

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.

795







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 filmmaking 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.







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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.





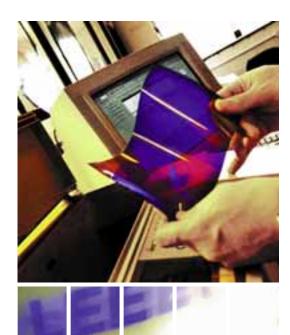


Branching out

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.





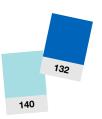
A policy of continuous improvement

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.



<mark>quality co</mark>ntrol





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.



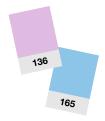
Television production, feature films and video all require specific technical filters to achieve uniformity from lens to screen; let LEE Filters' experts be your guide.







customer service





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.

■ 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!

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.



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.

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	Size	Size	Size	Size	Size	Size	Size	Size
7.62m	6.10m	7.62m	7.62m	7.62m	4m	7.62m	15.24m	Any width betwee
x 1.52m	x 1.52m	x 1.37m	x 1.22m	x 1.22m	x 1.17m	x 0.61m	x 0.3m	2.5cm (1") and 1.17m (46").
								All rolls are 7.62m
(25' x 60")	(20' x 60")	(25' x 54")	(25' x 48")	(25' x 48")	(13' x 46")	(25' x 24")	(50' x 12")	(25') long.
			2" Core	1" Core				
Products	Products	Products	Products	Products	Products	Products	Products	Products
216	204 - 211	430 - 434	Colour Effect	Colour Effect	Colour	Black Foil	Black Foil	Quick Rolls
250	223	460 - 464	Filters	Filters	Effect HT			
251	270 - 275		Tungsten	Tungsten				* HT Rolls available
252	298		Conversion	Conversion				as special order
416	299		Daylight	Daylight				
450	402		Conversion	Conversion				
452	404		Neutral Density	Neutral Density				
	413		Fluorescent	Fluorescent				
	414		Correction	Correction				
	429		Arc Correction Ultra Violet	Arc Correction Ultra Violet				
			Absorption	Absorption				
			Diffusion Media-	Diffusion Media-				
			Non Flame	Non Flame				
ii i	1		Retardant	Retardant				
			Diffusion Media-	Diffusion Media-				
			Flame Retardant					
			Heat Shield	Heat Shield				
			1 100		4			,
101								
						-		
					111			
			I					
100								

Size Panel	Size Panel	Size Full Sheet	Size Half Sheet	Size Half Sheet HT	Size Available in
2.44m	2.44m	0.53m	0.53m	0.53m	0.3m (1')
×	х	X	X	x	lengths. All sheets
.52m	1.22m	1.22m	0.61m	0.56m	are 0.43m
3' x 5')	(8' x 4')	(21" x 48")	(21" x 24")	(21" x 22")	(17") wide
hickness 3mm 1/8")	Thickness 3mm (1/8")				100
Products A204 A209 A210 A211	Products A204 A205 A207 A208 A209 A210 A211	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	Fluorescent Correction	Products Colour Effect HT	Products Polariser
Acrylic Panel	Acrylic Panel	Full Sheet	Half Sheet	Half Sheet HT	Polariser

the 700 series

A very special range of lighting filters unique to LEE. The 700 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 700 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 700 Series.

Peter Barnes



* 707 Ultimate Violet

Used in musical performances for general colour washes and set lighting.



* 721 Berry Blue

or set lighting.



* 729 Scuba Blue

Used in musical performances for a rear colour wash or set lighting.



Used in musical performances for rear colour wash



* 797 Deep Purple

Used in musical performances for general colour washes and set lighting.

Paule Constable



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



742 Bram Brown

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



733 Damp Squib

A dirty green, reduces warmth. Good for cross liahtina.



768 Egg Yolk Yellow

A bold strong chemical yellow, less orange/red than 179 Chrome Orange.

"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

Chris Davey



712 Bedford Blue

A smoky warm blue. Good for skin tones.



748 Seedy Pink

A smoky pink. Good for tungsten on skin tones.



722 Bray Blue

A purer blue with very little red in it.

"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.



Correct a daylight source to an off white tungsten source. Used with a tungsten source provides a dingy effect like a smoky bar.



736 Twickenham Green

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



749 Hampshire Rose

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









770 Burnt Yellow

744 Dirty White

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





714 Elysian Blue

A new deeper version of 197 Alice Blue.



718 Half Shanklin Frost

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



717 Shanklin Frost

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



798 Chrysalis Pink

A new deeper lavender with a dash of rose blusher.

Rick Fisher



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



735 Velvet Green

A beautiful background colour. Victorian melodrama. A night time green.



728 Steel Green

Approaching storms. Overcast days. Cold steely light. Malevolent moonlight.

"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.



727 QFD Blue

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



703 Cold Lavender

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



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."

741 Spook and bl

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.

Henrik Hambro

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.



746 Brown

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



719 Colour Wash Blue

To allow low intensity tungsten to hold a cold/



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

763 Wheat

Adds warmth, sunlight.

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



764 Sun Colour Straw

Adds warmth, bright sunlight.



725 Old Steel Blue

Cool wash, useful for highlights.



776 Nectarine

Romantic sunset. Period pieces.



779 Bastard Pink

Deep sunset. Useful on dark skin tones.





* 716 Mikkel Blue

A romantic blue to produce a night effect.



775 Soft Amber Key 2

Used for producing a warm key light colour. Flame retardant.



774 Soft Amber Key 1

Used for producing a warm key light colour. Flame retardant.



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.



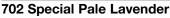
781 Terry Red

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



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.



720 Durham Daylight FrostSmoothes PAR or flood washes of large a

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



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



750 Durham Frost

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



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

790 Moroccan Pink A rich natural pink, good for p

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

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

Durham Marenghi

791 Moroccan Frost

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

David Whitehead



709 Electric Lilac

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



794 Pretty 'n Pink

Creates warm and soft effects.



767 Oklahoma Yellow

A rich blend of bright sunshine and warm ochre overtones.



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.



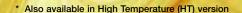
793 Vanity Fair

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



* 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.



ouick rolls and lighting packs

<mark>quick</mark> 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.

