	2.2	3.2	2.0	2.6	2.8	3.5	2.0	3.3	n.a.	n.a.
23	2.4	4.5	2.6	2.6	2.1	3.0	3.3	3.5	1.9	3.3	n.a.	n.a.
24	2.6	4.2	1.6	2.4	2.2	2.2	3.9	4.3	2.8	3.6	n.a.	n.a.
25	2.7	2.3	1.3	2.8	2.6	2.2	2.4	3.2	3.0	3.3	n.a.	n.a.
26	3.1	2.6	2.9	2.7	2.8	1.6	1.9	2.8	1.9	3.5	n.a.	n.a.
27	2.1	2.0	2.0	2.6	1.2	2.9	3.2	2.8	2.7	3.6	n.a.	n.a.
28	1.5	2.6	2.1	3.2	2.3	2.7	2.6	2.6	2.8	3.1	n.a.	n.a.
29	2.4	2.4	3.2	2.9	3.1	3.2	3.1	2.9	2.9	3.4	n.a.	n.a.
30	2.2		3.0	3.0	2.5	3.1	3.3	2.0	2.4	3.7	n.a.	n.a.
31	1.9		3.0		3.2		3.3	3.7		3.7		n.a.
Mean	2.3	3.2	2.5	2.8	2.4	2.7	2.9	3.2	2.5	3.3	n.a.	n.a.
MEAN	2.2	2.5	2.4	2.7	2.5	2.8	3.0	2.8	2.4	3.0	n.a.	n.a.
MIN	1.4	1.1	1.3	1.4	1.2	1.6	1.9	1.4	1.0	1.3	n.a.	n.a.
MAX	3.1	4.6	4.5	3.4	3.2	3.9	3.9	4.3	3.5	3.7	n.a.	n.a.

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	200.2	217.4	207.5	317.5	320.3	304.4	305.8	329.9	215.0	217.4	n.a.
2	n.a.	159.1	240.8	241.7	362.5	282.6	347.7	237.5	256.2	250.7	212.0	n.a.
3	n.a.	109.4	212.8	247.7	356.6	354.6	362.8	301.9	229.5	234.4	189.6	n.a.
4	n.a.	73.4	88.1	327.6	330.0	366.8	326.3	47.6	233.7	162.6	188.7	n.a.
5	n.a.	71.9	124.5	276.3	386.3	378.9	272.5	271.3	81.0	233.2	n.a.	n.a.
6	n.a.	75.5	144.5	326.6	259.8	220.7	341.3	175.9	189.9	148.1	n.a.	n.a.
7	n.a.	80.1	168.3	238.3	327.1	198.0	225.0	171.3	82.1	255.7	n.a.	n.a.
8	n.a.	164.6	188.6	261.7	199.7	276.6	294.7	337.4	99.3	266.7	n.a.	n.a.
9	n.a.	222.3	264.2	199.3	293.3	345.5	226.5	281.3	117.6	272.7	n.a.	n.a.
10	n.a.	126.9	139.3	162.8	260.6	290.0	406.3	153.1	207.8	175.8	n.a.	n.a.
Mean	n.a.	128.4	178.9	249.0	309.4	303.4	310.7	228.3	182.7	221.5	201.9	n.a.
11	n.a.	86.5	243.3	193.2	207.3	194.0	328.6	139.7	308.2	188.9	n.a.	n.a.
12	n.a.	84.4	124.6	209.9	244.7	280.3	232.8	199.1	274.6	191.6	n.a.	n.a.
13	n.a.	86.6	227.6	276.8	273.1	169.4	330.3	217.4	212.2	90.7	n.a.	n.a.
14	n.a.	109.1	154.9	253.1	346.0	275.9	310.2	131.0	55.8	183.5	n.a.	n.a.
15	n.a.	146.7	309.3	252.5	354.7	312.7	185.1	88.5	184.5	225.5	n.a.	n.a.
16	n.a.	95.4	125.4	353.1	382.4	361.6	238.4	173.4	146.7	92.0	n.a.	n.a.
17	n.a.	190.6	172.1	381.4	272.2	365.6	361.1	347.7	108.3	167.8	n.a.	n.a.
18	156.6	106.1	112.7	386.6	300.8	312.1	318.0	353.2	206.4	161.9	n.a.	n.a.
19	96.0	120.6	72.9	382.5	339.7	298.2	165.8	353.3	272.5	118.9	n.a.	n.a.
20	87.3	89.2	82.4	311.3	337.9	388.3	247.4	352.5	199.7	123.1	n.a.	n.a.
Mean	113.3	111.5	162.5	300.1	305.9	295.8	271.8	235.6	196.9	154.4	n.a.	n.a.
21	119.2	131.0	220.7	168.7	229.2	357.6	204.2	352.9	202.1	129.4	n.a.	n.a.
22	76.3	69.3	312.6	360.9	230.2	337.8	272.5	345.2	164.7	215.4	n.a.	n.a.
23	100.4	67.5	184.3	318.9	352.9	264.5	320.4	338.4	199.0	218.3	n.a.	n.a.
24	186.2	147.7	163.5	335.9	393.5	203.4	230.7	236.3	256.0	238.9	n.a.	n.a.
25	96.3	102.3	168.5	332.1	270.0	139.7	125.8	242.9	219.0	233.1	n.a.	n.a.
26	76.3	210.2	147.9	261.5	166.7	215.6	137.5	262.5	141.8	226.5	n.a.	n.a.
27	114.4	131.6	228.1	313.4	364.8	334.5	309.5	261.2	268.4	229.6	n.a.	n.a.
28	135.0	130.5	197.1	333.4	384.2	202.7	367.2	181.0	226.0	209.7	n.a.	n.a.
29	202.3	217.1	339.4	275.2	321.4	298.4	380.0	250.0	221.6	219.0	n.a.	n.a.
30	205.8		333.5	235.5	363.0	249.1	343.6	398.4	201.0	220.0	n.a.	n.a.
31	186.0		308.7		203.9		302.7	338.2		218.3	n.a.	n.a.
Mean	136.2	134.1	236.7	293.5	298.2	260.3	272.2	291.5	210.0	214.4	n.a.	n.a.
MEAN	131.3	124.4	194.1	280.9	304.3	286.5	284.5	253.1	196.5	197.3	n.a.	n.a.
MIN	76.3	67.5	72.9	162.8	166.7	139.7	125.8	47.6	55.8	90.7	n.a.	n.a.
MAX	205.8	222.3	339.4	386.6	393.5	388.3	406.3	398.4	329.9	272.7	n.a.	n.a.

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	162.8	179.9	166.8	254.6	216.1	47.6	46.9	50.5	133.3	151.1	n.a.
2	n.a.	120.4	192.1	186.7	259.2	132.3	55.3	34.8	39.7	148.0	147.1	n.a.
3	n.a.	82.2	169.8	196.9	236.9	132.5	55.6	43.8	30.5	133.7	139.4	n.a.
4	n.a.	66.7	75.8	237.6	212.3	120.6	50.3	4.7	25.6	94.5	134.8	n.a.
5	n.a.	57.3	105.1	204.9	235.8	105.3	44.0	78.8	7.3	134.8	n.a.	n.a.
6	n.a.	59.2	122.2	244.1	175.0	67.9	55.4	59.4	20.9	107.6	n.a.	n.a.
7	n.a.	56.3	139.0	184.6	197.4	52.8	40.8	23.5	7.4	182.0	n.a.	n.a.
8	n.a.	119.5	150.5	198.8	169.4	66.9	47.0	49.2	10.8	168.0	n.a.	n.a.
9	n.a.	155.8	203.3	161.9	229.2	134.0	38.9	43.4	12.0	165.8	n.a.	n.a.
10	n.a.	88.3	117.3	141.6	191.9	64.5	61.1	21.7	83.3	110.7	n.a.	n.a.
Mean	n.a.	96.9	145.5	192.4	216.2	109.3	49.6	40.6	28.8	137.8	143.1	n.a.
11	n.a.	68.5	189.6	167.4	164.0	41.6	44.5	18.7	35.1	119.5	n.a.	n.a.
12	n.a.	74.1	90.3	186.0	195.9	60.7	33.3	28.4	32.2	117.6	n.a.	n.a.
13	n.a.	78.2	173.3	234.3	209.6	33.0	48.3	31.4	24.4	70.3	n.a.	n.a.
14	n.a.	91.1	127.8	209.5	237.2	73.0	46.3	19.4	5.1	140.8	n.a.	n.a.
15	n.a.	116.3	225.2	210.4	227.0	56.4	53.8	10.3	28.1	151.1	n.a.	n.a.
16	n.a.	73.8	98.9	273.1	257.1	69.9	53.8	25.0	18.9	81.0	n.a.	n.a.
17	n.a.	148.8	146.6	275.1	171.0	61.1	49.7	49.7	13.3	134.1	n.a.	n.a.
18	130.3	91.9	100.3	272.0	195.1	54.0	44.3	51.9	105.0	129.8	n.a.	n.a.
19	75.6	106.7	67.7	267.5	218.9	48.7	21.9	52.3	194.6	103.5	n.a.	n.a.
20	67.8	81.6	76.1	223.0	203.3	60.8	36.2	51.9	133.5	112.0	n.a.	n.a.
Mean	91.2	93.1	129.6	231.8	207.9	55.9	43.2	33.9	59.0	116.0	n.a.	n.a.
21	88.2	102.7	180.0	141.8	149.3	59.4	29.5	52.1	147.5	117.3	n.a.	n.a.
22	56.3	54.8	234.3	264.8	182.4	59.8	37.5	51.8	113.2	173.5	n.a.	n.a.
23	70.7	54.6	149.9	220.3	238.8	38.6	44.8	51.3	155.5	166.2	n.a.	n.a.
24	133.1	105.0	147.1	235.6	240.9	31.9	33.2	35.6	169.9	176.9	n.a.	n.a.
25	67.1	75.0	151.1	229.1	148.1	17.2	17.3	34.6	142.1	170.9	n.a.	n.a.
26	54.1	170.0	134.8	188.2	144.8	93.4	18.0	37.4	111.1	165.2	n.a.	n.a.
27	82.0	112.1	192.4	223.9	238.4	58.0	42.8	37.9	178.8	166.2	n.a.	n.a.
28	98.7	115.9	178.9	226.1	199.9	33.4	50.9	25.9	148.6	153.3	n.a.	n.a.
29	156.8	181.2	264.5	192.3	143.2	48.6	54.3	36.1	136.0	156.2	n.a.	n.a.
30	151.4		252.0	189.2	136.4	39.6	49.8	108.9	133.3	155.2	n.a.	n.a.
31	126.0		235.7		84.0		47.4	51.6		152.7		
Mean	98.6	107.9	192.8	211.1	173.3	48.0	38.7	47.6	143.6	159.4	n.a.	n.a.
MEAN	97.0	99.0	157.1	211.8	198.3	71.1	43.7	40.9	77.1	138.4	n.a.	n.a.
MIN	54.1	54.6	67.7	141.6	84.0	17.2	17.3	4.7	5.1	70.3	n.a.	n.a.
MAX	156.8	181.2	264.5	275.1	259.2	216.1	61.1	108.9	194.6	182.0	n.a.	n.a.

INCOMING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	251.5	294.9	252.1	254.3	286.3	248.9	275.6	233.9	212.8	251.3	n.a.
2	n.a.	224.4	308.1	257.5	219.1	267.0	248.1	295.8	266.3	223.6	266.2	n.a.
3	n.a.	267.3	356.7	244.5	212.6	237.7	243.7	300.3	293.6	216.0	294.1	n.a.
4	n.a.	276.2	357.9	219.3	209.8	223.8	265.1	318.4	280.8	218.5	269.3	n.a.
5	n.a.	250.5	320.4	219.7	215.8	208.2	267.5	314.5	323.3	222.4	n.a.	n.a.
6	n.a.	248.4	312.1	236.7	258.0	266.8	265.5	313.9	306.1	272.2	n.a.	n.a.
7	n.a.	237.1	304.1	245.2	250.8	275.0	265.6	306.9	318.1	243.1	n.a.	n.a.
8	n.a.	220.7	314.1	252.7	293.7	279.0	252.0	279.3	311.3	196.7	n.a.	n.a.
9	n.a.	296.5	332.1	268.7	274.7	281.9	296.7	266.3	311.6	195.0	n.a.	n.a.
10	n.a.	302.3	253.9	272.9	248.8	254.6	269.5	296.1	320.9	201.7	n.a.	n.a.
Mean	n.a.	257.5	315.4	246.9	243.8	258.0	262.3	296.7	296.6	220.2	270.2	n.a.
11	n.a.	295.4	229.6	285.4	251.2	273.4	255.1	312.4	275.1	212.7	n.a.	n.a.
12	n.a.	301.3	270.4	270.7	261.2	268.9	286.3	297.5	265.5	207.9	n.a.	n.a.
13	n.a.	282.2	268.8	253.8	251.4	280.6	272.9	293.2	295.3	263.5	n.a.	n.a.
14	n.a.	266.0	258.4	241.3	218.8	254.5	271.4	305.7	314.1	239.7	n.a.	n.a.
15	n.a.	257.0	211.3	222.2	229.6	238.6	306.7	312.3	312.1	200.5	n.a.	n.a.
16	n.a.	264.1	268.6	240.7	251.6	224.3	292.7	313.9	284.6	256.7	n.a.	n.a.
17	n.a.	360.0	295.4	211.7	254.8	231.5	257.9	268.6	278.4	220.2	n.a.	n.a.
18	440.3	381.8	303.8	219.8	253.7	250.8	260.0	258.7	287.2	236.8	n.a.	n.a.
19	134.8	348.1	300.4	224.7	259.9	274.7	294.8	254.9	236.7	271.0	n.a.	n.a.
20	627.2	333.8	291.9	274.7	232.4	236.8	291.2	257.5	255.5	283.4	n.a.	n.a.
Mean	400.8	309.0	269.8	244.5	246.4	253.4	278.9	287.5	280.5	239.2	n.a.	n.a.
21	346.0	294.9	248.6	306.3	256.0	251.2	301.1	261.9	268.3	273.5	n.a.	n.a.
22	231.5	290.5	191.5	266.1	276.0	271.8	297.8	256.1	264.4	210.6	n.a.	n.a.
23	n.a.	282.9	253.8	275.5	264.9	287.2	272.5	257.6	264.8	213.4	n.a.	n.a.
24	355.9	265.3	283.8	261.7	234.3	292.1	300.3	278.0	225.9	245.4	n.a.	n.a.
25	518.9	276.3	289.6	241.1	264.6	294.2	311.5	301.9	219.3	304.0	n.a.	n.a.
26	465.2	263.0	277.0	259.7	284.8	267.8	299.3	303.5	270.7	304.9	n.a.	n.a.
27	471.0	274.9	250.5	258.3	237.3	249.0	304.6	289.5	252.3	573.1	n.a.	n.a.
28	490.2	255.3	289.7	224.5	221.4	264.7	286.8	287.9	243.7	444.1	n.a.	n.a.
29	366.8	306.2	203.7	251.9	232.2	252.9	258.0	290.1	254.7	401.9	n.a.	n.a.
30	232.3		191.9	269.9	230.0	265.6	263.3	281.0	268.6	310.3	n.a.	n.a.
31	278.7		222.9		275.6		277.5	238.0		338.9		
Mean	375.7	278.8	245.7	261.5	252.5	269.7	288.4	276.8	253.3	329.1	n.a.	n.a.
MEAN	381.5	281.9	276.0	251.0	247.7	260.4	276.9	286.7	276.8	265.0	n.a.	n.a.
MIN	134.8	220.7	191.5	211.7	209.8	208.2	243.7	238.0	219.3	195.0	n.a.	n.a.
MAX	627.2	381.8	357.9	306.3	293.7	294.2	311.5	318.4	323.3	573.1	n.a.	n.a.

