

**Table 1**  
Sun Centers with limb length=9 and scan width=10

| Order of Polynomial | Amount of Blur | Threshold   | X Center | Y Center | X Deviation  | Y Deviation  |
|---------------------|----------------|-------------|----------|----------|--------------|--------------|
| 1                   | None           | 1- $\sigma$ | 107.500  | 110.500  | -0.00179291  | -0.00353241  |
|                     | None           | 2- $\sigma$ | 107.500  | 110.500  | -5.34058e-05 | -5.34058e-05 |
|                     | 1 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | 7.62939e-05  | -2.28882e-05 |
|                     | 1 Pixel        | 2- $\sigma$ | 107.359  | 110.500  | 0.140854     | -6.86646e-05 |
|                     | 2 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | -3.05176e-05 | -6.10352e-05 |
|                     | 2 Pixel        | 2- $\sigma$ | N/A      | N/A      | N/A          | N/A          |
|                     | 4 Pixel        | 1- $\sigma$ | 107.501  | 110.500  | 0.000923157  | 3.05176e-05  |
|                     | 4 Pixel        | 2- $\sigma$ | N/A      | N/A      | N/A          | N/A          |
| 2                   | None           | 1- $\sigma$ | 107.500  | 110.500  | -0.00179291  | -0.00353241  |
|                     | None           | 2- $\sigma$ | 107.361  | 110.500  | 0.138466     | -5.34058e-05 |
|                     | 1 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | 0.000144958  | -2.28882e-05 |
|                     | 1 Pixel        | 2- $\sigma$ | 106.554  | 109.335  | 0.945816     | 1.16444      |
|                     | 2 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | -3.05176e-05 | -6.10352e-05 |
|                     | 2 Pixel        | 2- $\sigma$ | N/A      | N/A      | N/A          | N/A          |
|                     | 4 Pixel        | 1- $\sigma$ | 107.499  | 110.500  | 0.00299835   | -6.10352e-05 |
|                     | 4 Pixel        | 2- $\sigma$ | N/A      | N/A      | N/A          | N/A          |
| 3                   | None           | 1- $\sigma$ | 107.500  | 110.500  | -0.00179291  | -0.00353241  |
|                     | None           | 2- $\sigma$ | 106.385  | 109.331  | 1.11539      | 1.16909      |
|                     | 1 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | 0.000114441  | -2.28882e-05 |
|                     | 1 Pixel        | 2- $\sigma$ | 106.419  | 109.680  | 1.08122      | 0.819572     |
|                     | 2 Pixel        | 1- $\sigma$ | 107.500  | 110.500  | -3.05176e-05 | -6.10352e-05 |
|                     | 2 Pixel        | 2- $\sigma$ | N/A      | N/A      | N/A          | N/A          |
|                     | 4 Pixel        | 1- $\sigma$ | 107.501  | 110.500  | 0.000968933  | -0.000106812 |
|                     |                |             |          |          |              |              |