<mark>ligh</mark>ting 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	
139	Primary Green	
119	Dark Blue	x2 each
010	Medium Yellow	each
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		
187	Cosmetic Rouge		
188	Cosmetic Highlight	x2 each	
186	Cosmetic Silver Rose	eaci	1
775	Soft Amber Key 2		
791	Moroccan Frost		

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

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

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

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

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

No.	Name	\neg
200	Double CTB	
201	Full CTB	
202	1/2 CTB	x2 each
203	1/4 CTB	each
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		
202	1/2 CTB		
204	Full CTO		x2
205	1/2 CTO		each
216	Full White Diffusion		
250	1/2 White Diffusion		
210	.6 ND	=	
106	Primary Red		
181	Congo Blue		
738	JAS Green		
187	Cosmetic Rouge		
188	Cosmetic Highlight		x1
791	Moroccan Frost		each
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)

lighti	ng condition. (36 sheets)	
No.	Name	
200	Double CTB	
201	Full CTB	
202	1/2 CTB	
203	1/4 CTB	
204	Full CTO	x2
205	1/2 CTO	each
206	1/4 CTO	
216	Full White Diffusion	
250	1/2 White Diffusion	
251	1/4 White Diffusion	
210	.6 ND	
106	Primary Red	
126	Mauve	
181	Congo Blue	
738	JAS Green	
187	Cosmetic Rouge	
188	Cosmetic Highlight	
791	Moroccan Frost	x1
775	Soft Amber Key 2	each
720	Blue Durham Frost	
244	Plus Green	
245	1/2 Plus Green	
219	Fluorescent Green	
270	LEE Scrim	
280	Black Foil	
		100
		1

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 P	DJ Pack 1					
No.	Name					
015	Deep Straw	1				
020	Medium Amber					
024	Scarlet					
026	Bright Red					
048	Rose Purple	x1				
068	Sky Blue	each				
116	Medium Blue-Green					
181	Congo Blue					
323	Jade					
325	Mallard Green					
328	Follies Pink					
343	Special Medium Lavender					

DJ P	ack 2		
No.	Name		
027	Medium Red		
089	Moss Green		
105	Orange		
113	Magenta		
141	Bright Blue	x1	
180	Dark Lavender	each	
197	Alice Blue		
328	Follies Pink		
735	Velvet Green		
744	Dirty White		
781	Terry Red		
797	Deep Purple		
Inspi	ration Pack 1		
No.	Name	_	
009	Pale Amber Gold		
058	Lavender	x3	



colour magic packs



each

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

3		
No.	Name	
101	Yellow	
116	Medium Blue Green	
118	Light Blue	
122	Fern Green	
126	Mauve	x1
128	Bright Pink	each
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	
101	Yellow	
105	Orange	
116	Medium Blue Green	
120	Deep Blue	x1
126	Mauve	each
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

Pale Navy Blue

Zenith Blue

143

195

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

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

No.	Name	
164	Flame Red	7
124	Dark Green	
119	Dark Blue	
176	Loving Amber	
174	Dark Steel Blue	
138	Pale Green	x1
101	Yellow	each
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	
007	Pale Yellow	
009	Pale Amber Gold	
035	Light Pink	
061	Mist Blue	
063	Pale Blue	x1
103	Straw	each
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	
203	Quarter CTB	
218	Eighth CTB	x2 each
205	Half CTO	each
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	
048	Rose Purple	
880	Lime Green	
100	Spring Yellow	
108	English Rose	
131	Marine Blue	x1
157	Pink	each
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

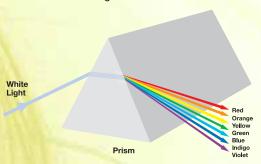
No.	Name		
205	Half CTO		x2 each
206	Quarter CTO		each
219	LEE Fluorescent Green	Ħ	
241	LEE Fluorescent 5700K		x1
242	LEE Fluorescent 4300K		each
243	LEE Fluorescent 3600K		
244	Full Plus Green	ī	x2
245	Half Plus Green		each
	-	_	

<mark>the science behind the art</mark>

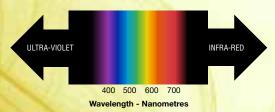
Light

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.



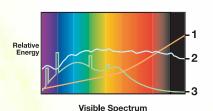
Each wavelength within the visible spectrum is recognised by our eyes as providing a particular colour sensation, the diagram below clearly indicates the visible colours and their corresponding wavelengths. White light consists of all of the visible wavelengths, present in equal amounts.



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.



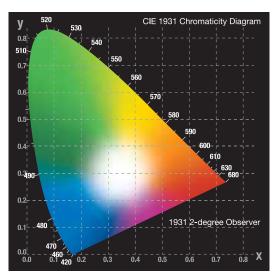
- 1. Tungsten
- 2. Daylight
- 3. Fluorescent

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.

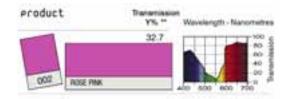
The HUE and SATURATION of any colour can be represented by its position on a chromaticity diagram, as seen below. The diagram contains all visible colours, and all possible densities of these colours, in a two dimensional configuration. Pale colours in the centre and saturated versions of those same 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.



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%.

Υ%	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.



effect/colour

product

Transmission Absorption Chromaticity Co-ordinates
Y% x y
(Measured to source C, Correlated Colour Temperature of 6774K)

(Measured to source C, Correlated Colour Temperature of 6774					
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
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
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

_ colour range

product	effect/colour	Υ%	-	Chromaticity x	У
799 Special K.H.	A deep lavender that brings out the UV.	ed to source C	1.86	0.158	0.035
Lavender					
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
200 Double CTB	Converts tungsten to daylight.	16.2	0.79	0.179	0.155
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
201 Full CTB	Converts tungsten to photographic daylight.	34.0	0.47	0.228	0.233

^{*} Also available in High Temperature (HT) version

	(Measure	d to source C,	Correlated C	olour Temper	ature of 6774K)
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
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
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
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

colour range

product	effect/colour	Y%	Absorption	x	Co-ordinates y ature of 6774K
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
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
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

