

Sun Calendar 2018

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www.scientidev.fr

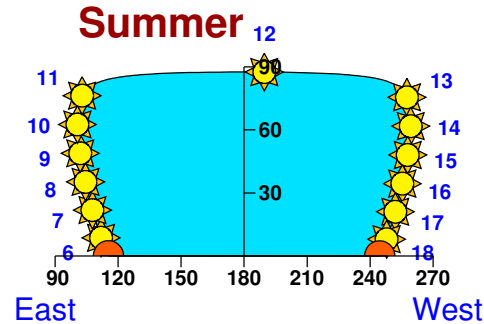
Hanoi

105.88°E, 21.016°N



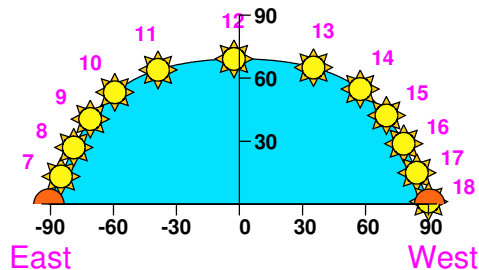
Tropical zone

Summer



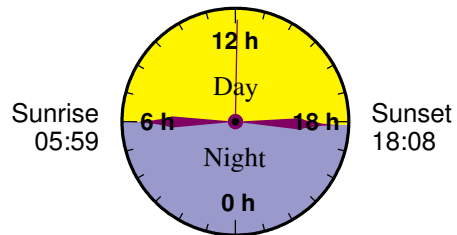
June 21

Spring



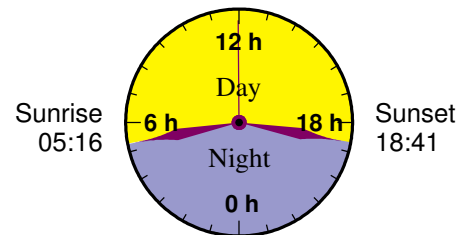
March 21

Day duration 12:09



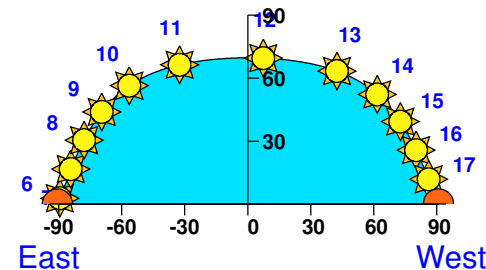
Spring Equinox

Day duration 13:25



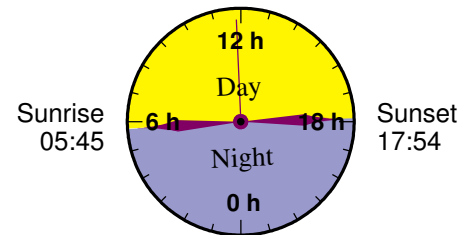
Summer Solstice

Autumn



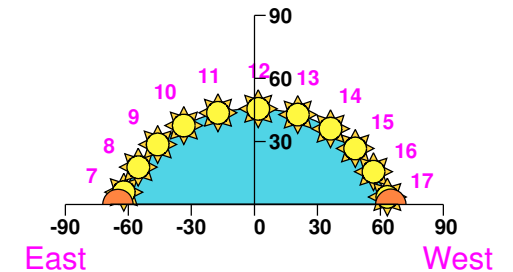
Sept. 21

Day duration 12:09



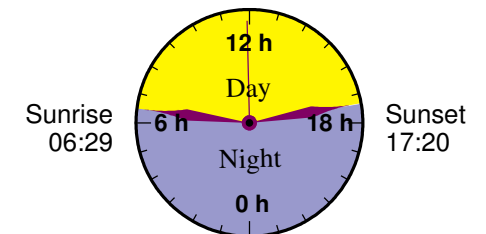
Autumn Equinox

Winter



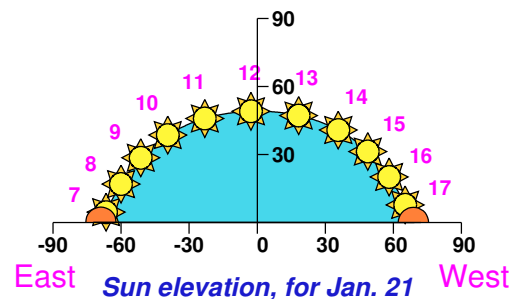
Dec. 21

Day duration 10:51

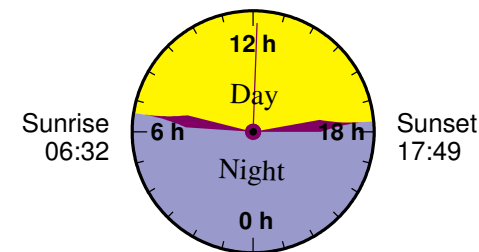


Winter Solstice

January 2018



Hanoi
105.88°E, 21.016°N

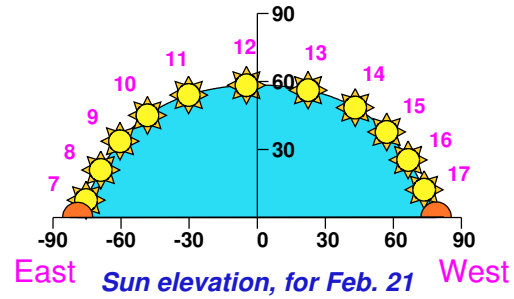


Duration of the day, for January 21

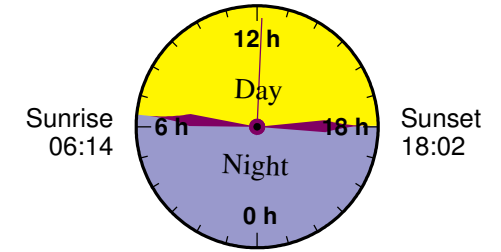
Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	1 1 - 364 06:34 - 17:27 46° 	2 2 - 363 06:34 - 17:27 46° 	3 3 - 362 06:35 - 17:28 46° 	4 4 - 361 06:35 - 17:28 46° 	5 5 - 360 06:35 - 17:29 46° 	6 6 - 359 06:35 - 17:30 47° 	7 7 - 358 06:35 - 17:30 47°
2	8 8 - 357 06:36 - 17:31 47° 	9 9 - 356 06:36 - 17:32 47° 	10 10 - 355 06:36 - 17:32 47° 	11 11 - 354 06:36 - 17:33 47° 	12 12 - 353 06:36 - 17:34 47° 	13 13 - 352 06:36 - 17:34 48° 	14 14 - 351 06:36 - 17:35 48°
3	15 15 - 350 06:36 - 17:36 48° 	16 16 - 349 06:36 - 17:36 48° 	17 17 - 348 06:36 - 17:37 48° 	18 18 - 347 06:36 - 17:38 48° 	19 19 - 346 06:36 - 17:39 49° 	20 20 - 345 06:36 - 17:39 49° 	21 21 - 344 06:36 - 17:40 49°
4	22 22 - 343 06:36 - 17:41 49° 	23 23 - 342 06:36 - 17:41 50° 	24 24 - 341 06:35 - 17:42 50° 	25 25 - 340 06:35 - 17:42 50° 	26 26 - 339 06:35 - 17:43 50° 	27 27 - 338 06:35 - 17:44 51° 	28 28 - 337 06:35 - 17:44 51°
5	29 29 - 336 06:34 - 17:45 51° 	30 30 - 335 06:34 - 17:46 51° 	31 31 - 334 06:34 - 17:46 52° 				

February 2018



Hanoi
105.88°E, 21.016°N



Duration of the day, for February 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

