

# COLOSUS System Specifications - Dynamic (D) Family

## Model #

## USLR-D12F-C

## USLR-D12L-C

### OPTICAL PERFORMANCE SPECIFICATIONS

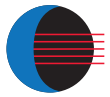
Spatial Luminance Uniformity over Exit Port: (f/4) - All Lamps On	+/-1.0%	+/-1.0%
Angular Uniform FOV: (Full Angle) - Degrees / F# / NA - All Lamps On	+/-2.0% - 36 / 1.4 / 0.31	+/-2.0% - 36 / 1.4 / 0.31
Expected Maximum Luminance Output: cd/m2	37,500	50,000
Expected Maximum Illuminance at Port: lux	117,750	157,000
Peak Radiance: W/m2-sr-um @ 0.95 um	1,455	1819
Peak Irradiance @ Port: Photons/s-m2-um @ 0.95um	7.00E+21	8.75E+21
Minimum Resolution: lux	1.37E-03	1.37E-03
Number of Steps in System Range: (#lamps*VA Steps)	6.60E+06	6.60E+06
Dynamic Range/Bits/dB:	8.63E+07/26/158	1.15E+08/26/160
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 50hrs: (% & CCT Shift)	-1.0% & +/-20K	-1.0% & +/-20K

### INTEGRATING SPHERE

Coating/Material:	Spectrafect	Spectralon
Sphere Internal Diameter: Inches (Meters)	12 (0.3)	11.5 (0.29)
Frame Type:	COLOSUS Cage	COLOSUS Cage
Output Port Size: Inches (Meters)	4 (0.1)	4 (0.1)
<b>SYSTEM COMPONENTS</b>		
QTH Lamps Internal: (# , Wattage)	(1) 35, (1) 75	(1) 35, (1) 75
QTH Lamps External: (#, Wattage)	(1) 150	(1) 150
Power Supplies: (# - Wattages)	(3) LPS-400	(3) LPS-400
Variable Attenuator:	VAA-220A	VAA-220A
Monitor Detector(s):	SD-L1, EID-T1	SD-L1, EID-T1
TE Controller:	(1)	(1)
Detector Filters: (in Filter Holders)	Photopic, (2) 900nm, 1550nm, 1380nm	Photopic, (2) 900nm, 1550nm, 1380nm
Filter Wheels:	(2) HFW-1-8	(2) HFW-1-8
System Software:	HELIOsense	HELIOsense

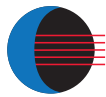
### DIMENSIONAL INFORMATION

Approximate Dimensions of Sphere System: (DxWxH)	14" x 20" x 24"	14" x 20" x 24"
Approximate Weight of Sphere System: (Kg)	20	23
Approximate Dimensions of 19" System Rack: (DxWxH)	24.5" x 21" x 12.75"	24.5" x 21" x 12.75"
Approximate Weight of System Rack: (Kg)	25	25



