

B



Optics

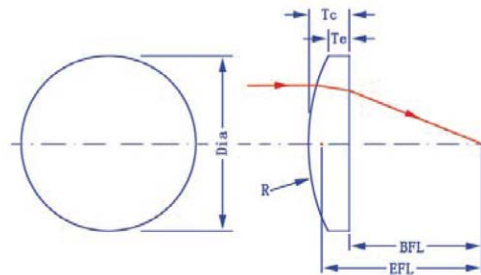
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Commercial Grade N-BK7 Plano-Convex Lenses

Specification

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|--------|---------|--------|--------|
| UA1116K | 10.00 | 6.00 | 5.15 | 8.35 | 2.50 | 1.50 |
| UA1470K | 12.00 | 6.00 | 6.18 | 10.48 | 2.30 | 1.50 |
| UA1222K | 15.00 | 6.00 | 7.73 | 13.61 | 2.10 | 1.50 |
| UA1700K | 30.00 | 6.00 | 15.45 | 28.81 | 1.80 | 1.50 |
| UA1576K | 12.00 | 9.00 | 6.18 | 9.76 | 3.40 | 1.50 |
| UA1472K | 20.00 | 9.00 | 10.30 | 18.35 | 2.50 | 1.50 |
| UA1540K | 15.00 | 12.70 | 7.73 | 11.63 | 5.10 | 1.80 |
| UA1074K | 20.00 | 12.70 | 10.30 | 17.36 | 4.00 | 1.80 |
| UA1560K | 25.00 | 12.70 | 12.88 | 22.69 | 3.50 | 1.80 |
| UA1289K | 30.00 | 12.70 | 15.45 | 27.89 | 3.20 | 1.80 |
| UA1304K | 40.00 | 12.70 | 20.60 | 38.15 | 2.80 | 1.80 |
| UA1213K | 50.00 | 12.70 | 25.75 | 48.28 | 2.60 | 1.80 |
| UA1207K | 100.00 | 12.70 | 51.51 | 98.55 | 2.20 | 1.80 |
| UA1859K | 20.00 | 18.00 | 10.30 | 15.31 | 7.10 | 1.80 |
| UA1270K | 25.00 | 18.00 | 12.88 | 21.37 | 5.50 | 1.80 |
| UA1085K | 30.00 | 18.00 | 15.45 | 26.90 | 4.70 | 1.80 |
| UA1119K | 50.00 | 18.00 | 25.75 | 47.76 | 3.40 | 1.80 |
| UA1252K | 25.40 | 25.00 | 13.08 | 17.68 | 11.70 | 2.50 |
| UA1255K | 50.00 | 25.00 | 25.75 | 46.50 | 5.30 | 2.07 |
| UA1257K | 75.00 | 25.00 | 38.63 | 72.29 | 4.10 | 2.02 |
| UA1251K | 100.00 | 25.00 | 51.51 | 97.62 | 3.60 | 2.06 |
| UA1253K | 200.00 | 25.00 | 103.02 | 198.15 | 2.80 | 2.04 |
| UA1951K | 25.40 | 25.40 | 13.08 | 17.68 | 11.70 | 1.80 |
| UA1805K | 30.00 | 25.40 | 15.45 | 24.32 | 8.60 | 2.00 |
| UA1027K | 35.00 | 25.40 | 18.03 | 30.25 | 7.20 | 2.00 |
| UA1422K | 40.00 | 25.40 | 20.60 | 35.78 | 6.40 | 2.00 |
| UA1131K | 50.00 | 25.40 | 25.75 | 46.50 | 5.30 | 2.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beamsplitters

| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|--------|---------|--------|--------|
| UA1134K | 60.00 | 25.40 | 30.91 | 56.90 | 4.70 | 2.00 |
| UA1608K | 75.00 | 25.40 | 38.63 | 72.29 | 4.10 | 2.00 |
| UA1509K | 100.00 | 25.40 | 51.51 | 97.62 | 3.60 | 2.00 |
| UA1986K | 125.00 | 25.40 | 64.39 | 122.82 | 3.30 | 2.00 |
| UA1433K | 150.00 | 25.40 | 77.26 | 147.95 | 3.10 | 2.00 |
| UA1229K | 175.00 | 25.40 | 90.14 | 173.09 | 2.90 | 2.00 |
| UA1708K | 200.00 | 25.40 | 103.02 | 198.15 | 2.80 | 2.00 |
| UA1461K | 250.00 | 25.40 | 128.77 | 248.28 | 2.60 | 2.00 |
| UA1484K | 300.00 | 25.40 | 154.53 | 298.35 | 2.50 | 2.00 |
| UA1172K | 400.00 | 25.40 | 206.04 | 398.42 | 2.40 | 2.00 |
| UA1908K | 500.00 | 25.40 | 257.55 | 498.48 | 2.30 | 2.00 |
| UA1978K | 750.00 | 25.40 | 386.32 | 748.55 | 2.20 | 2.00 |
| UA1464K | 1000.00 | 25.40 | 515.09 | 998.55 | 2.20 | 2.00 |
| UA1274K | 40.00 | 30.00 | 20.60 | 34.06 | 9.00 | 2.50 |
| UA1102K | 50.00 | 30.00 | 25.75 | 45.18 | 7.30 | 2.50 |
| UA1765K | 75.00 | 30.00 | 38.63 | 71.37 | 5.50 | 2.50 |
| UA1031K | 100.00 | 30.00 | 51.51 | 96.90 | 4.70 | 2.50 |
| UA1911K | 120.00 | 30.00 | 61.81 | 117.16 | 4.30 | 2.50 |
| UA1907K | 150.00 | 30.00 | 77.26 | 147.95 | 3.10 | 1.60 |
| UA1541K | 200.00 | 30.00 | 103.02 | 198.15 | 2.80 | 1.70 |
| UA1832K | 250.00 | 30.00 | 128.77 | 248.28 | 2.60 | 1.70 |
| UA1419K | 300.00 | 30.00 | 154.53 | 298.35 | 2.50 | 1.80 |
| UA1237K | 500.00 | 30.00 | 257.55 | 498.48 | 2.30 | 1.80 |
| UA1401K | 60.00 | 50.80 | 30.91 | 49.24 | 16.30 | 3.00 |
| UA1145K | 75.00 | 50.80 | 38.63 | 66.75 | 12.50 | 3.00 |
| UA1050K | 100.00 | 50.80 | 51.51 | 93.60 | 9.70 | 3.00 |
| UA1384K | 125.00 | 50.80 | 64.39 | 119.59 | 8.20 | 3.00 |
| UA1417K | 150.00 | 50.80 | 77.26 | 145.18 | 7.30 | 3.00 |
| UA1399K | 175.00 | 50.80 | 90.14 | 170.58 | 6.70 | 3.00 |
| UA1979K | 200.00 | 50.80 | 103.02 | 195.91 | 6.20 | 3.00 |
| UA1301K | 250.00 | 50.80 | 128.77 | 246.37 | 5.50 | 3.00 |
| UA1256K | 300.00 | 50.80 | 154.53 | 296.63 | 5.10 | 3.00 |
| UA1725K | 400.00 | 50.80 | 206.04 | 396.96 | 4.60 | 3.00 |
| UA1380K | 500.00 | 50.80 | 257.55 | 497.16 | 4.30 | 3.00 |
| UA1727K | 750.00 | 50.80 | 386.32 | 747.49 | 3.80 | 3.00 |
| UA1779K | 1000.00 | 50.80 | 515.09 | 997.62 | 3.60 | 3.00 |
| UA1740K | 85.00 | 75.00 | 43.78 | 69.03 | 24.20 | 3.00 |
| UA1238K | 100.00 | 75.00 | 51.51 | 87.33 | 19.20 | 3.00 |
| UA1002K | 150.00 | 75.00 | 77.26 | 141.62 | 12.70 | 3.00 |
| UA1353K | 200.00 | 75.00 | 103.02 | 193.33 | 10.10 | 3.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters

Ordering Information

Model No : UA1116K -

AR Coating Wavelength :
 A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

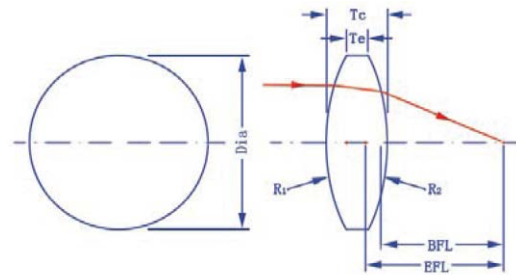
Example :
 UA1116K Non AR Coating
 UA1116K-B AR Coating 650-1050nm



Commercial Grade N-BK7 Bi-Convex Lenses

Specification

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | < 3 arc min |
| Clear Aperture | > 90% |
| Bevelling | < 0.2 x 45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|-----------|---------|--------|--------|
| UB1157K | 10.00 | 6.00 | 9.88 | 9.17 | 2.40 | 1.50 |
| UB1406K | 12.00 | 6.00 | 11.96 | 11.22 | 2.30 | 1.50 |
| UB1987K | 15.00 | 6.00 | 15.09 | 14.29 | 2.10 | 1.50 |
| UB1198K | 30.00 | 6.00 | 30.60 | 29.40 | 1.80 | 1.50 |
| UB1494K | 12.00 | 9.00 | 11.72 | 10.75 | 3.60 | 1.80 |
| UB1212K | 20.00 | 9.00 | 20.12 | 19.05 | 2.80 | 1.80 |
| UB1092K | 15.00 | 12.70 | 14.61 | 13.36 | 4.70 | 1.80 |
| UB1450K | 20.00 | 12.70 | 19.92 | 18.67 | 3.90 | 1.80 |
| UB1014K | 25.00 | 12.70 | 25.16 | 23.85 | 3.40 | 1.80 |
| UB1258K | 30.00 | 12.70 | 30.37 | 28.96 | 3.10 | 1.80 |
| UB1378K | 40.00 | 12.70 | 40.73 | 39.07 | 2.80 | 1.80 |
| UB1844K | 50.00 | 12.70 | 51.06 | 49.13 | 2.60 | 1.80 |
| UB1187K | 100.00 | 12.70 | 102.64 | 99.27 | 2.20 | 1.80 |
| UB1761K | 25.40 | 25.40 | 24.53 | 22.23 | 9.00 | 1.90 |
| UB1757K | 30.00 | 25.40 | 29.54 | 27.34 | 7.70 | 2.00 |
| UB1811K | 35.00 | 25.40 | 34.86 | 32.68 | 6.80 | 2.20 |
| UB1027K | 40.00 | 25.40 | 40.14 | 37.93 | 6.10 | 2.00 |
| UB1471K | 50.00 | 25.40 | 50.61 | 48.25 | 5.20 | 2.00 |
| UB1596K | 60.00 | 25.40 | 61.00 | 58.43 | 4.70 | 2.00 |
| UB1901K | 75.00 | 25.40 | 76.56 | 73.63 | 4.10 | 2.00 |
| UB1676K | 100.00 | 25.40 | 102.40 | 98.81 | 3.60 | 2.00 |
| UB1904K | 125.00 | 25.40 | 128.21 | 123.91 | 3.30 | 2.00 |
| UB1437K | 150.00 | 25.40 | 154.00 | 148.97 | 3.10 | 2.00 |
| UB1294K | 175.00 | 25.40 | 179.79 | 174.04 | 2.90 | 2.00 |
| UB1945K | 200.00 | 25.40 | 205.56 | 199.07 | 2.80 | 2.00 |
| UB1056K | 250.00 | 25.40 | 257.10 | 249.14 | 2.60 | 2.00 |
| UB1779K | 300.00 | 25.40 | 308.63 | 299.17 | 2.50 | 2.00 |
| UB1391K | 400.00 | 25.40 | 411.66 | 399.21 | 2.40 | 2.00 |
| UB1869K | 500.00 | 25.40 | 514.70 | 499.24 | 2.30 | 2.00 |
| UB1475K | 750.00 | 25.40 | 772.26 | 749.27 | 2.20 | 2.00 |
| UB1409K | 1000.00 | 25.40 | 1029.81 | 999.27 | 2.20 | 2.00 |
| UB1723K | 60.00 | 50.80 | 59.26 | 55.04 | 14.40 | 3.00 |
| UB1309K | 75.00 | 50.80 | 75.20 | 71.00 | 11.80 | 3.00 |
| UB1630K | 100.00 | 50.80 | 101.38 | 96.81 | 9.50 | 3.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beamsplitters

| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UB1106K | 125.00 | 50.80 | 127.38 | 122.30 | 8.10 | 3.00 |
| UB1 374K | 150.00 | 50.80 | 153.29 | 147.60 | 7.20 | 3.00 |
| UB1607K | 175.00 | 50.80 | 179.15 | 172.81 | 6.60 | 3.00 |
| UB1199K | 200.00 | 50.80 | 204.98 | 197.94 | 6.20 | 3.00 |
| UB1889K | 250.00 | 50.80 | 256.61 | 248.18 | 5.50 | 3.00 |
| UB1917K | 300.00 | 50.80 | 308.29 | 298.31 | 5.10 | 3.00 |
| UB1862K | 400.00 | 50.80 | 411.29 | 398.48 | 4.60 | 3.00 |
| UB1909K | 500.00 | 50.80 | 514.36 | 498.58 | 4.30 | 3.00 |
| UB1274K | 750.00 | 50.80 | 771.99 | 748.75 | 3.80 | 3.00 |
| UB1859K | 1000.00 | 50.80 | 1029.57 | 998.81 | 3.60 | 3.00 |

Ordering Information

Model No : UB1157K -

AR Coating Wavelength :
 A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

Example :
 UB1157K Non AR Coating
 UB1157K-B AR Coating 650-1050nm

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

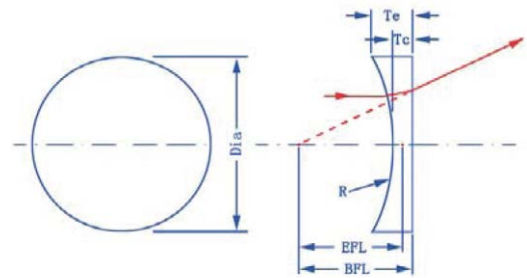
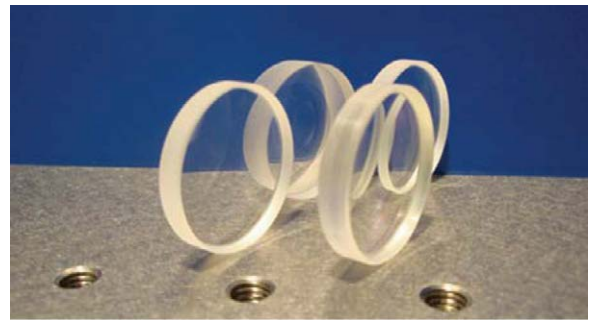
Circular Variable Neutral Density Filters

Plate Beamsplitters

Commercial Grade N-BK7 Plano-Concave Lenses

Specification

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



Ordering Information

Model No : UC1035K -

AR Coating Wavelength :
 A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

Example :
 UC1035K Non AR Coating
 UC1035K-B AR Coating 650-1050nm

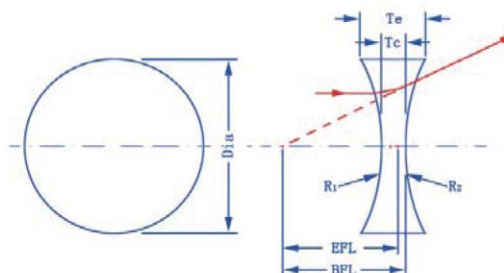
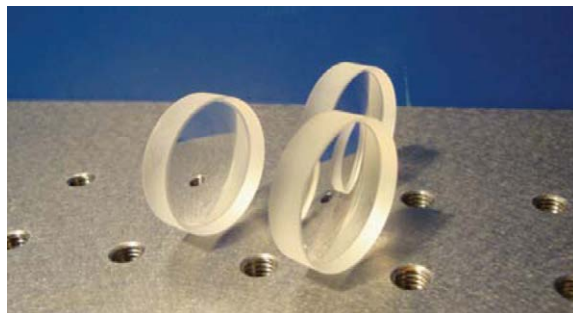
| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|--------|---------|--------|--------|
| UC1035K | -18.00 | 6.00 | -9.27 | -19.32 | 2.00 | 2.50 |
| UC1975K | -24.00 | 6.00 | -12.36 | -25.32 | 2.00 | 2.40 |
| UC1906K | -27.00 | 9.00 | -13.91 | -28.32 | 2.00 | 2.70 |
| UC1054K | -25.00 | 12.70 | -12.88 | -26.98 | 3.00 | 4.70 |
| UC1060K | -30.00 | 12.70 | -15.45 | -31.98 | 3.00 | 4.40 |
| UC1439K | -50.00 | 12.70 | -25.75 | -52.31 | 3.50 | 4.30 |
| UC1259K | -50.00 | 25.00 | -25.75 | -52.31 | 3.50 | 6.70 |
| UC1258K | -75.00 | 25.00 | -38.63 | -77.31 | 3.50 | 5.60 |
| UC1254K | -100.00 | 25.00 | -51.51 | -102.64 | 4.00 | 5.50 |
| UC1715K | -50.00 | 25.40 | -25.75 | -52.31 | 3.50 | 6.90 |
| UC1582K | -75.00 | 25.40 | -38.63 | -77.31 | 3.50 | 5.60 |
| UC1120K | -100.00 | 25.40 | -51.51 | -102.64 | 4.00 | 5.60 |
| UC1315K | -75.00 | 50.80 | -38.63 | -77.31 | 3.50 | 13.00 |
| UC1093K | -100.00 | 50.80 | -51.51 | -102.64 | 4.00 | 10.70 |
| UC1611K | -150.00 | 50.80 | -77.26 | -152.64 | 4.00 | 8.30 |



Commercial Grade N-BK7 Bi-Concave Lenses

Specification

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ±1% |
| Diameter Toleranc | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|---------|---------|--------|--------|
| UD1569K | -25.00 | 12.70 | -26.17 | -25.81 | 2.50 | 4.10 |
| UD1903K | -30.00 | 12.70 | -31.41 | -30.97 | 3.00 | 4.30 |
| UD1357K | -50.00 | 12.70 | -52.10 | -51.15 | 3.50 | 4.30 |
| UD1464K | -50.00 | 25.40 | -52.01 | -50.98 | 3.00 | 6.10 |
| UD1170K | -75.00 | 25.40 | -77.86 | -76.15 | 3.50 | 5.60 |
| UD1613K | -100.00 | 25.40 | -103.69 | -101.31 | 4.00 | 5.60 |

Ordering Information

Model No : UD1569K -

AR Coating Wavelength :

A = 350-650nm
B = 650-1050nm
C = 1050-1580nm

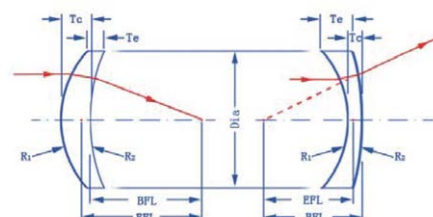
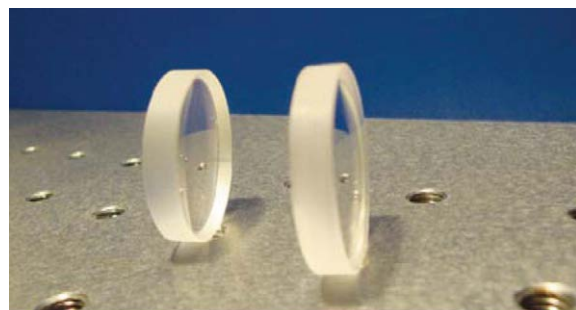
Example :

UA1569K Non AR Coating
UCA1569K-B AR Coating 650-1050nm

Commercial Grade N-BK7 Meniscus Lenses

Specification

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



N-BK7 Positive Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | | BFL(mm) | Tc(mm) | Te(mm) |
|---------|---------|---------|--------|---------|---------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UE1234K | 100.00 | 25.40 | 32.14 | 82.20 | 96.19 | 3.60 | 2.00 |
| UE1156K | 125.00 | 25.40 | 40.60 | 106.86 | 121.55 | 3.30 | 2.00 |
| UE1104K | 150.00 | 25.40 | 49.10 | 131.81 | 146.78 | 3.10 | 2.00 |
| UE1202K | 200.00 | 25.40 | 66.20 | 182.57 | 197.12 | 2.80 | 2.00 |
| UE1157K | 250.00 | 25.40 | 83.40 | 234.19 | 247.35 | 2.60 | 2.00 |
| UE1929K | 300.00 | 25.40 | 100.90 | 288.30 | 297.47 | 2.50 | 2.00 |
| UE1872K | 400.00 | 25.40 | 136.50 | 402.03 | 397.61 | 2.40 | 2.00 |
| UE1261K | 500.00 | 25.40 | 172.90 | 523.70 | 497.74 | 2.30 | 2.00 |
| UE1458K | 1000.00 | 25.40 | 371.60 | 1331.26 | 997.99 | 2.20 | 2.00 |
| UE1076K | 100.00 | 50.80 | 30.34 | 65.80 | 89.13 | 9.70 | 1.10 |
| UE1527K | 125.00 | 50.80 | 39.20 | 93.08 | 116.11 | 8.20 | 2.40 |
| UE1418K | 150.00 | 50.80 | 47.90 | 119.51 | 142.23 | 7.30 | 2.70 |
| UE1015K | 200.00 | 50.80 | 65.20 | 171.87 | 193.53 | 6.20 | 2.90 |
| UE1613K | 250.00 | 50.80 | 82.54 | 224.69 | 244.34 | 5.50 | 3.00 |
| UE1985K | 300.00 | 50.80 | 100.10 | 279.28 | 294.80 | 5.10 | 3.00 |
| UE1359K | 400.00 | 50.80 | 135.80 | 393.38 | 394.99 | 5.00 | 3.40 |
| UE1153K | 500.00 | 50.80 | 172.30 | 515.42 | 495.07 | 5.00 | 3.70 |
| UE1834K | 1000.00 | 50.80 | 371.50 | 1326.56 | 995.42 | 5.00 | 4.40 |

N-BK7 Negative Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | | BFL(mm) | Tc(mm) | Te(mm) |
|---------|----------|---------|--------|--------|----------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UF1822K | -100.00 | 25.40 | 33.65 | 100.00 | -103.03 | 3.00 | 4.70 |
| UF1510K | -125.00 | 25.40 | 38.77 | 100.00 | -128.29 | 3.00 | 4.30 |
| UF1547K | -150.00 | 25.40 | 43.14 | 100.00 | -153.55 | 3.00 | 4.10 |
| UF1097K | -200.00 | 25.40 | 50.23 | 100.00 | -204.06 | 3.00 | 3.80 |
| UF1774K | -250.00 | 25.40 | 55.71 | 100.00 | -254.58 | 3.00 | 3.70 |
| UF1015K | -300.00 | 25.40 | 95.11 | 250.00 | -303.22 | 3.00 | 3.50 |
| UF1544K | -400.00 | 25.40 | 112.49 | 250.00 | -403.63 | 3.00 | 3.40 |
| UF1988K | -500.00 | 25.40 | 126.34 | 250.00 | -504.04 | 3.00 | 3.30 |
| UF1141K | -1000.00 | 25.40 | 253.20 | 500.00 | -1004.03 | 3.00 | 3.20 |
| UF1764K | -100.00 | 50.80 | 40.61 | 200.00 | -104.19 | 5.00 | 12.30 |
| UF1736K | -125.00 | 50.80 | 48.29 | 200.00 | -129.40 | 5.00 | 10.60 |
| UF1829K | -150.00 | 50.80 | 55.21 | 200.00 | -155.08 | 5.50 | 9.60 |
| UF1338K | -200.00 | 50.80 | 67.42 | 200.00 | -205.04 | 5.00 | 8.40 |
| UF1269K | -250.00 | 50.80 | 77.67 | 200.00 | -255.47 | 5.00 | 7.70 |
| UF1129K | -300.00 | 50.80 | 101.41 | 300.00 | -305.03 | 5.00 | 7.20 |
| UF1115K | -400.00 | 50.80 | 121.46 | 300.00 | -405.60 | 5.00 | 6.60 |
| UF1089K | -500.00 | 50.80 | 137.79 | 300.00 | -506.17 | 5.00 | 6.30 |
| UF1591K | -1000.00 | 50.80 | 252.85 | 500.00 | -1006.72 | 5.00 | 5.60 |

Ordering Information

Model No : UE1234K - □

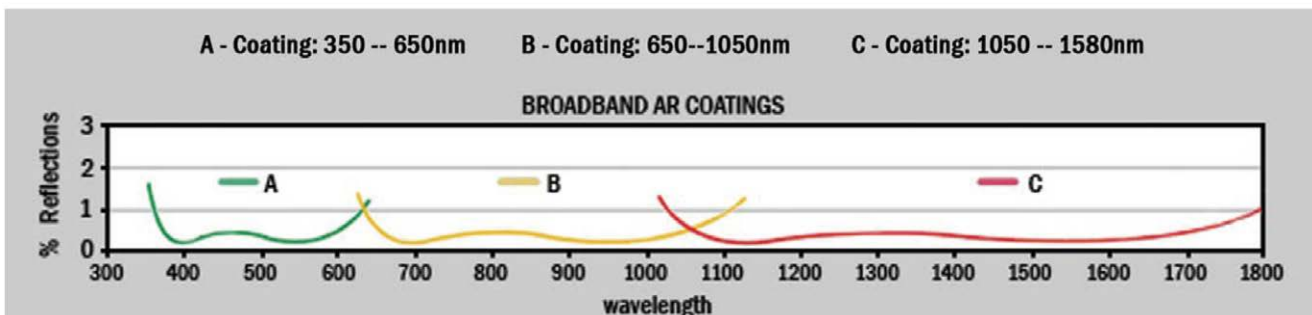
Model No : UF1234K - □

AR Coating Wavelength :
 A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

Example :
 UE1234K Non AR Coating
 UE1234K-B AR Coating 650-1050nm

AR Coating Wavelength :
 A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

Example :
 UF1234K Non AR Coating
 UF1234K-B AR Coating 650-1050nm



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

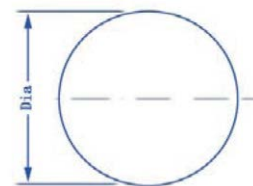
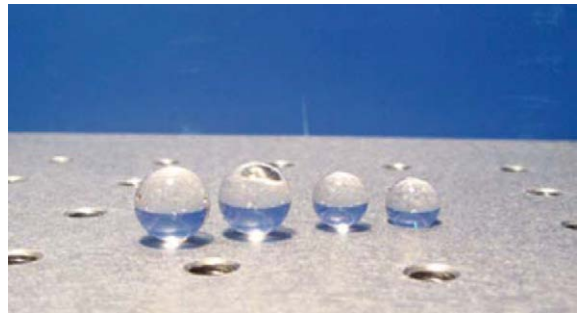
Circular Variable Neutral Density Filters

