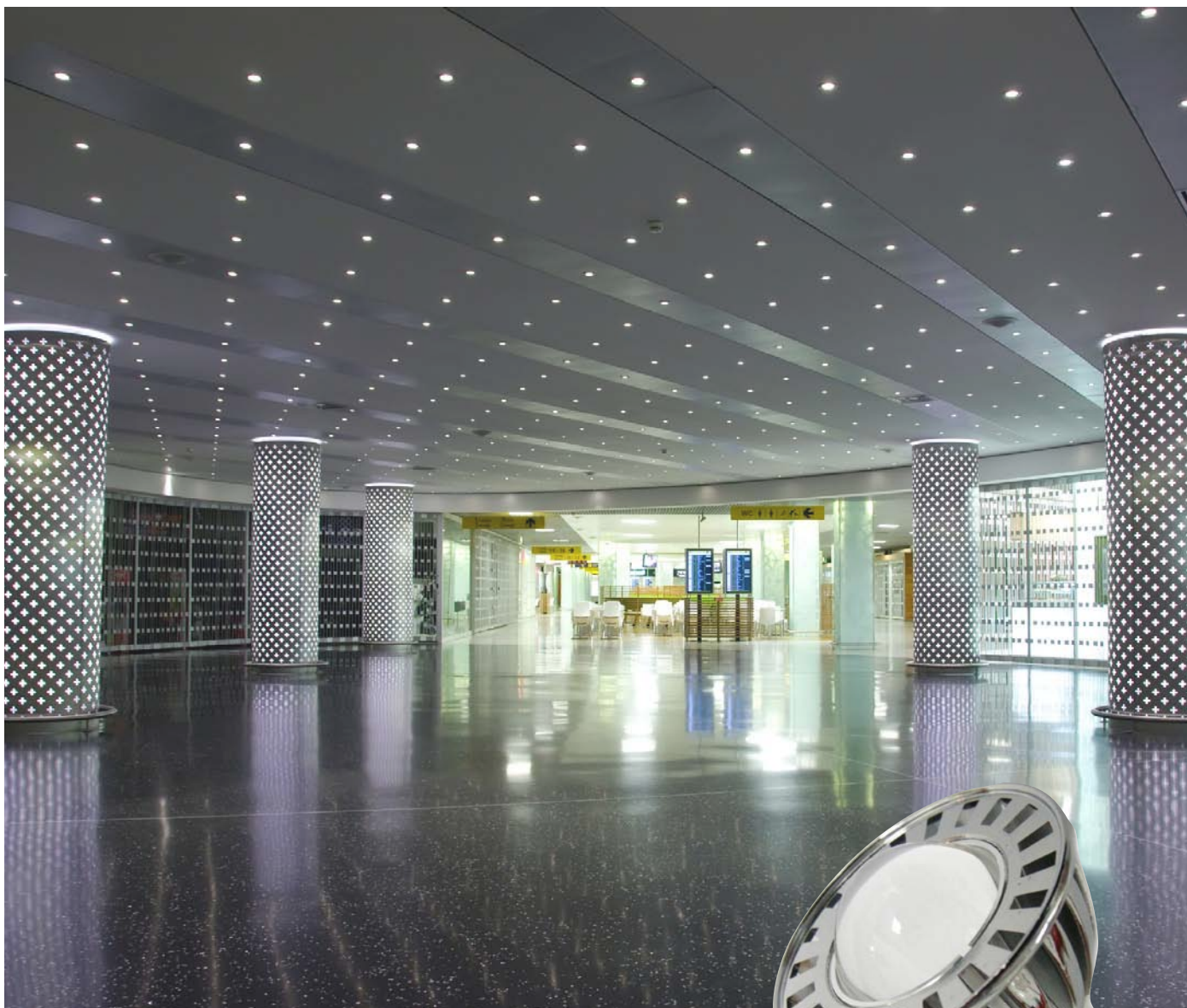


# LED Spots E27 / E14 / MR16 / GU10 / MR11

## High Intensity Retrofit LED Lighting

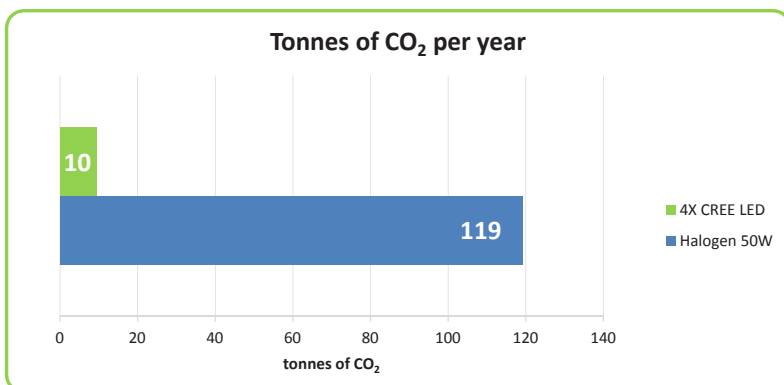
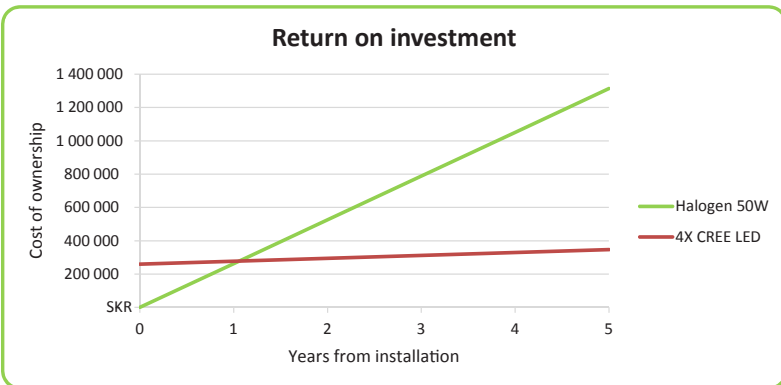
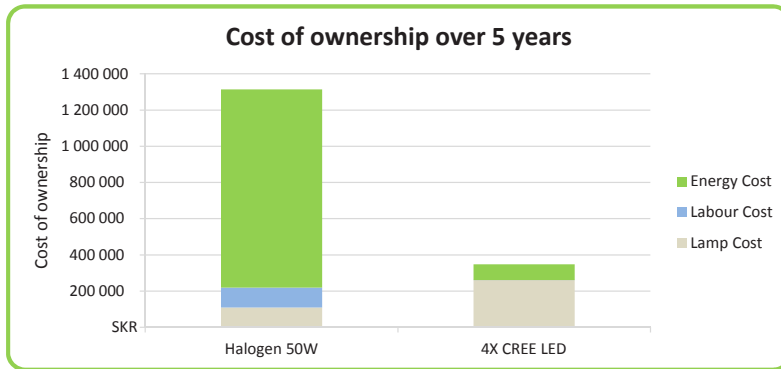


# LED Spots

Our LED spot lamps are a direct replacements for many traditional halogen and incandescent spot lamps. The directional nature of LED's is perfectly suited to replace a spot light where traditional halogen and incandescent spots suffer from poor lighting efficiency due to reflector loss.

## Features

- Retrofit design, only requiring a change of transformer
- Up to 50,000 hours life span
- Highly energy efficient, using as little as 3 watts of power
- Machined aluminium heat-sink, efficiently dissipates the heat.
- Clean directional light where you want it.
- High lighting efficiency due to the directional nature of LED's
- Available in 4500K (Cool) and 3000K (Warm) colour temperatures
- No UV, IR, mercury or sodium



Assumptions: 1.00 SKR per kWh, 4360 hours per year, theoretical example - applications may vary.

## Energy savings that matter

1000 x 50 watt halogen spots were replaced with our 4 Watt, 4X Cree LED Spots.

Average on time was taken to be 12 hours a day, 4380 hours per year.

The LED spot retrofit results in a total saving of over 950 000 SKR over a 5 year period.

Benefits:

- Payback in 1 year
- >90% energy and carbon reduction



