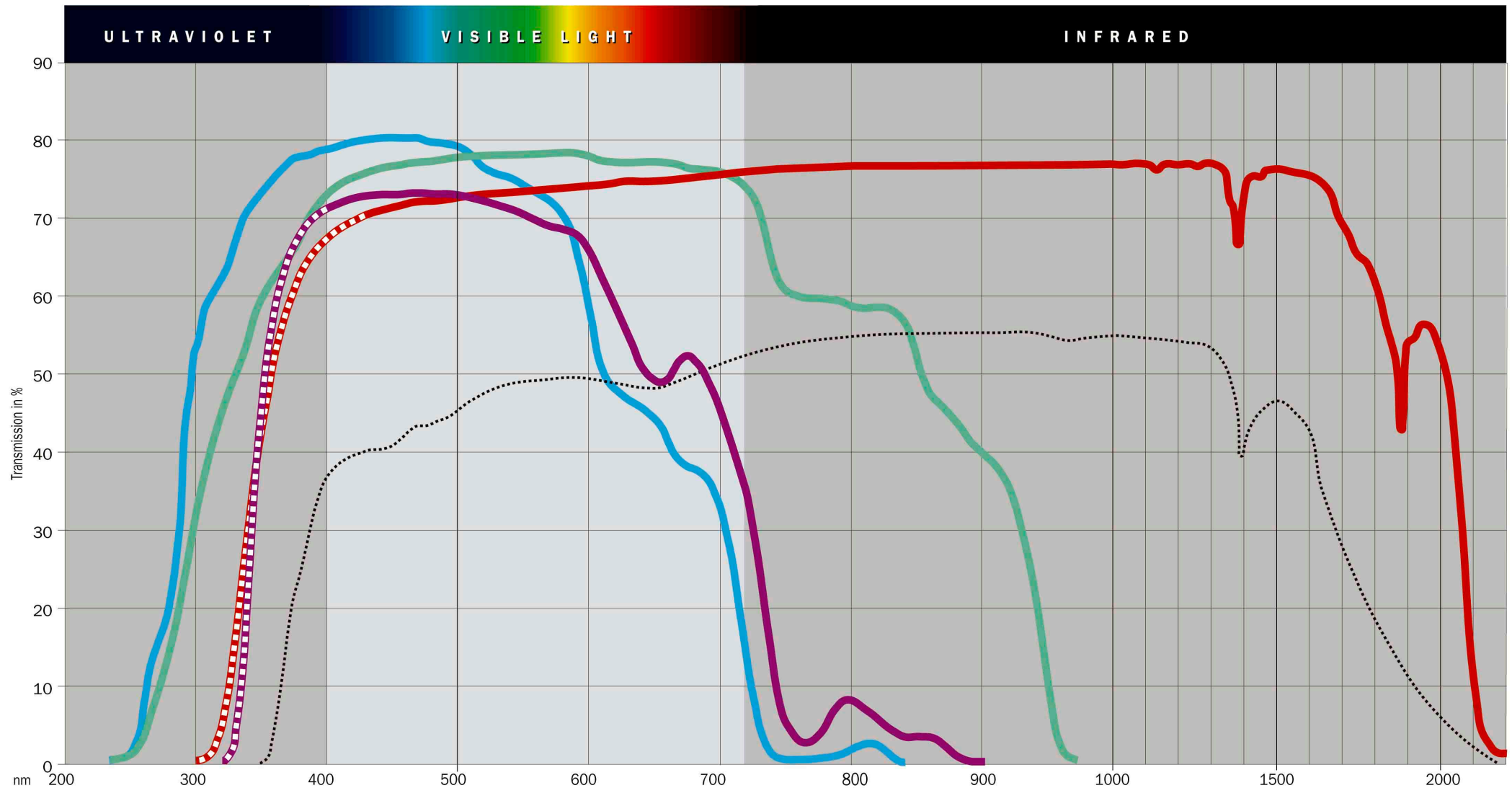


LIQUID LIGHTGUIDES

A TECHNOLOGICAL
BREAKTHROUGH IN
LIGHT TRANSMISSION

LUMATEC®

LUMATEC® Liquid Lightguides Spectral Characteristics



Series 300
N.A. = $2\alpha = 72^\circ$

Series 700
N.A. = $2\alpha = 63^\circ$

..... Glassfiber bundle
for comparison

Series 380
N.A. = $2\alpha = 72^\circ$

Series 2000
N.A. = $2\alpha = 62^\circ$

--- Not recommended for
high radiation power

Measured at $2\alpha = 50^\circ$; Length 2000 mm; active core \varnothing 5 mm
Applications and specifications see over.

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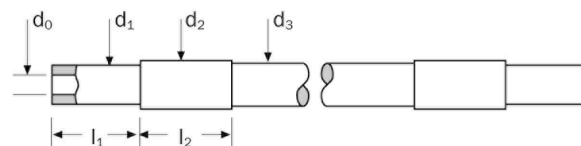
LUMATEC® Liquid Lightguides

Series	Standard Core Diameters	NA	Applications and Spectral Range	Specific Properties
300	2, 3, 5, 8 mm	72°	UV epoxy curing and UV fluorescence inspection at lengths of up to 20m (60 ft). 300nm – 650nm	Superior transmission of up to 5W of UV radiation. Suitable for very rugged environments. Recommended light sources: mercury and xenon short arc, tungsten halogen. Temperature range (long term): -5°C to +35°C
380	2, 3, 5, 8 mm	72°	Outstanding white light illumination at lengths of up to 30m (100ft). 340nm – 800nm	Excellent transmission from the near UV to the far red even at a length of 30m. Suitable for very rugged environments. Recommended light sources: tungsten halogen, xenon, metal halide. Temperature range (long term): -5°C to +35°C
700	5, 8 mm	63°	White light for medical endoscopy, blue light for dental curing. Lengths up to 10m (33ft). 400nm - 700nm	Enhanced flexibility, ETO sterilizable. Adaptors available for all medical light sources and endoscopes. Recommended light sources: tungsten halogen, xenon, metal halide. Temperature range (long term): 0°C to +35°C
2000	2, 3, 5, 8 mm	62°	Visible and near infrared illumination. Lengths up to 10m (33ft). 420nm - 2000nm	Transmission of high power near infrared radiation in the multi-watt range. Protection required from high power radiation below 420nm (integrated dichroic longpass filter available). Recommended light sources: xenon or tungsten halogen lamps, Nd-YAG or diode lasers. Temperature range (long term): +5°C to 35°C

Dimensions of Standard End Fittings (mm)

Active Core Ø	Standard End Fittings					Protective Sleeve	Minimum Bending Radius
d ₀	d ₁	l ₁	d ₂	l ₂		d ₃	
2	4	6.7	8	20		5.5	30
3	5	20	9	24		7	40
5	7	20	10	24		9.5	60
8	10	20	15	40		12.5	100

Many other end fittings, a variety of claddings, and custom designs are available on request. Detailed leaflets are available for every series.



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