

| Datum      | Uhrzeit in UTC | Sonnenstrahl<br>Azimut | Sonnenstrahl<br>Höhenwinkel | Reflexionsstrahl<br>Azimut | Reflexionstrahl<br>Höhenwinkel |
|------------|----------------|------------------------|-----------------------------|----------------------------|--------------------------------|
| 01.02.2016 | 08:15          | -49,478                | 10,436                      | 129,366                    | -2,081                         |
| 02.02.2016 | 08:05          | -51,700                | 9,348                       | 127,544                    | -3,712                         |
| 02.02.2016 | 08:15          | -49,662                | 10,657                      | 129,133                    | -1,917                         |
| 03.02.2016 | 08:05          | -51,887                | 9,571                       | 127,306                    | -3,545                         |
| 03.02.2016 | 08:15          | -49,845                | 10,884                      | 128,898                    | -1,747                         |
| 04.02.2016 | 08:05          | -52,075                | 9,800                       | 127,068                    | -3,372                         |
| 04.02.2016 | 08:15          | -50,029                | 11,116                      | 128,662                    | -1,572                         |
| 05.02.2016 | 08:05          | -52,262                | 10,035                      | 126,828                    | -3,194                         |
| 06.02.2016 | 08:10          | -51,428                | 10,940                      | 127,383                    | -2,105                         |
| 07.02.2016 | 08:00          | -53,654                | 9,843                       | 125,550                    | -3,732                         |
| 07.02.2016 | 08:10          | -51,615                | 11,188                      | 127,142                    | -1,915                         |
| 08.02.2016 | 08:00          | -53,845                | 10,092                      | 125,305                    | -3,539                         |
| 08.02.2016 | 08:10          | -51,801                | 11,440                      | 126,899                    | -1,719                         |
| 09.02.2016 | 08:00          | -54,035                | 10,346                      | 125,059                    | -3,340                         |
| 11.02.2016 | 08:05          | -53,392                | 11,553                      | 125,363                    | -2,012                         |
| 12.02.2016 | 07:55          | -55,623                | 10,445                      | 123,519                    | -3,634                         |
| 12.02.2016 | 08:05          | -53,581                | 11,824                      | 125,115                    | -1,797                         |
| 13.02.2016 | 07:55          | -55,815                | 10,718                      | 123,268                    | -3,416                         |
| 13.02.2016 | 08:05          | -53,769                | 12,100                      | 124,866                    | -1,577                         |
| 14.02.2016 | 07:55          | -56,008                | 10,995                      | 123,016                    | -3,194                         |
| 15.02.2016 | 08:00          | -55,178                | 11,975                      | 123,564                    | -2,043                         |
| 16.02.2016 | 07:50          | -57,409                | 10,854                      | 121,713                    | -3,663                         |
| 16.02.2016 | 08:00          | -55,368                | 12,263                      | 123,312                    | -1,811                         |
| 17.02.2016 | 07:50          | -57,603                | 11,143                      | 121,459                    | -3,428                         |
| 17.02.2016 | 08:00          | -55,558                | 12,555                      | 123,060                    | -1,573                         |
| 19.02.2016 | 07:55          | -56,969                | 12,447                      | 121,750                    | -2,013                         |
| 20.02.2016 | 07:55          | -57,161                | 12,750                      | 121,495                    | -1,764                         |
| 23.02.2016 | 07:50          | -58,765                | 12,962                      | 119,924                    | -1,928                         |
| 24.02.2016 | 07:50          | -58,958                | 13,278                      | 119,668                    | -1,664                         |
| 26.02.2016 | 07:45          | -60,372                | 13,188                      | 118,348                    | -2,066                         |
| 27.02.2016 | 07:45          | -60,566                | 13,513                      | 118,091                    | -1,793                         |
| 02.03.2016 | 07:35          | -63,390                | 13,339                      | 115,446                    | -2,561                         |
| 03.03.2016 | 07:40          | -62,568                | 14,429                      | 115,994                    | -1,327                         |
| 05.03.2016 | 07:30          | -64,998                | 13,588                      | 113,863                    | -2,643                         |
| 06.03.2016 | 07:35          | -64,181                | 14,693                      | 114,411                    | -1,399                         |
