

Post-M262
Thur Day 01

MLML RADIOMETRIC CALIBRATION LOG					SETUP SKETCH / REMARKS	
EXPERIMENT	Post-L264		LOCATION	Tant@ P35		
DATE	29 Sep 2017		OBSERVERS	MF		
INSTRUMENT	BS	S/N	01	CONFIG	007	
COLLECTOR	Es			DISTANCE	Nope	
	mux	position	fiber			
SOURCE	incon FLite		S/N	CONFIG		
PWR SUPPLY	batt = D cell		S/N	CONFIG		
MULTIMETER			S/N	SHUNT		
LAMP VOLTAGE			CURRENT			
LAMP TIME	ON		WARMUP	OFF	TOTAL	
WHERE NODE :: DEV : [DIR]					PROCESSED DATE: _____ BY: _____	

HP PC Win10 running PuTTY
comm w/ BS Falcon IP = 192.168.0.10
Art's Linux ctrl progs =
/home/user/src/labjack02/
./shutters
/home/user/src/andor/examples/
console/cooling/ ./cooling

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current	Lamp Voltage	Humidity	Temp.	Remarks
			mA	V	% R.H.	°C	
	520170929001.fits	1 sec 4x gain					was image16.fits
	" " .bmp						image16.bmp
	FTP from Linux to Win10 via FileZilla w/ SFTP setting						
	Note: Andor CCD temp ctrl @ -20°C						
	would not work @ -40°C = beep inside BS house						

Load Andon SOLIS 4.23.30002.0
 LKon (Models DU9xx, DV9xx, DZ9xx)
 Software improvements 4.23.30002.0 (14 May 2013)

① \$ moby-keepalive

cd /home/user/src
 ls

ondor, ondor01, gpio, gpsread, labjack01, labjack02,
 labjack-exodriver-al045b7

mobycfg0, mobycfg01, mobycmd00, mobycmd01, mobycmd02
 mos01, mos02, mos03, mos04, mos05, mos06

nmea, rabbit01, rabbit02, serial01, simpletelnet-0.9,
 sleeptest, timestamp, webi-soc01,2,3...09,10,11
 webi-web-pages-root

cd /home/user/src/labjack02
 ls ... setshutters (28Feb2017) ...

./setshutters -h

Usage: setshutters [-hga] <shutter> <shutter...> <state>
 help ↑ add to current state, otherwise
 turn on debugging msgs ↑ set all to 0 first

0 = close
 1 = open

B\$01

shtr # 1 = Es, 9 = Lt, 11 = Lm, 13 = Lb

./setshutters 0 1 (shtr #1 open, all others closed)

< see PuTTY grab@ 20170928-notes.txt >

② open 2nd PuTTY window & login =

\$ cd /home/user/src/ondor/examples/console/cooling
 \$./cooling

* default shutter 50 ms open/close < was 35 @ pre-cal >

output amp 0, HSS speed = 1 < Horiz Shift Speed ? >
 4 readout speeds available on channel 0

0 = 5.0 MHz, 1 = 3.0, 2 = 1.0, 3 = 0.05 MHz

selecting vertical shift speed = 1 (? 3.0 MHz)
 select vert shift amplitude = normal

< pre cal was: Horiz = 3 MHz @ 16 bit, Vert 4.25 μsec, PreAmp 4x >

cooling ...cont...

3 pre-amp gain settings available
0 = 1.0x, 1 = 2.0x, 2 = 4.0x

setting pre-amp gain to option 2

\$ C < set Target Temperature >

Enter new Target Temperature (C):: -40

+++ Current Settings +++

Exp = 0.100, Accum = 0.575, Kinetic = 0.575 (s)

\$ F < Cooling Status > ?

Temperature is 26°C
Cooler is off

\$ t < Start Cooler > 2.4 → 5.7 A dc ... 5.2

\$ F
...

\$ b < set Exposure time >

Enter new Exposure Time (s):: 1

Current Settings

Exp = 1.000, Accum = 1.475, Kinetic = 1.475

?

