

# Useable (Evenly Illuminated) Fields of View - Optem FMOS with Substage or Oblique Illumination

|  |             | FT 60                              | FT 100   | FT 140   | FT 160   | FT 180   | FT 200   | -  | -  | -  | -   | -   | -   | -   |   |
|--|-------------|------------------------------------|--|--|--|--|--|--|--|--|---|---|---|---|---|
|  |             | -                                  | -  | FTM 140  | FTM 160  | FTM180   | FTM 200  | FTM 100  | FTM 120  | FTM 250  | FTM 300   | FTM 350   | FTM 400   | FTM 450   | FTM 500   |
| <b>B30<br/>F30<br/>C30<br/>FC30</b>      | Res (lp/mm) | 0.050                              | 0.081  | 0.12   | 0.13   | 0.15   | 0.16   | 0.081  | 0.10   | 0.16   | 0.16  | 0.16  | 0.16  | 0.16  | 0.16  |
|  | Mag         | 150                                | 244  | 345  | 394  | 450  | 488  | 244  | 300  | 488  | 488   | 488   | 488   | 488   | 488   |
|  | DOF         | 1.5                                | 2.5  | 3.5  | 4.0  | 4.5  | 5.0  | 2.5  | 3.0  | 6.3  | 7.5   | 8.8   | 10.0  | 11.3  | 12.5  |
|  | FOV (mm)    | 0.23                               | 0.086  | 0.043  | 0.033  | 0.025  | 0.021  | 0.09   | 0.057  | 0.021  | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 2.45 x 1.84<br>1.92 x 1.44<br>4.27 x 3.20<br>5.87 x 4.40<br>8.53 x 6.40        | 1.47 x 1.10<br>1.92 x 1.44<br>2.56 x 1.92<br>3.52 x 2.64<br>5.12 x 3.84      | 1.05 x 0.79<br>1.37 x 1.03<br>1.83 x 1.37<br>2.51 x 1.89<br>3.66 x 2.74    | 0.92 x 0.69<br>1.20 x 0.90<br>1.60 x 1.20<br>2.20 x 1.65<br>3.20 x 2.40  | 0.71 x 0.53<br>1.07 x 0.80<br>1.42 x 1.07<br>1.96 x 1.47<br>2.84 x 2.13  | 0.64 x 0.48<br>0.96 x 0.72<br>1.28 x 0.96<br>1.76 x 1.32<br>2.56 x 1.92  | 1.47 x 1.10<br>1.92 x 1.44<br>2.56 x 1.92<br>3.52 x 2.64<br>4.42 x 3.31      | 1.23 x 0.92<br>1.60 x 1.20<br>2.13 x 1.60<br>2.93 x 2.20<br>4.27 x 3.20    | 0.59 x 0.44<br>0.77 x 0.58<br>1.02 x 0.77<br>1.41 x 1.06<br>2.05 x 1.54 | 0.49 x 0.37<br>0.64 x 0.48<br>0.85 x 0.64<br>1.17 x 0.88<br>1.71 x 1.28 | 0.42 x 0.32<br>0.55 x 0.41<br>0.73 x 0.55<br>1.01 x 0.75<br>1.46 x 1.10 | 0.37 x 0.28<br>0.48 x 0.36<br>0.64 x 0.48<br>0.88 x 0.66<br>1.28 x 0.96 | 0.33 x 0.25<br>0.43 x 0.32<br>0.57 x 0.43<br>0.78 x 0.59<br>1.14 x 0.85 |
| <b>B50<br/>F50<br/>C50<br/>FC50</b>      | Res (lp/mm) | 0.033                              | 0.053  | 0.075  | 0.086  | 0.10   | 0.11   | 0.053  | 0.066  | 0.11   | 0.11  | 0.11  | 0.11  | 0.11  | 0.11  |
|  | Mag         | 98                                 | 160  | 226  | 258  | 295  | 320  | 160  | 197  | 320  | 320   | 320   | 320   | 320   | 320   |
|  | DOF         | 1.0                                | 1.6  | 2.3  | 2.6  | 3.0  | 3.3  | 1.6  | 2.0  | 4.1  | 4.9   | 5.7   | 6.6   | 7.4   | 8.2   |