| 08.03.2016 | 07:25          | -66,607                | 13,841                      | 112,279                    | -2,708                         |
| 09.03.2016 | 07:25          | -66,808                | 14,186                      | 112,021                    | -2,408                         |
| 09.03.2016 | 07:30          | -65,795                | 14,960                      | 112,829                    | -1,455                         |
| 10.03.2016 | 07:30          | -65,994                | 15,308                      | 112,571                    | -1,153                         |
| 11.03.2016 | 07:20          | -68,216                | 14,097                      | 110,696                    | -2,758                         |
| 12.03.2016 | 07:20          | -68,418                | 14,444                      | 110,438                    | -2,453                         |
| 12.03.2016 | 07:25          | -67,410                | 15,228                      | 111,247                    | -1,499                         |
| 13.03.2016 | 07:25          | -67,610                | 15,578                      | 110,990                    | -1,193                         |
| 14.03.2016 | 07:15          | -69,826                | 14,351                      | 109,114                    | -2,796                         |
| 15.03.2016 | 07:20          | -69,024                | 15,492                      | 109,667                    | -1,532                         |
| 16.03.2016 | 07:20          | -69,227                | 15,844                      | 109,412                    | -1,223                         |
| 17.03.2016 | 07:15          | -70,435                | 15,401                      | 108,346                    | -1,868                         |
| 20.03.2016 | 07:10          | -72,048                | 15,652                      | 106,771                    | -1,889                         |

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|------------|----------------|------------------------|-----------------------------|----------------------------|--------------------------------|
| 20.03.2016 | 07:15          | -71,046                | 16,454                      | 107,582                    | -0,934                         |
| 23.03.2016 | 07:05          | -73,659                | 15,893                      | 105,201                    | -1,907                         |
| 23.03.2016 | 07:10          | -72,663                | 16,702                      | 106,013                    | -0,953                         |
| 26.03.2016 | 07:00          | -75,269                | 16,121                      | 103,637                    | -1,924                         |
| 26.03.2016 | 07:05          | -74,279                | 16,937                      | 104,449                    | -0,971                         |
| 18.09.2016 | 06:50          | -74,626                | 15,983                      | 104,269                    | -1,965                         |
| 18.09.2016 | 06:55          | -73,634                | 16,797                      | 105,081                    | -1,011                         |
| 19.09.2016 | 06:55          | -73,301                | 16,559                      | 105,434                    | -1,194                         |
| 23.09.2016 | 06:55          | -71,976                | 15,598                      | 106,848                    | -1,931                         |
| 23.09.2016 | 07:00          | -70,975                | 16,400                      | 107,659                    | -0,975                         |
| 24.09.2016 | 06:55          | -71,648                | 15,356                      | 107,202                    | -2,116                         |
| 30.09.2016 | 07:05          | -67,695                | 15,456                      | 110,933                    | -1,328                         |
| 01.10.2016 | 07:00          | -68,387                | 14,421                      | 110,472                    | -2,471                         |
| 01.10.2016 | 07:05          | -67,379                | 15,204                      | 111,281                    | -1,517                         |
| 02.10.2016 | 07:00          | -68,072                | 14,169                      | 110,820                    | -2,660                         |
| 05.10.2016 | 07:10          | -65,118                | 14,958                      | 113,470                    | -1,325                         |
| 06.10.2016 | 07:05          | -65,828                | 13,932                      | 113,003                    | -2,469                         |
| 06.10.2016 | 07:10          | -64,814                | 14,701                      | 113,811                    | -1,518                         |
| 07.10.2016 | 07:05          | -65,526                | 13,676                      | 113,342                    | -2,661                         |
| 09.10.2016 | 07:15          | -62,897                | 14,681                      | 115,628                    | -1,149                         |
| 10.10.2016 | 07:15          | -62,605                | 14,419                      | 115,960                    | -1,344                         |
| 11.10.2016 | 07:10          | -63,336                | 13,405                      | 115,483                    | -2,486                         |
