



# Not a Glare in the World



*The Professional's Choice*

# A problem that's hard to see

The modern, automatic camera is a remarkable instrument. To photograph a scene it opens or closes the diaphragm to control the amount of light entering the camera. It also adjusts the lens system to ensure that the image falling upon the light sensitive film is sharply focused. Only when it decides that everything is satisfactory will it operate the shutter and take the photograph. However one thing that will beat the system is glare.

When a photograph is taken with a strong light source, such as the sun, behind the subject the camera becomes confused. It will react to the total amount of light coming into the camera by closing down the diaphragm. The resultant photograph will show a shadowy subject against a white background. The camera cannot differentiate between the comparatively small amount of light from the subject and the bright light of the sun. The system has been swamped out by glare.

The same thing happens with the eye. It has a diaphragm, the pupil, and a lens to focus the light on the light sensitive retina which acts like film in the camera. The main difference between the camera and the eye is that the brain constantly receives information from the retina whereas the film records information only at the moment when the shutter is operated - a snapshot in fact. There is one other important functional difference. The camera cannot get a headache!

The eye can accommodate very large differences in light intensity. It can also detect minute differences in



light levels when presented with both at the same time. What it cannot accommodate is large differences presented to it at the same time. It will always try to accommodate the brightest light which means that dimmer objects become invisible. This constant strain of trying to see dimmer objects against a bright background can cause headaches and loss of concentration. These can add up to loss of efficiency. The problem has become particularly acute in today's, high technology work places.



## The visible difference

The most obvious difference between today's workplace and that of 10 years ago is the vast increase in the number of computers. Most of these have multiple terminals each with it's own visual display unit (VDU). The modern business depends upon computers for many functions such as accounting, credit control, production, stock control, salary calculations and word processing. It is estimated that, within a few years, over half the working population will use a computer as part of their day to day routine. It is particularly important, therefore, that computer screens are as easy to use as possible. In fact EEC Health and Safety directive 90/270 lays down very clear rules on this matter.

The problem with VDU screens is that the levels of light emitted from the screen are comparatively low. Therefore

the contrast available between the information displayed on the screen and the screen background is limited. Couple this with strong glare from windows and the information displayed can be impossible to read.

The requirements of Annex A of EEC Health and Safety directive 90/270, Section 3 Subsection (c) says 'windows should be fitted with a suitable system of adjustable coverings to attenuate the daylight that falls upon the work station'. Blinds can fulfil this requirement in every way. They can be incorporated in the original design of a building or can be added without structural alteration at a later date. Blinds can be adjusted to suit the ambient conditions. They can

even be adjusted to reduce the sun's intensity whilst still retaining outside vision.

### EEC Health & Safety Directive 90/270

This lays down the minimum requirements for work with VDU's. Employers who do not comply with this directive face the same penalties as those who do not comply with other health and safety directives.

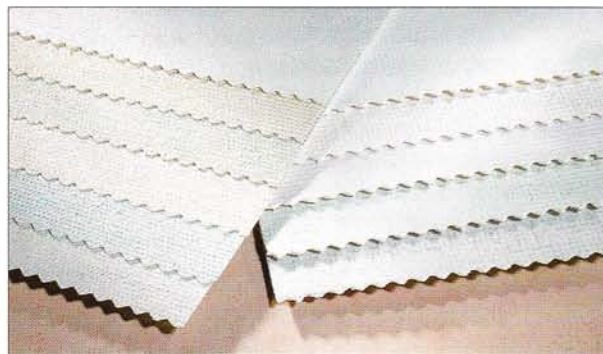
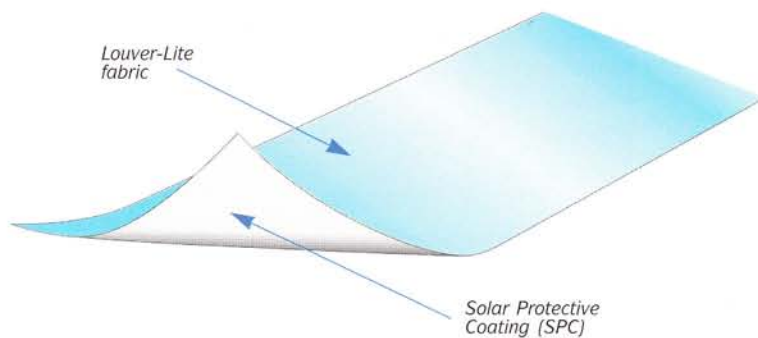
# Solar Protective Coating (SPC)

Up to now there has been a shortage of blind fabrics designed specifically to comply with the optical and solar characteristics demanded by current legislation. To meet this need Louver-Lite has developed a unique, solar protective coating (SPC). This reflective coating is applied to one side of a fabric only. This means that the natural colouring and texture on the reverse is maintained.

Two fabrics, known to match the requirements of their target market, the commercial and public sector, have been treated in this way. They are Context and Dapple. In their coated form they will be known as Context SPC and Dapple SPC.

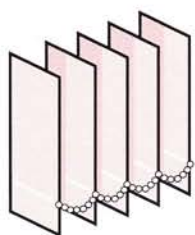
Context SPC and Dapple SPC are flame retardant. They are also particularly suitable for damp conditions as they have a fungal inhibitor in their formulation. They are available in widths suitable for roller blinds and as 89mm or 127mm fabric for vertical blinds. Other widths for vertical blinds are available on request.

Both fabrics are in a carefully selected range of colours to complement the decor normally found in their field. As the SPC backing is white, blinds will always give a uniform appearance to the outside of a building irrespective of the colours chosen for individual work areas.



