4.7 Tunnel

For guidance on tunnel lighting you should also refer to section 6.6 on road tunnel lighting.

Glare restriction

Time of day	Threshold zone	Interior zone	Exit zone
Day-time	TI <15%	TI <15%	-
Night	TI <15%	TI <15%	TI <15%

Traffic flow classification

Traffic flow	One way traffic (vehicles/hour.lane)	Two way traffic (vehicles/hour.lane)
High	> 1500	> 400
Medium	500 – 1500	100 – 400
Low	< 500	< 100

Interior zone average luminance levels (L_{av})

Stopping distance (= speed in m/s)	Traffic flow		
	Low	Medium	High
160m	≥ 5 cd/m²	≥ 10 cd/m²	≥ 15 cd/m²
100m	≥ 2 cd/m²	≥ 4 cd/m²	≥ 6 cd/m²
60m	≥ 1 cd/m²	≥ 2 cd/m²	≥ 3 cd/m²

Threshold zones average luminance levels (L_{av})

Maximum permitted average luminance ratio passing between transition zones is 3:1

Maximum permitted average luminance ratio passing from transition zones to interior zone is 1.5:1

Note: During night hours the entire tunnel is treated as one interior zone

Uniformity requirements

Minimum luminance to average luminance for road surface and lower 2m of tunnel walls ≥ 0.4

Longitudinal uniformity along centre line of each lane ≥ 0.6