

Klasy oświetlenia dla ruchu zmotoryzowanego

M=6-VWS ; minimalna wartość VWS=0

Table 1 — Parameters for the selection of lighting class M

Parameter	Options	Description <sup>a</sup>		Weighting Value $V_w^a$
Design speed or speed limit	Very high	$v \geq 100$ km/h		2
	High	$70 < v < 100$ km/h		1
	Moderate	$40 < v \leq 70$ km/h		-1
	Low	$v \leq 40$ km/h		-2
Traffic volume		Motorways, multilane routes	Two lane routes	
	High	> 65 % of maximum capacity	> 45 % of maximum capacity	1
	Moderate	35 % - 65 % of maximum capacity	15 % - 45 % of maximum capacity	0

Parameter	Options	Description <sup>a</sup>		Weighting Value $V_w$ <sup>a</sup>
	Low	< 35 % of maximum capacity	< 15 % of maximum capacity	-1
Traffic composition	Mixed with high percentage of non-motorised			2
	Mixed			1
	Motorised only			0
Separation of carriageway	No			1
	Yes			0
Junction density		Intersection/km	Interchanges, distance between bridges, km	
	High	> 3	< 3	1
	Moderate	≤ 3	≥ 3	0
Parked vehicles	Present			1
	Not present			0
Ambient luminosity	High	shopping windows, advertisement expressions, sport fields, station areas, storage areas		1
	Moderate	normal situation		0
	Low			-1
Navigational task	Very difficult			2
	Difficult			1
	Easy			0

<sup>a</sup> The values stated in the column are an example. Any adaptation of the method or more appropriate weighting values can be used instead, on the national level.

Klasy oświetlenia dla stref konfliktowych (ruch mieszany)

C=6-VWS ; minimalna wartość VWS=1

**Table 2 — M and C lighting classes of comparable lighting level for different values of  $Q_0$  for the road surface**

Lighting class M			M1	M2	M3	M4	M5	M6
Lighting class C if $Q_0 \leq 0,05 \text{ cd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$			C0	C1	C2	C3	C4	C5
Lighting class C if $0,05 \text{ cd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1} < Q_0 \leq 0,08 \text{ cd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$		C0	C1	C2	C3	C4	C5	C5
Lighting class C if $Q_0 > 0,09 \text{ cd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$	C0	C1	C2	C3	C4	C5	C5	C5

**Table 3 — Parameters for the selection of lighting class C**

Parameter	Options	Description <sup>a</sup>	Weighting Value $V_w$ <sup>a</sup>
Design speed or speed limit	Very high	$v \geq 100 \text{ km/h}$	3
	High	$70 < v < 100 \text{ km/h}$	2
	Moderate	$40 < v \leq 70 \text{ km/h}$	0
	Low	$v \leq 40 \text{ km/h}$	-1
Traffic volume	High		1
	Moderate		0
	Low		-1
Traffic composition	Mixed with high percentage of non-motorised		2
	Mixed		1
	Motorised only		0
Separation of carriageway	No		1
	Yes		0
Parked vehicles	Present		1
	Not present		0
Ambient luminosity	High	shopping windows, advertisement expressions, sport fields, station areas, storage areas	1
	Moderate	normal situation	0
	Low		-1
Navigational task	Very difficult		2
	Difficult		1
	Easy		0

<sup>a</sup> The values stated in the column are an example. Any adaptation of the method or more appropriate weighting values can be used instead, on the national level.

Klasy oświetlenia dla stref konfliktowych (ruch mieszany)

P=6-VWS ; minimalna wartość VWS=0

Table 4 — Parameters for the selection of lighting class P

Parameter	Options	Description <sup>a</sup>	Weighting Value $V_w^a$
Travel speed	Low	$v \leq 40$ km/h	1
	Very low (walking speed)	Very low, walking speed	0
Use intensity	Busy		1
	Normal		0
	Quiet		-1
Traffic composition	Pedestrians, cyclists and motorised traffic		2
	Pedestrians and motorised traffic		1
	Pedestrians and cyclists only		1
	Pedestrians only		0
	Cyclists only		0
Parked vehicles	Present		1
	Not present		0
Ambient luminosity	High	shopping windows, advertisement expressions, sport fields, station areas, storage areas	1
	Moderate	normal situation	0
	Low		-1
Facial recognition	Necessary		Additional requirements <sup>b</sup>
	Not necessary		No additional requirements

<sup>a</sup> The values stated in the column are an example. Any adaptation of the method or more appropriate weighting values can be used instead, on the national level.