\$ s < set Shutter Open/close Time >

Enter new Shutter Open/close Time (ms):: 35

setting shut time to 35.000000 ms

MUST set light or dark to make this take effect

\$ l < set Shutter for Light Image >

\$ F Temp is -3C, Cooler is ON < 2.3 A dc

constant
beep

\$ P < stop Cooler > < beep stopped >

\$ F 12C, Cooler is OFF

\$ C ... -40

\$ t < start Cooler > → 5.2 A

\$ F 15C Cooler is ON, 9C, -6C, -31C, -46C < 2.3 A
beep

\$ P < beep stop!, 2.2 A dc

inside housing
! my camera
heat differential
too high > 20°C

\$ C ... -20

\$ t → 5.2 A dc

B\$01

Day 01

28 Sep 2017, WF

3/3

\$ F ... 10C/ON, -19C <2.6A>

\$ F -19, <3.0A>, -18 <2.9A>, -19 <2.9A> cooler is ON
... no beep...\$ F ... Cooler Stabilized at Target Temperature
<incon flashlight ON @ Es>\$ a <Start Acq, ~~download with 16 bit command~~>
Mean = 3653.696812 $\pm$ 183.2 Min = 34, Max = 6,25922-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

CAMPAD

① PuTTY window #1

\$ cd /home/user/src/ondor/examples/console/cooling
\$ ls -l

image16.bmp	28 Sep 2017	1049654
image16.fits	" " "	2105280
image.bmp	01 Jan 22:50	1049654
image.fits		2105280

GMT
520170929
001.fits

Filezilla 192.168.0.10, port=22

FTP (vs SFTP)

... ECONNREFUSED

... Cannot FTP to an SFTP server

SFTP

② \$ F ... -19C ... stabilized <2.8 Ade>

\$ P <Stop Cooling> ... <2.1 Ade>

① \$ cd /home/user/src/labjack 02

\$./setshutters 0 0

<saved output to 20170928-notes.txt>

\$ exit

② \$ Z <exit>

\$ moby-keepalive clear

\$ cd /home/user/status

\$ rm *lock $\rightarrow$ rm: cannot remove '*lock': no such file or dir

\$ moby-shutdown ... 2.0 Ade ... 1.4 Ade "system going down"

PuTTY Fatal Error: Server unexpectedly closed network connection

Fri Day 02

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT Post-L264 LOCATION Tent @ P35
DATE 30 Sep 2017 OBSERVERS MF
INSTRUMENT BS S/N 01 CONFIG
COLLECTOR ES
mux position fiber
SOURCE incon FLite S/N CONFIG
PWR SUPPLY S/N CONFIG
MULTIMETER S/N SHUNT
LAMP VOLTAGE CURRENT
LAMP TIME ON WARMUP OFF TOTAL

SETUP SKETCH / REMARKS

re-try Exp time set
re-try set Horiz shift speed @ 3.0 MHz
re-try get light "sig" scan
re-chk CCD oc settled
take bac & drk & sig scans
run PuTTY session(s) logging
blow cool AC air on BS cooling fins

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current	Lamp Voltage	Humidity	Temp.	Remarks
			mA	V	% R.H.	°C	
the .fits file settings from yesterday's file were							not what I expected
04:00	-40°C TEC set OK / stable w/ AC on BS Fins						
	b20170930001.fits	10s 4x					prog did not collect "dark" scan, then hung
04:39	s20170930001	10s 4x	(SA) prog ack				renamed from image16.fits
05:00	d20170930001	10s 4x	all shutter closed				renamed from image.fits
05:07	reset CCD cooling after change shutter open/close						
05:13	" "	" "		"			"
5:18	s20170930002	30s					lite
5:23,31	restart CCD cooling						
5:38	d20170930002	30					dark

post-M262 B501

day 02

29 Sep 2017, MF

1/3

Fri 29 Sep 2017 HST

TO DO:

re-try exp time set (I thought I set 1 sec yesterday, ^{.fits} file @ .5s)
 re-try set HSPeak = 3.0 MHz (come out 5.0 MHz)
 re-try sig scan (img looked dark) ie shutter ctrl
 re-chk if CCD °C settled (was -999 in .fits)
 take bae & dke & sig scans
 run PUTCY session logging

run fileZilla on HP zbook  tr: ncpa.cpl

./cooling there are 3x shutter settings

\$ set open/close time

d " for dark img

l " for lite "

b " Exposure time

h " Horiz shift speed: 0 = 5 MHz, 1 = 3, 2 = 1, 3 = .05 MHz

v " Vert 0 = 2.25 ms, 1 = 4.25, 2 = 8.25, 3 = 16.25
4 = 32.25, 5 = 64.25

-40 °C set

04:22 10 sec dark = bae → b20170930001.fits

mean 3646 ± 19, min = 34, max = 4798

04:28 try again

3664 ± 21

34

10166

001

not save file

\$d <dark image = NOPE!>

\$z <Exit & restart>

\$l <lite image>

04:36 incon flite = ON

04:36 10 sec ric → ~~s20170930001.fits~~

3808 ± 948, 34, 17580

no new files @ ./cooling

04:39 (\$A) image16.fits & .bmp but date = 01-Jan-2011 ?

mean 3759 ± 601, min 34, max 12702

s20170930001.fits

delete image*.*

B\$01

day 02

29 Sep 2017

2/3

04:49 .setshutters 0 0

04:50 \$a <start acq>

makes no image* files ?

