

宇影——专注于菲涅尔透镜制造



山东宇影光学仪器有限公司

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Yu Ying Fresnel lens

NOTE BOOK



关注宇影微信号
了解菲涅尔透镜

<http://www.keying-ly.com>



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年岁月挥发的是汗水，沉淀的是经验.....

一个始终追求品质的企业，是您理想的合作伙伴

每一个终点
就是一个新的起点
理想在前方
我们为此不断前行

Each end is a new start

Idea is the front

Let's go ahead

宇影——致力于为各个行业提供优质的菲涅耳透镜，以品质赢得市场，以科技演绎精彩。在过去的五十年里我们兢兢业业，展望未来，宇影人更会尽心尽力服务于每一个客户。

YuYing - committed to providing quality Fresnel lens for each industry, win market by quality, to demonstrate excellence by technology. In the past fifty years we have dedicated, look to the future, YuYing people will try our best to serve every customer.

做一个优秀的民族企业 Do a good national enterprises

Company Profile

Shandong Yuying Optical instrument Co., Ltd. is one of the professional Fresnel lens production and supply enterprises. Since its establishment in 1992, the company has been focusing on the R&D and production of Fresnel lenses. The company has a registered capital of 100 million yuan and a workshop construction area of over 40000 square meters. We have a branch company, ten production workshops, and over 600 employees. We produce over 160 million pieces of various Fresnel lenses annually. The company has passed ISO9001 quality management system certification and ISO14001 environmental management system certification.

Since its establishment, the company has been focusing on the research and production of Fresnel lenses. With professional Fresnel lens R&D team, hundreds of high-precision equipment specialized in Fresnel lens production and professional and efficient sales team, we provide Fresnel lenses for different purposes to thousands of customers at home and abroad (Hikvision, Dahua Technology, Philips, Siemens, Midea, etc.).

Fresnel lenses are mainly used in the optical imaging industry (projectors, projectors, 3D printing, HUD, VR, AR, etc.). Fresnel lenses are used for LED lighting distribution (spotlights, projectors, stage lights, traffic lights, etc.), and infrared induction lenses are used for (Industry 4.0 intelligent fields, building security systems, induction lighting, etc.). Large Fresnel lenses are used for photovoltaic concentrating power generation, heat collection, light utilization, etc.

Pragmatic, innovative, rigorous, and enterprising "is the code of conduct for every Yuying person.

Providing high-quality professional services to customers is the unwavering belief of Yuying people. Friends from all walks of life are welcome to visit the company for inspection and guidance, and cooperation is win-win!

公司简介

山东宇影光学仪器有限公司是专业菲涅尔透镜生产供应企业之一，公司自一九九二年成立至今一直专注于菲涅尔透镜的研发与生产。公司注册资金壹亿元，车间建筑面积4万多平方米。拥有一家分公司，十个生产车间，拥有员工六百余人，年生产各类菲涅尔透镜达1.6亿余片。公司通过了 ISO9001 质量管理体系认证和 ISO14001 环境管理体系认证。

公司自成立以来一直专注于菲涅尔透镜的研发与生产。凭借专业菲涅尔透镜的研发团队、上百台专业生产菲涅尔透镜的高精密设备和专业高效的销售团队，为国内外上千家客户（海康威视、大华股份、飞利浦、西门子、美的等）提供不同用途的菲涅尔透镜。



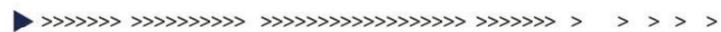
菲涅尔透镜主要用于光学成像行业（投影机、投影仪、3D打印，HUD、VR、AR等），菲涅尔透镜用于LED照明配光（射灯、投光灯、舞台灯、交通信号灯等），红外线感应透镜用于（工业4.0智能领域、楼宇安防系统、感应照明灯等），大型菲涅尔透镜用于（光伏聚光发电、集热、光的利用等）。