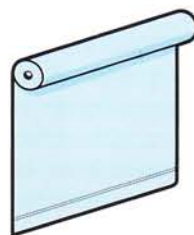
## Shades of Perfection

Louver-Lite is one of Europe's largest manufacturers of window blind fabrics and other related window blind products. With the experience gained in over twenty five years they understand the technical and aesthetic requirements of their customers. In their production area of 2 1/2 acres (over one hectare) they design and manufacture a large range of window blind products which they distribute to approved Louver-Lite blind makers worldwide. This network of blind makers can supply various types of blinds which use SPC fabrics. Those most commonly specified are vertical louvre blinds and roller blinds.



### Vertical Blinds

Vertical louvre blinds can be made in louvre widths to suit each installation. The louvres can be tilted to exclude the harsh rays of the sun whilst retaining outward vision. Vertically hanging louvres do not collect dust. However, if they do require cleaning, they can be removed from the blind very easily - a particularly valuable asset when the blind fabrics are machine or hand washable.



### Roller Blinds

Louver-Lite's SPC fabrics are equally suitable for roller blinds. The blind fabric can be lowered to a level which cuts out troublesome glare while still allowing a view to the outside world. As with vertical blinds, all SPC fabrics have a white backing. This means that the designer has a free choice of colour for each window knowing that the outside of the building will always present a uniform appearance.

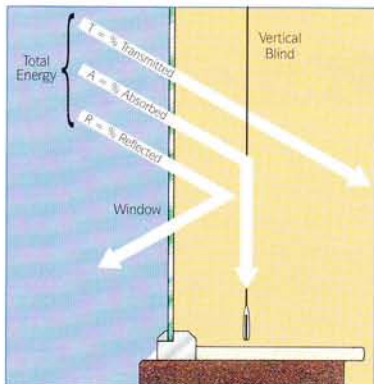
Blinds with Louver-Lite's SPC fabrics are available through all blind suppliers on a complete advisory, measure, supply and fit basis or in any other way tailor-made to suit the specifier's need.



Vertical Blinds in Context SPC - Jupiter



Roller Blinds in Context SPC - Jupiter



## Solar, Optical and Colour Fastness Properties

**Solar Gain** The amount of heat increase resulting from solar energy entering a room. It is the total of three separate parts - the amount of energy transmitted directly into the room, the energy which is absorbed by the blind and a proportion of the energy which is absorbed by the window.

**Shading Co-efficient** The Solar Heat Gain with the blind at the window divided by the Solar Heat Gain with no blind at the window. The lower the shading co-efficient, therefore, the higher the efficiency of the fabric. The test results in the table below have been achieved using a single 6mm glass glazing system. Figures using other glazing systems are available on request.



	Solar			Optical			SC	QRF
	T	R	A	T	R	A		
Contex SPC Jupiter	12	74	14	6	79	15	0.29	8
Contex SPC Lunar	15	74	11	10	80	10	0.29	8
Contex SPC Mercury	12	72	16	6	78	16	0.30	8
Contex SPC Saturn	13	73	14	7	79	14	0.29	8
Contex SPC Solar	11	69	20	7	75	18	0.33	7
Contex SPC Venus	10	75	15	5	80	15	0.28	8
Dapple SPC Birch	6	70	24	3	75	22	0.32	7
Dapple SPC Ecru	10	74	16	6	81	13	0.29	8
Dapple SPC Lichen	6	73	21	3	76	21	0.29	7
Dapple SPC Peony	9	72	19	5	75	20	0.30	7
Dapple SPC White	9	71	20	6	74	20	0.31	7

The Quick Reference Factor allows rapid comparison between the relative efficiencies of high performance fabrics.

A fabric's ability to exclude optical and solar energy from a room is dependent upon its reflectances,  $R_o$  &  $R_s$ . For high performance fabrics these are strongly correlated and numerically close. Their average can be considered as a good indication of a fabric's overall optical and solar performance.

Quick Reference factors are expressed in units between 0 & 10 with figures ending in .5 corrected upwards. The higher the factor, the more efficient the fabric.

T: % Transmittance R: % Reflectance A: % Absorption QRF =  $\left(\frac{R_o + R_s}{2}\right) \times .1$   
 SC: Shading Co-efficient QRF: Quick Reference Factor



**Fire protection** Louver-Lite has submitted Contex SPC and Dapple SPC for testing to various FR standards. The results are tabulated below. Further updated information is available on request.

### Flammability Standards ● Complies with Standard ○ Submitted for testing

	FTS17	DIN 4102		BS 5867		BS 476		AFNOR	Can/VLC-5-109-M87	NFPA 701	
		B1	B2	1980 Part 2 Type B		Part 6 Class 0/Part 7 Class 1		92 - 503		Small	Large
Contex SPC	●	○	○	●	●	●	●	○	○	○	○
Dapple SPC	●	○	○	●	●	●	●	○	○	○	○



**Availability** Contex SPC and Dapple SPC are available in widths suitable for roller blinds and as 89mm or 127mm fabric for vertical blinds. Other widths for vertical blinds are available on request



Available as Roller Blinds



Flame Retardant



Machine Washable No final spin



Available as Vertical Blinds



Particularly Suitable for Moist Conditions



Dim Out



**Damp Conditions** Contex SPC and Dapple SPC are particularly suitable for damp conditions as they have a fungal inhibitor in their formulation. N.B. Dapple is a washable fabric and the amount of inhibitor will be reduced during each wash.



### Washing Standard

BS EN 26330: 1994 Method 7A.

### Colour Fastness Standard

BS 1006: 1990 Method BO2.

### Composition of fabric

Contex SPC - Glass Fibre.

Dapple SPC - Polyester.



Colours reproduced here may vary from the actual colours due to the limitations of the printing process. Great care is taken to ensure the information is correct, however specifiers and customers are advised to check the suitability of materials before use. Fabric selector cards are available on request.