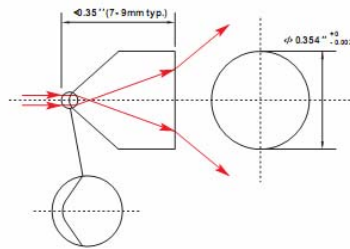


## Laser Optics

### Powell Lens

The Powell Lens is one kind of Aspherical lens, which can transform laser beam into a straight laser line. By using our Powell Lens, you can get more even energy distribution along the laser line than using the rod lenses and cylinder lenses. This kind of Powell Lens can be widely used in alignment, machine vision systems, construction and process control etc. fields. At present our Powell Lens are available in a variety of fan angles as following.

**Applications:** High Uniformity Line Laser Laser Scanning



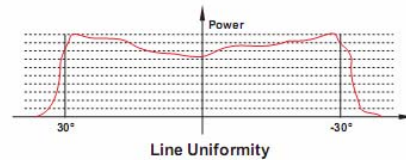
#### Key Features:

Accurate Fan Angle  
Green Laser Module  
Excellent Uniformity

SLGL-05-090-20-X:

05: Angle degree ( $5^{\circ}, 10^{\circ}, 20^{\circ}, 30^{\circ}, 45^{\circ}, 53^{\circ}, 60^{\circ}, 70^{\circ}, 75^{\circ}, 85^{\circ}, 90^{\circ}, 96^{\circ}$ )  
090: Beam Diameter in mm ( $\Phi 0.9, \Phi 1, \Phi 1.25, \Phi 2, \Phi 2.2, \Phi 2.6, \Phi 3, \Phi 3.6, \Phi 4$ )  
20: Line Intensity Uniformity ( $\leq 20\%, \leq 35\%, \leq 45\%$ )  
X: Dimension in mm ( $X = \Phi 8.92 \pm 0.02, Y = 6 \times 4 \times 6$ )

Note: Green laser modules with powell lens or rod lens are available upon request



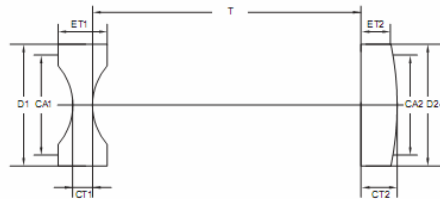
### Green Laser Beam Expander

Normally the beam divergence of green laser is very big. To realize a small beam diameter at a certain distance, a set of beam expander will be necessary for the laser. Our Beam Expander product family gives customer a flexible choice for different requirements. The beam expander set is normally composed of two lenses (without holder).

**Applications:** Laser Alignment Laser Leveling Aiming & Positioning Laser Surveying

#### Key Features:

High Transmission  
Short System Length  
Designed for Green Laser  
Small Spherical Aberration



Part No.	Expansion Ratio	D1	CA1	ET1	CT1	T	CT2	ET2	CA2	D2
BEX-532-7.5X	7.5×	6	4	2.4	1	13.24	1.8	1.39	4	6
BEX-532-10X	10×	5	2.5	1.5	0.9	15.16	1.5	1.2	4	5
BEX-532-16X	16×	6	1.7	1.5	1	18.06	2.5	2.2	5	6
BEX-532-22.5X	22.5×	6	1.7	1.5	1	22.48	2.2	1.77	5	6
BEX-532-27.5X	27.5×	6	1.7	1.5	1	28.38	3	2.37	7	8