

This chart is designed to help predict the results of adding color filters to a Mercury Halide Lamp as compared to an incandescent. The Mercury Halide Lamps used in this comparative chart are CDM 150 and CDM 70 which have a correlated color temperature (CCT) of 4200K and 3000K respectively.

The first column shows the GamColor® filter number followed by its name. The next three columns show the percentage of transmission or the amount of light in the visible range passed by an incandescent and metal Halide lamps. We have added two additional columns of comments about the appearance of the color or the shift in the color between the incandescent and the CDM lamps used in the test. These measurements are meant to be a guide. Each lamp can have a different correlated color temperature and spectral distribution. There are production variations and then there is the change in the Metal Halide Lamps themselves over time. All of these factors have an impact on the end results. However this information can be very useful in helping to predict what you might expect and to help you select the appropriate color filter for your project.

The comments are those of one trained observer. Every person is not going to have the exact same visual perception and there's always a certain amount of subjectivity. There are other variables to be concerned about including production variations, reflector characteristics and glass lenses. All of these variations alter performance so when it becomes critical, there's nothing like testing the actual fixture with the selected color filter.

Incandescent transmission % will differ from GamColor® Swatchbook due to the swatchbook data being generated with a 2850K Incandescent.

GamColors® 680 - 810 appear as different colors  
when CDM 150 (CCT - 4200K) is in use.

GamColor® Name	Osram™ HPL 575/115 3250K Transmission %	Philips MasterColor® CDM 150/T6/942 CCT - 4200K Transmission %	Philips MasterColor® CDM 70/T6/830 CCT - 3000K Transmission %	CDM 150 vs. Incandescent Comments	CDM 70 vs. Incandescent Comments
99 Heat Shield.....	90.....	90.....	90.....		
100 Gypsy Pink .....	25.....	26.....	29.....	Less Amber.....	More Red
101 Lavender Blue .....	38.....	36.....	39.....	More Blue .....	Less Red
103 Blue Rose .....	26.....	26.....	28.....	More Blue .....	Virtually the Same
104 Broadway Rose .....	45.....	45.....	48.....	More Blue .....	Warmer
105 Antique Rose .....	59.....	59.....	61.....	Less Saturate .....	Less Saturate
105X 3/4 Antique Rose .....	62.....	61.....	63.....	More Blue .....	More Red, Less Amber
106 1/2 Antique Rose .....	71.....	71.....	72.....	More Blue .....	More Red, Less Amber
107 1/4 Antique Rose .....	76.....	76.....	78.....	Virtually The Same .....	More Red
108 1/8 Antique Rose .....	78.....	79.....	80.....	Slightly More Blue.....	More Red
109 Naked Pink .....	86.....	86.....	86.....	Slightly More Blue.....	More Red
110 Dark Rose .....	23.....	23.....	25.....	More Blue, almost Neon .....	Warmer
120 Bright Pink .....	24.....	24.....	26.....	More Blue, almost Neon .....	Less Red
130 Rose .....	37.....	37.....	39.....	More Blue, almost Neon .....	More Red
135 Soft Pink .....	41.....	41.....	44.....	More Red .....	Slightly More Red
140 Dark Magenta .....	11.....	11.....	12.....	More Blue .....	More Blue
150 Pink Punch .....	26.....	26.....	31.....	More Blue, almost Neon .....	Virtually the Same

