

Standard Diffractive Optical Elements - Glass

DOE Categories:

DOE Category II: Arylate-on-Soda-Lime glass: 5.2 x 4.7 mm

DOE Category III: Fused Silica: 5.0 x 5.75 mm

DOE Category IV: Fused Silica (multilevel): 5.0 x 5.75 mm

DOE Category V: Fused Silica: 9.95 x 9.35 mm

DOE Category VI: Fused Silica (multilevel): 9.95 x 9.35 mm

DOE Category VII: Fused Silica: 15.0 x 14.1 mm

DOE Category VIII: Fused Silica (multilevel): 15.0 x 14.1 mm

Mounted Version: Ø 12.7 x 2 mm holder

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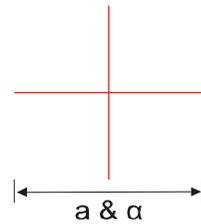
Mounted Version: Ø 25.0 x 2.2 mm holder

Mounted Version: Ø 25.0 x 2.2 mm holder

Mounted Version: Ø 25.0 x 3.5 mm holder

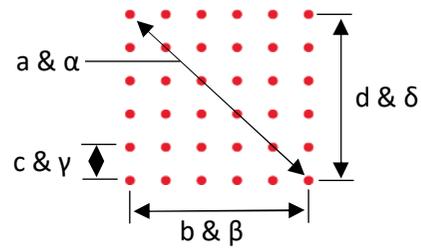
Mounted Version: Ø 25.0 x 3.5 mm holder

Crosshair DOEs



DOE Item #	Description	Design Wavelength	Pattern Size @ 100 mm Distance, Values: mm		Pattern Angles (@ Design Wavelength)	Recommended Wavelength Range	DOE Category
			a	α			
DE-R 440	Cross – 38 @ 635	635 nm	69.6		38.4°	425-590 nm	II
DE 846	Cross – 58 @ 450	450 nm	58.1		111.1°	420-460 nm	III

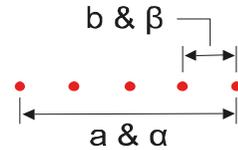
Dot Matrix DOEs



DOE Item #	Description	Design Wavelength	Pattern Size @ 100 mm Distance, Values: mm				Pattern Angles (@ Design Wavelength)				Recommended Wavelength Range	DOE Category
			a	b	c	d	α	β	γ	δ		
DE 754	Matrix 2 x 2 (square) (8 level DOE)	1030 nm	4.3	3.0	-	3.0	2.47°	1.74°	-	1.74°	980-1070 nm	VIII
DE 755	Matrix 2 x 2 (rectangular) (8 level DOE)	1030 nm	3.6	1.8	-	3.0	2.0°	1.0°	-	1.7°	980-1070 nm	VIII
DE 759	Matrix 15 x 15 Dots (8 level DOE)	1030 nm	17.8	12.6	0.9	12.6	10.2°	7.2°	0.52°	7.2°	980-1070 nm	VIII
DE 760	Matrix 9 x 9 Dots (8 level DOE)	1030 nm	9.6	6.8	0.85	6.8	5.5°	3.9°	0.48°	3.9°	980-1070 nm	VIII
DE 804	Matrix 5 x 5 Dots	650 nm	79.1	55.9	53.9	13.1	43.1°	31.2°	30.1°	7.5°	630-700 nm	III
DE 813	Matrix 4 x 2 Dots	800 nm	4.1	3.4	1.14	2.3	2.4°	2.0°	0.65°	1.3°	750-820 nm	V
DE 814	Matrix 3 x 4 Dots	800 nm	5.8	3.2	1.6	4.8	3.3°	1.8°	0.9°	2.8°	780-850 nm	V
DE 815	Matrix 3 x 5 Dots	800 nm	5.8	2.6	1.3	5.2	3.3°	1.5°	0.7°	3.0°	725-825 nm	V
DE 816	Matrix 8 x 8 Dots	800 nm	6.9	4.9	0.7	4.9	4.0°	2.8°	0.4°	2.8°	780-820 nm	V
DE 817	Matrix 15 x 15 Dots	800 nm	10.4	7.3	0.52	7.3	5.9°	4.2°	0.3°	4.2°	780-820 nm	V
DE 828	Matrix 4 x 2 Dots	1064 nm	4.60	3.80	1.26	2.50	2.60°	2.20°	0.72°	1.40°	1030/1064 nm	VII
DE 829	Matrix 3 x 5 Dots	1064 nm	7.70	3.40	1.72	6.90	4.40°	2.00°	0.99°	4.00°	1030/1064 nm	VII
DE 830	Matrix 3 x 4 Dots	1064 nm	4.30	2.40	1.18	3.50	2.40°	1.40°	0.68°	2.00°	1030/1064 nm	VII
DE 831	Matrix 8 x 8 Dots	1064 nm	12.30	8.70	1.24	8.70	7.00°	5.00°	0.71°	5.00°	1030/1064 nm	VII
DE 838	Matrix 3 x 5 Dots	532 nm	6.30	2.80	1.40	5.60	3.60°	1.60°	0.80°	3.20°	488-532 nm	VII

