



# VL6C+™ Spot Luminaire

The VL6C+™ Spot Luminaire from PRG Lighting is an improved version of the VARI\**LITE*® VL6C™ Spot Luminaire. Upgrades to the ventilation and airflow system provide superior reliability for all circuit boards and motors, while upgraded wiring and connectors further enhance the dependability and consistency of all motors and pan/tilt mechanisms. Improvements to the luminaire's ignitor technology reduce hot restrike time from 8 minutes (VL6C) to 1 minute (VL6C+) and a new lamp douse switch allows lamp power to be quickly disconnected at the luminaire itself.

Like the standard VL6C model, it contains a 700 watt short arc lamp and a cold mirror reflector to provide an extremely bright and flat field. The VL6C+ unit accepts a wide variety of color filters and gobos. Two fixed wheels are included, one factory configured for gobos and the second for color filters. Automated zoom optics and edge control, along with a rotating gobo wheel, compliment the fixed wheels and beam size iris functions for a wide variety of effects. A standard palette of gobos and colors is provided with the luminaire and custom gobos can also be installed.

The VL6C+ Luminaire is small, lightweight and virtually silent, and can be controlled by PRG consoles or a wide variety of DMX512 consoles. Operation is identical to the standard VL6C model, so it will easily fit into existing systems, providing the same exceptional performance designers have grown to appreciate with VL6C luminaires.

## Ordering Information

20.9674.0002	VL6C+ Spot Luminaire
71.2528.0700.0	MSR 700W Lamp
22.9634.0145	Series 300 Safety Cable
22.9634.0161	Series 300 Floor Stand
22.9634.0195	Series 300 Third-Point Truss Hook
22.9634.0217	Series 300 Double Truss Hook
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 (Smart Lamp Plus)
25.7155.0100	100 ft. Shielded Series 300 Lamp Cable (Smart Lamp Plus)
25.7155.0XXX	Custom Length Shielded Series 300 Lamp Cable *
20.9623.0111	Smart Repeater Unit
20.9623.0600	Smart Repeater Plus Unit
20.9625.0024	Series 300 Molded Plastic Work Trunk
20.9625.0112	Luminaire Case

\* Cannot exceed 200 ft. in length.



## Features

<b>SOURCE:</b>	700 Watt Short Arc Metal Halide Lamp Color Temperature 5600°K CRI 80
<b>OUTPUT:</b>	15,500 lumens
<b>BALLAST:</b>	Lamp power is provided by an APS6™ module in the Modular Power Distribution Rack at 90 to 264 VAC, 50/60 Hz.
<b>LOW VOLTAGE:</b>	Luminaires are powered through a Smart Repeater™ or Smart Repeater™ Plus processing unit. *
<b>REFLECTOR:</b>	Precision glass reflector with dichroic cold mirror coating.
<b>OPERATING TEMP:</b>	32° to 120°F (0° to 49°C)
<b>COOLING:</b>	Forced air.
<b>CONTROL:</b>	Compatible with all PRG consoles and a wide variety of DMX-512 consoles.
<b>POSITIONING:</b>	Can be mounted and operated in any orientation.
<b>SPACING:</b>	Hangs on 19 in. (483 mm) centers.
<b>WEIGHT:</b>	29 lbs (13.2 kg)
<b>PROGRAMMABLE FUNCTIONS</b>	
<b>ZOOM:</b>	Continuously variable field angle from 19° to 43°, programmable over a timed range of 2 seconds to 20 minutes.
<b>BEAM SIZE CONTROL:</b>	In addition to the zoom optics, a mechanical iris provides continuous beam size control for both rapid changes and smooth timed beam angle changes.
<b>INTENSITY:</b>	Full field dimming designed for both smooth timed fades and strobe effects.
<b>COLOR &amp; GOBO:</b>	Two wheels, each providing 11 easily loaded positions for user-selectable color and gobo choices.
<b>ROTATING GOBO:</b>	Six-position rotating gobo wheel with five rotatable, indexable gobo positions and one open position. Smooth and stepless individual gobo rotation over a range from 0.2 RPM to 80 RPM in either direction. Angular resolution is 0.3°.
<b>EDGE &amp; FOCUS:</b>	Variable beam focus to soften edges of gobos or spots.
<b>PAN &amp; TILT:</b>	Smooth, time controlled continuous motion by way of a digital servo system.
<b>RANGE:</b>	Pan - 360°, Tilt - 270°
<b>MAX VELOCITY:</b>	240° per second.
<b>ACCURACY:</b>	0.3° resolution.

\* A MAXIMUM OF THREE (3) VL6C+ LUMINAIRES MAY BE POWERED FROM A SMART REPEATER UNIT AND A MAXIMUM OF SIX (6) VL6C+ LUMINAIRES FROM A SMART REPEATER PLUS UNIT.

