

# Solar Eclipse, March 20, 2015

Solar Irradiation Report measured with  
two types of Solar Cell



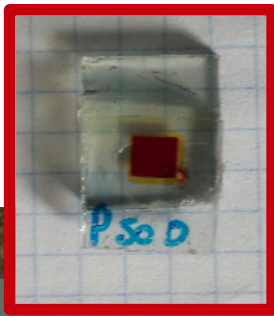
Photo taken at 10:37 am  
GPS: 37.359264, -5.936717  
(special thanks to Genaro)



Nanostructured Solar Cells Group

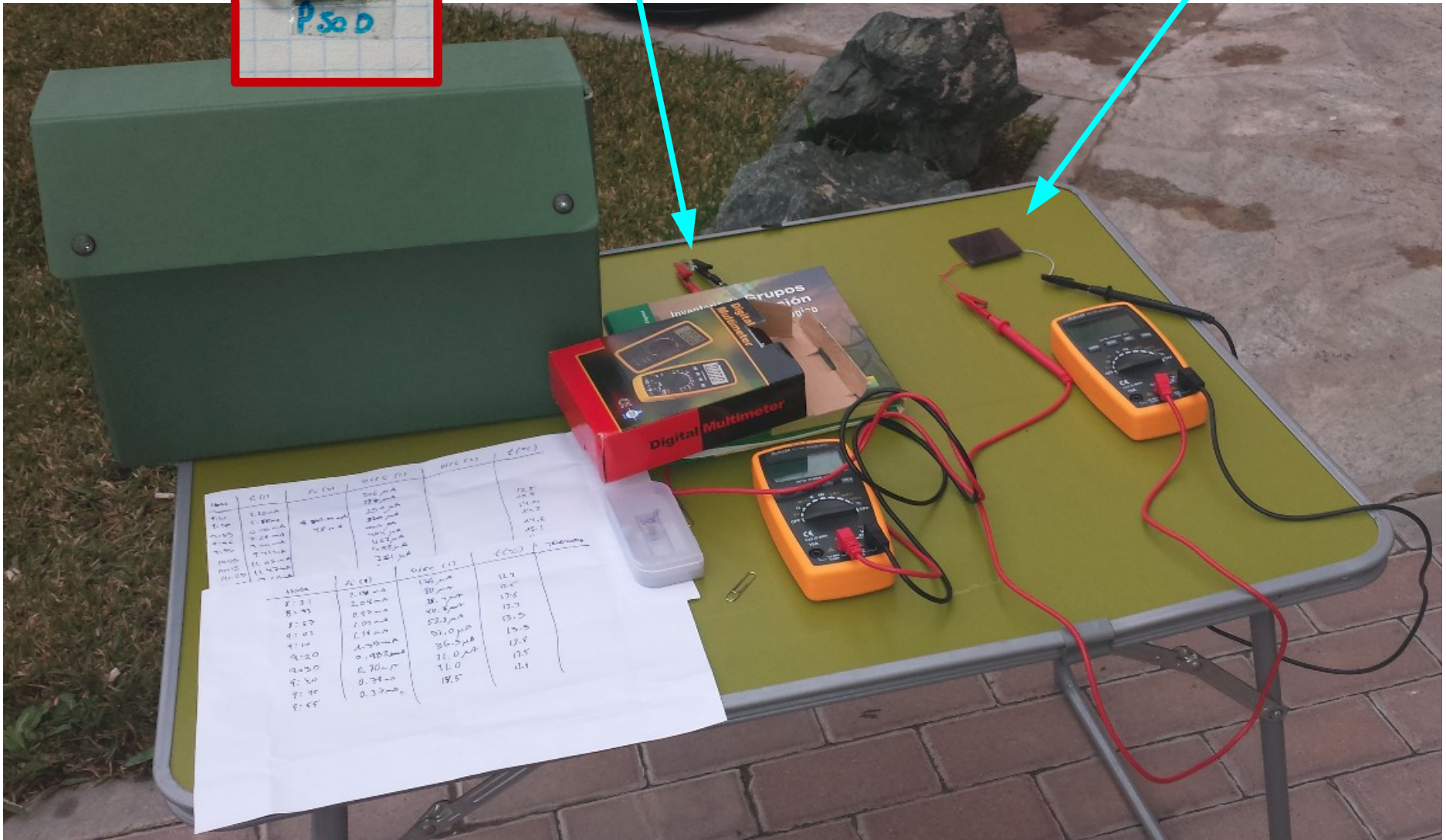
University Pablo de Olavide, Sevilla





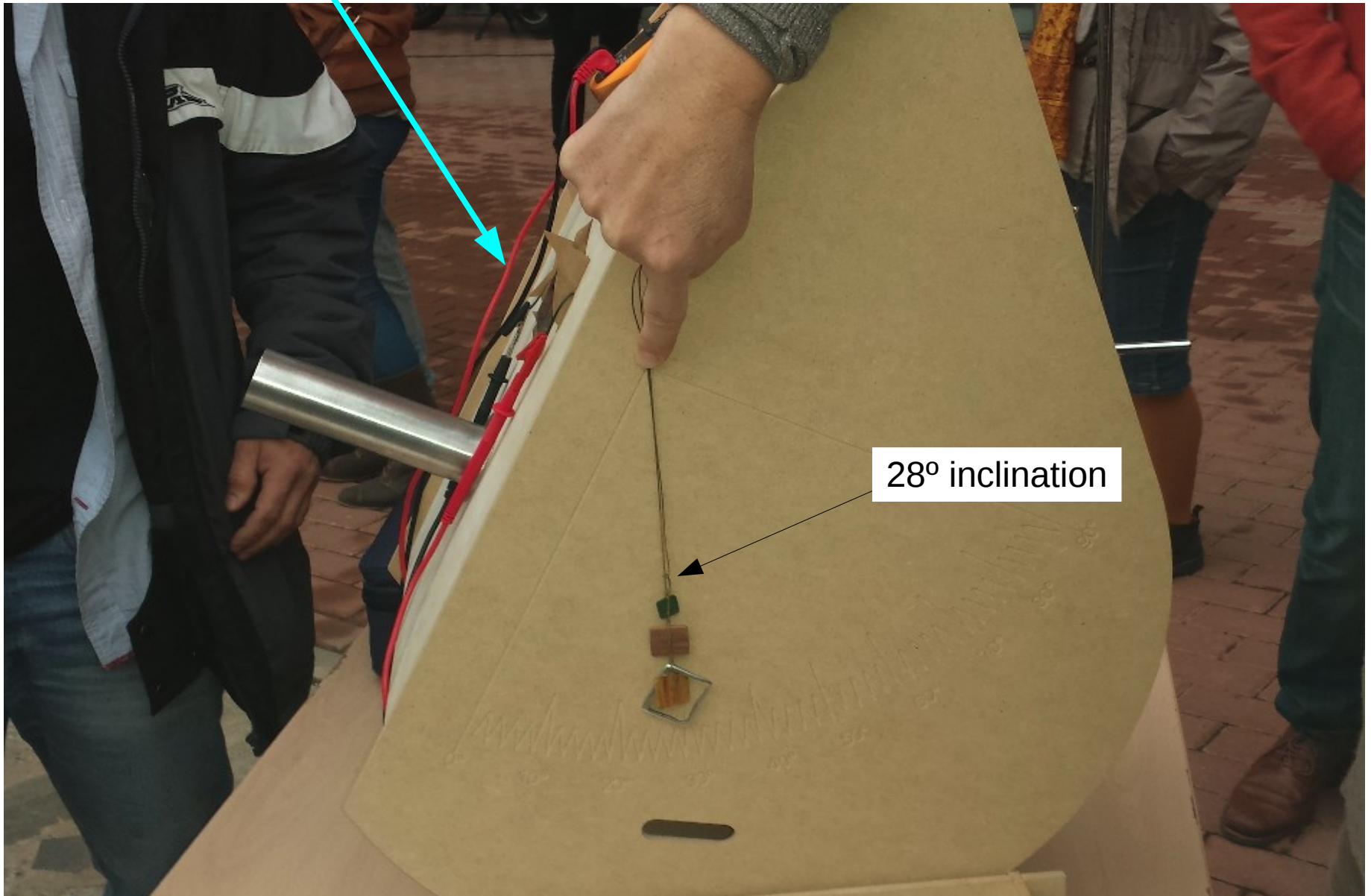
Dye-sensitized solar cell (DSC)\*  
(active area: 0.16 cm<sup>2</sup>)

