PCA Report: Day-by-Day Analysis

# Explained Variance Percentages

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day | PC1 | PC2 | PC3 | PC4 | PC5 |
| Day 1 | 87.30% | 10.35% | 1.48% | 0.44% | 0.20% |
| Day 2 | 92.65% | 4.68% | 1.47% | 0.77% | 0.27% |
| Day 3 | 95.77% | 3.50% | 0.44% | 0.21% | 0.07% |
| Day 4 | 95.31% | 2.20% | 1.29% | 0.90% | 0.29% |
| Day 5 | 95.80% | 3.44% | 0.46% | 0.11% | 0.10% |
| Day 6 | 84.43% | 12.10% | 3.01% | 0.27% | 0.20% |

# Top 10 Wavelengths for Each Principal Component (Day-by-Day)

## PC1 Wavelengths

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
| 1869 | 1496 | 2237 | 2254 | 473 | 359 |
| 1868 | 1495 | 2189 | 2479 | 472 | 360 |
| 1870 | 1497 | 2236 | 2253 | 471 | 358 |
| 1867 | 1499 | 2159 | 2305 | 470 | 521 |
| 1513 | 1498 | 2188 | 2269 | 474 | 522 |
| 1514 | 1494 | 2190 | 2270 | 489 | 524 |
| 1512 | 1492 | 2158 | 1726 | 488 | 523 |
| 1515 | 1493 | 2219 | 1725 | 490 | 519 |
| 1503 | 1500 | 2187 | 1724 | 487 | 525 |
| 1510 | 1491 | 2220 | 1723 | 492 | 520 |

## PC2 Wavelengths

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
| 670 | 639 | 670 | 348 | 1905 | 1902 |
| 671 | 640 | 671 | 349 | 1906 | 1903 |
| 672 | 638 | 669 | 347 | 1904 | 1904 |
| 669 | 641 | 668 | 350 | 1907 | 2487 |
| 673 | 637 | 672 | 346 | 1903 | 1905 |
| 679 | 642 | 667 | 351 | 1908 | 1910 |
| 678 | 643 | 673 | 352 | 1902 | 1940 |
| 680 | 636 | 674 | 353 | 1909 | 1906 |
| 668 | 644 | 666 | 354 | 1910 | 2502 |
| 674 | 645 | 675 | 355 | 1911 | 1911 |

## PC3 Wavelengths

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
| 2502 | 1923 | 408 | 2487 | 2507 | 2507 |
| 2501 | 1922 | 407 | 2488 | 2500 | 2506 |
| 2482 | 1921 | 402 | 2494 | 2501 | 1274 |
| 2483 | 1920 | 409 | 2486 | 2506 | 1273 |
| 2503 | 1919 | 406 | 2493 | 1902 | 1272 |
| 2500 | 1918 | 401 | 653 | 2502 | 1282 |
| 2487 | 1917 | 405 | 652 | 1903 | 1280 |
| 2481 | 1916 | 400 | 654 | 2503 | 1277 |
| 2486 | 1915 | 399 | 651 | 1904 | 1278 |
| 2484 | 1914 | 403 | 655 | 2505 | 1283 |

## PC4 Wavelengths

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
| 2485 | 1923 | 408 | 2494 | 1889 | 2478 |
| 2498 | 1922 | 402 | 2433 | 1890 | 2474 |
| 2486 | 1921 | 407 | 2493 | 2487 | 2491 |
| 2484 | 1920 | 405 | 346 | 1888 | 2490 |
| 2487 | 1919 | 406 | 347 | 1891 | 2489 |
| 2499 | 1918 | 401 | 2502 | 1892 | 2473 |
| 2497 | 1917 | 409 | 348 | 1887 | 2475 |
| 2469 | 1916 | 412 | 2426 | 1893 | 2433 |
| 2483 | 1915 | 413 | 349 | 1894 | 2492 |
| 2458 | 1914 | 411 | 2495 | 1886 | 2479 |

## PC5 Wavelengths

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
| 399 | 1923 | 359 | 2501 | 2485 | 2494 |
| 398 | 1922 | 366 | 2473 | 365 | 2495 |
| 395 | 1921 | 367 | 2474 | 2486 | 2455 |
| 394 | 1920 | 351 | 2500 | 366 | 2456 |
| 397 | 1919 | 352 | 2487 | 364 | 2496 |
| 396 | 1918 | 365 | 2480 | 2487 | 2489 |
| 400 | 1917 | 371 | 2498 | 368 | 2454 |
| 384 | 1916 | 358 | 2494 | 367 | 2488 |
| 393 | 1915 | 346 | 2497 | 2484 | 2487 |
| 385 | 1914 | 368 | 2453 | 369 | 2493 |