

the
ART
of
light

LEE Filters



FUTURE P E R S P E C T I V E

In successful companies, continuous achievement is driven by innovation and understanding. Creating a product or process is only a first step - maintaining the momentum of progress and success over many years requires a demanding set of disciplines.

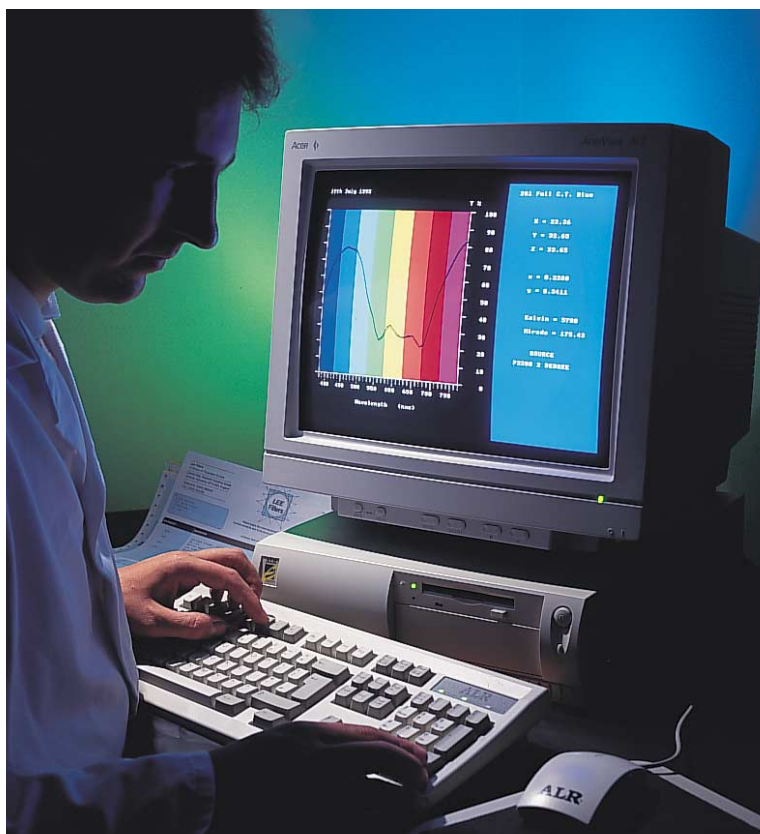
At Lee Filters, we are proud to say that we have earned - and kept - our reputation as the world's leading manufacturer of lighting filter products by constantly looking ahead. Our company culture is one of continuous research and development - there can never be enough colours: or diffusers: or polarisers: and even we have not yet found the perfect production process.

We understand the science of what we do, and the art of what we do. We are always looking forward.

This brochure will introduce you to our world. A world of vibrant colour which continues to make a very significant contribution to what we believe is the art of light.

Both now, and for the future.





TECHNICAL E X C E L L E N C E

The Lee Filters' plant is the world's leading location for the production of filters for the film, television, theatre and stills photographic markets. It is the only facility totally dedicated to the development and manufacture of these products, with production lines whose equipment is continuously updated to maintain accuracy, consistency, and unsurpassed quality.

At the heart of the manufacturing process is an appreciation of the scientific and technical principles which impact on filter performance. The often complex relationships between light sources, equipment, image recording media and the base materials available to the filter manufacturer are vital considerations in product development and production. They need to be analysed, understood, and applied to evolutionary thinking.

Each Lee filter is designed to fulfil a specific function, taking into account the parameters set by its required performance, and then the physical laws of light. This is a demanding technical process which Lee Filters continues to develop. As it stands today, it ensures excellence.



QUALITY C O N T R O L

The ability to create a wide range of products is only an advantage if the high quality of every filter produced can be guaranteed.

Lee Filters has developed sophisticated quality control systems based on purpose programmed spectrophotometers. But consideration is always given to that most incredible of all optical instruments - the human eye, which will eventually receive the created colour stimulus.

Every filter leaving the factory is accurately checked against a scientifically generated set of parameters. At Lee Filters, there is only one pass mark - 100%.

RESEARCH AND D E V E L O P M E N T

To maintain the pace of new product innovations, the company makes a major investment in research and development, with the R&D function at the forefront of company activity.

Research and Development personnel constantly monitor key areas relating to filters and the situations in which they are used, always seeking to relate new developments to future manufacturing techniques.

Among the most important areas of detailed interest are:

- developments in the polymeric materials which are the basis of Lee lighting filters;
- lamp and recording media technologies, because modern designs make increasing physical and technical demands on filters;
- the availability and performance of chemicals used in colourants is monitored in the quest for an even wider range of accurate and consistent colours. Lee mixes its own dyes to ensure reliability;

Additionally, Lee executives pay very close attention to feedback from end-users. Often, comments or individual requests from end-users will prompt research into new areas of filter performance, and this can eventually result in "customer-driven" products which fulfil a defined market need.





TOTAL PRODUCTION

The Lee Filters production philosophy is simply stated - ensure control from beginning to end.

From the selection of raw materials, through manufacture and all quality procedures to packing and despatch, Lee's stringent rules apply.

Each production procedure and much of the machinery used within it has been developed by - or for - Lee Filters, giving the company unparalleled control throughout the production cycle.

This precise monitoring regime, together with rigorous quality testing routines, ensures a consistency and repeatability of colour which is second to none.

Such in-depth care is only given to Lee Filters products for Lee Filters customers. Every lighting filter produced in the factory will carry the distinctive Lee Filters label - and no-one else's. That's the guarantee of quality.

On the pages which follow you will see what this continued dedication and commitment has come to mean in practice - a phenomenal selection of lighting filter products.



Welcome to the Lee Filters world of colour...

LEE Filters

COLOUR RANGE

PRODUCT	EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity Co-ordinates (as measured to source C)	
				x	y
003 Lavender Tint	Subtle cool wash for stage and studio lighting	75.7	0.12	0.303	0.300
169 Lilac Tint	Ballroom - dance - backlight - front of house	59.5	0.23	0.294	0.281
136 Pale Lavender	Pantomime, ballroom sets, enhances dark skin tones in follow spots	43.2	0.36	0.288	0.254
704 Lily	A cool lavender with little red content. Good for romantic evening exteriors	40.0	0.40	0.267	0.221
052* Light Lavender	Set dressing, pantomimes and musicals	33.0	0.48	0.259	0.218
170 Deep Lavender	Set lighting - discos - theatres	25.7	0.59	0.278	0.211
345 Fuchsia Pink	Musical revue, pantomime, sultry scenes	15.5	0.81	0.252	0.156
048 Rose Purple	Musical revues, discos, etc. cycloramas	13.9	0.86	0.288	0.167
049 Medium Purple	A strong cheerful glow, for cycloramas and pantomines	4.5	1.35	0.287	0.102
126 Mauve	Cycloramas - good for back lighting	4.1	1.38	0.287	0.082
797* Deep Purple	Used in musical performances for general colour washes and set lighting	2.3	1.65	0.235	0.065
798 Chrysalis Pink	A new deep lavender with a dash of rose blusher	3.8	1.43	0.190	0.060
707* Ultimate Violet	Used in musical performances for general colour washes and set lighting	2.0	1.69	0.170	0.042
343 Special Medium Lavender	Theatre and T.V. effect lighting, backlighting	6.0	1.22	0.182	0.081
180 Dark Lavender	Pleasing effects for theatrical lighting, backlighting	6.6	1.18	0.191	0.072
701 Provence	The colour of the Lavender fields of the South of France. A redder version of 180 for use on cameras balanced to tungsten sources	9.4	1.03	0.199	0.098
058* Lavender	Backlight	8.9	1.05	0.212	0.099
194 Surprise Pink	With 193 for musicals	22.3	0.65	0.240	0.183
344 Violet	Dusk effect, good skin tones, romantic effect	20.0	0.70	0.213	0.175
142 Pale Violet	Moonlight, cycloramas, highlighting pot plants	20.1	0.70	0.209	0.148
137 Special Lavender	Moonlight, musical / romantic scenes, enhances skin tones	26.4	0.58	0.231	0.175
702 Special Pale Lavender	A cold lavender when used with a full tungsten source, but warms as the source is dimmed. Good as a fill for slow sunset fades	54.1	0.27	0.281	0.269
709 Electric Lilac	Provides good colour rendering which creates sharp edges, adding a touch of drama	34.0	0.47	0.238	0.227
053* Paler Lavender	Subtle cool wash	62.2	0.21	0.284	0.284
708 Cool Lavender	For use as a warmer tint without turning yellow and to recreate the colour of fluorescent lighting	43.4	0.36	0.257	0.26
218 Eighth C.T.B.	Converts tungsten to daylight	81.3	0.09	0.299	0.307
203 Quarter C.T.B.	Converts tungsten to daylight	69.2	0.16	0.285	0.294

violet blue cyan green yellow red magenta

PRODUCT	EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
061* Mist Blue	Night scenes, cool wash	62.4	0.21	0.268	0.284
202 Half C.T.B.	Converts tungsten to daylight	54.9	0.26	0.261	0.273
063* Pale Blue	Cycloramas, cool wash	54.4	0.26	0.252	0.270
117 Steel Blue	Gaslight effect when used in conjunction with 213	54.7	0.26	0.223	0.278
725 Old Steel Blue	Cool wash, useful for highlights	56.2	0.24	0.239	0.270
353 Lighter Blue	Daylight effects	41.0	0.39	0.193	0.246
140 Summer Blue	Warm blue - cycloramas - tint wash	41.4	0.38	0.201	0.245
172* Lagoon Blue	Floodlit warm wash - underwater scenes - ballet	25.4	0.60	0.141	0.220
724 Ocean Blue	Useful at low levels of light, dull skies, - moonlight	36.2	0.44	0.189	0.222
144 No Colour Blue	Moonlight for green seas, cycloramas with 147 to produce sunsets	32.4	0.49	0.183	0.228
118* Light Blue	Strong night effect	22.2	0.65	0.149	0.113
183 Moonlight Blue	Moonlight, cycloramas	18.7	0.73	0.128	0.168
352 Glacier Blue	Cold blue, good for cool atmospheric mood setting	23.4	0.63	0.171	0.190
174 Dark Steel Blue	Set lighting - creates good moonlight shadows	30.0	0.52	0.204	0.205
196 True Blue	Moonlight	26.6	0.57	0.175	0.197
281 Threequarters C.T.B.	Converts tungsten to daylight	45.5	0.35	0.239	0.258
201 Full C.T.B.	Converts tungsten to photographic daylight	34.0	0.47	0.228	0.233
161 Slate Blue	Moonlight and dusk	24.8	0.61	0.176	0.176
165 Daylight Blue	Moonlight	20.0	0.70	0.159	0.158
141* Bright Blue	Pretty or romantic moonlight, cycloramas, night	18.6	0.75	0.129	0.159
143 Pale Navy Blue	Moonlight, cyclorama night effect	16.2	0.79	0.170	0.205
366 Cornflower	Seasonal mood lighting, pale moonlight	17.7	0.75	0.193	0.190
719 Colour Wash Blue	To allow low intensity tungsten to hold a cold/blue feel	19.3	0.71	0.188	0.171
712 Bedford Blue	A smoky warm blue. Good for skin tones	17.9	0.75	0.183	0.158
200 Double C.T.B.	Converts tungsten to daylight	16.2	0.79	0.179	0.155
132* Medium Blue	Set lighting - travelling matt blue, cycloramas, night	8.3	1.08	0.137	0.110
068 Sky Blue	Night effect, cycloramas	13.4	0.87	0.151	0.128
075 Evening Blue	Good for night scenes, romantic moonlight	12.5	0.90	0.158	0.117
197* Alice Blue	Moonlight, cycloramas	10.4	0.98	0.164	0.118

* Also available in High Temperature (HT) version

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PRODUCT		EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity Co-ordinates x y	
723	Virgin Blue	This is a pure blue, not too green and not too lavender, yet still feels warm for a blue with an early morning feel	7.0	1.16	0.158	0.1
079*	Just Blue	Cycloramas	5.6	1.25	0.145	0.072
722	Bray Blue	A purer blue with very little red in it	5.2	1.28	0.139	0.086
714	Elysian Blue	A new deeper version of Alice blue	6.8	1.17	0.151	0.097
721*	Berry Blue	Used in musical performances for rear colour wash, or set lighting	6.5	1.19	0.147	0.084
715*	Cabana Blue	A deep blue that still has enough transmission to work encouragingly well on television	6.8	1.17	0.152	0.075
716*	Mikkel Blue	A romantic blue to produce a night effect	3.9	1.4	0.146	0.054
199	Regal Blue	A deep lavender blue, that strongly enhances skin tones.	5.4	1.26	0.161	0.070
711	Cold Blue	To give a cold/grey H.M.I. effect from a tungsten source. Will also help blend when using both tungsten and HMI sources	14.4	0.84	0.223	0.198
119*	Dark Blue	Mood effects, jazz clubs, etc - back projection - travelling matt blue, moonlight	3.1	1.51	0.142	0.054
363*	Special Medium Blue	Cool moonlight, mood effects	4.2	1.37	0.141	0.070
195*	Zenith Blue	Moonlight for dark sets, cycloramas	2.7	1.56	0.142	0.046
120*	Deep Blue	Pleasing effect for theatrical lighting	1.1	1.96	0.149	0.021
085*	Deeper Blue	Moonlight, strong back lighting	2.5	1.60	0.143	0.065
198	Palace Blue	Dark moonlight - romantic evening	1.7	1.78	0.159	0.066
713*	J. Winter Blue	A very dark blue with a high UV content. Good when used in high concentrations for a moody and powerful stage colour wash	1.1	1.97	0.148	0.037
071*	Tokyo Blue	Deep blue, use for midnight scenes, cycloramas	1.0	2.00	0.151	0.030
181*	Congo Blue	Theatre and television effect lighting, back lighting	0.8	2.10	0.158	0.035
729*	Scuba Blue	Used in musical performances for a rear colour wash, or set lighting	8.7	1.06	0.110	0.241
116*	Medium Blue-Green	Pleasing effect for theatrical lighting	16.5	0.78	0.113	0.280
354	Special Steel Blue	Cooling blue-green wash for stage and set lighting	39.2	0.41	0.173	0.265
115*	Peacock Blue	Pleasing effect on sets, cyclorama cloths, back lighting (e.g. ice rinks, galas, etc)	35.2	0.46	0.134	0.296
131	Marine Blue	Romantic moonlight - ballet - underwater scenes	41.3	0.38	0.199	0.305
241	Lee Fluorescent 5700 Kelvin	Converts tungsten to fluorescent light of 5700K (cool white/daylight)	27.4	0.56	0.231	0.290
728	Steel Green	Approaching storms. Overcast days. Cold steely light. Malevolent moonlight	45.9	0.33	0.256	0.302
730	Liberty Green	A good green for creating mystery and suspense	67.5	0.17	0.277	0.330
242	Lee Fluorescent 4300 Kelvin	Converts tungsten to fluorescent light of 4300K (white)	37.3	0.43	0.262	0.346
219	Lee Fluorescent Green	General tungsten to fluorescent correction for use when fluorescent colour temp is unknown, to provide medium correction.	31.0	0.51	0.219	0.334
323	Jade	Use for underwater scenes, cycloramas, backlighting	32.0	0.50	0.165	0.367

