

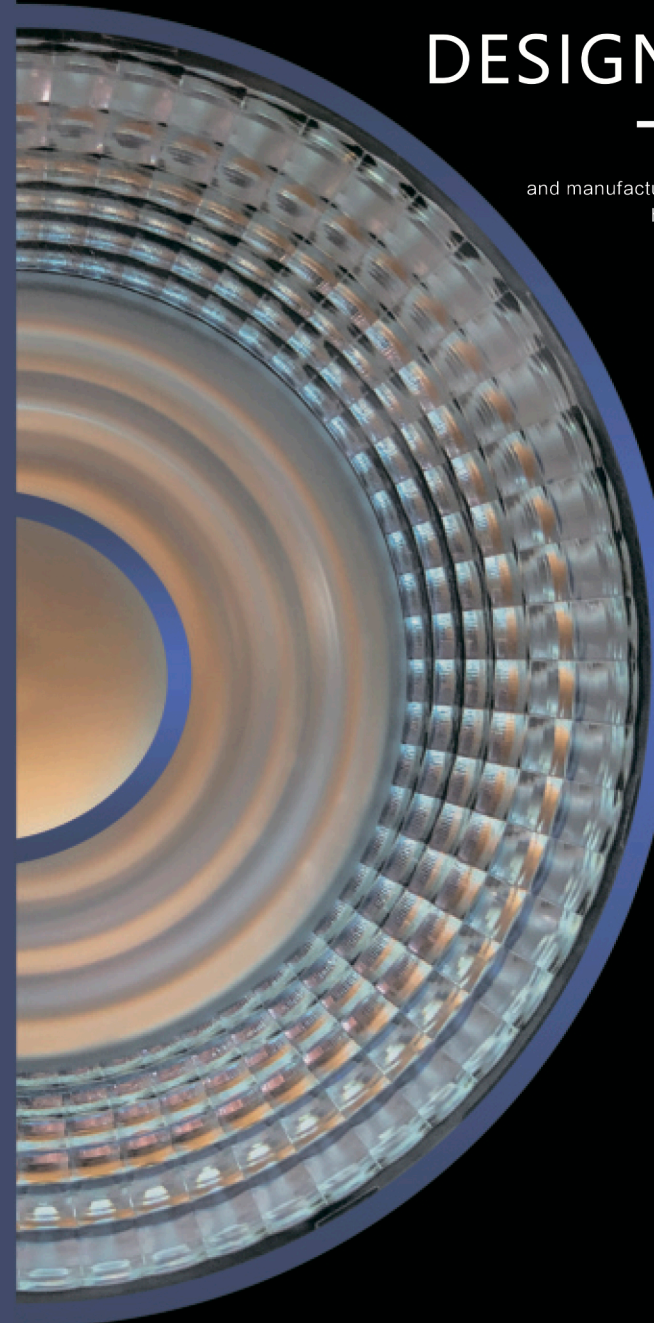


+7 (499) 647-80-74  
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# OPTICAL ENERGY DESIGN & DEVICES

HercuLux Optics focuses on the design and manufacture of optics for LED lighting, LED Automotive headlamp, UV LED precision light distribution, laser ultra-short-throw projector matching screen who is a modern high-tech enterprise that provides professional secondary light distribution solutions

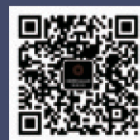
Spring 2022 Edition



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Website



WeChat



**HERCULUX**  
LED Optics



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Scan the QR code to view the Demo Kit operating instructions

