# Fibre Optic Lighting

crescent
An Energy Focus Company

# Product Index

www.crescent.co.uk

# Crescent Lighting

This is the seventh fibre optic catalogue that we have produced and it is our most comprehensive yet, with decorative products featuring alongside the latest developments from the amazing EFO system. We have been selling high output fibre optic systems since 1988, and have completed many thousands of projects here in the UK and around the world. This year our parent company, Fiberstars was renamed Energy Focus - in recognition of the direction that the

EFO range has taken us.
We have invested heavily in the development of the products you see in this catalogue, with particular emphasis on thermal performance and lumen output of the luminaires. All our products are designed to comply with the requirements of EN60598-1:2004.

When you specify a Crescent Lighting product you can be sure that you are working with a company that has sufficient resources to handle any size

and complexity of project.
Crescent is an ISO 9001 (2000) company.

We also manufacture and distribute a wide range of other lighting products and we show a selection of those below. Please ask for a full Crescent binder if any of these products are of interest, or contact our sales or project design teams for more immediate assistance.

## Crescent LED
Small and neat LED fittings interior or IP rated

## Crescent Linear LED
Linear colourchange LED system. Interior or IP rated potted designs

## Ambiance Lumiere
Exclusive range of LED luminaires for interior or exterior applications
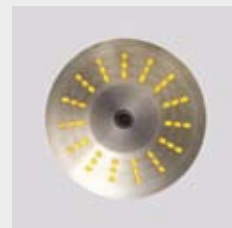
## Agabekov 'B' Light
Large range of linear systems for concealed lighting in tight spaces. Xenon, Tungsten, Tungsten Halogen or LED lightsources. IP rated versions available.

## Elliptipar and Specials
Benchmark asymmetric luminaires to light wall, floor or ceiling.  Specials and variations of any of our products.

## T2 Systems
Ultra slim undershelf or cabinet fittings with or without remote ballast

Due to continuous product development and improvements Crescent Lighting reserves the right to change designs and specifications. All sales are subject to Crescent Lighting General Conditions of Sale.

## Energy Saving
EFO solutions can reduce energy consumption over conventional lighting.





## Sustainability
97% of the EFO lamp is reused, the lamp chemicals and glass are recycled.



## No Heat or UV
Filters combined with the fibre eliminate virtually all infra red and ultra violet radiation.





## Colour and Decoration
Fibre optic lighting can bring animated colour and sparkle to a project and is often used for that reason alone.





## Size and Adaptability
Fibre optic techniques can be used where standard lighting solutions would not be possible or appropriate.
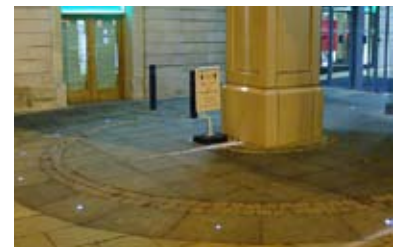


## Safety
The lightprojector is the only part of the system requiring power. Fibre optic cables are inherently safe.





## Maintenance and Access
One accessible projector can power a number of remotely mounted features or spotlights.

# Fibre Optic or LED Lighting?

There is a lot of confusion about the various advantages and benefits of fibre optic lighting when compared to LED solutions. Crescent have worked with fibre optics for twenty years and LEDs for nearly ten, so we are in the perfect position to advise you on the best solution for your project. We have no axe to grind. We believe each technique has its place and the decision which to use will nearly always depend on the particular requirements of the project.

One difference is clear at the present time - for the highest light output from a given size, fibre optic comes out on top.

We are experienced in both technologies - we can help find the right solution for your project

**Fibre Optic**
**50mm diameter fitting**

- Typical maximum lumens 500 for the EFO System

- Output variable at design stage

- Dimmable

- Colour change available with simple or sophisticated DMX control, maximum 8 colours

- No voltage in the fitting

- No heat or UV in the beam

- No heat in the fitting

- Small fitting

- Remote projector linked by fibre optic cable - size and route has to be taken into consideration

- Average lamp life 5000-12000 hours (for the highest output)

- Requires maintenance

- Simple lamp changes

- Output at 50,000 hours depends on maintenance and lamp age - could be 100% of initial

- Achievable project lumens per watt more than 50

**LED**
**50mm diameter fitting**

- Typical maximum lumens 150 for MR16 replacement

- Limited output options at design stage

- Dimmable

- Colour change available with simple or sophisticated DMX control giving milliions of colours

- Low voltage in the fitting

- No heat or UV in the beam

- Fitting will get warm

- Fitting size dictated by LED footprint and thermal management

- Remote driver and wiring, size not normally an issue

- Life 50,000+ hours If LED fails replacement necessary

- Requires no maintenance

- Complete fitting change

- Output at 50,000 hours 70% of initial

- Achievable project lumens per watt 30

Fibre optic lighting can appear complex to those that have not specified, used or installed it before. We have nearly twenty years of experience with all aspects of this technology so we can help at all stages of a project and provide a complete turnkey service to give customers confidence and a fantastic lighting solution.

Advice at the earliest stage of a project can confirm the feasibility of using fibre optic lighting or we can recommend another technique, if appropriate.

fittings to assisting in a full blown mock up to prove that a particular application will work. This image shows a glass edge lighting demonstration with a number of projectors and lightbars set up in London.

▶



▼



Detail design and quotations are handled by our project design department. They are always on hand to give general advice and also coordinate the more complex projects with architects, designers, clients and our installers.

▶

We are able to handle Autocad drawings to take off product quantities, make alterations if necessary, and provide other project backup.
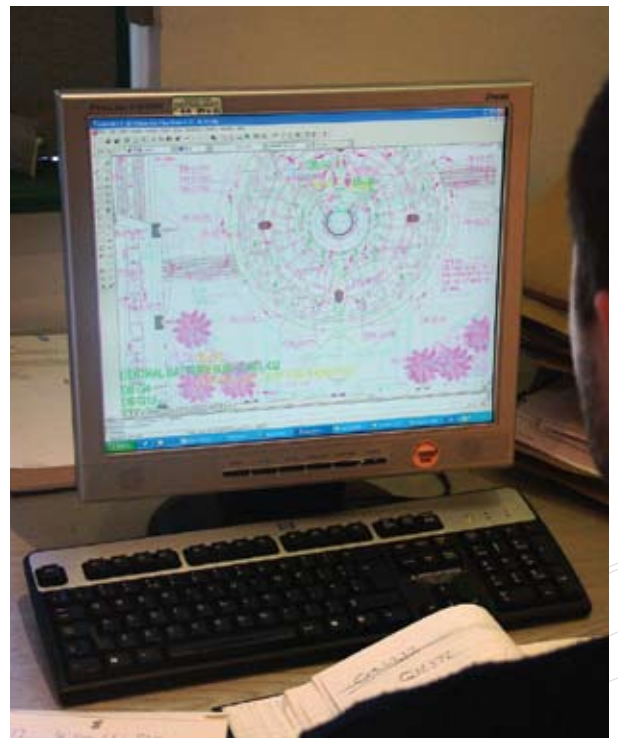


We invest a lot of time and effort in demonstrating fibre optic equipment, there is nothing like seeing it in action to prove the effectiveness of the technique. This could be anything from a simple meeting in a client's office with projector, cable and

Installation is a straight forward process and we can supply everything you need. However, our team of experienced contractors can handle the project from start to finish if required.

▼



Typical above ceiling layout of CREAD068 lightprojectors

▶
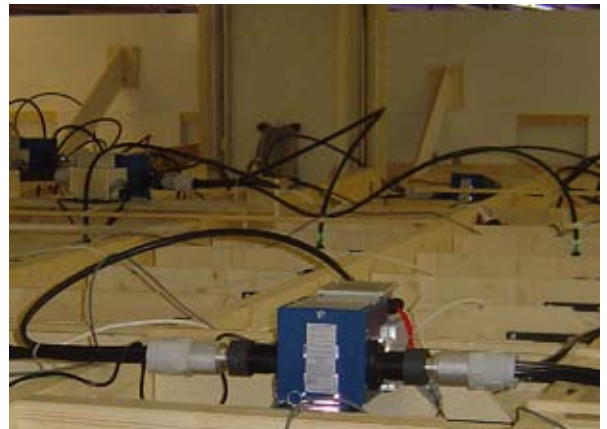


Our full installation service will ensure that however difficult, the equipment will be fitted and integrated with other lighting to the highest standards.

▼



Once we have installed the equipment, we will commission it to check all functions and do any special effect or synchronisation. tuning or programming.

▶



This final process will ensure you, the client or designer, get the superb lighting effect you want.

▶



Advise • Design • Supply • Install • Commission

Thanks to St Giles Hotel, London.



SECTION SHOWING THE
TWO RUNS OF BPAK 150
FIBRE FOR MAXIMUM
VISIBILITY.

CRE 4625 250 W HQI PROJECTOR
USED FOR MAXIMUM OUTPUT.

PROJECTORS MOUNTED APPROX 30 METRES APART AROUND THE
PERIMETER. THE EXPOSED POSITION IS NOT A PROBLEM
AS THEY ARE IP45 TESTED & HAVE STAINLESS STEEL COVERS.
IT ALSO MEANS THAT THEY ARE EASILY ACCESSIBLE FOR
LAMP MAINTENANCE.

ST GILES HOTEL - ROOF EDGE LIGHTING

THE REQUIREMENT WAS TO DELINEATE THE ROOF SHAPE
SO THAT IT CAN BE SEEN FROM AS FAR AWAY
AS POSSIBLE.

Churchill Museum, London.  Thanks to DHA.



CHURCHILL MUSEUM - CABINET LIGHTING

LB LIGHTBAR FITTED IN FRAME
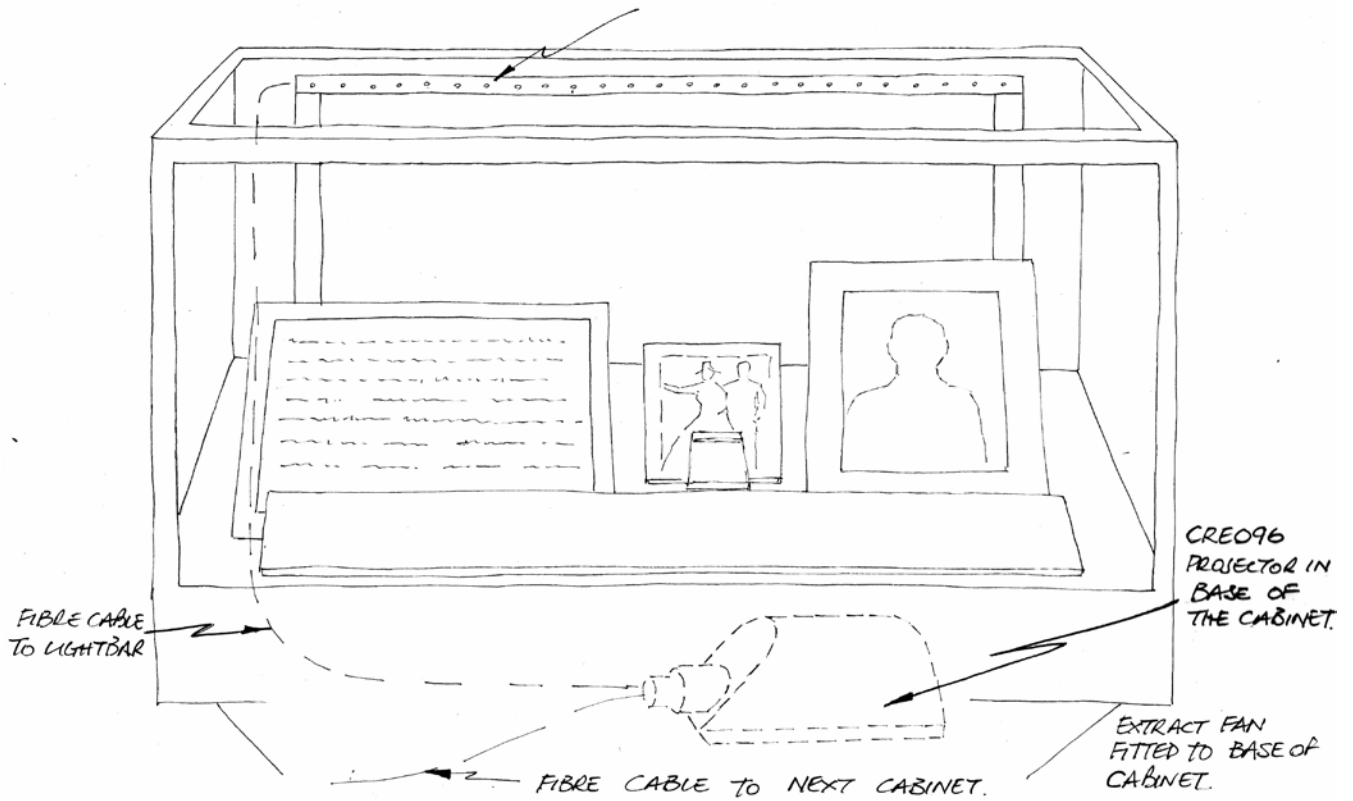
FIBRE CABLE
TO LIGHTBAR

FIBRE CABLE TO NEXT CABINET.

CRE096
PROJECTOR IN
BASE OF
THE CABINET.

EXTRACT FAN
FITTED TO BASE OF
CABINET.

- The most efficient fibre optic system in the world

- New technology throughout the system

- Independently tested at more than 50 lumens/watt

- Up to eight downlights from a 70W HQI lamp

- MR16 lamp replacement

## The System - New Technology

### CREAD068 Projector

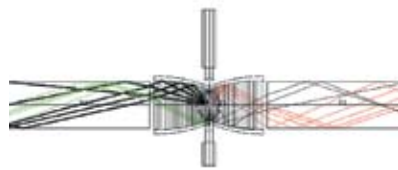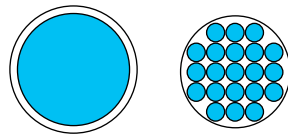At its heart the 70W CREAD projector has the revolutionary double CPC collector. This non imaging optical system gives a very even light distribution and has coated quartz rods for UV and IR control. This transmits a higher percentage of light into the fibre than ever before – up to eight optical ports!

### OptiCore™ Fibre

Large core fibre overcomes the 'packing fraction' problem that comes with stranded fibres and has a better numerical aperture which means 50% more light for the same diameter!
OptiCore™ is the first large core fibre optic cable in the world to be produced by an extrusion process, which reduces production costs and gives more options for maximum cable lengths.

Opticore™ Fibre    Stranded Fibre
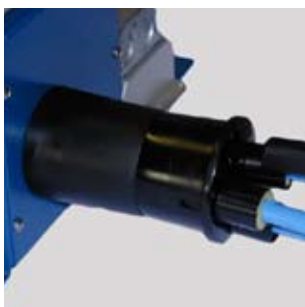
### FiberJacks™ Connection

The quick, easy and precise FiberJack™ plug in port connection method is a step forward in fibre optic systems – individual cables can be installed or replaced at will, and no special skill is necessary at the installation stage.

