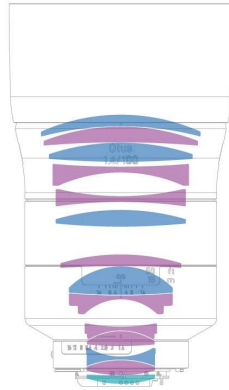




# Otus 1.4/100

## Technische Daten/Technical Specifications



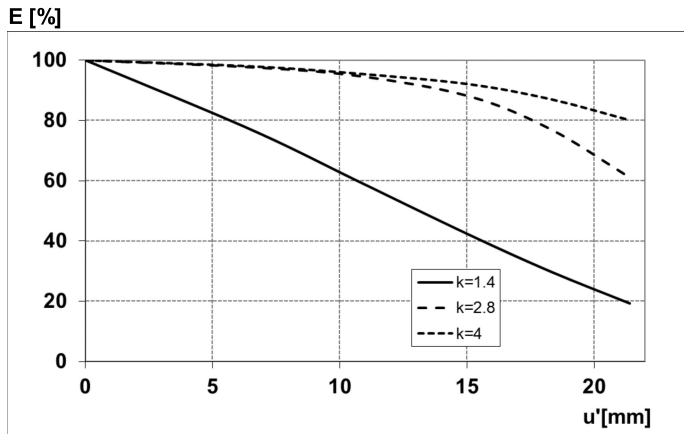
Brennweite/Focal length	100 mm
Blendenbereich/Aperture range	f/1.4 – f/16
Linsen / Gruppen/Lens elements / Groups	14/11
Fokussierbereich/Focusing range	1,0 m (39.37") – ∞
Arbeitsabstand/Free working distance	0,83 m (32.68") – ∞
Bildfeld*/Angular field* (diag. / horiz. / vert.)	24,1° / 20,2° / 13,6°
Bildkreisdurchmesser/Diameter of image field	43 mm (1.69")
Anlagemaß/Flange focal distance	ZF.2: 46,50 mm (1.83") ZE: 44,00 mm (1.73")
Objektfeld bei Naheinstellung* Coverage at close range (MOD)*	206 x 309 mm (8.11 x 12.17")
Abbildungsmaßstab bei Naheinstellung Image ratio at MOD	1:8.6
Filterdurchmesser/Filter thread	M86 x 1.00
Lage der Eintrittspupille (vor der Bildebene) Entrance pupil position ( in front of image plane)	35,0 mm (1.38")
Drehwinkel des Fokussierings (inf – MOD) Rotation angle of focusing ring (inf – MOD)	315°
Durchmesser max./Diameter max.	ZF.2: 100,7 mm (3.96") ZE: 100,7 mm (3.96")
Durchmesser des Fokussierings Diameter of focusing ring	ZF.2: 90,0 mm (3.54") ZE: 90,0 mm (3.54")
Länge (ohne Objektivdeckel)/Length (without lens caps)	ZF.2: 126,5 mm (4.98") ZE: 128,8 mm (5.07")
Länge (mit Objektivdeckeln)/Length (with lens caps)	ZF.2: 150,1 mm (5.91 ") ZE: 152,3 mm (6.00")
Gewicht/Weight	ZF.2: 1336 g (2.95 lbs) ZE: 1405 g (3.10 lbs)

\* bezugnehmend auf das 24x36mm Format/referring to 36 mm format



# Otus 1.4/100

## Relative Beleuchtungsstärke/Relative Illuminance



Die relative Beleuchtungsstärke zeigt die Abnahme der Bildhelligkeit von der Mitte des Bildes zu den Ecken. Angabe in Prozent.

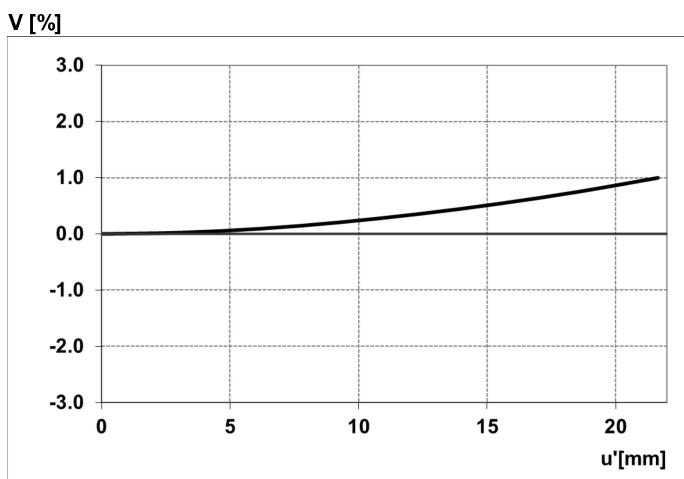
The relative illumination shows in percent the decrease in image brightness from the image center to edge.