|  | FOV (mm)    | 0.53                               | 0.20   | 0.10   | 0.077  | 0.059  | 0.050  | 0.20   | 0.13   | 0.050  | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 3.68 x 2.76<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60       | 2.21 x 1.66<br>2.88 x 2.16<br>3.84 x 2.88<br>5.28 x 3.96<br>7.68 x 5.76      | 1.58 x 1.18<br>2.06 x 1.54<br>2.74 x 2.06<br>3.77 x 2.83<br>5.49 x 4.11    | 1.38 x 1.04<br>1.80 x 1.35<br>2.40 x 1.80<br>3.30 x 2.48<br>4.80 x 3.60  | 1.07 x 0.80<br>1.60 x 1.20<br>2.13 x 1.60<br>2.93 x 2.20<br>4.27 x 3.20  | 0.96 x 0.72<br>1.44 x 1.08<br>1.92 x 1.44<br>2.64 x 1.98<br>3.84 x 2.88  | 2.21 x 1.66<br>2.88 x 2.16<br>3.84 x 2.88<br>5.28 x 3.96<br>6.82 x 4.97      | 1.84 x 1.38<br>2.40 x 1.80<br>3.20 x 2.40<br>4.40 x 3.30<br>6.40 x 4.80    | 0.88 x 0.66<br>1.15 x 0.86<br>1.54 x 1.15<br>2.11 x 1.58<br>3.07 x 2.30 | 0.74 x 0.55<br>0.96 x 0.72<br>1.28 x 0.96<br>1.76 x 1.32<br>2.56 x 1.92 | 0.63 x 0.47<br>0.82 x 0.62<br>1.10 x 0.82<br>1.51 x 1.13<br>2.19 x 1.65 | 0.55 x 0.41<br>0.72 x 0.54<br>0.96 x 0.72<br>1.32 x 0.99<br>1.92 x 1.44 | 0.49 x 0.37<br>0.64 x 0.48<br>0.85 x 0.64<br>1.17 x 0.88<br>1.71 x 1.28 |
| <b>B90<br/>F90<br/>C90<br/>FC90</b>      | Res (lp/mm) | 0.021                              | 0.034  | 0.048  | 0.054  | 0.062  | 0.067  | 0.034  | 0.041  | 0.067  | 0.067   | 0.067   | 0.067   | 0.067   | 0.067   |
|  | Mag         | 62                                 | 101  | 143  | 163  | 187  | 202  | 101  | 124  | 202  | 202   | 202   | 202   | 202   | 202   |
|  | DOF         | 1.6                                | 2.5  | 3.5  | 4.0  | 4.5  | 5.0  | 2.5  | 3.1  | 6.3  | 7.5   | 8.8   | 10.0  | 11.3  | 12.5  |
|  | FOV (mm)    | 0.30                               | 0.10   | 0.05   | 0.038  | 0.029  | 0.024  | 0.09   | 0.057  | 0.021  | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 6.13 x 4.60<br>8.00 x 6.00<br>10.67 x 8.00<br>14.67 x 11.00<br>21.33 x 16.00   | 3.68 x 2.76<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60     | 2.63 x 1.97<br>3.43 x 2.57<br>4.57 x 3.43<br>6.29 x 4.71<br>9.14 x 6.86    | 2.30 x 1.73<br>3.00 x 2.25<br>4.00 x 3.00<br>5.50 x 4.13<br>8.00 x 6.00  | 1.78 x 1.33<br>2.67 x 2.00<br>3.56 x 2.67<br>4.89 x 3.67<br>7.11 x 5.33  | 1.60 x 1.20<br>2.40 x 1.80<br>3.20 x 2.40<br>4.40 x 3.30<br>6.40 x 4.80  | 3.68 x 2.76<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>11.04 x 8.28     | 3.07 x 2.30<br>4.00 x 3.00<br>5.33 x 4.00<br>7.33 x 5.50<br>10.67 x 8.00   | 1.47 x 1.10<br>1.92 x 1.44<br>2.60 x 1.92<br>3.52 x 2.64<br>5.12 x 3.84 | 1.23 x 0.92<br>1.60 x 1.20<br>2.13 x 1.60<br>2.93 x 2.20<br>4.27 x 3.20 | 1.05 x 0.79<br>1.37 x 1.03<br>1.83 x 1.37<br>2.51 x 1.89<br>3.66 x 2.74 | 0.92 x 0.69<br>1.20 x 0.90<br>1.60 x 1.20<br>2.20 x 1.65<br>3.20 x 2.40 | 0.82 x 0.61<br>1.07 x 0.80<br>1.42 x 1.07<br>1.96 x 1.47<br>2.84 x 2.13 |
