# Technical Specifications for the LAMBDA 25/35/45 UV/Vis Spectrophotometers

| Technical description and specifications | | LAMBDA™ 25 | LAMBDA™ 35 | LAMBDA™ 45 |
|---|---|---|---|---|
| Part number* | (Standard System) | L6020060 | L6020064 | L6020068 |
| Part number* | (Enhanced Security System) | L6020062 | L6020066 | L6020070 |
| Wavelength range | | 190-1100 nm | 190-1100 nm | 190-1100 nm |
| Bandwidth | | 1 nm fixed | 0.5, 1, 2, 4 nm variable | 0.5, 1, 2, 4 nm variable |
| Stray light | At 220 nm (NaI)<br>At 340 nm ($NaNO_2$)<br>At 370 nm ($NaNO_2$)<br>At 200 nm (KCl) | < 0.01%T<br>< 0.01%T<br>< 0.01%T<br>< 1%T | < 0.01%T<br>< 0.01%T<br>< 0.01%T<br>< 1%T | < 0.005%T<br>< 0.005%T<br>< 0.005%T<br>< 1%T |
| Wavelength accuracy | At $D_2$ peak (656.1 nm) | ±0.1 nm | ±0.1 nm | ±0.1 nm |
| Wavelength reproducibility | 10 measurements at 656.1 nm | ±0.05 nm | ±0.05 nm | ±0.05 nm |
| Photometric accuracy | At 1 A using NIST 930D filter<br>At 2 A using NIST 1930D filter<br>Potassium dichromate | ±0.001 A<br>±0.005 A<br>±0.010 A | ±0.001 A<br>±0.005 A<br>±0.010A | ±0.001 A<br>±0.005 A<br>±0.010 A |
| Photometric reproducibility | Maximum deviation of 10 measurements at 1 A | < 0.001 A | < 0.001 A | < 0.001 A |
| Photometric stability | Stability at 1 A, at 500 nm with 2-sec. response time | < 0.00015 A/hour | < 0.00015 A/hour | < 0.00015 A/hour |
| Photometric noise at 500 nm (RMS) | Noise 500 nm/0 A RMS<br>Slit 1 nm | < 0.00005 A | < 0.00005 A | < 0.00005 A |
| Baseline flatness | Slit 1 nm | ±0.001 A | ±0.001 A | ±0.001 A |



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## Technical description and specifications

| | LAMBDA™ 25 | LAMBDA™ 35 | LAMBDA™ 45 |
|---|---|---|---|
| **Construction** | Solid CNC-machined aluminum chassis for thermal and vibration stability | | |
| **Optics** | Double-beam, sealed, quartz-coated mirrors; lens-free system to reduce chromatic aberrations | | |
| **Monochromator** | Seya Namioka | | |
| **Grating** | Holographic, concave grating with 1053 lines per mm | | |
| **Source** | Deuterium and Tungsten prealigned sources with automatic switch-over | | |
| **Size** (W x D x H) | 650 mm (25 in.) x 560 mm (22 in.) x 233 mm (9 in.) | | |
| **Weight** (approx.) | 26 kg (57 lbs) | | |

The specifications listed above are confirmed and are based on final test pass criteria used in manufacturing. Typical specifications may be superior to those listed.

*Requires PC

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