<sup>b</sup> Specific guidelines on use of facial recognition parameter are defined at national level for each country.

Przykład wyznaczania klasy oświetlenia

Table A.1 — Time dependent selection of parameters - lighting class M

Parameter	Options	Description <sup>a</sup>		Weighting Value $V_w^a$	$V_w$ selected			
					$\Delta t1$	$\Delta t2$	$\Delta t3$	$\Delta t4$
Design speed or speed limit	Very high	$v \geq 100$ km/h		2				
	High	$70 < v < 100$ km/h		1	1	1	1	1
	Moderate	$40 < v \leq 70$ km/h		-1				
	Low	$v \leq 40$ km/h		-2				
Traffic volume		Motorways, multilane routes	Two lane routes					
	High	> 65 % of maximum capacity	> 45 % of maximum capacity	1	1			1
	Moderate	35 % - 65 % of maximum capacity	15 % - 45 % of maximum capacity	0		0		
	Low	< 35 % of maximum capacity	< 15 % of maximum capacity	-1			-1	
Traffic composition	Mixed with high percentage of non-motorised			2				
	Mixed			1				

Parameter	Options	Description <sup>a</sup>		Weighting Value $V_w^a$	$V_w$ selected			
					$\Delta t_2$	$\Delta t_3$	$\Delta t_4$	$\Delta t_1$
	Motorised only			0	0	0	0	0
Separation of carriageway	No			1				
	Yes			0	0	0	0	0
Junction density		Intersection/km	Interchanges, distance between bridges, km					
	High	> 3	< 3	1	1	1	1	1
	Moderate	$\leq 3$	$\geq 3$	0				
Parked vehicles	Present			1				
	Not present			0	0	0	0	0
Ambient luminosity	High	shopping windows, advertisement expressions, sport fields, station areas, storage areas		1	1	1	1	1
	Moderate	normal situation		0				
	Low			-1				
Navigational task	Very difficult			2				
	Difficult			1				
	Easy			0	0	0	0	0
				<b>Sum of Weighting Values</b> $V_{ws}$	<b>4</b>	<b>3</b>	<b>2</b>	<b>4</b>
				<b>M = 6 -</b> $V_{ws}$	<b>M2</b>	<b>M3</b>	<b>M4</b>	<b>M2</b>
<sup>a</sup> The values stated in the column are an example. Any adaptation of the method or more appropriate weighting values can be used instead, on the national level.								

Table A.2 — Time dependent selection of parameters - lighting class P

Parameter	Options	Description	Weighting Value $V_w$	$V_w$ selected		
				$\Delta t1$	$\Delta t2$	
Travel speed	Low	$v \leq 40$ km/h	1	1	1	
	Very low (walking speed)	Very low, walking speed	0			
Use intensity	Busy		1			
	Normal		0	0		
	Quiet		-1		-1	
Traffic composition	Pedestrians, cyclists and motorised traffic		2			
	Pedestrians and motorised traffic		1			
	Pedestrians and cyclists only		1	1	1	
	Pedestrians only		0			
	Cyclists only		0			
Parked vehicles	Present		1			
	Not present		0	0	0	
Ambient luminosity	High	shopping windows, advertisement expressions, sport fields, station areas, storage areas	1			
	Moderate	normal situation	0	0		
	Low		-1		-1	
Facial recognition	Necessary		Additional requirements			
	Not necessary		No additional requirements			
				<b>Sum of Weighting Values <math>V_{ws}</math></b>	<b>2</b>	<b>0</b>
				<b><math>P = 6 - V_{ws}</math></b>	<b>P4</b>	<b>P6</b>