

1. Projection Performance		Resist : PFI-34					
Classification		Conditions	Results	Target	Judge	Pages	
1	Resolution CD linearity		7.8	Down to 0.35um within $\pm 10\%$	OK	1	
2	CD DOF	0.40um dense Line & Space	NA=0.6 sigma=0.7 215mJ/cm2	1.21	$\geq 1.0\text{um}$	OK	4
		Top/Bottom 0.40um Line & Space	NA=0.6 sigma=0.7 215mJ/cm2	1.09	$\geq 0.5\text{um}$	OK	8
		0.4um hole dense	NA=0.6 sigma=0.7 540mJ/cm2	1.17	$\geq 1.0\text{um}$	OK	14
3	Hole Distortion	Dense	NA=0.6 sigma=0.7	8.68	$\leq 15\%$	OK	17
4	Image Field Deviation	Line & Space	NA=0.6 sigma=0.7	0.11	$\leq 0.40\text{um}$	OK	12
5	Astigmatism	Line & Space	NA=0.6 sigma=0.7	0.05	$\leq 0.25\text{um}$	OK	12
6	Field Curvature	Line & Space	NA=0.6 sigma=0.7	0.03	$\leq 0.25\text{um}$	OK	12
7	Coma	0.35um line		0.03	$\lambda \leq 0.10$	OK	19
8	Overlay	X	Mode 1	$\leq 0.18 \text{ um}$	m +3sigma	OK	20
	Matching	Y		$\leq 0.18 \text{ um}$	$\leq 0.18 \text{ um}$	OK	
	to TI/Dfab	X	Mode 3	$\leq 0.18 \text{ um}$	m +3sigma	OK	
	standard wafer	Y		$\leq 0.18 \text{ um}$	$\leq 0.18 \text{ um}$	OK	
2. Lens Heating Performance							
1	Magnification	Initial	NA=0.6 sigma=0.7	1.237			21
		Heating		2.81			
		Cooling		2.253			
		Range		1.57	$\leq 3 \text{ ppm}$	OK	
2	Focus	Initial	NA=0.6 sigma=0.7	-0.675			
		Heating		-0.75			
		Cooling		-0.525			
		Range		0.225	$\leq 0.3 \text{ um}$	OK	
3	Magnification	Initial	NA=0.5 sigma=0.6	0.97			
		Heating		2.67			
		Cooling		1.34			
		Range		1.7	$\leq 3 \text{ ppm}$	OK	
4	Focus	Initial	NA=0.5 sigma=0.6	-0.6			
		Heating		-0.825			
		Cooling		-0.675			
		Range		0.225	$\leq 0.3 \text{ um}$	OK	
3. Illumination Performance							
1	Illumination Intensity		NA=0.6 sigma=0.7	464	$\geq 550\text{mW/cm}^2$	OK	22