| <b>B130<br/>F130<br/>C130<br/>FC130</b>  | Res (lp/mm) | 0.014                              | 0.023  | 0.033  | 0.038  | 0.043  | 0.046  | 0.023  | 0.029  | 0.046  | 0.046   | 0.046   | 0.046   | 0.046   | 0.046   |
|  | Mag         | 43                                 | 70   | 99   | 113  | 129  | 139  | 70   | 86   | 139  | 139   | 139   | 139   | 139   | 139   |
|  | DOF         | 2.8                                | 4.0  | 5.5  | 6.0  | 6.8  | 7.4  | 4.0  | 4.9  | 9.8  | 11.8  | 13.8  | 15.8  | 17.8  | 19.8  |
|  | FOV (mm)    | 0.89                               | 0.55   | 0.38   | 0.32   | 0.28   | 0.26   | 0.98   | 0.62   | 0.26   | 0.26  | 0.26  | 0.26  | 0.26  | 0.26  |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 8.99 x 6.44<br>11.20 x 8.40<br>14.93 x 11.20<br>20.53 x 15.40<br>29.87 x 22.40 | 5.15 x 3.86<br>6.72 x 5.04<br>8.96 x 6.72<br>12.32 x 9.24<br>17.92 x 13.44   | 3.68 x 2.76<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60   | 3.22 x 2.42<br>4.20 x 3.15<br>5.60 x 4.20<br>7.70 x 5.78<br>11.20 x 8.40 | 2.49 x 1.87<br>3.73 x 2.80<br>4.98 x 3.73<br>6.84 x 5.13<br>9.96 x 7.47  | 2.24 x 1.68<br>3.36 x 2.52<br>4.48 x 3.36<br>6.16 x 4.62<br>8.96 x 6.72  | 5.15 x 3.86<br>6.72 x 5.04<br>8.96 x 6.72<br>12.32 x 9.24<br>17.92 x 13.44   | 4.29 x 3.22<br>5.60 x 4.20<br>7.47 x 5.60<br>10.27 x 7.70<br>14.93 x 11.20 | 2.06 x 1.55<br>2.69 x 2.02<br>3.58 x 2.69<br>4.93 x 3.70<br>7.17 x 5.38 | 1.72 x 1.29<br>2.24 x 1.68<br>2.99 x 2.24<br>4.11 x 3.08<br>5.97 x 4.48 | 1.47 x 1.10<br>1.92 x 1.44<br>2.56 x 1.92<br>3.52 x 2.64<br>5.12 x 3.84 | 1.29 x 0.97<br>1.68 x 1.26<br>2.24 x 1.68<br>3.08 x 2.31<br>4.48 x 3.36 | 1.14 x 0.86<br>1.49 x 1.12<br>1.99 x 1.49<br>2.74 x 2.05<br>3.98 x 2.99 |
| <b>B150<br/>F150<br/>C150<br/>FC150</b>  | Res (lp/mm) | 0.013                              | 0.020  | 0.029  | 0.033  | 0.038  | 0.041  | 0.020  | 0.025  | 0.041  | 0.041   | 0.041   | 0.041   | 0.041   | 0.041   |
|  | Mag         | 38                                 | 61   | 87   | 99   | 113  | 123  | 61   | 75   | 123  | 123   | 123   | 123   | 123   | 123   |
|  | DOF         | 3.6                                | 5.0  | 6.8  | 7.7  | 8.8  | 9.6  | 5.0  | 6.1  | 12.3   | 15.0  | 17.5  | 20.0  | 22.5  | 25.0  |
|  | FOV (mm)    | 9.81                               | 6.36   | 4.42   | 3.68   | 3.26   | 2.94   | 10.44  | 6.86   | 2.36   | 2.36  | 2.36  | 2.36  | 2.36  | 2.36  |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 12.80 x 9.60<br>17.07 x 12.80<br>23.47 x 17.60<br>34.13 x 25.60                | 5.89 x 4.42<br>7.68 x 5.76<br>10.24 x 7.68<br>14.08 x 10.56<br>20.48 x 15.36 | 4.21 x 3.15<br>5.49 x 4.11<br>7.31 x 5.49<br>10.06 x 7.54<br>14.63 x 10.97 | 3.68 x 2.76<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60 | 2.84 x 2.13<br>4.27 