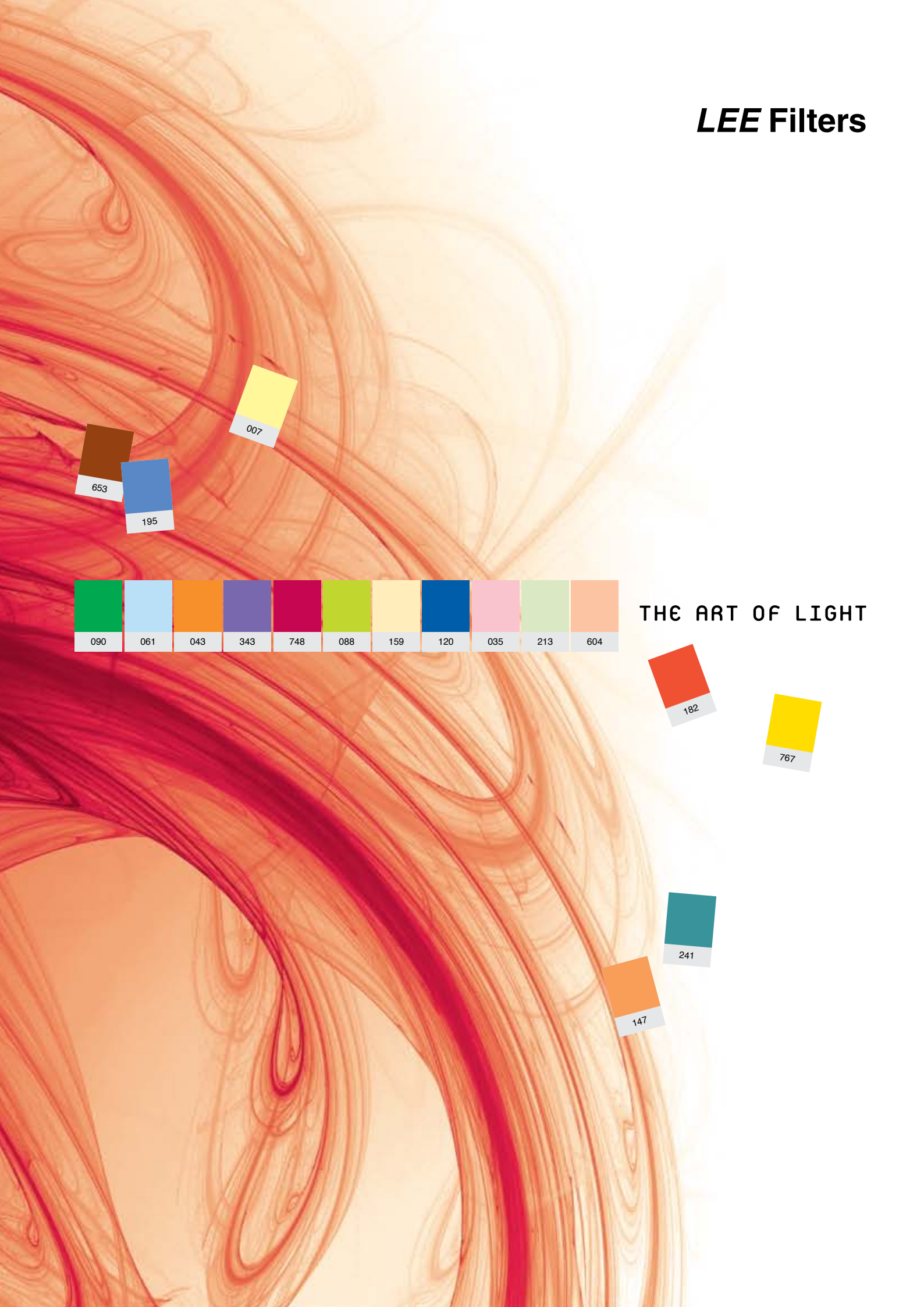
LEE Filters


007
653
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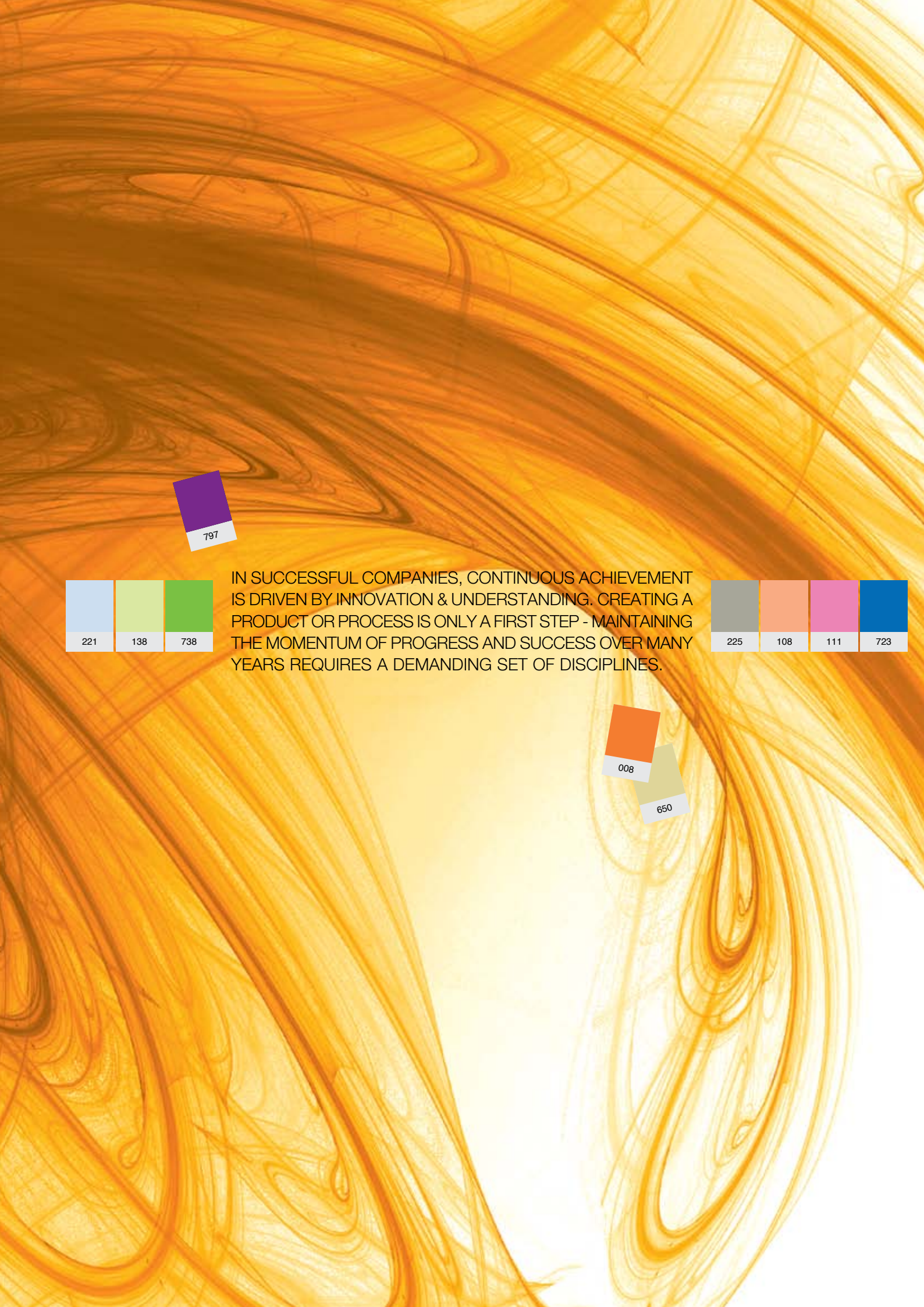
THE ART OF LIGHT
182
767
241
147



IN SUCCESSFUL COMPANIES, CONTINUOUS ACHIEVEMENT IS DRIVEN BY INNOVATION & 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.

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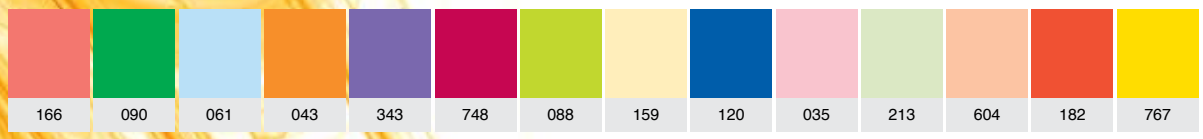


021

an investment in the future

Answering the need for a better product

It was the demand from the movie production industry for something better that originally led to the birth of LEE Filters, and in the subsequent forty years, our company has always prided itself on designing and producing products that are truly better than anything else available.

Back in the late 1960s, leading Cinematographer David Holmes gathered research and manufacturing expertise from around the globe, and pioneered the use of modern polymeric materials to make filters for film and TV production, theatres and entertainment venues. Our expertise and experience in film and theatre lighting subsequently led us to expand into other areas, including a complete range of filters for architectural use, both indoors and out.

Quality is everything

Filters select particular colours of light by absorbing and attenuating parts of the spectrum, and consistent and repeatable performance is vital to the user.
The whole filter making process is carried out at our factory in Andover, the company's UK headquarters, so that we have full control of the quality of all the raw materials, and can ensure that the coating process is carried out to meticulous quality standards.

Directors of Photography worldwide rely on the consistent and repeatable performance of LEE Filters.

From the haunted house to the roller coaster, theme parks worldwide have always depended on the endless effects created with LEE Filters.

Guarding a reputation

We rapidly gained our reputation as the world's leading manufacturer of lighting filter products, but we have only maintained that jealously guarded position over the decades by investing heavily in research. The production of lighting filters is both an art and a science, and we work closely with the film-making artists and bring the latest scientific developments to bear on making the wishes of these artists come true.

The Film-makers' Choice

Our never ending passion for providing the best possible product has led us to become the supplier of choice, to leading film and TV programme makers around the world. Countless movies have been lit using LEE Filters, and many companies wouldn't dream of using anything else, recognising that the results of investing in a movie can be significantly enhanced by choosing the world's best filters.

Making a rewarding investment

The company culture is one of continuous research and development, always searching for newer and better materials and more effective manufacturing techniques and processes. This culture, backed by significant investments in machinery, ensures that we provide the ultimate in performance, availability, reliability and longevity.

technical excellence

Keeping control - Everything under one roof

Our manufacturing facility is known worldwide as the source of the world's highest quality lighting filters. The site is home to our Research and Development Laboratory, where expert scientists and technicians have been responsible for much of the improvement in filter technology over recent decades. Our exacting quality control ensures that lighting directors can rely on filters that exhibit consistent colour performance.

The need for continuous R&D

Long-term improvements in filter design and technology have come about because we have developed a deep understanding of the scientific and technical principles which impact on filter performance. The relationships between light sources and filters are often complex, and need an expert knowledge of both the physics of illumination and of materials science, together with long experience of what actually works practically on a 'shoot'.

Nothing stands still in lighting and filter technology, and our researchers have to ensure that they stay at the cutting-edge of new developments in the materials which are the basis of the filters, and that they understand the key implications of new lighting technologies and techniques that are coming along.

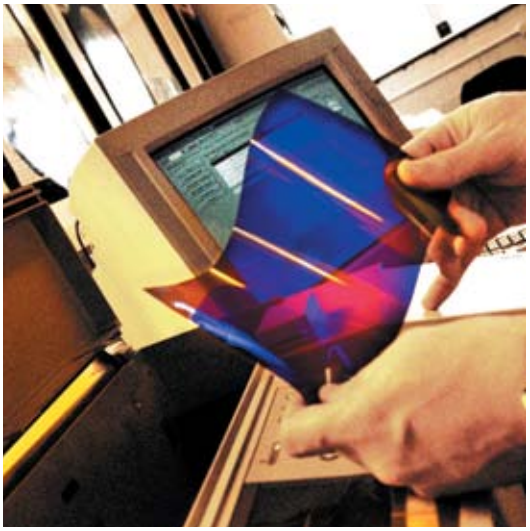
From Broadway to the West End and from the stage to the box office LEE Filters provide the tools to get the job done.

Branching out

Our experience and expertise in film and theatre lighting has enabled us to branch out into designing and making filters for various 'architectural' lighting applications. These include the popular coloured fluorescent sleeves, a clear polycarbonate sleeve with a coloured polyester insert. Available in a wide range of colours, these are used by architects in shopping malls, restaurants, clubs, bars and hotel buildings around the world.

We also make glass filters with a dichroic coating for MR16 and PAR16 lights which are increasingly being used for ambient lighting. Filters for these tiny lamps, which provide a lot of heat as well as light, have traditionally used strong colours, which are often unsuitable for homes and offices. Our research team have come up with a whole range of filters with very pale, subtle colours which remove the harsh pure whites from a room, without giving a strong unwanted colour wash.

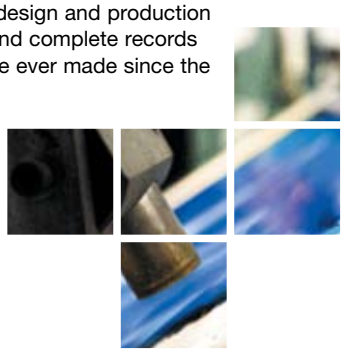
Every LEE Filter is carefully designed to fulfil a specific function, and its parameters are precisely adjusted to suit the need of the user. Sophisticated technical measurement and monitoring equipment, including computer-controlled spectrophotometers, are used not only during the manufacturing process, but also to check that every filter leaving the factory meets the precise parameters to which it was designed.



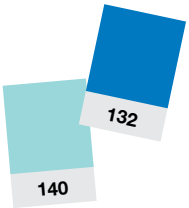
A policy of continuous improvement

Filter manufacturing entails the use of high precision machinery to coat a fast-moving roll of polyester film with a precise accurate thickness of dyestuff. The company has invested in new plant as required, to ensure that it produces nothing less than the best. The complex machinery, much of which has actually been designed by or for LEE Filters, is carefully maintained and operated by skilled technicians, many of whom are proud to have been part of the LEE Filters success story for many years.

Because everything is effectively under one roof, we can ensure that all aspects of design and production are constantly under control, and complete records exist of every filter that we have ever made since the factory opened.



Theatre productions rely on LEE Filters, who can advise on the best filtering solutions for different stage plays and musicals.



quality control

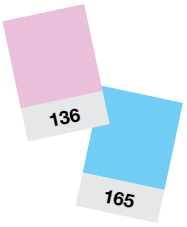
At LEE Filters, quality control is built in to our whole design and production process - it comes as an integral part of every filter that you buy.

The most appropriate materials are chosen for each application, and precise monitoring throughout the coating and production process ensures that the filter material is the same from the start to the finish of a roll, so that the user can be sure that the colour and the performance of the filter will be consistent throughout.

Every filter is accurately checked against a scientifically generated set of parameters, and we are proud to say that nothing that doesn't meet the highest standards ever leaves the factory.

Television production, feature films and video all require specific technical filters to achieve uniformity from lens to screen; let LEE Filters' experts be your guide.

customer service



Solution Providers

We are not merely designers and suppliers of filters - a key area of our business is that the expertise of our staff allows us to be true 'solution providers' who can advise and help on all sorts of lighting and filtration tasks and problems. Only by having complete control of the design and manufacturing process can we offer such brilliant service - sometimes taking difficult management decisions to interrupt an existing 'run' and coat a special roll for that very urgent job.

Service-it's what we're about

Our goal is to provide you, our customer, with the highest level of service that you know and deserve. As the leading manufacturer of lighting filter we are able to provide a colour consistency from batch to batch that is unmatched in this or any other industry and whether it's a container load that you need or maybe just a few sheets we endeavour to maintain ample stock of the highest quality filters on the market. Please rest assured that whether you are dealing directly with us or with one of our valued distributors your best interests are at hand.

