Concord SYLVANIA

06/05/98

Concord Sylvania

Otley Road
Charlestown
Shipley
West Yorkshire
BD17 7SN

Tel: 01274 537777
Fax: 01274 597683

Dear Sirs,

COSHH Regulations 1988
Health & Safety at Work Act 1974
and Disposal of Lamps

Thank you for your recent enquiry about COSHH Regulations and its connection with the Health & Safety at Work Act 1974 and Consumer Protection Act 1987 with regard to Sylvania Lighting products.

We would respond as follows:

General Handling

The control of Substances Hazardous to Health (COSHH) Regulations place a duty on employers to ensure that their employees are not exposed to substances hazardous to health, i.e to solids, liquids. gasses that are toxic/harmful/corrosive irritant. Safety guidelines, for example, for the concentrations of substances in air, are separately prescribed by the appropriate authorities.

Electric lamps for illumination are adequately marked in accordance with internal specifications to give the user sufficient information as to type, wattage and voltage (if necessary).

All lamps should be handled with care as their main constituent material is glass which invariably contains the atmosphere and filament/arc tube that is vital for the lamps safe operation.

It is essential to make sure that the outer envelope is intact otherwise the lamp is likely to function incorrectly.

Damaged lamps should not be installed and should be returned to where they were purchased or disposed of safely.

Application

It is important that lamps are used for the purpose and application for which they were manufactured, failure to operate lamps in the correct manner could result in performance outside their specification (life, light output, energy consumption and failure mode).

BS EN ISO 9001 : 1994
Certificate No. FM2209

SLi Lighting Ltd
Registered in England: 487252
Registered Office:
Otley Road
Charlestown, Shipley
W. Yorks. BD17 7SN

SLi
Concord and Sylvania
are brands of SLi.

Installation

Installation of lamps should be in accordance with manufacturers recommendations and should be operated on approved control gear (if applicable)

At the end of useful life, lamps must be removed from their installation and disposed of in a safe and controlled manner (or as indicated on instructions accompanying the product).

Failure to remove a lamp at the end of life may cause damage to the lamp and/or control gear.

As members of the Lighting Industry Federation, Sylvania endorse the findings of the Lighting Industry Federation in connection with the COSHH Regulations and their applicability to lighting products per LIF Technical Statement number 10 (issue 8 June 1995).

1. Intact Products

   Lighting products are finished assemblies, without free substances, and they comply with separate regulatory requirements that products shall be safe. No special precautions under the COSHH Regulations are required during storage or installation or use.

2. Broken Products

   The recommendations below apply to lamp breakage's where substances may be released. No problems are foreseen with other lighting products.

2.1 Accidental Breakage of a Lamp

   If a lamp is accidentally broken, only normal good housekeeping is required to prevent injury from broken glass and the generation of airborne dust when clearing up.

2.2 Lamp Breakage/Disposal

   When lamps have been removed from service, the principal hazard is broken glass. This can be prevented by placing them in packaging provided with new lamps.

Where is necessary to break lamps to reduce bulk, protective clothing and gloves should be worn, and the operation should be carried out in a well-ventilated area or outdoors.

Many lamps are filled to pressures above or below atmospheric pressure and therefore care must be exercised in fracturing the lamp envelope. Whenever glass is broken, the Protection of the Eyes Regulations 1974 requires that eye protection must be worn.

Only the outer envelopes of high pressure discharge lamps should be broken. The inner arc tubes are strong and should be left intact as a container of the lamp constituents, e.g. small quantities of mercury.

Notes

1. Low-pressure sodium lamps contain sodium which reacts with water, evolving heat. These lamps should be broken before disposal as follows:

   Working in a dry atmosphere, no more than 20 lamps should be carefully broken into a large dry container. When the container is one quarter full of lamp debris, the operator should fill it with water from a distance, e.g. with a hose.
   The water will react with the sodium and may be disposed of as weak caustic soda solution, and the debris as glass.
   These instructions are supplied with each individual lamp.