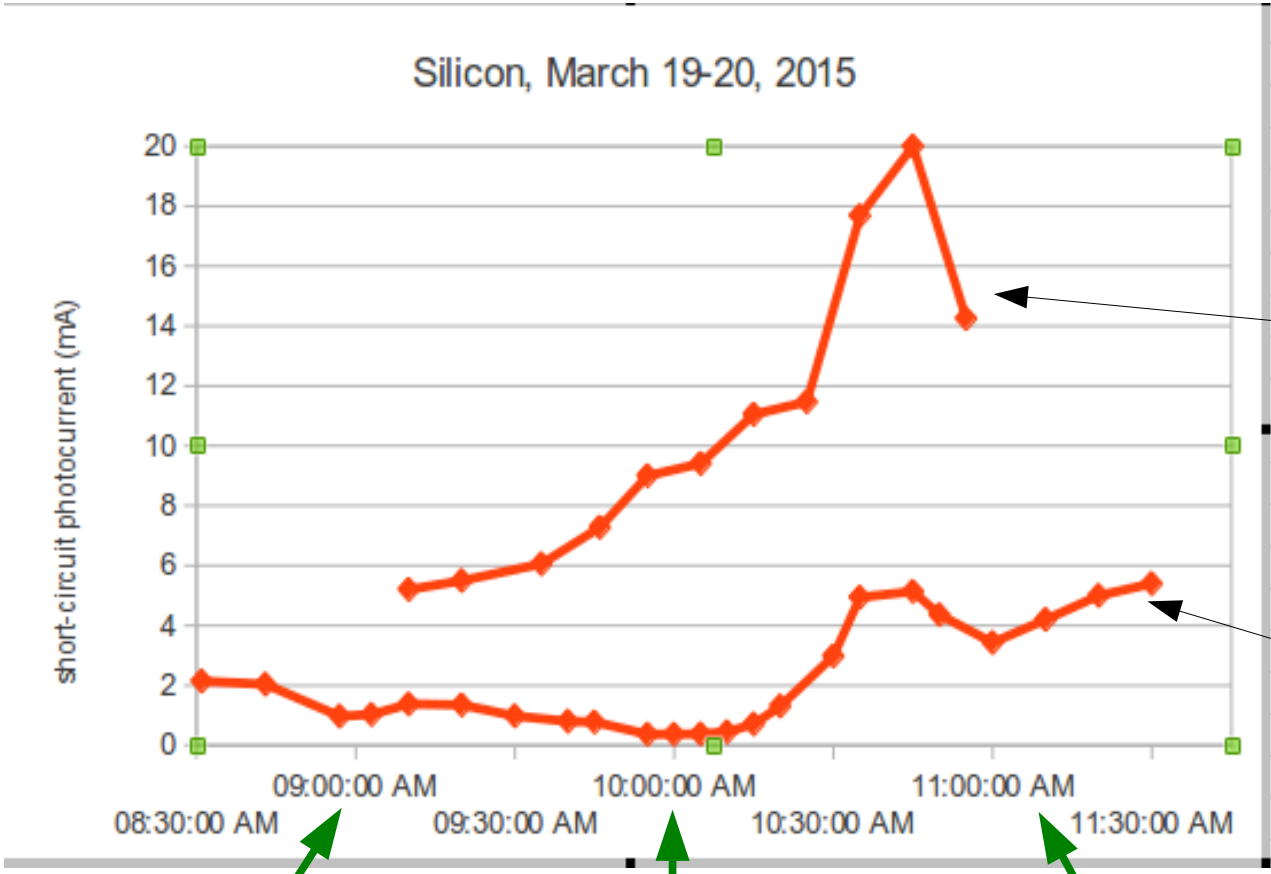
Silicon solar cell  
(active area: 18 cm<sup>2</sup>)



\*Glass/FTO/nanocrystalline TiO<sub>2</sub>/organic dye/ionic-liquid electrolyte + acetonitrile/FTO/glass

2<sup>nd</sup> Silicon solar cell (solar telescope)  
(active area: 18 cm<sup>2</sup>)