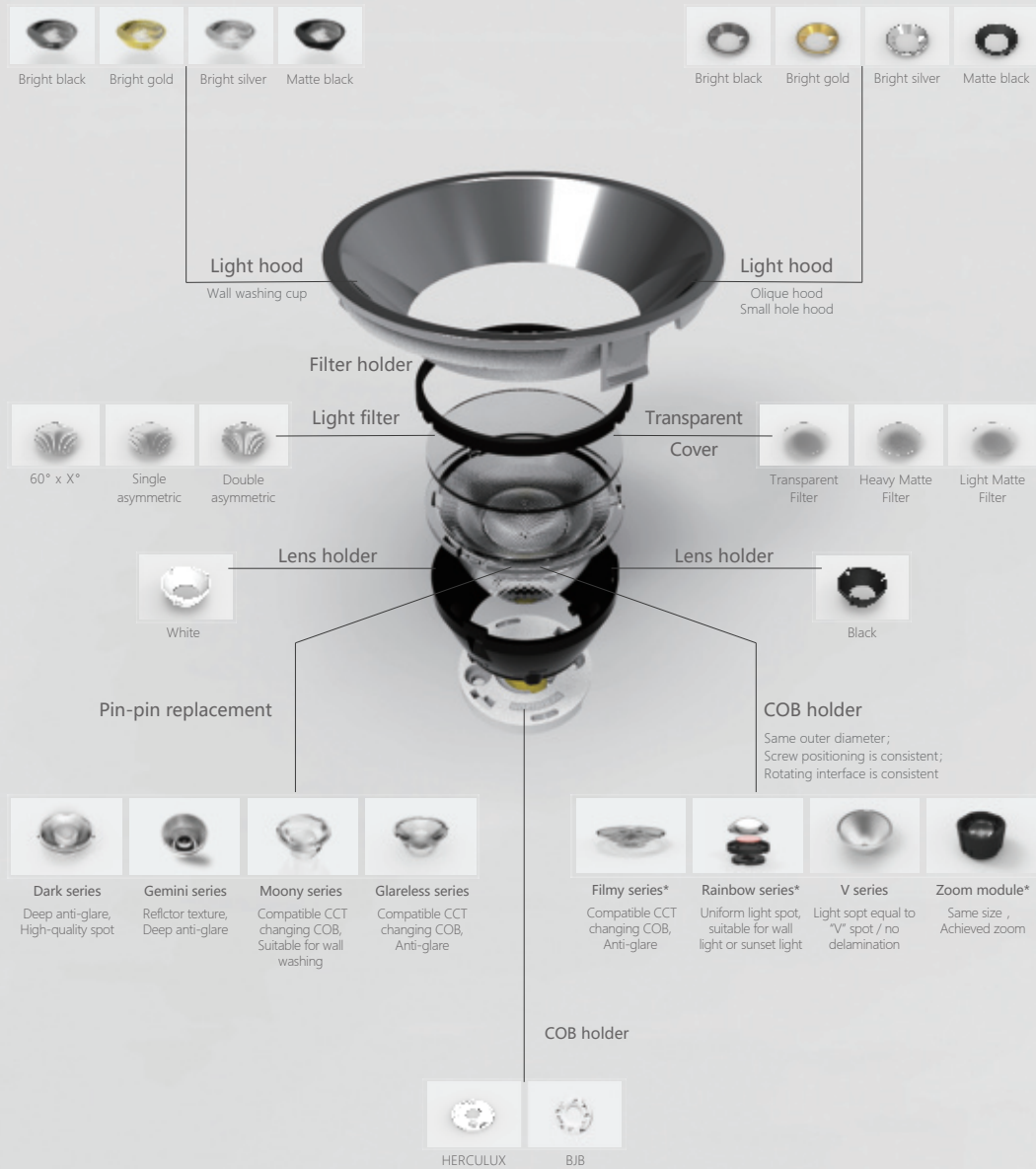
### OUTDOOR

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# Products Code Rule



# KIRIN OPTICAL PLATFORM



\*\*\* means: It is not recommended to match the light hood, please contact HercuLux sales for details, thank you!  
Email: sales@hkoptics.com  
Web: <http://www.herculux.cn/>

## D24 COB HOLDER



Kirin Optical Platform		Matchable optics	
		Series	Optical diameter
<b>Holder parameters</b>		Dark series	D25/D30/D35
		Gemini series	D25/D30/D35
Outer diameter	24mm	Glareless series	D25/D30/D35
Height	3.4mm	Moony series	D25/D30/D35
Screw hole distance	19mm	Filmy series	D30
Type	6mm	V series	D35

D35 COB HOLDER

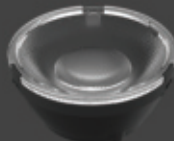
D50 COB HOLDER



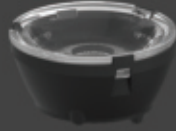
DARK



GEMINI



MOONY



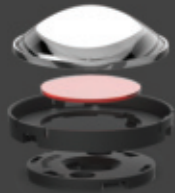
GLARELESS



FILMY



V



RAINBOW



ZOOM

Kirin Optical Platform D35 COB HOLDER		Matchable optics	
		Series	Optical diameter
		Dark series	D25/D30/D35/D45/D50/D55/D62/D68
		Glareless series	D25/D30/D35/D45/D50/D55/D62/D68
		Gemini series	D25/D30/D35/D45/D50/D55/D62/D68
<b>Holder parameters</b>		Moony series	D25/D30/D35/D45/D50/D55/D62/D68
Outer diameter	35mm	Filmy series	D30/D35/D45/D50/D55/D62/D68
Height	3.5mm	V series	D30/D35/D45/D50/D55/D62/D68
Screw hole distance	25mm	Rainbow series	D35/D45/D50/D55/D62/D68
Type	18mm	Zoom module	D35/D45/D50



