S Family: Static Modular

Model Number Smart Part Number	USLR-S20F-NNSN S5NN-SNNN-NNSL-NS00-0000	USLR-S12F-NNSN S3NN-SNNN-NNSL-NS00-0000	USLR-S08F-NNSN S1NN-SNNN-NNSL-NS00-0000
OPTICAL PERFORMANCE SPECIFICATIONS			
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
All (4) Lamps - Expected Luminance Output: cd/m2	21,300	28,700	34,000
All (4) Lamps - Expected Illuminance at Port: lux	66,800	90,000	106,000
Lamp #1 - Expected Luminance Output: cd/m2	10	20	25
Lamp #1 - Expected Illuminance at Port: lux	280	75	75
Lamp #2 - Expected Luminance Output: cd/m2	900	1,200	5,500
Lamp #2 - Expected Illuminance at Port: lux	2,800	3,750	17,250
Lamp #3 - Expected Luminance Output: cd/m2	6,700	8,700	28,300
Lamp #3 - Expected Illuminance at Port: lux	21,000	27,300	88,500
Lamp #4 - Expected Luminance Output: cd/m2	13,500	18,600	None
Lamp #4 - Expected Illuminance at Port: lux	42,000	58,400	None
Number of System Levels via Lamp Combinations	14	14	7
Peak Radiance: W/m2-sr-um @ 0.95 um	330	460	700
Peak Irradiance @ Port: Photons/s-m2-um @ 0.95um	1.41E+21	1.97E+21	3.00E+21
Dynamic Range/Bits/dB	4.2E+03/12/72	2.92E+03/11/69	3.54E+03/11/70
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
INTEGRATING SPHERE			
Coating / Material	Spectraflect	Spectraflect	Spectraflect
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)
SYSTEM COMPONENTS			
QTH Lamps Internal (# , Wattage)	(1) 5, (1) 10, (1) 75, (1) 150	(1) 5, (1) 10, (1) 35, (1) 75	(1) 5, (1) 10, (1) 50
QTH Lamps External (#, Wattage)	None	None	None
Power Supplies (# - Wattages)	(4) - LPS-400	(4) - LPS-400	(3) - LPS-400
Variable Attenuator	None	None	None
Monitor Detector(s)	SD-S1	SD-S1	SD-S1
Detector Filters (in Filter Holder)	Photopic	Photopic	Photopic
System Software	HELIOSense Local	HELIOSense Local	HELIOSense Local
STANDARD SYSTEM CALIBRATIONS (NIST Traceable)			
Luminance	Yes	Yes	Yes
Correlated Color Temp (All lamps matched & w/VA position)	Yes	Yes	Yes
Spectral Radiance (350-2400nm)	Yes	Yes	Yes
Exit Port Spatial Uniformity	Yes	Yes	Yes
Exit Port Angular Uniformity	Yes	Yes	Yes
Operational Duration of Calibration	50 hrs	50 hrs	50 hrs

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Model Number Smart Part Number	USLR-S08F-NN3N S1NN-3NNN-NNSL-NS00-0000	USLR-S08F-NN7N S1NN-7NNN-NNSL-NS00-0000
OPTICAL PERFORMANCE SPECIFICATIONS		
Spatial Luminance Uniformity over Exit Port (f/4) - All Lamps	+/-1%	+/-1%
Angular Uniform FOV (Full Angle) - Degrees / F# / NA - All Lamps	+/-2.0% - 35° / 0.85 / 0.6	+/-2.0% - 35° / 0.85 / 0.6
Expected Luminance Output: cd/m2	31,000	56,000
Expected Illuminance at Port: lux	97,000	175,000
Peak Radiance: W/m2-sr-um @ 0.95 um	246	445
Peak Irradiance @ Port: Photons/s-m2-um @ 0.95um	1.05E+21	1.89E+21
Minimum Resolution: lux	Fixed Level	Fixed Level
Number of Steps in System Range	One	One
Dynamic Range/Bits/dB	n/a	n/a
Approximate Correlated Color Temperature (QTH)	3000K +/-50K	3000K +/-50K
Typical Lamp Lifetimes (hrs)	>500	>500
Est. Lamp Degradation Over Lifetime (% & CCT Shift)	-10% & +/-200K	-10% & +/-200K
Est. Output Degradation over 100hrs (% & CCT Shift)	-1.0% & +/-20K	-1.0% & +/-20K
INTEGRATING SPHERE		
Coating / Material	Spectraflect	Spectraflect
Sphere Internal Diameter: Inches (Meters)	8 (0.2)	8 (0.2)
Frame Type	8 in Cage	8 in Cage
Output Port Size: Inches (Meters)	2 (0.05)	2 (0.05)
SYSTEM COMPONENTS		
QTH Lamps Internal (# , Wattage)	(1) 35	(1) 75
QTH Lamps External (#, Wattage)	None	None
Power Supplies (# - Model)	(1) - LPS-400	(1) - LPS-400
Variable Attenuator	None	None
Monitor Detector(s)	SD-S1	SD-S1
Detector Filters (in Filter Holder)	Photopic	Photopic
System Software	HELIOSense Local	HELIOSense Local
STANDARD SYSTEM CALIBRATIONS (NIST Traceable)		
Luminance	Yes	Yes
Correlated Color Temp (All lamps matched & w/VA position)	Yes	Yes
Spectral Radiance (350-2400nm)	Yes	Yes
Exit Port Spatial Uniformity	Yes	Yes
Exit Port Angular Uniformity	Yes	Yes
Operational Duration of Calibration	50 hrs	50 hrs