

Gulden Ophthalmics' Color Filter Bar Set (Part #: 15327) Technical Data Sheet

The color filter bars were designed to help patients, in particular patients with TBI (Traumatic Brain Injury), determine their ideal tint. Oftentimes, a particular tint will lessen visual symptoms of TBI such as confusion and headache. Additionally, the filter bar set can be used to help low vision patients select a tint to improve contrast in a particular situation (e.g., driving on a cloudy, rainy day).

There are four colors in the set: grey, amber, rose, and blue. The filters have been stacked to achieve the following transmission values:

- Transmission of the Blue filter (lightest to darkest tint): 74.0, 54.8, 40.5, 30.0
- Transmission of the Grey filter (lightest to darkest tint): 70.0, 49.0, 34.3, 24.0
- Transmission of the Rose filter (lightest to darkest tint): 80.0, 64.0, 51.2, 41.0
- Transmission of the Amber filter (lightest to darkest tint): 68.0, 46.2, 31.4, 21.4

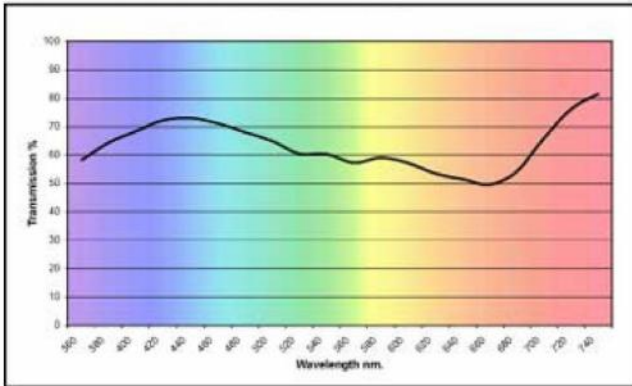
Here is the spectrophotometer and chromaticity data for each of the colors:

Blue

DESCRIPTION:
TRANSMISSION =
MIREL SHIFT =
CC EQUIVALENT =

Blue Correction Lighting Filter to Raise Color Temperature.
74% or -0.4 stop loss
-30 (3200°K to 3500°K)
Not Applicable.

COLORIMETRIC DATA
OBSERVER: CIE 1964 10°
SOURCE: * 'A' (tungsten)
 ° 'D65' (daylight)

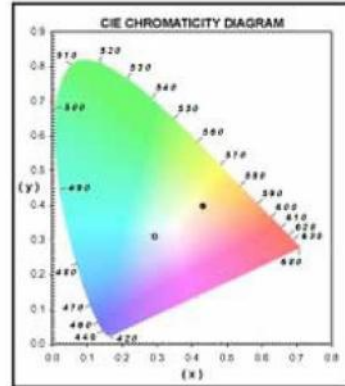


HUNTER LAB SOURCE A	
L*	80.945
A*	-3.621
B*	-10.902

HUNTER LAB SOURCE D65	
L*	81.789
A*	-0.726
B*	-9.924

CIE 1964 SOURCE A	
Y	68.372
(x)	0.432
(y)	0.399

CIE 1964 SOURCE D65	
Y	59.910
(x)	0.293
(y)	0.311



nm.	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	720	740
trans %	58	64	66	72	73	71	68	65	61	60	57	59	57	54	52	50	54	60	70	81

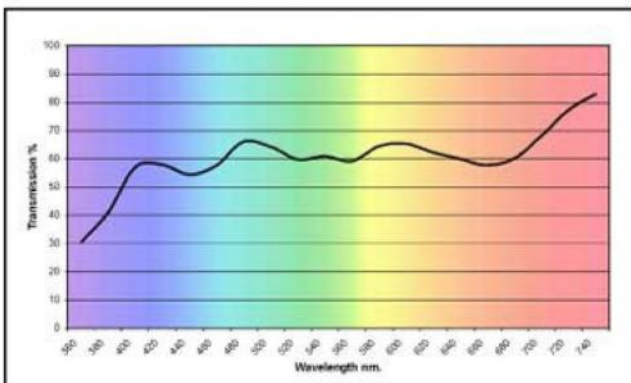
MATERIAL SPECIFICATIONS:

General Description: Deep-dyed polyester film
Substrate: PET (Polyethylene Terephthalate)
Thickness: 2.0 mil (.002" or 50 micron)
Manufactured in: U.S.A.

Grey

DESCRIPTION: Color Effects Lighting Filter.
 TRANSMISSION = 70% or -0.5 stop loss
 MIREL SHIFT = Not Applicable.
 CC EQUIVALENT = Not Applicable.

COLORIMETRIC DATA
 OBSERVER: CIE 1964 10°
 SOURCE: * 'A' (tungsten)
 ° 'D65' (daylight)