5

1 32 - 333
06:33 - 17:47 52°

2 33 - 332
06:33 - 17:48 52°

3 34 - 331
06:33 - 17:48 52°

4 35 - 330
06:32 - 17:49 53°

6

5 36 - 329
06:32 - 17:49 53°

6 37 - 328
06:31 - 17:50 53°

7 38 - 327
06:31 - 17:50 54°

8 39 - 326
06:30 - 17:51 54°

9 40 - 325
06:30 - 17:52 54°

10 41 - 324
06:29 - 17:52 55°

11 42 - 323
06:29 - 17:53 55°

7

12 43 - 322
06:28 - 17:53 55°

13 44 - 321
06:28 - 17:54 56°

14 45 - 320
06:27 - 17:54 56°

15 46 - 319
06:26 - 17:55 56°

16 47 - 318
06:26 - 17:55 57°

17 48 - 317
06:25 - 17:56 57°

18 49 - 316
06:25 - 17:56 57°

8

19 50 - 315
06:24 - 17:57 58°

20 51 - 314
06:23 - 17:57 58°

21 52 - 313
06:23 - 17:58 58°

22 53 - 312
06:22 - 17:58 59°

23 54 - 311
06:21 - 17:58 59°

24 55 - 310
06:20 - 17:59 60°

25 56 - 309
06:20 - 17:59 60°

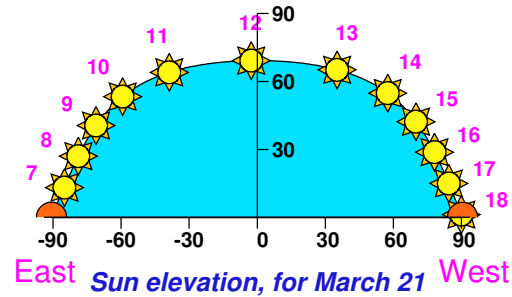
9

26 57 - 308
06:19 - 18:00 60°

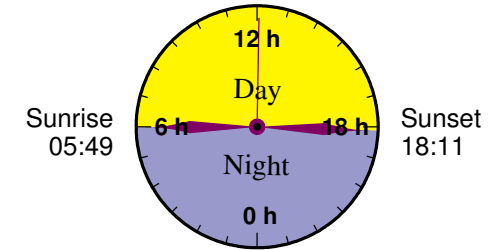
27 58 - 307
06:18 - 18:00 61°

28 59 - 306
06:17 - 18:01 61°

March 2018



Hanoi
105.88°E, 21.016°N



Duration of the day, for March 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

9

1 60 - 305 06:17 - 18:01 61°	2 61 - 304 06:16 - 18:01 62°	3 62 - 303 06:15 - 18:02 62°	4 63 - 302 06:14 - 18:02 63°

10

5 64 - 301 06:13 - 18:03 63°	6 65 - 300 06:13 - 18:03 63°	7 66 - 299 06:12 - 18:03 64°	8 67 - 298 06:11 - 18:04 64°	9 68 - 297 06:10 - 18:04 64°	10 69 - 296 06:09 - 18:04 65°	11 70 - 295 06:08 - 18:05 65°

11

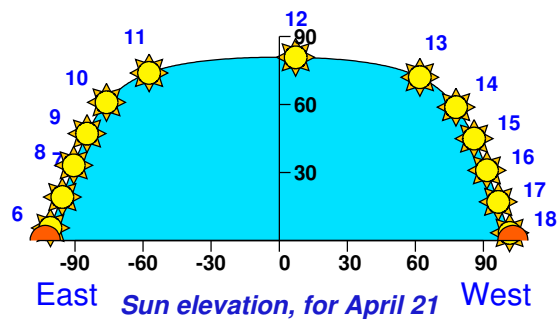
12 71 - 294 06:07 - 18:05 66°	13 72 - 293 06:07 - 18:05 66°	14 73 - 292 06:06 - 18:06 66°	15 74 - 291 06:05 - 18:06 67°	16 75 - 290 06:04 - 18:06 67°	17 76 - 289 06:03 - 18:07 68°	18 77 - 288 06:02 - 18:07 68°

12

19 78 - 287 06:01 - 18:07 68°	20 79 - 286 06:00 - 18:08 69°	21 80 - 285 05:59 - 18:08 69°	22 81 - 284 05:58 - 18:08 70°	23 82 - 283 05:58 - 18:09 70°	24 83 - 282 05:57 - 18:09 70°	25 84 - 281 05:56 - 18:09 71°

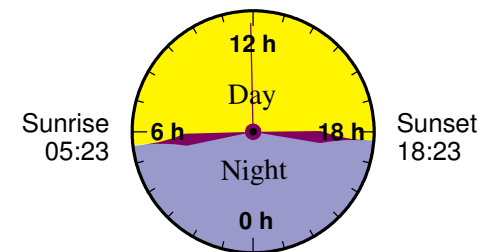
13

26 85 - 280 05:55 - 18:09 71°	27 86 - 279 05:54 - 18:10 72°	28 87 - 278 05:53 - 18:10 72°	29 88 - 277 05:52 - 18:10 72°	30 89 - 276 05:51 - 18:11 73°	31 90 - 275 05:50 - 18:11 73°



April 2018

Hanoi
105.88°E, 21.016°N



Duration of the day, for April 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

