

Table 4D-102 (CA). Minimum Yellow Light Change Interval Timing

$$\text{Yellow Time} = \frac{\text{Detector Setback Distance}}{\text{Speed}}$$

$$T = \frac{D}{V} = \text{The minimum yellow light change interval (sec)}$$

V = Posted speed or prima facie Speed (m/sec or ft/sec)

d = Deceleration Rate (3.05 m/sec² or 10 ft/sec²)

t_R = Reaction Time (1 sec)

Reaction Distance = Vt_R

Deceleration Distance = 1/2dt² or 1/2Vt or $\frac{V^2}{2d}$

D = Detector Setback = Deceleration Distance + Reaction Distance = $\frac{V^2}{2d} + Vt_R$

$$T = \frac{\frac{V^2}{2d} + Vt_R}{V}$$

$$T = \frac{V}{2d} + t_R$$

POSTED SPEED or PRIMA FACIE SPEED		MINIMUM YELLOW INTERVAL
mph	km/h	Seconds
25 or less	40 or less	3.0
30	48	3.2
35	56	3.6
40	64	3.9
45	72	4.3
50	80	4.7
55	89	5.0
60	97	5.4
65	105	5.8