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	283.7	319.0	288.5	289.5	311.1	345.0	363.9	347.2	284.0	324.9	n.a.
2	n.a.	265.5	359.3	285.6	284.1	313.7	354.4	355.7	346.7	289.2	330.5	n.a.
3	n.a.	281.7	394.1	280.7	285.8	318.4	359.1	364.3	342.1	285.8	355.7	n.a.
4	n.a.	278.2	364.2	280.7	285.6	321.6	356.4	322.2	341.0	278.7	335.1	n.a.
5	n.a.	268.6	334.3	276.3	294.1	326.6	350.4	319.0	325.8	283.5	n.a.	n.a.
6	n.a.	264.8	327.2	285.1	300.3	327.7	357.9	321.1	336.8	286.1	n.a.	n.a.
7	n.a.	263.3	332.8	281.5	301.8	317.9	344.8	330.6	323.6	280.8	n.a.	n.a.
8	n.a.	269.8	357.3	287.8	295.4	324.6	342.1	349.0	327.0	274.1	n.a.	n.a.
9	n.a.	366.4	389.7	288.1	290.3	324.8	337.1	345.2	328.8	275.5	n.a.	n.a.
10	n.a.	327.8	275.5	287.2	293.9	320.3	359.1	329.9	318.3	268.9	n.a.	n.a.
Mean	n.a.	287.0	345.3	284.1	292.1	320.7	350.6	340.1	333.7	280.7	336.5	n.a.
11	n.a.	303.7	278.5	287.7	287.9	313.9	355.5	329.6	349.5	271.8	n.a.	n.a.
12	n.a.	298.4	285.6	276.6	292.1	324.2	343.6	336.2	343.2	271.6	n.a.	n.a.
13	n.a.	285.1	289.0	271.8	292.5	314.3	356.0	345.4	342.0	276.6	n.a.	n.a.
14	n.a.	282.4	271.6	263.9	287.4	324.0	353.8	336.9	319.4	272.2	n.a.	n.a.
15	n.a.	284.9	282.1	269.5	294.0	324.9	325.1	325.9	321.3	266.7	n.a.	n.a.
16	n.a.	286.8	288.0	296.9	301.9	338.1	331.8	337.5	314.9	272.4	n.a.	n.a.
17	n.a.	399.3	300.2	290.7	296.9	338.7	352.7	357.7	311.0	260.6	n.a.	n.a.
18	466.8	378.5	301.3	306.6	299.6	343.8	347.0	360.4	297.6	265.5	n.a.	n.a.
19	151.7	343.6	301.0	309.6	302.3	341.2	326.2	360.9	290.8	276.2	n.a.	n.a.
20	651.2	329.4	296.5	328.6	298.9	349.5	330.8	363.7	289.9	281.9	n.a.	n.a.
Mean	423.2	319.2	289.4	290.2	295.3	331.3	342.3	345.4	318.0	271.6	n.a.	n.a.
21	373.5	310.6	283.4	332.3	296.4	354.5	341.1	365.6	295.7	267.5	n.a.	n.a.
22	243.8	300.9	265.0	338.9	293.4	354.0	351.0	363.2	292.2	254.2	n.a.	n.a.
23	n.a.	293.4	273.1	339.7	297.7	340.5	355.2	359.1	288.1	278.1	n.a.	n.a.
24	431.7	295.4	281.2	323.2	297.9	327.8	349.8	343.3	282.7	316.2	n.a.	n.a.
25	549.5	296.3	284.7	305.9	305.1	319.7	334.6	348.8	282.8	373.8	n.a.	n.a.
26	484.4	287.3	279.5	301.6	295.9	310.4	328.7	346.0	292.3	368.0	n.a.	n.a.
27	499.5	278.4	269.3	299.1	301.2	338.5	349.1	345.6	296.7	639.6	n.a.	n.a.
28	508.4	271.4	284.4	293.8	307.8	319.6	360.2	335.6	291.4	498.5	n.a.	n.a.
29	413.3	347.2	260.9	296.1	308.1	334.7	362.8	344.4	294.8	471.4	n.a.	n.a.
30	292.7		265.6	287.2	320.8	335.2	360.7	329.9	294.2	382.3	n.a.	n.a.
31	326.7		281.3		313.0		365.1	345.6		413.3		
Mean	412.3	297.9	275.3	311.8	303.4	333.5	350.8	347.9	291.1	387.5	n.a.	n.a.
MEAN	414.9	301.5	302.4	295.4	297.1	328.5	348.0	344.6	314.3	315.7	n.a.	n.a.
MIN	151.7	263.3	260.9	263.9	284.1	310.4	325.1	319.0	282.7	254.2	n.a.	n.a.
MAX	651.2	399.3	394.1	339.7	320.8	354.5	365.1	365.6	349.5	639.6	n.a.	n.a.

3.1.3 ITALY

AWS Bianco - Osram

TECHNICAL SHEET

Coordinates:

Latitude: 45° 50' 50" N

Longitude: 06° 55' 58" E

Elevation: 3.430 m a.s.l

Installation Time:

December 2007

Data Availability:

From December 17th, 2007



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				1.5 m	LSI-Lastem E-Log (5)
Air Temperature	-30 - +70 °C	±0.001°C	60 min.	3 m	LSI-Lastem DMA572 (1)
Relative Humidity	0 - 100 %	±1%	60 min.	3 m	LSI-Lastem DMA572 (1)
Air Pressure	400 - 800 hPa or mBar	±10hPa	60 min.	1.5 m (inside the logger box)	LSI-Lastem DQA223 (5)
Solar Radiations	0.3 - 3 µm	±5% of the value	60 min.	3.5 m	Kipp and Zonen CNR-1 (4)
Infrared Radiation	5 - 50 µm	±5% of the value	60 min.	3.5 m	Kipp and Zonen CNR-1 (4)
Snow level	0 to 100 m	±2 cm	60 min.	3.5 m	LSI-Lastem (2)

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-8.1	-18.8	-0.9	-6.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-11.1	n.a.
2	-10.8	-20.3	-2.9	-7.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-9.9	n.a.
3	-12.3	-21.6	-7.8	-8.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-10.6	n.a.
4	-13.7	-21.8	-9.5	-7.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-10.4	n.a.
5	-13.2	-19.6	-17.5	-5.9	n.a.	n.a.						
6	-19.8	-21.4	-15.4	-8.3	n.a.	n.a.						
7	-14.4	-18.0	-11.8	-8.7	n.a.	n.a.						
8	-14.2	-16.0	-16.0	-14.2	n.a.	n.a.						
9	-12.1	-15.1	-14.0	-10.3	n.a.	n.a.						
10	-7.1	-23.9	-5.1	-7.4	n.a.	n.a.						
Mean	-12.6	-19.7	-10.1	-8.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-10.5	n.a.
11	-6.1	-20.9	-3.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	-7.7	-21.2	-2.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	-10.1	-18.9	-2.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	-9.6	-21.0	-3.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	-9.1	-19.0	-3.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	-11.1	-12.9	-4.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	-10.8	-9.2	-9.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	-11.9	-8.9	-10.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	-9.8	-14.6	-15.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	-14.3	-18.4	-13.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	-9.6	-17.3	-6.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	-12.2	-12.3	-8.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	-11.2	-8.2	-9.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	-12.7	-6.2	-9.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	-16.3	-2.3	-8.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	-11.5	-5.8	-8.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	-10.6	-11.2	-7.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	-12.5	-9.9	-6.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	-15.3	-6.2	-5.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	-17.9	-0.5	-7.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	-15.7		-5.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	-21.3		-6.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	-14.3	-7.0	-7.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	-12.4	-14.6	-8.1	-8.6	n.a.	n.a.						
MIN	-21.3	-23.9	-17.5	-14.2	n.a.	n.a.						
MAX	-6.1	-0.5	-0.9	-5.9	n.a.	n.a.						

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	86.0	93.0	36.0	31.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	42.7	n.a.
2	83.0	87.0	38.0	47.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	46.4	n.a.
3	58.0	86.0	74.0	88.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	51.6	n.a.
4	68.0	59.0	100.0	84.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	37.2	n.a.
5	87.0	40.0	92.0	73.0	n.a.	n.a.						
6	83.0	44.0	91.0	63.0	n.a.	n.a.						
7	57.0	75.0	42.0	79.0	n.a.	n.a.						
8	87.0	79.0	95.0	78.0	n.a.	n.a.						
9	74.0	38.0	57.0	46.0	n.a.	n.a.						
10	34.0	83.0	27.0	69.0	n.a.	n.a.						
Mean	71.7	68.4	65.2	65.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	44.4	n.a.
11	45.0	99.0	49.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	22.0	97.0	37.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	36.0	77.0	33.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	25.0	98.0	23.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	38.0	100.0	25.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	41.0	86.0	41.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	44.0	58.0	75.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	51.0	22.0	88.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	76.0	89.0	81.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	97.0	62.0	55.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	44.0	79.8	50.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	98.0	53.0	69.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	65.0	19.0	44.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	51.0	40.0	49.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	83.0	35.0	60.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	100.0	91.0	69.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	100.0	50.0	50.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	92.0	24.0	40.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	89.0	59.0	57.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	83.0	62.0	60.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	84.0		49.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	87.0		22.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	84.7	48.1	54.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	68.5	65.7	55.7	65.8	n.a.	n.a.						
MIN	22.5	19.0	22.0	31.0	n.a.	n.a.						
MAX	100.0	100.0	100.0	88.0	n.a.	n.a.						

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	668.1	651.0	673.9	660.8	n.a.							
2	663.1	650.0	674.2	660.7	n.a.							
3	666.9	650.0	669.9	658.4	n.a.							
4	664.5	651.0	665.4	658.0	n.a.							
5	656.2	653.9	658.7	659.3	n.a.							
6	655.2	653.4	659.7	659.1	n.a.							
7	664.0	652.5	665.3	654.9	n.a.							
8	664.0	661.0	662.1	653.9	n.a.							
9	667.3	661.4	668.2	657.6	n.a.							
10	672.8	651.5	672.7	657.3	n.a.							
Mean	664.2	653.6	667.0	658.0	n.a.							
11	675.7	650.5	671.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	673.1	652.3	673.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	666.5	654.6	674.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	663.0	652.7	674.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	661.2	654.8	675.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	661.3	660.5	674.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	667.1	665.8	668.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	671.2	663.6	663.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	671.4	659.9	664.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	661.9	661.4	670.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	668.0	656.3	671.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	662.8	667.0	674.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	662.6	669.8	673.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	662.0	671.6	671.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	660.0	675.2	670.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	661.4	670.9	670.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	662.1	663.6	673.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	662.9	665.7	674.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	660.4	668.5	673.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	657.7	672.7	669.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	658.7		666.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	652.2		663.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	660.3	669.4	671.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	663.8	659.9	669.8	658.0	n.a.							
MIN	652.2	650.0	658.7	653.9	n.a.							
MAX	675.7	675.2	675.7	660.8	n.a.							

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	668.1	651.0	673.9	660.8	n.a.							
2	663.1	650.0	674.2	660.7	n.a.							
3	666.9	650.0	669.9	658.4	n.a.							
4	664.5	651.0	665.4	658.0	n.a.							
5	656.2	653.9	658.7	659.3	n.a.							
6	655.2	653.4	659.7	659.1	n.a.							
7	664.0	652.5	665.3	654.9	n.a.							
8	664.0	661.0	662.1	653.9	n.a.							
9	667.3	661.4	668.2	657.6	n.a.							
10	672.8	651.5	672.7	657.3	n.a.							
Mean	664.2	653.6	667.0	658.0	n.a.							
11	675.7	650.5	671.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	673.1	652.3	673.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	666.5	654.6	674.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	663.0	652.7	674.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	661.2	654.8	675.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	661.3	660.5	674.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	667.1	665.8	668.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	671.2	663.6	663.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	671.4	659.9	664.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	661.9	661.4	670.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	668.0	656.3	671.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	662.8	667.0	674.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	662.6	669.8	673.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	662.0	671.6	671.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	660.0	675.2	670.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	661.4	670.9	670.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	662.1	663.6	673.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	662.9	665.7	674.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	660.4	668.5	673.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	657.7	672.7	669.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	658.7		666.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	652.2		663.5		n.a.		n.a.	n.a.		n.a.		n.a.
Mean	660.3	669.4	671.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	94.3	181.5	243.1	251.1	n.a.							
MIN	12.5	75.6	46.8	107.8	n.a.							
MAX	155.8	241.3	320.0	368.7	n.a.							

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	57.8	86.4	211.9	286.9	n.a.							
2	27.7	95.0	215.6	269.5	n.a.							
3	86.7	182.7	199.7	115.2	n.a.							
4	47.8	98.3	156.1	98.5	n.a.							
5	13.8	142.2	120.6	170.8	n.a.							
6	33.6	108.7	200.7	201.1	n.a.							
7	53.2	105.9	214.6	211.1	n.a.							
8	16.5	63.1	152.2	177.0	n.a.							
9	105.7	137.0	218.7	217.0	n.a.							
10	118.3	175.4	208.4	277.8	n.a.							
Mean	56.1	119.5	189.8	202.5	n.a.							
11	131.8	182.7	216.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	134.7	166.4	193.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	137.2	127.3	215.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	139.2	188.9	216.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	136.2	67.5	215.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	144.0	189.9	216.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	139.0	195.2	78.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	140.3	167.6	36.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	66.1	92.9	142.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	12.0	166.8	139.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	122.1	152.1	170.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	69.0	200.5	169.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	44.5	202.5	209.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	96.8	60.3	215.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	31.0	200.8	246.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	44.7	92.4	190.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	110.6	217.3	302.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	76.0	210.3	250.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	52.4	204.4	242.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	62.8	208.3	298.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	50.4		291.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	60.8		299.9		n.a.							
Mean	63.6	177.4	241.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	78.7	149.5	202.8	202.5	n.a.							
MIN	12.0	60.3	36.5	98.5	n.a.							
MAX	144.0	217.3	302.7	286.9	n.a.							

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	279.7	237.5	311.7	286.2	n.a.							
2	268.7	231.8	302.7	282.5	n.a.							
3	263.0	227.3	281.3	277.0	n.a.							
4	257.3	226.3	274.0	280.5	n.a.							
5	259.0	234.4	242.6	289.6	n.a.							
6	233.8	227.9	250.5	279.2	n.a.							
7	254.3	240.4	264.5	277.3	n.a.							
8	254.9	247.9	247.8	254.8	n.a.							
9	263.4	251.8	255.9	270.8	n.a.							
10	284.3	219.1	292.6	282.9	n.a.							
Mean	261.8	234.4	272.4	278.1	n.a.							
11	288.4	229.7	298.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12	281.6	228.6	305.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	271.4	236.8	305.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
14	273.4	229.1	300.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
15	275.5	236.6	298.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
16	267.5	260.4	294.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
17	268.8	275.3	273.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
18	264.2	276.4	268.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
19	272.9	253.4	249.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
20	254.8	239.0	258.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mean	273.6	243.6	288.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
21	262.9	262.7	276.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
22	266.9	279.4	273.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	260.9	287.8	275.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
24	247.0	305.3	280.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
25	265.9	289.7	276.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
26	269.3	267.2	284.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
27	262.0	272.4	285.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
28	250.8	288.2	293.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
29	240.8	313.3	283.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	249.3		292.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
31	228.1		287.9		n.a.							
Mean	254.9	285.1	282.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MEAN	262.6	254.3	280.2	278.1	n.a.							
MIN	228.1	219.1	242.6	254.8	n.a.							
MAX	288.4	313.3	311.7	289.6	n.a.							

AWS Dosdè-Levissima

TECHNICAL SHEET

Coordinates:

Latitude: 46° 23' 33.944" N

Longitude: 10° 13' 3.359" E

Elevation: 2.850 m a.s.l

Installation Time:

August 2007

Data Availability:

From August 20th, 2007



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				1.5 m	LSI-Lastem E-Log (4)
Air Temperature	-30 - +70 °C	±0.1°C	60 min.	3 m	LSI-Lastem DMA572 (2)
Air Pressure	400 - 800 hPa or mBar	±10hPa	60 min.	1.5 m (inside the logger box)	LSI-Lastem DQA240#S (4)
Solar Radiations	0.3 - 3 µm	±5% of the value	60 min.	3.5 m	Kipp and Zonen CNR-1 (2)
Infrared Radiation	5 - 50 µm	±5% of the value	60 min.	3.5 m	Kipp and Zonen CNR-1 (2)

