**yt8mRgb数据集（100 0000\*1024） query\_num:1000**

**范围长度分数：1**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index（γ=12） | M | Mβ | 查询时间(s) | QPS | Recall@10 | Recall@100 |
| ACORN-γ(efs=8) | 32 | 64 | 0.586745 | 1704.32 | 0.2934 |  |
| ACORN-1(efs=8) | 32 | 64 | 0.690088 | 1449.09 | 0.1206 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=16) | 32 | 64 | 0.766101 | 1305.31 | 0.3829 |  |
| ACORN-1(efs=16) | 32 | 64 | 1.03018 | 970.699 | 0.1906 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=32) | 32 | 64 | 1.13845 | 878.384 | 0.4892 |  |
| ACORN-1(efs=32) | 32 | 64 | 1.80716 | 553.355 | 0.315 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=64) | 32 | 64 | 1.71887 | 581.778 | 0.5644 |  |
| ACORN-1(efs=64) | 32 | 64 | 3.17624 | 314.838 | 0.4422 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=80) | 32 | 64 | 1.98027 | 504.982 | 0.5875 |  |
| ACORN-1(efs=80) | 32 | 64 | 3.78952 | 263.885 | 0.4755 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=120) | 32 | 64 | 2.58534 | 386.796 | 0.6234 |  |
| ACORN-1(efs=120) | 32 | 64 | 5.23153 | 191.149 | 0.5227 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=200) | 32 | 64 | 3.54931 | 281.745 | 0.6561 |  |
| ACORN-1(efs=200) | 32 | 64 | 7.8368 | 127.603 | 0.5764 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=400) | 32 | 64 | 5.70544 | 175.268 | 0.689 |  |
| ACORN-1(efs=400) | 32 | 64 | 13.7663 | 72.6412 | 0.6328 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=800) | 32 | 64 | 9.55724 | 104.633 | 0.7148 |  |
| ACORN-1(efs=800) | 32 | 64 | 24.4362 | 40.9229 | 0.6699 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=2000) | 32 | 64 | 21.3575 | 46.8221 | 0.7418 |  |
| ACORN-1(efs=2000) | 32 | 64 | 54.9456 | 18.1998 | 0.7087 |  |

**范围长度分数：1/4**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index（γ=12） | M | Mβ | 查询时间(s) | QPS | Recall@10 | Recall@100 |
| ACORN-γ(efs=8) | 32 | 64 | 0.535262 | 1868.24 | 0.3802 |  |
| ACORN-1(efs=8) | 32 | 64 | 0.78958 | 1266.5 | 0.3025 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=16) | 32 | 64 | 0.750971 | 1331.61 | 0.5286 |  |
| ACORN-1(efs=16) | 32 | 64 | 1.18584 | 843.287 | 0.4258 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=32) | 32 | 64 | 1.22026 | 819.498 | 0.6768 |  |
| ACORN-1(efs=32) | 32 | 64 | 2.10978 | 473.983 | 0.5707 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=64) | 32 | 64 | 2.02492 | 493.845 | 0.7648 |  |
| ACORN-1(efs=64) | 32 | 64 | 3.80711 | 262.666 | 0.6636 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=80) | 32 | 64 | 2.35654 | 424.352 | 0.7846 |  |
| ACORN-1(efs=80) | 32 | 64 | 4.56441 | 219.086 | 0.6863 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=120) | 32 | 64 | 3.21052 | 311.476 | 0.8132 |  |
| ACORN-1(efs=120) | 32 | 64 | 6.49727 | 153.911 | 0.7173 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=200) | 32 | 64 | 4.74886 | 210.577 | 0.8379 |  |
| ACORN-1(efs=200) | 32 | 64 | 10.2064 | 97.9781 | 0.7535 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=400) | 32 | 64 | 8.19535 | 122.02 | 0.863 |  |
| ACORN-1(efs=400) | 32 | 64 | 18.9713 | 52.7111 | 0.7899 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=800) | 32 | 64 | 14.5904 | 68.5382 | 0.8771 |  |
| ACORN-1(efs=800) | 32 | 64 | 35.7563 | 27.9671 | 0.8183 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=2000) | 32 | 64 | 33.2822 | 30.0461 | 0.8984 |  |
| ACORN-1(efs=2000) | 32 | 64 | 82.9539 | 12.0549 | 0.8441 |  |

**范围长度分数：1/16**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index（γ=12） | M | Mβ | 查询时间(s) | QPS | Recall@10 | Recall@100 |
| ACORN-γ(efs=8) | 32 | 64 | 0.482491 | 2072.58 | 0.5551 |  |
| ACORN-1(efs=8) | 32 | 64 | 0.976036 | 1024.55 | 0.5595 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=16) | 32 | 64 | 0.668152 | 1496.67 | 0.6777 |  |
| ACORN-1(efs=16) | 32 | 64 | 1.44439 | 692.334 | 0.6448 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=32) | 32 | 64 | 1.08636 | 920.504 | 0.7891 |  |
| ACORN-1(efs=32) | 32 | 64 | 2.3742 | 421.194 | 0.7265 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=64) | 32 | 64 | 1.7868 | 559.66 | 0.8463 |  |
| ACORN-1(efs=64) | 32 | 64 | 4.01997 | 248.758 | 0.7854 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=80) | 32 | 64 | 2.12052 | 471.582 | 0.8584 |  |
| ACORN-1(efs=80) | 32 | 64 | 4.81326 | 207.759 | 0.8008 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=120) | 32 | 64 | 2.8913 | 345.865 | 0.8729 |  |
| ACORN-1(efs=120) | 32 | 64 | 6.81866 | 146.656 | 0.8227 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=200) | 32 | 64 | 4.34244 | 230.285 | 0.8924 |  |
| ACORN-1(efs=200) | 32 | 64 | 10.4059 | 96.0991 | 0.8436 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=400) | 32 | 64 | 7.61556 | 131.31 | 0.9086 |  |
| ACORN-1(efs=400) | 32 | 64 | 18.8628 | 53.0144 | 0.8644 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=800) | 32 | 64 | 14.0007 | 71.4249 | 0.9213 |  |
| ACORN-1(efs=800) | 32 | 64 | 33.7236 | 29.6529 | 0.8783 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=2000) | 32 | 64 | 32.7439 | 30.54 | 0.938 |  |
| ACORN-1(efs=2000) | 32 | 64 | 71.1039 | 14.0639 | 0.8966 |  |