Transmission Absorption Chromaticity Co-ordinates product effect/colour Y% X y
(Measured to source C, Correlated Colour Temperature of 6774K) 0.543 122* Fern Green Cycloramas - good for mood effect. 0.28 0.234 51.5 738* JAS Green A rich yellowish green: useful as a concert stage wash where 52.3 0.28 0.315 0.587 darker skin tones, costume and set are a consideration. 0.20 0.534 121* LEE Green Dense foliage, tropical or woodlands effect. 64.0 0.302 70.9 0.356 0.511 088 Lime Green Use with gobos for leafy glades - pantomimes - slightly 0.15 Pale Green Good with gobos for wooded scenes. 79.9 0.10 0.331 0.433 LEE Plus Green Approximately equivalent to CC30 green. 74.2 0.12 0.324 0.388 213 White Flame Corrects white flame carbon arcs by 0.08 0.10 0.317 0.359 Green absorbing ultra violet. Half Plus Green Approximately equivalent to CC15 green. 0.08 0.319 0.355 81.7 246 Quarter Plus Approximately equivalent to CC075 green. 84.6 0.07 0.315 0.337 Green Eighth Plus 0.06 0.313 0.327 278 Provides very slight green cast. 87.7 Green Used in animation and projection work. 95.0 0.02 0.311 0.317 130 Clear 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 Converts 6500K to 5700K - daylight to tungsten light Eighth CT Straw 83.1 0.08 0.323 0.332 with yellow bias. Eighth CTO Converts daylight to tungsten light. 85.2 0.07 0.328 0.332 LCT Yellow (Y1) Reduces colour temperature of low carbon arcs to 3200K. 88.7 0.05 0.340 0.363 85.4 0.07 0.339 0.363 007* Pale Yellow Sunlight. Quarter Converts 6500K to 5100K - daylight to tungsten light 79.8 0.10 0.338 0.349 443 with yellow bias. CT Straw 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 Sun Colour 0.380 Adds warmth, bright sunlight. 80.5 0.09 0.365 764 Straw Converts 6500K to 4300K - daylight to tungsten light 442 Half CT Straw 71.2 0.15 0.370 0.378 with yellow bias. Half CTO 70.8 0.374 0.364 205 Converts daylight to tungsten light. 0.15 Bastard Amber Warm white, warm wash, lamplight. 77.7 0.11 0.348 0.328

colour range

product	effect/colour	Y%	•	Chromaticity of X Colour Tempera	у	
009* Pale Amber Gold	Perfect warm front light for any skin tone.	71.1	0.15	0.376	0.371	

	(Measure	d to source C,	Correlated C	olour Temper	ature of 677
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
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
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

^{*} Also available in High Temperature (HT) version

product effect/colour

Transmission Absorption Chromaticity Co-ordinates Y% x y (Measured to source C, Correlated Colour Temperature of 6774K)

