

We set the difficulty to 0xFFFF..., 0x00FF..., and 0x0000FF..., and the lambda parameter to 100,000 microseconds. We run the miner for 20 seconds. The results are shown in Table 1.

Difficulty	Mining Rate (block per second)
0xFFFF...	9.56
0x00FF...	9.64
0x0000FF...	7.12

Table 1: Difficulty vs Mining Rate. The lambda parameter is 100,000, and the duration of the experiment is 20 seconds, and the difficulty is set to 0xFFFF..., 0x00FF..., and 0x0000FF...

The mining rate is almost the same for the first two difficulties, and it is lower for the last difficulty. This is expected because the difficulty is higher for the last difficulty, and it takes more time to find a valid block. However, for the first two difficulties, the mining rate is almost the same, which is unexpected. We expected the mining rate to be lower for the higher difficulty. This may be due to the time difference to find a valid block is not significant for these two difficulties and even less than the time to wait for mining a new block. Therefore, the mining rate is almost the same for these two difficulties, and the difference might be due to the randomness of the mining process.