

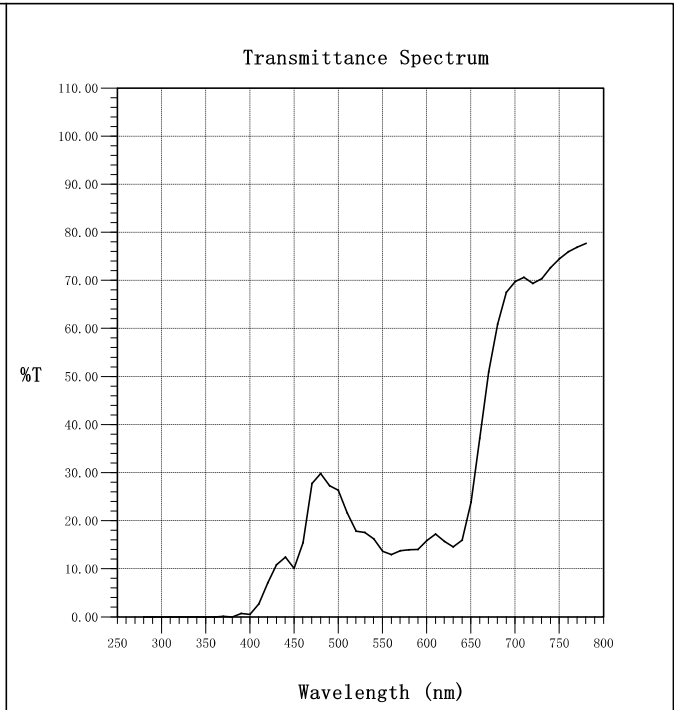
# COLORS IN OPTICS, LTD

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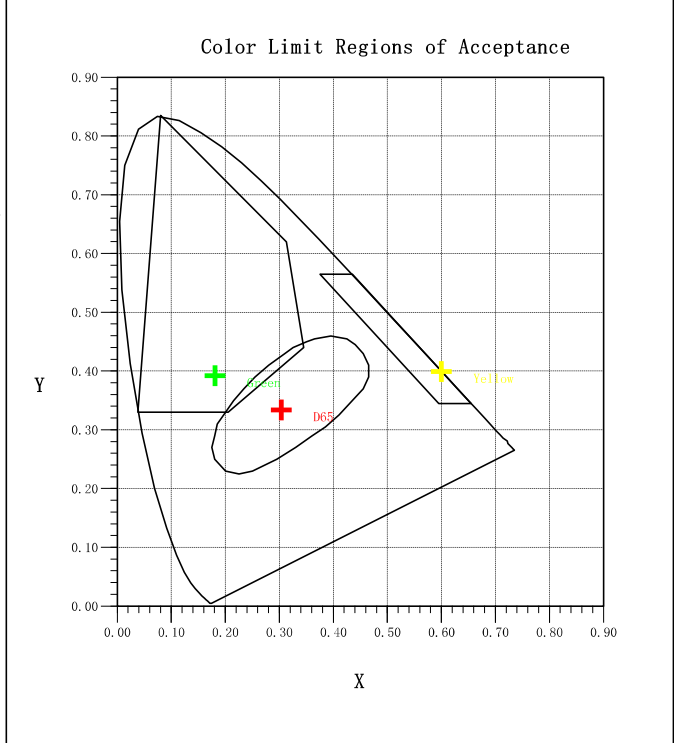
## Lens Certification Report

Customer : J6200 OXF	Remark : Jessica Simpson
Lens Name : Smoke to Green GSG-005	
Lens Type : polycarbonate	

