

# COLORS IN OPTICS, LTD

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## Lens Certification Report

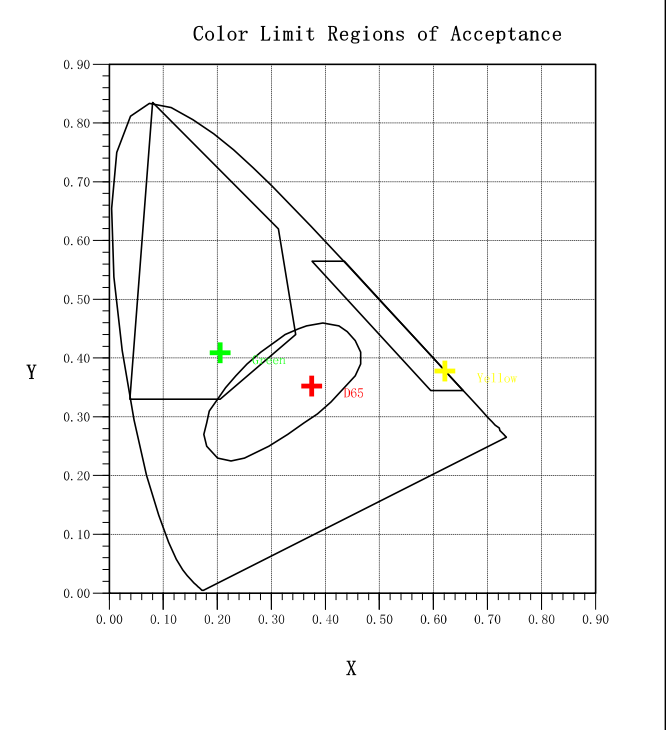
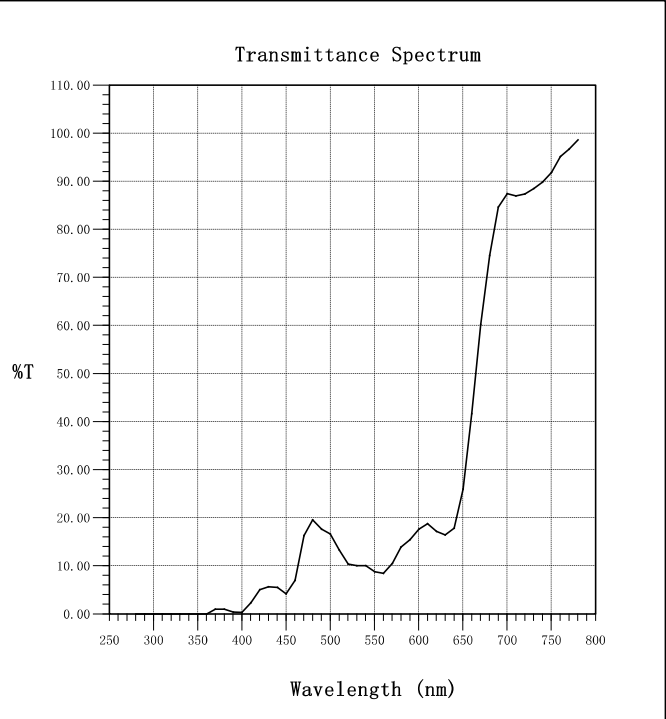
Customer : J6200 TSF	Remark : Jessica Simpson
Lens Name : Gradient Brown	
Lens Type : polycarbonate	

Standard: ANSI Z80.3:2018			
Item	Value	Requirement	Result
Lens Primary Function	General Purpose		
Luminous Transmittance Tv	13.07 %	8 % ~ 40%	PASS
Color Limit, Yellow(x,y)	( 0.6214 , 0.3778 )		PASS
Color Limit, Green(x,y)	( 0.2050 , 0.4089 )		PASS
Color Limit, D65(x,y)	( 0.3749 , 0.3520 )		PASS
Tsig, Red Signal	25.286 %	>=8.00 %	PASS
Tsig, Yellow Signal	15.256 %	>=6.00 %	PASS
Tsig, Green Signal	11.578 %	>=6.00 %	PASS
Tmin (475- 650nm)	7.93 %	> =2.61 % (0.2Tv)	PASS
Tmax UVB (280- 315nm)	0.15 %	< =1.63 % (0.125Tv)	PASS
Tmax UVA (315- 380nm)	0.00 %	< =13.07 % (Tv)	PASS
Tsb (380- 500nm)	8.53 %		

Standard: EN ISO 12312-1:2013(A1:2015)			
Item	Value	Requirement	Result
Filter Category	3		
Luminous Transmittance Tv	13.07 %	8 % ~ 1%	PASS
Incandescent Lights			
Q, Red	1.65	>=0.80	PASS
Q, Yellow	1.15	>=0.60	PASS
Q, Green	0.86	>=0.60	PASS
Q, Blue	1.14	>=0.60	PASS
LED Signal Lights			
Q, Red	1.37	>=0.80	PASS
Q, Yellow	1.14	>=0.60	PASS
Q, Green	1.05	>=0.60	PASS
Q, Blue	0.97	>=0.60	PASS
Tmin (475- 650nm)	7.93 %	> =2.61 % (0.2Tv)	PASS
Tsuva (315- 380nm)	0.13 %	< =6.54 % (0.5Tv)	PASS
Tsuvb (280- 315nm)	0.00 %	< =1.00 %	PASS
Tsuv (280- 380nm)	0.08 %		
Tsb (380- 500nm)	8.53 %		
Road Use And Driving			PASS
Driving In Twilight or Night	13.07	Tv >= 75 %	NA

Standard:AS/NZS 1067.1:2016			
Item	Value	Requirement	Result
Lens Category	3		
Luminous Transmittance Tv	13.07 %	8 % ~ 1%	PASS
Incandescent Lights			
Q, Red	1.65	>=0.80	PASS
Q, Yellow	1.15	>=0.60	PASS
Q, Green	0.86	>=0.60	PASS
Q, Blue	1.14	>=0.70	PASS
LED Signal Lights			
Q, Red	1.37	>=0.80	PASS
Q, Yellow	1.14	>=0.60	PASS
Q, Green	1.05	>=0.60	PASS
Q, Blue	0.97	>=0.70	PASS
Tmin (475-650nm)	7.93 %	> =2.61 % (0.2Tv)	PASS
Tsuva (315- 400nm)	0.15 %	< =6.54 % (0.5Tv)	PASS
Tsuvb (280- 315nm)	0.00 %	< =0.65 % (0.05Tv)	PASS
Tsuv (280- 380nm)	0.08 %		
Tsb (380- 500nm)	8.53 %		

CIE 1976 L\*,a\*,b\* color space coordinates,illuminan D65  
L\*=42.871 a\*=6.263 b\*=13.669



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	1.00
410	2.32	420	5.06	430	5.69	440	5.52	450	4.21	460	6.96	470	16.34	480	19.56	490	17.64	500	16.64
540	10.09	550	8.81	560	8.43	570	10.53	580	13.91	590	15.47	600	17.65	610	18.80	620	17.21	630	16.45
670	60.22	680	74.54	690	84.61	700	87.41	710	86.93	720	87.37	730	88.48	740	89.82	750	91.80	760	95.17

(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		