13

14

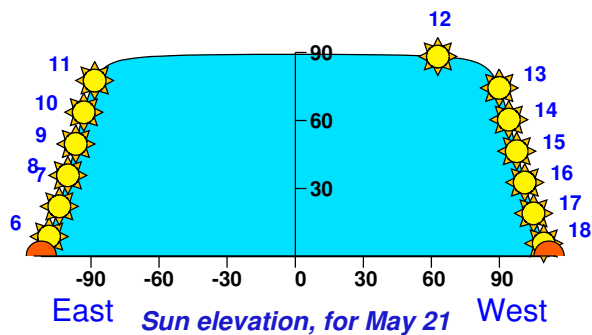
15

16

17

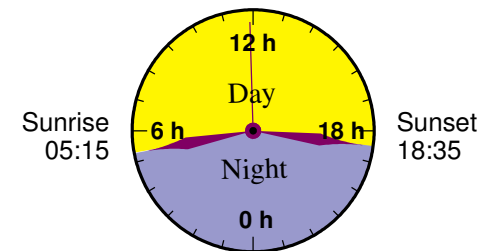
18

						1 91 - 274 05:49 - 18:11 74°
2 92 - 273 05:49 - 18:12 74° 	3 93 - 272 05:48 - 18:12 74° 	4 94 - 271 05:47 - 18:12 75° 	5 95 - 270 05:46 - 18:12 75° 	6 96 - 269 05:45 - 18:13 75° 	7 97 - 268 05:44 - 18:13 76° 	8 98 - 267 05:43 - 18:13 76°
9 99 - 266 05:42 - 18:14 77° 	10 100 - 265 05:42 - 18:14 77° 	11 101 - 264 05:41 - 18:14 77° 	12 102 - 263 05:40 - 18:15 78° 	13 103 - 262 05:39 - 18:15 78° 	14 104 - 261 05:38 - 18:15 78° 	15 105 - 260 05:37 - 18:16 79°
16 106 - 259 05:37 - 18:16 79° 	17 107 - 258 05:36 - 18:16 79° 	18 108 - 257 05:35 - 18:17 80° 	19 109 - 256 05:34 - 18:17 80° 	20 110 - 255 05:33 - 18:17 80° 	21 111 - 254 05:33 - 18:18 81° 	22 112 - 253 05:32 - 18:18 81°
23 113 - 252 05:31 - 18:18 81° 	24 114 - 251 05:31 - 18:19 82° 	25 115 - 250 05:30 - 18:19 82° 	26 116 - 249 05:29 - 18:19 82° 	27 117 - 248 05:28 - 18:20 83° 	28 118 - 247 05:28 - 18:20 83° 	29 119 - 246 05:27 - 18:21 83°
30 120 - 245 05:27 - 18:21 84° 						



May 2018

Hanoi
105.88°E, 21.016°N



Duration of the day, for May 21

Sunrise and Sunset at Hanoi (TL ± 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

18

19

20

21

22

1 121 - 244
05:26 - 18:21 84°

2 122 - 243
05:25 - 18:22 84°

3 123 - 242
05:25 - 18:22 85°

4 124 - 241
05:24 - 18:23 85°

5 125 - 240
05:24 - 18:23 85°

6 126 - 239
05:23 - 18:23 86°

7 127 - 238
05:22 - 18:24 86°

8 128 - 237
05:22 - 18:24 86°

9 129 - 236
05:21 - 18:25 86°

10 130 - 235
05:21 - 18:25 87°

11 131 - 234
05:20 - 18:25 87°

12 132 - 233
05:20 - 18:26 87°

13 133 - 232
05:20 - 18:26 87°

14 134 - 231
05:19 - 18:27 88°

15 135 - 230
05:19 - 18:27 88°

16 136 - 229
Day at anytime

17 137 - 228
05:18 - 18:28 88°

18 138 - 227
05:18 - 18:28 89°

19 139 - 226
05:17 - 18:29 89°

20 140 - 225
05:17 - 18:29 89°

21 141 - 224
05:17 - 18:30 89°

22 142 - 223
05:16 - 18:30 89°

23 143 - 222
05:16 - 18:31 89°

24 144 - 221
05:16 - 18:31 89°

25 145 - 220
05:16 - 18:31 89°

26 146 - 219
05:16 - 18:32 89°

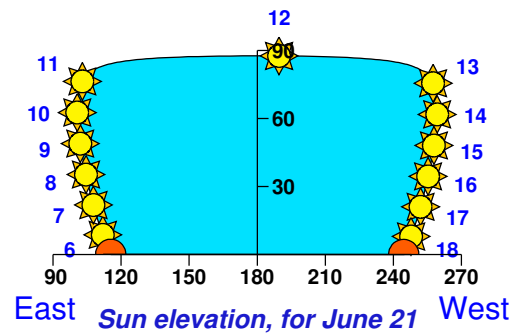
27 147 - 218
05:15 - 18:32 89°

28 148 - 217
05:15 - 18:33 89°

29 149 - 216
05:15 - 18:33 89°

30 150 - 215
05:15 - 18:33 89°

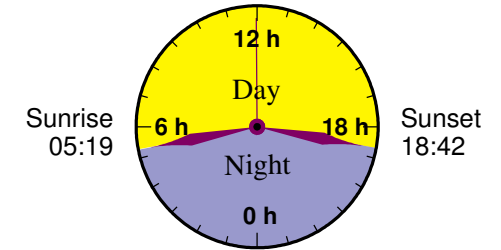
31 151 - 214
05:15 - 18:34 89°



June 2018

Hanoi

105.88°E, 21.016°N



Duration of the day, for June 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

