

The BriLux™ V2 is latest member of V series high power LED based MR16 lamp that utilizes the Cool Beam Technology™, offering a more economical, high performance and yet thermally stable spotlight.

BriLux™ V2 series is a member of our “Cool Beam Technology” solutions, specially designed for high performance and maximum light intensity. The V2 series features one piece of 1W, 3W or 4W power LED; stylish aluminum housing not only provides a fancy look of the future, but also a sophisticated heat sink as it makes heat dissipating more efficiently. **BriLux™ V2** series MR16 retrofits into standard MR16 fixtures and housings, hence enables immediate replacement without any additional adjustments.

The lamp features standard MR16 bi-pin connectors and molded aluminum housing with chrome or frosted finish. The **BriLux™ V2** series is available in 1W, 3W and 4W power rating. They are also available in two distinct white Kelvin temperatures: 3500K and 6000K. Other custom colors are also available.

The **V2** series utilizes the Brilliance Technologies’ Cool Beam Technology specifically developed for driving high power (up to 5W) solid state devices. It uniquely allows heat to dissipate efficiently; making the product thermally stable for long hours of operation and last much longer than conventional LED based MR16.

BriLux™ V2 series MR16 is equipped with optical grade polycarbonate collimator that allows highest light transmission at 60° beam angle.



Features

- **Light source:** 1W, 3W or 4W power LED
- **Source life:** More than 40,000 hours
- **Low heat, no UV or IR light radiation**
- **Full range of colors**
- **Homogeneous illumination**
- **Sleek designed heat fins with excellent thermal efficiency**
- **4W MR16 can achieve directional light output equal to 25W halogen lamp yet consume 80% less power**
- **Reverse polarity protection**
- **Safety Standard:** CE
- **1 year limited warranty** (see page 9)
- **Works with 12V AC/DC lighting systems**

Typical Applications

- **Landscape Accent/Spot lighting**
- **Architectural Lighting**
- **Display Case Accent**
- **Artwork Lighting**
- **Mood Lighting/General lighting**
- **Amusement Park Accent**



PRODUCT SPECIFICATIONS

LIGHT SOURCE	1X1W, 1X3W or 1X4W power LED
OPTICS	Optical grade PC lens
LENS DIAMETER	28 mm
BEAM ANGLE	60° (Wide Spot)
MIN BEAM DISTANCE	15cm (6 inches)
RENDERING INDEX (Ra)	>70 (for cool white color)
TOTAL LENGTH	53.4 mm (including pins)
WEIGHT	38 g
HOUSING	Molded aluminum with chrome or black anodize finish, 5 cm (2") diameter
BASE	GX5.3 pins
DIMMABILITY	Not Dimmerble

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	Ambient: -20°C to 40°C; Surface of Lamp: 50°C to 70°C
HUMIDITY RANGE	0 to 95% non-condensing humidity

ELECTRICAL SPECIFICATIONS

VOLTAGE REQUIREMENT	12V AC or DC
POWER CONSUMPTION	1W, 3W or 4W
TRANSFORMER	Low voltage magnetic to provide 12V AC or 12V DC

DO NOT CONNECT LAMP TO ELECTRONIC TRANSFORMER

PRODUCT DIMENSIONS (mm)