## 4X Cree LED Spot - MR16

The 4X CREE range are our brightest range of halogen replacement spots. The 4X Cree spots use a single chip CREE LED with four individual dies. Similar in construction to our 2X Cree lamps, the single point light source allows for a wider angle light output that is more consistent with traditional halogen spots.

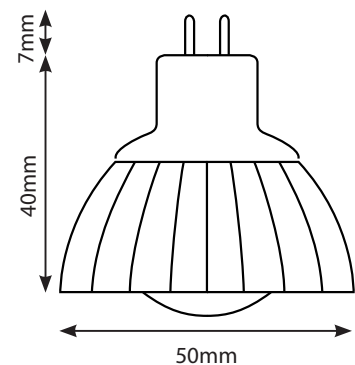
- Retrofit design means you simply swap the bulb! - no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 4X CREE's are significantly brighter than standard LED spots
- Available in 4500K (Cool) and 3000K (Warm) Colour Temperatures
- Light levels comparable or exceeding that of 35 watt halogen spots.
- Available with diffused (soft spot) and non-diffused (sharp spot) lenses.



### Specifications

<b>Light source</b>	1x 4W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	430 Lumens Cool, 320 Lumens Warm
<b>Viewing Angle</b>	36° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	MR16 - Low Voltage
<b>Input Voltage</b>	11-18v AC/DC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.9 (dependent on transformer)

### Dimensions



### Electrical Compatibility

The MR16 low voltage range of spots require an 11-18 volt AC or DC supply. Older torroidal / magnetic transformers used in existing installations are fully compatible with the MR16 range of LED lamps. Modern electronic transformers are usually incompatible due to their pulsed output, this results in the lamp flickering, lighting dimly or not lighting at all. Please contact us for a range of constant voltage transformers specifically designed for LED lamps.