“务实、创新、严谨、进取”是每位宇影人的行为准则，为客户提供优质的专业服务是宇影人始终不变的信仰，欢迎各界友人来公司考察指导，合作共赢！

引领科技 追求卓越

BEST Digital communications, the digital era

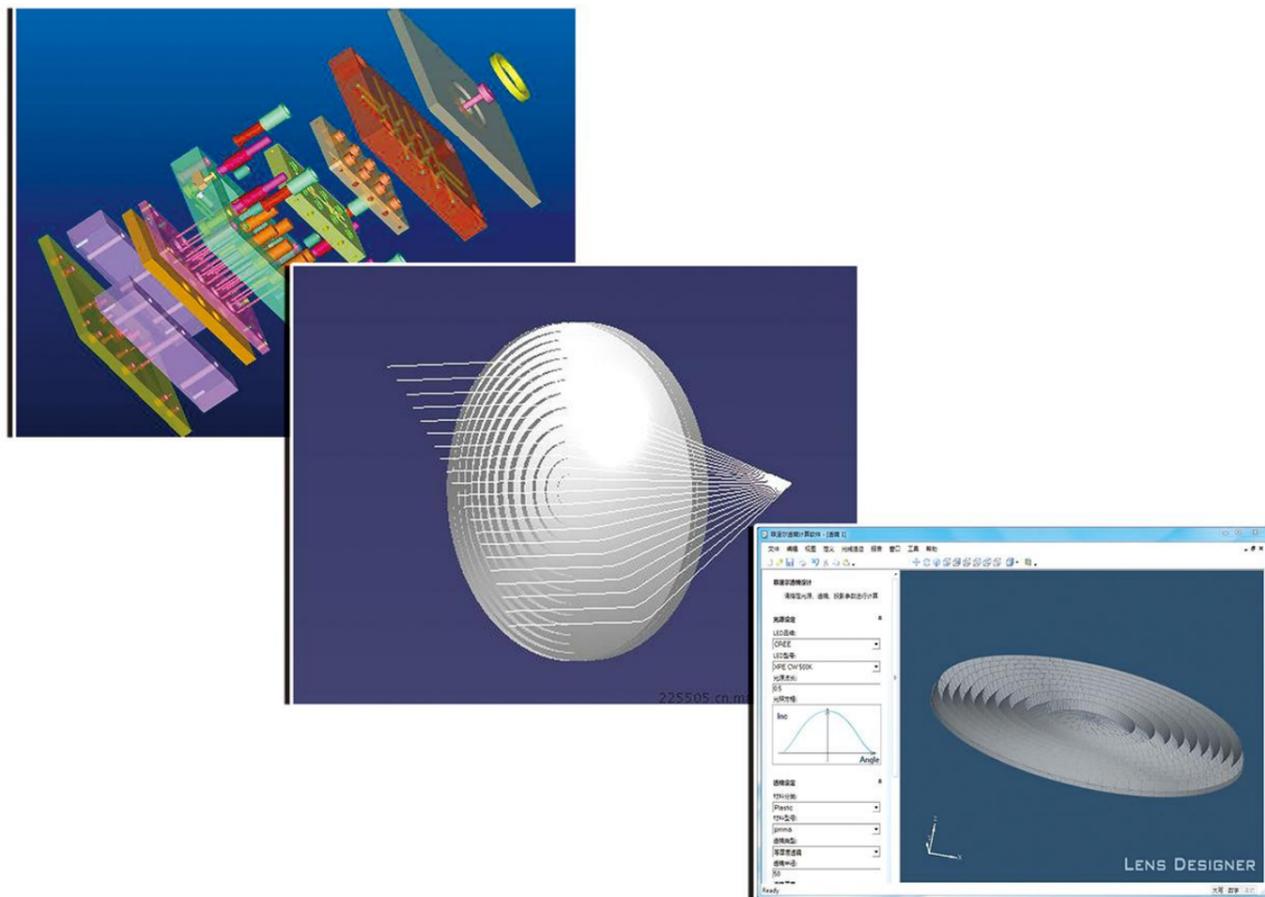
宇影所生产的产品严格执行：ISO9001质量体系及ISO14001环保认证体系。



产品研发 Product development

2015年我们自主研发了专业的菲涅尔透镜设计软件，该软件可通过投影效果和光源类型直接求解透镜尺寸并生成三维模型，替代了以往在光学模拟软件不断调试调整的接近算法，软件的计算以光源模型为依据，通过分析各个角度的光通量计算配光曲线，而后根据投影的亮度分布计算透镜各点的角度，软件可计算等齿距、等厚度两种环距类型，平面、曲面两种工作面，确保了设计精确度。

The company has specialized R & D team to meet the needs of different users for a Fresnel lens, and in 2015, we have independently developed professional Fresnel lens design software, which can be solved directly by the projection lens and the size of the effect and the type of light source generacy erate three-dimensional model, replacing the conventional optical simulation software debugging constantly adjust proximity algorithm ensures design accuracy.



高精度车床 High precision lathe

可生产产品最小环距0.01mm，齿尖小于0.005mm，最大可加工模具尺寸2.2m，拥有完整的注塑模加工设备：慢走丝、加工中心、铣床等，确保模具制作精度及制造周期。

千级标准无尘车间800平米并同时新上先进真空镀膜机10余台，可以镀反射膜，增透膜及加硬膜等来提高透镜的性能。

It can produce the minimum ring distance of 0.01mm, the tooth tip is less than 0.005mm, and the maximum mold size can be processed 2.2m. It has a complete injection mold processing equipment: slow wire, processing center, milling machine, etc., to ensure the mold production accuracy and manufacturing cycle.

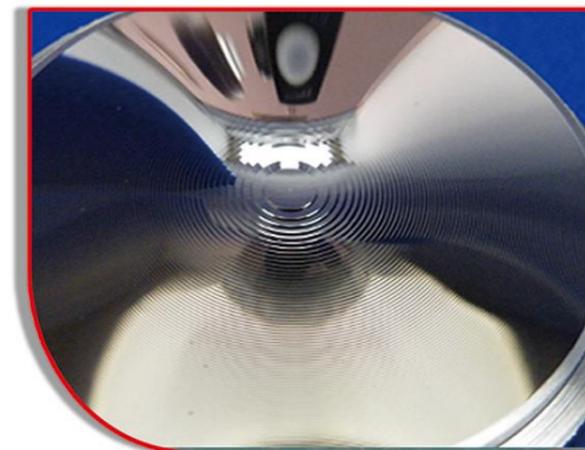
Thousand standard dust-free workshop 800 square meters and new advanced vacuum coater more than 10 sets, can be coated with reflective film, anti-reflective film and add hard film to improve lens performance.



