

Module ID: 81236  
Manufacturer: Shell  
Module Type/Description: RSM40  
Testcenter Serial: 2014\_Mona  
Module Judgement: CLASSA

Job ID: Solar Comfort 22-04-2016  
Address: Solar Comfort / Tielerweg 19  
Country / City: NL 4191NE Geldermalsen

#### Power

Pmpp @ STC IEC60891: 38.5W  
Power mismatch: -3.7% to 40.0W ( -9.0% -> +9.0% )  
Tmod / Tref: 18.5C / 24.7C  
Flash Time: 115.5ms  
Flasher Parameter: C10300N/Poly/175ms  
Operator / Date Time: Vincent van Wenum 4/22/2016 3:06 PM

#### Electrical

Connection Check: Successfull: 2.7A /22.4V

#### Electroluminescence

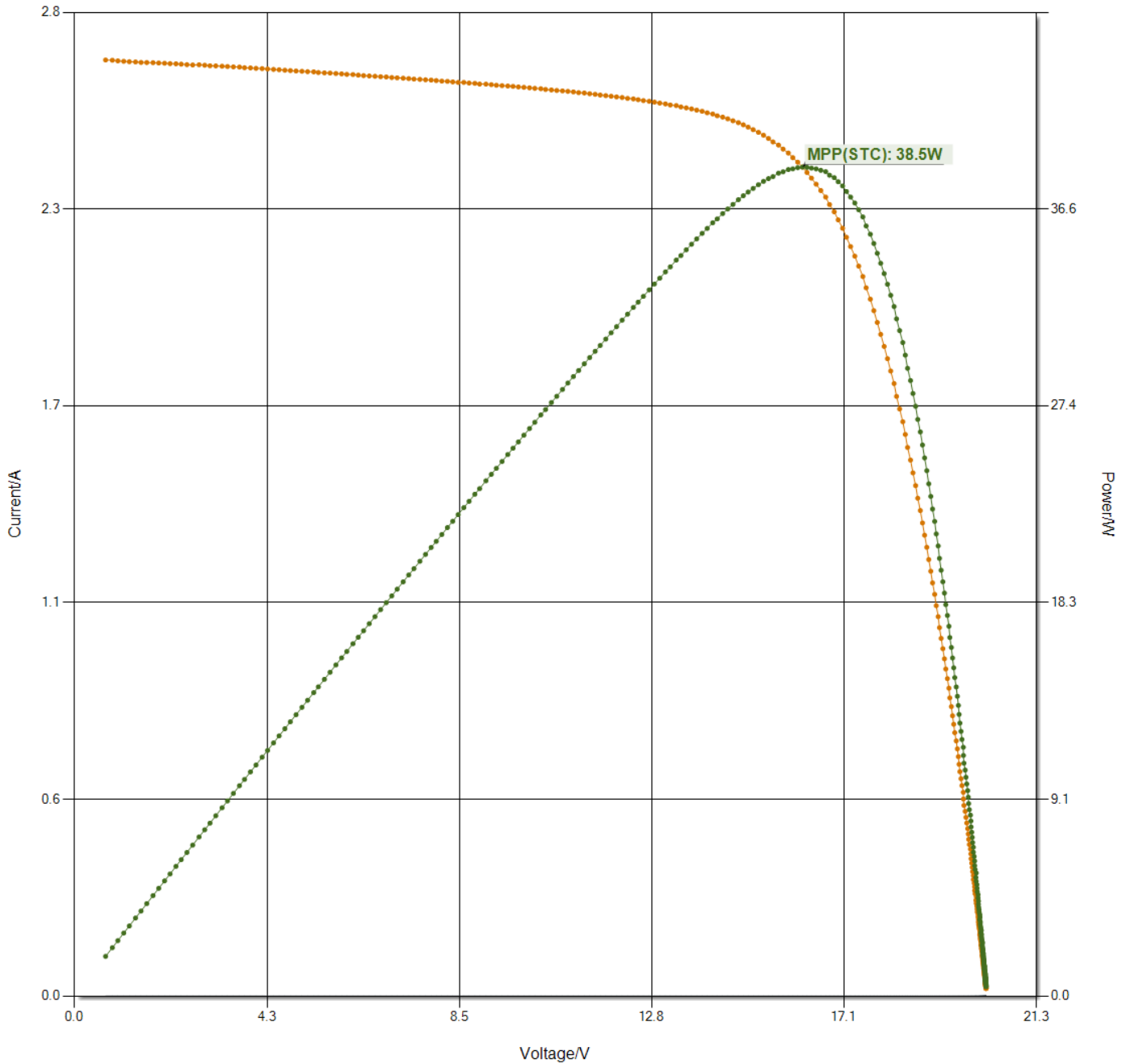
Cell Judgement Count: 0 very critical:  $\geq 20\%$  cell area affected  
0 critical:  $< 20\%$  cell area affected  
0 uncritical: no cell area affected  
0 other EL abnormalities

