

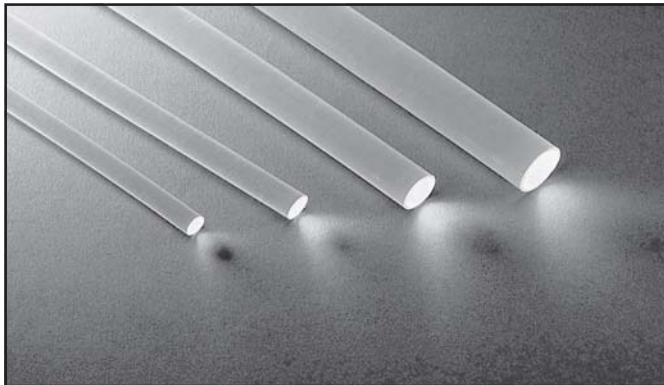
# STA-FLEX® “SWN” LINEAR OPTICAL FIBER

Project:

Type:

Catalog Number: **SWN**

System Component: **Optical Fiber**



- ◆ **STA-FLEX® Large Core**
- ◆ **Indoor Applications**
- ◆ **Long Life Flexibility**
- ◆ **Clear, Luminous Appearance**
- ◆ **Wide 80° Acceptance Angle**

**DESCRIPTION:** LUMENYTE® STA-FLEX® “SWN” linear optical fiber consists of a light transmitting solid large core and a Teflon® cladding. The STA-FLEX® core provides long-life flexibility and superb light transmission for bright and uniform luminance. SWN has a flexible bending capability, yet maintains a very smooth surface quality. Ideal for accent lighting, linear forms, glass block walls and step lighting, SWN is for *interior use only*, away from water, moisture or sunlight.



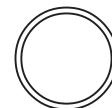
SWN200



SWN300



SWN400



SWN500

**NOTE:** Images are not to scale - Refer to next page for dimensions

## SPECIFICATIONS:

Transmission Loss (attenuation)  
Bend Radius

Temperature Stability  
Spectral Transmission Range  
Acceptance Angle  
Refractive Index

Numerical Aperture

Less than 1.5% per foot (SWN500)  
Physical Minimum: 6 x fiber diameter  
Recommended: 12 x fiber diameter or larger  
Up to 90° C (194° F)  
350-800 nm  
80°  
Core: 1.48 or greater  
Cladding: 1.34 or less  
0.63

Teflon® is a registered trademark of DuPont.

**LUMENYTE** INTERNATIONAL CORPORATION

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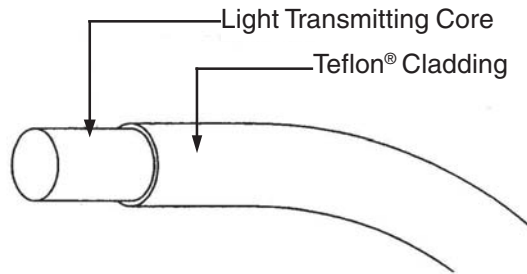
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DCN 650014

# STA-FLEX® "SWN" LINEAR OPTICAL FIBER

Dimensions: (ALL DIMENSIONS ARE NOMINAL)				Recommended/Maximum # of fibers that fit into illuminators:				
Model Number	Core Diameter		Outer Diameter		Econo	PH Non-Harn	PH Harn	LimoLyte 12V
	in.	mm	in.	mm	*Rec./**Max.	*Rec./**Max.	*Rec./**Max.	*Rec./**Max.
SWN200	.190"	4.8mm	.230"	5.8mm	8/12	12/17	12/19	8/12
SWN300	.240"	6.1mm	.285"	7.2mm	3/4	7/11	7/12	5/7
SWN400	.360"	9.1mm	.415"	10.5mm	1/1	3/4	3/5	1/3
SWN500	.490"	12.4mm	.550"	14.0mm	1/1	2/2	2/3	1/1

\*Rec.= Recommended Maximum  
\*\*Max.= Physical Maximum



## Ordering Information

EXAMPLE:	
SWN200 - 75'	
MODEL #	LENGTH (in feet)

MODEL #	LENGTH (in feet)
SWN200	
SWN300	
SWN400	
SWN500	

## Maximum Manufactured Length

- 100 feet (30.5m) continuous

## Maximum Distance for Effective Brightness

The effective light output of optical fiber is based upon several variables such as:

- Intensity of light source
- Fiber length and attenuation
- Color of light
- Quantity of fibers in illuminator
- Background color contrast
- Number and radius of bends
- Diameter of fiber
- Viewing angle
- Ambient light level

## Splicing and Cutting

- Splicing can be achieved in the field using Lumenyte Splice Kits and carefully following the instructions. Factory splicing is available. Lumenyte's Optic Cutter is advised for straight, clean, 90° fiber cuts.

## Environment

- SWN fiber is for interior use only, away from water, moisture and sunlight.
- Avoid allowing liquids between the core and cladding. Use end seals bonded with SC2081 glue.
- Avoid dirt and abrasions on the core and Teflon® cladding.
- Install fibers in 10° C (50° F) or higher temperature.

## Installation into a Non-Harness Illuminator

- Fiber end should be near, **but not touching** the illuminator glass to achieve maximum brightness.

Teflon® is a registered trademark of DuPont.

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