模具鉴赏



模具鉴赏



模具鉴赏

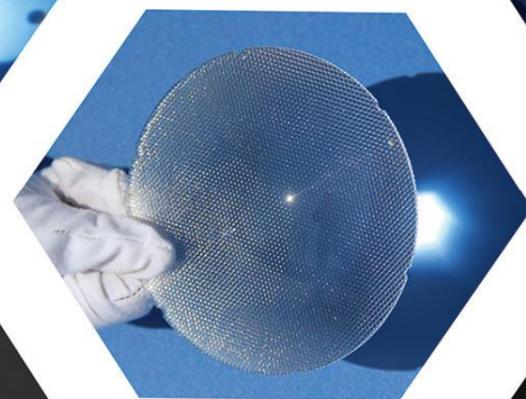
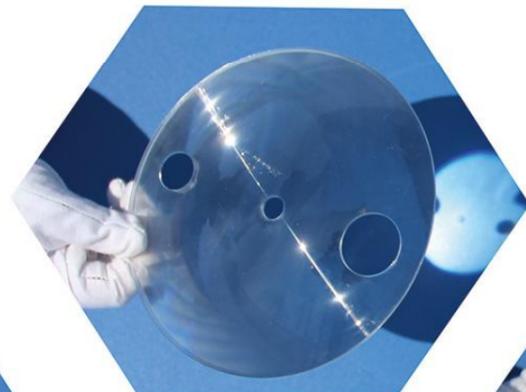
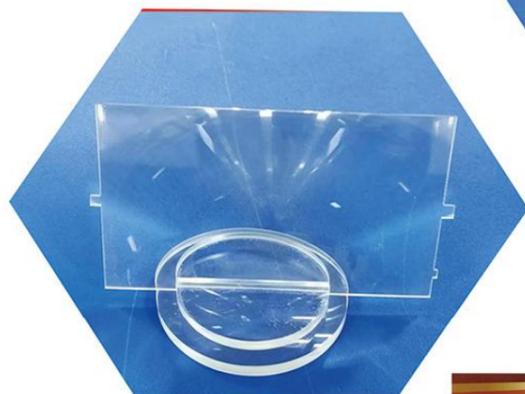


模具鉴赏

压型设备100余台

日产模压镜片7万余片，保证客户产品稳定供应。
并拥有千级净化车间，满足客户对产品的需求。
Molding equipment more than 100:

More than 70,000 pieces of molded border tablets are manufactured in Japan to ensure the stable supply of products to our customers. And has a thousand purification workshop, to meet customer demand for products.



注塑设备百余台

拥有进口高精度电动注塑机、大吨位立式、卧式注塑机等，最大注塑压力368T，可保证大批量量产注塑菲涅尔透镜。

With imported high-precision electric injection molding machine, large-tonnage vertical, horizontal injection molding machine, the maximum injection pressure 368T, can ensure the mass production of injection Fresnel lens.



山东宇影光学仪器有限公司二零二三年元月十二日全体员工合影留念



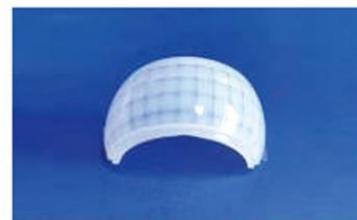
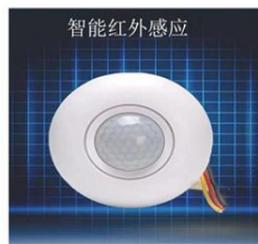
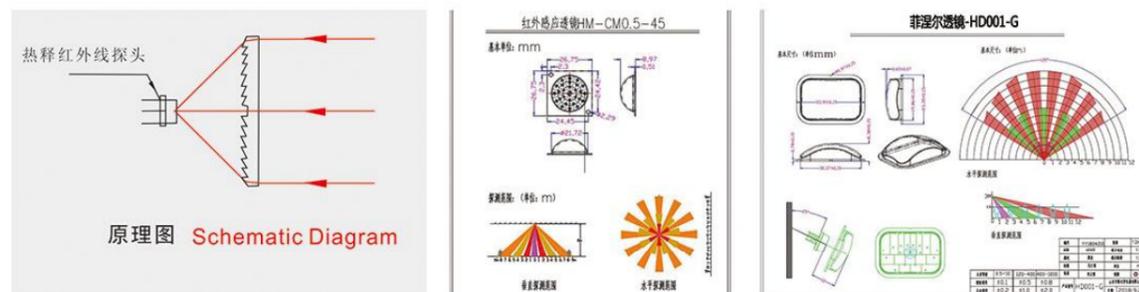
红外感应透镜 PIR LENS

产品简介

红外线感应菲涅尔透镜广泛应用于智能家居，安防设施、红外报警器、人体感应开关、红外测温仪和红外成像等方面。宇影可根据客户要求加工原始模具透镜，为用户提供不同感应角度，感应距离，尺寸，测试比的系列菲涅尔透镜。

Product Profile

Infrared induction Fresnel lenses are widely used in intelligent homes, security facilities, infrared alarms, human sensor switches, infrared thermometers and infrared imaging. Yuying can process the original mold lens according to the customer's requirements, providing users with different sensing angles, sensing distances, dimensions, and test ratios of the series of Fresnel lenses.