### Multi Beam Focusing

Most EFO fittings have a bayonet type connector, to allow quick assembly and three beam angles to be quickly and precisely selected 15, 25 and 40 degrees. They also use larger lenses than standard fibre optic fittings for better and more efficient control of the light.

○ 70W Projector with twin optical ports

○ Fanless, silent operation

○ Super efficient large core optical cable

○ Quick fit connectors for simple assembly
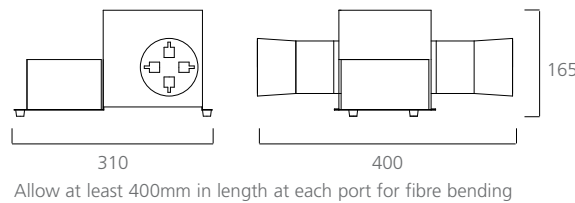
○ Easy and precise beam angle adjustment

○ UK Part L compliant (>45Lm/W)

○ Can be used with conventional stranded fibre

310

400

165

Allow at least 400mm in length at each port for fibre bending

## CREAD068
## Lightprojector

| | |
|---|---|
| Lamp | 70W AC metal halide A-Warm white 3500K CRI 75 or B-Daylight 4300K CRI 82 |
| Lamp Life | A-14,000 hours average B-10,000 hours average |
| Material | Painted steel enclosure |
| Ballast | Integral electronic |
| Fibre Type | PMMA or OptiCore™ |
| Op. Temp. | -10°C to 35°C |
| Weight | 4.5kg |
| Options | White light or fixed colour only - NO colour wheel available & therefore no colour synchronisation, DMX or 0-10V control.  Twin port for stranded fibre, 6 or 8 ports for opticore |
| Acoustics | Silent |

### EFO and Stranded Fibre

EFO is the most efficient fibre optic system in the world when used with large core fibre, but the CREAD068 projector also offers many advantages with conventional stranded fibre. One of the advantages of the CPC optical train is that the focus is very even, which in most cases can remove the necessity for fibre randomisation. It works particularly well with Lightbar too. The unit is also fanless, which makes it silent, a big benefit in some projects.

In fact, if you don't need the raw power of a 150W or 250W HQI projector, and have no particular size constraints, then the CREAD068 is a logical choice.

Advise  •  Design  •  Supply  •  Install  •  Commission

## Optical Cable

| Cat. No. | Type | Outer Diameter | Max. no. of cables/port |
|----------|------|----------------|-------------------------|
| OCF800 | 7mm large core | 9 | 5 |
| OCF1100 | 11mm large core | 12 | 4 |
| OCF1200 | 12mm large core | 14 | 3 |

Specify length required. One end of each cable will be fitted with a FiberJack™ connector ready for fitment to the CREAD068 EFO projector. The other end will either be fitted with the multi beam focus connector or prepared for the gallery fitting. Consult Crescent for lengths longer than 10 metres.
Note: The minimum bend radius is eight times the outer diameter.
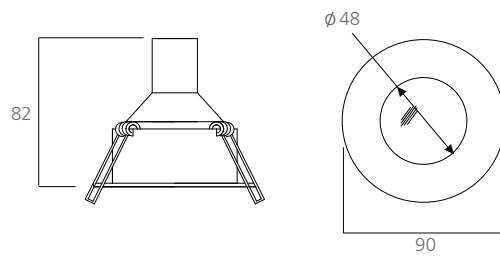
## CRE3004
## Multibeam Downlight
## with Spring Fixing

| | |
|---|---|
| Cut Out | Dia. 74 |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Multi beam focusing with 15º, 25º or 40º beam |
| Finish | White, Black or Gold trim ring |
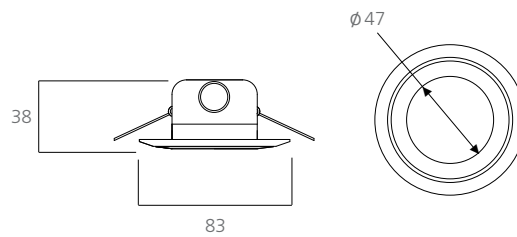
## CRE3005
## Small 90º Downlight
## with Spring Fixing

| | |
|---|---|
| Cut Out | Dia. 65 |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Multi beam connector, fixed focus |
| Finish | White, Black or Gold trim ring |
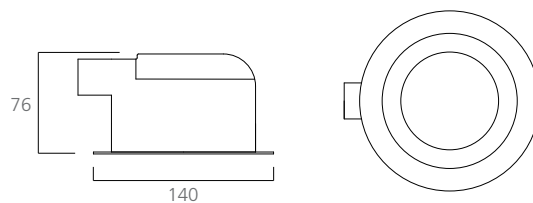
## CRE3003
## 90º Downlight

| | |
|---|---|
| Cut Out | Dia. 120 |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Multi beam connector, fixed focus |
| Finish | White, Black or Gold trim ring |

Specify CRE3003/60 for 60º beam or CRE3003/40 for 40º beam.

ø80

220
max

## CRE3000
## Gallery

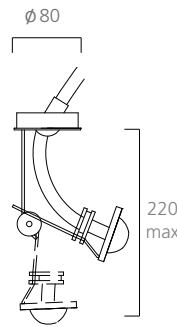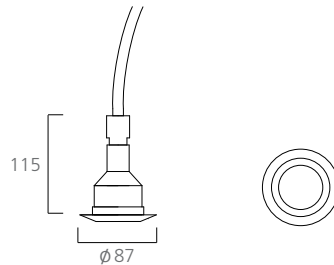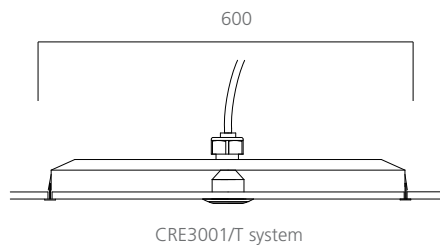| | |
|---|---|
| Cut Out | Dia. 72 |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Fibre supplied ready for clamp fixing, variable focusing and locking |
| Finish | Silver |

115

ø87

## CRE3001
## Multibeam Downlight

| | |
|---|---|
| Cut Out | Dia. 63 |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Multi beam focusing with 15°, 25° or 40° beam |
| Finish | White, Black or Gold trim ring |

### Multibeam Downlight Accessories

CRE3001 can be fitted into either suspended ceiling tile or solid ceiling types. Specify CRE3001/T for a tile ceiling - you will get tie bar brackets to suit a 600 x 600mm and 600 x 1200mm ceiling system.

Specify CRE3001/S for solid ceiling types. For other ceiling types contact the Project Design Department.

600

CRE3001/T system
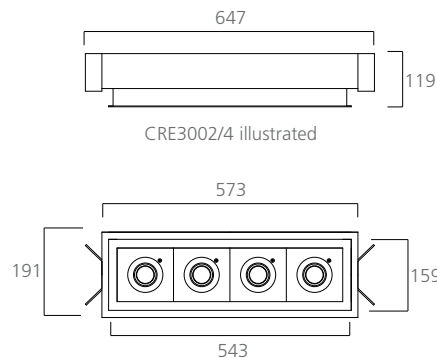
## CRE3002
## Adjustable Modular Downlight

647

119

CRE3002/4 illustrated

573

191

159

543

| | |
|---|---|
| Cut Out | Contact Project Design Dept |
| Fibre Type | OptiCore™ large core fibre |
| Fibre connection | Multi beam focusing with 15°, 25° or 40° beam |
| Finish | White or Black |

This is a fully adjustable modular fitting that can be specified as a one, two, three or four unit luminaire. Each module is individually adjustable, focusable (with the multi beam connection system) and can be locked into position.
Specify CRE3002/1 for a single module; CRE3002/2 for a twin module etc

Trammell Crow Company Reception. Thanks to Energy Focus.

Aufnahamen Uferstadt.  Thanks to LBM

- Up to 60% energy saving over conventional accent lighting

- Tested at over 50 lumens/watts

- Exceeds requirements for all situations

- Sharp, clean lighting

- No heat in the light beam

- No ultra violet in the light beam

- No electrical current in the light fittings

- Less maintenance points

- Silent operation

The Crescent EFO system is unique in terms of its efficacy as a fibre optic lighting system, due to the design advances in lamp technology, delivery train and optical cables (see page 12 for more information).  It is so efficient in fact that it complies with Part L of the latest edition of the UK Building Regulations.

This will enable the 'small downlight' look to be used to provide a variation in the lighting effect around the edge of large areas, to wall wash, light corridors, lift lobbies, reception areas and meeting rooms.

*Background*
The UK Building Regulations are concerned with all aspects of building construction - structure, ventilation, drainage etc.  Part L deals with the Conservation of Fuel and Power. Part L became law in June 2006.

It concerns the energy efficiency of buildings, so both the lighting and heating fall within the Bill. Conformance is calculated using proprietary software.  Normally this is done by the consulting engineer, architect or main contractor because they are the ones most likely to have all the data.

Basically, it affects all new buildings and refurbishments of existing ones (over a certain size), both domestic and commercial.

*Meeting the requirements*
Domestic: these can comply in one of two ways: Either one energy efficient fitting every 25sq/m of floor space OR 25% or more of the fittings to be energy efficient.  Energy efficient means a fitting with a lamp giving > 40 lm/circuit watt.

Commercial : used for offices, storage, industrial, desk based tasks.  There is a minimum requirement for luminaire efficacy.  This is expressed as lumens per circuit watt, but it is lumens emitted by the fitting. ie, bare lamp lumens x LOR of the fitting divided by total circuit watts.  For this category of building the efficacy must be > 45.

*EFO has been independently tested by ITL of Colorado at over 50 lumens per watt and therefore exceeds the requirements in both cases.*

- Linear Fibre Optic lighting system

- 1 x 70W lamp for three cabinet doors

- No heat inside the cabinet

- No ultra violet inside the cabinet

- No maintenance inside the cabinet

- No electricity or glass in the cabinet

- More efficient than fluorescent and LEDs

- 12,000 hour lamp life

- Full intensity when cold

- Very low maintenance compared to conventional lighting

- 27 watts per door

EFO ICE is the latest development to the EFO (Efficient Fibre Optic) lighting system, using the improved, super efficient EFO projector and new side emitting fittings to illuminate frozen and refrigerated products.

EFO ICE can make savings in running costs by reducing electrical consumption for refrigeration and lighting, and by simplifying maintenance. Fluorescent lamps and LEDs add heat to a case and increase the compressor load. By applying the benefits of fibre optic lighting, EFO

ICE removes all of the heat before putting the light into the case. This reduces compressor load and saves additional electricity. EFO ICE also directs light onto products more efficiently and does not lose output at low temperatures.

EFO ICE also greatly eases maintenance. One EFO ICE lamp replaces up to six fluorescent lamps. Lamp changes are completed on top of the case in a simple operation needing just a screwdriver. EFO ICE fixtures have no electricity, eliminating

the risk of lamp holder damage during case cleaning. The fixtures contain no glass so there is never a possibility of shattering a lamp inside the case.

Crescent will be happy to work through a calculation with you using your particular energy and maintenance costs to give you an idea of how quickly you can offset the initial purchase price for the system and start saving energy and money.

As with most fibre optic equipment, an essential part of assessing the suitability of this singular technique, is to try it out. We have the EFO ICE system in stock and can set up a demonstration to prove its effectiveness in a demonstration area or in a working store. Contact us for more details.



The side emitting rods shown mounted inside a cabinet
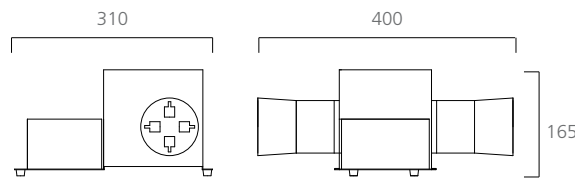


CREAD068 Projector

Fibre cable

Single side emitting rod

Double side emitting rods

Freezer door

Single side emitting rod
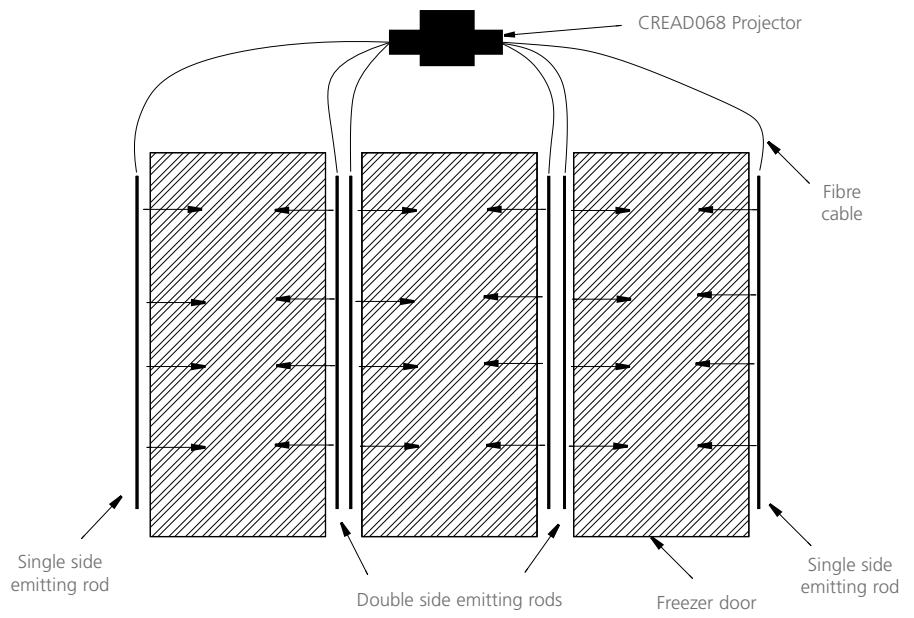
Schematic layout of an EFO ICE System

Advise • Design • Supply • Install • Commission

26 Copthall Avenue Entrance

Display case at BAT HQ, London. Thanks to Hulley & Kirkwood Consulting Engineers.
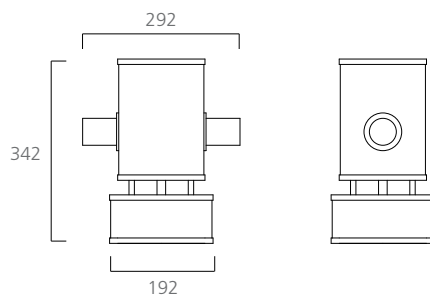
∘ Wide range for every situation

∘ Interior and exterior models

∘ HQI, TH, or LED sources



310   400

165

Allow at least 400mm in length at each port for fibre bending

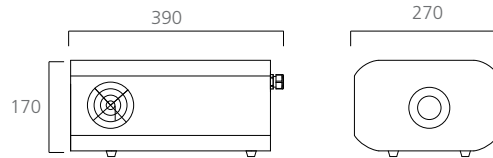## CREAD068
## Lightprojector

| | |
|---|---|
| Lamp | 70W AC metal halide A-Warm white 3500K CRI 75 or B-Daylight 4300K CRI 82 |
| Lamp Life | A-14000 hours average B-10000 hours average |
| Material | Painted steel enclosure |
| Ballast | Integral electronic |
| Fibre Type | PMMA or OptiCore™ |
| Op. Temp. | -10°C to 35°C |
| Weight | 4.5kg |
| Options | White light or fixed colour only - NO colour wheel available & therefore no colour synchronisation DMX or 0-10v control. Twin port for stranded fibre, 6 or 8 ports for opticore |
| Acoustics | Silent |



