

Roche Diagnostics GmbH LightCycler 480 Instrument II Realtime PCR System
Specifications

Item			
Plate Type	384 well (white or clear)		
Number of Samples per Run	384		
Sample Volume	<ul style="list-style-type: none"> • 5 - 20 μl • Smaller reaction volumes down to 3 μl are possible but require an oil overlay 		
Detection Unit Specifications	Excitation Type	Xenon reflector lamp	
	Luminous Intensity	10 μ W/mm ²	
	Excitation Wavelengths (nm)	Bandpass	Half Band Width (HBW)
		440	35
		465	25
		498	40
		533	25
		618	35
	Detector Type	Cooled monochrome CCD camera	
	Detection Wavelengths (nm)	Bandpass	Half Band Width (HBW)
		488	20
510		20	
580		20	
610		20	
640		20	
660		95 (low pass)	

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	Resolution	1024 × 1344 pixel
	Integration Time	10 ms to 10 s
	Sensitivity	< 0.2 nmol/l fluorescein, typically 0.1 nmol/l (20 µl reaction volume)
	Reproducibility	CV ≤ 0.15%
	Crosstalk Well-To-Well	<ul style="list-style-type: none"> • < 0.2% optically • < 0.02% with software correction
Thermal Block Cycler Unit	384-well	
	Aluminium / silver	
	Temperature Control	Peltier-based heating and cooling
	Temperature Range (°C)	<ul style="list-style-type: none"> • 37-95 • 20°C starting temperature to perform specific melting curve analysis if required
	Heating Rate (°C/s)	<ul style="list-style-type: none"> • 4.4 • 4.8
	Cooling Rate (°C/s)	<ul style="list-style-type: none"> • 2.2 • 2.5
Consumables	<ul style="list-style-type: none"> • 384 well white plates • SYBR Green I Master Mix 	