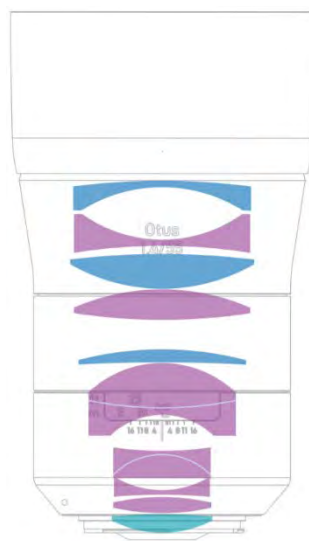




ZEISS Otus 1.4/55

Technische Daten/Technical Specifications



 Sonderglas / Special glass
 Asphären / Aspheric surface

Brennweite/Focal length	55 mm
Blendenbereich/Aperture range	f/1.4 – f/16
Linsen / Gruppen/Lens elements / Groups	12/10
Fokussierbereich/Focusing range	0,5 m (19.68 ") – ∞
Arbeitsabstand/Free working distance	0,33 m (13.2") – ∞
Bildfeld*/Angular field* (diag. / horiz. / vert.)	43,7° / 36,7° / 24,9°
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*	246 x 163 mm (9.69 x 6.42")
Coverage at close range (MOD)*	
Abbildungsmaßstab bei Naheinstellung	1:6.8
Image ratio at MOD	
Filterdurchmesser/Filter thread	M77 x 0.75
Lage der Eintrittspupille (vor der Bildebene)	101 mm (3.50")
Entrance pupil position (in front of image plane)	
Drehwinkel des Fokussierings (inf – MOD)	248°
Rotation angle of focusing ring (inf – MOD)	
Durchmesser max./Diameter max.	ZF.2: 92.4 mm (3.64") ZE: 92.4 mm (3.64")
Durchmesser des Fokussierings	ZF.2: 83 mm (3.27")
Diameter of focusing ring	ZE: 83 mm (3.27")
Länge (ohne Objektivdeckel)/Length (without lens caps)	ZF.2: 125.3 mm (4.93") ZE: 127,3 mm (5.01")
Länge (mit Objektivdeckeln)/Length (with lens caps)	ZF.2: 141 mm (5.55 ") ZE: 144 mm (5.66")
Gewicht/Weight	ZF.2: 970 g (2.22 lbs) ZE: 1030 g (2.43 lbs)

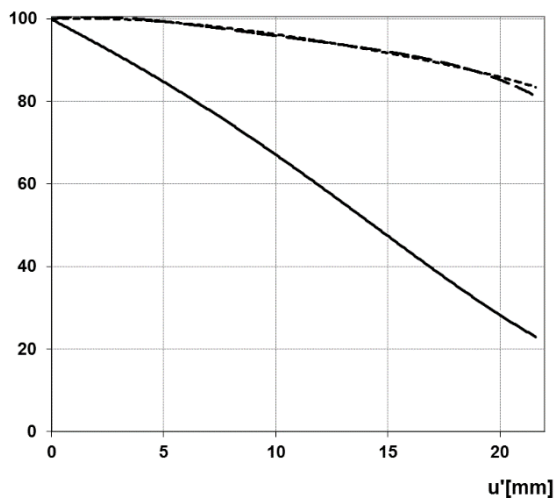
* bezugnehmend auf das 24x36mm Format/referring to 36 mm format



ZEISS Otus 1.4/55

Relative Beleuchtungsstärke/Relative Illuminance

E [%]



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.

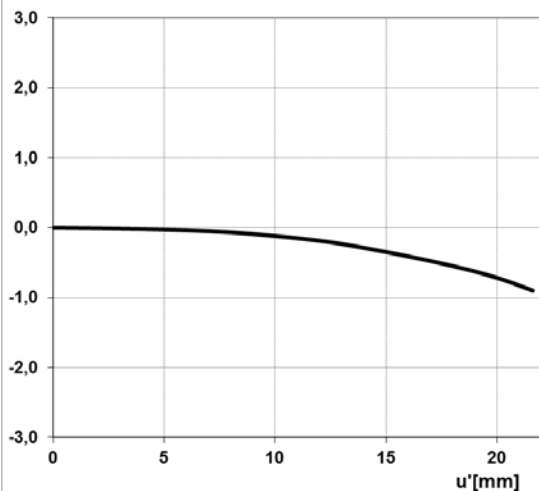
— Blendenzahl: $k = 1,4$ / f-number = 1.4

--- Blendenzahl: $k = 4.0$ / f-number = 4.0

... Blendenzahl: $k = 4.28$ / f-number = 4.28

Relative Verzeichnung/Relative Distortion

V [%]



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.