## 4X Cree LED Spot - GU10

The 4X CREE range are our brightest range of halogen replacement spots. The 4X Cree spots use a single chip CREE LED with four individual dies. Similar in construction to our 2X Cree lamps, the single point light source allows for a wider angle light output that is more consistent with traditional halogen spots.

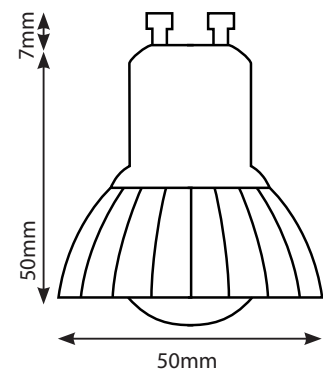
- Retrofit design means you simply swap the bulb! - no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 4X CREE's are significantly brighter than standard LED spots
- Available in 4500K (Cool) and 3000K (Warm) Colour Temperatures
- Light levels comparable or exceeding that of 50 watt halogen spots.
- Available with diffused (soft spot) and non-diffused (sharp spot) lenses.



### Specifications

<b>Light source</b>	1x 4W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	430 Lumens Cool, 320 Lumens Warm
<b>Viewing Angle</b>	36° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	GU10
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

### Dimensions



## 4X Cree LED Spot - ES / SES

The 4X CREE range are our brightest range of halogen replacement spots. The 4X Cree spots use a single chip CREE LED with four individual dies. Similar in construction to our 2X Cree lamps, the single point light source allows for a wider angle light output that is more consistent with traditional halogen spots.

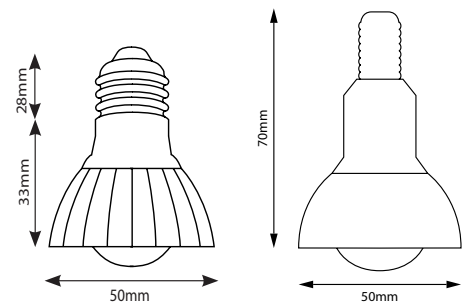
- Retrofit design means you simply swap the bulb! - no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 4X CREE's are significantly brighter than standard LED spots
- Available in 4500K (Cool) and 3000K (Warm) Colour Temperatures
- Light levels comparable or exceeding that of 50 watt halogen spots.
- Available with diffused (soft spot) and non diffused (sharp spot) lenses.



### Specifications

<b>Light source</b>	1x 4W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	430 Lumens Cool, 320 Lumens Warm
<b>Viewing Angle</b>	36° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	ES (E27) and SES (E14)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

### Dimensions



## 3X Cree LED Spot - MR16

Our 3X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

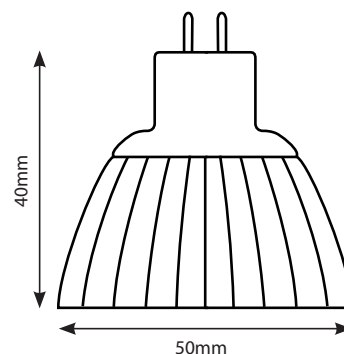
- Retrofit design means you simply swap the bulb!
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 3X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 20 and 35 watt halogen spots.



### Specifications

<b>Light source</b>	3x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	240 Lumens Cool, 210 Lumens Warm
<b>Viewing Angle</b>	32° Nominal Beam Angle 45° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	MR16 - Low Voltage
<b>Input Voltage</b>	11-18v AC/DC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.9 (dependent on transformer)

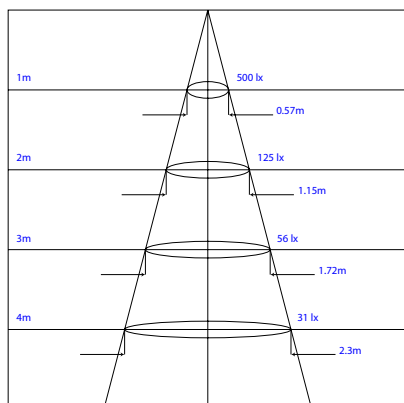
### Dimensions



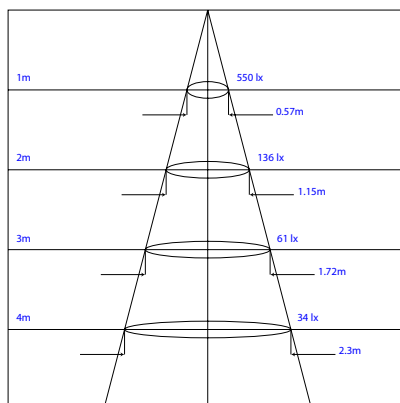
### Electrical Compatibility

The MR16 low voltage range of spots require an 11-18 volt AC or DC supply. Older torroidal / magnetic transformers used in existing installations are fully compatible with the MR16 range of LED lamps. Modern electronic transformers are usually incompatible due to their pulsed output, this results in the lamp flickering, lighting dimly or not lighting at all. Please contact us for a range of constant voltage transformers.