设计：自主研发的红外感应设计软件，确保满足客户的设计需求

模具制作：十几年的红外感应透镜模具制作经验，确保产品与设计的一致性。

规模化生产：每年近亿支以上的产量，确保产品质量与供货周期。

Design: self-developed infrared sensor design software, designed to ensure that meet customer needs

Tooling: ten years of infrared sensor lens mold making experience to ensure the consistency of product and design.

Large-scale production: nearly 100 million output per year, to ensure product quality and supply cycle.

典型应用 Typical applications



智能家居



智能照明



智能机器人



测温枪

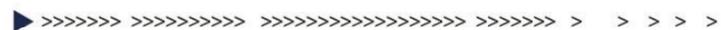


安防设施



户外照相机

更多产品信息请看附件一



LED灯【前面罩】 LED light [front mask]

产品简介

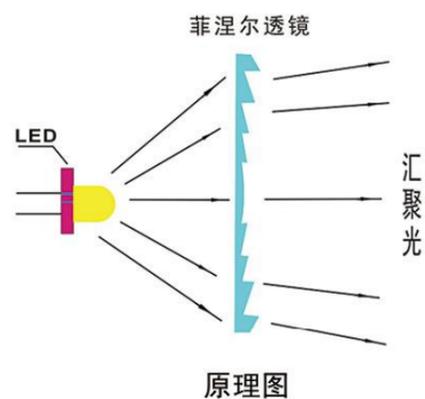
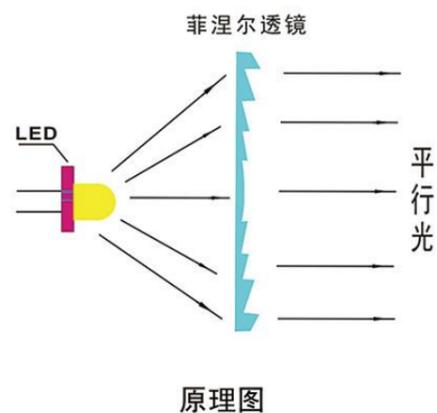
菲涅尔透镜用于LED光源，起到增加光效，提高亮度的效果，相对于同一透镜与LED灯，焦距不同，距离不同，可任意设定出射光角度，单颗灯或多颗阵列 LED 灯均可根据需求设计。可根据客户需求进行透镜的设计尺寸大小，出光角度可调，减少开模费用。精密机床加工，实现光的准确传递。

LED灯【前面罩】菲涅尔透镜特点

- 菲涅尔透镜相当于变薄了的凸透镜
- 重量轻
- 可以设计大尺寸
- 出光角度可调，减少开模费用
- 很大程度消球差
- 精密机床加工，实现光的精准传递，照的远
- 成本便宜，性价比高

Fresnel lens used in LED light [front mask].

- Fresnel lens is equivalent to a thinning of the convex lens.
- Light weight.
- You can design a large size.
- Light angle adjustable, to reduce the cost of mold.



LED灯【前面罩】用菲涅尔透镜几点问题

1. 可以定制一定出光角度的菲涅尔透镜吗，菲涅尔透镜与全反透镜的优势有哪些？缺点有哪些？

可以，菲涅尔透镜与市面的全反射透镜不一样，它可以用调节光源与透镜的距离的办法来实现不同的出光角度。

优势

- (1) 一种镜片可以实现多个角度。而全反射透镜与光源位置是不能移动的，角度是固定的。
- (2) 光源的选择性比较自由。全反透镜光源是一定的，更换光源时可能要重新设计透镜。
- (3) 菲镜对光线偏折较精准可以照射很远，全反透镜因设计及成型工艺限制照射较散，不能照很远
- (4) 菲镜可以做大口径来适应各种配光需求（尤其是大功率LED），而全反透镜开模费用不菲且难做到大口径。
- (5) 性价比高，同样效果对比，菲镜要比全反透镜便宜的多。

缺点

菲镜的光利用率对比全反透镜略低

2. 阵列非集成LED光源配光可以用一片菲涅尔透镜吗？

不可以，要单颗LED对应单个菲涅尔透镜来保证出光角度，如直接用一片菲镜（只有一个中心），因多数光源偏离菲镜中心太多，造成会光斑大且有大面积鱼鳞纹。

3. 大功率集成COB光源用单个菲涅尔透镜可以出平行光吗？

不可以，根据光源直径的大小，出光角度也随之而变，光源越大，出光角度也大，反之亦小，如距离允许选择焦距长的透镜也可使出光角度变小。

4. 用菲镜后光斑周围黄晕，可以消除吗？

可以消除，可以通过复眼或磨砂等微阵列透镜来达到匀光，但有一定光损且光斑直径会略有增大，另黄晕一般是透镜的焦距F大于光源到透镜的距离D，可以选择F略大于D的透镜来改善黄晕。

5. 用菲镜怎样避免侧视时刺眼？

可以对透镜进行防眩或磨砂等漫反设计来使出射光线柔和。

Can I customize certain light angle Fresnel lens? Fresnel lens and all-trans lens comparing disadvantages and advantages.

Yes, can you adjust the distance between the Fresnel lens and the light source to achieve different light angles.

