The data is divided into three folders following three parts of the paper.

Folder **b-factor**: *default.fsp* file is a main FDTD Lumerical file with a design of a simulated nanowire; *sweep.lsf* is a script for a nanowire diameter and radial dipole position sweep where one can choose the diameters of the nanowire to be varied and also off-axis positions of a dipole for all three polarizations; *analysis.lsf* is a script for analyzing the results of the sweep or for beta-factor calculations.

Folder **transmission**: four subfolders for a top facet transmission calculation as a function of a bottom height and tapering angle for a fixed bottom diameter of 250 nm, transmission calculation as a function of a bottom radius and tapering angle for the bottom height of 200 nm, transmission calculation for the nanowire on a mirror and transmission for the nanowire on a native substrate. All these subfolders include *.fsp* files with a design of a simulated structure, *sweep.lsf* files for a parameter sweep (different geometrical parameters are varied in different subfolders) and files for analyzing the results of the sweep (transmission of the emission through the top facet as a function of the varied parameters).

Folder **lens**: *Lens.fsp* file for a hemispherical microlens design with an intrinsic sweep of the lens diameter, *analysis.lsf* and analysis\_FWHM.lsf for analyzing the sweep's results (electric field concentration in a focal point and FWHM of the focal spot); subfolder **with nanowire** includes six *.fsp* files with the previously optimized nanowire geometry with and without the lens on top for three different polarizations; subfolder **Matlab script** includes Matlab script files to post process a far-field emission.