292

342

192

Allow at least 300mm in length at each port for fibre bending

## CREAG068 External IP65
## Lightprojector

| | |
|---|---|
| Lamp | 70W AC metal halide Warm white 3500K CRI 75 or Daylight 4300K CRI 82 |
| Lamp Life | 6000 hours |
| Material | Aluminium extrusion with die cast aluminium end caps |
| Ballast | Integral electronic |
| Features | Up to 2 colour wheels |
| Fibre Type | PMMA or Opticore™ |
| Weight | 7kg |
| Op. Temp. | -10°C to 35°C |
| Options | White light or fixed colour only - NO colour wheel available & therefore no colour synchronisation DMX or 0-10v control. |
| Acoustics | Silent |

390  270

170

Allow at least an extra 300mm length for port and fibre

### CRE6255
### Lightprojector

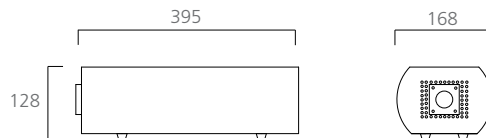| | |
|---|---|
| Lamp | 250W HQI 4200°K with dichroic reflector |
| Lamp Life | 5000 hours |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Ballast | Integral standard with electronic ignitor |
| Features | Up to 2 colour wheels |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 8.8kg |
| Op. Temp. | -10°C to 35°C |
| Options | Colour synchronisation, DMX or 0-10V control |
| Acoustics | 36 dBA |

390  270

170
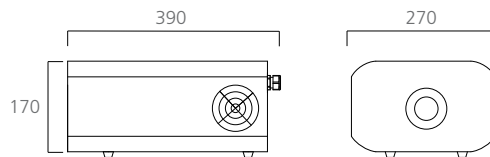
Allow at least an extra 300mm length for port and fibre

### CRE6155E
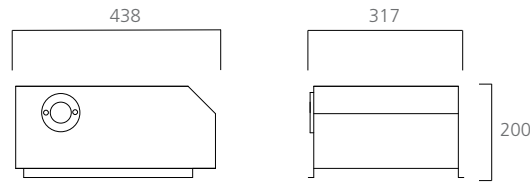### Lightprojector

| | |
|---|---|
| Lamp | 150W HQI 4200°K with Energy Focus dichroic reflector |
| Lamp Life | 8000 hours average |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Ballast | Integral electronic |
| Features | Up to 2 colour wheel |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 10kg |
| Op. Temp. | -10°C to 35°C |
| Options | 3000K lamp Colour synchronisation, DMX or 0-10V control |
| Acoustics | 31 dBA |

395  168

128

Allow at least an extra 300mm length for port and fibre

### CRE0150E
### Lightprojector

| | |
|---|---|
| Lamp | 150W HQI 4200°K with Osram reflector |
| Lamp Life | 6000 hours average |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Ballast | Integral electronic |
| Features | 1 colour wheel |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 10kg |
| Op. Temp. | -10°C to 35°C |
| Option | Colour synchronisation A sparkle wheel is an alternative to the colour wheel |
| Acoustics | 34 dBA |

438    317

200

Allow at least an extra 300mm length for port and fibre

### CRE4625 External IP45
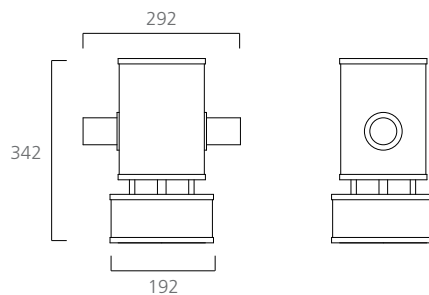### Lightprojector - Stainless Steel Cover

| | |
|---|---|
| Lamp | 250W HQI 4200°K with dichroic reflector |
| Lamp Life | 5000 hours average |
| Material | 304 stainless steel cover |
| Ballast | Integral standard with electronic ignitor |
| Features | Colour wheel |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 11kg |
| Op. Temp. | -10°C to 35°C |
| Options | Colour synchronisation, DMX or 0-10V control |
| Acoustics | 34 dBA |

438    317

200
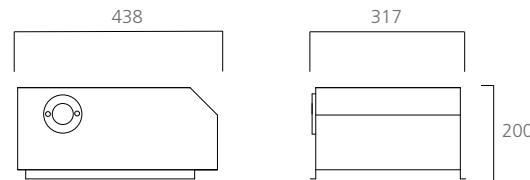
Allow at least an extra 300mm length for port and fibre

### CRE465E External IP45
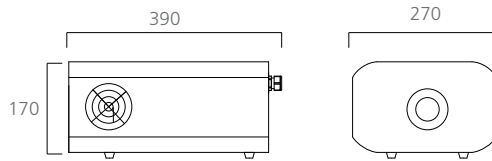### Lightprojector - Stainless Steel Cover

| | |
|---|---|
| Lamp | 150W HQI 4200°K with Energy Focus dichroic reflector |
| Lamp Life | 8000 hours average |
| Material | 304 stainless steel cover |
| Ballast | Integral electronic |
| Features | Colour wheel |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 11kg |
| Op. Temp. | -10°C to 35°C |
| Options | 3000K Lamp. Colour synchronisation, DMX or 0-10V control |
| Acoustics | 34 dBA |

292

342

192

Allow at least 300mm in length at each port for fibre bending

### CREAG068 External IP65
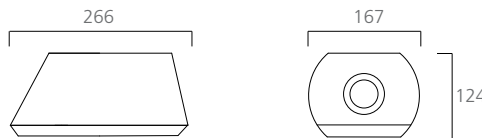### Lightprojector

| | |
|---|---|
| Lamp | 70W AC metal halide Warm white 3500K CRI 75 or Daylight 4300K CRI 82 |
| Lamp Life | 6000 hours |
| Material | Aluminium extrusion with die cast aluminium end caps |
| Ballast | Integral electronic |
| Features | Up to 2 colour wheels |
| Fibre Type | PMMA or Opticore™ |
| Weight | 7kg |
| Op. Temp. | -10°C to 35°C |
| Options | White light or fixed colour only - NO colour wheel available & therefore no colour synchronisation DMX or 0-10v control. |
| Acoustics | Silent |

390

270

170

Allow at least an extra 300mm length for port and fibre

### CRE6220
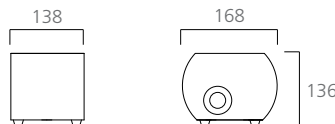### Lightprojector

| | |
|---|---|
| Lamp | 250W (185W) TH MR16 |
| Lamp Life | 600 hours average |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Transformer | Integral wire wound |
| Features | Colour wheel |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 10kg |
| Op. Temp. | -10$^o$C to 35$^o$C |
| Options | Colour synchronisation, standard dimming, DMX or 0-10V control |
| Acoustics | 31 dBA |

266

167

124

Allow at least an extra 300mm length for port and fibre

### CRE096ELN
### Lightprojector

| | |
|---|---|
| Lamp | 100W 64637 |
| Lamp Life | 2000 hours average |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Transformer | Integral electronic |
| Features | Up to 2 Colour wheels |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 2.6kg |
| Op. Temp. | -10$^o$C to 35$^o$C |
| Options | Synchronisation, standard dimming |
| Acoustics | 21 dBA |

138

168

136

Allow at least an extra 300mm length for port and fibre

### CRE0100
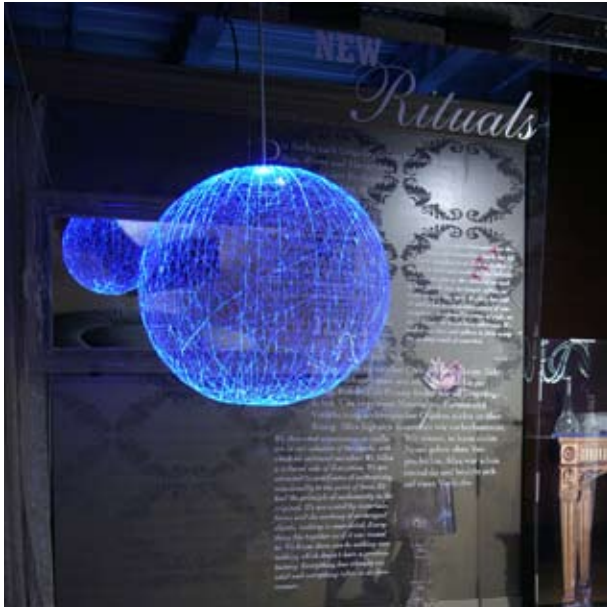### Lightprojector

| | |
|---|---|
| Lamp | 100W 64637 |
| Lamp Life | 2000 hours average |
| Material | Painted aluminium extrusion with painted zinc plated steel |
| Transformer | Integral electronic |
| Features | Up to 2 Colour wheels |
| Fibre Type | PMMA or 30mm Glass |
| Weight | 2.6kg |
| Op. Temp. | -10$^o$C to 35$^o$C |
| Options | Synchronisation, standard dimming |
| Acoustics | 21 dBA |

○ Small LED projectors

○ Great for decorative features

○ White light or RGB
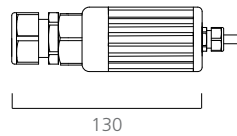
**CRE0003**
**LED Lightprojector IP67**

| | |
|---|---|
| LED | 1W Luxeon® |
| Material | Painted extrusion aluminium alloy |
| Power Supply | Integral 12V driver |
| Transformer | 12V transformer required to power on board driver |
| Cable Length | 2 metres |

130

44
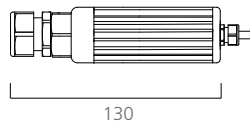
**CRE0007**
**LED RGB Lightprojector IP67**

| | |
|---|---|
| LED | RGB On Board |
| Material | Painted extrusion aluminium alloy |
| Power Supply | Integral 12V driver |
| Transformer | 12V transformer required to power on board driver |
| Cable Length | 2 metres |
| Colours | White, Green, Magenta, Cyan Simple colour control |

130

44

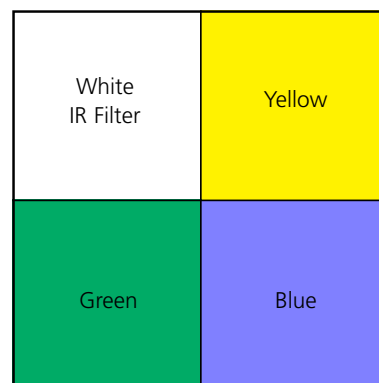Advise • Design • Supply • Install • Commission

## Colour Wheel Options

Colour Wheels are available for all projectors and are made from dichroic glass filters which will not degrade throughout life.
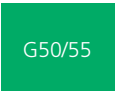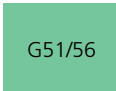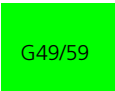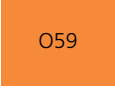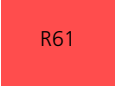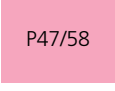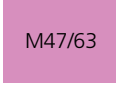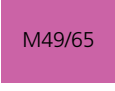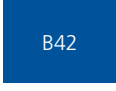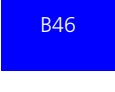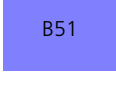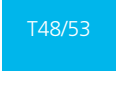
Standard Colour Wheel
For All Lightprojectors
Except CRE0150

| White IR Filter | Green G51/56 |
|---|---|
| Cyan C54 | Mauve M47/63 |
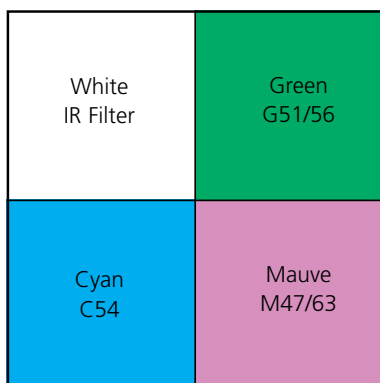
Standard Colour Wheel
For CRE0150 (no options)

| White IR Filter | Yellow |
|---|---|
| Green | Blue |

Special colours can be ordered using combinations of the following dichroic glass colour filters  An eight colour wheel is available, choose from colours below. Note: Reduced port capacity.

| | | | |
|---|---|---|---|
| G50/55 Primary Green | G51/56 Fern Green | G49/59 Light Green | IR Filter White |
| TL60 Day Light Filter | TK32 Tungsten Filter | Y52 Yellow | O56 Orange |
| O59 Deep Orange | Y54 Amber | R61 †Flame Red | R65 †Primary Red |
| P47/58 Pink | M47/63 Mauve | M49/65 Dark Lavender | B42 *Dark Blue |
| B46 Medium Blue | B51 Light Blue | T48/53 Turquoise | C54 Cyan |

* Intensity is reduced on lateral fibre.
The above colours are a visual representation only.

## Colour Control and Effects

### Colour Wheel Speed

The standard fitment is 2.5rpm. A 1rpm motor is available for CRE6155 and some other models. Consult the Project Design Department for details.

### Colour Synchronisation

This ensures that on multi-projector installations all colour wheels rotate together ie. all projectors have the same colour at the same time or stepped deliberately out of synchronisation.

There are two main applications:

If lateral fibre (BPAK) is being used with a projector at each end (not in a loop), the colour should be synchronised so that the whole length of the fibre cable looks the same.

The other application is with end lit cable (FSPTe) where all the tails need to be the same colour.

Colour synchronisation is available on all projectors which have a colour wheel option. Specify '/synchro' as a suffix to the projector catalogue no, ie, CRE6155/synchro.

### Colour Control

Both Analogue (0-10V) and DMX512 (channels 0-255) control systems can be installed. These systems allow preset or variable colour sequences to be programmed from a suitable lighting controller on site. Colour synchronisation is achieved as part of the control process.

### Dimming - Neutral Density Wheel

A four step neutral density wheel which can be fitted as an addition (or replacement) to the colour wheel. This offers 100, 75, 50 and 25% light output as the wheel rotates. The wheel can be stopped, synchronised and controlled in the same way as a colour wheel.

### Dimming - Mechanical Wheel

Used in conjunction with an analogue or DMX control system, this wheel can provide 0-100% light output. It can be used together with a colour wheel in the CRE6155 and some other projectors. Consult the Project Design Department for details.

### Sparkle Effect

Sparkle Wheel - Fitting either the 2.5rpm or 1rpm motor, this gives a gently flickering effect and is usually used for star ceilings and other decorative applications. This can be combined with colour on the same, or a second motor (not available with CREAD068 or CRE0150).