Education

At LEE Filters we understand the value of education and in continuing the learning process throughout the length of a career. Whether it be through seminars, factory visits, trade shows or conferences we endeavour to educate both current and future filter users on advancements and trends going forward.

No effect too special!

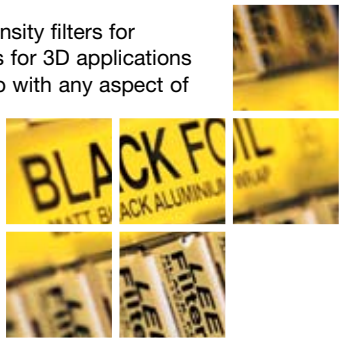
At LEE Filters we take great pride in assisting with the production of custom filters to meet the requests and requirements of specific applications. We have recently produced water proof filters for an under water film production, specific lenses for 3D glasses, custom colours for fluorescent tube inserts and custom dichroic colours for retail applications. Let us know what we can do for you!

Supplying the world

While our primary manufacturing is in the UK and our main distribution centres are in the UK and USA, we maintain distributors throughout the world for a truly global supply chain. Rest assured that the filters you require for the commercial in Sydney will match the ones that you just used on a feature in Buenos Aires.

LEE Filters - A growing range of applications

Whether it's special Neutral Density filters for Formula 1 cars or special filters for 3D applications our experts are on hand to help with any aspect of your latest project.



LEE Filters, your global colour solutions provider.

roll and sheet sizes

Our products come in many different sizes, please use the diagrams below as a guide.

Size
7.62m
x
1.52m

(25’ x 60”)

Products
216
250
251
252
416
450
452

Size
6.10m
x
1.52m

(20’ x 60”)

Products
201
204 - 211
223
270 - 275
298
299
400
402
404
413
414
414P
429
439
439P

Size
7.62m
x
1.37m

(25’ x 54”)

Products
430 - 434
460 - 464

Size
7.62m
x
1.22m

(25’ x 48”)

2” Core

Products
Colour Effect Filters
Tungsten Conversion
Daylight Conversion
Neutral Density
Fluorescent Correction
Arc Correction
Ultra Violet Absorption
Diffusion Media- Non Flame Retardant
Diffusion Media- Flame Retardant
Heat Shield

Size
7.62m
x
1.22m

(25’ x 48”)

1” Core

Products
Colour Effect Filters
Tungsten Conversion
Daylight Conversion
Neutral Density
Fluorescent Correction
Arc Correction
Ultra Violet Absorption
Diffusion Media- Non Flame Retardant
Diffusion Media- Flame Retardant
Heat Shield

Size
4m
x
1.17m

(13’ x 46”)

Products
Colour Effect HT

Size
7.62m
x
0.61m

(25’ x 24”)

Products
Black Foil

Size
15.24m
x
0.3m

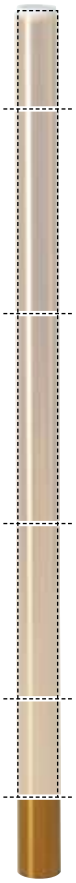
(50’ x 12”)

Products
Black Foil

Size
Any width between 2.5cm (1”) and 1.17m (46”).
All rolls are 7.62m (25’) long.

Products
Quick Rolls

* HT Rolls available as special order



Size
Panel

2.44m
x
1.52m

(8' x 5')

Thickness 3mm
(1/8")

Products
A204
A209
A210
A211

Size
Panel

2.44m
x
1.22m

(8' x 4')

Thickness 3mm
(1/8")

Products
A204
A205
A207
A208
A209
A210
A211

Size
Full Sheet

0.53m
x
1.22m

(21" x 48")

Products
Colour Effect Filters
Tungsten Conversion
Daylight Conversion
Neutral Density
Fluorescent Correction
Arc Correction
Ultra Violet Absorption
Diffusion Media-Non Flame Retardant
Diffusion Media-Flame Retardant
Heat Shield

Size
Half Sheet

0.53m
x
0.61m

(21" x 24")

Products
Colour Effect Filters
Tungsten Conversion
Daylight Conversion
Neutral Density
Fluorescent Correction
Arc Correction
Ultra Violet Absorption
Diffusion Media-Non Flame Retardant
Diffusion Media-Flame Retardant
Heat Shield

Size
Half Sheet HT

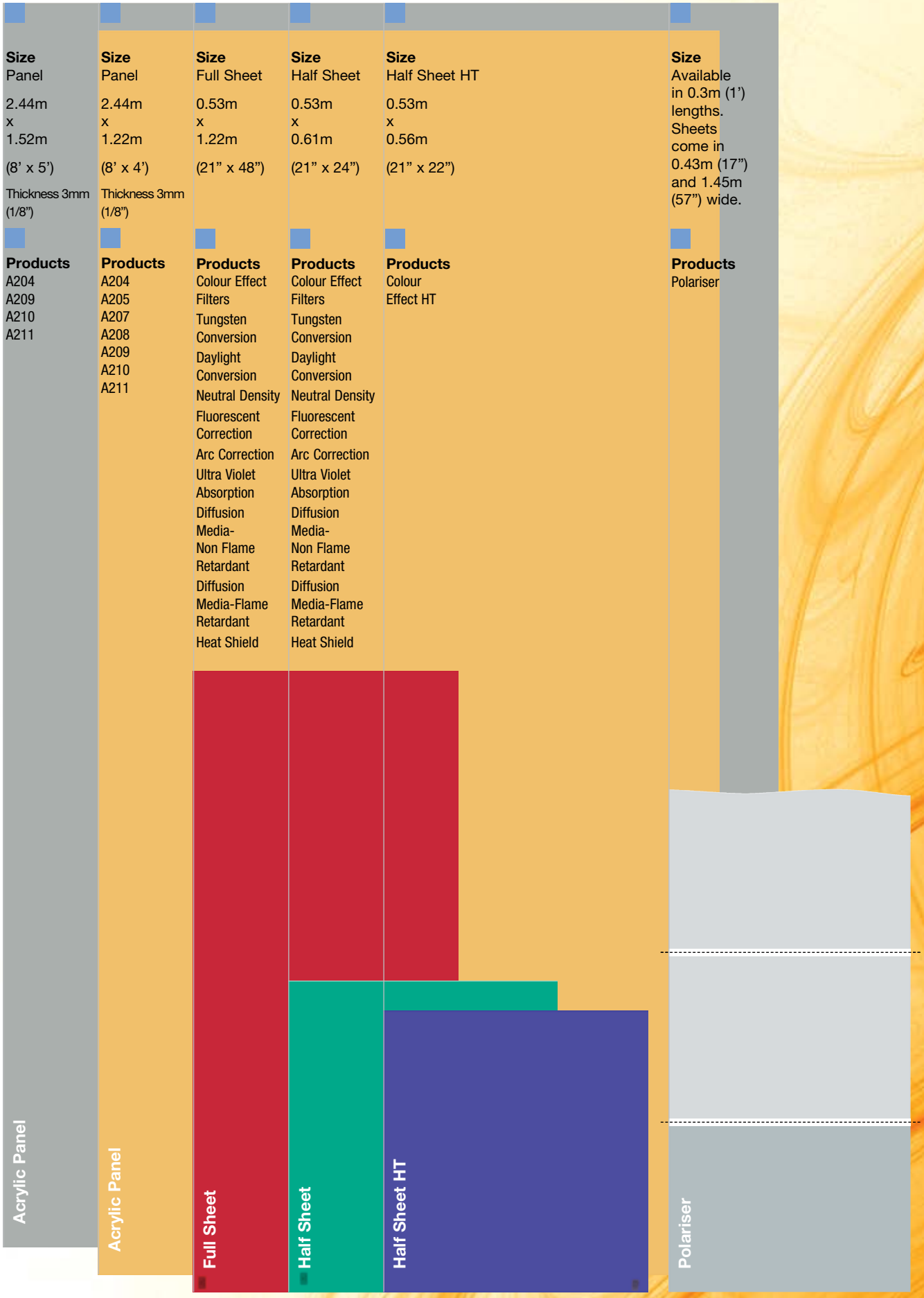
0.53m
x
0.56m

(21" x 22")

Products
Colour Effect HT

Size
Available in 0.3m (1') lengths. Sheets come in 0.43m (17") and 1.45m (57") wide.

Products
Polariser



the designer series

A very special range of lighting filters unique to LEE. The Designer Series colours have been created by some of the top lighting designers working in stage, screen, television, cinema and architectural lighting.

Lighting designers always have a colour in mind. Be it to create a romantic moonlit setting or a feisty, angry backdrop, they know exactly what colours they need to create the desired effect. LEE offer over 250 colours, but designers sometimes feel that a particular colour they are looking for is missing. LEE decided to rectify this by offering lighting designers a unique opportunity - to turn their ideas into realities.

Since 1998 a number of leading lighting designers have been invited to the LEE Filters factory to create their own unique colours. The Designer Series of lighting filters is a direct result of the work undertaken by these designers.

Within the course of a day, each designer is able to solve a problem or create a colour for a specific mood or effect. Working closely with LEE's Research & Development team, designers take their ideas forward by mixing and blending dyes, enabling them to create new colours. Test samples are then manufactured for field trials and once the colour has passed the stringent LEE quality control process it is named by the designer and added to the Designer Series.

Peter Barnes

* 707 Ultimate Violet
Used in musical performances for general colour washes and set lighting.

* 721 Berry Blue
Used in musical performances for rear colour wash or set lighting.

* 729 Scuba Blue
Used in musical performances for a rear colour wash or set lighting.

* 797 Deep Purple
Used in musical performances for general colour washes and set lighting.

Tanya Burns

505 Sally Green
A fresh, light & airy summer green. 'Under tree canopy' light quality without 'pantomime countryside'. Subtle enough to light faces without having to add too much general cover on top.

506 Marlene
Flattering skin tone filter without the comedy 'pink'. Also useful as Indian summer at dusk/sepia type effect.

507 Madge
Denser, saturated orange version of 135 avoiding 'pinky red'. Good for backlight, instruments, part of a sunset palette, and generating a party atmosphere.

508 Midnight Maya
A rich, sultry blue. Like Congo Blue, but allowing greater light transmission so more maintenance friendly - fewer gel changes.

525 Argent Blue
LSI's Silver Anniversary colour sits between 165 and 068 in the range. Great for a foreboding cold winter's night, but allows enough light transmission to be useful for general illluminance too.

"I was fascinated to learn the process of making colour. The chance to develop new colours was thrilling; a real meeting of art and science. Being able to discuss colour in that detail and for LEE to respond in such a positive way was a unique experience."

Paule Constable

Paule Constable

731 Dirty Ice
Dirtier than 730 Liberty Green, more orange, sympathetic with skin tones.

733 Damp Squib
A dirty green, reduces warmth. Good for cross lighting.

742 Bram Brown
Dirtier than 156 Chocolate, good for skin tones. Dims well and doesn't go pink at low light levels.

768 Egg Yolk Yellow
A bold strong chemical yellow, less orange/red than 179 Chrome Orange.

Chris Davey

712 Bedford Blue
A smoky warm blue. Good for skin tones.

722 Bray Blue
A purer blue with very little red in it.

748 Seedy Pink
A smoky pink. Good for tungsten on skin tones.

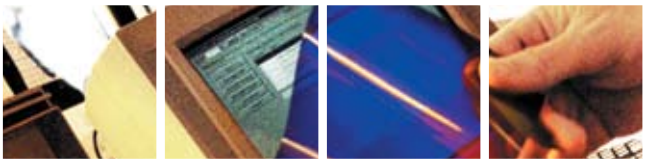
"A big thank you for a very interesting day. All the team at LEE clearly take great pride in your products, shown by the rigorous quality control checks."

Chris Davey

Dave Davey

701 Provence
The colour of the Lavender fields of the south of France. A redder version of 180 Dark Lavender for use on cameras balanced to tungsten sources.

736 Twickenham Green
A powerful green with depth, for music or light entertainment.



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.

749 Hampshire Rose
Combines flesh tone warmer 154 Pale Rose with some Hampshire frost.

770 Burnt Yellow
A colour that feels warm and dense on camera, a balance between 179 Chrome Orange and 105 Orange.

Chris Ellis

714 Elysian Blue
A new deeper version of 197 Alice Blue.

717 Shanklin Frost
201 Full CT Blue with frost to soften the beam of profile units.

718 Half Shanklin Frost
202 Half CT Blue with frost to soften the beam of profile units.

798 Chrysalis Pink
A new deeper lavender with a dash of rose blusher.

* Also available in High Temperature (HT) version

Rick Fisher

708 Cool Lavender
For use as a warmer tint without turning yellow and to recreate the colour of fluorescent lighting.

728 Steel Green
Approaching storms. Overcast days. Cold steely light. Malevolent moonlight.

735 Velvet Green
A beautiful background colour. Victorian melodrama. A night time green.

"I had a very productive day at LEE, resulting in two colours which, although similar, spoke different languages"

Rick Fisher

Peter Fisker

700 Perfect Lavender
In-between 170 Deep Lavender and 345 Fuchsia Pink, and is good for backlighting and romantic atmospheres.

703 Cold Lavender
A colour that would be great for front / key lighting and that works well with 152 Pale Gold.

727 QFD Blue
A special version of 729 Scuba Blue which is good for backlighting and swimming pool effects.

780 AS Golden Amber
Between 778 Millennium Gold and 135 Deep Golden Amber, but less red and strong and good for backlighting.

Henrik Hambro

706 King Fals Lavender
A cold lavender.

710 Spir Special Blue
A cool industrial blue.

740 Aurora Borealis Green
Primary jungle colour. Removes some red and blue. Works best with daylight bulbs. Sodium lamp effect.

"I would like to thank LEE Filters for the two days I spent with their very professional R&D team. It was great fun to play with colours and very difficult to stop getting new ideas."

Henrik Hambro

741 Mustard Yellow
Spooky when used in haze. Removes some red and blue. Works best with daylight bulbs. Sodium lamp effect.

773 Cardbox Amber
Warm tint for skin tones.

787 Marius Red
Nice deep full red. Rose leaf colour.

799 Special KH Lavender
A deep lavender that brings out the UV.

Mark Henderson

711 Cold Blue
To give a cold/grey HMI effect from a tungsten source. Will also help blend the light when using both tungsten and HMI sources.

719 Colour Wash Blue
To allow low intensity tungsten to hold a cold/ blue feel.

746 Brown
To give a murky, dirty feel to tungsten. A darker, less pink chocolate.

777 Rust
A vivid rust colour effect.

789 Blood Red
For a deep saturated red effect. Used when a strong vivid red effect is required.

David Hersey

724 Ocean Blue
Useful at low levels of light. Good for dull skies and moonlight.

725 Old Steel Blue
Cool wash, useful for highlights.

763 Wheat
Adds warmth, sunlight.

764 Sun Colour Straw
Adds warmth, bright sunlight.

776 Nectarine
Romantic sunset. Period pieces.

779 Bastard Pink
Deep sunset. Useful on dark skin tones.

Jakob Holst

*** 716 Mikkel Blue**
A romantic blue to produce a night effect.

774 Soft Amber Key 1
Used for producing a warm key light colour. Flame retardant.

775 Soft Amber Key 2
Used for producing a warm key light colour. Flame retardant.

Jesper Kongshaug

730 Liberty Green
A good green for creating mystery and suspense.

765 LEE Yellow
Useful for producing a strong sunlight effect.

Andy Liddle

*** 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.

*** 738 JAS Green**
A rich yellowish green. Useful as a concert stage wash where darker skin tone, costume and set are a consideration.

781 Terry Red
A strong amber red that works well when used against deep reds and dark ambers, in wash combinations and on cycloramas.

"After 20 years in lighting, I promise to never throw a piece of colour on the stage again, now I know what it takes to develop and make!"

