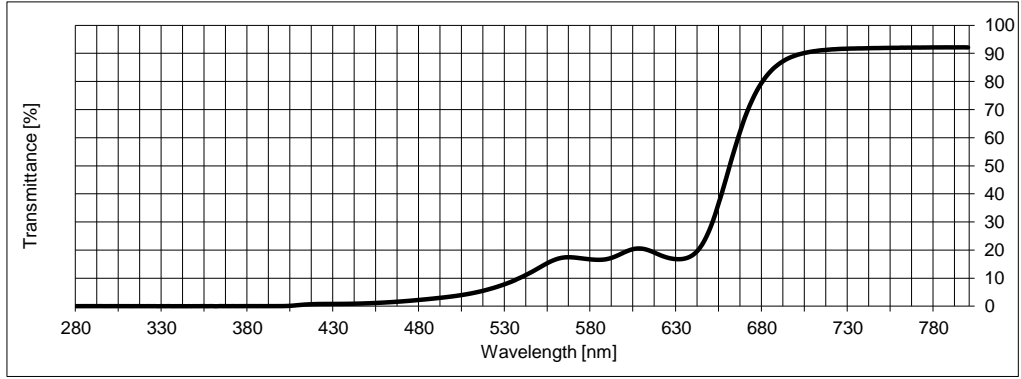


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	0,4
420	0,7
430	0,8
440	0,8
450	1,0
460	1,3
470	1,7
480	2,2
490	2,8
500	3,5
510	4,5
520	5,9
530	7,8
540	10,4
550	13,7
560	16,7
570	17,3
580	16,6
590	16,8
600	19,3
610	20,4
620	18,3
630	16,7
640	18,4
650	28,3
660	47,7
670	67,3
680	79,8
690	86,3
700	89,3
710	90,7
720	91,3
730	91,6
740	91,8
750	91,9
760	92,0
770	92,0
780	92,1
790	92,1
800	92,1



European Standard		DIN EN ISO 12312-1:2014-04		Pass
Luminous transmittance (D65) τ_V :		13,3%	Filter category: 3	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Protection		
UVA (315 - 380nm)	τ_{SUVA} : 0,0%	100% UVA-Protection	$\tau_{SUVAmax}$ (315 - 380nm): 0,0%	pass 13,3%
UVB (280 - 315nm)	τ_{SUVB} : 0,0%	100% UVB-Protection	$\tau_{SUVBmax}$ (280 - 315nm): 0,0%	pass 0,7%
blue light (380 - 500nm)	τ_{sb} : 1,2%	spectral transmittance (475-650nm) τ_{Vmin} :	1,9%	Fail 2,7%
Signal transmittance:				
red	signal transmittance τ_{sig} :	22,8%	Recognition of signal light Q:	1,72 Pass 0,8
yellow	signal transmittance τ_{sig} :	18,8%	Recognition of signal light Q:	1,41 Pass 0,6
green	signal transmittance τ_{sig} :	10,0%	Recognition of signal light Q:	0,75 Pass 0,6
blue	signal transmittance τ_{sig} :	11,2%	Recognition of signal light Q:	0,85 Pass 0,6
transmission properties related to traffic signal recognition: Fail				

American Standard		ANSI Z80.3-2010		Fail
Luminous transmittance (C) τ_V :		13,4%	primary function: General Purpose lens or shield	shade: medium to dark
			Limit value	Limit value
			normal use	high exposure
UVA, mean Transmittance (315 - 380nm)	τ_{SUVA} : 0,0%	Pass	13,4%	Pass 6,7%
UVB, mean Transmittance (280 - 315nm)	τ_{SUVB} : 0,0%	Pass	1,7%	Pass 0,1%
blue light (380 - 500nm)	τ_{sb} : 1,2%	spectral transmittance (475-650nm) τ_{Vmin} :	1,9%	Fail 2,7%
Signal transmittance:				
<u>Color Limits</u>				
red	signal transmittance τ_{sig} :	27,1% Pass	2°-Observer { D65 0,4978 0,4485 Yellow 0,6044 0,3947 Green 0,3304 0,5704	Fail Please refer to sheet "Farbort"
yellow	signal transmittance τ_{sig} :	18,7% Pass		
green	signal transmittance τ_{sig} :	10,1% Pass		
transmission properties related to traffic signal recognition: Fail				

Australian Standard		AS/NZS 1067:2003 / AMDT 1:2009		Fail
Luminous transmittance (D65) τ_V :		13,3%	Lens category: 3	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Absorption	$\tau_{F(A)max}$ (280 - 315nm): 0,0%	Pass 0,7%
UVA (315 - 380nm)	τ_{SUVA} : 0,0%		$\tau_{F(A)max}$ (315 - 350nm): 0,0%	Pass 6,6%
UVB (280 - 315nm)	τ_{SUVB} : 0,0%		$\tau_{SUVAmax}$ (315 - 380nm): 0,0%	Pass 6,6%
blue light (400 - 500nm)	τ_{sb} : 1,2%	spectral transmittance (450-650nm) τ_{Vmin} :	1,0%	Fail 2,7%
Signal transmittance:				
red	signal transmittance τ_{sign} :	22,8%	Recognition of signal light Q:	1,72 Pass 0,8
yellow	signal transmittance τ_{sign} :	18,8%	Recognition of signal light Q:	1,41 Pass 0,8
green	signal transmittance τ_{sign} :	10,0%	Recognition of signal light Q:	0,75 Pass 0,6
blue	signal transmittance τ_{sign} :	11,2%	Recognition of signal light Q:	0,85 Pass 0,7

Demand on lenses for use by drivers at night (5.2.3.4): **Fail**

Colorimetric Observer according DIN 5033

Standard illuminant A			
2° Observer	x = 0,5671	y = 0,4161	Y = 1,69
CIELAB 1976	L* = 46,57	a* = 20,12	b* = 55,66
HUNTER	L = 39,62	a = 5,81	b = 4,43
10° Observer	x = 0,5709	y = 0,4141	Y = 1,73
CIELAB 1976	L* = 45,93	a* = 19,86	b* = 56,72
HUNTER	L = 39,01	a = 5,89	b = 45,11

Standard illuminant C			
2° Observer	x = 0,4997	y = 0,4444	Y = 1,36
CIELAB 1976	L* = 46,15	a* = 11,98	b* = 53,83
HUNTER	L = 11,64	a = 3,00	b = 7,28
10° Observer	x = 0,5078	y = 0,4389	Y = 1,40
CIELAB 1976	L* = 45,49	a* = 14,87	b* = 52,92
HUNTER	L = 35,39	a = 3,90	b = 73,48

Standard illuminant D65			
2° Observer	x = 0,4978	y = 0,4485	Y = 1,40
CIELAB 1976	L* = 43,15	a* = 13,57	b* = 53,11
HUNTER	L = 36,41	a = 3,43	b = 7,08
10° Observer	x = 0,5063	y = 0,4428	Y = 1,44
CIELAB 1976	L* = 45,62	a* = 16,07	b* = 52,42
HUNTER	L = 35,26	a = 4,26	b = 71,64

Testreport Sunglasses v = Pass x = Fail

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