Reference data  
March 19

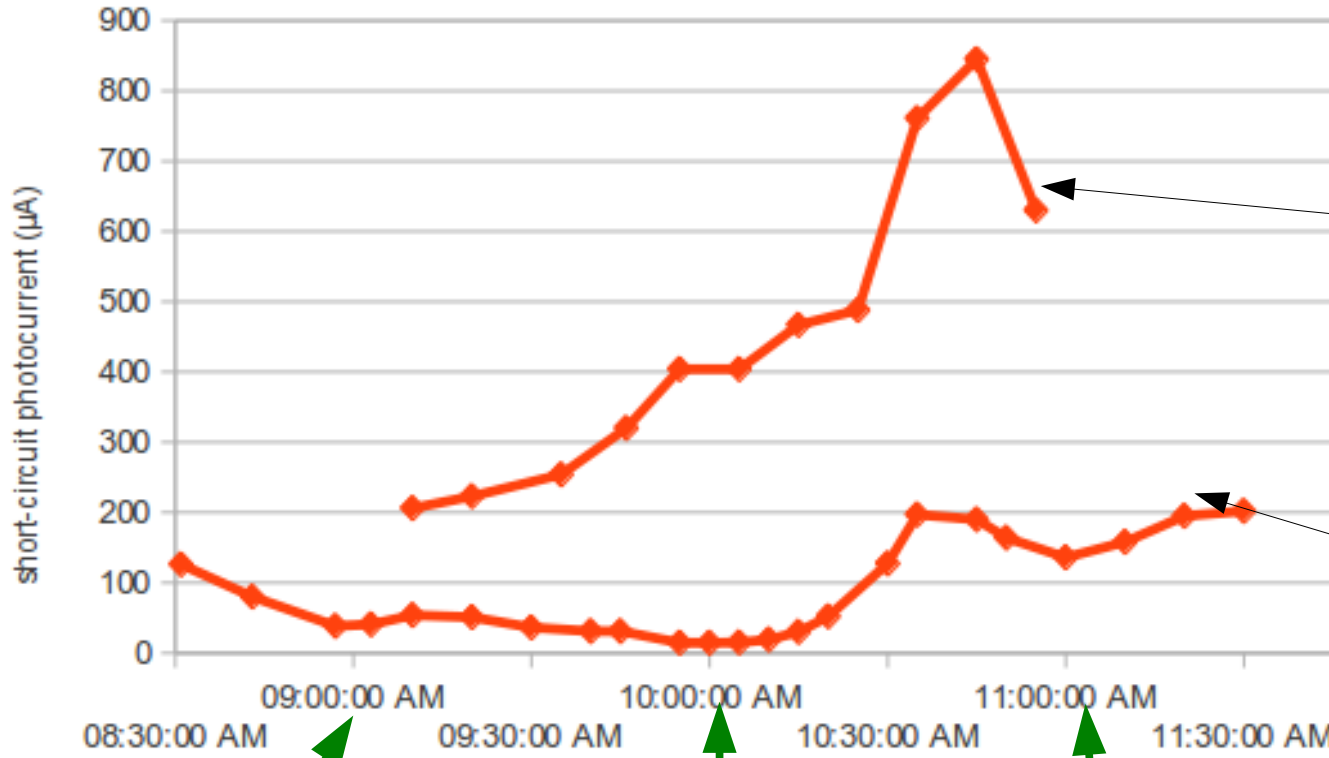
Eclipse data  
March 20

Eclipse starts  
08:59:14 aM

Eclipse maximum  
10:01:18 AM

Eclipse ends  
11:09:07 am

# DSC, March 19-20, 2015



Reference data  
March 19

Eclipse data  
March 20

Eclipse starts  
08:59:14 aM

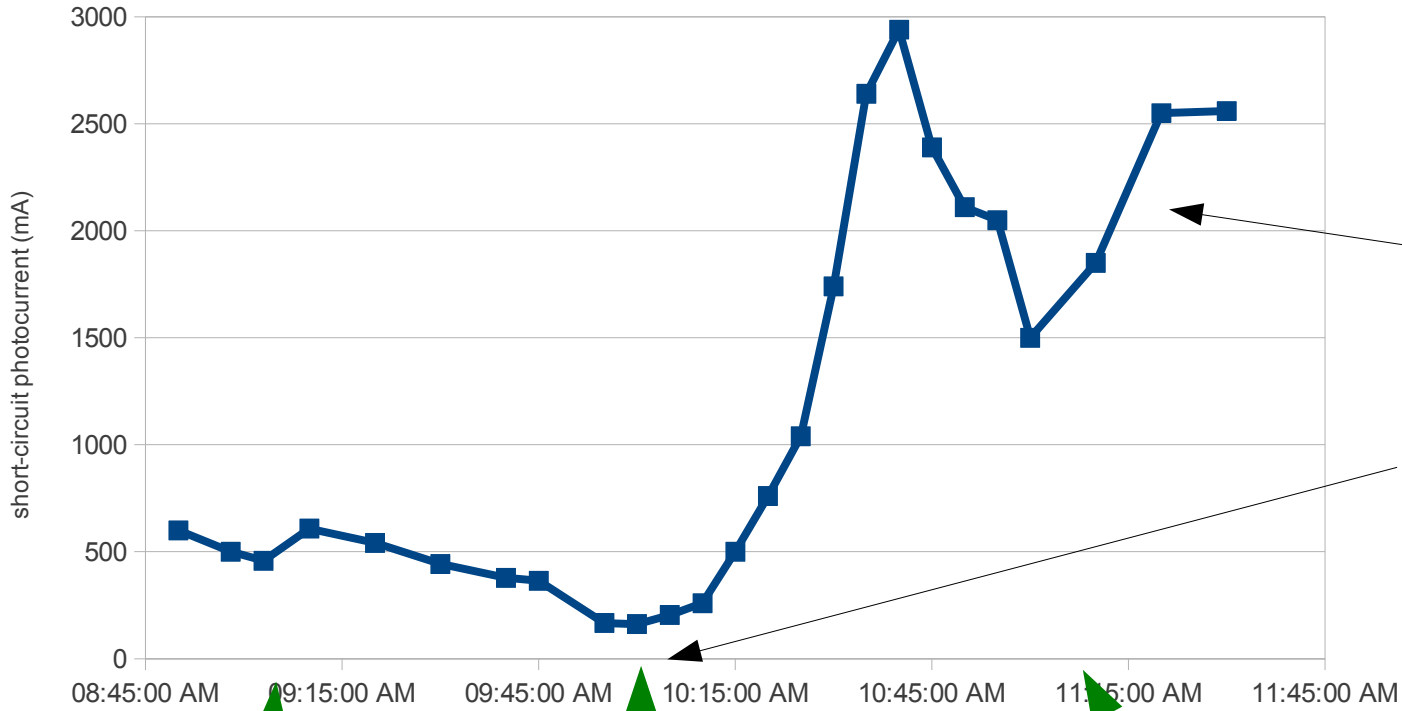
Eclipse maximum  
10:01:18 AM

Eclipse ends  
11:09:07 am



Weather condition  
9:57 AM

Silicon (28° -telescope), March 20, 2015



Eclipse data  
March 20



Weather condition  
9:57 AM

Eclipse starts  
08:59:14 aM

Eclipse maximum  
10:01:18 AM

Eclipse ends  
11:09:07 am

## Solar Irradiation Data, March 20, 2014

Time	temp.	Intensidad (mW/cm <sup>2</sup> )
08:31:00 AM		10.50
08:43:00 AM	13.4	6.67