### Ventilation

Most projectors have fan assisted thermal control, which relies on an open mounting location. For cases where this is not possible, specify CRE2318 Ventilation Kit. Comprising a fan, two louvred finger guards, metal brackets, connecting cable, earth cable, fixing screw kit, cutter template and full fitting instructions. This allows the projector to be mounted in a small or restricted location. If in doubt, contact the Project Design Department.

### Underground Lightprojectors

If external projectors need to be mounted underground, pit specifications are available from the Project Design Department.

Austin Reed, London. Thanks to Campbell Design.

Marriott Hotel, Mumbai. Thanks to Versalite Lighting.

- Variations to suit most applications
- Different lens options
- Some models have adjustable light beams
- Easy fixing
- Decorative trims to some items



23
43
ø 30
ø 50
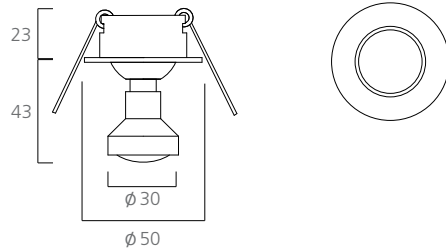
### CRE1001
### Lensed Fully Adjustable

| | |
|---|---|
| Rotation | 360° |
| Tilt Angle | 40° from vertical |
| Recess | 23mm excluding fibre |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-50, 8mm ferrule required |
| Finish | Black/White/Gold/Chrome |
| Output Data | Refer to page 64 - Type 1 |



25
12.5
ø 52
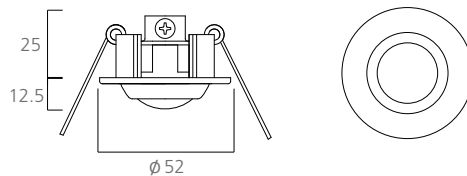
### CRE1002
### Lensed Eyeball

| | |
|---|---|
| Rotation | 0° |
| Tilt Angle | 20° from vertical |
| Recess | 25mm excluding fibre Flange |
| Dia. | 52mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | Black/White/Gold/Chrome |
| Output Data | Refer to page 64 - Type 2 |



35
4
ø 50
ø 27
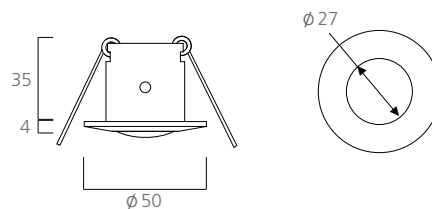
### CRE2501
### Fixed Lens

| | |
|---|---|
| Recess | 35mm excluding fibre |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | Refer to page 64 - Type 1 |
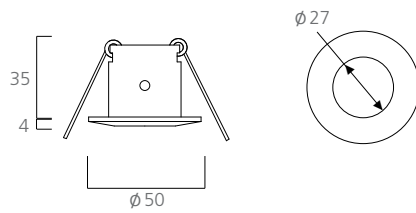
**CRE2502**
**Clear or Frosted Glass**

| | |
|---|---|
| Recess | 35mm excluding fibre Flange |
| Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | Refer to page 64 - Type 3 (clear glass only) |

Colour or effect filters available

ø 27
35
4
ø 50
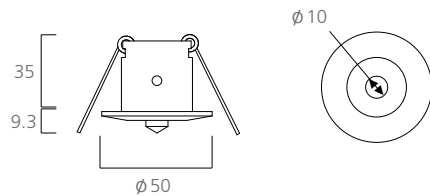
**CRE2503**
**Sparkle Point**

| | |
|---|---|
| Recess | 35mm excluding fibre Flange |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-50, 8mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | n/a - decorative |

ø 10
35
9.3
ø 50
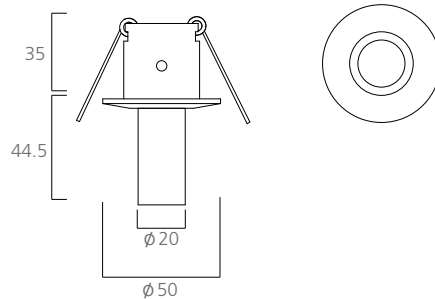
**CRE2504**
**Drop Acrylic Rod**

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Drop Below Ceiling | 45mm |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | n/a - decorative |

35
44.5
ø 20
ø 50
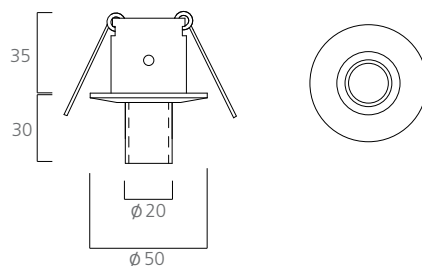
**CRE2506**
**Drop Acrylic Tube**

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Drop Below Ceiling | 30mm |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | n/a - decorative |

35
30
ø 20
ø 50
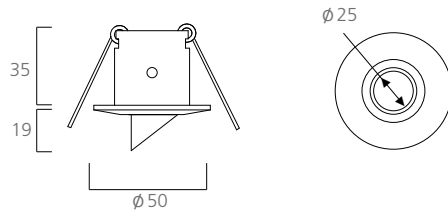
## CRE2507
### Wall Wash

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Drop Below | |
| Ceiling | 20mm |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | n/a - decorative |
| | Mount within 300mm of the wall (2.5m high typical) |

ø 25

35
19
ø 50
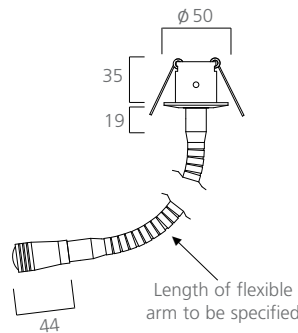
## CRE2508
### Flex Arm - available with clear glass or lens, other configurations available

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Drop Below | |
| Ceiling | 160mm vertical* |
| Tube Dia. | 8.5mm* |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 25*, special ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | Refer to page 64 - Type 2 or 3 |

*other sizes available, contact the Project Design Dept

ø 50
35
19
Length of flexible arm to be specified
44
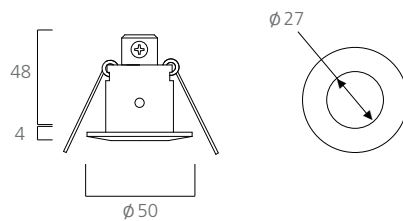
## CRE2510
### Recessed Lens

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | n/a |

ø 27

48
4
ø 50
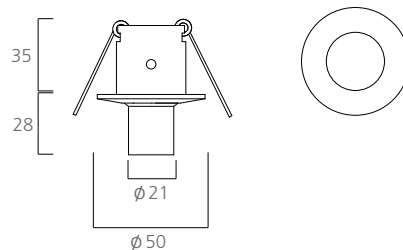
## CRE2512
### Snoot

| | |
|---|---|
| Recess | 35mm excl. fibre |
| Drop Below | |
| Ceiling | 30mm |
| Flange Dia. | 50mm |
| Cut Out | 40mm |
| Fibre Type | Recommended FSPTe 12-75, 8 or 10mm ferrule required |
| Finish | White/Black/Silver/Gold |
| Output Data | Refer to page 64 - Type 2 |

35
28
ø 21
ø 50

Advise • Design • Supply • Install • Commission

- Unique luminaire designs

- Discreet mounting possibilities

- MR16 replacement

- Resilient construction

Thanks to LBM

30

2

Entry 10⁰
from
normal

Ø 42

Ø 38          Ø 62

4 x 4mm
CSK
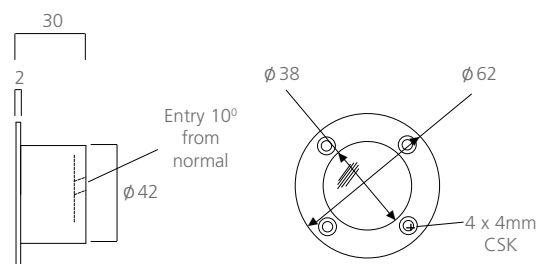
### CRE2228
Stairlight

| | |
|---|---|
| Rotation | 0º |
| Tilt Angle | 0º |
| Recess | 40mm excluding fibre |
| Flange Dia. | 62mm |
| Cut Out Dia. | 44mm |
| Fibre Type | Recommended FSPTe 12-50, 8mm ferrule required |
| Finish | Satin Silver/White/Black |
| Output Data | n/a |
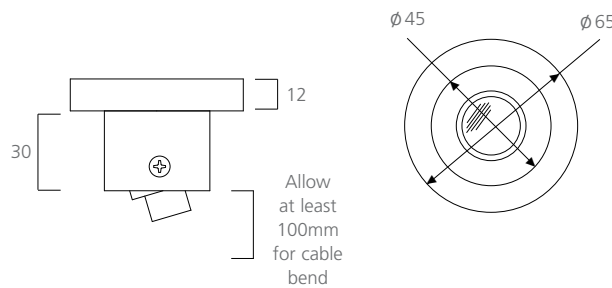
## CRE2233
### Adjustable Floor Mounted Uplight

Rotation 0°
Tilt Angle +/-20°
Recess 142mm
Flange Dia. 65mm
Cut Out Dia. 66mm
Fibre Type Recommended FSPTe 12-75, 8-10mm ferrule required
Finish Natural Stainless Steel
Output Data Refer to page 64 - Type 2

ø 45    ø 65

12
30

Allow at least 100mm for cable bend
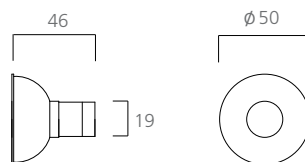
## CRE1007
### 50mm Reflector

Replaces standard 50mm dichroic lamps in most fittings

Flange Dia. 50mm
Fibre Type Recommended FSPTe 12-75, 8-10mm ferrule required
Finish Silver
Output Data Refer to page 64 - Type 2

46    ø 50

19
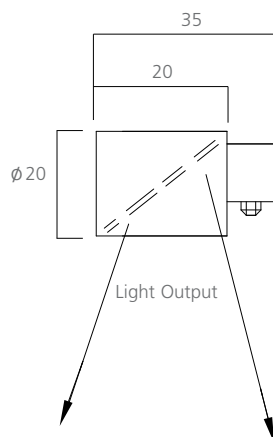
## CRE1119
### 90° Light Angle

A special stainless steel fitting with aluminium mirror for moving beam angle through 90°

Recess 20mm excluding fibre
Aperture 20mm x 25mm
Fibre Type Recommended FSPTe 12-50, 8mm ferrule required
Finish Silver
Output Data n/a

35
20
ø 20

Light Output
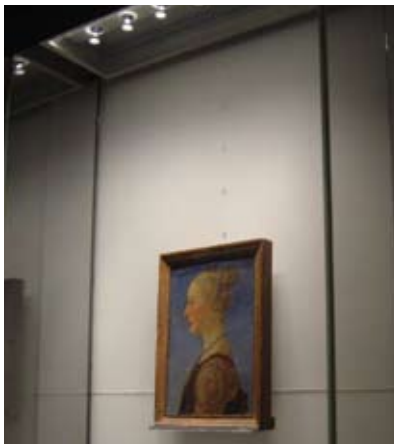
World Art Museum, Beijing. Thanks to LBM

∘ No heat and UV in the cabinet

∘ Small discreet luminaires

∘ Choice of styles and sizes
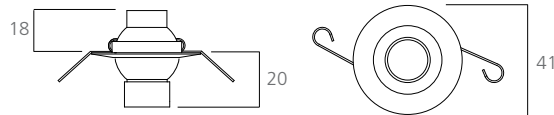


**CRE2513**
**Small Adjustable Eyeball**

| | |
|---|---|
| Tilt Angle | ±30° |
| Cut Out | 36mm dia. |
| Fibre Type | Recommended FSPTe 12-75, 10mm threaded ferrule required |
| Finish | Black/Silver |
| Output Data | Refer to page 64 - Type 3 |
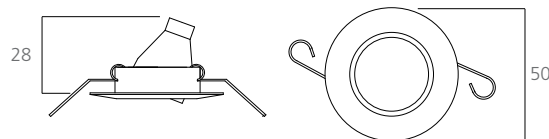


**CRE2514**
**Small Adjustable Gimble**

| | |
|---|---|
| Tilt Angle | ±30° |
| Cut Out | 40mm dia. |
| Fibre Type | Recommended FSPTe 12-50, 10mm threaded ferrule required |
| Finish | Black/Silver |
| Output Data | Refer to page 64 - Type 2 |
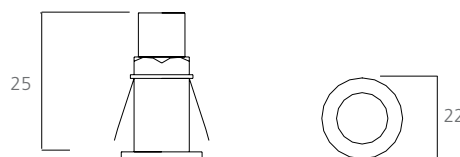


**CRE2515**
**Small Downlight**

| | |
|---|---|
| Rotation | 0° |
| Tilt Angle | ±30° |
| Recess | 35mm excluding fibre |
| Flange Dia. | 32mm |
| Cut Out | 17mm dia. |
| Fibre Type | Recommended FSPTe 12-75, 10mm threaded ferrule required |
| Finish | Black/White/Brass/Chrome |
| Output Data | n/a |

Temple Hampi, India. Thanks to Versalite Lighting.
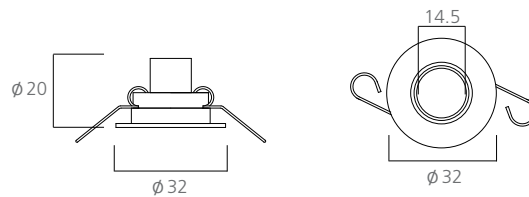
## CRE2231
## Miniature Adjustable Lensed Downlight

| | |
|---|---|
| Rotation | 0° |
| Tilt Angle | ±30° |
| Recess | 35mm excluding fibre |
| Flange Dia. | 32mm |
| Cut Out | 26mm dia. |
| Fibre Type | Recommended FSPTe 12-75, 10mm threaded ferrule required |
| Finish | Black/White/Brass/Chrome |
| Output Data | n/a |

ø 20
14.5
ø 32
ø 32
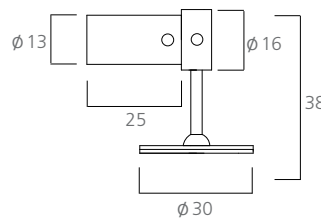
## CRE2224
## Miniature Spotlight

| | |
|---|---|
| Tilt Angle | ±30° |
| Fibre Type | Recommended FSPTe 12-75, 10mm threaded ferrule required |
| Finish | Black/Silver |
| Output Data | n/a |

ø 13
ø 16
25
38
ø 30
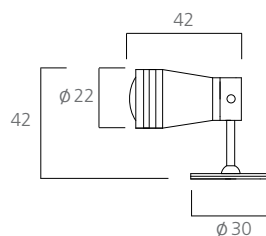
## CRE2225
## Miniature Lensed Spotlight

| | |
|---|---|
| Tilt Angle | ±30° |
| Fibre Type | Recommended FSPTe 12-50, 10mm threaded ferrule required |
| Finish | Black/Silver |
| Output Data | Refer to page 64 - Type 2 |

42
ø 22
42
ø 30
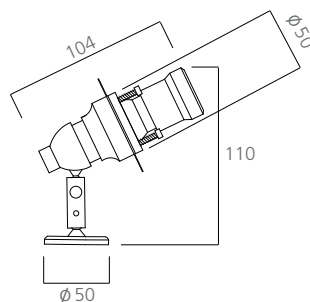
## CRE2385
## Framing Spotlight

| | |
|---|---|
| Fitting Body | Anodised aluminium alloy |
| Cover Glass | 27mm lens |
| Applications | Pictures/display/gobos |
| Fibre Type | Recommended FSPTe 50-75, special ferrule required |
| Output Data | n/a |

104
ø 50
110
ø 50

Advise • Design • Supply • Install • Commission

Lightbeam
A typical example of the
Lightbar range



Specify 'S', 'L' and 'T' dimensions to form part of the product number - see table on next page.