22

1 152 - 213 05:15 - 18:34 89°	2 153 - 212 05:15 - 18:35 89°	3 154 - 211 05:15 - 18:35 89°

23

4 155 - 210 05:14 - 18:35 89°	5 156 - 209 05:14 - 18:36 88°	6 157 - 208 05:14 - 18:36 88°	7 158 - 207 05:14 - 18:37 88°	8 159 - 206 05:14 - 18:37 88°	9 160 - 205 05:15 - 18:37 88°	10 161 - 204 05:15 - 18:38 88°

24

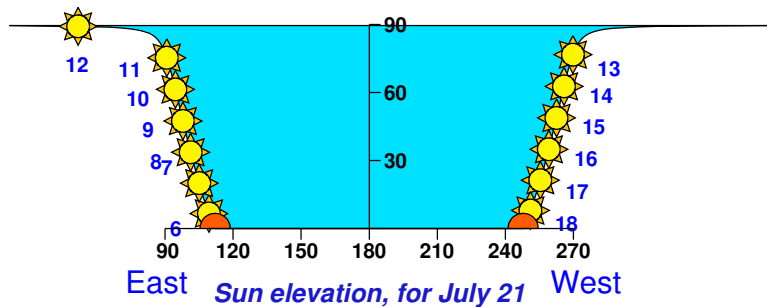
11 162 - 203 05:15 - 18:38 88°	12 163 - 202 05:15 - 18:38 88°	13 164 - 201 05:15 - 18:39 88°	14 165 - 200 05:15 - 18:39 88°	15 166 - 199 05:15 - 18:39 88°	16 167 - 198 05:15 - 18:39 88°	17 168 - 197 05:15 - 18:40 88°

25

18 169 - 196 05:16 - 18:40 88°	19 170 - 195 05:16 - 18:40 88°	20 171 - 194 05:16 - 18:41 88°	21 172 - 193 05:16 - 18:41 88°	22 173 - 192 05:16 - 18:41 88°	23 174 - 191 05:17 - 18:41 88°	24 175 - 190 05:17 - 18:41 88°

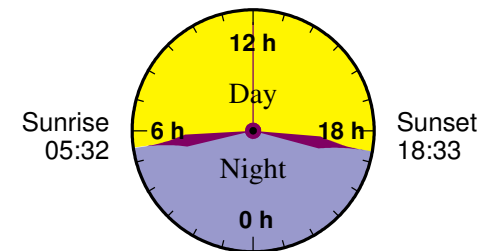
26

25 176 - 189 05:17 - 18:41 88°	26 177 - 188 05:17 - 18:42 88°	27 178 - 187 05:18 - 18:42 88°	28 179 - 186 05:18 - 18:42 88°	29 180 - 185 05:18 - 18:42 88°	30 181 - 184 05:19 - 18:42 88°



July 2018

Hanoi
105.88°E, 21.016°N



Duration of the day, for July 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