Plate Beam Splitters

Commercial Grade N-BK7 Ball Lenses

Specification

| | |
|--------------------|--------------------|
| Material | N-BK7 |
| Diameter Tolerance | $\pm 0.1\text{mm}$ |
| Surface Quality | 60-40 |
| Sphericity | $< 0.005\text{mm}$ |

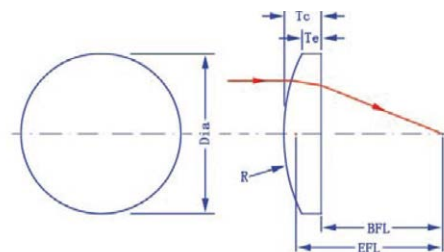
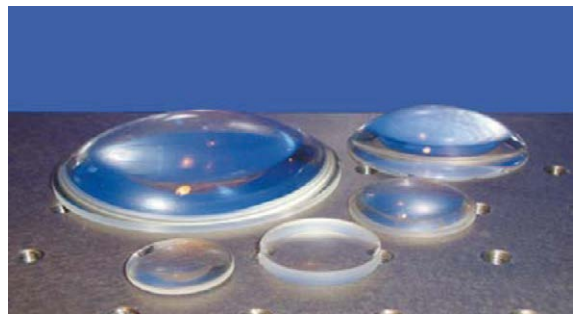


| NO. | Dia(mm) | NO. | Dia(mm) |
|---------|---------|---------|---------|
| UG0010K | 1.00 | UG0060K | 6.00 |
| UG0015K | 1.50 | UG0070K | 7.00 |
| UG0020K | 2.00 | UG0080K | 8.00 |
| UG0025K | 2.50 | UG0090K | 9.00 |
| UG0030K | 3.00 | UG0100K | 10.00 |
| UG0040K | 4.00 | UG0150K | 15.00 |
| UG0050K | 5.00 | UG0200K | 20.00 |

Commercial Grade UV-Grade Fused Silica Plano-Convex Lenses

Specification

| | |
|------------------------|----------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | $\pm 1\%$ |
| Diameter Tolerance | $+0.0/-0.1\text{mm}$ |
| Thickness Tolerance | $\pm 0.1\text{mm}$ |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | $< 3 \text{ arc min}$ |
| Clear Aperture | $> 90\%$ |
| Bevelling | $< 0.2 \times 45^\circ$ |
| Coating | UV AR Coating 290nm-370nm |



| 型號 NO. | 有效焦距 EFL(mm) | 外圓直徑 Dia(mm) | 曲率半徑 R(mm) | 後焦距 BFL(mm) | 中心厚度 Tc(mm) | 邊緣厚度 Te(mm) |
|----------|--------------|--------------|------------|-------------|-------------|-------------|
| UA4249FS | 10.00 | 5.00 | 4.58 | 8.49 | 2.20 | 1.50 |
| UA4280FS | 10.00 | 6.00 | 4.58 | 8.22 | 2.60 | 1.50 |
| UA4917FS | 15.00 | 6.00 | 6.88 | 13.49 | 2.20 | 1.50 |
| UA4194FS | 20.00 | 6.00 | 9.17 | 18.63 | 2.00 | 1.50 |
| UA4966FS | 30.00 | 6.00 | 13.75 | 28.77 | 1.80 | 1.50 |
| UA4647FS | 20.00 | 12.70 | 9.17 | 17.05 | 4.30 | 1.80 |
| UA4936FS | 30.00 | 12.70 | 13.75 | 27.74 | 3.30 | 1.80 |
| UA4130FS | 40.00 | 12.70 | 18.34 | 38.01 | 2.90 | 1.80 |
| UA4765FS | 50.00 | 12.70 | 22.92 | 48.15 | 2.70 | 1.80 |
| UA4327FS | 75.00 | 12.70 | 34.39 | 73.35 | 2.40 | 1.80 |
| UA4600FS | 100.00 | 12.70 | 45.85 | 98.49 | 2.20 | 1.80 |
| UA4052FS | 35.00 | 25.40 | 16.05 | 29.38 | 8.20 | 2.00 |
| UA4306FS | 40.00 | 25.40 | 18.34 | 35.13 | 7.10 | 2.00 |
| UA4148FS | 50.00 | 25.40 | 22.92 | 46.02 | 5.80 | 2.00 |
| UA4725FS | 75.00 | 25.40 | 34.39 | 71.98 | 4.40 | 2.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



| 型號 NO. | 有效焦距 EFL(mm) | 外圓直徑 Dia(mm) | 曲率半徑 R(mm) | 後焦距 BFL(mm) | 中心厚度 Tc(mm) | 邊緣厚度 Te(mm) |
|----------|--------------|--------------|------------|-------------|-------------|-------------|
| UA4380FS | 100.00 | 25.40 | 45.85 | 97.39 | 3.80 | 2.00 |
| UA4236FS | 125.00 | 25.40 | 57.31 | 122.67 | 3.40 | 2.00 |
| UA4874FS | 150.00 | 25.40 | 68.77 | 147.81 | 3.20 | 2.00 |
| UA4924FS | 175.00 | 25.40 | 80.24 | 172.94 | 3.00 | 2.00 |
| UA4102FS | 200.00 | 25.40 | 91.70 | 198.01 | 2.90 | 2.00 |
| UA4158FS | 250.00 | 25.40 | 114.62 | 248.15 | 2.70 | 2.00 |
| UA4579FS | 300.00 | 25.40 | 137.55 | 298.22 | 2.60 | 2.00 |
| UA4184FS | 500.00 | 25.40 | 229.25 | 498.35 | 2.40 | 2.00 |
| UA4716FS | 750.00 | 25.40 | 343.87 | 748.49 | 2.20 | 2.00 |
| UA4663FS | 1000.00 | 25.40 | 458.49 | 998.49 | 2.20 | 2.00 |
| UA4464FS | 60.00 | 50.80 | 27.51 | 46.42 | 19.80 | 3.00 |
| UA4078FS | 75.00 | 50.80 | 34.39 | 65.26 | 14.20 | 3.00 |
| UA4545FS | 100.00 | 50.80 | 45.85 | 92.66 | 10.70 | 3.00 |
| UA4904FS | 150.00 | 50.80 | 68.77 | 144.65 | 7.80 | 3.00 |
| UA4984FS | 200.00 | 50.80 | 91.70 | 195.47 | 6.60 | 3.00 |
| UA4538FS | 250.00 | 50.80 | 114.62 | 246.02 | 5.80 | 3.00 |
| UA4855FS | 300.00 | 50.80 | 137.55 | 296.30 | 5.40 | 3.00 |
| UA4782FS | 500.00 | 50.80 | 229.25 | 496.98 | 4.40 | 3.00 |
| UA4745FS | 750.00 | 50.80 | 343.87 | 747.33 | 3.90 | 3.00 |
| UA4337FS | 1000.00 | 50.80 | 458.49 | 997.46 | 3.70 | 3.00 |
| UA4384FS | 90.00 | 75.00 | 41.26 | 71.56 | 26.90 | 3.00 |
| UA4372FS | 150.00 | 75.00 | 68.77 | 140.33 | 14.10 | 3.00 |
| UA4795FS | 200.00 | 75.00 | 91.70 | 192.46 | 11.00 | 3.00 |
| UA4246FS | 500.00 | 75.00 | 229.25 | 495.82 | 6.10 | 3.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

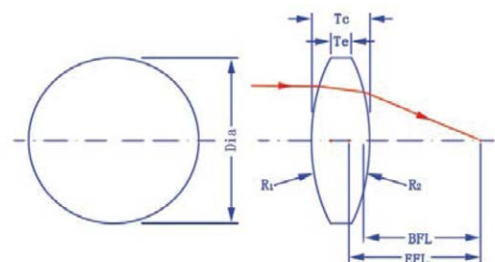
Circular Variable Neutral Density Filters

Plate Beam Splitters

Commercial Grade UV-Grade Fused Silica Bi-Convex Lenses

Specification

| | |
|------------------------|----------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm-370nm |

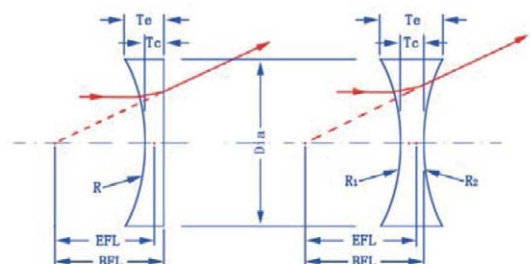
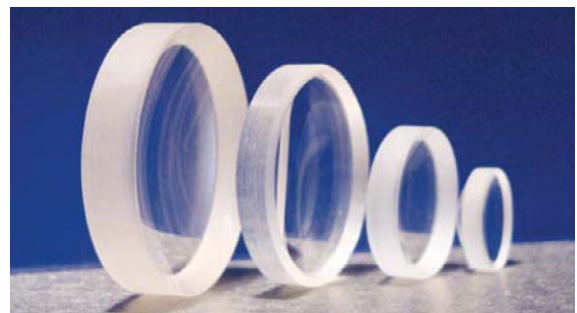


| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UB4743FS | 10.00 | 5.00 | 8.81 | 9.21 | 2.20 | 1.50 |
| UB4280FS | 10.00 | 6.00 | 8.74 | 9.06 | 2.60 | 1.50 |
| UB4537FS | 15.00 | 6.00 | 13.40 | 14.23 | 2.20 | 1.50 |
| UB4738FS | 20.00 | 6.00 | 18.02 | 19.30 | 2.00 | 1.50 |
| UB4209FS | 30.00 | 6.00 | 27.22 | 29.38 | 1.80 | 1.50 |
| UB4854FS | 20.00 | 12.70 | 17.65 | 18.50 | 4.20 | 1.80 |
| UB4003FS | 30.00 | 12.70 | 26.98 | 28.85 | 3.30 | 1.80 |
| UB4700FS | 40.00 | 12.70 | 36.22 | 38.99 | 2.90 | 1.80 |
| UB4915FS | 50.00 | 12.70 | 45.42 | 49.07 | 2.70 | 1.80 |
| UB4436FS | 75.00 | 12.70 | 68.39 | 74.17 | 2.40 | 1.80 |
| UB4627FS | 100.00 | 12.70 | 91.35 | 99.24 | 2.20 | 1.80 |
| UB4879FS | 35.00 | 25.40 | 30.89 | 32.36 | 7.40 | 2.00 |
| UB4030FS | 40.00 | 25.40 | 35.59 | 37.63 | 6.70 | 2.00 |
| UB4096FS | 50.00 | 25.40 | 44.94 | 48.01 | 5.70 | 2.00 |
| UB4330FS | 75.00 | 25.40 | 68.08 | 73.48 | 4.40 | 2.00 |
| UB4941FS | 100.00 | 25.40 | 91.10 | 98.69 | 3.80 | 2.00 |
| UB4913FS | 125.00 | 25.40 | 114.09 | 123.83 | 3.40 | 2.00 |
| UB4265FS | 150.00 | 25.40 | 137.04 | 148.90 | 3.20 | 2.00 |
| UB4530FS | 175.00 | 25.40 | 160.00 | 173.97 | 3.00 | 2.00 |
| UB4282FS | 200.00 | 25.40 | 182.94 | 199.00 | 2.90 | 2.00 |
| UB4837FS | 250.00 | 25.40 | 228.82 | 249.07 | 2.70 | 2.00 |
| UB4545FS | 300.00 | 25.40 | 274.69 | 299.11 | 2.60 | 2.00 |
| UB4453FS | 500.00 | 25.40 | 458.11 | 499.18 | 2.40 | 2.00 |
| UB4223FS | 750.00 | 25.40 | 687.39 | 749.25 | 2.20 | 2.00 |
| UB4374FS | 1000.00 | 25.40 | 916.63 | 999.25 | 2.20 | 2.00 |
| UB4592FS | 60.00 | 50.80 | 52.45 | 54.39 | 15.60 | 2.50 |
| UB4553FS | 75.00 | 50.80 | 66.75 | 70.58 | 12.50 | 2.50 |
| UB4821FS | 100.00 | 50.80 | 90.05 | 96.40 | 10.30 | 3.00 |
| UB4140FS | 150.00 | 50.80 | 136.31 | 147.30 | 7.80 | 3.00 |
| UB4842FS | 200.00 | 50.80 | 182.37 | 197.76 | 6.50 | 3.00 |
| UB4972FS | 250.00 | 50.80 | 228.33 | 248.00 | 5.80 | 3.00 |
| UB4710FS | 300.00 | 50.80 | 274.24 | 298.14 | 5.40 | 3.00 |
| UB4910FS | 500.00 | 50.80 | 457.80 | 498.49 | 4.40 | 3.00 |
| UB4865FS | 750.00 | 50.80 | 687.12 | 748.66 | 3.90 | 3.00 |
| UB4293FS | 1000.00 | 50.80 | 916.40 | 998.73 | 3.70 | 3.00 |

Commercial Grade UV-Grade Fused Silica Plano-Concave and Bi-Concave Lenses

Specification

| | |
|------------------------|----------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm-370nm |



UV-Grade Fused Silica Plano-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|---------|--------|--------|
| UC4573FS | -10.00 | 6.00 | -4.58 | -11.37 | 2.00 | 3.10 |
| UC4291FS | -12.00 | 8.00 | -5.50 | -13.37 | 2.00 | 3.70 |
| UC4924FS | -20.00 | 12.70 | -9.17 | -21.37 | 2.00 | 4.50 |
| UC4210FS | -25.00 | 12.70 | -11.46 | -27.06 | 3.00 | 4.90 |
| UC4796FS | -30.00 | 12.70 | -13.75 | -32.06 | 3.00 | 4.50 |
| UC4357FS | -50.00 | 12.70 | -22.92 | -52.40 | 3.50 | 4.40 |
| UC4413FS | -75.00 | 12.70 | -34.39 | -77.40 | 3.50 | 4.10 |
| UC4232FS | -100.00 | 12.70 | -45.85 | -102.40 | 3.50 | 3.90 |
| UC4918FS | -200.00 | 12.70 | -91.70 | -202.74 | 4.00 | 4.20 |
| UC4252FS | -30.00 | 25.40 | -13.75 | -32.03 | 3.00 | 11.40 |
| UC4027FS | -50.00 | 25.40 | -22.92 | -52.06 | 3.00 | 6.80 |
| UC4513FS | -75.00 | 25.40 | -34.39 | -77.40 | 3.50 | 5.90 |
| UC4888FS | -100.00 | 25.40 | -45.85 | -102.40 | 3.50 | 5.30 |
| UC4425FS | -75.00 | 50.80 | -34.39 | -77.40 | 3.50 | 14.60 |
| UC4743FS | -100.00 | 50.80 | -45.85 | -102.74 | 4.00 | 11.60 |
| UC4869FS | -150.00 | 50.80 | -68.77 | -152.74 | 4.00 | 8.80 |

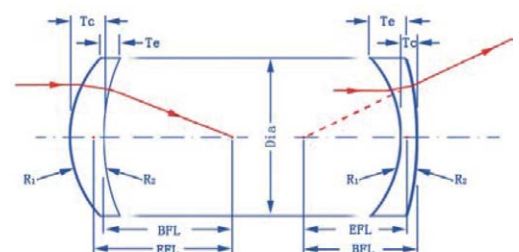
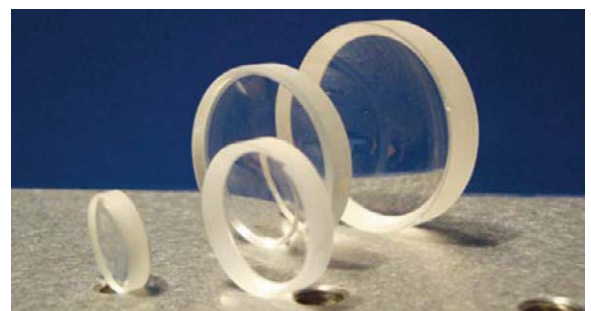
UV-Grade Fused Silica Bi-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UD4797FS | -6.00 | 6.00 | -5.87 | -6.80 | 2.50 | 4.10 |
| UD4148FS | -12.00 | 6.00 | -11.46 | -12.99 | 3.00 | 3.80 |
| UD4271FS | -9.00 | 9.00 | -8.63 | -9.82 | 2.50 | 5.00 |
| UD4014FS | -18.00 | 9.00 | -16.96 | -19.00 | 3.00 | 4.20 |
| UD4771FS | -15.00 | 12.70 | -14.21 | -16.00 | 3.00 | 6.00 |
| UD4650FS | -25.00 | 12.70 | -23.39 | -26.01 | 3.00 | 4.80 |
| UD4269FS | -30.00 | 12.70 | -27.98 | -31.01 | 3.00 | 4.50 |
| UD4511FS | -50.00 | 12.70 | -46.32 | -51.02 | 3.00 | 3.90 |
| UD4931FS | -25.00 | 25.40 | -23.39 | -26.01 | 3.00 | 10.50 |
| UD4293FS | -50.00 | 25.40 | -46.39 | -51.19 | 3.50 | 7.00 |
| UD4735FS | -75.00 | 25.40 | -69.32 | -76.19 | 3.50 | 5.80 |
| UD4103FS | -100.00 | 25.40 | -92.24 | -101.19 | 3.50 | 5.30 |

Commercial Grade UV-Grade Fused Silica Meniscus Lenses

Specification

| | |
|------------------------|---------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@632.8nm |
| Surface Quality | 40-20 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm-370nm |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



UV-Grade Fused Silica Positive Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | R1(mm) | R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|--------|---------|--------|--------|
| UE4173FS | 100.00 | 25.40 | 31.00 | 91.84 | 95.94 | 4.00 | 2.20 |
| UE4197FS | 150.00 | 25.40 | 47.60 | 151.34 | 146.83 | 3.20 | 2.00 |
| UE4467FS | 200.00 | 25.40 | 64.20 | 211.05 | 197.16 | 2.90 | 2.00 |
| UE4329FS | 300.00 | 25.40 | 97.60 | 333.25 | 297.49 | 2.60 | 2.00 |
| UE4484FS | 500.00 | 25.40 | 166.80 | 609.58 | 497.74 | 2.40 | 2.00 |
| UE4950FS | 1000.00 | 25.40 | 347.09 | 1425.7 | 998.01 | 2.20 | 2.00 |
| UE4412FS | 100.00 | 50.80 | 30.60 | 81.89 | 89.01 | 10.70 | 1.20 |
| UE4125FS | 150.00 | 50.80 | 46.50 | 136.01 | 142.09 | 7.80 | 2.70 |
| UE4560FS | 200.00 | 50.80 | 63.00 | 194.67 | 193.41 | 6.60 | 2.90 |
| UE4984FS | 300.00 | 50.80 | 97.60 | 330.21 | 294.78 | 5.40 | 3.00 |
| UE4150FS | 500.00 | 50.80 | 165.40 | 588.25 | 495.25 | 5.00 | 3.60 |
| UE4822FS | 1000.00 | 50.80 | 355.73 | 1580.2 | 995.58 | 5.00 | 4.30 |

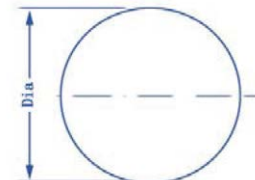
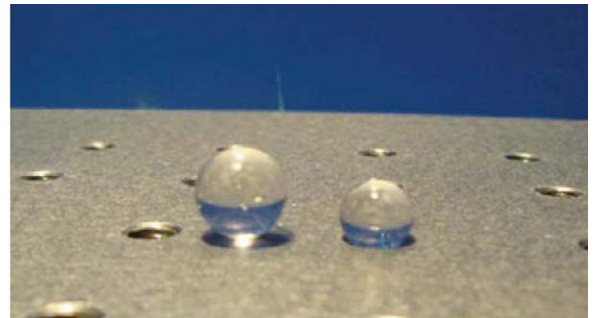
UV-Grade Fused Silica Negative Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | R1(mm) | R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|----------|---------|--------|--------|----------|--------|--------|
| UF4938FS | -100.00 | 25.40 | 34.89 | 150.00 | -102.70 | 3.00 | 4.90 |
| UF4370FS | -150.00 | 25.40 | 46.86 | 150.00 | -153.02 | 3.00 | 4.20 |
| UF4624FS | -200.00 | 25.40 | 56.49 | 150.00 | -203.89 | 3.50 | 4.40 |
| UF4348FS | -300.00 | 25.40 | 71.23 | 150.00 | -304.63 | 3.50 | 4.10 |
| UF4706FS | -500.00 | 25.40 | 106.23 | 200.00 | -505.18 | 3.50 | 3.90 |
| UF4986FS | -1000.00 | 25.40 | 180.58 | 300.00 | -1006.96 | 4.00 | 4.20 |
| UF4315FS | -100.00 | 50.80 | 37.01 | 200.00 | -104.25 | 5.00 | 13.40 |
| UF4101FS | -150.00 | 50.80 | 50.77 | 200.00 | -154.64 | 5.00 | 10.20 |
| UF4328FS | -200.00 | 50.80 | 62.38 | 200.00 | -205.04 | 5.00 | 8.80 |
| UF4929FS | -300.00 | 50.80 | 88.17 | 250.00 | -305.35 | 5.00 | 7.40 |
| UF4329FS | -500.00 | 50.80 | 129.27 | 300.00 | -506.08 | 5.00 | 6.40 |
| UF4246FS | -1000.00 | 50.80 | 180.39 | 300.00 | -1008.71 | 5.00 | 5.70 |

Commercial Grade UV-Grade Fused Silica Ball Lenses

Specification

| | |
|--------------------|-----------------------|
| Material | UV-Grade Fused Silica |
| Diameter Tolerance | ±0.1mm |
| Surface Quality | 60-40 |
| Sphericity | <0.005mm |

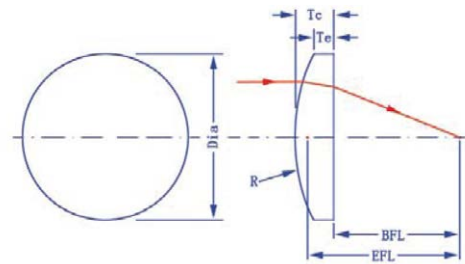
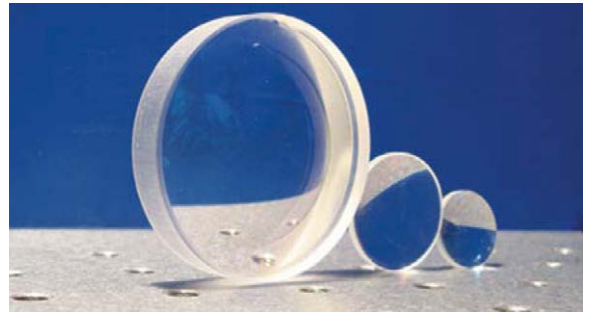


| NO. | Dia(mm) |
|----------|---------|
| UG0010FS | 1.00 |
| UG0015FS | 1.50 |
| UG0020FS | 2.00 |
| UG0025FS | 2.50 |
| UG0030FS | 3.00 |
| UG0040FS | 4.00 |
| UG0050FS | 5.00 |
| UG0060FS | 6.00 |
| UG0070FS | 7.00 |
| UG0080FS | 8.00 |
| UG0090FS | 9.00 |
| UG0100FS | 10.00 |
| UG0150FS | 15.00 |
| UG0200FS | 20.00 |

Commercial Grade CaF₂ Plano-Convex Lenses

Specification

| | |
|------------------------|-------------------------------------|
| Material | CaF ₂ (Calcium Fluoride) |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 3-5 μm |

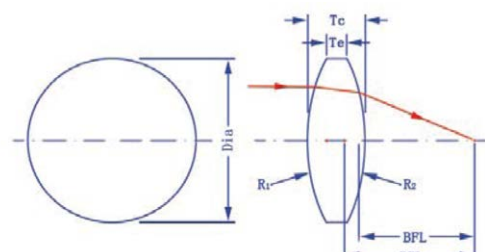


| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|---------|--------|--------|
| UA5315CF | 20.00 | 12.70 | 8.68 | 17.00 | 4.30 | 1.50 |
| UA5183CF | 50.00 | 12.70 | 21.69 | 48.26 | 2.50 | 1.50 |
| UA5458CF | 80.00 | 12.70 | 34.71 | 78.54 | 2.10 | 1.50 |
| UA5370CF | 40.00 | 25.40 | 17.35 | 34.77 | 7.50 | 2.00 |
| UA5763CF | 50.00 | 25.40 | 21.69 | 45.75 | 6.10 | 2.00 |
| UA5042CF | 75.00 | 25.40 | 32.54 | 71.79 | 4.60 | 2.00 |
| UA5817CF | 100.00 | 25.40 | 43.38 | 97.28 | 3.90 | 2.00 |
| UA5012CF | 150.00 | 25.40 | 65.08 | 147.70 | 3.30 | 2.00 |
| UA5714CF | 200.00 | 25.40 | 86.77 | 197.98 | 2.90 | 2.00 |
| UA5255CF | 250.00 | 25.40 | 108.46 | 248.12 | 2.70 | 2.00 |
| UA5464CF | 500.00 | 25.40 | 216.92 | 498.33 | 2.40 | 2.00 |
| UA5956CF | 750.00 | 25.40 | 325.39 | 748.47 | 2.20 | 2.00 |
| UA5835CF | 1000.00 | 25.40 | 433.85 | 998.47 | 2.20 | 2.00 |

Commercial Grade CaF₂ Bi-Convex Lenses

Specification

| | |
|------------------------|-------------------------------------|
| Material | CaF ₂ (Calcium Fluoride) |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 3-5 μm |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters

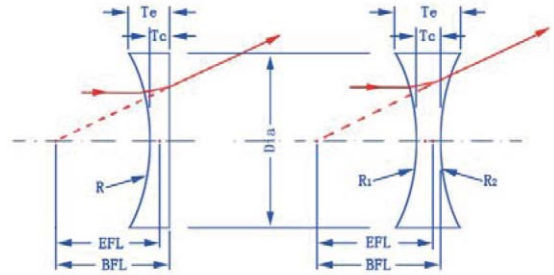
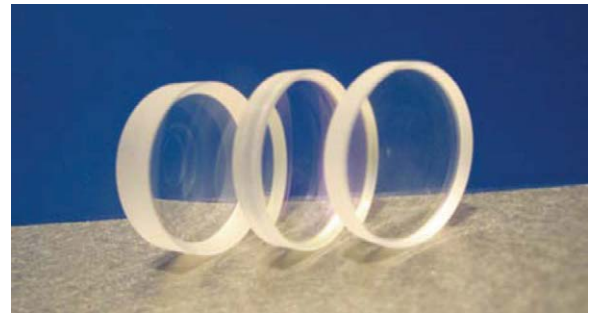


| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UB5766CF | 15.00 | 12.70 | 12.10 | 12.90 | 5.60 | 2.00 |
| UB5922CF | 20.00 | 12.70 | 16.64 | 18.36 | 4.50 | 2.00 |
| UB5864CF | 40.00 | 12.70 | 34.22 | 38.87 | 3.20 | 2.00 |
| UB5774CF | 25.40 | 25.40 | 20.23 | 21.22 | 11.00 | 2.00 |
| UB5284CF | 50.00 | 25.40 | 42.47 | 47.90 | 5.90 | 2.00 |
| UB5247CF | 75.00 | 25.40 | 64.39 | 73.41 | 4.50 | 2.00 |
| UB5552CF | 100.00 | 25.40 | 86.18 | 98.63 | 3.90 | 2.00 |
| UB5454CF | 200.00 | 25.40 | 173.10 | 198.99 | 2.90 | 2.00 |

Commercial Grade CaF₂ Plano-Concave Lenses and Bi-Concave Lenses

Specification

| | |
|------------------------|-------------------------------------|
| Material | CaF ₂ (Calcium Fluoride) |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 3-5 μm |



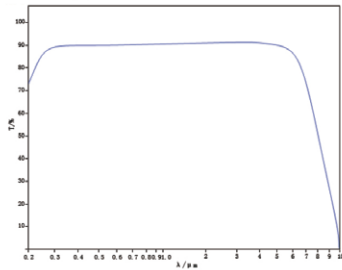
Calcium Fluoride Plano-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|---------|---------|--------|--------|
| UC5919CF | -18.00 | 12.70 | -7.81 | -19.39 | 2.00 | 5.30 |
| UC5749CF | -25.00 | 12.70 | -10.85 | -26.74 | 2.50 | 4.60 |
| UC5269CF | -40.00 | 25.40 | -17.35 | -41.39 | 2.00 | 7.50 |
| UC5401CF | -75.00 | 25.40 | -32.54 | -76.74 | 2.50 | 5.10 |
| UC5289CF | -100.00 | 25.40 | -43.38 | -102.09 | 3.00 | 4.90 |
| UC5952CF | -200.00 | 25.40 | -86.77 | -202.44 | 3.50 | 4.40 |
| UC5893CF | -500.00 | 25.40 | -216.92 | -502.79 | 4.00 | 4.40 |

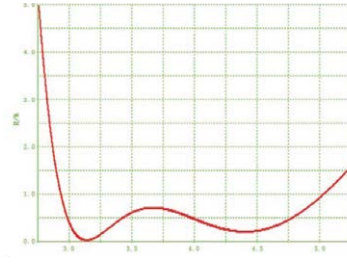
Calcium Fluoride Bi-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UD5451CF | -15.00 | 12.70 | -13.38 | -15.85 | 2.50 | 5.70 |
| UD5788CF | -25.00 | 12.70 | -22.14 | -26.03 | 3.00 | 4.90 |
| UD5138CF | -30.00 | 25.40 | -26.40 | -30.86 | 2.50 | 9.00 |
| UD5313CF | -50.00 | 25.40 | -43.83 | -51.03 | 3.00 | 6.80 |

Calcium fluoride (CaF₂) crystal, in the nature of high hardness, mechanical shock and thermal shock resistance ability. It has a good transmittance in the ultraviolet, visible and infrared band and widely used in lasers, infrared optics, ultraviolet and high-energy detectors, etc. In particular, with its high transmittance and low fluorescence radiation in the UV band to be the well known optical crystal. It is the ideal material apply in the ultraviolet detector, UV lasers and UV optical systems.