208		(Measured	I to source C,	Correlated C	Colour Tempera	ture of 6774k
+-6ND and reduces light 2 stops. 207 Full CTO	742 Bram Brown		11.5	0.94	0.430	0.423
+.3ND			15.6	0.81	0.442	0.394
W.F. Green to Trugsten 20 Super Correction Converts yellow carbon arc (of low colour temperature) 41.9 0.38 0.367 0.31 0.37 0.41 0.47 0.397 0.41 0.47 0.397 0.41 0.47 0.397 0.41 0.47 0.397 0.41 0.47 0.397 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.44 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.48 0.44 0.47 0.48 0.44 0.47 0.48 0.44 0.48 0.48 0.44 0.48			32.5	0.49	0.435	0.386
230 Super-Correction Converts yellow carbon arc (of low colour temperature) 41.9 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.38 0.367 0.368 0.397 0.48 0.368 0.397 0.48 0.368	W.F. Green to	Converts white flame arc to 3200K, for use with tungsten film.	37.4	0.43	0.423	0.385
741 Mustard Yellow Spooky when used in haze. Removes some red and blue. 3.3 1.48 0.506 0.48	230 Super Correction		41.9	0.38	0.367	0.368
Works best with daylight bulbs. Sodium lamp effect.	650 Industry Sodium	Used on tungsten to blend with Sodium light	34.1	0.47	0.397	0.424
With daylight sources.	741 Mustard Yellow		3.3	1.48	0.506	0.491
Yellow with daylight sources. 100 Spring Yellow Sunlight wash - use with gobos, disco, dark skin tones. 84.2 0.08 0.410 0.51 010° Medium Yellow Pure bright yellow. Not good for acting areas but great for special effects and accents. 86.5 0.06 0.426 0.51 101 Yellow Sunlight and window effect - pleasant in acting areas. 80.0 0.10 0.451 0.51 102 Light Amber Warm yellow colour. Great for candlelight or warm bright sunlight effects. 75.1 0.12 0.434 0.4 767 Oklahoma Yellow A rich blend of bright sunshine and warm ochre overtones. 68.9 0.16 0.481 0.51 104 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 0.4 015° Deep Straw Warm amber light. Good for effects such as candlelight and fire. 60.8 0.22 0.517 0.4 768 Egg Yolk Yellow A bold strong chemical yellow. Based on 179 but not as red. 55.6 0.26 0.522 0.4 179 Chrome Orange Combination of 1/2 CTO and double strength 104, sunl			13.7	0.86	0.500	0.496
010° Medium Yellow	· · · · · · · · · · · · · · · · · · ·		31.3	0.50	0.483	0.493
for special effects and accents. 101 Yellow Sunlight and window effect - pleasant in acting areas. 80.0 0.10 0.451 0.50 102 Light Amber Warm yellow colour. Great for candlelight or warm bright sunlight effects. 767 Oklahoma Yellow A rich blend of bright sunshine and warm ochre overtones. 68.9 0.16 0.481 0.50 104 Deep Amber Good for sunlight effect, accents, side light. Be careful of skin tones under the reddish tint of this colour. 015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 768 Egg Yolk Yellow A bold strong chemical yellow. Based on 179 but not as red. 769 Chrome Orange Combination of 1/2 CTO and double strength 104, sunlight. 760 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 760 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 760 Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 760 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 760 Deep Orange Fire effect.	100 Spring Yellow	Sunlight wash - use with gobos, disco, dark skin tones.	84.2	0.08	0.410	0.502
102 Light Amber Warm yellow colour. Great for candlelight or warm bright sunlight effects. 75.1 0.12 0.434 0.44 767 Oklahoma Yellow A rich blend of bright sunshine and warm ochre overtones. 68.9 0.16 0.481 0.56 104 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 0.44 015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 60.8 0.22 0.517 0.44 768 Egg Yolk Yellow A bold strong chemical yellow. Based on 179 but not as red. 55.6 0.26 0.522 0.44 179 Chrome Orange Combination of 1/2 CTO and double strength 104, sunlight. 54.0 0.27 0.520 0.44 020* Medium Amber Afternoon sunlight, candlelight, great side light. 50.7 0.30 0.523 0.4 770 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 47.7 0.32 0.545 0.4 105 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 41.3 0.38 0.563 0.43 134 Golden Amber Great for emulating a late in	010* Medium Yellow		86.5	0.06	0.426	0.509
5767 Oklahoma Yellow A rich blend of bright sunshine and warm ochre overtones. 68.9 0.16 0.481 0.51	101 Yellow	Sunlight and window effect - pleasant in acting areas.	80.0	0.10	0.451	0.507
104 Deep Amber Good for sunlight effect, accents, side light. Be careful of skin tones under the reddish tint of this colour. 1015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1016* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1016* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1017 Deep Straw Warm amber light. Good for effects such as candlelight and fire. 1018* Deep Orange Combination of 1/2 CTO and double strength 104, sunlight. 1019* Deep Straw Warm amber light, great side light. 1020* Medium Amber Afternoon sunlight, candlelight, great side light. 1030* Deep Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 1030* Drange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 1030* Drange Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 1030* Deep Orange Fire effect. 1030* Deep Orange Fire effect. 1040* Deep Orange Fire effect.	102 Light Amber		75.1	0.12	0.434	0.440
skin tones under the reddish tint of this colour. 015* Deep Straw Warm amber light. Good for effects such as candlelight and fire. 60.8 0.22 0.517 0.46 768 Egg Yolk Yellow A bold strong chemical yellow. Based on 179 but not as red. 55.6 0.26 0.522 0.46 179 Chrome Orange Combination of 1/2 CTO and double strength 104, sunlight. 54.0 0.27 0.520 0.46 020* Medium Amber Afternoon sunlight, candlelight, great side light. 50.7 0.30 0.523 0.41 770 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 105 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 134 Golden Amber Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 652 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 158 Deep Orange Fire effect. 29.9 0.52 0.588 0.46	767 Oklahoma Yellow	A rich blend of bright sunshine and warm ochre overtones.	68.9	0.16	0.481	0.501
768 Egg Yolk Yellow A bold strong chemical yellow. Based on 179 but not as red. 55.6 0.26 0.522 0.44 179 Chrome Orange Combination of 1/2 CTO and double strength 104, sunlight. 54.0 0.27 0.520 0.44 020* Medium Amber Afternoon sunlight, candlelight, great side light. 50.7 0.30 0.523 0.4 770 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 47.7 0.32 0.545 0.4 105 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 41.3 0.38 0.563 0.4 134 Golden Amber Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 37.8 0.42 0.501 0.3 652 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 21.9 0.66 0.535 0.38 158 Deep Orange Fire effect. 29.9 0.52 0.588 0.44	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
179 Chrome Orange Combination of 1/2 CTO and double strength 104, sunlight. 54.0 0.27 0.520 0.40 0.20* Medium Amber Afternoon sunlight, candlelight, great side light. 50.7 0.30 0.523 0.41 770 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 0.40 0.545 0.41 0.50 0.50 0.50 0.50 0.50 0.50 0.42 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.5	015* Deep Straw	Warm amber light. Good for effects such as candlelight and fire.	60.8	0.22	0.517	0.460
020* Medium AmberAfternoon sunlight, candlelight, great side light.50.70.300.5230.4770 Burnt YellowA colour that feels warm and dense on camera, a balance between 179 and 105.47.70.320.5450.4105 OrangeMainly light entertainment, functions. Fire effect if used with 106, 166, 104.41.30.380.5630.4134 Golden AmberGreat for emulating a late in the day sunset. Side lighting, cyclorama lighting.37.80.420.5010.3652 Urban SodiumUsed on tungsten to create the orange glow associated with Sodium light21.90.660.5350.3158 Deep OrangeFire effect.29.90.520.5880.40	768 Egg Yolk Yellow	A bold strong chemical yellow. Based on 179 but not as red.	55.6	0.26	0.522	0.469
770 Burnt Yellow A colour that feels warm and dense on camera, a balance between 179 and 105. 105 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 134 Golden Amber Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. G52 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 158 Deep Orange Fire effect. 29.9 0.52 0.588 0.40	179 Chrome Orange	Combination of 1/2 CTO and double strength 104, sunlight.	54.0	0.27	0.520	0.460
between 179 and 105. 105 Orange Mainly light entertainment, functions. Fire effect if used with 106, 166, 104. 134 Golden Amber Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 37.8 0.42 0.501 0.33 652 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 158 Deep Orange Fire effect. 29.9 0.52 0.588 0.49	020* Medium Amber	Afternoon sunlight, candlelight, great side light.	50.7	0.30	0.523	0.419
used with 106, 166, 104. 134 Golden Amber Great for emulating a late in the day sunset. Side lighting, cyclorama lighting. 37.8 0.42 0.501 0.33 652 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 158 Deep Orange Fire effect. 29.9 0.52 0.588 0.46	770 Burnt Yellow		47.7	0.32	0.545	0.447
cyclorama lighting. 652 Urban Sodium Used on tungsten to create the orange glow associated with Sodium light 158 Deep Orange Fire effect. 21.9 0.66 0.535 0.39 0.40	105 Orange		41.3	0.38	0.563	0.428
with Sodium light 29.9 0.52 0.588 0.40	134 Golden Amber		37.8	0.42	0.501	0.371
	652 Urban Sodium		21.9	0.66	0.535	0.399
777 Rust A vivid rust colour effect. 24.3 0.61 0.576 0.4	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

colour range

ρroduct εf	fect/colour
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Transmission Absorption Chromaticity Co-ordinates Y% x y (Measured to source C, Correlated Colour Temperature of 6774K)

	(Measured	I to source C.	Correlated C	olour Tempera	ature of 6774K
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
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
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

product effect/colour

	(Measured	d to source C,	Correlated C	olour Tempera	ture of 6774K
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
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

colour range

eroduct εffect/colour		Transmission Absorption Chromaticity Co-ordinate Y% x y easured to source C, Correlated Colour Temperature of 677					
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		

coloured frosts■

product		effect/colour	Transmission Y% red to source C	Absorption	х	У
	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%	n Absorption	Chromaticity x	Co-ordinates 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