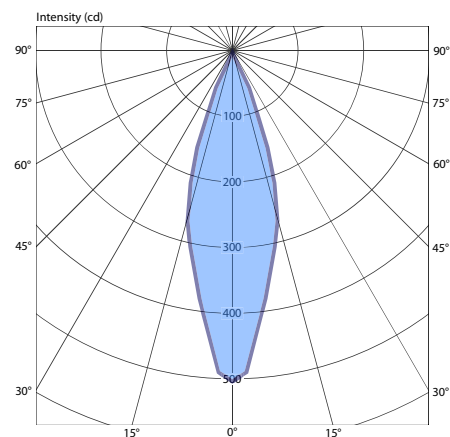
### Illumination Levels - Warm White Nominal Beam Angle: 32°



### Illumination Levels - Cool White Nominal Beam Angle: 32°



### Polar Intensity Curve



## 3X Cree LED Spot - GU10

Our 3X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

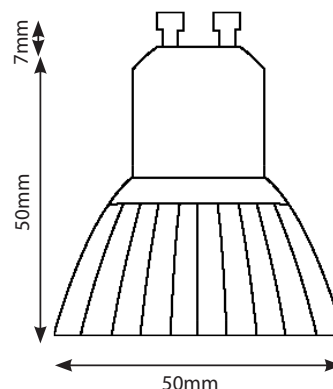
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 3X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 35 watt halogen spots.



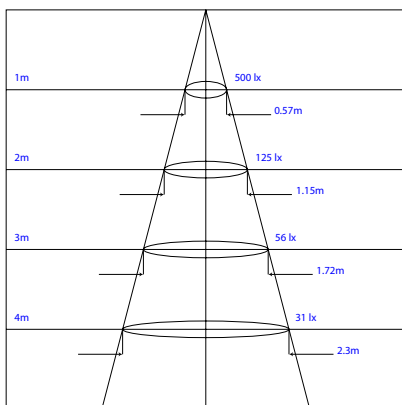
### Specifications

<b>Light source</b>	3x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	240 Lumens Cool, 210 Lumens Warm
<b>Viewing Angle</b>	32° Nominal Beam Angle 45° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	GU10
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

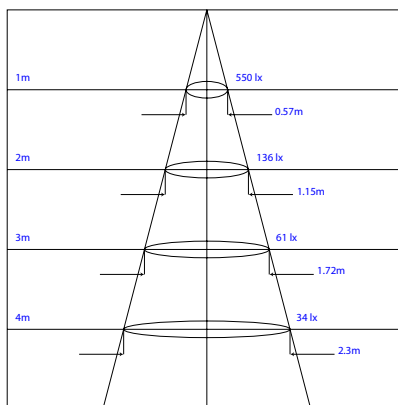
### Dimensions



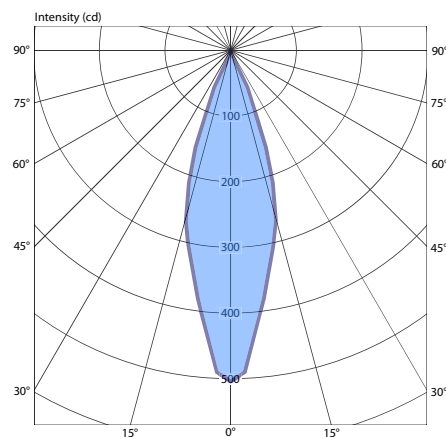
### Illumination Levels - Warm White Nominal Beam Angle: 32°



### Illumination Levels - Cool White Nominal Beam Angle: 32°



### Polar Intensity Curve



## 3X Cree LED Spot - ES/SES

Our 3X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

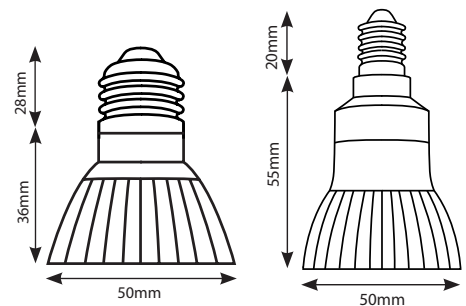
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 3X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 35 watt halogen spots.



