

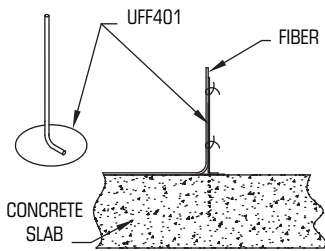
Pool Starry Skies Installation Details | Detalles de Instalación de Firmamentos en Piscinas



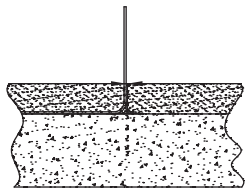
Techniques and products for the installation of starry skies and special effects in water environments, backed by hundreds of successful installations in five continents.

Técnicas y productos para la instalación de firmamentos y efectos especiales en entornos subacuáticos, avalados por cientos de instalaciones en cinco continentes.

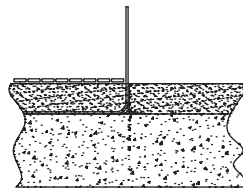
| CODE   | PRODUCT   | OUTER Ø | PACKING |
|--------|---|---------|---------|
| HCF201 | High performance clad fiber 1,00mm. Polyolefine HFFR cladding | 3mm     | 1000m   |
| HCF301 | High performance clad fiber 1,50mm. Polyolefine HFFR cladding | 3,5mm   | 500m    |
| UFF401 | AISI 316 stainless steel fiber support                        | N/A     | N/A     |



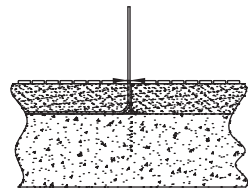
1 - DISTRIBUTE THE POINTS THROUGH THE POOL FLOOR AND SECURE THE UFF401 SUPPORTS WITH A TWO-PART EPOXI ADHESIVE. WHEN CURED, FASTEN FIBER WITH CABLE TIES.



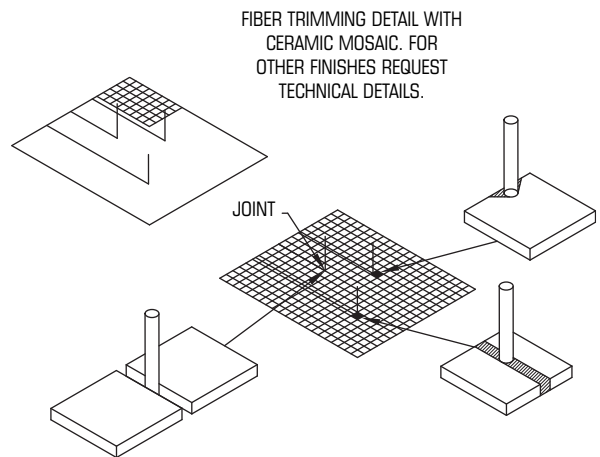
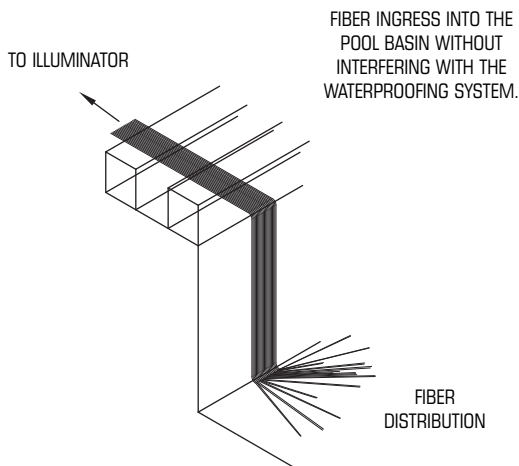
2 - ONCE THE POOL FLOOR IS SCREEDED AND/OR LEVELED, TRIM THE SPIKE OF THE UFF401 SUPPORT FLUSH WITH THE SCREEDED SURFACE.



3 - LAY DOWN THE CERAMIC CLADDING, TRIMMING THE PIECES AROUND THE FIBERS (SEE TRIMMING DETAIL) TO FIT.

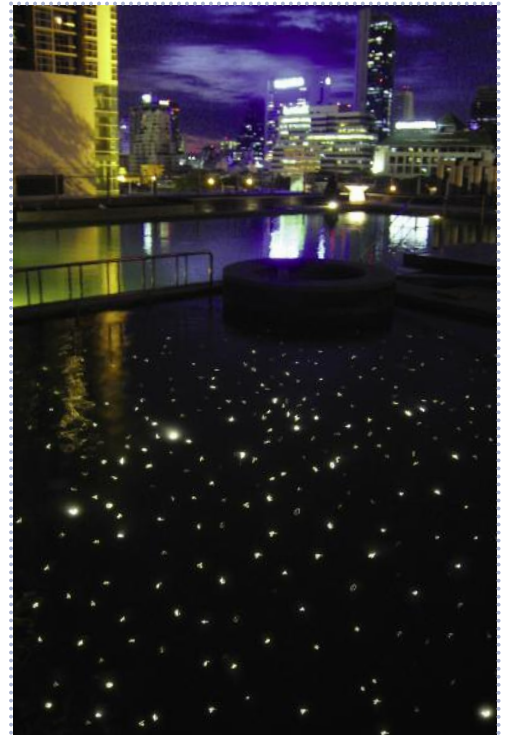


4 - WHEN CERAMIC PIECES ARE GROUTED AND CLEAN, TRIM THE FIBERS FLUSH WITH THE FINAL SURFACE.





Starry skies have become the highest expression of sophisticated lighting in pools, both indoor and outdoor. Swimming or using a pool with a starry sky at night it's an unforgettable experience. Full preparation and installation details available from our technical department.





Los firmamentos se han convertido en la máxima expresión de iluminación sofisticada para piscinas, tanto exteriores como interiores.  
El uso nocturno de una piscina dotada de este sistema es una experiencia inolvidable.  
Nuestro departamento técnico dispone de extensas instrucciones para la preparación e instalación de estos sistemas.



Advanced has pioneered this exciting new fashionable trend and developed special light conductors and accessories to facilitate the installation of starry skies in pools. Sideral effects such as shooting stars, nebulas, comets and scores of custom motives and underwater effects are custom produced with special polymer templates manufactured on request.

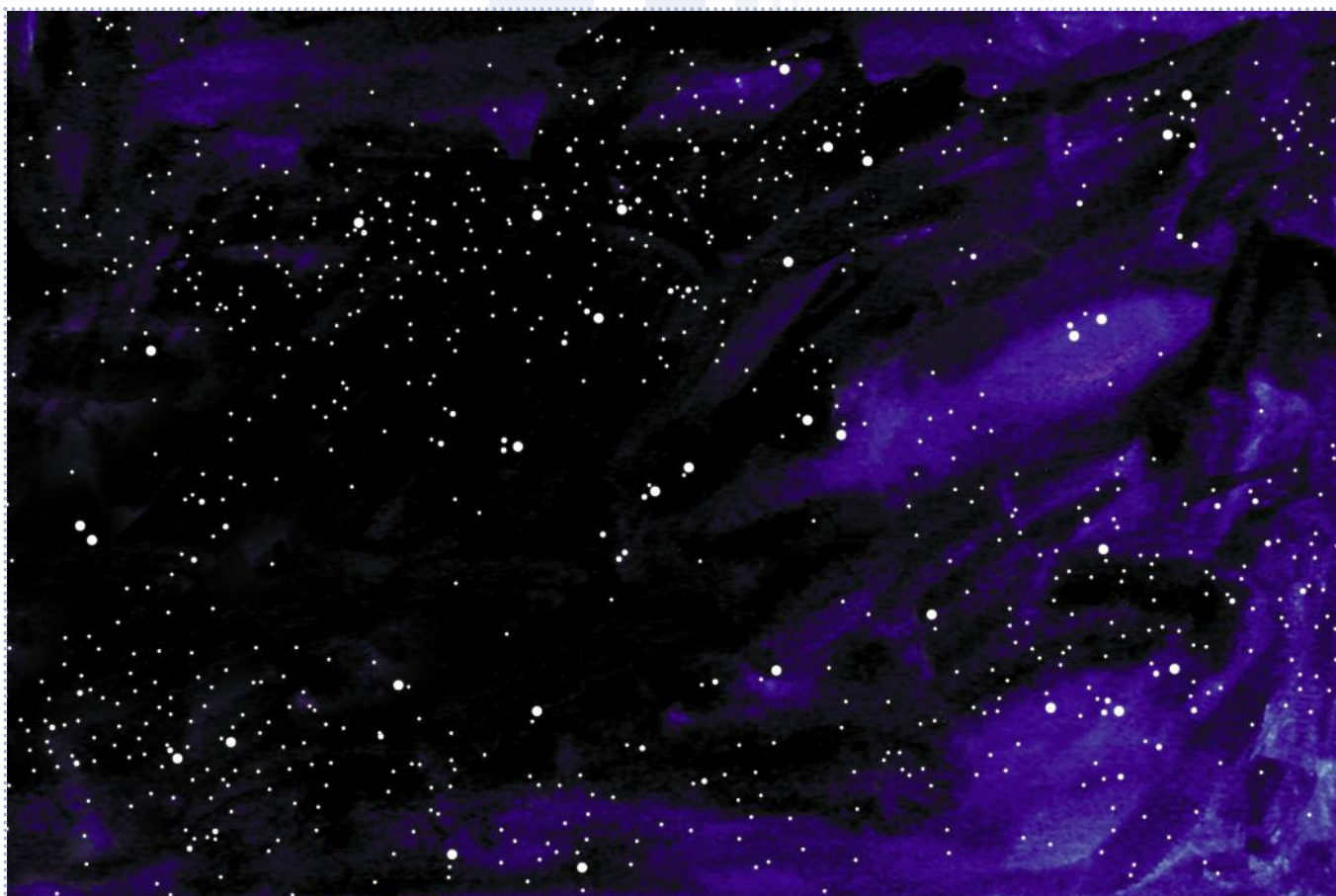
Advanced es pionera en el desarrollo de conductores ópticos y accesorios especiales para facilitar la integración de firmamentos en piscinas. Efectos siderales, tales como estrellas fugaces, nebulosas, cometas y muchos otros motivos y efectos se fabrican a medida con plantillas de polímero fabricados bajo pedido.



Advanced is the foremost World manufacturer of ready-made sets of elements and patterns to incorporate in starry skies and other decorative installations. In addition, we can custom produce any effect, sign, feature or pattern in any size. All sets are furnished complete with ready-made and coded animation harnesses, special illuminators built to reproduce a given sequence or movement and templates for drilling the pattern onto its base. On request, we can manufacture ready made effects on panels made from any construction material; gypsum board, plywood, metal or polymer, professionally finish to integrate in any scheme.

Advanced es el mayor productor mundial de kits para su incorporación en firmamentos y otros elementos decorativos, escenas y patrones. Fabricamos a medida cualquier rótulo, efecto, patrón o escena a cualquier tamaño. Todos nuestros kits se suministran completos con mazos de animación codificados, iluminadores especiales construidos para reproducir una secuencia o efecto determinado y plantillas de taladrado para trasladar el patrón a la superficie de instalación. Bajo pedido, fabricamos efectos terminados en cualquier panel de construcción; cartón yeso, contraplacado, metálico o de polímero, con acabados profesionales y listos para incorporar en cualquier entorno.





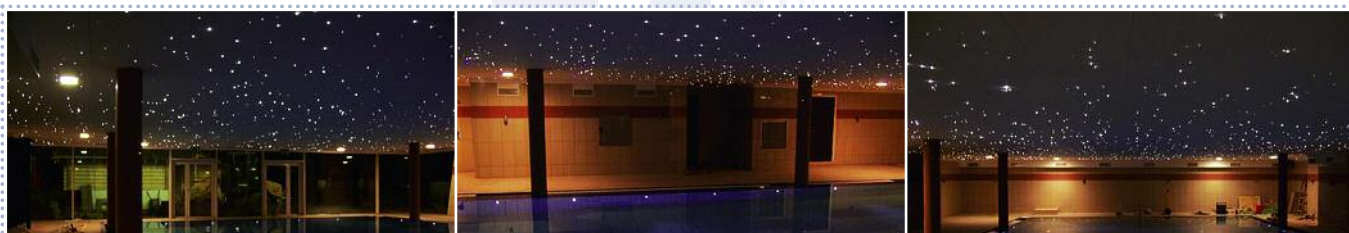
Starry sky effect sets to cover different areas. Complete with illuminator, fiber harness and instructions. We can design and supply starry skies of any size and complexity, such as the new Amiri Air Terminal with 10,000m<sup>2</sup> over 2,000Km of fibers, 500,000 points and more than 400 illuminators.

