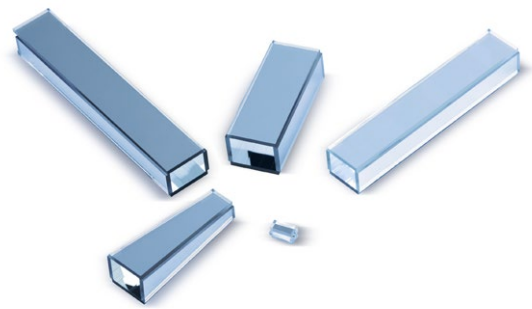




Light Tunnel™

Light Tunnel™ for Projection Display

Unlike competitor products, the Materion Balzers Optics hollow integrator Light Tunnel™ creates enhancement of light uniformity by outstanding reflection. Used for light integration in projection systems employing DLP™ technology, its compact design establishes a new standard for portable projection systems. We apply our patented Silflex™ HLE7 silver coating or 400 Deflex™ 75 dielectric coating to the internal surfaces of the Light Tunnel™ giving it unique advantages.



Benefits

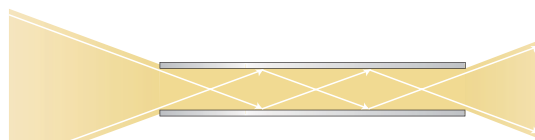
- Enhanced light uniformity by high reflection
- Reduced flickering effects
- Reduces length of solid glass integrator rods by 50%
- Exhibits less sensitivity to dust
- Compact design for ultra compact projection displays
- No impact on color

Applications

Light integration in portable business and large venue projection systems employing DLP™ technology.

Overview Light Tunnel™ Portfolio

Operating Temperature	R avg	up to 135°C	up to 165°C	up to 200°C	up to 400°C
Silflex™ HLE7 (AOI75, silver)	>97.5% (98%)	BCC	BCE	SCC (step)	
400 Deflex™ 75 (AOI75, dielectric)	>97%	400 BDC	400 BDE		400 SDC (step)



Schematic of Standard Light Tunnel™

Technical Data

Dimensions

Any customized size in rectangular or tapered versions

Substrate

Floatglass, 1.1 ± 0.1 mm, other substrates on request

Coating

Materion Precision Optics Silflex™ HLE7 (as per data sheet)

Materion Precision Optics 400 Deflex™ 75 (as per data sheet)

Reflectivity

Silflex™ HLE7: R avg. ≥97.5% at 420 – 680 nm

Optimized for random pol., AOI = 75°

400 Deflex™ 75: R avg. ≥97% at 420 – 680 nm

Optimized for random pol., AOI = 75°

Environmental resistance and durability test

Operating temperature

Silflex™ HLE7: up to 200°C depending on design

400Deflex™ 75: up to 400°C depending on design

Storage temperature

-20 to +85°C

Scratches and digs (for coating only)

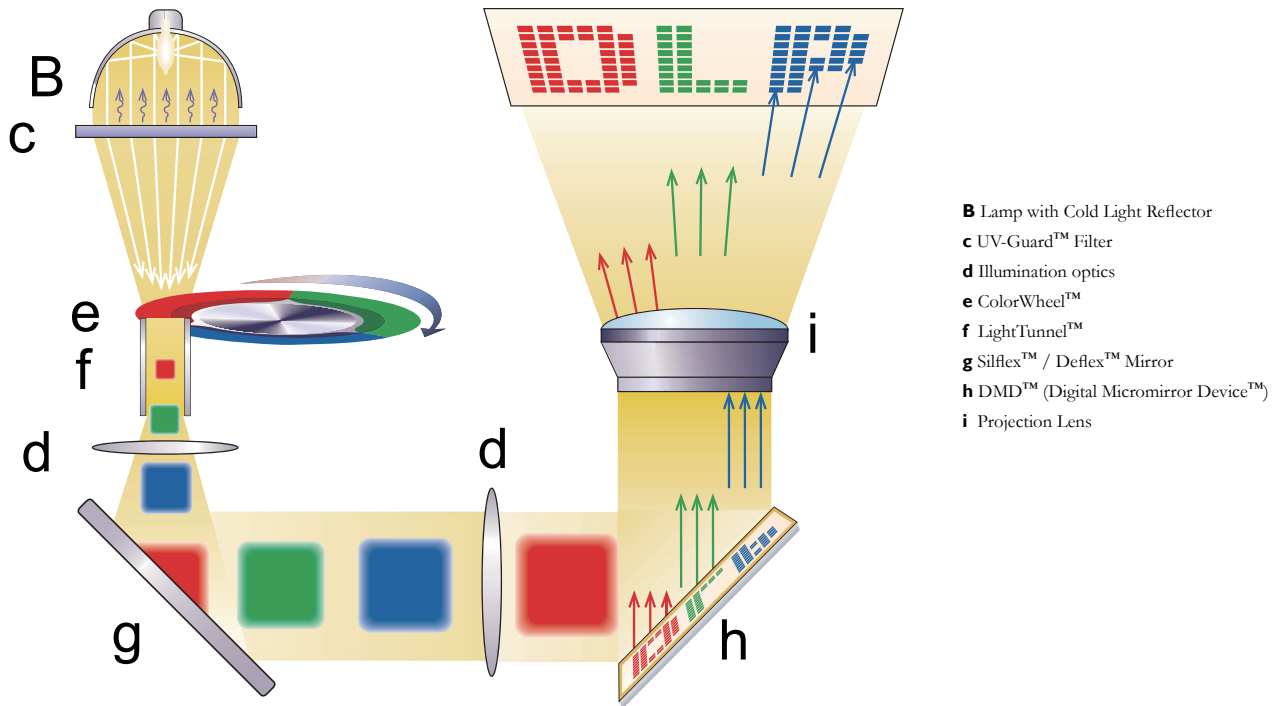
Depending on specification (input and output edges)

Typically 50/2 × 0.4; R0.2 (chips on)

Materion Precision Optics (Shanghai) Ltd.
33# Building, No. 76 Fu Te Dong San Road
WQQ Free Trade Zone, Pudong
Shanghai 200131, P.R.C.

Shanghai
T + 021 60574646
info.mbo@materion.com
www.materion.com/balzersoptics

Schematic of DLP™ front projector



- B** Lamp with Cold Light Reflector
- c** UV-Guard™ Filter
- d** Illumination optics
- e** ColorWheel™
- f** LightTunnel™
- g** Silflex™ / Deflex™ Mirror
- h** DMD™ (Digital Micromirror Device™)
- i** Projection Lens

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Subject to technical change without notices