26

27

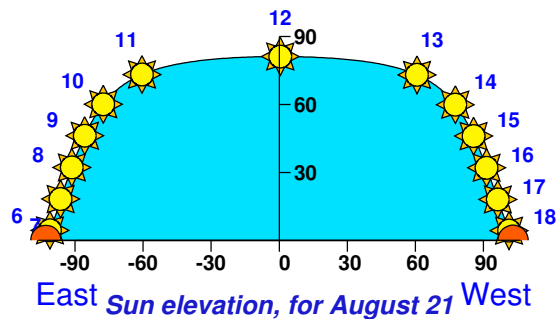
28

29

30

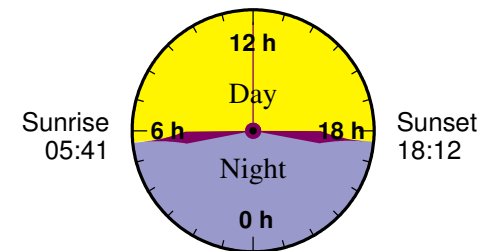
31

						1 182 - 183 05:19 - 18:42 88°
2 183 - 182 05:19 - 18:42 88° 	3 184 - 181 05:20 - 18:42 88° 	4 185 - 180 05:20 - 18:42 88° 	5 186 - 179 05:20 - 18:42 88° 	6 187 - 178 05:21 - 18:42 88° 	7 188 - 177 05:21 - 18:42 88° 	8 189 - 176 05:21 - 18:42 89°
9 190 - 175 05:22 - 18:42 89° 	10 191 - 174 05:22 - 18:42 89° 	11 192 - 173 05:23 - 18:42 89° 	12 193 - 172 05:23 - 18:42 89° 	13 194 - 171 05:23 - 18:42 89° 	14 195 - 170 05:24 - 18:41 89° 	15 196 - 169 05:24 - 18:41 89°
16 197 - 168 05:25 - 18:41 89° 	17 198 - 167 05:25 - 18:41 89° 	18 199 - 166 05:25 - 18:41 89° 	19 200 - 165 05:26 - 18:40 89° 	20 201 - 164 05:26 - 18:40 89° 	21 202 - 163 05:27 - 18:40 89° 	22 203 - 162 05:27 - 18:40 89°
23 204 - 161 05:27 - 18:39 89° 	24 205 - 160 05:28 - 18:39 89° 	25 206 - 159 05:28 - 18:38 89° 	26 207 - 158 05:28 - 18:38 88° 	27 208 - 157 05:29 - 18:38 88° 	28 209 - 156 05:29 - 18:37 88° 	29 210 - 155 05:30 - 18:37 88°
30 211 - 154 05:30 - 18:36 88° 	31 212 - 153 05:30 - 18:36 87° 					



August 2018

Hanoi
105.88°E, 21.016°N



Duration of the day, for August 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

31

32

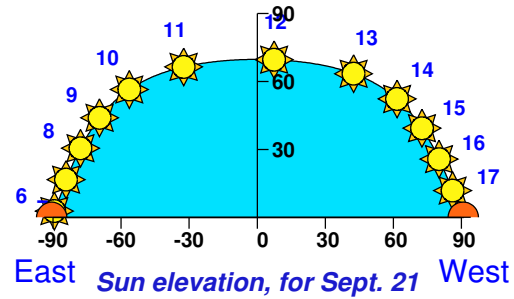
33

34

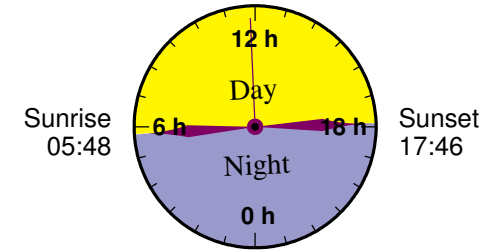
35

		1 213 - 152 05:31 - 18:35 87° 	2 214 - 151 05:31 - 18:35 87° 	3 215 - 150 05:32 - 18:34 86° 	4 216 - 149 05:32 - 18:34 86° 	5 217 - 148 05:32 - 18:33 86°
6 218 - 147 05:33 - 18:33 86° 	7 219 - 146 05:33 - 18:32 85° 	8 220 - 145 05:33 - 18:31 85° 	9 221 - 144 05:34 - 18:31 85° 	10 222 - 143 05:34 - 18:30 85° 	11 223 - 142 05:34 - 18:30 84° 	12 224 - 141 05:35 - 18:29 84°
13 225 - 140 05:35 - 18:28 84° 	14 226 - 139 05:35 - 18:28 83° 	15 227 - 138 05:36 - 18:27 83° 	16 228 - 137 05:36 - 18:26 83° 	17 229 - 136 05:36 - 18:25 82° 	18 230 - 135 05:37 - 18:25 82° 	19 231 - 134 05:37 - 18:24 82°
20 232 - 133 05:37 - 18:23 81° 	21 233 - 132 05:37 - 18:22 81° 	22 234 - 131 05:38 - 18:21 81° 	23 235 - 130 05:38 - 18:21 80° 	24 236 - 129 05:38 - 18:20 80° 	25 237 - 128 05:39 - 18:19 80° 	26 238 - 127 05:39 - 18:18 79°
27 239 - 126 05:39 - 18:17 79° 	28 240 - 125 05:39 - 18:16 79° 	29 241 - 124 05:40 - 18:16 78° 	30 242 - 123 05:40 - 18:15 78° 	31 243 - 122 05:40 - 18:14 78° 		

September 2018



Hanoi
105.88°E, 21.016°N



Duration of the day, for September 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

