

Digi-Cube™ Digital Scan Head F-Theta Packages

The data below was taken with an IPG YLP-1/100/20 laser. Profiles and spot sizes are dependent upon laser input. Profiles shown taken at center of field working distance and field size dependent upon beam diameter.

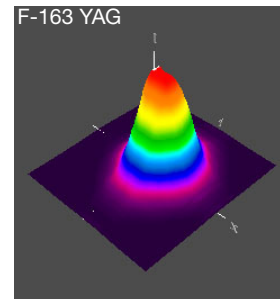
1064nm & 1064nm High Power

F-Theta Lens PN	GSL-000160
Description	1064nm, F163
Field Estimate	113 mm x 113 mm field
Spot Estimate	Approx. 35 μm spot size
Working Distance	187.5 mm
Price	\$2,298 for 1064nm \$2,798 for 1064 High Power Coatings

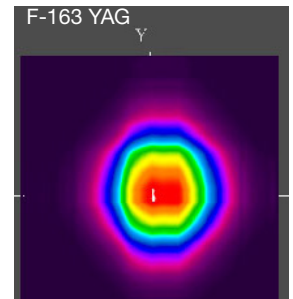
Typical Beam Profile vs. Popular German Lens

Result	ROI #	Average	S. Dev.	Average	S Dev.
1/e ₂ Width X [μm]	1	55.7	1.2	49.8	1.1
1/e ₂ Width Y [μm]	1	62.6	3.1	55.2	1.6
50.0% Width X [μm]	1	33.1	2.1	28.9	1.1
50.0% Width y [μm]	1	35.9	4.0	31.6	2.9
Ellipticity	1	0.9	0.05	0.9	0.03

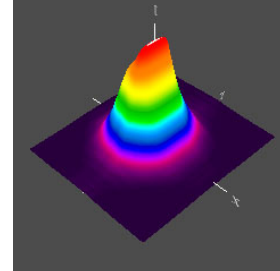
3D



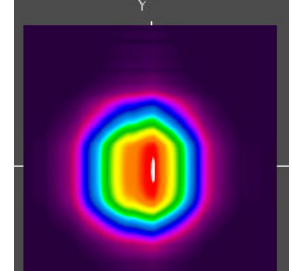
2D



German F-160



German F-160



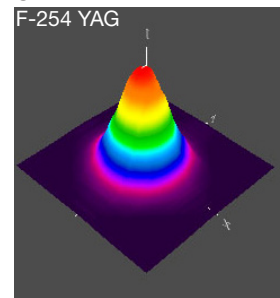
1064nm & 1064nm High Power

F-Theta Lens PN	GSL-000166
Description	1064nm, F254
Field Estimate	175 mm x 175 mm field
Spot Estimate	Approx. 45 μm spot size
Working Distance	281 mm
Price	\$2,298 for 1064nm \$2,798 for 1064 High Power Coatings

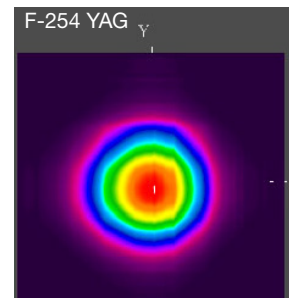
Typical Beam Profile vs. Popular German Lens

Result	ROI #	Average	S. Dev.	Average	S Dev.
1/e ₂ Width X [μm]	1	78.8	2.7	81.8	2.2
1/e ₂ Width Y [μm]	1	81.6	2.3	83.4	2.6
50.0% Width X [μm]	1	44.8	1.6	46.0	2.1
50.0% Width y [μm]	1	44.6	2.5	45.4	2.0
Ellipticity	1	1.0	0.03	1.0	0.03

