

FIBRE OPTIC LIGHTING

LIGHTEFX



FIBRE OPTIC
LIGHTING TRANS_
FORMS ARCHI_
TECTURE, LAND_
SCAPING, WET
AREAS OR ARTIS_
TIC SPACE, INTO
SOMETHING
THAT COMMANDS
AN AUDIENCE_

with a wealth
of experience
in specifying,
manufacturing
and installing
fibre optic lighting,
LightEFX can
evolve your idea
into a dazzling
masterpiece...

WET AREAS

Let there be light

LightEFX was founded on the back of fibre optic cable, a specialist manufacturer of electrical wiring looms servicing the electronics, aftermarket and original equipment manufactures.

With our strength in fibre optics technology and a growing market demand for fibre optic lighting, LightEFX now provides a diverse range of lighting solutions, offering the latest technology coupled with optimum performance.

LightEFX specialises in innovative lighting solutions with fibre optics and LED. We can design, manufacture, install and distribute the products and tools required to implement a total solution.

Fibre optic lighting is so versatile, that its use is limited only by your creative imagination. The versatility extends from the home, to commercial, industrial and corporate installations which may include:

- / indoor: anywhere in the home, restaurants, cinema complexes, health centres, colour therapy, casinos, shopping centres, government buildings.
- / outdoor areas: landscapes, patios, decks, public spaces, parks, art installations, pathways
- / wet areas: pools, bathrooms, water features, saunas, spas, steam rooms
- / starlights: interior ceilings, bedrooms, home theatre, bars, gaming venues.





/ opposite
pulsating stars create a starfield
embedded in the pool floor

/ top
an irresistible attraction greets
pool users with a dreamy star base

/ middle
soft neon glow lighting creates the
mood for this water feature

/ bottom
floor lighting can be used to accentuate
detail in indoor wet areas

FIBRE OPTIC LIGHTING IS
SO VERSATILE, THAT ITS USE
IS LIMITED ONLY BY YOUR
CREATIVE IMAGINATION.

**DRY FUSION
TECHNOLOGY
IS EXCLUSIVE
TO LIGHTEFX**

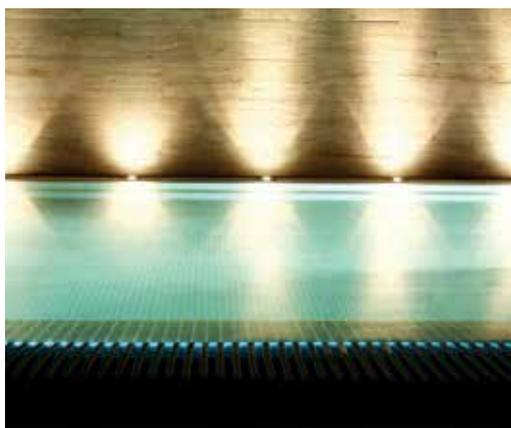
Dry Fusion System

LightEFX have patented a Dry Fusion System whereby the common end (where all fibres meet in the light source unit) is made to become more heat resistant.

The fusion and polishing allows the harness to absorb up to 20% more light than glued common ends, or common ends terminated with a hot knife, meaning the harness exudes brighter light through the fibres.

The ongoing repair costs of melting fibres are dramatically reduced, ensuring minimal maintenance to visual aesthetics.

The harness can be fitted on site with a simple assembly process. The optical port or harness has been designed to be glue-free for assembly, therefore, providing a clean, no-mess finish.



OUT_ DOOR

Setting the standard

Lighting landscaped environments, exterior spaces and art features can be somewhat challenging using traditional lighting systems. The separation of the light source and light output in fibre optic lighting however, provides a high level of safety and significant advantages when installed outdoors.

You can achieve spectacular results when highlighting special features such as pathways, landscape focal points, art monuments and stairs at night. Fibre optic lighting also provides solutions in hard to reach areas, where maintenance would normally be difficult.

LIGHTEFX AIMS TO SET THE STANDARD FOR FIBRE OPTICS





Light up your life

Great lighting design aims to create an environment that promotes a feeling of calm and well being. It is also used to enhance the space in a visual and aesthetic sense, while aiming to connect an audience with its environment.

