



## VUV 级抛光氟化镁 MgF<sub>2</sub> 平凸透镜 (直径 25.4mm 焦距 100mm)



### 描述

MgF<sub>2</sub> 能很好地透过 VUV 区域到莱曼-阿尔法氢线 (121nm) 甚至更远。氟化镁主要用于 UV 光谱, 并且对于准分子激光具有很好的应用。MgF<sub>2</sub> 通过真空 Stockbarger 技术在各种直径的铸块中生长。氟化镁是一种坚韧的材料, 并且抛光良好。因此, 它可以工作到业界高标准。MgF<sub>2</sub> 具有微弱的双折射性质, 并且通常提供垂直于窗面切割的光轴。

### 产品特点

高数值孔径, 优秀收集效率, 紧凑的单透镜设计, 衍射限制设计, RoHS 认证

### 产品型号

MGF25.4LENS100





## 应用领域

深红外光谱分析

紫外激光传输

X射线检测

红外光学

外延基片

## 核心参数

| 透射范围           | 规格尺寸                 |
|----------------|----------------------|
| 0.12-7 $\mu$ m | 25.4mm $\varnothing$ |

## 详细参数

|                     |                                                    |
|---------------------|----------------------------------------------------|
| 透射波长范围:             | 0.12 to 7 $\mu$ m                                  |
| 折射率:                | No 1.413 at 0.22 $\mu$ m                           |
| 反射损耗 :              | 5.7% at 0.22 $\mu$ m (2 surfaces)                  |
| 吸收系数 :              | $40 \times 10^{-3} \text{ cm}^{-1}$ at 2.7 $\mu$ m |
| Reststrahlen Peak : | 20 $\mu$ m                                         |
| dn/dT :             | 2.3 (para) 1.7 (perp) at 0.4 $\mu$ m               |
| dn/d $\mu$ = 0 :    | 1.4 $\mu$ m                                        |
| 密度:                 | 3.18g/cc                                           |



|                         |                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------|
| 熔点:                     | 1255°C                                                                                               |
| 热导率:                    | 21 (para) 33.6 (perp) W m <sup>-1</sup> K <sup>-1</sup> at 300K                                      |
| 热膨胀:                    | 13.7 (para) 8.9 (perp) x 10 <sup>-6</sup> /K                                                         |
| 硬度:                     | Knoop 415                                                                                            |
| 比热容:                    | 1003 J Kg m <sup>-1</sup> K <sup>-1</sup>                                                            |
| 介电常数 :                  | 4.87 (para) 5.45 (perp) at 1MHz                                                                      |
| Youngs Modulus<br>(E) : | 138 GPa                                                                                              |
| 剪切模量 (G) :              | 54.66GPa                                                                                             |
| 体积弹性模量 (K) :            | 101.32 GPa                                                                                           |
| 弹性系数 :                  | C <sub>11</sub> =140 C <sub>12</sub> =89 C <sub>44</sub> =57 C <sub>13</sub> =63 C <sub>66</sub> =96 |
| 表观弹性极限 :                | 49.6 MPa (7200 psi)                                                                                  |
| 泊松比 :                   | 0.276                                                                                                |
| 溶解度 :                   | 0.0002g/100g water                                                                                   |
| 分子量 :                   | 62.32                                                                                                |

|        |                                                                                                                                |
|--------|--------------------------------------------------------------------------------------------------------------------------------|
| 类别/结构： | 四方 P42/mnm (#136) 金红石结构。可以在 c 轴上切割，但不容易。<br>(Tetragonal P42/mnm (#136) Rutile Structure. Can cleave on c-axis but not easily.) |
|--------|--------------------------------------------------------------------------------------------------------------------------------|

