

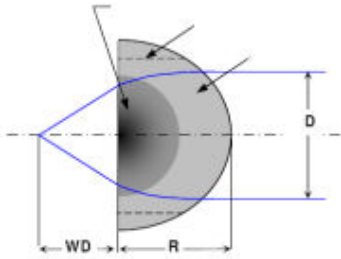
doric™ Gradient-Index Half Cylindrical Lens

These plano-convex cylindrical lenses are derived from doric™ gradient-index cylindrical lenses by grinding and polishing. Compared to its parent lens, half-doric lens has longer focal length, longer working distance and $NA = 0.35$.

They can be used in the visible and near infra-red spectrum as fast-axis collimators for single laser diodes or for building cylindrical lens arrays for laser diode bars. The absence of acylindrical surfaces makes the alignment of plano-convex cylindrical lenses simple and fast.

In order to accommodate a small emitter pitch, the edge of the lens may be ground to a desired width and the initial rod diameter could be trimmed to a smaller height as well.

Core is proprietary graded index material.
Index profile is available after signing a non-disclosure agreement.

WEBCODE:		D149xxx	
LENS DRAWING			
			
SPECIFICATIONS	SYMBOL	VALUE	
Lens Type		PLANO-CYLINDRICAL	
Material		FUSED SILICA (with doped core)	
Transition Temperature	T _g	~ 1100°C	
Design Wavelength	λ ₀	670 nm	
Operating Wavelength	λ	600 – 1600 nm	
Available diameter	Φ	60, 80, 100, 120, 200, 250, 300, 400, 500 μm 0.60, 0.70, 0.75, 0.80, 0.90, 1.0, 1.3, 1.5 mm	
Central Thickness	CT	CT = Φ / 2	
Dimension tolerance	ΔΦ ΔCT	+/- 0.010 mm	
Effective focal length	EFL	EFL = 0.931 Φ	
Working distance	WD	WD = 0.631 Φ	
Numerical aperture	NA	0.35	
Beam quality factor	M ²	1.3	
AR coating	AR	2S-VIS : broad band 2 side AR coating @ 600 – 900 nm 2S-NIR : broad band 2 side AR coating @ 750 – 1100 nm AA-808 : narrow band all-around @ 800 – 820 nm AA-940 : narrow band all-around @ 930 - 950 nm	
Note		other custom diameter and custom AR coating are available upon request	