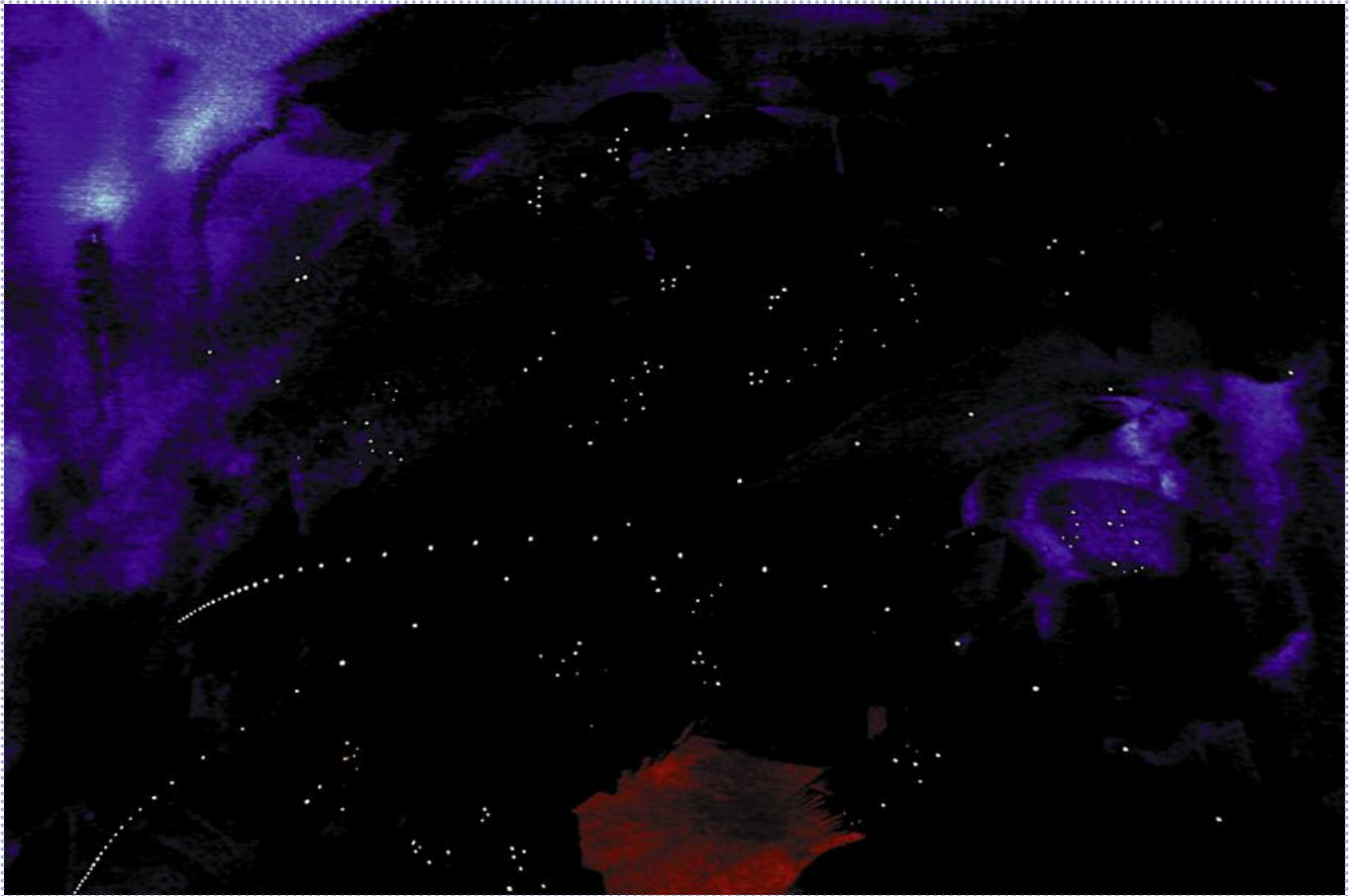
Kits de firmamentos para cubrir áreas de diversa extensión, con iluminador, mazo de fibras e instrucciones. Podemos fabricar y suministrar firmamentos de cualquier tamaño y complejidad, como la Terminal Amiri, con 10.000m<sup>2</sup>, 2.000Km de fibras, 500.000 puntos y más de 400 iluminadores.

| CODE   | PRODUCT        | FIBERS | FIBER Ø | LENGTH     | AREA            | ILLUMINATOR |
|--------|----------------|--------|---------|------------|-----------------|-------------|
| CES851 | Starry sky kit | 200    | Mixed   | 2m         | 4m <sup>2</sup> | ASI*        |
| CES852 | Starry sky kit | 300    | Mixed   | 2 / 3m     | 6m <sup>2</sup> | ASI*        |
| CES853 | Starry sky kit | 400    | Mixed   | 2 / 3m     | 8m <sup>2</sup> | ASI*        |
| CES854 | Starry sky kit | 450    | Mixed   | 2 / 3 / 4m | 9m <sup>2</sup> | ASI*        |

On request we can manufacture these patterns or any other from a drawing or photograph.

\* Noiseless (no fan).





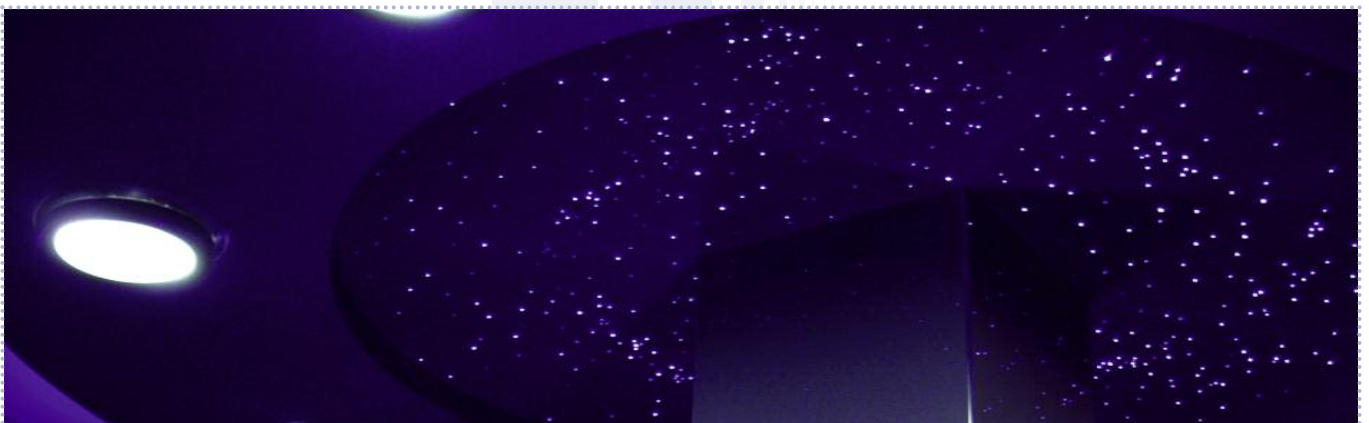
Shooting star and starry sky effect sets with illuminator, fiber harness and instructions.

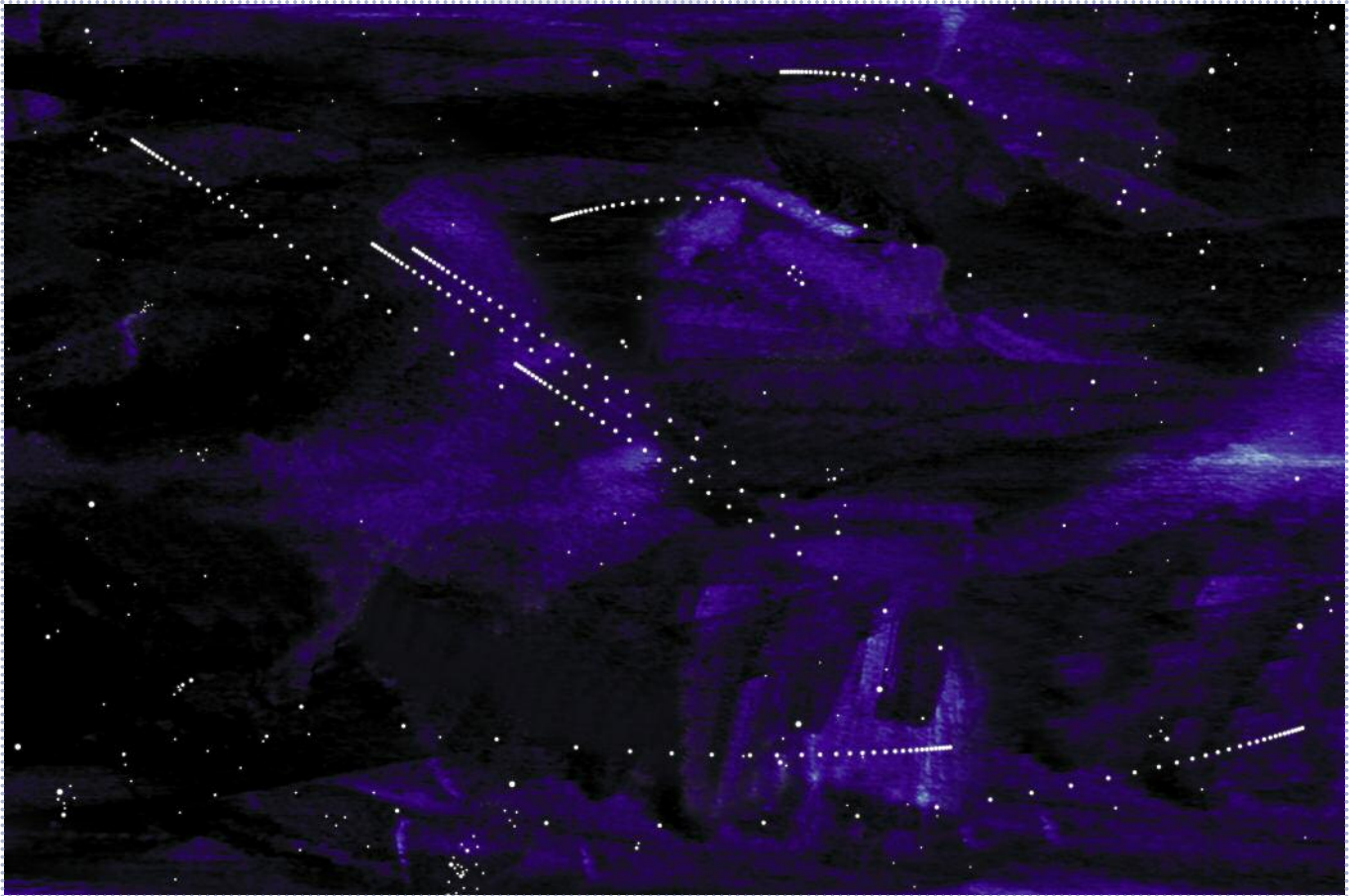
Kits de estrellas fugaces y firmamentos con iluminador, mazo de fibras e instrucciones.

| CODE   | PRODUCT                        | FIBERS    | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|--------------------------------|-----------|---------|--------|-------------|
| CES103 | Shooting star + starry sky kit | 112 + 200 | Mixed   | 3m     | AHI**       |
| CES104 | Shooting star + starry sky kit | 112 + 450 | Mixed   | 4m     | AHI**       |
| CES152 | Shooting star + starry sky kit | 76 + 200  | Mixed   | 2m     | ASI*        |

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\* Noiseless (no fan). \*\* Available with low-noise fan.





