| Cyefferson Lall <br> Jefferson Lab Alignment Group <br> Data Transmittal |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TO: Michelle ShinnFROM: Chris Curtis |  |  | DATE : Jun 6, 2003 |  |  |
|  |  |  | Checked: | \# DT_F868 |  |
| Details: |  |  |  |  |  |
| Below are the results of the transformations performed in order to estimate the location of the mirrors in the High Reflective and Outcoupler cans. The values are based on the prealignment work carried out in November 2002, and the as found surveys carried out in March 2003. The results show the coordinates in millimeters in the FEL system, where 14600 is the ideal beam $X$, and 5000 is the ideal $Y$. Positive $Z$ is downstream, positive $X$ is to the beam left and positive $Y$ is up. The distance between mirror pairs is also shown. |  |  |  |  |  |
| Point | Z | X | $\begin{gathered} \mathbf{Y} \\ 5000.11 \\ 5000.14 \\ 5000.10 \\ 5000.11 \end{gathered}$ |  |  |
| HR_Mirror1 | 60463.79 | 14600.02 |  |  |  |
| HR_Mirror2 | 60463.87 | 14600.07 |  |  |  |
| HR_Mirror3 | 60464.15 | 14600.02 |  |  |  |
| HR_Mirror4 | 60464.18 | 14599.88 |  |  |  |
| OC_Mirror1 | 92511.04 | 14599.94 | 5000.56 |  |  |
| OC_Mirror2 | 92511.04 | 14599.96 | 5000.60 |  |  |
| OC_Mirror3 | 92510.99 | 14599.97 | 5000.64 |  |  |
| OC_Mirror4 | 92511.12 | 14600.10 | 5000.60 |  |  |
| Dist. |  |  |  |  |  |
| HR-OC Mirror1 | 32047.25 |  |  |  |  |
| HR-OC Mirror2 | 32047.16 |  |  |  |  |
| HR-OC Mirror3 | 32046.83 |  |  |  |  |
| HR-OC Mirror4 | 32046.94 |  |  |  |  |