04:54 maybe prog hung...

04:55 ^C @ 2.0 A dc

\$./cooling → 5.2 A dc = coolers on, 17°C

stop cool, (re) set -40, start cool → 5.2 A

reset all settings b s h v g

\$ l <light image ? maybe I for got to reset this?

05:00 \$f cooler stable

05:00 \$a 3.3 A,

image.fits & .bmp date = 01 Jan 2011 (!)

neon 3646 ± 19, min 34, max 4820

→ 120170930001.fits

05:05 .setshutters 0 1

\$b <Exp time set = 30 sec>

05:06 \$l

07 \$f <cooler is ON, Temp = -999 ? 2.0 A dc

\$c -40

\$p <stop

05:09 \$t <start ... 2.0 A nope!

\$z <exit

05:11 restart → 5.2 A

\$f cooler is ON

05:12 \$p stop → 2.2 A

f cool = OFF

5:13 c -40

t

F ON, -16, -36/3.5 A,

☐ add time stamps to Menu for logging window output

05:17 cooler stable

\$b 30 sec

05:18 \$a 4586 ± 3738, 34, 57, 884 → 5...002.fits

05:21 setshutters 0 0

\$f cool ON, -999°C, 2.0 A

B\$01

day 02 29 Sep 2017

3/3

05:23 Z exit
restart

F cool ON, -18°, 5A

restarts w/
coolers = ON!
goes to -40°C

05:24 b = 30 sec

l = lite

h = 1 = 3 MHz

v = 1 = 4.25 ms

g = 2 = 4x

F → ON, -40, 3.3A

05:30 set shutt 0 1 → 2.1 A!

F → ON, -999

Z

restart → 5A

open or
close
shutter
stops
camera
cooling

05:31 set shutt 0 0 → 2.1 A!

F → ON, -999

Z

restart ./cooling → 5.2A

F → ON, -23

b, l, h, v, g

05:34 F → ON, -38, 3.4A

35 f ON -40 3.3

36 F ON -40 3.3

37 ON -41 3.3

38 F stable -42 3.3

38 a 3849 ± 37, 34, 6352 image.fits → d002.fits

05:42 p {stop cool} → 2.1 A
Z {exit}05:45 \$ moby-keepalive clear
\$ moby-shutdown05:50 \$ cd /home/user/status
\$ ls → no *lock files
\$ rm *lock → no such file or dir05:54 \$ moby-keepalive clear
\$ moby-shutdown

05:55 halt Now! → 1.5A

Mon Day 03

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT Post-L264 LOCATION Tent@P35
 DATE 03 Oct 2017 OBSERVERS MF
 INSTRUMENT BS S/N 01 CONFIG
 COLLECTOR Lu DISTANCE Jigged
 mux position fiber
 SOURCE LED Flashlite S/N CONFIG
 PWR SUPPLY S/N CONFIG
 MULTIMETER S/N SHUNT
 LAMP VOLTAGE CURRENT
 LAMP TIME ON WARMUP OFF TOTAL

SETUP SKETCH / REMARKS

Mon Vdc @ pwr sup output
 via HP 34401A w/ min, max math
 shtr 1 = Es 0
 9 Lt 8
 11 Lm 10
 13 Lb 12
 Lab Jack
 s shut op/cl = 35 ms
 l shut = light img
 h Horiz shift = 3 MHz
 v Vert 4.25 μs
 g preamp 4x

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
04:10	Pwr ON						
441	-40°C TEC act		LINUX		53	31	5.2 A / 12.005 V
459	520171003001	10s	date 01:37	LuTop	57	28	mean 3470 ± 133, min 34, max 5251
505	s 002	60	01:43	I			4381 556 34 14,251
511	d 001	60	01:48	+			4295 "5 34 "1,876
NOTE	SOMEONE had the Filter on MOS LuTop... move to BS LuTop						
525	s 003	60	02:03	LuTop			6649 10990 34 65,535
528	s 004	30	02:06	I			5463 8351 34 64,340
532	d 002	30	02:10	I			3797 93 34 7638
534	d 003	20	02:11	I			3631 92 34 6030
538	s 005	20	02:15	I			4728 5520 34 56,724
541	d 004	10	02:18	I			3464 94 34 4691

544 stop TEC

2.9 A → 1.9 A

(21-Feb-05 MF)

Mon, Day 03

B501 post M262

02 Oct 2017, MF

1/1

...trouble setting Linux date...

