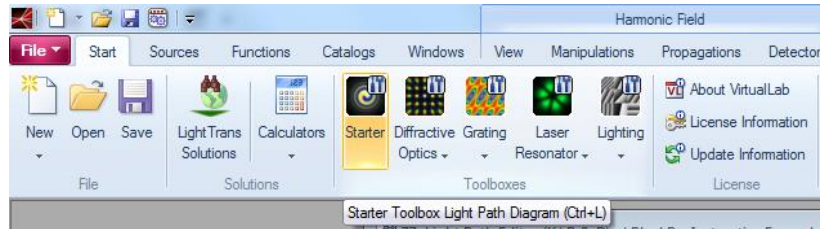


# Instructions for using VirtualLab Fusion BlackBox models of Diffractive Homogenizers from HOLO/OR

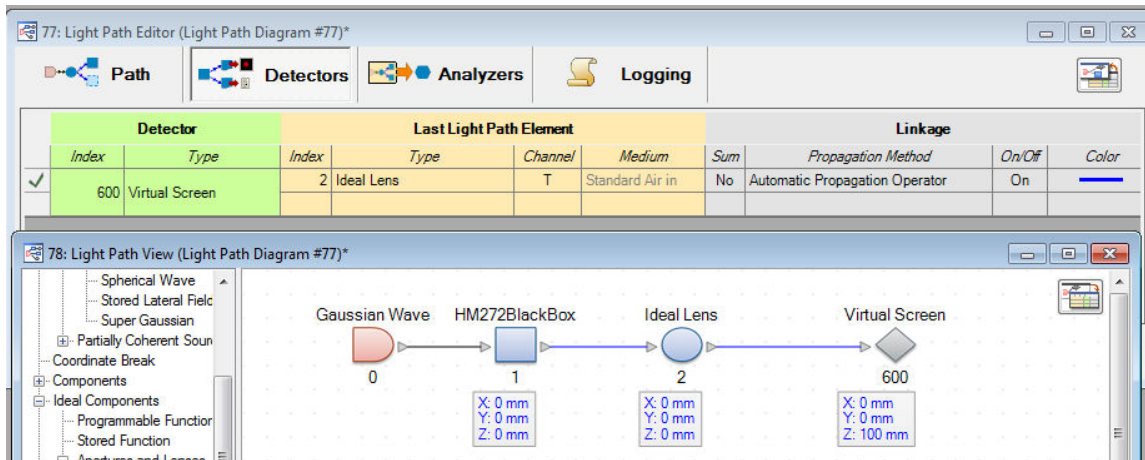
Version 1.0

1. Download and open the LPD file with Black Box model from the website [product page](#) at column “LPD”.



2. In the Light Path View editor insert Source and other optical elements and detector and connect it into light path.

In example Source Gaussian, Ideal Lens and Virtual Screen



3. Define properties for source and other optical elements.

For example for source - wavelength and beam size (refer to DOE specifications), wavelength & focal length for ideal lens, and distance between Lens and Virtual Screen.

Source properties	Lens properties
Reference Wavelength (Vacuum) <span style="float: right;">532 nm</span> Select Achromatic Parameter: <input checked="" type="radio"/> Waist Radius (1/e <sup>2</sup> )    4 mm x 4 mm	Basic Parameters    Physical Parameters    Sampling <input type="checkbox"/> Paraxial Lens Function Focal Length    100 mm Lateral Offset    0 mm x 0 mm Wavelength Dependency <input checked="" type="radio"/> Achromatic <input type="radio"/> Chromatic

4. Run Classic Field Tracing propagation method\*

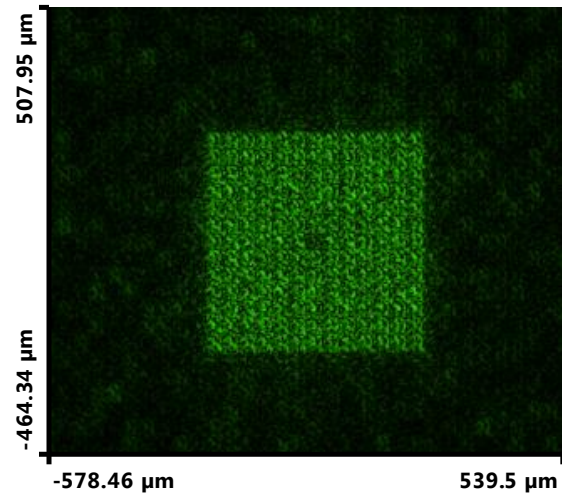
The screenshot shows the 'Light Path Editor' interface. At the top, there are tabs for 'Path', 'Detectors', 'Analyzers', and 'Logging'. Below these is a table with the following data:

Start Element				Target Element		Linkage	
Index	Type	Channel	Medium	Index	Type	Propagation Method	On/Off
✓ 0	Gaussian Wave	-	Standard Air in Homogene...	1	HM272BlackBox	Automatic Propagation Operator	On
✓ 1	HM272BlackBox	T	Standard Air in Homogene...	2	Ideal Lens	Automatic Propagation Operator	On
2	Ideal Lens	T	Standard Air in Homogene...				

At the bottom of the window, there is a 'Simulation Engine' dropdown menu currently set to 'Classic Field Tracing', along with a 'Go!' button and a 'Re-Use Automatic Settings' checkbox.

Note: Geometrical Optics operator doesn't achieve precise results for this type of simulation.

Output from Example:



Example file: [link](#)