Churchill Museum, London. Thanks to DHA.

The Crescent Lightbar range makes it easier to achieve great display case lighting and also opens up a host of other applications. Combining durable optical fibre with extruded aluminium housings, these fibre optic lightbars may be easily installed in the existing structures or incorporated into new designs. By installing lightbars within cabinets and casework, distracting source reflections may be completely eliminated from the glass case surfaces.



Triaxis

Triaxis has three rows of fibres producing light at three distinct angles. This enables the Triaxis to throw light over a much greater area of cabinet display than other systems. Its compact size means that it can be concealed easily within the cabinet.



Lightbeam QR

This profile fits particularly well into corners and is useful for running vertically in tall displays.
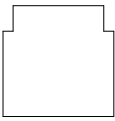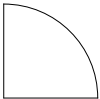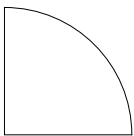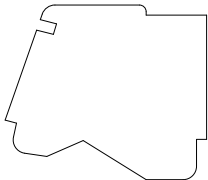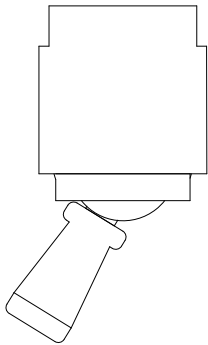


Lightbeam

Lightbeam is engineered to be conveniently mounted within display cases and casework. The compact cross-section makes this fixture easy to conceal behind an existing framework.



Foci

Adding small adjustable and lockable spotlights to the Lightbeam creates the Foci lightbar which offers the possibility of spotlighting individual display items.

# Lightbars

| Profile | Profile Code | | Dimensions (in mm's) | Profile Size | Output | Max. Lit Length |
|---------|--------------|---|----------------------|--------------|--------|-----------------|
| Lightbeam | LB | | 17 x 17 | Compact (C) | L M H | 3048 2134 915 |
| | | | 25 x 25 | Standard (S) | L M H | 3048 2743 2743 |
| Lightbeam QR | LBQR | | 19 x 19 | Compact (C) | L M H | 3048 2134 915 |
| | | | 32 x 32 | Standard (S) | L M H | 3048 2743 2743 |
| Triaxis | TRX | | 36 x 32 | High output only | | 2743 |

| Profile | Profile Code | | Dimensions (in mm's) | Output | Spotlight Spacing | | |
|---------|--------------|---|----------------------|--------|------|------|------|
| Foci | F | | 25 x 25 (51 deep to lens end) | | 75 | 150 | 300 |
| | | | | O | 1219 | 2743 | 3048 |
| | | | | L | 1219 | 2134 | 2743 |
| | | | | M | 915 | 1829 | 2743 |
| | | | | H | 915 | 1219 | 1829 |

## Product Number Generation

Finishes
(S) Standard Clear Anodised
(B) Black Anodised

Profile Size
(S) Standard
(C) Compact

Output 'S'
(0)   None.   Applicable to Foci when spotlights only are required
(L)   Low        S = 25mm
(M)   Medium   S = 12mm
(H)   High        S = 6mm

Spotlight Spacing
Applies only to Foci - Omit this box for all other profiles
75            75mm centres
150          150mm centres
300          300mm centres

Tail Length 'T' in metres choose 3, 6 or 10

Lit Length 'L' in mm's  - see table above for limits

Profile Code - see table

Examples:

1.  LB - 1650 - 6 - M - S - B  This is a standard Lightbeam profile, 1650mm long with a 6 metre tail, medium output with a black anodised finish.
2.  F - 1200 - 10 - 75 - L - S    This is a Foci profile 1200mm long with 10 metre tail, spotlights every 75mm and with a clear anodised finish.

To calculate the number of fibres in a lightbar, divide the lit length by the fibre spacing.  In the case of Foci, add 25 fibres per spotlight fitted.

# Glass and Acrylic Edge Lighting
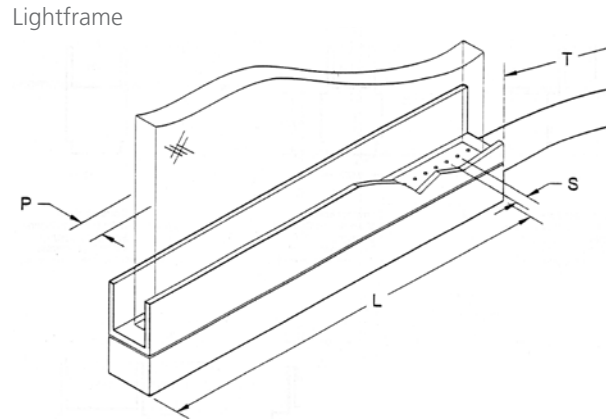


Lightframe



Specify 'S', 'L', 'T' and 'P' dimensions to form part of the product number - see table below.

Etched acrylic and glass panels are transformed into elegant, eye catching displays when illuminated from within using Lightframe. Permanently installed behind framing or trim, the fixtures never need to be disturbed, simplifying the design of edge lit panels and opening up many exciting new applications for designers.

| Profile | Profile Code | | Dimensions ( in mm's ) | | | | | Profile Size | Output | Max. Lit Length |
|---------|--------------|---|---|---|---|---|---|---|---|---|
| | | | W | X | Y | Z | Panel thickness | | | |
| | | | | | | 6.9 | 6 | | L | 3048 |
| | | | 30 | 16.6 | 16.9 | 9.8 | 9.5 | Compact | M | 2134 |
| | | | | | | 13.2 | 12.7 | (C) | H | 915 |
| LightFrame | LF | | | | | 9.8 | 9.5 | Standard | L | 3048 |
| | | | 39 | 25.7 | 26 | 13.2 | 12.7 | (S) | M | 2743 |
| | | | | | | 19.6 | 19 | | H | 2743 |

Product Number Generation

LF =

Finishes
(S) Standard Clear Anodised
(B) Black Anodised

Panel Thickness 'P'
(A) 6mm thickness
(B) 9.5mm thickness
(C) 12.7mm thickness
(D) 19mm thickness

Profile Size
(S) Standard
(C) Compact

Output 'S'
(L)  Low      S = 25mm
(M)  Medium   S = 12mm
(H)  High     S = 6mm

Tail Length 'T' in metres choose 3, 6 or 10

Lit Length 'L' in mm's
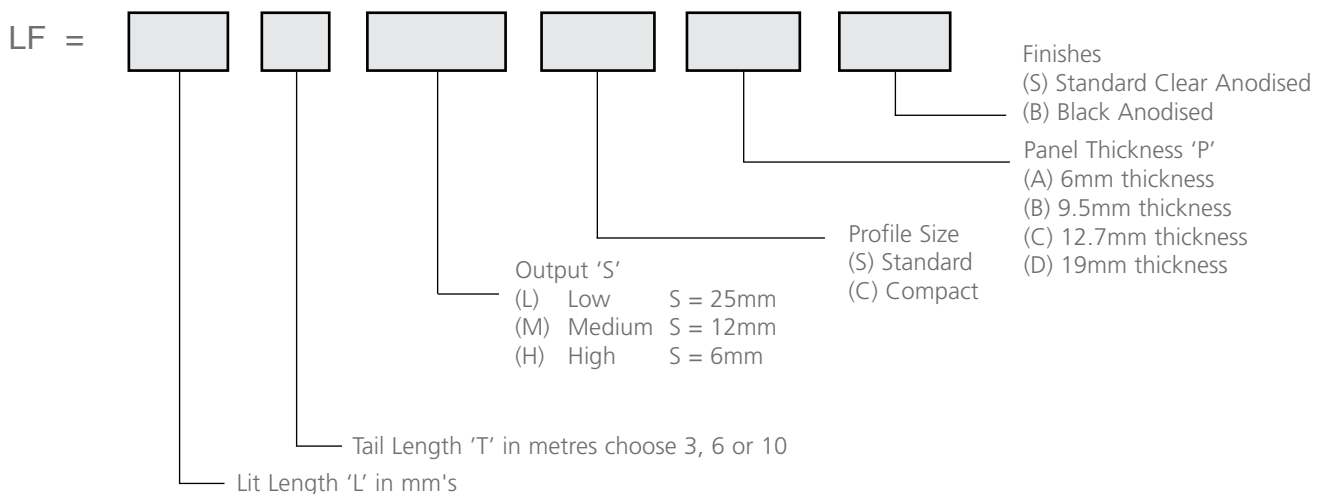
Example:

LF - 900 - 6 - M - S - B - S    This is a standard Lightframe profile, 900mm long with a 6 metre tail, medium output , for a 9.5mm wide panel, in clear anodised finish.

To calculate the number of fibres in a lightbar, divide the lit length by the fibre spacing.

City-Theatre Braunschweig, Germany. Thanks to LBM.

CRE1101
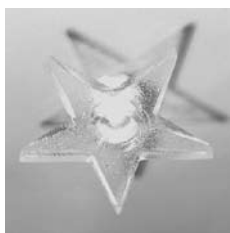
CRE1107

CRE1111

CRE1115

CRE1102

CRE1108

CRE1112

CRE1116

CRE1103

CRE1109

CRE1113

CRE1117

CRE1104

CRE1110

CRE1114

CRE1118

CRE1105

CRE1106

| Cat No | Description | Colour | Fibre FSPTe | Cut Out mm | Length mm | Diameter ø mm |
|---|---|---|---|---|---|---|
| CRE1101 | Micro Bullet | n/a | 1 | 3 | 11 | 4 |
| CRE1102 | Mini Bullet | n/a | 3-12 | 6.4 | 20 | 5 |
| CRE1103 | Bullet | n/a | 12-25 | 9.5 | 25 | 8 |
| CRE1104 | Maxi Bullet | n/a | 50-75 | 18 | 43 | 22 |
| CRE1105 | Icicle Bullet | n/a | 3-12 | 10 | 89 | 13 |
| CRE1106 | Opal Ball | opal | 3-12 | 10 | - | 10.4 |
| CRE1107 | 5 Point Star | n/a | 3-12 | 8 | 9 | 27 |
| CRE1108 | Micro Bullet with Bezel | white or black | 1 | 7.8 | 27 | 10 |
| CRE1109 | Mini Bullet with Bezel | white or black | 3-12 | 10 | 27 | 12 |
| CRE1110 | Bullet with Bezel | white or black | 12-25 | 17.5 | 28 | 20 |
| CRE1111 | Bullet with Bezel | white or black | 3-12 | 9.5 | 40 | 25 |
| CRE1112 | Maxi Bullet with Bezel | white or black | 50-75 | 17.5 | 43 | 36 |
| CRE1113 | 5 Point Star with Bezel | white or black | 3-12 | 12.8 | 27 | 26 |
| CRE1114 | Opal Ball with Bezel | white or black | 3-12 | 12.8 | 13 | 16 |
| CRE1115 | Fine Point | gold or chrome | 1 | 10 | 19 | 16 |
| CRE1116 | Crystal Point | gold or chrome | 1-12 | 10 | 29 | 16 |
| CRE1117 | Large Crystal Point | gold or chrome | 1-12 | 10 | 49 | 16 |
| CRE1118 | Mini Downlight | gold or chrome | 1-12 | 10 | 20 | 16 |

Advise • Design • Supply • Install • Commission

- Illuminated sphere made from fibre optic strands

- Designed by Steffen Bauer

- Can be supplied complete with projector

- Two sizes available

- Up to twelve may be run from one projector

- Striking colour change effects

- Easy to install

- Just ... Beautiful!

Thanks to LBM.

Laluna is a beautiful fibre optic pendant luminaire that will cause a stir wherever it is installed.  Painstakingly handmade making each one unique, Laluna is available either as a 400mm or 600mm diameter fitting.  It can be supplied separately or complete with a tungsten halogen projector or LED colour change projector.
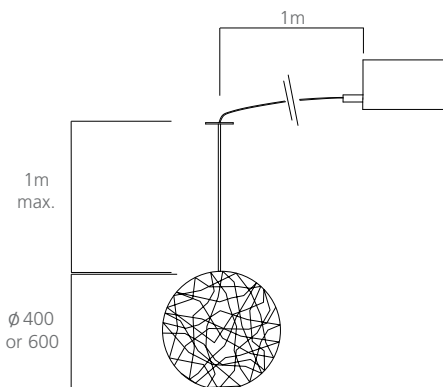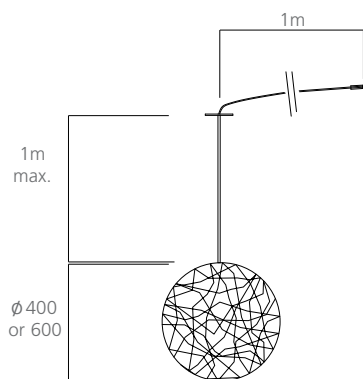


**CRE2550**
**Laluna 40**
Laluna 400mm diameter with
1 metre fibre tail and ceiling plate

**CRE2551**
**Laluna 60**
Laluna 600mm diameter with
1 metre fibre tail and ceiling plate

**CRE2550THP**
**Laluna 40 with TH projector**
Laluna 40 complete with CRE0100 100w
TH lightprojector, colour wheel, cable and
mains plug

**CRE2551THP**
**Laluna 60 with TH projector**
Laluna 60 complete with CRE0100 100w
TH lightprojector, colour wheel, cable and
mains plug

**CRE2550LEDP**
**Laluna 40 with LED projector**
Laluna 40 complete with CRE0007 LED
lightprojector, colour effects, cable and
transformer

**CRE2551LEDP**
**Laluna 60 with LED projector**
Laluna 60 complete with CRE0007 LED
lightprojector, colour effects, cable and
transformer

∘ Design by Simon Bruenner

∘ Light and art combined in unique designs

∘ Glass, crystal and fibre optics combined

Thanks to Neues Licht.
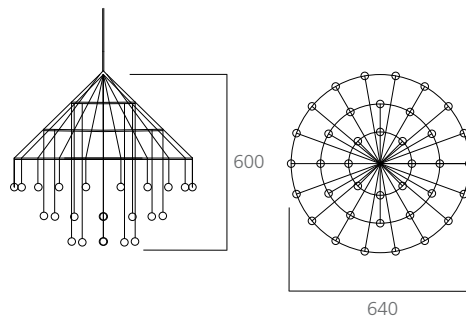


**CRE2553**
Scintilla Fibre Optic Pendant

| Material | Glass and Crystal |
|----------|-------------------|
| Weight | 2Kg |

Various tail lengths and configurations available.  Contact the Crescent Design Department.
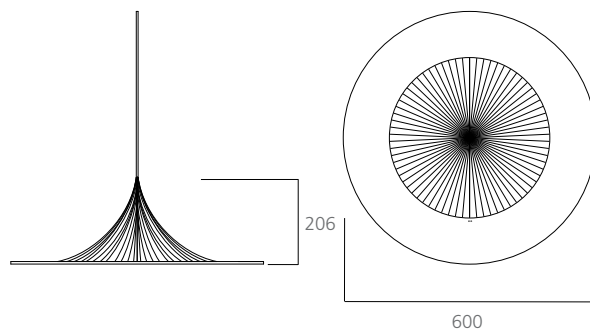


**CRE2552**
ufo Fibre Optic Pendant

| Material | Glass and Fibre Optic Fibres |
|----------|------------------------------|
| Weight | 3Kg |

Various tail lengths and configurations available.  Contact the Project Design Department.