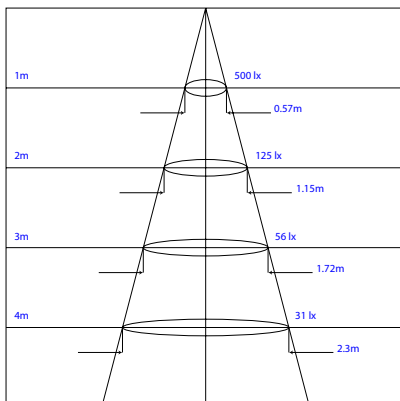
### Specifications

<b>Light source</b>	3x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	240 Lumens Cool, 210 Lumens Warm
<b>Viewing Angle</b>	32° Nominal Beam Angle 45° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	ES (E27) and SES (E14)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

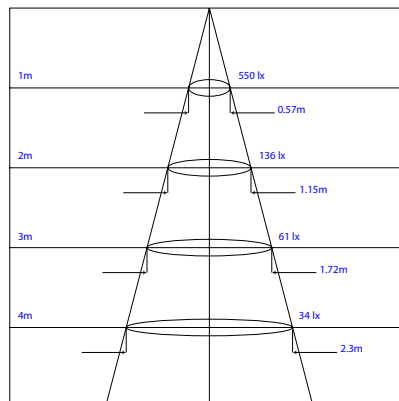
### Dimensions



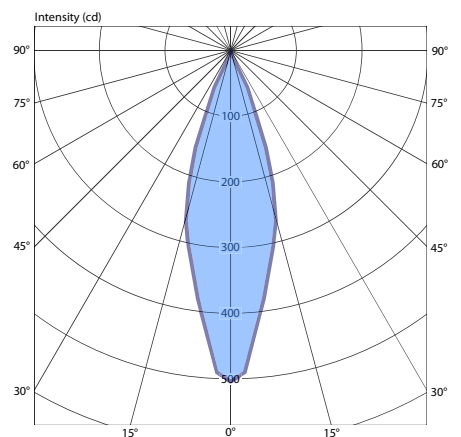
### Illumination Levels - Warm White Nominal Beam Angle: 32°



### Illumination Levels - Cool White Nominal Beam Angle: 32°



### Polar Intensity Curve





## 2X Cree LED Spot - MR16

Our 2X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

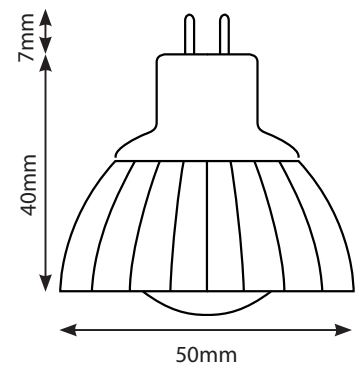
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 2X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 20 watt halogen spots.



### Specifications

<b>Light source</b>	1x 3W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	150 Lumens Cool, 120 Lumens Warm
<b>Viewing Angle</b>	45° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	MR16 - Low Voltage
<b>Input Voltage</b>	11-18v AC/DC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.9 (dependent on transformer)

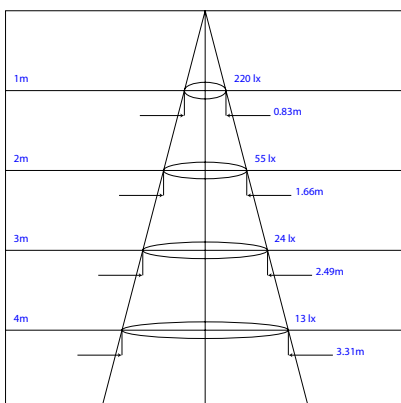
### Dimensions



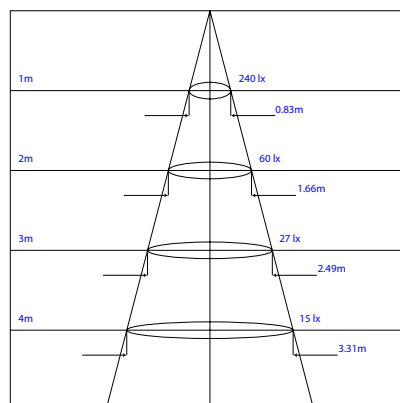
### Electrical Compatibility

The MR16 low voltage range of spots require an 11-18 volt AC or DC supply. Older torroidal / magnetic transformers used in existing installations are fully compatible with the MR16 range of LED lamps. Modern electronic transformers are usually incompatible due to their pulsed output, this results in the lamp flickering, lighting dimly or not lighting at all. Please contact us for a range of constant voltage transformers specifically designed for LED lamps.

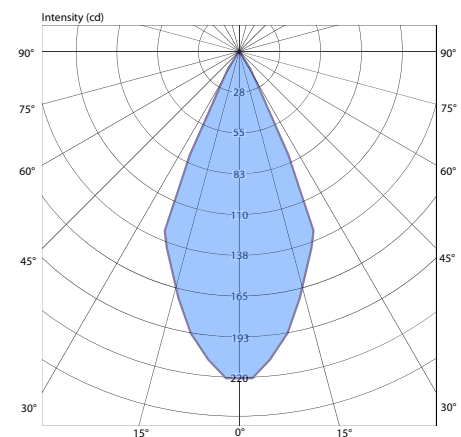
### Illumination Levels - Warm White Nominal Beam Angle: 45°



### Illumination Levels - Cool White Nominal Beam Angle: 45°



### Polar Intensity Curve



## 2X Cree LED Spot - GU10

Our 2X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

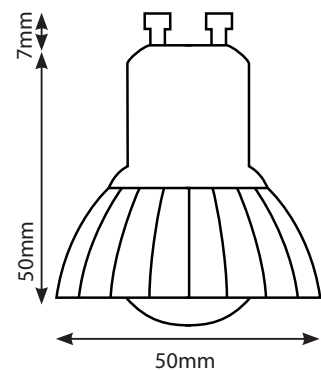
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 2X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 20 watt halogen spots.