Andy Liddle

Durham Marenghi

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.

704 Lily
A cool lavender with little red content. Good for romantic evening exteriors.

705 Lily Frost
Smoothes PAR or flood washes of large areas. Useful for houselights and a good colour wash for evening events.

720 Durham Daylight Frost
Smoothes PAR or flood washes of large areas. Useful for houselight and good for entrances from natural light.

750 Durham Frost
A frost that almost completely softens shutter edges and removes hot spots.

790 Moroccan Pink
A rich natural pink, good for producing late afternoon sun effects.

791 Moroccan Frost
Smoothes PAR or flood washes of large areas. Useful for houselights and good for interior colour washes.

"...I appreciate you finding the time to talk to designers such as myself about your products."

Durham Marenghi

* Also available in High Temperature (HT) version

Mike Robertson

500 Double New Colour Blue
The strongest of the New Colour Blue (NCB) series for dramatic 'white' face and key light where warmer tones than CTB are required.

501 New Colour Blue (Robertson Blue)
An alternative to the CTB series with warmer tones and a lesser green cast for face and key light.

502 Half New Colour Blue
A lighter correction in the NCB series.

503 Quarter New Colour Blue
The lightest correction in the NCB series.

504 Waterfront Green
Designed for period key light and modern urban horizons.

David Whitehead

709 Electric Lilac
Provides good colour rendering which creates a sharp edge, adding a touch of drama.

767 Oklahoma Yellow
A rich blend of bright sunshine and warm ochre overtones.

794 Pretty 'n Pink
Creates warm and soft effects.

795 Magical Magenta
Rich mixture of red and pinks.

Kate Wilkins

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.

747 Easy White
Primarily developed for fluorescents to ensure warm, comfortable light and flattering skin tones.

Patrick Woodroffe

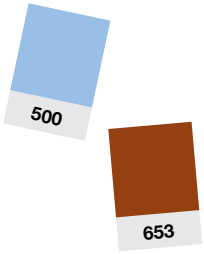
* 715 Cabana Blue
A deep blue that still has enough transmission to work encouragingly well on television.

* 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.

793 Vanity Fair
A rich glamorous pink, good for use on special occasions.

* Also available in High Temperature (HT) version

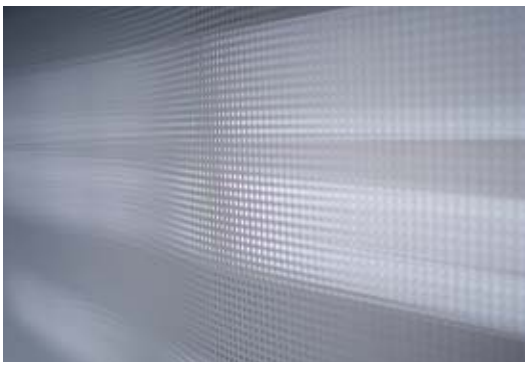
perforated diffusion



The latest advancement in filter technology

Having a company philosophy of continuous research and development is the catalyst that brings new and exciting products to the market. This is most definitely the case with our new perforated diffusion filters, the latest advancement in filter technology from LEE Filters.

Diffusion media was originally developed to soften hard or point sources and many different diffusion products have been developed to do this job. However with the amount of soft sources now in daily use on sets around the world we decided to collaborate with several Directors of Photography and Lighting Professionals to develop specific diffusions to work with soft lights. This perforated diffusion is the results of our collaboration.



Direct and diffused light

The new perforated diffusions have been specifically developed to work in conjunction with Kino Flo fixtures offering an alternative set of light modifying diffusion. The perforated diffusion produces both a soft but directional source by allowing a combination of direct and diffused light to combine. This creates a unique and different quality. The quality of light from this diffused perforation system will differ depending on the particular source it is applied to. The diffusion was developed using standard 4' fixtures as well as some of the newer parabolic lights like the Vistabeam, Parabeams and Parazips. Each grade of diffusion and perforation produces its own unique variation of soft diffused light, we recommend testing to find a particular combination that works for you.

product		description		Stop value	Special Notes
Perforated Diffusion					
414P	Perforated Highlight	A combination of both direct and soft diffused light.	1.52m width, 6.10m length, (60" x 20')	1⅓	Thickness 300 microns (12 thou)
439P	Perforated Heavy Quiet Frost	A combination of both direct and strongly diffused light.	Flame retardant.	2⅓	Thickness 270 microns (11 thou)

quick rolls

Your high volume solution

Quick Rolls enable you to have a roll of any colour 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 waste on the cutting room floor.

Quick Rolls are sold by the width in inches (2.54cm) up to a maximum width of 46" (1.17m) and all 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.

HT Quick Rolls are available as a special order.

lighting packs

Essential Toolkits for Lighting Control

Everything you need to control common lighting conditions. Each pack contains a select assortment of 300mm x 300mm (12"x12") precut sheets of LEE lighting filter. A rugged vinyl pouch is ideal for portable storage.

Colour Effects Pack – Colour the backdrop or draw focus with colour. (12 sheets)

No.	Name	
106	Primary Red	x2 each
139	Primary Green	
119	Dark Blue	
010	Medium Yellow	
790	Moroccan Pink	
181	Congo Blue	

Cosmetic Pack – Enhance skin tone by combining pale tints with subtle diffusion. (12 sheets)

No.	Name	
184	Cosmetic Peach	x2 each
187	Cosmetic Rouge	
188	Cosmetic Highlight	
186	Cosmetic Silver Rose	
775	Soft Amber Key 2	
791	Moroccan Frost	

Diffusion Pack – Soften shadows, adjust contrast, shape light. (12 sheets)

No.	Name	
216	Full White Diffusion	x2 each
250	1/2 White Diffusion	
251	1/4 White Diffusion	
400	LEELux	
410	Opal Frost	
253	Hampshire Frost	

Daylight to Tungsten Pack – Convert daylight sources to tungsten. (12 sheets)

No.	Name	
204	Full CTO	x2 each
285	3/4 CTO	
205	1/2 CTO	
206	1/4 CTO	
223	1/8 CTO	
208	Full CTO + .6ND Combo	

Tungsten to Daylight Pack – Convert tungsten light sources to daylight. (12 sheets)

No.	Name	
200	Double CTB	x2 each
201	Full CTB	
202	1/2 CTB	
203	1/4 CTB	
218	1/8 CTB	
720	Durham Daylight Frost.	

Quick Location Pack – A variety of colour corrections, effect, and light shaping tools to control common lighting conditions. (24 sheets)

No.	Name	
201	Full CTB	x2 each
202	1/2 CTB	
204	Full CTO	
205	1/2 CTO	
216	Full White Diffusion	
250	1/2 White Diffusion	
210	.6 ND	
106	Primary Red	x1 each
181	Congo Blue	
738	JAS Green	
187	Cosmetic Rouge	
188	Cosmetic Highlight	
791	Moroccan Frost	
775	Soft Amber Key 2	
720	Durham Daylight Frost	
270	LEE Scrim	
280	Black Foil	

Master Location Pack – Our largest variety of colour corrections, effect, and light shaping tools to provide the control you need to master any lighting condition. (36 sheets)

No.	Name	
200	Double CTB	x2 each
201	Full CTB	
202	1/2 CTB	
203	1/4 CTB	
204	Full CTO	
205	1/2 CTO	
206	1/4 CTO	
216	Full White Diffusion	
250	1/2 White Diffusion	
251	1/4 White Diffusion	
210	.6 ND	
106	Primary Red	x1 each
126	Mauve	
181	Congo Blue	
738	JAS Green	
187	Cosmetic Rouge	
188	Cosmetic Highlight	
791	Moroccan Frost	
775	Soft Amber Key 2	
720	Blue Durham Frost	
244	Plus Green	
245	1/2 Plus Green	
219	Fluorescent Green	
270	LEE Scrim	
280	Black Foil	

music packs

These convenient, pre-cut 250mm x 250mm (10”x10”) sheets of LEE polyester filters come complete with instructions on how to use colour to enhance the mood of your music. They are perfect for use in small night clubs and are packaged in six different sets.

DJ Pack 1

No.	Name	
015	Deep Straw	x1 each
020	Medium Amber	
024	Scarlet	
026	Bright Red	
048	Rose Purple	
068	Sky Blue	
116	Medium Blue-Green	
181	Congo Blue	
323	Jade	
325	Mallard Green	
328	Follies Pink	
343	Special Medium Lavender	

DJ Pack 2

No.	Name	
027	Medium Red	x1 each
089	Moss Green	
105	Orange	
113	Magenta	
141	Bright Blue	
180	Dark Lavender	
197	Alice Blue	
328	Follies Pink	
735	Velvet Green	
744	Dirty White	
781	Terry Red	
797	Deep Purple	

Inspiration Pack 1

No.	Name	
009	Pale Amber Gold	x3 each
058	Lavender	
143	Pale Navy Blue	
195	Zenith Blue	

Inspiration Pack 2

No.	Name	
063	Pale Blue	x3 each
106	Primary Red	
735	Velvet Green	
764	Sun Colour Straw	

Rock n’ Roll Pack 1

No.	Name	
116	Medium Blue-Green	x3 each
128	Bright Pink	
158	Deep Orange	
181	Congo Blue	

Rock n’ Roll Pack 2

No.	Name	
048	Rose Purple	x3 each
132	Medium Blue	
327	Forest Green	
341	Plum	

colour magic packs

The LEE Filters Colour Magic series is a set of eight individual packs each containing a selection of 12 filters 250mm x 300mm (10” x 12”) that relate to a particular aspect of lighting and studio work. Colour Magic 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.	Name	
101	Yellow	x1 each
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	

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

No.	Name	
027	Medium Red	x1 each
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.	Name	
201	Full CTB	x2 each
281	Three Quarters CTB	
204	Full CTO	
285	Three Quarters CTO	
298	0.15 Neutral Density	x1 each
209	0.3 Neutral Density	
210	0.6 Neutral Density	
211	0.9 Neutral Density	

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

No.	Name	
164	Flame Red	x1 each
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.	Name	
003	Lavender Tint	x1 each
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	

Studio Plus Pack – a range of technical filters for fine control of light sources

No.	Name	
202	Half CTB	x2 each
203	Quarter CTB	
218	Eighth CTB	
205	Half CTO	
206	Quarter CTO	
223	Eighth CTO	

Tint Pack – lighting filters which complement the original Colour Magic pack to create alternative shades

No.	Name	
002	Rose Pink	x1 each
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	

Arc Correction Pack – a selection of technical filters for colour correction

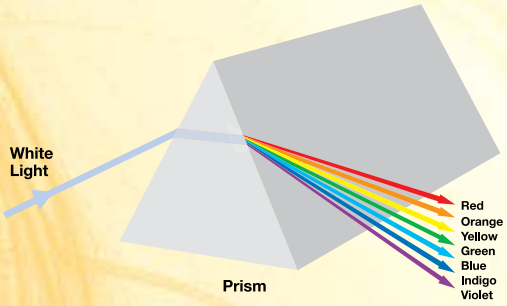
No.	Name	
205	Half CTO	x2 each
206	Quarter CTO	
219	LEE Fluorescent Green	x1 each
241	LEE Fluorescent 5700K	
242	LEE Fluorescent 4300K	
243	LEE Fluorescent 3600K	
244	Full Plus Green	x2 each
245	Half Plus Green	

the science behind the art

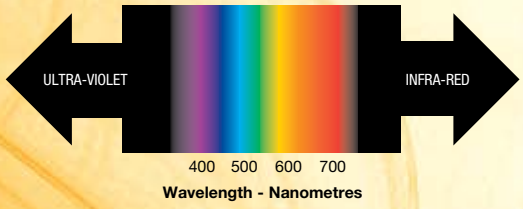
Light

Light is energy that travels in wave form. The human eye responds to certain wavelengths and these make up the visible spectrum. Wavelengths outside this spectrum are invisible to us, such as infra red, ultra violet and X-ray.

Isaac Newton showed that by shining white light through a glass prism it could be separated back into its different wavelengths.

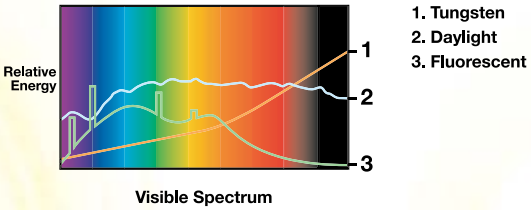


Each wavelength within the visible spectrum is recognised by our eyes as providing a particular colour sensation, the diagram below clearly indicates the visible colours and their corresponding wavelengths. White light consists of all of the visible wavelengths, present in equal amounts.



By using filters to selectively reduce the level of light at certain wavelengths we can create coloured light to meet our individual requirements, whether technical or aesthetic.

Most artificial light sources do not actually produce white light. For example, incandescent sources such as tungsten generate light which has more energy at the red end of the spectrum, whereas a fluorescent source often has spikes of energy mainly in the blue and green region. Filters can be used to correct these differences and make one light source appear like another.

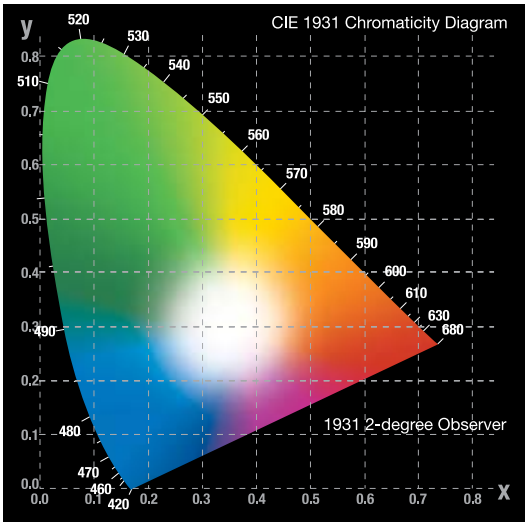


In order to record and communicate colour accurately, you either need to create a physical example of that colour that will never fade or become damaged, or use a mathematical model. A model uses numbers to describe different attributes of a certain colour, these being HUE, SATURATION and LIGHTNESS. The HUE describes the physical colour - red, yellow, green etc. SATURATION is a perception of how strong the hue of the colour is represented in the sample. The LIGHTNESS (or darkness) of a colour is perceived, when a comparison made to a similar area that is not coloured, but lit with the same strength of illumination.

As there are three attributes to a colour, the numbers associated with them in a mathematical model can be thought of as a position in a three dimensional shape, this shape is called a colour space.

The particular colour space used by LEE Filters technicians was devised in 1931 by the Commision International Eclairage (CIE) and is one of the many internationally recognised standard colour spaces.

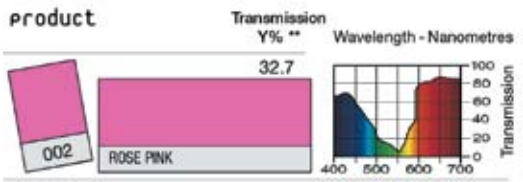
The HUE and SATURATION of any colour can be represented by its position on a chromaticity diagram, as seen below. The diagram contains all visible colours, and all possible densities of these colours, in a two dimensional configuration. Pale colours in the centre and saturated versions of those same colours at the edges. A colour's position on this diagram will be represented by its Chromaticity Co-ordinates.



How to use this brochure.

The technical information contained in this brochure is designed to help you choose the correct colour for your requirements in a number of different ways.

The spectral power distribution (SPD) curves illustrated in the booklet at the back of this brochure, show the percentage of light at each wavelength across the visible spectrum that is passed when light is shone through the filter. From this data you can tell which constituent parts of the source will be transmitted, and which will be reduced.



Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
(Measured to source C, Correlated Colour Temperature of 6774K)			
54.1	0.27	0.281	0.269
75.7	0.12	0.303	0.300
59.5	0.23	0.294	0.281

The Y% figure is representative of overall average transmission of that filter, as perceived by the human eye. The Y value is actually one of the TRISTIMULUS VALUES, a set of values unique to each colour, that are calculated mathematically from the data contained in the SPD graph.

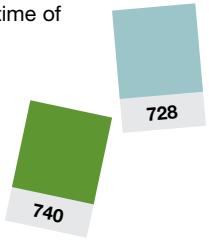
The absorption (abs) of a filter is calculated from the Y% value, and is another way of expressing the light stopping properties of that filter. Abs is a linear scale, so values can be added or subtracted more easily than using Y%.

Y%	abs
50	0.3 (1 Stop)
25	0.6 (2 Stop)
12.5	0.9 (3 Stop)

The Chromaticity co-ordinates published for each colour are measured and calculated using a theoretical standard light source, and can be plotted on the chromaticity diagram to establish that particular colour's characteristics in relation to all other colours.

Choosing filter materials

Since subtractive filters achieve their purpose by absorbing energy, knowing the expected spectral performance of a particular filter and in particular, its overall Transmission Efficiency Y, can help the user to select the materials used, whether being polyester, high temperature polymer or glass. Each material has recommended temperature limits, and our staff are always happy to advise on the best material for a particular job, and on its durability. The lifetime that may be expected from a particular filter in a particular application can often be difficult to predict, because it depends upon many different factors. We have many years of experience in lots of different areas, and our staff will readily offer the practical knowledge that they have gained as to how to prolong the lifetime of any particular filter.




colour range

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
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
003	Lavender Tint	Subtle cool wash for stage and studio lighting.	75.7	0.12	0.303	0.300
169	Lilac Tint	Pale lavender. Good for almost white light with a cool tint.	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
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
703	Cold Lavender	Made for front/key lighting perfect together with Lee 152.	20.4	0.69	0.255	0.181
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	General area side lights. Great for basic followspot colour. Excellent back light.	33.0	0.48	0.259	0.218
194	Surprise Pink	With 193 for musicals.	22.3	0.65	0.240	0.183
798	Chrysalis Pink	A new deep lavender with a dash of rose blusher.	3.8	1.43	0.190	0.060
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	Excellent backlight. Creates a new dimension.	8.9	1.05	0.212	0.099
343	Special Medium Lavender	Theatre and T.V. effect lighting, backlighting.	6.0	1.22	0.182	0.081
700	Perfect Lavender	Good for backlighting and romantic atmospheres.	4.8	1.32	0.177	0.070
707*	Ultimate Violet	Used in musical performances for general colour washes and set lighting.	2.0	1.69	0.170	0.042
180	Dark Lavender	Pleasing effects for theatrical lighting, backlighting.	6.6	1.18	0.191	0.072
706	King Fals Lavender	A cold lavender.	5.5	1.26	0.186	0.091
344	Violet	Dusk effect, good skin tones, romantic effect.	20.0	0.70	0.213	0.175
137	Special Lavender	Moonlight, musical / romantic scenes, enhances skin tones.	26.4	0.58	0.231	0.175
053*	Paler Lavender	Subtle cool wash.	62.2	0.21	0.284	0.284
502	Half New Colour Blue	A lighter correction in the NCB series.	61.6	0.21	0.276	0.281
709	Electric Lilac	Provides good colour rendering which creates sharp edges, adding a touch of drama.	34.0	0.47	0.238	0.227
142	Pale Violet	Moonlight, cycloramas, highlighting pot plants.	20.1	0.70	0.209	0.148
199	Regal Blue	A deep lavender blue, that strongly enhances skin tones.	5.4	1.26	0.161	0.070

* Also available in High Temperature (HT) version

colour range

product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
508 Midnight Maya	A rich, sultry blue. Like Congo Blue, but allowing greater light transmission so more maintenance friendly - fewer gel changes.	3.0	1.53	0.164	0.061
181* Congo Blue	Looks like black light when used with a fluorescent source. Great effect colour. Very saturated.	0.8	2.10	0.158	0.035
799 Special K.H. Lavender	A deep lavender that brings out the UV.	1.4	1.86	0.158	0.035
071* Tokyo Blue	Deep blue, use for midnight scenes, cycloramas.	1.0	2.00	0.151	0.030
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
120* Deep Blue	Pleasing effect for theatrical lighting.	2.1	1.68	0.149	0.051
085* Deeper Blue	Deep warm blue. Good for back and side lighting.	2.5	1.60	0.143	0.065
716* Mikkel Blue	A romantic blue to produce a night effect.	3.9	1.4	0.146	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
119* Dark Blue	Good for mood effects created by backlight and sidelight. Creates great contrast.	3.1	1.51	0.142	0.054
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
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	0.100
721* Berry Blue	Used in musical performances for rear colour wash, or set lighting.	6.5	1.19	0.147	0.084
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
079* Just Blue	Good colour mixing blue. Great for cyclorama lighting.	5.6	1.25	0.145	0.072
710 Spir Special Blue	A cool industrial blue.	12.2	0.91	0.180	0.133
197* Alice Blue	Great for cyclorama lighting. Deep blue skies.	10.4	0.98	0.164	0.118
075 Evening Blue	Good for night scenes, romantic moonlight.	12.5	0.90	0.158	0.117
712 Bedford Blue	A smoky warm blue. Good for skin tones.	17.9	0.75	0.183	0.158
719 Colour Wash Blue	To allow low intensity tungsten to hold a cold/blue feel.	19.3	0.71	0.188	0.171
525 Argent Blue	Great for a foreboding cold winter's night, but allows enough light transmission to be useful for general illluminance too.	17.1	0.77	0.171	0.143
200 Double CTB	Converts tungsten to daylight.	16.2	0.79	0.179	0.155

* Also available in High Temperature (HT) version

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
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
366	Cornflower	Seasonal mood lighting, pale moonlight.	17.7	0.75	0.193	0.190
500	Double New Colour Blue	The strongest of the New Colour Blue (NCB) series for dramatic 'white' face and key light where warmer tones than CTB are required.	23.3	0.63	0.200	0.187
283	One and a Half CTB	Converts tungsten to daylight.	24.4	0.61	0.201	0.188
201	Full CTB	Converts tungsten to photographic daylight.	34.0	0.47	0.228	0.233
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	0.260
501	New Colour Blue (Robertson Blue)	An alternative to the CTB series with warmer tones and a lesser green cast for face and key light.	43.4	0.36	0.246	0.249
281	Threequarters CTB	Converts tungsten to daylight.	45.5	0.35	0.239	0.258
202	Half CTB	Converts tungsten to daylight.	54.9	0.26	0.261	0.273
061*	Mist Blue	Night scenes, cool wash.	62.4	0.21	0.268	0.284
503	Quarter New Colour Blue	The lightest correction in the NCB series.	74.5	0.13	0.293	0.299
203	Quarter CTB	Converts tungsten to daylight.	69.2	0.16	0.285	0.294
218	Eighth CTB	Converts tungsten to daylight.	81.3	0.09	0.299	0.307
063*	Pale Blue	Cool front light wash, good for creating an overcast look for cold weather.	54.4	0.26	0.252	0.270
174	Dark Steel Blue	Set lighting - creates good moonlight shadows.	30.0	0.52	0.204	0.205
161	Slate Blue	Pure medium blue. Good for skies, moonlight, dusk.	24.8	0.61	0.176	0.176
068	Sky Blue	Morning skin tones, night sky. Cyclorama lights.	13.4	0.87	0.151	0.128
132*	Medium Blue	Deep moonlight. Great for colour mixing.	8.3	1.08	0.137	0.110
165	Daylight Blue	Moonlight.	20.0	0.70	0.159	0.158
141*	Bright Blue	Very dramatic when used as moonlight.	18.6	0.75	0.129	0.159
196	True Blue	Moonlight.	26.6	0.57	0.175	0.197
143	Pale Navy Blue	Moonlight, cyclorama night effect.	16.2	0.79	0.170	0.205
352	Glacier Blue	Cold blue, good for cool atmospheric mood setting.	23.4	0.63	0.171	0.190
724	Ocean Blue	Useful at low levels of light, dull skies, - moonlight.	36.2	0.44	0.189	0.222
140	Summer Blue	Good for light midday sky. Light blue tinted wash.	41.4	0.38	0.201	0.245

colour range

product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
117 Steel Blue	Good for cool washes. Adds a pale green tint. Great for emulating icy weather on stage.	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
144 No Colour Blue	Clean blue with hints of green. Good for moonlight and side light.	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
172* Lagoon Blue	Floodlit warm wash - underwater scenes - ballet.	25.4	0.60	0.141	0.220
727 QFD Blue	Good for backlighting and swimming pool effect.	6.6	1.18	0.109	0.210
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
504 Waterfront Green	Designed for period key light and modern urban horizons.	58.2	0.24	0.271	0.317
730 Liberty Green	A good green for creating mystery and suspense.	67.5	0.17	0.277	0.330
731 Dirty Ice	A flat green with a fluorescent feel. Sympathetic to skin tones.	63.8	0.20	0.293	0.339
733 Damp Squib	A dirty green. Reduces warmth but not towards blue. Good for cross lighting.	63.6	0.20	0.312	0.351
243 LEE Fluorescent 3600 Kelvin	Converts tungsten to fluorescent light of 3600K (warm white).	45.7	0.34	0.286	0.370
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
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

* Also available in High Temperature (HT) version

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
735	Velvet Green	A beautiful background colour. Victorian melodrama. A night-time green.	11.5	0.93	0.103	0.536
124*	Dark Green	Cycloramas - good for back lighting.	29.7	0.53	0.123	0.586
327	Forest Green	Deep green, sinister forest scenes, cycloramas, backlighting.	4.2	1.38	0.162	0.496
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	0.740
740	Aurora Borealis Green	Primary jungle colour. Removes some red and blue. Works best with Daylight bulbs. Sodium lamp effect.	3.7	1.43	0.337	0.617
139*	Primary Green	Set lighting, cycloramas.	11.9	0.92	0.196	0.712
089*	Moss Green	Mood creator. Used with gobos, creates a great foliage effect.	29.8	0.53	0.259	0.547
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	Dense foliage, tropical or woodlands effect.	64.0	0.20	0.302	0.534
088	Lime Green	Use with gobos for leafy glades - pantomimes - slightly sinister atmosphere.	70.9	0.15	0.356	0.511
505	Sally Green	A fresh, light & airy summer green. 'Under tree canopy' light quality without 'pantomime countryside'. Subtle enough to light faces without having to add too much general cover on top.	72.4	0.14	0.370	0.520
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
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
159	No Colour Straw	Warm effect, sunlight.	89.4	0.05	0.325	0.337
444	Eighth CT Straw	Converts 6500K to 5700K - daylight to tungsten light with yellow bias.	83.1	0.08	0.323	0.332
223	Eighth CTO	Converts daylight to tungsten light.	85.2	0.07	0.328	0.332
212	LCT Yellow (Y1)	Reduces colour temperature of low carbon arcs to 3200K.	88.7	0.05	0.340	0.363

colour range

product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
007* Pale Yellow	Sunlight.	85.4	0.07	0.339	0.363
443 Quarter CT Straw	Converts 6500K to 5100K - daylight to tungsten light with yellow bias.	79.8	0.10	0.338	0.349
206 Quarter CTO	Converts daylight to tungsten light.	79.1	0.10	0.346	0.340
763 Wheat	Adds warmth, sunlight.	84.3	0.07	0.343	0.357
103 Straw	Pale sunlight through window effect - warm winter effect.	81.6	0.09	0.336	0.359
764 Sun Colour Straw	Adds warmth, bright sunlight.	80.5	0.09	0.365	0.380
442 Half CT Straw	Converts 6500K to 4300K - daylight to tungsten light with yellow bias.	71.2	0.15	0.370	0.378
205 Half CTO	Converts daylight to tungsten light.	70.8	0.15	0.374	0.364
162 Bastard Amber	Warm white, warm wash, lamplight.	77.7	0.11	0.348	0.328
506 Marlene	Flattering skin tone filter without the comedy 'pink'. Also useful as Indian summer at dusk / sepia type effect.	67.3	0.17	0.358	0.344
009* Pale Amber Gold	Perfect warm front light for any skin tone.	71.1	0.15	0.376	0.371
765 LEE Yellow	Useful for producing a strong sunlight effect.	80.2	0.10	0.389	0.412
013* Straw Tint	Warmer than other straw colours. Good sunlight effect when used in contrast with ambers and blues.	72.1	0.14	0.392	0.392
285 Threequarters CTO	Converts daylight to tungsten light.	61.3	0.21	0.400	0.387
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
204 Full CTO	Converts daylight to tungsten light.	55.4	0.26	0.437	0.392
441 Full CT Straw	Converts 6500K to 3200K - daylight to tungsten light with yellow bias.	57.3	0.24	0.426	0.407
287 Double CTO	Converts daylight to tungsten.	40.9	0.39	0.514	0.424
286 One and Half CTO	Converts daylight to tungsten.	48.2	0.32	0.478	0.422
651 Hi Sodium	Used on tungsten to create a High Pressure Sodium look.	48.8	0.31	0.444	0.396
236 HMI (to Tungsten)	Converts HMI to 3200K, for use with Tungsten film.	58.2	0.24	0.426	0.376
604 Full CT Eight Five	Converts daylight to tungsten with a red bias.	55.9	0.25	0.422	0.389
773 Cardbox Amber	Warm tint for skin tones.	60.2	0.22	0.400	0.351
108 English Rose	Warm tint wash - dark flesh tones - softer skin tones.	57.1	0.24	0.412	0.352
776 Nectarine	Romantic sunset. Period pieces.	52.9	0.27	0.424	0.368

