

**TABLE 10**  
**LOCAL CIRCUMSTANCES FOR CHINA — 1**  
**TOTAL SOLAR ECLIPSE OF 2009 JULY 22**

| Location Name | Latitude | Longitude | Elev.<br>m | First Contact |     |       | Second Contact |            |     | Third Contact |            |     | Fourth Contact |            |       | Maximum Eclipse |    |            |     | Eclips. Mag. | Eclips. Obs. | Umbral Depth | Umbral Durat. |       |       |        |
|---------------|----------|-----------|------------|---------------|-----|-------|----------------|------------|-----|---------------|------------|-----|----------------|------------|-------|-----------------|----|------------|-----|--------------|--------------|--------------|---------------|-------|-------|--------|
|               |          |           |            | U.T.          | P   | V Alt | U.T.           | P          | V   | U.T.          | P          | V   | U.T.           | P          | V Alt | U.T.            | P  | V Alt      | Azm |              |              |              |               |       |       |        |
|               |          |           |            | h             | m   | s     | °              | ′          | ″   | h             | m          | s   | °              | ′          | ″     | h               | m  | s          | °   | ′            | ″            | °            |               |       |       |        |
| <b>CHINA</b>  |          |           |            |               |     |       |                |            |     |               |            |     |                |            |       |                 |    |            |     |              |              |              |               |       |       |        |
| Anqing        | 30°31'N  | 117°02'E  | —          | 00:17:46.8    | 286 | 353   | 35             | 01:28:33.5 | 123 | 190           | 01:34:00.7 | 272 | 339            | 02:52:16.1 | 110   | 168             | 68 | 01:31:16.5 | 18  | 84           | 51           | 95           | 1.076         | 1.000 | 0.733 | 05m27s |
| Anshan        | 41°08'N  | 122°59'E  | —          | 00:33:45.0    | 268 | 320   | 43             | —          | —   | —             | —          | —   | —              | 02:54:08.5 | 132   | 160             | 66 | 01:41:58.7 | 200 | 246          | 55           | 117          | 0.680         | 0.613 | —     | —      |
| Baotou        | 40°40'N  | 109°59'E  | —          | 00:21:15.7    | 266 | 320   | 31             | —          | —   | —             | —          | —   | —              | 02:33:31.5 | 127   | 174             | 55 | 01:24:43.6 | 196 | 249          | 43           | 100          | 0.698         | 0.635 | —     | —      |
| Beijing       | 39°55'N  | 116°25'E  | —          | 00:25:15.3    | 269 | 324   | 36             | —          | —   | —             | —          | —   | —              | 02:44:36.7 | 127   | 168             | 62 | 01:32:21.4 | 198 | 250          | 49           | 106          | 0.730         | 0.674 | —     | —      |
| Benxi         | 41°18'N  | 123°45'E  | —          | 00:34:53.1    | 267 | 319   | 44             | —          | —   | —             | —          | —   | —              | 02:55:09.1 | 132   | 159             | 66 | 01:43:08.2 | 200 | 245          | 56           | 118          | 0.673         | 0.604 | —     | —      |
| Changchun     | 43°53'N  | 125°19'E  | —          | 00:40:31.4    | 263 | 310   | 45             | —          | —   | —             | —          | —   | —              | 02:53:39.5 | 138   | 160             | 64 | 01:45:37.3 | 200 | 240          | 56           | 124          | 0.583         | 0.495 | —     | —      |
| Changsha      | 28°12'N  | 112°58'E  | 49         | 00:12:45.0    | 289 | 358   | 31             | —          | —   | —             | —          | —   | —              | 02:43:52.2 | 104   | 172             | 64 | 01:24:06.9 | 16  | 87           | 46           | 89           | 0.951         | 0.953 | —     | —      |