x 3.20<br>5.69 x 4.27<br>7.82 x 5.87<br>11.38 x 8.53 | 2.56 x 1.92<br>3.84 x 2.88<br>5.12 x 3.84<br>7.04 x 5.28<br>10.24 x 7.68 | 5.89 x 4.42<br>7.68 x 5.76<br>10.24 x 7.68<br>14.08 x 10.56<br>17.92 x 13.44 | 4.91 x 3.68<br>6.40 x 4.80<br>8.53 x 6.40<br>11.73 x 8.80<br>17.07 x 12.80 | 2.36 x 1.77<br>3.07 x 2.30<br>4.10 x 3.07<br>5.63 x 4.22<br>8.19 x 6.14 | 1.96 x 1.47<br>2.56 x 1.92<br>3.41 x 2.56<br>4.69 x 3.52<br>6.83 x 5.12 | 1.68 x 1.26<br>2.19 x 1.65<br>2.93 x 2.19<br>4.02 x 3.02<br>5.85 x 4.39 | 1.47 x 1.10<br>1.92 x 1.44<br>2.56 x 1.92<br>3.52 x 2.64<br>5.12 x 3.84 | 1.31 x 0.98<br>1.71 x 1.28<br>2.28 x 1.71<br>3.13 x 2.35<br>4.55 x 3.41 |
| <b>B170<br/>F170<br/>C170<br/>FC170</b>  | Res (lp/mm) | 0.011                              | 0.018  | 0.026  | 0.029  | 0.034  | 0.036  | 0.018  | 0.022  | 0.036  | 0.036   | 0.036   | 0.036   | 0.036   | 0.036   |
|  | Mag         | 34                                 | 55   | 77   | 88   | 101  | 109  | 55   | 67   | 109  | 109   | 109   | 109   | 109   | 109   |
|  | DOF         | 4.5                                | 6.0  | 8.5  | 9.6  | 11.0   | 11.8   | 6.0  | 7.4  | 14.4   | 17.5  | 20.0  | 22.5  | 25.0  | 27.5  |
|  | FOV (mm)    | 11.04                              | 7.28   | 4.97   | 4.73   | 4.14   | 3.70   | 12.48  | 8.16   | 2.65   | 2.65  | 2.65  | 2.65  | 2.65  | 2.65  |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 14.40 x 10.80<br>19.20 x 14.40<br>26.40 x 19.80<br>38.40 x 28.80               | 8.64 x 6.48<br>11.52 x 8.64<br>15.84 x 11.88<br>23.04 x 17.28                | 6.17 x 4.63<br>8.23 x 6.17<br>11.31 x 8.49<br>16.46 x 12.34                | 5.40 x 4.05<br>7.20 x 5.40<br>9.90 x 7.43<br>14.40 x 10.80               | 4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60                | 4.32 x 3.24<br>5.76 x 4.32<br>7.92 x 5.94<br>11.52 x 8.64                | 8.64 x 6.48<br>11.52 x 8.64<br>15.84 x 11.88<br>23.04 x 17.28                | 7.20 x 5.40<br>9.60 x 7.20<br>13.20 x 9.90<br>19.20 x 14.40                | 3.46 x 2.59<br>4.61 x 3.46<br>6.34 x 4.75<br>9.22 x 6.91                | 2.88 x 2.16<br>3.84 x 2.88<br>5.28 x 3.96<br>7.68 x 5.76                | 2.47 x 1.85<br>3.29 x 2.47<br>4.53 x 3.39<br>6.58 x 4.94                | 2.16 x 1.62<br>2.88 x 2.16<br>3.96 x 2.97<br>5.76 x 4.32                | 1.92 x 1.44<br>2.56 x 1.92<br>3.52 x 2.64<br>5.12 x 3.84                |
| <b>B190<br/>F190<br/>C190<br/>FC190</b>  | Res (lp/mm) | 0.010                              | 0.016  | 0.023  | 0.026  | 0.030  | 0.032  | 0.016  | 0.020  | 0.032  | 0.032   | 0.032   | 0.032   | 0.032   | 0.032   |
|  | Mag         | 30                                 | 48   | 68   | 78   | 90   | 96   | 48   | 59   | 96   | 96  | 96  | 96  | 96  | 96  |