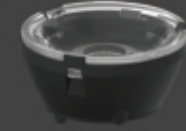
DARK



GEMINI



MOONY



GLARELESS



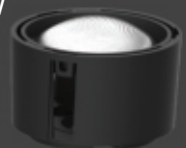
FILMY



V



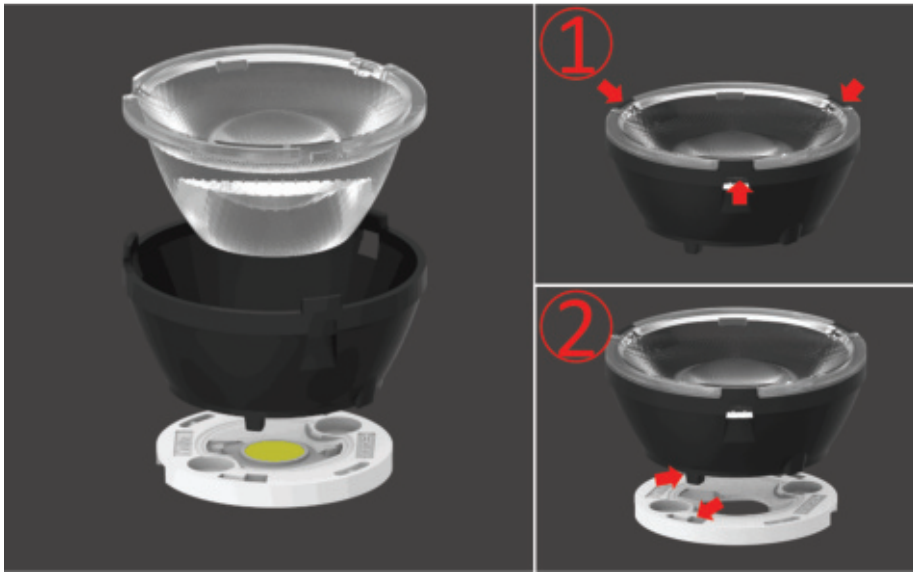
RAINBOW



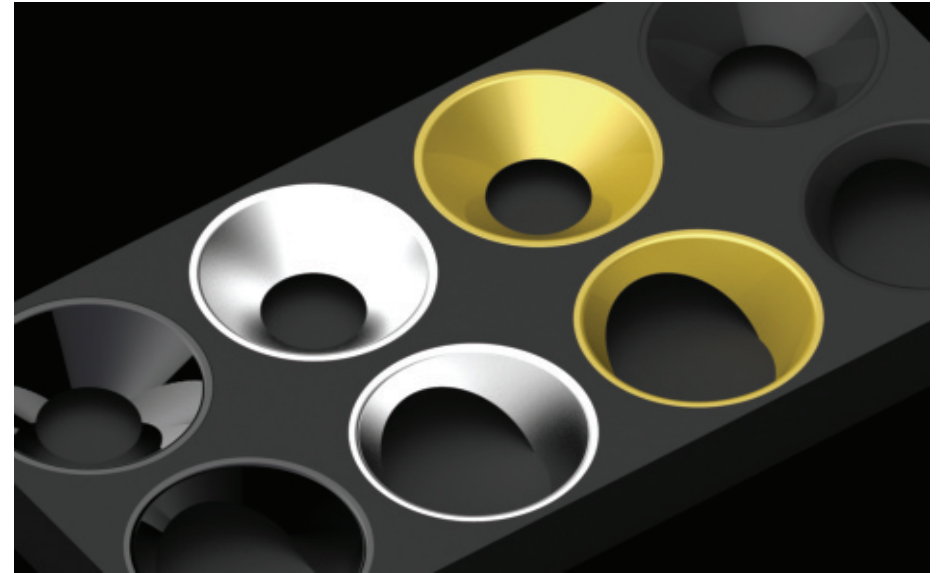
ZOOM

Kirin Optical Platform D50 COB HOLDER		Matchable optics	
		Series	Optical diameter
		Dark series	D75/D83
		Glareless series	D75/D83
		Gemini series	D75/D83
<b>Holder parameters</b>		Moony series	D75/D83
Outer diameter	50mm	Filmy series	D75/D83
Height	5.2mm	V series	D75/D83
Screw hole distance	35mm	Rainbow series	D75/D83
Type	13mm	Zoom Module	D75/D83

