

# V Family: Variable Modular

Model Number	USLR-V20F-NMNN	USLR-V12F-NMNN	USLR-V08F-NMNN
Smart Part Number	V5NM-NNNN-NNSL-NS00-0000	V3NM-NNNN-NNSL-NS00-0000	V1NM-NNNN-NNSL-NS00-0000
<b>OPTICAL PERFORMANCE SPECIFICATIONS</b>			
Spatial Luminance Uniformity over Exit Port (f/4) - All Lamps On	+/-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
Expected Maximum Luminance Output: cd/m <sup>2</sup>	4,200	14,000	28,000
Expected Maximum Illuminance at Port: lux	13,200	44,000	88,000
Peak Radiance: W/m <sup>2</sup> -sr-um @ 0.95 um	105	350	700
Peak Irradiance @ Port: Photons/s-m <sup>2</sup> -um @ 0.95um	4.50E+20	1.50E+21	3.00E+21
Minimum Resolution: lux	2.64E-01	8.80E-01	1.76E+00
Number of Steps in System Range	1.00E+04	1.00E+04	1.00E+04
Dynamic Range/Bits/dB	5.00E+04/15/93	5.00E+04/15/93	5.00E+04/15/93
Approximate Correlated Color Temperature (QTH)	3000K +/-50K	3000K +/-50K	3000K +/-50K
Typical Lamp Lifetimes (hrs)	>500	>500	>500
Est. Lamp Degradation Over Lifetime (% & CCT Shift)	-10% & +/-200K	-10% & +/-200K	-10% & +/-200K
Est. Output Degradation over 50hrs (% & CCT Shift)	-1.0% & +/-20K	-1.0% & +/-20K	-1.0% & +/-20K
<b>INTEGRATING SPHERE</b>			
Coating / Material	Spectrafect	Spectrafect	Spectrafect
Sphere Internal Diameter: Inches (Meters)	20 (0.5)	12 (0.3)	8 (0.2)
Frame Type	20 in Cage	12 in Cage	8 in Cage
Output Port Size: Inches (Meters)	8 (0.2)	4 (0.1)	2 (0.05)
<b>SYSTEM COMPONENTS</b>			
QTH Lamps Internal (# , Wattage)	None	None	None
QTH Lamps External (#, Wattage)	(1) 150	(1) 150	(1) 100
Power Supplies (# - Model)	(1) - LPS-400	(1) - LPS-400	(1) - LPS-400
Variable Attenuator	VA-MM	VA-MM	VA-MM
Monitor Detector(s)	SD-S1	SD-S1	SD-S1
Detector Filters (in Filter Holder)	Photopic	Photopic	Photopic
System Software	HELIOsense	HELIOsense	HELIOsense
Cube Computer	Optional	Optional	Optional
<b>STANDARD SYSTEM CALIBRATIONS (NIST Traceable)</b>			
Luminance	Yes	Yes	Yes
Correlated Color Temp (All lamps matched & w/VA position)	Yes	Yes	Yes
Spectral Radiance (350-2400nm)	No	No	No
Exit Port Spatial Uniformity	Yes	Yes	Yes
Exit port Angular Uniformity	Yes	Yes	Yes
Operational Duration of Calibration	50 hrs	50 hrs	50 hrs