Grating Catalog

Mechanically Ruled Gratings
Holographically Gratings
Plane Gratings
Imaging Gratings

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General specifications

Grating equation

$\sin \alpha + \sin \beta = m\lambda/d$
λ = wavelength
α, β = angle of incident beam, angle of diffracted beam
m = order of the observed diffracted beam
d = 1/G grating constant

Groove density

$\Delta G \leq 1 \times 10^{-4}$

Blaze wavelength

$\lambda_B \pm 5$ %

Efficiency anomalies

Efficiency anomalies occur at wavelengths, at which a diffracted beam of a higher order is parallel to the surface. For small angles ($\gamma < 10°$), the following equation is valid:

$\lambda_{AN} = \pm qd\ (1 \pm \sin \gamma/2)$

$q = 2/(m-2n)$

n = order of the gratingdiffracted beam
For autocollimation:

$\lambda_{AN} = \pm qd$ (Shown in diagram)

Listed λ_{AN} values show minima of the efficiency curve. At the anomalies, the efficiency deviates up to 15 % from the values shown in the diagrams.

Wavefront aberration
measured at 633 nm (for standard gratings)

UV/VIS = $\lambda/4$
NIR = $\lambda/2$
IR = $3/2\lambda$

Straylight

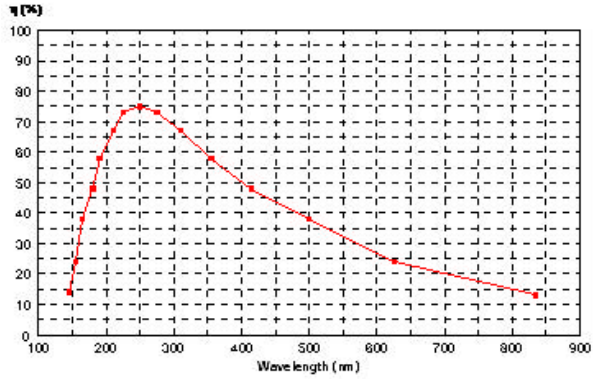
Mechanically ruled $\leq 2 \times 10^{-4}$
Holographically exposed $\leq 5 \times 10^{-5}$

Cleanliness

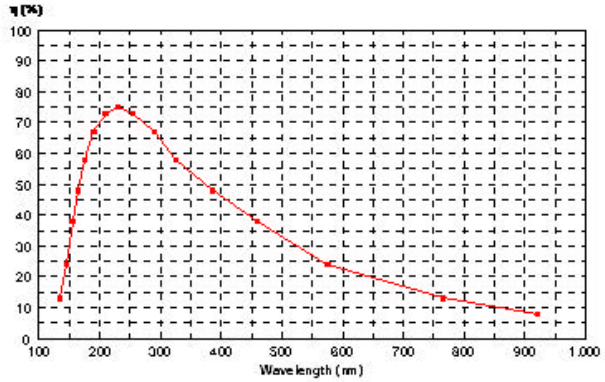
Technologically caused defects in the ruled area (small scratches, small points etc.) are acceptable, as long as they are within straylight specification and do not affect the optical properties of the grating.

Plane gratings

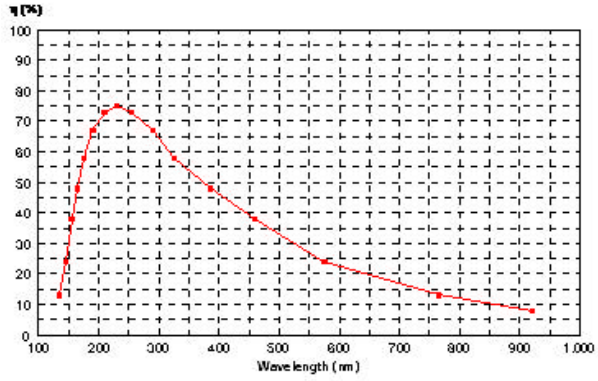
Type	Holographically, replica
Groove density	3600 l/mm
Blaze	250 nm
Anomalies l_{AN}	185 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx90 224**



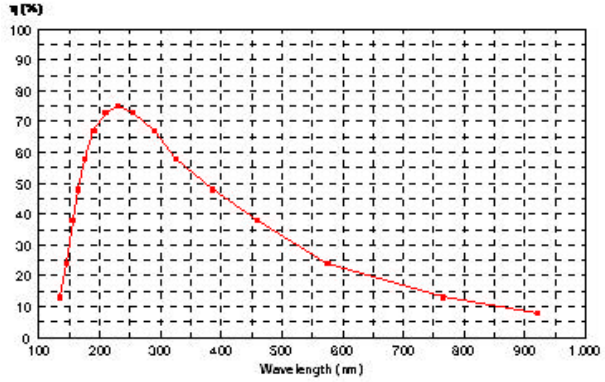
Type	Holographically, replica
Groove density	2604 l/mm
Blaze	230 nm
Anomalies l_{AN}	154 und 256 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx90 524**



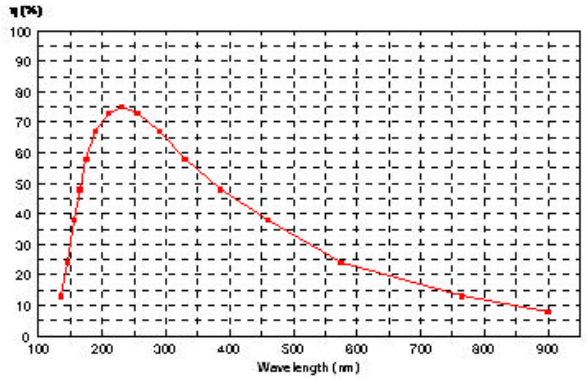
Type	Holographically, replica
Groove density	2400 l/mm
Blaze	230 nm
Anomalies l_{AN}	166 und 277 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx90 824**



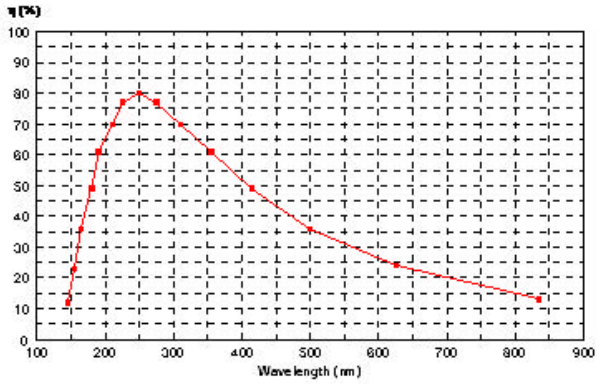
Type	Holographically, replica
Groove density	2100 l/mm
Blaze	230 nm
Anomalies l_{AN}	190 und 317 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx91 024**



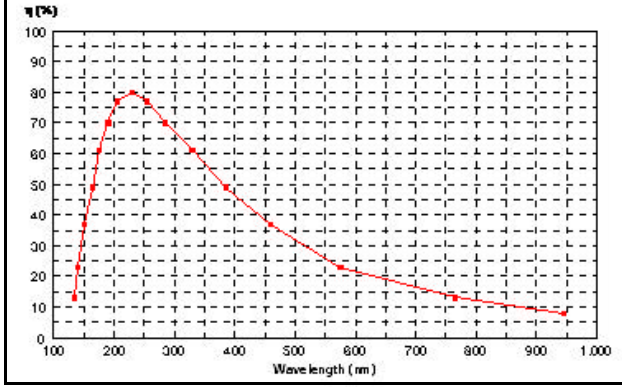
Type	Holographically, replica
Groove density	1800 l/mm
Blaze	230 nm
Anomalies l_{AN}	222 und 370 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx91 324**



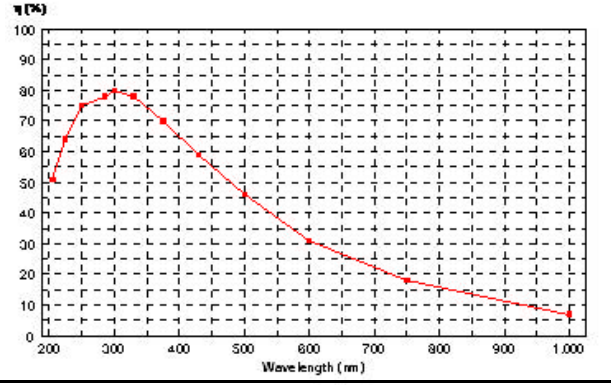
Type	Holographically, replica
Groove density	1400 l/mm
Blaze	250 nm
Anomalies l_{AN}	285 und 476nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx91 824**