violet blue cyan green yellow red magenta

PRODUCT	EFFECT/COLOUR	Transmission	Absorption	Chromaticity Co-ordinates	
		Y%		x	y
322 Soft Green	Cool green, use for gobo cover, pantomime, cycloramas	38.3	0.42	0.201	0.364
325 Mallard Green	Good for mood setting, undergrowth	7.7	1.11	0.112	0.412
327 Forest Green	Deep green, sinister forest scenes, cycloramas, backlighting	4.2	1.38	0.162	0.496
735 Velvet Green	A beautiful background colour. Victorian melodrama. A night time green	11.5	0.93	0.103	0.536
090* Dark Yellow Green	Highlighting for forest effects	10.9	0.96	0.184	0.641
736 Twickenham Green	A powerful green with depth, for music or light entertainment	7.2	1.14	0.175	0.74
139* Primary Green	Set lighting, cycloramas	11.9	0.92	0.196	0.712
089* Moss Green	With gobos for forest scenes	29.8	0.53	0.259	0.547
124* Dark Green	Cycloramas - good for back lighting	29.7	0.53	0.123	0.586
243 Lee Fluorescent 3600 Kelvin	Converts tungsten to fluorescent light of 3600K (warm white).	45.7	0.34	0.286	0.370
122* Fern Green	Cycloramas - good for mood effect	51.5	0.28	0.234	0.543
738* JAS Green	A rich yellowish green: useful as a concert stage wash where darker skin tones, costume, and set are a consideration	52.3	0.28	0.315	0.587
121* Lee Green	Cycloramas	64.0	0.20	0.302	0.534
088 Lime Green	Use with gobos for leafy glades - pantos - slightly sinister atmosphere	70.9	0.15	0.356	0.511
138 Pale Green	Good with gobos for wooded scenes	79.9	0.10	0.331	0.433
244 Lee Plus Green	Approximately equivalent to CC30 green	74.2	0.12	0.324	0.388
213 White Flame Green	Corrects white flame carbon arcs by absorbing ultra violet	80.0	0.10	0.317	0.359
245 Half Plus Green	Approximately equivalent to CC15 green	81.7	0.08	0.319	0.355
246 Quarter Plus Green	Approximately equivalent to CC075 green	84.6	0.07	0.315	0.337
278 Eighth Plus Green	Provides very slight green cast	87.7	0.06	0.313	0.327
230 Super Correction L.C.T. Yellow	Converts yellow carbon arc (of low colour temperature) to tungsten	41.9	0.38	0.367	0.368
156 Chocolate	With 103 Straw in same lantern to produce candlelight	26.4	0.58	0.380	0.363
747 Easy White	Primarily developed for fluorescents to ensure warm, comfortable light and flattering skin tones.	31.1	0.51	0.389	0.344
017 Surprise Peach	Skin tones - mood light	19.6	0.71	0.439	0.372
746 Brown	To give a murky, dirty feel to tungsten. A darker, less pink chocolate	1.5	1.82	0.498	0.437
208 Full C.T.O. +.6ND	Converts daylight to tungsten 6500K to 3200K and reduces light 2 stops	15.6	0.81	0.442	0.394
207 Full C.T.O. +.3ND	Converts daylight to tungsten 6500K to 3200K and reduces light 1 stop	32.5	0.49	0.435	0.386
232 Super Correction W.F. Green to Tungsten	Converts white flame arc to 3200K, for use with tungsten film	37.4	0.43	0.423	0.385
285 Threequarters C.T.O.	Converts daylight to tungsten light	61.3	0.21	0.400	0.387

* Also available in High Temperature (HT) version

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PRODUCT	EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
009* Pale Amber Gold	Late sunlight	71.1	0.15	0.376	0.371
205 Half C.T.O.	Converts daylight to tungsten light	70.8	0.15	0.374	0.364
442 Half C.T. Straw	Converts 6500K to 4300K - daylight to tungsten light with yellow bias	71.2	0.15	0.370	0.378
013* Straw Tint	Sunlight wash with gobos, interior lighting	72.1	0.14	0.392	0.392
103 Straw	Pale sunlight through window effect - warm winter effect	81.6	0.09	0.336	0.359
443 Quarter C.T. Straw	Converts 6500K to 5100K - daylight to tungsten light with yellow bias	79.8	0.10	0.338	0.349
206 Quarter C.T.O.	Converts daylight to tungsten light	79.1	0.10	0.346	0.34
223 Eighth C.T.O.	Converts daylight to tungsten light	85.2	0.07	0.328	0.332
444 Eighth C.T Straw	Converts 6500K to 5700K - daylight to tungsten light with yellow bias	83.1	0.08	0.323	0.332
159 No Colour Straw	Warm effect, sunlight	89.4	0.05	0.325	0.337
130 Clear	Used in animation and projection work	95.0	0.02	0.311	0.317
226 Lee UV	Transmission of less than 50% at 410nms	91.5	0.04	0.314	0.321
763 Wheat	Adds warmth, sunlight	84.3	0.07	0.343	0.357
212 L.C.T. Yellow (Y1)	Reduces colour temperature of low carbon arcs to 3200K	88.7	0.05	0.340	0.363
007* Pale Yellow	Sunlight	85.4	0.07	0.339	0.363
100 Spring Yellow	Sunlight wash - use with gobos - disco - dark skin tones	84.2	0.08	0.410	0.502
010* Medium Yellow	Sunlight effect	86.5	0.06	0.426	0.509
101 Yellow	Sunlight and window effect - pleasant in acting areas	80.0	0.10	0.451	0.507
765 LEE Yellow	Useful for producing a strong sunlight effect	80.2	0.10	0.389	0.412
764 Sun Colour Straw	Adds warmth, bright sunlight	80.5	0.09	0.365	0.380
102 Light Amber	Lamplight effects - dawn sun effects - pleasant in acting areas	75.1	0.12	0.434	0.440
767 Oklahoma Yellow	A rich blend of bright sunshine and warm ochre overtones	68.9	0.16	0.481	0.501
104 Deep Amber	Mood effect on backings. Backlighting of floor and colour effect	63.9	0.20	0.496	0.462
015* Deep Straw	Strong mood effect on backings with yellow bias	60.8	0.22	0.517	0.460
744 Dirty White	Correct a daylight source to an off white tungsten source. Used with a tungsten source provides a "dingy" effect like a smoky bar	57.9	0.24	0.421	0.412
441 Full C.T. Straw	Converts 6500K to 3200K - daylight to tungsten light with yellow bias	57.3	0.24	0.426	0.407
204 Full C.T.O.	Converts daylight to tungsten light	55.4	0.26	0.437	0.392
236 HMI (to Tungsten)	Converts HMI to 3200K, for use with Tungsten film	58.2	0.24	0.426	0.376
179 Chrome Orange	Combination of 1/2 CTO and double strength 104, sunlight	54.0	0.27	0.520	0.460

violet blue cyan green yellow red magenta

PRODUCT	EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity Co-ordinates x y
020* Medium Amber	Late sunlight	50.7	0.30	0.523 0.419
770 Burnt Yellow	A colour that feels warm and dense on camera, a balance between 179 and 105	47.7	0.32	0.545 0.447
776 Nectarine	Romantic sunset. Period pieces	52.9	0.27	0.424 0.368
147 Apricot	Sunrise, sunset, lamplight	53.0	0.28	0.446 0.381
105 Orange	Mainly light entertainment, functions. Fire effect if used with 106, 166, 104	41.3	0.38	0.563 0.428
779 Bastard Pink	Deep sunset. Useful on dark skin tones	38.8	0.41	0.501 0.336
237 CID (to Tungsten)	Converts CID to 3200K, for use with tungsten film	38.5	0.41	0.430 0.365
134 Golden Amber	Fire effect (doubled up)	37.8	0.42	0.501 0.371
158 Deep Orange	Fire effect	29.9	0.52	0.588 0.403
021* Gold Amber	Fire effect, sunset	31.3	0.51	0.586 0.396
777 Rust	A vivid rust colour effect	24.3	0.61	0.576 0.416
778* Millennium Gold	Useful for lighting architecture: it produces a rich amber when used on a tungsten source, or a much cooler effect when used on a HMI lamp	27.3	0.56	0.606 0.382
135 Deep Golden Amber	Fire effect	19.5	0.71	0.667 0.326
022* Dark Amber	Backlight	23.9	0.62	0.647 0.339
025 Sunset Red	Warm stage wash - TV studio wash - sunset effect	26.4	0.58	0.566 0.359
166 Pale Red	Cycloramas	25.0	0.60	0.532 0.263
781 Terry Red	A strong amber red that works well when used against reds, and dark ambers, in wash combinations, and on cycloramas	19.1	0.72	0.643 0.348
019* Fire	Disco effect - fire effect	18.9	0.72	0.664 0.310
164 Flame Red	Fire effect	18.0	0.75	0.659 0.302
024* Scarlet	Pantomimes, ballroom sets, fire effects	18.7	0.73	0.561 0.296
182 Light Red	Theatre and television effect lighting, cycloramas	11.0	0.96	0.670 0.313
106 Primary Red	Strong red effect, cycloramas	9.3	1.03	0.699 0.285
026* Bright Red	Cycloramas	8.6	1.06	0.712 0.281
029 PLASA Red	Fire effect, musicals, cycloramas	5.8	1.24	0.693 0.303
027* Medium Red	Cycloramas	3.6	1.44	0.712 0.261
789 Blood Red	For a deep saturated red effect. Used when a strong vivid red effect is required	1.2	1.91	0.677 0.314
341 Plum	Romantic, atmospheric set lighting	19.4	0.71	0.309 0.256
748 Seedy Pink	A smoky pink. Good for tungsten on skin tones	14.4	0.84	0.373 0.263
127 Smokey Pink	Cycloramas - set lighting, discos	12.0	0.92	0.397 0.265

* Also available in High Temperature (HT) version

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PRODUCT	EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
046* Dark Magenta	Very strong pink, good for back lighting	6.0	1.22	0.572	0.223
113 Magenta	Very strong - used carefully for small areas on set	10.9	0.96	0.563	0.217
148 Bright Rose	Fire effects, musicals	14.4	0.84	0.482	0.238
332 Special Rose Pink	Pantomimes, light entertainment etc. strong stage wash	10.5	0.98	0.465	0.193
793 Vanity Fair	A rich glamorous pink, good for use on special occasions	12.0	0.92	0.419	0.170
128 Bright Pink	Cycloramas - good for back lighting - strong effect	13.7	0.86	0.401	0.151
795 Magical Magenta	Rich mixture of red and pinks	13.1	0.88	0.327	0.138
328 Follies Pink	Dramatic stage lighting	21.6	0.67	0.335	0.180
002 Rose Pink	Strong pink wash cycloramas	32.7	0.50	0.328	0.202
111 Dark Pink	Good for cycloramas	31.9	0.50	0.389	0.215
192 Flesh Pink	Musical and pantomime key lighting	34.9	0.46	0.410	0.237
036* Medium Pink	Front of house lanterns	45.4	0.34	0.360	0.268
110 Middle Rose	Pleasing effects for theatrical lighting	47.5	0.32	0.351	0.249
794 Pretty 'n Pink	Creates warm and soft effects	46.8	0.33	0.335	0.251
039 Pink Carnation	Soft, cool pastel pink, good for backlighting and general colourwash	60.2	0.22	0.320	0.268
247 Lee Minus Green	Approximately equivalent to CC30 magenta	57.8	0.22	0.325	0.279
035* Light Pink	Musical reviews. Warm wash	61.3	0.21	0.335	0.289
153 Pale Salmon	Backlighting in conjunction with white light	64.9	0.19	0.362	0.303
248 Half Minus Green	Approximately equivalent to CC15 magenta	72.0	0.14	0.317	0.297
249 Quarter Minus Green	Approximately equivalent to CC075 magenta	82.4	0.08	0.312	0.307
279 Eighth Minus Green	Provides very slight correction	86.5	0.06	0.312	0.311
162 Bastard Amber	Warm white, warm wash, lamp light	77.7	0.11	0.348	0.328
152 Pale Gold	Interior lighting to enhance skin tones	70.7	0.15	0.370	0.332
154 Pale Rose	Pleasing effect for theatrical lighting, lamplight	73.4	0.14	0.350	0.318
151 Gold Tint	Pleasing effect for theatrical lighting	69.4	0.16	0.361	0.321
004* Medium Bastard Amber	Naturally enhances skin tones	64.1	0.19	0.370	0.335
108 English Rose	Warm tint wash - dark flesh tones - softer skin tones	57.1	0.24	0.412	0.352
790 Moroccan Pink	A rich natural pink, good for producing late afternoon sun effects	58.1	0.24	0.378	0.324
176 Loving Amber	Sunrise backlight	50.2	0.30	0.407	0.321

violet blue cyan green yellow red magenta

PRODUCT		EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
109	Light Salmon	Interesting backlight	54.9	0.26	0.391	0.295
107	Light Rose	Mood effect on backings. Backlighting of floor and colour effect	48.0	0.32	0.407	0.284
157	Pink	Dance sequences (useful for softening white costumes without affecting skin tones)	36.4	0.44	0.457	0.272
193	Rosy Amber	Warm, emotional, romantic	36.0	0.44	0.473	0.279
008*	Dark Salmon	Enhances dark skin tones, sunsets, ballroom sets	35.4	0.45	0.498	0.347
238	CSI (to Tungsten)	Converts CSI to 3200K, for use with tungsten film	29.8	0.53	0.372	0.331

COSMETIC RANGE

PRODUCT		EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
191	Cosmetic Aqua Blue	Pale tints complementary to key lighting	65.8	0.18	0.300	0.318
190	Cosmetic Emerald	Pale tints complementary to key lighting	67.1	0.17	0.307	0.327
189	Cosmetic Silver Moss	Pale tints complementary to key lighting	71.7	0.15	0.327	0.347
184	Cosmetic Peach	Pale tints complementary to key lighting	58.6	0.23	0.328	0.328
185	Cosmetic Burgundy	Pale tints complementary to key lighting	57.7	0.24	0.324	0.319
188	Cosmetic Highlight	Pale tints complementary to key lighting	66.3	0.18	0.330	0.327
187	Cosmetic Rouge	Pale tints complementary to key lighting	58.8	0.23	0.336	0.328
186	Cosmetic Silver Rose	Pale tints complementary to key lighting	59.7	0.22	0.323	0.308

COLOURED FROSTS

PRODUCT		EFFECT/COLOUR	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
705	Lily Frost	Smooths PAR or flood washes of large areas. Useful for houselights; a good colour wash for evening events	38.5	0.42	0.264	0.217
775	Soft Amber Key 2	Used for producing a warm key light colour	58.4	0.23	0.409	0.363
774	Soft Amber Key 1	Used for producing a warm key light colour	70.6	0.15	0.366	0.348
749	Hampshire Rose	Combines flesh tone warmer 154 with some Hampshire frost	74	0.13	0.339	0.318
791	Moroccan Frost	Smooths PAR or flood washes of large areas. Useful for houselights; good for interior colour washes	57.2	0.24	0.376	0.322