@04:34 = Win10 time

Linux = Sat Jan 1 01:11:15 GMT 2011

04:50 TEC @ -40°C, stable 12.105V, 3.38

./setshutters 8 1

↑ ↑
Lt open

↑
math ON

HP 34401A DMM

mon pwr sup out posts

TEC stable @ -40°C

05:08 ./set 8 0 → 2.9 A, beeped HP MIN/MAX?

TEC stable @ -40

★ NOTE: Tonight @ start set TDK-Lambda ZUP20-20
A setting V/A FAA & SLA = 20.0 was = 18.0
Fast & Slow Amp
may or may not set current limit (?)

05:21 ./setshut 10 1 → OK TEC...

↑ ↑
Lm OPEN

05:24 ./set 8 1 = back to LmT (Flite was @ MOS LmT)

@ end-o-rate

w/ Filezilla HP disconn

& ./setshutters 0 0

& moby-keepalive clear

& moby-shutdown

→ did not shut down

cd /home/user/status

rm *lock

-bash no such file or dir

exit PuTTY

Power off w/ 2.0 A dc...

Tue Day 04

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT	Post-L264		LOCATION	Tonto P35	
DATE			OBSERVERS	MF & S. Mundell	
INSTRUMENT	B5	S/N	01	CONFIG	007
COLLECTOR	Δ			DISTANCE	
	mux	position	fiber		
SOURCE	LED flashlight		S/N	CONFIG	
PWR SUPPLY			S/N	CONFIG	
MULTIMETER			S/N	SHUNT	
LAMP VOLTAGE			CURRENT		
LAMP TIME	ON		WARMUP	OFF	TOTAL
WHERE NODE :: DEV : [DIR]					

SETUP SKETCH / REMARKS

settings
S = 35ms open/close
h = 1 = 3MHz Horiz
v = 1 = 4.25msec vert
g = 2 = 4x gain
c = -40 cool

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
05:14	-40°C						
05:23	check shutter	ON/OFF	vs CCD cooling	= OK!			mean ± min Max
543	b20171004001	10s 4x			60	26	background 3641 19 34 4811
551	d 001	10s					dark 3658 20 34 4827
602	s 001	10s	Lu Mid	Shutt open (1abjack #10)			lite 3655 20 34 4990
609	s 002	10	re-try	w/ setshut 10 1			4187 2684 34 30924
615	s 003	10	Lu Bat	open (setshut 12 1)			4749 5491 34 54655
621	s 004	10	Lu Top	" "	8		3994 1702 34 19992
626	setshutter 00				59	26	
627	CCD cool OFF	→ 2.1Ade					

TO DO: bac scan ✓

- ✓ check individual external shutter operation for effect on camera CCD cooler
- ✓ try get FLite @ Lm, Lb
- ✓ try set Linux date/time

day 03 prob:

all .Fits had READTIME = $2e-5$ in fitsinfo()

$1/2e5 = 50 \text{ KHz}$

I thought I set Hory Shift Speed = 3 MHz

$1/3e6 = 3.333e-7 \equiv$ should have been READTIME ?

NOPE! see 2017100301-putty.log ~ line 480

choice h = set Readout (Hory Shift) speed

0 = 5 MHz

1 = 3

2 = 1

3 = 0.05

I choose 3 = wrong! should be 1 = 3 MHz...

05:23	Cooler stable			3.2 A	
05:23	setshutters 0 0			3.2 A	= OK
05:25	set shutt	0 1		3.2	= OK
527		0 0		"	"
528		8 1		"	"
		8 0			
5:30		10 1		"	"
		10 0			
531		12 1		"	"
535		0 8 10 12 1		"	3.2
36		0 0		"	3.2

05:41 d = dark image, b = 10 sec, → bac scan
 43 2
 51 2 = lite img w/ setshut 0 0 → drk scan

Day 04

Tue 03 Oct 2017 HST 2 1/2

06:01 setshut 10 1 = Lumid open → 3.1A = OK
↑
was 0 !

06:08 setshut 10 1

setshut 12 1

620 setshut 3 1

630 moby-shutdown did NOT work!!!