CaF₂ Material Transmission Chart



CaF₂ IR AR Coating 3μm-5μm

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

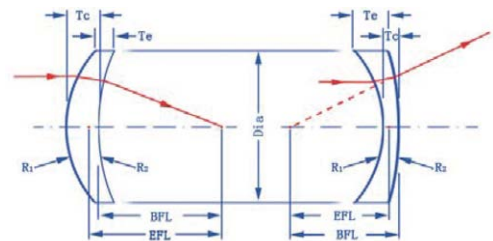
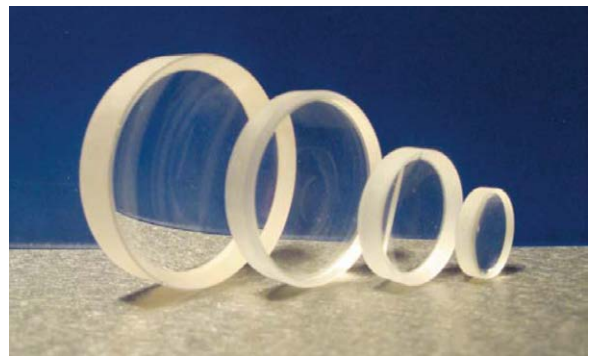
Circular Variable Neutral Density Filters

Plate Beam Splitters

Commercial Grade CaF₂ Meniscus Lenses

Specification

| | |
|------------------------|-------------------------------------|
| Material | CaF ₂ (Calcium Fluoride) |
| Design Wavelength | 4μm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 3-5 μm |



Calcium Fluoride Positive Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | Radius | | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|--------|---------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UE5838CF | 20.00 | 12.70 | 7.50 | 72.44 | 16.36 | 4.70 | 1.40 |
| UE5243CF | 50.00 | 12.70 | 15.00 | 52.79 | 47.09 | 3.00 | 2.00 |
| UE5234CF | 80.00 | 12.70 | 20.00 | 49.08 | 76.52 | 3.00 | 2.40 |
| UE5183CF | 40.00 | 25.40 | 15.00 | 146.95 | 33.10 | 8.90 | 2.40 |
| UE5801CF | 50.00 | 25.40 | 15.50 | 55.20 | 43.35 | 7.10 | 2.00 |
| UE5802CF | 75.00 | 25.40 | 15.50 | 28.02 | 67.12 | 5.60 | 2.00 |
| UE5803CF | 100.00 | 25.40 | 20.00 | 36.81 | 94.19 | 4.00 | 1.70 |
| UE5382CF | 150.00 | 25.40 | 35.00 | 78.62 | 145.02 | 4.00 | 2.70 |
| UE5414CF | 200.00 | 25.40 | 40.00 | 75.89 | 194.19 | 4.00 | 3.00 |
| UE5990CF | 500.00 | 25.40 | 125.00 | 317.77 | 495.35 | 4.00 | 3.60 |
| UE5656CF | 750.00 | 25.40 | 150.00 | 290.83 | 744.19 | 4.00 | 3.70 |
| UE5714CF | 1000.00 | 25.40 | 250.00 | 638.52 | 995.35 | 4.00 | 3.80 |

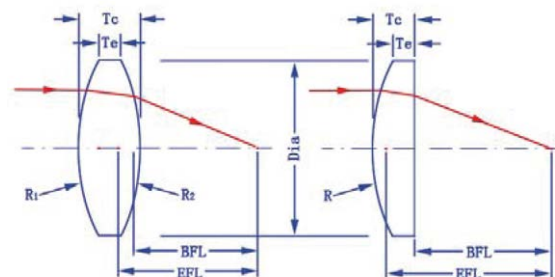
Calcium Fluoride Negative Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | Radius | | BFL(mm) | Tc(mm) | Te(mm) |
|----------|----------|---------|--------|--------|----------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UF5067CF | -20.00 | 12.70 | 75.50 | 95.57 | -21.55 | 2.00 | 5.30 |
| UF5847CF | -50.00 | 12.70 | 9.79 | 20.42 | -54.45 | 3.00 | 4.30 |
| UF5154CF | -80.00 | 12.70 | 16.16 | 33.72 | -84.31 | 3.00 | 3.70 |
| UF5469CF | -40.00 | 25.40 | 15.50 | 308.29 | -43.00 | 4.00 | 70.40 |
| UF5414CF | -50.00 | 25.40 | 15.50 | 68.50 | -53.75 | 4.00 | 9.40 |
| UF5895CF | -75.00 | 25.40 | 14.80 | 30.80 | -80.89 | 4.00 | 8.50 |
| UF5515CF | -100.00 | 25.40 | 20.16 | 41.97 | -105.76 | 4.00 | 6.50 |
| UF5175CF | -150.00 | 25.40 | 30.81 | 64.15 | -155.66 | 4.00 | 5.50 |
| UF5961CF | -200.00 | 25.40 | 41.44 | 86.21 | -205.61 | 4.00 | 5.10 |
| UF5048CF | -500.00 | 25.40 | 105.10 | 218.25 | -505.53 | 4.00 | 4.40 |
| UF5807CF | -570.00 | 25.40 | 158.12 | 328.18 | -755.52 | 4.00 | 4.30 |
| UF5394CF | -1000.00 | 25.40 | 211.13 | 438.09 | -1005.51 | 4.00 | 4.20 |

Commercial Grade ZnSe Plano-Convex and Bi-Convex Lenses

規格 / Specification

| | |
|------------------------|----------------------------|
| Material | ZnSe (Zinc Selenide) |
| Design Wavelength | 10.6μm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.2mm |
| Surface Accuracy | $\lambda/2@632.8\text{nm}$ |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 8-12 μm |



Spherical Lenses
Aspherical Lenses
Cylindrical Lenses
Mirrors
Windows
Circular Variable Neutral Density Filters
Plate Beam Splitters

ZnSe Plano -Convex Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|---------|---------|--------|--------|
| UA7477ZS | 15.00 | 12.70 | 21.04 | 13.75 | 3.00 | 2.00 |
| UA7733ZS | 20.00 | 12.70 | 28.05 | 18.88 | 2.70 | 2.00 |
| UA7673ZS | 40.00 | 12.70 | 56.11 | 39.00 | 2.40 | 2.00 |
| UA7542ZS | 25.40 | 25.40 | 35.63 | 23.61 | 4.30 | 2.00 |
| UA7656ZS | 50.00 | 25.40 | 70.13 | 48.34 | 4.00 | 2.80 |
| UA7660ZS | 75.00 | 25.40 | 105.20 | 73.34 | 4.00 | 3.20 |
| UA7261ZS | 100.00 | 25.40 | 140.27 | 98.34 | 4.00 | 3.40 |
| UA7028ZS | 150.00 | 25.40 | 210.40 | 148.34 | 4.00 | 3.60 |
| UA7228ZS | 200.00 | 25.40 | 280.53 | 198.34 | 4.00 | 3.70 |
| UA7270ZS | 500.00 | 25.40 | 701.33 | 499.13 | 2.10 | 2.00 |
| UA7234ZS | 750.00 | 25.40 | 1052.00 | 749.13 | 2.10 | 2.00 |
| UA7753ZS | 1000.00 | 25.40 | 1402.66 | 999.13 | 2.10 | 2.00 |

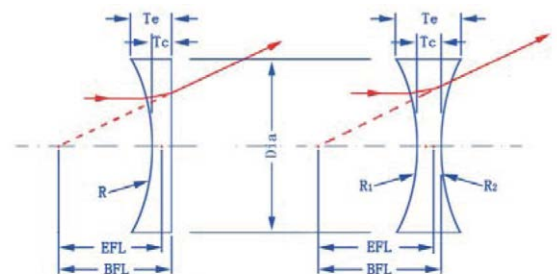
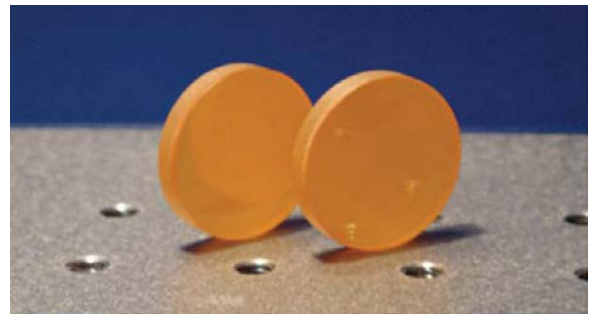
ZnSe Bi-Convex Lenses

| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UB7436ZS | 15.00 | 12.70 | 41.19 | 14.36 | 3.00 | 2.00 |
| UB7639ZS | 20.00 | 12.70 | 55.31 | 19.43 | 2.70 | 2.00 |
| UB7002ZS | 40.00 | 12.70 | 111.51 | 39.50 | 2.40 | 2.00 |
| UB7936ZS | 25.40 | 25.40 | 69.98 | 24.49 | 4.30 | 2.00 |
| UB7896ZS | 50.00 | 25.40 | 139.33 | 49.33 | 3.20 | 2.00 |
| UB7834ZS | 75.00 | 25.40 | 209.58 | 74.42 | 2.80 | 2.00 |
| UB7638ZS | 100.00 | 25.40 | 279.77 | 99.46 | 2.60 | 2.00 |
| UB7887ZS | 200.00 | 25.40 | 560.39 | 199.52 | 2.30 | 2.00 |

Commercial Grade ZnSe Plano-Concave and Bi-Concave Lenses

Specification

| | |
|------------------------|-----------------------|
| Material | ZnSe (Zinc Selenide) |
| Design Wavelength | 10.6μm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.2mm |
| Surface Accuracy | λ/2@632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 8-12 μm |



ZnSe Plano-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|---------|---------|--------|--------|
| UC7759ZS | -25.40 | 25.40 | -35.63 | -26.23 | 2.00 | 4.30 |
| UC7235ZS | -50.00 | 25.40 | -70.13 | -50.83 | 2.00 | 3.20 |
| UC7421ZS | -75.00 | 25.40 | -105.20 | -75.83 | 2.00 | 2.80 |
| UC7414ZS | -100.00 | 25.40 | -140.27 | -100.83 | 2.00 | 2.60 |
| UC7142ZS | -200.00 | 25.40 | -280.53 | -200.83 | 2.00 | 2.30 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

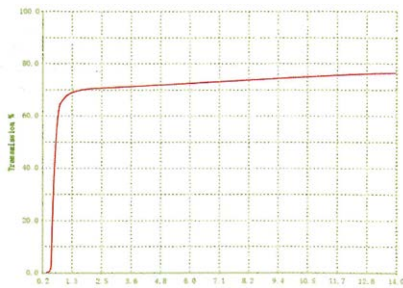
Plate Beam Splitters



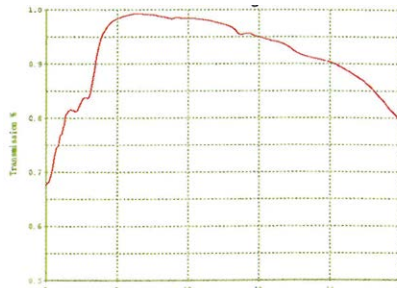
ZnSe Bi-Concave Lenses

| NO. | EFL(mm) | Dia(mm) | R1=R2(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|-----------|---------|--------|--------|
| UD7671ZS | -25.40 | 25.40 | -71.83 | -25.81 | 2.00 | 4.30 |
| UD7503ZS | -50.00 | 25.40 | -140.52 | -50.41 | 2.00 | 3.20 |
| UD7877ZS | -75.00 | 25.40 | -210.98 | -75.42 | 2.00 | 2.80 |
| UD7071ZS | -100.00 | 25.40 | -281.12 | -100.42 | 2.00 | 2.60 |
| UD7902ZS | -200.00 | 25.40 | -561.65 | -200.42 | 2.00 | 2.30 |

With a transmission range from 600nm--16 μ m, Zinc Selenide lenses are ideal for IR applications. Due to the low absorption coefficient, these lenses are also particularly well suited for high-power CO₂ laser applications. In contrast to Ge and Si, which also transmit in this spectral range, ZnSe transmits some visible light, thereby allowing for visual alignment of the optic.



ZnSe Material Transmission Chart

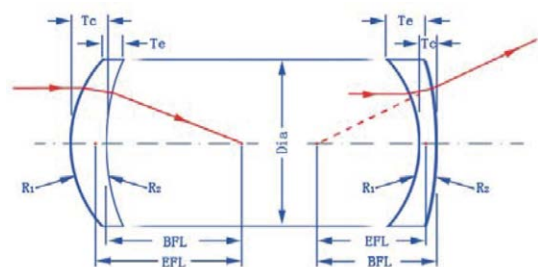
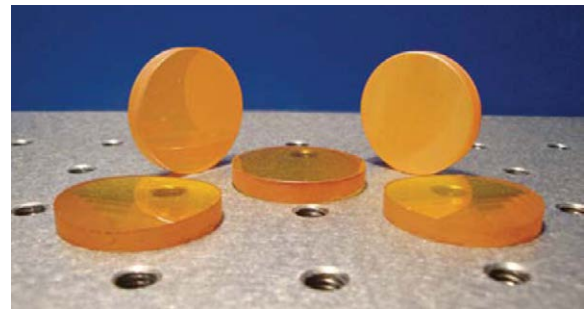


ZnSe IR AR Coating 8-12 μ m

Commercial Grade ZnSe Meniscus Lenses

Specification

| | |
|------------------------|----------------------------|
| Material | ZnSe (Zinc Selenide) |
| Design Wavelength | 10.6 μ m |
| Focal Length Tolerance | $\pm 1\%$ |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2 mm |
| Surface Accuracy | $\lambda/2@632.8$ nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 8-12 μ m |



ZnSe Positive Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | Radius | | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|--------|---------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UE7246ZS | 15.00 | 12.70 | 7.50 | 9.03 | 11.62 | 2.90 | 2.00 |
| UE7276ZS | 20.00 | 12.70 | 7.50 | 7.85 | 15.33 | 3.00 | 2.70 |
| UE7963ZS | 40.00 | 12.70 | 10.88 | 11.32 | 33.56 | 3.00 | 2.90 |
| UE7185ZS | 25.40 | 25.40 | 15.50 | 22.58 | 20.90 | 4.70 | 2.00 |
| UE7981ZS | 50.00 | 25.40 | 15.50 | 16.90 | 42.47 | 4.00 | 3.10 |
| UE7996ZS | 75.00 | 25.40 | 20.97 | 23.27 | 66.65 | 4.00 | 3.50 |
| UE7031ZS | 100.00 | 25.40 | 28.36 | 32.62 | 91.77 | 4.00 | 3.60 |
| UE7667ZS | 150.00 | 25.40 | 42.71 | 50.66 | 141.80 | 4.00 | 3.70 |
| UE7898ZS | 200.00 | 25.40 | 57.69 | 69.69 | 191.91 | 4.00 | 3.80 |
| UE7495ZS | 500.00 | 25.40 | 146.10 | 181.59 | 492.01 | 4.00 | 3.90 |
| UE7117ZS | 750.00 | 25.40 | 219.57 | 274.54 | 742.02 | 4.00 | 3.90 |
| UE7199ZS | 1000.00 | 25.40 | 293.05 | 367.49 | 992.03 | 4.00 | 3.90 |

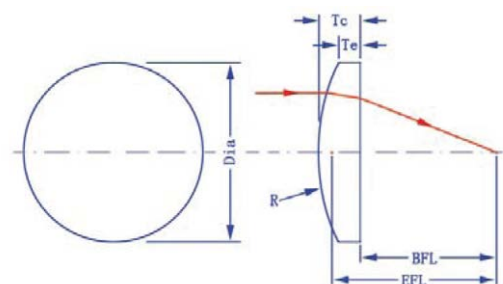
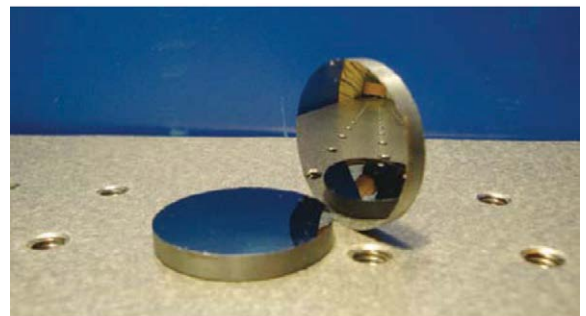
ZnSe Negative Meniscus Lenses

| NO. | EFL(mm) | Dia(mm) | Radius | | BFL(mm) | Tc(mm) | Te(mm) |
|----------|----------|---------|--------|--------|----------|--------|--------|
| | | | R1(mm) | R2(mm) | | | |
| UF7769ZS | -15.00 | 12.70 | 7.50 | 13.47 | -17.33 | 2.00 | 3.90 |
| UF7134ZS | -20.00 | 12.70 | 7.90 | 12.63 | -22.96 | 2.00 | 3.50 |
| UF7185ZS | -40.00 | 12.70 | 7.65 | 10.88 | -49.16 | 3.00 | 4.30 |
| UF7733ZS | -25.40 | 25.40 | 15.50 | 31.57 | -29.23 | 4.00 | 8.00 |
| UF7601ZS | -50.00 | 25.40 | 15.56 | 23.00 | -57.50 | 4.00 | 6.70 |
| UF7053ZS | -75.00 | 25.40 | 15.53 | 20.97 | -86.27 | 4.00 | 6.30 |
| UF7785ZS | -100.00 | 25.40 | 21.65 | 28.36 | -110.79 | 4.00 | 5.10 |
| UF7113ZS | -150.00 | 25.40 | 33.56 | 42.71 | -160.44 | 4.00 | 4.60 |
| UF7321ZS | -200.00 | 25.40 | 45.92 | 57.69 | -210.17 | 4.00 | 4.40 |
| UF7639ZS | -500.00 | 25.40 | 118.98 | 146.10 | -509.81 | 4.00 | 4.10 |
| UF7589ZS | -750.00 | 25.40 | 179.73 | 219.57 | -759.74 | 4.00 | 4.10 |
| UF7573ZS | -1000.00 | 25.40 | 240.47 | 293.05 | -1009.71 | 4.00 | 4.10 |

Commercial Grade Germanium Plano-Convex Lenses

Specification

| | |
|------------------------|-----------------------|
| Material | Ge (Germanium) |
| Design Wavelength | 10.6μm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.2mm |
| Surface Accuracy | λ/2 @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 8-12 μm |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

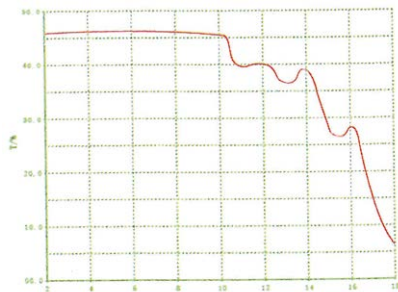
Circular Variable Neutral Density Filters

Plate Beam Splitters

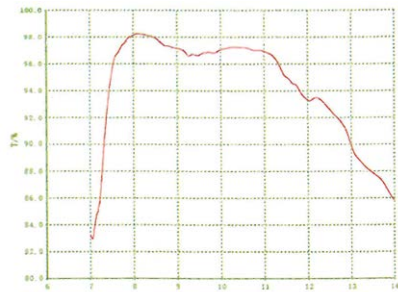


| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|---------|---------|--------|--------|
| UA9410GE | 15.00 | 12.70 | 45.04 | 14.38 | 2.50 | 2.00 |
| UA9015GE | 20.00 | 12.70 | 60.06 | 19.43 | 2.30 | 2.00 |
| UA9280GE | 40.00 | 12.70 | 120.11 | 39.45 | 2.20 | 2.00 |
| UA9509GE | 25.40 | 25.40 | 76.27 | 24.63 | 3.10 | 2.00 |
| UA9659GE | 50.00 | 25.40 | 150.14 | 49.00 | 4.00 | 3.50 |
| UA9977GE | 75.00 | 25.40 | 225.21 | 74.00 | 4.00 | 3.60 |
| UA9928GE | 100.00 | 25.40 | 300.28 | 99.00 | 4.00 | 3.70 |
| UA9701GE | 150.00 | 25.40 | 450.42 | 149.00 | 4.00 | 3.80 |
| UA9792GE | 200.00 | 25.40 | 600.56 | 199.00 | 4.00 | 3.90 |
| UA9953GE | 500.00 | 25.40 | 1501.39 | 499.48 | 2.10 | 2.00 |
| UA9702GE | 750.00 | 25.40 | 2252.09 | 749.50 | 2.00 | 2.00 |
| UA9942GE | 1000.00 | 25.40 | 3002.79 | 999.50 | 2.00 | 2.00 |

The transmission window of Germanium, extends from 2-16 μ m, which makes it ideal for long wave infrared imaging application. These Ge Plano-Convex lenses are AR-coated for optimal transmission of infrared light in the 8-12 μ m region.



GeMaterial Transmission Chart

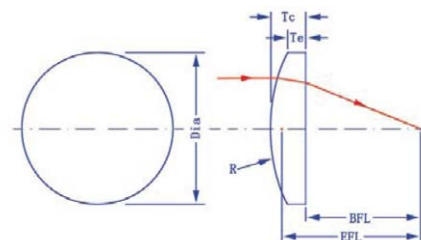
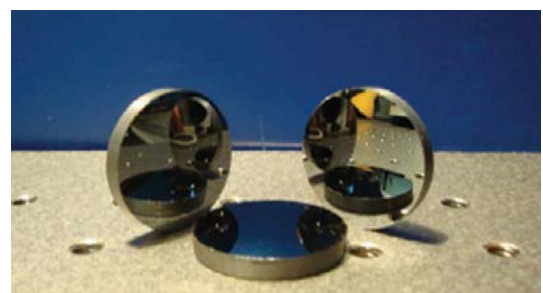


Ge IR AR Coating 8 μ m-12 μ m

Commercial Grade Silicon Plano-Convex Lenses

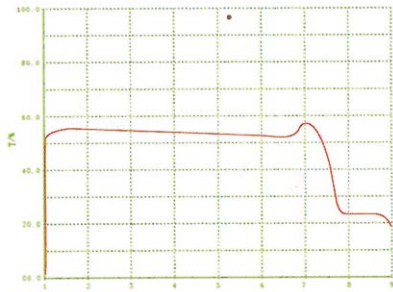
Specification

| | |
|------------------------|---------------------------|
| Material | Si (Silicon) |
| Design Wavelength | 4 μ m |
| Focal Length Tolerance | $\pm 1\%$ |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2 mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45 $^\circ$ |
| Coating | IR AR Coating 3-5 μ m |



| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|---------|---------|--------|--------|
| UA8308SI | 15.00 | 12.70 | 36.38 | 14.24 | 2.60 | 2.00 |
| UA8126SI | 20.00 | 12.70 | 48.51 | 19.30 | 2.40 | 2.00 |
| UA8943SI | 40.00 | 12.70 | 97.01 | 39.36 | 2.20 | 2.00 |
| UA8281SI | 25.40 | 25.40 | 61.60 | 24.44 | 3.30 | 2.00 |
| UA8862SI | 50.00 | 25.40 | 121.27 | 48.83 | 4.00 | 3.30 |
| UA8949SI | 75.00 | 25.40 | 181.90 | 73.83 | 4.00 | 3.60 |
| UA8020SI | 100.00 | 25.40 | 242.53 | 98.83 | 4.00 | 3.70 |
| UA8336SI | 150.00 | 25.40 | 363.80 | 148.83 | 4.00 | 3.80 |
| UA8019SI | 200.00 | 25.40 | 485.06 | 198.83 | 4.00 | 3.80 |
| UA8023SI | 500.00 | 25.40 | 1212.65 | 499.39 | 2.10 | 2.00 |
| UA8599SI | 750.00 | 25.40 | 1818.98 | 749.42 | 2.00 | 2.00 |
| UA8810SI | 1000.00 | 25.40 | 2425.30 | 999.42 | 2.00 | 2.00 |

Silicon has a transmission window from 1.2 to 8 μm . Plano-Convex Lenses with silicon coatings are a common choice for imaging light with wavelengths between 3 and 5 μm . These lenses are AR coated to achieve optimal light transmission in that range.