NUMERICAL LISTING

002 ROSE PINK
003 LAVENDER TINT
004* MEDIUM BASTARD AMBER
007* PALE YELLOW
008* DARK SALMON
009* PALE AMBER GOLD
010* MEDIUM YELLOW
013* STRAW TINT
015* DEEP STRAW
017 SURPRISE PEACH
019* FIRE
020* MEDIUM AMBER
021* GOLD AMBER
022* DARK AMBER
024* SCARLET
025 SUNSET RED
026* BRIGHT RED
027* MEDIUM RED
029 PLASA RED
035* LIGHT PINK
036* MEDIUM PINK
039 PINK CARNATION
046* DARK MAGENTA
048 ROSE PURPLE
049 MEDIUM PURPLE
052* LIGHT LAVENDER
053* PALER LAVENDER
058* LAVENDER
061* MIST BLUE
063* PALE BLUE
068 SKY BLUE
071* TOKYO BLUE
075 EVENING BLUE
079* JUST BLUE
085* DEEPER BLUE
088 LIME GREEN
089* MOSS GREEN
090* DARK YELLOW GREEN
100 SPRING YELLOW
101 YELLOW
102 LIGHT AMBER
103 STRAW
104 DEEP AMBER
105 ORANGE
106 PRIMARY RED
107 LIGHT ROSE
108 ENGLISH ROSE
109 LIGHT SALMON
110 MIDDLE ROSE
111 DARK PINK
113 MAGENTA
115* PEACOCK BLUE
116* MEDIUM BLUE-GREEN
117 STEEL BLUE
118* LIGHT BLUE
119* DARK BLUE
120* DEEP BLUE
121* LEE GREEN
122* FERN GREEN
124* DARK GREEN
126 MAUVE
127 SMOKEY PINK
128 BRIGHT PINK
129 HEAVY FROST
130 CLEAR
131 MARINE BLUE
132* MEDIUM BLUE
134 GOLDEN AMBER
135 DEEP GOLDEN AMBER
136 PALE LAVENDER

137 SPECIAL LAVENDER
138 PALE GREEN
139* PRIMARY GREEN
140 SUMMER BLUE
141* BRIGHT BLUE
142 PALE VIOLET
143 PALE NAVY BLUE
144 NO COLOUR BLUE
147 APRICOT
148 BRIGHT ROSE
151 GOLD TINT
152 PALE GOLD
153 PALE SALMON
154 PALE ROSE
156 CHOCOLATE
157 PINK
158 DEEP ORANGE
159 NO COLOUR STRAW
161 SLATE BLUE
162 BASTARD AMBER
164 FLAME RED
165 DAYLIGHT BLUE
166 PALE RED
169 LILAC TINT
170 DEEP LAVENDER
172* LAGOON BLUE
174 DARK STEEL BLUE
176 LOVING AMBER
179 CHROME ORANGE
180 DARK LAVENDER
181* CONGO BLUE
182 LIGHT RED
183 MOONLIGHT BLUE
184 COSMETIC PEACH
185 COSMETIC BURGUNDY
186 COSMETIC SILVER ROSE
187 COSMETIC ROUGE
188 COSMETIC HIGHLIGHT
189 COSMETIC SILVER MOSS
190 COSMETIC EMERALD
191 COSMETIC AQUA BLUE
192 FLESH PINK
193 ROSY AMBER
194 SURPRISE PINK
195* ZENITH BLUE
196 TRUE BLUE
197* ALICE BLUE
198 PALACE BLUE
199 REGAL BLUE
200 DOUBLE C.T. BLUE
201 FULL C.T. BLUE
202 1/2 C.T. BLUE
203 1/4 C.T. BLUE
204 FULL C.T. ORANGE
205 1/2 C.T. ORANGE
206 1/4 C.T. ORANGE
207 FULL C.T. ORANGE +
.3 NEUTRAL DENSITY
208 FULL C.T. ORANGE +
.6 NEUTRAL DENSITY
209 .3 NEUTRAL DENSITY
210 .6 NEUTRAL DENSITY
211 .9 NEUTRAL DENSITY
212 L.C.T. YELLOW
213 WHITE FLAME GREEN
214 FULL TOUGH SPUN
215 1/2 TOUGH SPUN
216 WHITE DIFFUSION
217 BLUE DIFFUSION
218 1/8 C.T. BLUE

219 LEE FLUORESCENT GREEN
220 WHITE FROST
221 BLUE FROST
223 1/8 C.T. ORANGE
224 DAYLIGHT BLUE FROST
225 LEE N.D. FROST
226 LEE U.V.
228 BRUSHED SILK
229 1/4 TOUGH SPUN
230 SUPER CORRECTION L.C.T.
YELLOW
232 SUPER WHITE FLAME
GREEN
236 H.M.I (TO TUNGSTEN)
237 C.I.D. (TO TUNGSTEN)
238 C.S.I. (TO TUNGSTEN)
239 POLARISER
241 LEE FLUORESCENT 5700 K
242 LEE FLUORESCENT 4300 K
243 LEE FLUORESCENT 3600 K
244 LEE PLUS GREEN
245 1/2 PLUS GREEN
246 1/4 PLUS GREEN
247 LEE MINUS GREEN
248 1/2 MINUS GREEN
249 1/4 MINUS GREEN
250 1/2 WHITE DIFFUSION
251 1/4 WHITE DIFFUSION
252 1/8 WHITE DIFFUSION
253 HAMPSHIRE FROST
254 NEW HAMPSHIRE FROST
255 HOLLYWOOD FROST
256 1/2 HAMPSHIRE FROST
257 1/4 HAMPSHIRE FROST
258 1/8 HAMPSHIRE FROST
261 TOUGH SPUN FR - FULL
262 TOUGH SPUN FR - 1/4
263 TOUGH SPUN FR - 1/2
264 TOUGH SPUN FR - 3/8
265 TOUGH SPUN FR - 1/4
269 LEE HEAT SHIELD
270 LEE SCRIM
271 MIRROR SILVER
272 SOFT GOLD REFLECTOR
273 SOFT SILVER REFLECTOR
274 MIRROR GOLD
275 BLACK SCRIM
278 1/8 PLUS GREEN
279 1/8 MINUS GREEN
280 BLACK FOIL
281 3/4 C.T. BLUE
285 3/4 C.T. ORANGE
298 .15 NEUTRAL DENSITY
299 1.2 NEUTRAL DENSITY
322 SOFT GREEN
323 JADE
325 MALLARD GREEN
327 FOREST GREEN
328 FOLLIES PINK
332 SPECIAL ROSE PINK
341 PLUM
343 SPECIAL MEDIUM
LAVENDER
344 VIOLET
345 FUCHSIA PINK
352 GLACIER BLUE
353 LIGHTER BLUE
354 SPECIAL STEEL BLUE
363* SPECIAL MEDIUM BLUE
366 CORNFLOWER

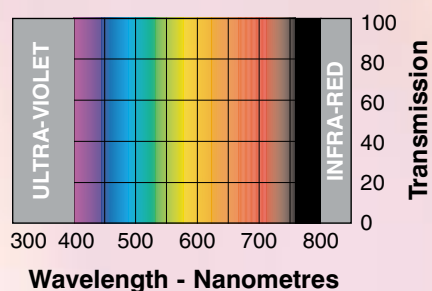
400 LEELUX
410 OPAL FROST
416 3/4 WHITE DIFFUSION
420 LIGHT OPAL FROST
430 GRID CLOTH
432 LIGHT GRID CLOTH
434 1/4 GRID CLOTH
441 FULL C.T. STRAW
442 1/2 C.T. STRAW
443 1/4 C.T. STRAW
444 1/8 C.T. STRAW
450 3/8 WHITE DIFFUSION
452 1/16 WHITE DIFFUSION
460 QUIET GRID CLOTH
462 QUIET LIGHT GRID CLOTH
464 QUIET 1/4 GRID CLOTH
701 PROVENCE
702 SPECIAL PALE LAVENDER
704 LILY
705 LILY FROST
707* ULTIMATE VIOLET
708 COOL LAVENDER
709 ELECTRIC LILAC
711 COLD BLUE
712 BEDFORD BLUE
713* J.WINTER BLUE
714 ELYSIAN BLUE
715* CABANA BLUE
716* MIKKEL BLUE
717 SHANKLIN FROST
718 HALF SHANKLIN FROST
719 COLOUR WASH BLUE
720 DURHAM DAYLIGHT FROST
721* BERRY BLUE
722 BRAY BLUE
723 VIRGIN BLUE
724 OCEAN BLUE
725 OLD STEEL BLUE
728 STEEL GREEN
729* SCUBA BLUE
730 LIBERTY GREEN
735 VELVET GREEN
736 TWICKENHAM GREEN
738* JAS GREEN
744 DIRTY WHITE
746 BROWN
747 EASY WHITE
748 SEEDY PINK
749 HAMPSHIRE ROSE
750 DURHAM FROST
763 WHEAT
764 SUN COLOUR STRAW
765 LEE YELLOW
767 OKLAHOMA YELLOW
770 BURNT YELLOW
774 SOFT AMBER KEY 1
775 SOFT AMBER KEY 2
776 NECTARINE
777 RUST
778* MILLENNIUM GOLD
779 BASTARD PINK
781 TERRY RED
789 BLOOD RED
790 MOROCCAN PINK
791 MOROCCAN FROST
793 VANITY FAIR
794 PRETTY 'N PINK
795 MAGICAL MAGENTA
797* DEEP PURPLE
798 CHRYSALIS PINK

* Also available in High Temperature (HT) version
254 Available in High Temperature (HT) version only

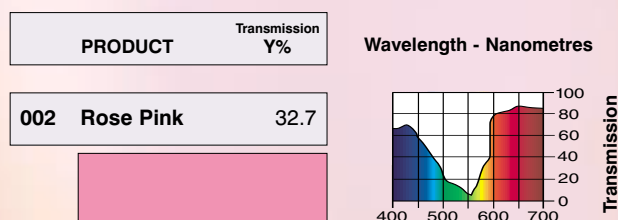
SPECTRAL CHARTS

The following pages show a spectral chart and colour sample for each filter within the colour range.

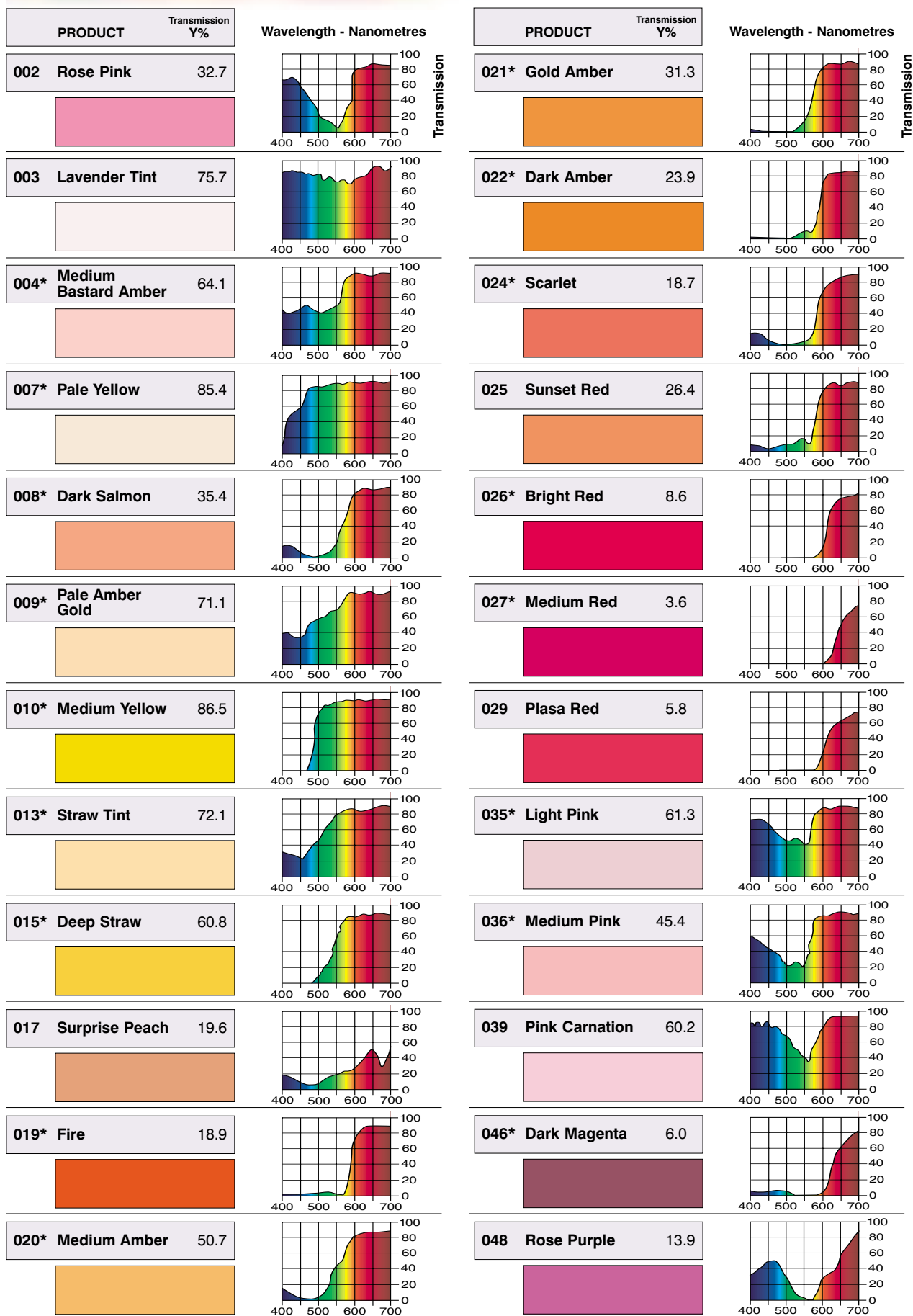
The Spectral chart illustrates the percentage of light transmitted by each filter at wavelengths across the visible portion of the electromagnetic spectrum. The illustration below clearly shows the visible colours represented at these wavelengths.