Thanks to LBM

° Stunning, unique designs

° Work especially well with colour change

° Create a wow factor in any interior





1.5, 2, 2.5 or 3m dia
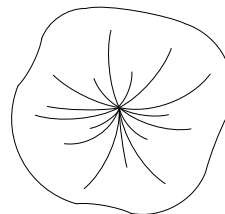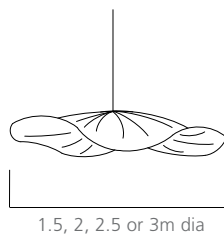


### CRE2554
### Jelly
Jelly is manufactured in 1.5, 2, 2.5, 3m diameter. It is made from 400 x 1mm polymer fibres. This is made to order. We recommend CRE6155 lightprojector with this product
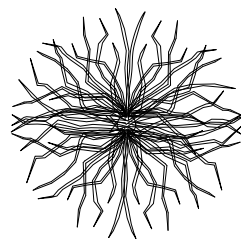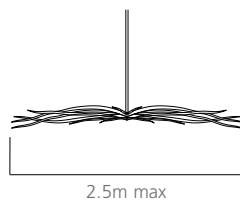




2.5m max



### CRE2555
### Medusa
Medusa is made up of 80 x 3mm acrylic rods. 2.5m max length. This is made to order.

40

200

245
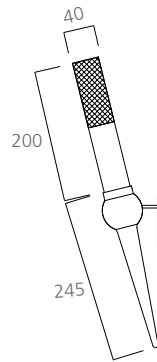
**CRE2556**
Wand, wall mounted

| | |
|---|---|
| Material | Aluminium alloy and acrylic |
| Fibre | FSPTe 12-50 |

260

100

50
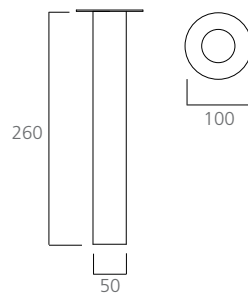
**CRE2557**
Pole One, ceiling mounted

| | |
|---|---|
| Material | Aluminium alloy and acrylic |
| Fibre | FSPT 300 or OCF 1200 |
| Cut Out | Dia. 86 |

295

120

120
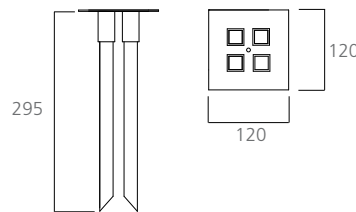
**CRE2558**
Quatra S, ceiling mounted

| | |
|---|---|
| Material | Steel and acrylic |
| Fibre | 4 x FSPT 150 or OCF 1200 |
| Cut Out | Dia.92 x 92 |

76

900
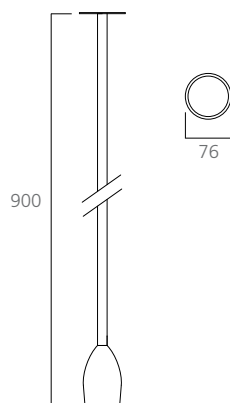
**CRE2559**
Vino Pendant

| | |
|---|---|
| Material | Acrylic |
| Fibre | OCF 1000/OCF 1200 |
| Cut Out | Dia. 72 |

For typical installation, see page 63
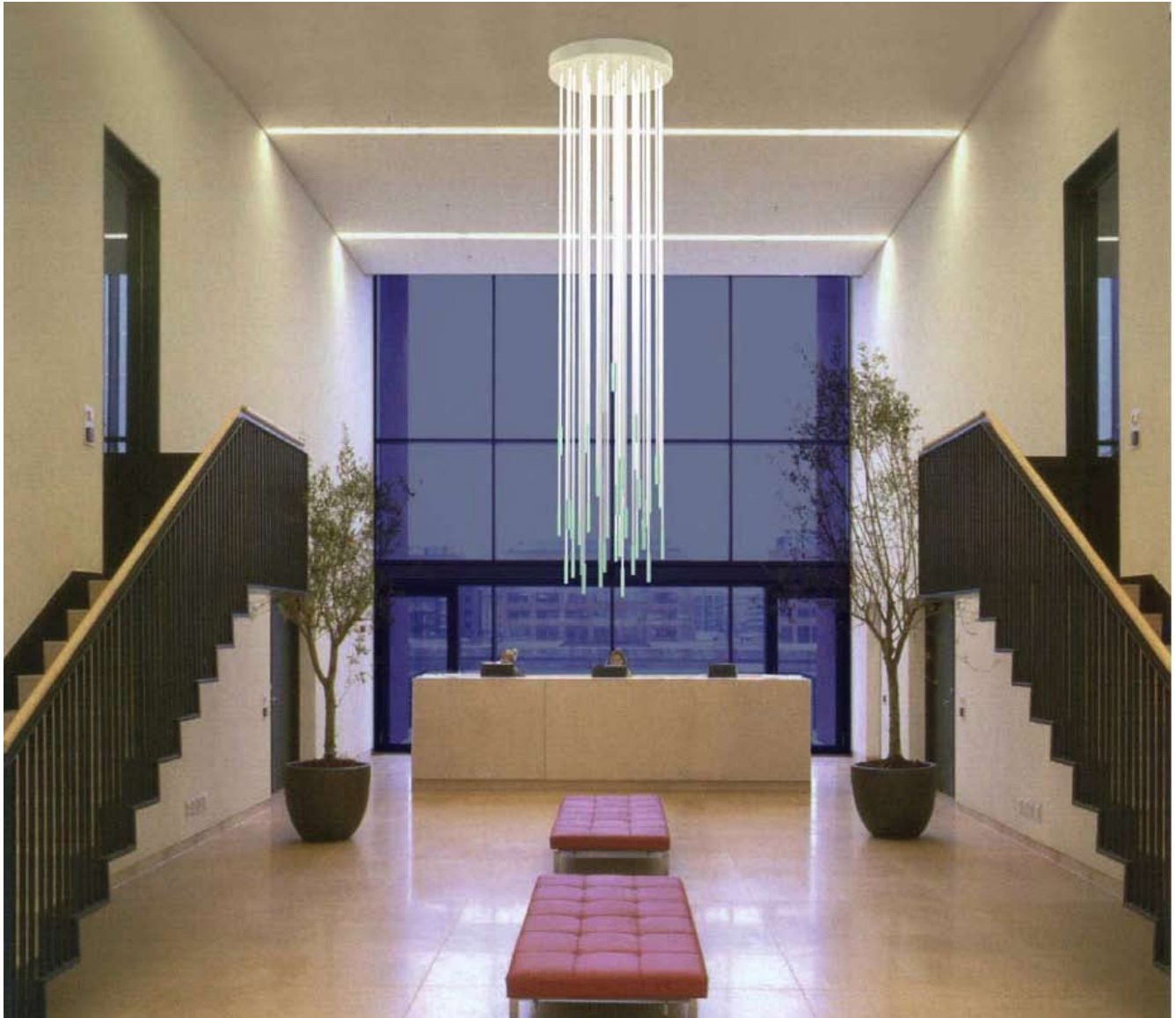
Fibre optic cable is a wonderful material to work with to create unique lighting objects.  Whether you want a small feature area or have a 25 metre atrium to fill, we can help you realise your design concept.  We work with designers at all stages of the process, and can provide a full installation and commissioning service - or you may just want to source the material from us and do the rest yourself, we don't mind.

Rendering of the hanging fibre chandelier design shown below

Hanging raw fibre strands are a good way to start.  They could be glass or polymer, you could add crystals, beads, turned metal shapes, the choice is yours.





Fibre optic strands are available in different thicknesses and are surprisingly strong.  This idea uses fibre to create a semi rigid structure.





Fine polymer fibre can be woven into a flexible material, that when specially treated emits light.
This can then be cut and used as curtaining, blinds, even a table covering, creating a wonderful effect. As usual with decorative effects, this works extremely well with colour change. Suitable for use with any standard projector.

Contact us at an early stage if you want something special created, even if you are not sure where to start - we are here to help.





Advise • Design • Supply • Install • Commission

Fountain in a private garden Nürnberg, Germany.  Thanks to LBM.

- Different styles of in ground luminaires

- Manufactured from marine grade 316L stainless steel

- Salt and chlorine resistant

- Choice of fixing options
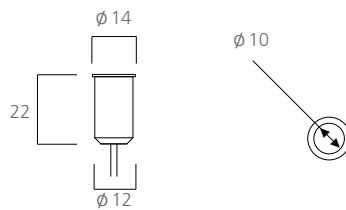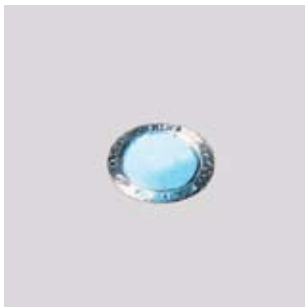
## CRE1207
## Micro Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over |
| Fibre Type | Recommended FSPTe 3-12 |

ø 14
22
ø 12
ø 10
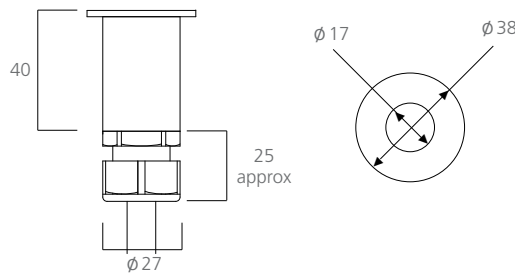
## CRE1208 IP68
## Mini Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 3-75, 8-10mm ferrule required |

CRE1211 Installation Tube

40
25 approx
ø 27
ø 17    ø 38
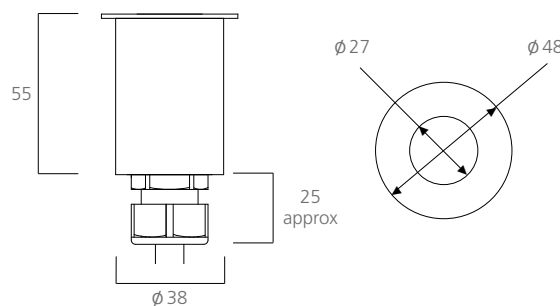
## CRE1209 IP68
## Standard Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 3-75, 8-10mm ferrule required |

CRE2302 Spring Fixing Kit
CRE1212 Installation Tube

55
25 approx
ø 38
ø 27    ø 48

## CRE1210 IP68
## Domed Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Clear or frosted glass lens |
| Applications | Decorative/Underwater |
| Fibre Type | Recommended FSPTe 3-75, 8-10mm ferrule required |

CRE1211 Installation Tube

12
30
25 approx
$\phi$ 27
$\phi$ 24
$\phi$ 38

## CRE2320 IP68
## Eyelid Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

CRE2302 Spring Fixing Kit
CRE1212 Installation Tube

10.5
55
25 approx
$\phi$ 38
$\phi$ 27
$\phi$ 48
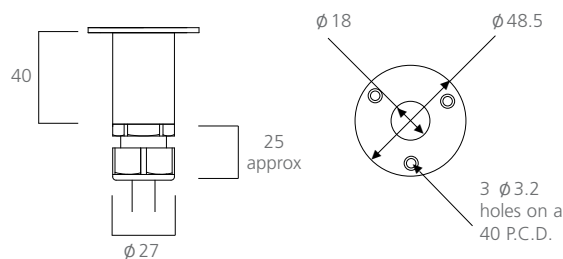
## CRE2321 IP68
## Small Screw Fix Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

40
25 approx
$\phi$ 27
$\phi$ 18
$\phi$ 48.5
3 $\phi$ 3.2 holes on a 40 P.C.D.

Polycarbonate lenses are available to special order, please contact Project Design Department for assistance.
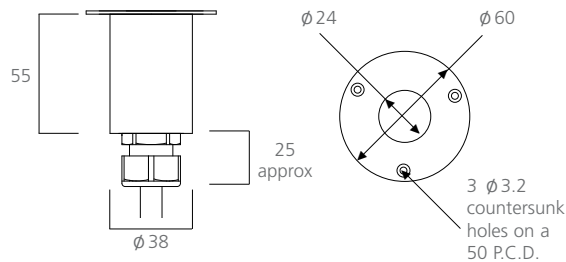
**CRE2322 IP68**
Large Screw Fix Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

Ø 24   Ø 60

55

25 approx

Ø 38

3 Ø 3.2 countersunk holes on a 50 P.C.D.
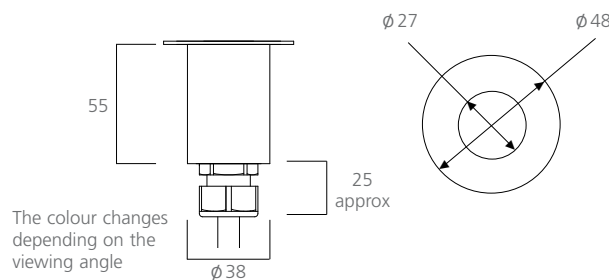
**CRE2324 IP68**
Dichroic Glass Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted with dichroic backing |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

CRE2302 Spring Fixing Kit
CRE1212 Installation Tube

Ø 27   Ø 48

55

25 approx

The colour changes depending on the viewing angle

Ø 38
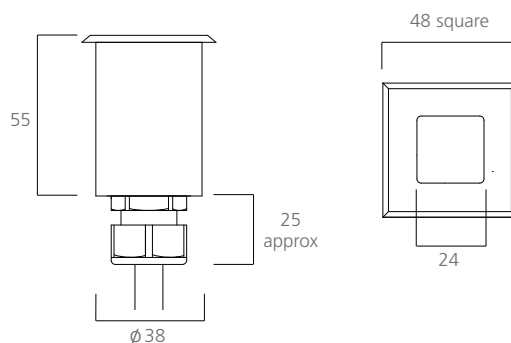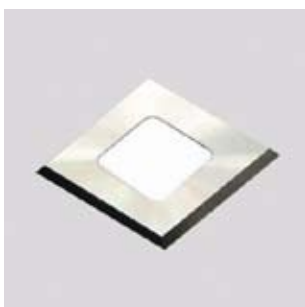
**CRE2329 IP68**
Square Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, frosted or clear |
| Applications | Walkover/Driveover/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

