

Lightguides

Lightguides transmit UV and visible energy from a source mounted inside of a spot-curing unit to the curing area. When choosing a lightguide for your system, the following factors should be considered:

Length – Lightguides are commonly one meter long although other lengths are available.

Diameter – Single-pole lightguides are available with 3-mm, 5-mm, or 8-mm inside diameters. Although the 5-mm lightguide will register a higher intensity, the 8-mm lightguide provides more curing power (intensity x area) because a larger lightguide opening captures more of the light emitted from the bulb. Each pole of a multi-pole lightguide has an inside diameter of 3 mm.

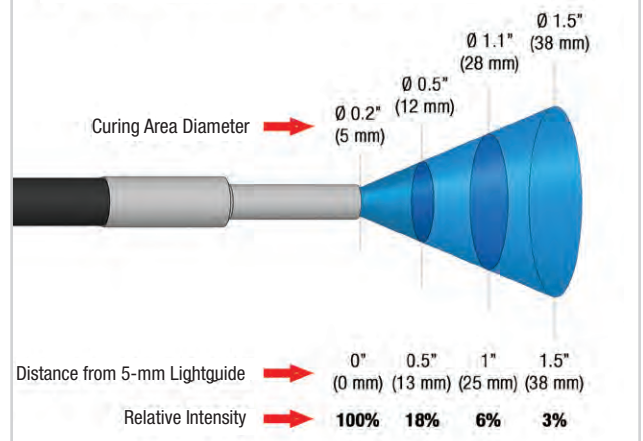
Multiple Poles – Light emitting from a spot lamp can be channeled through a single lightguide (single pole) or split between multiple lightguides (multiple poles). Each pole of a multi-pole lightguide emits equal intensity (typically $\pm 10\%$ for liquid-filled lightguides) and all share a common shutter. Both liquid-filled and quartz-fiber multi-pole lightguides are available from Dymax.

Connection – There are basically two types of connectors used in the spot lamp industry, “Wolf” and “D” connectors. Dymax provides lightguides with both connector types, although “D” connectors are an industry standard and compatible with current Dymax lamp designs (older Dymax designs utilized “Wolf” connectors).

Curing Area/Intensity vs. Distance – The UV and visible light emitted from a lightguide diverges. As a result, intensity decreases and curing area increases with distance from the end of the light guide. The chart to the right describes this relationship clearly for the 5-mm liquid lightguide.



Curing Area/Intensity vs. Distance Using a 5-mm Lightguide



| Part Number | Lightguide Description (all noted are liquid filled; quartz fiber are also available) | | Compatible Dymax Systems |
|--------------|--|--------------|---|
| 5720 | Single Pole | 5 mm x 1 M | All lighguides listed are compatible with: BlueWave® 75 BlueWave® 200 BlueWave® LED Prime UVA BlueWave® LED VisiCure® BlueWave® DX-1000 BlueWave® DX-1000 VisiCure® BlueWave® MX-150 |
| 5721 | Single Pole | 5 mm x 1.5 M | |
| 5722 | Single Pole | 8 mm x 1 M | |
| 38476 | Two Pole | 3 mm x 1 M | |
| 38477 | Three Pole | 3 mm x 1 M | |
| 38478 | Four Pole | 3 mm x 1 M | |
| 36619 | Single Pole - Wolf Style | 3 mm x 1 M | |
| 37043 | Two Pole - Wolf Style | 3 mm x 1 M | |
| 35101 | Single Pole - Wolf Style | 5 mm x 0.5 M | |
| 35102 | Single Pole - Wolf Style | 5 mm x 1 M | |
| 36238 | Single Pole - Wolf Style | 5 mm x 1.5 M | |
| 38998 | Single Pole - Wolf Style | 5 mm x 2 M | |