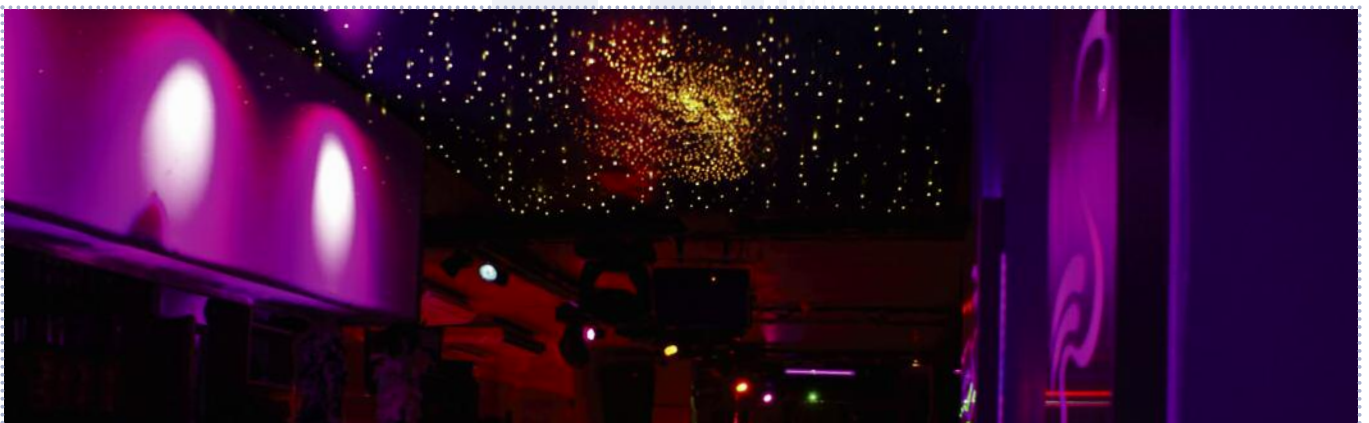
Shooting star effect kit with illuminator, fiber harness, 1:1 drilling template and instructions.

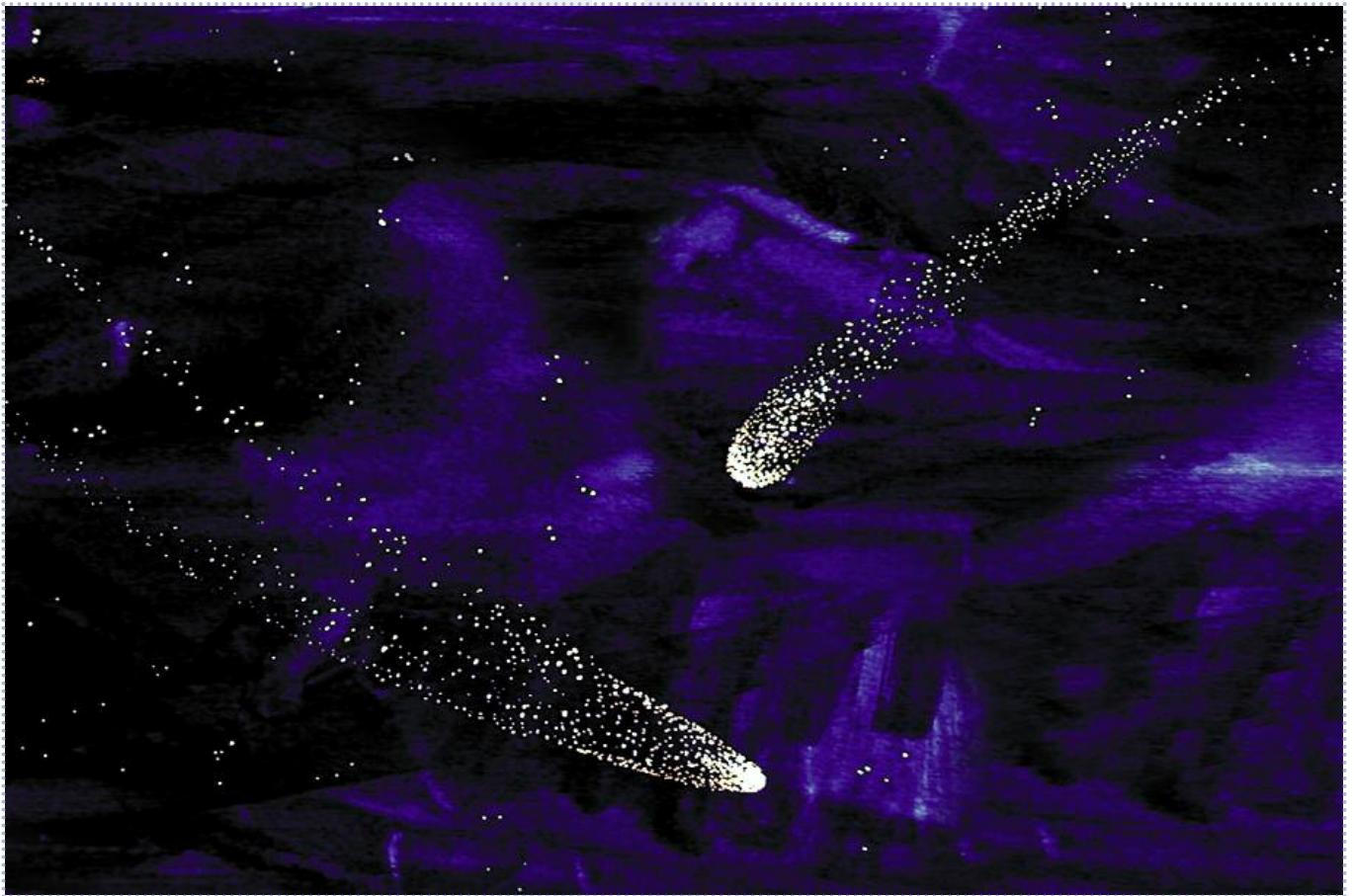
Kits de estrellas fugaces con iluminador, mazo de fibras, plantilla de taladrado 1:1 e instrucciones.

| CODE   | PRODUCT           | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|-------------------|--------|---------|--------|-------------|
| CES101 | Shooting star kit | 56     | 1,00mm  | 2m     | AHI**       |
| CES102 | Shooting star kit | 112    | 1,00mm  | 3m     | AHI**       |
| CES151 | Shooting star kit | 76     | 0,50mm  | 2m     | ASI*        |

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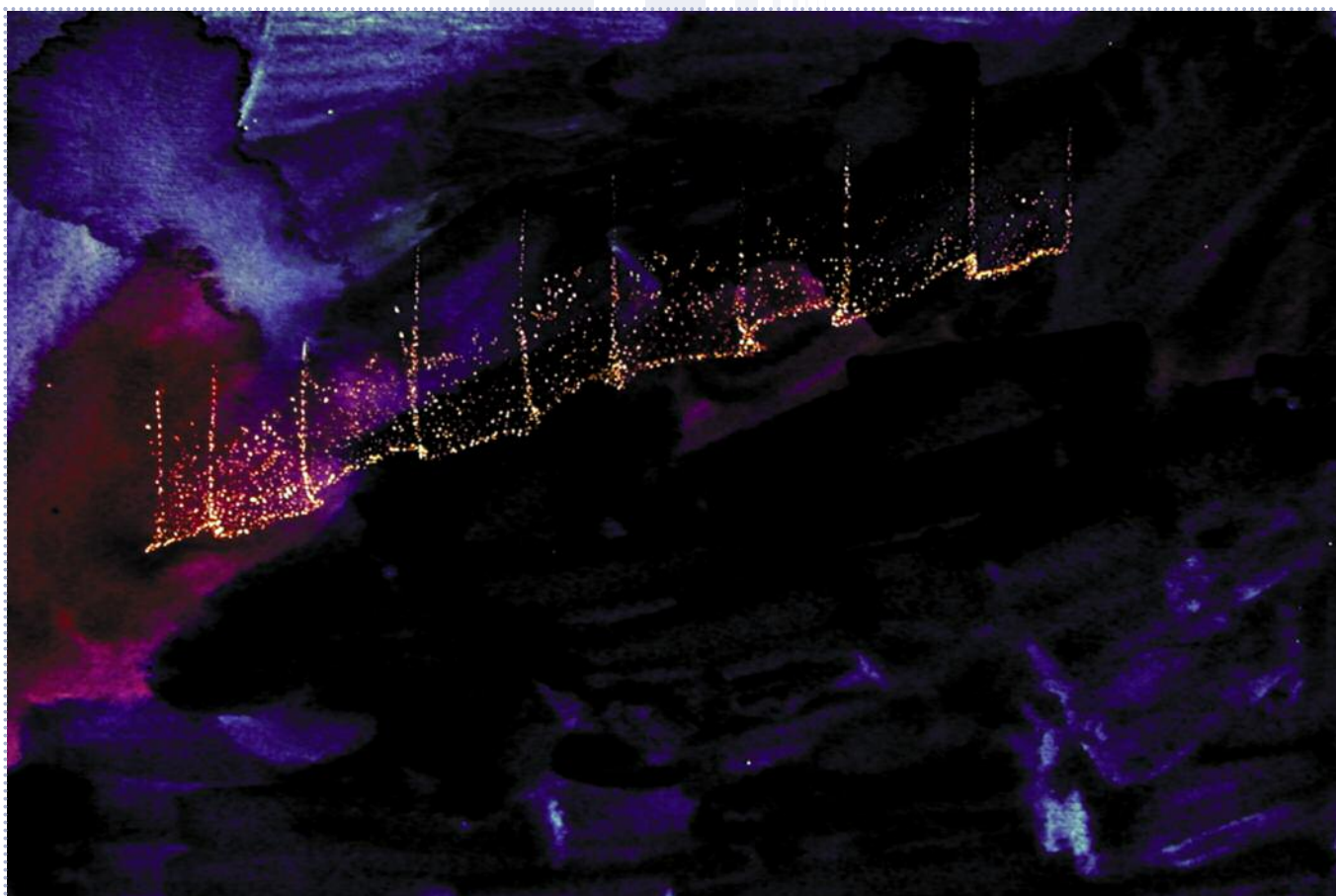
Open or closed comet effect sets. Complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.  
 Kit de cometa abierto o cerrado, completo con iluminador, mazo de fibras, plantilla de taladrado 1:1 e instrucciones.

| CODE   | PRODUCT          | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|------------------|--------|---------|--------|-------------|
| CES201 | Open comet kit   | 750    | 0,50mm  | 2m     | AHI**       |
| CES202 | Open comet kit   | 1500   | 0,50mm  | 2m     | AHI**       |
| CES203 | Closed comet kit | 750    | 0,50mm  | 2m     | AHI**       |
| CES204 | Closed comet kit | 1500   | 0,50mm  | 2m     | AHI**       |
| CES251 | Open comet kit   | 648    | 0,50mm  | 2m     | ASI*        |
| CES252 | Closed comet kit | 648    | 0,50mm  | 2m     | ASI*        |

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Aurora kits complete with illuminator, fiber harness, scale 1:1 drilling template and instructions.

Kits de aurora con iluminador, mazo de fibras, plantilla de taladrado a escala 1:1 e instrucciones de montaje.

| CODE   | PRODUCT          | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|------------------|--------|---------|--------|-------------|
| CES301 | Aurora short kit | 1800   | 0,50mm  | 2m     | AHI**       |
| CES302 | Aurora long kit  | 3600   | 0,50mm  | 2m     | AHI**       |

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\*\* Available with low-noise fan.





Cosmic dust sets complete with illuminator, fiber harness, scale 1:1 drilling template and instructions. These sets use 0,25mm fibers, exceedingly thin and challenging to install, but the effect is breathtaking.