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150	Pink Punch .....	26.....	26.....	31.....	More Blue, almost Neon .....	Virtually the Same
152	Party Pink .....	47.....	47.....	51.....	More Blue .....	Virtually the Same
154	Baby Pink .....	68.....	67.....	70.....	More Blue .....	Virtually the Same
155	Light Pink .....	68.....	70.....	72.....	More Blue, Less Red .....	Virtually the Same
160	Chorus Pink .....	62.....	62.....	66.....	A Lot More Blue .....	Slightly More Red
170	Dark Flesh Pink .....	48.....	48.....	53.....	More Blue .....	Virtually the Same
180	Cherry .....	27.....	28.....	33.....	More Blue .....	Less Blue, More Red
190	Cold Pink .....	48.....	49.....	53.....	More Blue .....	Virtually the Same
195	Nymph Pink .....	52.....	52.....	57.....	More Blue .....	Slightly More Red
220	Pink Magenta .....	18.....	18.....	20.....	More Fuchsia .....	Less Red
235	Pink Red .....	19.....	19.....	20.....	More Fuchsia .....	Less Red
245	Light Red .....	13.....	14.....	15.....	More Orange .....	Less Red
250	Medium Red XT .....	7.....	8.....	9.....	More Orange .....	Virtually the Same
270	Red Orange .....	17.....	18.....	20.....	More Orange, Less Red .....	Virtually the Same
280	Fire Red .....	24.....	24.....	29.....	Virtually The Same .....	Virtually the Same
290	Fire Orange .....	26.....	26.....	31.....	Virtually The Same .....	Virtually the Same
305	French Rose .....	71.....	68.....	71.....	A Lot More Blue .....	More Pink
310	English Rose .....	53.....	52.....	55.....	More Pink .....	More Red
315	Autumn Glory .....	36.....	35.....	40.....	Virtually The Same .....	Less Yellow
320	Peach .....	46.....	45.....	49.....	More Pink, More Blue .....	Virtually the Same
323	Indian Summer .....	45.....	45.....	50.....	More Pink, More Blue .....	Virtually the Same
324	Dark Bastard Amber .....	54.....	53.....	56.....	More Pink, More Blue .....	Less Yellow, More Red
325	Bastard Amber .....	73.....	71.....	74.....	More Pink, More Blue .....	Virtually the Same
327	Pale Sepia .....	78.....	77.....	79.....	Less Yellow .....	Slightly Less Amber
328	Tan Tone .....	61.....	58.....	62.....	More Pink, More Blue .....	More Red
330	Sepia .....	36.....	35.....	38.....	More Pink, More Blue .....	Virtually the Same
335	Coral .....	45.....	45.....	49.....	Less Red .....	Virtually the Same
338	Forever Amber .....	86.....	84.....	83.....	More Blue, Less Yellow .....	Virtually the Same
340	Light Bastard Amber .....	79.....	76.....	78.....	More Pink, More Blue .....	Virtually the Same
342	Light Honey .....	64.....	63.....	65.....	Virtually The Same .....	Virtually the Same
343	Honey .....	61.....	59.....	61.....	Virtually The Same .....	Virtually the Same
345	Deep Amber .....	41.....	40.....	44.....	Virtually The Same .....	Less Red
350	Dark Amber .....	47.....	47.....	50.....	Virtually The Same .....	Less Yellow
355	Amber Flame .....	52.....	50.....	54.....	Virtually The Same .....	Virtually the Same
360	Amber Blush .....	73.....	70.....	71.....	Less Yellow .....	Virtually the Same
363	Sand .....	85.....	84.....	84.....	Less Yellow .....	Less Yellow, More Amber
364	Pale Honey .....	81.....	80.....	81.....	Less Yellow .....	Less Yellow, More Amber
365	Warm Straw .....	78.....	78.....	79.....	Less Yellow .....	Virtually the Same
368	Cinnamon .....	46.....	46.....	49.....	Virtually The Same .....	Virtually the Same
370	Spice .....	20.....	21.....	24.....	Less Yellow .....	More Pink, Less Yellow
375	Flame .....	60.....	60.....	62.....	Virtually The Same .....	More Pink, Less Yellow
380	Golden Tan .....	30.....	31.....	34.....	Virtually The Same .....	More Pink, Less Yellow
382	Brass .....	50.....	51.....	54.....	Less Yellow .....	Virtually the Same
385	Light Amber .....	75.....	74.....	75.....	More Pink, Less Yellow .....	Virtually the Same
388	Gold Rush .....	62.....	61.....	63.....	Virtually The Same .....	Less Golden
390	Walnut .....	8.....	10.....	12.....	Virtually The Same .....	More Red
395	Golden Sunset .....	63.....	64.....	67.....	Less Yellow .....	Virtually the Same
410	Yellow Gold .....	72.....	70.....	73.....	Virtually The Same .....	Less Yellow

