

VL6B™

spot luminaire



The VARI*LITE® VL6B™ spot luminaire adds a zoom optics system and rotating gobos to the VL6™ feature set. It uses the Philips MSR 400W short arc lamp in a cold mirror reflector. The luminaire is small, lightweight, and virtually silent.

Two wheels for interchangeable dichroic color and gobo selections make the luminaire completely user-configurable. The VL6B supports a wide variety of rental access colors and gobos. Purchase only and custom gobos are also available. The VL6B luminaire can be controlled from any VARI*LITE console, or can be controlled from most DMX consoles.

Description

SOURCE:	Philips MSR 400 SA, 400W, 6000°K.
POWER REQUIREMENTS:	Lamp power from the APS6™ module in the Modular Power Distribution Rack at 180 to 265 VAC, 50/60 Hz. Luminaires are powered through the Smart Repeater™ processing unit.
REFLECTOR:	Precision glass reflector with dichroic cold mirror coating. The source may be adjusted in the reflector to peak or flatten the projected beam field.
OPERATIONAL TEMPERATURE:	-20° to 120°F (-29° to 49°C).
COOLING:	Forced air.
CONTROL:	Completely compatible with either the VARI*LITE automated lighting system, featuring the Virtuoso™, Artisan®Plus or mini-Artisan®2 control console or consoles with DMX512 output.
MOUNTING POSITION:	The VL6B spot luminaire can be mounted and operated in any orientation.
SPACING:	Hangs 20 in. (508 mm) centers.
WEIGHT:	29 lbs (13.2 kg).

Programmable Functions

ZOOM OPTICS:	Continuously variable field angle from 13° to 35°, programmable over a timed range of 2 seconds to 20 minutes.
INTENSITY CONTROL:	Full field dimming designed for both smooth timed fades and strobe effects.
COLOR AND GOBO WHEELS:	2 wheels, each providing 11 easily loaded positions for user-selectable color and gobo choices.
ROTATING GOBO WHEEL:	6 position gobo wheel. Individual gobo rotation shall be smooth and stepless over a range from .2 RPM to 80 RPM in either direction. Angular resolution shall be .3°.
EDGE AND PATTERN FOCUS:	Variable beam focus to soften edges of gobos or spots.
PAN AND TILT:	Smooth, time controlled continuous motion by way of a digital servo system.
RANGE:	Pan - 360°, Tilt - 270°.
MAX VELOCITY:	240° per second.
ACCURACY:	0.3° resolution.

Accessories

71.2528.0400	400W Short Arc Lamp
22.9634.0217	Series 300™ Truss Hook
22.9634.0145	Series 300 Safety Cable
22.9634.0161	Series 300 Floor Stand
25.7042.0006	6 ft. Shielded Series 300 Lamp Cable
25.7042.0012	12 ft. Shielded Series 300 Lamp Cable
25.7042.0020	20 ft. Shielded Series 300 Lamp Cable
25.7042.0050	50 ft. Shielded Series 300 Lamp Cable
25.7042.0100	100 ft. Shielded Series 300 Lamp Cable
25.7042.0XXX	Custom Length Shielded Series 300 Lamp Cable*
	*Cannot exceed 300 ft. in length.
20.9623.0111	Smart Repeater™ Unit
20.9625.0112	VL6B Luminaire Trunk
20.9625.0024	Series 300 Molded Plastic Work Trunk
22.5011.1083	VL6B Components Set

Specifications

The unit shall be an integrally designed, remote controlled, motorized spot luminaire. The housing and yoke shall be constructed of aluminum and steel for lightweight strength and shall be forced-air cooled using two virtually silent fans. The rear lamp cap shall be removable, providing ease of access to the lamp for replacement.

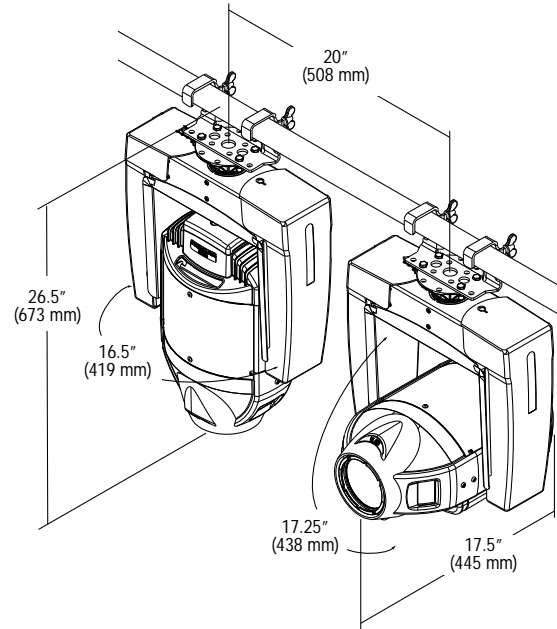
Two enclosed, high torque servomotors shall be provided to permit movement of the head on a horizontal plane of 360° and on a vertical plane of 270°. Control cabling shall be run internally to prevent tangling. The pan and tilt shall be belt driven, providing positional resolution and repeatability of 0.3° on either axis. Manual override under power shall result in no harm to the drive mechanism.

Each unit shall be equipped with an on-board microprocessor providing diagnostic and self-calibration functions. In the event the luminaire encounters any physical obstruction during calibration, the pan and tilt motors will automatically be disabled preventing damage to the mechanisms.

The unit shall contain two rotating, easily removable filter wheels. Each wheel shall be capable of holding up to eleven interchangeable, user-selectable dichroic color or gobo choices. The wheels shall be capable of spinning continuously. A six position rotating, indexable gobo wheel shall also be provided. Two motors shall provide independent drive regardless of direction of movement. All gobos shall be easily removable from the unit. Positional accuracy of the filter frame in reference to the beam shall be ensured by the microprocessor, which maintains count of both stepper motors and optical sensors that define the open white positions.

The unit shall contain an aluminum bladed dimmer mechanism that provides full field dimming and allows for smooth timed fades and fast blackouts. A mechanical iris shall provide continuous beam size control for both rapid changes and smooth timed beam angle changes. Variable beam focus shall be provided to soften edges of gobos or spots and provide gobo crossfades. The zoom optics system provides adjustable field angle from 13° to 35°. Using the beam size iris, the luminaire can reach an 8' field angle.

Control cable to luminaire shall provide both digital control signals and power from the Smart Repeater unit. A safety cable shall be provided with each unit, and a floor stand shall be available. Exterior finish shall be black epoxy coat. Total weight shall not exceed 29 lbs. (13.2 kg). The unit shall be UL and C-UL listed and CE-marked.



Photometric Data

VL6B Spot Luminaire - 400W Metal Halide					
LENS	CANDELA (cd)	BEAM ANGLE (DEGREES)	BEAM DIAMETER TN ¹	FIELD ANGLE (DEGREES)	FIELD DIAMETER TN ¹
NFOV (Peak Field)	556,000	5°	.09	13°	.23
NFOV (Flat Field)	369,600	6°	.10	15°	.26
MFOV (Peak Field)	128,800	10°	.17	24°	.43
MFOV (Flat Field)	98,400	12°	.21	29°	.52
WFOV (Peak Field)	86,000	13°	.23	31°	.55
WFOV (Flat Field)	52,400	19°	.33	35°	.63

¹ Multiply distance by Tn to determine coverage.

To calculate Illuminance (I) at a specific distance (D): $I = \frac{cd}{D^2} (\cos \theta)$