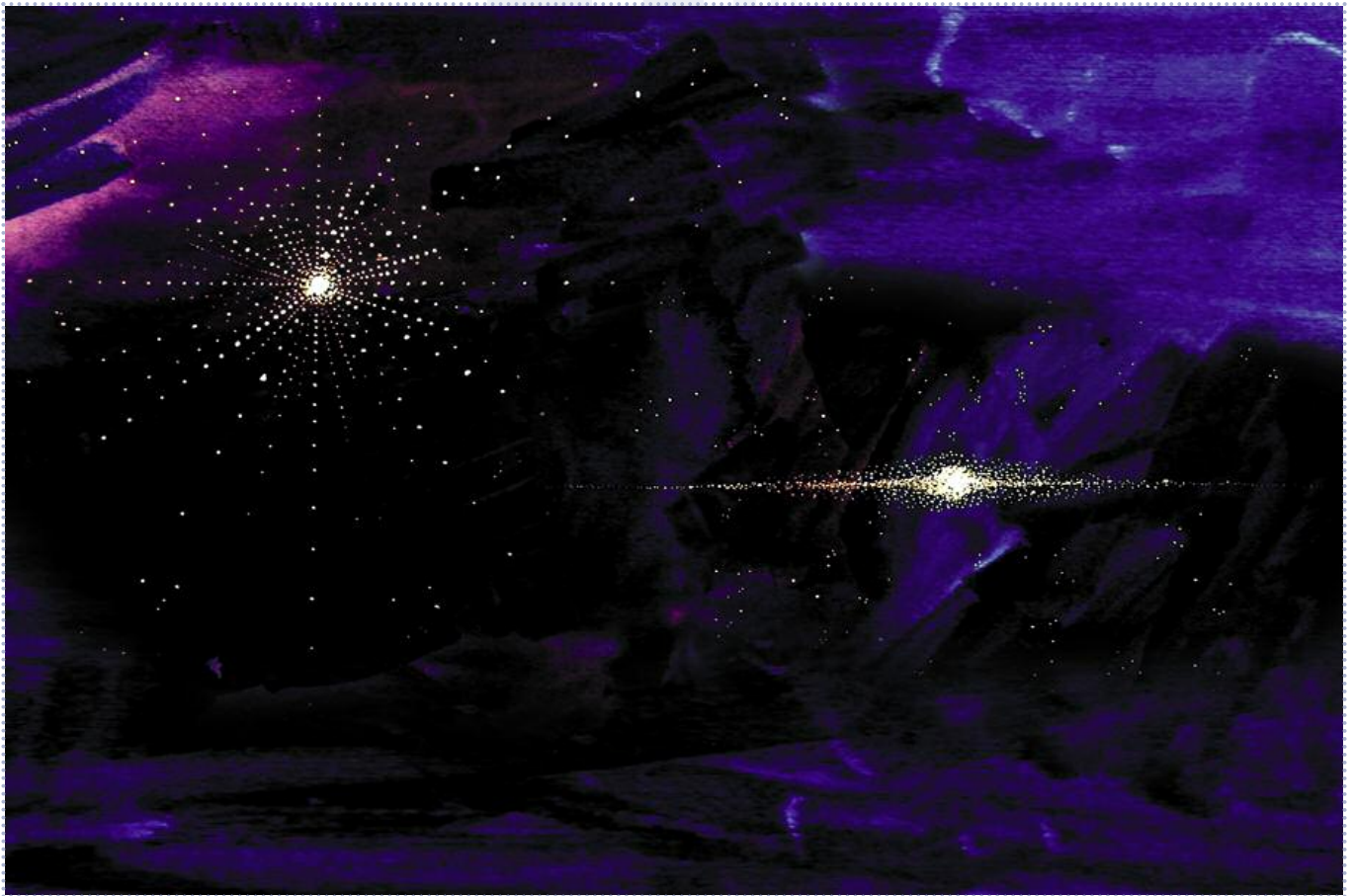
Kits de polvo cósmico con iluminador, mazo de fibras, plantilla de taladrado a escala 1:1 e instrucciones de montaje. Estos kits usan fibras de 0,25mm, muy delgadas y complejas de instalar, pero el efecto es extraordinario.

| CODE   | PRODUCT         | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|-----------------|--------|---------|--------|-------------|
| CES303 | Cosmic dust kit | 1800   | 0,25mm  | 2m     | AHI**       |
| CES304 | Cosmic dust kit | 3600   | 0,25mm  | 4m     | AHI**       |
| CES305 | Cosmic dust kit | 6000   | 0,25mm  | 6m     | AHI**       |

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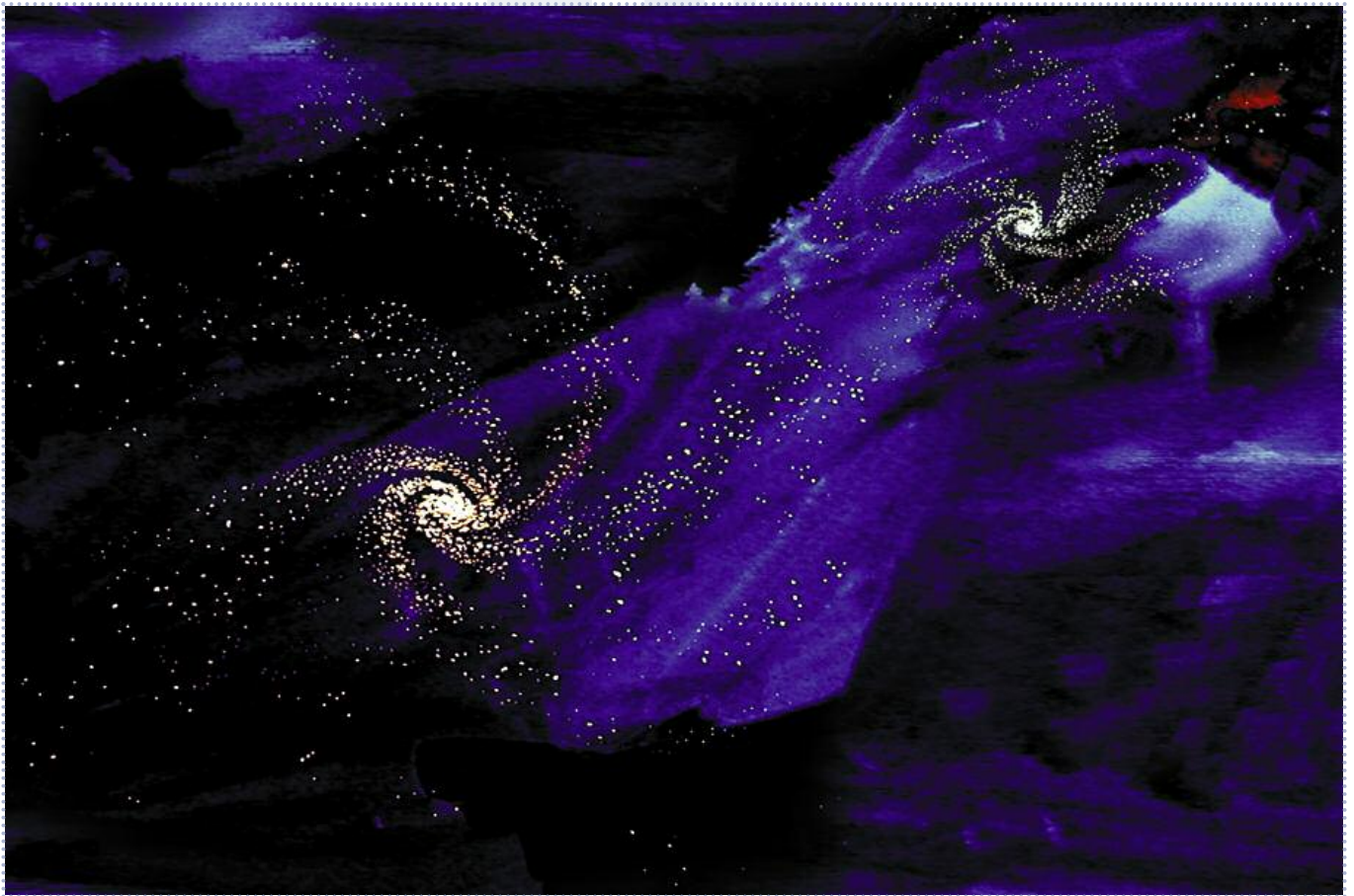
Supernovas in round or flat versions. Complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.  
Kits de supernova con iluminador, mazo de fibras, plantilla de taladrado a escala 1:1 e instrucciones.

| CODE   | PRODUCT             | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|---------------------|--------|---------|--------|-------------|
| CES401 | Supernova round kit | 280    | 0,50mm  | 2m     | AHI**       |
| CES402 | Supernova round kit | 560    | 0,50mm  | 2m     | AHI**       |
| CES403 | Supernova flat kit  | 1800   | 0,50mm  | 3m     | AHI**       |
| CES404 | Supernova flat kit  | 3600   | 0,50mm  | 3m     | AHI**       |
| CES451 | Supernova round kit | 570    | 0,50mm  | 2m     | ASI*        |

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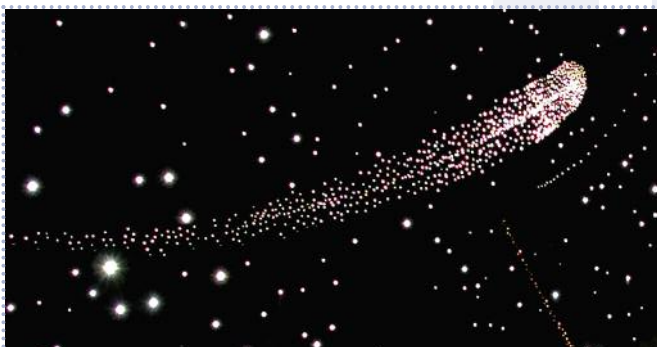
Nebulas in standard sizes, complete with illuminator/s, fiber harness/es, scale 1:1 drilling template and installation instructions. Custom made nebulas of any size are also available.

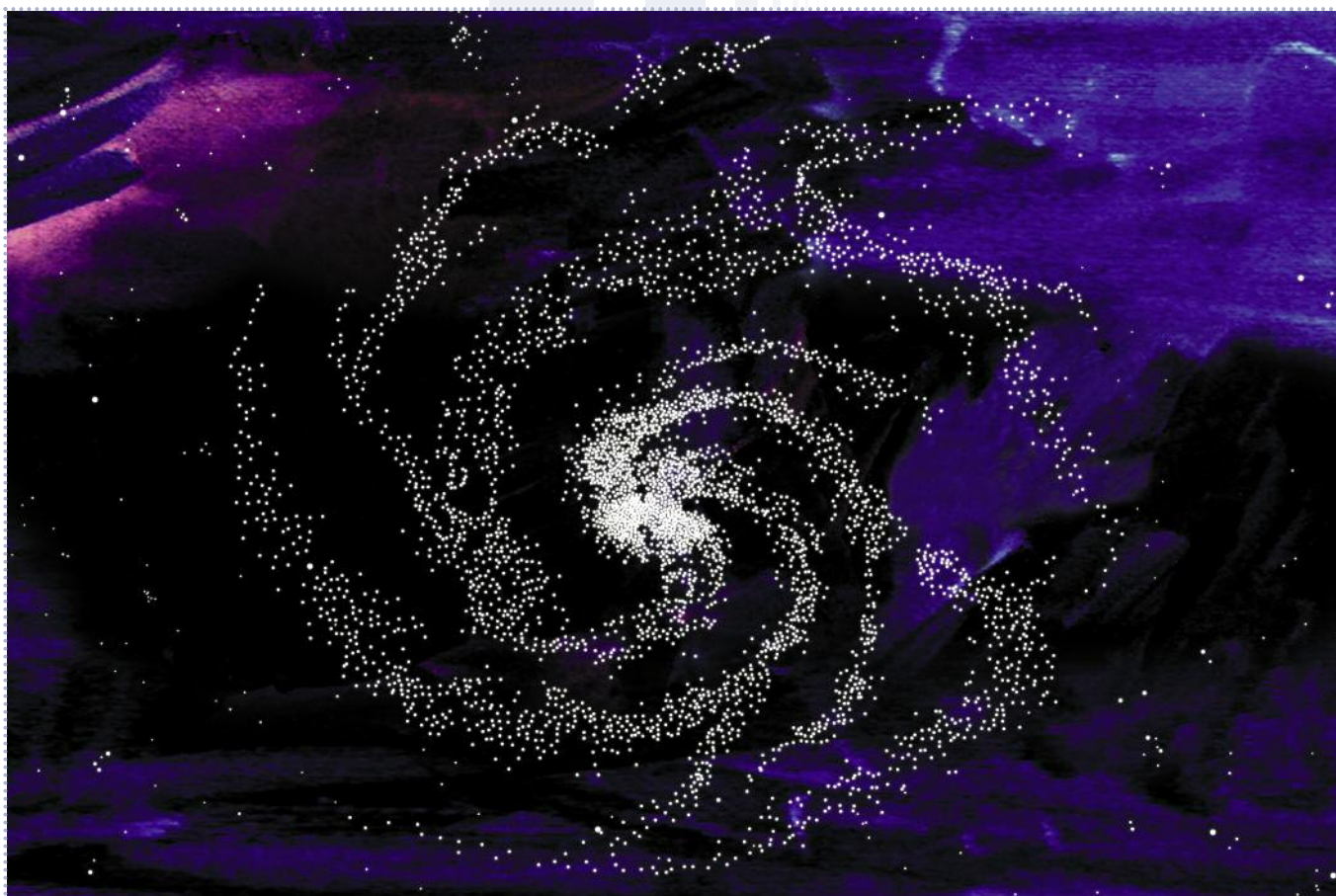
Kits de nebulosas en diferentes tamaños estándar, completos con iluminador, mazo/s de fibras, plantilla de taladrado a escala 1:1 e instrucciones. También disponibles en cualquier tamaño a medida.