# Lens Holder



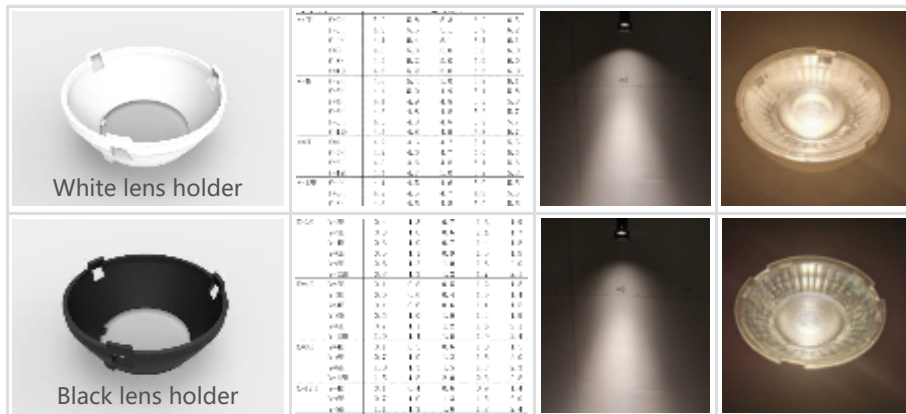
# Light Hood



## Comparison of UGR parameters

### Black Lens Holder VS White Lens Holder

Sort	FWHM	CD	K Value	Lm	Bared Light source	Efficiency
With black lens holder	21.9°	5541cd	6.37	869.2	969.8	0.896
With white lens holder	22.6°	5238cd	5.81	897.1		0.925



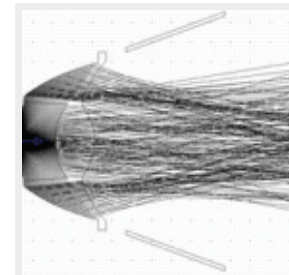
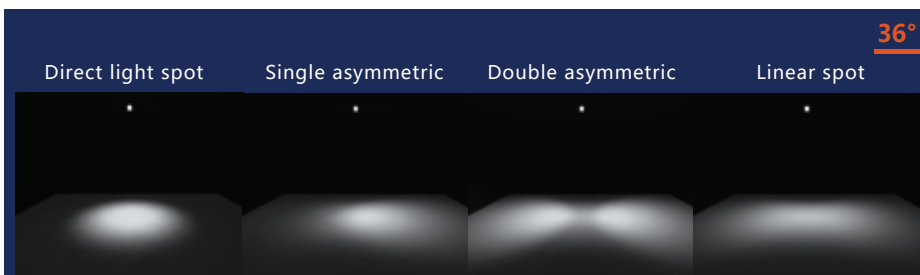
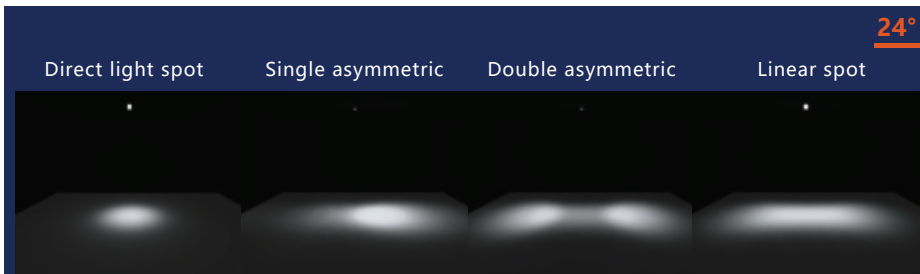
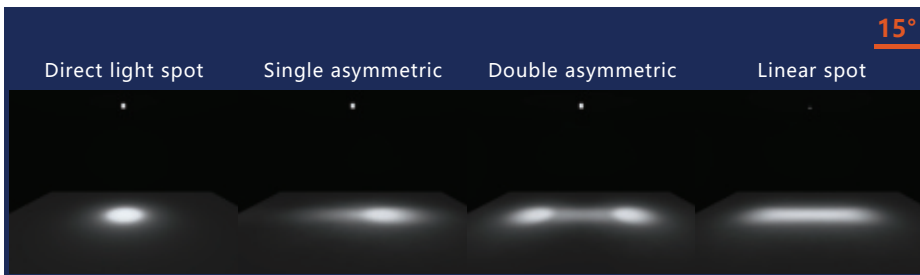
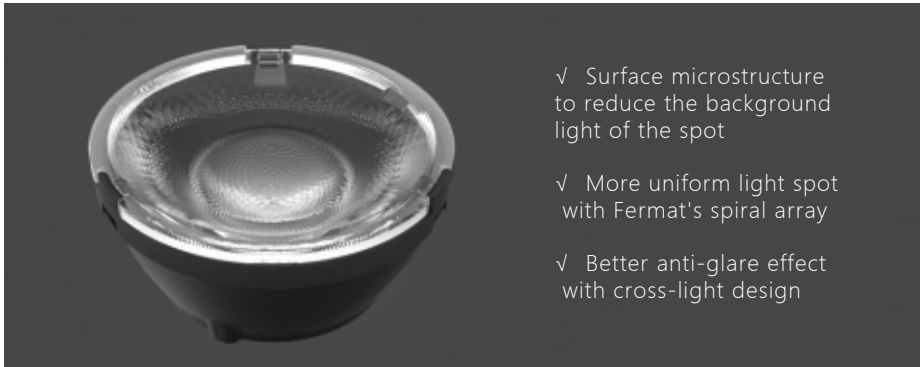
## Small Hole Hood