2. Some lamps, especially fluorescent tubes, may release powders when broken. The powder in itself is not especially harmful but it may be contaminated with mercury and the inhalation of any dust is not advisable. A simple face mask can provide protection if necessary.

   If there are large numbers of lamps to be broken machines are available which break the glass. The debris is sprayed with water to prevent powder flying, and reacting with any sodium present. Special care must be taken in the safe disposal of this waste (e.g. Statutory Instrument, SI 1156, must be observed)

Lamp Disposal

The disposal of lamps does not constitute Special Waste as defined by the Control of Pollution (Special Waste) Regulations 1980 (SI No.1709) and is therefore rated as normal waste from domestic/commercial/industrial premises.

Fluorescent lamps and high pressure discharge lamps contain a small quantity of mercury metal. The disposal of large quantities of these lamps should only be to specific waste disposal sites, selected with the Local Waste Disposal Authority.

Incineration must not be used as a means of disposing of lamps or other lighting products.

If you are in any doubt about the handling application, installation or disposal of any specific lamps type, it is recommended that you contact the above address.

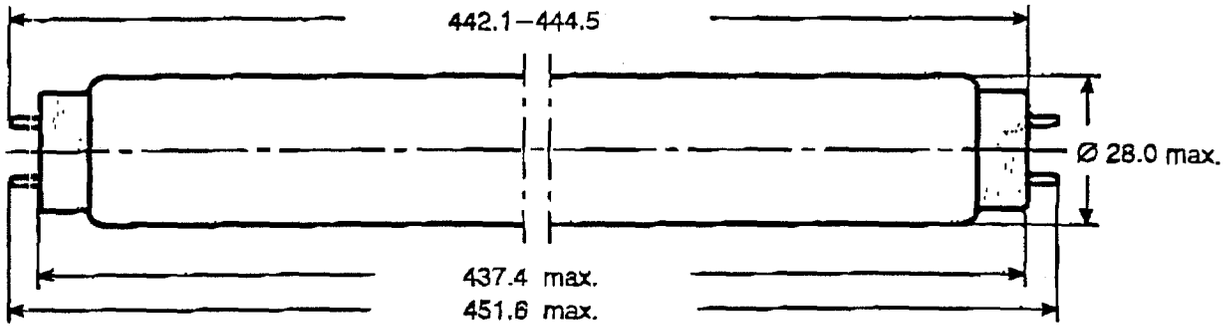
Yours sincerely,

SLI LIGHTING LTD

FLUORESCENT LAMP

F15W/T8
50 Hz–Operation

DIMENSIONS (mm) : Nominal dimensions: 450 x 26



Cap: G13 (IEC 61–1 sheet 7004–51–7)

ELECTRICAL DATA				NOMINAL VALUE	MIN.	MAX.
Frequency		(Hz)	:	50		
Lamp nominal wattage		(W)	:	15		
Lamp rated wattage	single operation	(W)	:	15.0	13.8	16.2
	series operation	(W)	:	32		
Lamp operating voltage	(r.m.s.)	(V)	:	55.0	46.0	64.0
Lamp current	single operation	(mA)	:	310		
	series operation	(mA)	:			360
Preheat current	single operation	(mA)	:	440	333	650
	series operation	(mA)	:			650

OPERATING CONDITIONS				NOMINAL VALUE	MIN.	MAX.
Lamp ambient temperature		(°C)	:		–20	
Cap rim temperature		(°C)	:			125
Ballast	single operation	(Ω/V)	:	590/220, 621/230, 660/240		
	series operation	(Ω/V)	:	480/220, 510/230, 540/240		
Starter	single operation		:	FS–11, FS–22, COP–22		
	series operation		:	FS–22, COP–22		
Burning position			:	any		