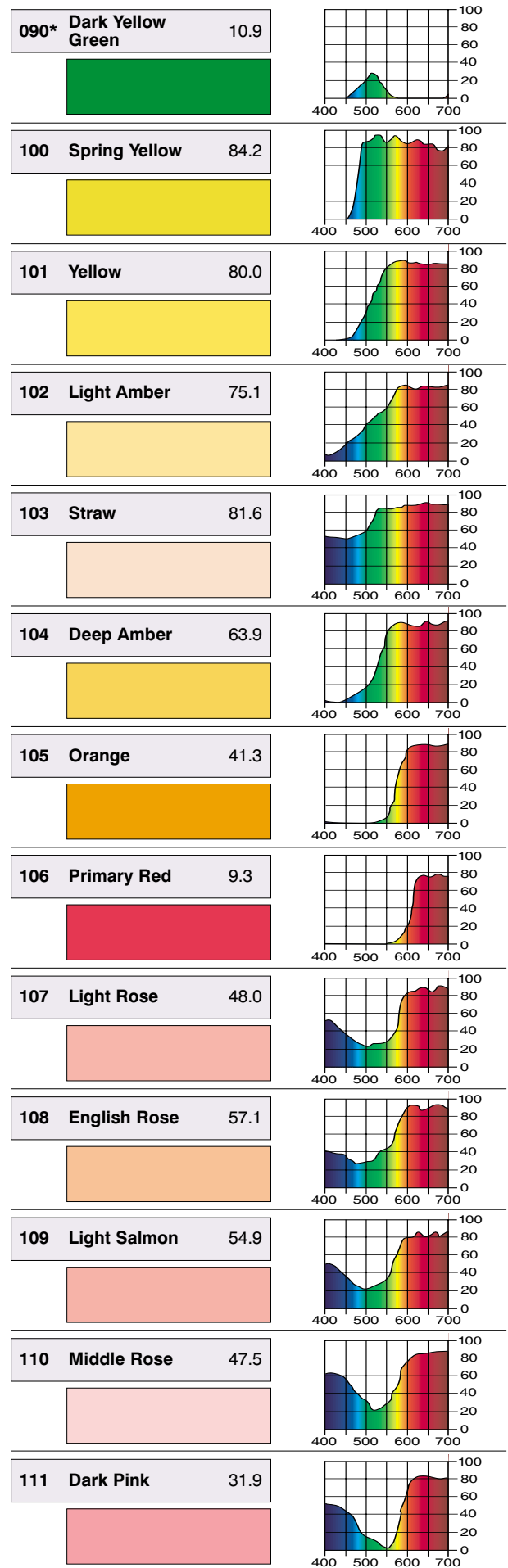
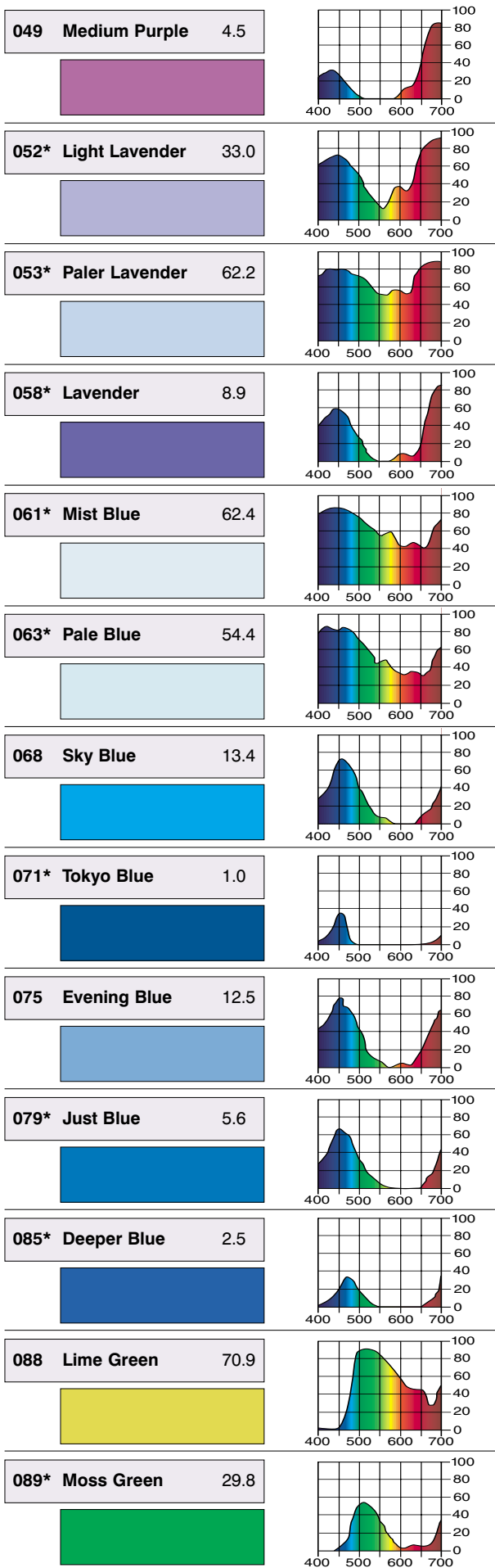
The colour sample of each filter shows an approximate representation of the colour when tungsten light of 3200K is shone through the filter onto a white surface.

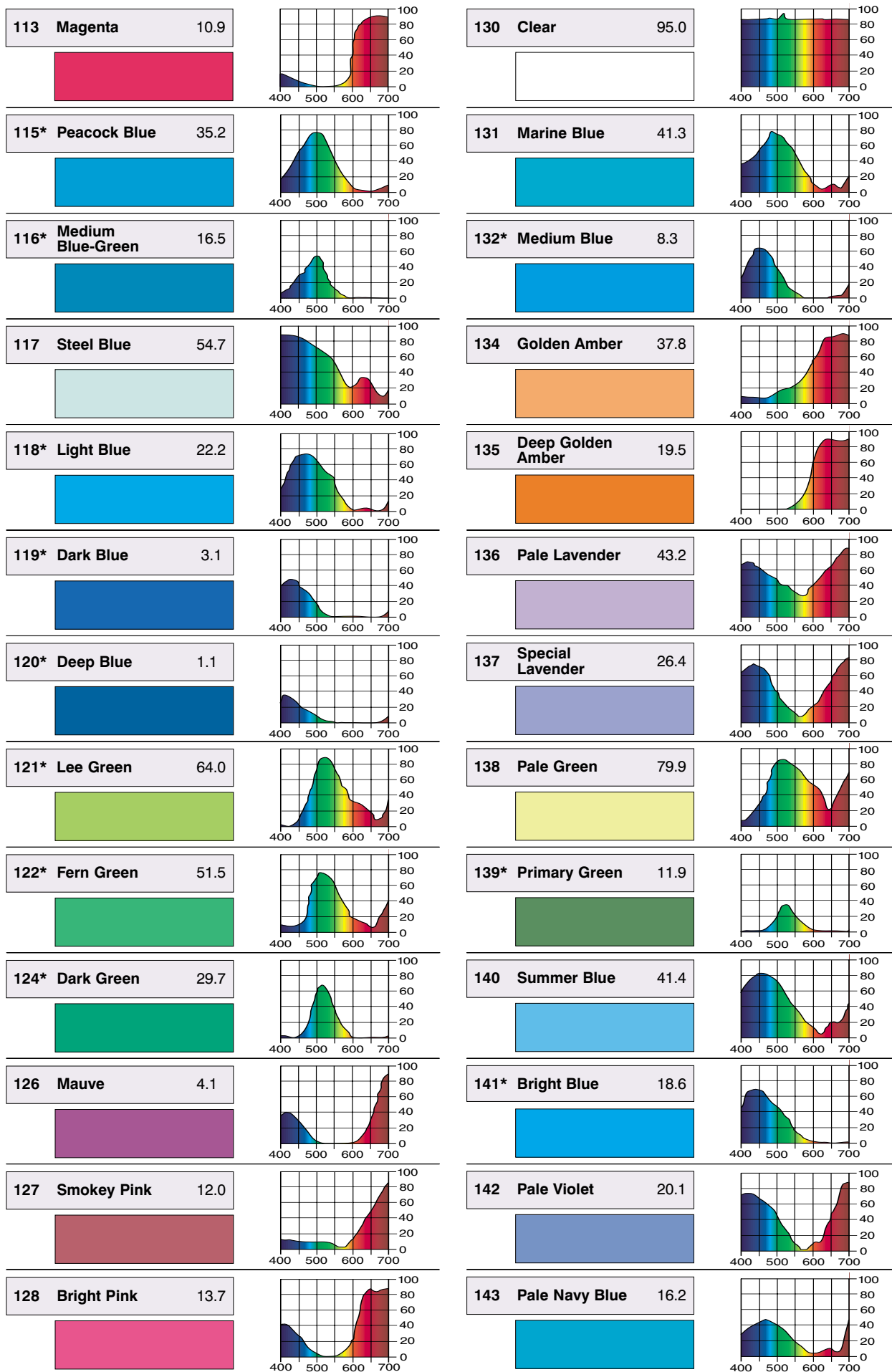


SPECTRAL CHARTS

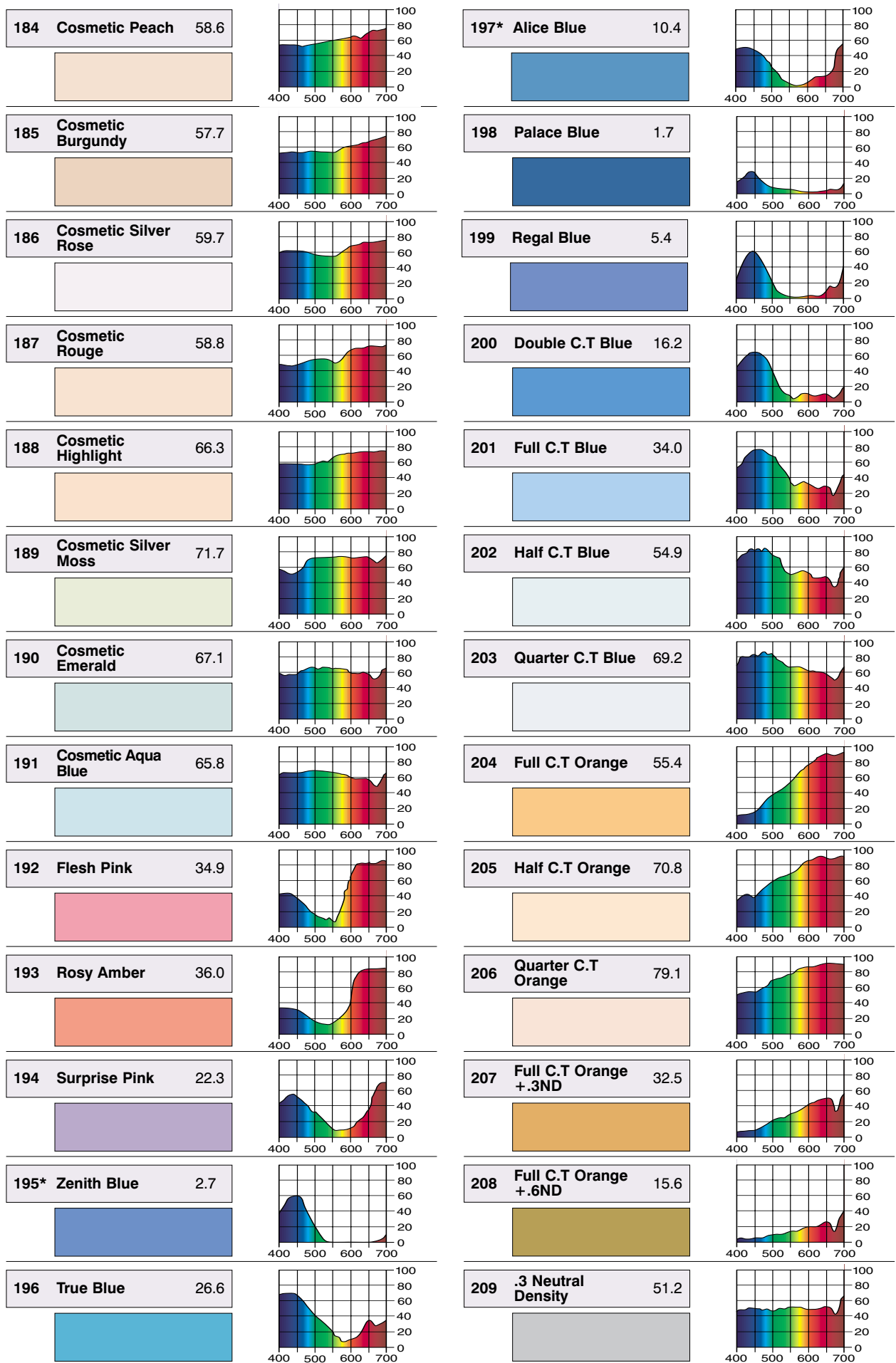


* Also available in High Temperature (HT) version



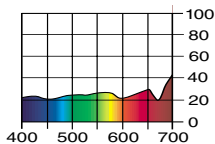


* Also available in High Temperature (HT) version

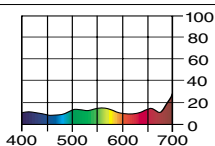
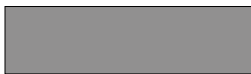


* Also available in High Temperature (HT) version

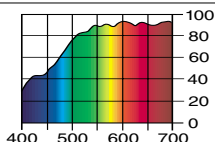
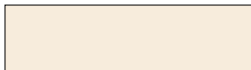
210 .6 Neutral Density 23.5



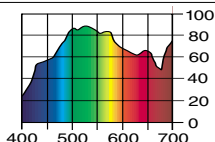
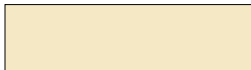
211 .9 Neutral Density 13.7



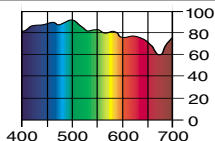
212 L.C.T. Yellow (Y1) 88.7



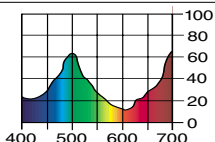
213 White Flame Green 80.0



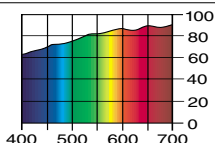
218 Eighth C.T Blue 81.3



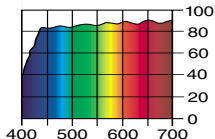
219 Lee Fluorescent Green 31.0



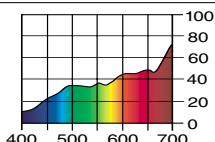
223 Eighth C.T Orange 85.2



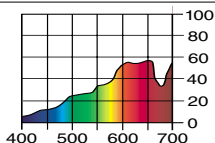
226 Lee UV 91.5



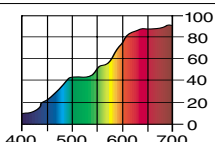
230 Super Correction L.C.T. Yellow 41.9



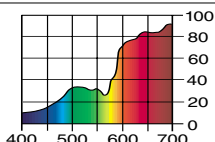
232 Super Correction W.F. Green 37.4



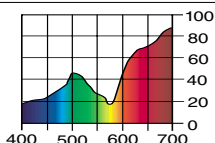
236 HMI to Tungsten 58.2



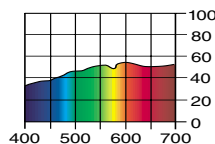
237 CID to Tungsten 38.5



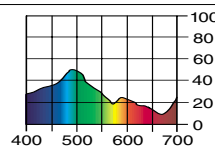
238 CSI to Tungsten 29.8



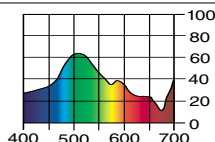
239 Polariser 50.0



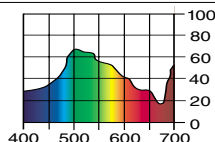
241 Lee Fluorescent 5700 Kelvin 27.4



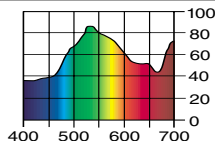
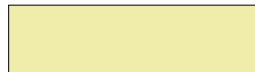
242 Lee Fluorescent 4300 Kelvin 37.3



