

## O p T a l i X - Pro 64-bit

Version 9.25

by OPTENSO  
Optical Engineering Software  
<http://www.optenso.com>  
Support: info@optenso.com

License assigned to : FHNW 2017-29  
License No. : 79103051  
Upgrades valid through : 31.March 2018  
Number of processors : 20

FILE = Proclearn spheric -2.00 40cm.otx

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Wavelength : 0.54600  
Weight : 1  
REF = 1

|      |           |          |           |           |           |           |
|------|-----------|----------|-----------|-----------|-----------|-----------|
| XAN  | 0.00000   | 0.00000  | 0.00000   | 0.00000   | 0.00000   | 0.00000   |
|      | 0.00000   | 0.00000  | 0.00000   | 0.00000   | 0.00000   | 0.00000   |
|      | 0.00000   |          |           |           |           |           |
| YAN  | 0.00000   | 5.00000  | 10.00000  | 15.00000  | 20.00000  | 25.00000  |
|      | 30.00000  | -5.00000 | -10.00000 | -15.00000 | -20.00000 | -25.00000 |
|      | -30.00000 |          |           |           |           |           |
| FWGT | 100       | 100      | 100       | 100       | 100       | 100       |
|      | 100       | 100      | 100       | 100       | 100       | 100       |
|      | 100       |          |           |           |           |           |
| FACT | 1         | 1        | 1         | 1         | 1         | 1         |
|      | 1         | 1        | 1         | 1         | 1         | 1         |
|      | 1         |          |           |           |           |           |

PIM = no  
SYM = yes

| #   | TYPE | RADIUS   | DISTANCE  | GLASS  | INDEX    | APE-Y | AP | CP | DP | TP | MP | GLB |
|-----|------|----------|-----------|--------|----------|-------|----|----|----|----|----|-----|
| OBJ | S    | Infinity | 400.00000 |        | 1.000000 | 0.00  | C  | 0  | 0  | 0  | 0  | 0   |
| 1>  | S    | 9.1200   | 0.10000   | 380500 | 1.381811 | 7.20  | C  | 0  | 0  | 0  | 0  | 0   |
| 2   | S    | 8.7000   | 0.01000   | 336500 | 1.337602 | 7.20  | C  | 0  | 0  | 0  | 0  | 0   |
| 3   | A    | 8.1000   | 0.50000   | 376500 | 1.377792 | 6.00  | C  | 0  | 0  | 0  | 0  | 0   |
| 4   | S    | 6.8000   | 3.10000   | 336500 | 1.337602 | 6.00  | C  | 0  | 0  | 0  | 0  | 0   |
| STO | S    | Infinity | 0.00000   | 336500 | 1.337602 | 2.20  | C  | 0  | 0  | 0  | 0  | 0   |
| 6   | S    | 9.0000   | 3.60000   | 409500 | 1.410950 | 5.90  | C  | 0  | 0  | 0  | 0  | 0   |
| 7   | A    | -5.4000  | 20.36737  | 336500 | 1.337602 | 5.90  | C  | 0  | 0  | 0  | 0  | 0   |
| 8   | S    | -11.0000 | 0.00000   |        | 1.000000 | 10.00 | C  | 0  | 0  | 0  | 0  | 0   |
| IMG | S    | Infinity |           | 336500 | 1.337602 | 10.00 | C  | 0  | 0  | 0  | 0  | 0   |

## SPECIAL SURFACE APERTURES :

| # |      | APE_X  | APE_Y  | ADX    | ADY    | ARO    |              |
|---|------|--------|--------|--------|--------|--------|--------------|
| 5 | 1 on | 2.2000 | 2.2000 | 0.0000 | 0.0000 | 0.0000 | CIR transmit |
|   | 2 on | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | CIR obstruct |

## ASPHERES:

| # | Type | K             | A              | B              | C              | D              |
|---|------|---------------|----------------|----------------|----------------|----------------|
|   |      | KX            | E              | F              | G              | H              |
| 3 | EVEN | -0.2500000000 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 |
|   |      | 0.0000000000  | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 |
| # | Type | K             | A              | B              | C              | D              |
|   |      | KX            | E              | F              | G              | H              |
| 7 | EVEN | -5.6057871000 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 |
|   |      | 0.0000000000  | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 | 0.00000000E+00 |

## FIRST ORDER DATA AT INFINITE CONJUGATES:

|     |          |                     |           |
|-----|----------|---------------------|-----------|
| EFL | 18.89429 | SH1 (Princ.Plane 1) | 12.80484  |
| FNO | 3.88307  | SH2 (Princ.Plane 2) | -19.53399 |

## FIRST ORDER DATA AT USED CONJUGATE:

|                      |          |                     |          |
|----------------------|----------|---------------------|----------|
| MAG (Magnification)  | -0.04797 | SEP (Entr.Pup.Loc.) | 3.07969  |
| NAO (Num.ape.object) | 0.00604  | EPD (Entr.Pup.Dia.) | 4.86582  |
| NA (Num.ape.image)   | 0.12583  | APD (Exit Pup.Dia.) | 10.09392 |

|                      |             |                      |           |
|----------------------|-------------|----------------------|-----------|
| BFL                  | 0.26659     | SAP (Exit Pup.Loc.)  | -39.57402 |
| DEF (Defocus)        | -0.26659    | PRD pupil relay dist | -14.97634 |
| IMD (Image distance) | 0.00000     | OAL (OBJ-->IMG)      | 427.67737 |
| OID (Object->Image)  | 0.42768E+03 | SYL (System Length)  | 27.67737  |