The cross-light design principle makes the light output hole of the lamp smaller than the optical diameter. With the small hole hood, it can be hidden deeper, the glare can be better controlled, and the optical efficiency has little effect, and the light spot effect

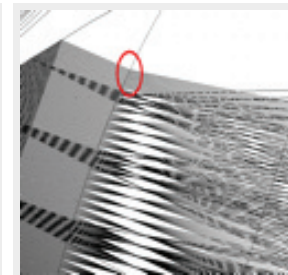
Types& Color	Size	Distance between light-hood& lens	Small hole Diameter	Adaptable lens	Adaptable filter
Oblique: Matt Black/ Bright Black/ Bright Gold/ Bright Silver	D: 33.5mm H: 10.68mm	h: 5.2mm		Dark25/Gemini25/Monny25	Single asymmetric/ Double asymmetric/ Linear spot/ Matte filter
	D: 50mm H: 9.65mm	h: 12mm		Dark30/Gemini30/Monny30	
	D: 50mm H: 17.89mm	h: 5.2mm		Dark35/Gemini35/Monny35	
	D: 68mm H: 23.45mm	h: 5mm		Dark35/Gemini35/Monny35	
Small hole: Matt Black/ Bright Black/ Bright Gold/ Bright Silver	D: 68mm H: 20.77mm	h: 9mm	d: 23mm	Dark35/Gemini35/Monny35	
	D: 68mm H: 17.77mm	h: 12.4mm	d: 29mm	Dark45/Gemini45/Monny45	
	D: 68mm H: 25mm	h: 5.17mm		Dark45/Gemini45/Monny45	
Oblique: Matt Black/ Bright Black/ Bright Gold/ Bright Silver	D: 70mm H: 28mm	h: 5.2mm		Dark50/Gemini50/Monny50	
	D: 100mm H: 36.3mm	h: 7mm		Dark55/Gemini55/Monny55	
Oblique: Matt Black/ Bright Black/ Bright Gold/ Bright Silver	D: 100mm H: 37mm	h: 8mm		Dark62/Gemini62/Monny62	
	D: 145mm H: 50.9mm	h: 8mm		Dark68/Gemini68/Monny68	
	D: 145mm H: 52.07mm	h: 10mm		Dark75/Gemini75/Monny75	
	D: 145mm H: 52.07mm	h: 10mm		Dark75/Gemini75/Monny75	

# DARK

A lens for the high-quality spot of the hotel's deep anti-glare wall washing spotlight



In the design process of the Dark series, the light on the reflective surface and the light on the refracting surface are cross-distributed to achieve the effect of deep anti-glare.