Wed Day 05

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MLML RADIOMETRIC CALIBRATION LOG

SETUP SKETCH / REMARKS

wave cal via 1dk, 1st...

EXPERIMENT Post-L264 LOCATION Tent@P35
DATE 05 Oct 2017 OBSERVERS MF
INSTRUMENT BS S/N 01 CONFIG 007
COLLECTOR LuBot mux position fiber DISTANCE
SOURCE Oriel pen lamps S/N CONFIG 12" Spectralon sphere
PWR SUPPLY oriel S/N CONFIG
MULTIMETER Fluke S/N SHUNT
LAMP VOLTAGE CURRENT
LAMP TIME ON WARMUP OFF TOTAL

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
04:52	Pwr ON						ADU
521	cooler ON @ -40°C						Mean +/- MIN MAX
37	s20171005001	15s 4x	Lamp = Ar	sig			3761 330 34 41178
41	d 001	15		drk			3741 27 34 5463
551	s 002	0.1	HgAr				3514 753 34 61954
52	d 002	0.1					3493 8 34 3534
600	s 003	0.05	Ne	SATURATED			3618 2182 34 64381
604	d 003	0.05					3492 8 34 3532
607	re-scan d 002	- was overwritten...					3493 8 34 3536
609	re-scan d 003	- was overwritten...					3492 8 34 3533
617	s 004	5sec	Kr				3600 671 34 61187
	d 004	5sec					3579 12 34 4178

629 s 005 50s Xe
632 d 005
36 cooler OFF → 2.1 A dc

27 55 4357 819 34 (21-Feb-05 MF)
4278 82 34 62045
10037

Note this data where collected as 2 dark-5 lite-2 dark (not the usual 1 dark for 1 lite)

Thurs Day 06

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MLML RADIOMETRIC CALIBRATION LOG				
EXPERIMENT	Post-L264		LOCATION	Tent@P35
DATE	06 Oct 2017	OBSERVERS	MF, SM	
INSTRUMENT	BS	S/N	01	CONFIG 007
COLLECTOR	ES			DISTANCE
	mux	position	fiber	
SOURCE	GS5000	S/N		CONFIG F600 (C3)
PWR SUPPLY	6030A	S/N		CONFIG
MULTIMETER	34970A	S/N		SHUNT GS125
LAMP VOLTAGE		CURRENT	8.2	
LAMP TIME	ON	WARMUP	20	OFF TOTAL
WHERE NODE :: DEV : [DIR]				

SETUP SKETCH / REMARKS
lamp time Amin ON 04:53 OFF 05:39 46
Q: Art, can speed up password request? to speed up FileZilla download
PROCESSED DATE: BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	ADU Mean +/-	Remarks MIN MAX	FEL °C
04:33	-40°C								
0514	d20171006001,2	10s			54	27	3656 20 34 4821		
18	s	1:5	8.1997	107.29			4196 2932 40094		73.5
25	d	3,4	8.2000	107.30	53	27	3660 20 4826		75.5
0530	<SUMI-E>		1.998	1.29	53	27			
551	ced cool off								

Mon Day 07

0.238e-5
 ≈ 2.38e-6
 2.38e-7
 2.38e-6

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT Post-L264 LOCATION Tonto P35
 DATE 10 Oct 2017 OBSERVERS MF
 INSTRUMENT BS S/N 01 CONFIG 007
 COLLECTOR LuBat DISTANCE Jiggy
 SOURCE 0L455-18V S/N CONFIG Δmm
 PWR SUPPLY 0L400-C S/N CONFIG 6.000 Adc
 MULTIMETER NOPE S/N SHUNT
 LAMP VOLTAGE CURRENT
 LAMP TIME ON WARMUP OFF TOTAL

SETUP SKETCH / REMARKS

exposure time cal
 compare w/ 12 Feb 2017

02:08 CCD@ -40°C
 02:13 lamp on
 04:02 lamp off

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current Lamp V	Lamp Voltage PDm Adc	Humidity % R.H.	Temp. °C	Remarks
01:50	Pwr ON						
231	sd 20171010001	1sec 4x	15.41	2381e-5			
235	002:005	05, 07, 1, 02	15.41	2380e-5			
244	06 10	1, 3, 5, 7, 1		2380, 81, 81, 81			
303	11	1	15.42	2386e-6	44	30	max 8396 sig / 7032 dls
307	12:14	2, 3, 1		2384e-6			
314	15:18	5, 7, 1, 10	15.42	2384e-6			
328	19:	10	15.42	2397e-7			
331	20:22	20, 30, 10	15.42	2392e-7	46	29	
340	23:26	50, 10, 70, 10		2391e-7			
353	27	100		2389e-7	47	29	
401	ccd cooler off						

