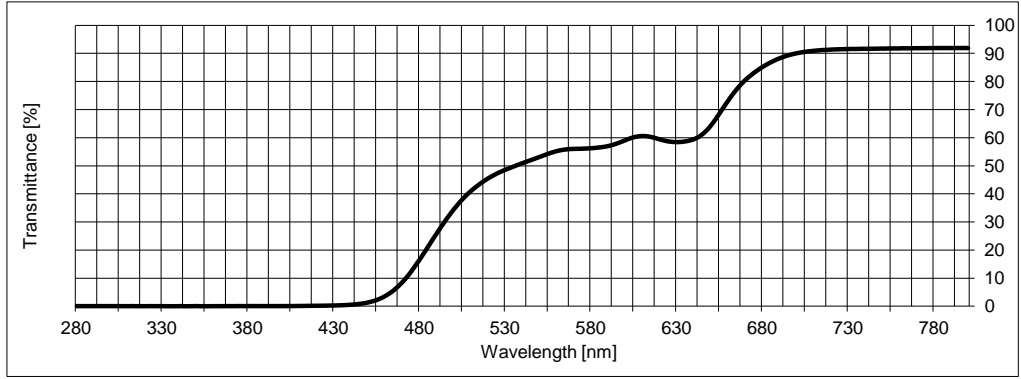


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	0,0
420	0,1
430	0,2
440	0,5
450	1,3
460	3,5
470	8,4
480	16,3
490	25,6
500	34,3
510	40,9
520	45,4
530	48,5
540	50,8
550	53,0
560	55,1
570	56,0
580	56,2
590	56,9
600	59,0
610	60,5
620	59,4
630	58,4
640	59,4
650	64,2
660	73,0
670	80,4
680	85,0
690	88,2
700	90,0
710	90,9
720	91,3
730	91,5
740	91,6
750	91,7
760	91,7
770	91,8
780	91,9
790	91,9
800	91,9



European Standard		DIN EN ISO 12312-1:2014-04		Pass
Luminous transmittance (D65) $\tau_V$ :		50,6%	Filter category: 1	Limit value
UV (280 - 380nm)	$\tau_{SUV}$ : 0,0%	100% UV-Protection		
UVA (315 - 380nm)	$\tau_{SUVA}$ : 0,0%	100% UVA-Protection	$\tau_{SUVAmix}$ (315 - 380nm): 0,0%	pass 50,6%
UVB (280 - 315nm)	$\tau_{SUVB}$ : 0,0%	100% UVB-Protection	$\tau_{SUVBmax}$ (280 - 315nm): 0,0%	pass 2,5%
blue light (380 - 500nm)	$\tau_{sb}$ : 5,0%	spectral transmittance (475-650nm) $\tau_{Vmin}$ :	12,0%	Pass 10,1%
<b>Signal transmittance:</b>				
red	signal transmittance $\tau_{sig}$ : 61,1%	Recognition of signal light Q:	1,21	Pass 0,8
yellow	signal transmittance $\tau_{sig}$ : 57,7%	Recognition of signal light Q:	1,14	Pass 0,6
green	signal transmittance $\tau_{sig}$ : 47,3%	Recognition of signal light Q:	0,93	Pass 0,6
blue	signal transmittance $\tau_{sig}$ : 41,4%	Recognition of signal light Q:	0,82	Pass 0,6
transmission properties related to traffic signal recognition: <b>Pass</b>				