|  | DOF         | 5.8                                | 7.8  | 11.0   | 12.3   | 14.0   | 15.0   | 7.8  | 9.6  | 19.2   | 23.0  | 27.5  | 32.0  | 36.5  | 41.0  |
|  | FOV (mm)    | 12.27                              | 8.16   | 5.52   | 5.26   | 4.60   | 4.20   | 14.40  | 9.60   | 3.13   | 3.13  | 3.13  | 3.13  | 3.13  | 3.13  |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 16.00 x 12.00<br>21.33 x 16.00<br>29.33 x 22.00<br>42.67 x 32.00               | 7.36 x 5.52<br>9.60 x 7.20<br>12.80 x 9.60<br>18.40 x 13.60                  | 5.26 x 3.94<br>6.86 x 5.14<br>9.14 x 6.86<br>12.80 x 9.60                  | 4.60 x 3.45<br>6.00 x 4.50<br>8.00 x 6.00<br>11.00 x 8.25                | 3.56 x 2.67<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60                 | 3.20 x 2.40<br>4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60                 | 7.36 x 5.52<br>9.60 x 7.20<br>12.80 x 9.60<br>18.40 x 13.60                  | 6.13 x 4.60<br>8.00 x 6.00<br>10.67 x 8.00<br>14.67 x 11.00                | 2.94 x 2.21<br>3.84 x 2.88<br>5.12 x 3.84<br>7.04 x 5.28                | 2.45 x 1.84<br>3.20 x 2.40<br>4.27 x 3.20<br>5.97 x 4.48                | 2.10 x 1.58<br>2.74 x 2.02<br>3.66 x 2.74<br>5.12 x 3.84                | 1.84 x 1.38<br>2.40 x 1.80<br>3.20 x 2.40<br>4.40 x 3.30                | 1.64 x 1.23<br>2.13 x 1.60<br>2.84 x 2.13<br>3.91 x 2.93                |
| <b>2X<br/>MPLAN APO<br/>28-21-02-000</b> | Res (lp/mm) | 0.020                              | 0.033  | 0.046  | 0.053  | 0.055  | 0.055  | 0.040  | 0.055  | 0.055  | 0.055   | 0.055   | 0.055   | 0.055   | 0.055   |
|  | Mag         | 60                                 | 98   | 138  | 158  | 165  | 165  | 98   | 120  | 165  | 165   | 165   | 165   | 165   | 165   |
|  | DOF         | 1.42                               | 0.54   | 0.27   | 0.21   | 0.19   | 0.19   | 0.54   | 0.35   | 0.19   | 0.19  | 0.19  | 0.19  | 0.19  | 0.19  |
|  | FOV (mm)    | 6.13                               | 3.68   | 2.63   | 2.30   | 1.78   | 1.60   | 12.27  | 8.16   | 2.65   | 2.65  | 2.65  | 2.65  | 2.65  | 2.65  |
|  | Cam Format  | 1/4"<br>1/3"<br>1/2"<br>2/3"<br>1" | 8.00 x 6.00<br>10.67 x 8.00<br>14.67 x 11.00<br>21.33 x 16.00                  | 4.80 x 3.60<br>6.40 x 4.80<br>8.80 x 6.60<br>12.80 x 9.60                    | 3.43 x 2.57<br>4.57 x 3.43<br>6.29 x 4.71<br>9.14 x 6.86                   | 3.00 x 2.25<br>4.00 x 3.00<br>5.50 x 4.13<br>8.00 x 6.00                 | 2.67 x 2.00<br>3.56 x 2.67<br>4.89 x 3.67<br>7.                          |  |  |  |   |   |   |   |   |

# Useable (Evenly Illuminated) Fields of View - Optem FMOS with Coaxial Illumination

|                               |             | FT 60        | FT 100      | FT 140      | FT 160      | FT 180      | FT 200      | FTM 100     | FTM 120     | FTM 140     | FTM 160     | FTM 180     | FTM 200     | FTM 250     | FTM 300     | FTM 350     | FTM 400     | FTM 450     | FTM 500     |             |