DE 842	Matrix 8 x 8 Dots	532 nm	6.90	4.90	0.70	4.90	4.00°	2.80°	0.40°	2.80°		500-540 nm	VII
DE 850	Matrix 7 x 7 Dots	450 nm	38.9	27.5	4.58	27.5	22°	15.7°	2.61°	15.7°		430-490 nm	III
DE 862	Matrix 4 x 2 Dots	1550 nm	8.0	6.6	2.21	4.4	4.6°	3.8°	1.27°	2.5°		1530-1570 nm	V
DE 864	Matrix 5 x 5 Dots	1550 nm	25.0	17.6	4.41	17.6	14.2°	10.1°	2.52°	10.2°		1530-1570 nm	V
DE 867	Matrix 15 x 15 Dots	405 nm	10.4	7.3	0.52	7.3	5.9°	4.2°	0.3°	4.2°		405 nm	V
DE 868	Matrix 8 x 8 Dots	405 nm	7.0	5.0	0.71	5.0	4.0°	2.8°	0.41°	2.8°		405 nm	V
DE 869	Matrix 5 x 5 Dots	405 nm	6.2	4.4	1.09	4.4	3.5°	2.5°	0.63°	2.5°		405 nm	V
DE 870	Matrix 3 x 5 Dots	405 nm	4.5	2.0	1.00	4.0	2.6°	1.1°	0.57°	2.3°		405 nm	V
DE 871	Matrix 3 x 4 Dots	405 nm	3.7	2.0	1.01	3.0	2.1°	1.2°	0.58°	1.7°		405 nm	V
DE 872	Matrix 4 x 2 Dots	405 nm	3.1	2.6	0.87	1.7	1.8°	1.5°	0.5°	1.0°		405 nm	V
DE 873	Matrix 2 x 2 Dots	405 nm	4.9	3.5	—	3.5	2.8°	2.0°	—	2.0		405 nm	V

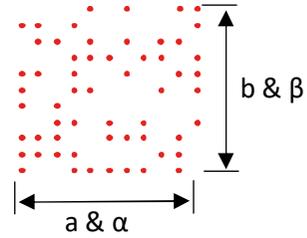
Lines & Dot Lines



DOE Item #	Description	Design Wavelength	Pattern Size @ 100 mm Distance, Values: mm		Pattern Angles (@ Design Wavelength)		Recommended Wavelength Range	DOE Category
			a	b	α	β		
DE 750	1 : 4 Dot Line (8 level DOE)	1030 nm	12.4 mm	4.13 mm	7.1°	2.36°	980-1070 nm	VIII
DE 751	1 : 4 Dot Line (8 level DOE)	1030 nm	6.2 mm	2.06 mm	3.5°	1.18°	980-1070 nm	VIII
DE 752	1 : 4 Dot Line (8 level DOE)	1030 nm	2.6 mm	0.88 mm	1.5°	0.5°	980-1070 nm	VIII
DE 753	1 : 5 Dot Line (8 level DOE)	1030 nm	5.5 mm	1.38 mm	3.2°	0.79°	980-1070 nm	VIII
DE 801	1 : 2 Beam Splitter	660 nm	45.1 mm	—	25.4°	—	630-700 nm	III
DE 802	1 : 7 Dot Line	640 nm	12.8 mm	2.1 mm	7.3°	1.22°	630-760 nm	III
DE 803	1 : 25 Dot Line	640/650 nm	15.4 mm	0.64 mm	8.8°	0.37°	635-655 nm	III
DE 805	1 : 2 Beam Splitter	800 nm	0.44 mm	—	0.25°	—	750-850 nm	V
DE 806	1 : 2 Beam Splitter	800 nm	—	—	0.5°	—	750-850 nm	V
DE 807	1 : 2 Beam Splitter	800 nm	1.75 mm	—	1.0°	—	750-850 nm	V
DE 808	1 : 2 Beam Splitter	800 nm	3.49 mm	—	2°	—	750-850 nm	V
DE 809	1 : 2 Beam Splitter	800 nm	7.86 mm	—	4.5°	—	750-850 nm	V
DE 810	1 : 2 Beam Splitter	800 nm	17.5 mm	—	10.0°	—	720-820 nm	V
DE 811	1 : 2 Beam Splitter	800 nm	—	—	2.0°	—	750-850 nm	V
DE 812	1 : 6 Dot Line	800 nm	4.4 mm	0.9 mm	2.5°	0.5°	780-850 nm	V
DE 818	1 : 2 Beam Splitter	1064 nm	0.26 mm	—	0.15°	—	1030/1064 nm	VII
DE 819	1 : 2 Beam Splitter	1064 nm	0.52 mm	—	0.30°	—	1030/1064 nm	VII
DE 820	1 : 2 Beam Splitter	1064 nm	0.87 mm	—	0.50°	—	1030/1064 nm	VII