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-3.2	-14.9	-0.7	-5.4	n.a.	n.a.	n.a.	6.9	n.a.	2.0	-3.0	-10.0
2	-5.4	-17.1	-0.5	-4.1	n.a.	n.a.	n.a.	7.3	n.a.	1.9	-4.9	-15.0
3	-8.6	-22.2	-2.1	-5.2	n.a.	n.a.	n.a.	7.3	n.a.	1.6	-3.1	-13.6
4	-9.0	-22.7	-4.3	-4.0	n.a.	n.a.	n.a.	7.1	n.a.	0.9	-0.4	-9.4
5	-8.2	-21.4	-8.7	-2.6	n.a.	n.a.	n.a.	6.7	n.a.	2.5	-4.0	-15.7
6	-14.6	-20.9	-9.4	-3.6	n.a.	n.a.	n.a.	6.0	n.a.	3.9	-8.9	-17.7
7	-11.6	-13.8	-9.9	-4.7	n.a.	n.a.	n.a.	5.3	n.a.	2.5	-7.5	-16.7
8	-12.0	-10.0	-10.5	-13.1	n.a.	n.a.	n.a.	6.0	n.a.	1.2	-2.1	-17.0
9	-12.3	-14.7	-13.2	-9.1	n.a.	n.a.	n.a.	6.4	n.a.	1.7	-1.2	-14.3
10	-9.5	-23.7	-6.5	-5.8	n.a.	n.a.	n.a.	4.9	n.a.	1.3	-0.7	-13.0
Mean	-9.4	-18.1	-6.6	-5.8	n.a.	n.a.	n.a.	6.4	n.a.	1.9	-3.6	-14.2
11	-5.9	-19.6	-6.0	-7.6	n.a.	n.a.	n.a.	4.6	n.a.	0.4	-0.7	-18.1
12	-5.0	-19.4	-4.2	-9.4	n.a.	n.a.	n.a.	5.0	n.a.	-0.5	-2.1	-19.0
13	-11.0	-17.8	-2.5	-5.2	n.a.	n.a.	n.a.	4.5	n.a.	-1.8	-4.0	-14.9
14	-15.9	-17.8	-3.4	-4.4	n.a.	n.a.	n.a.	5.4	n.a.	-2.8	-1.8	-8.0
15	-11.8	-14.3	-2.9	-4.0	n.a.	n.a.	n.a.	6.7	n.a.	-4.7	0.3	-5.7
16	-12.0	-12.9	-1.7	-7.5	n.a.	n.a.	n.a.	6.8	n.a.	-4.5	-0.5	-7.8
17	-10.3	-9.0	-4.3	-8.0	n.a.	n.a.	n.a.	7.9	n.a.	0.0	-1.9	-8.8
18	-9.8	-9.2	-6.3	-7.7	n.a.	n.a.	n.a.	10.4	n.a.	3.7	-3.3	-11.5
19	-4.7	-10.1	-7.1	-7.6	n.a.	n.a.	n.a.	11.1	n.a.	6.0	-4.4	-12.9
20	-9.6	-14.1	-9.0	-6.7	n.a.	n.a.	n.a.	10.4	n.a.	7.2	-2.1	-9.0
Mean	-9.6	-14.5	-4.3	-6.8	n.a.	n.a.	n.a.	6.9	n.a.	-0.5	-2.0	-11.9
21	-8.7	-11.5	-3.2	-9.2	n.a.	n.a.	n.a.	10.1	n.a.	6.3	-1.5	-8.8
22	-5.8	-8.3	-3.2	-6.1	n.a.	n.a.	n.a.	9.3	n.a.	6.5	-2.8	-9.9
23	-9.4	-4.5	-5.2	-6.4	n.a.	n.a.	n.a.	8.5	n.a.	5.1	-4.0	0.2
24	-14.1	n.a.	-6.0	-6.4	n.a.	n.a.	n.a.	8.5	n.a.	3.3	-1.5	1.8
25	-13.9	-2.6	-6.0	-6.5	n.a.	n.a.	n.a.	7.1	n.a.	3.1	-2.8	-2.1
26	-10.2	-10.4	-5.0	n.a.	n.a.	n.a.	n.a.	2.0	n.a.	-0.1	-1.9	-6.3
27	-8.7	-11.5	-3.7	n.a.	n.a.	n.a.	n.a.	3.5	n.a.	-3.1	-3.8	-7.1
28	-9.7	-6.9	-1.7	n.a.	n.a.	n.a.	n.a.	6.5	n.a.	-11.6	-2.8	-9.8
29	-11.1	-0.7	-3.6	n.a.	n.a.	n.a.	n.a.	6.1	3.8	-13.5	-9.5	-4.4
30	-12.0		-4.5	n.a.	n.a.	n.a.	n.a.	5.2	3.9	-8.3	-11.5	-8.7
31	-15.7		-4.0	n.a.	n.a.	n.a.	n.a.	n.a.		-7.4		-6.4
Mean	-10.8	-7.0	-4.2	-6.9	n.a.	n.a.	n.a.	6.7	n.a.	-1.2	-4.2	-5.5
MEAN	-10.0	-13.6	-5.1	-6.4	n.a.	n.a.	5.2	6.8	n.a.	0.1	-3.3	-10.3
MIN	-15.9	-23.7	-13.2	-13.1	n.a.	n.a.	-0.2	2.8	n.a.	-13.5	-11.5	-19.0
MAX	-3.2	-0.7	-0.5	-2.6	n.a.	n.a.	8.7	11.1	n.a.	7.2	0.3	1.8

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	729.9	715.7	736.1	721.6	730.1	732.3	736.5	736.1	n.a.	731.4	710.3	716.3
2	726.5	715.2	736.7	722.9	728.8	732.8	734.8	735.2	n.a.	732.0	718.6	715.3
3	729.7	715.3	733.0	721.6	726.3	730.9	733.9	734.4	n.a.	732.4	724.1	718.7
4	726.4	716.0	728.8	721.8	724.3	726.1	732.9	734.0	n.a.	731.4	721.8	713.3
5	716.2	717.7	723.1	721.8	722.5	728.7	732.2	733.0	n.a.	733.9	716.9	710.7
6	715.3	717.5	724.4	720.9	723.8	729.3	731.6	733.2	n.a.	734.0	723.7	714.5
7	724.9	717.1	728.2	716.0	728.3	729.9	732.2	736.1	n.a.	730.8	732.4	712.8
8	723.6	725.9	726.4	714.8	731.1	730.4	732.5	737.5	n.a.	731.2	733.0	714.3
9	729.3	723.7	733.8	719.2	733.8	729.8	732.4	737.6	n.a.	727.8	729.7	721.8
10	734.5	718.1	735.6	719.2	739.7	725.5	732.9	736.5	n.a.	726.9	725.5	715.7
Mean	725.6	718.2	730.6	720.0	728.9	729.6	733.2	735.4	n.a.	731.2	723.6	715.3
11	737.8	715.5	733.0	713.0	742.2	722.4	732.4	734.2	n.a.	726.3	723.3	717.4
12	734.9	717.7	733.4	715.6	738.6	719.8	731.6	731.7	n.a.	725.8	731.2	720.3
13	727.1	718.4	735.7	714.5	730.7	727.0	728.8	731.5	n.a.	726.3	735.9	721.2
14	724.3	716.4	736.7	711.2	726.3	732.0	728.3	732.5	n.a.	721.2	735.4	721.6
15	723.3	715.1	738.1	712.2	723.1	736.7	729.2	734.1	n.a.	718.2	732.7	720.2
16	724.4	721.8	737.5	718.1	723.5	738.7	735.9	735.1	n.a.	723.3	730.3	722.1
17	729.8	727.7	733.7	718.5	728.0	739.1	738.4	737.8	n.a.	731.6	727.1	719.1
18	734.2	726.3	729.0	711.8	728.0	738.5	737.1	740.1	n.a.	734.4	725.0	720.1
19	732.8	723.2	729.0	709.3	729.4	738.0	733.0	742.0	n.a.	736.1	727.1	725.2
20	722.7	727.1	737.2	711.5	726.8	735.6	731.2	742.0	n.a.	735.7	729.1	723.7
Mean	729.9	720.2	734.0	713.8	730.0	732.5	732.7	735.4	n.a.	727.0	729.8	720.8
21	722.4	731.6	740.1	717.6	719.1	732.8	731.0	740.0	n.a.	735.6	730.0	720.6
22	722.2	733.4	738.2	718.8	722.5	735.6	733.4	738.5	n.a.	736.0	730.9	725.7
23	723.3	733.3	735.3	718.2	732.5	737.8	735.1	736.6	n.a.	735.3	731.1	728.8
24	721.5	n.a.	733.4	713.7	736.6	736.9	735.2	733.5	n.a.	732.0	731.6	731.4
25	722.7	731.9	734.9	721.8	733.6	733.5	734.2	732.0	n.a.	728.8	730.3	727.0
26	724.1	725.1	737.3	729.1	731.7	736.1	736.3	731.1	n.a.	721.4	726.2	724.5
27	727.1	727.6	737.4	735.1	731.3	737.1	736.6	735.7	n.a.	708.2	719.7	724.5
28	726.1	729.9	737.1	735.4	730.1	735.5	733.0	737.0	n.a.	709.8	711.1	728.7
29	723.6	733.6	731.4	731.2	730.8	736.0	731.3	737.5	732.0	717.5	706.6	732.2
30	723.3		726.4	730.6	733.9	737.1	733.8	737.0	732.8	719.3	710.6	728.9
31	718.2		723.6		734.4		735.6	n.a.		717.1		730.4
Mean	723.1	730.8	735.2	725.2	730.2	735.8	734.0	735.9	n.a.	724.4	722.8	727.2
MEAN	725.9	722.8	733.1	719.6	729.7	732.7	733.3	735.8	n.a.	727.5	725.4	721.5
MIN	715.3	715.1	723.1	709.3	719.1	719.8	728.3	731.1	n.a.	708.2	706.6	710.7
MAX	737.8	733.6	740.1	735.4	742.2	739.1	738.4	742.0	n.a.	736.1	735.9	732.2

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	41.6	66.1	104.9	151.6	n.a.	166.4	246.1	104.5	n.a.	63.2	52.3	40.6
2	29.2	60.9	106.9	153.3	n.a.	292.6	117.5	122.4	n.a.	38.6	55.2	33.4
3	17.0	69.2	99.9	85.8	n.a.	66.0	144.0	95.6	n.a.	45.7	57.6	29.5
4	40.7	59.3	90.6	82.0	n.a.	153.3	111.4	60.8	n.a.	29.8	49.4	47.0
5	44.6	69.1	80.3	127.5	n.a.	337.6	113.8	65.2	n.a.	72.9	62.9	30.6
6	32.1	67.3	117.6	171.9	n.a.	171.3	50.2	50.7	n.a.	72.7	74.8	34.7
7	42.9	79.2	127.6	151.3	n.a.	160.6	106.8	214.7	n.a.	67.4	56.3	40.1
8	39.1	61.1	120.6	182.8	n.a.	61.2	83.9	149.7	n.a.	81.0	69.2	42.6
9	22.9	84.2	80.8	172.7	n.a.	102.9	109.5	177.7	n.a.	52.5	61.8	23.9
10	47.6	80.0	122.1	128.3	n.a.	157.7	141.8	193.0	n.a.	57.1	27.5	45.6
Mean	35.8	69.6	105.1	140.7	n.a.	166.9	122.5	123.4	n.a.	58.1	56.7	36.8
11	23.3	83.0	106.9	96.7	n.a.	191.3	115.2	197.8	n.a.	57.0	35.1	39.4
12	23.4	76.7	111.9	174.5	n.a.	189.6	188.9	184.0	n.a.	60.7	43.0	16.2
13	26.5	78.9	121.7	152.9	n.a.	305.6	123.5	163.9	n.a.	66.8	55.1	40.0
14	27.5	71.3	121.1	172.0	n.a.	180.2	53.2	167.6	n.a.	33.4	47.7	29.8
15	29.7	77.3	124.8	178.4	n.a.	308.0	126.6	162.6	n.a.	43.0	46.8	37.6
16	31.0	88.6	123.4	164.3	n.a.	260.3	280.6	116.1	n.a.	106.9	44.4	29.1
17	33.5	73.2	71.7	256.2	n.a.	259.8	154.9	186.9	n.a.	71.1	42.5	33.9
18	35.2	89.9	58.2	146.5	n.a.	265.8	277.0	182.5	n.a.	97.7	46.8	28.0
19	38.9	87.3	87.9	n.a.	n.a.	143.3	231.8	183.7	n.a.	96.4	33.6	17.7
20	38.2	89.3	144.6	n.a.	n.a.	114.0	158.9	170.3	n.a.	88.4	38.5	37.2
Mean	29.9	80.7	103.0	167.7	n.a.	233.8	172.4	171.7	n.a.	70.3	43.9	30.2
21	58.8	104.8	137.9	n.a.	n.a.	132.4	114.2	162.0	n.a.	74.7	32.9	30.9
22	53.8	104.1	127.5	n.a.	n.a.	196.1	189.0	130.9	n.a.	71.0	44.0	35.9
23	40.3	79.9	118.3	n.a.	122.4	198.4	250.0	78.6	n.a.	60.9	47.7	31.2
24	53.2	n.a.	89.1	n.a.	239.2	161.3	212.3	74.5	n.a.	67.2	36.5	22.5
25	55.0	83.6	122.4	n.a.	317.0	194.5	116.5	53.8	n.a.	63.5	26.6	31.0
26	46.3	82.3	141.9	n.a.	273.6	137.4	192.5	91.8	n.a.	48.4	30.1	31.6
27	55.2	114.6	147.7	n.a.	231.5	249.2	184.9	157.6	n.a.	50.6	26.1	36.9
28	45.9	99.6	144.0	n.a.	175.0	293.9	77.3	158.8	n.a.	61.9	23.7	30.8
29	53.0	90.9	157.5	n.a.	181.6	139.4	144.4	139.3	13.3	65.4	46.2	25.0
30	57.4		114.3	n.a.	297.9	195.2	108.1	25.1	49.1	78.9	30.2	16.0
31	61.7		154.8		212.1		146.1	n.a.		52.5		16.8
Mean	52.8	95.0	130.1	n.a.	229.8	189.8	158.9	107.2	n.a.	64.3	34.4	29.2
MEAN	40.2	81.1	115.4	152.7	227.8	192.8	150.7	134.1	n.a.	64.4	44.8	31.8
MIN	17.0	59.3	58.2	82.0	122.4	61.2	50.2	25.1	n.a.	29.8	23.7	16.0
MAX	61.7	114.6	157.5	256.2	317.0	337.6	280.6	214.7	n.a.	106.9	74.8	47.0

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	34.8	56.4	87.7	125.0	n.a.	105.7	129.6	31.1	n.a.	29.7	47.8	37.0
2	24.6	58.0	89.3	119.2	n.a.	165.7	58.8	31.9	n.a.	20.2	52.8	33.1
3	15.7	63.0	87.1	66.2	n.a.	39.9	78.4	19.5	n.a.	21.4	48.9	27.9
4	33.7	58.8	74.4	66.5	n.a.	147.4	61.1	11.0	n.a.	13.1	43.5	41.6
5	36.7	57.7	66.6	117.9	n.a.	264.6	59.7	11.7	n.a.	49.5	54.1	28.4
6	27.7	57.8	106.1	146.3	n.a.	121.7	27.4	9.6	n.a.	51.6	63.5	32.0
7	35.7	67.2	108.6	122.9	n.a.	107.8	58.4	64.3	n.a.	28.4	50.5	34.4
8	33.1	56.3	98.9	150.0	n.a.	36.1	43.6	46.3	n.a.	44.4	57.2	37.8
9	20.0	70.3	74.2	140.7	n.a.	59.8	59.9	54.4	n.a.	23.3	51.9	21.7
10	39.7	70.2	110.4	104.3	n.a.	132.5	77.4	66.5	n.a.	35.1	24.2	39.7
Mean	30.2	61.6	90.3	115.9	n.a.	118.1	65.4	34.6	n.a.	31.7	49.4	33.4
11	19.9	71.2	88.9	87.6	n.a.	140.5	62.9	70.1	n.a.	29.3	31.5	35.2
12	21.0	64.8	102.3	157.8	n.a.	149.3	103.1	62.3	n.a.	38.3	38.0	12.8
13	22.3	67.0	112.9	130.5	n.a.	234.2	65.3	54.9	n.a.	54.8	42.3	34.3
14	23.3	60.3	112.5	151.9	n.a.	142.5	27.2	57.3	n.a.	27.0	39.5	25.9
15	24.4	62.5	115.2	152.8	n.a.	224.1	65.0	52.8	n.a.	40.0	37.5	33.8
16	25.6	70.3	114.1	126.5	n.a.	181.2	148.4	32.9	n.a.	86.9	35.1	23.9
17	27.5	59.0	57.2	226.0	n.a.	170.2	74.1	58.4	n.a.	59.9	33.8	29.5
18	29.1	69.0	46.8	117.8	n.a.	166.5	136.9	58.1	n.a.	75.4	41.9	22.9
19	30.8	73.9	78.4	n.a.	n.a.	80.5	112.1	54.2	n.a.	74.6	29.7	15.1
20	31.9	81.4	135.2	n.a.	n.a.	61.9	73.0	47.7	n.a.	70.3	30.6	31.9
Mean	24.9	66.4	92.0	143.9	n.a.	165.4	88.3	55.7	n.a.	54.0	36.6	25.9
21	48.9	80.0	113.3	n.a.	n.a.	71.0	58.2	45.3	n.a.	65.5	29.1	31.0
22	46.7	79.2	111.4	n.a.	n.a.	106.9	95.0	35.1	n.a.	62.1	36.4	31.5
23	34.3	64.4	100.0	n.a.	n.a.	119.2	124.2	19.9	n.a.	60.0	41.8	28.0
24	44.0	n.a.	80.2	n.a.	n.a.	90.9	97.1	14.9	n.a.	58.8	30.2	18.6
25	46.2	67.1	99.8	n.a.	n.a.	115.8	52.3	11.5	n.a.	57.0	32.7	26.3
26	38.7	66.8	126.4	n.a.	120.1	81.1	85.5	31.2	n.a.	41.1	26.9	28.2
27	45.0	88.2	129.8	n.a.	114.2	121.5	73.0	69.1	n.a.	47.2	23.0	31.8
28	38.8	90.1	124.9	n.a.	104.0	149.0	23.7	61.2	n.a.	55.7	21.6	27.7
29	45.4	78.6	130.7	n.a.	109.1	71.2	34.3	56.8	4.1	57.7	42.4	21.1
30	45.6		85.4	n.a.	168.9	107.2	23.3	8.4	16.2	67.7	30.0	12.7
31	52.1		133.0		125.6		36.8	n.a.		47.6		13.2
Mean	44.2	76.8	110.2	n.a.	123.2	103.4	66.7	35.3	n.a.	57.3	31.4	25.7
MEAN	33.6	68.2	100.1	128.3	n.a.	125.5	71.8	41.6	n.a.	48.2	38.9	28.0
MIN	15.7	56.3	46.8	66.2	n.a.	36.1	23.3	8.4	n.a.	13.1	21.6	12.7
MAX	52.1	90.1	135.2	226.0	n.a.	264.6	148.4	70.1	n.a.	86.9	63.5	41.6