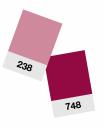
numerical listing

002	ROSE PINK	117	STEEL BLUE	187	COSMETIC ROUGE	
003	LAVENDER TINT	118*	LIGHT BLUE	188	COSMETIC HIGHLIGHT	
004*	MEDIUM BASTARD AMBER	119*	DARK BLUE	189	COSMETIC SILVER MOSS	
007*	PALE YELLOW	120*	DEEP BLUE	190	COSMETIC EMERALD	
008*	DARK SALMON	121*	LEE GREEN	191	COSMETIC AQUA BLUE	
009*	PALE AMBER GOLD	122*	FERN GREEN	192	FLESH PINK	
010*	MEDIUM YELLOW	124*	DARK GREEN	193	ROSY AMBER	
013*	STRAW TINT	126	MAUVE	194	SURPRISE PINK	
015*	DEEP STRAW	127	SMOKEY PINK	195*	ZENITH BLUE	
017	SURPRISE PEACH	128	BRIGHT PINK	196	TRUE BLUE	
019*	FIRE	129	HEAVY FROST	197*	ALICE BLUE	
020*	MEDIUM AMBER	130	CLEAR	198	PALACE BLUE	
021*	GOLD AMBER	131	MARINE BLUE	199	REGAL BLUE	93
	DARK AMBER	132*	MEDIUM BLUE	200	DOUBLE CT BLUE	
	SCARLET	134	GOLDEN AMBER	201	FULL CT BLUE	-
025	SUNSET RED	135	DEEP GOLDEN AMBER	202	1/2 CT BLUE	
	BRIGHT RED	136	PALE LAVENDER	203	1/4 CT BLUE	
027*	MEDIUM RED	137	SPECIAL LAVENDER	204	FULL CT ORANGE	
029	PLASA RED	138	PALE GREEN	205	1/2 CT ORANGE	
	LIGHT PINK		PRIMARY GREEN	206	1/4 CT ORANGE	
036*	MEDIUM PINK	140	SUMMER BLUE	207	FULL CT ORANGE +	
039	PINK CARNATION	141*		201	.3 NEUTRAL DENSITY	
039		142	PALE VIOLET	208	FULL CT ORANGE +	
048					.6 NEUTRAL DENSITY	
	ROSE PURPLE	143	PALE NAVY BLUE	209	.3 NEUTRAL DENSITY	
049	MEDIUM PURPLE	144	NO COLOUR BLUE	210	.6 NEUTRAL DENSITY	1
	LIGHT LAVENDER	147	APRICOT	211	.9 NEUTRAL DENSITY	4
	PALER LAVENDER	148	BRIGHT ROSE	212	LCT YELLOW	
	LAVENDER	151	GOLD TINT	213	WHITE FLAME GREEN	
	MIST BLUE	152	PALE GOLD	214	FULL TOUGH SPUN	
	PALE BLUE	153	PALE SALMON	215	1/2 TOUGH SPUN	
068	SKY BLUE	154	PALE ROSE	216	WHITE DIFFUSION	
	TOKYO BLUE	156	CHOCOLATE	217	BLUE DIFFUSION	
075	EVENING BLUE	157	PINK	218	1/8 CT BLUE	
	JUST BLUE	158	DEEP ORANGE	219	LEE FLUORESCENT GREEN	
	DEEPER BLUE	159	NO COLOUR STRAW	220	WHITE FROST	
088	LIME GREEN	161	SLATE BLUE	221	BLUE FROST	
	MOSS GREEN	162	BASTARD AMBER	223	1/8 CT ORANGE	
	DARK YELLOW GREEN		FLAME RED	224	DAYLIGHT BLUE FROST	
100	SPRING YELLOW	165	DAYLIGHT BLUE	225	LEE N.D. FROST	
101	YELLOW	166	PALE RED	226	LEE U.V.	
102	LIGHT AMBER	169	LILAC TINT	228	BRUSHED SILK	
103	STRAW	170	DEEP LAVENDER	229	1/4 TOUGH SPUN	
104	DEEP AMBER		LAGOON BLUE	230	SUPER CORRECTION	
105	ORANGE	174	DARK STEEL BLUE		LCT YELLOW	
106	PRIMARY RED	176	LOVING AMBER	232	SUPER WHITE	
107	LIGHT ROSE	179	CHROME ORANGE		FLAME GREEN	
108	ENGLISH ROSE	180	DARK LAVENDER	236	H.M.I (TO TUNGSTEN)	
109	LIGHT SALMON		CONGO BLUE	237	C.I.D. (TO TUNGSTEN)	
110	MIDDLE ROSE	182	LIGHT RED	238	C.S.I. (TO TUNGSTEN)	
111	DARK PINK	183	MOONLIGHT BLUE	239	POLARISER	
113	MAGENTA	184	COSMETIC PEACH	241	LEE FLUORESCENT 5700 K	
115*	PEACOCK BLUE	185	COSMETIC BURGUNDY	242	LEE FLUORESCENT 4300 K	
116*	MEDIUM BLUE-GREEN	186	COSMETIC SILVER ROSE	243	LEE FLUORESCENT 3600 K	