Advantages

1. A lens can implement multiple angles. The total reflection lens and the light source position is not moved, the angle is fixed.
2. selective light source relatively free. All-trans lens light is constant, the replacement light source may be redesigned lens.
3. Fresnel lens may be relatively precise deflection of light, so that irradiated very far. All-trans lens design and molding process by limiting the irradiation is more scattered, can not be taken very far.
4. Fresnel lens can produce a large diameter to accommodate the needs of a variety of light (especially COB LED), but all-trans lens mold high cost, difficult to achieve a large diameter.
5. cost-effective, the same effect contrast, the Fresnel lens than all-trans lenses cheaper.

Shortcoming

- 1, the light utilization efficiency of the Fresnel lens contrast to all-trans lens is slightly lower.

Multiple LED light source can be a Fresnel lens it?

No, one LED corresponds to a Fresnel lens to ensure that the angle of light, such as direct use of a Fresnel lens (only one center), because most of the light deviated from the center of the Fresnel lens, the spot is large and will cause a large area fish scale pattern.

COB light source with a single Fresnel lens can be a parallel light it?

No, according to the size of the diameter of the light source, the light angle also will be changed, light straight large, light angle is large, and vice versa small, such as the distance allows you to select another focal length lens also allows a smaller angle of light

Fresnel lens flare surrounding yellow halo, can eliminate it?

Yes, you can fly's eye lens by microarray principle to eliminate or frosted lenses, but there is a certain loss of light and the spot diameter increases, the other yellow halo lens focal length F is generally greater than the distance from the light source to the lens D result, you can choose F D slightly larger than the lens to improve the yellow halo.

Use the Fresnel lens side how to avoid glare?

Anti-glare lenses can be diffusely or scrubs designed to exert shoot soft light.

微阵列透镜灯罩

Microarray lens shade

产品简介

微阵列菲涅尔透镜是用于汇聚光的透镜，使光线呈现的更均匀，校准LED输出的光线。微阵列透镜用于LED光源，起到使光线更加柔和达到均光的效果，

可根据客户的不同需求定制不同焦距，不同微阵列，不同尺寸的菲涅尔透镜。

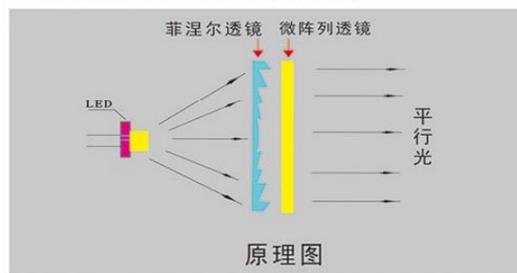
特点：微阵列菲涅尔透镜超薄的结构、超大的尺寸、超轻的重量、任意形状的切割，优良的透光率、较低的价格、轻便易携带等优点

Product Profile

The microarray Feinieertoujing is a lens used to condense light, making the light appear more evenly and calibrating the light output of the LED. The microarray lens is used for LED light sources to make the light softer and uniform.

Different focal lengths, different microarrays, and Fresnel lenses of different sizes can be customized according to the different needs of customers.

Features: Ultra-thin structure of microarray Fresnel lens, oversized size, ultra-light weight, arbitrary shape cutting, excellent light permeability, low price and easy to carry.



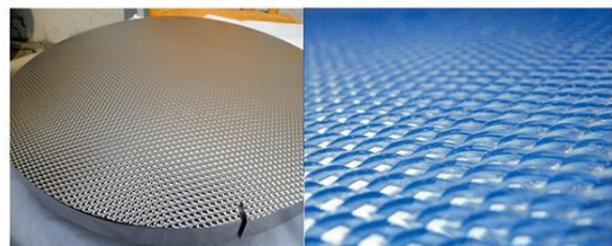
原理图



磨砂菲涅尔透镜

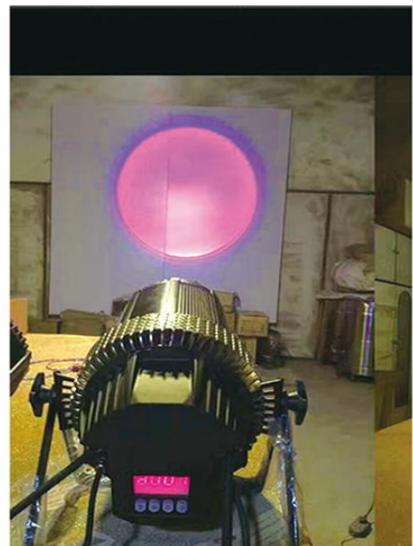
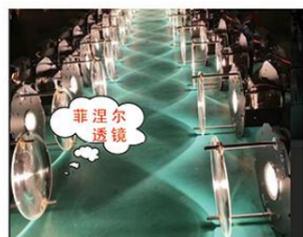


复眼菲涅尔透镜



模具鉴赏

平板微阵列 1100*600mm



效果图

线性菲涅尔透镜

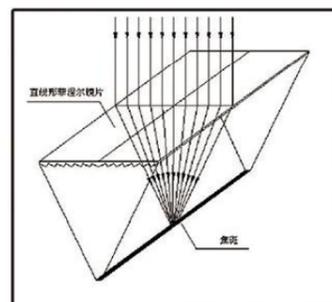
Linear Fresnel lens

产品简介

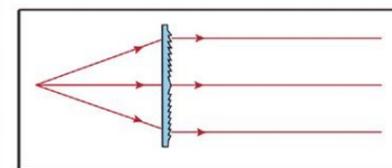
伴随着LED的普及，线性菲涅尔透镜应用越来越广泛，宇影根据市场的不同需求自主研发生产出不同尺寸、不同焦距的线性菲涅尔透镜、柱面镜、偏光镜等，同时也可以根据客户的特殊要求进行定制加工。主要用于LED配光、投光灯、照明灯、景观灯等各种灯具，线性集热、取景器、条码扫描等。