402 lamp off
 407 woby-shutdown

.0006e-10

(21-Feb-05 MF)

Thur Day 08 Pg. 1 of 2

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MLML RADIOMETRIC CALIBRATION LOG			
EXPERIMENT Post-L264		LOCATION Tente P35	
DATE 13 Oct 2017		OBSERVERS MF	
INSTRUMENT BS	S/N 01	CONFIG 007	
COLLECTOR ES		DISTANCE	
	mux position fiber		
SOURCE Solar Sun	S/N	CONFIG	
PWR SUPPLY	S/N	CONFIG	
MULTIMETER	S/N	SHUNT	
LAMP VOLTAGE	CURRENT		
LAMP TIME ON	WARMUP	OFF	TOTAL
WHERE NODE :: DEV : [DIR]			

SETUP SKETCH / REMARKS
 compare SF's λ scale via Fraunhofer lines vs via Ortel 2 cal lamps

PROCESSED DATE:	BY:
-----------------	-----

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
00:19	Pwr ON						
00:28	-40°C cooler ON						
00:39	s_d 20171013001	2s 4x					Solar Sun Source
48	2	2					
52	3	2					
59	4	2					
01:02	5	2					
04	Stop cooler = 3.2 → 2.1 A				41	33	

Thur | Day 08 | Pg. 2 of

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT Post-L264 LOCATION Tent @ P35
DATE 13 Oct 2017 OBSERVERS MF
INSTRUMENT BS S/N 01 CONFIG 007
COLLECTOR Es mux position fiber
SOURCE Oriol pen S/N CONFIG
PWR SUPPLY Oriol S/N CONFIG
MULTIMETER Fluke S/N SHUNT
LAMP VOLTAGE CURRENT
LAMP TIME ON WARMUP OFF TOTAL

SETUP SKETCH / REMARKS

yes
Note: I think maybe the time stamp in the .fits file is time of file save, not the time of shtr opened (?)

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
0200	-40° TEC 2.2→5.2A						
221	s20171013101:03	180s	Ar	-100mV	43	32	
229	d 101:03	180s					
245	s 104:06	2	HgA	-100	42	32	
	d 104:06						
251	s 107:09	0.5	Ne	-100			
254	d 07:09						
305	s 10:12	80	Kr	-120			
310	d 10:12						
329	s 13:15	300	Xe	-140	44	31	
347	d 13:15						
406	TEC=OFF						

Wed Day 09

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT Post-L264 LOCATION Tent @ P35
 DATE 19 Oct 2017 OBSERVERS MF
 INSTRUMENT BS S/N 01 CONFIG 007
 COLLECTOR Lu mux position fiber DISTANCE
 SOURCE 0L425 S/N CONFIG (L10) W6D100
 PWR SUPPLY 0L450 S/N CONFIG
 MULTIMETER 34970A S/N SHUNT GS125
 LAMP VOLTAGE CURRENT 6.6
 LAMP TIME ON WARMUP 20 OFF TOTAL

SETUP SKETCH / REMARKS

Lamp Time mo
 ON 04:25 441.6
 OFF 504 442.2
 ON 540
 OFF 613 442.8
 ON 652
 OFF 728 443.4
 Δ 1.8

WHERE NODE :: DEV : [DIR]

PROCESSED DATE:

BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage PD FL	Humidity % R.H.	Temp. °C	ADU Max	Remarks
03:34	PWR ON							
03:50	TEC @ -40°C →	5.4A						
04:40	d20171019001:002	8 sec	6.6003	23.12, 12, 12	62	26		LuB, trk 13 (shtr 12)
45 s	001:005		6.6003	13, 23.14				46258, 702, 445, 277, 161
53 d	003:004							4505, 4540
05:53	d 101:102	16 sec	6.6004	23.17, 18	59	25		LuM, trk 11 (shtr 10) 5603
600 s	101:105		6.6004	20, 20, 18				45055, 253, 579, 343
605 d	103:104							5591, 5586
706 d	201:202	27 sec		23.30, 30	66	24		LuT, trk 9 (trk 8) 7899
712 s	201:205		6.6002	32, 34, 35				46204, 425, 396, 415, 457
719 d	203:204							7030, 6946
739	TEC OFF							

moby shutdown → 1.5 A dc

(21-Feb-06 MF)