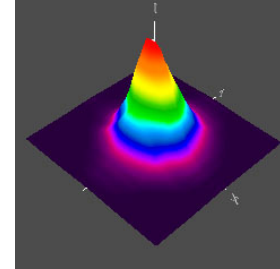
3D



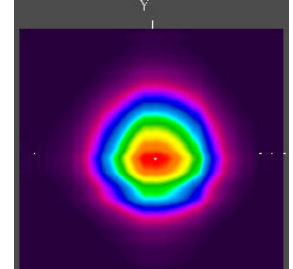
2D



German F-254



German F-254



1064nm & 1064nm High Power

F-Theta Lens PN	GSL-000159
Description	1064nm, F420
Field Estimate	290 mm x 290 mm field
Spot Estimate	Approx. 70 μm spot size
Working Distance	486.1 mm

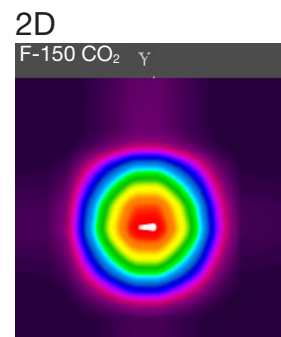
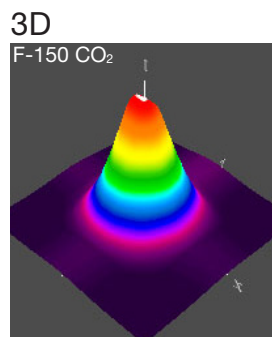
Special
Order
Only

The data below was taken with a Coherent Diamond C-30A laser. Profiles and spot sizes are dependent upon laser input. Profiles shown taken at center of field working distance and field size dependent upon beam diameter.

10.6 μm CO₂

F-Theta Lens PN: GSL-000159
 Description: 10.6 μm , F149.1 Singlet
 Field Estimate: 105 mm x 105 mm field
 Spot Estimate: Approx. 265 μm spot size
 Working Distance: 166 mm
 Price: \$3,048

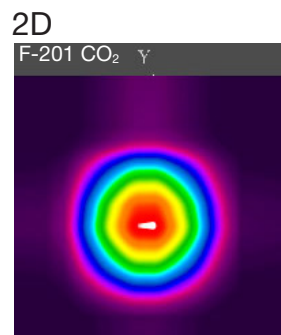
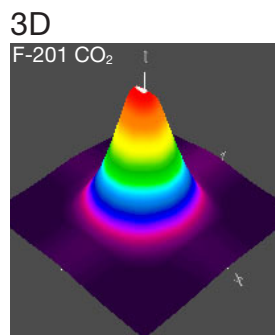
Result	ROI #	Average	S. Dev.
1/e ₂ Width X [μm]	1	433.9	12.0
1/e ₂ Width Y [μm]	1	438.5	15.8
50.0% Width X [μm]	1	263.6	9.8
50.0% Width y [μm]	1	265.2	10.4
Ellipticity	1	1.0	0.02



10.6 μm CO₂

F-Theta Lens PN: GSL-000161
 Description: 10.6 μm , F210.6 Singlet
 Field Estimate: 140 mm x 140 mm field
 Spot Estimate: Approx. 271 μm spot size
 Working Distance: 223 mm
 Price: \$3,048

Result	ROI #	Average	S. Dev.
1/e ₂ Width X [μm]	1	455.7	27.5
1/e ₂ Width Y [μm]	1	450.1	25.7
50.0% Width X [μm]	1	271.3	9.8
50.0% Width y [μm]	1	271.4	12.9
Ellipticity	1	0.9	0.04



10.6 μm CO₂

F-Theta Lens PN: GSL-000162
 Description: 10.6 μm , F249.4 Singlet
 Field Estimate: 175 mm x 175 mm field
 Spot Estimate: Approx. 275 μm spot size
 Working Distance: 266 mm
 Price: \$3,048

Result	ROI #	Average	S. Dev.
1/e ₂ Width X [μm]	1	458.5	27.1
1/e ₂ Width Y [μm]	1	458.1	24.9
50.0% Width X [μm]	1	275.6	11.8
50.0% Width y [μm]	1	275.1	12.3
Ellipticity	1	1.0	0.03

