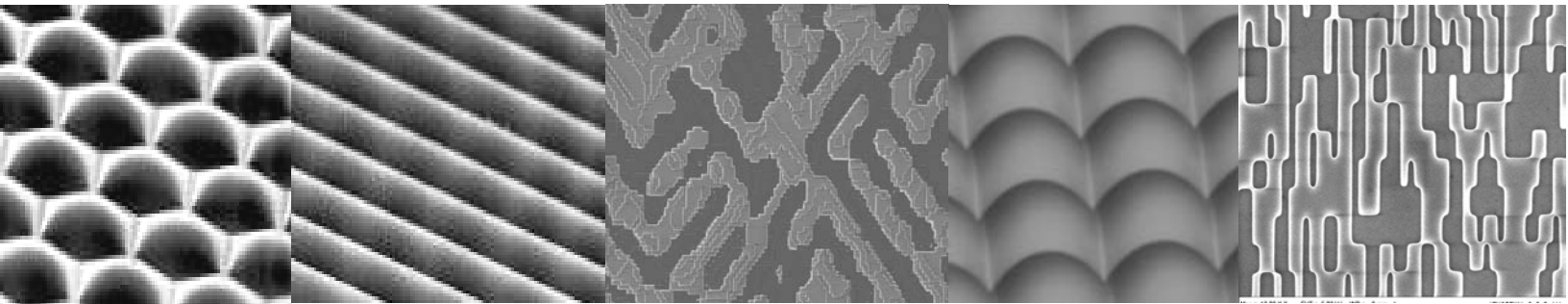




STOCK PRODUCTS - MICROOPTICS

DIFFUSERS | BEAMSPLITTERS | MICROLENS ARRAYS



DIFFUSERS

Part #	Material	Pattern	Full Angular Divergence° (Horizontal)	Full Angular Divergence° (Vertical)	Line Width °
D001	FS, PL	Rectangle	5	3.3	-
D002	FS, PL	Rectangle	5	3.6	-
D003	FS, PL	Rectangle	5	3.9	-
D004	FS, PL	Scope	10	10	0.4
D005	FS, PL	Rectangle	5	4.3	-
D006	FS, PL	Scope	10	10	0.2
D007	FS, PL	Scope	5	5	0.4
D008	FS	Scope	5	5	0.2
D009	FS	Scope	2	2	0.3
D010	FS	Scope	2	2	0.1
D011	FS	Scope	1.1	1.1	0.2
D012	FS, PL	Rectangle	5	3.1	-
D013	FS, PL	Crosshair	10	10	0.9
D014	FS, PL	Crosshair	10	10	0.4
D015	FS	Crosshair	10	10	0.2
D016	FS, PL	Crosshair	5	5	0.9
D017	FS, PL	Crosshair	5.1	5.1	0.4
D018	FS, PL	Crosshair	5	5	0.2
D019	FS, PL	Crosshair	1	1	0.4
D020	FS	Crosshair	1	0.9	0.2
D021	FS, PL	Rectangle	2	1	-
D022	FS, PL	Rectangle	5	2.5	-
D023	FS, PL	Rectangle	10	5	-
D024	FS	Rectangle	20	10	-
D025	FS	Rectangle	20	14.8	-
D026	FS	Rectangle	15	11.2	-
D027	FS	Rectangle	10	7.4	-
D028	FS, PL	Rectangle	5	3.8	-
D029	FS, PL	Rectangle	2	1.5	-
D030	FS	Rectangle	1	0.9	-
D031	FS	Rectangle	14.8	11.9	-
D032	FS, PL	Rectangle	13.1	8	-
D034	FS	Square	19.4	-	-
D035	FS	Square	14.7	-	-
D036	FS	Square	9.9	-	-
D037	FS	Square	5	-	-
D038	FS, PL	Square	2	-	-
D039	FS, PL	Square	1	-	-
D040	FS, PL	Square	0.5	-	-
D041	FS, PL	Ellipse	9.9	2	-
D042	FS, PL	Ellipse	9.9	5	-
D044	FS	Round	19.3	-	-
D045	FS	Round	14.7	-	-