| 12.10.2016 | 07:10          | -63,051                | 13,144                      | 115,811                    | -2,682                         |
| 16.10.2016 | 07:20          | -59,906                | 13,578                      | 118,701                    | -1,584                         |
| 17.10.2016 | 07:20          | -59,641                | 13,313                      | 119,013                    | -1,783                         |
| 18.10.2016 | 07:20          | -59,380                | 13,048                      | 119,321                    | -1,983                         |
| 21.10.2016 | 07:25          | -57,598                | 12,971                      | 121,028                    | -1,652                         |
| 22.10.2016 | 07:25          | -57,356                | 12,704                      | 121,321                    | -1,854                         |
| 23.10.2016 | 07:25          | -57,118                | 12,438                      | 121,611                    | -2,057                         |
| 24.10.2016 | 07:20          | -57,904                | 11,460                      | 121,096                    | -3,190                         |
| 25.10.2016 | 07:20          | -57,674                | 11,197                      | 121,378                    | -3,392                         |
| 26.10.2016 | 07:20          | -57,449                | 10,934                      | 121,656                    | -3,595                         |
| 26.10.2016 | 07:30          | -55,407                | 12,344                      | 123,255                    | -1,742                         |
| 27.10.2016 | 07:20          | -57,228                | 10,673                      | 121,929                    | -3,797                         |
| 27.10.2016 | 07:30          | -55,190                | 12,079                      | 123,527                    | -1,947                         |
| 28.10.2016 | 07:30          | -54,978                | 11,814                      | 123,794                    | -2,151                         |
| 29.10.2016 | 07:25          | -55,790                | 10,855                      | 123,258                    | -3,278                         |
| 30.10.2016 | 07:25          | -55,586                | 10,594                      | 123,517                    | -3,481                         |
| 30.10.2016 | 07:35          | -53,541                | 11,972                      | 125,115                    | -1,645                         |
| 31.10.2016 | 07:25          | -55,388                | 10,334                      | 123,771                    | -3,685                         |
| 31.10.2016 | 07:35          | -53,347                | 11,709                      | 125,366                    | -1,851                         |
| 01.11.2016 | 07:35          | -53,157                | 11,446                      | 125,613                    | -2,057                         |
| 03.11.2016 | 07:30          | -53,812                | 10,248                      | 125,296                    | -3,380                         |
| 03.11.2016 | 07:40          | -51,766                | 11,595                      | 126,892                    | -1,560                         |
| 04.11.2016 | 07:30          | -53,637                | 9,991                       | 125,529                    | -3,584                         |
| 04.11.2016 | 07:40          | -51,594                | 11,335                      | 127,123                    | -1,767                         |
| 05.11.2016 | 07:30          | -53,467                | 9,736                       | 125,756                    | -3,788                         |
| 05.11.2016 | 07:40          | -51,428                | 11,077                      | 127,348                    | -1,973                         |

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|------------|----------------|------------------------|-----------------------------|----------------------------|--------------------------------|
| 07.11.2016 | 07:35          | -52,131                | 9,904                       | 126,987                    | -3,287                         |
| 08.11.2016 | 07:35          | -51,980                | 9,653                       | 127,197                    | -3,490                         |
| 08.11.2016 | 07:45          | -49,937                | 10,967                      | 128,789                    | -1,691                         |
| 09.11.2016 | 07:35          | -51,834                | 9,403                       | 127,401                    | -3,693                         |
| 09.11.2016 | 07:45          | -49,795                | 10,715                      | 128,990                    | -1,896                         |
| 10.11.2016 | 07:45          | -49,659                | 10,465                      | 129,186                    | -2,101                         |
| 11.11.2016 | 07:40          | -50,548                | 9,569                       | 128,582                    | -3,198                         |
| 12.11.2016 | 07:40          | -50,422                | 9,326                       | 128,768                    | -3,400                         |
| 13.11.2016 | 07:40          | -50,301                | 9,084                       | 128,948                    | -3,601                         |