CRE2302 Spring Fixing Kit
CRE1212 Installation Tube

48 square

55

25 approx

24

Ø 38
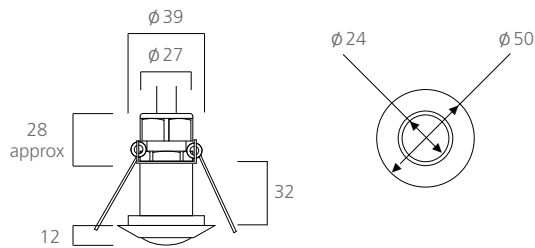
### CRE2325
### Springs

Similar to CRE1210 but with larger bezel and spring fixing

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | 9.5mm frosted lens |
| Applications | Canopies/Walls |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |

ø 39
ø 27
28 approx
12
32
ø 24
ø 50
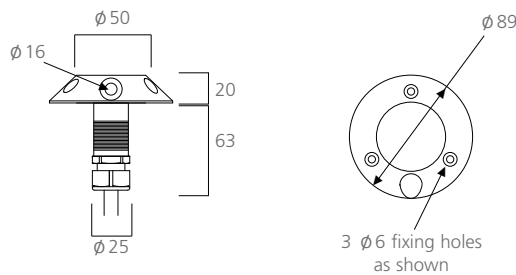
### CRE2349 IP68
### Sloped Paver

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, |
| Applications | Walkover/Driveover/ Underwater |
| Fibre Type | Recommended FSPTe 12-50, Special ferrule required |

ø 50
ø 16
20
63
ø 25
ø 89
3 ø 6 fixing holes as shown
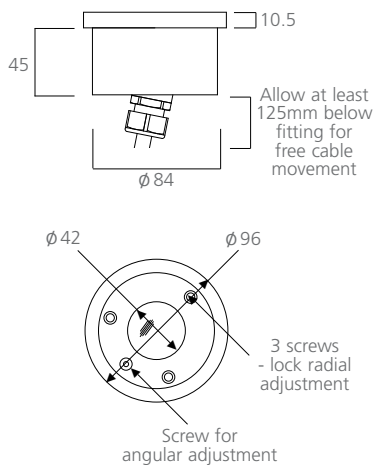
### CRE2610 IP68
### Buried Spotlight

Spotlight is adjustable for both angular and radial position from above ground without removing luminaire

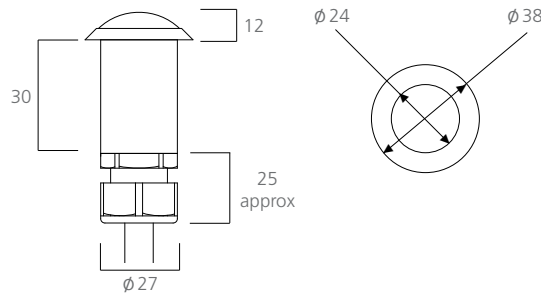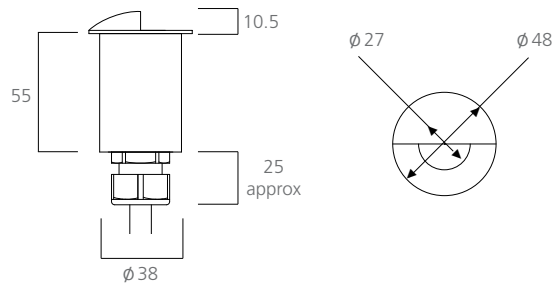| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, |
| Applications | Walk over/Drive over/ Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |
| Output Data | Refer to page 64 - Type 2 |

10.5
45
Allow at least 125mm below fitting for free cable movement
ø 84
ø 42
ø 96
3 screws - lock radial adjustment
Screw for angular adjustment

Sheaf Square, Sheffield. Thanks to Sutton Vane and Associates and Sheffield City Council.

○ Marine grade stainless steel for corrosion resistance

○ Silicone 'O' ring seals for IP68 protection

○ Adjustable beam focusing
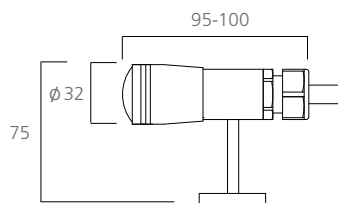


**CRE2223 IP66**
**Exterior Spotlight**

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, |
| Applications | Exterior |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |
| Output Data | Refer to page 64 - Type 1 |
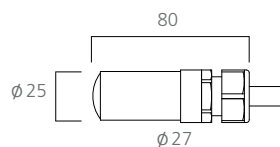


**CRE2153 IP68**
**Fountain Spotlight**

| | |
|---|---|
| Fitting Body | Marine grade Stainless Steel 316L |
| Cover Glass | Toughened 6mm, |
| Applications | Exterior/Underwater |
| Fibre Type | Recommended FSPTe 12-75, 8-10mm ferrule required |
| Output Data | Refer to page 64 - Type 2 |
| Installation | Fixing clamp required, normally supplied by a fountain specialist |

Advise • Design • Supply • Install • Commission

Sea Crown, Mumbai, India. Thanks to Versalite Lighting.

∘ Beautiful effects from linear or end emitting fibre optics

∘ Safe, no voltage in or near the water

∘ Colour change options on all equipment

∘ Products developed from 20 years of experience

∘ Products for most pool construction types

### Waterfall System
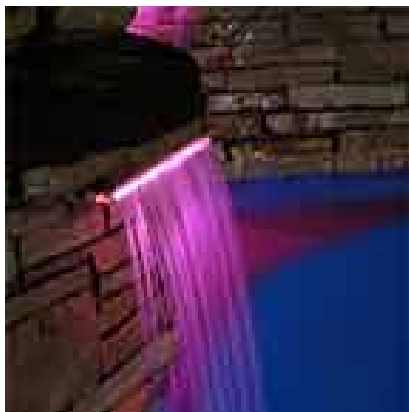


Several different sizes and needing only a small amount of fibre to create a stunning effect.

### Laminar Flow Fountain



Beautifully illuminated, these fountains add a new dimension to any pool area. Two sizes and works with all project types.

### Star Floor Kits



Available in 10 or 25 star sizes and suitable for gunite pool types.

Energy Focus (formally Fiberstars) is one of the largest pool lighting suppliers in the world.
Call our Project Design Department for full details of these products or visit www.energyfocusinc.com



ø 90
ø 56
ø 34
ø 38

24

Cutout Dia.
60 (min)
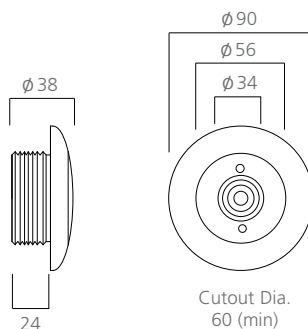
## LNS100G
### Underwater Fitting

| | |
|---|---|
| Fitting Body | Moulded polymer |
| Front Lens | Moulded clear polymer |
| Seals | 'O' rings and water tight gland |
| Applications | Swimming pools and water features |
| Fibre Type | Recommended FSPTe 25-50 |

Note: LNS100A with locknut available for Glass Fibre Pools

Butterfly House, London  Thanks to Chetwood Associates.

Thanks to St Giles Hotel, London.

○ The original lateral fibre optic cable

○ Latest braided version provides the highest output

○ Outer sleeve has algicides, fungicides, UV stabilisers, and chlorine inhibitors

○ For continuous use underwater, use BPAK50UW



| Side Emitting Fibre | | | | | | |
|---|---|---|---|---|---|---|
| Description | No. Fibres (mm) | Active Dia. (mm) | Outer Dia. (mm) | Min.bend radius (mm) | Outer Tubing | Drum size (m) |
| Brightpak III | | | | | | |
| BPAK15 | 14 | 4 | 5 | 10 | Clear PVC | 304 |
| BPAK50 | 48 | 7 | 8 | 20 | Clear PVC | 304 |
| BPAK50UW | 48 | 7 | 8 | 20 | Clear PVC | 304 |
| BPAK75 | 77 | 8 | 10 | 25 | Clear PVC | 243 |
| BPAK100 | 96 | 9 | 11 | 30 | Clear PVC | 182 |
| BPAK100UW | 96 | 9 | 11 | 30 | Clear PVC | 182 |
| BPAK150 | 144 | 11 | 15 | 40 | Clear PVC | 152 |
| SS15 | 14 | 4 | 5 | 10 | Black/Clear PVC | 304 |
| SS50 | 48 | 7 | 8 | 20 | Black/Clear PVC | 304 |
| FSSB | 30 | | 9x16 | 15 | Clear PVC | 152 |
| BriteCore™ | | | | | | |
| BC1300 | Large Core | 12 | 13 | 110 | Clear PVC | |
| BC1400-E | Large Core | 12 | 14 | 120 | Clear PVC | |
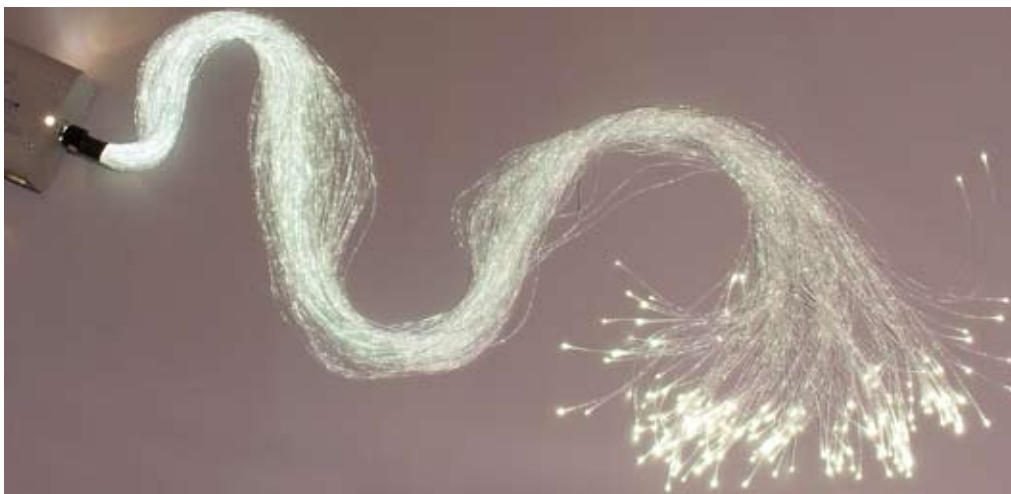


Cracked glass side emitting fibre is also available in various sizes - contact the Project Design Department for details.

Glass harnesses were supplied to the cabinets at the Elizabeth gallery at the Royal Maritime Museum, Greenwich. Thanks to VBK.

- ◦ Polymer or Glass optical fibres
- ◦ Supplied loose, on reels or made into harnesses
- ◦ High transmission grades for superior results

We can offer a wide range of fibre optic cables and are happy to offer both glass and PMMA (polymer).  The choice of material will depend on the type of project, likely fibre lengths and client preference.  We have extensive experience of preparing PMMA harnesses and have supplied glass fibre optics for many years, so we are well placed to help you make the decision.

There are distinct differences between the two materials, a summary of which is shown below.

| PMMA  Harnesses | Glass Harnesses |
|---|---|
| On site porting & finishing possible | Porting & finishing in factory only |
| White light transmission losses are typically 3% per metre | White light transmission losses are typically 5% per metre |
| Robust 0.75mm dia. fibres are resistant to breakage | Thin 0.05mm dia fibres are fragile |
| PMMA harnesses tend to be cheaper than the equivalent sized glass | Glass harnesses tend to be more expensive than equivalent sized PMMA |
| Little colour shift over long lengths | Longer lengths can exhibit colour shift |
| Randomisation of fibres possible | Fine randomisation of fibres possible |
| Acceptance angle 60º (large core 80º) | Acceptance angle 60º |
| Maximum number of tails for a 30mm port is 150 of FSPTe3 (active dia. 1.6mm) | Maximum number of tails for a 30mm port is 200 of size 2 (active dia. 1.6mm) |

| Glass End Lit Fibre | | | | | |
|---|---|---|---|---|---|
| Size | Active Diameter | Ferrule Diameter | Min. Bend Radius | No of Fibres/Tail | Max. Tails |
| 0.75 | 0.98mm | 2.96mm | 25mm | 300 | 530 |
| 1 | 1.12mm | 2.96mm | 25mm | 400 | 400 |
| 1.5 | 1.50mm | 3.50mm | 45mm | 600 | 265 |
| 2 | 1.60mm | 3.50mm | 60mm | 800 | 200 |
| 3 | 1.95mm | 3.50mm | 80mm | 1200 | 133 |
| 4 | 2.26mm | 4.46mm | 90mm | 1600 | 100 |
| 7 | 2.98mm | 5.95mm | 100mm | 2800 | 57 |
| 8 | 3.20mm | 8.00mm | 110mm | 3200 | 48 |
| 12 | 3.90mm | 8.00mm | 125mm | 4800 | 32 |
| 14 | 4.20mm | 8.00mm | 140mm | 5600 | 27 |
| 18 | 4.80mm | 8.00mm | 150mm | 7200 | 21 |
| 24 | 5.55mm | 8.00mm | 160mm | 9600 | 16 |
| 30 | 6.18mm | 8.00mm | 170mm | 12000 | 13 |
| 32 | 6.40mm | 8.00mm | 180mm | 12800 | 12 |
| 36 | 6.80mm | 8.00mm | 190mm | 14400 | 11 |
| 42 | 7.50mm | 10.85mm | 200mm | 16800 | 9 |
| 48 | 7.95mm | 10.85mm | 200mm | 19200 | 8 |

| Additional Information | |
|---|---|
| Common End | F30 (30mm) |
| Sleeving | Megolon |
| Randomised | 8:1 (size 7 & above) |

Sri Ramachandra Medical College, Chennai, India.  Thanks to Versalite Lighting.

| PMMA End Lit Fibre | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Description | No. Fibres (mm) | Active Dia. (mm) | Active Area (mm²) | Outer Dia. (mm) | Min.bend radius (mm) | Outer Tubing | Max. Tails All Projectors Except AD/AG | Max. Tails AD/AG | Drum size (m) |
| FSPT End Lit | | | | | | | | | |
| Multiple Fibre | | | | | | | | | |
| FSPTe3 | 3 | 1.6 | 1.3 | 4 | 5 | Black polymer | 150 | 332 | 1000 |
| FSPTe6 | 6 | 2.1 | 2.65 | 5 | 7.5 | Black polymer | 75 | 166 | 1000 |
| FSPTe12 | 12 | 3 | 5.3 | 6 | 10 | Black polymer | 37 | 82 | 1000 |
| FSPTe25 | 25 | 4.3 | 11.05 | 6.8 | 15 | Black polymer | 18 | 40 | 1000 |
| FSPTe37 | 37 | 5 | 16.35 | 9 | 18.5 | Black polymer | 12 | 26 | 1000 |
| FSPTe50 | 50 | 6 | 22.1 | 10 | 20 | Black polymer | 9 | 20 | 500 |
| FSPTe62 | 62 | 6.5 | 27.04 | 11 | 25 | Black polymer | 7 | 16 | 500 |
| FSPTe75 | 75 | 7.5 | 33.15 | 11.2 | 25 | Black polymer | 6 | 12 | 400 |
| FSPT150 | 150 | 11 | 66.3 | 14.7 | 35 | Black PVC | 3 | 6 | 152 |
| FSPT225 | 225 | 13 | 99.45 | 18.8 | 40 | Black PVC | 2 | 4 | 76 |
| OptiCore™ | | | | | | | | | |
| Large core fibre | | | | | | | | | |
| OCF800 | 1 | 7.5 | 44.18 | 9 | 90 | Black PVC | | 14 | |
| OCF1100 | 1 | 11 | 95.05 | 12 | 120 | Black PVC | | 8 | |
| OCF1200 | 1 | 12 | 113.11 | 14 | 140 | Black PVC | | 6 | |
| Single fibres | | | | | | | | | |
| Clad | | | | | | | | | |
| FSPT1 | 1 | 1 | | | | Black PVC | | | 1000 |
| FSPT1.5 | 1 | 1.5 | | | | Black PVC | | | 500 |
| Single fibres | | | | | | | | | |
| Un clad | | | | | | | | | |
| FSPTU0.75 | 1 | 0.75 | | | | None | 450 | 1000 | 2700 |
| FSPTU1 | 1 | 1 | | | | None | | | 1500 |
| FSPTU1.5 | 1 | 1.5 | | | | None | | | 700 |

## Photometric Information

All of our photometric information is derived from tests conducted by Dial GmbH, Europe's leading photometric testing laboratory and lighting software company.  Their programme Dialux has been at the forefront of lighting design since 1994.  Following extensive testing, Crescent is the first company to have its fibre optic data fully available on the Dialux programme.  We are members of the Dialux partner network.