32

244	LEE PLUS GREEN	410	OPAL FROST	728	STEEL GREEN
245	1/2 PLUS GREEN	413	HALF HIGHLIGHT	729*	SCUBA BLUE
246	1/4 PLUS GREEN	414	HIGHLIGHT	730	LIBERTY GREEN
247	LEE MINUS GREEN	416	3/4 WHITE DIFFUSION	731	DIRTY ICE
248	1/2 MINUS GREEN	420	LIGHT OPAL FROST	733	DAMP SQUIB
249	1/4 MINUS GREEN	429	QUIET FROST	735	VELVET GREEN
250	1/2 WHITE DIFFUSION	430	GRID CLOTH	736	TWICKENHAM GREEN
251	1/4 WHITE DIFFUSION	432	LIGHT GRID CLOTH	738*	JAS GREEN
252	1/8 WHITE DIFFUSION	434	1/4 GRID CLOTH	740	AURORA BOREALIS GREEN
253	HAMPSHIRE FROST	439	HEAVY QUIET FROST	741	MUSTARD YELLOW
254*	NEW HAMPSHIRE FROST	441	FULL CT STRAW	742	BRAM BROWN
255	HOLLYWOOD FROST	442	1/2 CT STRAW	744	DIRTY WHITE
256	1/2 HAMPSHIRE FROST	443	1/4 CT STRAW	746	BROWN
257	1/4 HAMPSHIRE FROST	444	1/8 CT STRAW	747	EASY WHITE
258	1/8 HAMPSHIRE FROST	450	3/8 WHITE DIFFUSION	748	SEEDY PINK
261	TOUGH SPUN FR - FULL	452	1/16 WHITE DIFFUSION	749	HAMPSHIRE ROSE
262	TOUGH SPUN FR - 3/4	460	QUIET GRID CLOTH	750	DURHAM FROST
263	TOUGH SPUN FR - 1/2	462	QUIET LIGHT GRID CLOTH	763	WHEAT
264	TOUGH SPUN FR - 3/8	464	QUIET 1/4 GRID CLOTH	764	SUN COLOUR STRAW
265	TOUGH SPUN FR - 1/4	604	FULL CT EIGHT FIVE	765	LEE YELLOW
269	LEE HEAT SHIELD	642	HALF MUSTARD YELLOW	767	OKLAHOMA YELLOW
270	LEE SCRIM	643	QUARTER MUSTARD YELLOW	768	EGG YOLK YELLOW
271	MIRROR SILVER	650	INDUSTRY SODIUM	770	BURNT YELLOW
272	SOFT GOLD REFLECTOR	651	HI SODIUM	773	CARDBOX AMBER
273	SOFT SILVER REFLECTOR	652	URBAN SODIUM	774	SOFT AMBER KEY 1
274	MIRROR GOLD	653	LO SODIUM	775	SOFT AMBER KEY 2
275	BLACK SCRIM	700	PERFECT LAVENDER	776	NECTARINE
278	1/8 PLUS GREEN	701	PROVENCE	777	RUST
279	1/8 MINUS GREEN	702	SPECIAL PALE LAVENDER	778*	
280	BLACK FOIL	703	COLD LAVENDER	779	BASTARD PINK 642
281	3/4 CT BLUE	704	LILY	780	AS GOLDEN AMBER
285	3/4 CT ORANGE	705	LILY FROST	781	TERRY RED
298	.15 NEUTRAL DENSITY	706	KING FALS LAVENDER	787	MARIUS RED
299	1.2 NEUTRAL DENSITY		ULTIMATE VIOLET	789	BLOOD RED
322	SOFT GREEN		COOL LAVENDER	790	MOROCCAN PINK
323	JADE		ELECTRIC LILAC	791	MOROCCAN FROST
325	MALLARD GREEN	710		793	VANITY FAIR
327	FOREST GREEN	711	COLD BLUE	794	PRETTY 'N PINK
328	FOLLIES PINK		BEDFORD BLUE	795	MAGICAL MAGENTA
332	SPECIAL ROSE PINK		J.WINTER BLUE		DEEP PURPLE
341	PLUM		ELYSIAN BLUE	798	CHRYSALIS PINK
343	SPECIAL MEDIUM		CABANA BLUE	799	SPECIAL KH LAVENDER
343	LAVENDER		MIKKEL BLUE	199	SPECIAL KIT LAVENDEN
344	VIOLET	717			100
345	FUCHSIA PINK		HALF SHANKLIN FROST		
					100
352	GLACIER BLUE	719			106
353	LIGHTER BLUE	720	DURHAM DAYLIGHT FROST		100
354	SPECIAL MEDIUM BLUE		BERRY BLUE		
	SPECIAL MEDIUM BLUE	722	BRAY BLUE		
366	CORNFLOWER	723	VIRGIN BLUE		728
400	LEELUX SOET EDOST	724	OCEAN BLUE		
402	SOFT FROST	725	OLD STEEL BLUE		
404	HALF SOFT FROST	727	QFD BLUE 653		

<mark>tec</mark>hnical 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.

Conversion Chart	35
Conversion Filters	36
Acrylic Panels	37
■ Correction Filters	38
■ Reflection Media	39
■ Protection Media	39
■ Diffusion Media	40





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

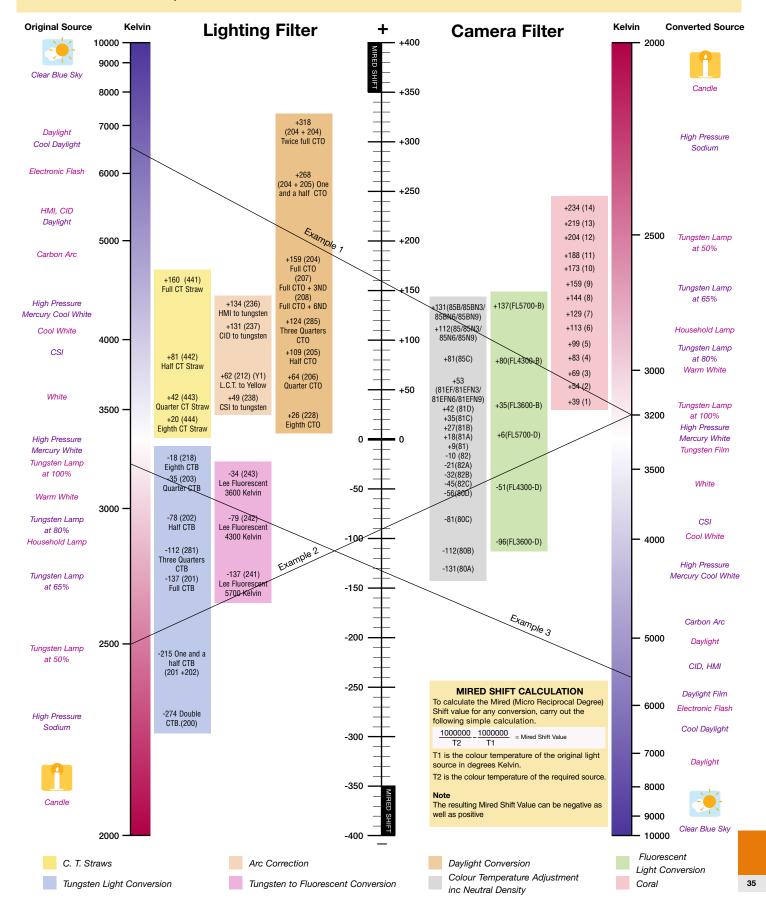
How to use

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).





product description

Kelvin

Mired Transmission Absorption Chromaticity Co-ordinates Shift Y% 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
201 Full CTB	Converts Tungsten to Photographic Daylight.	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

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

product

description

 $\begin{array}{ll} \mbox{Mired} & \mbox{Transmission Absorption} & \mbox{Stop Value} \\ \mbox{Shift} & \mbox{Y}\% & \end{array}$

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

Kelvin Mired Transmission Chromaticity Co-ordinates Shift Y% 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 ${\rm Mired}_{\rm Shift}$ ${\rm Transmission}_{\rm Y\%}$

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 Absorption Chromaticity Co-ordinates Y% 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



product	description	Transmission Y% (Measured to source C	Absorption Correlated Co	x	У
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

rroduct 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

070	Desferred with a terror ward rains a common of the stine	Otara valva 41/. when was d
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 ■

Transmission Absorption Chromaticity Co-ordinates Y% x y
(Measured to source C, Correlated Colour Temperature of 6774K)

Heat Shield

product

280 Black Foil

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

description

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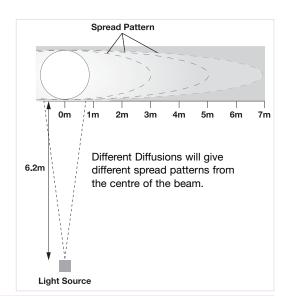
The illustrations on these two pages show how a light beam softens when using different types of diffusion media i.e. Diffusions, Frosts, Flexi-Frosts, Grid Cloths and Spuns.

