Contents

CR3000_LondonRoof.dat File Format

Stored	W:\KCLroof*YYYY*\CR3000\
Name	**CR3000_LondonRoof.dat.**
Start	22/02/07
End	3/05/2007
Generated by:	CR3000 program

Column	Description	
1	Timestamp	
2	Record Number	
3	K^{-}	$W\ m^{-2}$
4	K^{-} Standard Deviation	$W\ m^{-2}$
5	K↑	$W\ m^{-2}$
6	K↑ Standard Deviation	$W\ m^{-2}$
7	L^{-}	$W\ m^{-2}$
8	L^{-} Standard Deviation	$W\ m^{-2}$
9	L↑	$W\ m^{-2}$
10	L↑ Standard Deviation	$W\ m^{-2}$
11	CNR1 Temperature	°C
12	CNR1 Temperature Standard Deviation	°C
13	CNR1 Temperature	K
14	CNR1 Temperature Standard Deviation	K
15	Wind Direction	°
16	Wind Speed	$m\ s^{-1}$
17	Temperature	°C
18	Relative Humidity	%
19	Atmospheric Pressure	hPa
20	Rainfall	??
21	Hail	??

TK2 Processed

RESULT_KSS_YYDDD_15.csv
RESULT_KSS_YYDDD_30.csv
RESULT_KSS_YYDDD_60.csv

ECPACK Processed

FluxOut_KSS_V0_YYDDD_15.txt
FluxOut_KSS_V0_YYDDD_30.txt
FluxOut_KSS_V0_YYDDD_60.tx

LAS:File format

W SG 10 August 2007
Lo W:\KCLroof*YYYY*\LAS\
Fi LasFastYYDDD_hr.txt
St **1300/ day 211 2007**
G hourly split from CR3000

1	DDD	
2	HHMM	
3	SS	
4	SS	
5	U	CSAT
6	V	CSAT
7	W	CSAT
8	T	CSAT
9	err	CSAT
10	q	KH mv
11	LAS -UCN2 log of Cn2	LAS

Comment	Date: 1 Sept 2010 — radiation data offset in these files by 15 mins (these files should not be used) (FL, SG)
Who	Duick Young 6 Aug 2007
Where	W:\KCLroof*YYYY*\WXT510*MM*\
Name	**LR*YYYYDDD_15* .txt**
Started	25th July 2007 (07/206)
Flag	(Column 27) added 3rd August 2007 (07/214)
Comment	Tipping Bucket Raingauge added 18 August 2008 (08/231)
Generated by:	MATLAB using WXTmeanplot#.m

Column	Variable	Units
1	Day of Year (DOY)	
2	Decimal Time	
3	Hour	
4	Minute	
5	Number of Samples	
6	Wind Speed Minimum	m s^{-1}
7	Wind Speed Mean	m s^{-1}
8	Wind Speed Maximum	m s^{-1}
9	Air Temperature	°C
10	Relative Humidity	%
11	Air Pressure	hPa
12	**U** (Wind Component)	m s^{-1}
13	**V** (Wind Component)	m s^{-1}
14	Wind Direction	°
15	Total Rain Accumulation	mm
16	Total Rain Duration	s
17	Total Hail Accumulation	hits cm^{-2}
18	Total Hail Duration	s
19	Standard Deviation – Wind Speed Minimum	m s^{-1}
20	Standard Deviation – Wind Speed Mean	m s^{-1}
21	Standard Deviation – Wind Speed Maximum	m s^{-1}
22	Standard Deviation – Air Temperature	°C
23	Standard Deviation – Relative Humidity	%
24	Standard Deviation – Air Pressure	hPa
25	Standard Deviation – **U**	m s^{-1}
26	Standard Deviation – **V**	m s^{-1}
27	Flag	
28	K^{-} - Average	W m^{-2}
29	K^{-}- Standard Deviation	W m^{-2}
30	K↑ - Average	W m^{-2}
31	K↑- Standard Deviation	W m^{-2}