| CODE   | PRODUCT              | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|----------------------|--------|---------|--------|-------------|
| CES501 | Nebula small kit     | 1800   | 0,50mm  | 2m     | AHI**       |
| CES502 | Nebula large kit     | 3600   | 0,50mm  | 2m     | AHI**       |
| CES551 | Nebula miniature kit | 648    | 0,50mm  | 2m     | ASI*        |

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These nebula sets are extraordinary, eye-catching centrepieces bound to delight and awe any observer. We have custom produced very large nebulas with more than 500,000 individual fibers

Estos monumentales kits conforman efectos extraordinarios que sorprenden al observador. Hemos fabricado nebulosas de gran tamaño con más de 500.000 fibras individuales.

| CODE   | PRODUCT                                | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|--|--------|---------|--------|-------------|
| CES503 | Nebula super large kit (photo page 45) | 11200  | 0,50mm  | 6m     | AHI**       |
| CES504 | Nebula super large kit (photo above)   | 18000  | 0,50mm  | 6m     | AHI**       |

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\*\* Available with low-noise fan.





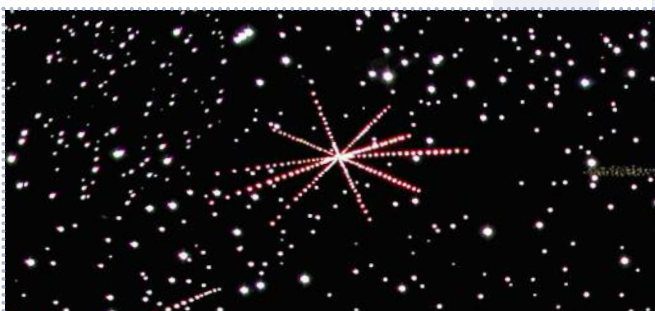
CES601 and CES602 with six bolides. CES603 and CES651, single fireball with "firetails". Complete with illuminator, fiber harness 1:1, drilling template and instructions.

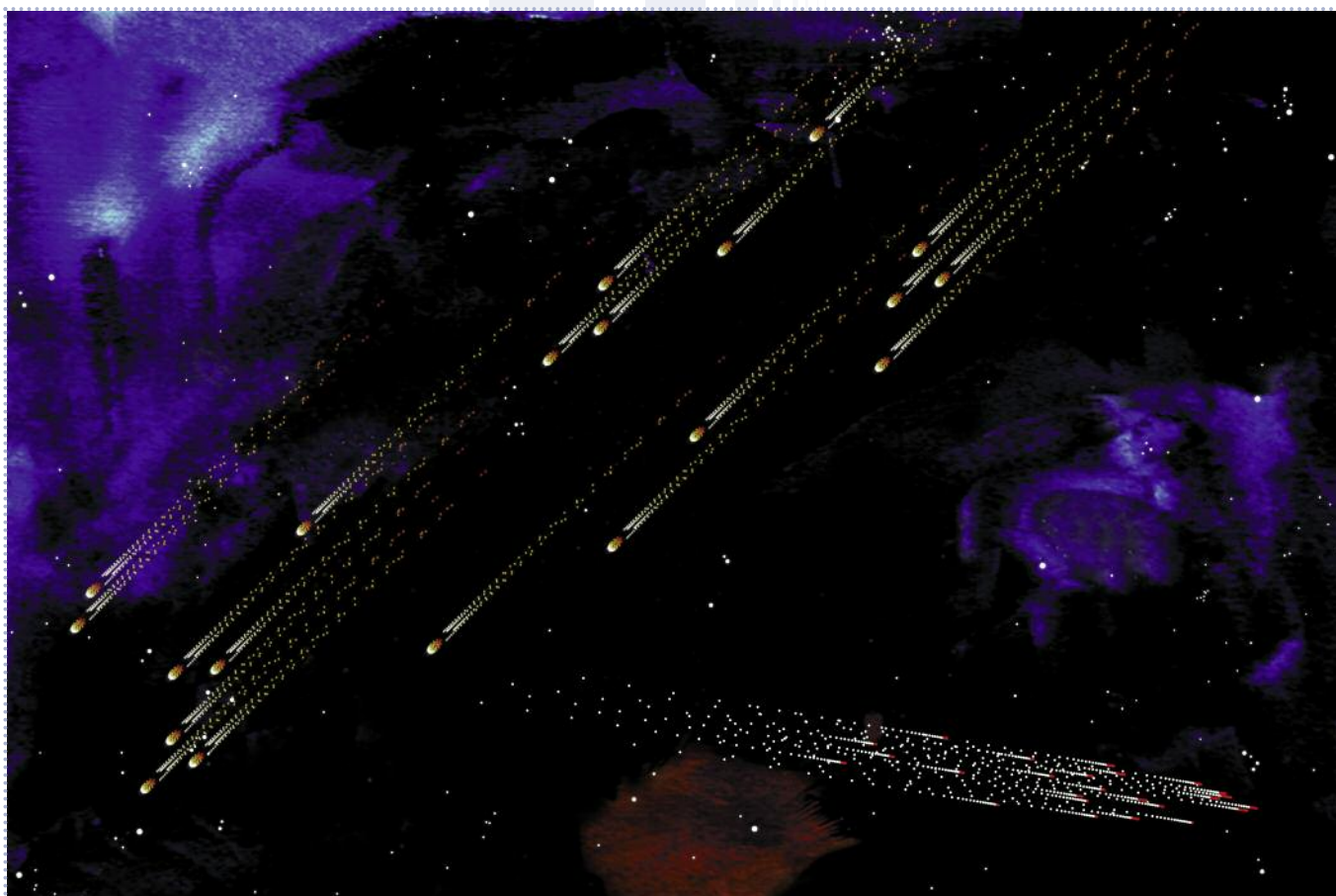
Kits CES601 y CES602; seis bólidos. CES603 y CES651; bola de fuego con estelas. Completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones.

| CODE   | PRODUCT              | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|----------------------|--------|---------|--------|-------------|
| CES601 | Bolide short kit     | 1200   | 0,50mm  | 2m     | AHI**       |
| CES602 | Bolide long kit      | 2400   | 0,50mm  | 3m     | AHI**       |
| CES603 | Fireball large kit   | 1200   | 0,50mm  | 2m     | AHI**       |
| CES651 | Bolide miniature kit | 494    | 0,50mm  | 2m     | ASI*        |

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Sets with fast-chasing flaming meteoroids in different configurations. Complete with illuminator, fiber harness 1:1, drilling template and instructions.

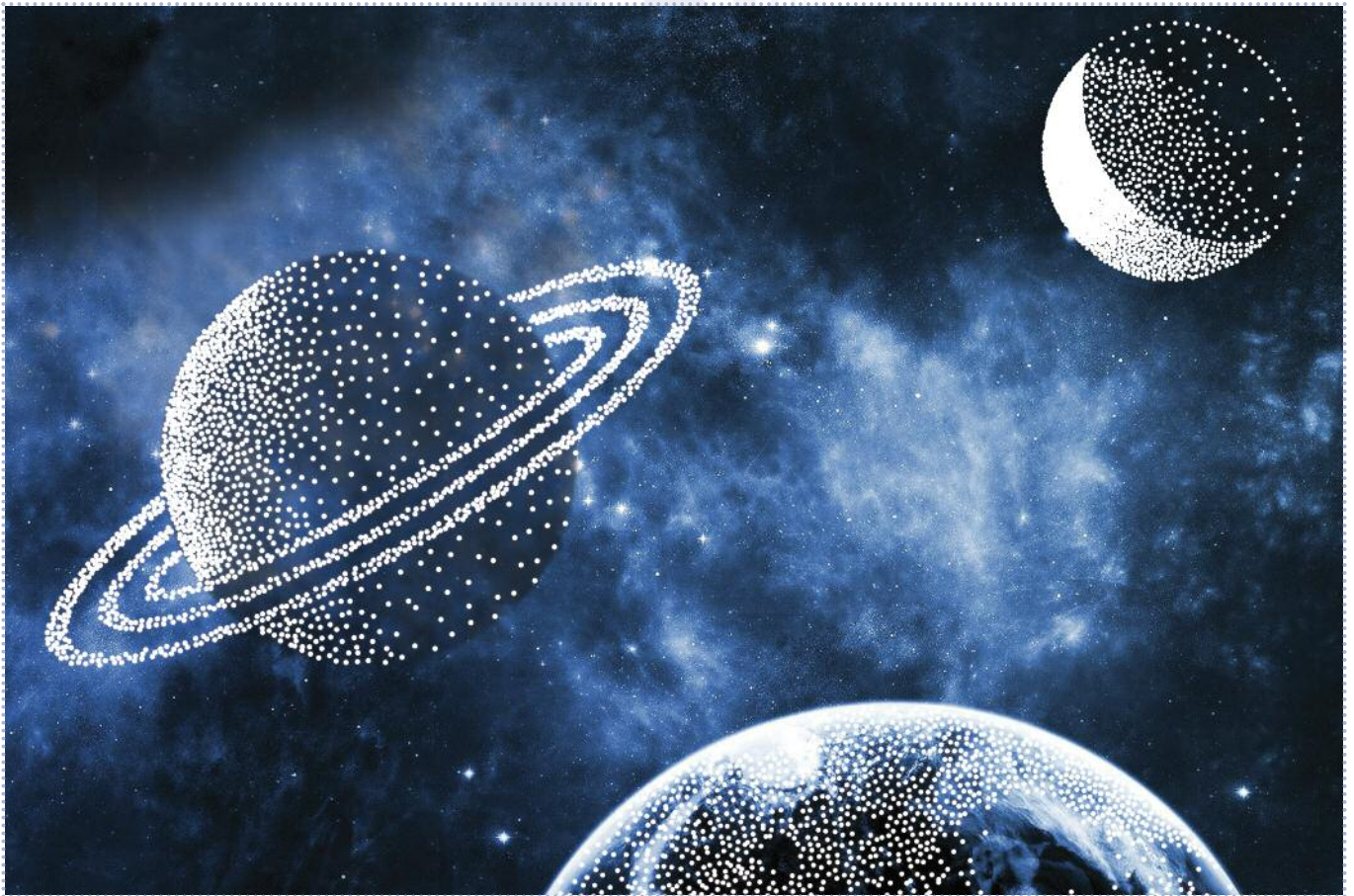
Kits con meteoroides en diversas configuraciones. Completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones.

| CODE   | PRODUCT                  | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|--------------------------|--------|---------|--------|-------------|
| CES610 | Small meteoroid rain kit | 660    | 0,50mm  | 3m     | AHI**       |
| CES611 | Large meteoroid rain kit | 1620   | 0,50mm  | 4m     | AHI**       |

