

# DONGGUAN YUEHENG OPTICAL CO., LTD.

## Technical Support Unit

Lens Code : **Rhythm450 Lens PC2199Y [F]** #1, Specimen      #2, YH Ref.      #3, Customer Ref. **Rhythm Optics**  
 Date : 21/3/2017

### SPECTRUM TEST REPORT

TSU170321-01A

#### Lens Specification

Lens material	: PC	Spherical power	: $\leq \pm 0.09DS$
Base	: 6B	Astigmatic power	: $\leq 0.09DC$
Size	: 78mm	Prismatic power	: $\leq 0.12cm/m$
Color	: Yellow	Thickness	: $2.0 \pm 0.1mm$

#### American Standard ANSI Z 80.3-2015

	Center	Req.	Pass/Fail
<b>4.6.1. Luminous Transmittance</b>	86.00%		
Primary function:	Cosmetic lens or shield, light		
<b>4.6.2. Mean Transmittance</b>			
Mean UVB	0.38%	Max : 10.75%	Pass
Mean UVA	0.54%	Max : 86.00%	Pass
<b>4.6.3. Traffic Signals Recognition</b>			
Red Signal	89.55%	Min : 8.00%	Pass
Yellow Signal	89.24%	Min : 6.00%	Pass
Green Signal	85.51%	Min : 6.00%	Pass
Spectral transmittance	0.65Tv	Min : 0.20Tv	Pass
Color Limits	X	Y	
Daylight(D65)	0.3955	0.4796	Fail
Yellow traffic signals	0.5768	0.4220	Pass
Green traffic signals	0.2375	0.5640	Pass

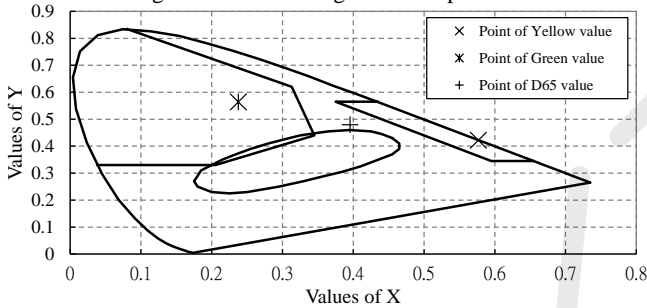
#### European Standard EN/ISO 12312-1:2013

	Center	Req.	Pass/Fail
<b>5.2. Transmittance and filter categories</b>	86.13%		
Filter category	0		
Blue-light absorption	82.58%		
UV absorption	99.55%		
280-315nm UVB	0.35%	Max : 4.31%	Pass
315-380nm UVA	0.51%	Max : 86.13%	Pass
<b>5.3.2. Requirements for road and driving</b>			
Red	1.04	Min : 0.80	Pass
Yellow	1.04	Min : 0.60	Pass
Green	1.01	Min : 0.60	Pass
Blue	0.83	Min : 0.60	Pass
Spectral transmittance	0.65Tv	Min : 0.20Tv	Pass

#### Australian/ New Zealand Standard AS/NZS 1067:2003+A1:2009

	Center	Req.	Pass/Fail
<b>2.1. Transmittance requirement and lens categories</b>	86.14%		
Filter category	0		
UVB (280-315nm)	0.35%	Max : 4.31%	Pass
UV (315-350nm)	0.49%	Max : 86.14%	Pass
UVA (315-400nm)	0.54%	Max : 86.14%	Pass
Spectral transmittance	0.02Tv	Min : 0.20Tv	Fail
Red	1.04	Min : 0.80	Pass
Yellow	1.04	Min : 0.80	Pass
Green	1.00	Min : 0.60	Pass
Blue	0.91	Min : 0.70	Pass
<b>2.4. Claimed transmittance properties</b>			
Blue-light absorption	82.58%		
UV absorption	99.55%		

Figure. Color limit regions of acceptance



#### CIE 1976 L\*,a\*,b\* colour coordinates, illuminant D65

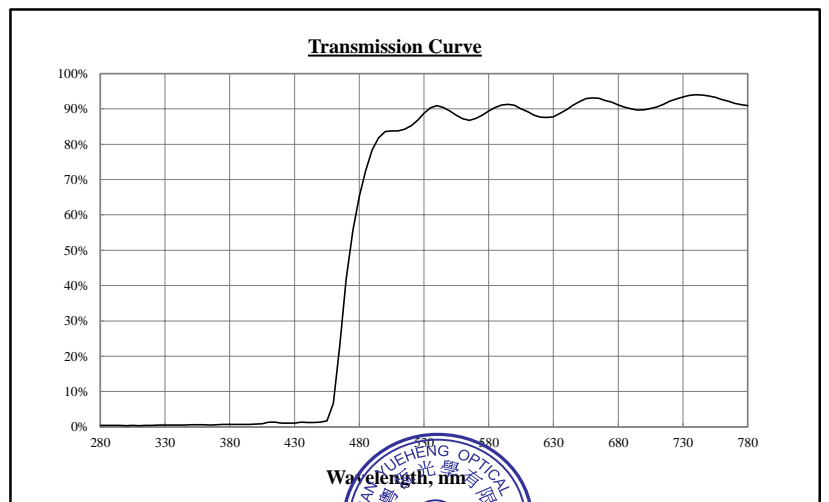
Center			
L*	: 94.4	a*	: -21.99
b*	: 72.16		

#### Results

1). American Standard ANSI Z 80.3-2010	Pass	- Not Suitable for driving or road use -
2). European Standard EN/ISO 12312-1:2013	Pass	
3). Australian/ New Zealand Standard AS/NZS 1067:2003+A1:2009	Pass	- MUST NOT BE USED WHEN DRIVING -
4). Internal Standard	UV380 Pass	
	UV400 Pass	

#### Transmission Value (Center)

$\lambda$ , nm	Exp	$\lambda$ , nm	Exp	$\lambda$ , nm	Exp
780	90.90%	590	91.10%	400	0.80%
770	91.60%	580	89.40%	390	0.70%
760	92.70%	570	87.30%	380	0.70%
750	93.70%	560	87.20%	370	0.60%
740	94.00%	550	89.40%	360	0.60%
730	93.40%	540	90.90%	350	0.60%
720	92.20%	530	88.80%	340	0.50%
710	90.60%	520	85.20%	330	0.50%
700	89.80%	510	83.80%	320	0.40%
690	90.00%	500	83.60%	310	0.30%
680	91.10%	490	78.30%	300	0.30%
670	92.40%	480	65.20%	290	0.40%
660	93.10%	470	41.80%	280	0.40%
650	92.00%	460	6.70%		
640	89.80%	450	1.30%		
630	87.80%	440	1.20%		
620	87.70%	430	1.10%		
610	89.20%	420	1.10%		
600	91.00%	410	1.30%		



Tested by : Huang Banxi

Date : 21/3/2017

Approved by : [Signature]

Date : 21/3/2017