| Changshu      | 31°39'N  | 120°45'E  | —          | 00:22:40.9    | 285 | 350   | 40             | 01:36:26.8 | 50  | 114           | 01:39:26.8 | 348 | 52             | 02:59:45.8 | 114   | 162             | 72 | 01:37:56.5 | 199 | 263          | 56           | 100          | 1.077         | 1.000 | 0.142 | 03m00s |
| Changzhou     | 31°47'N  | 119°57'E  | —          | 00:21:44.6    | 285 | 350   | 39             | 01:35:29.9 | 39  | 103           | 01:37:28.9 | 359 | 62             | 02:57:56.0 | 114   | 164             | 71 | 01:36:29.1 | 199 | 263          | 55           | 100          | 1.076         | 1.000 | 0.060 | 01m59s |
| Chao'an       | 23°41'N  | 116°38'E  | —          | 00:17:03.2    | 299 | 14    | 34             | —          | —   | —             | —          | —   | —              | 02:52:35.0 | 97    | 174             | 69 | 01:30:32.3 | 18  | 95           | 51           | 86           | 0.794         | 0.755 | —     | —      |
| Chaoxian      | 31°36'N  | 117°52'E  | —          | 00:19:11.8    | 284 | 350   | 36             | 01:30:50.0 | 62  | 127           | 01:34:47.6 | 334 | 38             | 02:53:33.0 | 112   | 167             | 69 | 01:32:48.4 | 198 | 263          | 52           | 97           | 1.076         | 1.000 | 0.283 | 03m58s |
| Chengdu       | 30°39'N  | 104°04'E  | —          | 00:07:06.3    | 281 | 345   | 22             | 01:11:10.9 | 56  | 123           | 01:14:26.4 | 332 | 38             | 02:26:23.3 | 107   | 173             | 52 | 01:12:48.3 | 194 | 260          | 36           | 86           | 1.072         | 1.000 | 0.260 | 03m16s |
| Chifeng       | 42°18'N  | 119°00'E  | —          | 00:31:05.1    | 265 | 316   | 39             | —          | —   | —             | —          | —   | —              | 02:46:17.8 | 132   | 167             | 62 | 01:36:35.3 | 198 | 246          | 51           | 112          | 0.649         | 0.575 | —     | —      |
| Chongqing     | 29°34'N  | 106°35'E  | 261        | 00:07:59.9    | 284 | 350   | 24             | 01:13:16.4 | 140 | 208           | 01:17:22.2 | 249 | 317            | 02:30:50.5 | 105   | 173             | 55 | 01:15:18.8 | 15  | 83           | 39           | 87           | 1.073         | 1.000 | 0.424 | 04m06s |
| Daqing        | 39°13'N  | 118°51'E  | —          | 00:26:44.8    | 271 | 326   | 39             | —          | —   | —             | —          | —   | —              | 02:49:27.4 | 127   | 165             | 64 | 01:35:34.3 | 198 | 250          | 52           | 108          | 0.752         | 0.702 | —     | —      |
| Datong        | 46°03'N  | 124°50'E  | —          | 00:43:34.4    | 258 | 303   | 45             | —          | —   | —             | —          | —   | —              | 02:49:24.0 | 142   | 163             | 62 | 01:45:12.5 | 200 | 237          | 54           | 126          | 0.514         | 0.415 | —     | —      |
| Daxian        | 31°18'N  | 107°30'E  | —          | 00:09:38.5    | 281 | 346   | 26             | 01:16:12.0 | 38  | 104           | 01:18:10.4 | 352 | 58             | 02:43:26.2 | 109   | 173             | 56 | 01:17:10.9 | 195 | 261          | 40           | 89           | 1.073         | 1.000 | 0.079 | 01m58s |
| Dongguan      | 23°03'N  | 113°46'E  | —          | 00:13:46.2    | 299 | 14    | 31             | —          | —   | —             | —          | —   | —              | 02:45:13.8 | 95    | 174             | 65 | 01:25:02.0 | 17  | 94           | 47           | 84           | 0.774         | 0.730 | —     | —      |
| Echeng        | 30°24'N  | 114°51'E  | —          | 00:15:23.6    | 286 | 352   | 33             | 01:25:00.5 | 128 | 195           | 01:30:09.8 | 266 | 333            | 02:47:33.7 | 109   | 170             | 65 | 01:27:34.6 | 17  | 84           | 48           | 93           | 1.075         | 1.000 | 0.639 | 05m09s |