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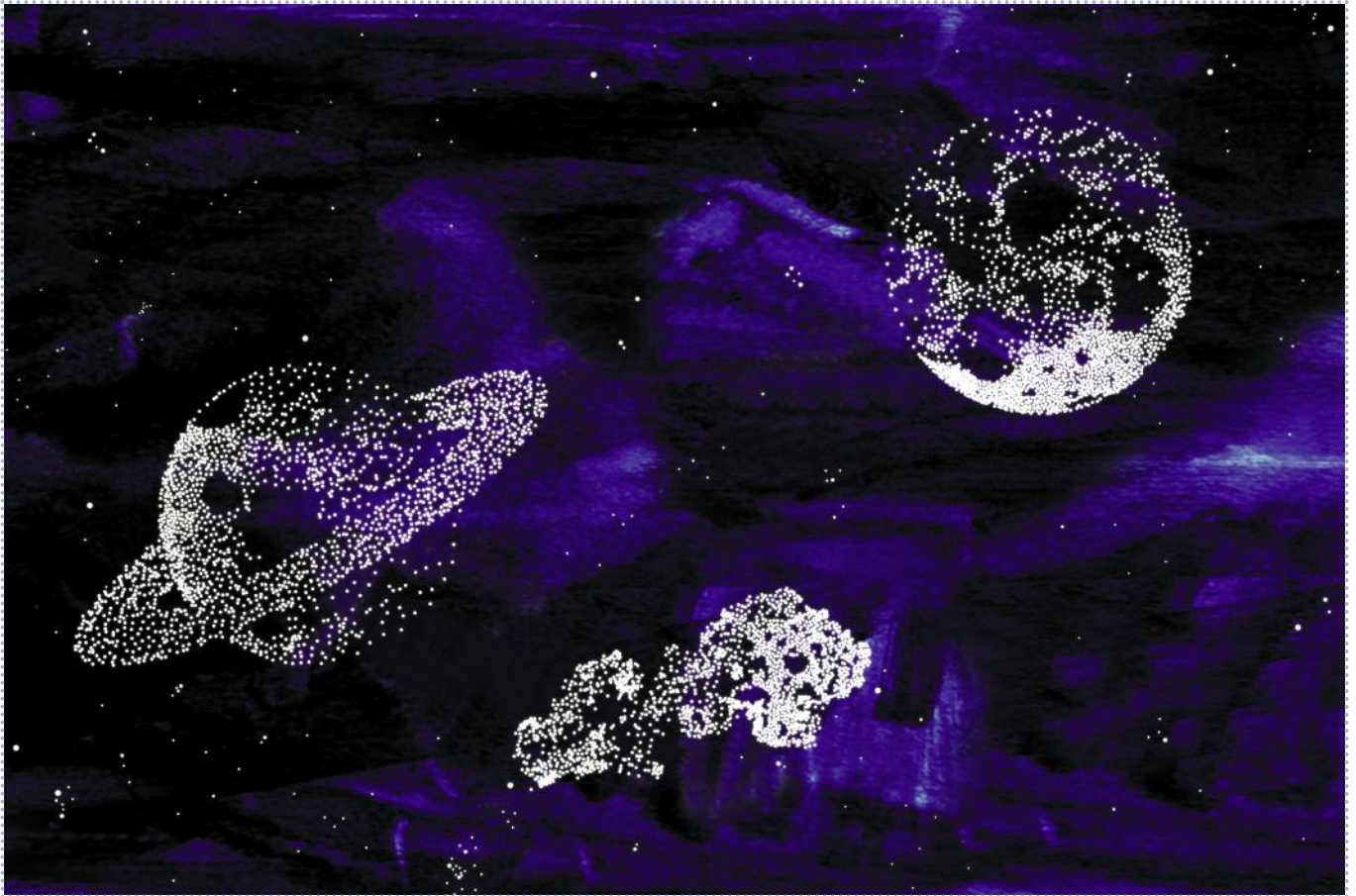
Saturn and moon cosmic effect sets; complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.  
Kits de efectos luna y Saturno; completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones de instalación.

| CODE   | PRODUCT              | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|----------------------|--------|---------|--------|-------------|
| CES701 | Saturn kit           | 2000   | 0,50mm  | 2m     | AHI**       |
| CES702 | Moon kit             | 2000   | 0,50mm  | 2m     | AHI**       |
| CES751 | Saturn miniature kit | 508    | 0,50mm  | 2m     | ASI*        |
| CES752 | Moon miniature kit   | 684    | 0,50mm  | 2m     | ASI*        |

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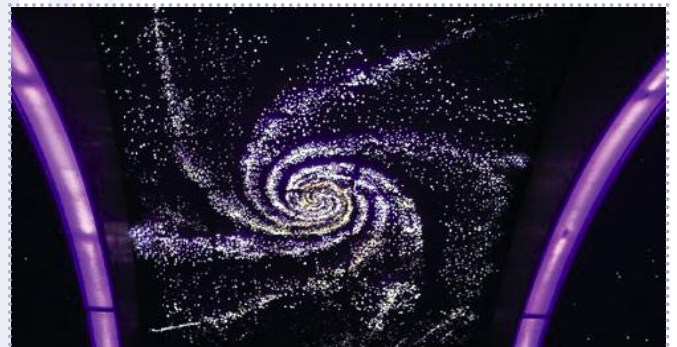
Realistic planets sets in diverse sizes and configurations complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.

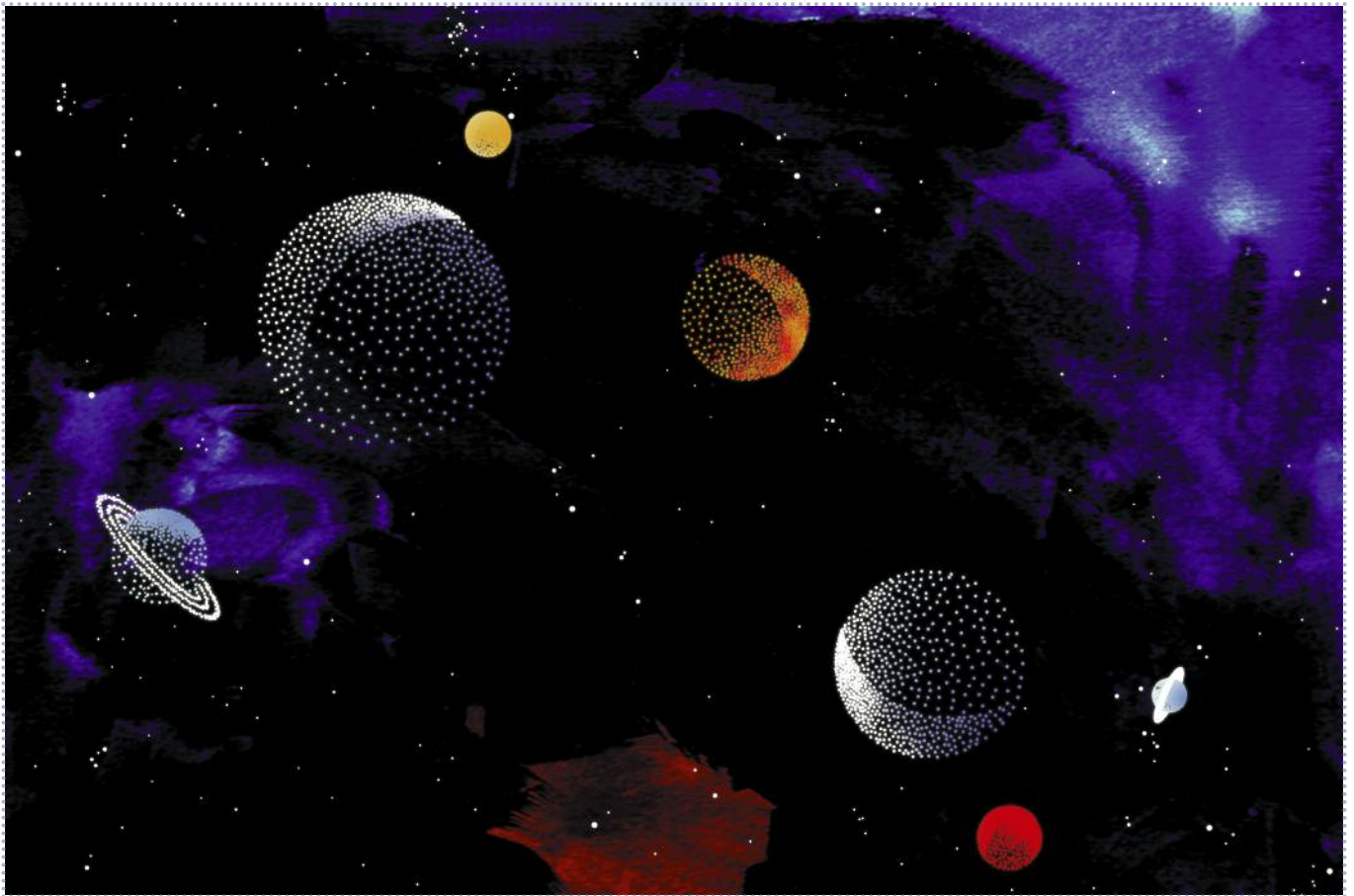
Kits de planetas de gran realismo en varios tamaños y configuraciones; completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones de instalación.

| CODE   | PRODUCT                 | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|-------------------------|--------|---------|--------|-------------|
| CES703 | Realistic Saturn kit    | 2000   | 0,50mm  | 2m     | AHI color** |
| CES704 | Realistic moon kit      | 2000   | 0,50mm  | 2m     | AHI color** |
| CES705 | Realistic meteorite kit | 2000   | 0,50mm  | 2m     | AHI color** |

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\*\* Available with low-noise fan.





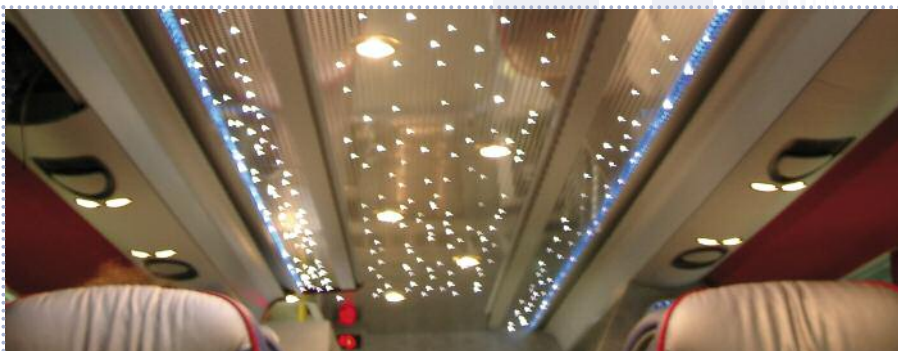
Multiple planets sets in diverse sizes and configurations complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.

