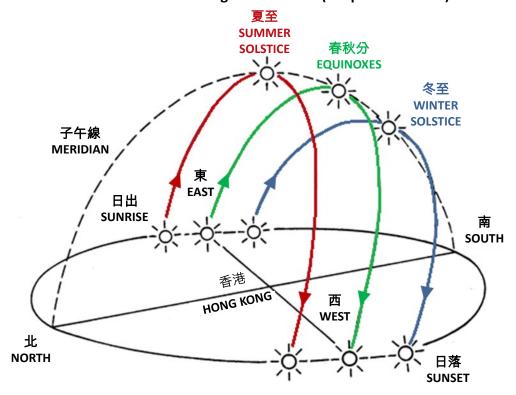
## 太陽周年路徑圖(簡略版)

## Paths of the Sun throughout the Year (Simplified version)



2027 年,太陽在 6 月 3 日 12 時 21 分及 7 月 10 日 12 時 29 分最接近香港天頂。
In 2027, the Sun is nearest to being directly overhead at Hong Kong at 12:21 on 3 June and again at 12:29 on 10 July.



日上中天的時間、 方位及仰角

www.hko.gov.hk/tc/gts/ astronomy/Sun Transit.htm



Time, Direction and Elevation of Sun Transit

www.hko.gov.hk/en/gts/ astronomy/Sun\_Transit.htm



太陽視赤經 與視赤緯

www.hko.gov.hk/tc/gts/astronomy/sun ra dec.htm



The Apparent Right Ascension and Apparent Declination of the Sun

www.hko.gov.hk/en/gts/ astronomy/sun ra dec.htm

## 曙暮光

民用曙暮光指黃昏時從日落至太陽中心移到地平下 6 度的一段時段或晨早太陽中心由地平下 6 度上升至日出的時段。航海及天文曙暮光分別為太陽中心在地平下 12 和 18 度至日出及日落至太陽中心在地平下 12 和 18 度的時段。

太陽在不同俯角的照明度無法準確描述,況且照明度同時受到其他因素,如月光及天氣狀況等的影響。大致來說,在民用曙暮光期間,如果沒有燈光照明,一般的戶外活動將較為困難,但對於那些祗需認清物件輪廓的大規模操作起就,光線還是足夠的。這時候最光亮的行星人一等亮度)肉眼可以看見。天文曙暮光光恒星(一等亮度)肉眼可以看見。天文曙暮光光短點,光線還是足夠的。這時候最光亮的看光光線還是足夠的。看見。天文曜暮光之間,光線還是足夠的。有其他的自然光亮的累夜的界限。航海曙暮光的照明度則在前來說過去。所有較為光亮的星星都可以見到。

## **TWILIGHT**

The duration of civil twilight is the interval in the evening from sunset until the time when the centre of the Sun is 6 degrees below the horizon or the corresponding interval in the morning from the time when the centre of the Sun is 6 degrees below horizon until sunrise. The durations of nautical and astronomical twilight are, respectively, the intervals between sunrise or sunset and the times at which the centre of the Sun is 12 and 18 degrees below the horizon.

It is difficult to give precise statements on the degree of illumination at varying angles of depression of the Sun, and in any case, such illumination is dependent upon other causes such as moonlight and weather conditions. It will be found, in general that civil twilight marks the time when ordinary outdoor operations are difficult without artificial light, although there will be still ample light to make possible large scale operations, requiring outline only. The brightest planets and stars (first magnitude) will be visible to the eye. The limits of astronomical twilight are times at which complete darkness save moonlight and starlight, begins in the evening and ends in the morning. Nautical twilight represents an intermediate state of illumination when the general outline will still be visible, although the horizon probably cannot be distinguished. All detailed operations are impossible and all brighter stars can be seen.