32	L^{-}- Average	W m^{-2}
33	L^{-}- Standard Deviation	W m^{-2}
34	L↑ - Average	W m^{-2}
35	L↑ - Standard Deviation	W m^{-2}
36	CNR1 Temperature – Average	°C
37	CNR1 Temperature – Standard Deviation	°C
38	CNR1 Temperature – Average	K
39	CNR1 Temperature – Standard Deviation	K
40	Net Radiation – Average	W m^{-2}
41	Net Radiation – Standard Deviation	W m^{-2}
42	UVA – Average	µmol m^{-2} s^{-1}
43	UVB – Average	µmol m^{-2} s^{-1}
44	Quantum (PAR) – Average	µmol m^{-2} s^{-1}
45	UVA – Average	W m^{-2}
46	UVB – Average	W m^{-2}
47	Quantum (PAR) – Average	W m^{-2}
48	UVA – Standard Deviation	µmol m^{-2} s^{-1}
49	UVB – Standard Deviation	µmol m^{-2} s^{-1}
50	Quantum (PAR) – Standard Deviation	µmol m^{-2} s^{-1}
51	Surface Albedo	
52	Rain (Tipping Bucket) added 18 August 2008/day 231	mm

Flags

1	Data fine
5	Less than 90 data lines in 15 minute averaging period
6	No data present during 15 minute averaging period

Meteosat: File Format

Meteosat File Convention (OLD FORMAT)

Who:	M BLACKETT 16 FEB 2009
File name structure:	YYYY_MM_DD.txt
Started:	1-Mar-08
Generated by	meteosatGrabber.r
	For 9 pixels every 15 minutes –> 864 lines of data

Column	Variable	Units
1	year	
2	month	
3	day	
4	time	
5	sample	
6	line	
7	latitude	
8	longitude	
9	view_angle	
10	12 um radiance	W m-2
11	12 um brightness temp	K
12	10 um radiance	W m-2
13	10 um brightness temp	
14	8 um radiance	W m-2
15	8 um brightness temp	K
16	4 um radiance	W m-2
17	4 um brightness temp	K
18	1.6 um radiance	W m-2
19	1.6 um reference	%
20	0.8 um radiance	
21	0.8 um reference	%
22	0.6 um radiance	
23	0.6 um reference	%

Ceilometer cloud plot data file format

Who Laura Green 03/12/2008
Soted: \YYY\Ceilometer\clouds
Name: **PCLDYYYYDDD.txt**
Started: 1st January 2007
Generate MATLAB using cloud_v2.m

Column	Variable	Units
1	Day of Year (DOY)	
2	Decimal time	
3	Hour	
4	Minutes	
5	Level 1 – Mininum cloud height	m
6	Level 1 – Median cloud height	m
7	Level 1 – Maximum cloud height	m
8	Level 1 – Mode cloud height	m
9	Level 2 – Mininum cloud height	m
10	Level 2 – Median cloud height	m
11	Level 2 – Maximum cloud height	m
12	Level 2 – Mode cloud height	m
13	Level 3 – Mininum cloud height	m
14	Level 3 – Median cloud height	m
15	Level 3 – Maximum cloud height	m
16	Level 3 – Mode cloud height	m
17	Level 1 – Okta 0	%
18	Level 1 - Okta 1	%
19	Level 1 - Okta 2	%
20	Level 1 - Okta 3	%
21	Level 1 - Okta 4	%
22	Level 1 - Okta 5	%
23	Level 1 - Okta 6	%
24	Level 1 - Okta 7	%
25	Level 1 - Okta 8	%
26	Level 2 – Okta 0	%
27	Level 2 - Okta 1	%
28	Level 2 - Okta 2	%
29	Level 2 - Okta 3	%
30	Level 2 - Okta 4	%
31	Level 2 - Okta 5	%
32	Level 2 - Okta 6	%
33	Level 2 - Okta 7	%
34	Level 2 - Okta 8	%
35	Level 3 – Okta 0	%
36	Level 3 - Okta 1	%
37	Level 3 - Okta 2	%
38	Level 3 - Okta 3	%
39	Level 3 - Okta 4	%
40	Level 3 - Okta 5	%

