**Appendix:**

**Figure A1.** Sensitivity of accuracy to the feature threshold values (linear feature ranged from 0.5 to 1 and angular feature ranged from 0 to 10 degrees) in the three experiment datasets. (a), (b) and (c) are the precision rate, recall rate and quality rate distribution of different linear and angular feature for UHM Dataset, respectively; (d), (e) and (f) are the precision rate, recall rate and quality rate distribution of different linear and angular feature for HNL Dataset, respectively; (g), (h) and (i) are the precision rate, recall rate and quality rate distribution of different linear and angular feature for MNST Dataset, respectively.

|  |
| --- |
| (**a**) |
| (**b**) |
| (**c**) |
| (**d**) |
| (**e**) |
| (**f**) |
| (**g**) |
| (**h**) |
| (**i**) |