# Explanation of the final reflector geometry. (flattened reflector)

**Non-flattened reflector** (generate_non_flat_reflector function)

Input args:
1. geometry (Geometry(config_dictionary))

Output args:
1. nodes: numpy.array with dimensions [i, j, k, 3]
2. joints: list of list[k+1] of list[j + 1] of list[i + 1] → Shows for each node how many connections to other nodes exist.
3. bars: numpy.array with dimensions [i, 2, 3]
4. mirror_tripods: numpy.array with dimensions [i, 3, 3]
5. fixtures: numpy.array with dimensions [i, 3]
6. geometry: geometry → Extracts the input geometry needed for the creation of the flattened reflector

**Flattened reflector** (generate_reflector function)

Input args:
1. geometry (Geometry(config_dictionary))

Output args:
1. nodes: numpy.array with dimensions [i, 3]
2. joints: list of list[i] → Shows for each node how many connections to other nodes exist. (flattened now!!!)
3. bars: numpy.array with dimensions [i, 2]
4. mirror_tripods: numpy.array with dimensions [i, 3]
5. fixtures: numpy.array with dimensions [i]
6. geometry: geometry → Extracts the input geometry

Bemerkungen
1. i here represents everywhere a node label (just a simple integer indice)
2. The dimensions are included only in nodes array, where for each indice the x, y, z coordinates are represented