INCOMING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	268.5	261.0	236.4	221.2	n.a.	326.0	305.8	294.8	n.a.	313.5	287.5	272.5
2	272.2	253.3	238.3	250.1	n.a.	271.3	341.8	313.2	n.a.	269.7	256.6	237.2
3	220.5	231.3	242.2	287.4	n.a.	323.6	323.8	336.0	n.a.	257.8	283.8	223.9
4	229.9	230.2	304.5	305.4	n.a.	315.6	314.1	332.5	n.a.	288.7	309.5	260.2
5	268.4	205.2	290.1	310.0	n.a.	262.9	331.2	348.0	n.a.	248.7	255.3	184.8
6	256.7	150.5	274.9	275.0	n.a.	306.2	337.2	342.9	n.a.	252.1	202.6	191.3
7	232.0	247.6	215.1	285.2	n.a.	313.6	322.8	287.0	n.a.	305.5	212.5	215.9
8	264.3	203.7	261.7	227.6	n.a.	332.6	325.5	287.8	n.a.	259.1	242.1	203.0
9	234.4	203.3	218.1	237.9	n.a.	330.3	297.8	293.2	n.a.	313.2	239.3	198.4
10	227.2	176.1	210.3	281.0	n.a.	324.2	312.8	277.5	n.a.	300.4	307.9	239.1
Mean	247.4	216.2	249.2	268.1	n.a.	310.6	321.3	311.3	n.a.	280.9	259.7	222.6
11	215.6	188.9	237.8	292.9	n.a.	321.6	313.0	265.4	n.a.	269.2	309.3	198.7
12	197.1	216.7	225.0	260.7	n.a.	312.5	283.3	296.2	n.a.	279.9	253.2	153.6
13	190.3	204.6	219.6	293.2	n.a.	277.6	333.6	299.7	n.a.	259.2	209.3	203.7
14	165.7	208.4	215.9	299.7	n.a.	269.3	340.4	315.9	n.a.	271.6	212.1	275.6
15	183.8	250.7	211.9	305.5	n.a.	267.6	320.7	303.7	n.a.	293.2	195.2	256.7
16	185.4	214.0	218.1	277.5	n.a.	279.9	253.9	318.5	n.a.	257.0	203.4	208.1
17	195.9	225.1	247.4	232.8	n.a.	286.1	307.3	290.0	n.a.	281.6	210.5	231.4
18	198.0	205.9	287.3	271.7	n.a.	287.5	284.1	295.5	n.a.	249.8	218.7	222.3
19	271.3	252.2	292.9	n.a.	n.a.	313.5	294.8	299.2	n.a.	235.0	221.3	220.6
20	266.2	235.0	231.6	n.a.	n.a.	340.7	318.6	315.6	n.a.	246.2	226.1	230.8
Mean	200.3	218.5	239.5	279.2	n.a.	290.6	303.5	298.2	n.a.	266.3	225.9	219.0
21	267.9	189.1	259.4	n.a.	n.a.	332.6	315.4	323.0	n.a.	261.2	220.2	249.8
22	240.5	195.5	226.3	n.a.	n.a.	294.6	283.0	315.9	n.a.	264.2	280.2	233.1
23	208.8	253.5	228.5	n.a.	n.a.	309.2	277.3	322.0	n.a.	252.8	230.7	265.6
24	239.3	n.a.	226.9	n.a.	288.3	301.8	304.9	349.9	n.a.	242.1	247.5	245.6
25	224.7	287.8	233.4	n.a.	254.9	326.7	318.9	348.3	n.a.	245.1	239.3	273.9
26	201.1	242.2	214.7	n.a.	280.3	331.6	305.0	310.9	n.a.	291.5	300.1	249.6
27	216.3	192.2	221.9	n.a.	277.5	304.2	312.6	259.3	n.a.	300.3	294.0	238.5
28	273.8	237.9	232.1	n.a.	299.7	292.1	334.8	290.2	n.a.	268.6	299.2	244.3
29	215.4	250.6	238.6	n.a.	284.0	310.4	328.0	300.4	n.a.	240.5	265.9	231.7
30	193.8		264.5	n.a.	263.6	315.5	308.4	298.4	297.7	209.1	265.1	198.2
31	249.5		221.7			302.3			n.a.		258.6	
Mean	230.1	231.1	234.6	n.a.	278.3	311.9	317.4	311.8	n.a.	257.5	264.2	243.0
MEAN	228.2	221.9	240.2	273.0	281.3	306.1	311.9	307.7	n.a.	267.3	249.9	227.9
MIN	165.7	150.5	210.3	221.2	254.9	262.9	253.9	259.3	n.a.	209.1	195.2	153.6
MAX	273.8	287.8	304.5	310.0	302.3	340.7	341.8	341.8	n.a.	313.5	309.5	275.6

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	300.1	252.1	296.0	292.2	n.a.	328.8	343.6	334.8	n.a.	317.0	294.6	269.5
2	296.6	243.4	299.6	300.7	n.a.	332.1	339.0	336.5	n.a.	297.6	276.7	242.8
3	265.0	225.4	296.5	302.5	n.a.	329.8	336.9	337.3	n.a.	291.6	291.5	240.5
4	269.6	221.1	306.6	310.0	n.a.	323.4	334.7	336.5	n.a.	302.9	308.1	266.3
5	283.9	215.4	288.8	312.2	n.a.	319.1	334.7	336.5	n.a.	291.5	276.2	218.5
6	263.8	213.8	276.9	301.9	n.a.	325.8	331.8	335.2	n.a.	297.0	244.1	217.3
7	267.5	260.9	263.9	303.4	n.a.	329.0	332.4	333.7	n.a.	314.9	250.8	229.0
8	273.5	262.4	278.5	267.7	n.a.	330.2	333.2	333.2	n.a.	293.7	277.0	224.2
9	265.9	249.7	257.0	274.9	n.a.	330.0	332.4	334.3	n.a.	315.5	277.7	228.3
10	271.9	218.1	271.9	299.4	n.a.	325.1	332.8	331.7	n.a.	309.6	306.9	249.3
Mean	275.8	236.2	283.6	296.5	n.a.	327.3	335.1	335.0	n.a.	303.1	280.4	238.6
11	269.7	230.0	286.9	291.8	n.a.	327.8	331.6	328.9	n.a.	293.9	307.4	220.7
12	266.1	234.3	292.3	276.9	n.a.	318.0	330.3	332.3	n.a.	297.7	280.1	198.1
13	265.2	237.2	287.7	301.5	n.a.	319.7	332.8	331.5	n.a.	284.6	257.2	229.3
14	234.7	243.6	284.0	301.6	n.a.	313.5	332.2	334.0	n.a.	286.7	263.9	275.6
15	243.1	263.6	283.2	305.3	n.a.	322.0	329.3	336.8	n.a.	292.1	261.5	272.2
16	243.1	263.3	293.5	293.0	n.a.	328.4	324.1	335.6	n.a.	278.8	263.2	245.8
17	255.5	270.9	294.5	285.2	n.a.	331.2	328.1	337.5	n.a.	298.9	261.9	253.1
18	255.3	263.5	297.6	287.6	n.a.	332.4	335.1	341.8	n.a.	295.4	262.5	242.9
19	292.4	274.3	293.9	n.a.	n.a.	334.3	337.3	342.6	n.a.	294.6	260.6	238.7
20	280.7	256.9	267.3	n.a.	n.a.	334.6	335.9	341.7	n.a.	302.4	269.0	253.5
Mean	258.3	253.4	290.4	292.9	n.a.	325.3	331.2	335.7	n.a.	291.4	268.7	241.8
21	285.4	252.6	302.0	n.a.	n.a.	334.8	328.9	341.5	n.a.	307.6	267.7	262.0
22	289.3	261.4	293.1	n.a.	n.a.	333.5	322.3	340.0	n.a.	308.3	291.1	251.9
23	267.9	289.5	287.4	n.a.	n.a.	333.5	327.0	338.6	n.a.	299.9	266.2	290.5
24	262.1	n.a.	283.2	n.a.	n.a.	331.3	336.7	339.9	n.a.	290.8	279.6	285.1
25	257.5	309.1	286.4	n.a.	n.a.	333.4	333.2	337.6	n.a.	291.1	272.7	288.7
26	254.8	277.3	286.0	n.a.	n.a.	330.4	336.7	328.4	n.a.	302.4	301.3	268.1
27	266.5	257.5	291.1	n.a.	n.a.	337.6	338.3	326.1	n.a.	299.4	294.1	260.5
28	281.9	282.6	299.1	n.a.	n.a.	337.9	337.5	334.6	n.a.	268.3	298.7	257.1
29	260.7	306.5	297.3	n.a.	n.a.	338.4	336.1	334.6	n.a.	250.1	268.8	263.6
30	247.9		300.1	n.a.	n.a.	341.2	334.6	315.3	314.7	249.2	262.7	238.9
31	255.0		292.0		n.a.		334.0	n.a.		271.3		247.8
Mean	266.3	279.6	292.6	n.a.	n.a.	335.2	333.1	333.7	n.a.	286.7	280.3	266.6
MEAN	267.5	254.9	288.2	294.9	n.a.	329.6	333.3	335.0	n.a.	293.4	276.5	249.4
MIN	234.7	213.8	257.0	267.7	n.a.	313.5	322.3	315.3	n.a.	249.2	244.1	198.1
MAX	300.1	309.1	306.6	312.2	n.a.	341.2	343.6	342.6	n.a.	317.0	308.1	290.5

TECHNICAL SHEET

Coordinates:

Latitude: 46° 23' 56.0" N

Longitude: 10° 35' 25.2" E

Elevation: 2.669 m a.s.l

Installation Time:

September 2005

Data Availability:

From September 26th, 2005



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT	MANUFACTURER
Data Logger				1.5 m	LSI-Lastem Babuc ABC (7)
Air Temperature	-30 - +70 °C	±0.001°C	30 min.	2.6 m	LSI-Lastem DMA570 (5)
Relative Humidity	0 - 100 %	±1%	30 min	2.6 m	LSI-Lastem DMA570 (5)
Air Pressure	400 - 800 hPa or mBar	±10hPa	60 min.	1.5 m (inside the logger box)	LSI-Lastem DQA223 (7)
Solar Radiations	0.3 - 3 µm	±5% of the value	30 min.	3.17 m	Kipp and Zonen CNR-1 (3)
Infrared Radiation	5 - 50 µm	±5% of the value	30 min.	3.17 m	Kipp and Zonen CNR-1 (3)
Snow level	0 - 1000 cm	±2 cm	60 min.	3.17 m	Sonic Ranger Campbell SR50 (4)
Liquid precipitation	0 – 1000 mm	±1mm	30 min.	1.5 m	LSI-Lastem DQA035 (2)
Wind Speed	0 - 50 m s ⁻¹	±1%	60 min.	5 m	LSI-Lastem DNA022 (1)
Wind Direction	0° - 360°	±1°	60 min.	5 m	LSI-Lastem DNA022 (1)

AIR TEMPERATURE (°C)

	J	F	M	A	M	J	J	A	S	O	N	D
1	-2.3	-13.5	1.7	-3.3	1.3	4.8	11.6	7.9	1.4	2.8	-2.1	-8.8
2	-4.5	-16.2	1.6	-2.7	0.9	7.1	10.2	8.5	4.9	3.0	-4.0	-12.7
3	-7.9	-20.6	0.1	-2.7	1.2	5.5	8.0	8.1	7.3	2.2	-2.7	-12.8
4	-8.2	-21.6	-2.8	-1.9	1.1	2.1	7.2	8.4	6.1	1.5	0.2	-8.5
5	-7.8	-20.4	-6.5	-0.3	-1.2	2.5	7.1	8.9	5.9	3.3	-3.5	-15.2
6	-12.8	-18.6	-7.5	-0.4	-1.8	4.0	5.9	8.0	5.6	4.2	-7.8	-16.5
7	-10.3	-11.1	-7.8	-2.7	-0.7	6.2	6.8	n.a.	6.6	3.1	-7.5	-16.2
8	-10.3	-8.2	-8.1	-10.3	0.8	5.8	7.5	n.a.	7.2	1.5	-1.7	-14.9
9	-9.2	-13.1	-10.5	-7.4	3.2	5.4	7.8	n.a.	7.4	2.3	-1.0	-13.0
10	-8.2	-20.5	-5.2	-2.8	4.9	2.0	6.7	n.a.	6.4	2.0	0.4	-12.2
Mean	-8.1	-16.4	-4.5	-3.5	1.0	4.5	7.9	8.3	5.9	2.6	-3.0	-13.1
11	-4.8	-15.7	-3.2	-5.6	6.3	2.1	6.1	7.6	5.5	1.1	-0.1	-17.0
12	-4.4	-15.7	-0.9	-6.6	6.1	-0.2	6.6	6.1	1.6	0.3	-2.4	-19.1
13	-8.3	-14.9	-0.4	-1.7	0.4	1.1	5.8	6.4	-3.5	-1.2	-3.6	-14.9
14	-15.1	-15.6	-1.6	-3.0	-1.9	2.2	6.5	6.7	2.3	-2.0	-1.6	-7.0
15	-12.2	-12.5	-0.5	-2.9	-0.5	6.3	3.6	8.3	4.0	-2.8	0.9	-4.9
16	-11.5	-10.2	-0.9	-4.5	-7.8	7.6	2.9	8.0	5.0	-3.8	-0.8	-7.5
17	-7.8	-7.2	-2.8	-6.3	-3.2	8.7	5.5	8.9	6.7	0.7	-2.0	-8.0
18	-8.7	-8.0	-4.7	-4.6	1.3	8.0	7.6	10.6	6.0	3.9	-3.9	-11.0
19	-3.5	-9.0	-5.4	-5.1	2.9	9.1	9.3	11.1	1.8	7.6	-4.9	-12.6
20	-8.5	-12.3	-7.2	-4.9	2.5	8.6	9.0	11.1	-0.9	8.1	-1.8	-8.8
Mean	-8.5	-12.1	-2.8	-4.5	0.6	5.4	6.3	8.5	2.8	1.2	-2.0	-11.1
21	-7.4	-8.8	-1.9	-5.8	-0.4	8.2	4.3	10.2	3.4	7.2	-1.3	-7.7
22	-4.6	-5.1	-2.0	-5.8	0.7	7.1	1.7	10.2	5.1	7.3	-2.3	-9.2
23	-8.5	-2.7	-2.9	-5.6	5.5	6.6	5.3	10.1	5.0	5.7	-3.9	0.8
24	-12.2	-0.7	-3.1	-5.3	5.3	7.3	8.4	10.6	4.5	3.9	-1.2	1.2
25	-13.3	-0.5	-3.3	-5.3	4.7	6.8	6.9	9.5	2.5	3.7	-2.3	-2.2
26	-9.7	-8.2	-2.1	0.6	3.3	4.8	8.3	3.9	3.7	0.4	-1.6	-5.3
27	-6.8	-8.3	-1.6	4.5	2.0	7.5	9.8	4.5	3.2	-2.0	-2.0	-7.1
28	-8.1	-5.4	0.6	6.4	2.2	8.5	9.0	7.3	3.0	-9.6	-1.4	-8.7
29	-8.9	1.3	-1.1	4.0	3.2	9.7	7.9	7.2	3.9	-12.0	-8.2	-4.6
30	-11.2		-1.2	1.6	4.1	11.1	8.1	5.5	4.5	-7.5	-10.4	-8.1
31	-14.3		-2.2		4.5		6.7	0.2		-6.8		-6.4
Mean	-9.6	-4.3	-1.9	-1.1	3.2	7.8	6.9	7.2	3.9	-0.9	-3.5	-5.2
MEAN	-8.8	-11.2	-3.0	-3.0	1.6	5.9	7.0	7.9	4.2	0.9	-2.8	-9.6
MIN	-15.1	-21.6	-10.5	-10.3	-7.8	-0.2	1.7	0.2	-3.5	-12.0	-10.4	-19.1
MAX	-2.3	1.3	1.7	6.4	6.3	11.1	11.6	11.1	7.4	8.1	0.9	1.2

RELATIVE HUMIDITY (%)