\_\_\_ Blendenzahl:  $k = 1,4$  / f-number = 1.4

--- Blendenzahl:  $k = 2,8$  / f-number = 2.8

... Blendenzahl:  $k = 4$  / f-number = 4

## Relative Verzeichnung/Relative Distortion



Die Relative Verzeichnung zeigt die Abweichung der aktuellen von der idealen Bildhöhe.

The relative distortion shows in percent the deviation of the actual from the ideal image height.

Angaben für unendlich.  
Data for infinity.

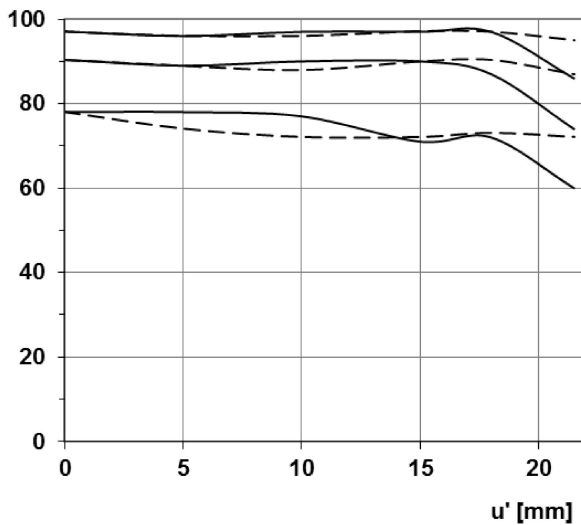


# Otus 1.4/100

## MTF Charts

Unendlich / Infinity

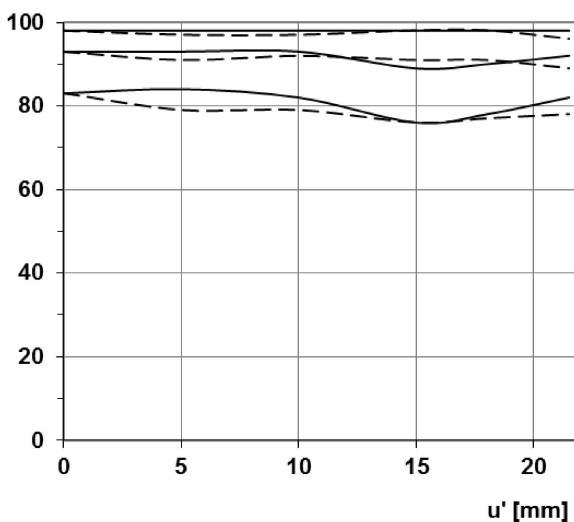
MTF [%]



Blendenzahl:  $k = 1,4$  / f-number = 1.4

— Sagittal  
... Tangential

MTF [%]



Blendenzahl:  $k = 4$  / f-number = 4

— Sagittal  
... Tangential

Modulationsübertragung MTF als Funktion der Bildhöhe ( $u'$ ) und Spaltorientierung. Weißes Licht. Ortsfrequenzen  $R=10, 20$  und  $40$  Perioden/mm. // Modulation transfer MTF as a function of the image height ( $u'$ ) and slit orientation. White light. Spatial frequencies  $R=10, 20$  and  $40$  cycles/mm.