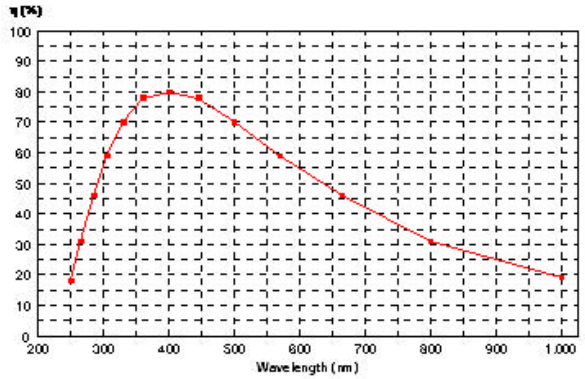
Type	Holographically, replica
Groove density	1302 l/mm
Blaze	230 nm
Anomalies l_{AN}	307 und 512 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx92 324**



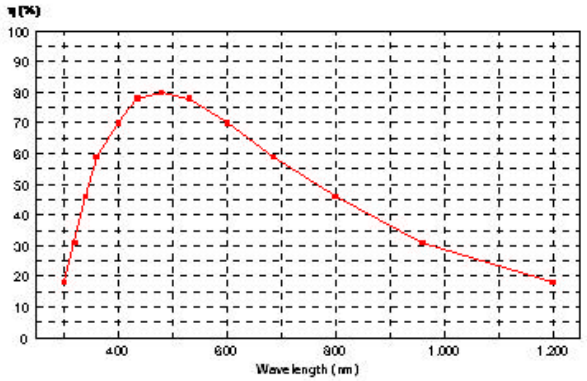
Type	Mechanically ruled, replica
Groove density	1302 l/mm
Blaze	300 nm
Anomalies l_{AN}	307 und 512 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx62 424**



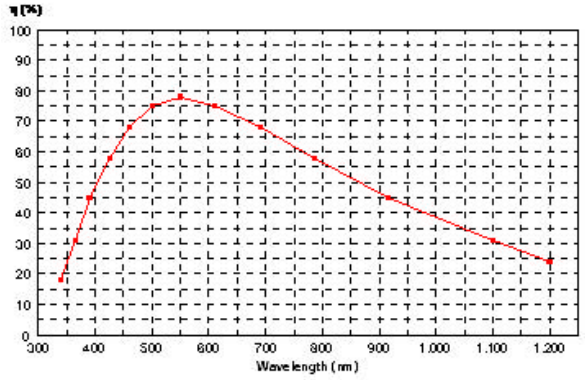
Type	Mechanically ruled, replica
Groove density	1302 l/mm
Blaze	400 nm
Anomalies l_{AN}	307 und 512 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx62 524**



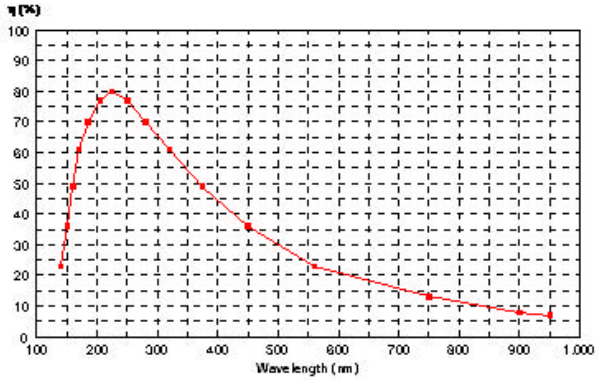
Type	Mechanically ruled, replica
Groove density	1302 l/mm
Blaze	480 nm
Anomalies l_{AN}	307 und 512 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS – NIR Spectroscopy
Part number	**263232xx62 724**



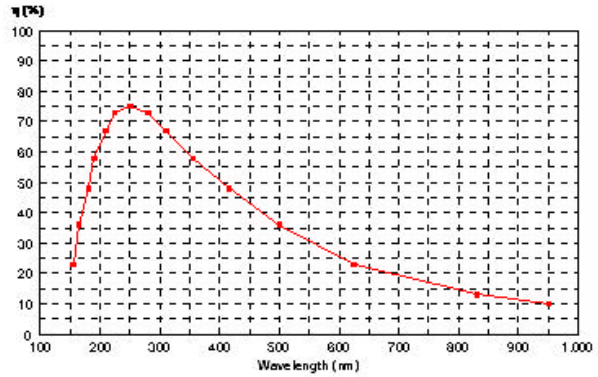
Type	Mechanically ruled, replica
Groove density	1302 l/mm
Blaze	550 nm
Anomalies l_{AN}	307 und 512 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS - NIR Spectroscopy
Part number	**263232xx62 624**



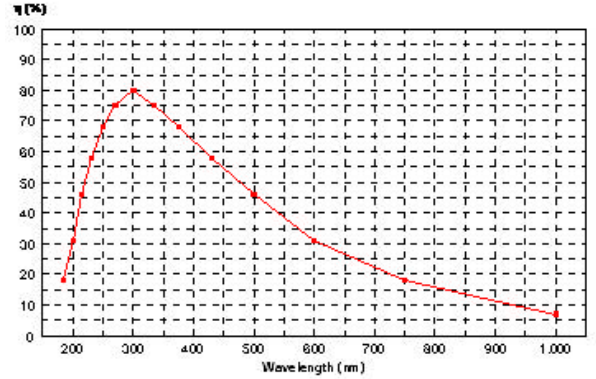
Type	Holographically, replica
Groove density	1200 l/mm
Blaze	225 nm
Anomalies l_{AN}	333 und 555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx92 824**



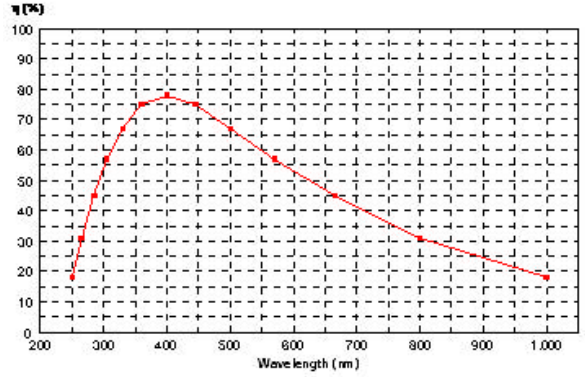
Type	Mechanically ruled, replica
Groove density	1200 l/mm
Blaze	250 nm
Anomalies l_{AN}	333 und 555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx12 324**



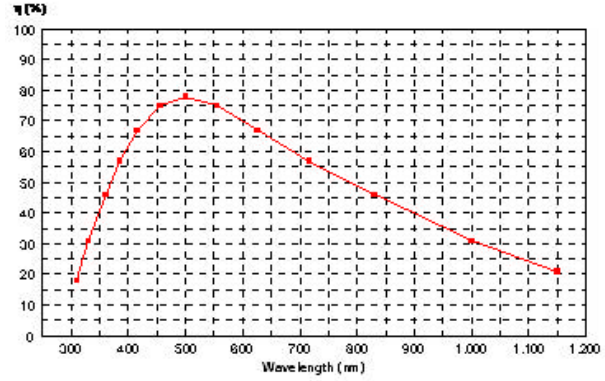
Type	Mechanically ruled, replica
Groove density	1200 l/mm
Blaze	300 nm
Anomalies l_{AN}	333 und 555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx12 424**



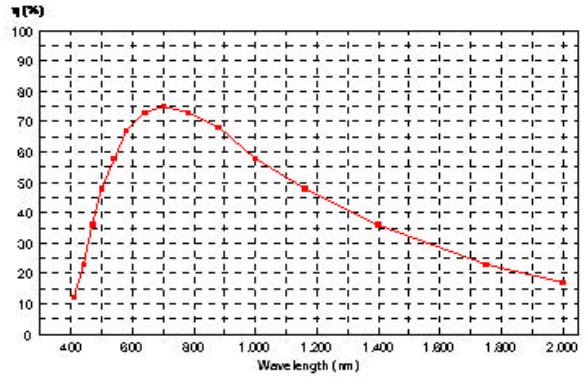
Type	Mechanically ruled, replica
Groove density	1200 l/mm
Blaze	400 nm
Anomalies l_{AN}	333 und 555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx12 524**



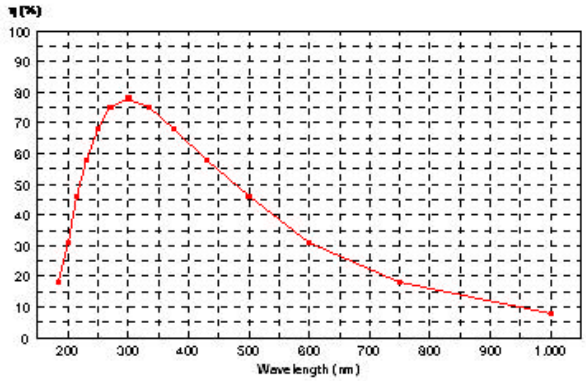
Type	Mechanically ruled, replica
Groove density	1200 l/mm
Blaze	500 nm
Anomalies l_{AN}	333 und 555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS - NIR Spectroscopy
Part number	**263232xx12 624**