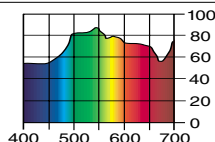
243 Lee Fluorescent 3600 Kelvin 45.7



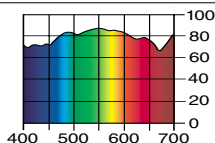
244 Lee Plus Green 74.2



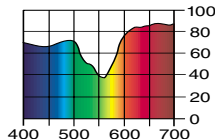
245 Half Plus Green 81.7



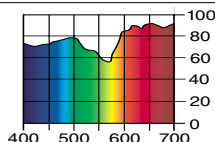
246 Quarter Plus Green 84.6



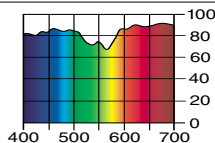
247 Lee Minus Green 57.8



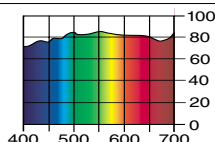
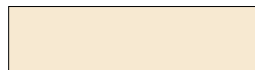
248 Half Minus Green 72.0



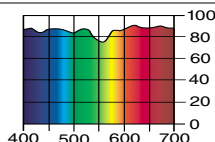
249 Quarter Minus Green 82.4



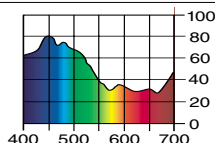
278 Eighth Plus Green 87.7

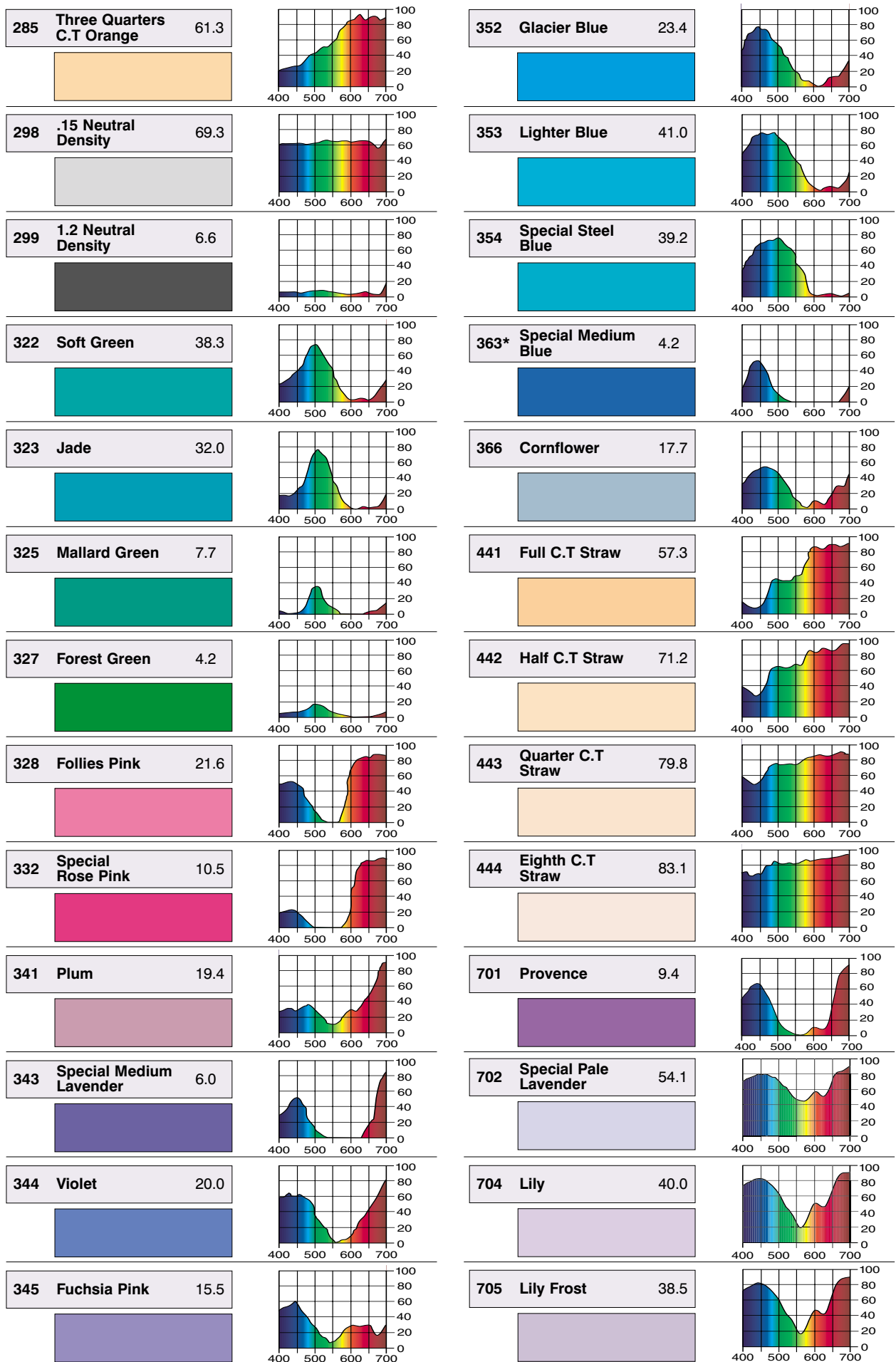


279 Eighth Minus Green 86.5



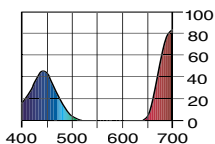
281 Three Quarters C.T Blue 45.5



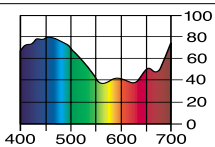
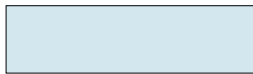


* Also available in High Temperature (HT) version

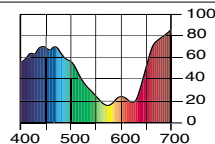
707* Ultimate Violet 2.0



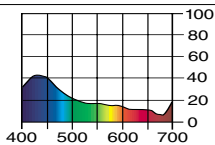
708 Cool Lavender 43.4



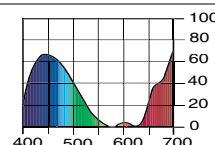
709 Electric Lilac 34.0



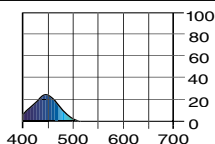
711 Cold Blue 14.4



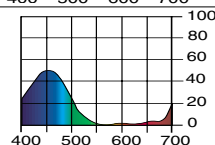
712 Bedford Blue 17.9



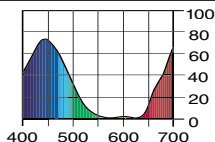
713* J.Winter Blue 1.1



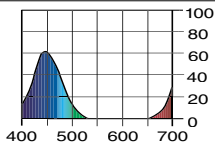
714 Elysian Blue 6.8



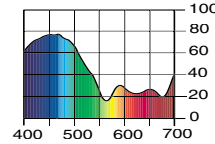
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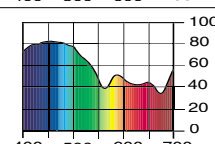
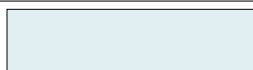
716* Mikkell Blue 3.9



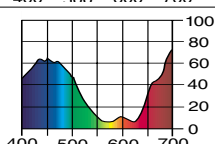
717 Shanklin Frost 37.6



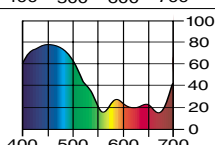
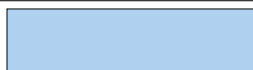
718 Half Shanklin Frost 56.3



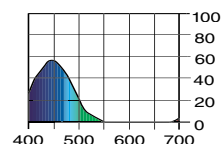
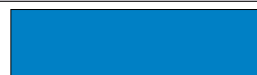
719 Colour Wash Blue 19.3



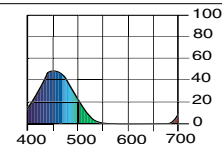
720 Durham Daylight Frost 33



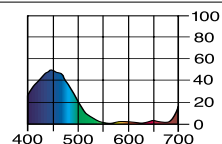
721* Berry Blue 6.5



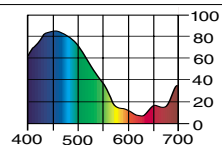
722 Bray Blue 5.2



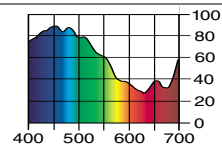
723 Virgin Blue 7.0



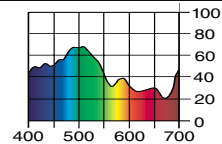
724 Ocean Blue 36.2



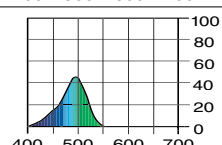
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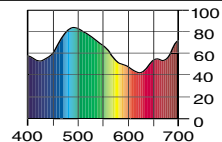
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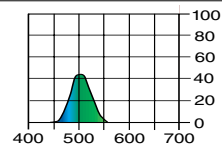
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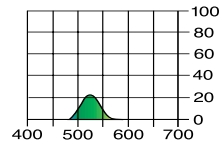
730 Liberty Green 67.5



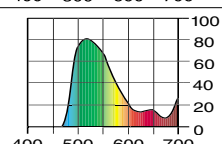
735 Velvet Green 11.5



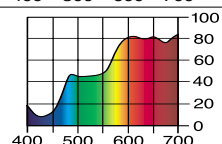
736 Twickenham Green 7.2



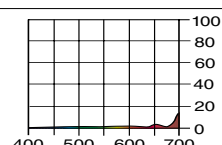
738* JAS Green 52.3

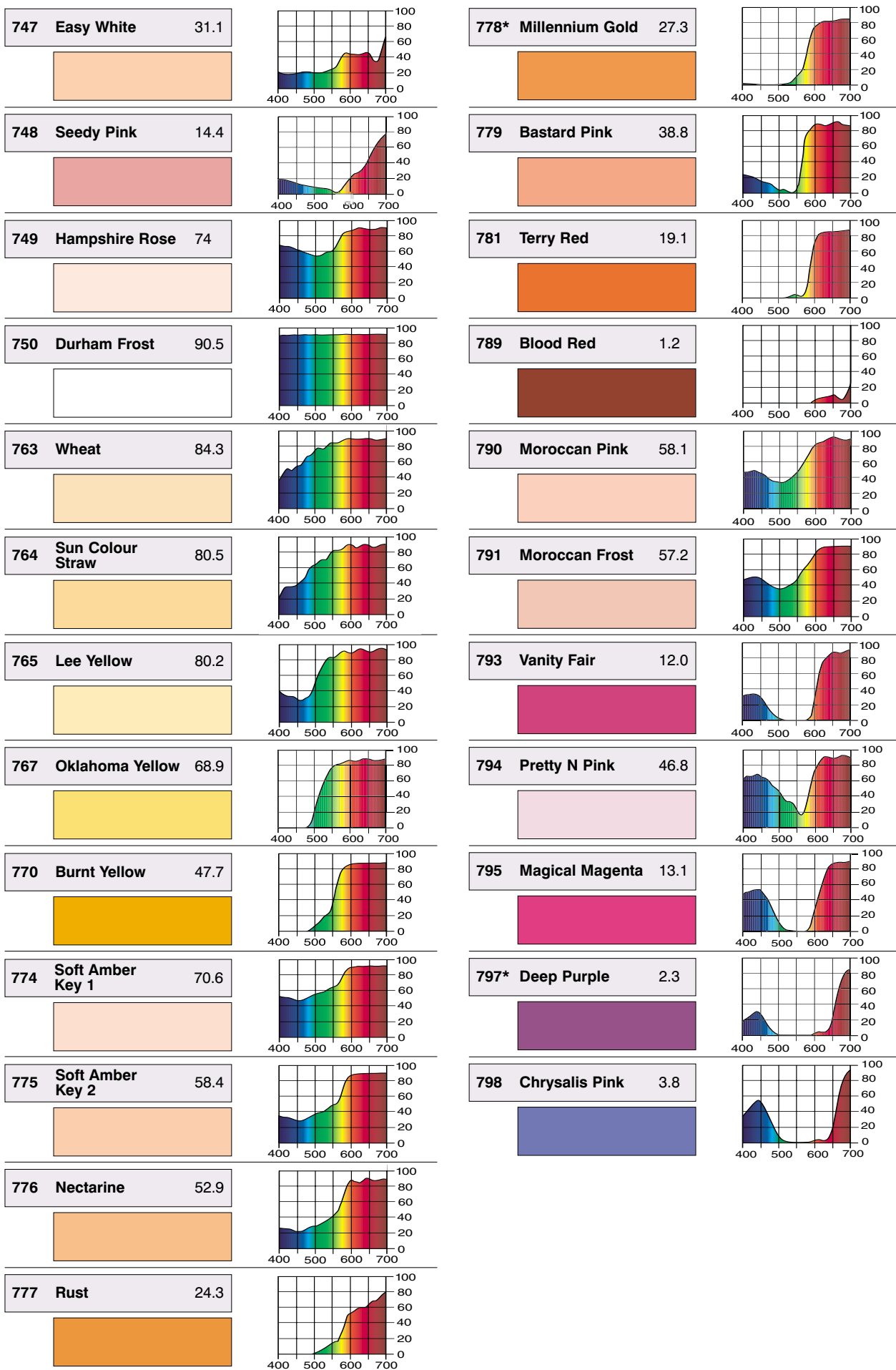


744 Dirty White 57.9



746 Brown 1.5





* Also available in High Temperature (HT) version

ARCHITECTURAL R A N G E

Building on their experience in film and theatre lighting, LEE Filters have introduced a range of lighting filter products specifically designed for use in the entertainment, leisure and architectural industries.

FLUORESCENT SLEEVES 26

DICHROIC GLASS FILTERS 27

FROSTED DICHROIC GLASS FILTERS 30



Lighting by John Decker / Richard Rutherford,
Rutherford Design

Fluorescent Sleeves

GET CREATIVE WITH FLUORESCENT LIGHTING!



T12, T5 and T8 sleeves

Any of the dynamic colours from the popular colour range are now available as pre-cut polyester inserts for use in fluorescent lighting. UV filters are also available.

PRE-ASSEMBLED SLEEVES

You choose the colour and leave the rest to us. Your chosen colour is cut to size, inserted into a clear sleeve and delivered to you ready to install.

The sleeves are made from a thermally stable, electrically insulating, polycarbonate. The ends of each sleeve are capped with an end cap; these end caps fix the sleeve to the fluorescent bulb making installation easy.

The sleeves are available in 0.61m (2'), 1.22m (4'), 1.53m (5') and 2.44m (8') lengths for T5, T8 and T12 diameter tubes.