* Also available in High Temperature (HT) version

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
147	Apricot	Sunrise, sunset, lamplight.	53.0	0.28	0.446	0.381
237	CID (to Tungsten)	Converts CID to 3200K, for use with tungsten film.	38.5	0.41	0.430	0.365
779	Bastard Pink	Deep sunset. Useful on dark skin tones.	38.8	0.41	0.501	0.336
008*	Dark Salmon	Enhances dark skin tones, sunsets, ballroom sets.	35.4	0.45	0.498	0.347
017	Surprise Peach	Skin tones - mood light.	19.6	0.71	0.439	0.372
127	Smokey Pink	Cycloramas - set lighting, discos.	12.0	0.92	0.397	0.265
748	Seedy Pink	A smoky pink. Good for tungsten on skin tones.	14.4	0.84	0.373	0.263
238	CSI (to Tungsten)	Converts CSI to 3200K, for use with tungsten film.	29.8	0.53	0.372	0.331
747	Easy White	Primarily developed for fluorescents to ensure warm, comfortable light and flattering skin tones.	31.1	0.51	0.389	0.344
156	Chocolate	Warms light and reduces the intensity.	26.4	0.58	0.380	0.363
746	Brown	To give a murky, dirty feel to tungsten. A darker, less pink chocolate.	1.5	1.82	0.498	0.437
653	Lo Sodium	Used on tungsten to create a Low Pressure Sodium look.	2.4	1.62	0.540	0.443
742	Bram Brown	A dirty brown with green /cool quality. Good for skin tones, dims well without going too pink.	11.5	0.94	0.430	0.423
208	Full CTO +.6ND	Converts daylight to tungsten 6500K to 3200K and reduces light 2 stops.	15.6	0.81	0.442	0.394
207	Full CTO +.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
230	Super Correction LCT Yellow	Converts yellow carbon arc (of low colour temperature) to tungsten.	41.9	0.38	0.367	0.368
650	Industry Sodium	Used on tungsten to blend with Sodium light	34.1	0.47	0.397	0.424
741	Mustard Yellow	Spooky when used in haze. Removes some red and blue. Works best with daylight bulbs. Sodium lamp effect.	3.3	1.48	0.506	0.491
642	Half Mustard Yellow	Half strength Sodium light effect, designed for use with daylight sources.	13.7	0.86	0.500	0.496
643	Quarter Mustard Yellow	Quarter strength Sodium light effect, designed for use with daylight sources.	31.3	0.50	0.483	0.493
100	Spring Yellow	Sunlight wash - use with gobos, disco, dark skin tones.	84.2	0.08	0.410	0.502
010*	Medium Yellow	Pure bright yellow. Not good for acting areas but great for special effects and accents.	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
102	Light Amber	Warm yellow colour. Great for candlelight or warm bright sunlight effects.	75.1	0.12	0.434	0.440

colour range

product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
767 Oklahoma Yellow	A rich blend of bright sunshine and warm ochre overtones.	68.9	0.16	0.481	0.501
104 Deep Amber	Good for sunlight effect, accents, side light. Be careful of skin tones under the reddish tint of this colour.	63.9	0.20	0.496	0.462
015* Deep Straw	Warm amber light. Good for effects such as candlelight and fire.	60.8	0.22	0.517	0.460
768 Egg Yolk Yellow	A bold strong chemical yellow. Based on 179 but not as red.	55.6	0.26	0.522	0.469
179 Chrome Orange	Combination of 1/2 CTO and double strength 104, sunlight.	54.0	0.27	0.520	0.460
020* Medium Amber	Afternoon sunlight, candlelight, great side light.	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
105 Orange	Mainly light entertainment, functions. Fire effect if used with 106, 166, 104.	41.3	0.38	0.563	0.428
134 Golden Amber	Great for emulating a late in the day sunset. Side lighting, cyclorama lighting.	37.8	0.42	0.501	0.371
652 Urban Sodium	Used on tungsten to create the orange glow associated with Sodium light	21.9	0.66	0.535	0.399
158 Deep Orange	Fire effect.	29.9	0.52	0.588	0.403
777 Rust	A vivid rust colour effect.	24.3	0.61	0.576	0.416
021* Gold Amber	Great for sunsets, cyclorama lighting and fire effects.	31.3	0.51	0.586	0.396
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
780 AS Golden Amber	A strong colour good for backlighting.	25.8	0.59	0.623	0.376
022* Dark Amber	Backlight.	23.9	0.62	0.647	0.339
135 Deep Golden Amber	Fire effect.	19.5	0.71	0.667	0.326
025 Sunset Red	Warm stage wash, TV studio wash, sunset effect.	26.4	0.58	0.566	0.359
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
507 Madge	Denser, saturated Orange version of L135 avoiding ‘pinky red’. Good for backlight, instruments, part of a sunset palette, and generating a party atmosphere.	13.6	0.87	0.662	0.337
019* Fire	Strong red/amber. Good for fire effects.	18.9	0.72	0.664	0.310
164 Flame Red	Special effects and great for fire effects.	18.0	0.75	0.659	0.302
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	Vibrant red, good for cyclorama lighting.	8.6	1.06	0.712	0.281

* Also available in High Temperature (HT) version

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
029	PLASA Red	Fire effect, musicals, cycloramas.	5.8	1.24	0.693	0.303
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
027*	Medium Red	Cyclorama lighting, side lighting, footlights. Good for colour mixing.	3.6	1.44	0.712	0.261
787	Marius Red	Nice deep full red. Rose leaf colour.	1.0	2.00	0.714	0.283
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
024*	Scarlet	Pantomimes, ballroom sets, fire effects.	18.7	0.73	0.561	0.296
166	Pale Red	Cycloramas.	25.0	0.60	0.532	0.263
193	Rosy Amber	Warm, emotional, romantic.	36.0	0.44	0.473	0.279
157	Pink	Dance sequences (useful for softening white costumes without affecting skin tones).	36.4	0.44	0.457	0.272
107	Light Rose	Good for general washes. Good for followspots.	48.0	0.32	0.407	0.284
109	Light Salmon	Interesting backlight.	54.9	0.26	0.391	0.295
153	Pale Salmon	Backlighting in conjunction with white light.	64.9	0.19	0.362	0.303
176	Loving Amber	Backlight and general area, great for sunrise, warms skin tones.	50.2	0.30	0.407	0.321
790	Moroccan Pink	A rich natural pink, good for producing late afternoon sun effects.	58.1	0.24	0.378	0.324
004*	Medium Bastard Amber	Naturally enhances skin tones.	64.1	0.19	0.370	0.335
151	Gold Tint	Pleasing effect for theatrical lighting.	69.4	0.16	0.361	0.321
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
279	Eighth Minus Green	Provides very slight magenta correction.	86.5	0.06	0.312	0.311
249	Quarter Minus Green	Approximately equivalent to CC075 magenta.	82.4	0.08	0.312	0.307
248	Half Minus Green	Approximately equivalent to CC15 magenta.	72.0	0.14	0.317	0.297
035*	Light Pink	Musical reviews. Warm wash.	61.3	0.21	0.335	0.289
247	LEE Minus Green	Approximately equivalent to CC30 magenta.	57.8	0.22	0.325	0.279

colour range

product		effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
039	Pink Carnation	Soft, cool pastel pink, good for backlighting and general colourwash.	60.2	0.22	0.320	0.268
110	Middle Rose	Pleasing effects for theatrical lighting.	47.5	0.32	0.351	0.249
036*	Medium Pink	Good for general washes. Side lighting.	45.4	0.34	0.360	0.268
192	Flesh Pink	Musical and pantomime key lighting.	34.9	0.46	0.410	0.237
341	Plum	Romantic, atmospheric set lighting.	19.4	0.71	0.309	0.256
794	Pretty 'n Pink	Creates warm and soft effects.	46.8	0.33	0.335	0.251
111	Dark Pink	Good for cycloramas.	31.9	0.50	0.389	0.215
002	Rose Pink	Strong pink wash cycloramas.	32.7	0.50	0.328	0.202
328	Follies Pink	Dramatic stage lighting.	21.6	0.67	0.335	0.180
128	Bright Pink	Created for use as back lighting, side lighting. Good for "specials". Great for musicals.	13.7	0.86	0.401	0.151
793	Vanity Fair	A rich glamorous pink, good for use on special occasions.	12.0	0.92	0.419	0.170
332	Special Rose Pink	Pantomimes, light entertainment etc. Strong stage wash.	10.5	0.98	0.465	0.193
795	Magical Magenta	Rich mixture of red and pinks.	13.1	0.88	0.327	0.138
048	Rose Purple	Good for emulating evening. Great backlight.	13.9	0.86	0.288	0.167
049	Medium Purple	A strong cheerful glow, for cycloramas and pantomimes.	4.5	1.35	0.287	0.102
126	Mauve	Good for back lighting. Dark magenta / purple adds drama, mood.	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

* Also available in High Temperature (HT) version

coloured frosts

product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
791# Moroccan Frost	Smoothes PAR or flood washes of large areas. Useful for houselights; good for interior colour washes.	57.2	0.24	0.376	0.322
749# Hampshire Rose	Combines flesh tone warmer 154 with some Hampshire Frost.	74.0	0.13	0.339	0.318
774 Soft Amber Key 1	Used for producing a warm key light colour.	70.6	0.15	0.366	0.348
775 Soft Amber Key 2	Used for producing a warm key light colour.	58.4	0.23	0.409	0.363
705# Lily Frost	Smoothes 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
720# Durham Daylight Frost	Smoothes PAR or flood washes of large areas. Useful for houselights; good for entrances from natural light.	32.3	0.49	0.216	0.209
717# Shanklin Frost	201 with frost to soften the beam of profile units.	37.6	0.43	0.227	0.225
718# Half Shanklin Frost	202 with frost to soften the beam of profile units.	56.3	0.25	0.263	0.270
221 Blue Frost	Used for soft light effects with the addition of 218.	42.0	0.38	0.312	0.316
217# Blue Diffusion	As White Diffusion but with the addition of 218.	36.0	0.44	0.312	0.317
224# Daylight Blue Frost	Used for soft light effects with the addition of tungsten correction 201.	22.6	0.65	0.235	0.219
225# Neutral Density Frost	Used for soft light effects with the addition of 0.6 Neutral Density.	25.0	0.60	0.318	0.326

 # Non-Flame Retardant product

cosmetic range

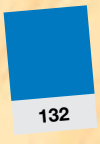
product	effect/colour	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
186 Cosmetic Silver Rose	Pale tints complementary to key lighting.	59.7	0.22	0.323	0.308
185 Cosmetic Burgundy	Pale tints complementary to key lighting.	57.7	0.24	0.324	0.319
187 Cosmetic Rouge	Pale tints complementary to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

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 CT BLUE
201 FULL CT BLUE
202 1/2 CT BLUE
203 1/4 CT BLUE
204 FULL CT ORANGE
205 1/2 CT ORANGE
206 1/4 CT ORANGE
207 FULL CT ORANGE + .3 NEUTRAL DENSITY
208 FULL CT ORANGE + .6 NEUTRAL DENSITY
209 .3 NEUTRAL DENSITY
210 .6 NEUTRAL DENSITY
211 .9 NEUTRAL DENSITY
212 LCT YELLOW
213 WHITE FLAME GREEN
214 FULL TOUGH SPUN
215 1/2 TOUGH SPUN
216 WHITE DIFFUSION
217 BLUE DIFFUSION
218 1/8 CT BLUE
219 LEE FLUORESCENT GREEN
220 WHITE FROST
221 BLUE FROST
223 1/8 CT 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 LCT 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

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

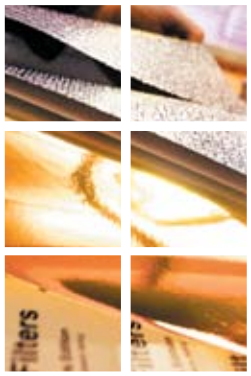
247	LEE MINUS GREEN
248	1/2 MINUS GREEN
249	1/4 MINUS GREEN
250	1/2 WHITE DIFFUSION
251	1/4 WHITE DIFFUSION
252	1/8 WHITE DIFFUSION
253	HAMPSHIRE FROST
254**	NEW HAMPSHIRE FROST
255	HOLLYWOOD FROST
256	1/2 HAMPSHIRE FROST
257	1/4 HAMPSHIRE FROST
258	1/8 HAMPSHIRE FROST
261	TOUGH SPUN FR - FULL
262	TOUGH SPUN FR - 3/4
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 CT BLUE
283	1 1/2 CT BLUE
285	3/4 CT ORANGE
286	1 1/2 CT ORANGE
287	DOUBLE CT 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
402	SOFT FROST
404	HALF SOFT FROST
410	OPAL FROST
413	HALF HIGHLIGHT
414	HIGHLIGHT
414P	PERFORATED HIGHLIGHT
416	3/4 WHITE DIFFUSION
420	LIGHT OPAL FROST
429	QUIET FROST
430	GRID CLOTH
432	LIGHT GRID CLOTH
434	1/4 GRID CLOTH
439	HEAVY QUIET FROST
439P	PERFORATED HEAVY QUIET FROST
441	FULL CT STRAW
442	1/2 CT STRAW
443	1/4 CT STRAW
444	1/8 CT 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
500	DOUBLE NEW COLOUR BLUE
501	NEW COLOUR BLUE (ROBERTSON BLUE)
502	HALF NEW COLOUR BLUE
503	QUARTER NEW COLOUR BLUE
504	WATERFRONT GREEN
505	SALLY GREEN
506	MARLENE
507	MADGE
508	MIDNIGHT MAYA
525	ARGENT BLUE
604	FULL CT EIGHT FIVE
642	HALF MUSTARD YELLOW
643	QUARTER MUSTARD YELLOW
650	INDUSTRY SODIUM
651	HI SODIUM
652	URBAN SODIUM
653	LO SODIUM
700	PERFECT LAVENDER
701	PROVENCE
702	SPECIAL PALE LAVENDER
703	COLD LAVENDER
704	LILY
705	LILY FROST
706	KING FALS LAVENDER
707*	ULTIMATE VIOLET
708	COOL LAVENDER
709	ELECTRIC LILAC
710	SPIR SPECIAL BLUE
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
727	QFD BLUE
728	STEEL GREEN
729*	SCUBA BLUE
730	LIBERTY GREEN
731	DIRTY ICE
733	DAMP SQUIB
735	VELVET GREEN
736	TWICKENHAM GREEN
738*	JAS GREEN
740	AURORA BOREALIS GREEN
741	MUSTARD YELLOW
742	BRAM BROWN
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
768	EGG YOLK YELLOW
770	BURNT YELLOW
773	CARDBOX AMBER
774	SOFT AMBER KEY 1
775	SOFT AMBER KEY 2
776	NECTARINE
777	RUST
778*	MILLENNIUM GOLD
779	BASTARD PINK
780	AS GOLDEN AMBER
781	TERRY RED
787	MARIUS 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
799	SPECIAL KH LAVENDER



technical filters

The LEE range of technical filters has been developed to accurately convert and manipulate light sources with a high degree of accuracy for technical situations. A full range of daylight, tungsten and fluorescent conversions, neutral densities, diffusers, reflectors and scrims, are all available in a variety of sizes and materials to suit the required job.

A touch of art, a lot of science.



In addition to our broad range of lighting filter, we also produce the highest quality camera filters in both resin and polyester.

conversion chart

How to use

Simply draw a line from the Colour Temperature value of your Original Light Source, to that of the required Source. Where the line crosses the central band, read off the Mired Shift value. For your convenience we have added both our Lighting and Camera Filters at their appropriate positions in relation to the Mired Shift Scale. The Lighting Filters are positioned on the left of the Mired Shift Scale, whilst the Camera Filters are on the right.

Example 1 (Lighting Filter)

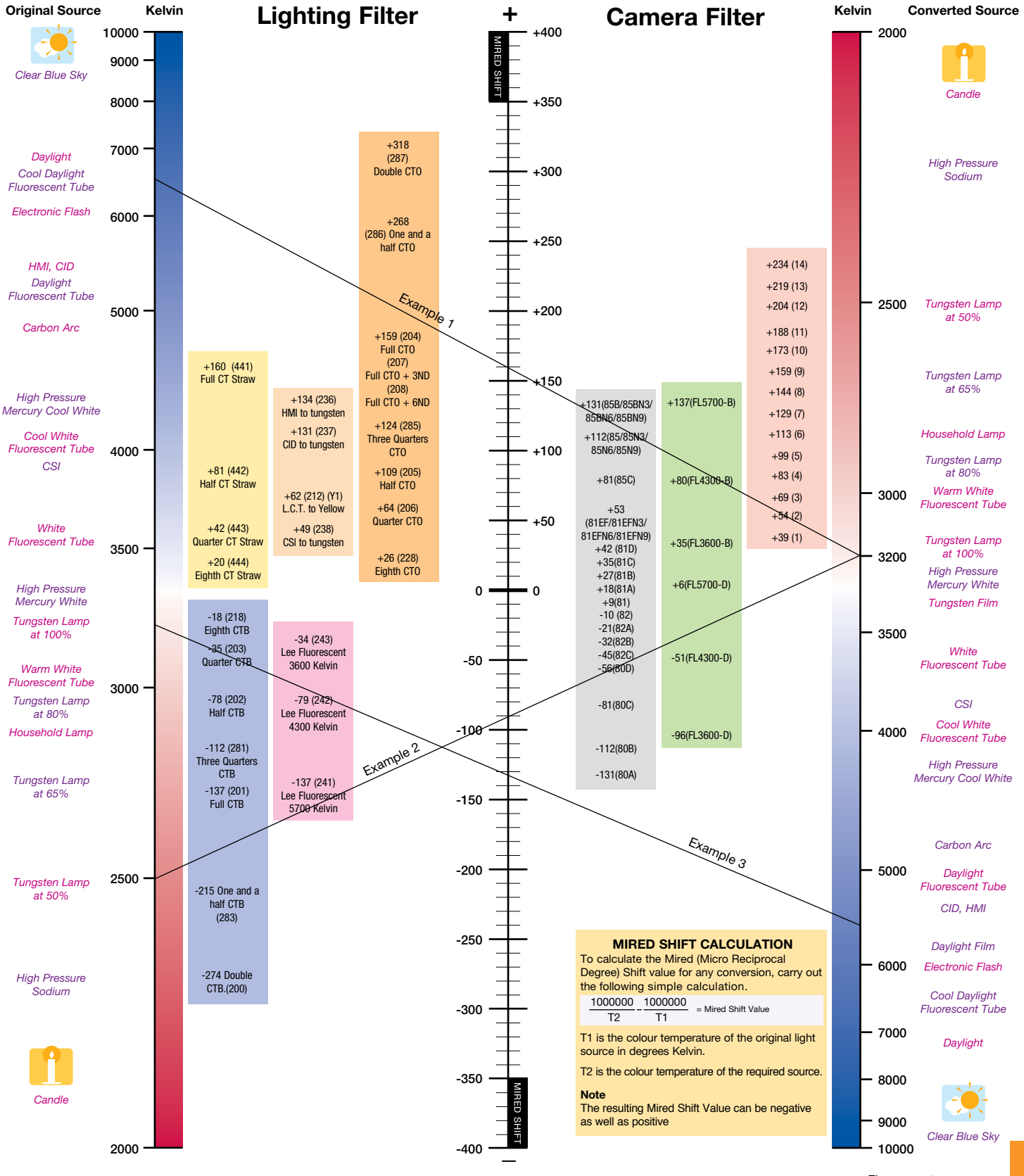
To convert an original source of 6500K to 3200K. The line has been drawn as an example. You will note that it crosses the central band at just over +150 Mired Shift. This indicates that the Filter required is 204 Full CTO (also available with two degrees of Neutral Density).