注 1：警告：镉盐是应该考虑毒性，所以操作时候务必小心。

## 折射率

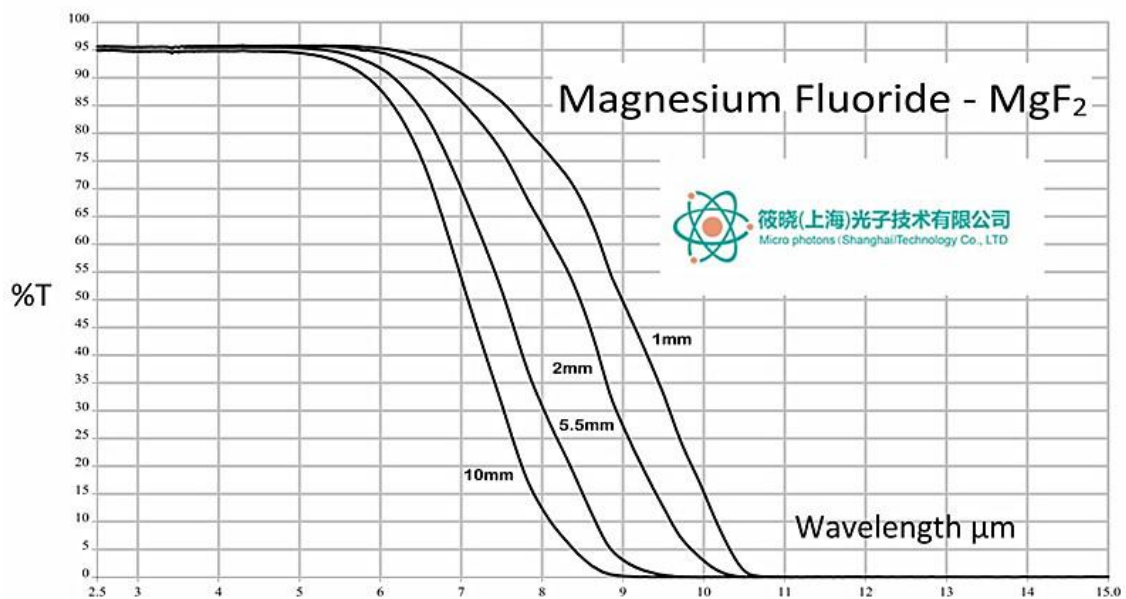
No = Ordinary Ray 普通射线    Ne = Extraordinary Ray 特殊射线

| μm     | No     | Ne    | μm     | No     | Ne    | μm     | No     | Ne    |
|--------|--------|-------|--------|--------|-------|--------|--------|-------|
| 0.1137 | 1.7805 |       | 0.1149 | 1.7420 |       | 0.1179 | 1.6800 |       |
| 0.1198 | 1.6510 |       | 0.121  | 1.628  | 1.632 | 0.130  | 1.566  | 1.568 |
| 0.140  | 1.5095 | 1.523 | 0.150  | 1.480  | 1.494 | 0.160  | 1.461  | 1.475 |
| 0.170  | 1.448  | 1.462 | 0.180  | 1.439  | 1.453 | 0.190  | 1.431  | 1.444 |
| 0.200  | 1.423  | 1.437 | 0.220  | 1.413  | 1.426 | 0.248  | 1.403  | 1.416 |
| 0.257  | 1.401  | 1.414 | 0.266  | 1.399  | 1.412 | 0.280  | 1.396  | 1.409 |
| 0.300  | 1.393  | 1.405 | 0.330  | 1.389  | 1.402 | 0.337  | 1.389  | 1.401 |
| 0.350  | 1.387  | 1.400 | 0.355  | 1.386  | 1.399 | 0.400  | 1.384  | 1.396 |

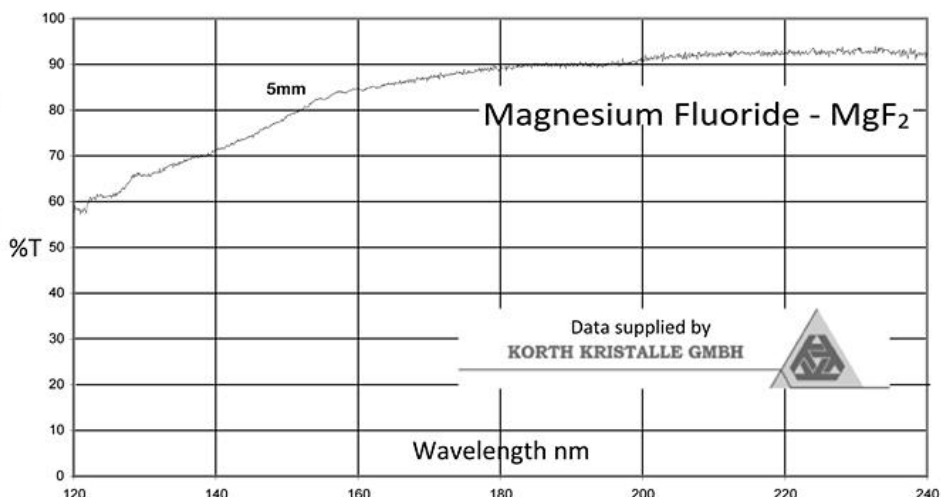
|       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.546 | 1.379 | 1.390 | 0.700 | 1.376 | 1.388 | 1.087 | 1.373 | 1.385 |
| 1.512 | 1.370 | 1.382 | 2.000 | 1.368 | 1.379 | 2.5   | 1.364 | 1.375 |
| 3.030 | 1.360 | 1.370 | 3.571 | 1.354 | 1.364 | 4.000 | 1.349 | 1.359 |
| 4.546 | 1.341 | 1.350 | 5.000 | 1.334 | 1.343 | 5.556 | 1.324 | 1.332 |
| 6.060 | 1.314 | 1.321 |       |       |       |       |       |       |