41	Level 3 - Okta 6	%
42	Level 3 - Okta 7	%
43	Level 3 - Okta 8	%

CNR1 Mean Data File Convention

Who	Duick Young 23 March 2009
Where	...\KCLroof*YYYY* \CR5000\
Name	**RF*YYDDD* .dat**
Start	18th August 2008 (DOY 231)
Generated	Simple Tower Program _V1.1.CR3

Column	Variable	Units
1	Year	
2	Month	
3	Day	
4	Hour	
5	Minute	
6	K ↓- Average	W m^{-2}
7	K↓-- Standard Deviation	W m^{-2}
8	K↑ - Average	W m^{-2}
9	K↑ - Standard Deviation	W m^{-2}
10	L↓-- Average	W m^{-2}
11	L↓-- Standard Deviation	W m^{-2}
12	L↑ - Average	W m^{-2}
13	L↑ - Standard Deviation	W m^{-2}
14	CNR1 Temperature - Average	°C
15	CNR1 Temperature - Standard Deviation	°C
16	CNR1 Temperature - Average	K
17	CNR1 Temperature - Standard Deviation	K
18	Net Radiation - Average	W m^{-2}
19	Net Radiation - Standard Deviation	W m^{-2}
20	UVA - Average	µmol m^{-2} s^{-1}
21	UVB - Average	µmol m^{-2} s^{-1}
22	Quantum (PAR) - Average	µmol m^{-2} s^{-1}
23	UVA - Average	W m^{-2}
24	UVB - Average	W m^{-2}
25	Quantum (PAR) - Average	W m^{-2}
26	UVA - Standard Deviation	µmol m^{-2} s^{-1}
27	UVB - Standard Deviation	µmol m^{-2} s^{-1}
28	Quantum (PAR) - Standard Deviation	µmol m^{-2} s^{-1}
29	Quantum (PAR) - Standard Deviation	µmol m^{-2} s^{-1}
30	Tipping Bucket Rain Gauge	mm

Radiation: File Format (old)

Old CNR1 Mean Data File Convention

Who	Duick Young 22 October 2009
Where	…\KCLroof*YYYY* \CR5000\
Name	**RF*YYDDD* .dat**
Start	26th July 2007 (DOY 207)
End	17th August 2008 (DOY 230)
Generate	Needs to be confirmed – old CR3000 program

Column	Variable	Units
1	Year	
2	Month	
3	Day	
4	Hour	
5	Minute	
6	Record Number	
7	Kdn – Average	W m^{-2}
8	K dn – Standard Deviation	W m^{-2}
9	K↑ – Average	W m^{-2}
10	K↑ – Standard Deviation	W m^{-2}
11	L dn – Average	W m^{-2}
12	L dn – Standard Deviation	W m^{-2}
13	L↑ – Average	W m^{-2}
14	L↑ – Standard Deviation	W m^{-2}
15	CNR1 Temperature – Average	degC
16	CNR1 Temperature – Standard Deviation	degC
17	CNR1 Temperature – Average	K
18	CNR1 Temperature – Standard Deviation	K
19	Net Radiation – Average	W m^{-2}
20	Net Radiation – Standard Deviation	W m^{-2}
21	UVA – Average	µmol m^{-2} s^{-1}
22	UVB – Average	µmol m^{-2} s^{-1}
23	Quantum (PAR) – Average	µmol m^{-2} s^{-1}
24	UVA – Average	W m^{-2}
25	UVB – Average	W m^{-2}
26	Quantum (PAR) – Average	W m^{-2}
27	UVA – Standard Deviation	µmol m^{-2} s^{-1}
28	UVB – Standard Deviation	µmol m^{-2} s^{-1}
29	Quantum (PAR) – Standard Deviation	µmol m^{-2} s^{-1}
30	Quantum (PAR) – Standard Deviation	µmol m^{-2} s^{-1}

Radiation: File Format (old)

Who Duick Young 6/Aug 07
Where W:\KCLroof*YYYY*\CR3000\
Name **RF*YYDDD* .dat**
Start 25/07/07 (DOY 206)*
End **22/06/07 (DOY173)**
Generatec CR3000 program (LondonRoof_V3.CR3)