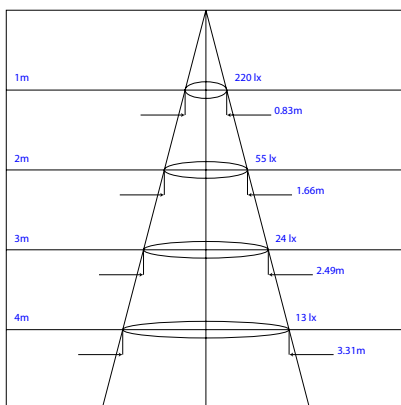
### Specifications

<b>Light source</b>	1x 3W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	150 Lumens Cool, 120 Lumens Warm
<b>Viewing Angle</b>	45° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	GU10
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

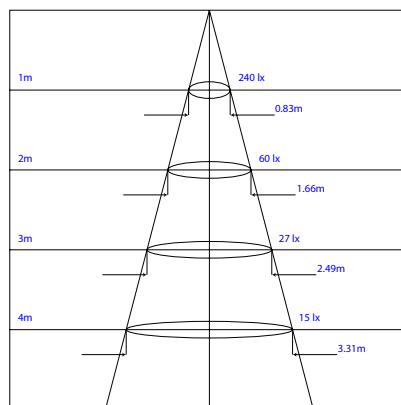
### Dimensions



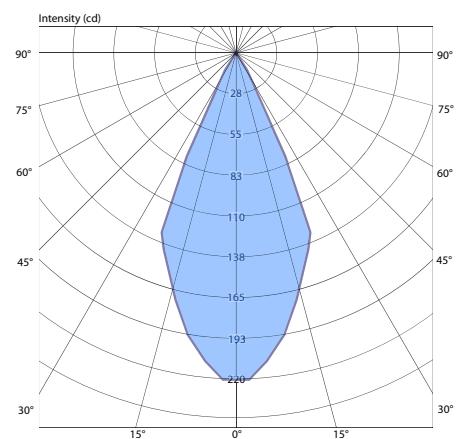
### Illumination Levels - Warm White Nominal Beam Angle: 45°



### Illumination Levels - Cool White Nominal Beam Angle: 45°



### Polar Intensity Curve



## 2X Cree LED Spot - ES/SES

Our 2X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

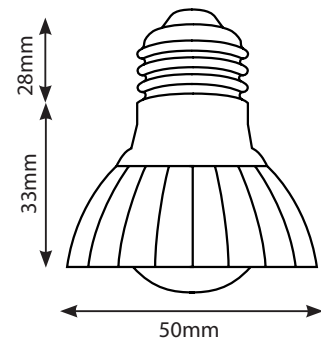
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings
- Up to 50,000 hours life span
- Highly energy efficient, using just 4 watts of power
- Clean directional light where you want it.
- 2X CREE's are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 20 watt halogen spots.



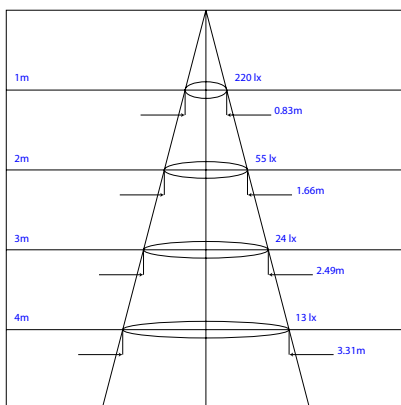
### Specifications

<b>Light source</b>	1x 3W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	150 Lumens Cool, 120 Lumens Warm
<b>Viewing Angle</b>	45° Nominal Beam Angle 50° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	ES (E27) and SES (E14)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	4 Watts
<b>Power Factor</b>	>0.7