## 特性曲线

透射曲线图



Routine transmission at 121nm is usually a minimum of 40% through a 2mm sample. This curve represents the maximum transmission that we can achieve under ideal conditions of material and polish at high cost.



## 订购信息

| 订购型号                   | 规格       | 曲率                 | 焦距                   | 材料等级          | 参数表                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |  |       |       |       |       |       |       |     |       |     |       |
|------------------------|----------|--------------------|----------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|-------|-------|-------|-------|-------|-------|-----|-------|-----|-------|
| MGF20LE<br><br>NS40    | 20.0mm Ø | 49.95<br><br>(±2%) | 40mm @<br><br>121nm  | VUV<br><br>双凸 | <div><p><b>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</b><br/>40mm diameter x 235mm F.L. @121nm</p><p>MATERIAL: VUV Grade MgF<sub>2</sub></p><div><div>Diameter: 40.0mm (+0/-0.1mm)</div><div>Clear Aperture: 80% of diameter</div><div>Edge thickness: 2.0mm</div><div>Centre Thickness: 3.5mm derived</div><div>Chamfers: approx 0.1mm break-edge</div><div>Radius of Curvature 1: 148.08 (test plate)</div><div>Radius of Curvature 2: Plano</div></div><div><div>Centration: Not specified</div><div>Surface Accuracy: Not specified</div><div>S/D: 40/20</div><div>Coating: None</div></div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>235mm</td></tr><tr><td>200nm</td><td>350mm</td></tr><tr><td>633nm</td><td>393mm</td></tr><tr><td>2µm</td><td>402mm</td></tr><tr><td>4µm</td><td>424mm</td></tr></table></div>        | Effective Focal length |  | 121nm | 235mm | 200nm | 350mm | 633nm | 393mm | 2µm | 402mm | 4µm | 424mm |
| Effective Focal length |          |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 235mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 350mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 393mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 402mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 424mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF25LE<br><br>NS275   | 25.0mm Ø | 344<br><br>(±2%)   | 275mm<br><br>@ 121nm | VUV<br><br>双凸 | <div><p><b>MAGNESIUM FLUORIDE BI-CONVEX LENS</b><br/>25mm diameter x 275mm F.L. @121nm</p><p>MATERIAL: VUV Grade MgF<sub>2</sub></p><div><div>Diameter: 25mm (+0/-0.1mm)</div><div>Clear Aperture: 80% of diameter</div><div>Edge thickness: 3.0mm derived</div><div>Centre Thickness: 3.5mm</div><div>Chamfers: approx 0.1mm break-edge</div><div>Radius of Curvature 1: 344mm (test plate)</div><div>Radius of Curvature 2: 344mm (test plate)</div></div><div><div>Centration: Not specified</div><div>Surface Accuracy: Not specified</div><div>S/D: 40/20</div><div>Coating: None</div></div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>275mm</td></tr><tr><td>200nm</td><td>405mm</td></tr><tr><td>633nm</td><td>456mm</td></tr><tr><td>2µm</td><td>467mm</td></tr><tr><td>4µm</td><td>492mm</td></tr></table></div> | Effective Focal length |  | 121nm | 275mm | 200nm | 405mm | 633nm | 456mm | 2µm | 467mm | 4µm | 492mm |
| Effective Focal length |          |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 275mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 405mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 456mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 467mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 492mm    |                    |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |       |       |       |       |       |       |     |       |     |       |