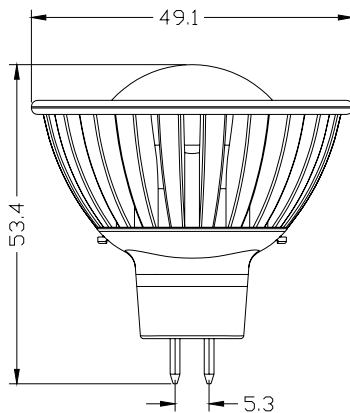


Fig 1. MR16 side view

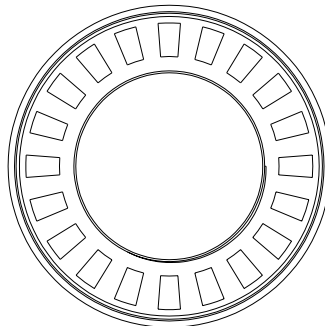
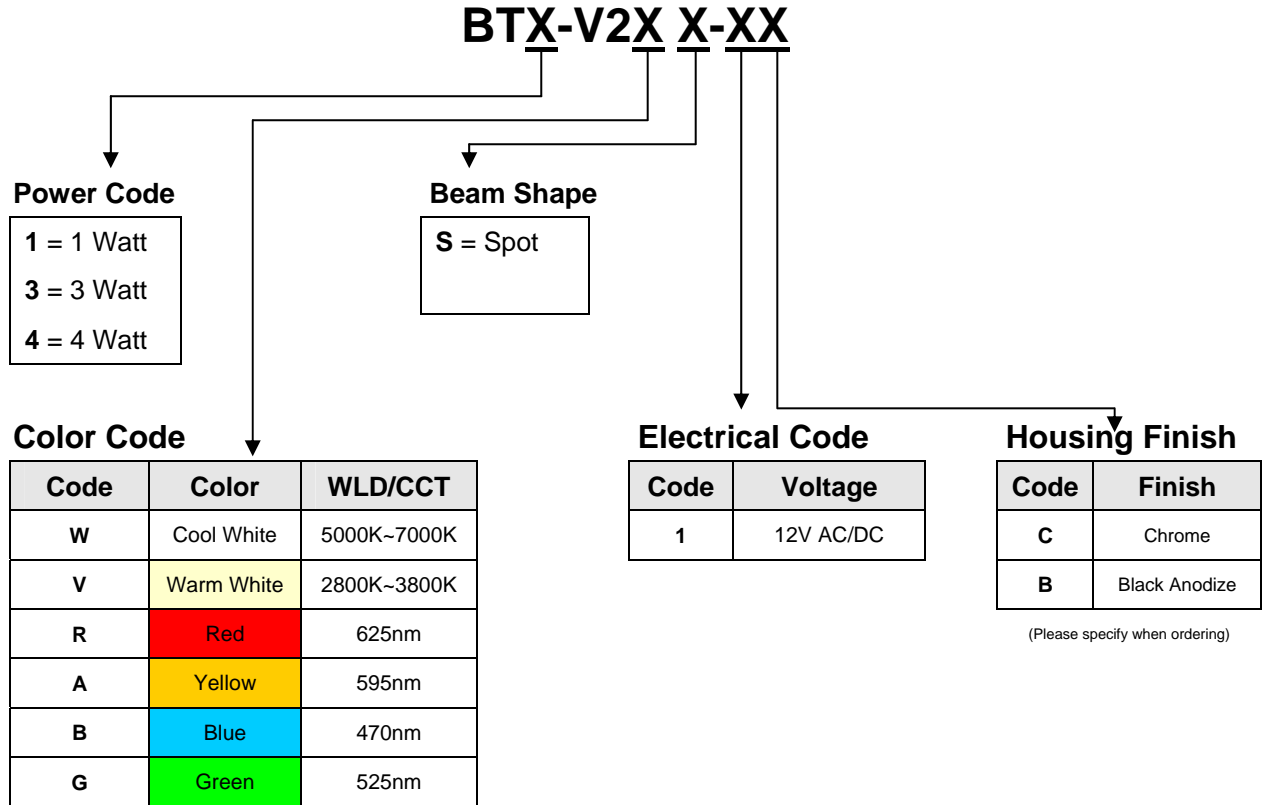


Fig 2. MR16 Top view

PRODUCT ORDERING CODE

1W MR16 PRODUCT CODE

ORDER CODE	Color	Wavelength or CCT (nm/K)	Operating Voltage	LED Power (W)	Typical Luminous Flux (lm)	Typical Illuminance @ 1m (Lux)	BEAM ANGLE
BT1-V2WS-1X	Cool White	5000K~7000K	12V AC/DC	1X1W	40 lm	80	60° ±2°
BT1-V2VS-1X	Warm White	2800K~3800K			30 lm	70	
BT1-V2RS-1X	Red	625 nm			40 lm		
BT1-V2AS-1X	Yellow	595 nm			40 lm		
BT1-V2BS-1X	Blue	470 nm			15 lm		
BT1-V2GS-1X	Green	530 nm			40 lm		