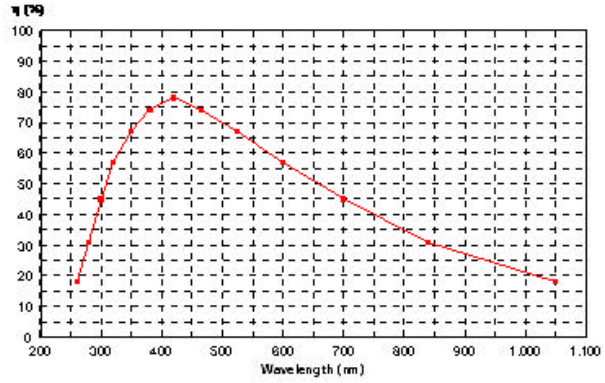
Type	Mechanically ruled, replica
Groove density	1200 l/mm
Blaze	700 nm
Anomalies l_{AN}	555 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS – NIR Spectroscopy
Part number	**263232xx12 924**



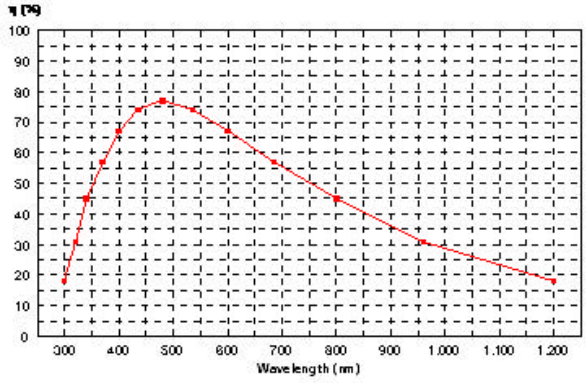
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	300 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx63 224**



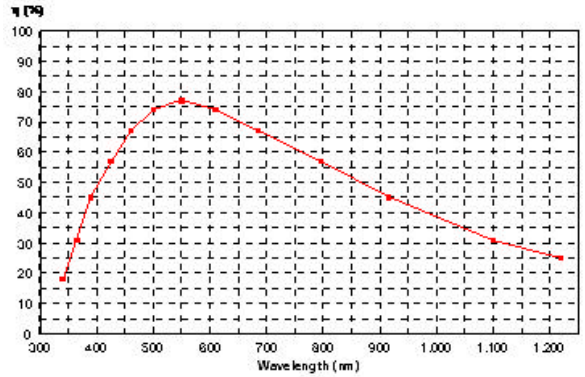
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	420 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS Spectroscopy
Part number	**263232xx63 324**



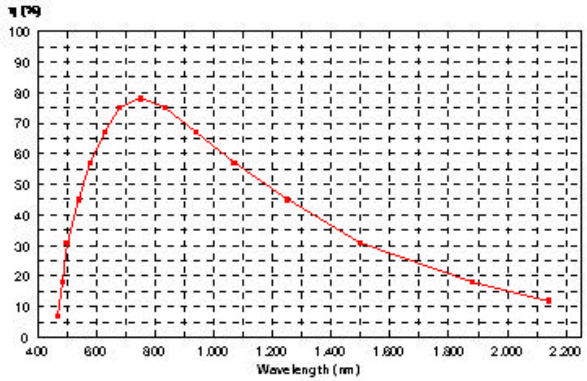
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	480 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS – NIR Spectroscopy
Part number	**263232xx63 424**



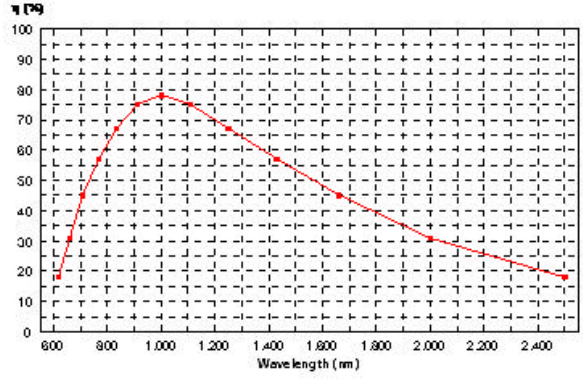
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	550 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS – NIR Spectroscopy
Part number	**263232xx63 524**



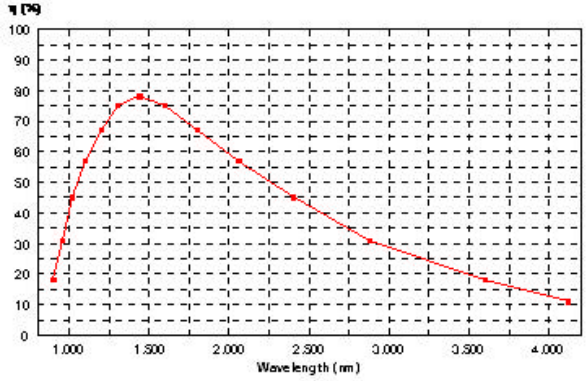
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	750 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS – NIR Spectroscopy
Part number	**263232xx63 724**



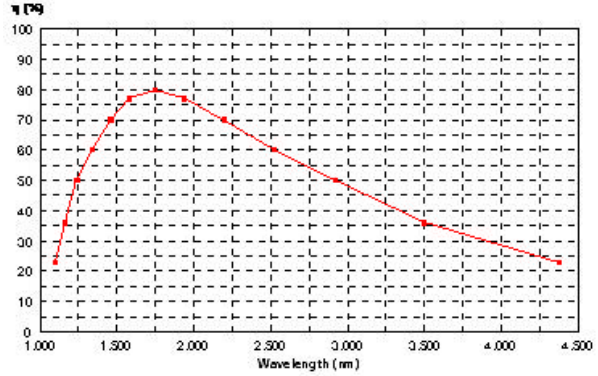
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	1000 nm
Anomalies l_{AN}	600 und 1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx63 924**



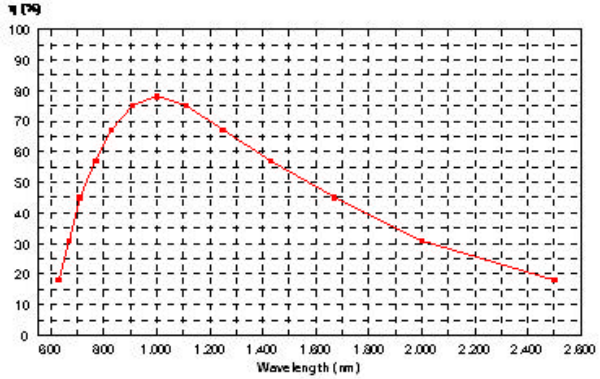
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	1440 nm
Anomalies l_{AN}	1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx64 124**



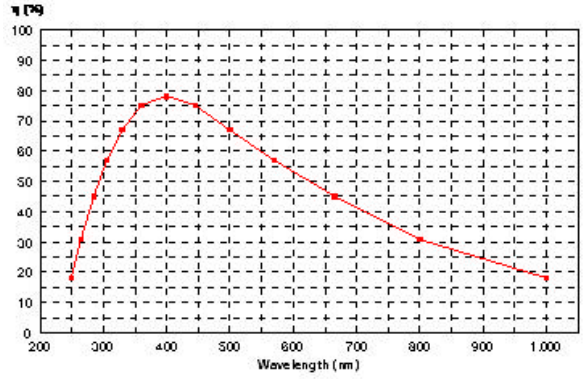
Type	Mechanically ruled, replica
Groove density	651 l/mm
Blaze	1750 nm
Anomalies l_{AN}	1000 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx64 424**



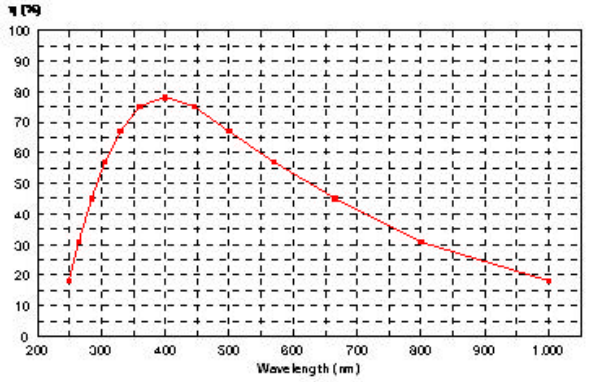
Type	Mechanically ruled, replica
Groove density	610,4 l/mm
Blaze	1000 nm
Anomalies l_{AN}	600 und 1100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx73 924**