Kits de grupos de planetas de gran realismo en varios tamaños y configuraciones; completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones de instalación.

| CODE   | PRODUCT          | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|------------------|--------|---------|--------|-------------|
| CES721 | Four-planet kit  | 1200   | 0,50mm  | 3m     | AHI color** |
| CES722 | Six-planet kit   | 1800   | 0,50mm  | 4m     | AHI color** |
| CES723 | Eight-planet kit | 2400   | 0,50mm  | 6m     | AHI color** |

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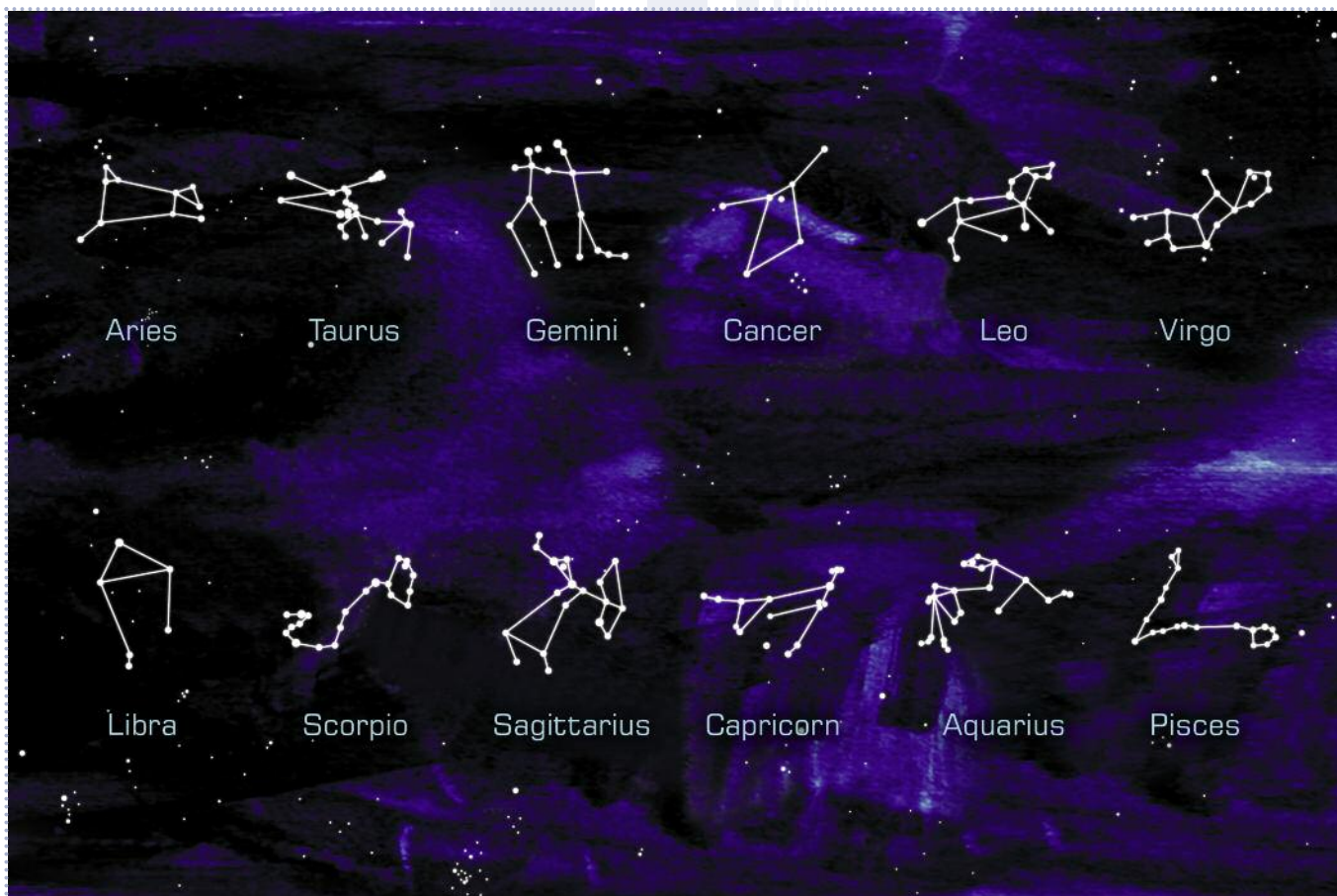
Decorative crystal sets to create patterns, effects or simply add to standard starry skies. Each set is complete with fiber harness, illuminator and crystal fittings.

Kits decorativos con cristales para la creación de efectos o mezclar con los firmamentos de fibra estándar. Cada kit se suministra completo con mazo de fibras, iluminador y juego de cristales.

| CODE   | PRODUCT     | LIGHT GUIDES | CRYSTALS | LENGTH     | ILLUMINATOR |
|--------|-------------|--------------|----------|------------|-------------|
| CES861 | Crystal kit | 20 x 3mm     | 20       | 1,5 / 2m   | XXX         |
| CES862 | Crystal kit | 20 x 3mm     | 20       | 3 / 4m     | XXX         |
| CES863 | Crystal kit | 30 x 3mm     | 30       | 2,5 / 4,5m | XXX         |
| CES864 | Crystal kit | 70 x 3mm     | 70       | 2,5 / 6,5m | XXX         |

On request we can manufacture kits with any number of fibers or crystals.





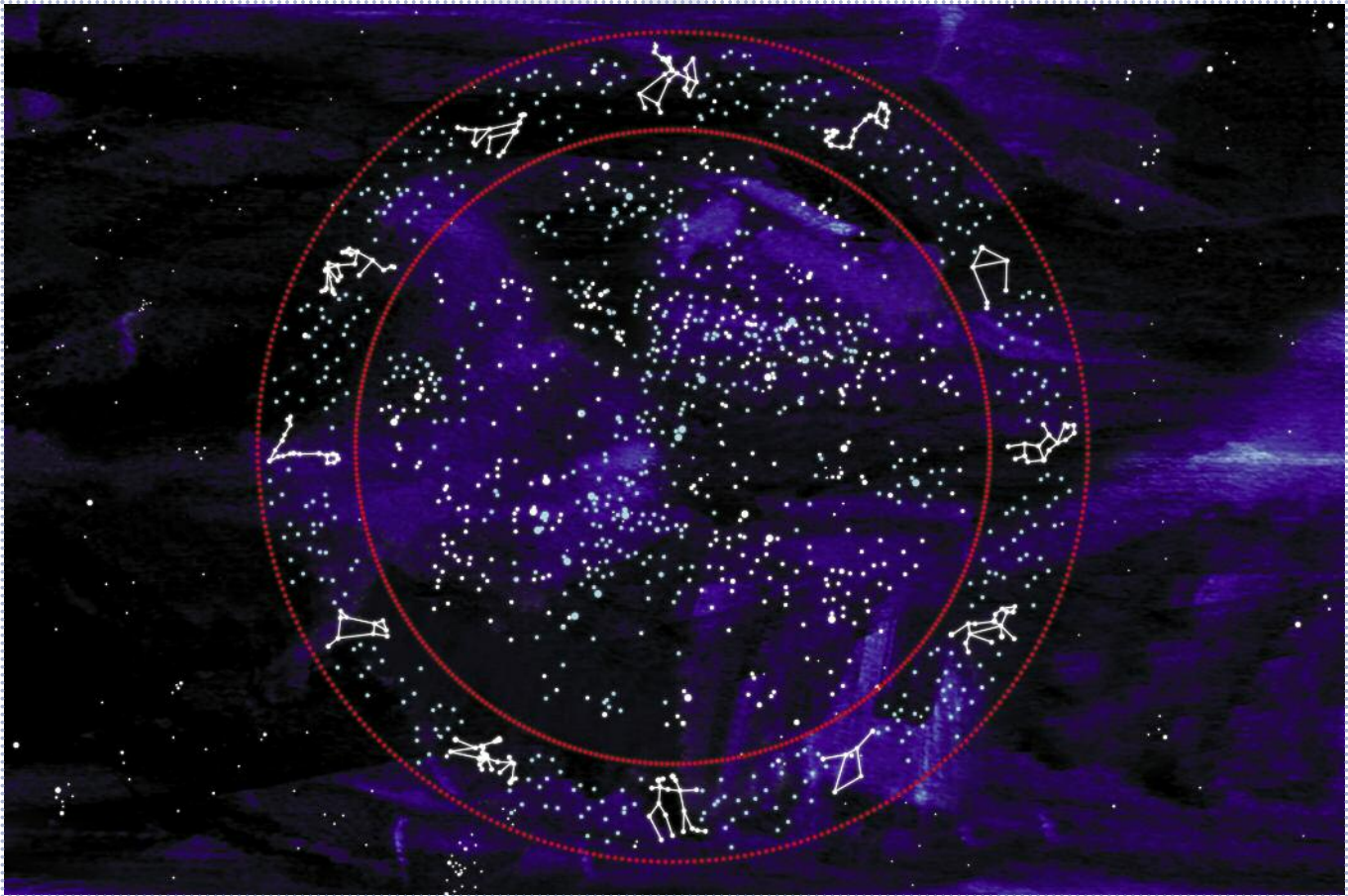
Sets of one or several zodiac signs containing the star configuration of the appropriate constellation, with harness, crystals, illuminator and drilling template. Also available in color or separate colors for each sign. Custom manufactured.

Kits de uno o varios signos del zodiaco con la configuración de la constelación adecuada, con mazo, cristales, iluminador y plantilla de taladrado. También disponible en color o con colores diferentes para cada signo.

| SERIES | PRODUCT           | FIBERS            | LIGHT GUIDE Ø | LENGTH | ILLUMINATOR |
|--------|-------------------|-------------------|---------------|--------|-------------|
| CES950 | Zodiac signs kits | Depending on sign | 3mm           | 2m     | SSI         |

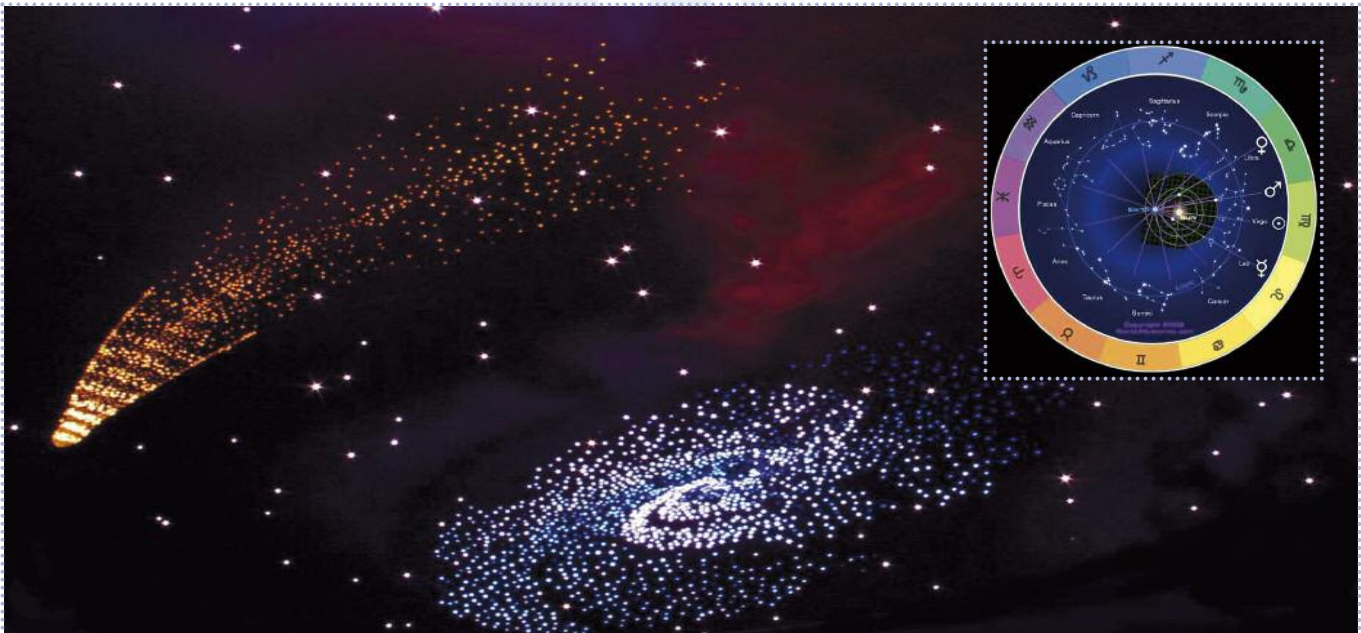
One or several signs can be operated with the same illuminator.





Kit with all the components to transform any ceiling into a zodiac ring. Custom manufactured to any size and complexity, complete with 1:1 templates.

Kit con los componentes para recrear un zodiaco completo en cualquier paramento. Fabricación bajo pedido con cualquier tamaño y complejidad. Se entrega completo con plantillas a tamaño real.





Kits with motives for the young, to incorporate into standard starry sky ceilings. Each set is complete with fiber harness, illuminator and 1:1 drilling template.

Kits con motivos para incorporar en firmamentos para los más jóvenes. Cada kit se entrega completo con mazo de fibras, iluminador y plantilla de taladrado a tamaño real.

| CODE   | PRODUCT            | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|--------------------|--------|---------|--------|-------------|
| CES801 | Moon and stars kit | 795    | 0,50mm  | 2m     | AHI**       |
| CES802 | Endeavor kit       | 391    | 0,50mm  | 2m     | AHI**       |
| CES801 | Rocket kit         | 254    | 0,50mm  | 2m     | AHI**       |
| CES801 | Witch kit          | 1425   | 0,50mm  | 2m     | AHI**       |

Several of these or other effects can be driven from a single illuminator.

