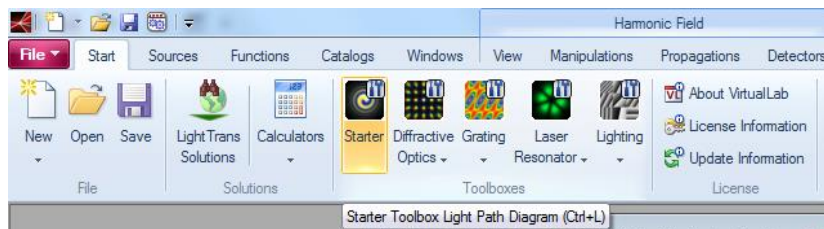


Instructions for using VirtualLab Fusion BlackBox models of Diffractive Homogenizers from HOLO/OR

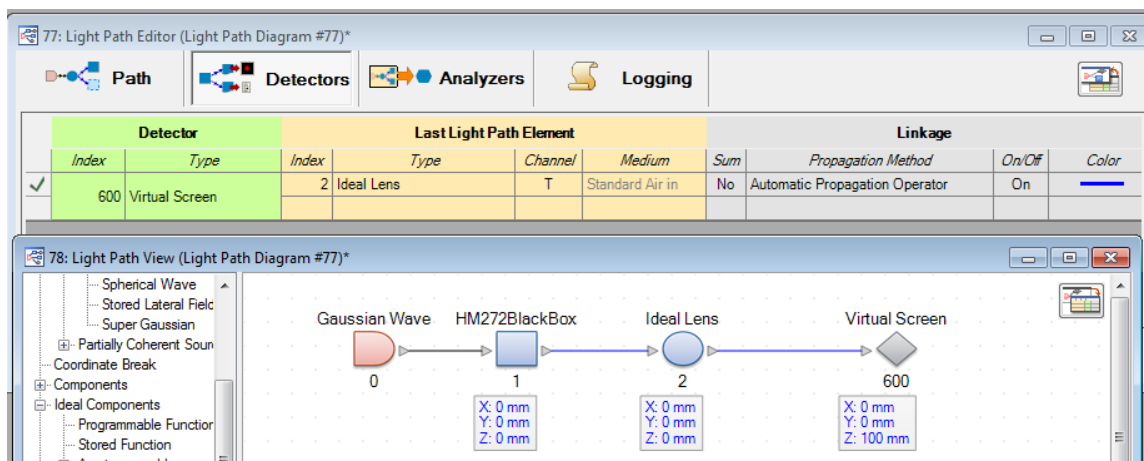
Version 1.0

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) 532 nm Select Achromatic Parameter: <input checked="" type="radio"/> Waist Radius (1/e ²) 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*

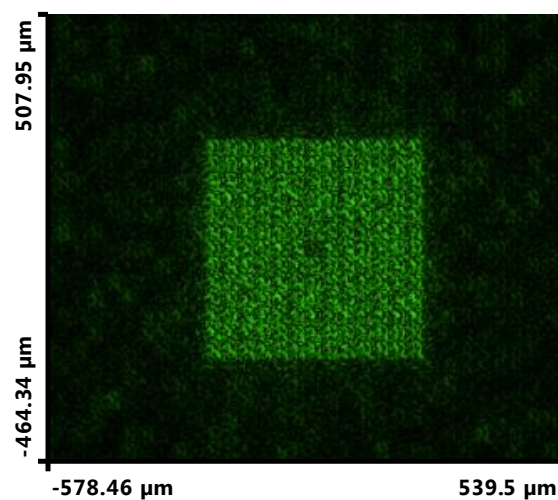
The screenshot shows the 'Light Path Editor' window with the following configuration:

| 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, the 'Simulation Engine' is set to 'Classic Field Tracing'.

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

Output from Example:



Example file: [link](#)