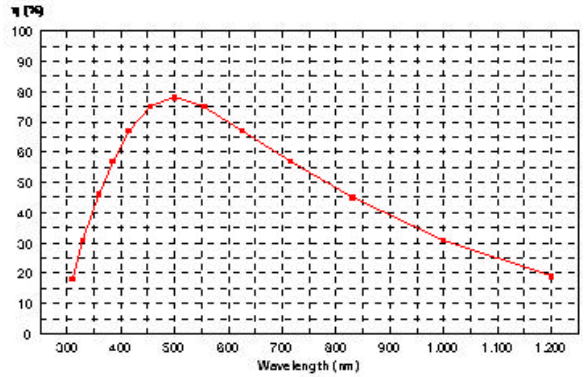
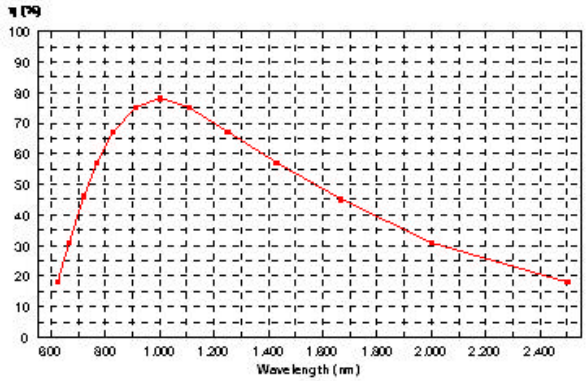
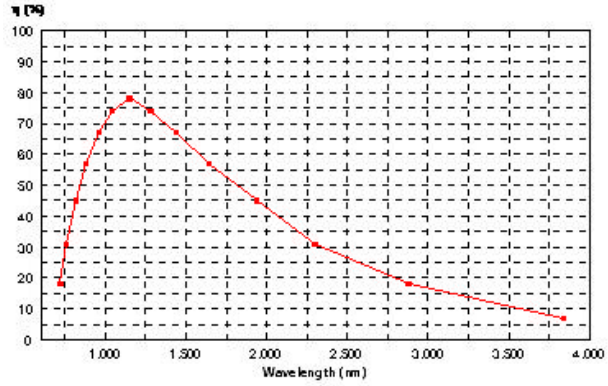
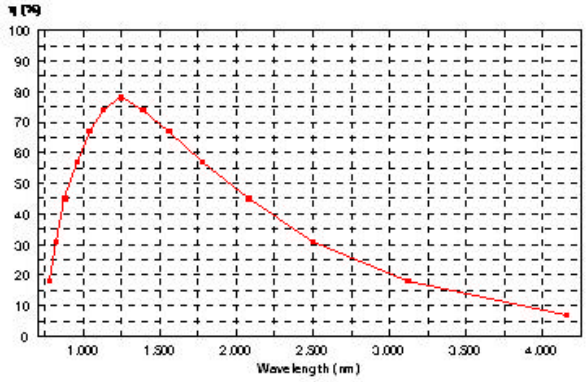


Type	Mechanically ruled, replica
Groove density	600 l/mm
Blaze	300 nm
Anomalies l_{AN}	660 und 1100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV - VIS Spectroscopy
Part number	**263232xx13 224**

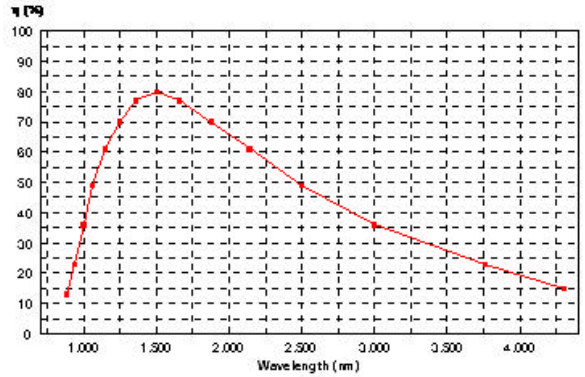


Type	Mechanically ruled, replica
Groove density	600 l/mm
Blaze	400 nm
Anomalies l_{AN}	660 und 1100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV - VIS Spectroscopy
Part number	**263232xx13 324**

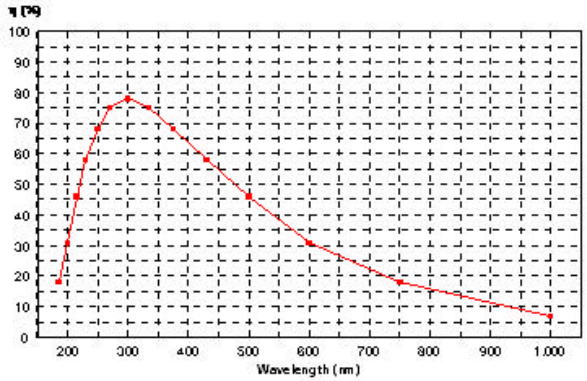


Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	600 l/mm		**Groove density**	600 l/mm
Blaze	500 nm		**Blaze**	1000 nm
Anomalies l_{AN}	660 und 1100 nm		**Anomalies l_{AN}**	660 und 1100 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	UV – VIS - NIR Spectroscopy		**Typical application**	VIS - NIR Spectroscopy
Part number	**263232xx13 524**		**Part number**	**263232xx13 924**
				
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	600 l/mm		**Groove density**	600 l/mm
Blaze	1150 nm		**Blaze**	1250 nm
Anomalies l_{AN}	1100 nm		**Anomalies l_{AN}**	1100 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	NIR Spectroscopy		**Typical application**	NIR Spectroscopy
Part number	**263232xx13 824**		**Part number**	**263232xx14 024**
				

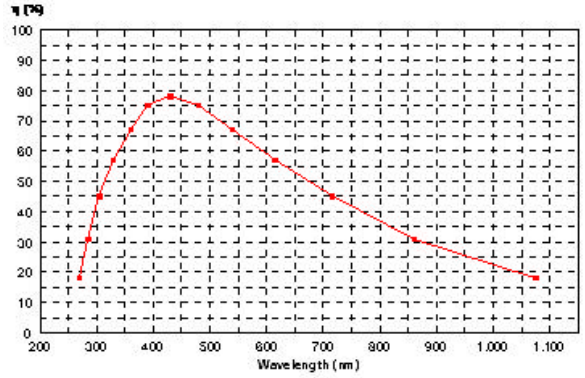
Type	Mechanically ruled, replica
Groove density	600 l/mm
Blaze	1500 nm
Anomalies l_{AN}	1100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx14 124**



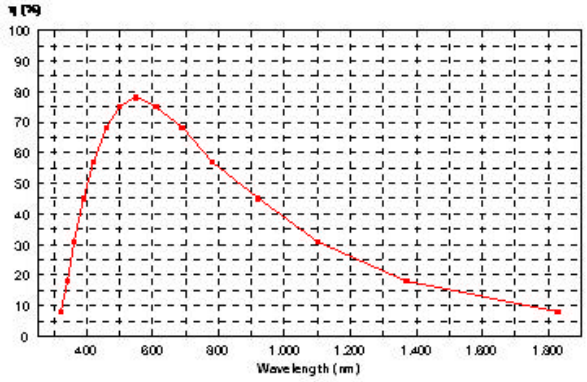
Type	Mechanically ruled, replica
Groove density	325,5 l/mm
Blaze	300 nm
Anomalies l_{AN}	1230 und 2050 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV - VIS Spectroscopy
Part number	**263232xx65 024**



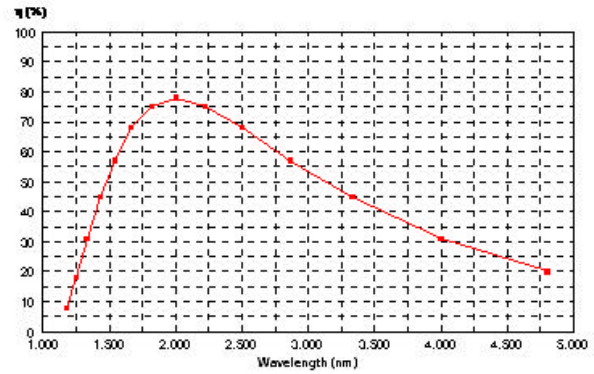
Type	Mechanically ruled, replica
Groove density	325,5 l/mm
Blaze	430 nm
Anomalies l_{AN}	1230 und 2050 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV – VIS Spectroscopy
Part number	**263232xx65 224**