| Enshi         | 30°17'N  | 109°19'E  | —          | 00:10:21.6    | 284 | 350   | 27             | 01:16:39.4 | 116 | 183           | 01:21:44.8 | 275 | 342            | 02:36:08.2 | 107   | 172             | 58 | 01:19:11.5 | 15  | 83           | 42           | 89           | 1.074         | 1.000 | 0.817 | 05m05s |
| Fuling        | 29°42'N  | 107°21'E  | —          | 00:08:35.9    | 284 | 350   | 25             | 01:14:13.4 | 137 | 205           | 01:18:29.6 | 252 | 320            | 02:32:18.7 | 106   | 173             | 56 | 01:16:21.0 | 15  | 83           | 40           | 87           | 1.073         | 1.000 | 0.464 | 04m16s |
| Fushun        | 41°52'N  | 123°53'E  | —          | 00:35:48.9    | 266 | 317   | 44             | —          | —   | —             | —          | —   | —              | 02:54:33.7 | 134   | 160             | 65 | 01:43:22.9 | 200 | 244          | 56           | 119          | 0.654         | 0.580 | —     | —      |
| Fuxian        | 39°37'N  | 122°01'E  | —          | 00:30:42.4    | 270 | 325   | 42             | —          | —   | —             | —          | —   | —              | 02:54:28.4 | 129   | 161             | 66 | 01:40:21.5 | 199 | 249          | 55           | 113          | 0.733         | 0.679 | —     | —      |
| Fuzhou        | 26°06'N  | 119°17'E  | —          | 00:19:56.6    | 295 | 7     | 37             | —          | —   | —             | —          | —   | —              | 02:59:05.4 | 103   | 170             | 73 | 01:35:36.5 | 19  | 92           | 54           | 91           | 0.879         | 0.863 | —     | —      |
| Guangyuan     | 32°26'N  | 105°52'E  | —          | 00:09:25.4    | 279 | 342   | 24             | —          | —   | —             | —          | —   | —              | 02:29:35.1 | 111   | 174             | 54 | 01:15:42.6 | 195 | 259          | 38           | 89           | 0.958         | 0.961 | —     | —      |
| Guangzhou     | 23°06'N  | 113°16'E  | 18         | 00:13:10.8    | 299 | 13    | 30             | —          | —   | —             | —          | —   | —              | 02:44:00.8 | 95    | 174             | 64 | 01:24:06.8 | 16  | 94           | 46           | 84           | 0.776         | 0.733 | —     | —      |
| Guiyang       | 26°35'N  | 106°43'E  | —          | 00:06:58.7    | 290 | 359   | 24             | —          | —   | —             | —          | —   | —              | 02:30:33.6 | 100   | 172             | 55 | 01:14:25.5 | 14  | 86           | 38           | 84           | 0.914         | 0.907 | —     | —      |
| Haicheng      | 40°52'N  | 122°45'E  | —          | 00:33:07.5    | 268 | 321   | 43             | —          | —   | —             | —          | —   | —              | 02:54:07.0 | 131   | 160             | 66 | 01:41:36.2 | 200 | 246          | 55           | 116          | 0.690         | 0.625 | —     | —      |
| Handan        | 36°37'N  | 114°29'E  | —          | 00:19:37.5    | 274 | 333   | 34             | —          | —   | —             | —          | —   | —              | 02:43:49.4 | 120   | 169             | 62 | 01:28:35.2 | 197 | 255          | 48           | 100          | 0.840         | 0.814 | —     | —      |
| Hangzhou      | 30°15'N  | 120°10'E  | —          | 00:21:26.1    | 288 | 355   | 39             | 01:34:16.7 | 134 | 200           | 01:39:35.8 | 264 | 330            | 02:59:23.4 | 111   | 164             | 72 | 01:36:55.8 | 19  | 85           | 55           | 98           | 1.077         | 1.000 | 0.582 | 05m19s |
| Harbin        | 45°45'N  | 126°41'E  | 145        | 00:45:17.3    | 259 | 303   | 46             | —          | —   | —             | —          | —   | —              | 02:52:23.1 | 142   | 161             | 63 | 01:47:39.4 | 200 | 236          | 56           | 129          | 0.517         | 0.419 | —     | —      |
| Hefei         | 31°51'N  | 117°17'E  | —          | 00:18:40.3    | 284 | 349   | 36             | 01:30:50.3 | 39  | 103           | 01:32:50.5 | 357 | 61             | 02:52:10.2 | 112   | 167             | 68 | 01:31:50.1 | 198 | 262          | 51           | 97           | 1.076         | 1.000 | 0.065 | 02m00s |