GamColor® Name	Osram™ HPL 575/115 3250K Transmission %	Philips MasterColor® CDM 150/T6/942 CCT - 4200K Transmission %	Philips MasterColor® CDM 70/T6/830 CCT - 3000K Transmission %	CDM 150 vs. Incandescent Comments	CDM 70 vs. Incandescent Comments
420 Medium Amber .....	70.....	70.....	72.....	Less Yellow, Whiter.....	Virtually the Same
425 Sunflower .....	70.....	71.....	74.....	Virtually The Same .....	Virtually the Same
430 Warm Ivory .....	64.....	62.....	65.....	Less Yellow, More White.....	More Red
433 Double Ivory .....	73.....	70.....	71.....	Less Yellow, More White.....	More Red, Less Yellow
435 Ivory .....	88.....	82.....	83.....	Less Yellow, More White.....	Virtually the Same
440 Very Light Straw .....	83.....	83.....	83.....	Less Yellow, More White.....	Less Yellow, More Red
450 Saffron .....	81.....	80.....	79.....	Virtually The Same .....	Virtually the Same
455 Yellow Sun .....	58.....	58.....	60.....	Less Yellow .....	Less Yellow, More Red
460 Mellow Yellow .....	84.....	83.....	84.....	Less Yellow, More White.....	Virtually the Same
470 Pale Gold .....	87.....	84.....	85.....	Less Yellow, More White.....	Less Yellow, Whiter
475 Pale Yellow .....	84.....	86.....	86.....	Less Yellow, More White.....	Virtually the Same
480 Medium Yellow .....	82.....	82.....	83.....	Less Yellow, More White.....	Virtually the Same
510 No Color Straw .....	85.....	84.....	86.....	Less Yellow, More White.....	More Red
515 Lime Yellow .....	87.....	87.....	87.....	More White, Less Color .....	Less Green
520 New Straw .....	84.....	83.....	84.....	More White, Less Color .....	Less Green, More Red
525 Lime Sun .....	85.....	85.....	86.....	More White, Less Color .....	Less Green, Barely Colored
535 Lime .....	76.....	79.....	80.....	More White, Less Color .....	Less Green, Barely Colored
540 Pale Green .....	70.....	72.....	74.....	Slightly More White .....	Less Yellow
570 Light Green Yellow .....	45.....	49.....	50.....	More Blue .....	Less Yellow
650 Grass Green .....	5.....	6.....	7.....	More Blue .....	More Blue
655 Rich Green .....	8.....	11.....	12.....	Slightly More Blue .....	More Blue, Less Green
660 Medium Green .....	32.....	36.....	37.....	Slightly More Blue .....	Virtually the Same
666 Wicked Green .....	27.....	31.....	32.....	Virtually The Same .....	Virtually the Same
670 Emerald Green .....	6.....	8.....	8.....	Virtually The Same .....	More Blue
680 Kelly Green .....	35.....	37.....	38.....	More Blue, Different Color .....	Less Green
685 Pistachio .....	28.....	30.....	31.....	More Blue, Different Color .....	Less Green, More Blue
690 Bluegrass .....	12.....	15.....	16.....	More Blue, Different Color .....	Less Green, More Blue
710 Blue Green .....	14.....	15.....	15.....	More Blue, Different Color .....	Less Green, More Blue
720 Light Steel Blue .....	55.....	55.....	56.....	More Blue, Different Color .....	Less Green, More Blue
725 Princess Blue .....	25.....	29.....	30.....	More Blue, Different Color .....	Less Green, More Blue
730 Azure Blue .....	23.....	24.....	24.....	More Blue, Different Color .....	Less Green, Almost Gray
740 Off Blue .....	12.....	15.....	16.....	More Blue, Different Color .....	Less Green, Almost Gray
750 Nile Blue .....	13.....	14.....	15.....	More Blue, Different Color .....	No Green, More Blue
760 Aqua Blue .....	13.....	13.....	13.....	More Blue, Different Color .....	Less Green, More Blue
770 Christel Blue .....	20.....	20.....	20.....	More Blue, Different Color .....	Less Green, Almost Gray
780 Shark Blue .....	31.....	31.....	31.....	More Blue, Different Color .....	Slightly More Blue
785 Beverly Blue .....	59.....	58.....	58.....	More Blue, Different Color .....	No Green, More Blue
790 Electric Blue .....	43.....	43.....	43.....	More Blue, Different Color .....	No Green, More Blue
810 Moon Blue .....	11.....	11.....	12.....	More Blue, Different Color .....	More Blue
813 Dark Moon Blue .....	3.....	5.....	6.....	More Blue .....	More Blue
815 Moody Blue .....	19.....	19.....	19.....	Less Green, More Blue .....	Less Green, More Blue
820 Full Light Blue .....	51.....	51.....	52.....	Less Green, More Blue .....	Less Green, More Blue
830 North Sky Blue .....	52.....	53.....	55.....	Less Green, More Blue .....	Less Green, More Blue/More Red
835 Aztec Blue .....	5.....	6.....	7.....	Less Green, More Blue .....	Less Green, More Blue
840 Steel Blue .....	20.....	21.....	20.....	Less Green, More Blue .....	Less Green, More Blue
841 Diamond Blue .....	10.....	10.....	11.....	Less Green, More Blue .....	Less Red, More Blue
842 Whisper Blue .....	41.....	41.....	42.....	Less Green, More Blue .....	Less Green, More Blue
845 Cobalt .....	3.....	4.....	5.....	Slightly More Blue .....	Less Red