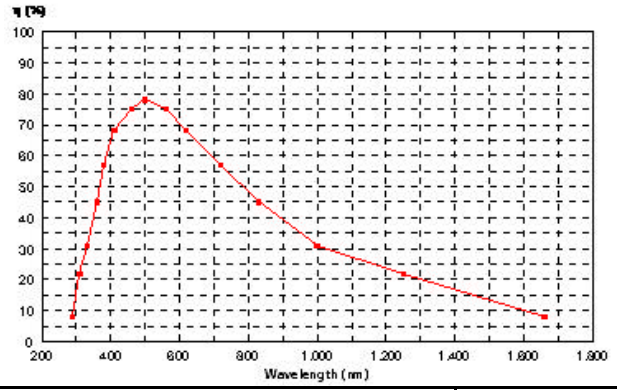
Type	Mechanically ruled, replica
Groove density	325,5 l/mm
Blaze	550 nm
Anomalies l_{AN}	1230 und 2050 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS - NIR Spectroscopy
Part number	**263232xx65 124**



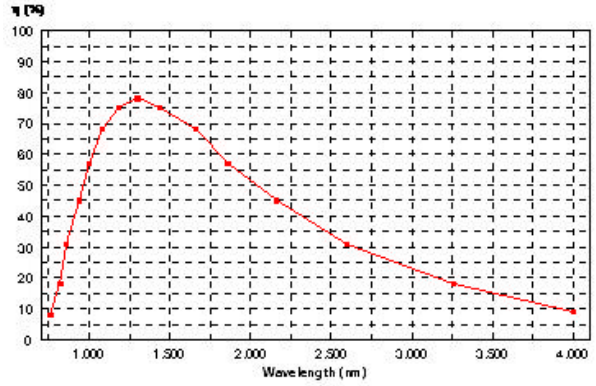
Type	Mechanically ruled, replica
Groove density	325,5 l/mm
Blaze	2000 nm
Anomalies l_{AN}	1230 und 2050 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR IR Spectroscopy
Part number	**263232xx65 424**



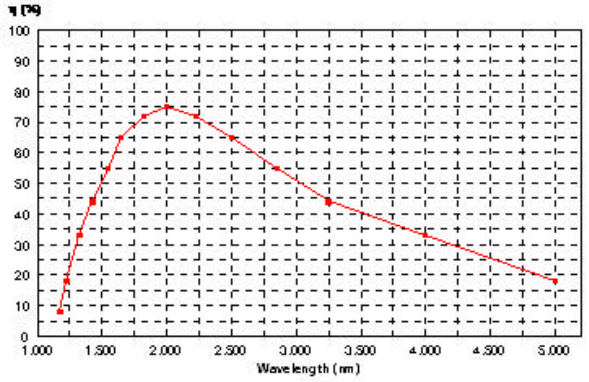
Type	Mechanically ruled, replica
Groove density	300 l/mm
Blaze	500 nm
Anomalies l_{AN}	1330 und 2220 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	UV-VIS-NIR Spectroscopy
Part number	**263232xx15 124**

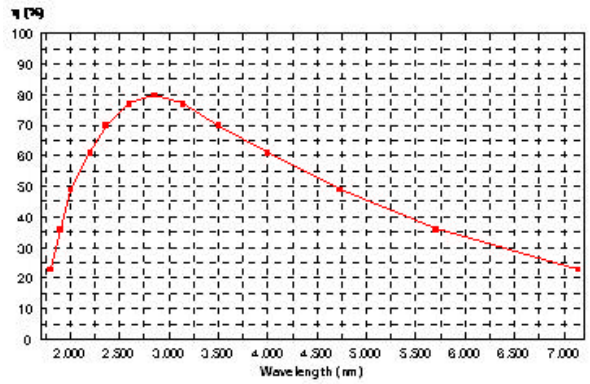
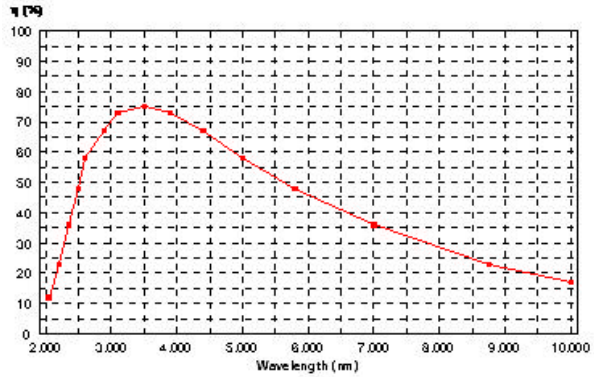
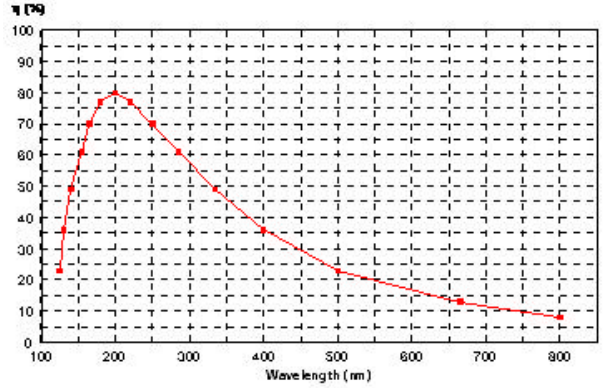
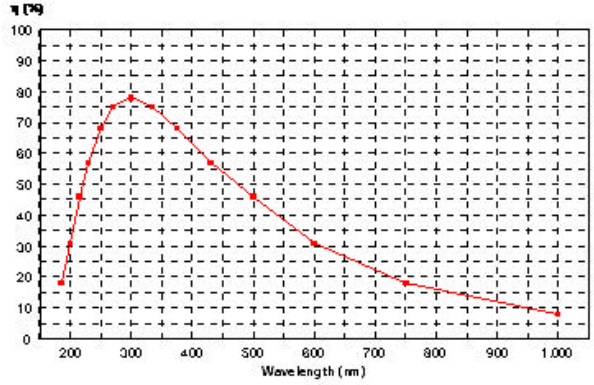


Type	Mechanically ruled, replica
Groove density	300 l/mm
Blaze	1300 nm
Anomalies l_{AN}	1330 und 2220 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx14 824**

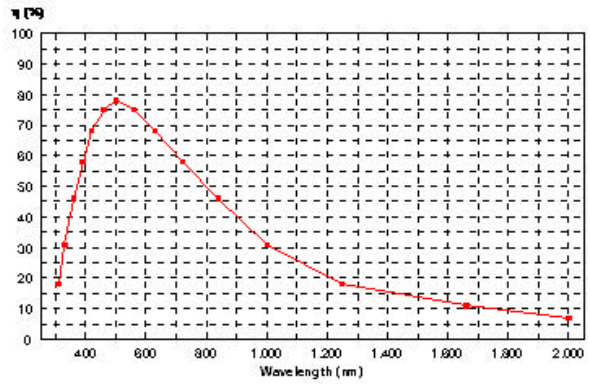


Type	Mechanically ruled, replica
Groove density	300 l/mm
Blaze	2000 nm
Anomalies l_{AN}	1330 und 2200 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR-IR- Spectroscopy
Part number	**263232xx15 424**

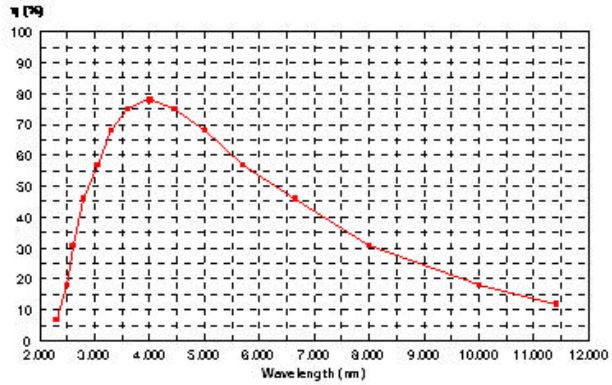


Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	300 l/mm		**Groove density**	300 l/mm
Blaze	2850 nm		**Blaze**	3500 nm
Anomalies l_{AN}	2220 nm		**Anomalies l_{AN}**	2200 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	NIR-IR- Spectroscopy		**Typical application**	NIR IR Spectroscopy
Part number	**263232xx15 624**		**Part number**	**263232xx15 724**
				
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	162,75 l/mm		**Groove density**	162,75 l/mm
Blaze	200 nm		**Blaze**	300 nm
Anomalies l_{AN}	2460 und 4100 nm		**Anomalies l_{AN}**	2460 und 4100 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	UV-VIS Spectroscopy		**Typical application**	UV-VIS Spectroscopy
Part number	**263232xx65 824**		**Part number**	**263232xx65 924**
				