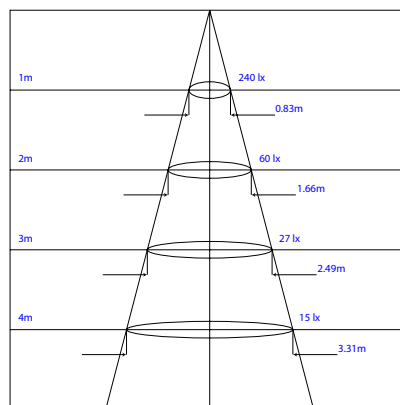
### Dimensions



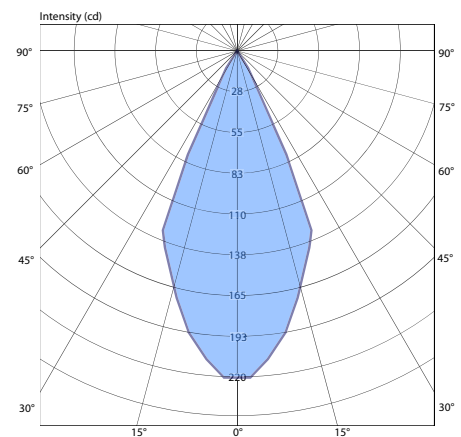
### Illumination Levels - Warm White Nominal Beam Angle: 45°



### Illumination Levels - Cool White Nominal Beam Angle: 45°



### Polar Intensity Curve



## 1X Cree LED Spot - MR11

Our 1X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

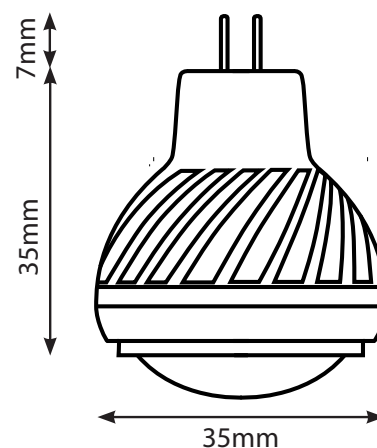
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 3 watts of power
- Clean directional light where you want it.
- CREE LEDs are significantly brighter than standard LED spots
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to a 10 or 20 watt MR11.



### Specifications

<b>Light source</b>	1x 2W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	130 Lumens Cool, 100 Lumens Warm
<b>Viewing Angle</b>	70° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	MR11 - Low Voltage
<b>Input Voltage</b>	11-18v AC/DC
<b>Total Power Usage</b>	3 Watts
<b>Power Factor</b>	>0.9 (dependent on transformer)

### Dimensions



### Electrical Compatibility

The MR16 low voltage range of spots require an 11-18 volt AC or DC supply. Current torroidal / magnetic transformers used in existing installations are fully compatible with the MR16 range of LED lamps.

Modern electronic transformers are usually incompatible due to their pulsed output, this results in the lamp flickering, lighting dimly or not lighting at all. Please contact us for a range of single and multi-output constant voltage transformers specifically designed for low voltage LED lamps.

## 5X Cree Reflector Spot - ES/BC

Our 5X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

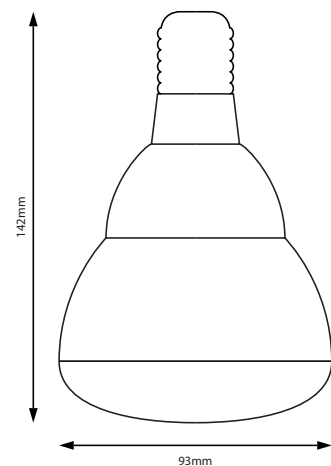
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 6 watts of power
- Clean directional light where you want it.
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 60 watt Incandescent Reflector
- Twice as energy efficient as modern fluorescent energy savers



### Specifications

<b>Light source</b>	5x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	400 Lumens Cool, 350 Lumens Warm
<b>Viewing Angle</b>	180 degree, R90 Reflector
<b>Base type</b>	ES (E27) and BC (B22)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	6 Watts
<b>Power Factor</b>	>0.7

### Dimensions



## 7X Cree PAR30 Spot - ES/BC

Our 7X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

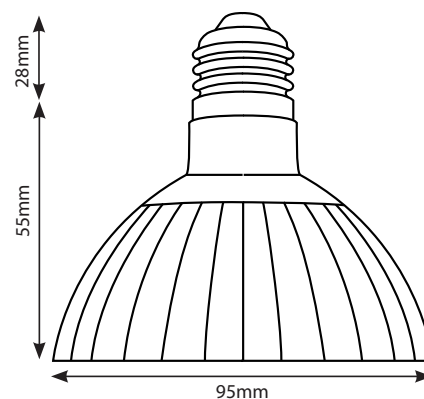
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 8 watts of power
- Clean directional light where you want it.
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 50 watt halogen PAR Spots, or 75 Watt Incandescent



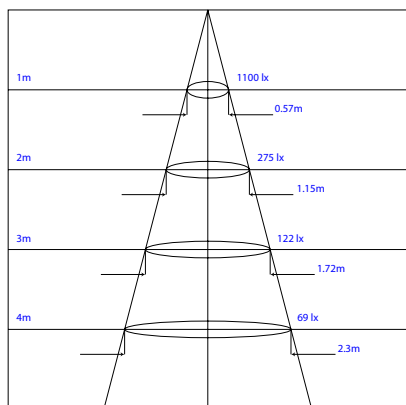
### Specifications

<b>Light source</b>	7x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	550 Lumens Cool, 450 Lumens Warm
<b>Viewing Angle</b>	32° Nominal Beam Angle 45° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	ES (E27) and BC (B22)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	8 Watts
<b>Power Factor</b>	>0.7

