

## Leica DM6B Specs

### Objective Properties

Objective	NA	WD (mm)	Resolution ( $\mu\text{m}$ )	Depth of Field (mm)	Brightness	Pixel Size ( $\mu\text{m}/\text{pixel}$ )
5x N Plan	0.12		2.54	69.4	0.1	1.296
10x N Plan (DIC)	0.25		1.22	16.0	0.4	0.648
20x HCPL Fluotar (DIC)	0.55		0.55	3.3	2.3	0.324
40x HCPL Fluotar (DIC)	0.80		0.38	1.6	2.6	0.162
100x HCPL Fluotar (DIC)	1.32		0.23	0.9	3.0	0.650

**NA (numerical aperture):** affects nearly everything about your image; report this along with the magnification when you publish

**WD (working distance):** how deep you can image; e.g. to image all the way through a 0.2 mm object, you need a WD > 0.2

**Resolution:** the smallest distance or size that can be measured; e.g. you can't measure the size of objects < 200 nm

**Depth of Field:** the thickness of the sample that appears in focus at the same time

**Brightness:** relative measure of how much light is collected by the objective

**Pixel size:** the size of each pixel in microns; assumes no camera binning or additional magnifying lenses

### Fluorescence Filter Properties

Fluor. Filter Set	"color"	Ex. (nm)	Em. (nm)	Example Fluorophores
DAPI	blue	325-375	435-485	DAPI, Hoechst
GFP	green	450-490	500-550	Fluorescein, GFP
RHOD	red	541-551	565-605	Rhodamine, propidium iodide, DsRed