

L Family: Low Level

| Model Number Smart Part Number | USLR-L20F-NBNL-P L5NB-NLNN-NNLR-NS00-0000-P | USLR-L12F-NBNL-P L3NB-NLNN-NNLR-NS00-0000-P | USLR-L12L-NBNL-P L4NB-NLNN-NNLR-NS00-0000-P | USLR-L08F-NBNL-P L1NB-NLNN-NNLR-NS00-0000-P | USLR-L08L-NBNL-P L2NB-NLNN-NNLR-NS00-0000-P |
|---|--|--|--|--|--|
| OPTICAL PERFORMANCE SPECIFICATIONS | | | | | |
| Spatial Luminance Uniformity over Exit Port (f/4) - All Lamps On | +/-1% | +/-1% | +/-1% | +/-1% | +/-1% |
| Angular Uniform FOV (Full Angle) - Degrees / F# / NA - All Lamps On | +/-2.0% - 35° / 0.85 / 0.6 | +/-2.0% - 35° / 0.85 / 0.6 | +/-2.0% - 35° / 0.85 / 0.6 | +/-2.0% - 35° / 0.85 / 0.6 | +/-2.0% - 35° / 0.85 / 0.6 |
| Expected Luminance Output: cd/m2 | 1,600 | 4,700 | 6,400 | 6,500 | 9,500 |
| Expected Illuminance at Port: lux | 5,000 | 14,800 | 20,000 | 20,300 | 30,000 |
| Est. Peak Radiance: W/m2-sr-um @ 1.10 um | 55 | 160 | 240 | 230 | 350 |
| Est. Peak Irradiance @ Port: Photons/s-m2-um @ 1.10um | 2.70E+20 | 8.10E+20 | 1.10E+21 | 1.10E+21 | 1.50E+21 |
| Minimum Resolution: lux | 1.00E-06 | 1.00E-06 | 1.00E-06 | 1.00E-06 | 1.00E-06 |
| Number of Steps in System Range | 8.80E+06 | 8.00E+06 | 8.00E+06 | 6.00E+06 | 6.00E+06 |
| Dynamic Range/Bits/dB | 4.00E+09/31/191 | 1.00E+10/32/199 | 1.00E+10/32/199 | 6.25E+09/31/196 | 7.50E+09/32/197 |
| Approximate Correlated Color Temperature (QTH) | 2856K +/-50K | 2856K +/-50K | 2856K +/-50K | 2856K +/-50K | 2856K +/-50K |
| Typical Derated Lamp Lifetimes @ 2856K (hrs) | >500 | >500 | >500 | >500 | >500 |
| Est. Lamp Degradation Over Lifetime (% & CCT Shift) | -10% & +/-200K | -10% & +/-200K | -10% & +/-200K | -10% & +/-200K | -10% & +/-200K |
| Est. Output Degradation over 50hrs (% & CCT Shift) | -1.0% & +/-20K | -1.0% & +/-20K | -1.0% & +/-20K | -1.0% & +/-20K | -1.0% & +/-20K |
| INTEGRATING SPHERE | | | | | |
| Coating / Material | Spectrafect® | Spectrafect | Spectralon | Spectrafect | Spectralon |
| Sphere Internal Diameter: Inches (Meters) | 20 (0.5) | 12 (0.3) | 11.5 (0.29) | 8 (0.2) | 7.5 (0.19) |
| Frame Type | 20in Cage | 12in Cage | 12in Cage | 8in Cage | 8in Cage |
| Output Port Size: Inches (Meters) | 8 (0.2) | 4 (0.1) | 4 (0.1) | 2 (0.05) | 2 (0.05) |
| SYSTEM COMPONENTS | | | | | |
| QTH Lamps Internal (#, Wattage) | (3) 10, (1) 50 | (3) 10, (1) 50 | (1) 10, (3) 50 | (2) 10, (1) 50 | (2) 10, (1) 50 |
| QTH Lamps External (#, Wattage) | None | None | None | None | None |
| Xenon Lamp & Housing | None | None | None | None | None |
| Plasma Lamp & Housing | None | None | None | None | None |
| Spectralon Satellite Sphere (ID/OD) | 3"/4" | 3"/4" | 3"/4" | 3"/4" | 3"/4" |
| Power Supplies (# - Model) | (4) LPS-175 | (4) LPS-175 | (4) LPS-175 | (3) LPS-175 | (3) LPS-175 |
| Variable Attenuator | VAA-220B | VAA-220B | VAA-220B | VAA-220B | VAA-220B |
| Monitor Detector(s) | SD-L1, SD-S1 | SD-L1, SD-S1 | SD-L1, SD-S1 | SD-L1, SD-S1 | SD-L1, SD-S1 |
| Detector Filters (in Filter Holder) | Photopic | Photopic | Photopic | Photopic | Photopic |
| System Software | HELIOsense | HELIOsense | HELIOsense | HELIOsense | HELIOsense |
| STANDARD SYSTEM CALIBRATIONS (NIST Traceable) | | | | | |
| Luminance | Yes | Yes | Yes | Yes | Yes |
| Correlated Color Temp (All lamps matched & w/VA position) | Yes | Yes | Yes | Yes | Yes |
| Spectral Radiance (350-2400nm) | Yes | Yes | Yes | Yes | Yes |
| Exit Port Spatial Uniformity | Yes | Yes | Yes | Yes | Yes |
| Exit port Angular Uniformity | Yes | Yes | Yes | Yes | Yes |
| Night Vision Level Characterization | Yes | Yes | Yes | Yes | Yes |
| Operational Duration of Calibration | 50hrs | 50hrs | 50hrs | 50hrs | 50hrs |