It is now easy to fully integrate fibre optic lighting with other lighting, and then to visualise the results on the screen, print them or export them to other programmes.

The Crescent fibre optic 'plug in' for Dialux can be downloaded from our website - www.crescent.co.uk This 'plug in' will guide you through the selection of lightprojector, fibre configuration and fitting type.  You can then add this combination to your lighting design, and calculate light levels based on the actual measured performance of our systems.

The images opposite show renderings prepared for a project, making use of the wide range of furniture that can be placed inside the space. The latest version of Dialux allows you to "walk through" the area and see the effects from all angles.

Dialux is available for downloading from the Dial web site at www.dial.de

Crescent can provide customer training in the use of Dialux if required.

Dialux rendering of a project

Image of the installation, Thanks to LBM

It is possible to manually calculate illuminance levels for some luminaires. Select the appropriate cone diagram from those shown (the luminaire specification will tell you which one to use), and use the values for A, B & C that match your lightprojector and fibre configuration, and multiply out as shown in the example given.

In case of difficulty, contact the Project Design Department.
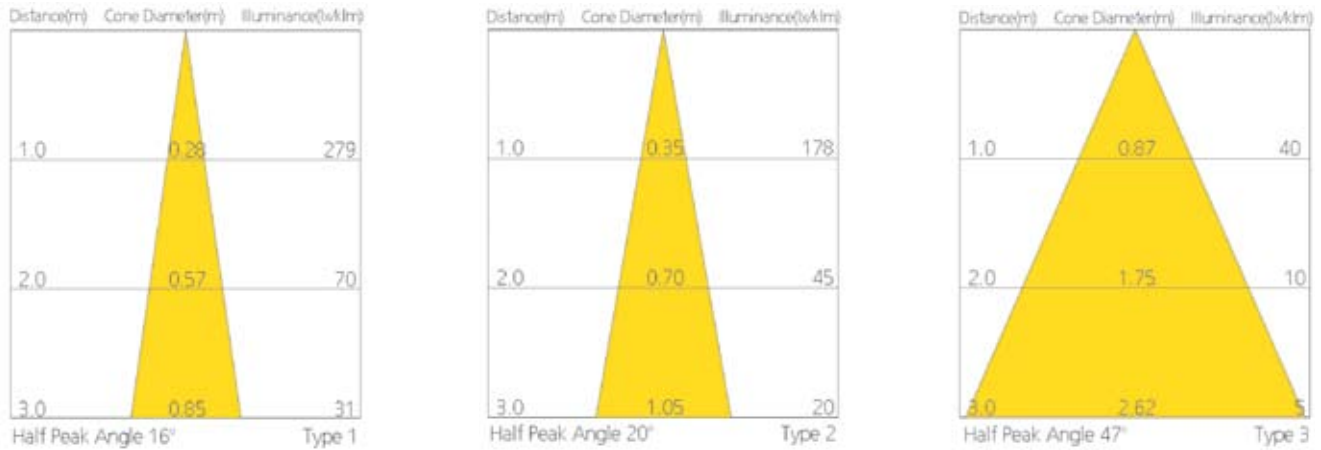


Types 1 & 2 show the fibre focused in the optimum position in front of the lens to achieve maximum output. In both cases the fibre position could be changed to give a less intense, wider distribution.

| Illumination Calculation Table | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lightprojector | Lamp Lumens 000's | Number of PMMA Fibre strands per fitting | | | | | | | No. of fibres | Port Size Correction Factor | | |
| | | 3 | 6 | 12 | 25 | 37 | 50 | 75 | | 300 | 450 | 600 |
| CRE096 & 0100 | 3 | 0.06 | 0.12 | 0.24 | 0.5 | 0.74 | 1 | 1.5 | CRE096 & 0100 | 1 | 0.78 | 0.62 |
| CRE6220 | 6 | 0.06 | 0.12 | 0.24 | 0.5 | 0.74 | 1 | 1.5 | CRE6220 | 1 | 0.78 | 0.62 |
| CRE0150 | 7.65 | 0.05 | 0.1 | 0.2 | 0.4 | 0.6 | 0.81 | 1.22 | CRE6155 & 465 | 1 | 0.84 | 0.68 |
| CRE6155 & 465 | 9 | 0.05 | 0.1 | 0.2 | 0.4 | 0.6 | 0.81 | 1.22 | CRE6155 & 465 | 1 | 0.84 | 0.68 |
| CRE6255 & 4625 | 15 | 0.04 | 0.07 | 0.15 | 0.3 | 0.45 | 0.61 | 0.92 | CRE6255 & 4625 | 1 | 0.92 | 0.85 |
| CRE068AD & AG | 5.5 | 0.03 | 0.06 | 0.11 | 0.23 | 0.34 | 0.46 | 0.69 | CREAD & AG | 1 | 1.38 | 1.42 |
| | A | B | B | B | B | B | B | B | | C | C | C |

Illuminance = Lux from diagram x A x B x C x correction for fibre length (FSPTe loses 3% per metre so x 0.97 for every metre over 3m).
Example: CRE6255 with 9 x FSPTe50 (450 port) each 4 metres long and with CRE2501's, what is the peak illuminance at 2 metres?
    equals…        70 x 15 x 0.61 x 0.92 x 0.97 = 571 lux.
All photometric measurements taken using 3 metres of fibre.

- ∘ Great effects

- ∘ Simple to install

- ∘ Projector, cable and fittings included

- ∘ Harness made and finished - ready to install

- ∘ Cable length options

- ∘ Colour or sparkle wheel included

| | |
|---|---|
| CRE2362 | 2 metre kit |
| CRE2363 | 4 metre kit |
| CRE2364 | 6 metre kit |
| CRE2365 | 8 metre kit |

## Star Kit

A silent, fanless 35W lightprojector complete with enough fibre optic cable to give 144 bright points of light over an approximate 3 square metre area. Sparkle effect wheel included.
Projector:       178 x 138 x 136 high
                 complete with power lead
Fibre cable:   6 tails of FSPTe25 giving
                 150 fibres total.

| | |
|---|---|
| CRE2366 | 6 x 4 metre kit |
| CRE2367 | 6 x 6 metre kit |
| CRE2368 | 6 x 8 metre kit |
| CRE2369 | 2 x 4 metre/ 2 x 6 metre/ 2 x 8 metre kit |

## Patio Kit

A complete kit for lighting patios and other exterior areas.  The 100W TH lightprojector has a colour wheel which can be set to give white light, fixed colour or colour change effects.
Projector:       178 x 138 x 136 high
                 complete with power lead
Fibre cable:   FSPTe25
Paver:           CRE1208 - see p52

### Fixed Downlight Kit
| | |
|---|---|
| CRE2408 | 6 x 4 metre kit |
| CRE2409 | 6 x 6 metre kit |
| CRE2410 | 6 x 8 metre kit |
| CRE2411 | 2 x 4m/ 2 x 6m/ 2 x 8m kit |

### Adjustable Downlight Kit
| | |
|---|---|
| CRE2412 | 6 x 4 metre kit |
| CRE2413 | 6 x 6 metre kit |
| CRE2414 | 6 x 8 metre kit |
| CRE2415 | 2 x 4m/ 2 x 6m/ 2 x 8m kit |

## Downlight Kit

A powerful 100W TH lightprojector complete with 6 fixed or adjustable lensed downlights. The projector has a fitted colour wheel which can be set to give white light, fixed colour or colour change effects.
Projector:       178 x 138 x 136 high
                 complete with power lead
Fibre cable:   FSPTe25
Fixed downlight: CRE2501 - see p30
Adjustable downlight: CRE1002 - see p30

# Accessories

## Tracks

**TRK-U-100**
Rigid clear polycarbonate channel for BPAK50 or BPAK100. CAP-U-130 use with BPAK50 only   Used to ensure optical cable is fixed in a straight line.
L = 1.8m, W = 15mm, H = 11mm

**TRK-U-130**
Rigid clear polycarbonate channel for BPAK100 or BPAK150. CAP-U-130 use with BPAK100 only
Used to ensure optical cable is fixed in a straight line. L = 1.8m, W = 16mm, H = 15mm

**TRK-U-160**
Rigid clear polycarbonate channel for BPAK150. Used to ensure optical cable is fixed in a straight line. L = 1.8m, W = 18mm, H = 16mm

**CAP-U-130**
Clear polycarbonate cap for TRK-U-100, TRK-U-130 and TRK-U-160.

## P-Clips

**P160 - Pack of 10**
Clear P-clips for mounting BPAK150.

**P160 - Pack of 10**
Clear P-clips for mounting BPAK100.

**P100 - Pack of 10**
Clear P-clips for mounting BPAK75, BPAK50 and SS50.

**P70 - Pack of 10**
Clear P-clips for mounting BPAK15 and SS15.

## Spare Optical Ports

**FCREPxxx**
Spare Optical Port for all projectors. Ready sized for 25 to 450 fibres. Complete with fully adjustable clamp for simple on site assembly.

Add fibre quantity to catalogue number when ordering.

Larger capacity ports are available to special order. Please consult the Project Design Dept.

| | |
|---|---|
| FCREP025 | FCREP300 |
| FCREP050 | FCREP350 |
| FCREP100 | FCREP400 |
| FCREP150 | FCREP450 |
| FCREP200 | FCREP500 |
| FCREP250 | FCREP600 |

Diameter 30mm, Overall Length 125mm, Maximum Diameter 51mm

## Spare Lamps/Optical Systems

**LMHR100 - 100W HID Optical System**
Pre-focused 100W HID lamp in dichroic reflector for CRE420 lightprojector.

**HID 303 - 150W HID Optical System**
Pre-focused 150W HID lamp and dichroic reflector for CRE6155 and CRE465 lightprojector (late model). Please state 3000 or 4200K.

**HID 304 - 150W HID Optical System**
Pre-focused 150W HID lamp and dichroic reflector for CRE301 and CRE401 lightprojector. Please state 3000 or 4000K.

**HID 306 - 150W HID Optical System**
Pre-focused 150W HID lamp and dichroic reflector for CRE425, CRE465 (early model only), CRE6150 lightprojector.

**HID 308 - 150W HID Optical System**
Pre-focused 150W HID lamp and dichroic reflector for CRE0150 lightprojector.

**HID 309 - 250W HID Optical System**
Pre-focused 250W HID lamp and dichroic reflector for CRE6255 lightprojector.

**HID 504 - 400W HID Optical System**
Pre-focused 400W HID lamp and dichroic reflector for CRE520 and CRE6400 lightprojector.

**HID 601 - 250W HID Optical System**
Pre-focused 250W HID lamp and dichroic reflector for CRE601 lightprojector.

**HI 50 - 50W Halogen Optical System**
Pre-focused 50W halogen lamp and dichroic reflector for CRE050 lightprojector.

**HI 111 - 250W Halogen Optical System**
Pre-focused 250W (183W) halogen lamp and dichroic reflector for CRE6220 and CRE201 lightprojector.

**HI 100 - 100W Halogen Optical System**
Pre-focused 100W halogen lamp and dichroic reflector for CRE095, CRE096ELN, CRE0100 and CRE101 lightprojector.

**FS EFO-070DL - 70W AC 4200K.** HID Optical system pre-focused with twin CPC output for CREAD068 lightprojector.

**FS EFO-068 - 70W AC 3500K HID** Optical system pre focused with twin CPC output for CREAD068 lightprojector.

**FS EFO-070-DL-SC - 70W AC 4200K HID** Optical system pre focused with twin CPC output for CREAD068 lightprojector with fixed colour filter - state colour when ordering.

**FS EFO-68-SC -70W AC 3500K HID** Optical system pre focused with twin CPC output for CREAD068 lightprojector with fixed colour filter - state colour when ordering.

**FS EFO-068-AG - 70W AC 4200K HID** Optical system pre focused with twin CPC output for CREAG068 lightprojector.

**FS EFO-068-AG-SC - 70W AC 4200K HID** Optical system pre focused with twin CPC output for CREAD068 lightprojector with fixed colour filter - state colour when ordering.

## Accessories

**CRE2318 Ventilation Kit**
For Lightprojectors - See page 28.

**FS-118 Electric Hot Axe Cutter**
Use to cut large groups of fibres, ideal for 300-600 and all CRE6255 ports.

**FS121 Butane Hot Knife**
Useful for preparing ports outside.

**FS131 Double Sided Tape-U Channel** holds cable to track or track to surface prior to final fixing. 50m roll, 8mm wide.

**FSFC Large Core Cutter**
Used for the preparation and correct cutting of large core fibre.

**FS-136 Silicone Sealant**
Used on all applications to seal and protect the cable, particularly when used in swimming pools.

**FBRST Fibre Burst**
Coupler for Star Ceilings 25:75 - other options to order.

**Ferrules**
A wide variety of end ferrules are available for FSPTe fibres.

# crescent ®

## An Energy Focus Company

**Crescent Lighting Limited**
8 Rivermead   Pipers Lane
Thatcham   Berkshire
RG19 4EP   United Kingdom
Telephone: +44 (0) 1635 878888
Facsimile:   +44 (0) 1635 873888
email address: sales@crescent.co.uk
http://www.crescent.co.uk

LUMICOM
MEMBER
WEE/KA0167SS