**范围长度分数：1/64**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index（γ=12） | M | Mβ | 查询时间(s) | QPS | Recall@10 | Recall@100 |
| ACORN-γ(efs=8) | 32 | 64 | 0.311167 | 3213.71 | 0.451 |  |
| ACORN-1(efs=8) | 32 | 64 | 0.70828 | 1411.87 | 0.5157 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=16) | 32 | 64 | 0.452861 | 2208.18 | 0.5688 |  |
| ACORN-1(efs=16) | 32 | 64 | 1.04587 | 956.145 | 0.6074 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=32) | 32 | 64 | 0.788388 | 1268.41 | 0.699 |  |
| ACORN-1(efs=32) | 32 | 64 | 1.75593 | 569.499 | 0.696 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=64) | 32 | 64 | 1.33488 | 749.131 | 0.7762 |  |
| ACORN-1(efs=64) | 32 | 64 | 2.93258 | 340.997 | 0.7566 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=80) | 32 | 64 | 1.58978 | 629.018 | 0.7969 |  |
| ACORN-1(efs=80) | 32 | 64 | 3.49471 | 286.147 | 0.7741 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=120) | 32 | 64 | 2.22271 | 449.901 | 0.8242 |  |
| ACORN-1(efs=120) | 32 | 64 | 4.85419 | 206.007 | 0.801 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=200) | 32 | 64 | 3.4086 | 293.375 | 0.8487 |  |
| ACORN-1(efs=200) | 32 | 64 | 7.40468 | 135.05 | 0.8287 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=400) | 32 | 64 | 6.27963 | 159.245 | 0.8738 |  |
| ACORN-1(efs=400) | 32 | 64 | 13.2016 | 75.7486 | 0.8589 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=800) | 32 | 64 | 11.7677 | 84.9787 | 0.8945 |  |
| ACORN-1(efs=800) | 32 | 64 | 23.6025 | 42.3684 | 0.8827 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=2000) | 32 | 64 | 28.0244 | 35.6832 | 0.9134 |  |
| ACORN-1(efs=2000) | 32 | 64 | 51.3218 | 19.4849 | 0.9078 |  |

**范围长度分数：1/256**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index（γ=12） | M | Mβ | 查询时间(s) | QPS | Recall@10 | Recall@100 |
| ACORN-γ(efs=8) | 32 | 64 | 0.169338 | 5905.35 | 0.2252 |  |
| ACORN-1(efs=8) | 32 | 64 | 0.515907 | 1938.33 | 0.401 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=16) | 32 | 64 | 0.248676 | 4021.29 | 0.2818 |  |
| ACORN-1(efs=16) | 32 | 64 | 0.767353 | 1303.18 | 0.4742 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=32) | 32 | 64 | 0.432699 | 2311.08 | 0.3585 |  |
| ACORN-1(efs=32) | 32 | 64 | 1.23144 | 812.061 | 0.5626 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=64) | 32 | 64 | 0.733229 | 1363.83 | 0.4255 |  |
| ACORN-1(efs=64) | 32 | 64 | 2.0624 | 484.873 | 0.6431 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=80) | 32 | 64 | 0.872285 | 1146.41 | 0.4408 |  |
| ACORN-1(efs=80) | 32 | 64 | 2.49255 | 401.195 | 0.6683 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=120) | 32 | 64 | 1.1869 | 842.529 | 0.4735 |  |
| ACORN-1(efs=120) | 32 | 64 | 3.41665 | 292.684 | 0.7092 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=200) | 32 | 64 | 1.82592 | 547.668 | 0.5022 |  |
| ACORN-1(efs=200) | 32 | 64 | 5.15868 | 193.848 | 0.7575 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=400) | 32 | 64 | 3.37057 | 296.686 | 0.531 |  |
| ACORN-1(efs=400) | 32 | 64 | 9.40575 | 106.318 | 0.8079 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=800) | 32 | 64 | 5.51766 | 181.236 | 0.5509 |  |
| ACORN-1(efs=800) | 32 | 64 | 16.5629 | 60.3757 | 0.8554 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=2000) | 32 | 64 | 5.57145 | 179.486 | 0.5514 |  |
| ACORN-1(efs=2000) | 32 | 64 | 32.4147 | 30.8502 | 0.9019 |  |
|  |  |  |  |  |  |  |
| ACORN-γ(efs=4000) | 32 | 64 | 5.38389 | 185.739 | 0.5514 |  |
| ACORN-1(efs=4000) | 32 | 64 | 31.4203 | 31.8266 | 0.9019 |  |