	J	F	M	A	M	J	J	A	S	O	N	D
1	83.6	82.8	47.6	57.6	90.3	86.0	59.2	73.3	89.0	96.0	85.8	99.4
2	88.4	86.7	53.3	69.4	72.8	72.7	70.3	78.7	77.5	85.8	97.2	91.6
3	69.5	81.3	62.2	90.4	73.6	94.3	76.2	83.9	76.5	77.8	99.8	84.3
4	67.5	83.6	93.8	98.1	73.2	91.2	82.8	80.2	81.0	92.4	90.1	93.9
5	84.1	68.6	88.7	93.5	92.1	61.0	83.2	74.0	84.5	76.4	69.6	77.8
6	90.4	45.9	76.1	84.5	93.5	83.0	88.1	84.1	83.4	65.0	63.5	71.8
7	74.8	75.5	51.3	90.5	73.3	86.1	86.9	n.a.	56.0	89.7	65.5	67.4
8	89.4	48.2	72.8	69.4	80.0	91.4	79.5	n.a.	64.5	71.3	57.3	68.9
9	77.8	58.4	71.1	53.9	81.4	89.0	75.9	n.a.	71.0	96.4	98.0	65.9
10	76.4	59.3	40.8	83.0	69.1	95.3	82.2	n.a.	71.6	95.5	81.9	89.2
Mean	80.2	69.0	65.8	79.0	79.9	85.0	78.4	79.0	75.5	84.6	99.1	81.0
11	71.5	62.8	64.7	94.3	60.7	93.6	84.8	58.5	82.4	87.0	79.4	83.4
12	30.7	74.9	48.4	70.8	79.5	99.1	79.2	80.3	97.5	90.3	55.9	51.0
13	58.2	63.3	36.4	84.3	74.2	81.1	94.9	82.2	80.6	83.7	35.2	62.5
14	38.0	79.6	39.6	88.0	50.4	74.9	92.1	90.1	68.4	87.8	23.2	98.8
15	41.7	83.5	33.7	92.6	61.9	68.5	90.9	82.0	66.5	95.8	25.6	98.4
16	50.1	67.0	39.2	83.3	79.7	69.5	70.6	83.6	70.4	86.0	39.4	75.2
17	58.1	73.2	61.9	71.9	52.3	71.7	69.8	78.7	63.2	84.0	38.1	73.5
18	55.9	43.1	87.5	86.1	69.2	74.3	70.2	64.7	73.3	62.2	72.4	78.3
19	71.1	82.9	89.8	85.1	79.6	71.3	68.5	60.9	91.8	27.8	52.3	64.0
20	87.7	88.4	54.7	87.2	90.8	81.8	76.2	70.4	65.6	28.8	52.1	53.1
Mean	56.3	71.9	55.6	84.4	69.8	78.6	79.7	75.1	76.0	73.3	46.2	73.8
21	88.8	49.8	67.5	73.1	98.1	81.4	89.8	68.8	61.0	56.0	77.6	88.9
22	69.4	38.4	59.5	87.7	78.2	75.0	78.5	73.5	83.6	61.2	53.8	74.6
23	73.9	53.3	63.0	85.1	78.8	85.8	72.0	78.1	83.2	64.4	39.6	75.3
24	81.0	64.0	74.6	87.2	74.0	84.7	71.5	78.3	89.9	50.2	59.2	60.6
25	71.2	74.9	67.2	79.8	63.7	88.6	87.0	80.8	81.5	58.6	98.1	84.6
26	59.4	78.7	44.6	73.2	77.6	93.1	77.0	88.4	85.3	93.7	88.7	85.1
27	61.9	43.6	52.9	57.3	84.3	81.1	72.6	65.5	86.3	100.0	90.5	76.6
28	85.7	64.2	57.2	50.9	77.7	77.2	78.7	75.1	62.8	99.8	98.7	85.5
29	66.4	72.7	61.4	69.2	75.6	74.4	83.6	78.6	98.0	82.0	95.1	67.6
30	52.3		71.5	78.3	65.2	66.8	77.8	91.4	84.2	72.9		61.8
31	84.5		55.8		81.0		89.8	100.0		84.4		51.6
Mean	72.2	60.0	61.4	74.2	77.7	80.8	79.8	79.9	81.6	74.8	74.8	73.8
MEAN	69.7	67.2	60.9	79.2	75.9	81.5	79.3	77.9	77.7	77.5	69.6	76.1
MIN	30.7	38.4	33.7	50.9	50.4	61.0	59.2	58.5	56.0	27.8	23.2	51.0
MAX	90.4	88.4	93.8	98.1	98.1	99.1	94.9	100.0	98.0	100.0	99.8	99.4

ATMOPHERIC PRESSURE (hPa)

	J	F	M	A	M	J	J	A	S	O	N	D
1	738.9	725.8	744.7	730.4	739.0	740.7	745.6	745.5	739.8	741.2	720.1	726.9
2	736.2	725.3	745.4	732.0	737.7	740.9	744.2	744.7	744.6	741.6	728.6	726.2
3	739.5	725.2	741.9	730.9	734.8	739.7	743.1	743.9	744.6	742.4	734.5	729.5
4	736.2	726.2	738.0	731.0	732.8	734.7	742.0	743.6	743.8	741.4	731.9	723.6
5	725.8	727.7	732.5	730.8	731.6	737.2	741.4	742.6	743.7	743.8	726.0	721.7
6	724.7	727.1	733.9	729.5	732.8	738.0	741.1	742.9	746.1	743.9	733.5	725.4
7	734.6	726.7	737.9	725.0	736.9	738.4	741.2	n.a.	748.5	740.8	742.0	724.1
8	733.2	735.4	735.9	724.2	739.8	739.0	741.8	n.a.	747.9	741.3	743.0	724.6
9	738.6	733.6	743.7	728.5	742.1	738.5	741.4	n.a.	746.2	737.6	739.8	732.3
10	743.9	728.4	744.8	728.5	748.0	734.4	742.2	n.a.	745.9	736.7	735.2	726.1
Mean	735.1	728.2	739.8	729.1	737.5	738.1	742.4	743.9	745.1	741.1	733.5	726.0
11	747.0	725.6	741.6	722.5	750.5	731.1	741.8	743.1	744.8	736.3	732.2	728.2
12	744.4	727.7	741.9	725.0	747.0	728.8	740.8	741.7	736.9	735.8	740.5	731.2
13	736.6	728.3	744.2	723.4	739.4	735.7	738.2	741.2	733.7	736.4	745.8	732.4
14	734.2	726.3	745.4	720.2	735.2	740.8	737.5	742.4	737.1	731.5	745.2	732.1
15	732.9	724.5	746.9	721.1	732.0	745.1	738.6	743.7	739.9	728.1	742.2	730.2
16	734.2	730.9	746.6	726.9	733.1	747.1	745.4	744.6	741.7	733.3	740.1	732.5
17	739.2	736.6	743.2	727.8	737.2	747.4	747.7	747.5	742.1	741.8	737.0	729.4
18	743.9	735.9	738.8	721.2	736.9	747.0	746.7	750.1	741.7	744.7	735.1	730.6
19	741.9	732.8	738.4	718.7	738.4	746.4	742.5	752.0	738.3	746.1	737.3	735.9
20	732.1	736.8	746.8	720.5	736.0	744.1	740.6	751.8	742.1	745.4	739.0	734.2
Mean	738.7	730.5	743.4	722.7	738.6	741.4	742.0	745.8	739.8	737.9	739.4	731.7
21	731.7	741.2	749.3	727.1	728.4	741.0	740.4	749.9	743.1	745.3	740.0	730.6
22	731.2	742.6	747.3	728.2	731.1	743.9	743.0	748.2	741.0	745.6	741.2	736.2
23	733.1	742.1	744.5	727.9	740.6	746.3	744.7	746.3	742.5	745.2	741.3	738.0
24	731.3	745.1	742.5	723.0	745.0	745.3	744.9	743.4	735.9	741.9	741.7	741.0
25	732.8	740.6	743.9	731.1	742.0	741.8	743.5	741.9	735.7	738.5	740.4	737.3
26	733.7	734.3	746.3	738.6	740.3	744.7	745.8	740.6	735.6	731.7	736.6	734.6
27	736.6	736.5	746.3	743.9	740.0	745.9	746.0	745.4	736.5	718.1	730.1	735.1
28	736.1	738.8	745.7	744.0	738.6	744.3	742.8	746.8	742.6	719.7	721.2	738.9
29	733.4	741.8	740.0	740.3	739.3	744.7	740.7	747.1	742.8	727.4	716.8	742.5
30	733.3		734.8	739.6	742.4	745.9	743.2	745.2	742.9	729.3	721.1	739.6
31	728.6			732.3		743.0		745.1	739.1		727.5	
Mean	732.9	740.4	743.0	734.4	739.1	744.4	743.6	744.9	739.9	733.6	733.0	737.7
MEAN	735.5	732.8	742.1	728.7	738.4	741.3	742.7	745.0	741.6	737.4	735.3	732.0
MIN	724.7	724.5	732.3	718.7	728.8	728.8	737.5	739.1	733.7	718.1	716.8	721.7
MAX	747.0	745.1	749.3	744.0	747.4	747.4	747.7	752.0	748.5	746.1	745.8	742.5

WIND DIRECTION (prevailing sector)

	J	F	M	A	M	J	J	A	S	O	N	D
1	E	SE	E	W	E	W	W	E	S	n.a.	S	NE
2	SE	SE	var	NW	E	var	E	E	SE	S	NE	SE
3	E	SE	E	NW	E	W	E	E	SE	var	NE	E
4	E	var	E	W	E	S	E	E	SE	var	S	S
5	W	SE	SE	SE	NW	SW	E	NE	S	S	S	SE
6	W	SE	E	SW	NW	NW	SE	W	S	S	S	NW
7	W	E	SE	W	SE	var	S	n.a.	S	W	S	S
8	W	SE	W	W	var	W	W	n.a.	S	SE	SE	E
9	W	var	SE	SW	SE	var	E	n.a.	SE	var	S	S
10	var	SE	SE	NW	E	SW	var	n.a.	S	S	SE	SE
Mode	W	SE	var	W	E	var	E	E	S	S	S	var
11	E	var	var	var	E	var	SW	NW	S	S	SE	S
12	E	S	W	W	E	NW	W	NW	SE	S	S	S
13	SW	SE	W	SE	W	SW	W	S	W	S	S	n.a.
14	SE	S	SE	S	n.a.	SW	NW	SE	S	S	S	NE
15	SE	W	E	SE	var	var	W	S	S	SE	SE	NE
16	E	W	E	W	W	E	var	SE	S	var	S	SE
17	var	E	E	SE	W	E	SW	S	S	var	S	SE
18	SE	E	NW	SE	n.a.	E	SW	S	S	S	S	var
19	W	SE	var	var	E	E	W	S	S	S	S	S
20	W	E	E	E	E	W	W	SE	S	S	S	SE
Mode	var	E	E	SE	E	E	W	S	S	S	S	var
21	W	E	SE	var	E	SE	W	SE	SW	S	S	S
22	W	E	SE	W	SE	SE	W	S	S	S	S	S
23	E	SE	E	NW	var	var	E	S	S	S	S	NW
24	W	E	var	E	S	E	var	NE	E	S	var	S
25	SE	SW	E	NW	W	W	var	SE	E	S	S	NE
26	E	W	E	SE	var	W	E	var	E	S	E	var
27	E	var	E	var	var	W	E	S	NE	var	S	SE
28	E	var	var	E	W	SE	E	S	S	S	S	S
29	E	W	W	E	var	SE	E	S	S	S	S	S
30	E		W	E	W	E	SE	S	S	S	S	S
31	SE		W		var		E	S	S	S	S	S
Mode	E	E	E	E	var	SE	E	S	S	S	S	S
MODE	E	SE	E	W	E	W	E	S	S	S	S	S

Note: "var" is indicated when it is not possible identify a unique wind prevailing direction in the considered period.

WIND SPEED (m/s)

	J	F	M	A	M	J	J	A	S	O	N	D
1	3.2	2.0	1.4	3.9	5.6	2.3	4.0	0.7	5.5	0.0	3.2	0.0
2	4.4	0.1	2.7	1.4	7.6	0.0	8.2	0.5	5.0	0.1	7.5	1.2
3	4.8	1.8	0.5	2.8	1.2	1.9	3.3	0.5	6.8	0.4	6.6	1.5
4	6.1	0.7	0.0	1.6	0.0	0.6	0.6	0.5	4.9	1.5	2.5	3.3
5	7.2	4.0	0.4	0.7	0.5	0.3	0.6	2.4	0.8	0.1	1.1	0.7
6	13.7	3.2	4.4	0.2	0.3	0.9	0.8	2.1	0.2	0.1	0.5	3.4
7	7.7	10.6	0.7	3.1	0.1	2.5	0.1	n.a.	0.3	3.3	0.1	0.3
8	11.6	7.8	1.0	8.2	0.4	4.1	0.7	n.a.	4.5	0.0	0.1	6.7
9	10.7	7.7	1.1	0.8	0.8	2.1	0.5	n.a.	2.6	1.5	0.5	2.6
10	6.1	7.7	0.1	1.3	0.2	1.1	0.5	n.a.	1.7	1.1	4.5	4.9
Mean	7.6	4.6	1.2	2.4	1.7	1.6	1.9	1.1	3.2	0.8	2.7	2.4
11	4.0	9.4	8.2	2.8	0.7	0.6	0.6	2.2	1.1	1.7	6.1	2.0
12	4.2	7.1	8.2	0.2	0.7	0.6	0.5	2.3	0.3	0.8	0.3	0.2
13	15.0	3.5	3.7	0.5	0.8	0.6	1.0	2.1	10.3	2.1	0.0	0.0
14	4.8	5.1	3.2	0.9	0.0	0.9	6.6	0.9	0.6	4.4	0.0	4.5
15	3.8	14.6	2.4	0.5	1.1	0.0	0.7	1.8	0.7	4.7	2.7	7.2
16	4.3	9.9	2.2	1.5	5.9	0.0	0.4	2.5	0.4	0.3	0.6	0.7
17	7.9	3.6	1.4	0.7	1.0	0.7	4.3	2.4	1.7	3.4	0.2	0.0
18	5.6	4.4	2.7	0.8	0.0	0.2	0.4	3.2	1.7	0.8	0.0	0.1
19	8.3	2.0	2.0	0.3	0.0	0.4	4.6	7.7	1.9	3.2	0.0	0.6
20	11.3	1.6	1.5	0.6	2.0	1.7	6.1	7.0	0.0	1.1	0.2	0.7
Mean	6.9	6.1	3.5	0.9	1.2	0.6	2.5	3.2	1.9	2.2	1.0	1.6
21	12.0	3.7	0.9	1.9	2.0	0.5	1.1	4.8	0.0	2.3	2.2	0.3
22	16.3	5.9	1.3	2.0	0.2	0.1	1.2	4.2	0.0	3.4	0.0	0.7
23	5.0	1.6	0.3	0.7	0.2	0.1	2.0	3.5	1.6	4.2	0.4	9.5
24	9.2	3.1	0.6	4.6	0.1	0.5	1.4	6.4	5.5	3.1	0.1	1.0
25	4.7	6.6	1.1	2.0	0.1	1.7	0.6	6.3	3.7	2.7	0.0	6.8
26	5.4	5.9	1.1	0.2	0.3	0.6	1.1	3.1	11.1	0.2	3.0	6.4
27	3.5	5.4	0.4	0.4	0.0	0.5	1.9	1.1	7.6	1.2	8.1	2.2
28	3.7	0.9	1.5	5.2	0.3	0.1	1.1	1.1	0.1	1.7	4.5	4.5
29	9.3	3.5	4.4	12.6	0.5	0.1	0.4	1.7	1.4	0.0	1.5	0.3
30	4.1		7.3	4.6	0.0	1.5	0.3	1.2	1.1	0.0	0.1	0.3
31	1.2			7.0	0.0		0.1	0.5		5.7		0.4
Mean	6.8	4.1	2.4	3.4	0.3	0.6	1.0	3.1	3.2	2.2	2.0	2.9
MEAN	7.1	4.9	2.4	2.2	1.1	0.9	1.8	2.7	2.8	1.8	1.9	2.3
MIN	1.2	0.1	0.0	0.2	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0
MAX	16.3	14.6	8.2	12.6	7.6	4.1	8.2	7.7	11.1	5.7	8.1	9.5

RAIN PRECIPITATION (mm)

	J	F	M	A	M	J	J	A	S	O	N	D
1	0.0	0.0	0.0	0.0	5.6	0.2	0.0	0.0	6.0	10.2	0.0	0.0
2	0.0	0.0	0.0	0.0	9.2	0.0	24.8	0.0	14.4	0.6	0.0	0.0
3	0.0	0.0	0.0	0.0	0.2	6.6	11.4	3.0	1.6	0.0	0.0	0.0
4	0.0	0.0	6.4	0.0	3.6	19.8	4.0	2.0	9.4	0.0	0.8	0.0
5	0.0	0.0	1.2	11.4	4.6	0.0	7.4	16.4	8.6	0.0	0.0	0.0
6	0.0	0.0	0.0	5.4	1.0	0.0	15.6	18.6	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	6.8	0.0	0.0	5.2	n.a.	0.0	1.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	9.4	0.0	n.a.	0.0	0.0	0.2	0.0
9	0.0	0.0	0.0	0.0	0.4	7.2	2.4	n.a.	0.0	7.2	2.2	0.0
10	0.0	0.0	0.0	0.0	0.0	13.6	16.8	n.a.	0.0	3.0	13.8	0.0
Mean	0.0	0.0	7.6	23.6	24.6	56.8	87.6	40.0	40.0	22.0	17.0	0.0
11	0.0	0.0	0.0	0.0	0.0	5.6	9.6	0.0	3.8	0.0	1.4	0.0
12	0.0	0.0	0.0	6.8	0.4	8.4	0.0	3.2	14.4	1.6	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.6	27.4	0.2	0.0	2.2	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	29.4	9.0	8.8	0.0	3.6	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	1.6	3.0	0.0
16	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
18	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
20	0.0	0.0	0.0	0.4	5.4	6.6	15.8	0.0	0.0	0.0	0.0	0.0
Mean	0.0	0.0	0.0	8.8	5.8	21.8	90.0	13.4	37.4	7.6	8.0	0.0
21	0.0	0.0	0.0	0.0	8.0	6.2	13.0	2.4	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	4.0	11.6	0.2	0.0	0.2	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.4	0.4	5.6	0.0	10.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.2	0.4	0.2	0.0	23.4	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.6	1.0	19.0	12.4	0.0	0.0	0.0
26	0.0	0.0	0.0	0.6	0.0	0.4	0.0	17.2	31.8	3.2	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	26.0	1.0	0.0	0.0
28	0.0	0.0	0.0	0.0	1.4	0.0	8.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.4	0.0	0.0	8.6	0.0	49.0	0.0	0.0	0.0
30	0.0	0.0	0.0	4.8	0.0	0.0	5.0	28.2	4.6	2.4	0.0	0.0
31	0.0	0.0	0.0	0.4	0.4	0.0	1.0	12.8	0.0	0.0	0.0	0.0
Mean	0.0	0.0	0.0	10.2	14.0	7.2	28.6	87.4	147.2	6.6	0.0	0.0
MEAN	0.0	0.0	7.6	42.6	52.4	92.0	219.2	143.2	224.6	36.2	25.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	6.4	11.4	11.6	19.8	29.4	28.2	49.0	10.2	13.8	0.0