SELF-ASSEMBLY

Alternatively Lee Filters can supply you with pre-cut rolls of your chosen colour along with the clear polycarbonate sleeves enabling you to assemble the inserts and sleeves yourself.

The pre-cut rolls are 7.62m (25') long and are available for T5, T8 and T12 diameter sleeves.



Glass Series

LEE Filters have designed a range of dichroic glass filters with permanent and semi-permanent lighting installations in mind. A palette of over 30 colours will meet the need of designers in a wide range of applications within the entertainment, leisure, and architectural industries.

DICHROIC GLASS COLOURS



Specifically designed to meet the demands of the lighting industry, the dichroic glass filters are produced by the vacuum deposition of layers of thin metal films onto a substrate of borofloat glass. This glass is 3.3mm thick and therefore extremely durable, and the production process creates spectacularly clear and pure colours. The glass filters will not fade and will withstand temperatures up to 371°C.

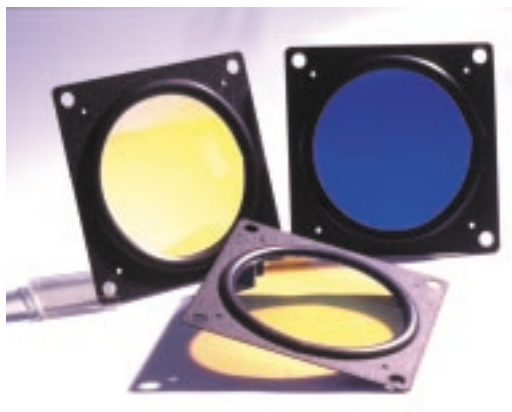
PROFESSIONAL COLOURS

Chosen after extensive research among design professionals, the Glass Series colour palette provides a range of 36 consistent, repeatable colours. This includes subtle, less saturated tones suitable for architectural use. Building on their expertise in film and theatre lighting, LEE has closely matched the glass series on polyester lighting filter material to provide a convenient swatch book. Available on request, lighting professionals can use this book to test colour schemes or demonstrate the effects of different filters.



GLASS FRAMES

These lightweight aluminium frames, available both plain and in colour, suit all the popular lighting fixtures in the entertainment, architectural and theatrical industries. An innovative silicone gasket completely surrounds the glass, providing protection from both mechanical and thermal shock. A safety mesh can be added where required. Frames from 7.5cm to 60cm across can be designed in any shape.



FRAMED GLASS

- 15.8cm Source Four
- 19cm Source Four PAR
- 25.4cm PAR 64

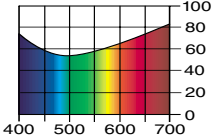
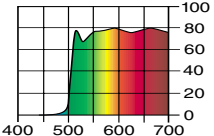
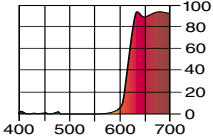
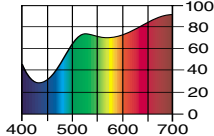
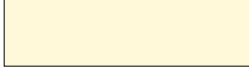
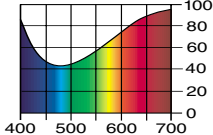
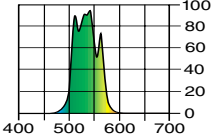
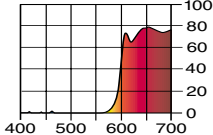
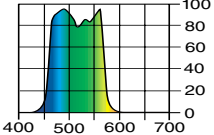
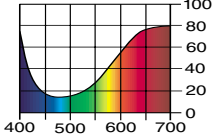
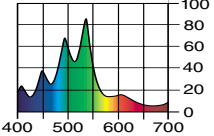
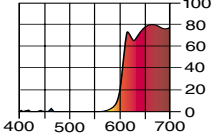
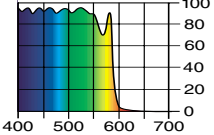
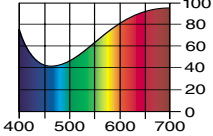
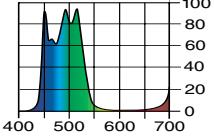
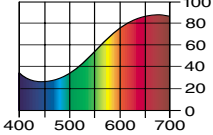
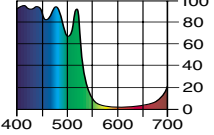
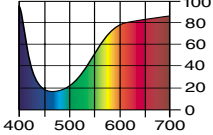
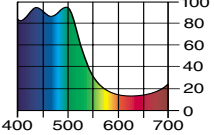
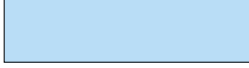
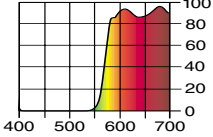
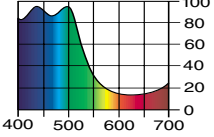
UNFRAMED GLASS

Unframed filters can be supplied for use in smaller units with integral holders

- 4.99cm MR16 (circular)
- 5cm square
- Custom sizes can be supplied - please ask for a quotation

Glass Series

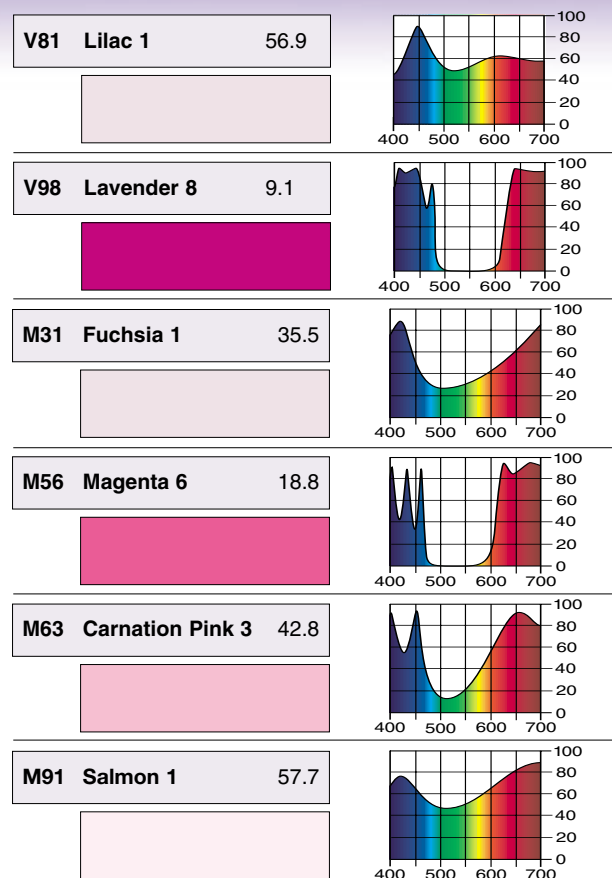
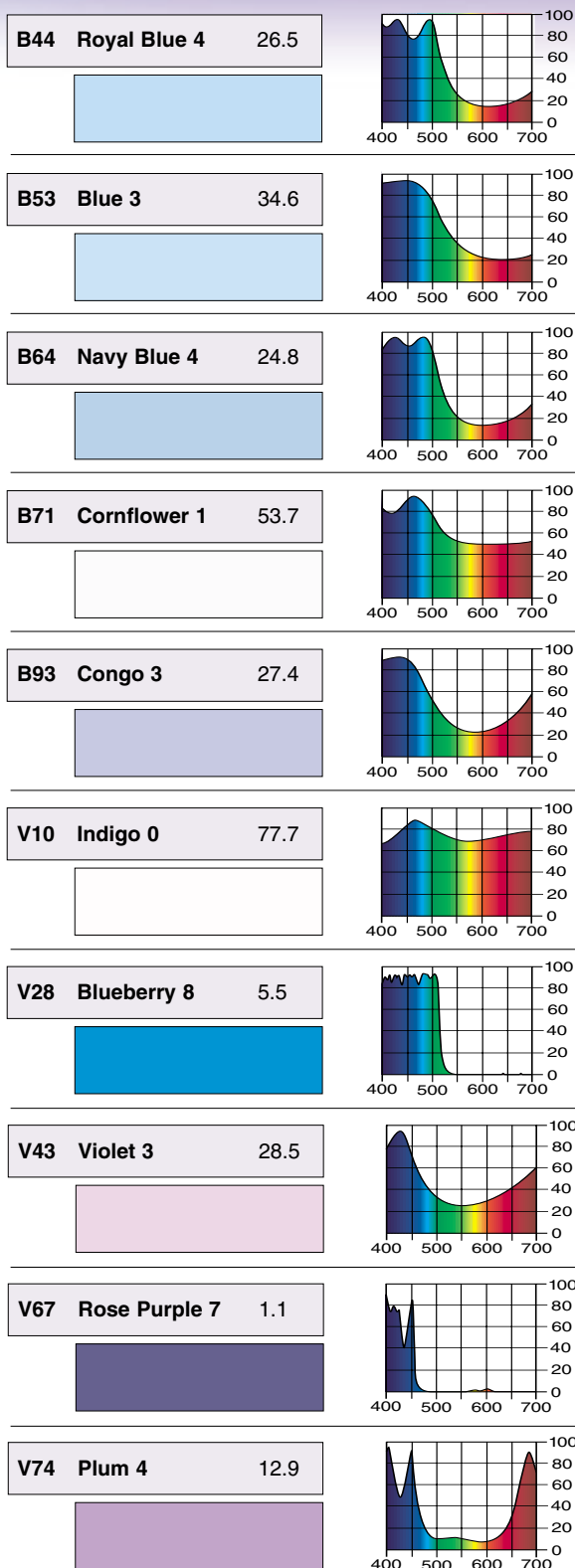
These colour patches are approximate representations of the colour obtained when tungsten light of 3200K is shone through the filter onto a white surface

PRODUCT	Transmission Y%	Wavelength - Nanometres	PRODUCT	Transmission Y%	Wavelength - Nanometres
(as measured to source 3200K)					
R50 Red 0	65.6		O89 Gold Amber 9	86.9	
		Transmission			Transmission
R99 Flame 9	15.0		Y02 Wheat 2	75.1	
		Transmission			Transmission
O01 Sunset 1	66.6		G28 Lime 8	34.8	
		Transmission			Transmission
O08 Sunset 8	20.8		G96 Jade 6	43.4	
		Transmission			Transmission
O14 Peach 4	54.3		C04 Blue Green 4	26.2	
		Transmission			Transmission
O18 Peach 8	23.0		C45 Turquoise 5	48.6	
		Transmission			Transmission
O32 Apricot 2	71.0		C47 Turquoise 7	17.6	
		Transmission			Transmission
O42 Nectarine 2	58.8		B06 Lagoon 6	23.2	
		Transmission			Transmission
O43 Nectarine 3	60.3		B14 Steel 4	24.1	
		Transmission			Transmission
O59 Orange 9	47.5		B24 Crystal Blue 4	31.7	
		Transmission			Transmission

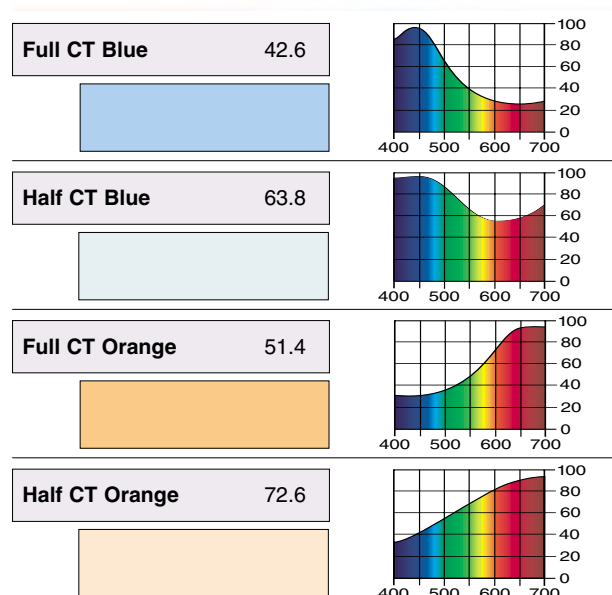
THE COLOUR CODE

The letter refers to a colour, and can be: (M), R, O, Y, G, C, B, V, or M, (R)

The first number is an indication of the hue within this colour, and can be 0 to 9. A low number indicates the hue of the colour is biased towards the preceding colour, and a high number indicates that the hue of the colour is biased towards the following colour. There is additionally a descriptive name associated with each hue of colour. The second number indicates the strength factor of the colour, with 0 being weak through to 9 being strong.



GLASS CORRECTION FILTERS



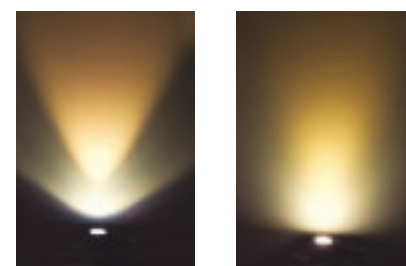
Glass Series

FROSTED DICHROIC GLASS COLOURS

The twelve most popular colours within the glass series are now available as a new range of Frosted Dichroic Glass filters, enabling the lighting designer to add colour and diffusion in the one filter. The diffusion within the filter softens the light beam giving a more even and graduated lighting effect.

Frosted Colour Dichroic Filters are colour-coated on one side by a vacuum deposition of metal film, and diffused on the other side (the no-colour version is simply diffuse texture on one side). The diffusion creates a frost very similar to LEE 251 Quarter White Diffusion, when the frosted side is placed on the fixture outwards, away from the lamp. The dichroic coating is able to withstand temperatures up to 371°C, allowing the colour to last for years without fading.

Frosted Dichroic Glass filters are available for MR16 (4.99cm) circular light fittings with an integral holder.



Unfrosted Glass

Frosted Glass

PRODUCT	Transmission Y%	Wavelength - Nanometres
(as measured to source 3200K)		
B14 Steel 4	24.1	
B53 Blue 3	34.6	
B71 Cornflower 1	53.7	
B93 Congo 3	27.4	
V74 Plum 4	12.9	
V81 Lilac 1	56.9	
M63 Carnation Pink 3	42.8	

PRODUCT	Transmission Y%	Wavelength - Nanometres
M91 Salmon 1	57.7	
O18 Peach 8	23.0	
O42 Nectarine 2	58.8	
O59 Orange 9	47.5	
Y02 Wheat 2	75.1	
NCF No Colour Frost		

Due to the frost effect the perceived transmission values will be less.