Product Profile

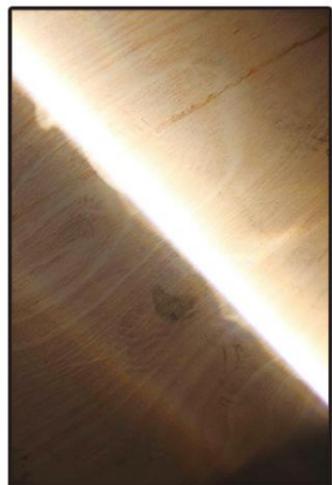
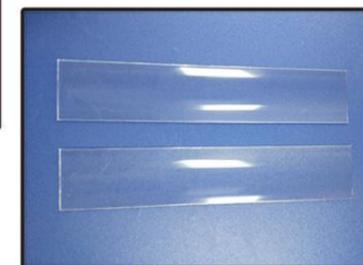
With the popularity of LEDs, the application of linear Fresnel lenses is becoming more and more widespread. The shadow has independently developed and produced linear Fresnel lenses, cylindrical mirrors, polarizers, etc. of different sizes and different focal lengths according to the different needs of the market. Customer's special requirements for custom processing. It is mainly used for LED light distribution, cast lights, lighting lights, landscape lights and other lamps, linear heating, viewfinder, bar code scanning and so on.



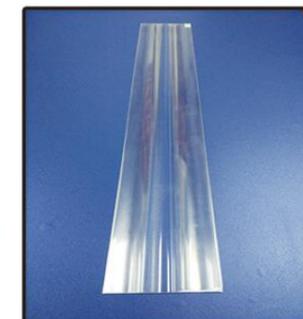
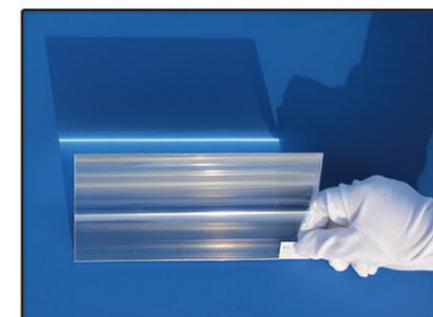
太阳能集热用途



LED照明用途



效果图



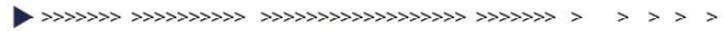
更多产品信息请看附件二

偏光、柱面菲涅尔透镜

Polarized, cylindrical Fresnel lens

HUD透镜

HUD lens



偏光、柱面菲涅尔透镜

HUD透镜

Polarized, cylindrical Fresnel lens

HUD lens

产品简介

产品简介

偏光菲涅尔透镜可以改变光线方向，应用于偏光取景成像、照明、全息、隐身魔术等用途。

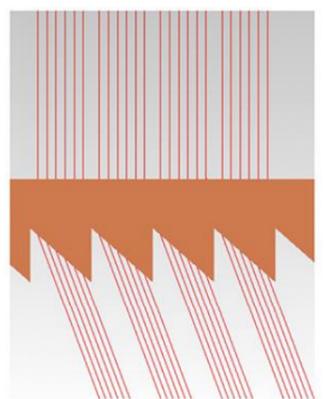
HUD透镜作用是把时速、导航等行车信息，投影到驾驶员前面的挡风玻璃上，让驾驶员尽可能不把视线离开前方。

Product Profile

Product Profile

Polarized Fresnel lenses can change the direction of light and are used for polarized imaging, lighting, holography, stealth magic, and other purposes.

The HUD lens is used to project driving information such as speed and navigation onto the windshield in front of the driver, ensuring that the driver does not look away from the front as much as possible.



原理图

“隐藏”效果图

偏光效果图

产品简介



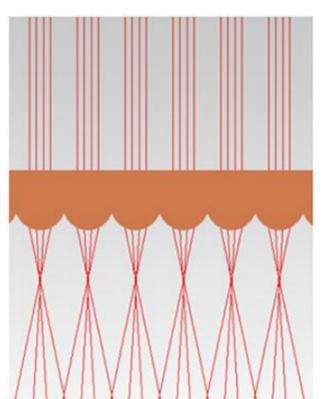
线性菲涅尔透镜

圆形菲涅尔透镜

柱面菲涅尔透镜主要用于匀光照明，LED显示等领域，可以根据客户需求进行开模设计制作。

Product Profile

Cylindrical Fresnel lenses are mainly used in fields such as uniform lighting and LED displays, and can be designed and manufactured according to customer needs.



