

Proposal of Supplement 1 to Regulation No.123 (Adaptive front-lighting systems)

This proposal replaces the content of ECE/TRANS/WP.29/GRE/2010/50 where a requirement for a corresponding amendment to the table 1 of annex 4 was omitted.

The modifications to the existing text of the Regulation are marked in bold characters.

I. Proposal

Annex 3, table 1, amend to read:

"Table 1: Passing beam photometric requirements

tabled requirements expressed in cd		Position /deg			passing beam									
		horizontal		vertical	class C		class V		class E		class W			
No	Element	at/ from	to	at	min	max	min	max	min	max	min	max		
Part A	1	B50L 4/	L 3.43		U 0.57	50 4/	350	50	350	50	625 8/	50	625	
	2	HV 4/	V		H	50 4/	625	50	625	50		50		
	3	BR 4/	R 2.5		U 1	50 4/	1750	50	880	50	1750	50	2650	
	4	Segment BRR 4/	R 8	R 20	U 0.57	50 4/	3550		880		3550		5300	
	5	Segment BLL 4/	L 8	L 20	U 0.57	50 4/	625		880		880		880	
	6	P	L 7		H	63						63		
	7	Zone III (as specified by Table 3 of this annex)					625		625		880		880	
	8a	S50, S50LL, S50RR 5/			U 4	63 7/				63 7/		63 7/		
	9a	S100, S100LL, S100RR 5/			U 2	125 7/				125 7/		125 7/		
	10	50 R	R 1.72		D 0.86				5100					
	11	75 R	R 1.15		D 0.57	10100					15200		20300	
	12	50 V	V		D 0.86	5100			5100		10100		10100	
	13	50 L	L 3.43		D 0.86	3550	13200 9/		3550	13200 9/	6800		6800	26400 9/
	14	25 LL	L 16		D 1.72	1180			845		1180		3400	
	15	25 RR	R 11		D 1.72	1180			845		1180		3400	
	16	Segment 20 and below it	L 3.5	V	D 2								17600 2/	
	17	Segment 10 and below it	L 4.5	R 2.0	D 4		12300 1/			12300 1/		12300 1/	7100 2/	
	18	E _{max} 3/				16900	44100		8400	44100	16900	79300 8/	29530	70500 2/

Part B (bending modes): Table 1 Part A applies, however with the lines Nos. 1, 2, 7, 13 and 18 being replaced by those listed hereunder

Part B	1	B50L 4/	L 3.43		U 0.57	50 4/	530		530				790
	2	HV 4/				50 4/	880		880				
	7	Zone III (as specified by Table 3 of this annex)					880		880		880		880
	13	50L	L 3.43		D 0.86	1700			1700		3400		3400
	18	E _{max} 6/				10100	44100		5100	44100	10100	79300 8/	20300

Annex 3, table 1, footnote ⁴, amend to read:

⁴ The contribution of each side of the system (**for segment BLL and BRR: of at least one point**), when measured according to the provisions of Annex 9 to this Regulation shall not be less than **50 cd.**”

II. Justification

1. During the development of the adaptive front-lighting systems (AFS) regulation, consideration was given to the appearance of vehicles fitted with AFS systems where there was a major difference in the photometric performance from each side of the system. As a result, it was decided to require a minimum value of 75 cd from each side of the system at test points in the glare zone.

2. Experience with AFS systems, now installed on vehicles, has shown that with practically achievable systems this difference in appearance is not an issue and, in order to avoid imposing stringent testing requirements in the glare zone, it has been concluded that the existing requirements in Regulation No. 123 can be relaxed. Consequently, the existing minimum value of 85 cd has been reduced to 50 cd to provide an acceptable signal to other road users and footnote ⁴ is only applied to the Class C passing beam. This then also makes it possible for units that are type approved to Regulation No. 98, and performing perfectly satisfactorily in service, to also be installed as part of the AFS system producing the Class C passing beam and the bending light modes.