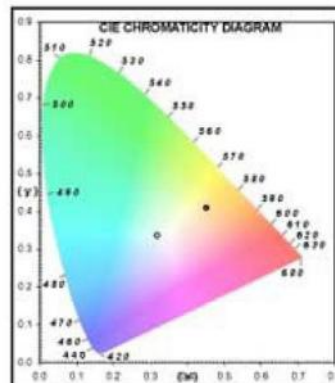


HUNTER LAB SOURCE A	
L*	82.940
A*	0.462
B*	2.886

HUNTER LAB SOURCE D65	
L*	82.822
A*	-0.829
B*	3.367

CIE 1964 SOURCE A	
Y	62.060
(x)	0.462
(y)	0.410

CIE 1964 SOURCE D65	
Y	61.828
(x)	0.318
(y)	0.337



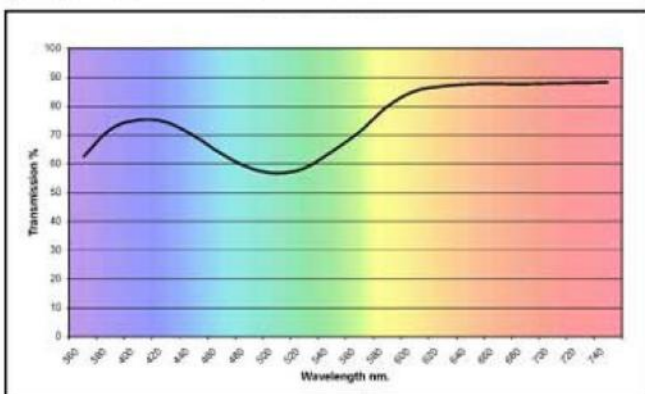
nm.	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	720	740
trans %	31	41	57	58	54	55	66	64	60	61	59	64	65	62	60	58	60	68	77	83

MATERIAL SPECIFICATIONS:
 General Description: Deep-Dyed Polyester Film
 Substrate: PET (Polyethylene Terephthalate)
 Thickness: 2.0 mil (.002" or 50 micron)
 Manufactured in: U.S.A.

Rose

DESCRIPTION: Color Effects Lighting Filter.
 TRANSMISSION = 80% or -0.3 stop loss
 MIREL SHIFT = Not Applicable.
 CC EQUIVALENT = Not Applicable.

COLORIMETRIC DATA
 OBSERVER: CIE 1964 10°
 SOURCE: * 'A' (tungsten)
 ° 'D65' (daylight)

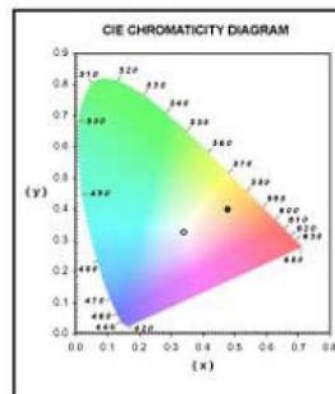


HUNTER LAB SOURCE A	
L*	89.088
A*	13.242
B*	7.883

HUNTER LAB SOURCE D65	
L*	87.159
A*	14.551
B*	3.501

CIE 1964 SOURCE A	
Y	74.351
(x)	0.477
(y)	0.399

CIE 1964 SOURCE D65	
Y	70.331
(x)	0.341
(y)	0.326



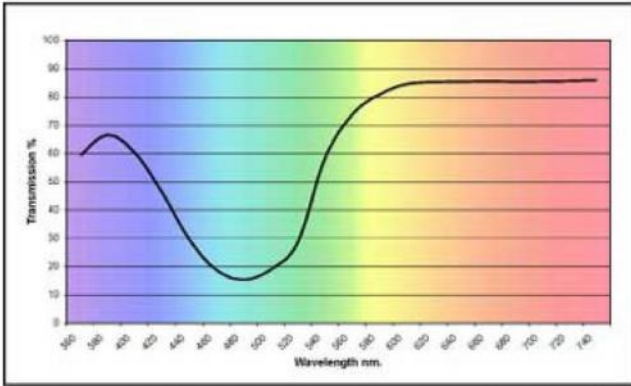
nm.	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	720	740	
trans %	62	72	75	75	70	64	59	57	58	64	71	80	85	87	88	88	88	88	88	88	88

MATERIAL SPECIFICATIONS:
 General Description: Co-extruded Polycarbonate Film
 Substrate: PC (Polycarbonate)
 Thickness: 3.0 mil (.003" or 76.2 micron)
 Manufactured in: U.S.A.

Amber

DESCRIPTION: Color Effects Lighting Filter.
 TRANSMISSION = 68% or -0.6 stop loss
 MIREL SHIFT = Not Applicable,
 CC EQUIVALENT = Not Applicable.

COLORIMETRIC DATA
 OBSERVER: CIE 1964 10°
 SOURCE: * 'A' (tungsten)
 ° 'D65' (daylight)

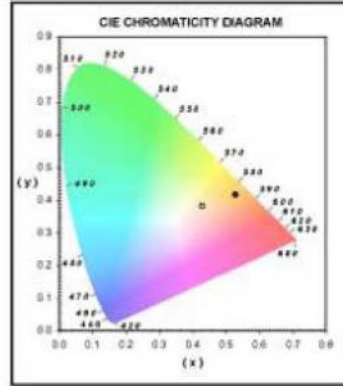


HUNTER LAB SOURCE A	
L*	86.782
A*	21.642
B*	49.648

HUNTER LAB SOURCE D65	
L*	80.991
A*	23.412
B*	38.686

CIE 1964 SOURCE A	
Y	67.562
(x)	0.529
(y)	0.417

CIE 1964 SOURCE D65	
Y	58.455
(x)	0.428
(y)	0.383



nm.	360	380	400	420	440	460	480	500	520	540	560	580	600	620	640	660	680	700	720	740	
trans %	60	67	60	46	30	19	15	10	29	58	74	81	85	85	85	86	85	86	86	86	86

MATERIAL SPECIFICATIONS:

General Description: Deep-Dyed Polyester Film
 Substrate: PET (Polyethylene Terephthalate)
 Thickness: 1.5 mil (.0015" or 38 micron)
 Manufactured in: U.S.A.