Example 2 (Lighting Filter)

To convert an original source of 2500K to 3200K. You will note that the line crosses the central band at -90 Mired Shift. In this example the nearest filter is a 202 Half CTB with a Mired Shift of -78. To achieve the desired mired shift of -90 a combination of two filters can be used. 202 Half CTB (-78 Mired Shift) and 218 Eighth CTB (-18 Mired Shift). Combining these two filters together will give a total Mired Shift of -96 (which in most cases would be acceptable).

Example 3 (Camera Filter)

To convert an original source of 3250K (tungsten light) to 5600k (daylight film) you can see that the line crosses the central band at -130 mired shift. This indicates that the camera filter required is an 80A (-131 Mired Shift).



MIRED SHIFT CALCULATION

To calculate the Mired (Micro Reciprocal Degree) Shift value for any conversion, carry out the following simple calculation.

$$\frac{1000000}{T2} - \frac{1000000}{T1} = \text{Mired Shift Value}$$

T1 is the colour temperature of the original light source in degrees Kelvin.

T2 is the colour temperature of the required source.

Note
The resulting Mired Shift Value can be negative as well as positive

C. T. Straws — *Arc Correction* — *Daylight Conversion* — *Fluorescent Light Conversion*

Tungsten Light Conversion — *Tungsten to Fluorescent Conversion* — *Colour Temperature Adjustment inc Neutral Density* — *Coral*

product	description	Kelvin	Mired Shift	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)				
Tungsten Light Conversion							
200 Double CTB	Converts Tungsten to Daylight.	3200K to 26000K approx	-274	16.2	0.79	0.179	0.155
283 One and a Half CTB	Converts Tungsten to Daylight.	3200K to 8888K	-200	24.4	0.61	0.201	0.188
201 Full CTB	Converts Tungsten to Photographic Daylight. Also available as Wide Roll.	3200K to 5700K	-137	34.0	0.47	0.228	0.233
281 Threequarters CTB	Converts Tungsten to Daylight.	3200K to 5000K	-112	45.5	0.35	0.239	0.258
202 Half CTB	Converts Tungsten to Daylight.	3200K to 4300K	-78	54.9	0.26	0.261	0.273
203 Quarter CTB	Converts Tungsten to Daylight.	3200K to 3600K	-35	69.2	0.16	0.285	0.294
218 Eighth CTB	Converts Tungsten to Daylight.	3200K to 3400K	-18	81.3	0.09	0.299	0.307
Daylight Conversion							
287 Double CTO	Converts Daylight to Tungsten Light.	6500K to 2147K	+312	40.9	0.39	0.514	0.424
286 One and a Half CTO	Converts Daylight to Tungsten Light.	6500K to 2507K	+245	48.2	0.32	0.478	0.422
204 Full CTO	Converts Daylight to Tungsten Light.	6500K to 3200K	+159	55.4	0.26	0.437	0.392
285 Threequarters CTO	Converts Daylight to Tungsten Light.	6500K to 3600K	+124	61.3	0.21	0.400	0.387
205 Half CTO	Converts Daylight to Tungsten Light.	6500K to 3800K	+109	70.8	0.15	0.374	0.364
206 Quarter CTO	Converts Daylight to Tungsten Light.	6500K to 4600K	+64	79.1	0.10	0.346	0.346
223 Eighth CTO	Converts Daylight to Tungsten Light.	6500K to 5550K	+26	85.2	0.07	0.328	0.332
207 Full CTO +.3ND	Converts Daylight to Tungsten and reduces light 1 Stop.	6500K to 3200K	+159	32.5	0.49	0.435	0.386
208 Full CTO +.6ND	Converts Daylight to Tungsten and reduces light 2 Stops.	6500K to 3200K	+159	15.6	0.81	0.442	0.394
441 Full CT Straw	Converts Daylight to Tungsten Light with yellow bias.	6500K to 3200K	+160	57.3	0.24	0.426	0.407
442 Half CT Straw	Converts Daylight to Tungsten Light with yellow bias.	6500K to 4300K	+81	71.2	0.15	0.370	0.378
443 Quarter CT Straw	Converts Daylight to Tungsten Light with yellow bias.	6500K to 5100K	+42	79.8	0.10	0.338	0.349
444 Eighth CT Straw	Converts Daylight to Tungsten Light with yellow bias.	6500K to 5700K	+20	83.1	0.08	0.323	0.332
604 Full CT Eight Five	Converts daylight to tungsten with a red bias.	6500K to 3200K	+159	55.9	0.25	0.422	0.389

conversion

product	description	Mired Shift	Transmission Y%	Absorption	Stop Value	Note
Polariser						
239 Polariser	Made from 0.006" (150 micron) Triacetate. Reduces glare and reflection. Use with LEE Polarising Camera Filter.	+19	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)

product	description	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
		(Measured to source C, Correlated Colour Temperature of 6774K)			
Neutral Density					
298 .15ND	Reduces light 1/2 Stop, without changing colour.	70.2	0.15	0.311	0.319
209 .3ND	Reduces light 1 Stop, without changing colour.	50.0	0.30	0.310	0.319
210 .6ND	Reduces light 2 Stops, without changing colour.	25.0	0.60	0.308	0.317
211 .9ND	Reduces light 3 Stops, without changing colour.	12.3	0.90	0.310	0.322
299 1.2ND	Reduces light 4 Stops, without changing colour.	6.3	1.18	0.308	0.315

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.

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

The panels are available in two sizes:

Size	Thickness	Weight	Note
2.44m x 1.22m (8' x 4')	3mm (1/8")	9.6kg (21lbs)	All panels available in this size
2.44m x 1.52m (8' x 5')	3mm (1/8")	12kg (26.5lbs)	Only A204, A209, A210 & A211 available in this size

product	description	Mired Shift	Transmission Y%
Daylight Conversion			
A204 Full CTO	Converts Daylight to Tungsten Light.	+175	57.2
A205 Half CTO	Converts Daylight to Tungsten Light.	+90	72.6
A207 Full CTO + .3ND	Converts Daylight to Tungsten and reduces light 1 Stop.	+175	30.2
A208 Full CTO + .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

product		description	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
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
Arc Correction and Effect						
212	LCT 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
230	Super Correction LCT Yellow	Converts Yellow carbon arc (of low colour temperature) to Tungsten.	41.9	0.38	0.367	0.368
232	Super Correction White Flame Green to Tungsten	Converts White Flame arc to 3200K, for use with Tungsten film.	37.4	0.43	0.423	0.385
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

correction

product		description	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
741	Mustard Yellow	Spooky when used in haze. Removes some red and blue. Works best with daylight bulbs. Sodium lamp effect.	3.3	1.48	0.506	0.491
642	Half Mustard Yellow	Half strength Sodium light effect, designed for use with daylight sources.	13.7	0.86	0.500	0.496
643	Quarter Mustard Yellow	Quarter strength Sodium light effect, designed for use with daylight sources.	31.3	0.50	0.483	0.493
650	Industry Sodium	Used on tungsten to blend with Sodium light	34.1	0.47	0.397	0.424
651	Hi Sodium	Used on tungsten to create a High Pressure Sodium look.	48.8	0.31	0.444	0.396
652	Urban Sodium	Used on tungsten to create the orange glow associated with Sodium light	21.9	0.66	0.535	0.399
653	Lo Sodium	Used on tungsten to create a Low Pressure Sodium look.	2.4	1.62	0.540	0.443

reflection media

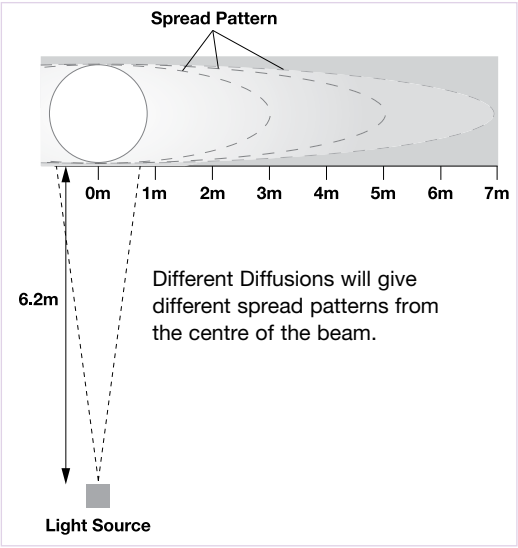
product		description	special note
Reflector			
271	Mirror Silver	Produces hard reflection. White backed.	Available in 6.10m x 1.52m (20'x60") rolls
272	Soft Gold Reflector	Produces soft reflection. White backed. Mired Shift +45.	Available in 6.10m x 1.52m (20'x60") rolls
273	Soft Silver Reflector	Produces soft reflection. White backed.	Available in 6.10m x 1.52m (20'x60") rolls
274	Mirror Gold	Produces hard reflection. White backed. Mired Shift +45.	Available in 6.10m x 1.52m (20'x60") rolls
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

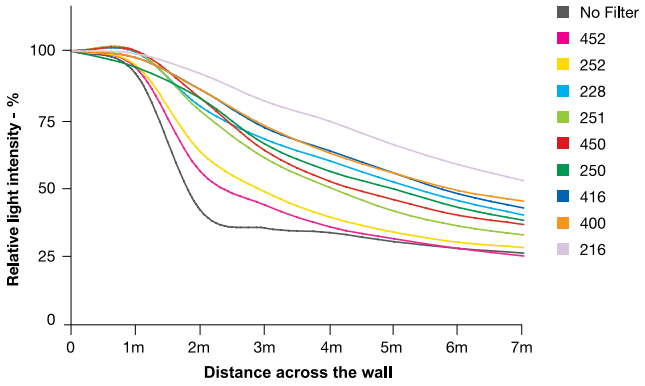
product		description	Transmission Y%	Absorption	Chromaticity Co-ordinates x	y
			(Measured to source C, Correlated Colour Temperature of 6774K)			
Heat Shield						
269	LEE Heat Shield	A transparent flexible film used to extend the life of a filter. The shield should be placed between the light source 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")			

The illustrations on these two pages show how a light beam softens when using different types of diffusion media i.e. Diffusions, Frosts, Flexi-Frosts, Grid Cloths and Spuns.

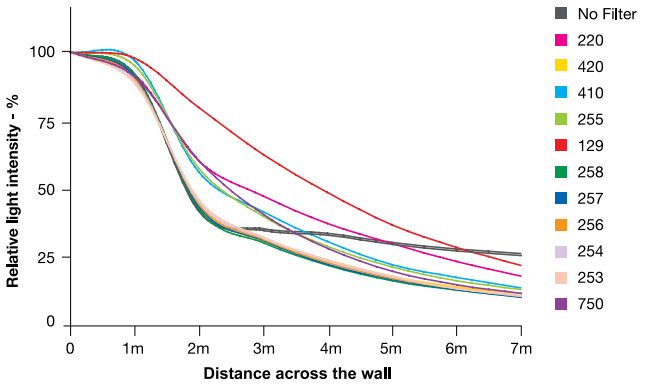
A focused follow spot luminaire, 6.2m from a wall was used to obtain the information represented here. Light intensity readings were taken horizontally across the wall from the centre of the beam. The information shown should only be used for comparing the relative light spread of each of the different filters.



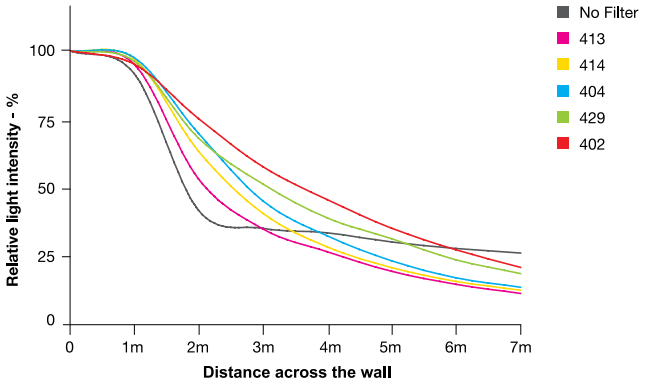
	% T	Stop Value	Non/ Flame	ILLUSTRATIONS
DIFFUSIONS - Spreads the projected beam of light over the subject, some loss of light will possibly be seen. The greater the diffusion, the greater and more even the resultant spread of light. Shadows are reduced. Used to smooth out beam scallops when lighting cycloramas or in tight spaces.				
No Filter				
452 Sixteenth White Diffusion	>85	<1/4	NFR	
252 Eighth White Diffusion	>85	<1/4	NFR	
228 Brushed Silk	60	3/4	NFR	
251 Quarter White Diffusion	80	1/3	NFR	
450 Three Eighth White Diffusion	63	2/3	NFR	
250 Half White Diffusion	60	3/4	NFR	
416 Three Quarter White Diffusion	50	1	NFR	
400 LEELux	36	1 1/2	NFR	
216 White Diffusion	36	1 1/2	NFR	



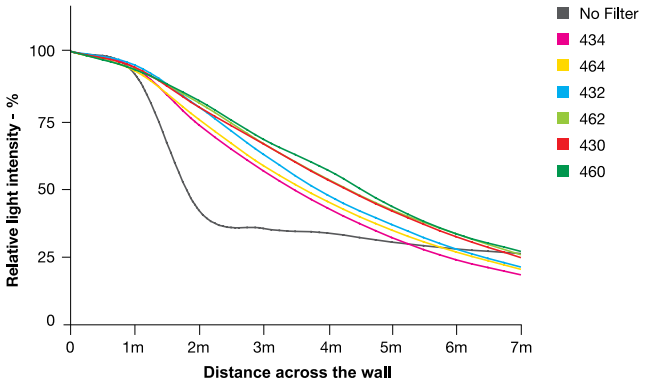
	% T	Stop Value	Non/ Flame	ILLUSTRATIONS
FROSTS - Frost is used for a variety of applications offering low to medium diffusion to a beam of light while maintaining the shape and beam center.				
No Filter				
220 White Frost	39	1 1/3	FR	
420 Light Opal Frost	>85	<1/4	NFR	
410 Opal Frost	71	1/2	NFR	
255 Hollywood Frost	83	<1/3	NFR	
129 Heavy Frost	25	2	FR	
258 Eighth Hampshire Frost	>85	<1/4	NFR	
257 Quarter Hampshire Frost	>85	<1/4	NFR	
256 Half Hampshire Frost	>85	<1/4	NFR	
254 New Hampshire Frost	>85	<1/4	FR	
253 Hampshire Frost	>85	<1/4	NFR	
750 Durham Frost	>85	<1/4	NFR	