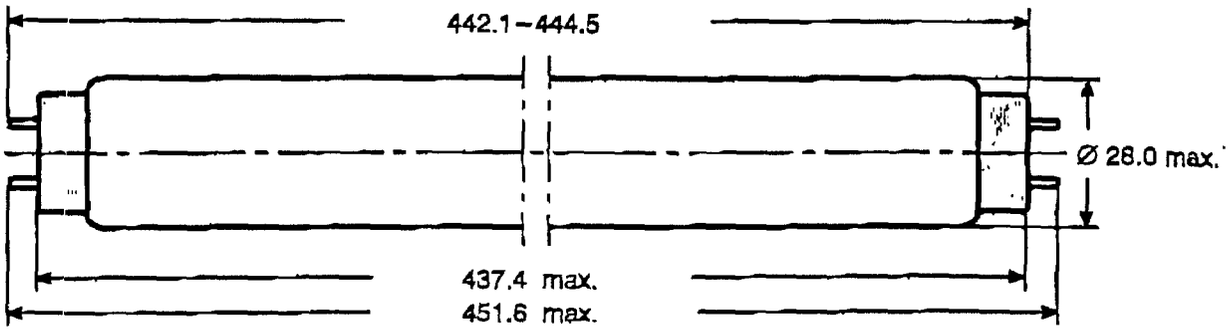
LAMP LIFE *				
Average life (50% failure rate)	(h)	:	14 000	
Individual life	(h)	:	6000	

ATTENTION: Lamps comply with the requirements of EN 60081 and EN 61195, respectively.
Starter and ballast must comply with EN 60155 and EN 60921, respectively.
* Life test according to EN 60081, Annex C.1.

FLUORESCENT LAMP

F15W/T8
HF–Operation

DIMENSIONS (mm) : Nominal dimensions: 450 x 26



Cap: G13 (IEC 61–1 sheet 7004–51–7)

ELECTRICAL DATA			NOMINAL VALUE	MIN.	MAX.
Frequency	(kHz)	:		20	
Lamp wattage	(W)	:	13.5		
Lamp operating voltage	(V)	:	45		
Lamp current	(mA)	:	310		
Current controlled preheating:					
Preheat current at ≤ 0.4s	(mA)	:		630	1400
Preheat current at ≥ 2.0s	(mA)	:		360	680
Cathode substitution resistor	(Ω)	:	12.5		

OPERATING CONDITIONS			NOMINAL VALUE	MIN.	MAX.
Ballast type		:	electronic		
Cap rim temperature	(°C)	:			125
Lamp ambient temperature	(°C)	:		–20	
Burning position		:	any		
LAMP LIFE *					
Average life (50% failure rate) **	(h)	:		14 000	
Individual life	(h)	:		6000	

ATTENTION: Lamps comply with the requirements of EN 60081 and EN 61195, respectively.
The electronic ballast for lamp operation must comply with EN 60929.
* Life test according to EN 60081, Annex C.1.
** For increased lamp life at HF operation and dimming operation refer to published data of ballast manufacturer.

