```
-------------------------------------------------------------------------------
      astar-L1i-small     Simulation Results
-------------------------------------------------------------------------------

Number of reference types:
  Number of reads   =  2549106849  [25.49%]
  Number of writes  =   626305991  [6.26%]
  Number of inst    =  6824587160  [68.25%]
  Total             =  10000000000

Total cycles for all activities:
  Cycles for reads  =  29020269056  [55.80%]
  Cycles for writes =  11432412937  [21.98%]
  Cycles for inst   =  11556905551  [22.22%]
  Total time        =  52009587544

Average cycles per activity:
  Read  = 11.38
  Write = 18.25
  Inst  = 1.69
Ideal: Exec. Time = 16824587160; CPI = 2.47
Ideal mis-aligned: Exec. Time = 23929686467; CPI = 3.51

Memory level: L1i
  Hits   =  11391567196  [99.98%]
  Misses =     2747677  [0.02%]
  Total  =  11394314873
  Kickouts = 2747549, Dirty kickouts = 0, Transfers = 2747677

Memory level: L1d
  Hits   =  4214841543  [94.54%]
  Misses =   243330909  [5.46%]
  Total  =  4458172452
  Kickouts = 243330653, Dirty kickouts = 94594555, Transfers = 243330909

Memory level: L2
  Hits   =   199425854  [58.54%]
  Misses =   141247287  [41.46%]
  Total  =   340673141
  Kickouts = 141246775, Dirty kickouts = 65821284, Transfers = 141247287

Cost analysis:
  L1i cache cost = $100
  L1d cache cost = $200
  L2  cache cost = $50
  Memory cost    = $75
  Total cost     = $425
```