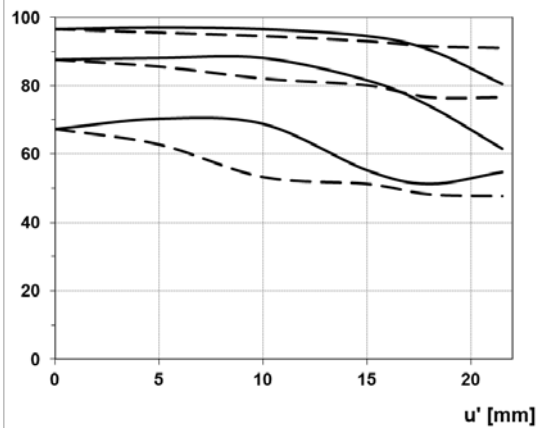
Angaben für unendlich.
Data for infinity.



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MTF Charts

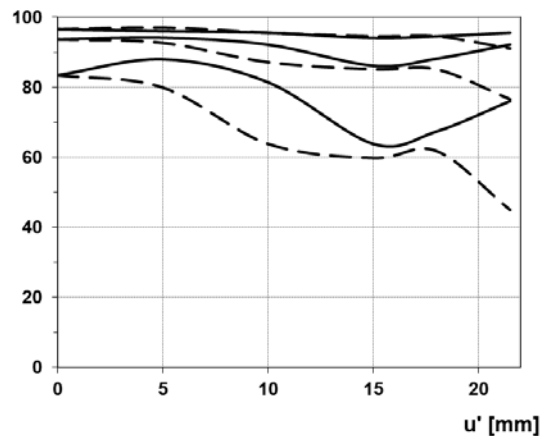
MTF [%]



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

— Sagittal
... Tangential

MTF [%]



Blendenzahl: $k = 4$ / f-number = 4.0

— 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.



ZEISS Otus 1.4/55

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	
Meter	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to
infinity	65.85	INF	52.25	INF	37.34	INF	25.67	INF	17.67	INF	12.24	INF	8.54	INF	6.00	INF
10 m	8.70	11.76	8.42	13.01	7.92	15.10	7.24	18.96	6.43	29.21	5.55	119.7	4.66	INF	3.80	INF
5 m	4.66	5.40	4.58	5.64	4.43	5.99	4.21	6.50	3.93	7.37	3.59	9.06	3.20	13.42	2.78	42.79
3 m	2.88	3.13	2.85	3.21	2.79	3.32	2.71	3.47	2.59	3.69	2.44	4.06	2.26	4.73	2.05	6.18
2 m	1.95	2.06	1.93	2.09	1.91	2.13	1.87	2.19	1.82	2.27	1.74	2.40	1.65	2.61	1.54	2.98
1.50 m	1.47	1.53	1.46	1.55	1.45	1.57	1.43	1.60	1.40	1.64	1.36	1.71	1.30	1.81	1.23	1.97
1.20 m	1.18	1.22	1.18	1.23	1.17	1.24	1.16	1.26	1.14	1.29	1.11	1.32	1.07	1.38	1.03	1.47
1.00 m	0.99	1.01	0.98	1.02	0.98	1.03	0.97	1.04	0.96	1.06	0.94	1.08	0.91	1.12	0.88	1.17
0.80 m	0.79	0.81	0.79	0.81	0.79	0.82	0.78	0.82	0.77	0.83	0.76	0.85	0.75	0.87	0.73	0.90
0.70 m	0.69	0.71	0.69	0.71	0.69	0.71	0.69	0.72	0.68	0.72	0.67	0.73	0.66	0.75	0.65	0.77
0.60 m	0.60	0.60	0.60	0.61	0.59	0.61	0.59	0.61	0.59	0.62	0.58	0.62	0.57	0.63	0.56	0.65
0.50 m	0.50	0.50	0.50	0.50	0.50	0.51	0.49	0.51	0.49	0.51	0.49	0.51	0.48	0.52	0.48	0.53

* Schärfentiefetabelle für das 24x36mm Format, Zerstreuungskreis 0.033mm (D/1500), gerundet auf 0.01m //
Depth-of-field table for sensor format 24x36mm, circle of confusion 0.033mm (D/1500), rounded to 0.01m