3W MR16 PRODUCT CODE

ORDER CODE	Color	Wavelength or CCT (nm/K)	Operating Voltage	LED Power (W)	Typical Luminous Flux (lm)	Typical Illuminance @ 1m (Lux)	BEAM ANGLE
BT3-V2WS-1X	Cool White	5000K~7000K	12V AC/DC	1X3W	75 lm	100	60° ±2°
BT3-V2VS-1X	Warm White	2800K~3800K			45 lm	70	
BT3-V2RS-1X	Red	625 nm			55 lm	80	
BT3-V2AS-1X	Yellow	595 nm			55 lm	80	
BT3-V2BS-1X	Blue	470 nm			20 lm	8	
BT3-V2GS-1X	Green	530 nm			55 lm	110	

4W MR16 PRODUCT CODE

ORDER CODE	Color	Wavelength or CCT (nm/K)	Operating Voltage	LED Power (W)	Typical Luminous Flux (lm)	Typical Illuminance @ 1m (Lux)	BEAM ANGLE
BT4-V2WS-1X	Cool White	5000K~7000K	12V AC/DC	1X4W	100 lm	140	60° ±2°
BT4-V2VS-1X	Warm White	2800K~3800K			60 lm	100	
BT4-V2RS-1X	Red	625 nm			120 lm	130	
BT4-V2AS-1X	Yellow	595 nm			130 lm	110	
BT4-V2BS-1X	Blue	470 nm			30 lm	15	
BT4-V2GS-1X	Green	530 nm			120 lm	140	

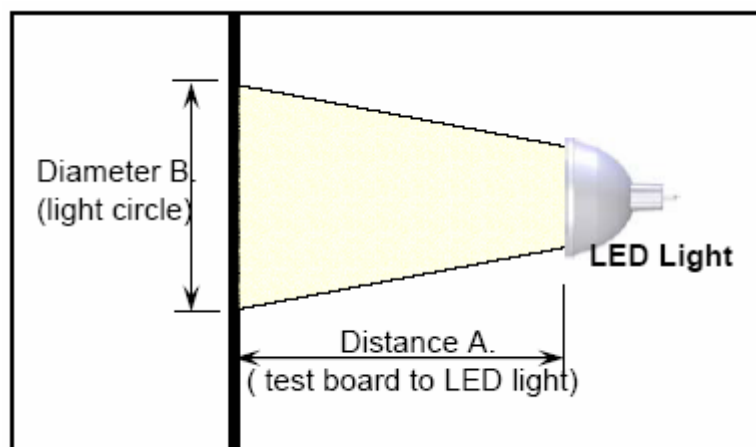
Illumination Characteristics ($T_a=25^{\circ}\text{C}$)


Fig 1. Set up for Illuminance Measurement

1W Model

Distance		Typical Illuminance Measured at Center of Beam (Lux)					
Dist A (cm)	Dia. B (cm)	Cool White	Warm White	Green	Blue	Red	Yellow
30	28	780	680				
50	45	310	290				
100	86	80	70				
150	128	40	38				
200	160	23	20				

Note: Center beam lux is measured with Digital Lux Meter (Model TES-1334A)

3W Model

Distance		Typical Illuminance Measured at Center of Beam (Lux)					
Dist A (cm)	Dia. B (cm)	Cool White	Warm White	Green	Blue	Red	Yellow
30	28	900	750	1025	35	780	850
50	45	380	290	380	15	300	325
100	86	100	77	110	8	80	88
150	128	48	38	48	3.5	40	43
200	160	28	23	27	3	30	26

Note: Center beam lux is measured with Digital Lux Meter (Model TES-1334A)