No Judgment Count: 36  
EL Parameter: 7.0s / 23.2V / 4.1A / Cell / Static no Setup  
Operator / Date Time: Vincent van Wenum 4/22/2016 3:06 PM

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I-V Curve

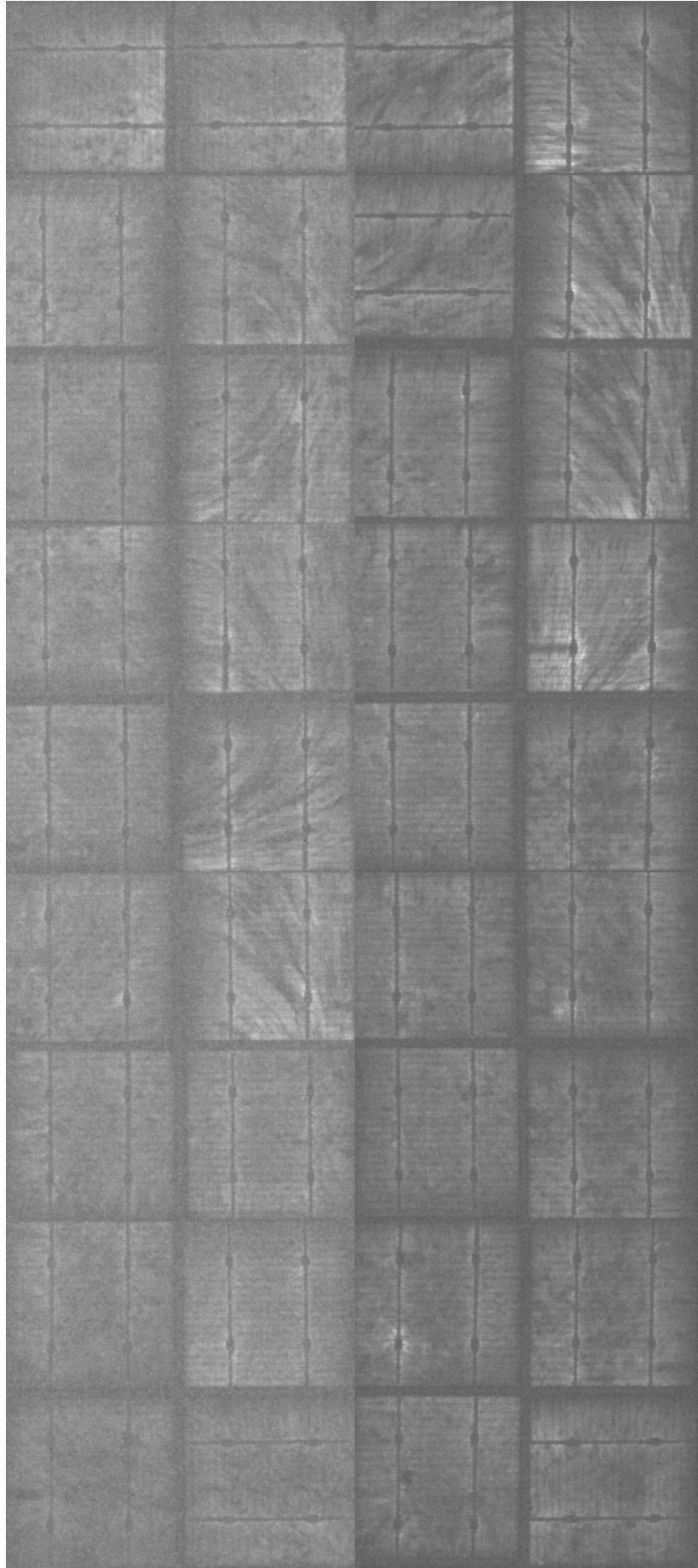


	Pmpp[W]	Impp[A]	Umpp[V]	Isc[A]	Uoc[V]	Irr[W/m2]	FF[%]
IEC60891 STC	38.5	2.38	16.17	2.70	20.22	1000.0	70.6
Measured	32.5	1.97	16.52	2.28	20.46	827.3	69.6

Tmod[C]: 18.5	Tref[C]: 24.7	Tdev[C]: 25.4	Tout[C]: 19.7	T[ms]: 115.5
Type: Poly	alpha[%]: 0.074	beta[%]: -0.365	IEC aICF: 0.060	IEC Rs: 0.36
Software: 484p				

# Electroluminescence for 81236



Current/A: 4.090  
Exposure Time [ms]: 7000

Voltage/V: 23.218  
Vincent van Wenum 4/22/2016 3:06 PM