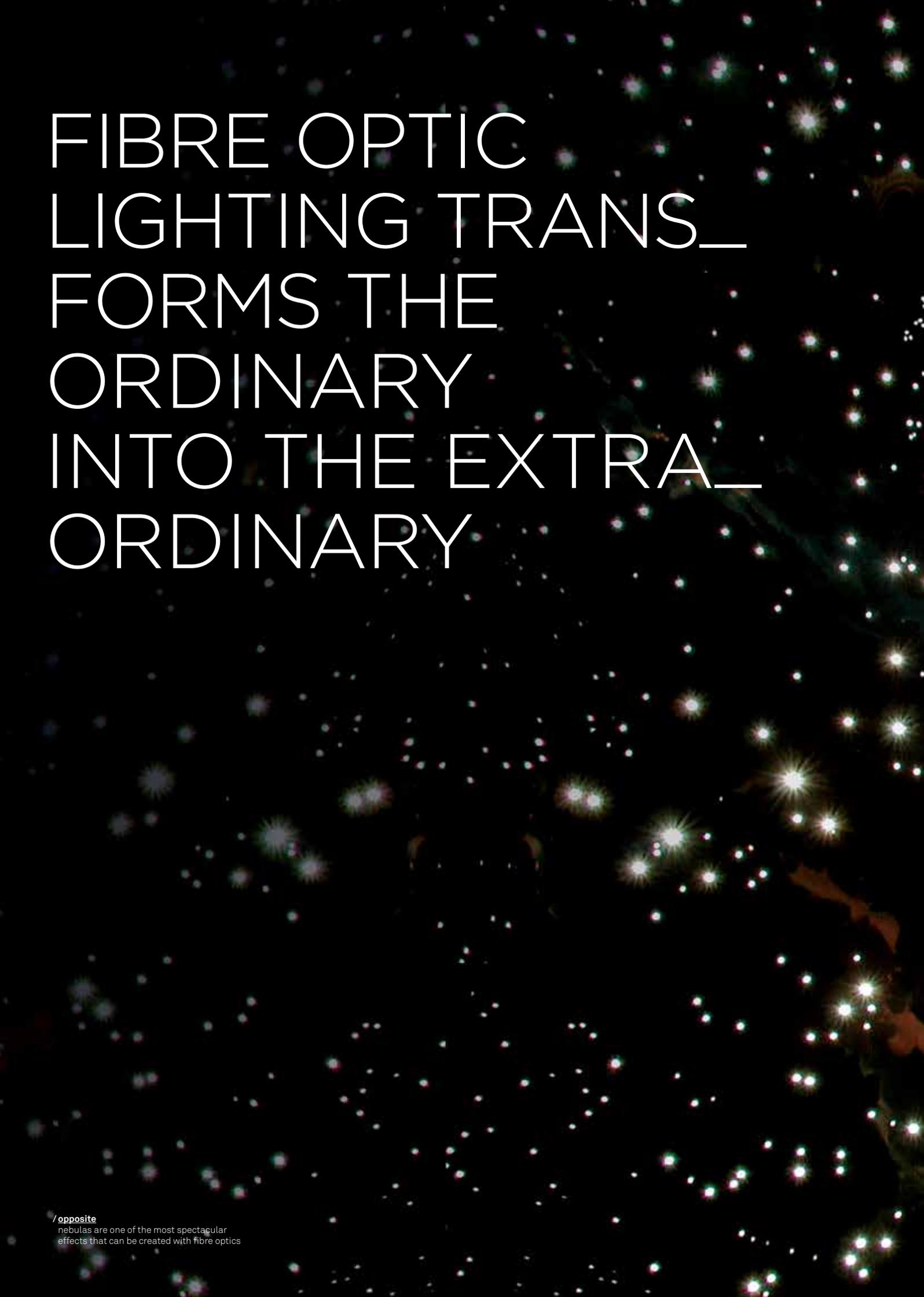
Our dedicated team of design development and installation experts will work with you to achieve the most visual and spectacular results



- / opposite**
cleverly designed spot lighting creates the mood in this landscape
- / top left**
garden spaces come alive with lighting designed to captivate
- / top right**
single stem exterior LED light
- / left**
LED step lights, light up the way
- / below**
outdoor art or landscape features come alive with fibre optic lighting

USED IN LANDSCAPE DESIGN,
EXTERIOR ART DISPLAYS
& OUTDOOR VENUES, FIBRE
OPTIC LIGHTING ENHANCES
THE SPACE IN A VISUAL AND
AESTHETIC SENSE WHILE AIMING
TO CONNECT AN AUDIENCE
WITH ITS ENVIRONMENT.