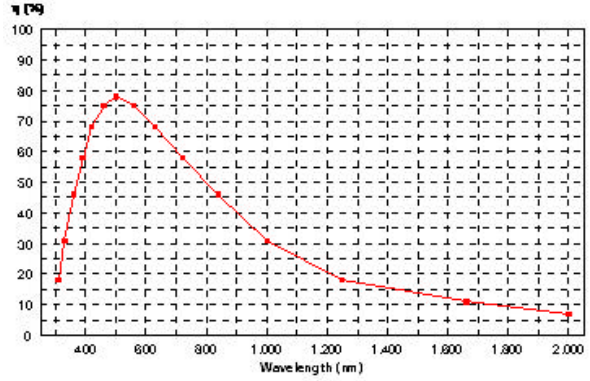
Type	Mechanically ruled, replica
Groove density	162,75 l/mm
Blaze	500 nm
Anomalies l_{AN}	2460 und 4100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS- Spectroscopy
Part number	**263232xx66 024**



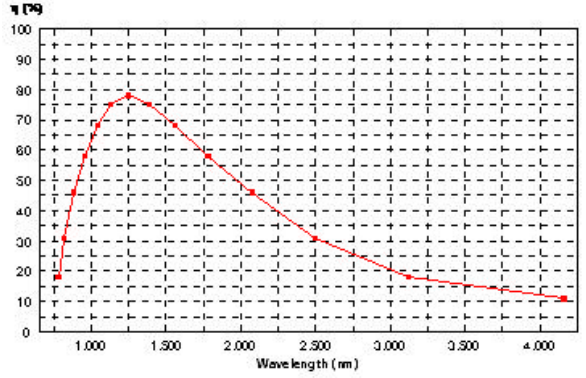
Type	Mechanically ruled, replica
Groove density	162,75 l/mm
Blaze	4000 nm
Anomalies l_{AN}	2460 und 4100 nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR-IR Spectroscopy
Part number	**263232xx66 424**

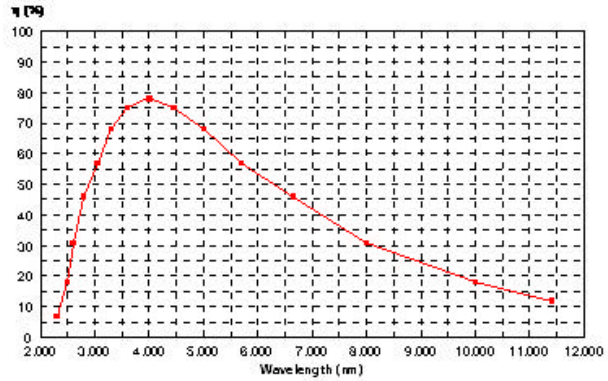
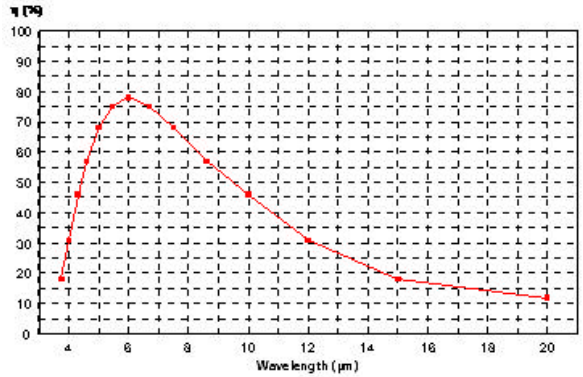
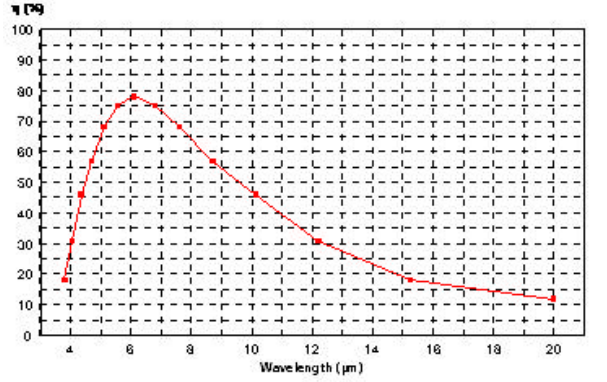
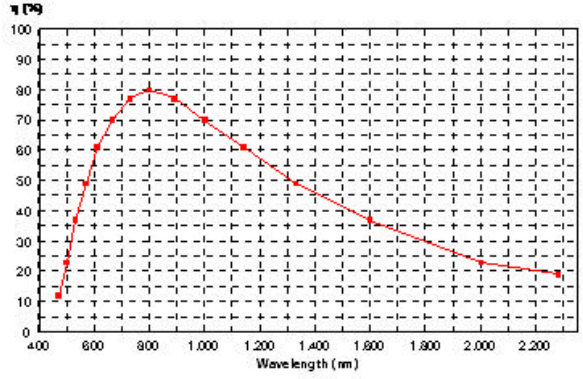


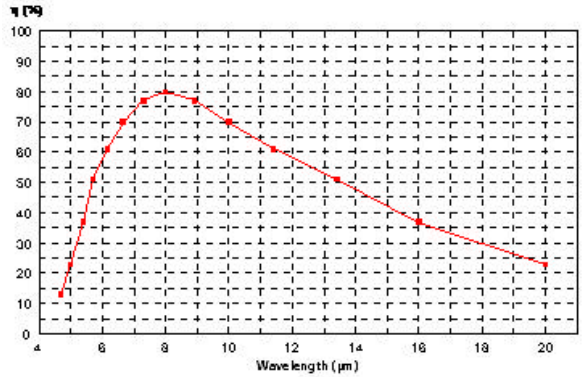
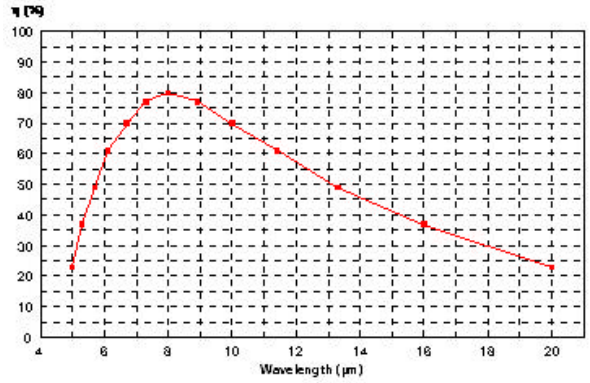
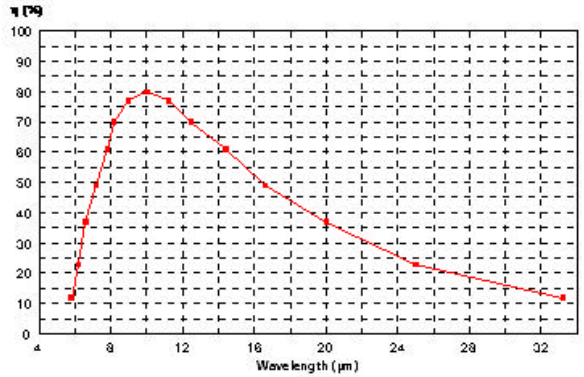
Type	Mechanically ruled, replica
Groove density	150 l/mm
Blaze	500 nm
Anomalies l_{AN}	2660 und 4400nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	VIS-NIR- Spectroscopy
Part number	**263232xx16 024**

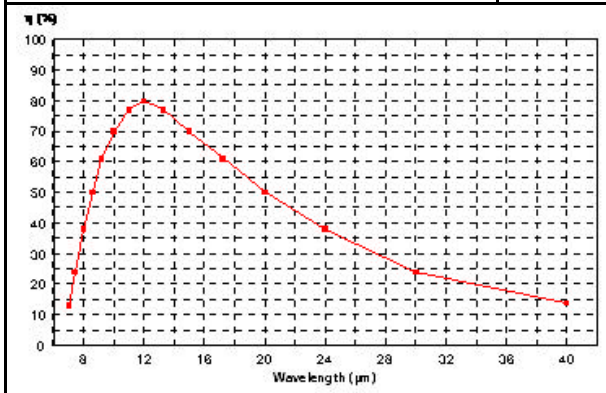
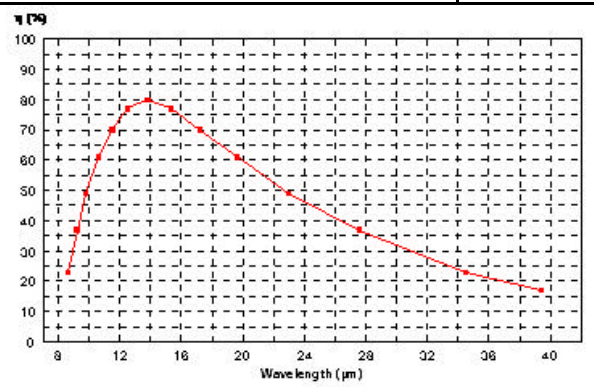
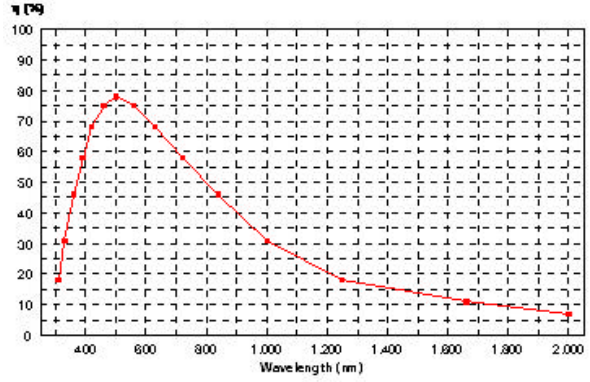
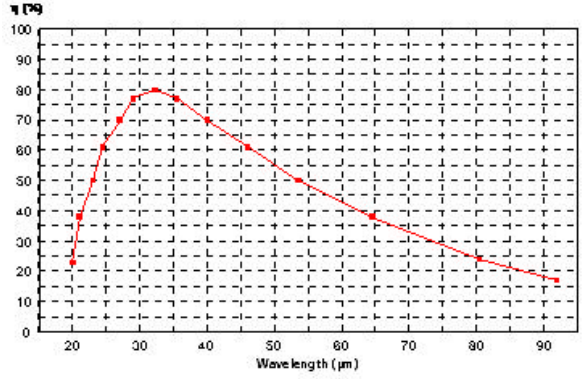


