

BroadLighter-M Benchtop Broadband Light Source. Product Technical Specification.



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All specifications are subject to change without notice.

Product description:

Superlum BroadLighter-M-D,T series are extremely broadband, very low coherence AC powered bench-top light sources. BroadLighter-M-D,T are based on a combination of spectrally matched fiber coupled superluminescent diode modules (SLDs). The design of integrated SLD module controllers ensures excellent operation stability of the light sources.

The internal structure of the BroadLighter-M has modular design consisting of an optical unit with SLDs and other optical components, driver unit and main unit. The driver unit has an integrated DC power supply, as well as driving electronics and temperature control for SLDs. Main unit acts as a motherboard for optical and driver units.

Product Features:

- LCD screen with easy to use graphical user interface
- Built-in multichannel highly stable driver and temperature controller
- Models with built-in optical isolator
- USB interface
- 9-pin DSUB connector for remote control with TTL logic
- Wide range voltage power supply suitable for the 100-240 V AC power lines
- FC/APC fiber optic connector
- Remote interlock

Physical Specifications:

- Overall dimensions (WxHxD): 251x112x192 mm
- Weight (max): 4 kg
- Metal case enclosure

Electrical Power Requirements:

- 100-240VAC, 50/60Hz 40 VA MAX
- IEC 320 compatible AC power cord plug

Environmental Specifications:

- Operating temperature range¹: +5 °C to +35 °C
- Storage temperature range²: -30 °C to +70 °C
- Relative humidity < 80%

Package Contents:

- BroadLighter-M Broadband SLD Light Source
- AC Power Cord
- Master Key
- Optical Patchcable
- Quick Start Guide
- Acceptance Test Report
- CD-ROM
- USB Interface Cable

¹ Information for reference only. Operating temperature range may vary depending on the configuration.

² Information for reference only. Storage temperature range may vary depending on configuration.

Sample Optical Performance Parameters for D-series BroadLighter-M:

Model number	Power, mW		Center wavelength, nm			3 dB spectrum width, nm		Ripple, %		Spectral flatness, dB
	Min.	Typ.	Min.	Typ.	Max.	Min.	Typ.	Typ.	Max.	
M-D-840-HP	12.0	15.0	830	840	850	90	100	2.0	5.0	<2.7
M-D-840-HP-I	9.0	10.0	830	840	850	90	100	2.0	5.0	<2.7
M-D-890-HP-UBB	8.0	10.0	880	890	900	180 (6 dB)	190 (6 dB)	2.0	5.0	<4.0

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Sample Optical Performance Parameters for BroadLighter-M-T-series :

Model number	Power, mW		Center wavelength, nm			3 dB spectrum width, nm		Ripple, %		Spectral flatness, %
	Min.	Typ.	Min.	Typ.	Max.	Min.	Typ.	Typ.	Max.	
M-T-850-HP	12.0	15.0	840	850	860	155	165	2.0	5.0	<2.7
M-T-850-HP-I	8.0	10.0	840	850	860	155	165	2.0	5.0	<2.7

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**WARNING – CLASS 3B INVISIBLE LASER RADIATION AVOID
EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
Wavelength: 750-1100 nm
CW/Pulsed: CW
Max Average Power: < 30 mW
Complies with IEC/EN 60825-1:(2014)**

Fibers and Connectors:

Parameter	Type	Comments
Fiber type	SM	Corning HI780 fiber
Mode field diameter / Numerical Aperture (NA)	5 μ m / 0.14	
Connector type	FC/APC	
Connector key type	Tight-fit/narrow	