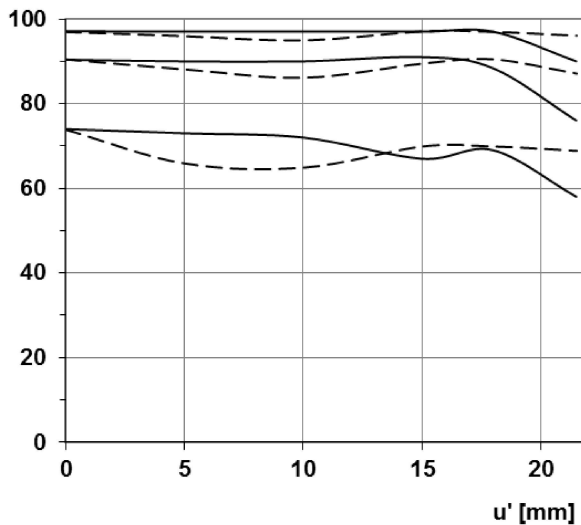


# Otus 1.4/100

## MTF Charts

$\beta = 1 : 20$

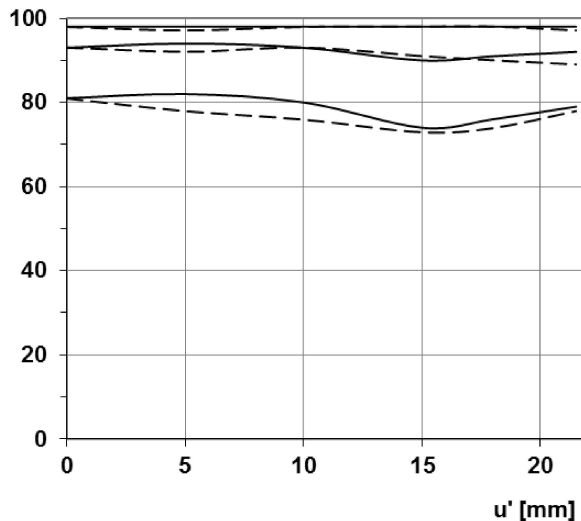
MTF[%]



Blendenzahl:  $k = 1,4$  / f-number = 1.4

— Sagittal  
... Tangential

MTF[%]



Blendenzahl:  $k = 4$  / f-number = 4

— Sagittal  
... Tangential

Modulationsübertragung MTF als Funktion der Bildhöhe ( $u'$ ) und Spaltorientierung. Weißes Licht. Ortsfrequenzen  $R=10, 20$  und  $40$  Perioden/mm. // Modulation transfer MTF as a function of the image height ( $u$ ) and slit orientation. White light. Spatial frequencies  $R=10, 20$  and  $40$  cycles/mm.



# Otus 1.4/100

## Schärfentiefe/Depth of Field (DOF)\*

Engraved Distance	f/1.4		f/2		f/2.8		f/4		f/5.6		f/8		f/11		f/16	
	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to
<b>INF</b>	233	INF	164	INF	118	INF	83	INF	59	INF	42	INF	30	INF	21	INF
<b>15 m</b>	14.1	16.0	13.8	16.4	13.4	17.1	12.8	18.2	12.1	20	11.1	23	10.1	29	8.85	51
<b>7 m</b>	6.81	7.2	6.73	7.29	6.63	7.41	6.49	7.60	6.30	7.88	6.05	8.33	5.76	8.97	5.33	10.3
<b>4 m</b>	3.94	4.06	3.92	4.09	3.88	4.13	3.84	4.18	3.77	4.26	3.68	4.38	3.58	4.54	3.42	4.85
<b>3 m</b>	2.97	3.03	2.95	3.05	2.94	3.07	2.91	3.10	2.88	3.14	2.82	3.20	2.76	3.28	2.67	3.43
<b>2.5 m</b>	2.48	2.52	2.47	2.53	2.46	2.55	2.44	2.57	2.42	2.59	2.38	2.63	2.34	2.69	2.27	2.78
<b>2.0 m</b>	1.99	2.01	1.98	2.02	1.97	2.03	1.96	2.04	1.95	2.06	1.93	2.08	1.90	2.11	1.86	2.17
<b>1.7 m</b>	1.69	1.71	1.69	1.71	1.68	1.72	1.67	1.73	1.66	1.74	1.65	1.76	1.63	1.78	1.60	1.82
<b>1.5 m</b>	1.49	1.51	1.49	1.51	1.49	1.51	1.48	1.52	1.47	1.53	1.46	1.54	1.45	1.56	1.43	1.59
<b>1.3 m</b>	1.295	1.305	1.293	1.307	1.290	1.310	1.286	1.314	1.281	1.320	1.272	1.329	1.262	1.340	1.246	1.360
<b>1.2 m</b>	1.196	1.204	1.194	1.206	1.192	1.208	1.188	1.212	1.184	1.217	1.177	1.224	1.169	1.233	1.156	1.249
<b>1.1 m</b>	1.097	1.103	1.095	1.105	1.093	1.107	1.091	1.109	1.087	1.113	1.082	1.119	1.075	1.127	1.064	1.139
<b>1.0 m</b>	0.997	1.003	0.996	1.004	0.995	1.005	0.993	1.007	0.990	1.010	0.986	1.015	0.980	1.021	0.972	1.030

\* Schärfentiefentabelle für das 24x36mm Format, Zerstreuungskreis 0.030mm (D/1500), gerundet auf 0.01m //  
Depth-of-field table for sensor format 24x36mm, circle of confusion 0.030mm (D/1500), rounded to 0.01m