Type	Mechanically ruled, replica
Groove density	150 l/mm
Blaze	1250 nm
Anomalies l_{AN}	2660 und 4400nm
Order	1.
Polarization	Unpolarized
Geometry	Autocollimation
Typical application	NIR Spectroscopy
Part number	**263232xx16 224**



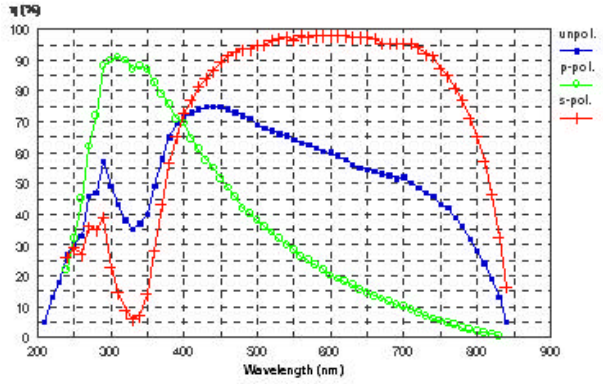
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	150 l/mm		**Groove density**	150 l/mm
Blaze	4000 nm		**Blaze**	6000 nm
Anomalies l_{AN}	2660 und 4400 nm		**Anomalies l_{AN}**	2660 und 4400 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	IR Spectroscopy		**Typical application**	IR Spectroscopy
Part number	**263232xx16 424**		**Part number**	**263232xx16 624**
				
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	130,2 l/mm		**Groove density**	100 l/mm
Blaze	6,1 µm		**Blaze**	800 nm
Anomalies l_{AN}	3070 und 5100 nm		**Anomalies l_{AN}**	500 und 833 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	IR- Spectroscopy		**Typical application**	UV-VIS Spectroscopy
Part number	**263232xx66 624**		**Part number**	**263232xx73 724**
				

			Type	Mechanically ruled, replica
			Groove density	81,375 l/mm
			Blaze	8 µm
			Anomalies l_{AN}	4900 und 8200nm
			Order	1.
			Polarization	Unpolarized
			Geometry	Autocollimation
			Typical application	IR Spectroscopy
			Part number	**263232xx67 424**
				
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	75 l/mm		**Groove density**	75 l/mm
Blaze	8 µm		**Blaze**	10 µm
Anomalies l_{AN}	5300 und 8900 nm		**Anomalies l_{AN}**	5300 und 8900 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	IR Spectroscopy		**Typical application**	IR Spectroscopy
Part number	**263232xx17 024**		**Part number**	**263232xx17 124**
				

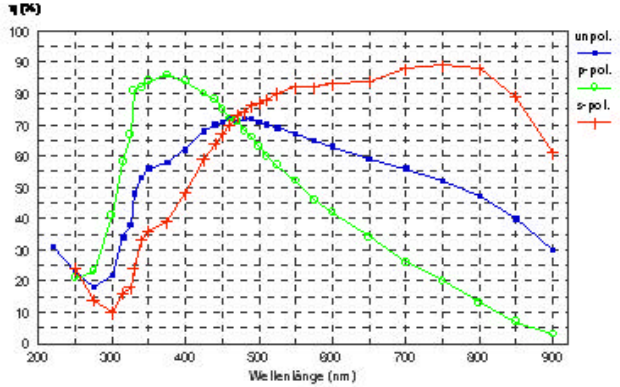
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	75 l/mm		**Groove density**	54,2 l/mm
Blaze	12 µm		**Blaze**	13,8 µm
Anomalies l_{AN}	5300 und 8900 nm		**Anomalies l_{AN}**	7350 und 12300 nm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	IR- Spectroscopy		**Typical application**	IR Spectroscopy
Part number	**263232xx17 224**		**Part number**	**263232xx67 724**
				
Type	Mechanically ruled, replica		**Type**	Mechanically ruled, replica
Groove density	40,7 l/mm		**Groove density**	24,1 l/mm
Blaze	500 nm		**Blaze**	32,2 µm
Anomalies l_{AN}	9800 und 16400 nm		**Anomalies l_{AN}**	16,6 und 27,7 µm
Order	1.		**Order**	1.
Polarization	Unpolarized		**Polarization**	Unpolarized
Geometry	Autocollimation		**Geometry**	Autocollimation
Typical application	VIS-NIR Spectroscopy		**Typical application**	IR Spectroscopy
Part number	**263232xx68 224**		**Part number**	**263232xx69 024**
				

Laser gratings

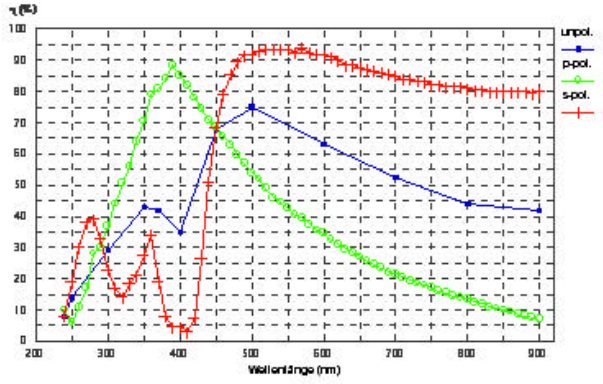
Typ:	Holographic sinusoidal grating, replica
Groove density	2400 l/mm
Order	1.
Geometry	Autocollimation
Typical application	Laser reflection grating for Littrow configuration
Part number	**263232yy50 824**



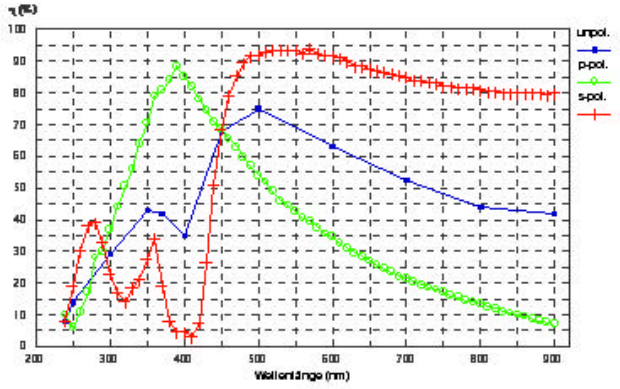
Typ:	Holographic sinusoidal grating, replica
Groove density	2100 l/mm
Order	1.
Geometry	Autocollimation
Typical application	Laser reflection grating for Littrow configuration **263232yy51 024**
Part number	