SiMaterial Transmission Chart

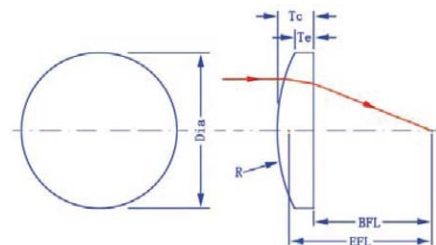


Si IR AR Coating 3 μm -5 μm

Commercial Grade MgF_2 Plano-Convex Lenses

Specification

| | |
|------------------------|--------------------------------------|
| Material | MgF_2 (Magnesium Fluoride) |
| Design Wavelength | 200nm, 480nm, 633nm, 2 μm |
| Focal Length Tolerance | $\pm 2\%$ |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | $\pm 0.2\text{mm}$ |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | Coating 3-5 μm |

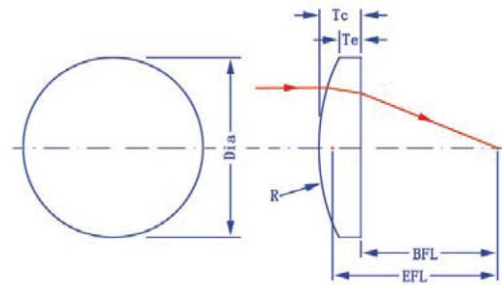


| NO. | EFL(mm) | | | | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|--------|---------|------------|---------|--------|---------|--------|--------|
| | 200nm | 486nm | 633nm | 2.0m μ | | | | | |
| UA6002MF | 44.64 | 49.68 | 50.10 | 51.35 | 25.40 | 18.89 | 39.79 | 6.90 | 2.00 |
| UA6004MF | 66.83 | 74.36 | 75.00 | 76.86 | 25.40 | 28.27 | 63.31 | 5.00 | 2.00 |
| UA6005MF | 89.37 | 99.45 | 100.30 | 102.79 | 25.40 | 37.81 | 86.35 | 4.30 | 2.10 |
| UA6006MF | 133.74 | 148.83 | 150.10 | 153.83 | 25.40 | 56.58 | 131.49 | 3.20 | 1.80 |
| UA6007MF | 178.20 | 198.31 | 200.00 | 204.97 | 25.40 | 75.40 | 175.96 | 3.20 | 2.10 |
| UA6008MF | 222.84 | 247.98 | 250.10 | 256.32 | 25.40 | 94.28 | 220.88 | 2.80 | 1.90 |
| UA6009MF | 445.51 | 495.76 | 500.00 | 512.43 | 25.40 | 188.49 | 443.68 | 2.60 | 2.20 |
| UA6010MF | 891.02 | 991.53 | 1000.00 | 1024.87 | 25.40 | 376.98 | 889.34 | 2.40 | 2.20 |

Commercial Grade BaF₂ Plano-Convex Lenses

Specification

| | |
|------------------------|------------------------------------|
| Material | BaF ₂ (Barium Fluoride) |
| Design Wavelength | 4.0 μ m |
| Focal Length Tolerance | $\pm 1\%$ |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2 mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 80-50 |
| Centration | <3 arc min |
| Clear Aperture | >80% |
| Bevelling | <0.2x45° |
| Coating | IR AR Coating 3-5 μ m |

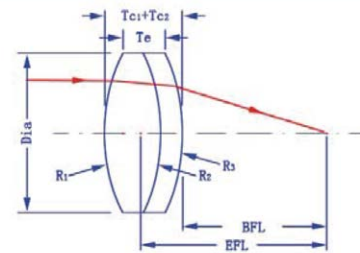
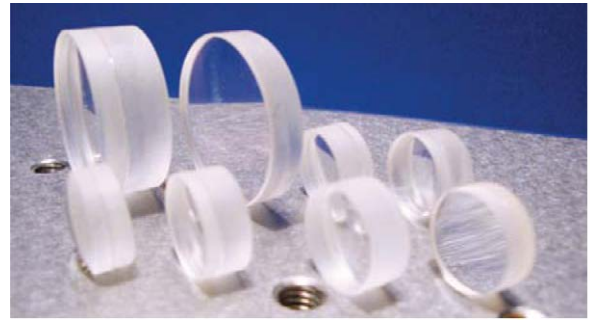


| NO. | EFL(mm) | Dia(mm) | R(mm) | BFL(mm) | Tc(mm) | Te(mm) |
|----------|---------|---------|--------|---------|--------|--------|
| UA0309BF | 15.00 | 12.70 | 6.85 | 10.68 | 6.30 | 2.00 |
| UA0506BF | 20.00 | 12.70 | 9.13 | 16.84 | 4.60 | 2.00 |
| UA0259BF | 40.00 | 12.70 | 18.27 | 37.87 | 3.10 | 2.00 |
| UA0583BF | 30.00 | 25.40 | 13.70 | 22.72 | 10.60 | 2.00 |
| UA0835BF | 50.00 | 25.40 | 22.83 | 45.95 | 5.90 | 2.00 |
| UA0270BF | 75.00 | 25.40 | 34.25 | 71.98 | 4.40 | 2.00 |
| UA0737BF | 100.00 | 25.40 | 45.67 | 97.39 | 3.80 | 2.00 |
| UA0618BF | 150.00 | 25.40 | 68.50 | 147.80 | 3.20 | 2.00 |
| UA0606BF | 200.00 | 25.40 | 91.34 | 198.01 | 2.90 | 2.00 |
| UA0978BF | 500.00 | 25.40 | 228.35 | 498.35 | 2.40 | 2.00 |
| UA0209BF | 750.00 | 25.40 | 342.52 | 748.49 | 2.20 | 2.00 |
| UA0820BF | 1000.00 | 25.40 | 456.70 | 998.49 | 2.20 | 2.00 |

Commercial Grade Positive Achromatic Doublets Lenses

Specification

| | |
|------------------------|---|
| Design Wavelength | A: 486.1nm 587.6nm 656.3nm B: 706.5nm 855nm 1015nm C: 1016nm 1330nm 1550nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.2mm |
| Surface Accuracy | λ/4 @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm" |



| NO. | EFL(mm) | Dia(mm) | BFL(mm) | Tc(mm) | Te(mm) | (Material) | |
|--------------|---------|---------|---------|--------|--------|----------------|-------------|
| | | | | | | CDGM | Schott |
| UAC050-008-A | 7.50 | 5.00 | 5.20 | 4.50 | 3.70 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC050-008-B | 7.50 | 5.00 | 4.80 | 4.60 | 3.80 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC050-008-C | 7.50 | 5.00 | 5.20 | 4.00 | 3.10 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC050-010-A | 10.00 | 5.00 | 7.90 | 4.40 | 3.70 | BAK7ZF2 | BAK4SF5 |
| UAC050-010-B | 10.00 | 5.00 | 8.00 | 3.80 | 3.20 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC050-010-C | 10.00 | 5.00 | 6.90 | 4.00 | 3.30 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC050-015-A | 15.00 | 5.00 | 13.60 | 4.80 | 4.30 | H-K9LZF1 | BK7SF2 |
| UAC050-015-B | 15.00 | 5.00 | 13.00 | 4.00 | 3.60 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC050-015-C | 15.00 | 5.00 | 11.60 | 3.30 | 2.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC060-010-A | 10.00 | 6.00 | 7.90 | 4.00 | 3.00 | BAK7ZF2 | BAK4SF5 |
| UAC060-010-B | 10.00 | 6.00 | 8.10 | 4.00 | 2.30 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC060-010-C | 10.00 | 6.00 | 8.50 | 4.80 | 3.90 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC064-013-A | 12.70 | 6.35 | 10.30 | 4.00 | 3.10 | BAK7ZF2 | BAK4SF5 |
| UAC064-013-B | 12.70 | 6.35 | 10.70 | 3.90 | 3.10 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC064-013-C | 12.70 | 6.35 | 11.40 | 4.10 | 3.30 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC064-015-A | 15.00 | 6.35 | 13.00 | 4.00 | 3.20 | H-K9LZF1 | BK7SF2 |
| UAC064-015-B | 15.00 | 6.35 | 13.10 | 3.90 | 3.20 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC064-015-C | 15.00 | 6.35 | 14.40 | 3.60 | 2.90 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC080-010-A | 10.00 | 8.00 | 6.70 | 6.50 | 4.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC080-010-B | 10.00 | 8.00 | 7.00 | 5.80 | 4.40 | LAK8H-ZF7L | LAK10SFL6 |
| UAC080-010-C | 10.00 | 8.00 | 7.10 | 5.50 | 3.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC080-016-A | 16.00 | 8.00 | 13.90 | 4.00 | 3.10 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC080-016-B | 16.00 | 8.00 | 14.00 | 4.00 | 3.00 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC080-016-C | 16.00 | 8.00 | 12.30 | 4.80 | 3.80 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC080-020-A | 20.00 | 8.00 | 17.80 | 4.00 | 3.00 | H-K9LZF1 | BK7SF2 |
| UAC080-020-B | 20.00 | 8.00 | 18.20 | 3.60 | 2.80 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC080-020-C | 20.00 | 8.00 | 15.70 | 4.60 | 3.70 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC127-019-A | 19.00 | 12.70 | 15.70 | 6.00 | 4.00 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC127-019-B | 19.00 | 12.70 | 15.50 | 6.00 | 3.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UAC127-019-C | 19.00 | 12.70 | 15.40 | 6.50 | 4.30 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC127-025-A | 25.00 | 12.70 | 21.50 | 7.00 | 5.60 | H-ZBAF52ZF4 | BAFN10SF10 |
| UAC127-025-B | 25.00 | 12.70 | 21.10 | 7.00 | 5.40 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC127-025-C | 25.00 | 12.70 | 20.30 | 6.20 | 4.50 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC127-030-A | 30.00 | 12.70 | 27.50 | 5.00 | 3.40 | H-K9LZF1 | BK7SF2 |
| UAC127-030-B | 30.00 | 12.70 | 27.30 | 5.00 | 3.70 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UAC127-030-C | 30.00 | 12.70 | 24.50 | 6.20 | 4.80 | H-LAK10 H-ZF7L | LAKN22 SFL6 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

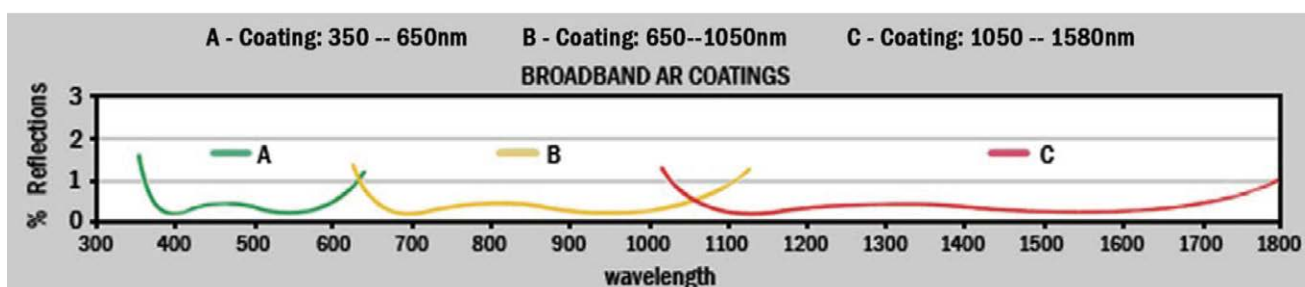
Circular Variable Neutral Density Filters

Plate Beam Splitters

| NO. | EFL(mm) | Dia(mm) | BFL(mm) | Tc(mm) | Te(mm) | (Material) | |
|--------------|---------|---------|---------|--------|--------|-----------------|-------------|
| | | | | | | CDGM | Schott |
| UAC127-050-A | 50.00 | 12.70 | 47.20 | 5.00 | 4.00 | H-K9LZF1 | BK7 SF2 |
| UAC127-050-B | 50.00 | 12.70 | 46.20 | 5.00 | 4.20 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC127-050-C | 50.00 | 12.70 | 43.50 | 5.50 | 4.60 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC127-075-A | 75.00 | 12.70 | 72.90 | 4.00 | 3.40 | H-K9LZF1 | BK7 SF2 |
| UAC127-075-B | 75.00 | 12.70 | 72.00 | 4.00 | 3.50 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC127-075-C | 75.00 | 12.70 | 69.70 | 4.50 | 3.90 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-030-A | 30.00 | 25.40 | 22.90 | 14.00 | 8.80 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-030-B | 30.00 | 25.40 | 23.00 | 13.50 | 8.20 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-030-C | 30.00 | 25.40 | 22.20 | 14.80 | 9.40 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-035-A | 35.00 | 25.40 | 27.30 | 14.00 | 9.60 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-035-B | 35.00 | 25.40 | 28.40 | 12.00 | 7.50 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-035-C | 35.00 | 25.40 | 27.40 | 13.30 | 8.70 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-040-A | 40.00 | 25.40 | 33.40 | 12.50 | 7.40 | H-K9LZF2 | BK7 SF5 |
| UAC254-040-B | 40.00 | 25.40 | 32.80 | 12.50 | 8.60 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-040-C | 40.00 | 25.40 | 32.80 | 11.80 | 7.70 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-045-A | 45.00 | 25.40 | 40.20 | 9.00 | 5.70 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-045-B | 45.00 | 25.40 | 39.60 | 9.40 | 5.90 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-045-C | 45.00 | 25.40 | 36.70 | 11.40 | 7.70 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-050-A | 50.00 | 25.40 | 43.40 | 11.50 | 8.70 | H-ZBAF52ZF4 | BAFN10 SF10 |
| UAC254-050-B | 50.00 | 25.40 | 45.00 | 9.30 | 6.20 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-050-C | 50.00 | 25.40 | 41.20 | 10.80 | 7.40 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-060-A | 60.00 | 25.40 | 54.30 | 10.50 | 8.20 | ZBAF16ZF4 | BAF11 SF10 |
| UAC254-060-B | 60.00 | 25.40 | 55.80 | 7.70 | 5.10 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-060-C | 60.00 | 25.40 | 50.50 | 10.10 | 7.20 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-075-A | 75.00 | 25.40 | 70.30 | 9.50 | 6.90 | H-K9LZF2 | BK7 SF5 |
| UAC254-075-B | 75.00 | 25.40 | 69.90 | 6.60 | 4.50 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-075-C | 75.00 | 25.40 | 64.90 | 9.40 | 7.10 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-100-A | 100.00 | 25.40 | 97.10 | 6.50 | 4.70 | H-K9LZF2 | BK7 SF5 |
| UAC254-100-B | 100.00 | 25.40 | 97.10 | 5.50 | 4.00 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-100-C | 100.00 | 25.40 | 90.30 | 8.30 | 6.60 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-150-A | 150.00 | 25.40 | 146.10 | 7.90 | 6.60 | H-K9LZF2 | BK7 SF5 |
| UAC254-150-B | 150.00 | 25.40 | 144.60 | 7.50 | 6.50 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-150-C | 150.00 | 25.40 | 140.60 | 7.50 | 6.30 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC254-200-A | 200.00 | 25.40 | 194.00 | 6.50 | 5.70 | H-ZBAF50H-LAF4 | SSKN5 LAFN7 |
| UAC254-200-B | 200.00 | 25.40 | 194.80 | 8.00 | 7.30 | H-LAK10ZF4 | LAKN22 SF10 |
| UAC254-200-C | 200.00 | 25.40 | 193.10 | 7.00 | 6.10 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC254-250-A | 250.00 | 25.40 | 246.70 | 6.00 | 5.20 | H-K9LZF1 | BK7 SF2 |
| UAC254-250-B | 250.00 | 25.40 | 237.50 | 5.50 | 4.70 | ZF2H-ZF7L | SF5 SFL6 |
| UAC254-250-C | 250.00 | 25.40 | 235.30 | 7.00 | 6.00 | ZF1H-ZF7L | SF2 SFL6 |
| UAC254-300-A | 300.00 | 25.40 | 297.00 | 6.00 | 5.40 | H-K9LZF1 | BK7 SF2 |
| UAC254-300-B | 300.00 | 25.40 | 290.00 | 6.00 | 5.30 | ZF2H-ZF7L | SF5 SFL6 |
| UAC254-300-C | 300.00 | 25.40 | 285.90 | 7.00 | 6.20 | ZF1H-ZF7L | SF2 SFL6 |
| UAC254-400-A | 400.00 | 25.40 | 396.00 | 6.00 | 5.50 | H-K9LZF1 | BK7 SF2 |
| UAC254-400-B | 400.00 | 25.40 | 391.10 | 5.30 | 4.80 | ZF2H-ZF7L | SF5 SFL6 |
| UAC254-400-C | 400.00 | 25.40 | 386.80 | 6.70 | 6.10 | ZF1H-ZF7L | SF2 SFL6 |
| UAC254-500-A | 500.00 | 25.40 | 499.90 | 6.00 | 5.60 | H-K9LZF1 | BK7 SF2 |
| UAC254-500-B | 500.00 | 25.40 | 480.80 | 6.00 | 5.60 | ZF4H-ZF7L | SF10 SFL6 |
| UAC254-500-C | 500.00 | 25.40 | 486.90 | 5.50 | 5.00 | ZF1H-ZF7L | SF2 SFL6 |
| UAC300-050-A | 50.00 | 30.00 | 44.30 | 10.50 | 6.30 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-050-B | 50.00 | 30.00 | 42.90 | 11.50 | 7.20 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-050-C | 50.00 | 30.00 | 44.70 | 12.00 | 7.70 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-080-A | 80.00 | 30.00 | 74.30 | 10.50 | 7.90 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-080-B | 80.00 | 30.00 | 75.30 | 8.50 | 5.80 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC300-080-C | 80.00 | 30.00 | 68.40 | 11.50 | 8.50 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-100-A | 100.00 | 30.00 | 96.40 | 7.00 | 5.00 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-100-B | 100.00 | 30.00 | 94.00 | 8.00 | 5.90 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC300-100-C | 100.00 | 30.00 | 88.00 | 10.70 | 8.30 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-075-A | 75.00 | 50.80 | 61.70 | 23.00 | 14.90 | H-ZBAF16ZF13 | BAF11 SF11 |
| UAC508-075-B | 75.00 | 50.80 | 65.70 | 17.00 | 9.20 | H-LAK10 H-ZF7L | LAKN22 SFL6 |
| UAC508-075-C | 75.00 | 50.80 | 63.00 | 21.50 | 13.10 | H-ZBAF52 H-ZF7L | BAFN10 SFL6 |
| UAC508-080-A | 80.00 | 50.80 | 69.90 | 18.00 | 10.50 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-080-B | 80.00 | 50.80 | 69.50 | 18.00 | 10.30 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-080-C | 80.00 | 50.80 | 66.90 | 20.50 | 12.60 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-100-A | 100.00 | 50.80 | 89.00 | 20.00 | 14.40 | H-ZBAF52ZF4 | BAFN10 SF10 |
| UAC508-100-B | 100.00 | 50.80 | 91.50 | 15.00 | 8.70 | H-LAK10H-ZF7L | LAKN22 SFL6 |



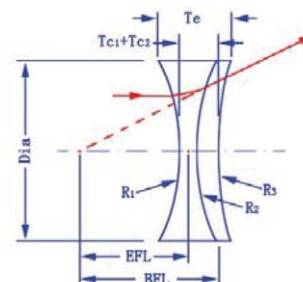
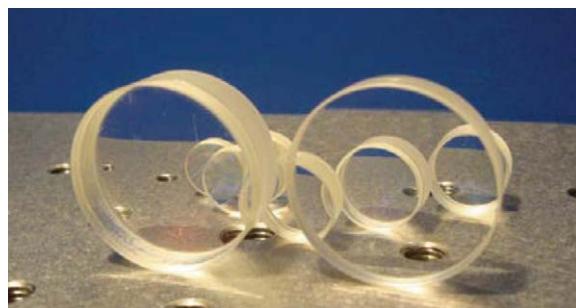
| NO. | EFL(mm) | Dia(mm) | BFL(mm) | Tc(mm) | Te(mm) | (Material) | |
|---------------|---------|---------|---------|--------|--------|----------------|-------------|
| | | | | | | CDGM | Schott |
| UAC508-100-C | 100.00 | 50.80 | 83.00 | 19.50 | 12.80 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-150-A | 150.00 | 50.80 | 141.00 | 15.00 | 9.70 | H-K9LZF2 | BK7 SF5 |
| UAC508-150-B | 150.00 | 50.80 | 145.30 | 13.20 | 9.30 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-150-C | 150.00 | 50.80 | 117.70 | 23.00 | 17.70 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-200-A | 200.00 | 50.80 | 193.70 | 10.50 | 6.70 | H-K9LZF1 | BK7 SF2 |
| UAC508-200-B | 200.00 | 50.80 | 193.20 | 13.20 | 10.10 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-200-C | 200.00 | 50.80 | 182.70 | 15.00 | 11.40 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-250-A | 250.00 | 50.80 | 244.60 | 9.50 | 6.40 | H-K9LZF1 | BK7 SF2 |
| UAC508-250-B | 250.00 | 50.80 | 252.30 | 9.20 | 6.80 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-250-C | 250.00 | 50.80 | 234.40 | 13.00 | 10.20 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-300-A | 300.00 | 50.80 | 295.40 | 8.00 | 5.40 | H-K9LZF1 | BK7 SF2 |
| UAC508-300-B | 300.00 | 50.80 | 295.10 | 9.20 | 7.20 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-300-C | 300.00 | 50.80 | 287.40 | 11.50 | 9.10 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-400-A | 400.00 | 50.80 | 396.10 | 7.00 | 5.10 | H-K9LZF1 | BK7 SF2 |
| UAC508-400-B | 400.00 | 50.80 | 393.60 | 7.10 | 5.60 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-400-C | 400.00 | 50.80 | 391.10 | 9.50 | 7.80 | H-ZBAF52H-ZF7L | BAFN10 SFL6 |
| UAC508-500-A | 500.00 | 50.80 | 495.80 | 7.00 | 5.50 | H-K9LZF1 | BK7 SF2 |
| UAC508-500-B | 500.00 | 50.80 | 497.00 | 7.10 | 5.90 | H-LAK10H-ZF7L | LAKN22 SFL6 |
| UAC508-500-C | 500.00 | 50.80 | 474.40 | 11.80 | 9.90 | ZF2H-ZF7L | SF5 SFL6 |
| UAC508-750-A | 750.00 | 50.80 | 746.50 | 6.50 | 5.50 | H-K9LZF1 | BK7 SF2 |
| UAC508-750-B | 750.00 | 50.80 | 744.80 | 6.70 | 6.00 | H-ZBAF52ZF4 | BAFN10 SF10 |
| UAC508-750-C | 750.00 | 50.80 | 711.00 | 11.80 | 10.70 | ZF4H-ZF7L | SF10 SFL6 |
| UAC508-1000-A | 1000.00 | 50.80 | 994.60 | 6.00 | 5.20 | H-K9LZF1 | BK7 SF2 |
| UAC508-1000-B | 1000.00 | 50.80 | 993.40 | 7.00 | 6.40 | H-ZBAF52ZF4 | BAFN10 SF10 |
| UAC508-1000-C | 1000.00 | 50.80 | 990.50 | 9.00 | 8.10 | ZF2H-ZF7L | SF5 SFL6 |



Commercial Grade Negative Achromatic Doublets Lenses

Specification

| | |
|------------------------|--|
| Design Wavelength | A: 486.1nm 587.6nm 656.3nm B: 706.5nm 855nm 1015nm C: 1016nm 1330nm 1550nm |
| Focal Length Tolerance | ±1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ±0.2mm |
| Surface Accuracy | λ/4 @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters

| No. | EFL(mm) | Dia(mm) | BFL(mm) | Tc(mm) | Te(mm) | Material | |
|---------------|---------|---------|---------|--------|--------|----------------|------------|
| | | | | | | CDGM | Schott |
| UACN127-020-A | -20.00 | 12.70 | -22.30 | 4.50 | 6.30 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN127-020-B | -20.00 | 12.70 | -22.50 | 4.50 | 6.40 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN127-025-A | -25.00 | 12.70 | -27.00 | 4.00 | 5.40 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN127-025-B | -25.00 | 12.70 | -27.70 | 4.30 | 5.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN127-030-A | -30.00 | 12.70 | -32.20 | 3.80 | 5.70 | BAK7ZF2 | BAK4SF5 |
| UACN127-030-B | -30.00 | 12.70 | -32.00 | 4.00 | 5.30 | H-LAK10H-ZF7L | LAKN22SFL6 |
| UACN127-050-A | -50.00 | 12.70 | -52.30 | 3.70 | 4.60 | BAK7ZF2 | BAK4SF5 |
| UACN127-050-B | -50.00 | 12.70 | -52.50 | 3.50 | 4.30 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN254-040-A | -40.00 | 25.40 | -43.60 | 7.00 | 10.60 | H-ZBAF52ZF13 | BAFN10SF11 |
| UACN254-040-B | -40.00 | 25.40 | -43.40 | 6.00 | 9.80 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN254-050-A | -50.00 | 25.40 | -53.20 | 6.50 | 9.40 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN254-050-B | -50.00 | 25.40 | -53.80 | 6.00 | 9.10 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN254-075-A | -75.00 | 25.40 | -78.80 | 6.30 | 8.60 | BAK7ZF2 | BAK4SF5 |
| UACN254-075-B | -75.00 | 25.40 | -78.90 | 5.80 | 7.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |
| UACN254-100-A | -100.00 | 25.40 | -103.60 | 6.00 | 7.70 | BAK7ZF2 | BAK4SF5 |
| UACN254-100-B | -100.00 | 25.40 | -103.90 | 5.40 | 6.90 | H-ZBAF52H-ZF7L | BAFN10SFL6 |

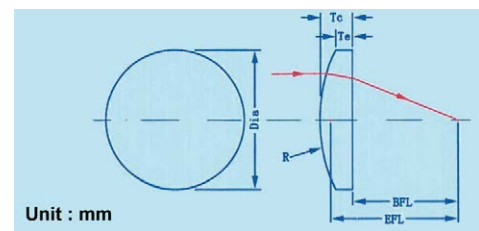
Commercial Grade Ø1" N-BK7 Plano-Convex Singlet Lens Kit - Uncoated

Specification

| | |
|------------------------|------------------------------|
| Material | N-BK7 |
| Design Wavelength | 632.8 nm |
| Focal Length Tolerance | + / -1% |
| Diameter Tolerance | +0 / -0.1 mm |
| Thickness Tolerance | + / -0.1 mm |
| Surface Quality | 40-20 |
| Surface Accuracy | $\lambda / 4@632.8\text{nm}$ |
| Centration | < 3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2 x 45° |



