

# Optics

Solatube Daylighting Systems combine breakthrough optical technology with advanced designs and the highest quality materials to fill your living spaces with an abundance of pure, clear natural light.

From sunup to sundown, daylight is harvested by a specially designed rooftop dome that uses our proprietary Raybender® 3000 Technology. The dome collects sunlight from any angle, selectively harnessing only the wavelengths we need to see and filtering out those we don't. It then redirects the sunlight through our highly reflective Spectralight® Infinity Tubing and delivers it to you in spaces never thought possible—like the bathroom, laundry room and kitchen. Solatube Daylighting Systems make these spaces brighter to give you the light you need to see better, accomplish more and live better. Solatube...the brightest idea since the creation of the sun.



Solatube Daylighting Systems come in two sizes for different lighting needs:

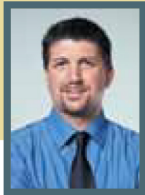
**Solatube 160 DS**

Delivers daylight to spaces up to 18.5 sq. metres. Ideal for small to mid-sized areas like bathrooms, laundry rooms, closets and hallways.

**Solatube 290 DS**

Delivers daylight to spaces up to 28 sq. metres. Works best for large rooms like kitchens, family rooms and bedrooms.

“Our systems selectively harness the wavelengths of light you need to bring the clearest, purest daylight into your home.”



—Neall Digert, Ph. D., MIES

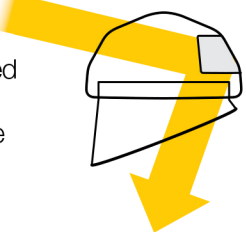
## 1. Capture

The story all begins with capturing sunlight. We challenged our engineers to develop a dome that automatically adjusts daylight harvesting throughout the day while achieving demanding thermal performance requirements. The solution - The most advanced dome technology with the ability to virtually bend daylight.

**LightTracker™ Reflector**

An innovative in-dome reflector that:

- Redirects low-angle winter sunlight for maximum light capture
- Increases light input for greater light output
- Delivers un-surpassed year-round performance



**Raybender®3000 Technology**

A patented daylight-capturing dome lens that:

- Redirects low-angle sunlight for maximum light capture
- Rejects overpowering summer midday sunlight
- Provides consistent daylighting throughout the day



## 2. Transfer

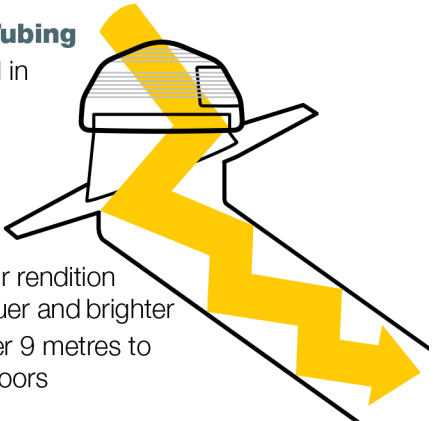
How much does a bounce matter? You'd be surprised. Every time a ray of light is reflected, a small amount of that light is lost. And even a few percentage points in reflectivity make a huge difference in overall performance. It's that attention to detail that led us to develop the highest performing tubing available.

**Spectralight® Infinity Tubing**

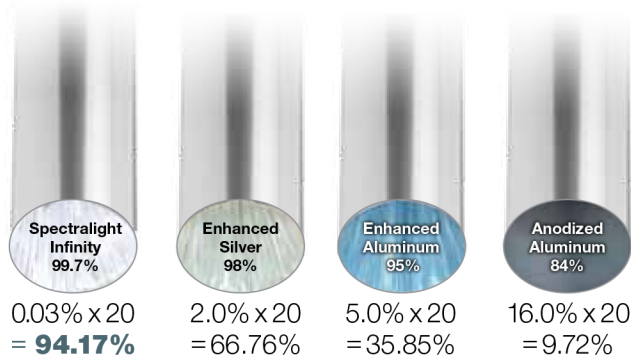
The most reflective material in the world.

Our tubing:

- Delivers 99.7% specular reflectivity for maximum sunlight transfer
- Provides the purest colour rendition possible so colours are truer and brighter
- Allows for run lengths over 9 metres to deliver sunlight to lower floors



**Percentage of light delivered after 20 bounces**



**What Are A Few Percentage Points?**

A small difference in reflectivity value can make an exponential difference in overall light delivery of a tubular daylighting device.

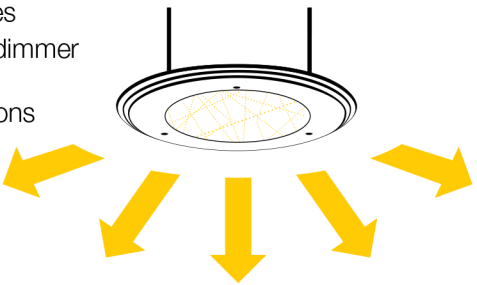
## 3. Deliver

What makes Solatube Daylighting Systems unique? The ability to offer amazing control over daylighting a space. From light control to diffusion, we've thought of virtually everything you need to bathe a space in pure, natural light.

**Stylish Daylight Delivery**

Form and function combine for optimal daylight diffusion with:

- New Glass Distractions Decorative Fixtures
- Warming or softening Effect Lenses
- Ventilation, dimmer or nighttime lighting options



**Superior Colour Rendition**

The unique spectral reflectance characteristics of Spectralight® Infinity Tubing reflect the visible spectrum without colour shift to deliver the purest colour rendition possible.

It's performance like this that ensures that the colour you use in a space will be vivid and accurate.