## VL6C™ Spot Luminaire Specifications

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

Two enclosed, high torque servomotors permit movement of the head on a horizontal plane of 360° and on a vertical plane of 270°. Control cabling runs internally to prevent tangling. The pan and tilt are belt-driven, providing positional resolution and repeatability of 0.3° on either axis. Manual override under power will not harm the drive mechanism.

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

The unit contains an aluminum bladed dimmer mechanism that provides full field dimming and allows for smooth timed fades, fast blackouts

and strobing effects. A mechanical iris provides continuous beam size control for both rapid changes and smooth timed beam angle changes. Variable beam focus is provided to soften edges of gobos or spots and provide gobo crossfades. The zoom optics system provides adjustable field angle from 19° to 43°. Using the beam size iris, the luminaire can reach an 8° field angle.

Control cable to luminaire provides both digital control signals and power from a Smart Repeater™ or Smart Repeater™ Plus unit. (A maximum of three VL6C+ Luminaires may be powered from a Smart Repeater unit and a maximum of six VL6C+ Luminaires from a Smart Repeater Plus unit.) A safety cable is provided with each unit, and a floor stand is available. Exterior finish is black epoxy coat. Total weight does not exceed 29 lbs (13.2 kg). The unit is CE-marked.

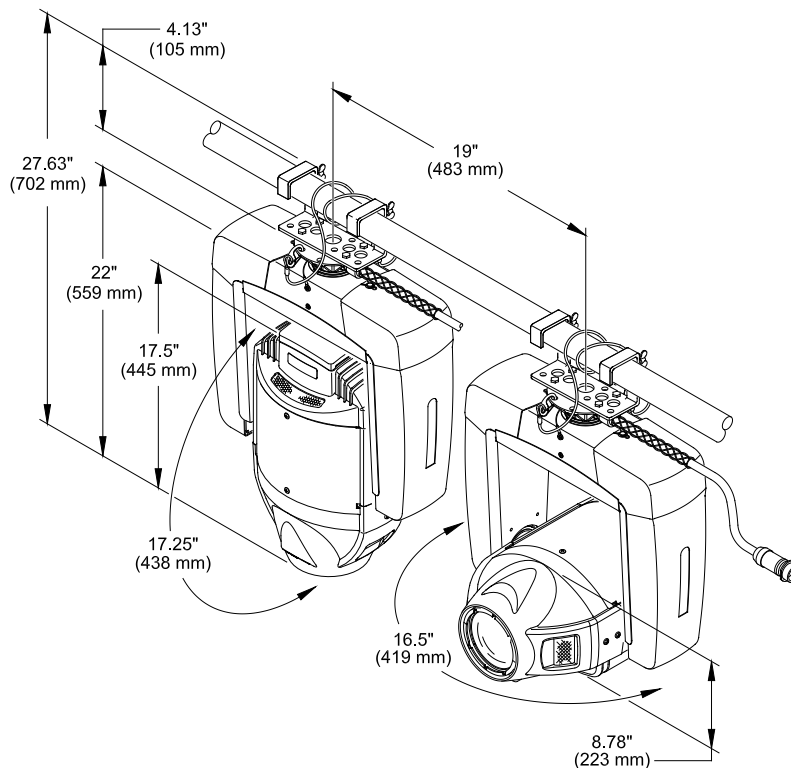
## Photometric Data

VL6C+ Luminaire with 700W Short Arc Metal Halide Lamp					
ZOOM LENS POSITION	CANDELA (cd) **	BEAM ANGLE (degrees)	BEAM DIAMETER (Tn) *	FIELD ANGLE (degrees)	FIELD DIAMETER (Tn) *
NFOV	297,000	15.0°	.263	18.5°	.326
MFOV	104,000	25.0°	.443	30.5°	.545
WFOV	50,000	34.5°	.621	42.5°	.777

\* Multiply throw distance by Tn to determine coverage.

\*\* To calculate center beam illuminance (I) at a specific distance (D):  $I = \frac{cd}{D^2}$   
If (D) is in feet, (I) is in foot candles / If (D) is in meters, (I) is in lux

## Diagram



**POSITIONING:**  
Can be mounted in any orientation.

**SPACING:**  
Hangs on 19 in. (483 mm) centers.

**WEIGHT:**  
29 lbs (13.2 kg)

[WWW.PRG.COM](http://WWW.PRG.COM)

VL6C+™ IS A TRADEMARK OF PRODUCTION RESOURCE GROUP, LLC. VL6C™, SERIES 300™, SMART REPEATER™, AND APS6™ ARE TRADEMARKS OF GENLYTE THOMAS GROUP LLC.

©2019 PRODUCTION RESOURCE GROUP, LLC. ALL RIGHTS RESERVED. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. VERSION: JANUARY 2019