Model:PXLK-1



| Part# | Diameter | Effective Focal Length | Radius Of Curvature | Center Thickness | Edge Thickness | Back Focal Length |
|------------------------|----------|------------------------|---------------------|------------------|----------------|-------------------|
| PXLK-1 Included | | | | | | |
| UA1951K | 25.4 | 25.4 | 13.07 | 11.7 | 1.8 | 17.68 |
| UA1027K | 25.4 | 35 | 18.01 | 7.2 | 2 | 30.25 |
| UA1131K | 25.4 | 50 | 25.73 | 5.3 | 2 | 46.50 |
| UA1608K | 25.4 | 75 | 38.50 | 4.1 | 2 | 72.30 |
| UA1509K | 25.4 | 100 | 51.47 | 3.6 | 2 | 97.62 |
| UA1986K | 25.4 | 125 | 64.33 | 3.3 | 2 | 122.82 |
| UA4133K | 25.4 | 150 | 77.20 | 3.1 | 2 | 147.95 |
| UA1708K | 25.4 | 200 | 102.93 | 2.8 | 2 | 198.15 |
| UA1461K | 25.4 | 250 | 128.66 | 2.6 | 2 | 248.28 |
| UA1484K | 25.4 | 300 | 154.40 | 2.5 | 2 | 298.35 |
| UA1172K | 25.4 | 400 | 205.86 | 2.4 | 2 | 398.42 |
| UA1908K | 25.4 | 500 | 257.33 | 2.3 | 2 | 498.48 |
| UA1978K | 25.4 | 750 | 385.99 | 2.2 | 2 | 748.55 |
| UA1464K | 25.4 | 1000 | 514.65 | 2.2 | 2 | 998.55 |



Commercial Grade

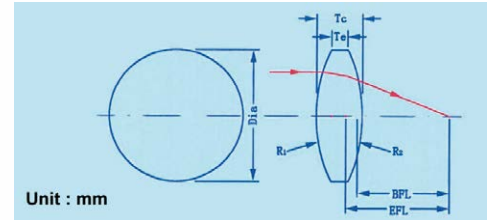
Ø1" N-BK7 Bi-Convex Singlet Lens Kit - Uncoated

Specification

| | |
|------------------------|--------------------------------|
| Material | N-BK7 (Schott BK7) |
| Design Wavelength | 632.8nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.1mm |
| Surface Accuracy | $\lambda / 4 @ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Centration | < 3 arc min |
| Clear Aperture | > 90% |
| Bevelling | < 0.2 x 45° |



Model: DXLK-1



| Part# | Diameter | Effective Focal Length | Radius Of Curvature | Center Thickness | Edge Thickness | Back Focal Length |
|------------------------|----------|------------------------|---------------------|------------------|----------------|-------------------|
| DXLK-1 Included | | | | | | |
| UB1761K | 25.4 | 25.4 | 24.53 | 9.0 | 1.9 | 22.23 |
| UB1811K | 25.4 | 35 | 34.86 | 6.8 | 2.2 | 32.68 |
| UB1471K | 25.4 | 50 | 50.61 | 5.2 | 2 | 48.25 |
| UB1901K | 25.4 | 75 | 76.56 | 4.1 | 2 | 73.63 |
| UB1676K | 25.4 | 100 | 102.4 | 3.6 | 2 | 98.81 |
| UB1904K | 25.4 | 125 | 128.21 | 3.3 | 2 | 123.91 |
| UB1437K | 25.4 | 150 | 154.00 | 3.1 | 2 | 148.97 |
| UB1945K | 25.4 | 200 | 205.56 | 2.8 | 2 | 199.07 |
| UB1056K | 25.4 | 250 | 257.10 | 2.6 | 2 | 249.14 |
| UB1779K | 25.4 | 300 | 308.63 | 2.5 | 2 | 299.17 |
| UB1391k | 25.4 | 400 | 411.66 | 2.4 | 2 | 399.21 |
| UB1869K | 25.4 | 500 | 514.70 | 2.3 | 2 | 499.24 |
| UB1475K | 25.4 | 750 | 772.26 | 2.2 | 2 | 749.27 |
| UB1409K | 25.4 | 1000 | 1029.81 | 2.2 | 2 | 999.27 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



Molded Glass Standard Aspheric Lenses

Specifications

- * Benefit from the quality and performance of all-glass aspheres
- * Easily transition from prototype phase to high-volume production
- * Customize to fit your application or choose from over 100 standard aspheric designs.
- * RoHS-compliant, ultra-high quality glass



Aspheric lenses are known for their optimal performance but the expense of fabricating them has inhibited their use. LightPath's glass molding technology has enabled high volume production of aspheric optics while maintaining the highest quality at an affordable price. Because molding is the most consistent and economical way to produce aspheres in large volumes, LightPath has perfected this method to offer the most precise aspheric lens available. LightPath offers standard and custom-made lenses, all designed by our expert optical design engineers.

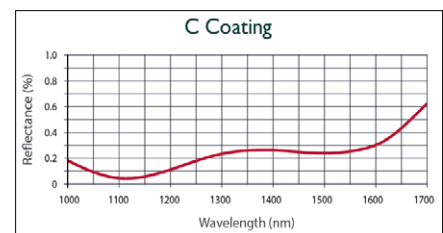
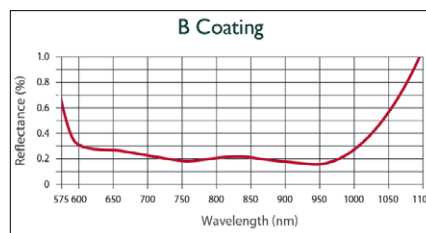
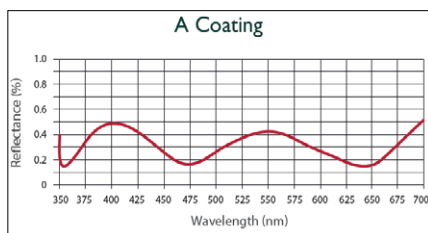
Manufacturing Tolerances

| Parameter | Typical Tolerance |
|-------------------------------|-------------------|
| Focal Length | ± 1% |
| Center Thickness (CT) | ± 0.025mm |
| Outer Diameter (OD) | ± 0.015mm |
| Wedge (arcmin) | 4 |
| Power/Irregularity (fringes) | 3/1 |
| Surface Roughness | 15nm |
| Surface Quality (scratch/dig) | 40/20 |

Standard Anti-Reflective Coatings

| Coating | λ Range (nm) | Reflectivity |
|---------|---------------|-----------------------|
| A | 350 - 700nm | $R_{avg} \leq 0.50\%$ |
| B | 600 - 1050nm | $R_{max} < 1.00\%$ |
| C | 1050 - 1600nm | $R_{max} < 1.00\%$ |

Typical Coating Curves

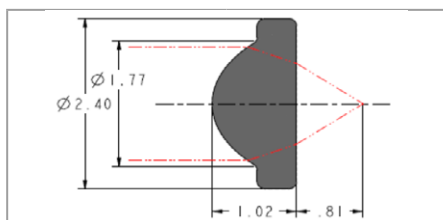


Ordering Information

| | Part Number | | | | Numerical Aperture | Focal Length (mm) | Outer Diameter (mm) |
|---------|-------------|-----------|-----------|-----------|--------------------|-------------------|---------------------|
| | Uncoated | A coating | B coating | C coating | | | |
| L354140 | L354140-A | L354140-B | L354140-C | 0.58 | 1.45 | 2.4 | |
| L355390 | L355390-A | L355390-B | L355390-C | 0.55 | 2.75 | 4.5 | |
| L355392 | L355392-A | L355392-B | L355392-C | 0.6 | 2.8 | 4 | |
| L355660 | L355660-A | L355660-B | L355660-C | 0.52 | 2.976 | 4 | |
| L354350 | L354350-A | L354350-B | L354350-C | 0.43 | 4.5 | 4.7 | |
| L354430 | L354430-A | L354430-B | L354430-C | 0.15 | 5 | 2 | |
| L354560 | L354560-A | L354560-B | L354560-C | 0.18 | 13.86 | 6.33 | |

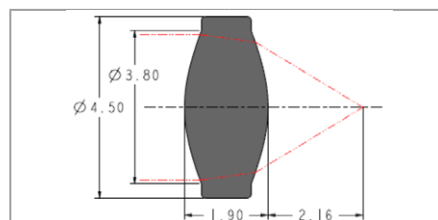
Molded Glass Standard Aspheric Lenses

Product Description



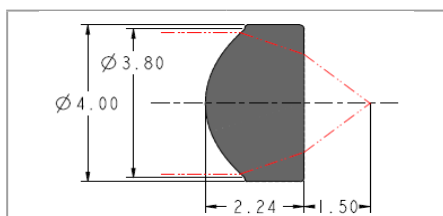
L354140

| | |
|--------------------|---------------|
| Design Wavelength | 780nm |
| Numerical Aperture | 0.58 |
| Focal Length | 1.45mm |
| Clear Aperture | 1.60 / 1.14mm |
| Working Distance | 0.81mm |
| Outer Diameter | 2.4mm |



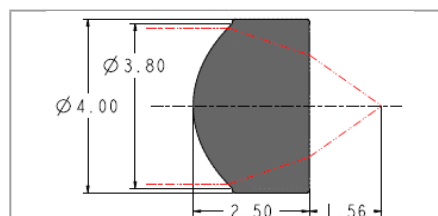
L355390

| | |
|--------------------|---------------|
| Design Wavelength | 830nm |
| Numerical Aperture | 0.55 |
| Focal Length | 2.75mm |
| Clear Aperture | 3.60 / 3.24mm |
| Working Distance | 2.16mm |
| Outer Diameter | 4.5mm |



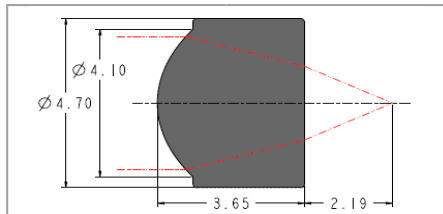
L355392

| | |
|--------------------|---------------|
| Design Wavelength | 830nm |
| Numerical Aperture | 0.6 |
| Focal Length | 2.8mm |
| Clear Aperture | 3.60 / 2.25mm |
| Working Distance | 1.5mm |
| Outer Diameter | 4.0mm |



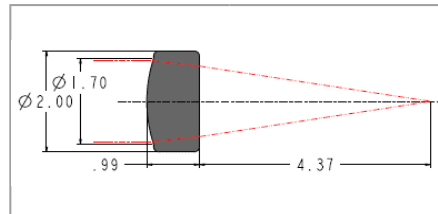
L355660

| | |
|--------------------|---------------|
| Design Wavelength | 1550nm |
| Numerical Aperture | 0.52 |
| Focal Length | 2.976mm |
| Clear Aperture | 3.60 / 2.35mm |
| Working Distance | 1.56mm |
| Outer Diameter | 4.0mm |



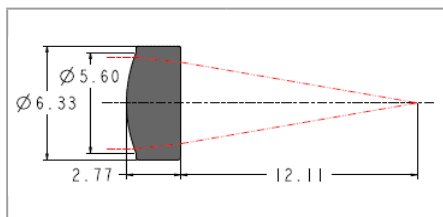
L354350

| | |
|--------------------|---------------|
| Design Wavelength | 980nm |
| Numerical Aperture | 0.43 |
| Focal Length | 4.5mm |
| Clear Aperture | 3.70 / 2.05mm |
| Working Distance | 2.19mm |
| Outer Diameter | 4.7mm |



L354430

| | |
|--------------------|---------------|
| Design Wavelength | 1550nm |
| Numerical Aperture | 0.15 |
| Focal Length | 5.0mm |
| Clear Aperture | 1.60 / 1.40mm |
| Working Distance | 4.37mm |
| Outer Diameter | 2.0mm |



L354560

| | |
|--------------------|---------------|
| Design Wavelength | 650nm |
| Numerical Aperture | 0.18 |
| Focal Length | 13.86mm |
| Clear Aperture | 5.10 / 4.54mm |
| Working Distance | 12.11mm |
| Outer Diameter | 6.33mm |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



Mounted Molded Glass Aspheric Lenses

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters

- * Cost-effective solution for mounting Geltech aspheres
- * Easy to handle assembly
- * Durable stainless steel housing
- * Threaded extension for easy mounting



Ordering Information

| Part Number | | | | Holder Type | EFL (mm) | Numerical Aperture |
|-------------|-------------|-------------|-------------|-------------|----------|--------------------|
| Uncoated | A coating | B coating | C coating | | | |
| L354140MT | L354140MT-A | L354140MT-B | L354140MT-C | MT6A | 1.45 | 0.58 |
| L355390MT | L355390MT-A | L355390MT-B | L355390MT-C | MT8 | 2.75 | 0.55 |
| L355392MT | L355392MT-A | L355392MT-B | L355392MT-C | MT8 | 2.8 | 0.6 |
| L355660MT | L355660MT-A | L355660MT-B | L355660MT-C | MT8 | 2.976 | 0.52 |
| L354350MT | NA | L354350MT-B | L354350MT-C | MT8 | 4.5 | 0.43 |
| L354430MT | L354430MT-A | L354430MT-B | L354430MT-C | MT6B | 5 | 0.15 |
| L352240MT | L352240MT-A | L352240MT-B | L352240MT-C | MT12 | 8 | 0.5 |
| L354560MT | L354560MT-A | L354560MT-B | L354560MT-C | MT9 | 13.86 | 0.18 |

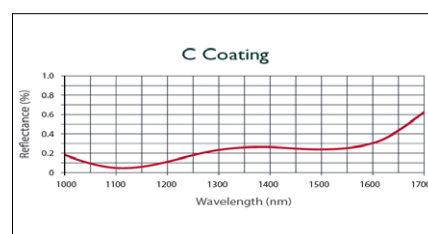
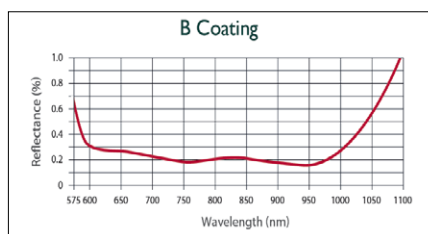
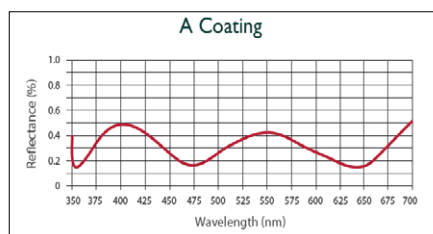
General Specifications and Tolerances

| | |
|----------------------------|---------------------|
| HolderMaterial | Stainless Steel 304 |
| Holder Outer Diameter | ± 0.025mm |
| Holder Inner Diameter | ± 0.100mm |
| Holder Length | ± 0.100mm |
| Length of Threaded Section | ± 0.100mm |

Standard Anti-Reflective Coatings

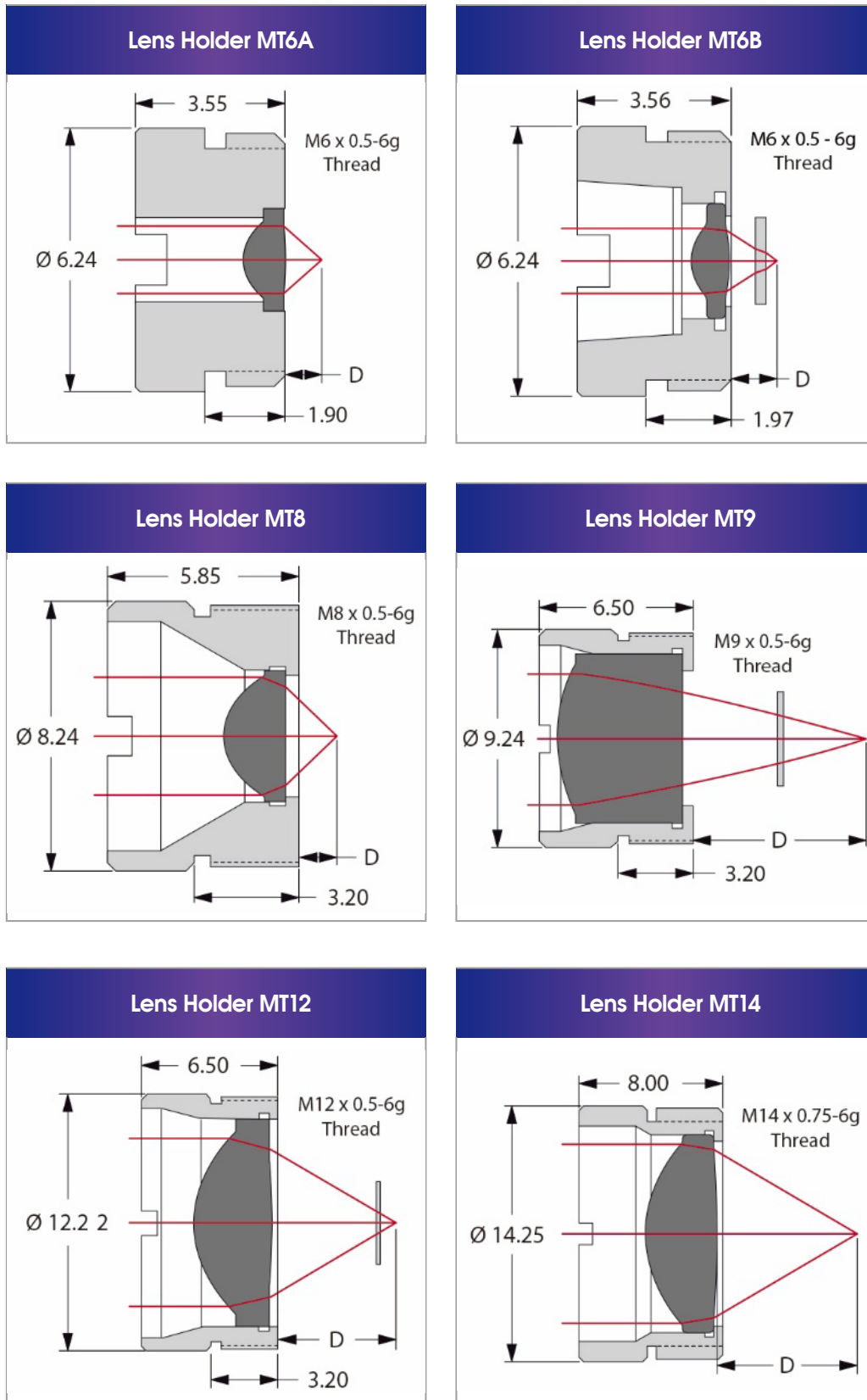
| Coating | λ Range (nm) | Reflectivity |
|---------|---------------|--------------|
| A | 350 - 700nm | Ravg ≤ 0.50% |
| B | 600 - 1050nm | Rmax < 1.00% |
| C | 1050 - 1600nm | Rmax < 1.00% |

Typical Coating Curves



Mounted Molded Glass Aspheric Lenses

Product Description



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

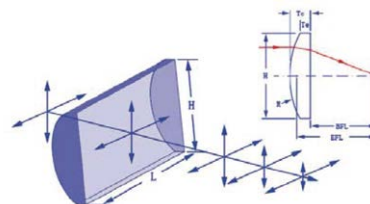
Plate Beam Splitters



Commercial Grade N-BK7 Plano-Convex Cylindrical Lenses

Specifications

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | λ/4 @632.8nm |
| Surface Quality | 60-40 |
| 偏心 / Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



Ordering Information

Model No : UJ1598L1K - □

AR Coating Wavelength :

- A = 350-650nm
- B = 650-1050nm
- C = 1050-1580nm

Example :

- UJ1598L1K Non AR Coating
- UJ1598L1K-B AR Coating 650-1050nm

Techspec

| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|---------|-------|-------|-------|--------|--------|---------|
| UJ1598L1K | 3.90 | 2.02 | 6.00 | 4.00 | 3.80 | 2.00 | 1.39 |
| UJ1598L2K | 3.90 | 2.02 | 8.00 | 4.00 | 3.80 | 2.00 | 1.39 |
| UJ1310L1K | 4.00 | 2.07 | 6.00 | 4.00 | 3.56 | 2.00 | 1.65 |
| UJ1310L2K | 4.00 | 2.07 | 8.00 | 4.00 | 3.56 | 2.00 | 1.65 |
| UJ1918L1K | 5.80 | 3.00 | 6.00 | 4.00 | 2.76 | 2.00 | 3.98 |
| UJ1918L2K | 5.80 | 3.00 | 8.00 | 4.00 | 2.76 | 2.00 | 3.98 |
| UJ1227L1K | 6.35 | 3.28 | 8.00 | 6.00 | 3.95 | 2.00 | 3.75 |
| UJ1227L2K | 6.35 | 3.28 | 12.00 | 6.00 | 3.95 | 2.00 | 3.75 |
| UJ1874L1K | 7.70 | 3.98 | 9.00 | 7.00 | 4.09 | 2.00 | 5.00 |
| UJ1874L2K | 7.70 | 3.98 | 14.00 | 7.00 | 4.09 | 2.00 | 5.00 |
| UJ1822L1K | 9.70 | 5.01 | 12.00 | 10.00 | 6.69 | 2.00 | 5.29 |
| UJ1822L2K | 9.70 | 5.01 | 20.00 | 10.00 | 6.69 | 2.00 | 5.29 |
| UJ1878L1K | 10.00 | 5.17 | 12.00 | 10.00 | 5.88 | 2.00 | 6.12 |
| UJ1878L2K | 10.00 | 5.17 | 20.00 | 10.00 | 5.88 | 2.00 | 6.12 |
| UJ1942L1K | 12.70 | 6.56 | 12.00 | 10.00 | 4.31 | 2.00 | 9.86 |
| UJ1942L2K | 12.70 | 6.56 | 20.00 | 10.00 | 4.31 | 2.00 | 9.86 |
| UJ1805L1K | 12.70 | 6.56 | 15.00 | 13.00 | 7.67 | 2.00 | 7.64 |
| UJ1805L2K | 12.70 | 6.56 | 26.00 | 13.00 | 7.67 | 2.00 | 7.64 |
| UJ1909L1K | 13.70 | 7.08 | 15.00 | 13.00 | 6.27 | 2.00 | 9.57 |
| UJ1909L2K | 13.70 | 7.08 | 26.00 | 13.00 | 6.27 | 2.00 | 9.57 |
| UJ1636L1K | 15.00 | 7.75 | 12.00 | 10.00 | 3.82 | 2.00 | 12.48 |
| UJ1636L2K | 15.00 | 7.75 | 20.00 | 10.00 | 3.82 | 2.00 | 12.48 |
| UJ1095L1K | 19.00 | 9.82 | 18.00 | 16.00 | 6.13 | 2.00 | 14.96 |
| UJ1095L2K | 19.00 | 9.82 | 32.00 | 16.00 | 6.13 | 2.00 | 14.96 |
| UJ1155L1K | 19.70 | 10.18 | 18.00 | 16.00 | 5.88 | 2.00 | 15.82 |
| UJ1155L2K | 19.70 | 10.18 | 32.00 | 16.00 | 5.88 | 2.00 | 15.82 |
| UJ1960L1K | 20.00 | 10.34 | 12.00 | 10.00 | 3.29 | 2.00 | 17.83 |
| UJ1960L2K | 20.00 | 10.34 | 20.00 | 10.00 | 3.29 | 2.00 | 17.83 |
| UJ1328L1K | 20.00 | 10.34 | 17.00 | 15.00 | 5.22 | 2.00 | 16.56 |
| UJ1328L2K | 20.00 | 10.34 | 30.00 | 15.00 | 5.22 | 2.00 | 16.56 |
| UJ1638L1K | 22.20 | 11.47 | 15.00 | 12.50 | 3.85 | 2.00 | 19.66 |
| UJ1638L2K | 22.20 | 11.47 | 25.00 | 12.50 | 3.85 | 2.00 | 19.66 |
| UJ1810L1K | 25.00 | 12.92 | 12.00 | 10.00 | 3.00 | 2.00 | 23.02 |
| UJ1810L2K | 25.00 | 12.92 | 20.00 | 10.00 | 3.00 | 2.00 | 23.02 |
| UJ1075L1K | 25.00 | 12.92 | 22.00 | 20.00 | 6.74 | 2.00 | 20.56 |
| UJ1075L2K | 25.00 | 12.92 | 40.00 | 20.00 | 6.74 | 2.00 | 25.56 |
| UJ1014L1K | 25.40 | 13.13 | 18.00 | 16.00 | 4.72 | 2.00 | 22.29 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|---------|--------|--------|--------|--------|--------|---------|
| UJ1014L2K | 25.40 | 13.13 | 32.00 | 16.00 | 4.72 | 2.00 | 22.29 |
| UJ1622L1K | 25.40 | 13.13 | 28.00 | 25.40 | 11.82 | 2.00 | 17.61 |
| UJ1622L2K | 25.40 | 13.13 | 51.00 | 25.40 | 11.82 | 2.00 | 17.61 |
| UJ1212L1K | 30.00 | 15.50 | 22.00 | 20.00 | 5.65 | 2.00 | 26.28 |
| UJ1212L2K | 30.00 | 15.50 | 40.00 | 20.00 | 5.65 | 2.00 | 26.28 |
| UJ1765L1K | 38.10 | 19.69 | 28.00 | 25.40 | 6.64 | 2.00 | 33.72 |
| UJ1765L2K | 38.10 | 19.69 | 51.00 | 25.40 | 6.64 | 2.00 | 33.72 |
| UJ1402L1K | 40.00 | 20.67 | 12.00 | 10.00 | 2.61 | 2.00 | 38.28 |
| UJ1402L2K | 40.00 | 20.67 | 20.00 | 10.00 | 2.61 | 2.00 | 38.28 |
| UJ1125L1K | 40.00 | 20.67 | 22.00 | 20.00 | 4.57 | 2.00 | 36.99 |
| UJ1125L2K | 40.00 | 20.67 | 40.00 | 20.00 | 4.57 | 2.00 | 36.99 |
| UJ1821L1K | 50.00 | 25.84 | 22.00 | 20.00 | 4.01 | 2.00 | 47.36 |
| UJ1821L2K | 50.00 | 25.84 | 40.00 | 20.00 | 4.01 | 2.00 | 47.36 |
| UJ1695L1K | 50.00 | 25.84 | 32.00 | 30.00 | 6.80 | 2.00 | 45.52 |
| UJ1695L2K | 50.00 | 25.84 | 60.00 | 30.00 | 6.80 | 2.00 | 45.52 |
| UJ1728L1K | 50.80 | 26.25 | 53.00 | 50.80 | 21.62 | 2.00 | 36.55 |
| UJ1728L2K | 50.80 | 26.25 | 90.00 | 50.80 | 21.62 | 2.00 | 36.55 |
| UJ1430L1K | 60.00 | 31.01 | 32.00 | 30.00 | 5.87 | 2.00 | 56.13 |
| UJ1430L2K | 60.00 | 31.01 | 60.00 | 30.00 | 5.87 | 2.00 | 56.13 |
| UJ1036L1K | 60.00 | 31.01 | 62.00 | 60.00 | 25.18 | 2.00 | 43.40 |
| UJ1036L2K | 60.00 | 31.01 | 95.00 | 60.00 | 25.18 | 2.00 | 43.40 |
| UJ1993L1K | 62.90 | 32.51 | 53.00 | 50.80 | 14.22 | 2.00 | 53.52 |
| UJ1993L2K | 62.90 | 32.51 | 95.00 | 50.80 | 14.22 | 2.00 | 53.52 |
| UJ1477L1K | 70.00 | 36.18 | 32.00 | 30.00 | 5.25 | 2.00 | 66.54 |
| UJ1477L2K | 70.00 | 36.18 | 60.00 | 30.00 | 5.25 | 2.00 | 66.54 |
| UJ1703L1K | 75.00 | 38.76 | 53.00 | 50.80 | 11.48 | 2.00 | 67.43 |
| UJ1703L2K | 75.00 | 38.76 | 95.00 | 50.80 | 11.48 | 2.00 | 67.43 |
| UJ1054L1K | 75.60 | 39.07 | 28.00 | 25.40 | 5.12 | 3.00 | 72.22 |
| UJ1054L2K | 75.60 | 39.07 | 51.00 | 25.40 | 5.12 | 3.00 | 72.22 |
| UJ1258L1K | 75.60 | 39.07 | 53.00 | 50.80 | 12.38 | 3.00 | 67.44 |
| UJ1258L2K | 75.60 | 39.07 | 95.00 | 50.80 | 12.38 | 3.00 | 67.44 |
| UJ1105L1K | 80.00 | 41.34 | 22.00 | 20.00 | 4.22 | 3.00 | 77.22 |
| UJ1105L2K | 80.00 | 41.34 | 40.00 | 20.00 | 4.22 | 3.00 | 77.22 |
| UJ1520L1K | 80.00 | 41.34 | 82.00 | 80.00 | 33.89 | 3.00 | 57.66 |
| UJ1520L2K | 80.00 | 41.34 | 145.00 | 80.00 | 33.89 | 3.00 | 57.66 |
| UJ1567L1K | 100.00 | 51.68 | 32.00 | 30.00 | 5.22 | 3.00 | 96.56 |
| UJ1567L2K | 100.00 | 51.68 | 60.00 | 30.00 | 5.22 | 3.00 | 96.56 |
| UJ1268L1K | 100.00 | 51.68 | 90.00 | 100.00 | 41.63 | 3.00 | 72.55 |
| UJ1268L2K | 100.00 | 51.68 | 145.00 | 100.00 | 41.63 | 3.00 | 72.55 |
| UJ1640L1K | 130.00 | 67.18 | 32.00 | 30.00 | 4.69 | 3.00 | 126.91 |
| UJ1640L2K | 130.00 | 67.18 | 60.00 | 30.00 | 4.69 | 3.00 | 126.91 |
| UJ1934L1K | 150.00 | 77.52 | 22.00 | 20.00 | 3.64 | 3.00 | 147.60 |
| UJ1934L2K | 150.00 | 77.52 | 40.00 | 20.00 | 3.64 | 3.00 | 147.60 |
| UJ1629L1K | 150.00 | 77.52 | 32.00 | 30.00 | 4.46 | 3.00 | 147.06 |
| UJ1629L2K | 150.00 | 77.52 | 60.00 | 30.00 | 4.46 | 3.00 | 147.06 |
| UJ1895L1K | 150.00 | 77.52 | 90.00 | 100.00 | 21.28 | 3.00 | 135.97 |
| UJ1895L2K | 150.00 | 77.52 | 145.00 | 100.00 | 21.28 | 3.00 | 135.97 |
| UJ1653L1K | 200.00 | 103.36 | 32.00 | 30.00 | 4.09 | 3.00 | 197.30 |
| UJ1653L2K | 200.00 | 103.36 | 60.00 | 30.00 | 4.09 | 3.00 | 197.30 |
| UJ1309L1K | 200.00 | 103.36 | 90.00 | 100.00 | 15.89 | 3.00 | 189.52 |
| UJ1309L2K | 200.00 | 103.36 | 145.00 | 100.00 | 15.89 | 3.00 | 189.52 |
| UJ1277L1K | 250.00 | 129.20 | 22.00 | 20.00 | 3.38 | 3.00 | 247.77 |
| UJ1277L2K | 250.00 | 129.20 | 40.00 | 20.00 | 3.38 | 3.00 | 247.77 |
| UJ1267L1K | 250.00 | 129.20 | 62.00 | 60.00 | 6.53 | 3.00 | 245.69 |
| UJ1267L2K | 250.00 | 129.20 | 95.00 | 60.00 | 6.53 | 3.00 | 245.69 |
| UJ1558L1K | 300.00 | 155.04 | 32.00 | 30.00 | 3.72 | 3.00 | 297.55 |
| UJ1558L2K | 300.00 | 155.04 | 60.00 | 30.00 | 3.72 | 3.00 | 297.55 |
| UJ1996L1K | 300.00 | 155.04 | 62.00 | 60.00 | 5.93 | 3.00 | 296.09 |
| UJ1996L2K | 300.00 | 155.04 | 95.00 | 60.00 | 5.93 | 3.00 | 296.09 |
| UJ1363L1K | 400.00 | 206.72 | 32.00 | 30.00 | 3.54 | 3.00 | 397.67 |
| UJ1363L2K | 400.00 | 206.72 | 60.00 | 30.00 | 3.54 | 3.00 | 397.67 |
| UJ1144L1K | 500.00 | 258.40 | 32.00 | 30.00 | 3.43 | 3.00 | 497.74 |
| UJ1144L2K | 500.00 | 258.40 | 60.00 | 30.00 | 3.43 | 3.00 | 497.74 |
| UJ1836L1K | 700.00 | 361.76 | 32.00 | 30.00 | 3.31 | 3.00 | 697.82 |
| UJ1836L2K | 700.00 | 361.76 | 60.00 | 30.00 | 3.31 | 3.00 | 697.82 |
| UJ1516L1K | 1000.00 | 516.80 | 32.00 | 30.00 | 3.21 | 3.00 | 997.88 |
| UJ1516L2K | 1000.00 | 516.80 | 60.00 | 30.00 | 3.21 | 3.00 | 997.88 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