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847 City Blue.....	14.....	14.....	15.....	Less Green .....	More Red
848 Bonus Blue.....	11.....	11.....	12.....	Less Green .....	More Red
850 Blue (Primary).....	2.....	3.....	4.....	Virtually The Same .....	More Red
855 Blue Jazz.....	1.....	2.....	3.....	Virtually The Same .....	More Red
860 Sky Blue.....	29.....	31.....	30.....	Less Green .....	More Red
870 Winter White.....	76.....	75.....	73.....	Less Green .....	More Red
872 Opera White.....	65.....	69.....	68.....	More Blue/More White .....	More Red
880 Daylight Blue.....	24.....	26.....	25.....	More Blue/More Red .....	More Red
882 Southern Sky.....	24.....	25.....	25.....	More Blue/More Red .....	More Red, Less Green
885 Blue Ice.....	60.....	61.....	61.....	More Blue/More Red .....	More Red, Less Green, Almost N/C
888 Blue Belle.....	32.....	33.....	33.....	Less Green .....	More Red
889 Hot Blue.....	1.....	2.....	3.....	More Blue .....	More Red
890 Dark Sky Blue.....	1.....	2.....	3.....	Virtually The Same .....	More Red
905 Dark Blue.....	1.....	2.....	3.....	Virtually The Same .....	More Red
910 Alice Blue.....	13.....	13.....	14.....	More Red .....	More Red
915 Twilight.....	5.....	5.....	6.....	Virtually The Same .....	More Red
920 Pale Lavender.....	65.....	66.....	67.....	More Blue, Warmer .....	More Red/Warmer
925 Cosmic Blue.....	3.....	3.....	4.....	Virtually The Same .....	More Red
930 Real Congo Blue.....	1.....	2.....	3.....	Virtually The Same .....	More Red
940 Light Purple.....	20.....	20.....	21.....	More Blue .....	Slightly More Red
945 Royal Purple.....	2.....	2.....	3.....	More Blue/More Red .....	Virtually the Same
948 African Violet.....	3.....	5.....	6.....	More Blue/More Red .....	Virtually the Same
950 Purple.....	9.....	10.....	10.....	More Blue/More Red .....	Virtually the Same
960 Medium Lavender.....	27.....	27.....	27.....	More Blue/More Red .....	More Red
970 Special Lavender.....	36.....	36.....	36.....	More Blue/More Red .....	Slightly More Red
980 Surprise Pink.....	54.....	55.....	55.....	More Blue .....	More Red
982 Lovely Lavender.....	43.....	43.....	43.....	More Blue .....	More Red
985 Ripe Plum.....	3.....	3.....	4.....	More Blue .....	More Blue
987 Wild Plum.....	4.....	4.....	5.....	Slightly More Blue .....	More Blue
990 Dark Lavender.....	18.....	18.....	18.....	Virtually The Same .....	Virtually the Same
995 Orchid.....	6.....	6.....	7.....	Virtually The Same .....	More Blue
1514 .15 Neutral Density.....	66.....	65.....	65.....	More Blue .....	Less Green
1515 .3 Neutral Density.....	46.....	46.....	47.....	More Blue .....	More Red
1516 .6 Neutral Density.....	24.....	25.....	26.....	More Blue .....	More Red, Less Green
1517 .9 Neutral Density.....	10.....	10.....	12.....	More Blue .....	More Red, Less Green
1518 1.2 Neutral Density.....	5.....	6.....	7.....	More Blue .....	More Red, Less Green