35

36

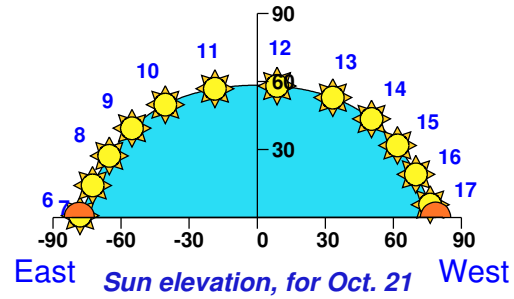
37

38

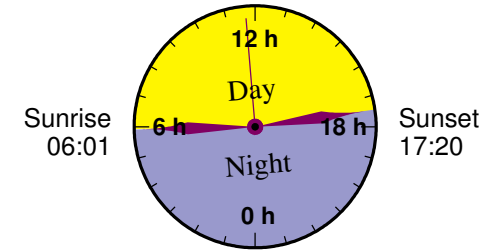
39

1 244 - 121 05:40 - 18:13 77° 	2 245 - 120 05:41 - 18:12 77°
3 246 - 119 05:41 - 18:11 77° 	4 247 - 118 05:41 - 18:10 76°
5 248 - 117 05:41 - 18:09 76° 	6 249 - 116 05:42 - 18:08 75°
7 250 - 115 05:42 - 18:08 75° 	8 251 - 114 05:42 - 18:07 75°
9 252 - 113 05:42 - 18:06 74° 	10 253 - 112 05:43 - 18:05 74°
11 254 - 111 05:43 - 18:04 74° 	12 255 - 110 05:43 - 18:03 73°
13 256 - 109 05:43 - 18:02 73° 	14 257 - 108 05:44 - 18:01 72°
15 258 - 107 05:44 - 18:00 72° 	16 259 - 106 05:44 - 17:59 72°
17 260 - 105 05:44 - 17:58 71° 	18 261 - 104 05:45 - 17:57 71°
19 262 - 103 05:45 - 17:56 70° 	20 263 - 102 05:45 - 17:55 70°
21 264 - 101 05:45 - 17:54 70° 	22 265 - 100 05:46 - 17:53 69°
23 266 - 99 05:46 - 17:52 69° 	24 267 - 98 05:46 - 17:51 69°
25 268 - 97 05:46 - 17:50 68° 	26 269 - 96 05:47 - 17:50 68°
27 270 - 95 05:47 - 17:49 67° 	28 271 - 94 05:47 - 17:48 67°
29 272 - 93 05:47 - 17:47 67° 	30 273 - 92 05:48 - 17:46 66°

October 2018



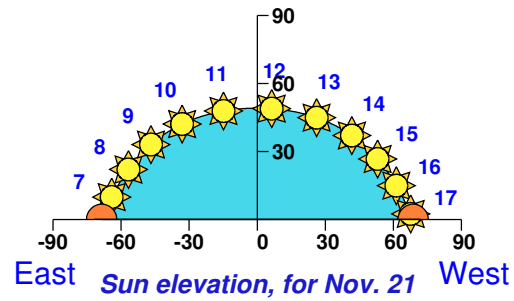
Hanoi
105.88°E, 21.016°N



Duration of the day, for October 21

Sunrise and Sunset at Hanoi (TL ± 1 mn) and sun maximal elevation ($^{\circ}$)

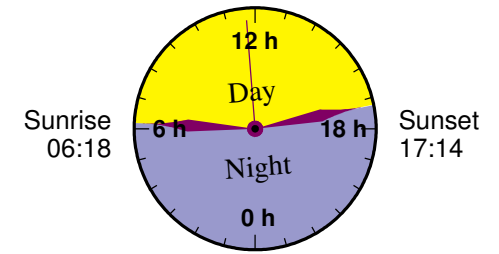
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
40	1 274 - 91 05:48 - 17:45 66° 	2 275 - 90 05:48 - 17:44 65° 	3 276 - 89 05:48 - 17:43 65° 	4 277 - 88 05:49 - 17:42 65° 	5 278 - 87 05:49 - 17:41 64° 	6 279 - 86 05:49 - 17:40 64° 	7 280 - 85 05:50 - 17:40 64°
41	8 281 - 84 05:50 - 17:39 63° 	9 282 - 83 05:50 - 17:38 63° 	10 283 - 82 05:51 - 17:37 62° 	11 284 - 81 05:51 - 17:36 62° 	12 285 - 80 05:51 - 17:35 62° 	13 286 - 79 05:52 - 17:34 61° 	14 287 - 78 05:52 - 17:34 61°
42	15 288 - 77 05:52 - 17:33 61° 	16 289 - 76 05:53 - 17:32 60° 	17 290 - 75 05:53 - 17:31 60° 	18 291 - 74 05:53 - 17:30 59° 	19 292 - 73 05:54 - 17:30 59° 	20 293 - 72 05:54 - 17:29 59° 	21 294 - 71 05:55 - 17:28 58°
43	22 295 - 70 05:55 - 17:27 58° 	23 296 - 69 05:55 - 17:27 58° 	24 297 - 68 05:56 - 17:26 57° 	25 298 - 67 05:56 - 17:25 57° 	26 299 - 66 05:57 - 17:25 57° 	27 300 - 65 05:57 - 17:24 56° 	28 301 - 64 05:58 - 17:23 56°
44	29 302 - 63 05:58 - 17:23 56° 	30 303 - 62 05:59 - 17:22 55° 	31 304 - 61 05:59 - 17:22 55° 				



November 2018

Hanoi

105.88°E, 21.016°N



Duration of the day, for November 21

Sunrise and Sunset at Hanoi (TL ± 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