FLUORESCENT LAMP F15W/T8

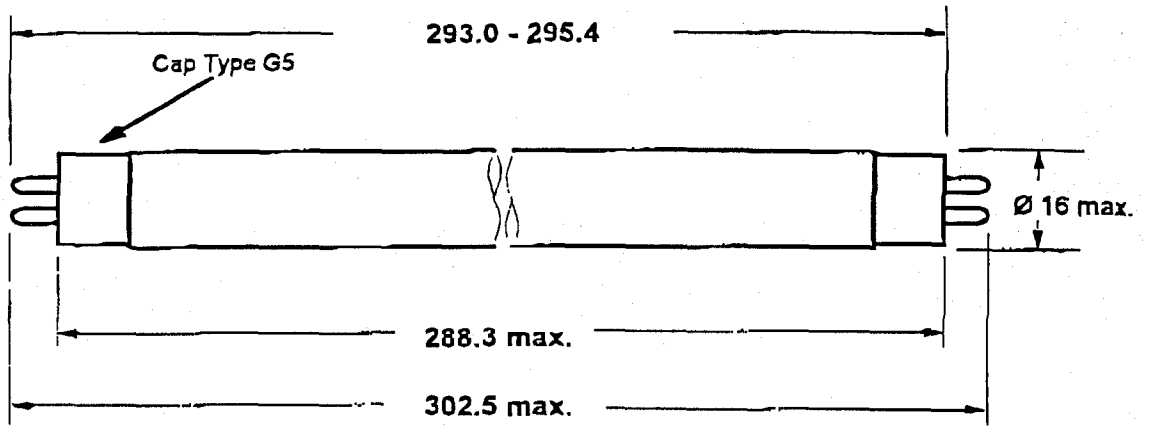
PHOTOMETRIC DATA:

COLOUR	Colour	No.	Luminous Flux * Nominal value (lm)	CRI (Class)	Colour Temperature (K)	ILCOS-Code
LUXLINE PLUS Colours						
HOMELIGHT DELUXE		827	950	1B	2700	FD-15/27/1B-E-G13-26/450
WARM WHITE DELUXE		830	950	1B	3000	FD-15/30/1B-E-G13-26/450
COOL WHITE DELUXE		840	950	1B	4000	FD-15/40/1B-E-G13-26/450
DAYLIGHT DELUXE		860	900	1B	6000	FD-15/60/1B-E-G13-26/450
STANDARD Colours						
WARM WHITE		129	900	3	3000	FD-15/30/3-E-G13-26/450
COOL WHITE		133	900	2B	4300	FD-15/43/2B-E-G13-26/450
WHITE		135	900	3	3500	FD-15/35/3-E-G13-26/450
DAYLIGHT		154	750	2A	6500	FD-15/65/2A-E-G13-26/450
DAYLIGHT PLUS		155	750	1B	5200	FD-15/52/1B-E-G13-26/450
SPECIAL Colours						
AQUASTAR		174	650	3	10000	FD-15/100/3-E-G13-26/450
GRO LUX	GRO		not for general lighting purposes			
BLACKLIGHT	BL 350		not for general lighting purposes			
PHASE-OUT Colours						
WARM WHITE DELUXE		132	620	2A	3000	FD-15/30/2A-E-G13-26/450
PROFESSIONAL ACTIVA		172	700	1A	6500	FD-15/65/1A-E-G13-26/450
PROFESSIONAL GOURMET		175	350	1B	3700	FD-15/37/1B-E-G13-26/450

ATTENTION: If lamps are operated at high frequency, the luminous flux depends on the type of ballast used.
* At 50 Hz operation, lamp aged for 100h.

UV-A ENERGY SOURCE — F8W T5 BL350

OUTLINE: All dimensions are in mm and are nominal unless otherwise stated.



ELECTRICAL DATA:			Nominal Value	Min.	Max.
Lamp Wattage	(W)	:	7.1	6.2	8.0
Lamp Voltage	(V)	:	56	48	64
Lamp Current	(A)	:	0.145		
Preheat Current	(A)	:			

BALLAST INFORMATION:			Type	Rated Voltage	Impedance	Starter
Single Lamp Circuit	(50Hz)	:	4/6/8W	127 V	700 ohm	FS11, FS22
Twin Series Circuit	(50Hz)	:	13W	220 V	1070 ohm	FS22
High Frequency Operation		:				

OPERATING CONDITIONS:			
Average Life (IEC Test Cycle)	(h)	:	10000
Base Rim Temperature (max.)	(°C)	:	80
Lamp Ambient Temperature	(°C)	:	-15 ... 50
Operating Position		:	Any

SPECTRAL DATA: (at d = 500 mm)

Peak Intensity at 350 nm

UV-A	(315 - 400 nm)	:	<120	µW/cm2
UV-B	(280 - 315 nm)	:	<1.2	µW/cm2
UV-C	(260 - 280 nm)	:	<0.004	µW/cm2

APPLICATION: UV irradiation in industrial and commercial applications.