Standard: ANSI Z80.3:2018			
Item	Value	Requirement	Result
Lens Primary Function	General Purpose		
Luminous Transmittance Tv	16.84 %	8 % ~ 40%	PASS
Color Limit, Yellow(x,y)	( 0.5997 , 0.3993 )		
Color Limit, Green(x,y)	( 0.1808 , 0.3922 )		
Color Limit, D65(x,y)	( 0.3036 , 0.3338 )		
Tsig, Red Signal	22.246 %	>=8.00 %	PASS
Tsig, Yellow Signal	15.810 %	>=6.00 %	PASS
Tsig, Green Signal	17.454 %	>=6.00 %	PASS
Tmin (475- 650nm)	12.78 %	>=3.37 % (0.2Tv)	PASS
Tmax UVB (280- 315nm)	0.01 %	<=2.11 % (0.125Tv)	PASS
Tmax UVA (315- 380nm)	0.00 %	<=16.84 % (Tv)	PASS
Tsb (380- 500nm)	15.41 %		



Standard: EN ISO 12312-1:2013(A1:2015)			
Item	Value	Requirement	Result
Filter Category	3		
Luminous Transmittance Tv	16.84 %	8 % ~ 1%	PASS
Incandescent Lights			
Q, Red	1.15	>=0.80	PASS
Q, Yellow	0.96	>=0.60	PASS
Q, Green	0.99	>=0.60	PASS
Q, Blue	1.32	>=0.60	PASS
LED Signal Lights			
Q, Red	0.96	>=0.80	PASS
Q, Yellow	0.84	>=0.60	PASS
Q, Green	1.32	>=0.60	PASS
Q, Blue	1.29	>=0.60	PASS
Tmin (475- 650nm)	12.78 %	>=3.37 % (0.2Tv)	PASS
Tsuva (315- 380nm)	0.01 %	<=8.42 % (0.5Tv)	PASS
Tsuvb (280- 315nm)	0.00 %	<=1.00 %	PASS
Tsuv (280- 380nm)	0.01 %		
Tsb (380- 500nm)	15.41 %		
Road Use And Driving			
Driving In Twilight or Night	16.84	Tv >= 75 %	NA



Standard:AS/NZS 1067.1:2016			
Item	Value	Requirement	Result
Lens Category	3		
Luminous Transmittance Tv	16.84 %	8 % ~ 1%	PASS
Incandescent Lights			
Q, Red	1.15	>=0.80	PASS
Q, Yellow	0.96	>=0.60	PASS
Q, Green	0.99	>=0.60	PASS
Q, Blue	1.32	>=0.70	PASS
LED Signal Lights			
Q, Red	0.96	>=0.80	PASS
Q, Yellow	0.84	>=0.60	PASS
Q, Green	1.32	>=0.60	PASS
Q, Blue	1.29	>=0.70	PASS
Tmin (475-650nm)	12.78 %	>=3.37 % (0.2Tv)	PASS
Tsuva (315- 400nm)	0.07 %	<=8.42 % (0.5Tv)	PASS
Tsuvb (280- 315nm)	0.00 %	<=0.84 % (0.05Tv)	PASS
Tsuv (280- 380nm)	0.01 %		
Tsb (380- 500nm)	15.41 %		

CIE 1976 L\*,a\*,b\* color space coordinates,illuminan D65  
L\*=48.615 a\*=-8.564 b\*=3.605

Spectrum Data:																			
nm	%T	nm	%T	nm	%T	nm	%T	nm	%T	nm	%T	nm	%T	nm	%T	nm	%T	nm	%T
280	0.00	290	0.00	300	0.00	310	0.00	320	0.00	330	0.00	340	0.00	350	0.00	360	0.00	370	0.10
410	2.75	420	7.14	430	10.87	440	12.48	450	10.12	460	15.45	470	27.79	480	29.84	490	27.30	500	26.36
540	16.27	550	13.66	560	13.00	570	13.81	580	13.97	590	14.07	600	15.91	610	17.23	620	15.74	630	14.56
670	51.01	680	60.95	690	67.52	700	69.80	710	70.64	720	69.39	730	70.38	740	72.64	750	74.51	760	75.96

(1). ANSI Z80.3:2018	PASS	Lens Primary Function	General Purpose
(2). EN ISO 12312-1:2013(A1:2015)	PASS	Filter Category	3
(3). AS/NZS 1067.1:2016	PASS	Lens Category	3
(4). UV380	PASS		
(5). UV400	PASS		