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CONVERSION

PRODUCT		DESCRIPTION	Kelvin	Mired Shift	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
Tungsten Light Conversion								
200	Double C.T.B.	Converts Tungsten to Daylight	3200K to 26000K approx	-274	16.2	0.79	0.179	0.155
201	Full C.T.B.	Converts Tungsten to Photographic Daylight	3200K to 5700K	-137	34.0	0.47	0.228	0.233
281	Threequarters C.T.B.	Converts Tungsten to Daylight	3200K to 5000K	-112	45.5	0.35	0.239	0.258
202	Half C.T.B	Converts Tungsten to Daylight	3200K to 4300K	-78	54.9	0.26	0.261	0.273
203	Quarter C.T.B.	Converts Tungsten to Daylight	3200K to 3600K	-35	69.2	0.16	0.285	0.294
218	Eighth C.T.B.	Converts Tungsten to Daylight	3200K to 3400K	-18	81.3	0.09	0.299	0.307
Daylight Conversion								
204	Full C.T.O	Converts Daylight to Tungsten Light	6500K to 3200K	+159	55.4	0.26	0.437	0.392
285	Threequarters C.T.O.	Converts Daylight to Tungsten Light	6500K to 3600K	+124	61.3	0.21	0.400	0.387
205	Half C.T.O.	Converts Daylight to Tungsten Light	6500K to 3800K	+109	70.8	0.15	0.374	0.364
206	Quarter C.T.O.	Converts Daylight to Tungsten Light	6500K to 4600K	+64	79.1	0.10	0.346	0.346
223	Eighth C.T.O.	Converts Daylight to Tungsten Light	6500K to 5550K	+26	85.2	0.07	0.328	0.332
207	Full C.T.O. +.3ND	Converts Daylight to Tungsten and reduces light 1 Stop	6500K to 3200K	+159	32.5	0.49	0.435	0.386
208	Full C.T.O. +.6ND	Converts Daylight to Tungsten and reduces light 2 Stops	6500K to 3200K	+159	15.6	0.81	0.442	0.394
441	Full C.T. Straw	Converts Daylight to Tungsten Light with yellow bias	6500K to 3200K	+160	57.3	0.24	0.426	0.407
442	Half C.T. Straw	Converts Daylight to Tungsten Light with yellow bias	6500K to 4300K	+81	71.2	0.15	0.370	0.378
443	Quarter C.T. Straw	Converts Daylight to Tungsten Light with yellow bias	6500K to 5100K	+42	79.8	0.10	0.338	0.349
444	Eighth C.T. Straw	Converts Daylight to Tungsten Light with yellow bias	6500K to 5700K	+20	83.1	0.08	0.323	0.332
Neutral Density								
298	.15ND	Reduces light 1/2 Stop, without changing colour			69.3	0.16	0.311	0.319
209	.3ND	Reduces light 1 Stop, without changing colour			51.2	0.29	0.310	0.319
210	.6ND	Reduces light 2 Stops, without changing colour			23.5	0.63	0.308	0.317
211	.9ND	Reduces light 3 Stops, without changing colour			13.7	0.86	0.310	0.322
299	1.2ND	Reduces light 4 Stops, without changing colour			6.6	1.18	0.308	0.315
Polariser								
239	Polariser	Made from 0.006" (150 micron) Triacetate. Reduces glare and reflection. Use with Lee Polarising Camera Filter.		+12.9	50.0	0.3	1	single sheet
					38.0	0.42	1 1/3	Axis Uncrossed (double sheet)
					<.05	>3	>10	Axis crossed (double sheet)

ACRYLIC PANELS

LEE Filters have supplemented their range of high quality products for the film and television industry by adding an all-new range of acrylic panels. These panels are manufactured specifically for LEE and exhibit the same degrees of colour accuracy and consistency as our range of lighting filters.

Specifically for use over windows for correcting daylight, these hardwearing panels can be cut to size and installed permanently, or used on location again and again.

Each panel is 2.44m by 1.22m (8' x 4') by 4mm thick, and weighs 9.6Kg.

The panels are available in a range of Colour Temperature Oranges and Neutral Densities, including combinations that are unique to LEE Filters.

PRODUCT	DESCRIPTION	Mired Shift	Transmission Y%
Daylight Conversion			
A204 Full C.T.O	Converts Daylight to Tungsten Light	+175	57.2
A205 Half C.T.O	Converts Daylight to Tungsten Light	+90	72.6
A207 Full C.T.O + .3ND	Converts Daylight to Tungsten and reduces light 1 Stop	+175	30.2
A208 Full C.T.O + .6ND	Converts Daylight to Tungsten and reduces light 2 Stops	+175	13.8

Neutral Density

A209 .3ND	Reduces light 1 Stop, without changing colour	0	48.0
A210 .6ND	Reduces light 2 Stops, without changing colour	0	22.2
A211 .9ND	Reduces light 3 Stops, without changing colour	0	13.1

CORRECTION

PRODUCT	DESCRIPTION	Transmission Y%	Absorption	Chromaticity x	Co-ordinates y
Arc Correction (Carbon-Regular)					
212 L.C.T. Yellow (Y1)	Reduces Colour Temperature of low carbon arcs to 3200K	88.7	0.05	0.340	0.363
213 White Flame Green	Corrects White Flame Carbon arcs by absorbing ultra violet	80.0	0.10	0.317	0.359
Arc Correction (Carbon-Colour Balanced)					
230 Super Correction L.C.T. Yellow	Converts Yellow carbon arc (of low colour temperature) to Tungsten	41.9	0.38	0.367	0.368
232 Super Correction W.F. Green to Tungsten	Converts White Flame arc to 3200K, for use with Tungsten film	37.4	0.43	0.423	0.385
Arc Correction (Compact Source)					
236 HMI (to Tungsten)	Converts HMI to 3200K, for use with Tungsten film	58.2	0.24	0.426	0.376
237 CID (to Tungsten)	Converts CID to 3200K, for use with Tungsten film	38.5	0.41	0.430	0.365
238 CSI (to Tungsten)	Converts CSI to 3200K, for use with Tungsten film	29.8	0.53	0.372	0.331
Fluorescent Correction System					
241 Lee Fluorescent 5700 Kelvin	Converts Tungsten to Fluorescent light of 5700K (cool white/daylight)	27.4	0.56	0.231	0.290
242 Lee Fluorescent 4300 Kelvin	Converts Tungsten to Fluorescent light of 4300K (white)	37.3	0.43	0.262	0.346
243 Lee Fluorescent 3600 Kelvin	Converts Tungsten to Fluorescent light of 3600K (warm white)	45.7	0.34	0.286	0.370
219 Lee Fluorescent Green	General Tungsten to Fluorescent correction for use when colour temperature is unknown	31.0	0.51	0.219	0.334
The above correction filters are to be used in conjunction with an appropriate Lee FL-B Fluorescent to Tungsten or Lee FL-D Fluorescent to Daylight camera filter.					
Plus Green - Used on Daylight and Tungsten light sources to provide green cast when used in conjunction with discharge lighting.					
244 Lee Plus Green	Approximately equivalent to CC30 Green camera filter	74.2	0.12	0.324	0.388
245 Half Plus Green	Approximately equivalent to CC15 Green camera filter	81.7	0.08	0.319	0.355
246 Quarter Plus Green	Approximately equivalent to CC075 Green camera filter	84.6	0.07	0.315	0.337
278 Eighth Plus Green	Provides very slight green cast	87.7	0.06	0.313	0.327
The above correction filters are to be used in conjunction with an appropriate Lee FL-B Fluorescent to Tungsten or Lee FL-D Fluorescent to Daylight camera filter.					
Minus Green - Used on lighting to eliminate unwanted green cast created by discharge light sources on film.					
247 Lee Minus Green	Approximately equivalent to CC30 Magenta camera filter	57.8	0.22	0.325	0.279
248 Half Minus Green	Approximately equivalent to CC15 Magenta camera filter	72.0	0.14	0.317	0.297
249 Quarter Minus Green	Approximately equivalent to CC075 Magenta camera filter	82.4	0.08	0.312	0.307
279 Eighth Minus Green	Provides very slight correction	86.5	0.06	0.312	0.311
Ultra Violet Absorption					
226 Lee UV	Transmission of less than 50% at 410nms	91.5	0.04	0.314	0.321

REFLECTION MEDIA

PRODUCT	DESCRIPTION	SPECIAL NOTE
Reflector		
All available in 6.77m x 1.52m (22'3"x60") rolls		
271 Mirror Silver	Used to bounce light with either hard or soft reflection	Produces hard reflection. White backed
272 Soft Gold Reflector		Produces soft reflection. White backed. Mired Shift + 45
273 Soft Silver Reflector		Produces soft reflection. White backed.
274 Mirror Gold		Produces hard reflection. White backed. Mired Shift +45
Scrim		
270 Lee Scrim	Perforated reflector producing a very soft reflection. Silver on one side and black on reverse	Stop value 1½ when used as a filter, Transmission 36%.
275 Black Scrim	A flexible perforated material that is black on both sides. Can be used on windows to reduce light intensity, without causing any unwanted reflections	Stop value 1½ when used as a filter, Transmission 36%.

PROTECTION MEDIA

PRODUCT		DESCRIPTION	Transmission Y%	Absorption	Chromaticity Co-ordinates x y	
Heat Shield						
269	Lee Heat Shield	A transparent flexible film used to extend the life of a filter. The shield should be placed between the light source and the filter allowing distance between the shield and the filter. Air should be allowed to circulate freely around the LEE HEAT SHIELD	91.0	0.04	0.311	0.317
Foil						
280	Black Foil	Used to reduce unwanted light spill or to control unwanted light reflection	Available in two roll sizes 7.62m x 0.61m (25' x 24") 15.24m x 0.30m (50' x 12")			

DIFFUSION MEDIA

Non-Flame Retardant

PRODUCT	DESCRIPTION	Transmission %	Stop value	Special note
Tough Spun				
214 Full Tough Spun	Softens light, reduces intensity. Manufactured from non-woven Polyester	18	2 ¹ / ₂	Rolls only 7.62 x 0.91m (25' x 3')
215 Half Tough Spun		36	1 ¹ / ₂	
229 Quarter Tough Spun		60	3/ ₄	

Diffusion

216 White Diffusion	Used for soft light effects. Manufactured on a tough Polyester base in a range of seven strengths	36	1 ¹ / ₂	Rolls also available in 1.52m (60") width
416 Three Quarter White Diffusion		50	1	
250 Half White Diffusion		60	3/ ₄	
450 Three Eighth White Diffusion		63	2/ ₃	
251 Quarter White Diffusion		80	1/ ₃	
252 Eighth White Diffusion		>85	<1/ ₄	
452 Sixteenth White Diffusion		>85	<1/ ₄	
400 LeeLux	A dense white diffuser used for soft light effects (125 micron polyester base)	36	1 ¹ / ₂	
217 Blue Diffusion	As White Diffusion but with the addition of eighth CTB	36	1 ¹ / ₂	1/8 C.T. Blue
228 Brushed Silk	Directional soft light effect used for scattering light in one direction only	60	3/ ₄	

Grid Cloth

430 Grid Cloth	A waterproof textile/fabric diffusion that is reinforced to allow it to be sewn or grommetted - ideal for attaching to large frames. Comes in three weights	18	2 ¹ / ₂	Rolls only 1.37m x 7.62m (54" x 25')
432 Light Grid Cloth		30	1 ³ / ₄	
434 Quarter Grid Cloth		60	3/ ₄	
460 Quiet Grid Cloth	A textile/fabric diffusion that is reinforced to allow it to be sewn or grommetted - ideal for attaching to large frames, but that is quiet when used in windy conditions outdoors. Comes in three weights	15	2 ³ / ₄	Rolls only 1.37m x 7.62m (54" x 25')
462 Quiet Light Grid Cloth		22.5	2 ¹ / ₄	
464 Quiet Quarter Grid Cloth		47.5	1	

Frost

224 Daylight Blue Frost	Frosts are used for soft light effects and can include tungsten correction or neutral density	22	2 ¹ / ₄	Full C.T. Blue
225 Neutral Density Frost		25	2	.6 Neutral Density

PRODUCT	DESCRIPTION	Transmission %	Stop value	Special note
Frost				
255 Hollywood Frost	Light frost effect - softens edges	83	<1/3	
253 Hampshire Frost	Light frost effect	>85	<1/4	
256 Half Hampshire Frost	Extra Light frost effect	>85	<1/4	
257 Quarter Hampshire Frost	Extra Light frost effect	>85	<1/4	
258 Eighth Hampshire Frost	Extra Light frost effect	>85	<1/4	
410 Opal Frost	Used for softening spotlight beam edges without altering shape	71	1/2	
420 Light Opal Frost	Similar characteristics to Opal Frost, but less diffuse	>85	<1/4	

Flame Retardant

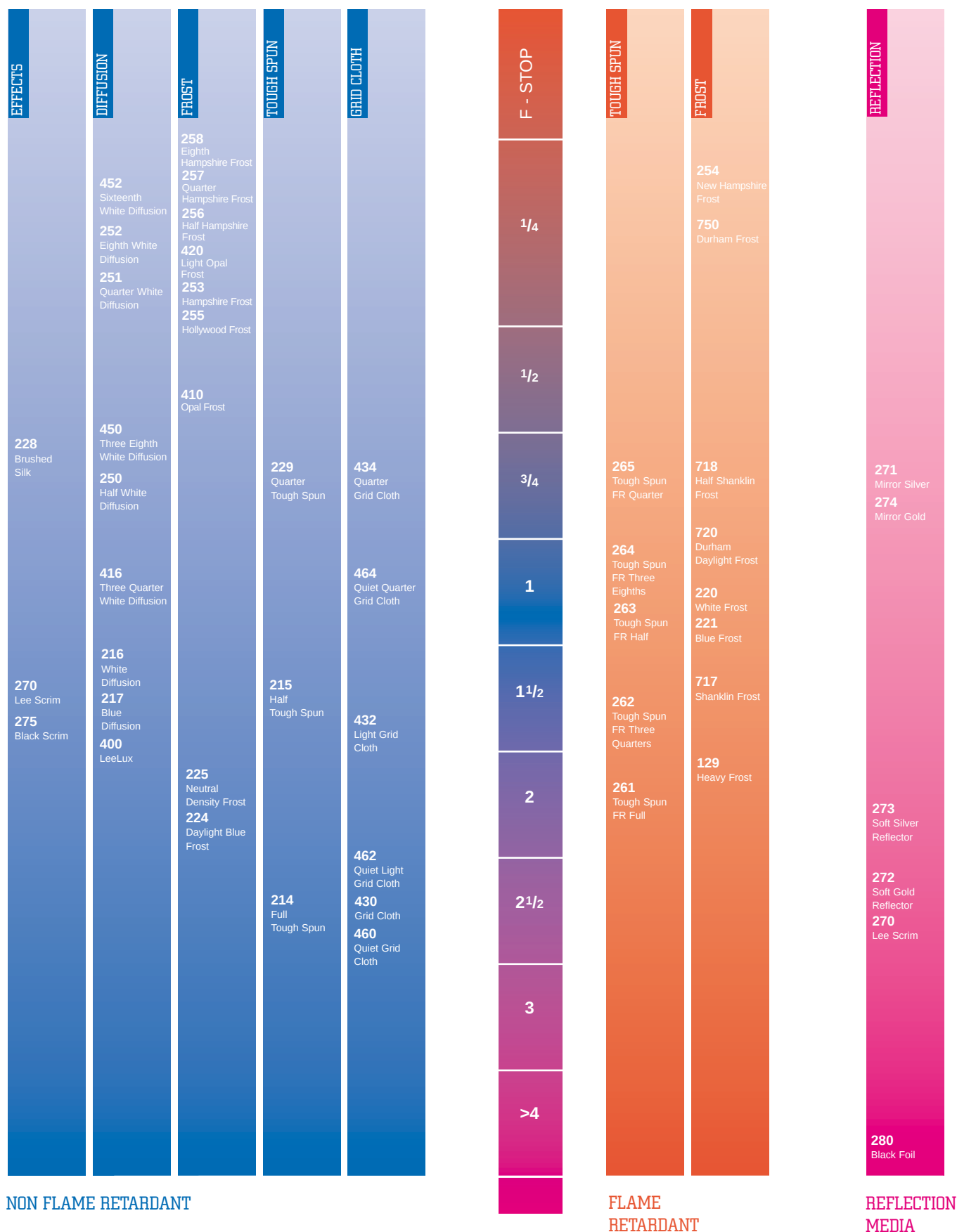
PRODUCT	DESCRIPTION	Transmission %	Stop Value	Special note
Frost				
129 Heavy Frost	Strong diffuser, eliminates nearly all shadows	25	2	
220 White Frost	Used for soft light effects	39	1 1/3	
221 Blue Frost	Used for soft light effects with the addition of 218	42	1 1/3	1/8 C.T. Blue
254 New Hampshire Frost	Used to soften the edges of spotlight beams, and to reduce the blue fringe	>85	<1/4	HT only (For sizes, see chart inside back cover)
750 Durham Frost	A frost that almost completely softens shutter edges and removes hot spots	>85	<1/4	
720 Durham Daylight Frost	Smooths PAR or flood washes of large areas. Useful for houselights; good for entrances from natural light	32.3	12/3	Full C.T. Blue
717 Shanklin Frost	201 with frost to soften the beam of profile units	37	1 1/2	Full C.T. Blue
718 Half Shanklin Frost	202 with frost to soften the beam of profile units	56	3/4	Half C.T. Blue