FIBRE OPTIC LIGHTING TRANS_ FORMS THE ORDINARY INTO THE EXTRA_ ORDINARY

/ **opposite**

nebulas are one of the most spectacular effects that can be created with fibre optics



ARCHI_ TEC_ TURAL

LIGHTEFX AIMS TO
SET THE STANDARD
FOR FIBRE OPTICS

**Welcome to a new world
of possibilities**

LightEFX aims to set the industry standard for fibre optics lighting integration and installation technology.

Fibre optic lighting enables designers and architects to transform innovative ideas into stunning reality. With the freedom to incorporate a wide variety of special effects into your lighting design, it is now possible to combine creativity and functionality on a multitude of interior, exterior and custom applications. You will soon identify a whole new world of possibilities for all kinds of environments.





/opposite
several mural panels of fused glass are illuminated by sidelight fibres

/right
integrated crystal rods and sparkle fibre create this 8m drop chandelier

/top right
an architectural lighting features creates a visual focal point

/bottom right
Set the mood in your theatre room with a dazzling sky of lights



OUR VISION IS TO MAKE FIBRE OPTICS LIGHTING COME OF AGE THROUGH THE DEVELOPMENT & MARKETING OF INNOVATIVE LIGHTING SOLUTIONS...

Changed the mood, change the colour!

Fibre optic down light kits are an economical solution for creating atmosphere and mood in any architectural application. They have low running and maintenance costs, so all that is left, is to enjoy the spectacular effect.

Just as conventional down lights are recessed into the ceiling, so too are fibre optic fittings... the difference being there is no globe, only end fibres in each fitting. The light is transferred from the one illuminator source, through fibre optic cables and into the down light fittings, painting the room in light.

After the easy installation, sit back and enjoy watching the vibrant colours rotating from one mesmerising colour to the next... great for creating dramatic effects and parties with a difference.

Maybe a certain mood setting is required. Stop the rotation on the colour required, to achieve the desired effect. Perfect for watching movies or a romantic dinner.

With the addition of Digital Multiplexing Lighting (DMX) your room can change colours to the beat of music.

COM_ MER_ CIAL

WHEN DESIGN
AND LIGHT COME
TOGETHER MAGIC
HAPPENS

Specification and design criteria

When faced with the design of a fibre optics lighting system, the critical design concern is principally the illuminators. Being the only elements that require access and ventilation, a carefully studied location is required in order to reduce overall costs and improve the system's performance.

The most important aspects to define will be:

