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| --- | --- | --- | --- |
| Real & Fake Images | **Mean Squared Error (MSE)** | | |
| CycleGAN | VAE-CycleGAN | VAE-CycleGAN256 |
| Input: 64x64 | Input: 64x64 | Input: 256x256 |
| CR: 1:16 | Compression: 1:16 | Compression: 1:256 |
| Satellite images  Map Images  Satellite Images  Map Images | A screenshot of a phone  AI-generated content may be incorrect. |  |  |

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| Real & Fake Images | **Peak Signal-to-Noise Ratio (PSNR)** | | |
| CycleGAN | VAE-CycleGAN | VAE-CycleGAN256 |
| Input: 64x64 | Input: 64x64 | Input: 256x256 |
| Compression: 1:16 | Compression: 1:16 | Compression: 1:256 |
| Satellite images  Map Images  Satellite Images  Map Images |  |  |  |

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| Real & Fake Images | **Structural Similarity Index (SSIM)** | | |
| CycleGAN | VAE-CycleGAN | VAE-CycleGAN256 |
| Input: 64x64 | Input: 64x64 | Input: 256x256 |
| Compression: 1:16 | Compression: 1:16 | Compression: 1:256 |
| Satellite images  Map Images  Satellite Images  Map Images |  |  |  |

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| Real & Fake Images | **Fréchet Inception Distance (FID)** | | |
| CycleGAN | VAE-CycleGAN | VAE-CycleGAN256 |
| Input: 64x64 | Input: 64x64 | Input: 256x256 |
| Compression: 1:16 | Compression: 1:16 | Compression: 1:256 |
| Satellite images  Map Images  Satellite Images  Map Images |  |  |  |