On request we can manufacture these patterns or any other from a drawing or photograph.

\*\* Available with low-noise fan.





Kits of fireworks of varying levels of complexity; complete with illuminator, fiber harness, scale 1:1 drilling template and installation instructions.

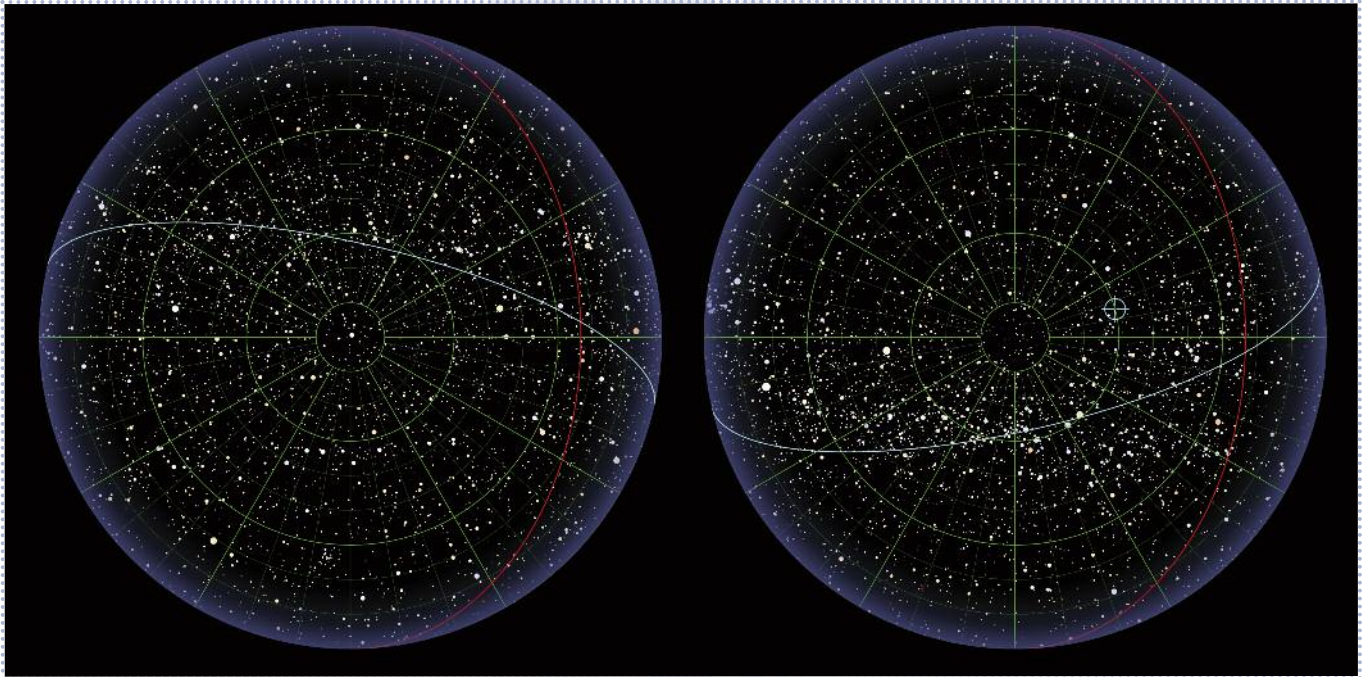
Kits de fuegos artificiales con varios niveles de complejidad; completos con iluminador, mazo de fibras, plantilla 1:1 e instrucciones de instalación.

| CODE   | PRODUCT           | FIBERS | FIBER Ø | LENGTH | ILLUMINATOR |
|--------|-------------------|--------|---------|--------|-------------|
| CES741 | Two-firework kit  | 1120   | 0,50mm  | 3m     | AHI**       |
| CES742 | Four-firework kit | 2240   | 0,50mm  | 4m     | AHI**       |

On request we can manufacture these patterns or any other from a drawing or photograph.

\*\* Available with low-noise fan.





Beside scale reproductions of accurate sections of the sky at night to full hemispheres, we can manufacture any pattern, drawing or scene at any size or level of complexity.

Además de reproducciones a escala de sectores del firmamento nocturno e incluso hemisferios completos, fabricamos cualquier patrón, dibujo o esquema a cualquier tamaño o nivel de complejidad.





SDA products are large-sized polymer shapes delivered complete with all fibers installed and illuminator. Can also be ordered with any CES kit above installed in the dome. Wooden transport crate included.

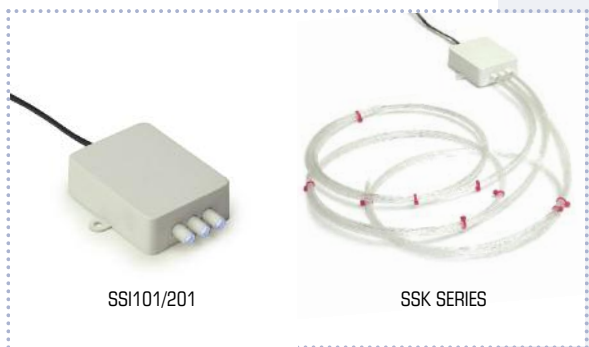
Los productos SDA son formas en polímero de gran tamaño que incluyen fibras instaladas e iluminador. Disponibles con cualquiera de los kits CES. Suministrados en embalaje de madera.

| SERIES | TYPE       | HEIGHT              | SIZE                              |
|--------|------------|---------------------|-----------------------------------|
| SDA100 | Semisphere | From 290mm to 840mm | From Ø Int. 600mm to 1800mm       |
| SDA200 | Square     | From 180mm to 330mm | From 600 x 600mm to 1800 x 1800mm |
| SDA300 | Rectangle  | From 115mm to 180mm | From 400 x 700mm to 700 x 1000mm  |
| SDA400 | Round      | From 130mm to 330mm | From Ø Int. 600mm to 1800mm       |





## Solid State Illuminator & Kits | Iluminador Estado Sólido y Kits

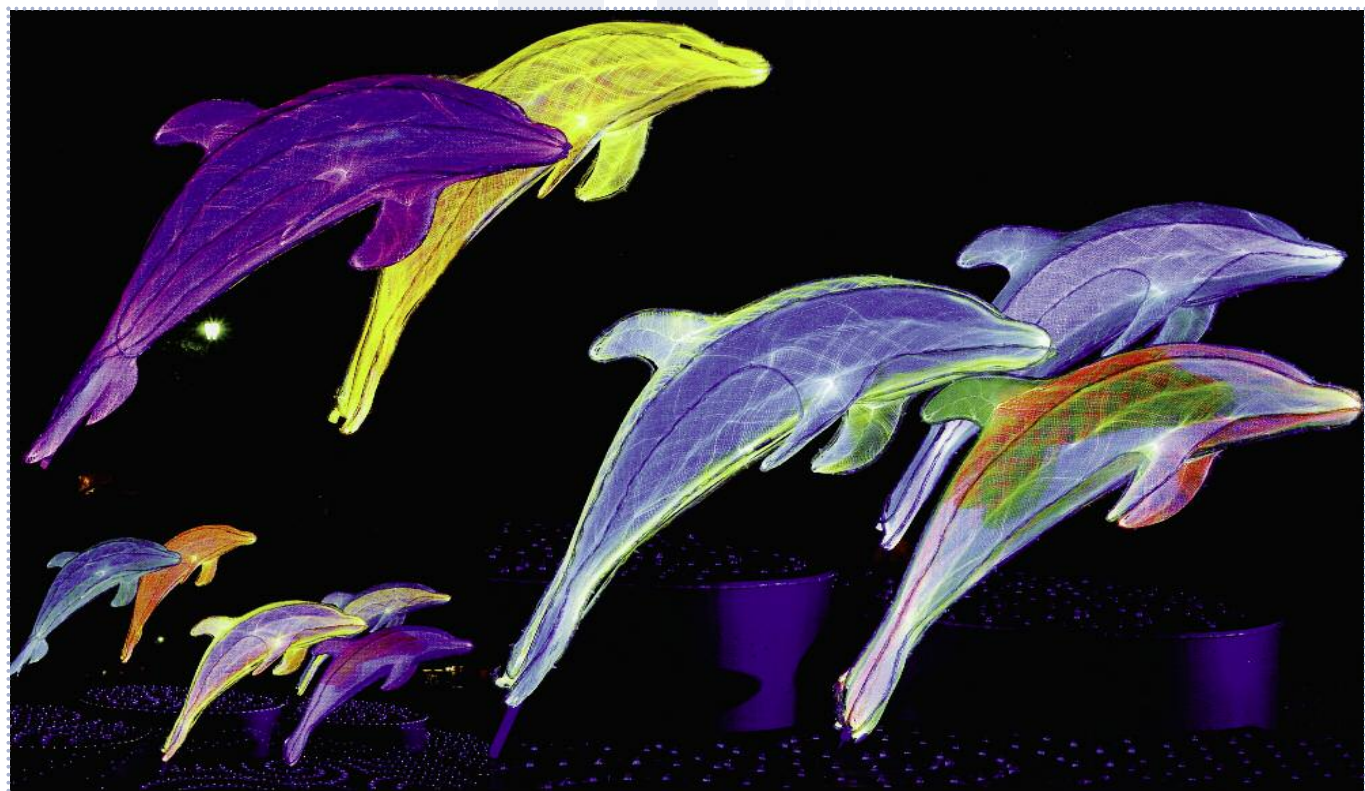
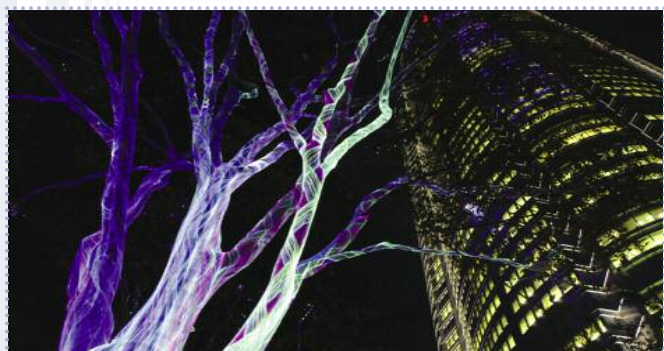
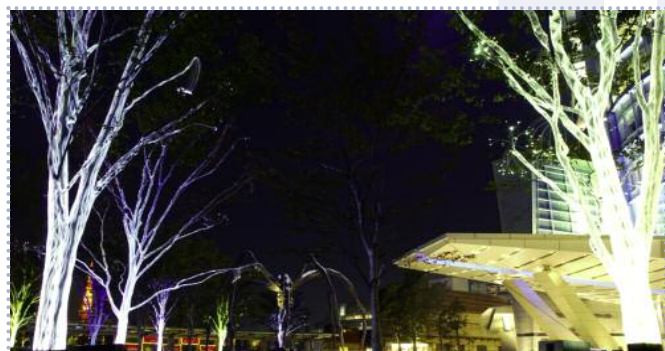


Solid state illuminator (12V) with 3 LEDs for small starry skies or decorative applications. SSK is supplied with pre-cut and assembled harnesses.

Iluminador de estado sólido SSI (12V) con 3 LED para pequeños cielos estrellados o aplicaciones decorativas. El SSK se entrega con mazos de fibra.

| CODE   | PRODUCT                 | TYPE              | DIMENSIONS               |
|--------|-------------------------|-------------------|--------------------------|
| SSI101 | Solid state illuminator | Oscillating light | L 73mm x W 75mm x H 22mm |
| SSI201 | Solid state illuminator | Static light      | L 73mm x W 75mm x H 22mm |

SSK kits manufactured to any length and compositions of fibers on request.



At AFO, we specialize in custom solutions. With our vast experience, we can undertake projects from beginning to end and develop innovative solutions for the most demanding lighting designs.

En AFO nos especializamos en soluciones a medida. Ofrecemos a nuestros clientes una amplia experiencia en proyectos y desarrollamos soluciones innovadoras para los diseños de iluminación más exigentes.