4W Model

Distance		Typical Illuminance Measured at Center of Beam (Lux)					
Dist A (cm)	Dia. B (cm)	Cool White	Warm White	Green	Blue	Red	Yellow
30	30	1150	1070	1220	50	1250	960
50	50	480	410	490	25	450	360
100	100	140	110	140	15	130	110
150	150	75	70	75	12	70	50
200	200	50	45	50	10	50	35

Note: Center beam lux is measured with Digital Lux Meter (Model TES-1334A)

Typical Electrical Characteristics at $T_a=25^{\circ}\text{C}$

1W Model

Parameter	Symbol	Min	Typ	Max	Unit
Input Voltage (AC)	V_{AC}	10	12	14	V
Input Voltage (DC)	V_{DC}	9	10	12	V
LED Forward Current	I_F	—	300	—	mA
Estimated Life [□]		—	40,000	—	hours
Optimized Body Temperature (1W LED)	T	—	50	55	$^{\circ}\text{C}$

Note: Lamp is optimized for 12V AC input voltage

3W Model

Parameter	Symbol	Min	Typ	Max	Unit
Input Voltage (AC)	V_{AC}	10	12	14	V
Input Voltage (DC)	V_{DC}	9	10	12	V
LED Forward Current	I_F	—	500	—	mA
Estimated Life [□]		—	40,000	—	hours
Optimized Body Temperature (3W LED)	T	—	55	60	$^{\circ}\text{C}$

Note: Lamp is optimized for 12V AC input voltage

4W Model

Parameter	Symbol	Min	Typ	Max	Unit
Input Voltage (AC)	V_{AC}	10	12	14	V
Input Voltage (DC)	V_{DC}	9	10	12	V
LED Forward Current	I_F	—	700	—	mA
Estimated Life [□]		—	40,000	—	hours
Optimized Body Temperature (4W LED)	T	—	65	70	$^{\circ}\text{C}$

Note: Lamp is optimized for 12V AC input voltage

Optional Accessories

1) MR16 Connector without clip – Part No.: 21101

Approval: VDE, UL

Rating: 125V 100W/250V 4A

Material: Porcelain



2) MR16 Connector with spring clip – Part No.: 21105

Approval: VDE, UL

Rating: 125V 100W/250V 4A

Material: Porcelain



Optional Power Supply (Recommended for LED MR16 lamps)

1) 60W Ferro Magnetic Power Supply – Part No.: PS-60W-12

Specifications:

Input: AC110V or AC220V 50/60 Hz

Output Voltage: AC12V

Output Current: 5A max

Power: 60W max

Weight: 1.2Kg

Casing Size: 120X80X65 mm

Remarks: Other wattages is available, please inquire with our sales associates



2) 60W Switching Power Supply – Part No.: SS-60W-12

Specifications:

Input: AC110V or AC220V 50/60 Hz

Output Voltage: DC12V

Output Current: 5A max

Power: 60W max

Weight: 0.5Kg

Casing Size: 150X96X40 mm

Remarks: Other wattages is available, please inquire with our sales associates



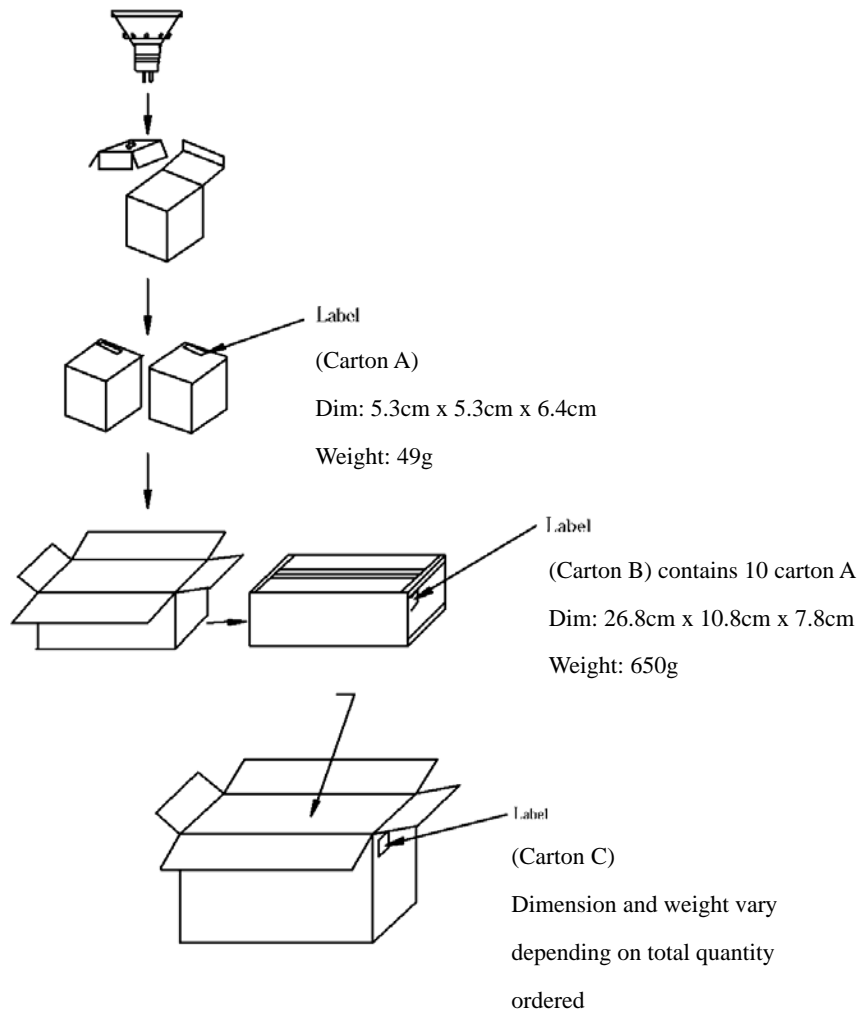
60W Power Supply Installation Note:

1W MR16 – Maximum 40 lamps connection per power supply

3W MR16 – Maximum 15 lamps connection per power supply

4W MR16 – Maximum 12 lamps connection per power supply

PACKAGING SPECIFICATIONS



LIMITED WARRANTY

Manufacturer warrants to the Purchaser that each Product manufactured and sold by it will be free from defects in material and workmanship in its intended use (normal wear and tear excepted) for the period of one year from date of Purchaser's purchase (the invoice date) from Manufacturer. Manufacturer's warranty flows only to Purchaser. If any Product covered by this warranty is returned by Purchaser in accordance with Manufacturer's Products Return Policy, including without limitation its return authorization provisions, within the applicable warranty period set forth above, and upon examination Manufacturer determines to its satisfaction that such Product was defective in material or workmanship at the time of delivery to the Purchaser, Manufacturer will, at its option, repair or replace the Product or the defective part thereof, or reimburse Purchaser for the purchase price. For purposes of clarity, "repair or replace the Product or the defective part thereof" does not include any reinstallation costs or expenses. If Manufacturer chooses to replace the Product and is not able to do so because it has been discontinued or is not available, Manufacturer may replace it with a comparable product. The Products Return Policy is posted on Manufacturer's Internet web site at http://www.brilliance-led.com/En_terms_conditions.asp. The foregoing notwithstanding, Manufacturer will not be responsible for damage to any Product resulting from misuse, negligence, acts of God or accident or resulting from repairs or alterations made by any person or firm not duly authorized by Manufacturer in writing. Purchaser shall convey with each Product distributed to end users the MANUFACTURER'S LIMITED WARRANTY included by Manufacturer with such Product, and, if Manufacturer determines that the appropriate remedy for a defective product is refund of Purchaser's purchase price, Purchaser shall refund to the end user (or arrange for the refund to the end user of) the full purchase price paid by the end user for such defective Product.

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Patents Pending Product
MR16V2-Rev. 1.0c
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