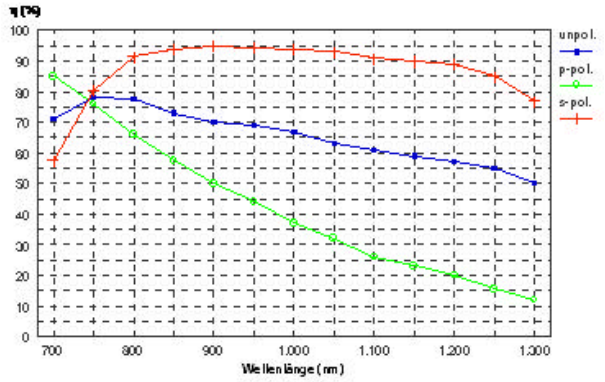
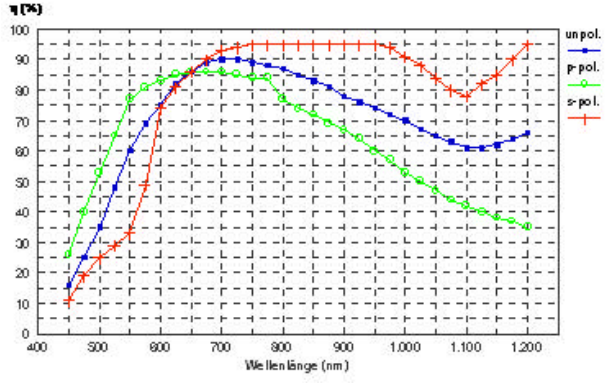
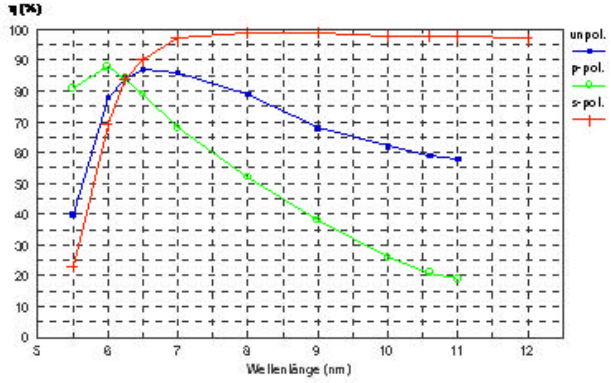


Typ:	Holographic sinusoidal grating, replica
Groove density	1800 l/mm
Order	1.
Geometry	Autocollimation
Typical application	Laser reflection grating for Littrow configuration
Part number	**263232yy51 324**



Typ:	Holographic sinusoidal grating, replica
Groove density	1400 l/mm
Order	1.
Geometry	Autocollimation
Typical application	Laser reflection grating for Littrow configuration
Part number	**263232yy51 824**



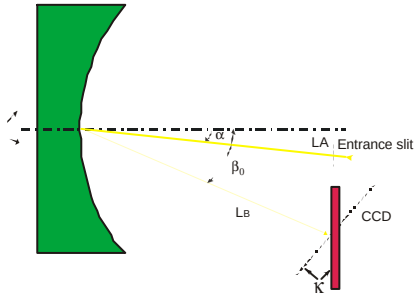
Typ: **Groove density** **Order** **Geometry** **Typical application** **Part number**	Holographic sinusoidal grating, replica 1200 l/mm 1. Autocollimation Laser reflection grating for Littrow configuration **263232yy52 824**			
				
Typ: **Groove density** **Blaze wavelength** **Anomalies l_{AN}** **Order** **Geometry** **Typical application** **Part number**	Mechanically ruled, replica 651 l/mm 700 nm 600 and 1000 nm 1. Autocollimation Laser reflection grating for Littrow configuration **263232yy63 624**		**Typ:** **Groove density** **Blaze wavelength** **Anomalies l_{AN}** **Order** **Geometry** **Typical application** **Part number**	Mechanically ruled, replica 130,2 l/mm 10200 nm 3070 and 5100 nm 1. Autocollimation Laser reflection grating for Littrow configuration **263232 5966 725**
				

Spectrometer gratings

Number of grooves mm^{-1}	Spectral range Dl nm	Blaze Wavelength l_B nm	Angle of incidence a°	Focal length l_A mm	l_B mm	Tipping angle of diode array k°	Disper-sion^{-1} nm/mm	Resolu-tion Dl nm	Spectrum length mm	Dimen-sions mm²	Active area mm	Radius of blank mm	Part number
2400	185-460	225	28	465	388		1.1	0.2		∅ 64x12	∅50	393.0	2645102950624
1600	240-440	225	10	150.3	150	-13.0	3.7	0.03	5.5	∅ 25x10	∅20	149.7	2645102951924
1400	220-530	225	25.0	142.8	152.3	-9.8	4.6	1.3	67.3	∅ 25x10	∅20	149.7	2645102952024
1300	790-830	810	40.4	108.9	110.4	-6.9	6.4	0.1	6.3	∅ 30x8	∅24	109.8	2645102259825
1220	492-542	500	1.1	163	156.5	-19.2	3.9	0.2	12.8	∅ 50x8	∅39	163.1	792008
1220	519-568	500	2.1	163	156.5	-19.2	3.8	0.2	12.8	∅ 50x8	∅39	163.1	792008
1220	560-590	500	-3.7	162	139.3	-26.7	3.4	0.7	8.9	∅ 50x8	∅39	163.1	792008
1220	200-250	250	23.5	165.3	158	-22.7	4.9	0.47	10.3	∅ 50x8	∅39	163.1	792005
1220	200-250	250	-3.7	162	164.9	-5.3	4.7	0.51	10.8	∅ 50x8	∅39	163.1	792005
1220	430-450	250	-3.7	162	154	-18.7	4	0.51	5	∅ 50x8	∅39	163.1	792005
1200	230-320	225	-17.4	175	174.4	-2.5	3.9	0.6	24.3	∅ 50x10	∅45	180.3	2645102953324
1100	200-500	225	-22.5	175	176.7	-22.1	4.1	0.8	93.1	∅ 50x10	∅20	193.6	2645102953124
1000	190-400	225	-6.8	188.5	196.5	-11.3	4.9	0.2	45.1	∅ 50x10	∅30	193.6	2645102952424
950	190-370	250	-9.6	146.4	151.2	-13.5	6.3	0.67	28.6	∅ 32x7	∅26	150.7	792060
845	200-415	225	15.4	144.7	133.1	8.4	8.5	1.0	25.4	∅41x10	∅35	138.1	2645102952924
845	335-695	380	19.1	157.5	128.2	-2.6	9.1	2.5	40	∅41x10	∅35	138.1	2645102953024
700	1560-1800	1600	41.0	202.5	201.1	-1.6	6.0	3.0	40	∅90x12	∅80	181.5	2645102952724
320	200-800	225	10.0	97.6	122.4	-7.9	25.6	2.0	23.4	∅ 30x8	∅26	109.8	2645102952624
320	200-550	225	-3.8	110	108.1	-18.1	28.8	2.0	12.6	∅ 30x8	∅26	109.8	2645102952724
250	375-750	250	0	116.3	115.7	-4.7	34	1	11.0	∅ 34x7	∅28	116.3	792004
200	190-370	225	-5	182	178	3.1	27.7	1	6.5	∅ 64x10	∅50	180.3	2654102950324
200	190-510	225	-4.5	180.5	178.1	-5.5	27.7	1	11.6	∅ 64x10	∅50	180.3	2645102950324
200	510-830	225	-2.6	180.5	178.1	-5.5	27.6	1	11.6	∅ 64x10	∅50	180.3	2645102950324

Comments:

Apart from the grating with the groove number of 2400 mm $^{-1}$ all the other gratings are of the flat field type, making them suitable for use with diode array and CCD detectors



Monochromator gratings

Number of grooves mm^{-1}	Spectral range $D\lambda$ nm	Blaze Wavelength λ_B nm	Focal length /mm L_A	L_B	Disper-sion^{-1} nm/mm	Resolution $D\lambda$/nm	Dimensions mm	Active area mm	Radius of blank mm	Part number
1900	250-650	300	219,3	200	2,3	1	∅ 64x12	∅56	207.1	2645102258824
1500	330-850	450	219,3	200	2,9	1	∅ 64x12	∅56	206.4	2645102257824
1400	190-740	230	95	235	2,6	5	50x60x10	42x46	136.4	2645102950424
1400	200-750	230	150	150	4,1	5	50x60x10	42x46	149.7	2645102950524
1400	250-750	400	150	150	4,1	5	50x60x10	42x46	149.7	2645102259024
1200	190-740	230	120	100	7,2	2	∅ 30x8	∅24	109.8	2645102951224
1200	600-1100	800	219,3	200	3,6	1	∅ 64x12	∅56	204.7	2645102256824
1000	190-850	230	190	189,5	4,6	2	∅ 64x8	∅50	192.7	2645102950824
1000	190-1100	230	190	191,9	4,6	2	∅ 50x10	∅40	193.6	2645102951724
651	190-850	230	219,3	200	6,6	2	∅ 64x10	∅56	214.6	2645102951124
650	189-500	230	218	200	6,6	1	∅ 64x10	∅56	214.6	2645102951624
600	200-800	230	120	97,3	14,8	3	∅ 30x10	∅24	109.8	2645102951324

Comments:

„22“ in the part number means that the grating grooves have a symmetricl profile. The number “29” indicates a grating with an asymmetric groove profile.
The angle of deflection $\Delta = |\beta - \alpha|$ is always 30°. The angle of reflection β is always larger than the angle of incidence α .
The resolution is valid for the image of the slit center, over a wide area of the spectral range the given resolution is better than the minimum value specified in the table.