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.

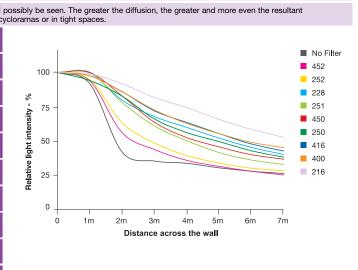
Stop

Non/

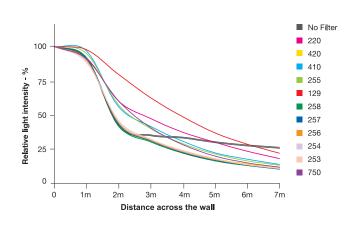
ILLUSTRATIONS



DIFFUSIONS - Spreads the projected beam of light over the subject, some loss of light will spread of light. Shadows are reduced. Used to smooth out beam scallops when lighting control of the scallops when lighting the scallops when light					
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		



FROSTS - Frost is used for a variety of	applications	offering low	to medium c	liffusion to a be	m of light while maintaining the sha	pe and beam center.
No Filter				•	ı	
220 White Frost	39	1 1/3	FR	•	100	
420 Light Opal Frost	>85	<1/4	NFR	•	% - 75 -	
410 Opal Frost	71	1/2	NFR	•	tensity	
255 Hollywood Frost	83	<1/3	NFR	•	Relative light intensity - % - 22 - 22 - 22 - 23 - 25 - 25 - 25 - 25	
129 Heavy Frost	25	2	FR		Selative = 25 -	
258 Eighth Hampshire Frost	>85	<1/4	NFR	•	0	
257 Quarter Hampshire Frost	>85	<1/4	NFR	•	0 1m 2m Dis	3m 4m tance across the wa
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			



GRID CLOTHS - A reinforced material	containing diff	usion prope	rties ranging t	from medium to der	nse. Grid d	sloth creates the effect of a shadowless bear	m of light.
No Filter				•			
434 Quarter Grid Cloth	60	3/4	NFR		100	_	■ No Filte ■ 434
464 Quiet Quarter Grid Cloth	47.5	1	NFR		%		464 432
432 Light Grid Cloth	30	1 3/4	NFR		- 75 –		■ 462 ■ 430
462 Quiet Light Grid Cloth	22.5	2 1/4	NFR		light int		■ 460
430 Grid Cloth	18	2 1/2	NFR		Relative light intensity		
460 Quiet Grid Cloth	15	2 3/4	NFR		c		

3m

Distance across the wall

4m

5m

6m

7m

SPUNS - Creates an overall diffusion, so	ftens shado	ws and leav	ves beam inta	ict.
No Filter				•
229 Quarter Tough Spun	60	3/4	NFR	100
65 Tough Spun FR - 1/4	60	3/4	FR	*
264 Tough Spun FR - 3/8	50	1	FR	tensify 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75
215 Half Tough Spun	36	1 1/2	NFR	Applied the state of the state
263 Tough Spun FR - 1/2	41	1 1/3	FR	25 –
262 Tough Spun FR - 3/4	32	1 2/3	FR	0
214 Full Tough Spun	18	2 1/2	NFR	0 1m 2m 3m 4m 5m 6m 7m Distance across the wall
261 Tough Spun FR - Full	25	2	FR	

■ No Filter

413

414

404

429

402



Product description Transmission % Stop value % Special Notes

Non-Flame Retardant Frost

Frost					
	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	12/3	Full CT Blue
	717 Shanklin Frost	201 with frost to soften the beam of profile units.	37	11/2	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	21/4	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		18	21/2	
432 Light	t 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.	30	13/4	Rolls only 1.37m x 7.62m (54" x 25')
434 Quar Cloth	rter Grid h		60	3/4	
460 Quie	et Grid Cloth		15	23/4	
	et Light I 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.	22.5	21/4	Rolls only 1.37m x 7.62m (54" x 25')
	et Quarter I Cloth	Comes in three weights.		1	



Non-Flame Retardant Diffusion

product

216	White Diffusion		36	11/2	Rolls also available in 1.52m (60") width
416	Three Quarter White Diffusion		50	1	
250	Half White Diffusion		60	3/4	Rolls also available in 1.52m (60") width
450	Three Eighth White Diffusion	Used for soft light effects. Manufactured on a tough Polyester base in a range of seven strengths.	63	2/3	
251	Quarter White Diffusion		80	1/3	Rolls also available in 1.52m (60") width
252	Eighth White Diffusion		>85	<1/4	
452	Sixteenth White Diffusion		>85	<1/4	
400	LEELux	A dense white diffuser used for soft light effects (125 micron polyester base).	36	11/2	
217	Blue Diffusion	As White Diffusion but with the addition of Eighth CTB.	36	11/2	1/8 CT Blue
228	Brushed Silk	Directional soft light effect used for scattering light in one direction only.	60	3/4	

Tough Spun

214 Full Tough Spun		18	21/2	
215 Half Tough Spun	Softens light, reduces intensity. Manufactured from non-woven Polyester.	36	11/2	Rolls only 7.62 x 1.22m (25' x 48")
229 Quarter Tough Spun		60	3/4	