原理图

产品展示

效果图



效果图



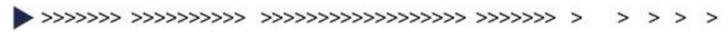
效果图

3D打印透镜

3D printing lens

交通信号灯

HUD traffic lights



3D打印透镜

菲涅尔透镜用于交通信号灯

3D printing lens

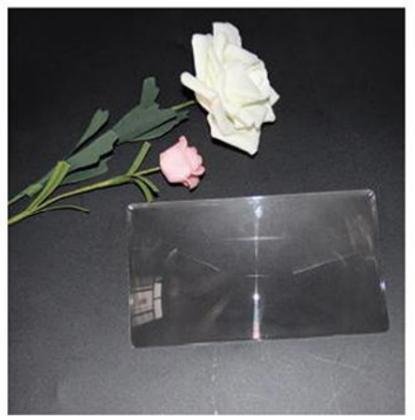
Fresnel lens used in traffic lights

产品简介
菲涅尔透镜在3D打印机中可以改变光学角度，使模型表面更加美观，宇影可根据客户需求加工定制模具，应用于动漫手办、珠宝设计、教育学习、医疗齿科等领域。

Product Profile
Fresnel lens can change the optical angle in the 3D printer to make the surface of the model more beautiful. Yuying can process customized molds according to customer needs, which are used in animation manual, Jewellery design, education and learning, medical dentistry and other fields.

产品简介
由一颗LED或几颗LED配合菲涅尔透镜与微阵列透镜组成交通信号灯光源目前是比较流行的交通信号灯制造方法。宇影斥资400多万购进沙迪克，发那科等先进模具加工及注塑设备，继续研发菲涅尔透镜在LED照明领域的用途。

Product Profile
A traffic signal light source consisting of an LED or several LEDs with Feinieertoujing and a microarray lens is currently a popular traffic signal manufacturing method. Yu Ying spent more than 4 million to purchase advanced mold processing and injection molding equipment such as Shadik and Farnako, and continued Yanfafeinieertoujing's use in LED lighting.



透镜展示



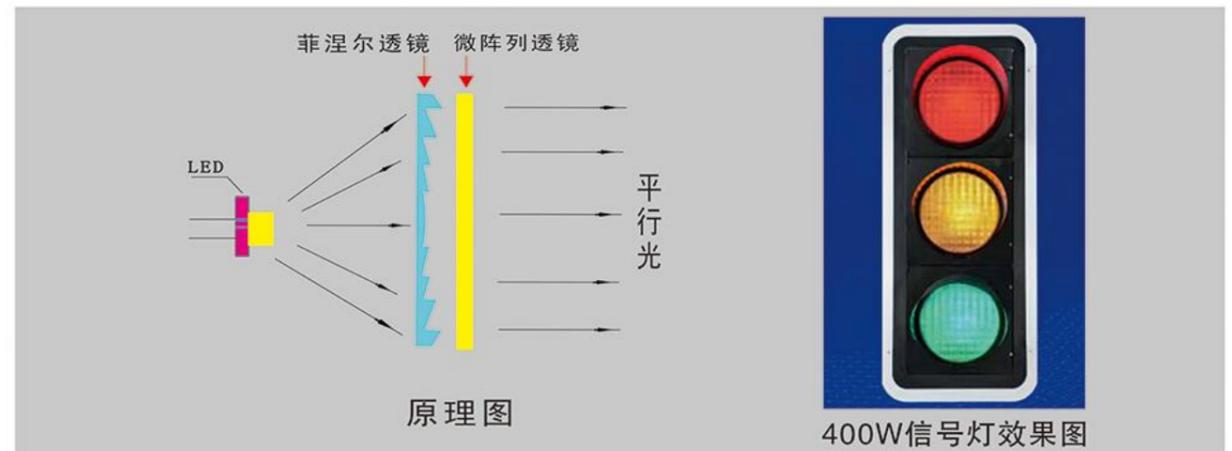
模型图



模型图

- 特点:**
- 节省灯具成本
 - 提高灯具稳定性
 - 准向性好，穿雾霾能力强
 - 符合最新国际标准

- Characteristics:**
- Saving cost of lamps and lanterns
 - Improving the Stability of Lamps
 - Good quasi-directional, strong ability to wear haze
 - In line with the latest international standards



让技术更有价值



前面罩



微阵列菲涅尔透镜



菲涅尔透镜

透镜直接决定品质，请谨慎选择，欢迎来厂考察！

Lens directly decide the quality, please choose c
Welcome to visit factory!

菲涅尔透镜其他应用领域

Fresnel lens other applications

一个始终追求品质的企业，是您理想的合作伙伴



菲涅尔透镜按类型划分

透射式

特殊用途：环距0.03mm的透射式菲涅尔透镜用于光学防伪，也可用于红外测温仪

反射式

反射式菲涅尔透镜用于反射式投影仪，广角镜等领域

线性

LED配光 线性集热 取景器 条码扫描仪 偏光透镜

大齿距

凭借多年的模具车工经验，以及高精密单点金刚石车床。我们已成功为众多科研单位和企业工大口径球面光学模具。
特点：可加工尺寸大，加工周期短。

Fresnel lens by Type

Transmissive

Special Features: 0.03mm from the ring transmission type Fresnel lens for optical security, it can also be used infrared thermometer

