

Block Size	Kernel Execution Time(ms)	Achieved occupancy(%)	Global Memory Load Throughput(GB/S)	Global Memory Load Efficiency (%)	Global Memory Store Throughput (GB/S)	Global Memory Store Efficiency (%)
64 × 8 2D Grid	2.66404	87.8	50.334	100	25.167	100
2 × 64	5.88941	87.2	93	100	46.5	100
16 × 16	2.67481	89.3	50.028	100	25.014	100
32 × 32	2.76861	83.9	49.929	100	24.964	100
2 × 64	7.04664	72.1	156.709	12.5	78.354	12.5
64 × 16	7.41846	91.4	152.988	12.5	76.494	12.5
32 × 32	2.79042	95.2	48.149	100	24.074	100
16 × 64	2.83848	94.9	48.675	100	24.337	100

Table 1: Average execution times of Kernel

Observations:

Doing sixteen consecutive data items per thread results in low load and store efficiency. Striding solves this problem and achieves the same memory efficiency as the single datum per thread approach.