*FS = Fused Silica (Glass), Part size: 10mmX10mmX1mm thick

PL = Plastic (Acrylic / Polycarbonate), Part size: 7mm or 9mm round, <1mm thick

DIFFUSERS

Part #	Material	Pattern	Full Angular Divergence° (Horizontal)	Full Angular Divergence° (Vertical)	Line Width °
D046	FS	Round	9.8	-	-
D047	FS	Round	5	-	-
D048	FS	Round	2	-	-
D049	FS	Round	1	-	-
D050	PL	Round	0.5	-	-
D051	FS, PL	Lines(1)	10	-	1
D052	FS	Lines(1)	14.8	-	0.9
D053	FS, PL	Lines(100)	14.4	14.4	0.1
D054	FS	Lines(50)	11.4	11.4	0.1
D055	FS	Lines(50)	14.2	14.2	0.2
D056	FS	Lines(25)	10.7	10.7	0.2
D057	FS	Lines(25)	8.6	8.6	0.2
D058	FS, PL	Lines(10)	6.7	6.7	0.4
D059	FS, PL	Lines(10)	5	5	0.2
D060	FS	Lines(1)	14.8	-	0.2
D062	FS	Grid (49X49 square)	21.4	21.4	0.1
D063	FS, PL	Grid (24X24 square)	14.1	14.1	0.2
D064	FS, PL	Grid (24X24 square)	10.6	10.6	0.2
D065	FS, PL	Grid (24X24 square)	6.5	6.5	0.1
D066	FS, PL	Grid (9X9 square)	15	15	0.1
D067	FS, PL	Grid (9X9 square)	5	5	0.2
D068	FS, PL	Grid (9X9 square)	2.7	2.7	0.1
D069	FS, PL	Rectangle	5	3.5	-
D070	FS, PL	Ring/Concentric (24)	21	-	0.2
D071	FS, PL	Ring/Concentric (10)	9.7	-	0.2
D072	FS, PL	Ring/Concentric (9)	9.9	-	0.2
D073	FS, PL	Ring (1)	11.4	-	0.7
D074	FS	Ring (1)	10.3	-	0.2
D075	FS, PL	Ring (1)	5.4	-	0.2
D076	FS, PL	Rectangle	5	3.2	-
D077	FS, PL	Rectangle	5	4.2	-
D078	FS, PL	Rectangle	5	4.5	-
D079	FS, PL	Ring/Concentric (25)	11.3	-	0.1
D080	FS, PL	Ring (1)	1.4	-	0.2

*FS = Fused Silica (Glass), Part size: 10mmX10mmX1mm thick

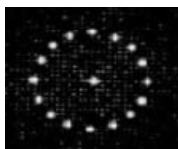
PL = Plastic (Acrylic / Polycarbonate), Part size: 7mm or 9mm round, <1mm thick

BEAM SPLITTERS

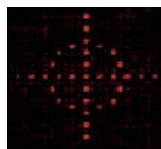
Part #	Material	Number of Spots	Full Angular Divergence°	Efficiency %
1005	FS	Line 5	1.6	78
1006	FS, PL	Line 5	0.8	78
1007	FS	Line 6	23.2	85
1009	FS	Line 7	1.1	80
1010	FS	Line 7	0.9	80
1011	FS	Line 8	2.7	74
1012	FS	Line 8	1.4	74
1013	FS, PL	Line 9	1.6	72
1015	FS	Line 10	3.5	74
1016	FS	Line 10	1.7	74
1017	FS	Line 15	2.7	72
1019	FS	Line 16	5.6	77
1020	FS, PL	Line 16	2.9	77
1021	FS, PL	Line 31	7.9	81
1023	PL	Cross 5	4.6	64
1025	FS	Cross 9	3.1	71
1026	FS, PL	Cross 9	1.6	71
1027	FS	Cross 17	6.1	66
1028	FS	Cross 17	3.1	66
1030	FS	Circle 8	3.3	63
1031	FS	Circle 16	7.7	42
1032	FS, PL	Circle 16	3.8	42
1033	FS	Scope 32	7.6	61
1034	FS	Box 16	3.1	68
1035	FS	Box 16	1.6	68
1036	FS	Star of David	12.6	48
1037	FS	Malcom Cross	3	66
1038	FS	French Cross	5.4	67
1039	FS	Bow Tie	5.3	63

*FS = Fused Silica (Glass), Part size: 10mmX10mmX1mm thick

PL = Plastic (Acrylic / Polycarbonate), Part size: 7mm or 9mm round, <1mm thick



Circle 16 Pattern

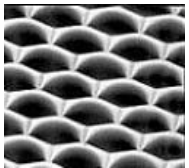
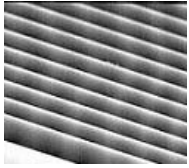
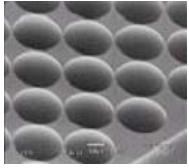
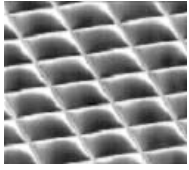


Scope 32 Pattern



Crosshair Diffuser
passed through a
Circle 8 Beam Splitter

MICROLENS ARRAYS



Part #	Pitch (μm)	Sag (μm)	Focal Length (μm)	Radius of Curvature (μm)	Fill Factor (%)
Circular Shape, Square Packing, 5μm Gap Between Lenses					
3011	250	22	795.9	366.1	75
Square Shape, Square Packing, 5μm Gap Between Lenses					
3018	50	10.4	179.78	82.7	
3023	250	22.6	776.1	357	96
Cylindrical Shape, Square Packing, 2μm Gap Between Lenses					
3026	15	6.9	16.4	7.5	87
3028	25	7.9	30.1	13.8	92
3030	50	8.94	64.57	29.7	
Circular Shape, Hexagonal Packing, 5μm Gap Between Lenses					
3055	75	19.6	99.3	45.7	59
3056	100	20.6	154.3	71	61

*Focal Lengths are based on 550nm wavelengths. Part size is 10mmX10mmX1mm thick. Material SiO2.

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JENOPTIK | Optical Systems

JENOPTIK Optical Systems, Inc.
 205 Import Circle | Huntsville | AL 35806 | USA
 Phone 256.859.1886 | Fax 256.859.5890
microoptics-us.os@jenoptik.com | www.jenoptik.com

JENOPTIK Optical Systems GmbH
 Goeschwitzer Strasse 25 | 07745 Jena | Germany
 Phone +49 3641 65-2442 | Fax -2443
microoptics.os@jenoptik.com | www.jenoptik.com