DE 821	1 : 2 Beam Splitter	1064 nm	1.75 mm	–	1.00°	–	–	1030/1064 nm	VII
DE 822	1 : 2 Beam Splitter	1064 nm	1.75 mm	–	1.00°	–	–	1030/1064 nm	VII
DE 823	1 : 2 Beam Splitter	1064 nm	2.62 mm	–	1.50°	–	–	1030/1064 nm	VII
DE 824	1 : 2 Beam Splitter	1064 nm	5.24 mm	–	3.00°	–	–	1030/1064 nm	VII
DE 825	1 : 2 Beam Splitter	1064 nm	8.73 mm	–	5.00°	–	–	1030/1064 nm	VII
DE 826	1 : 6 Dot Line	1064 nm	3.50 mm	0.70 mm	2.00°	0.40°	–	1030/1064 nm	VII
DE 827	1 : 10 Dot Line	1064 nm	5.30 mm	0.58 mm	3.00°	0.33°	–	1030/1064 nm	VII
DE 834	1 : 2 Beam Splitter	532 nm	0.87 mm	–	0.50°	–	–	480-560 nm	VII
DE 835	1 : 2 Beam Splitter	532 nm	2.18 mm	–	1.25°	–	–	480-560 nm	VII
DE 836	1 : 2 Beam Splitter	532 nm	5.24 mm	–	3.00°	–	–	480-560 nm	VII
DE 837	1 : 6 Dot Line	532 nm	4.40 mm	0.87 mm	2.50°	0.50°	–	480-550 nm	VII
DE 841	1 : 10 Dot Line	532 nm	5.60 mm	0.62 mm	3.20°	0.36°	–	515-570 nm	VII
DE 843	1 : 2 Beam Splitter	450 nm	62.9 mm	–	34.9°	–	–	420-490 nm	III
DE 844	1 : 6 Dot Line	450 nm	80.9 mm	–	8.8°	–	–	430-490 nm	III
DE 845	Line 55 @ 450 nm	450 nm	55 mm	–	104.1°	–	–	420-490 nm	III
DE 863	1 : 6 Dot Line	1550 nm	8.48 mm	1.7 mm	4.86°	0.97°	–	1530-1570 nm	V
DE 865	1 : 2 Beam Splitter	1550 nm	2.62 mm	–	1.5°	–	–	1530-1570 nm	V
DE 866	1 : 2 Beam Splitter	1550 nm	7.4 mm	–	4.52°	–	–	1530-1570 nm	V
DE 874	1 : 10 Dot Line	405 nm	5.7 mm	0,63 mm	3.3°	0.36°	–	405 nm	V
DE 875	1 : 6 Dot Line	405 nm	3.9 mm	0.78 mm	2.2°	0.45°	–	405 nm	V
DE 876	1 : 2 Beam Splitter	405 nm	0.87 mm	–	0.5°	–	–	405 nm	V
DE 877	1 : 2 Beam Splitter	405 nm	3.5 mm	–	2.0°	–	–	405 nm	V
DE 878	1 : 2 Beam Splitter	405 nm	7.4 mm	–	4.3°	–	–	405 nm	V

Special Patterns



DOE Item #	Description	Design Wavelength	Pattern Size @ 100 mm Distance, Values: mm		Pattern Angles (@ Design Wavelength)		Recommended Wavelength Range	DOE Category
			a	b	α	β		
DE 756	Hexagon 6+1 Dots (8 level DOE)	1030 nm	5.2 mm	4.5 mm	3.0°	2.6°	980-1070 nm	VIII
DE 757	Hexagon 6 Dots (8 level DOE)	1030 nm	5.2 mm	4.5 mm	3.0°	2.6°	980-1070 nm	VIII
DE 847	11 Lines (Rectangular)	450 nm	54 mm	90 mm	30.2°	48.5°	420-470 nm	III
DE 848	21 x 15 Grid (Rectangular)	450 nm	83.3 mm	58.3 mm	45.2°	32.5°	420-470 nm	III
DE 849	Hexagon 6+1 Dots	450 nm	105.3 mm	121.8 mm	55.6°	62.7°	360-460 nm	III
DE 851	Random (14552 Dots)	450 nm	84.1 mm	61.9 mm	45.6°	34.4°	420-470 nm	III
DE 852	Random (51328 Dots)	450 nm	84.3 mm	61.9 mm	45.7°	34.4°	430-460 nm	III