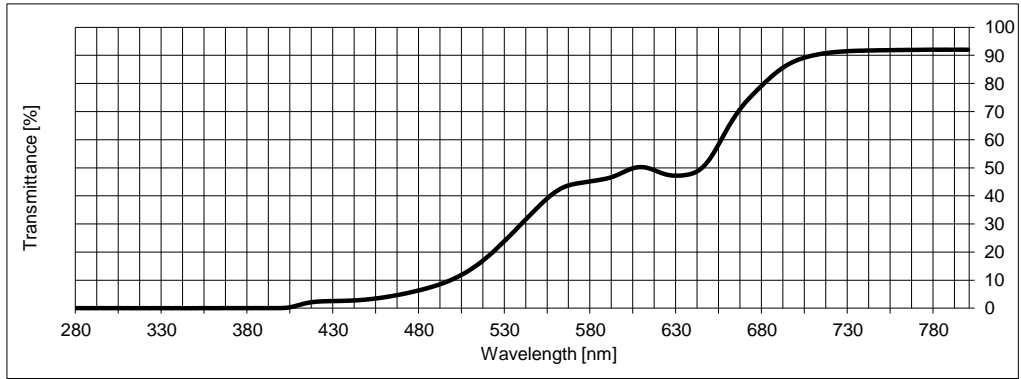


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	1,1
420	2,3
430	2,5
440	2,7
450	3,1
460	3,9
470	5,0
480	6,3
490	8,0
500	10,4
510	13,8
520	18,4
530	24,0
540	30,2
550	36,4
560	41,6
570	44,1
580	45,1
590	46,3
600	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) $\tau_v$ :		34,5%	Filter category: 2	Limit value
UV (280 - 380nm)	$\tau_{SUV}$ : 0,0%	100% UV-Protection		
UVA (315 - 380nm)	$\tau_{SUVA}$ : 0,0%	100% UVA-Protection	$\tau_{SUVAmax}$ (315 - 380nm): 0,0%	pass 34,5%
UVB (280 - 315nm)	$\tau_{SUVB}$ : 0,0%	100% UVB-Protection	$\tau_{SUVBmax}$ (280 - 315nm): 0,0%	pass 1,7%
blue light (380 - 500nm)	$\tau_{sb}$ : 3,7%	spectral transmittance (475-650nm) $\tau_{Vmin}$ :	5,6%	Fail 6,9%
<b>Signal transmittance:</b>				
red	signal transmittance $\tau_{sig}$ : 50,6%	Recognition of signal light Q:	1,47	Pass 0,8
yellow	signal transmittance $\tau_{sig}$ : 45,7%	Recognition of signal light Q:	1,32	Pass 0,6
green	signal transmittance $\tau_{sig}$ : 27,7%	Recognition of signal light Q:	0,80	Pass 0,6
blue	signal transmittance $\tau_{sig}$ : 23,5%	Recognition of signal light Q:	0,68	Pass 0,6
transmission properties related to traffic signal recognition: <b>Fail</b>				

American Standard		ANSI Z80.3-2010		Fail
Luminous transmittance (C) $\tau_v$ :		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)	$\tau_{SUVA}$ : 0,0%	Pass 34,8%	Pass 17,4%	
UVB, mean Transmittance (280 - 315nm)	$\tau_{SUVB}$ : 0,0%	Pass 4,3%	Pass 0,3%	
blue light (380 - 500nm)	$\tau_{sb}$ : 3,7%	spectral transmittance (475-650nm) $\tau_{Vmin}$ :	5,6%	Fail 7,0%
<b>Signal transmittance:</b>				
red	signal transmittance $\tau_{sig}$ : 52,8%	Pass		
yellow	signal transmittance $\tau_{sig}$ : 45,6%	Pass		
green	signal transmittance $\tau_{sig}$ : 27,8%	Pass		
transmission properties related to traffic signal recognition: <b>Fail</b>				

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

**Testreport Sunglasses**

v = Pass      x = Fail

Quantity of Shipment	
Frame	
color correctness	V
surface / col.	V
soldering	
adjustment	V
nickel test	
form / dimension	V
Lenses	
color	V
size / form	V
opt. quality	V
UV-index / vertex power	V
polarisation	
decentration	
Impact Resistance Test acc. to 21 CFR 801.410	V
random test	
Sign	
released	V
blocked	
separated	

**Colorimetric Observer according DIN 5033**

<b>Standard illuminant A</b>			
2° Observer	x = 0,5473	y = 0,4320	Y = 4,25
CIELAB 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
CIELAB 1976	L* = 68,27	a* = 19,18	b* = 73,09
HUNTER	L = 61,92	a = 6,50	b = 70,03
<b>Standard illuminant C</b>			
2° Observer	x = 0,4791	y = 0,4546	Y = 3,52
CIELAB 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
CIELAB 1976	L* = 67,04	a* = 13,74	b* = 69,52
HUNTER	L = 57,12	a = 4,14	b = 116,37
<b>Standard illuminant D65</b>			
2° Observer	x = 0,4775	y = 0,4591	Y = 3,65
CIELAB 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
CIELAB 1976	L* = 67,30	a* = 15,34	b* = 69,01
HUNTER	L = 57,00	a = 4,68	b = 113,68