/ Location

/ Ventilation

/ Access

/ Maintenance

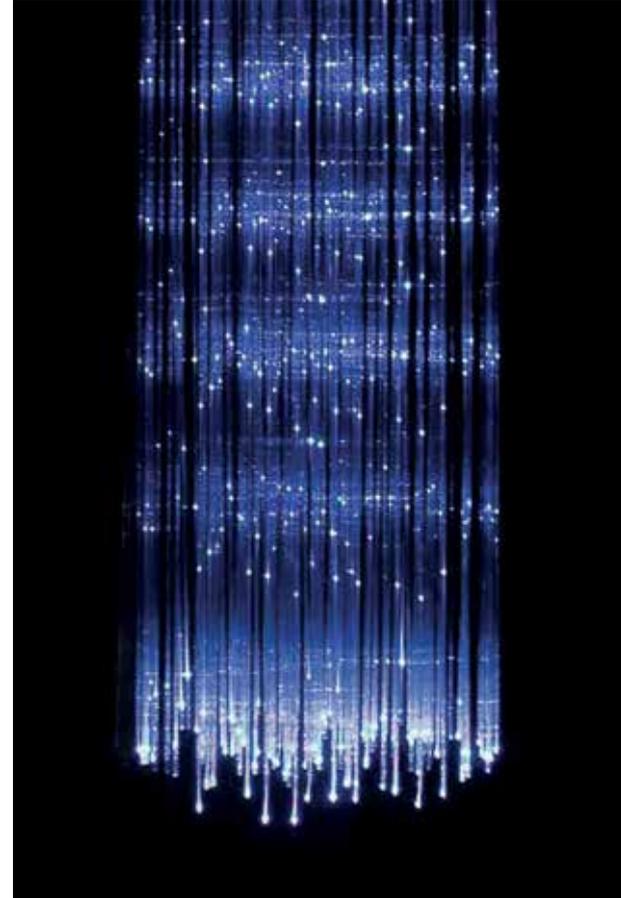


/opposite
chandeliers are superb and cost-effective
centrepieces to decorate large voids

/top left
customised high performance sparkle light
is the essence of this amazing light

/top right
change the mood, change the colour,
with dramatic blue hues

/below
a wall of lights that shimmer and sparkle,
creates a dramatic space for this venue



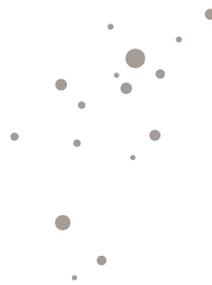
FIBRE OPTIC LIGHTING CAN BE INSTALLED
FOR EFFECTS IN ENTERTAINMENT & GAMING
VENUES, CHANDELIERS & SUSPENDED
WATER FEATURES, SIGNAGE, MUSEUM ART
SCULPTURES AS WELL AS IN RETAIL & POS



The most notable difference between an electrical installation and one involving light conductors, is the fact that whilst copper wires can be spliced and joined, fibre optics or light conductors must be run individually from the illuminator to each of the light points.

Although splicing and joining light conductors is technically possible the cost and difficulties, coupled with the light losses, renders the process impractical for conventional installations.

The golden rule when determining the placing of the illuminators is to select the points closest to the geometrical centre of the system, in order to reduce acquisition costs by reducing to a minimum the length of light conductors.



SERVICES

Design

Inhouse design, manufacture and technical expertise

Installation

LightEFX can install for residential and commercial

Project Management

Offering services for the management of the overall project from design, installation and completion

Fusion Technology

Patented fusion technology prolonging fibre life

Training

LightEFX provides training on fibre optic lighting installations

Pre-fabrications

Custom projects built ready for installation removing on site labour costs

LET LIGHTEFX
HELP CREATE
YOUR MOOD

Q&A

What is a fibre optic?

Fibre optics are long lenses. A cylinder or rod of transparent material forming a core and surrounded by an external cladding with a slightly different material. Light, when entering the fibre, rebounds on the outer cladding towards the core. This way the light advances through the fibre in bounds or steps, until it exits at the other end.

How many kinds of fibres are there?

In truth there is only one fibre optic. The term 'fibre optics' applies really to a branch of light physics dealing with the properties of certain materials which display a phenomenon called 'total internal reflection', and not to an object. All optical elements such as lenses, prisms and rods use total internal reflection as a mechanism for light transportation. In the elements described as

fibre optics light travels by virtue of this effect but it does so in a number of ways; monomode, multimode, step index, gradient index and so on. For lighting purposes or, to be more exact, to handle visible light, the standard type of fibres are the so-called multimode step index fibres. The use of the other types is confined exclusively to data or signal transmission.

What are fibre optics made of?

For lighting purposes or visible light spectrum transmission several kinds of fibres are used. Glass in very fine strands that have to be bunched together in order to make a sizeable light carrier, PMMA and polycarbonate in sizes from 0.25 to 3mm and solid core fibres made from special polymers in a Teflon sheath from 3mm to over 1 inch thick. Other types of fibres such as liquid core, coloured fibres, fluorescent, and scintillating are little used and for specialised applications.

What can justify the use of fibre optics?

In the great majority of tasks, using traditional means, the amount of light used is far in excess to the quantity really needed. Most light goes to illuminate areas that do not need light at all.

With fibre optics we can distribute minute quantities of light exactly where needed, an impossible feat with conventional lighting because light sources are too large.

The distinct possibilities to put the lamp within easy reach whilst the light is distributed in zones with difficult access is another advantage of fibre optics. The main reasons for the use of fibre optics in lighting are safety, control, miniaturisation, cost and ease of maintenance.



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