

ASML 5000/55 ACCEPTANCE TEST SPECIFICATIONS

Customer:	EO Technical
Site:	Vancouver, Wa
Machine serial number:	9830
Model:	5000/55
Wafer size:	6"
Purchase order no:	
Software Release:	3.1.0
Test completion date:	<i>See notes in side-bar</i>

Parameter	Specification (absolute values)	FAT		SAT	
		Measured	Accept	Measured	Accept
1. Illumination					
1.1 Illumination Homogeneity					
15.0 x 15.0 mm [%]	≤ 2.5	2.00	4/27/2023		
9.4 x 19.0 mm [%]	≤ 3.0	2.00	4/27/2023		
Illumination intensity [mW/cm ²]	>550	715.20	4/27/2023		
2. Reticle masking					
2.1 Reticle masking [μm]	≤ 500	325	4/18/2023		
3. Lens distortion					
3.1 Non-correctable error [nm]					
X @15x15(nm)	≤ 100	91.00	4/26/2023		
Y @15x15(nm)	≤ 100	91.00	4/26/2023		
Mag(nm/cm)	<50	-19	4/26/2023		
Die Rotation(urad)	<5	1.393	4/26/2023		
Trapezoidal X(nm/cm ²)	<50	-23	4/26/2023		
Trapezoidal Y(nm/cm ²)	<50	38	4/26/2023		
4. Material handling					
4.1 Pre-alignment accuracy(Optical Sensor)					
Xm1w1 (um)	≤ 7	1.6	4/17/2023		
Ym1w1 (um)	≤ 7	3.1	4/17/2023		

Ym1w2 (um)	≤ 7	2	4/17/2023		
5. Overlay performance					
5.1 Stage repeatability					
X [nm]	≤ 100	71	4/26/2023		
Y [nm]	≤ 100	45	4/26/2023		
5.2 Single machine overlay (99.7%)					
X - Max 99.7%	≤ 100	42.66	4/27/2023		
Y - Max 99.7%	≤ 100	44.107	4/27/2023		
6. Wafer throughput					
6.1 Wafer throughput at 200 mJ/cm2	≥ 64	79.12	4/26/2023		
6.4 Reticle exchange time (seconds)	≤ 40	18	4/17/2023		

The tests below require CD CIM or Other					
Focus Leveling					
Out Of Focus	Zero per wafer				
Imaging (Target CD)					
UDOF	>1.2um				
Intra Filed CD	+/- 0.05um @ 0.5+/-0.025um mean CD				
Target CD reproducibility	0.5 +/-0.05um				
Overlay					
Box in Box	<150nm				
Overlay on Product wafer	<150nm				
System Stability					
3 day run test	Zero errors				
Contamination					
Topside particles	,3 Particles (0.5um or larger)				