

|                              | MSD (Left) | VSD(Left) | Angle (Left) | MSD (Right) | VSD (Right) | Angle (Right) | Corrected Angle |
|------------------------------|------------|-----------|--------------|-------------|-------------|---------------|-----------------|
| Left for centre              | 295.5      | 0         | 295.5        | 115.5       | 0           | 115.5         | 295.5           |
| Right for centre             | 295        | 59        | 295.0295     | 115         | 58          | 115.029       | 295.02925       |
| Mean for centre (calculated) |            |           |              |             |             |               | 295.264625      |
| Blue (absolute)              | 309        | 0         | 309          | 129         | 0           | 129           | 309             |
| Red (absolute)               | 314.5      | 12        | 314.506      | 134.5       | 7           | 134.5035      | 314.50475 *     |
| Green (absolute)             | 311.5      | 50        | 311.525      | 131.5       | 48          | 131.524       | 311.5245 *      |
| Green II (absolute)          | 312        | 31        | 312.0155     | 131.5       | 48          | 131.524       | 311.76975 *     |
| Blue                         |            |           |              |             |             |               | 13.735375       |
| Green                        |            |           |              |             |             |               | 14.5245         |
| Green II                     |            |           |              |             |             |               | 14.76975        |
| Red                          |            |           |              |             |             |               | 17.50475        |

297 \* The readings other than blue, were taken with respect to this

| Wavelength in cm | Wavelength in nm | 1/lambda | (1/4 - 1/(n^2)) | Expected | Expected Angle |
|------------------|------------------|----------|-----------------|----------|----------------|
| 4.02062E-05      | 402.06           | 2487181  | 0.222222222     | 410      | 14.01205171    |
| 4.24678E-05      | 424.68           | 2354726  |                 |          |                |
| 4.3169E-05       | 431.69           | 2316475  | 0.21            | 434      | 14.85058324    |
| 5.09329E-05      | 509.33           | 1963367  | 0.1875          | 486      | 16.67890632    |

|                          |             |        |
|--------------------------|-------------|--------|
| Lines per inch           | 15000       |        |
| Separation between lines | 6.66667E-05 | inches |
| d                        | 0.000169333 | cm     |

Rydberg's Constant

1.00E+07 ±

7.87E+05 1/m

R^2=

0.9213

