

# VL7B™

## spot luminaire



The VARI\***LITE**™ VL7B™ spot luminaire provides a four frame shuttering system. It uses a revolutionary collection optics system that produces a bright, even field using only 600 watts of arc power.

Full color spectrum crossfades via the unique CVF™ System, from the palest shades to the most saturated hues with unparalleled precision and repeatability.

Zoom projection lens transmits high quality imaging and a constant 8:1 ratio as the focus is changed. Beam fall off ratio is 2:1 from center to edge at any magnification.

Rotating gobos, and strobe.

Every feature optimized for speed and also for slow, smooth repeatable transitions.

### Programmable Functions

INTENSITY CONTROL:	Consistent dimming from fully open to full blackout, over a programmable range of .5 second to 1 hour.
STROBE:	The open/closed interval shall be 1:2. Provides variable speed up to 8 cycles per second.
FIELD ANGLE:	Continuously variable beam angle from 5° to 40°, programmable over a timed range of 2 seconds to 1 hour.
CVF COLOR SYSTEM:	Continuously variable full color spectrum crossfading. Maximum translation may occur over a programmed range from .5 second to 1 hour. Adjacent colors may be reached in as little as .12 second.
ROTATING GOBO WHEEL:	6 position gobo wheel. Wheel may rotate 180° in either direction in as little as .3 second. Adjacent gobos may be reached in .12 second. Individual gobo rotation shall be smooth and stepless over a range from .2 RPM to 120 RPM in either direction. Angular resolution shall be .3°.
SHUTTERING:	4-frame system can adjust beam shape over a timed range of 1 second to 59 minutes. Device rotates 50°.
FOCUS:	Focus change shall be over a timed range of 2 seconds to 1 hour.
BEAM SIZE CONTROL:	Beam size iris programmable over a timed range of .1 second to 30 seconds. The open/close ratio shall be 6:1.
PAN AND TILT:	Smooth, time controlled continuous motion by way of a digital servo system.
RANGE:	Pan - 370°, Tilt - 270°.
MAX VELOCITY:	240° per second.
ACCURACY:	0.3° resolution.

### Description

SOURCE:	Osram HTI 600W/SE, 5600°K integrated color temperature.
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™ Plus unit.
REFLECTOR:	Precision metal reflector with dichroic cold mirror coating. Source may be adjusted in the reflector to peak or flatten the projected beam field.
OPERATIONAL TEMPERATURE:	32° to 120°F (0° to 49°C).
COOLING:	Virtually silent forced air.
CONTROL:	Completely compatible with either the VARI* <b>LITE</b> automated lighting system, featuring the Virtuoso™, Artisan®Plus or mini-Artisan®2 control console or consoles with DMX512 output.
MOUNTING POSITION:	Mounted and operated in any orientation.
SPACING:	Hangs on 26 in. (660 mm) centers.
WEIGHT:	69 lbs (31.3 kg).

### Accessories

71.2527.0001	HTI 600W/SE Lamp
21.9650.0005	Series 300™ Truss Hook
21.9650.4103	Series 300 Floor Stand
22.9634.0145	Series 300 Safety Cable
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
25.7155.0050	50 ft. Shielded Series 300 Lamp Cable
25.7155.0100	100 ft. Shielded Series 300 Lamp Cable
25.7155.0XXX	Custom Length Shielded Series 300 Lamp Cable* *Cannot exceed 300 ft. in length.
20.9623.0600	Smart Repeater™ Plus Unit
20.9625.0024	Series 300 Molded Plastic Work Trunk
20.9625.0102	VL7 Luminaire Trunk (Holds 2 VL7 luminaires)
22.5011.0086	Spare Components Set

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## 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 four virtually silent fans. The rear lamp cap shall slide away from the unit, 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 370° 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.

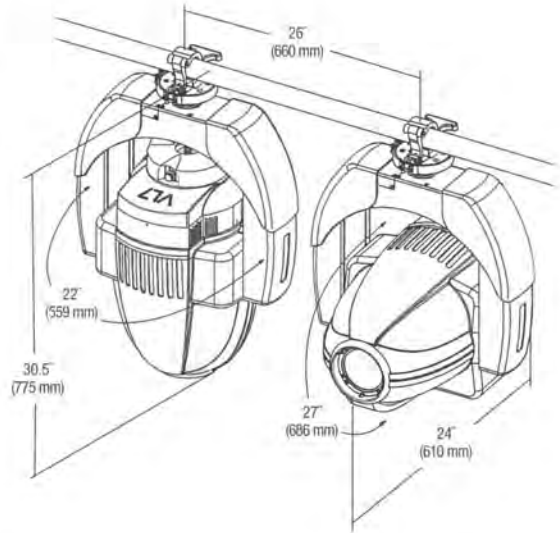
Each unit shall be equipped with an on-board microprocessor providing diagnostic and self-calibration functions. In the event the luminaire encounters any physical obstruction during calibration, the pan and tilt motors will automatically be disabled preventing damage to the mechanisms.

The unit shall contain a 4-frame shuttering system for beam shaping. Framing can be adjusted over a timed range of one second to 59 minutes. The device rotates 50° for ease of programming. A six position rotating, indexable gobo wheel shall be provided. Two motors shall provide independent drive regardless of direction of movement. All gobos shall be easily removable from units without the need to power down or lower the lighting system. 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 a mechanical dimmer to provide full field dimming and allow for smooth timed fades and fast blackouts. The unit shall also contain a douser/strobe mechanism with variable speed cycling of up to eight times per second. 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 5° to 40°.

The unit shall contain a continuously variable dichroic color mechanism capable of full color spectrum crossfading. The mechanism shall be programmable in a range of time from one second to one hour with adjacent color changes possible in as little as .12 seconds.

Control cable to luminaire shall provide both digital control signals and power from the Smart Repeater Plus 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 69 lbs (31.3 kg). The unit shall be UL and C-UL listed and CE-marked.



## Photometric Data

VL7B Spot Luminaire - 600W Arc					
FOV	CANDELA (cd)	BEAM ANGLE (DEGREES)	BEAM DIAMETER TN <sup>1</sup>	FIELD ANGLE (DEGREES)	FIELD DIAMETER TN <sup>1</sup>
5°	2,308,000	4°	.07	5°	.09
10°	972,000	5°	.09	10°	.17
15°	416,000	7°	.12	15°	.26
20°	253,200	9°	.16	20°	.35
25°	149,000	13°	.23	25°	.44
30°	107,600	14°	.25	30°	.54
35°	85,000	16°	.28	35°	.63
40°	69,200	18°	.32	40°	.73

<sup>1</sup> Multiply distance by TN to determine coverage.

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

**VARI\*LITE**  
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