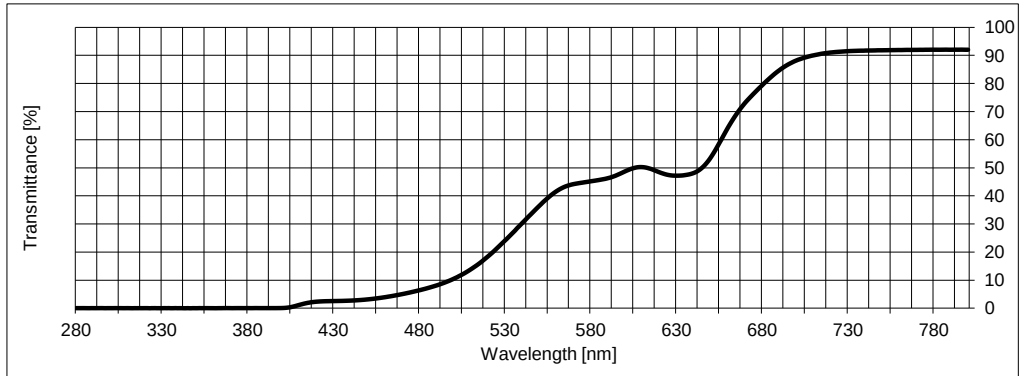


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	1,1
420	2,3
430	2,5
440	2,7
450	3,1
460	3,9
470	5,0
480	6,3
490	8,0
500	10,4
510	13,8
520	18,4
530	24,0
540	30,2
550	36,4
560	41,6
570	44,1
580	45,1
590	46,3
600	48,7
610	50,2
620	48,4
630	47,2
640	48,1
650	53,6
660	64,2
670	73,1
680	79,4
690	84,7
700	88,2
710	90,0
720	91,0
730	91,5
740	91,7
750	91,8
760	91,9
770	91,9
780	92,0
790	92,0
800	92,0



European Standard				DIN EN ISO 12312-1:2014-04		Pass
Luminous transmittance (D65) τ_v :		34,5%		Filter category:	2	Limit value
UV	(280 - 380nm) τ_{SUV} :	0,0%	100% UV-Protection			
UVA	(315 - 380nm) τ_{SUA} :	0,0%	100% UVA-Protection	τ_{SUAmax} (315 - 380nm):	0,0%	pass 34,5%
UVB	(280 - 315nm) τ_{SUB} :	0,0%	100% UVB-Protection	τ_{SUBmax} (280 - 315nm):	0,0%	pass 1,7%
blue light	(380 - 500nm) τ_{sb} :	3,7%		spectral transmittance (475-650nm) τ_{Vmin} :	5,6%	Fail 6,9%
Signal transmittance:						
red	signal transmittance τ_{sig} :	50,6%		Recognition of signal light Q:	1,47	Pass 0,8
yellow	signal transmittance τ_{sig} :	45,7%		Recognition of signal light Q:	1,32	Pass 0,6
green	signal transmittance τ_{sig} :	27,7%		Recognition of signal light Q:	0,80	Pass 0,6
blue	signal transmittance τ_{sig} :	23,5%		Recognition of signal light Q:	0,68	Pass 0,6
transmission properties related to traffic signal recognition: Fail						

American Standard				ANSI Z80.3-2010		Fail	
Luminous transmittance (C) τ_v :		34,8%	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_{SUA} :	0,0%		Pass	34,8%	Pass 17,4%	
UVB, mean Transmittance	(280 - 315nm) τ_{SUB} :	0,0%		Pass	4,3%	Pass 0,3%	
blue light	(380 - 500nm) τ_{sb} :	3,7%		spectral transmittance (475-650nm) τ_{Vmin} :	5,6%	Fail 7,0%	
Signal transmittance:				Color Limits			
red	signal transmittance τ_{sig} :	52,8%	Pass	x y			
yellow	signal transmittance τ_{sig} :	45,6%	Pass	2°-Observer	D65	0,4775 0,4591 Fail	Please refer to sheet "Farbort"
green	signal transmittance τ_{sig} :	27,8%	Pass		Yellow	0,5909 0,4081 Pass	
				Green	0,3192 0,5730 Pass		
				transmission properties related to traffic signal recognition: Fail			

Australian Standard				AS/NZS 1067:2003 / AMDT 1:2009		Fail
Luminous transmittance (D65) τ_v :		34,5%		Lens category:	2	Limit value
UV	(280 - 380nm) τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(A)max}$ (280 - 315nm):	0,0%	Pass 1,7%
UVA	(315 - 380nm) τ_{SUA} :	0,0%		$\tau_{F(A)max}$ (315 - 350nm):	0,0%	Pass 34,5%
UVB	(280 - 315nm) τ_{SUB} :	0,0%		τ_{SUAmax} (315 - 380nm):	0,0%	Pass 34,5%
blue light	(400 - 500nm) τ_{sb} :	3,7%		spectral transmittance (450-650nm) τ_{Vmin} :	3,1%	Fail 6,9%
Signal transmittance:						
red	signal transmittance τ_{sig} :	50,6%		Recognition of signal light Q:	1,47	Pass 0,8
yellow	signal transmittance τ_{sig} :	45,7%		Recognition of signal light Q:	1,32	Pass 0,8
green	signal transmittance τ_{sig} :	27,7%		Recognition of signal light Q:	0,80	Pass 0,6
blue	signal transmittance τ_{sig} :	23,5%		Recognition of signal light Q:	0,68	Fail 0,7

Demand on lenses for use by drivers at night (5.2.3.4):	Fail
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Colorimetric Observer according DIN 5033

Standard illuminant A			
2° Observer	x = 0,5473	y = 0,4320	Y = 4,25
CIE LAB 1976	L* = 69,03	a* = 17,84	b* = 71,43
HUNTER	L = 62,75	a = 5,85	b = 6,85
10° Observer	x = 0,5542	y = 0,4273	Y = 4,36
CIE LAB 1976	L* = 68,27	a* = 19,18	b* = 73,09
HUNTER	L = 61,92	a = 6,50	b = 70,03

Standard illuminant C			
2° Observer	x = 0,4791	y = 0,4546	Y = 3,52
CIE LAB 1976	L* = 67,57	a* = 8,58	b* = 70,62
HUNTER	L = 18,75	a = 2,46	b = 11,51
10° Observer	x = 0,4896	y = 0,4474	Y = 3,64
CIE LAB 1976	L* = 67,04	a* = 13,74	b* = 69,52
HUNTER	L = 57,12	a = 4,14	b = 116,37

Standard illuminant D65			
2° Observer	x = 0,4775	y = 0,4591	Y = 3,65
CIE LAB 1976	L* = 65,38	a* = 10,71	b* = 69,80
HUNTER	L = 58,76	a = 3,11	b = 11,21
10° Observer	x = 0,4883	y = 0,4517	Y = 3,77
CIE LAB 1976	L* = 67,30	a* = 15,34	b* = 69,01
HUNTER	L = 57,00	a = 4,68	b = 113,68

Testreport Sunglasses

v = Pass

x = Fail

released	v	Eschenbach Optik GmbH
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