INCOMING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	37.4	56.8	159.0	260.3	183.3	216.4	236.0	275.0	88.5	89.1	74.1	42.2
2	32.7	73.4	162.8	216.7	335.5	385.7	64.2	249.9	177.4	170.0	72.7	57.2
3	42.7	81.4	157.4	158.4	264.2	93.2	194.3	176.3	78.1	123.2	57.2	54.9
4	48.8	79.6	88.9	109.6	307.6	201.4	183.1	166.4	92.0	51.8	62.9	53.2
5	45.0	97.1	113.6	135.6	191.6	384.1	187.1	162.6	120.1	169.8	95.9	47.5
6	34.8	121.6	130.4	288.5	189.4	206.1	61.4	105.9	199.8	158.9	110.8	54.0
7	40.8	50.1	194.0	186.3	294.5	223.7	276.7	178.9	260.6	58.0	66.5	42.3
8	45.1	105.6	132.8	261.1	236.9	68.6	130.7	n.a.	250.4	122.9	78.9	43.2
9	41.2	83.7	204.7	210.6	278.5	148.3	334.0	n.a.	167.8	64.8	73.9	30.9
10	60.6	68.3	196.9	215.9	353.2	171.6	225.9	n.a.	167.6	83.8	34.2	43.3
Mean	42.9	81.8	154.0	204.3	263.5	209.9	189.3	187.9	160.2	109.2	72.7	46.9
11	55.6	79.6	190.3	136.3	340.9	226.9	113.8	369.6	146.3	92.7	36.0	52.1
12	61.1	71.9	185.1	258.3	157.1	171.8	316.7	254.4	28.2	106.4	59.4	42.3
13	53.0	120.8	210.4	203.5	319.4	260.7	137.7	327.3	141.2	80.3	82.5	46.8
14	51.7	97.6	216.0	183.8	385.8	354.5	51.6	211.2	239.4	57.6	77.3	35.4
15	63.8	85.1	222.5	169.4	341.3	398.5	177.4	284.6	236.9	50.4	75.8	37.4
16	65.4	126.6	226.8	232.9	239.4	378.4	365.5	187.6	233.0	139.5	74.0	37.9
17	46.7	142.3	166.8	310.2	387.1	376.9	236.0	321.9	180.1	85.1	72.3	44.7
18	54.5	147.8	93.0	184.0	240.0	280.3	361.3	321.6	180.1	123.8	62.6	40.2
19	41.6	90.5	130.4	237.5	229.7	325.8	350.9	320.5	75.7	134.6	59.5	39.1
20	44.9	122.5	242.8	217.8	127.0	122.1	201.4	248.7	225.3	128.9	59.3	33.7
Mean	53.8	108.5	188.4	213.4	276.8	289.6	231.2	284.7	168.6	99.9	65.9	41.0
21	65.1	154.5	200.5	259.4	151.7	304.8	215.3	154.8	212.0	122.3	58.8	44.8
22	44.9	153.7	222.4	222.4	315.8	357.2	208.1	235.3	140.5	122.2	42.1	43.4
23	58.9	88.3	209.1	216.4	334.1	213.1	326.9	257.8	170.8	115.5	60.7	42.3
24	75.9	132.4	143.2	207.1	243.0	261.2	176.9	139.8	n.a.	113.0	55.9	35.2
25	57.4	87.2	175.4	265.0	375.9	222.3	174.3	114.7	63.0	106.1	42.6	29.8
26	86.6	96.8	254.7	301.4	264.3	133.3	293.9	152.4	42.1	33.8	29.8	32.4
27	73.4	119.7	247.7	290.8	209.1	267.0	308.7	289.3	150.1	56.7	37.4	44.1
28	51.3	103.1	253.4	325.6	237.4	310.1	87.9	235.2	161.2	53.3	22.7	44.3
29	68.9	103.7	241.2	154.8	215.3	259.5	277.6	275.0	24.5	97.6	49.4	38.2
30	70.2		186.9	212.5	273.2	336.6	232.3	50.0	65.6	111.7	59.7	39.3
31	62.0		257.7		224.1		174.2	58.4		77.9		39.7
Mean	65.0	115.5	217.5	245.5	258.5	266.5	225.1	178.4	114.4	91.8	45.9	39.4
MEAN	54.3	101.4	187.6	221.1	266.0	255.3	215.5	218.7	148.9	100.0	61.5	42.3
MIN	32.7	50.1	88.9	109.6	127.0	68.6	51.6	50.0	24.5	33.8	22.7	29.8
MAX	86.6	154.5	257.7	325.6	387.1	398.5	365.5	369.6	260.6	170.0	110.8	57.2

OUTGOING SHORTWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	34.2	53.9	108.7	164.1	148.7	129.5	38.5	52.4	79.7	22.8	67.4	41.4
2	29.7	69.7	110.2	137.3	226.5	211.1	11.7	46.1	125.5	49.3	69.6	54.2
3	39.7	77.6	104.9	118.0	178.0	59.9	40.0	31.6	52.5	38.7	51.8	51.2
4	45.1	75.7	81.8	94.4	211.5	164.6	42.1	29.7	25.1	14.0	56.6	49.9
5	41.1	85.6	105.8	122.3	173.5	245.2	40.8	29.9	26.3	44.5	86.4	45.6
6	33.0	85.0	114.2	207.3	174.1	134.9	12.6	18.8	38.5	43.9	93.9	50.5
7	37.2	44.9	140.3	161.3	223.4	125.8	58.1	n.a.	51.3	13.4	59.5	38.8
8	41.8	76.6	115.3	208.9	179.5	38.4	25.3	n.a.	46.7	35.9	68.4	39.1
9	40.1	69.5	154.2	164.6	196.7	73.3	64.2	n.a.	31.3	22.8	63.6	29.7
10	56.7	59.6	144.0	159.6	217.1	125.7	45.2	n.a.	31.5	23.9	30.7	40.2
Mean	39.8	69.8	117.9	153.8	192.9	130.8	37.9	34.7	50.8	30.9	64.8	44.1
11	45.5	68.3	141.6	127.3	201.7	134.9	21.1	77.9	29.2	26.2	34.9	47.9
12	47.7	64.8	139.2	189.2	109.9	154.8	63.1	49.3	26.1	29.6	56.9	38.7
13	51.6	101.4	148.9	174.6	192.5	200.3	26.9	59.7	113.4	62.5	67.4	44.9
14	49.6	82.2	147.9	165.3	224.7	229.3	8.9	37.8	146.6	42.8	63.6	33.2
15	49.2	74.4	149.4	156.3	197.7	174.1	42.4	52.6	110.5	46.6	63.4	35.0
16	50.0	85.7	150.8	204.1	214.0	124.3	100.4	32.8	78.9	113.8	61.4	36.4
17	43.5	106.7	121.7	224.1	267.0	97.7	57.7	53.0	50.5	74.3	59.1	40.5
18	52.6	97.6	80.8	165.6	170.0	66.2	77.3	51.3	42.8	98.2	55.4	39.5
19	36.3	77.7	119.3	196.1	143.9	65.9	68.0	48.8	22.4	96.7	54.3	35.2
20	41.3	98.1	175.5	188.0	89.2	24.1	35.8	38.1	59.7	91.4	53.4	31.2
Mean	46.7	85.7	137.5	179.1	181.0	127.2	50.2	50.1	68.0	68.2	57.0	38.2
21	60.5	109.8	154.0	204.1	146.0	58.0	50.9	23.5	55.6	85.8	52.9	44.2
22	40.3	108.9	161.6	193.0	230.2	83.7	59.0	37.2	31.2	82.8	38.5	41.9
23	50.8	76.5	148.2	198.6	231.4	48.9	75.8	42.1	40.9	73.6	56.1	40.0
24	67.4	99.3	111.6	188.9	171.8	57.8	38.0	22.3	n.a.	71.0	53.6	34.9
25	48.2	77.2	135.3	214.2	226.4	41.2	34.3	19.7	13.9	66.9	40.9	26.9
26	60.9	87.2	173.9	232.8	164.3	25.1	53.7	33.4	9.5	26.5	28.0	30.9
27	62.1	115.7	168.5	212.0	136.3	52.0	55.1	74.4	38.0	52.0	34.0	40.3
28	46.0	94.4	167.1	222.8	161.0	58.8	15.4	51.7	50.3	50.5	21.7	41.1
29	58.8	78.0	160.3	126.7	132.5	48.5	56.8	61.7	5.0	87.9	46.6	37.3
30	65.5		132.8	154.2	152.9	58.4	49.6	11.1	14.2	104.2	55.9	35.4
31	56.5		166.0		136.9		34.7	51.6		65.4		35.8
Mean	56.1	94.1	152.7	194.7	171.8	53.2	47.6	39.0	28.7	69.7	42.8	37.2
MEAN	47.8	82.8	136.6	175.9	181.6	103.8	45.3	42.2	49.9	56.7	54.9	39.7
MIN	29.7	44.9	80.8	94.4	89.2	24.1	8.9	11.1	5.0	13.4	21.7	26.9
MAX	67.4	115.7	175.5	232.8	267.0	245.2	100.4	77.9	146.6	113.8	93.9	54.2

INCOMING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	277.7	268.8	229.9	216.9	312.1	330.4	301.7	287.1	317.8	331.8	307.4	287.8
2	274.5	261.1	229.5	248.8	287.4	283.4	340.0	305.8	290.1	269.7	267.3	258.8
3	246.0	240.5	237.2	280.4	268.8	327.6	303.7	320.5	336.4	252.6	298.1	235.8
4	216.2	239.3	311.6	313.0	285.1	320.4	306.7	318.1	324.2	289.4	326.4	269.8
5	278.5	209.9	298.5	327.4	303.9	259.0	324.8	325.9	319.3	250.7	312.0	187.5
6	260.8	158.7	250.7	293.2	321.6	310.2	337.5	340.3	281.6	250.8	253.0	198.6
7	232.3	265.6	199.7	297.6	245.3	314.9	314.5	n.a.	256.1	318.3	226.2	223.0
8	272.3	198.4	267.5	224.2	286.0	337.6	308.7	n.a.	263.0	257.7	241.5	211.1
9	236.6	205.2	229.3	233.1	296.2	326.8	287.6	n.a.	271.5	329.8	240.1	207.8
10	250.5	180.9	205.4	279.4	255.5	327.1	314.9	n.a.	270.5	318.8	327.9	256.3
Mean	254.5	222.8	245.9	271.4	286.2	313.7	314.0	316.3	293.0	286.9	280.0	233.7
11	207.6	221.4	217.9	302.2	261.0	324.1	316.5	n.a.	293.1	279.8	328.7	216.4
12	185.9	234.7	216.3	266.9	316.2	322.5	282.6	293.3	327.0	291.4	268.8	148.3
13	186.0	207.9	213.4	301.7	268.7	285.8	338.7	299.6	266.6	290.9	205.3	209.1
14	155.4	223.5	207.2	309.9	203.6	265.0	345.9	324.7	242.3	267.3	205.8	293.8
15	173.5	258.2	204.6	316.4	250.9	265.9	326.8	303.4	245.5	310.4	189.2	276.1
16	175.9	202.4	205.4	280.6	269.3	270.9	245.0	314.2	266.1	263.6	194.8	210.4
17	194.8	224.9	229.6	223.2	209.0	280.5	299.3	285.7	271.4	288.3	206.2	240.5
18	190.9	195.1	279.1	295.4	280.0	291.7	278.0	286.4	274.6	243.8	219.7	222.9
19	280.8	264.7	280.1	290.3	286.2	296.6	286.2	286.6	315.8	235.4	222.1	181.0
20	275.4	276.9	192.0	299.1	320.1	338.7	323.3	311.5	220.4	247.1	217.5	229.8
Mean	202.6	231.0	224.6	288.6	266.5	294.2	304.2	300.6	272.3	271.8	225.8	222.8
21	270.2	209.9	247.0	266.5	324.6	333.1	316.8	319.2	243.9	261.3	215.1	292.2
22	235.8	188.5	216.0	264.9	296.1	279.7	260.2	310.8	286.2	263.2	296.5	265.8
23	216.7	257.9	223.9	291.3	307.4	317.0	273.8	317.3	281.4	250.1	245.9	282.3
24	245.9	236.4	248.6	282.6	278.6	302.2	305.2	344.1	318.6	236.2	245.5	241.5
25	187.1	285.2	229.1	251.2	257.0	332.1	328.2	348.8	288.0	242.8	241.1	270.2
26	186.4	254.8	206.0	253.3	293.6	337.1	293.1	306.5	329.5	303.2	314.3	262.0
27	206.5	186.1	214.7	251.8	297.4	311.4	304.8	250.3	290.1	318.0	304.0	248.0
28	273.8	220.6	225.2	254.6	308.0	298.0	333.4	287.6	253.9	285.8	309.2	255.2
29	203.3	247.3	240.2	300.9	283.6	301.7	307.9	288.6	342.1	276.6	288.4	226.2
30	183.5		262.4	270.0	268.0	290.1	301.5	329.1	295.8	233.8	263.9	197.5
31	263.2		221.0		312.9		313.6	327.5		242.8		203.9
Mean	224.8	231.9	230.4	268.7	293.4	310.2	303.5	311.8	293.0	264.9	272.4	249.5
MEAN	227.2	228.4	233.5	276.2	282.4	306.0	307.1	309.0	286.1	274.2	259.4	235.8
MIN	155.4	158.7	192.0	216.9	203.6	259.0	245.0	250.3	220.4	233.8	189.2	148.3
MAX	280.8	285.2	311.6	327.4	324.6	338.7	345.9	348.8	342.1	331.8	328.7	293.8

OUTGOING LONGWAVE RADIATION (W/m²)