|-------------------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>B30<br/>F30<br/>C30</b>    | Res (lp/mm) | 0.050        | 0.081       | 0.12        | 0.13        | 0.15        | 0.16        | 0.081       | 0.10        | 0.12        | 0.13        | 0.15        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 2.45 x 1.84  | 1.47 x 1.10 | 1.05 x 0.79 | 0.92 x 0.69 | 0.71 x 0.53 | 0.64 x 0.48 | 1.47 x 1.10 | 1.23 x 0.92 | 1.05 x 0.79 | 0.92 x 0.69 | 0.82 x 0.61 | 0.74 x 0.55 | 0.59 x 0.44 | 0.49 x 0.37 | 0.42 x 0.32 | 0.37 x 0.28 | 0.33 x 0.25 | 0.29 x 0.22 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B50<br/>F50<br/>C50</b>    | Res (lp/mm) | 0.033        | 0.053       | 0.075       | 0.086       | 0.10        | 0.11        | 0.053       | 0.066       | 0.075       | 0.086       | 0.10        | 0.11        | 0.11        | 0.11        | 0.11        | 0.11        | 0.11        | 0.11        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 3.68 x 2.76  | 2.21 x 1.66 | 1.58 x 1.18 | 1.38 x 1.04 | 1.07 x 0.80 | 0.96 x 0.72 | 2.21 x 1.66 | 1.84 x 1.38 | 1.58 x 1.18 | 1.38 x 1.04 | 1.23 x 0.92 | 1.10 x 0.83 | 0.88 x 0.66 | 0.74 x 0.55 | 0.63 x 0.47 | 0.55 x 0.41 | 0.49 x 0.37 | 0.44 x 0.33 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B90<br/>F90<br/>C90</b>    | Res (lp/mm) | 0.021        | 0.034       | 0.048       | 0.054       | 0.062       | 0.067       | 0.034       | 0.041       | 0.048       | 0.054       | 0.062       | 0.067       | 0.067       | 0.067       | 0.067       | 0.067       | 0.067       | 0.067       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 6.13 x 4.60  | 3.68 x 2.76 | 2.63 x 1.97 | 2.30 x 1.73 | 1.78 x 1.33 | 1.60 x 1.20 | 3.68 x 2.76 | 3.07 x 2.30 | 2.63 x 1.97 | 2.30 x 1.73 | 2.04 x 1.53 | 1.84 x 1.38 | 1.47 x 1.10 | 1.23 x 0.92 | 1.05 x 0.79 | 0.92 x 0.69 | 0.82 x 0.61 | 0.74 x 0.55 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B130<br/>F130<br/>C130</b> | Res (lp/mm) | 0.014        | 0.023       | 0.033       | 0.038       | 0.043       | 0.046       | 0.023       | 0.029       | 0.033       | 0.038       | 0.043       | 0.046       | 0.046       | 0.046       | 0.046       | 0.046       | 0.046       | 0.046       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 6.35 x 4.76  | 5.15 x 3.86 | 3.68 x 2.76 | 3.22 x 2.42 | 2.49 x 1.87 | 2.24 x 1.68 | 5.15 x 3.86 | 4.29 x 3.22 | 3.68 x 2.76 | 3.22 x 2.42 | 2.86 x 2.15 | 2.58 x 1.93 | 2.06 x 1.55 | 1.72 x 1.29 | 1.47 x 1.10 | 1.29 x 0.97 | 1.14 x 0.86 | 1.03 x 0.77 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B150<br/>F150<br/>C150</b> | Res (lp/mm) | 0.013        | 0.020       | 