

# DATA SHEET

# HOYA® LB-165

## Light Balancing Filter (Blue)

Catalog Thickness t= 2.5 mm

Reflection Factor P<sub>a</sub>=0.920

Diagram-4

LB-165

Transmittance (T) & Internal Transmittance (τ) units: (%)																									
λ <sub>nm</sub>	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440
T												6·10 <sup>-3</sup>	1.2	12.9	34.4	51.0	62.0	68.6	69.7	74.7	76.6	73.9	62.9	57.9	51.3
τ												7·10 <sup>-3</sup>	1.3	14.0	37.4	55.4	67.4	74.6	75.8	81.2	83.3	80.3	68.4	62.9	55.8
λ <sub>nm</sub>	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600	610	620	630	640	650	660	670	680	690
T	45.7	40.6	36.2	32.9	30.1	27.9	25.8	23.5	21.3	20.1	20.4	21.3	20.4	17.3	14.0	13.1	12.6	11.5	10.3	9.0	8.4	8.3	8.7	9.5	10.0
τ	49.7	44.1	39.3	35.8	32.7	30.3	28.0	25.5	23.2	21.8	22.2	23.2	22.2	18.8	15.2	14.2	13.7	12.5	11.2	9.8	9.1	9.0	9.5	10.3	10.9
λ <sub>nm</sub>	700	710	720	730	740	750	800	850	900	950	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
T	10.3	10.1	9.8	9.5	9.4	9.0	9.3	10.6	12.8	16.3	20.2	28.4	36.5	44.0	51.4	56.8	62.2	65.9	69.5	73.8	78.2	79.9	81.6	82.5	83.5
τ	11.2	11.0	10.7	10.3	10.2	9.8	10.1	11.5	13.9	17.7	22.0	30.9	39.7	47.8	55.9	61.7	67.6	71.6	75.5	80.2	85.0	86.8	88.7	89.7	90.8

Refractive Indices													
Symbol	i	h	g	F'	F	e	d	D	C'	C	r	A'	t
λ <sub>nm</sub>	365.0	404.7	435.8	480.0	486.1	546.1	587.6	589.3	643.8	656.3	706.5	768.2	1,014.0
n	1.535	1.528	1.524		1.519	1.515	1.513			1.510			

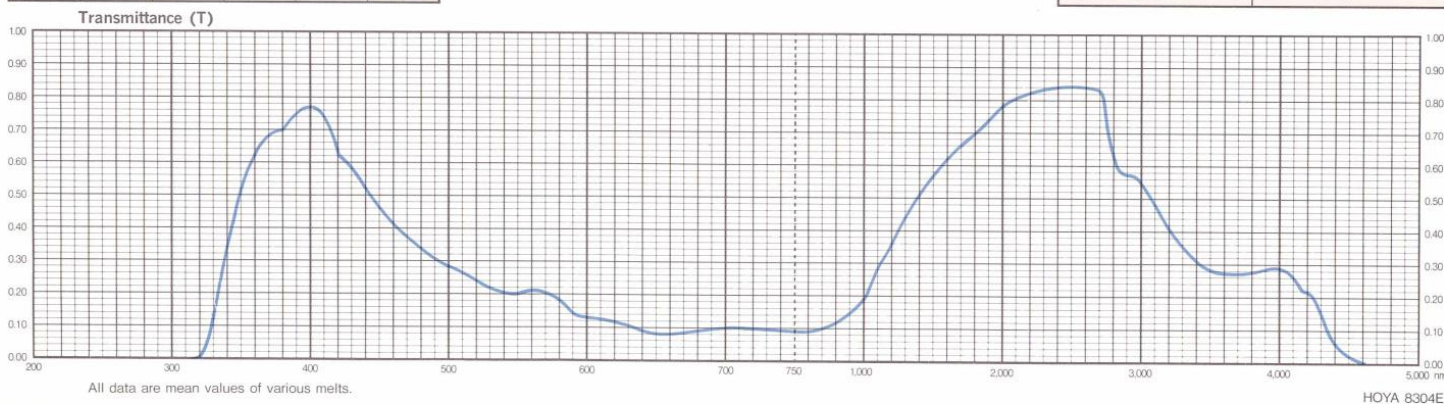
Abbe-Number

$$V_d = \frac{n_d - 1}{n_F - n_C} = 57$$

Color Specifications					
	x	y	Y	λ <sub>ds</sub>	P <sub>e</sub>
A	.342	.359	17.8	487	27
C	.224	.212	19.9	474	44
D <sub>65</sub>	.227	.226	20.0	475	42

Properties									
Chemical		Thermal				Mechanical		Other	
D <sub>w</sub>	D <sub>h</sub>	T <sub>g</sub>	T <sub>s</sub>	α <sub>-30/70</sub>	α <sub>100/300</sub>	H <sub>k</sub>	F <sub>h</sub>	S	
1	1	480	535	95	107	520	130	2.57	

Tolerances of Transmittance (T)	
B-R Conversion Value	Filter Factor
V (mired)	P
- 165 ± 7	2



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