Column	Description	Units
1	Year	
2	Month	
3	Day	
4	Hour	
5	Minute	
6	Seconds	
7	Record Number	
8	K↓	W m^{-2}
9	K↓ Standard Deviation	W m^{-2}
10	K↑	W m^{-2}
11	K↑ Standard Deviation	W m^{-2}
12	L↓	W m^{-2}
13	L↓ Standard Deviation	W m^{-2}
14	L↑	W m^{-2}
15	L↑ Standard Deviation	W m^{-2}
16	CNR1 Temperature	°C
17	CNR1 Temperature Standard Deviation	°C
18	CNR1 Temperature	K
19	CNR1 Temperature Standard Deviation	K
20	Wind Direction	°
21	Wind Speed	m s^{-1}
22	Temperature	°C
23	Relative Humidity	%
24	Atmospheric Pressure	hPa
25	Rainfall	??
26	Hail	??
27	UVA	mV
28	UVB	mV
29	Quantum (PAR)	mV

Radiation: File Format (old)

Who	Duick Young 6/Aug 07
Where	W:\KCLroof*YYYY*\CR3000\
Name	R**F*YYDDD* .dat**
Start	**01/03/07 (DOY60) and**
End	22/06/07 (DOY 173)
Generated	CR3000 program (LondonRoof_V2.CR3)

Column	Description	Units
1	Year	
2	Month	
3	Day	
4	Hour	
5	Minute	
6	Seconds	
7	Record Number	
8	K^{-}	$W\ m^{-2}$
9	K^{-} Standard Deviation	$W\ m^{-2}$
10	K↑	$W\ m^{-2}$
11	K↑Standard Deviation	$W\ m^{-2}$
12	L^{-}	$W\ m^{-2}$
13	L^{-} Standard Deviation	$W\ m^{-2}$
14	L↑	$W\ m^{-2}$
15	L↑ Standard Deviation	$W\ m^{-2}$
16	CNR1 Temperature	°C
17	CNR1 Temperature Standard Deviation	°C
18	CNR1 Temperature	K
19	CNR1 Temperature Standard Deviation	K
20	Wind Direction	°
21	Wind Speed	ms^{-1}
22	Temperature	°C
23	Relative Humidity	%
24	Atmospheric Pressure	hPa
25	Rainfall	??
26	Hail	??

Who	Duick Young 22/7/07
Stored	W:\KCLroof*YYYY*\WXT510*MM*\
Name	**WXT*YYYYDDD_15* .txt**
Started:	16th July 2007 (DOY 2197)
Flags added	6th August 2007 (DOY 218)
Generated by:	MATLAB using WXTmeanplot#.m

Column	Variable	Units
1	Day of Year (DOY)	
2	Decimal Time	
3	Hour	
4	Minute	
5	Number of Samples	
6	Wind Speed Minimum	$m\ s^{-1}$
7	Wind Speed Mean	$m\ s^{-1}$
8	Wind Speed Maximum	$m\ s^{-1}$
9	Air Temperature	°C
10	Relative Humidity	%
11	Air Pressure	hPa
12	**U** (Wind Component)	$m\ s^{-1}$
13	**V** (Wind Component)	$m\ s^{-1}$
14	Wind Direction	°
15	Total Rain Accumulation	mm
16	Total Rain Duration	s
17	Total Hail Accumulation	$hits\ cm^{-2}$
18	Total Hail Duration	s
19	Standard Deviation – Wind Speed Minimum	$m\ s^{-1}$
20	Standard Deviation – Wind Speed Mean	$m\ s^{-1}$
21	Standard Deviation – Wind Speed Maximum	$m\ s^{-1}$
22	Standard Deviation – Air Temperature	°C
23	Standard Deviation – Relative Humidity	%
24	Standard Deviation – Air Pressure	hPa
25	Standard Deviation – **U**	$m\ s^{-1}$
26	Standard Deviation – **V**	$m\ s^{-1}$
27	Flag	