	J	F	M	A	M	J	J	A	S	O	N	D
1	296.6	252.2	299.1	294.9	325.2	330.5	335.2	331.6	324.7	328.4	302.1	282.1
2	292.2	243.4	302.0	298.0	317.2	331.0	335.8	333.0	329.4	326.5	295.8	260.5
3	260.9	222.9	300.0	309.6	314.2	330.3	332.3	332.8	332.3	321.0	308.2	258.5
4	262.8	232.1	306.5	314.8	309.6	327.3	331.8	333.0	331.1	323.5	324.2	282.6
5	283.2	215.3	288.1	318.1	314.6	320.4	332.0	333.7	330.8	322.4	301.9	236.0
6	269.1	215.9	279.0	317.1	311.6	328.3	331.7	336.8	329.4	322.9	272.3	237.5
7	262.3	270.8	259.1	310.4	303.4	331.1	331.3	n.a.	327.4	328.4	268.3	242.4
8	278.5	263.3	279.1	273.5	317.6	331.4	331.7	n.a.	329.4	320.1	289.6	244.4
9	273.7	249.3	261.8	276.9	323.4	330.5	331.7	n.a.	330.3	328.2	289.5	247.9
10	265.1	226.5	266.2	308.5	322.2	328.2	331.6	n.a.	329.0	327.7	326.9	267.9
Mean	274.4	239.2	284.1	302.2	315.9	328.9	332.5	333.5	329.4	324.9	297.9	256.0
11	266.5	251.0	286.7	297.7	324.8	328.8	331.1	n.a.	329.5	322.6	327.8	240.4
12	254.2	252.0	293.6	276.7	328.7	324.3	330.0	330.5	324.2	318.5	289.9	207.9
13	267.3	243.5	288.6	308.2	319.8	318.7	331.9	331.3	302.4	304.3	273.8	239.1
14	225.0	248.3	284.5	306.7	299.1	319.2	332.7	331.8	311.3	306.4	269.8	292.8
15	234.1	267.3	285.5	309.4	309.5	326.6	329.2	332.6	319.8	311.2	273.9	294.2
16	238.0	263.2	286.7	299.0	289.0	330.3	323.9	332.5	325.1	292.7	270.0	261.2
17	260.9	273.5	289.0	283.4	293.6	331.8	328.5	332.9	327.7	312.1	273.8	268.8
18	255.0	259.8	296.0	296.2	316.4	331.5	331.7	334.3	329.1	310.8	271.0	255.5
19	296.2	274.8	290.1	296.9	321.2	333.0	333.3	334.5	326.4	310.4	275.4	237.2
20	284.9	257.4	261.6	294.8	328.3	333.6	334.2	335.7	312.0	312.7	278.7	261.0
Mean	258.2	259.1	286.2	296.9	313.0	327.8	330.7	332.9	320.8	310.2	280.4	255.8
21	288.1	249.7	296.3	283.6	320.9	332.7	329.7	334.9	319.0	323.4	281.6	279.2
22	288.2	263.4	286.8	291.6	310.0	330.8	322.9	335.1	329.1	326.0	300.2	264.4
23	264.7	285.0	290.0	293.5	330.7	331.3	326.5	335.2	328.1	323.8	276.8	312.9
24	267.4	289.1	291.0	294.9	326.6	332.0	332.4	336.2	329.5	313.4	286.2	294.5
25	242.7	308.9	286.6	289.6	323.7	332.0	332.2	335.8	323.1	315.3	282.2	298.8
26	249.8	281.9	284.8	307.7	326.9	330.2	332.5	329.7	330.0	320.5	315.3	287.3
27	262.0	264.8	288.3	313.5	323.7	332.0	334.0	324.0	327.3	316.9	311.2	274.6
28	277.2	276.0	300.2	322.0	325.8	332.6	334.0	331.2	320.9	283.0	314.4	275.3
29	264.5	306.1	301.6	326.7	323.9	333.7	332.7	331.4	330.5	254.3	284.7	271.3
30	243.9		307.9	317.3	321.6	334.9	332.6	331.5	328.5	262.5	268.5	251.5
31	254.2			293.3		328.6		331.5	323.5		277.1	
Mean	263.9	280.6	293.3	304.0	323.9	332.2	331.0	331.7	326.6	301.5	292.1	278.8
MEAN	265.5	258.9	288.1	301.0	317.8	329.6	331.4	332.5	325.6	311.8	290.1	264.0
MIN	225.0	215.3	259.1	273.5	289.0	318.7	322.9	323.5	302.4	254.3	268.3	207.9
MAX	296.6	308.9	307.9	326.7	330.7	334.9	335.8	336.8	332.3	328.4	327.8	312.9

3.3 UGANDA

AWS Rwenzori

TECHNICAL SHEET

Coordinates:

Latitude: 0° 22' 34.55" N

Longitude: 29° 52' 43.24" E

Elevation: 4.750 m a.s.l

Installation Time:

July 2006

Data Availability:

From July 2006 to June 2009



VARIABLE	RANGE	ACCURACY	RECORDING RATE	HEIGHT ON POLE	MANUFACTURER
Data Logger				2 m	LSI-Lastem BABUC
Air Temperature	-30 - +70 °C	±0.1°C (0°C)	60 min.	2 m	LSI-Lastem DMA572
Relative Humidity	0 - 100 %	1,5% (5÷95%, 23°C)	60 min.	2 m	LSI-Lastem DMA572
Atmospheric Pressure	800 - 1100 hPa (1 hPa=1 mBar)	±1hPa	60 min.	2 m	LSI-Lastem CX115P
Rain Precipitation	Max 10 mm/min	1÷10mm/min: ±1%	60 min.	1.5 m	LSI-Lastem DQA030
Wind Speed and Direction	For speed: 0-60 m/s For direction: 0 ÷ 360	For speed: 0,1 m/s+1%VL For direction: 1% FS (Full scale)	60 min.	5 m	LSI-Lastem DNA022
Global Solar Radiation	<2000 W/m ²		60 min.	2 m	Kipp & Zonen CM3 pyranometer and CG3 pyrgeometer

At Rwenzori, measurement activity was carried out from 2006 to 2009. On 2013, January the AWS was reactivated with an improved experimental set-up. Thus no data are available for year 2012.

3.2 ATMOSPHERIC COMPOSITION (OZONE AND BLACK CARBON) DATA

3.2.1 NEPAL

NCO-P

TECHNICAL SHEET	
Coordinates: Latitude: 27° 57' N Longitude: 86° 48' E Elevation: 5.7079 m a.s.l	
Installation Time: February 2006	
Data Availability: From March 1 st , 2006	

VARIABLE	RANGE	ACCURACY	RECORDING RATE	SAMPLING HEIGHT DEPTH	MANUFACTURER
Black carbon	Minimum detection limit (30-min): 11 ng m ⁻³	Better than 2%	1 min.	3 m	Thermo Scientific MAAP 5012
Ozone	0 - 200 ppm	± 2 ppb in the range 0-100 ppb	1 min.	3 m	Thermo Scientific Tei49C/Tei19i

OZONE (ppbv)

	J	F	M	A	M	J	J	A	S	O	N	D
1	44.1	n.a	53.9	61.3	74.8	63.9	47.8	30.4	39.4	36.9	47.3	50.7
2	46.4	48.5	57.9	64.4	78.1	61.8	41.2	35.4	52.3	37.4	49.0	47.6
3	45.5	n.a	59.8	60.4	74.4	65.9	33.0	34.5	51.3	42.8	52.0	48.4
4	43.4	n.a	55.1	56.7	78.7	84.4	34.3	30.8	44.3	47.9	49.8	50.1
5	47.0	48.8	48.7	56.5	75.7	76.5	37.1	29.7	38.1	49.4	50.3	45.3
6	44.5	49.6	53.5	60.1	72.7	70.5	42.3	32.4	35.1	50.8	53.7	45.9
7	43.9	n.a	63.5	57.1	71.8	61.5	41.7	27.9	29.3	47.8	49.2	48.1
8	43.4	n.a	60.2	59.7	70.5	44.7	35.9	26.6	30.4	51.3	47.2	47.8
9	45.7	52.9	59.8	56.2	64.5	59.7	30.8	32.3	36.2	53.1	50.9	45.0
10	43.5	50.4	61.1	55.3	63.9	67.8	30.0	40.3	31.2	51.8	47.7	45.9
Mean	44.7	50.0	57.4	58.8	72.5	65.7	37.4	32.0	38.8	46.9	49.7	47.5
11	43.5	48.8	55.4	54.4	63.7	71.7	31.6	44.2	30.0	50.5	42.1	42.4
12	45.8	50.7	64.5	57.4	62.6	68.8	33.6	38.5	31.8	51.1	42.0	48.5
13	49.3	50.6	66.0	66.4	71.9	62.3	33.8	32.4	33.4	50.7	43.9	47.8
14	46.4	49.0	57.2	56.8	75.0	58.6	34.9	33.4	28.9	49.2	45.7	48.3
15	45.2	50.3	58.0	56.2	81.5	56.9	40.4	37.6	31.2	50.9	48.8	48.9
16	48.3	48.9	60.8	64.5	84.5	55.0	40.1	40.3	34.3	46.1	50.4	49.8
17	52.0	48.8	n.a	59.7	84.7	58.7	33.2	45.0	36.7	47.3	51.0	50.1
18	51.6	47.5	56.6	58.8	78.4	58.5	34.5	38.7	30.4	56.2	49.8	55.7
19	48.0	47.7	58.3	58.4	70.3	49.6	41.0	37.2	34.5	53.4	53.8	50.0
20	50.3	47.7	55.8	60.4	65.8	53.0	33.2	45.8	33.3	57.1	51.7	49.3
Mean	48.0	49.0	59.2	59.3	73.8	59.3	35.6	39.3	32.5	51.3	47.9	49.1
21	47.5	44.9	58.7	58.1	67.9	51.1	26.4	38.6	36.3	58.5	51.7	45.3
22	50.5	47.7	59.2	66.3	74.1	45.4	25.5	33.3	38.8	59.4	52.4	46.1
23	47.5	49.3	54.2	77.5	78.7	38.2	35.0	30.7	44.8	55.0	51.2	45.1
24	50.4	49.7	54.0	73.1	80.6	38.1	33.2	35.0	50.7	53.3	52.3	44.7
25	54.0	51.0	52.5	79.7	69.2	46.3	33.9	42.4	53.8	48.8	52.3	46.0
26	55.5	54.6	53.1	76.0	62.2	49.8	27.9	39.8	50.6	49.5	47.9	48.1
27	54.5	54.3	61.3	76.1	56.6	52.5	26.0	32.9	45.5	51.8	45.0	45.2
28	n.a	53.3	59.1	77.4	52.9	53.3	27.2	29.0	39.2	51.2	45.7	50.0
29	n.a	49.7	64.4	82.8	54.7	51.0	28.2	33.3	37.4	52.1	46.0	51.3
30	51.3		62.7	82.7	64.0	49.2	25.3	31.6	36.6	47.1	52.2	52.6
31	49.1		60.6		66.6		25.0	32.6		47.6		47.7
Mean	51.1	50.5	58.2	75.0	66.1	47.5	28.5	34.5	43.4	52.2	49.7	47.5
MEAN	47.9	49.7	58.2	64.3	72.9	50.0	33.7	35.2	38.2	50.2	49.1	48.0
MIN	43.4	44.9	48.7	54.4	62.6	38.1	25.0	26.6	28.9	36.9	42.0	42.4
MAX	55.5	54.6	66.0	82.8	84.7	58.7	47.8	45.8	53.8	59.4	53.8	55.7

BLACK CARBON (ng/m³)

	J	F	M	A	M	J	J	A	S	O	N	D
1	113.8	375.4	261.6	n.a	n.a	433.0	32.7	11.0	9.7	203.4	93.0	45.0
2	78.7	n.a	561.4	630.0	511.5	201.6	20.8	8.4	20.3	220.7	63.8	83.1
3	79.8	144.3	641.7	806.6	352.8	303.5	10.7	3.6	25.7	179.8	63.7	23.1
4	91.4	140.7	476.4	356.9	311.2	463.2	3.4	2.7	10.5	226.4	73.8	65.1
5	93.4	118.3	654.5	229.5	251.1	551.1	2.1	4.7	6.3	312.1	68.0	39.0
6	79.7	85.0	290.5	66.2	210.1	339.1	2.3	9.9	10.6	207.4	68.8	40.3
7	84.7	88.9	304.2	141.0	272.6	236.2	9.6	12.9	13.1	233.1	21.7	38.0
8	96.2	256.7	290.0	211.3	362.8	n.a	13.3	3.5	23.2	189.6	134.5	119.8
9	122.0	170.9	455.8	108.4	222.5	369.3	23.0	7.3	18.3	98.5	143.6	113.2
10	98.5	68.8	231.7	102.7	169.8	453.7	18.3	25.4	25.7	71.4	261.0	250.0
Mean	93.8	161.0	416.8	294.7	296.0	372.3	13.6	8.9	16.3	194.2	99.2	81.7
11	145.6	189.8	94.6	68.0	297.7	474.1	8.1	10.3	23.5	64.6	221.0	203.5
12	172.5	216.3	335.7	89.8	217.7	473.0	6.1	3.0	7.8	102.7	231.3	327.8
13	140.8	155.8	476.5	139.2	262.1	542.3	9.0	8.5	4.2	119.8	203.0	187.0
14	77.8	149.8	210.8	166.8	343.1	461.8	n.a.	35.8	3.1	233.5	194.3	49.8
15	80.4	243.2	199.0	89.7	409.2	431.9	6.8	46.0	2.8	262.0	127.5	38.7
16	103.0	150.7	302.1	148.5	735.6	345.6	4.7	31.4	4.9	260.0	109.8	41.1
17	162.5	66.4	323.9	316.2	593.6	185.5	0.8	21.2	2.0	337.8	61.3	19.1
18	105.0	115.9	440.7	318.4	543.0	1.8	2.4	8.3	10.8	81.0	50.7	27.3
19	108.7	212.7	494.2	472.8	293.0	60.2	5.2	19.1	n.a	123.8	24.8	105.3
20	189.3	151.0	733.4	671.6	234.7	30.2	8.8	12.2	14.8	118.2	21.1	60.8
Mean	128.6	165.1	361.1	248.1	393.0	300.6	5.8	19.6	8.2	170.3	124.5	106.0
21	87.7	380.9	539.2	335.5	378.9	8.3	9.3	13.3	25.4	90.9	52.8	69.8
22	74.2	238.0	349.1	204.1	537.7	8.2	5.3	9.5	47.6	146.0	53.5	106.2
23	182.3	62.2	451.3	315.8	872.2	0.0	6.9	2.4	105.7	160.3	64.0	114.8
24	99.0	114.6	694.4	426.3	1004.2	1.1	3.5	5.5	184.1	122.8	198.0	133.5
25	79.8	87.2	636.8	638.7	983.2	30.4	4.1	5.2	195.4	120.9	156.5	128.4
26	115.3	216.5	492.3	448.1	n.a	82.9	8.4	14.6	237.4	116.8	70.1	93.3
27	200.0	188.1	1011.6	769.9	610.9	109.8	2.5	9.0	222.6	139.0	110.5	62.6
28	133.9	265.1	599.8	516.7	578.0	139.5	6.6	8.6	168.4	117.2	75.4	56.3
29	162.4	225.9	541.5	488.5	515.1	132.0	5.4	12.0	190.8	86.8	65.5	70.6
30	243.0		293.4	550.3	601.9	129.5	4.6	10.4	220.3	115.7	54.0	57.9
31	203.5		328.8		333.4		9.1	13.8		113.5		86.5
Mean	143.7	197.6	539.8	469.4	641.5	64.2	6.0	9.5	159.8	120.9	90.0	89.1
MEAN	122.7	174.2	442.5	338.9	448.6	241.3	8.5	12.6	63.3	160.5	104.6	92.2
MIN	74.2	62.2	94.6	66.2	169.8	0.0	0.8	2.4	2.0	64.6	21.1	19.1
MAX	243.0	380.9	1011.6	806.6	1004.2	551.1	32.7	46.0	237.4	337.8	261.0	327.8

3.2.2 ITALY

O. VITTORI

TECHNICAL SHEET

Coordinates:

Latitude: 44° 12' N
Longitude: 10° 42' E
Elevation: 2.165 m a.s.l

Installation Time:

January 1996

Data Availability:

From January 1st, 1996



Variable	Range	Accuracy	Recording rate	Height on Pole	Manufacturer
Black carbon	Minimum detection limit (30-min): 13 ng m ⁻³	Better than 2%	1 min.	8 m	Thermo Scientific MAAP 5012
Ozone	0 - 200 ppm	± 2 ppb in the range 0-100 ppb	1 min.	7 m	Dasibi 1108

OZONE (ppbv)

	J	F	M	A	M	J	J	A	S	O	N	D
1	42.8	38.2	41.9	55.1	57.9	60.8	50.5	69.6	50.9	49.0	45.0	34.5
2	39.0	41.0	43.2	58.6	56.9	58.5	64.0	64.3	50.4	49.7	43.1	38.3
3	39.9	41.2	45.2	57.1	61.7	58.4	68.0	65.0	57.0	49.8	43.8	41.6
4	41.0	35.5	53.1	54.0	62.0	55.2	60.5	67.8	59.2	50.5	39.9	41.4
5	42.1	36.1	52.3	50.0	55.7	55.7	62.6	61.5	62.6	49.8	38.8	42.6
6	38.2	42.2	49.5	51.8	50.5	56.3	66.0	52.5	65.6	57.7	37.7	41.7
7	39.9	31.4	51.2	54.4	54.2	59.6	58.0	58.2	65.4	50.5	40.7	41.2
8	41.7	40.3	54.9	52.7	56.8	58.8	61.0	76.4	58.7	45.3	45.8	37.9
9	41.0	48.7	47.4	56.1	48.5	59.5	60.0	80.2	64.7	42.5	44.6	44.5
10	39.5	40.8	49.3	54.6	50.8	51.2	57.8	67.9	69.3	40.3	42.5	41.4
Mean	40.5	39.5	48.8	54.4	55.5	57.4	60.8	66.3	60.4	48.5	42.2	40.5
11	40.8	45.0	48.7	52.2	57.9	43.7	61.1	67.8	64.6	43.2	40.9	33.0
12	40.3	47.9	46.7	51.1	58.7	43.7	63.1	73.4	53.8	42.5	41.2	36.2
13	43.9	46.9	52.4	51.4	53.2	46.6	56.6	69.8	41.4	42.9	37.3	41.6
14	41.8	47.3	53.9	50.7	54.6	52.8	59.4	69.4	41.3	45.4	40.8	41.3
15	47.9	46.0	56.1	54.3	61.8	62.0	54.7	65.0	54.6	44.9	52.7	43.1
16	48.8	43.7	58.1	54.8	55.1	60.3	56.3	65.6	53.1	46.9	52.1	45.9
17	44.4	46.1	54.2	49.8	56.8	70.1	62.7	74.1	55.8	45.4	50.1	45.9
18	41.8	46.5	53.7	55.9	62.4	65.5	64.8	68.9	56.6	55.8	47.9	45.1
19	38.8	45.5	52.7	54.0	58.3	69.8	63.6	70.2	62.4	48.2	38.9	42.9
20	36.7	39.6	52.4	55.3	61.6	50.7	58.6	65.3	43.6	39.6	43.8	44.8
Mean	42.5	45.5	52.9	53.0	58.0	56.5	60.1	69.0	52.7	45.5	44.6	42.0
21	37.1	46.4	56.0	54.6	59.5	54.7	60.2	76.8	53.3	31.4	47.3	42.1
22	40.5	49.1	57.6	56.7	58.4	60.3	52.0	66.8	52.1	31.1	47.8	44.2
23	43.1	48.2	54.8	52.6	59.3	65.5	48.6	60.7	50.8	45.0	44.1	43.4
24	39.5	43.3	58.7	n.a	66.6	68.2	60.3	59.0	48.7	49.8	45.6	46.6
25	39.0	42.9	63.3	54.0	68.2	52.7	65.4	59.0	48.8	47.3	44.6	39.3
26	41.5	46.3	58.9	60.1	63.7	52.1	77.2	54.8	43.7	45.6	44.3	41.7
27	40.4	47.0	57.5	59.7	64.7	54.2	71.8	52.8	44.1	41.3	43.7	42.9
28	42.4	48.4	54.1	66.4	67.2	52.6	65.6	66.4	42.2	38.0	38.7	41.8
29	40.6	38.7	56.2	55.6	66.3	46.9	67.1	68.6	43.5	37.3	34.9	44.9
30	42.8		56.0	53.3	70.8	50.4	66.3	53.1	43.1	46.1	30.3	47.8
31	41.7			58.9		66.5		74.5	49.9		40.6	
Mean	40.8	45.6	57.5	57.0	64.7	55.8	64.5	60.7	47.0	41.2	42.1	44.2
MEAN	41.3	43.5	53.2	54.7	59.6	59.6	61.9	65.2	53.4	44.9	43.0	42.3
MIN	36.7	31.4	41.9	49.8	48.5	43.7	48.6	49.9	41.3	31.1	30.3	33.0
MAX	48.8	49.1	63.3	66.4	70.8	70.1	77.2	80.2	69.3	57.7	52.7	51.1