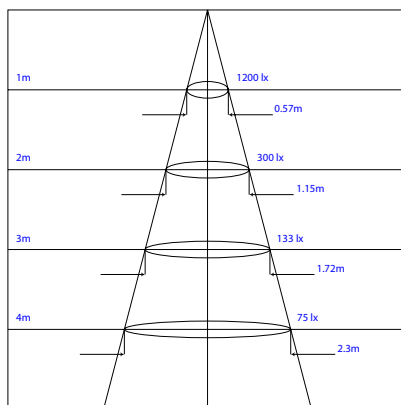
### Dimensions



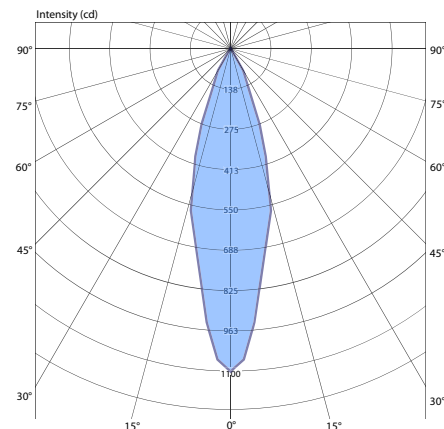
### Illumination Levels - Warm White Nominal Beam Angle: 32°



### Illumination Levels - Cool White Nominal Beam Angle: 32°



### Polar Intensity Curve



## 7X Cree PAR38 Spot - ES/BC

Our 7X CREE based LED Lighting is a direct replacement for standard halogen or incandescent lighting. Providing intense levels of lighting with all the benefits of LED.

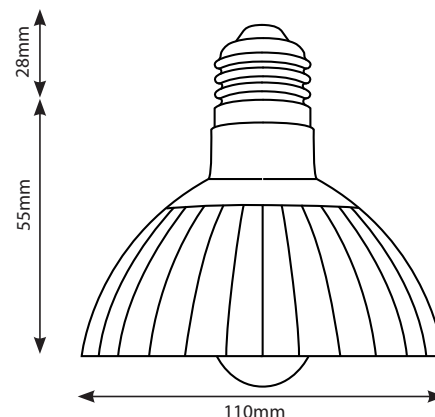
- Retrofit design means you simply swap the bulb! - no wiring, no change of fittings.
- Up to 50,000 hours life span
- Highly energy efficient, using just 8 watts of power
- Clean directional light where you want it.
- Available in 4500k (Cool) and 3000K (Warm) Colour Temperatures
- Comparable light levels to 50 watt halogen PAR Spots, or 75 Watt Incandescent
- Strong central spot through optical grade central focusing lens



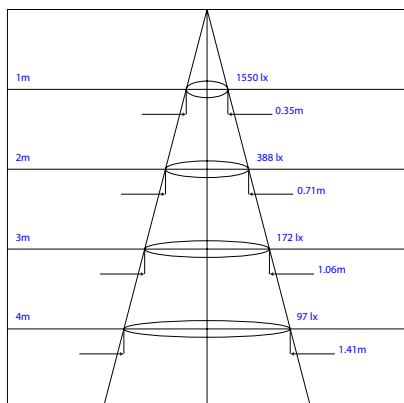
### Specifications

<b>Light source</b>	7x 1W high power CREE LED
<b>Brightness Degradation</b>	< 1% per 1000 hours
<b>Colour Rendering Index</b>	80
<b>Light Purity</b>	No UV or IR Radiation
<b>Light Output</b>	550 Lumens Cool, 450 Lumens Warm
<b>Viewing Angle</b>	20° Nominal Beam Angle 45° Beam Spread @ 10% (Field Angle)
<b>Base type</b>	ES (E27) and BC (B22)
<b>Input Voltage</b>	100-240v AC
<b>Total Power Usage</b>	8 Watts
<b>Power Factor</b>	>0.7

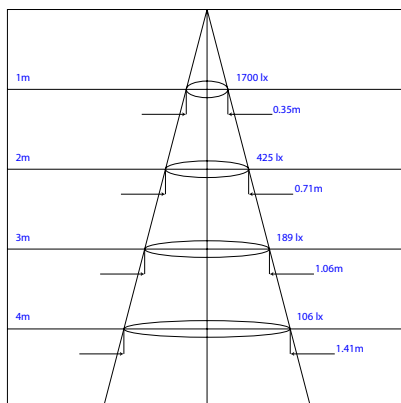
### Dimensions



### Illumination Levels - Warm White Nominal Beam Angle: 20°



### Illumination Levels - Cool White Nominal Beam Angle: 20°



### Polar Intensity Curve

