## Micron 5210 1.92TB QLC SSD vs. Legacy HDDs

<table>
<thead>
<tr>
<th>Everyday BI Metrics*</th>
<th>HDD</th>
<th>5210</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Query Completion Time</td>
<td>8+ hours</td>
<td>&lt;1 hour</td>
<td>10x</td>
</tr>
<tr>
<td>Storage Bandwidth (system)</td>
<td>240 MB/s</td>
<td>2,074 MB/s</td>
<td>8.6x</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>3.3 KWh</td>
<td>0.4 KWh</td>
<td>8.8x</td>
</tr>
</tbody>
</table>

*TPC-H style workload (22 complex, ad-hoc business queries completion time), 10K HDD

### 5210 Advantage

- **7+ Hours Saved**

How much is your time worth?

### Typical Business Intelligence Workload

- **Storage access pattern**: sequential reads & writes (random when virtualized)
- **Storage IO size**: 128K
- **Read/write ratio**: 95% read / 5% write

How the workload works:
- Data ingested into analytics platform
- Complex queries read massive amounts of data
- Analyzing results enables subsequent query fine tuning (data set is not ingested again)

Ready to learn more? [Read Micron's in-depth research](#)