0.029       | 0.033       | 0.038       | 0.041       | 0.020       | 0.025       | 0.029       | 0.033       | 0.038       | 0.041       | 0.041       | 0.041       | 0.041       | 0.041       | 0.041       | 0.041       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 6.40 x 4.80  | 5.89 x 4.42 | 4.21 x 3.15 | 3.68 x 2.76 | 2.84 x 2.13 | 2.56 x 1.92 | 6.40 x 4.80 | 5.63 x 4.22 | 4.91 x 3.68 | 4.21 x 3.15 | 3.68 x 2.76 | 3.27 x 2.45 | 2.94 x 2.21 | 2.36 x 1.77 | 1.96 x 1.47 | 1.68 x 1.26 | 1.47 x 1.10 | 1.31 x 0.98 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B170<br/>F170<br/>C170</b> | Res (lp/mm) | 0.011        | 0.018       | 0.026       | 0.029       | 0.034       | 0.036       | 0.018       | 0.022       | 0.026       | 0.029       | 0.034       | 0.036       | 0.036       | 0.036       | 0.036       | 0.036       | 0.036       | 0.036       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 6.24 x 4.68  | 6.05 x 4.54 | 4.73 x 3.55 | 4.14 x 3.11 | 3.20 x 2.40 | 2.88 x 2.16 | 6.05 x 4.54 | 5.52 x 4.14 | 4.73 x 3.55 | 4.14 x 3.11 | 3.68 x 2.76 | 3.31 x 2.48 | 2.85 x 1.99 | 2.21 x 1.66 | 1.89 x 1.42 | 1.66 x 1.24 | 1.47 x 1.10 | 1.32 x 0.98 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>B190<br/>F190<br/>C190</b> | Res (lp/mm) | 0.010        | 0.016       | 0.023       | 0.026       | 0.030       | 0.032       | 0.016       | 0.020       | 0.023       | 0.026       | 0.030       | 0.032       | 0.032       | 0.032       | 0.032       | 0.032       | 0.032       | 0.032       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 5.87 x 4.40  | 5.60 x 4.20 | 5.49 x 4.11 | 5.30 x 3.98 | 4.98 x 3.73 | 4.64 x 3.48 | 5.87 x 4.40 | 5.60 x 4.20 | 5.49 x 4.11 | 5.30 x 3.98 | 5.16 x 3.87 | 4.72 x 3.54 | 4.67 x 3.50 | 4.69 x 3.52 | 4.62 x 3.46 | 4.40 x 3.30 | 3.91 x 2.93 | 3.52 x 2.64 | 3.17 x 2.38 |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>2X<br/>MPLAN APO</b>       | Res (lp/mm) | 0.020        | 0.033       | 0.046       | 0.053       | 0.055       | 0.055       | 0.033       | 0.040       | 0.046       | 0.053       | 0.055       | 0.055       | 0.055       | 0.055       | 0.055       | 0.055       | 0.055       | 0.055       |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 12.27 x 9.20 | 7.36 x 5.52 | 5.26 x 3.94 | 4.60 x 3.45 | 3.56 x 2.67 | 3.20 x 2.40 | 7.36 x 5.52 | 6.13 x 4.60 | 5.26 x 3.94 | 4.60 x 3.45 | 4.09 x 3.07 | 3.68 x 2.76 | 2.94 x 2.21 | 2.45 x 1.84 | 2.10 x 1.58 | 1.84 x 1.38 | 1.64 x 1.23 | 1.47 x 1.10 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>5X<br/>MPLAN APO</b>       | Res (lp/mm) | 0.050        | 0.081       | 0.12        | 0.13        | 0.15        | 0.16        | 0.081       | 0.10        | 0.12        | 0.13        | 0.15        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        | 0.16        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 4.91 x 3.68  | 2.94 x 2.21 | 2.10 x 1.58 | 1.84 x 1.38 | 1.42 x 1.07 | 1.28 x 0.96 | 2.94 x 2.21 | 2.45 x 1.84 | 2.10 x 1.58 | 1.84 x 1.38 | 1.64 x 1.23 | 1.47 x 1.10 | 1.18 x 0.88 | 0.98 x 0.74 | 0.84 x 0.63 | 0.74 x 0.55 | 0.65 x 0.49 | 0.59 x 0.44 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>10X<br/>MPLAN APO</b>      | Res (lp/mm) | 0.10         | 0.16        | 0.23        | 0.26        | 0.28        | 0.28        | 0.16        | 0.20        | 0.23        | 0.26        | 0.28        | 0.28        | 0.28        | 0.28        | 0.28        | 0.28        | 0.28        | 0.28        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 2.45 x 1.84  | 1.47 x 1.10 | 1.05 x 0.79 | 0.92 x 0.69 | 0.71 x 0.53 | 0.64 x 0.48 | 2.45 x 1.84 | 1.23 x 0.92 | 1.05 x 0.79 | 0.92 x 0.69 | 0.82 x 0.61 | 0.74 x 0.55 | 0.59 x 0.44 | 0.49 x 0.37 | 0.42 x 0.32 | 0.37 x 0.28 | 0.33 x 0.25 | 0.29 x 0.22 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>20X<br/>MPLAN APO</b>      | Res (lp/mm) | 0.20         | 0.33        | 0.42        | 0.46        | 0.48        | 0.48        | 0.20        | 0.25        | 0.30        | 0.33        | 0.38        | 0.42        | 0.42        | 0.42        | 0.42        | 0.42        | 0.42        | 0.42        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 1.23 x 0.92  | 0.74 x 0.55 | 0.53 x 0.39 | 0.46 x 0.35 | 0.36 x 0.27 | 0.32 x 0.24 | 1.23 x 0.92 | 0.82 x 0.61 | 0.74 x 0.55 | 0.63 x 0.47 | 0.55 x 0.41 | 0.49 x 0.37 | 0.42 x 0.32 | 0.37 x 0.28 | 0.33 x 0.25 | 0.29 x 0.22 | 0.26 x 0.19 | 0.23 x 0.17 |             |
|                               | Cam Format  | 1/4"         | 1/3"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        | 1/2"        |             |
| <b>50X<br/>MPLAN APO</b>      | Res (lp/mm) | 0.50         | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        | 0.55        |             |
|                               | Mag         | 1.5          | 2.4         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         | 2.4         | 3.0         | 3.5         | 3.4         | 3.0         | 2.8         |             |
|                               | DOF         | 0.23         | 0.086       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.09        | 0.057       | 0.043       | 0.033       | 0.025       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       | 0.021       |             |
|                               | FOV (mm)    | 0.41 x 0.31  | 0.29 x 0.22 | 0.21 x 0.16 | 0.18 x 0.14 | 0.14 x 0.11 | 0.13 x 0.10 | 0.41 x 0.31 | 0.29 x 0.22 | 0.21 x 0.16 |             |             |             |             |             |             |             |             |             |             |