Tough Spun

261 Tough Spun FR - Full	Non yellowing flame retardant spun polyester material in five densities to give better light control	25	2	Rolls only 7.62 x 1.22m (25' x 4')
262 Tough Spun FR - 3/4		32	1 2/3	
263 Tough Spun FR - 1/2		41	1 1/3	
264 Tough Spun FR - 3/8		50	1	
265 Tough Spun FR - 1/4		60	3/4	

DIFFUSION

This chart has been designed to enable you to quickly establish the degree of diffusion you will require for any particular cinematographic, photographic or stage lighting situation. Each type of diffusion and reflection media is listed relative to its approximate f-stop increase (on the central band) as a guide only.



Original Source

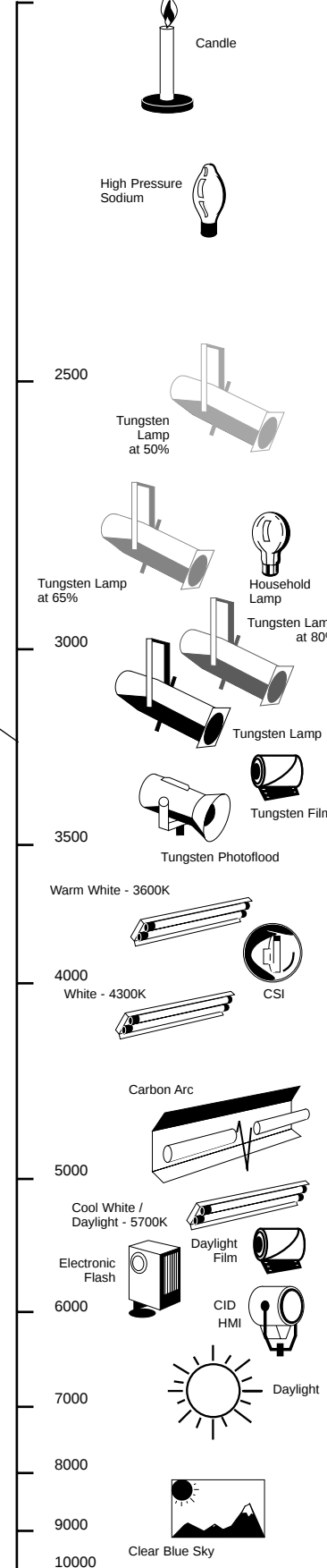
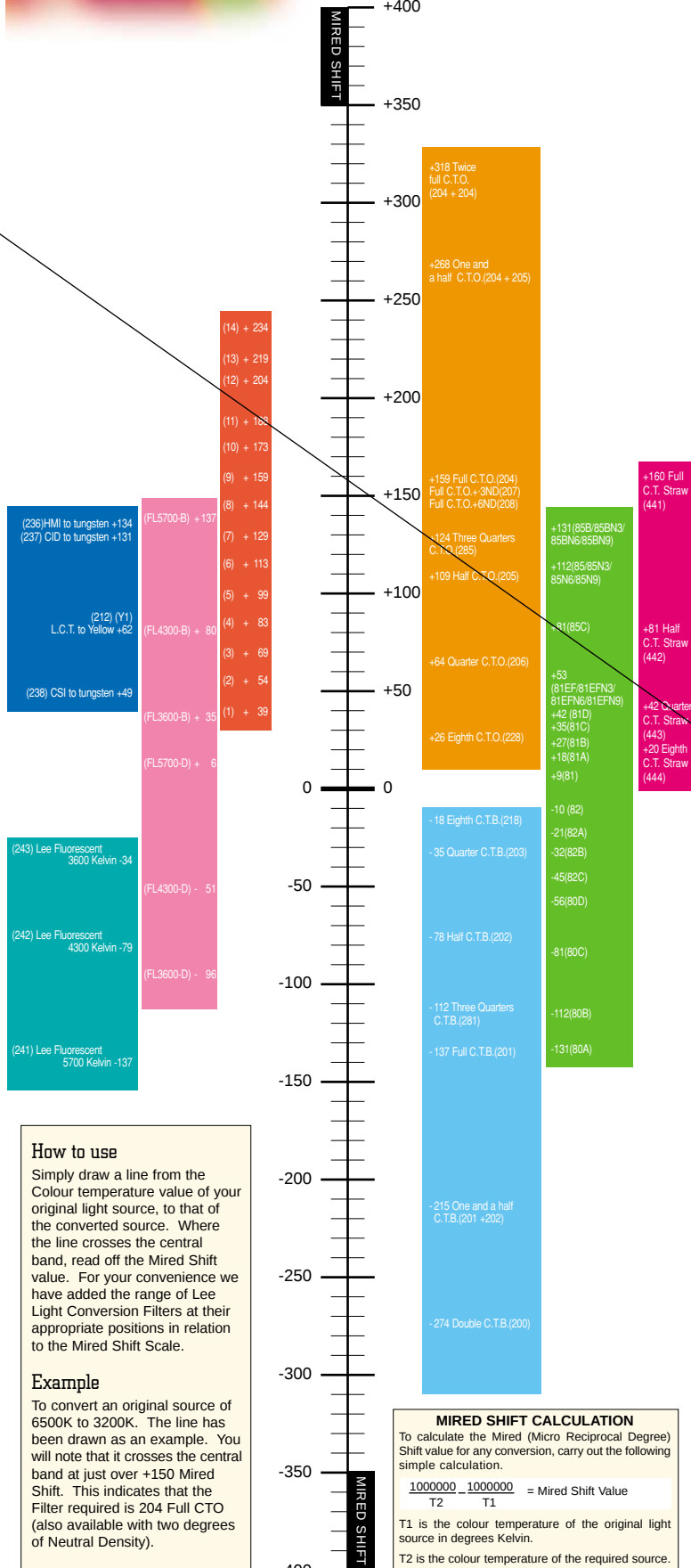
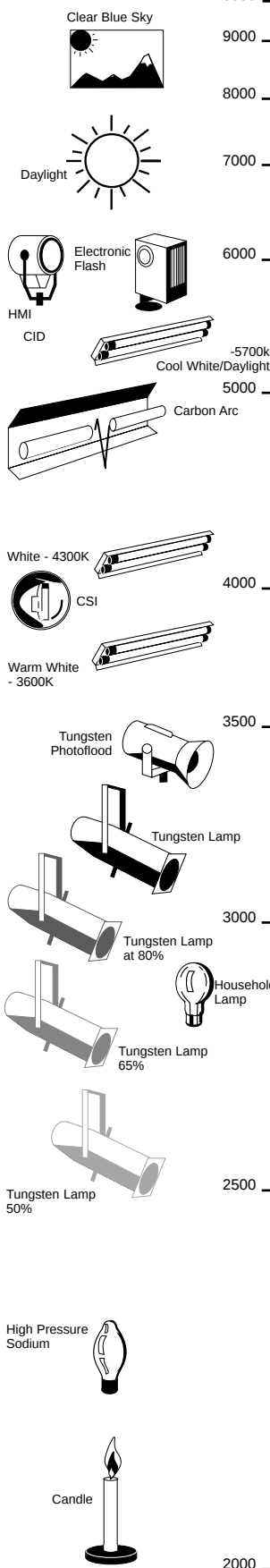
Kelvin

CONVERSION

+

Kelvin

Converted Source



- Daylight Conversion
- Tungsten Light Conversion
- Coral
- Tungsten to Fluorescent Conversion
- Arc Correction
- Colour Temperature Adjustment inc Neutral Density
- C. T. Straws
- Fluorescent Light Conversion

LEE Filters

COLOUR MAGIC

The Lee Filters **colourMAGIC** series is a set of eight individual packs each containing a selection of 12 filters (250mm x 300mm) that relate to a particular aspect of lighting and studio work. **colourMAGIC** offers an opportunity to get to know the performance of the various filters on offer in a cost effective way.

original pack

create 50 colours from 12

No.	Filter
101	Yellow
116	Medium Blue Green
118	Light Blue
122	Fern Green
126	Mauve
128	Bright Pink
129	Heavy Frost
144	No Colour Blue
179	Chrome Orange
180	Dark Lavender
192	Flesh Pink
228	Brushed Silk

arc correction pack

a selection of technical filters for colour correction

No.	Filter
205	Half C. T. O.
206	Quarter C. T. O.
219	Lee Fluorescent Green
241	Lee Fluorescent 5700K
242	Lee Fluorescent 4300K
243	Lee Fluorescent 3600K
244	Full Plus Green
245	Half Plus Green

saturates pack

a selection of strong and vibrant colours for more intense colour combinations

No.	Filter
027	Medium Red
101	Yellow
105	Orange
116	Medium Blue Green
120	Deep Blue
126	Mauve
129	Heavy Frost
135	Deep Golden Amber
139	Primary Green
181	Congo Blue
182	Light Red
332	Special Rose Pink

studio pack

a range of technical filters for basic light source control

No.	Filter
201	Full C. T. B.
281	Three Quarters C. T. B.
204	Full C. T. O.
285	Three Quarters C. T. O.
298	0.15 Neutral Density
209	0.3 Neutral Density
210	0.6 Neutral Density
211	0.9 Neutral Density

tint pack

lighting filters which complement the original colour magic pack to create alternative shades

No.	Filter
002	Rose Pink
048	Rose Purple
088	Lime Green
100	Spring Yellow
108	English Rose
131	Marine Blue
157	Pink
164	Flame Red
174	Dark Steel Blue
228	Brushed Silk
250	Half White Diffusion
344	Violet

studio plus pack

a range of technical filters for fine control of light sources

No.	Filter
202	Half C. T. B.
203	Quarter C. T. B.
218	Eighth C. T. B.
205	Half C. T. O.
206	Quarter C. T. O.
223	Eighth C. T. O.

complementary pack

a starter pack for exploring the basics of colour addition and subtraction

No.	Filter
164	Flame Red
124	Dark Green
119	Dark Blue
176	Loving Amber
174	Dark Steel Blue
138	Pale Green
101	Yellow
115	Peacock Blue
128	Bright Pink
007	Pale Yellow
117	Steel Blue
035	Light Pink

light tint pack

paler shades to give more subtle effects and to filter white light from the lamp

No.	Filter
003	Lavender Tint
007	Pale Yellow
009	Pale Amber Gold
035	Light Pink
061	Mist Blue
063	Pale Blue
103	Straw
154	Pale Rose
162	Bastard Amber
169	Lilac Tint
213	White Flame Green
255	Hollywood Frost



QUICK ROLLS

Any Colour & Width

Quick Rolls enable you to have a roll of any colour from the popular colour range* in any width, saving you both time and money. The Quick Roll is pre-cut to your chosen width, so the gel is ready to frame in just one cut, putting an end to wasted gel on the cutting room floor.

Quick Rolls are sold by the 1" (2.54cm) up to a maximum width of 46" (1.16m). Our standard roll size width is 48" (1.22m). All Quick Rolls are 25' (7.62m) long.

An average cost saving of between 20-30% can be obtained using Quick Rolls compared to buying individual sheets.

** Please note that HT is not available as Quick Rolls*



TRIPLE AWARD WINNING PRODUCT!

- 2000 LDI Awards
- 2001 ESTA Dealers' Choice Award
- 2001 EDDY Awards

POSTERS AND CUTTERS

To help end-users achieve the optimum benefits from Lee Filters, the company offers a series of A1 size posters covering essential filtration topics, together with comprehensive product listings.

Additionally, freely available are filter cutters which enable rolls and sheets to be cut down to the required size without fuss or the use of open blades.



SWATCHES

In order to give our end-users the highest possible levels of information and support, Lee Filters makes available a package of technical information which is second to none.

Uniquely, the company produces a range of swatch books, each individually developed to serve a specific purpose.

They are:

The Designers' Edition - a unique swatch book that contains all of the filters in chromatic groupings, along with an additional numeric index.

The Cinematographers' Edition - which is a larger format swatch with grades of technical filters most frequently used in film;

The Master Edition* - very large format swatch of lighting products;

The Venetian Edition* - a collapsible poster that is made up of a series of slats which will fold together like a concertina. Each slat has small windows cut out of it, into which samples of LEE filters have been placed, allowing the whole range to be viewed simultaneously;

The Pocket Edition - a handy sized listing of all lighting filter products, together with a comparator section which identifies Lee Filters' equivalents to other manufacturers' products.

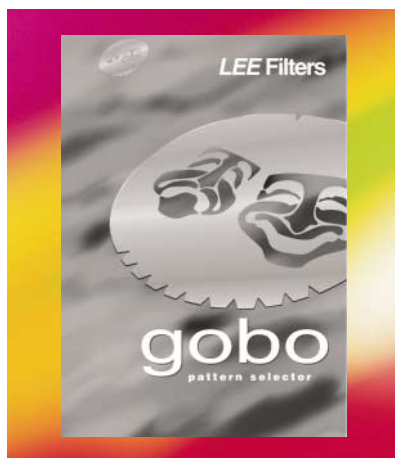
* These swatches are not available free of charge.



WEBSITE

Information on all LEE Filters products can be found on our website:
www.leefilters.com

GOBOS



The Lee Filters gobo catalogue contains more than 200 patterns, many of them new designs developed to complement existing ranges and to broaden the range available for today's (and tomorrow's) productions.

Lee offers a poster featuring all current gobo patterns, and this is ideal for the office or studio.

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LEE Filters

forty three



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