44

1 305 - 60 06:00 - 17:21 55°	2 306 - 59 06:00 - 17:21 54°	3 307 - 58 06:01 - 17:20 54°	4 308 - 57 06:01 - 17:20 54°
--	--	--	--

45

5 309 - 56 06:02 - 17:19 53°	6 310 - 55 06:02 - 17:19 53°	7 311 - 54 06:03 - 17:18 53°	8 312 - 53 06:03 - 17:18 52°	9 313 - 52 06:04 - 17:17 52°	10 314 - 51 06:04 - 17:17 52°	11 315 - 50 06:05 - 17:17 52°
--	--	--	--	--	---	---

46

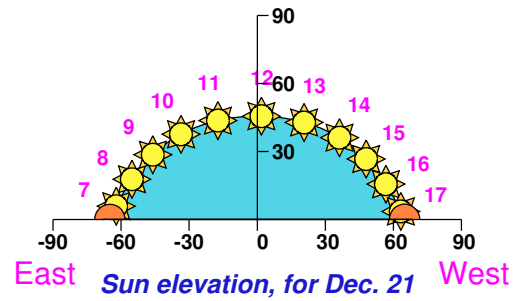
12 316 - 49 06:06 - 17:16 51°	13 317 - 48 06:06 - 17:16 51°	14 318 - 47 06:07 - 17:16 51°	15 319 - 46 06:07 - 17:15 51°	16 320 - 45 06:08 - 17:15 50°	17 321 - 44 06:09 - 17:15 50°	18 322 - 43 06:09 - 17:15 50°
---	---	---	---	---	---	---

47

19 323 - 42 06:10 - 17:15 50°	20 324 - 41 06:10 - 17:14 49°	21 325 - 40 06:11 - 17:14 49°	22 326 - 39 06:12 - 17:14 49°	23 327 - 38 06:12 - 17:14 49°	24 328 - 37 06:13 - 17:14 48°	25 329 - 36 06:14 - 17:14 48°
---	---	---	---	---	---	---

48

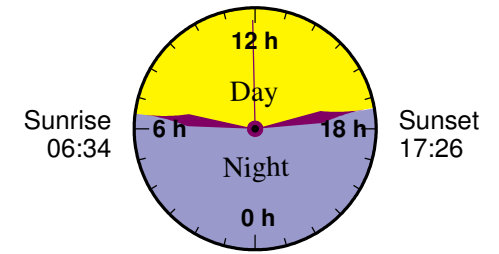
26 330 - 35 06:14 - 17:14 48°	27 331 - 34 06:15 - 17:14 48°	28 332 - 33 06:16 - 17:14 48°	29 333 - 32 06:16 - 17:14 48°	30 334 - 31 06:17 - 17:14 47°
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December 2018

Hanoi

105.88°E, 21.016°N



Duration of the day, for December 21

Sunrise and Sunset at Hanoi (TL $\pm$ 1 mn) and sun maximal elevation ($^{\circ}$)

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

48

49

50

51

52

53

1 335 - 30 06:17 - 17:14 47° 	2 336 - 29 06:18 - 17:14 47°
3 337 - 28 06:19 - 17:14 47° 	4 338 - 27 06:19 - 17:15 47°
5 339 - 26 06:20 - 17:15 47° 	6 340 - 25 06:21 - 17:15 47°
7 341 - 24 06:21 - 17:15 46° 	8 342 - 23 06:22 - 17:15 46°
9 343 - 22 06:23 - 17:16 46° 	10 344 - 21 06:23 - 17:16 46°
11 345 - 20 06:24 - 17:16 46° 	12 346 - 19 06:24 - 17:17 46°
13 347 - 18 06:25 - 17:17 46° 	14 348 - 17 06:26 - 17:17 46°
15 349 - 16 06:26 - 17:18 46° 	16 350 - 15 06:27 - 17:18 46°
17 351 - 14 06:27 - 17:18 46° 	18 352 - 13 06:28 - 17:19 46°
19 353 - 12 06:28 - 17:19 46° 	20 354 - 11 06:29 - 17:20 46°
21 355 - 10 06:29 - 17:20 46° 	22 356 - 9 06:30 - 17:21 46°
23 357 - 8 06:30 - 17:21 46° 	24 358 - 7 06:31 - 17:22 46°
25 359 - 6 06:31 - 17:22 46° 	26 360 - 5 06:32 - 17:23 46°
27 361 - 4 06:32 - 17:23 46° 	28 362 - 3 06:32 - 17:24 46°
29 363 - 2 06:33 - 17:25 46° 	30 364 - 1 06:33 - 17:25 46°
31 365 - 0 06:34 - 17:26 46° 	