Reflective

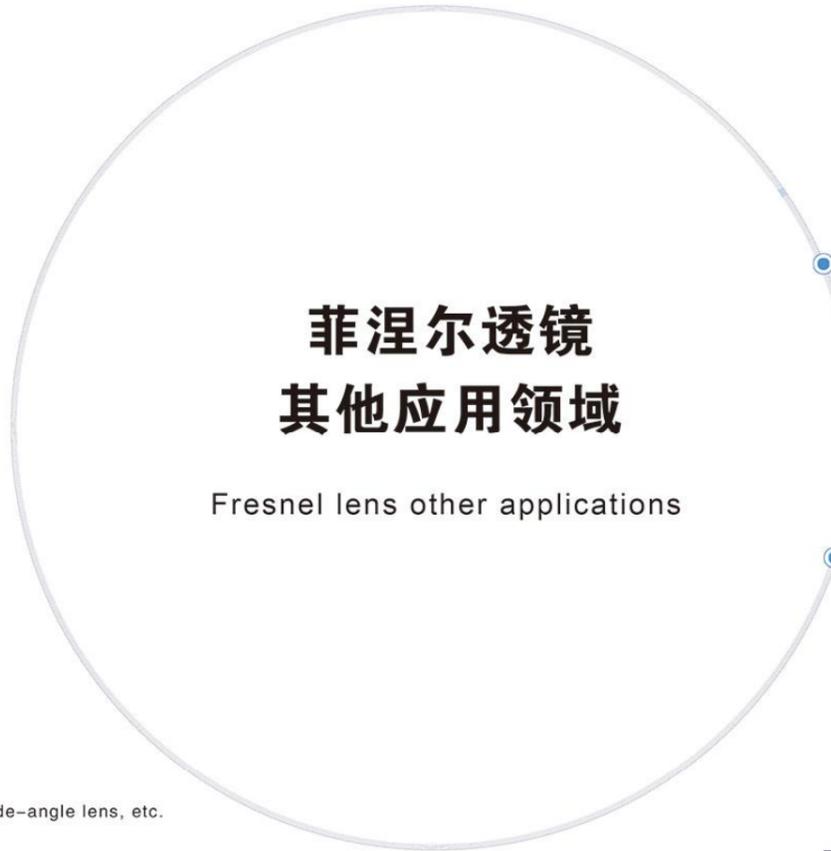
Reflective Fresnel lens used in the field of reflective projectors, wide-angle lens, etc.

Linear

LED light Linear collector Viewfinder
Barcode Scanner Polarized lens

Big pitch

With years of tooling experience and high precision single point diamond lathe. We have been successful in many scientific research units and enterprises for large-caliber spherical optical molds.
Features: large machining size, short processing period.



无人机 UAV

投影机 Projector

3D打印 3D printing

VR虚拟现实 VR virtual reality

巨型菲涅尔透镜

Giant Fresnel lens



山东宇影光学仪器有限公司
Shandong Yuying Optical Instrument Co., LTD

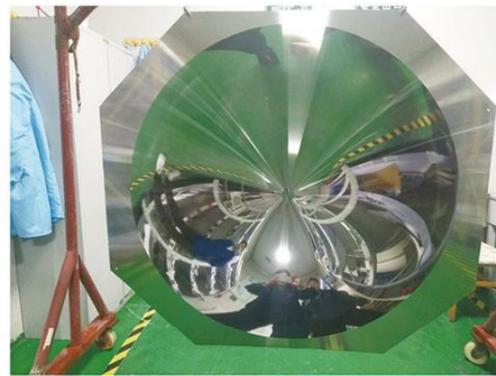
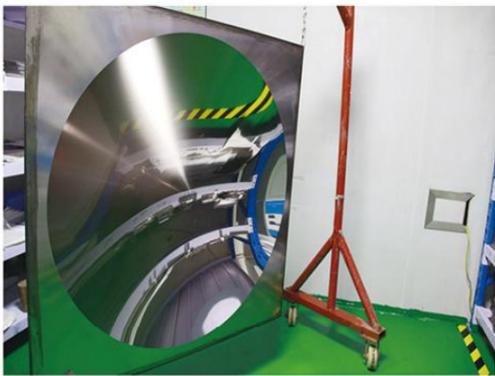
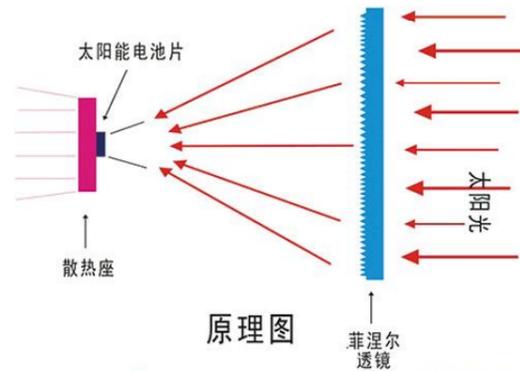
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Memo No. _____
Date _____

巨型菲涅尔透镜

聚光集热用巨型菲涅尔透镜，可用于太阳能发电站、室外太阳罩厨具等。目前我司拥有多台单点金刚石车床，设计开发并可生产直径2200mm以内的巨型菲涅尔透镜。

The giant Fresnel lens for collecting light and heat, can be used for solar power station, outdoor solar cover kitchen utensils, etc. At present, our company has many single point diamond lathes, which can be designed and developed and can produce giant Fresnel lens within the diameter of 2200mm.



Mo Tu We Th Fr Sa Su

Memo No. _____
Date _____

Handwriting practice lines consisting of multiple horizontal lines for writing.

书法鉴赏

appreciation of calligraphy