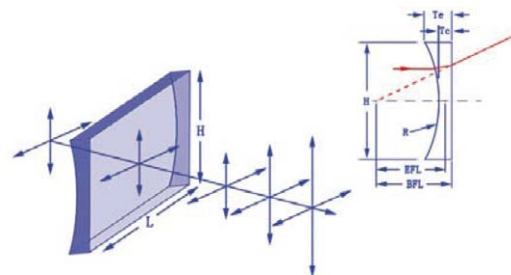
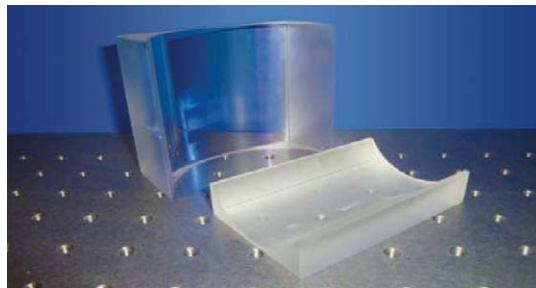
Plate Beam splitters



Commercial Grade N-BK7 Plano-Concave Cylindrical Lenses

Specifications

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |



Techspec

| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|---------|--------|-------|-------|--------|--------|---------|
| UK1395L1K | -3.90 | -2.02 | 6.00 | 4.00 | 2.00 | 2.70 | -5.22 |
| UK1395L2K | -3.90 | -2.02 | 8.00 | 4.00 | 2.00 | 2.70 | -5.22 |
| UK1597L1K | -4.00 | -2.07 | 6.00 | 4.00 | 2.00 | 2.60 | -5.32 |
| UK1597L2K | -4.00 | -2.07 | 8.00 | 4.00 | 2.00 | 2.60 | -5.32 |
| UK1523L1K | -5.80 | -3.00 | 6.00 | 4.00 | 2.00 | 2.40 | -7.12 |
| UK1523L2K | -5.80 | -3.00 | 8.00 | 4.00 | 2.00 | 2.40 | -7.12 |
| UK1087L1K | -6.40 | -3.31 | 8.00 | 6.00 | 2.00 | 3.20 | -7.72 |
| UK1087L2K | -6.40 | -3.31 | 12.00 | 6.00 | 2.00 | 3.20 | -7.72 |
| UK1363L1K | -7.70 | -3.98 | 9.00 | 7.00 | 2.00 | 3.40 | -9.02 |
| UK1363L2K | -7.70 | -3.98 | 14.00 | 7.00 | 2.00 | 3.40 | -9.02 |
| UK1836L1K | -9.70 | -5.01 | 12.00 | 10.00 | 2.00 | 4.80 | -11.02 |
| UK1836L2K | -9.70 | -5.01 | 20.00 | 10.00 | 2.00 | 4.80 | -11.02 |
| UK1684L1K | -12.70 | -6.56 | 12.00 | 10.00 | 2.00 | 3.80 | -14.02 |
| UK1684L2K | -12.70 | -6.56 | 20.00 | 10.00 | 2.00 | 3.80 | -14.02 |
| UK1816L1K | -13.70 | -7.08 | 15.00 | 13.00 | 2.00 | 5.30 | -15.02 |
| UK1816L2K | -13.70 | -7.08 | 26.00 | 13.00 | 2.00 | 5.30 | -15.02 |
| UK1753L1K | -15.00 | -7.75 | 12.00 | 10.00 | 2.00 | 3.40 | -16.32 |
| UK1753L2K | -15.00 | -7.75 | 20.00 | 10.00 | 2.00 | 3.40 | -16.32 |
| UK1037L1K | -19.00 | -9.82 | 21.00 | 19.00 | 2.00 | 7.90 | -20.32 |
| UK1037L2K | -19.00 | -9.82 | 38.00 | 19.00 | 2.00 | 7.90 | -20.32 |
| UK1085L1K | -20.00 | -10.34 | 17.00 | 15.00 | 2.00 | 4.70 | -21.32 |
| UK1085L2K | -20.00 | -10.34 | 30.00 | 15.00 | 2.00 | 4.70 | -21.32 |
| UK1006L1K | -22.20 | -11.47 | 15.00 | 12.50 | 2.00 | 3.50 | -23.52 |
| UK1006L2K | -22.20 | -11.47 | 25.00 | 12.50 | 2.00 | 3.50 | -23.52 |
| UK1426L1K | -25.00 | -12.92 | 12.00 | 10.00 | 2.00 | 2.80 | -26.32 |
| UK1426L2K | -25.00 | -12.92 | 20.00 | 10.00 | 2.00 | 2.80 | -26.32 |
| UK1900L1K | -25.40 | -13.13 | 18.00 | 16.00 | 2.00 | 4.40 | -26.72 |
| UK1900L2K | -25.40 | -13.13 | 32.00 | 16.00 | 2.00 | 4.40 | -26.72 |
| UK1787L1K | -25.40 | -13.13 | 28.00 | 25.40 | 2.00 | 10.30 | -26.72 |
| UK1787L2K | -25.40 | -13.13 | 51.00 | 25.40 | 2.00 | 10.30 | -26.72 |
| UK1982L1K | -30.00 | -15.50 | 22.00 | 20.00 | 2.00 | 5.30 | -31.32 |
| UK1982L2K | -30.00 | -15.50 | 40.00 | 20.00 | 2.00 | 5.30 | -31.32 |
| UK1325L1K | -38.10 | -19.69 | 28.00 | 26.00 | 2.00 | 6.50 | -39.42 |
| UK1325L2K | -38.10 | -19.69 | 52.00 | 26.00 | 2.00 | 6.50 | -39.42 |
| UK1283L1K | -40.00 | -20.67 | 12.00 | 10.00 | 2.00 | 2.50 | -41.32 |
| UK1283L2K | -40.00 | -20.67 | 20.00 | 10.00 | 2.00 | 2.50 | -41.32 |
| UK1662L1K | -50.00 | -25.84 | 22.00 | 20.00 | 2.00 | 3.80 | -51.32 |
| UK1662L2K | -50.00 | -25.84 | 40.00 | 20.00 | 2.00 | 3.80 | -51.32 |
| UK1336L1K | -50.00 | -25.84 | 32.00 | 30.00 | 2.00 | 6.50 | -51.32 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|----------|---------|--------|--------|--------|--------|----------|
| UK1336L2K | -50.00 | -25.84 | 60.00 | 30.00 | 2.00 | 6.50 | -51.32 |
| UK1792L1K | -50.80 | -26.25 | 53.00 | 50.80 | 2.00 | 19.90 | -52.12 |
| UK1792L2K | -50.80 | -26.25 | 90.00 | 50.80 | 2.00 | 19.90 | -52.12 |
| UK1995L1K | -60.00 | -31.01 | 32.00 | 30.00 | 2.00 | 5.60 | -61.32 |
| UK1995L2K | -60.00 | -31.01 | 60.00 | 30.00 | 2.00 | 5.60 | -61.32 |
| UK1015L1K | -60.00 | -31.01 | 62.00 | 60.00 | 2.00 | 23.50 | -61.32 |
| UK1015L2K | -60.00 | -31.01 | 95.00 | 60.00 | 2.00 | 23.50 | -61.32 |
| UK1216L1K | -62.90 | -32.51 | 53.00 | 50.80 | 2.00 | 13.60 | -64.22 |
| UK1216L2K | -62.90 | -32.51 | 95.00 | 50.80 | 2.00 | 13.60 | -64.22 |
| UK1913L1K | -70.00 | -36.18 | 32.00 | 30.00 | 2.00 | 5.00 | -71.32 |
| UK1913L2K | -70.00 | -36.18 | 60.00 | 30.00 | 2.00 | 5.00 | -71.32 |
| UK1431L1K | -75.00 | -38.76 | 53.00 | 50.80 | 2.00 | 11.10 | -76.32 |
| UK1431L2K | -75.00 | -38.76 | 90.00 | 50.80 | 2.00 | 11.10 | -76.32 |
| UK1689L1K | -75.60 | -39.07 | 53.00 | 50.80 | 3.00 | 12.00 | -77.58 |
| UK1689L2K | -75.60 | -39.07 | 90.00 | 50.80 | 3.00 | 12.00 | -77.58 |
| UK1526L1K | -80.00 | -41.34 | 22.00 | 20.00 | 3.00 | 4.10 | -81.98 |
| UK1526L2K | -80.00 | -41.34 | 40.00 | 20.00 | 3.00 | 4.10 | -81.98 |
| UK1310L1K | -80.00 | -41.34 | 82.00 | 80.00 | 3.00 | 32.10 | -81.98 |
| UK1310L2K | -80.00 | -41.34 | 145.00 | 80.00 | 3.00 | 32.10 | -81.98 |
| UK1743L1K | -100.00 | -51.68 | 32.00 | 30.00 | 3.00 | 5.10 | -101.98 |
| UK1743L2K | -100.00 | -51.68 | 60.00 | 30.00 | 3.00 | 5.10 | -101.98 |
| UK1936L1K | -100.00 | -51.68 | 90.00 | 100.00 | 3.00 | 39.90 | -101.98 |
| UK1936L2K | -100.00 | -51.68 | 145.00 | 100.00 | 3.00 | 39.90 | -101.98 |
| UK1819L1K | -130.00 | -67.18 | 32.00 | 30.00 | 3.00 | 4.60 | -131.98 |
| UK1819L2K | -130.00 | -67.18 | 60.00 | 30.00 | 3.00 | 4.60 | -131.98 |
| UK1419L1K | -150.00 | -77.52 | 32.00 | 30.00 | 3.00 | 4.40 | -151.98 |
| UK1419L2K | -150.00 | -77.52 | 60.00 | 30.00 | 3.00 | 4.40 | -151.98 |
| UK1956L1K | -150.00 | -77.52 | 90.00 | 100.00 | 3.00 | 20.90 | -151.98 |
| UK1956L2K | -150.00 | -77.52 | 145.00 | 100.00 | 3.00 | 20.90 | -151.98 |
| UK1069L1K | -200.00 | -103.36 | 32.00 | 30.00 | 3.00 | 4.00 | -201.98 |
| UK1069L2K | -200.00 | -103.36 | 60.00 | 30.00 | 3.00 | 4.00 | -201.98 |
| UK1115L1K | -200.00 | -103.36 | 90.00 | 100.00 | 3.00 | 15.60 | -201.98 |
| UK1115L2K | -200.00 | -103.36 | 145.00 | 100.00 | 3.00 | 15.60 | -201.98 |
| UK1030L1K | -250.00 | -129.20 | 32.00 | 30.00 | 3.00 | 3.80 | -251.98 |
| UK1030L2K | -250.00 | -129.20 | 60.00 | 30.00 | 3.00 | 3.80 | -251.98 |
| UK1984L1K | -300.00 | -155.04 | 62.00 | 60.00 | 3.00 | 5.80 | -301.98 |
| UK1984L2K | -300.00 | -155.04 | 95.00 | 60.00 | 3.00 | 5.80 | -301.98 |
| UK1487L1K | -400.00 | -206.72 | 32.00 | 30.00 | 3.00 | 3.50 | -401.98 |
| UK1487L2K | -400.00 | -206.72 | 60.00 | 30.00 | 3.00 | 3.50 | -401.98 |
| UK1281L1K | -500.00 | -258.40 | 32.00 | 30.00 | 3.00 | 3.40 | -501.98 |
| UK1281L2K | -500.00 | -258.40 | 60.00 | 30.00 | 3.00 | 3.40 | -501.98 |
| UK1220L1K | -700.00 | -361.76 | 32.00 | 30.00 | 3.00 | 3.30 | -701.98 |
| UK1220L2K | -700.00 | -361.76 | 60.00 | 30.00 | 3.00 | 3.30 | -701.98 |
| UK1002L1K | -1000.00 | -516.80 | 32.00 | 30.00 | 3.00 | 3.20 | -1001.98 |
| UK1002L2K | -1000.00 | -516.80 | 60.00 | 30.00 | 3.00 | 3.20 | -1001.98 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beamsplitters

Ordering Information

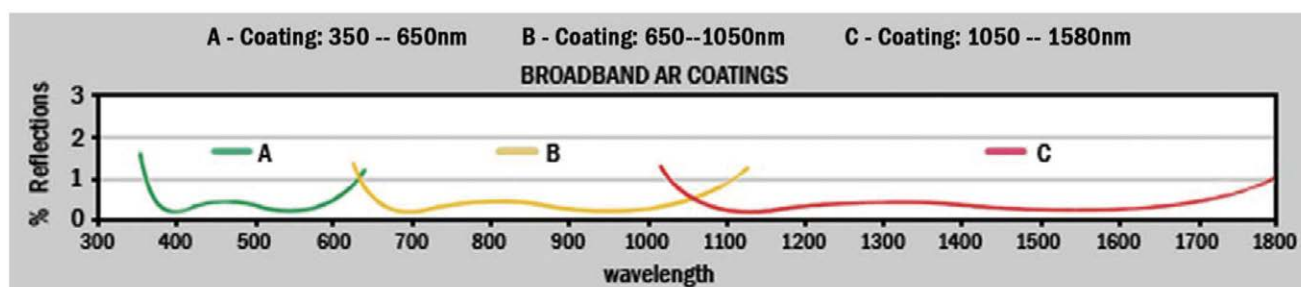
Model No : UK1395L1K -

AR Coating Wavelength :

A = 350-650nm
 B = 650-1050nm
 C = 1050-1580nm

Example :

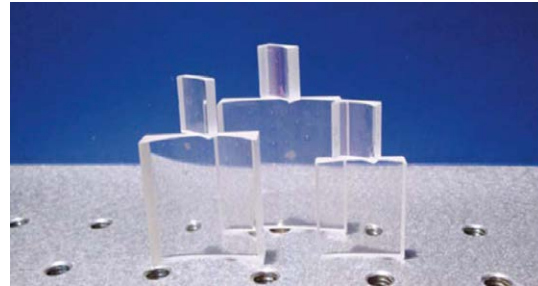
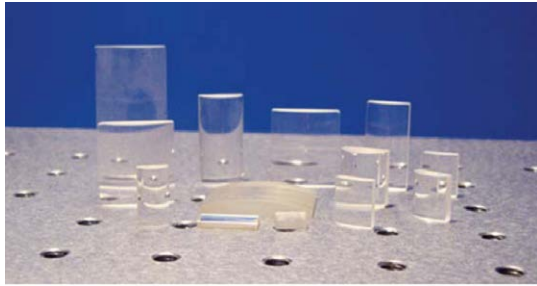
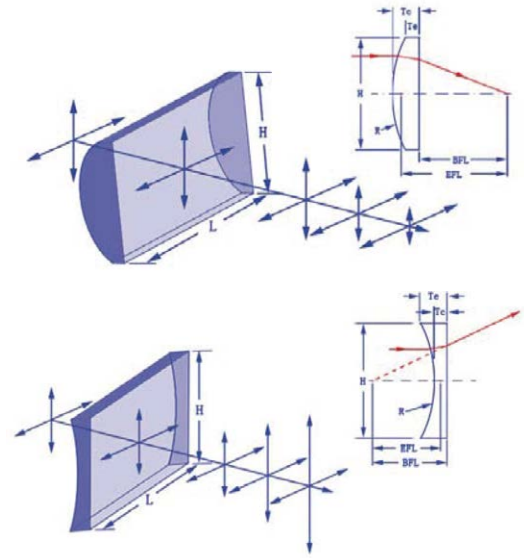
UK1395L1K Non AR Coating
 UK1395L1K-B AR Coating 650-1050nm



Commercial Grade UV-Grade Fused Silica Cylindrical Lenses

Specifications

| | |
|------------------------|-----------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm - 370nm |



UV-Grade Fused Silica Plano-Convex Cylindrical Lenses

| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|----------|---------|--------|-------|-------|--------|--------|---------|
| UJ4359FS | 8.00 | 3.67 | 11.00 | 7.20 | 4.90 | 2.00 | 4.64 |
| UJ4918FS | 10.00 | 4.58 | 14.00 | 9.00 | 5.60 | 2.00 | 6.16 |
| UJ4748FS | 12.70 | 5.82 | 15.00 | 10.00 | 4.80 | 2.00 | 9.41 |
| UJ4794FS | 25.00 | 11.46 | 15.00 | 10.00 | 3.10 | 2.00 | 22.87 |
| UJ4862FS | 25.00 | 11.46 | 23.00 | 15.00 | 4.80 | 2.00 | 21.71 |
| UJ4426FS | 25.00 | 11.46 | 30.00 | 20.00 | 7.80 | 2.00 | 19.65 |
| UJ4107FS | 25.40 | 11.65 | 35.00 | 23.00 | 11.60 | 2.00 | 17.45 |
| UJ4305FS | 30.00 | 13.75 | 30.00 | 20.00 | 6.30 | 2.00 | 25.68 |
| UJ4878FS | 75.00 | 34.38 | 30.00 | 20.00 | 3.50 | 2.00 | 72.60 |
| UJ4395FS | 100.00 | 45.85 | 45.00 | 30.00 | 5.50 | 3.00 | 96.23 |
| UJ4147FS | 500.00 | 229.25 | 45.00 | 30.00 | 3.50 | 3.00 | 497.60 |

UV-Grade Fused Silica Plano-Concave Cylindrical Lenses

| No. | EFL(mm) | R(mm) | L(mm) | H(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|----------|---------|---------|-------|-------|--------|--------|---------|
| UK4351FS | -8.00 | -3.67 | 11.00 | 7.20 | 2.00 | 4.90 | -9.37 |
| UK4372FS | -10.00 | -4.58 | 14.00 | 9.00 | 2.00 | 5.60 | -11.37 |
| UK4155FS | -12.70 | -5.82 | 15.00 | 10.00 | 2.00 | 4.80 | -14.07 |
| UK4836FS | -25.00 | -11.46 | 15.00 | 10.00 | 2.00 | 3.10 | -26.37 |
| UK4326FS | -25.00 | -11.46 | 23.00 | 15.00 | 2.00 | 4.80 | -26.37 |
| UK4767FS | -25.00 | -11.46 | 30.00 | 20.00 | 2.00 | 7.80 | -26.37 |
| UK4498FS | -25.40 | -11.65 | 33.00 | 22.00 | 2.00 | 9.70 | -26.77 |
| UK4166FS | -30.00 | -13.75 | 30.00 | 20.00 | 2.00 | 6.30 | -31.37 |
| UK4385FS | -75.00 | -34.39 | 30.00 | 20.00 | 2.00 | 3.50 | -76.37 |
| UK4245FS | -100.00 | -45.85 | 45.00 | 30.00 | 3.00 | 5.50 | -102.06 |
| UK4989FS | -500.00 | -229.25 | 45.00 | 30.00 | 3.00 | 3.50 | -502.06 |

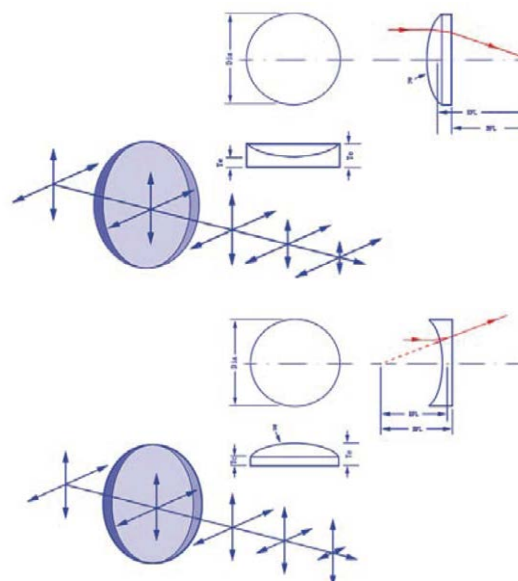
Spherical Lenses
Aspherical Lenses
Cylindrical Lenses
Mirrors
Windows
Circular Variable Neutral Density Filters
Plate Beam Splitters



Commercial Grade N-BK7 Round Cylindrical Lenses

Specifications

| | |
|------------------------|--|
| Material | N-BK7 |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |

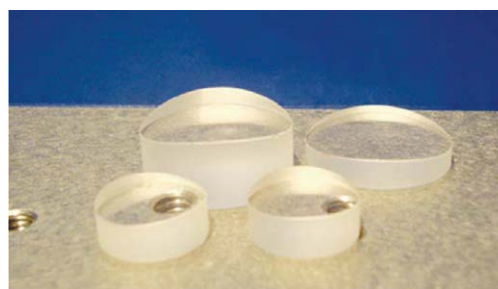
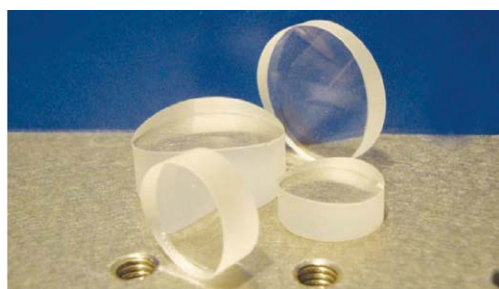


Ordering Information

Model No : UJ1695RK -

AR Coating Wavelength :
A = 350-650nm
B = 650-1050nm
C = 1050-1580nm

Example :
UJ1695RK Non AR Coating
UJ1695RK-B AR Coating 650-1050nm



N-BK7 Round Plano-Convex Cylindrical Lenses

| No. | EFL(mm) | Dia(mm) | R(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|----------|---------|---------|--------|--------|--------|---------|
| UJ1695RK | 50.00 | 23.36 | 25.84 | 6.80 | 3.46 | 45.52 |
| UJ1703RK | 75.00 | 23.36 | 38.76 | 11.48 | 9.34 | 67.43 |
| UJ1567RK | 100.00 | 23.36 | 51.68 | 5.22 | 3.64 | 96.56 |
| UJ1629RK | 150.00 | 23.36 | 77.52 | 4.46 | 3.41 | 147.06 |
| UJ1653RK | 200.00 | 23.36 | 103.36 | 4.09 | 3.31 | 197.30 |
| UJ1267RK | 250.00 | 23.36 | 129.20 | 6.53 | 5.90 | 245.69 |
| UJ1558RK | 300.00 | 23.36 | 155.04 | 3.72 | 3.23 | 297.55 |
| UJ1363RK | 400.00 | 23.36 | 206.72 | 3.54 | 3.15 | 397.67 |
| UJ1144RK | 500.00 | 23.36 | 258.40 | 3.43 | 3.12 | 497.74 |
| UJ1516RK | 1000.00 | 23.36 | 516.80 | 3.21 | 3.05 | 997.88 |

N-BK7 Round Plano-Concave Cylindrical Lenses

| No. | EFL(mm) | Dia(mm) | R(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|----------|----------|---------|---------|--------|--------|----------|
| UK1336RK | -50.00 | 25.40 | -25.84 | 2.00 | 5.34 | -51.32 |
| UK1431RK | -75.00 | 25.40 | -38.76 | 2.00 | 4.14 | -76.32 |
| UK1743RK | -100.00 | 25.40 | -51.68 | 3.00 | 4.58 | -101.98 |
| UK1419RK | -150.00 | 25.40 | -77.52 | 3.00 | 4.05 | -151.98 |
| UK1069RK | -200.00 | 25.40 | -103.36 | 3.00 | 3.78 | -201.98 |
| UK1030RK | -250.00 | 25.40 | -129.20 | 3.00 | 3.63 | -251.98 |
| UK1487RK | -400.00 | 25.40 | -206.72 | 3.00 | 3.39 | -401.98 |
| UK1002RK | -1000.00 | 25.40 | -516.80 | 3.00 | 3.16 | -1001.98 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

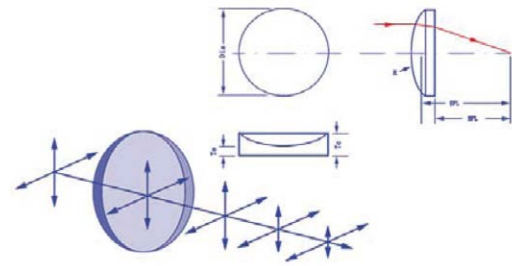
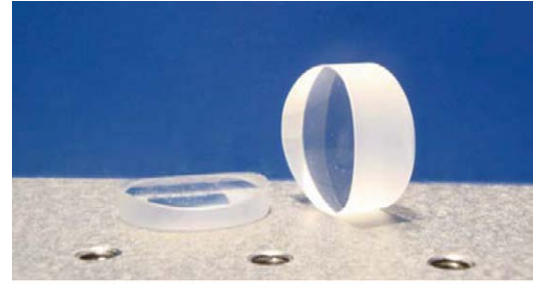
Plate Beam Splitters



Commercial Grade UV-Grade Fused Silica Round Plano-Convex Cylindrical Lenses

Specifications

| | |
|------------------------|-----------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm - 370nm |



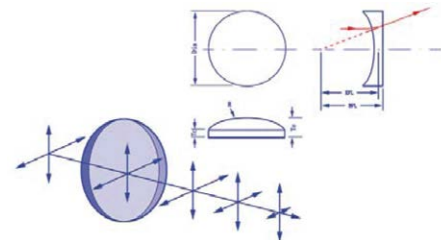
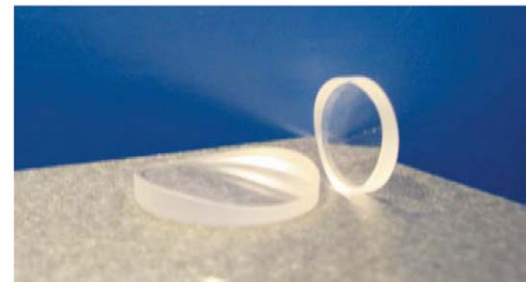
Techspec

| No. | EFL(mm) | Dia(mm) | R(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|---------|---------|--------|--------|--------|---------|
| UJ4305RFS | 30.00 | 25.40 | 13.72 | 10.50 | 2.00 | 22.80 |
| UJ4878RFS | 75.00 | 25.40 | 34.39 | 4.40 | 2.00 | 71.98 |
| UJ4395RFS | 100.00 | 25.40 | 45.85 | 4.80 | 3.00 | 96.71 |
| UJ4147RFS | 500.00 | 25.40 | 229.25 | 3.40 | 3.00 | 497.67 |

Commercial Grade UV-Grade Fused Silica Round Plano-Concave Cylindrical Lenses

Specifications

| | |
|------------------------|---------------------------|
| Material | UV-Grade Fused Silica |
| Design Wavelength | 587.6nm |
| Focal Length Tolerance | ± 1% |
| Diameter Tolerance | +0.0/-0.1mm |
| Thickness Tolerance | ± 0.2mm |
| Surface Accuracy | $\lambda/2$ @632.8nm |
| Surface Quality | 60-40 |
| Centration | <3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm-370nm |



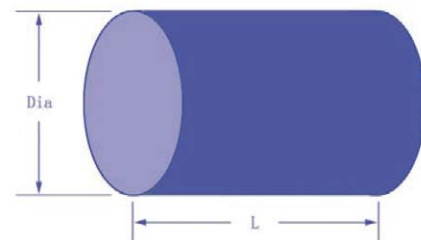
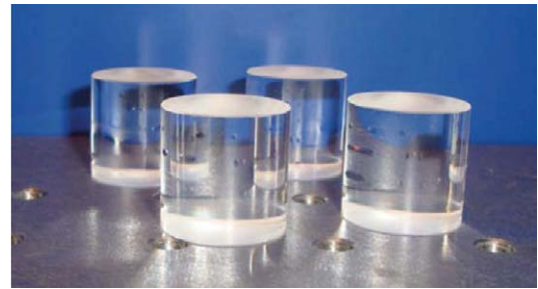
Techspec

| No. | EFL(mm) | Dia(mm) | R(mm) | Tc(mm) | Te(mm) | BFL(mm) |
|-----------|---------|---------|---------|--------|--------|---------|
| UK4166RFS | -30.00 | 25.40 | -13.75 | 2.00 | 10.50 | -31.37 |
| UK4385RFS | -75.00 | 25.40 | -34.39 | 2.00 | 4.40 | -76.37 |
| UK4245RFS | -100.00 | 25.40 | -45.85 | 3.00 | 4.80 | -102.06 |
| UK4989RFS | -500.00 | 25.40 | -229.25 | 3.00 | 3.40 | -502.06 |

Commercial Grade N-BK7 Rod Lenses

Specifications

| | |
|--------------------|------------------------|
| Material | N-BK7 |
| Diameter Tolerance | $\pm 0.01\text{mm}$ |
| Surface Quality | 60-40 |
| Ellipticity | $<0.005\text{mm}$ |
| Clear Aperture | $>90\%$ |
| Bevelling | $<0.2 \times 45^\circ$ |
| Coating | None |



Techspec

| No. | Dia(mm) | L(mm) |
|---------|---------|-------|
| UH0102K | 1.00 | 2.00 |
| UH0204K | 2.00 | 4.00 |
| UH0306K | 3.00 | 6.00 |
| UH0310K | 3.00 | 10.00 |
| UH0408K | 4.00 | 8.00 |
| UH0510K | 5.00 | 10.00 |
| UH0515K | 5.00 | 15.00 |
| UH0520K | 5.00 | 20.00 |
| UH0610K | 6.00 | 10.00 |
| UH0615K | 6.00 | 15.00 |
| UH0620K | 6.00 | 20.00 |
| UH0710K | 7.00 | 10.00 |
| UH0715K | 7.00 | 15.00 |
| UH0720K | 7.00 | 20.00 |
| UH0815K | 8.00 | 15.00 |
| UH0820K | 8.00 | 20.00 |
| UH0915K | 9.00 | 15.00 |
| UH0920K | 9.00 | 20.00 |
| UH1015K | 10.00 | 15.00 |
| UH1020K | 10.00 | 20.00 |
| UH1515K | 15.00 | 15.00 |
| UH1520K | 15.00 | 20.00 |
| UH2020K | 20.00 | 20.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

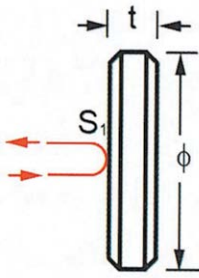
Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters



First Surface Reflective Mirror



- * Materials: BK-7 A grade or equivalent.
- * Scratch/Dig: 60 - 40.
- * Coating: Enhance AL on first surface.
- * Reflectivity: Average $\geq 90\%$
- * Angle of incidence (AOI): 45°
- * Wavelength: 400 - 700nm.
- * Low power laser application.

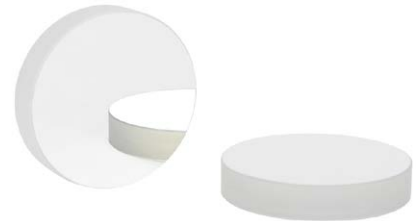
| Model | Φ (mm) | t(mm) | Flatness | Second surface |
|-------|-------------|-------|-------------|----------------|
| 1235A | 25.0 | 3.00 | $\lambda/4$ | polished |
| 1235B | 25.4 | 5.00 | $\lambda/4$ | grounded |
| 1239A | 50.8 | 8.00 | $\lambda/4$ | polished |



1235A



1235B



1239A

Commercial Grade N-BK7 Windows

Specifications

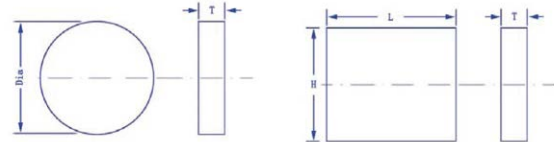
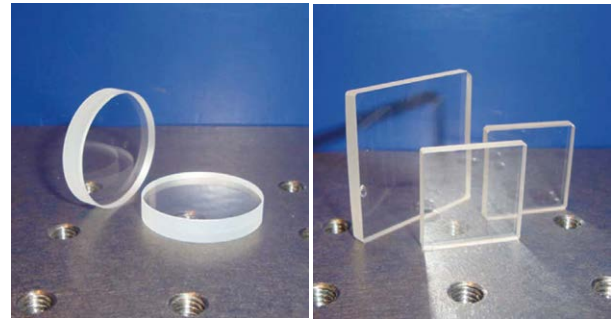
| | |
|---------------------|--|
| Material | N-BK7 |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/5@ 632.8nm |
| Surface Quality | 40-20 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350nm-650nm B: AR Coating 650nm-1050nm C: AR Coating 1050nm-1580nm |

Ordering Information

Model No : UW00603RK - □

AR Coating Wavelength :
A = 350-650nm
B = 650-1050nm
C = 1050-1580nm

Example :
UW00603RK Non AR Coating
UW00603RK-B AR Coating 650-1050nm



N-BK7 Windows - Round

| No | Dia(mm) | T(mm) |
|-----------|---------|-------|
| UW00603RK | 6.00 | 3.00 |
| UW01203RK | 12.70 | 3.00 |
| UW01205RK | 12.70 | 5.00 |
| UW01503RK | 15.00 | 3.00 |
| UW01505RK | 15.00 | 5.00 |
| UW02003RK | 20.00 | 3.00 |
| UW02005RK | 20.00 | 5.00 |
| UW02503RK | 25.40 | 3.00 |
| UW02505RK | 25.40 | 5.00 |
| UW03005RK | 30.00 | 5.00 |
| UW04008RK | 40.00 | 8.00 |
| UW05008RK | 50.80 | 8.00 |
| UW07505RK | 75.00 | 5.00 |
| UW07510RK | 75.00 | 10.00 |
| UW10012RK | 100.00 | 12.00 |

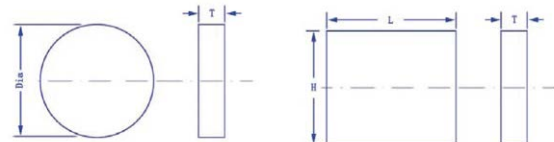
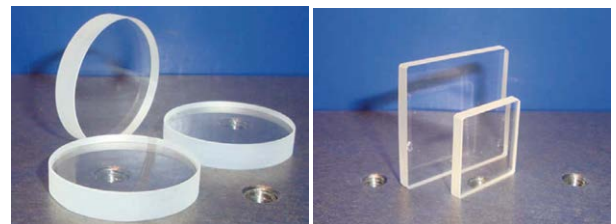
N-BK7 Windows - Square

| No | H=L(mm) | T(mm) |
|-----------|---------|-------|
| UW00603SK | 6.00 | 3.00 |
| UW01203SK | 12.70 | 3.00 |
| UW01205SK | 12.70 | 5.00 |
| UW01503SK | 15.00 | 3.00 |
| UW01505SK | 15.00 | 5.00 |
| UW02003SK | 20.00 | 3.00 |
| UW02005SK | 20.00 | 5.00 |
| UW02503SK | 25.40 | 3.00 |
| UW02505SK | 25.40 | 5.00 |
| UW03005SK | 30.00 | 5.00 |
| UW04008SK | 40.00 | 8.00 |
| UW05008SK | 50.80 | 8.00 |
| UW07505SK | 75.00 | 5.00 |
| UW07510SK | 75.00 | 10.00 |
| UW10012SK | 100.00 | 12.00 |

Commercial Grade UV- Grade Fused Silica Windows

Specifications

| | |
|---------------------|---------------------------|
| Material | UV-Grade Fused Silica |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@ 632.8nm |
| Surface Quality | 40-20 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | UV AR Coating 290nm-370nm |



UV- Grade Fused Silica Windows - Round

| No | Dia(mm) | T(mm) |
|------------|---------|-------|
| UW00603RFS | 6.00 | 3.00 |
| UW01203RFS | 12.70 | 3.00 |
| UW02003RFS | 20.00 | 3.00 |
| UW02503RFS | 25.40 | 3.00 |
| UW03005RFS | 30.00 | 5.00 |
| UW04008RFS | 40.00 | 5.00 |
| UW05008RFS | 50.80 | 5.00 |

UV- Grade Fused Silica Windows - Square

| No | H=L(mm) | T(mm) |
|------------|---------|-------|
| UW00603SFS | 6.00 | 3.00 |
| UW01203SFS | 12.70 | 3.00 |
| UW02003SFS | 20.00 | 3.00 |
| UW02503SFS | 25.40 | 3.00 |
| UW03005SFS | 30.00 | 5.00 |
| UW04008SFS | 40.00 | 5.00 |
| UW05008SFS | 50.80 | 5.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

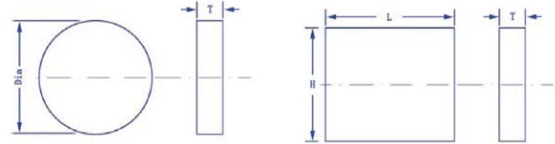
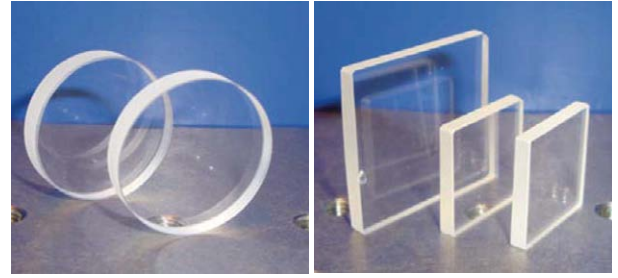
Plate Beam Splitters



Commercial Grade CaF₂ Windows

Specifications

| | |
|---------------------|-------------------------------------|
| Material | CaF ₂ (Calcium Fluoride) |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/4@ 632.8nm |
| Surface Quality | 80-50 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



CaF₂ Windows - Round

| No | Dia(mm) | T(mm) |
|------------|---------|-------|
| UW01203RCF | 12.70 | 3.00 |
| UW02503RCF | 25.40 | 3.00 |

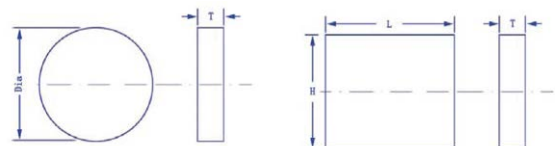
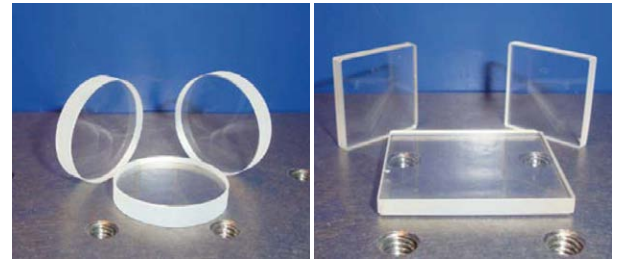
CaF₂ Windows - Square

| No | H=L(mm) | T(mm) |
|------------|---------|-------|
| UW01203SCF | 12.70 | 3.00 |
| UW02503SCF | 25.40 | 3.00 |

Commercial Grade Sapphire Windows

Specifications

| | |
|------------------------|---------------|
| Material | Sapphire |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | λ/2@ 632.8nm |
| 表面品質 / Surface Quality | 60-40 |
| Parallelism | <3 arc min |
| 有效孔徑 / Clear Aperture | >90% |
| 倒邊 / Bevelling | <0.2x45° |
| 鍍膜 / Coating | Custom Design |



Sapphire Windows - Round

| No | Dia(mm) | T(mm) |
|-----------|---------|-------|
| UW01203RS | 12.7 | 3 |
| UW02503RS | 25.4 | 3 |

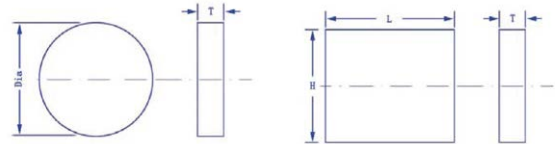
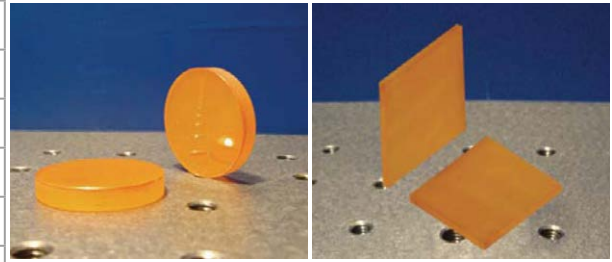
Sapphire Windows - Square

| No | H=L(mm) | T(mm) |
|-----------|---------|-------|
| UW01203SS | 12.7 | 3 |
| UW02503SS | 25.4 | 3 |

Commercial Grade ZnSe Windows

Specifications

| | |
|------------------------|-----------------------------|
| Material | ZnSe(Zinc Selenide) |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| 表面品質 / Surface Quality | 60-40 |
| Parallelism | <3 arc min |
| 有效孔徑 / Clear Aperture | >90% |
| 倒邊 / Beveling | <0.2x45° |
| 鍍膜 / Coating | Custom Design |



ZnSe Windows - Round

| No | Dia(mm) | T(mm) |
|------------|---------|-------|
| UW01203RZS | 12.70 | 3.00 |
| UW02503RZS | 25.40 | 3.00 |

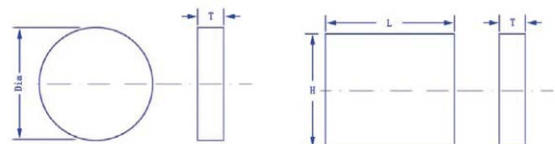
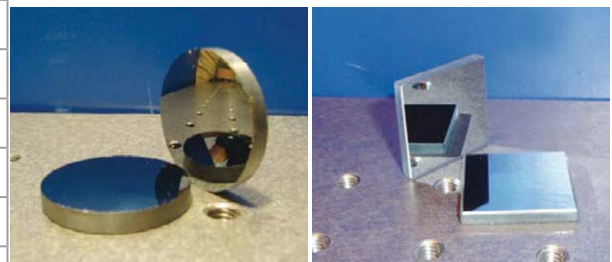
ZnSe Windows - Square

| No | H=L(mm) | T(mm) |
|------------|---------|-------|
| UW01203SZS | 12.70 | 3.00 |
| UW02503SZS | 25.40 | 3.00 |

Commercial Grade Germanium Windows

Specifications

| | |
|---------------------|-----------------------------|
| Material | Ge(Germanium) |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 60-40 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Beveling | <0.2x45° |
| Coating | Custom Design |



Germanium Windows - Round

| No | Dia(mm) | T(mm) |
|------------|---------|-------|
| UW01203RGE | 12.70 | 3.00 |
| UW02503RGE | 25.40 | 3.00 |

Germanium Windows - Square

| No | H=L(mm) | T(mm) |
|------------|---------|-------|
| UW01203SGE | 12.70 | 3.00 |
| UW02503SGE | 25.40 | 3.00 |

Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

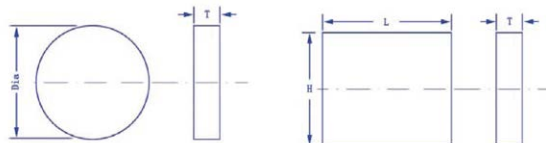
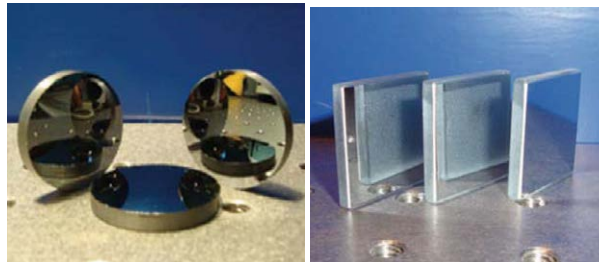
Plate Beam Splitters



Commercial Grade Silicon Windows

Specifications

| | |
|---------------------|-----------------------------|
| Material | Si(Silicon) |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 60-40 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



Silicon Windows - Round

| No | 外圆直径 / Dia(mm) | 厚度 / T(mm) |
|------------|----------------|------------|
| UW01203RSI | 12.70 | 3.00 |
| UW02503RSI | 25.40 | 3.00 |

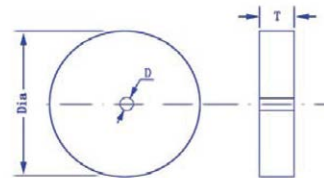
Silicon Windows - Square

| No | H=L(mm) | T(mm) |
|------------|---------|-------|
| UW01203SSI | 12.70 | 3.00 |
| UW02503SSI | 25.40 | 3.00 |

Commercial Grade N-BK7 Round Windows With Hole

Specifications

| | |
|---------------------|-----------------------------|
| Material | N-BK7(Schott BK7) |
| Diameter Tolerance | +0/-0.1mm |
| Thickness Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 60-40 |
| Parallelism | <1 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |

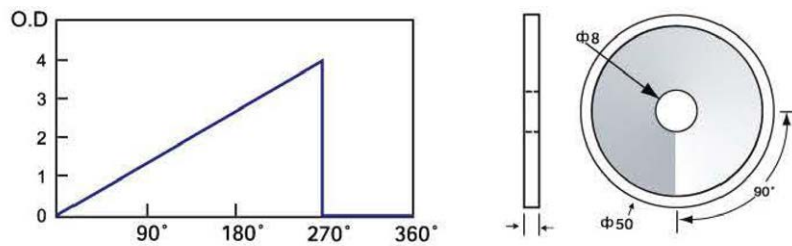


Techspec

| No | Dia(mm) | T(mm) | 内孔直径 / InnerD(mm) |
|---------------|---------|-------|-------------------|
| U05-1500-K1-1 | 12.7 | 2 | 2 |
| U10-1500-K1-1 | 25.4 | 2 | 2 |
| U20-1500-K2-1 | 50.8 | 2 | 2 |

Circular Variable Neutral Density Filters

Circular ND filters provide continuously variable, linear attenuation of light by rotating the filter about its center. Transmitted intensity varies as a function of the optical density range. The filter can be used for white light as well as for lasers. A large finite aperture can be attenuated by counter-rotating two filters in series. Sizes are available from 25 mm to over 100 mm in diameter. The usable wavelength range is from 250nm to 2500nm.