Special Notes



Special Notes Transmission Stop value product description Flame Retardant 25 129 Heavy Frost Strong diffuser, eliminates nearly all shadows. 2 220 White Frost Used for soft light effects. 39 11/3 Used for soft light effects with the addition of 218. 1/8 CT Blue 221 Blue Frost 42 11/3 254 New Used to soften the edges of spotlight beams, and to reduce >85 <1/4 HT only Hampshire Frost (For sizes see p10-11) Soft Amber Used for producing a warm key light colour. 71 Key 1 775 Soft Amber Used for producing a warm key light colour. 58 3/4 Key 2 Flexi Frosts 439 Heavy Quiet Frost A very strong diffuser but pliable 7.8 $3^2/_3$ Thickness to handle, that virtually eliminates 270 microns shadows at close distances. (11 thou) 402 Soft Frost A strong diffuser that creates a wide field 12.0 3 Thickness Advantages of this of soft illumination but is very pliable to 100 microns material are the handle. Diffusion characteristics similar to (4 thou) large roll width; lack 216, falls between 216 and 129. of noise when A strong diffuser that creates a wide field of soft illumination but is thicker than the handled or used in Quiet Frost 18.4 21/2 Thickness 429 windy conditions; 325 microns waterproof for use 402 product. Diffusion characteristics (13 thou) outdoors, can be similar to 416. sewn or A useful diffuser without too much light Half Soft Frost grommetted 36.2 11/2 Thickness loss but very pliable to handle. Diffusion together for use on 100 microns characteristics fall between 251 and 252. large frames; flame (4 thou) retardant. 414 Highlight A useful diffuser without too much light 39.6 **1**1/3 Thickness loss in a thick format. Diffusion 300 microns 1.52m width, 6.10m characteristics similar to 252. (12 thou) length, (60" x 20') 413 Half Highlight A strong frost effect that completely 84.1 Thickness 1/4 softens the edges of a spotlight beam. 300 microns Diffusion characteristics similar to 750, (12 thou) falls between 750 and 253. Tough Spun Tough Spun 25 2 FR - Full 262 Tough Spun 32 12/3 FR - 3/4 263 Tough Spun 41 11/3 Non yellowing flame retardant spun polyester material in five Rolls only FR - 1/2 densities to give better light control. 7.62 x 1.22m (25' x 4') 264 Tough Spun 50 1 FR - 3/8

60

3/4

265

Tough Spun FR - 1/4









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

107



Get creative with fluorescent lighting! With over 200 colours to choose from, LEE Filters Fluorescent Coloured Sleeves offer the designer more choice than ever for both interior and exterior lighting projects.

You can choose any of the colours from our extensive colour range. See pages 20-31 or the booklet at the back of the brochure to view the range. A swatch book containing all the colours is also available on request.

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 have a clear end cap; these end caps fix the sleeve to the fluorescent tube making installation easy.

The sleeves are available in standard lengths 0.61m (24"), 1.22m (48"), 1.53m (60") and 2.44m (96") for T5, T8 and T12 diameter tubes. Custom sizes are also available on request.

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.

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.





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





the glass series







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.



the glass series





LEE Filters

O UV Blocker - Absorbs

Ultra Violet light

O Hot Mirror- Reflects

heat back into the light source

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.

Framed Glass

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



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

Full CT Blue

Half CT Blue

Quarter CT Blue

Custom sizes can be supplied - please ask for a quotation



Full CT Orange

Half CT Orange

Quarter CT Orange





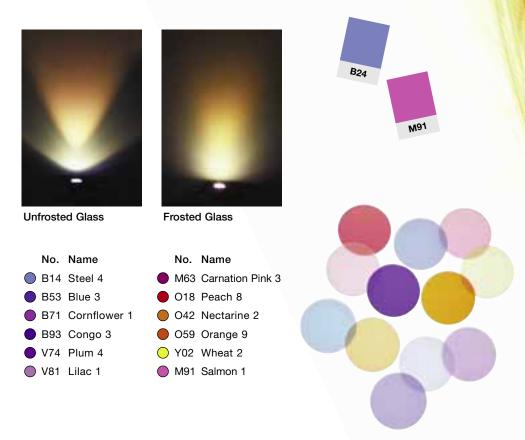
frosted dichroic glass colours

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

Frosted Colour Dichroic Filters are colour-coated on one side by a vacuum deposition of metal film, and diffused on the other side.

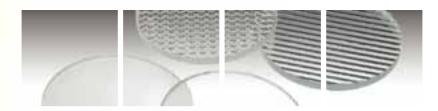
The diffusion creates a frost very similar to LEE 251 Quarter White Diffusion when the frosted side is placed on the fixture outwards, away from the lamp. The dichroic coating should withstand temperatures up to 371°C, allowing the colour to be completely fade resistant throughout its life.

Frosted Dichroic Glass filters are available for MR16 and PAR 16 circular light fittings. Custom sizes are also available on request.



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.

architectural series



MR16 / PAR 16 accessories



Designed for MR16 and PAR 16 fittings, the LEE Filters range of accessories offer a wide range of lighting effects and various diffusions.



Linear Diffusion



080 Linear Diffusion

Combined Linear Diffusion and warming filter



Prismatic Diffusion



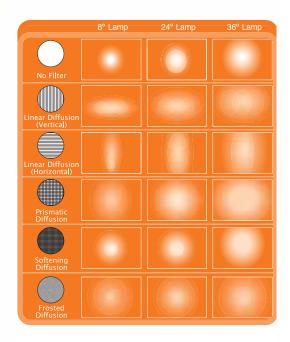
Softening Diffusion



Frosted Diffusion



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





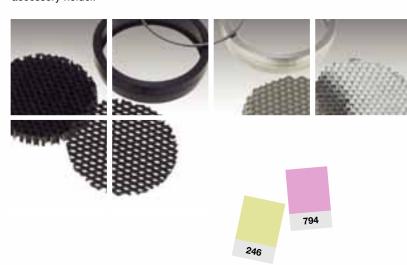


MR16 / PAR 16 holders and louvres

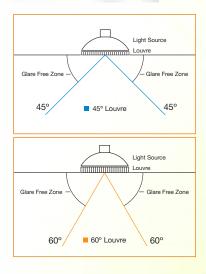


Attach filters directly to an MR16 or PAR 16 bulb using the LEE Filters accessory holder. Available in either black or silver, the screw-on holder fits securely onto the bulb and can hold up to two filters. This allows for a combination of colour, diffusion or louvre effects to be used on the one fitting.

Honeycomb Louvres are available in black or silver (45° or 60°) to match the accessory holder.







clip-on accessories

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).









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 unique swatch book that contains all of the filters in chromatic groupings, along with an additional numeric index. A numeric swatch book is also available on request
- **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.



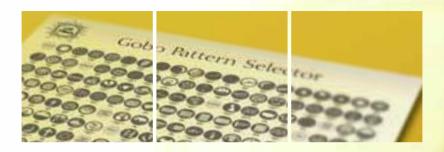
cutters

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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