BLACK CARBON (ng/m³)

	J	F	M	A	M	J	J	A	S	O	N	D
1	10.6	102.7	103.7	331.8	233.8	255.2	317.0	343.8	76.5	57.6	28.0	19.2
2	16.5	216.2	76.5	457.2	78.2	200.0	405.5	243.6	102.5	85.8	44.9	69.6
3	17.5	142.0	133.5	166.1	n.a	241.0	296.7	316.2	52.4	142.0	n.a	67.3
4	43.0	60.4	553.9	313.2	127.5	77.6	173.9	276.6	66.1	179.1	n.a	21.1
5	48.5	217.6	286.9	127.9	90.7	172.7	277.1	387.9	137.0	203.3	33.7	38.1
6	45.4	158.5	88.6	102.1	30.1	122.5	362.9	315.5	560.1	184.0	56.1	85.4
7	28.3	98.6	283.9	49.1	74.3	218.5	172.0	145.9	482.8	170.5	169.7	75.7
8	60.7	208.3	299.4	35.7	133.2	220.7	159.8	387.0	213.6	263.6	41.3	132.3
9	45.4	139.4	255.0	102.6	133.5	241.2	171.5	488.2	327.6	121.8	51.8	77.0
10	42.8	598.5	179.7	91.4	191.5	57.9	199.6	335.9	523.9	128.9	161.7	154.0
Mean	35.9	194.2	226.1	177.7	121.4	180.7	253.6	324.1	254.2	153.7	73.4	74.0
11	51.4	579.4	351.1	28.9	217.2	n.a	242.7	344.8	480.3	88.0	20.8	90.7
12	26.5	364.1	174.9	39.7	262.6	n.a	195.8	416.2	194.5	193.5	50.2	174.7
13	104.8	144.4	309.2	33.0	154.5	61.9	125.2	395.9	36.1	164.1	163.6	69.8
14	207.1	105.0	n.a	41.0	114.8	89.6	193.1	438.8	n.a	120.4	n.a	16.2
15	239.2	171.8	196.7	60.7	216.7	188.4	121.3	347.2	217.7	26.2	n.a	29.0
16	225.4	66.9	252.4	44.8	118.4	178.8	165.1	351.7	239.8	71.5	n.a	58.7
17	36.8	144.6	238.2	106.8	76.7	354.4	219.0	550.9	244.3	28.4	n.a	27.9
18	51.0	113.0	183.6	41.6	162.2	292.3	296.3	344.4	254.9	25.8	105.5	17.0
19	108.4	29.9	51.4	7.6	111.2	384.4	178.9	420.5	257.0	102.3	35.4	41.5
20	91.1	36.5	219.6	8.4	111.6	269.0	122.3	356.0	159.4	168.9	64.8	28.3
Mean	114.2	175.5	219.7	41.3	154.6	227.4	186.0	396.7	231.5	98.9	73.4	55.4
21	44.7	41.0	428.1	40.4	50.4	418.6	269.0	519.4	314.7	126.3	64.9	10.2
22	22.6	69.5	532.0	22.1	92.7	305.1	96.5	448.8	218.3	158.6	29.7	n.a
23	n.a	16.6	377.6	35.5	141.2	326.2	131.0	351.5	499.4	92.8	66.8	n.a
24	n.a	42.7	807.7	12.6	272.6	324.4	n.a	349.8	246.0	193.4	139.1	n.a
25	121.4	76.7	874.2	37.1	216.6	174.3	n.a	416.5	101.2	297.1	84.6	48.5
26	168.4	372.8	595.4	91.4	229.0	271.3	n.a	152.8	165.5	45.5	86.0	78.3
27	53.1	103.2	334.1	266.3	283.6	234.6	370.8	87.7	38.8	15.9	85.0	30.0
28	70.2	184.1	190.4	405.2	281.9	242.4	350.5	247.7	232.8	66.4	36.0	56.9
29	209.4	45.2	225.6	165.2	288.2	177.9	255.5	256.9	433.5	55.5	29.2	35.5
30	136.6		193.5	184.4	334.6	300.9	276.2	147.8	193.4	75.5	54.6	39.5
31	179.9		203.9		222.2		462.4	98.2		78.0		25.8
Mean	111.8	105.7	432.9	126.0	219.4	277.6	276.5	279.7	244.4	109.6	67.6	40.6
MEAN	86.4	160.3	300.0	115.0	168.4	228.6	236.0	331.7	243.8	120.3	71.0	57.8
MIN	10.6	16.6	51.4	7.6	30.1	57.9	96.5	87.7	36.1	15.9	20.8	10.2
MAX	239.2	598.5	874.2	457.2	334.6	418.6	462.4	550.9	560.1	297.1	169.7	174.7

PORTELLA CLIMATE OBSERVATORY

TECHNICAL SHEET

Coordinates:

Latitude: 42° 26' 52.96" N

Longitude: 13° 33' 02.41" E

Elevation: 2.401 m a.s.l

Installation Time:

July 5th, 2012

Data Availability:

July 19th, 2012



VARIABLE	RANGE	ACCURACY	RECORDING RATE	SAMPLING HEIGHT DEPTH	MANUFACTURER
Ozone	1.0 ppb to 250 ppm	Greater of 1.0 ppb or 2% of reading	1 min.	4 m	2B Technologies (Model 205 Dual Beam)

OZONE (ppbv)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	58.7	57.6	n.a.	n.a.	n.a.						
2	n.a.	62.0	n.a.	n.a.	n.a.	n.a.						
3	n.a.	61.6	n.a.	n.a.	n.a.	n.a.						
4	n.a.	67.6	n.a.	n.a.	n.a.	55.2						
5	n.a.	60.1	69.9	n.a.	n.a.	55.4						
6	n.a.	61.0	67.7	n.a.	n.a.	57.2						
7	n.a.	54.4	70.1	n.a.	n.a.	56.9						
8	n.a.	65.6	64.1	n.a.	n.a.	53.6						
9	n.a.	67.4	70.0	n.a.	n.a.	49.1						
10	n.a.	57.6	74.2	n.a.	n.a.	59.1						
Mean	n.a.	60.7	66.5	n.a.	n.a.	55.2						
11	n.a.	59.9	n.a.	n.a.	n.a.	47.1						
12	n.a.	65.7	n.a.	n.a.	n.a.	51.3						
13	n.a.	69.4	n.a.	n.a.	n.a.	59.7						
14	n.a.	67.5	n.a.	n.a.	n.a.	57.3						
15	n.a.	64.3	n.a.	n.a.	n.a.	56.3						
16	n.a.	63.7	58.9	n.a.	n.a.	n.a.						
17	n.a.	66.7	63.0	n.a.	n.a.	60.2						
18	n.a.	64.9	62.9	n.a.	n.a.	62.0						
19	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	62.4	55.4	67.0	n.a.	n.a.	51.6
20	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	68.5	58.6	59.5	n.a.	n.a.	56.4
Mean	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	65.5	63.6	62.3	n.a.	n.a.	55.8
21	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	65.8	64.5	60.9	n.a.	n.a.	54.8
22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	61.0	74.6	61.0	n.a.	n.a.	53.8
23	n.a.	73.2	66.8	n.a.	n.a.	58.4						
24	n.a.	80.5	61.0	n.a.	n.a.	64.9						
25	n.a.	74.2	58.7	n.a.	n.a.	60.0						
26	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	63.8	67.6	n.a.	n.a.	n.a.	57.4
27	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	66.7	61.6	n.a.	n.a.	n.a.	63.0
28	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	62.9	68.2	46.6	n.a.	n.a.	53.2
29	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	65.5	72.8	n.a.	n.a.	n.a.	60.0
30	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	60.5	65.9	n.a.	n.a.	n.a.	64.6
31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	63.9	57.6	n.a.	n.a.	n.a.	61.0
Mean	n.a	n.a	n.a	n.a	n.a	n.a	63.8	69.2	59.2	n.a.	n.a.	59.2
MEAN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	64.6	65.1	63.4	n.a.	n.a.	56.7
MIN	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	60.5	54.4	46.6	n.a.	n.a.	47.1
MAX	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	66.7	80.5	74.2	n.a.	n.a.	64.9

3.2.3 BOLIVIA

CHACALTAYA OBSERVATORY

TECHNICAL SHEET

Coordinates:

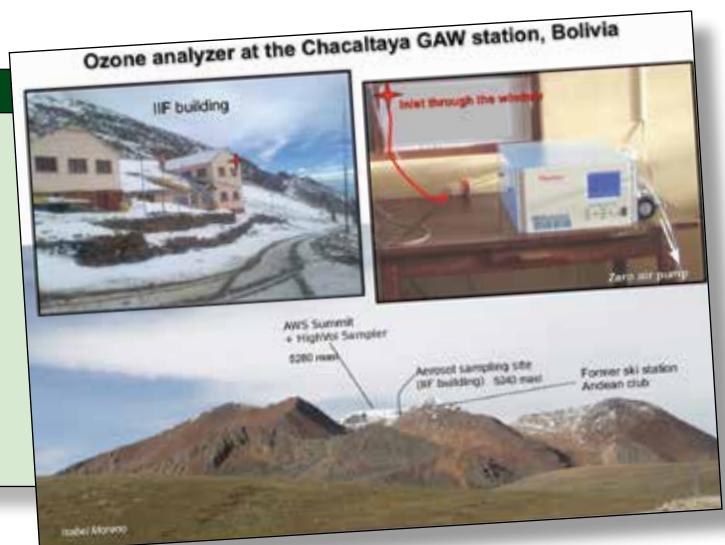
Latitude: 16° 21' N
 Longitude: 68° 08' W
 Elevation: 5240 m a.s.l.

Installation Time:

November, 2011

Data Availability:

From April 10th, 2012



VARIABLE	RANGE	ACCURACY	RECORDING RATE	SAMPLING HEIGHT DEPTH	MANUFACTURER
Ozone	0 - 200 ppm	± 2 ppb in the range 0-100 ppb	1 min.	8 m	Thermo Scientific Tei49i

OZONE (ppbv)

	J	F	M	A	M	J	J	A	S	O	N	D
1	n.a.	n.a.	n.a.	n.a.	26.7	40.0	41.6	n.a.	n.a.	42.0	45.7	34.5
2	n.a.	n.a.	n.a.	n.a.	31.7	38.9	44.8	43.2	n.a.	41.9	43.5	33.3
3	n.a.	n.a.	n.a.	n.a.	32.7	35.0	n.a.	42.4	n.a.	46.0	37.1	37.8
4	n.a.	n.a.	n.a.	n.a.	32.6	32.4	39.4	44.0	n.a.	43.1	37.4	38.7
5	n.a.	n.a.	n.a.	n.a.	30.5	n.a.	40.2	43.5	46.3	46.1	34.8	36.6
6	n.a.	n.a.	n.a.	n.a.	28.6	n.a.	40.2	41.3	51.4	39.8	35.2	37.1
7	n.a.	n.a.	n.a.	n.a.	29.4	n.a.	38.0	43.5	51.4	44.2	38.6	43.6
8	n.a.	n.a.	n.a.	n.a.	28.3	n.a.	29.6	48.6	52.9	35.1	36.4	43.2
9	n.a.	n.a.	n.a.	n.a.	33.5	n.a.	44.6	51.6	42.0	39.2	33.8	34.0
10	n.a.	n.a.	n.a.	24.0	31.1	n.a.	49.3	54.5	52.4	37.7	28.3	26.0
Mean	n.a.	n.a.	n.a.	n.a.	30.5	36.6	40.9	45.8	49.4	41.5	37.1	36.5
11	n.a.	n.a.	n.a.	26.2	31.3	n.a.	50.6	n.a.	50.1	45.9	25.5	33.1
12	n.a.	n.a.	n.a.	25.3	30.5	n.a.	43.9	n.a.	46.1	45.2	30.7	35.2
13	n.a.	n.a.	n.a.	22.0	27.7	n.a.	43.1	n.a.	44.7	43.1	33.5	n.a.
14	n.a.	n.a.	n.a.	25.2	35.6	n.a.	46.2	n.a.	52.5	41.0	31.8	n.a.
15	n.a.	n.a.	n.a.	27.6	34.8	n.a.	47.4	n.a.	56.2	47.8	n.a.	n.a.
16	n.a.	n.a.	n.a.	28.7	31.7	n.a.	45.9	n.a.	51.7	45.2	48.5	n.a.
17	n.a.	n.a.	n.a.	24.9	34.2	35.5	n.a.	n.a.	56.1	42.8	47.6	n.a.
18	n.a.	n.a.	n.a.	29.7	33.7	37.4	40.6	n.a.	49.3	40.9	44.6	n.a.
19	n.a.	n.a.	n.a.	31.8	32.8	38.6	39.4	n.a.	45.0	39.6	45.1	n.a.
20	n.a.	n.a.	n.a.	n.a.	33.4	40.1	38.3	n.a.	42.8	38.5	38.7	n.a.
Mean	n.a.	n.a.	n.a.	26.8	32.6	37.9	43.9	n.a.	49.5	43.0	38.4	34.2
21	n.a.	n.a.	n.a.	34.9	32.0	40.6	38.2	n.a.	45.6	37.4	39.4	n.a.
22	n.a.	n.a.	n.a.	34.0	33.0	42.3	38.4	n.a.	42.4	40.0	45.7	n.a.
23	n.a.	n.a.	n.a.	34.2	32.5	39.3	39.9	n.a.	44.3	36.2	n.a.	n.a.
24	n.a.	n.a.	n.a.	33.2	34.0	37.5	39.2	n.a.	48.8	33.4	n.a.	44.3
25	n.a.	n.a.	n.a.	32.5	35.9	40.0	37.5	n.a.	44.9	32.6	35.1	52.6
26	n.a.	n.a.	n.a.	32.4	32.6	41.2	38.2	n.a.	42.3	31.9	39.7	54.9
27	n.a.	n.a.	n.a.	29.4	32.7	38.3	39.1	n.a.	45.2	35.0	37.9	41.0
28	n.a.	n.a.	n.a.	31.8	34.0	39.4	37.5	n.a.	48.4	38.9	37.5	42.3
29	n.a.	n.a.	n.a.	29.1	36.0	36.7	38.4	n.a.	47.4	38.8	36.8	35.5
30	n.a.	n.a.	n.a.	27.6	36.8	35.6	37.9	n.a.	45.3	40.0	35.2	39.4
31	n.a.	n.a.	n.a.		39.7			n.a.		46.6		37.6
Mean	n.a	n.a	n.a	31.9	34.5	39.1	38.4	n.a.	45.4	37.3	38.4	43.5
MEAN	n.a.	n.a.	n.a.	29.2	32.6	38.3	41.0	45.8	47.9	40.5	37.9	39.0
MIN	n.a.	n.a.	n.a.	22.0	26.7	32.4	29.6	41.3	42.0	31.9	25.5	26.0
MAX	n.a.	n.a.	n.a.	34.9	39.7	42.3	50.6	54.5	56.2	47.8	48.5	54.9



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Associazione Riconosciuta Ev-K2-CNR
Via S. Bernardino 145, Bergamo, Italy

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