| Heze          | 35°17'N  | 115°27'E  | —          | 00:19:13.7    | 277 | 338   | 35             | —          | —   | —             | —          | —   | —              | 02:46:29.1 | 118   | 168             | 64 | 01:29:35.0 | 197 | 257          | 49           | 99           | 0.886         | 0.872 | —     | —      |
| Hohhot        | 40°51'N  | 111°40'E  | —          | 00:22:40.7    | 266 | 320   | 32             | —          | —   | —             | —          | —   | —              | 02:36:03.0 | 128   | 173             | 57 | 01:26:45.3 | 197 | 249          | 44           | 102          | 0.695         | 0.631 | —     | —      |
| Huaidé        | 43°32'N  | 124°50'E  | —          | 00:39:23.5    | 263 | 312   | 45             | —          | —   | —             | —          | —   | —              | 02:53:30.6 | 137   | 160             | 64 | 01:44:54.4 | 200 | 241          | 56           | 123          | 0.596         | 0.510 | —     | —      |
| Huainan       | 32°40'N  | 117°00'E  | —          | 00:18:49.6    | 282 | 346   | 36             | —          | —   | —             | —          | —   | —              | 02:51:07.8 | 114   | 167             | 67 | 01:31:28.1 | 198 | 261          | 51           | 98           | 0.975         | 0.980 | —     | —      |
| Huangshi      | 30°13'N  | 115°05'E  | —          | 00:15:33.4    | 286 | 353   | 33             | 01:25:35.5 | 139 | 207           | 01:30:17.3 | 255 | 322            | 02:48:07.3 | 109   | 170             | 66 | 01:27:55.9 | 17  | 84           | 49           | 93           | 1.075         | 1.000 | 0.468 | 04m42s |
| Huzhou        | 30°52'N  | 120°06'E  | —          | 00:21:33.2    | 286 | 353   | 39             | 01:33:53.7 | 102 | 167           | 01:39:40.6 | 296 | 1              | 02:58:51.7 | 112   | 164             | 72 | 01:36:46.6 | 199 | 264          | 55           | 99           | 1.077         | 1.000 | 0.871 | 05m47s |
| Jiaxing       | 30°46'N  | 120°45'E  | —          | 00:22:20.6    | 287 | 353   | 40             | 01:35:04.3 | 105 | 170           | 01:40:55.7 | 293 | 358            | 03:00:22.4 | 112   | 163             | 72 | 01:37:59.5 | 199 | 264          | 56           | 99           | 1.077         | 1.000 | 0.927 | 05m51s |
| Jilin         | 43°51'N  | 126°33'E  | —          | 00:42:01.1    | 263 | 310   | 46             | —          | —   | —             | —          | —   | —              | 02:55:29.4 | 139   | 158             | 65 | 01:47:22.9 | 201 | 239          | 57           | 126          | 0.579         | 0.491 | —     | —      |
| Jinan         | 36°40'N  | 116°57'E  | —          | 00:22:00.1    | 275 | 334   | 36             | —          | —   | —             | —          | —   | —              | 02:48:20.4 | 121   | 167             | 64 | 01:32:10.2 | 198 | 255          | 50           | 103          | 0.839         | 0.812 | —     | —      |
| Jingmen       | 31°00'N  | 112°09'E  | —          | 00:13:06.4    | 284 | 349   | 30             | 01:20:55.7 | 90  | 156           | 01:26:03.4 | 303 | 9              | 02:41:44.4 | 109   | 171             | 62 | 01:23:29.0 | 196 | 262          | 45           | 92           | 1.074         | 1.000 | 0.719 | 05m08s |
| Jinshi        | 29°39'N  | 111°52'E  | —          | 00:12:12.0    | 286 | 353   | 30             | 01:21:46.6 | 176 | 244           | 01:23:37.8 | 216 | 285            | 02:41:22.5 | 107   | 172             | 62 | 01:22:41.9 | 16  | 84           | 45           | 90           | 1.074         | 1.000 | 0.062 | 01m51s |
| Jiujiang      | 29°36'N  | 115°      |            |               |     |       |                |            |     |               |            |     |                |            |       |                 |    |            |     |              |              |              |               |       |       |        |