American Standard		ANSI Z80.3-2010		Fail
Luminous transmittance (C) $\tau_V$ :		50,6%	primary function: Cosmetic lens or shield	shade: light
			Limit value	Limit value
			normal use	high exposure
UVA, mean Transmittance (315 - 380nm)	$\tau_{SUVA}$ : 0,0%	Pass	50,6%	Pass 25,3%
UVB, mean Transmittance (280 - 315nm)	$\tau_{SUVB}$ : 0,0%	Pass	6,3%	Pass 0,5%
blue light (380 - 500nm)	$\tau_{sb}$ : 5,0%	spectral transmittance (475-650nm) $\tau_{Vmin}$ :	12,0%	Pass 10,1%
<b>Signal transmittance:</b>				
red	signal transmittance $\tau_{sig}$ : 63,2%	Pass		
yellow	signal transmittance $\tau_{sig}$ : 57,6%	Pass		
green	signal transmittance $\tau_{sig}$ : 47,1%	Pass		
<b>Color Limits</b>				
		2°-Observer	x y	
			D65 0,4386 0,4911	Fail Please refer to sheet
			Yellow 0,5839 0,4150	Pass
			Green 0,2710 0,6019	Pass "Farbort"
transmission properties related to traffic signal recognition: <b>Fail</b>				

Australian Standard		AS/NZS 1067:2003 / AMDT 1:2009		Fail
Luminous transmittance (D65) $\tau_V$ :		50,6%	Lens category: 1	Limit value
UV (280 - 380nm)	$\tau_{SUV}$ : 0,0%	100% UV-Absorption	$\tau_{F(A)max}$ (280 - 315nm): 0,0%	Pass 2,5%
UVA (315 - 380nm)	$\tau_{SUVA}$ : 0,0%		$\tau_{F(A)max}$ (315 - 350nm): 0,0%	Pass 50,6%
UVB (280 - 315nm)	$\tau_{SUVB}$ : 0,0%		$\tau_{SUVAmix}$ (315 - 380nm): 0,0%	Pass 50,6%
blue light (400 - 500nm)	$\tau_{sb}$ : 5,0%	spectral transmittance (450-650nm) $\tau_{Vmin}$ :	1,3%	Fail 10,1%
<b>Signal transmittance:</b>				
red	signal transmittance $\tau_{sig}$ : 61,1%	Recognition of signal light Q:	1,21	Pass 0,8
yellow	signal transmittance $\tau_{sig}$ : 57,7%	Recognition of signal light Q:	1,14	Pass 0,8
green	signal transmittance $\tau_{sig}$ : 47,3%	Recognition of signal light Q:	0,93	Pass 0,6
blue	signal transmittance $\tau_{sig}$ : 41,4%	Recognition of signal light Q:	0,82	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 = 0,5186	y = 0,4529	Y = 5,83
CIELAB 1976	L* = 78,49	a* = 5,70	b* = 71,41
HUNTER	L = 73,51	a = 1,90	b = 7,63
10° Observer	x = 0,5269	y = 0,4496	Y = 6,03
CIELAB 1976	L* = 77,88	a* = 7,17	b* = 76,15
HUNTER	L = 72,81	a = 2,48	b = 79,93

Standard illuminant C			
2° Observer	x = 0,4421	y = 0,4857	Y = 5,12
CIELAB 1976	L* = 74,18	a* = -9,76	b* = 79,50
HUNTER	L = 22,62	a = -2,84	b = 13,84
10° Observer	x = 0,4544	y = 0,4836	Y = 5,37
CIELAB 1976	L* = 73,86	a* = -4,54	b* = 81,56
HUNTER	L = 69,39	a = -1,39	b = 143,13

Standard illuminant D65			
2° Observer	x = 0,4386	y = 0,4911	Y = 5,35
CIELAB 1976	L* = 76,45	a* = -8,13	b* = 78,32
HUNTER	L = 71,15	a = -2,39	b = 13,50
10° Observer	x = 0,4514	y = 0,4886	Y = 5,61
CIELAB 1976	L* = 74,23	a* = -3,37	b* = 80,75
HUNTER	L = 69,50	a = -1,04	b = 140,06

Testreport Sunglasses

v = Pass x = Fail

released	v	 Eschenbach Optik GmbH Schopenhauerstr. 10 · 90409 Nürnberg
blocked		
separated		