08:57:00 AM	13.5	3.20
09:03:00 AM	13.6	3.39
09:10:00 AM	13.3	4.48
09:20:00 AM	13.5	4.25
09:30:00 AM	13.5	3.03
09:40:00 AM	13.8	2.58
09:45:00 AM	13.5	2.58
09:55:00 AM	13.9	1.21
10:00:00 AM	13.9	1.21
10:05:00 AM	14.1	1.25
10:10:00 AM	14.1	1.60
10:15:00 AM	14	2.51
10:20:00 AM	14.1	4.34
10:30:00 AM	14.3	10.61
10:35:00 AM	14.7	16.42
10:45:00 AM	14.8	15.83
10:50:00 AM	14.7	13.67
11:00:00 AM	14.9	11.33
11:10:00 AM	14.7	13.17
11:20:00 AM	14.9	16.25
11:30:00 AM	15.2	16.83



Weather condition  
9:57 AM

Calibration data: DSC 1.2 mA at 100 mW/cm<sup>2</sup> (1 sun, AM1.5)

Thanks to:

Juan A. Anta  
Carmen Carbonell  
Carmen Gordillo  
Joaquín Galán  
Jesús Idígoras  
Feliciano de Soto

...and OTRI ([www.upo.es/otri](http://www.upo.es/otri))