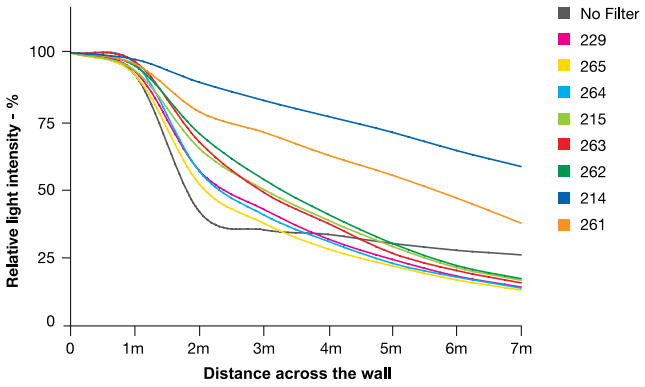
	% T	Stop Value	Non/ Flame	ILLUSTRATIONS
FLEXI FROSTS - Soft, quite and pliable frosts which can be sewn for use on large frames. Waterproof, durable and thick makes them perfect for windy and rainy weather conditions.				
No Filter				
413 Half Highlight	84	1/4	FR	
414 Highlight	40	1 1/3	FR	
404 Half Soft Frost	36	1 1/2	FR	
429 Quiet Frost	18	2 1/2	FR	
402 Soft Frost	12	3	FR	



	% T	Stop Value	Non/ Flame	ILLUSTRATIONS
GRID CLOTHS - A reinforced material containing diffusion properties ranging from medium to dense. Grid cloth creates the effect of a shadowless beam of light.				
No Filter				
434 Quarter Grid Cloth	60	3/4	NFR	
464 Quiet Quarter Grid Cloth	47.5	1	NFR	
432 Light Grid Cloth	30	1 3/4	NFR	
462 Quiet Light Grid Cloth	22.5	2 1/4	NFR	
430 Grid Cloth	18	2 1/2	NFR	
460 Quiet Grid Cloth	15	2 3/4	NFR	



	% T	Stop Value	Non/ Flame	ILLUSTRATIONS
SPUNS - Creates an overall diffusion, softens shadows and leaves beam intact.				
No Filter				
229 Quarter Tough Spun	60	3/4	NFR	
265 Tough Spun FR - 1/4	60	3/4	FR	
264 Tough Spun FR - 3/8	50	1	FR	
215 Half Tough Spun	36	1 1/2	NFR	
263 Tough Spun FR - 1/2	41	1 1/3	FR	
262 Tough Spun FR - 3/4	32	1 2/3	FR	
214 Full Tough Spun	18	2 1/2	NFR	
261 Tough Spun FR - Full	25	2	FR	



Non-Flame Retardant

Frost

product	description	Transmission %	Stop value	Special Notes
410 Opal Frost	Used for softening spotlight beam edges without altering shape (23 micron polyester base).	71	1/2	
420 Light Opal Frost	Similar characteristics to Opal Frost, but less diffuse (36 micron polyester base).	>85	<1/4	
258 Eighth Hampshire Frost	Extra Light frost effect.	>85	<1/4	
257 Quarter Hampshire Frost	Extra Light frost effect.	>85	<1/4	
256 Half Hampshire Frost	Extra Light frost effect.	>85	<1/4	
253 Hampshire Frost	Light frost effect.	>85	<1/4	
255 Hollywood Frost	Light frost effect - softens edges.	83	<1/3	
750 Durham Frost	A frost that almost completely softens shutter edges and removes hot spots.	>85	<1/4	
720 Durham Daylight Frost	Smoothes PAR or flood washes of large areas. Useful for houselights; good for entrances from natural light.	32.3	1 2/3	Full CT Blue
717 Shanklin Frost	201 with frost to soften the beam of profile units.	37	1 1/2	Full CT Blue
718 Half Shanklin Frost	202 with frost to soften the beam of profile units.	56	3/4	Half CT Blue
705 Lily Frost	Smoothes PAR or flood washes of large areas. Useful for houselights; a good colour wash for evening events.	38	1 1/3	Colour = 704
791 Moroccan Frost	Smoothes PAR or flood washes of large areas. Useful for houselights; good for interior colour washes.	57	3/4	Colour = 790
749 Hampshire Rose	Combines flesh tone warmer 154 with some Hampshire Frost.	74	1/2	Colour = 154
224 Daylight Blue Frost	Used for soft light effects with the addition of tungsten correction 201.	22	2 1/4	Full CT Blue
225 Neutral Density Frost	Used for soft light effects with the addition of 0.6 Neutral Density.	25	2	.6 Neutral Density

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	

product		description	Transmission %	Stop value	Special Notes
Non-Flame Retardant					
Diffusion					
216	White Diffusion	Used for soft light effects. Manufactured on a tough Polyester base in a range of seven strengths.	36	1½	Rolls also available in 1.52m (60”) width
416	Three Quarter White Diffusion		50	1	
250	Half White Diffusion		60	¾	Rolls also available in 1.52m (60”) width
450	Three Eighth White Diffusion		63	⅔	
251	Quarter White Diffusion		80	⅓	Rolls also available in 1.52m (60”) width
252	Eighth White Diffusion		>85	<¼	
452	Sixteenth White Diffusion		>85	<¼	
400	LEELux	A dense white diffuser used for soft light effects (125 micron polyester base).	36	1½	Wide Rolls also available
217	Blue Diffusion	As White Diffusion but with the addition of Eighth CTB.	36	1½	⅛ CT Blue
228	Brushed Silk	Directional soft light effect used for scattering light in one direction only.	60	¾	
Tough Spun					
214	Full Tough Spun	Softens light, reduces intensity. Manufactured from non-woven Polyester.	18	2½	Rolls only 7.62 x 1.22m (25’ x 48”)
215	Half Tough Spun		36	1½	
229	Quarter Tough Spun		60	¾	
Flame Retardant					
Frost					
129	Heavy Frost	Strong diffuser, eliminates nearly all shadows.	25	2	
220	White Frost	Used for soft light effects.	39	1⅓	
221	Blue Frost	Used for soft light effects with the addition of 218.	42	1⅓	1/8 CT Blue
254	New Hampshire Frost	Used to soften the edges of spotlight beams, and to reduce the blue fringe.	>85	<¼	HT only (For sizes see p10-11)
774	Soft Amber Key 1	Used for producing a warm key light colour.	71	½	
775	Soft Amber Key 2	Used for producing a warm key light colour.	58	¾	

Flame Retardant

Flexi Frosts

product		description		Transmission %	Stop value	Special Notes
439	Heavy Quiet Frost	A very strong diffuser but pliable to handle, that virtually eliminates shadows at close distances.	Advantages of this material are the large roll width; lack of noise when handled or used in windy conditions; waterproof for use outdoors, can be sewn or grommetted together for use on large frames; flame retardant. 1.52m width, 6.10m length, (60” x 20’)	7.8	3 2/3	Thickness 270 microns (11 thou)
402	Soft Frost	A strong diffuser that creates a wide field of soft illumination but is very pliable to handle. Diffusion characteristics similar to 216, falls between 216 and 129.		12.0	3	Thickness 100 microns (4 thou)
429	Quiet Frost	A strong diffuser that creates a wide field of soft illumination but is thicker than the 402 product. Diffusion characteristics similar to 416.		18.4	2 1/2	Thickness 325 microns (13 thou)
404	Half Soft Frost	A useful diffuser without too much light loss but very pliable to handle. Diffusion characteristics fall between 251 and 252.		36.2	1 1/2	Thickness 100 microns (4 thou)
414	Highlight	A useful diffuser without too much light loss in a thick format. Diffusion characteristics similar to 252.		39.6	1 1/3	Thickness 300 microns (12 thou)
413	Half Highlight	A strong frost effect that completely softens the edges of a spotlight beam. Diffusion characteristics similar to 750, falls between 750 and 253.		84.1	1/4	Thickness 300 microns (12 thou)

product		description		Stop value	Special Notes

Perforated Diffusion

414P	Perforated Highlight	A combination of both direct and soft diffused light.	1.52m width, 6.10m length, (60” x 20’) Flame retardant.	1 1/3	Thickness 300 microns (12 thou)
439P	Perforated Heavy Quiet Frost	A combination of both direct and strongly diffused light.		2 1/3	Thickness 270 microns (11 thou)

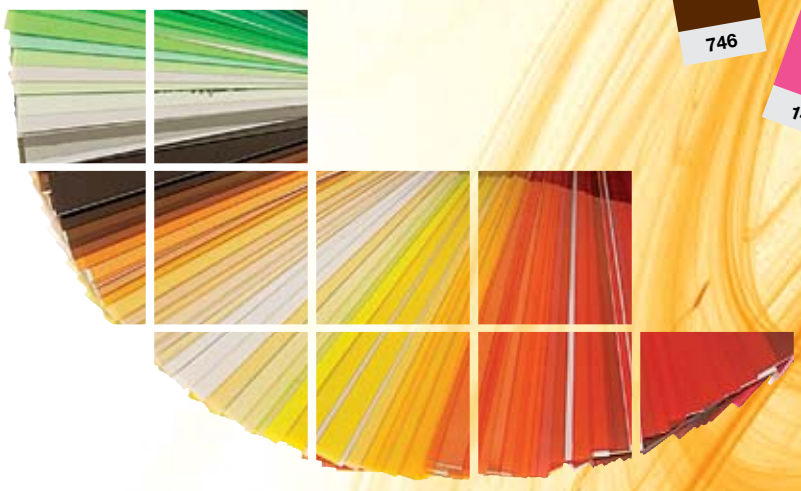
product		description	Transmission %	Stop value	Special Notes

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	

the architectural series

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



fluorescent sleeves

116

Get creative with fluorescent lighting! With over 250 colours to choose from, LEE Filters Fluorescent Coloured Sleeves offer the designer more choice than ever for both interior and exterior lighting projects.

Visit www.leefilters.com to view all the latest colours or alternatively phone and request a swatch book containing the full colour range.

T5 Sleeves

T8 Sleeves

T12 Sleeves

Pre-assembled Sleeves

You choose the colour and leave the rest to us. Your chosen colour is inserted into a clear sleeve and delivered 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 tube making installation easy. The sleeves are available in standard lengths for T5, T8 and T12 diameter tubes.

It is recommended that you contact us if intending to use sleeves on T5 tubes, as your colour choice and tube wattage will determine if a sleeve is suitable. The sleeves are not recommended for use on high output T5 tubes, as the extreme heat at either end of the tube can cause the filter to discolour.

Extend the life of coloured inserts by adding LEE UV into a T8 or T12 tube.

Coloured Sleeves used with diffusion create a smooth wallwash.

Self-assembly

Alternatively LEE Filters can supply pre-cut “Quick Rolls” of your chosen colour along with clear polycarbonate sleeves enabling self assembly of the inserts and sleeves.

The pre-cut “Quick Rolls” are 7.62m (25’) long and are available for T5, T8 and T12 diameter sleeves.

Two-tone Sleeves

Two-tone sleeves

There are a number of different ways you can use coloured fluorescent sleeves creatively. An effect that works particularly well is a two-tone sleeve. This is where you have one colour at the front of the sleeve and a contrasting colour at the back. With over 250 colours to choose from, the number of different colour combinations are endless!

Neutral Density filters used in fluorescent tubes will reduce light where intensity is an issue.

107

159

the glass series

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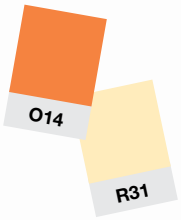
Dichroic Glass Colours

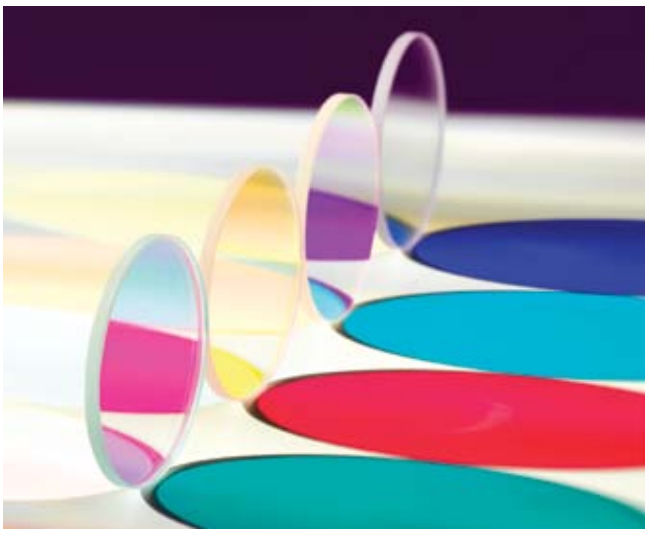
Specifically designed to meet the demands of the lighting industry, LEE Filters dichroic glass filters are produced by the vacuum deposition of layers of thin metal films onto a substrate of borofloat glass. The glass is available in a thickness of 3.3mm and 1.7mm, and the production process creates spectacularly clear and pure colours. The glass filters will not fade and should withstand temperatures up to 371°C.

Professional Colours

Chosen after extensive research among design professionals, the Glass Series colour palette provides a range of 39 consistent, repeatable colours. This includes subtle, less saturated tones suitable for architectural use. Building on our expertise in film and theatre lighting, LEE has closely matched the glass series on polyester lighting filter material to provide a convenient swatch reference book. Available on request, lighting professionals can use this book to test colour schemes or demonstrate the effects of different filters.



LEE Filters offer a complete range of lighting filter products specifically designed for applications such as retail and entertainment, as well as both interior and exterior lighting projects.



*Lighting design by LIGHTFORM LLC

the glass series

C47

Framed Glass

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 (3") to 60cm (23.5") across can be designed in any shape.

LEE Filters Dichroic Glass is not tempered.

V28

V10

Framed Glass

- 15.8cm (6.25") Source Four
- 19cm (7.5") Source Four PAR
- 25.4cm (10") PAR 64

Unframed Glass

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

- 4.99cm (1.96") MR16 and PAR 16 (circular)
- 5cm (2") square
- Custom sizes can be supplied - please ask for a quotation

the glass series

No.	Name
R31	Amber Blush 1
R50	Red 0
R99	Flame 9
O01	Sunset 1
O08	Sunset 8
O14	Peach 4
O18	Peach 8
O32	Apricot 2
O42	Nectarine 2
O43	Nectarine 3
O59	Orange 9
O80	Gold Amber 0
O82	Gold Amber 2
O89	Gold Amber 9
Y02	Wheat 2

No.	Name
G28	Lime 8
G96	Jade 6
C04	Blue Green 4
C45	Turquoise 5
C47	Turquoise 7
B06	Lagoon 6
B14	Steel 4
B24	Crystal Blue 4
B44	Royal Blue 4
B53	Blue 3
B64	Navy Blue 4
B71	Cornflower 1
B93	Congo 3
V10	Indigo 0
V28	Blueberry 8

	No.	Name
	V43	Violet 3
	V67	Rose Purple 7
	V74	Plum 4
	V81	Lilac 1
	V98	Lavender 8
	M31	Fuchsia 1
	M56	Magenta 6
	M63	Carnation Pink 3
	M91	Salmon 1
new	LD071	Tokyo Blue
new	LD156	Chocolate
new	LD278	Eighth Plus Green
new	LD279	Eighth Minus Green

LED no filter

LED warming filter

Specialised Filters

LEE Specialised Filters include warming, cooling and UV Filters.