ATTENTION: This UV-A energy source emits UV radiation. Avoid exposure to skin and eyes.

Issued:	Shipley	DATA SHEET	Number: 6123
Issue Date:	22.03.96		Supersedes: 16.01.96
Approved:			Page: 1 of 1

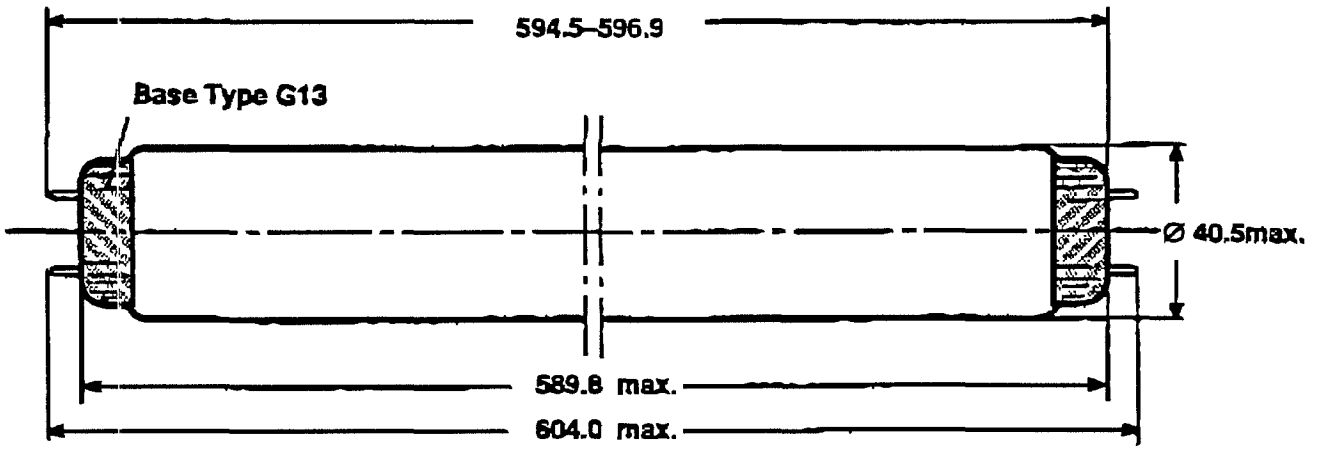
SYLVANIA

FLUORESCENT LAMP

F40W/2FT/T12

OUTLINE:

Dimensions in mi



ELECTRICAL DATA:			Nominal Value	Min.	Max.
Lamp Wattage	(W)	:	40.0	34.7	39.9
Lamp Voltage	(V)	:	47.0	40.0	54.0
Lamp Current	(A)	:	0.880		

OPERATING CONDITIONS :		Ballast Type	Starter
Single Lamp Circuit	:	40W	FS–11, COP/H–20, COP/H–46
Tandem Circuit	:	80W	FS–22

PHOTOMETRIC DATA:

COLOUR		CODE	Luminous flux lm	CRI Class	Colour Temp. (K)
WARM WHITE	WW	129	2000	3	3000
COOL WHITE	CW	133	1900	2B	4300
WHITE	W	135	2000	3	3500
DAYLIGHT	D	154		3	6500
BL350					
	BL	350	not suitable for lighting applications		

APPLICATION: For further lamp data refer to IEC81 / EN 60081, most recent edition.

ATTENTION: The product must be used with suitable operating equipment and in accordance with the specified data.

Issued by : ERLANGEN Date : 11.81 Revision date: 09.07.91	**DATA SHEET**	Specification Nbr : 4212A Supersedes : 4212 11.81 Page 1 of 1

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