Specifications

| | |
|-------------------------------|--|
| SubstrateMaterial | B-270 optical crown, UV grade fused silica |
| Outside Diameter | 25mm, 30mm, 40mm, 45mm, 50mm, 60mm,100mm |
| Inside Diameter | 7.5mm, 8.0mm, 8.3mm |
| Outside Diameter Tolerance | +0/-0.25mm |
| Inside Diameter Tolerance | +0.25/-0mm |
| Thickness | 1.5mm ± 0.25mm, 2mm ± 0.25 mm |
| Parallelism | ±3 arc min. |
| Standard Linearity | ± 5% of end density value |
| Standard Deviation of Density | ± 5% of end density value |
| Design Wavelength | 400-700nm Standard |
| | 380~2000nm (B-270) |
| | 250-2500nm (Fused silica) |
| Coated Area | 0° to 270° Standard |
| | 0° to 300° or 0° to 310° available |

| Optical Density | Material | Outside Dia.(mm) | Inside Dia 7.5mm |
|-----------------|--------------|------------------|------------------|
| 0.04 to 1.0 | B270 | 25 | CVND10-B25A |
| 0.04 to 1.5 | B270 | 25 | CVND15-B25A |
| 0.04 to 2.0 | B270 | 25 | CVND20-B25A |
| 0.04 to 3.0 | B270 | 25 | CVND30-B25A |
| 0.04 to 4.0 | B270 | 25 | CVND40-B25A |
| 0.04 to 1.0 | Fused silica | 25 | CVND10-Q25A |
| 0.04 to 1.5 | Fused silica | 25 | CVND15-Q25A |
| 0.04 to 2.0 | Fused silica | 25 | CVND20-Q25A |
| 0.04 to 3.0 | Fused silica | 25 | CVND30-Q25A |
| 0.04 to 4.0 | Fused silica | 25 | CVND40-Q25A |
| 0.04 to 1.0 | B270 | 30 | CVND10-B30A |
| 0.04 to 1.5 | B270 | 30 | CVND15-B30A |
| 0.04 to 2.0 | B270 | 30 | CVND20-B30A |
| 0.04 to 3.0 | B270 | 30 | CVND30-B30A |
| 0.04 to 4.0 | B270 | 30 | CVND40-B30A |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

Plate Beam Splitters

| Optical Density | Material | Outside Dia.(mm) | Inside Dia 7.5mm |
|-----------------|--------------|------------------|------------------|
| 0.04 to 1.0 | Fused silica | 30 | CVND10-Q30A |
| 0.04 to 1.5 | Fused silica | 30 | CVND15-Q30A |
| 0.04 to 2.0 | Fused silica | 30 | CVND20-Q30A |
| 0.04 to 3.0 | Fused silica | 30 | CVND30-Q30A |
| 0.04 to 4.0 | Fused silica | 30 | CVND40-Q30A |
| 0.04 to 1.0 | B270 | 40 | CVND10-B40A |
| 0.04 to 1.5 | B270 | 40 | CVND15-B40A |
| 0.04 to 2.0 | B270 | 40 | CVND20-B40A |
| 0.04 to 3.0 | B270 | 40 | CVND30-B40A |
| 0.04 to 4.0 | B270 | 40 | CVND40-B40A |
| 0.04 to 1.0 | Fused silica | 40 | CVND10-Q40A |
| 0.04 to 1.5 | Fused silica | 40 | CVND15-Q40A |
| 0.04 to 2.0 | Fused silica | 40 | CVND20-Q40A |
| 0.04 to 3.0 | Fused silica | 40 | CVND30-Q40A |
| 0.04 to 4.0 | Fused silica | 40 | CVND40-Q40A |
| 0.04 to 1.0 | B270 | 45 | CVND10-B45A |
| 0.04 to 1.5 | B270 | 45 | CVND15-B45A |
| 0.04 to 2.0 | B270 | 45 | CVND20-B45A |
| 0.04 to 3.0 | B270 | 45 | CVND30-B45A |
| 0.04 to 4.0 | B270 | 45 | CVND40-B45A |
| 0.04 to 1.0 | Fused silica | 45 | CVND10-Q45A |
| 0.04 to 1.5 | Fused silica | 45 | CVND15-Q45A |
| 0.04 to 2.0 | Fused silica | 45 | CVND20-Q45A |
| 0.04 to 3.0 | Fused silica | 45 | CVND30-Q45A |
| 0.04 to 4.0 | Fused silica | 45 | CVND40-Q45A |
| 0.04 to 1.0 | B270 | 50 | CVND10-B50A |
| 0.04 to 1.5 | B270 | 50 | CVND15-B50A |
| 0.04 to 2.0 | B270 | 50 | CVND20-B50A |
| 0.04 to 3.0 | B270 | 50 | CVND30-B50A |
| 0.04 to 4.0 | B270 | 50 | CVND40-B50A |
| 0.04 to 1.0 | Fused silica | 50 | CVND10-Q50A |
| 0.04 to 1.5 | Fused silica | 50 | CVND15-Q50A |
| 0.04 to 2.0 | Fused silica | 50 | CVND20-Q50A |
| 0.04 to 3.0 | Fused silica | 50 | CVND30-Q50A |
| 0.04 to 4.0 | Fused silica | 50 | CVND40-Q50A |
| 0.04 to 1.0 | B270 | 60 | CVND10-B60A |
| 0.04 to 1.5 | B270 | 60 | CVND15-B60A |
| 0.04 to 2.0 | B270 | 60 | CVND20-B60A |
| 0.04 to 3.0 | B270 | 60 | CVND30-B60A |
| 0.04 to 4.0 | B270 | 60 | CVND40-B60A |
| 0.04 to 1.0 | Fused silica | 60 | CVND10-Q60A |
| 0.04 to 1.5 | Fused silica | 60 | CVND15-Q60A |
| 0.04 to 2.0 | Fused silica | 60 | CVND20-Q60A |
| 0.04 to 3.0 | Fused silica | 60 | CVND30-Q60A |
| 0.04 to 4.0 | Fused silica | 60 | CVND40-Q60A |
| 0.04 to 1.0 | B270 | 100 | CVND10-B100A |
| 0.04 to 1.5 | B270 | 100 | CVND15-B100A |
| 0.04 to 2.0 | B270 | 100 | CVND20-B100A |
| 0.04 to 3.0 | B270 | 100 | CVND30-B100A |
| 0.04 to 4.0 | B270 | 100 | CVND40-B100A |
| 0.04 to 1.0 | Fused silica | 100 | CVND10-Q100A |
| 0.04 to 1.5 | Fused silica | 100 | CVND15-Q100A |
| 0.04 to 2.0 | Fused silica | 100 | CVND20-Q100A |
| 0.04 to 3.0 | Fused silica | 100 | CVND30-Q100A |
| 0.04 to 4.0 | Fused silica | 100 | CVND40-Q100A |



Plate Beamsplitter



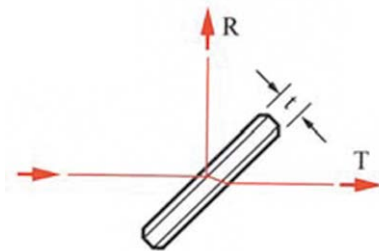
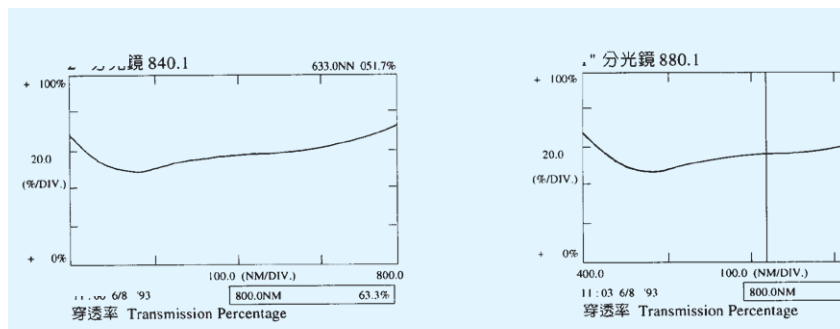
840.1A



880.1A

- * Material: BK-7 A grade
- * Parallelism: 5'
- * Surface Quality: 80/50
- * Coating: Side one- All Dielectric ; Side two- Broadband AR-Coating
- * Wavelength: 450 To 700nm.

| Model | Size(mm) | Ratio R/T | Flatness | Thickness(mm) |
|--------|----------|-----------|-------------|---------------|
| 840.1A | 50.8 | 50/50±5% | $\lambda/2$ | 5 |
| 880.1A | 25.4 | 50/50±5% | $\lambda/2$ | 3 |



Spherical Lenses

Aspherical Lenses

Cylindrical Lenses

Mirrors

Windows

Circular Variable Neutral Density Filters

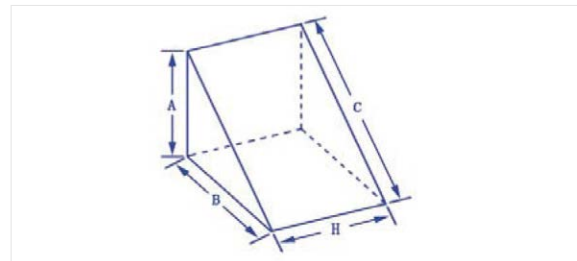
Plate Beamsplitters



Commercial Grade N-BK-7 Right Angle Prisms

Specification

| | |
|--------------------|------------------------------|
| Material | N-BK7 |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/10@ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



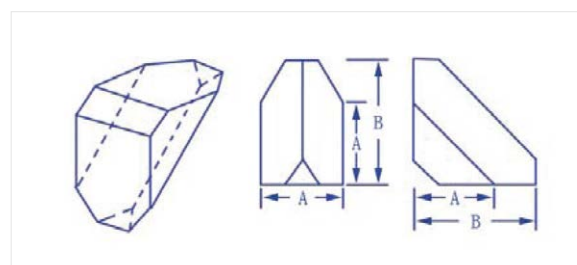
Techspec

| No. | A=B(mm) | C(mm) | H(mm) |
|--------|---------|-------|-------|
| UL905K | 3.00 | 4.24 | 3.00 |
| UL909K | 5.00 | 7.07 | 5.00 |
| UL910K | 10.00 | 14.14 | 10.00 |
| UL908K | 20.00 | 28.28 | 20.00 |
| UL911K | 25.00 | 35.35 | 25.00 |
| UL912K | 40.00 | 56.57 | 40.00 |
| UL913K | 60.00 | 84.85 | 60.00 |

Commercial Grade N-BK-7 Roof Prisms

Specification

| | |
|--------------------|------------------------------|
| Material | N-BK7 |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/10@ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



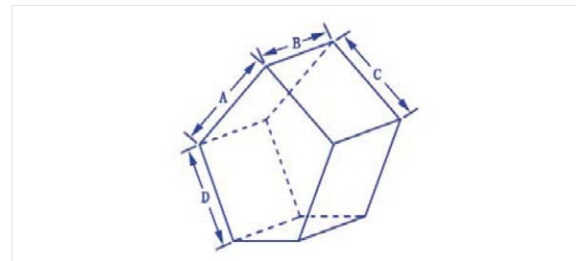
Techspec

| No. | A(mm) | B(mm) |
|--------|-------|-------|
| UR951K | 18.00 | 23.00 |

Commercial Grade N-BK-7 Penda Prisms

Specification

| | |
|--------------------|-----------------------------|
| Material | N-BK7 |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



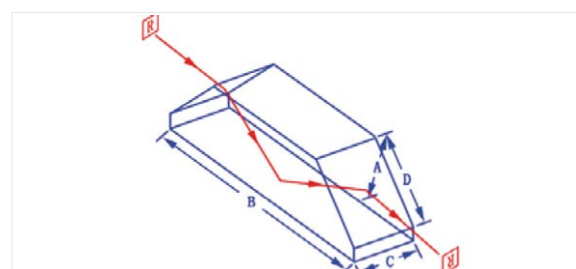
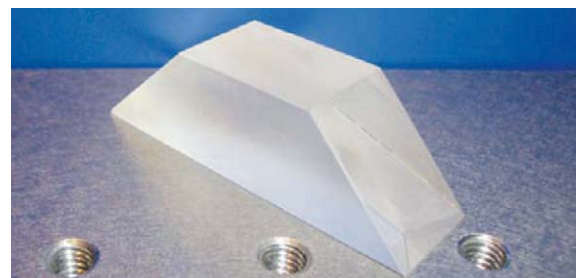
Techspec

| No. | A=B=C(mm) | D(mm) |
|--------|-----------|-------|
| UP931K | 10 | 14.14 |
| UP932K | 20 | 28.28 |
| UP933K | 40 | 56.57 |
| UP934K | 60 | 84.85 |

Commercial Grade N-BK-7 Dove Prisms

Specification

| | |
|--------------------|-----------------------------|
| Material | N-BK7 |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



Techspec

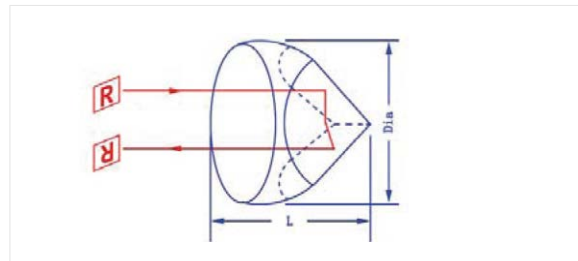
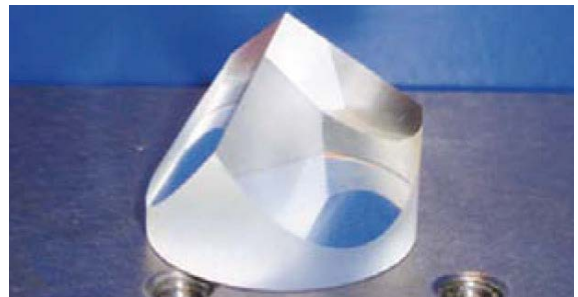
| No. | A =C(mm) | B(mm) | D(mm) |
|--------|----------|--------|-------|
| UQ990K | 5 | 21.21 | 7.07 |
| UQ991K | 10 | 42.42 | 14.14 |
| UQ992K | 15 | 63.63 | 21.21 |
| UQ993K | 30 | 127.26 | 42.42 |



Commercial Grade N-BK-7 Retroreflector

Specification

| | |
|--------------------|-----------------------------|
| Material | N-BK7(SchottBK7) |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | $\lambda/4@ 632.8\text{nm}$ |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



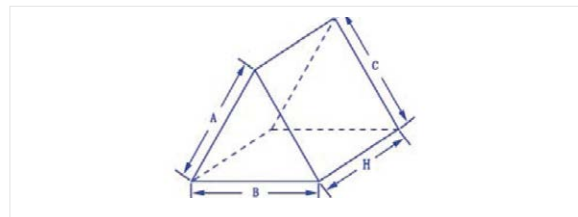
Techspec

| No. | Dia(mm) | L(mm) |
|--------|---------|-------|
| US970K | 10.00 | 9.00 |
| US971K | 25.40 | 22.00 |
| US973K | 50.00 | 42.00 |

Commercial Grade Equilateral Prisms

Specification

| | |
|--------------------|------------------------------|
| Diameter Tolerance | ±0.15mm |
| Surface Accuracy | $\lambda/10@ 632.8\text{nm}$ |
| Surface Quality | 60-40 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



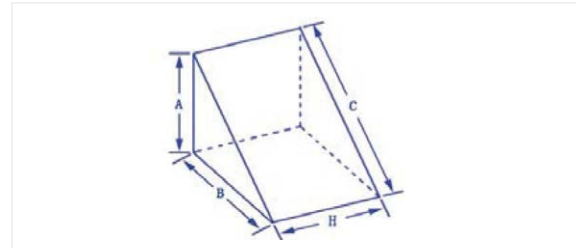
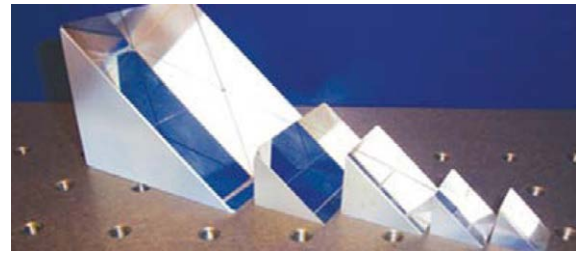
Techspec

| No. | A=B=C(mm) | H(mm) | Material |
|-------|-----------|-------|-----------------------|
| UM850 | 10.00 | 10.00 | H-F4(Schott F2) |
| UM851 | 10.00 | 10.00 | H-ZF13(Schott N-SF11) |
| UM856 | 15.00 | 15.00 | H-F4(Schott F2) |
| UM857 | 15.00 | 15.00 | H-ZF13(Schott N-SF11) |
| UM858 | 20.00 | 20.00 | H-F4(Schott F2) |
| UM859 | 20.00 | 20.00 | H-ZF13(Schott N-SF11) |
| UM852 | 25.00 | 25.00 | H-F4(Schott F2) |
| UM853 | 25.00 | 25.00 | H-ZF13(Schott N-SF11) |
| UM855 | 40.00 | 40.00 | H-ZF13(Schott N-SF11) |
| UM854 | 50.00 | 50.00 | H-F4(Schott F2) |

Commercial Grade UV Grade Fused Silica Right Angle Prisms

Specification

| | |
|--------------------|-----------------------|
| Material | UV-Grade Fused Silica |
| Diameter Tolerance | ±0.1mm |
| Surface Accuracy | λ/10@ 632.8nm |
| Surface Quality | 40-20 |
| Angular Tolerance | ±3 arc min |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | Custom Design |



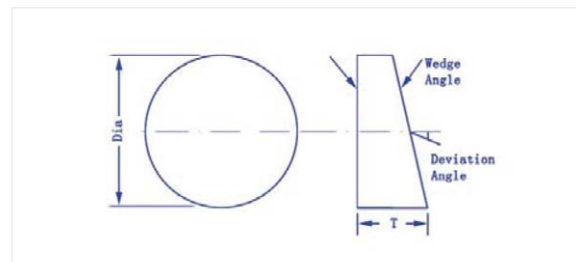
Techspec

| No. | A=B(mm) | C(mm) | H(mm) |
|---------|---------|-------|-------|
| UL605FS | 3.00 | 4.24 | 3.00 |
| UL609FS | 5.00 | 7.07 | 5.00 |
| UL610FS | 10.00 | 14.14 | 10.00 |
| UL608FS | 20.00 | 28.28 | 20.00 |
| UL611FS | 25.00 | 35.35 | 25.00 |
| UL612FS | 40.00 | 65.57 | 40.00 |
| UL613FS | 60.00 | 84.85 | 60.00 |

Commercial Grade N-BK-7 Wedges

Specification

| | |
|--------------------|--|
| Material | N-BK7(SchottBK7) |
| Diameter Tolerance | +0/-0.1mm |
| Surface Accuracy | λ/10@ 632.8nm |
| Surface Quality | 60-40 |
| Angular Tolerance | <30° |
| Clear Aperture | >90% |
| Bevelling | <0.2x45° |
| Coating | A: AR Coating 350-650nm B: AR Coating 650-1050nm C: AR Coating 1050-1580nm |



Techspec

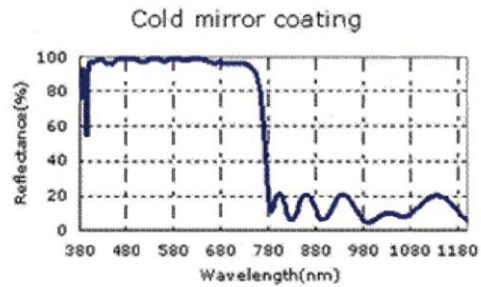
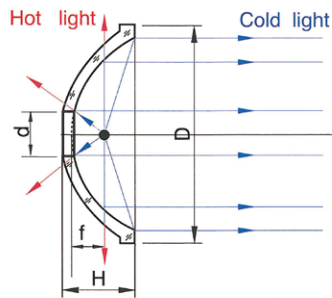
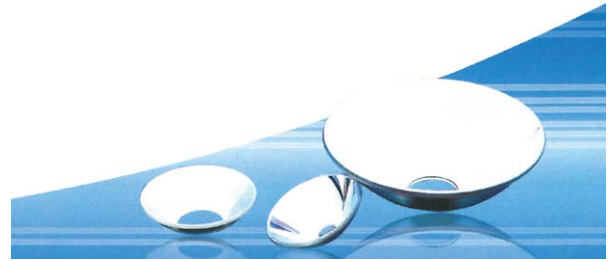
| No. | Deviation Angle | Dia(mm) | T(mm) | Wedge Angle |
|--------|-----------------|---------|-------|-------------|
| UN810K | 2.00 | 25.40 | 4.72 | 3°53' |
| UN811K | 4.00 | 25.40 | 6.43 | 7°41' |
| UN812K | 6.00 | 25.40 | 8.11 | 11°22' |
| UN813K | 8.00 | 25.40 | 9.74 | 14°52' |
| UN814K | 10.00 | 25.40 | 11.33 | 18°9' |



Parabolic Reflector

Paraboloidal reflector collects radiation from a source at its focal point and reflects it as a collimated beam, parallel to the axis. Alternatively, it can tightly focus a collimated beam at its focus also. These reflectors are coated with dielectric coating and the substrate is glass.

Typical Applications: solar simulators, search lights, stage lighting.

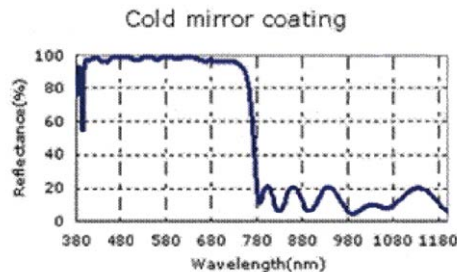
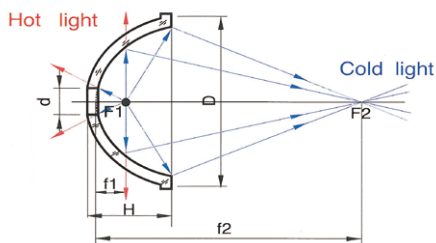


| Model | D(mm) | d (mm) | H (mm) | F (mm) |
|----------|-------|--------|--------|--------|
| P400-136 | 400 | 136 | 125 | 70 |
| P400-90 | 400 | 90 | 134 | 70 |
| P300 | 300 | 60 | 82 | 66 |
| P297 | 297 | 60 | 126 | 40 |
| P240 | 240 | 60 | 86 | 38 |
| P230 | 230 | 60 | 77.5 | 38 |
| P204 | 204 | 50 | 66 | 36 |
| P178 | 178 | 40 | 65 | 27 |
| P140 | 140 | 40 | 36 | 30 |

Ellipsoidal Reflector

Ellipsoidal Reflector has 2 focal points. When the light source is placed at the first focal point (f1), it will refocus at f2. This property eliminates the need for other focusing components in an assembly, simplifying system design and integration. These reflectors are coated with dielectric coating and the substrate is glass.

Typical Applications: Stage Lighting, Digital&Film Cinema, fiber optic illuminators, projectors, UV-dryers and UV-lighting system



Vis range R>93%
NIR range T>85%



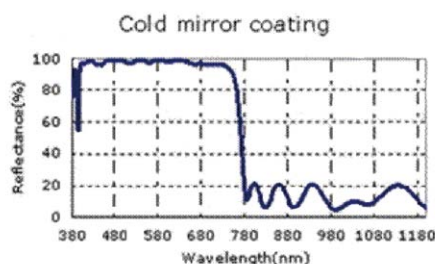
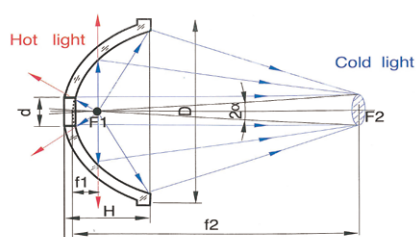
| Model | D(mm) | d(mm) | H(mm) | F1(mm) | F2(mm) |
|----------|-------|-------|-------|--------|--------|
| E360 | 360 | 75 | 172 | 60 | 800 |
| E162 | 162 | 40 | 78 | 24 | 388 |
| E113 | 113 | 26 | 50.4 | 18 | 234 |
| E104 | 104 | 22 | 51 | 16 | 300 |
| E09025 | 90 | 25 | 53.5 | 14 | 138 |
| E09018.5 | 90 | 18.5 | 55 | 14 | 138 |
| E07026.5 | 70 | 26.5 | 35 | 10 | 130 |
| E07018.5 | 70 | 18.5 | 42 | 10 | 130 |

Cone-Axis Ellipsoidal Reflector

Cone-axis ellipsoidal reflectors is the transfiguration of ellipsoidal reflectors. An ellipse axis that based on the first focal point(F1)turns an angle of α , and then half of the ellipse that has angle rotates one circle around the original axis. There will be a spherical line formed in the second focal point(F2).When a light source is placed at the first focal point(F1),the ellipsoidal reflector redirects light that would otherwise miss the target area(F2).



Typical Applications: Digital&Film Cinema, Entertainment&StageLighting, Medical Lighting; Exposure equipment for PCB, IC systems

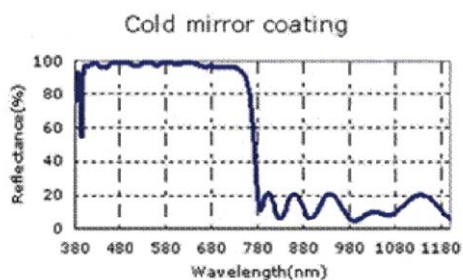
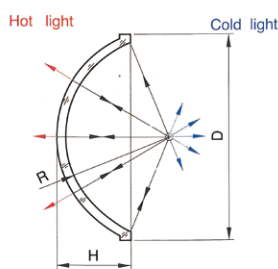


| Model | D(mm) | d(mm) | H(mm) | F1(mm) | F2(mm) |
|----------|-------|-------|-------|--------|---------|
| E365C | 365 | 75 | 175 | 56 | 800 |
| E340C | 340 | 75 | 150 | 56 | 800 |
| E300C75 | 300 | 75 | 149 | 43 | 670 |
| E300C60 | 300 | 60 | 156 | 43 | 670 |
| E240C | 240 | 60 | 108 | 38 | 452 |
| E230C | 230 | 50 | 108 | 38 | 410-440 |
| E210C | 210 | 40 | 85 | 36 | 485 |
| E134C22 | 134 | 27 | 54 | 22 | 290 |
| E134C19 | 134 | 27 | 62 | 19 | 290 |
| E104C197 | 104 | 27 | 50 | 14.5 | 197 |
| E104C182 | 104 | 30 | 49.5 | 14.5 | 182 |
| E097C | 97 | 22 | 54 | 14 | 145 |
| E096C | 96 | 27 | 49 | 15 | 115.5 |

Spherical Reflector

In the case of spherical reflector, the light emitted by a lamp located at the focal point of the sphere is reflected to this focal point. Spherical reflectors are used usually as an aid in conjunction with parabolic reflectors or lens systems.

Typical Applications: Entertainment&StageLighting , Illumination systems, projectors



| Model | D(mm) | R(mm) | H(mm) |
|-------|-------|-------|-------|
| S165 | 165 | 89 | 56 |
| S161 | 161 | 95 | 47 |
| S061 | 61 | 50 | 11.3 |



Kimtech Science Kimwipes

**Model: KW280-6**

This is a delicate task wipers for multi-usage specially for hi precise components or devices. It is soft, non-abrasive and safe for most surfaces. This item is used for the tasks which requiring extra low-lint performance. It is ideal for lab and manufactory usages.

- * 280 sheets a box and 6

Tiffen Lens Cleaning Paper

**Model: 50SH**

TIFFEN Lens Cleaning Paper is a soft paper specially prepared for cleaning lenses, filters, and other highly polished glass surfaces. It is safe for coated lenses.

- * 50 sheets for each package
- * No harm for coated lenses

Optical Glue

**Model: DC-2**

This is a multi-purpose glue and can be used on differentMaterial like glass or metal and specially for differentMaterial surfaces. The glue dries fast and easily to be removed by sharp knife if components bound by separated drops of glue

- * Special cap prevents clogging and drying out
- * Dries clear and fast
- * Multi-purpose usage such as plastic, glass, metal, wood, china---etc.

Note: the bound area can be easily removed by using sharp knife if the bound area was attached by few drops. For Example, three separated to bind two components.