| MGF25.4<br><br>LENS100 | 25.4mm Ø | 59.5<br><br>(±2%)   | 100mm<br><br>@ 121nm | VUV<br><br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>25.4mm diameter x 100mm F.L. @121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div>Diameter: 25.4mm (+0/-0.1mm)<br/>Clear Aperture 80% of diameter<br/>Edge thickness: 2.0mm<br/>Centre Thickness: 3.4mm derived<br/>Chamfers: approx 0.1mm break-edge<br/>Radius of Curvature 1: 59.9 (test plate)<br/>Radius of Curvature 2: Plano<br/><br/>Centration Not specified<br/>Surface Accuracy Not specified<br/>S/D: 40/20<br/>Coating: None</div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>95mm</td></tr><tr><td>200nm</td><td>140mm</td></tr><tr><td>633nm</td><td>159mm</td></tr><tr><td>2µm</td><td>162mm</td></tr><tr><td>4µm</td><td>170mm</td></tr></table></div>             | Effective Focal length |  | 121nm | 95mm  | 200nm | 140mm | 633nm | 159mm | 2µm | 162mm | 4µm | 170mm |
|------------------------|----------|---------------------|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|-------|-------|-------|-------|-------|-------|-----|-------|-----|-------|
| Effective Focal length |          |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 95mm     |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 140mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 159mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 162mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 170mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF25.4<br><br>LENS125 | 25.4mm Ø | 80.482<br><br>(±2%) | 125mm<br><br>@ 121nm | VUV<br><br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>25.4mm diameter x 125mm F.L. @121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div>Diameter: 25.4mm (+0/-0.1mm)<br/>Clear Aperture 80% of diameter<br/>Edge thickness: 2.0mm derived<br/>Centre Thickness: 3.0mm<br/>Chamfers: approx 0.1mm break-edge<br/>Radius of Curvature 1: 80.482 or 80.78 (test plate)<br/>Radius of Curvature 2: Plano<br/><br/>Centration Not specified<br/>Surface Accuracy Not specified<br/>S/D: 40/20<br/>Coating: None</div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>125mm</td></tr><tr><td>200nm</td><td>190mm</td></tr><tr><td>633nm</td><td>210mm</td></tr><tr><td>2µm</td><td>215mm</td></tr><tr><td>4µm</td><td>230mm</td></tr></table></div> | Effective Focal length |  | 121nm | 125mm | 200nm | 190mm | 633nm | 210mm | 2µm | 215mm | 4µm | 230mm |
| Effective Focal length |          |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 125mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 190mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 210mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 215mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 230mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF25.4<br><br>LENS200 | 25.4mm Ø | 123.9<br><br>(±2%)  | 200mm<br><br>@ 121nm | VUV<br><br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>25.4mm diameter x 200mm F.L. @121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div>Diameter: 25.4mm (+0/-0.1mm)<br/>Clear Aperture 80% of diameter<br/>Edge thickness: 2.0mm<br/>Centre Thickness: 2.65mm derived<br/>Chamfers: approx 0.1mm break-edge<br/>Radius of Curvature 1: 123.9 (test plate)<br/>Radius of Curvature 2: Plano<br/><br/>Centration Not specified<br/>Surface Accuracy Not specified<br/>S/D: 40/20<br/>Coating: None</div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>200mm</td></tr><tr><td>200nm</td><td>292mm</td></tr><tr><td>633nm</td><td>330mm</td></tr><tr><td>2µm</td><td>337mm</td></tr><tr><td>4µm</td><td>355mm</td></tr></table></div>          | Effective Focal length |  | 121nm | 200mm | 200nm | 292mm | 633nm | 330mm | 2µm | 337mm | 4µm | 355mm |
| Effective Focal length |          |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 200mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 292mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 330mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 337mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 355mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF25.4<br><br>LENS75  | 25.4mm Ø | 47.0<br><br>(±2%)   | 75mm @<br><br>118nm  | VUV<br><br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>25.4mm diameter x 75mm F.L. @118nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div>Diameter: 25.4mm (+0/-0.1mm)<br/>Clear Aperture 80% of diameter<br/>Edge thickness: 2.0mm<br/>Centre Thickness: 3.75mm derived<br/>Chamfers: approx 0.1mm break-edge<br/>Radius of Curvature 1: 47.0 (test plate)<br/>Radius of Curvature 2: Plano<br/><br/>Centration Not specified<br/>Surface Accuracy Not specified<br/>S/D: 40/20<br/>Coating: None</div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>118nm</td><td>75mm</td></tr><tr><td>200nm</td><td>111mm</td></tr><tr><td>633nm</td><td>125mm</td></tr><tr><td>2µm</td><td>127mm</td></tr><tr><td>4µm</td><td>135mm</td></tr></table></div>             | Effective Focal length |  | 118nm | 75mm  | 200nm | 111mm | 633nm | 125mm | 2µm | 127mm | 4µm | 135mm |
| Effective Focal length |          |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 118nm                  | 75mm     |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 111mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 125mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 127mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 135mm    |                     |                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |       |       |       |       |       |       |     |       |     |       |

