



LUMINANCE/RADIANCE SYSTEMS SELECTION GUIDE

The chart below provides an overview of the standard luminance/radiance systems offered by SphereOptics. These include our simple console operated Luminance/Radiance Sources and a vast selection of Systems offering low, medium, and high radiance/irradiance output levels. If one of our standard systems does not meet your needs, please refer to our [custom luminance/radiance system design worksheet](#), or contact us for assistance in developing a cost-effective customized system to meet your application needs.

LUMINANCE/RADIANCE SOURCES											
ORDER NUMBER	SPHERE DIAMETER		OUTPUT PORT DIAMETER		LUMINANCE RANGE	LUMINANCE UNIFORMITY	MINIMUM RESOLUTION (MANUAL VA)	MONITOR COLOR TEMPERATURE	MONITOR LUMINANCE	VARIABLE* ATTENUATOR	OPERATING SOFTWARE
	INCHES	CM	INCHES	CM							
LR-6	6	15.2	1.5	3.8	0 to 1800 fL	+/- 0.5%	10 ⁶	YES	YES	YES	N/A
LR-12	12	30.5	4	10.2	0 to 500 fL	+/- 0.5%	10 ⁶	YES	YES	YES	N/A

LOW-RADIANCE SOURCE SYSTEMS											
ORDER NUMBER	SPHERE DIAMETER		OUTPUT PORT DIAMETER		LUMINANCE RANGE	LUMINANCE UNIFORMITY	MINIMUM RESOLUTION (MANUAL VA)	MONITOR COLOR TEMPERATURE	MONITOR LUMINANCE	VARIABLE* ATTENUATOR	OPERATING SOFTWARE
	INCHES	CM	INCHES	CM							
LR-4L	4	10.2	1	2.54	0 to 5 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-6-L	6	15.2	2	5.08	0 to 5 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-12-L	12	30.5	4	10.1	0 to 140 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-20-L	20	50.8	8	20.3	0 to 48 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-40-L	40	101	12	30.4	0 to 12 fL	+/-2.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-60-L	60	152	20	50.8	0 to 5 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included

MEDIUM-RADIANCE SOURCE SYSTEMS											
ORDER NUMBER	SPHERE DIAMETER		OUTPUT PORT DIAMETER		LUMINANCE RANGE	LUMINANCE UNIFORMITY	MINIMUM RESOLUTION (MANUAL VA)	MONITOR COLOR TEMPERATURE	MONITOR LUMINANCE	VARIABLE* ATTENUATOR	OPERATING SOFTWARE
	INCHES	CM	INCHES	CM							
LR-4-M	4	10.2	1	2.54	0 TO 2000fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-6-M	6	15.2	2	5.08	0 to 1400 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-12-M	12	30.5	4	10.1	0 to 2000 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-20-M	20	50.8	8	20.3	0 to 1400 fL	+/-2.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-40-M	40	101	12	30.4	0 to 1400 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-60-M	60	152	20	50.8	0 to 1600 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included

As a part of our product improvement program, SphereOptics Hoffman reserves the right to change product specifications without notice.

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HIGH-RADIANCE SOURCE SYSTEMS

ORDER NUMBER	SPHERE DIAMETER		OUTPUT PORT DIAMETER		LUMINANCE RANGE	LUMINANCE UNIFORMITY	MINIMUM RESOLUTION (MANUAL VA)	MONITOR COLOR TEMPERATURE	MONITOR LUMINANCE	VARIABLE* ATTENUATOR	OPERATING SOFTWARE
	INCHES	CM	INCHES	CM							
LR-4-H	4	10.2	1	2.54	0 TO 40,000fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-6-H	6	15.2	2	5.08	0 to 32,000 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-12-H	12	30.5	4	10.1	0 to 8000 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-20-H	20	50.8	8	20.3	0 to 11,000 fL	+/-2.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-40-H	40	101	12	30.4	0 to 7500 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included
LR-60-H	60	152	20	50.8	0 to 5500 fL	+/-1.0%	10 ⁶	Yes	Yes	Manual, Micrometer	Included

SYSTEM SOFTWARE

Operating software is included with all Output Luminance/Radiance Systems. The software runs in a Windows™ XP based environment and is used to control and monitor light output. The software allows the user to turn on and off individual lamps as well as monitor the voltage and current for each lamp. The detector current and calculated luminance from the standard are monitored in real time so that output can be adjusted easily and precisely. Spectral radiance, at any desired wavelength, can be monitored with an optional spectral radiance calibration.

SYSTEM CALIBRATIONS

SphereOptics offers full calibration services traceable to national laboratory standards. We offer a large variety of [calibration services](#) for light sources and sensors, including luminance, illuminance, radiance and irradiance.

CUSTOM SYSTEM DESIGN

Our experienced team of mechanical designers and optical engineers will work with you to develop a system that meets your needs in both performance and price. Please contact our local sales representative to discuss your requirements for a custom designed solution.

* An optional automated variable attenuator is available for all Luminance/Radiance Source Systems. Automated VA models provide minimum resolution of 10⁴