

Non-Segmented Reduction on NVIDIA RTX 4080

| | Number of Elements | | | | | | | | | |
|-------------------------|--------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 128K | 256K | 512K | 1M | 2M | 4M | 8M | 16M | 32M | 64M |
| Thrust | 6.85 | 12.88 | 24.17 | 41.66 | 65.25 | 93.86 | 120.83 | 140.77 | 151.44 | 158.71 |
| CUB | 29.27 | 49.37 | 75.88 | 106.33 | 129.45 | 145.49 | 155.56 | 160.14 | 164.07 | 165.81 |
| ui32_sh_mem | 34.28 | 52.53 | 83.78 | 109.82 | 132.33 | 146.09 | 155.16 | 160.29 | 163.11 | 165.01 |
| ui32_shfl | 40.31 | 57.08 | 88.96 | 114.29 | 133.28 | 146.87 | 155.72 | 160.75 | 163.42 | 165.19 |
| ui32_atomic_op | 42.94 | 61.48 | 91.28 | 116.70 | 134.63 | 147.71 | 156.02 | 160.89 | 163.44 | 165.24 |
| ui32x4 | 45.91 | 69.72 | 98.10 | 124.74 | 143.10 | 154.21 | 160.42 | 163.97 | 164.91 | 166.74 |
| speedup (CUB/ui32x4) | 1.57 | 1.41 | 1.29 | 1.17 | 1.11 | 1.06 | 1.03 | 1.02 | 1.01 | 1.01 |