Flags

1	Data fine
5	Less than 90 data lines in 15 minute averaging period
6	No data present during 15 minute averaging period

Date: 1 Sept 2010 — radiation data offset in these files by 15 mins (these files shoul

Who	Duick Young 22/7/07
Stored	W:\KCLroof*YYYY*\WXT510*MM*\
Name	**WXT*YYYYDDD_15* .txt.**
Started:	16th July 2007 (DOY 2197)
Flags adde	6th August 2007 (DOY 218)
Generated	MATLAB using WXTmeanplot#.m

Column	Variable	Units
1	Day of Year (DOY)	
2	Decimal Time	
3	Hour	
4	Minute	
5	Number of Samples	
6	Wind Speed Minimum	m s^{-1}
7	Wind Speed Mean	m s^{-1}
8	Wind Speed Maximum	m s^{-1}
9	Air Temperature	°C
10	Relative Humidity	%
11	Air Pressure	hPa
12	**U** (Wind Component)	m s^{-1}
13	**V** (Wind Component)	m s^{-1}
14	Wind Direction	°
15	Total Rain Accumulation	mm
16	Total Rain Duration	s
17	Total Hail Accumulation	hits cm^{-2}
18	Total Hail Duration	s
19	Standard Deviation – Wind Speed Minimum	m s^{-1}
20	Standard Deviation – Wind Speed Mean	m s^{-1}
21	Standard Deviation – Wind Speed Maximum	m s^{-1}
22	Standard Deviation – Air Temperature	°C
23	Standard Deviation – Relative Humidity	%
24	Standard Deviation – Air Pressure	hPa
25	Standard Deviation – **U**	m s^{-1}
26	Standard Deviation – **V**	m s^{-1}
27	Flag	

Flags

1	Data fine
5	Less than 90 data lines in 15 minute averaging period
6	No data present during 15 minute averaging period

d not be used) (FL, SG)

See RFYYDDD.dat

See RFYYDDD.dat

KCLFastYYDDD_HH.txt

EC: File Format

Fast data File Format:

Source:	CSAT3 and LI-7500 Data File Convention
Start Date	18/11/08
Who: Thc	Thomas Loridan 18/11/08
stored	…\2008\CSAT_Hrly\MM\KCLFastYYDDD_HH.txt
Name	**KCLFastYYDDD_HH.txt.**
started	11th August 2008 (DOY 224)
Comment	early files only have one column of seconds (column 4 is U wind)
Generate	Simple Tower Program V1.1.CR3

Column	Variable	Units
1	Day of Year (DOY)	
2	Hour and minute (HHmm)	
3	Seconds (ss.s)	s
4	Seconds (s.s)	s
5	**U** wind component (sonic)	m s^{-1}
6	**V** wind component (sonic)	m s^{-1}
7	**W** wind component (sonic)	m s^{-1}
8	Temperature (sonic)	°C
9	Diagnostic (CSAT)	
10	CO2 concentration (LI-7500)	mmol m^{-3}
11	H2O concentration (LI-7500)	mmol m^{-3}
12	CO2 absorbance (LI-7500)	
13	H20 absorbance (LI-7500)	

CSAT_sdYYDDD.txt.

see CSAT_meanYYDDD.txt '!A1

CSAT_meanYYDDD.txt

Processed 15 minutes Data File Convention

Who: Thomas Loridan 10/02/09
stored in …\YYYY\CSAT_Hrly\Plots\MM\
name **CSAT_meanYYDDD.txt and CSAT_sdYYDDD.txt.**
started Oct-09
Generated by: LondonFlux.R

Column	Variable	Units
1	Day of Year	(DOY)
2	Hour	(HH)
4	Minutes	(mm)
5	**U** wind component (sonic)	m s^{-1}
6	**V** wind component (sonic)	m s^{-1}
7	**W** wind component (sonic)	m s^{-1}
8	Temperature (sonic)	°C
9	Diagnostic (CSAT)	
10	CO2 concentration (LI-7500)	mmol m^{-3}
11	H2O concentration (LI-7500)	mmol m^{-3}
12	CO2 absorbance (LI-7500)	
13	H20 absorbance (LI-7500)	