Warming filters (CT Orange) will warm up a cool light source such as an LED light; they can also be used as a warm amber colour or to reduce the colour temperature of a light source.

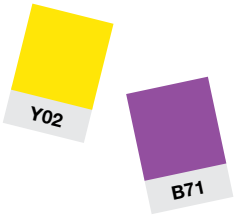
Cooling filters (CT Blue) will cool a light source. They can also be used as a cool blue colour or to convert tungsten light to daylight.

Specialised Filters

	No.	Name
	LD201	Full CT Blue
	LD202	Half CT Blue
	LD203	Quarter CT Blue
	LD204	Full CT Orange
	LD205	Half CT Orange
	LD206	Quarter CT Orange
new	LD209	0.3 ND
new	LD210	0.6 ND

Name
UV Blocker Absorbs Ultra Violet light
Hot Mirror Reflects heat back into the light source

frosted dichroic glass colours



All the colours within the glass series are available as 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 diffusion creates an even soft frost, removing the halo effect when the frosted side is placed on the fixture outwards, away from the lamp. The dichroic coating should withstand temperatures up to 371°C, allowing the colour to last for years without fading.

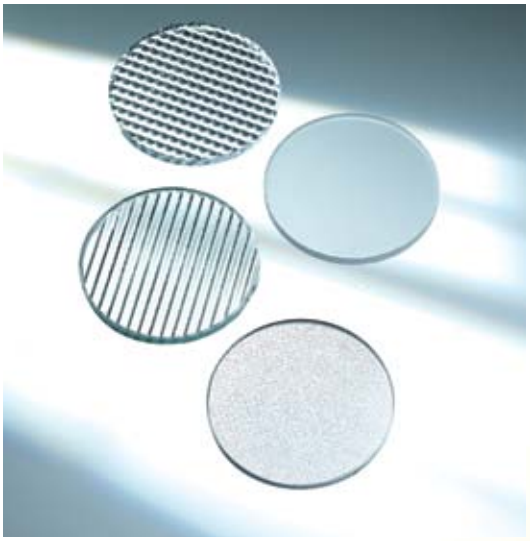
Frosted Dichroic Glass filters are available for MR16 and PAR 16 circular light fittings as well as custom shapes and sizes.

Unfrosted Glass

Frosted Glass

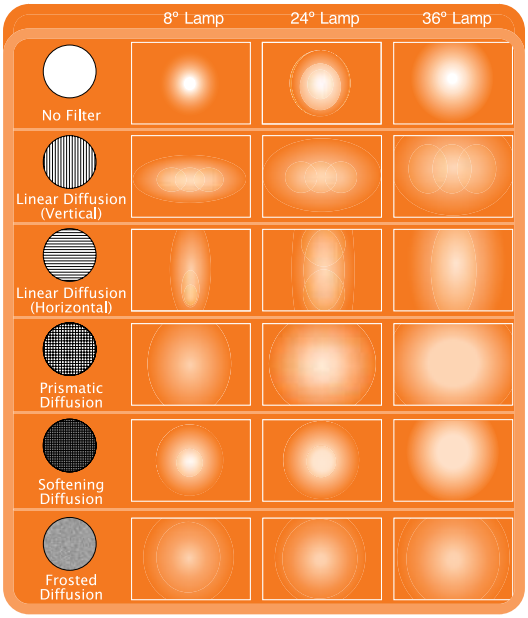
LEE Filters Dichroic glass is coated on one side. To determine which side is coated touch your finger to the flat surface of the filter. On the coated side the reflection will meet your finger. On the uncoated side there will be a space between your finger and the reflection.

glass diffusion filters



The LEE range of Glass Diffusion Filters offer different densities of diffusion for a wide range of lighting effects. They are available for MR16 and PAR fittings as well as custom shapes and sizes.

The diagram below shows the diffusion effect created when using an 8°, 24° or 36° 50w MR16 bulb, at a distance of 92cm (3').



Linear Diffusion

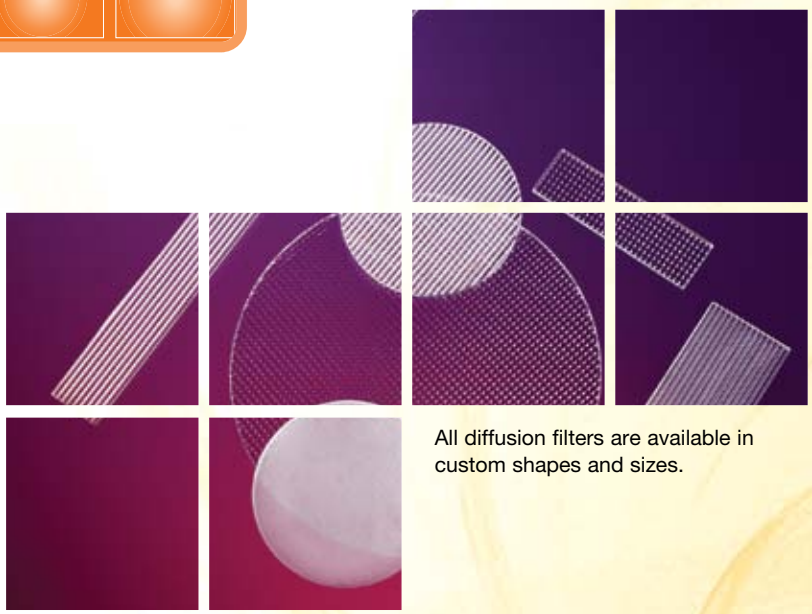
O80 Linear Diffusion

Combined Linear Diffusion and warming filter

Prismatic Diffusion

Softening Diffusion

Frosted Diffusion



All diffusion filters are available in custom shapes and sizes.

MR16 / PAR 16 accessories

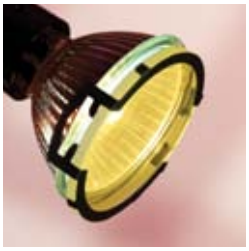
Attach filters directly to an MR16 or PAR 16 bulb using the LEE Filters accessory holder. Available in either black or silver, the screw-on holder fits securely onto the bulb and can hold up to two filters. This allows for a combination of colour, diffusion or louvre effects to be used on the one fitting.

LEE Clip-on accessories are a quick and easy way of adding a filter to or limiting the glare from MR16 or PAR 16 bulbs.

The Clip-on Filter Holder holds a single filter to a standard open bulb. The holder is available in either black or silver (packs of five).

The Clip-on Baffle (also known as blade louvres) traps the peripheral light sideways, limiting glare. The baffle also gives the fixture a more professional look. Available in black or silver (packs of five).

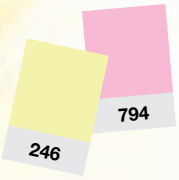
Clip-on Barndoors trap the light sideways; this limits the glare from a bulb but also allows you to direct the illumination from the bulb to a specific area. The flaps are adjustable by rotation and by bending the hinges. The high quality material of the hinges allows you to adjust them a number of times. Available in black or silver (packs of five).

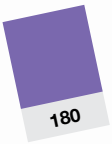


Clip-on Filter Holder

Clip-on Baffle

Clip-on Barndoors

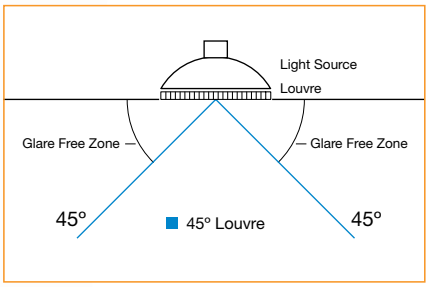


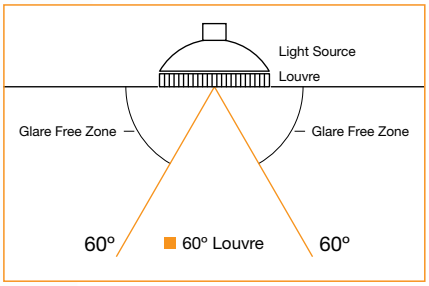


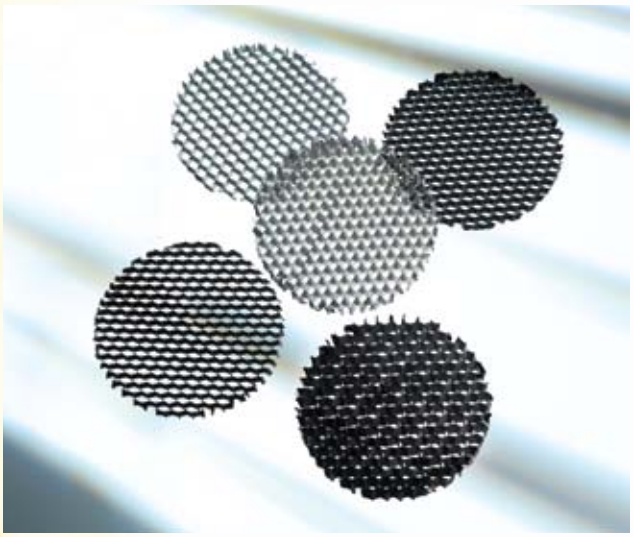
Louvres

Honeycomb Louvres reduce the glare from a light fitting. They are available in either a 45° or 60° angle and come in silver and black to match the LEE filter holders.

Louvres are also available in custom shapes and sizes enabling them to be used on a number of different light fittings.







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.

We produce a range of swatch books, each individually developed to serve a specific purpose.

They are:

- **The Designers' Edition** a swatch book containing the entire filter range in chromatic groupings.
- **The Numeric Edition** a swatch book containing the entire filter range in numerical order.
- **The Cinematographers' Edition** a large format dual swatch book with grades of both colour correction and diffusion filters most frequently used in film.
- **The Master Edition*** a 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.
- **The Glass Edition** a large format swatch book containing polyester lighting filter material that closely matches the colours from the glass series.

  The Glass Series Venetian Edition* contains small windows of polyester lighting material that closely match the colours from the glass series. An ideal way of comparing the different colours within the range at a glance.
- **The Fluorescent Edition** contains a sample of all the colours available as polyester inserts for the clear fluorescent sleeves.

** These swatches are not available free of charge.*

posters

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.

cutters

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.

gobos

The LEE Filters gobo posters contain more than 900 patterns, many of them new designs developed to complement existing ranges and to broaden the range available for today's (and tomorrow's) productions. The posters are ideal for an office or studio wall.

website

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

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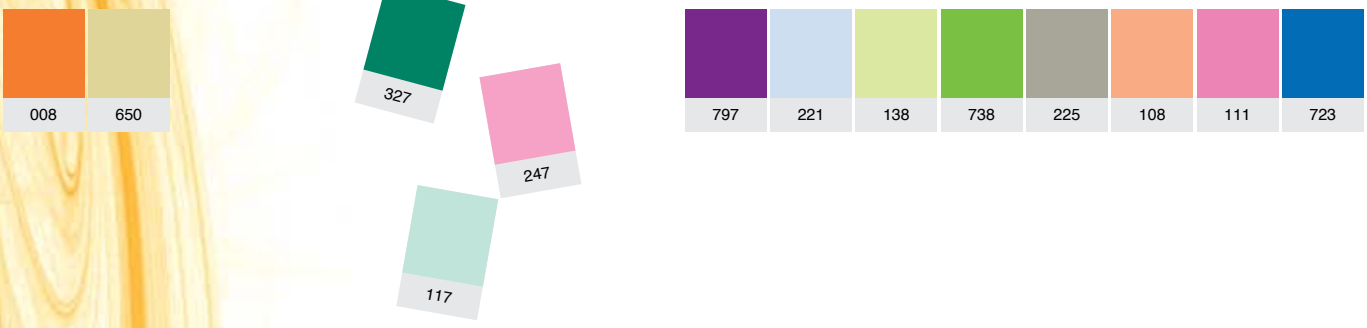
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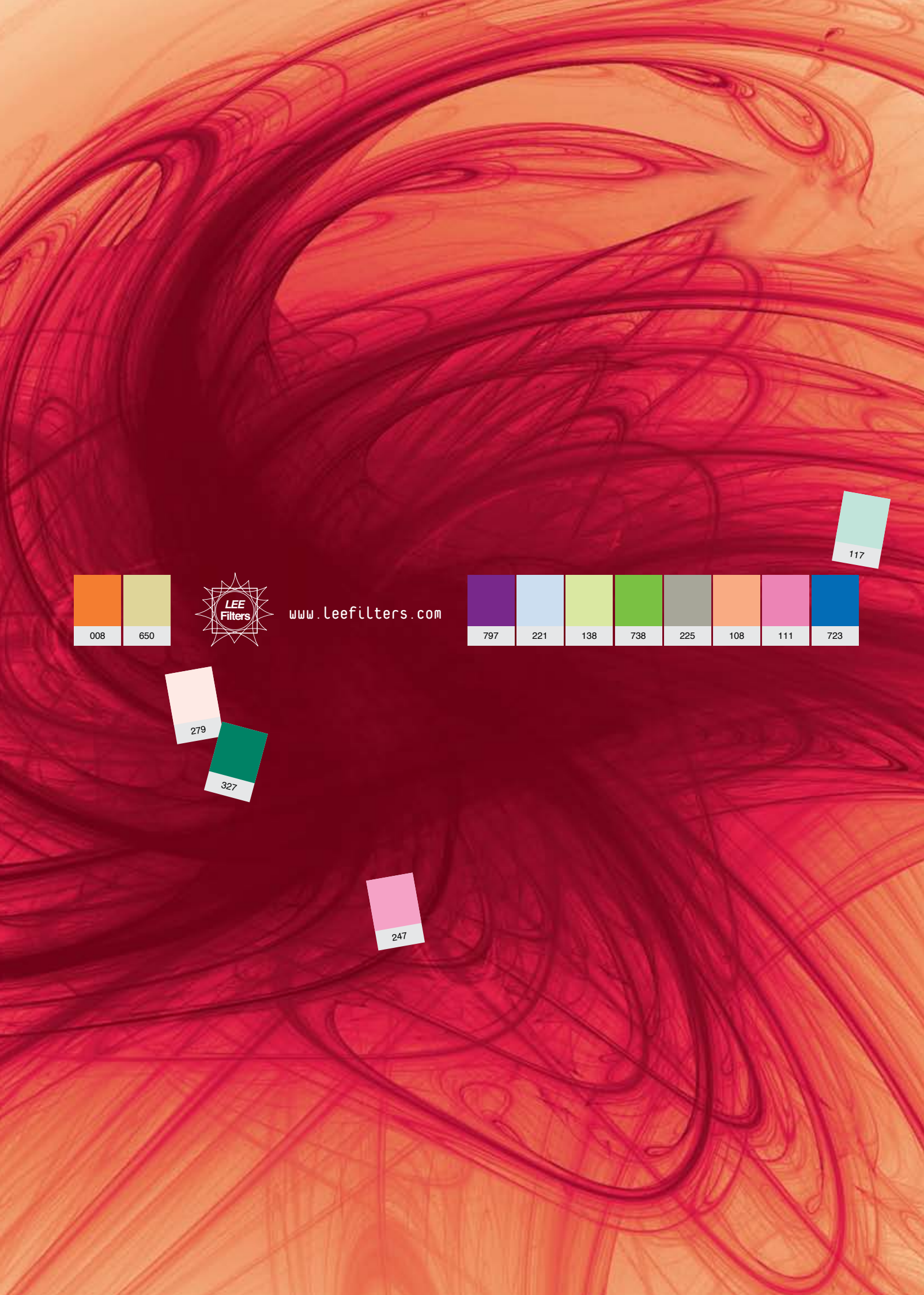
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