| MGF40LE<br>NS110       | 40mm Ø | 69.9<br>(±2%)   | 110mm<br>@ 121nm | VUV<br>平凸 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
|------------------------|--------|-----------------|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|-------|-------|-------|-------|-------|-------|-----|-------|-----|-------|
| MGF40LE<br>NS115       | 40mm Ø | 72.78<br>(±2%)  | 115mm<br>@ 121nm | VUV<br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>40mm diameter x 115mm F.L. @ 121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div><div>Diameter:40.0mm (+0/-0.1mm)</div><div>Clear Aperture:80% of diameter</div><div>Edge thickness:2.0mm</div><div>Centre Thickness:4.8mm derived</div><div>Chamfers:approx 0.1mm break-edge</div><div>Radius of Curvature 1:72.78 (test plate)</div><div>Radius of Curvature 2:Plano</div></div> <div><div>Centration:Not specified</div><div>Surface Accuracy:Not specified</div><div>S/D:40/20</div><div>Coating:None</div></div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>115mm</td></tr><tr><td>200nm</td><td>172mm</td></tr><tr><td>633nm</td><td>193mm</td></tr><tr><td>2µm</td><td>197mm</td></tr><tr><td>4µm</td><td>208mm</td></tr></table></div>  | Effective Focal length |  | 121nm | 115mm | 200nm | 172mm | 633nm | 193mm | 2µm | 197mm | 4µm | 208mm |
| Effective Focal length |        |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 115mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 172mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 193mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 197mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 208mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF40LE<br>NS235       | 40mm Ø | 148.08<br>(±2%) | 235mm<br>@ 121nm | VUV<br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>40mm diameter x 235mm F.L. @ 121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div><div>Diameter:40.0mm (+0/-0.1mm)</div><div>Clear Aperture:80% of diameter</div><div>Edge thickness:2.0mm</div><div>Centre Thickness:3.5mm derived</div><div>Chamfers:approx 0.1mm break-edge</div><div>Radius of Curvature 1:148.08 (test plate)</div><div>Radius of Curvature 2:Plano</div></div> <div><div>Centration:Not specified</div><div>Surface Accuracy:Not specified</div><div>S/D:40/20</div><div>Coating:None</div></div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>235mm</td></tr><tr><td>200nm</td><td>350mm</td></tr><tr><td>633nm</td><td>393mm</td></tr><tr><td>2µm</td><td>402mm</td></tr><tr><td>4µm</td><td>424mm</td></tr></table></div> | Effective Focal length |  | 121nm | 235mm | 200nm | 350mm | 633nm | 393mm | 2µm | 402mm | 4µm | 424mm |
| Effective Focal length |        |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 235mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 350mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 393mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 402mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 424mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| MGF70LE<br>NS300       | 70mm Ø | 188.6<br>(±2%)  | 300mm<br>@ 121nm | VUV<br>平凸 | <div>MAGNESIUM FLUORIDE PLANO-CONVEX LENS</div> <div>70mm diameter x 300mm F.L. @ 121nm</div> <div>MATERIAL: VUV Grade MgF<sub>2</sub></div> <div><div>Diameter:70mm (+0/-0.1mm)</div><div>Clear Aperture:80% of diameter</div><div>Edge thickness:3.0mm</div><div>Centre Thickness:6.5mm</div><div>Chamfers:approx 0.1mm break-edge</div><div>Radius of Curvature 1:188.6mm (test plate)</div><div>Radius of Curvature 2:Plano</div></div> <div><div>Centration:Not specified</div><div>Surface Accuracy:Not specified</div><div>S/D:40/20</div><div>Coating:None</div></div> <div><table><tr><th colspan="2">Effective Focal length</th></tr><tr><td>121nm</td><td>300mm</td></tr><tr><td>200nm</td><td>444mm</td></tr><tr><td>633nm</td><td>501mm</td></tr><tr><td>2µm</td><td>510mm</td></tr><tr><td>4µm</td><td>540mm</td></tr></table></div>          | Effective Focal length |  | 121nm | 300mm | 200nm | 444mm | 633nm | 501mm | 2µm | 510mm | 4µm | 540mm |
| Effective Focal length |        |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 121nm                  | 300mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 200nm                  | 444mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 633nm                  | 501mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 2µm                    | 510mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |
| 4µm                    | 540mm  |                 |                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        |  |       |       |       |       |       |       |     |       |     |       |