# COLOSUS System Specifications - Low Level (L) Family

	Model #	USLR-L12F-C	USLR-L12L-C
<b>OPTICAL PERFORMANCE SPECIFICATIONS</b>			
Spatial Luminance Uniformity over Exit Port: (f/4) - All Lamps On		+/-1%	+/-1%
Angular Uniform FOV: (Full Angle) - Degrees / F# / NA - All Lamps On		+/-2.0% - 36 / 1.4 / 0.31	+/-2.0% - 36 / 1.4 / 0.31
Expected Maximum Luminance Output: cd/m2		5,000	7,100
Expected Maximum Illuminance at Port: lux		15,700	22,300
Peak Radiance: W/m2-sr-um @ 1.10 um		200	287
Peak Irradiance @ Port: Photons/s-m2-um @ 1.10um		1.13E+21	1.50E+21
Minimum Resolution: lux		1.00E-06	1.00E-06
Number of Steps in System Range:		8.00E+06	8.00E+06
Dynamic Range/Bits/dB:		1.00E+10/32/199	1.00E+10/32/199
Approximate Correlated Color Temperature: (QTH)		2856K +/-50K	2856K +/-50K
Typical Derated Lamp Lifetimes @ 2856K: (hrs)		>500	>500
Est. Lamp Degradation Over Lifetime: (% & CCT Shift)		-10% & +/-200K	-10% & +/-200K
Est. Output Degradation over 50hrs: (% & CCT Shift)		-1.0% & +/-20K	-1.0% & +/-20K
<b>INTEGRATING SPHERE</b>			
Coating/Material:		Spectrafect	Spectralon
Sphere Internal Diameter: Inches (Meters)		12 (0.3)	11.5 (0.29)
Frame Type:		COLOSUS Cage	COLOSUS Cage
Output Port Size: Inches (Meters)		4 (0.1)	4 (0.1)
<b>SYSTEM COMPONENTS</b>			
QTH Lamps Internal: (# , Wattage)		(1) 5, (1) 10	(1) 5, (1) 10
Spectralon Satellite Sphere: (ID/OD)		3"/4"	3"/4"
Lamp & Tube: (#, Wattage) / Pinhole		(1) 5 / Yes	(1) 5 / Yes
Internal Satellite Lamp: (#, Wattage)		(1) 50	(1) 50
Power Supplies: (# - Model)		(4) LPS-400	(4) LPS-400
Variable Attenuator:		VAA-220B	VAA-220B
Monitor Detector(s):		SD-L1, SD-S1	SD-L1, SD-S1
Optional Monitor Detector:		EID-T1	EID-T1
TE Controller:		(1)	(1)
Filter Wheels:		(2) HFW-1-8	(2) HFW-1-8
Detector Filters: (in Filter Holders)		Photopic	Photopic
System Software:		HELIOsense	HELIOsense
<b>DIMENSIONAL INFORMATION</b>			
Approximate Dimensions of Sphere System: (DxWxH)		14" x 20" x 24"	14" x 20" x 24"
Approximate Weight of Sphere System: (Kg)		20	22
Approximate Dimensions of 19" System Rack: (DxWxH)		24.5" x 21" x 12.75"	24.5" x 21" x 12.75"
Approximate Weight of System Rack: (Kg)		30	30



# COLOSUS System Specifications - Variable (M) Family

**Model # ULSR-V12F-C**

## OPTICAL PERFORMANCE SPECIFICATIONS

Spatial Luminance Uniformity over Exit Port: (f/4) - All Lamps On	+/-1%
Angular Uniform FOV: (Full Angle) - Degrees / F# / NA - All Lamps On	+/-2.0% - 36 / 1.4 / 0.31
Expected Maximum Luminance Output: cd/m2	14,000
Expected Maximum Illuminance at Port: lux	44,000
Peak Radiance: W/m2-sr-um @ 0.95 um	350
Peak Irradiance @ Port: Photons/s-m2-um @ 0.95um	1.50E+21
Minimum Resolution: lux	4.40E-03
Number of Steps in System Range:	2.20E+06
Dynamic Range/Bits/dB:	1.00E+07/23/140
Approximate Correlated Color Temperature: (QTH)	3000K +/-50K
Typical Lamp Lifetimes: (hrs)	>500
Est. Lamp Degradation Over Lifetime: (% & CCT Shift)	-10% & +/-200K
Est. Output Degradation over 50hrs: (% & CCT Shift)	-1.0% & +/-20K

## INTEGRATING SPHERE

Coating/Material:	Spectrafect
Sphere Internal Diameter: Inches (Meters)	12 (0.3)
Frame Type:	COLOSUS Cage
Output Port Size: Inches (Meters)	4 (0.1)

## SYSTEM COMPONENTS

QTH Lamps External: (#, Wattage)	(1) 150
Integrating Mirror Tube for External Source:	HES Version
Power Supplies: (# - Model)	(1) - LPS-400
Variable Attenuator:	(2) VAA-220
Monitor Detector(s):	SD-L1
Detector Filters: (in Filter Holder)	Photopic
Filter Wheels:	(2) HFW-1-8
System Software:	HELIOsense

## DIMENSIONAL INFORMATION

Approximate Dimensions of Sphere System: (DxWxH)	14" x 20" x 24"
Approximate Weight of Sphere System: (Kg)	17
Approximate Dimensions of 19" System Rack: (DxWxH)	24.5" x 21" x 12.75"
Approximate Weight of System Rack: (Kg)	20



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