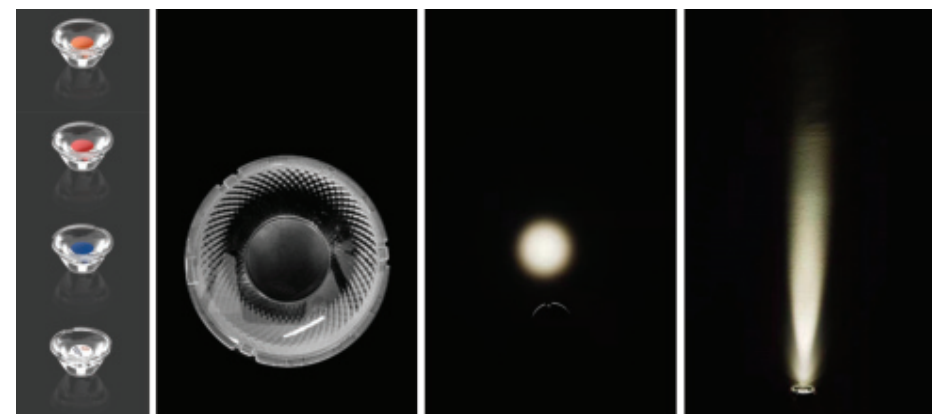


Based on the cross-light distribution design, coupled with the two-dimensional uniform light microstructure, the light spot can be softer, while the controllable light contributes relatively little to the background light, which makes the background light of the entire light spot relatively weak.

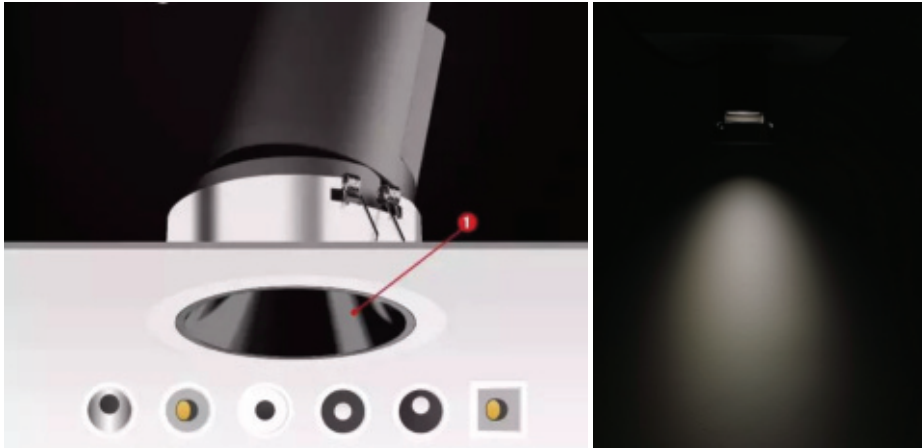


In order to achieve the best effect of the whole lamp, we will develop matching hoods on some lenses to make the optics of the lamp reach the best condition.

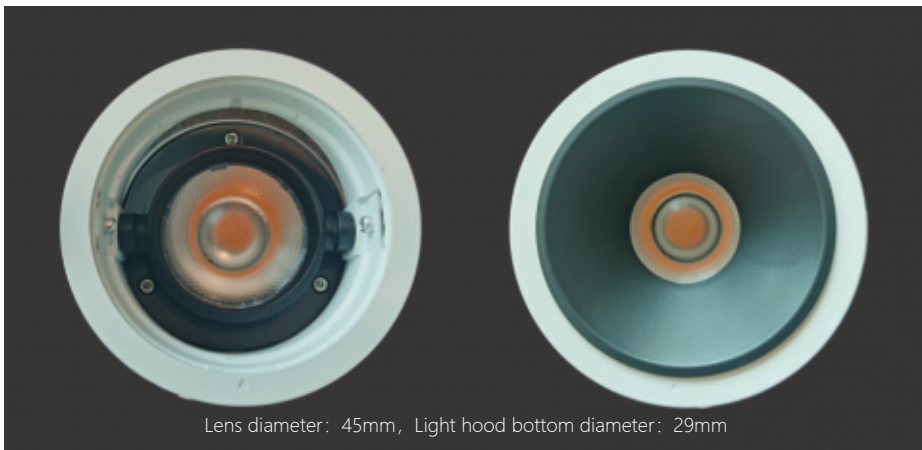
The unique optical design of the narrow beam angle makes the spot more concentrated while less glare.  
And the customization of corporate colors and LOGO is also supported.



## Hotel wall washer spotlight, deep anti-glare structure

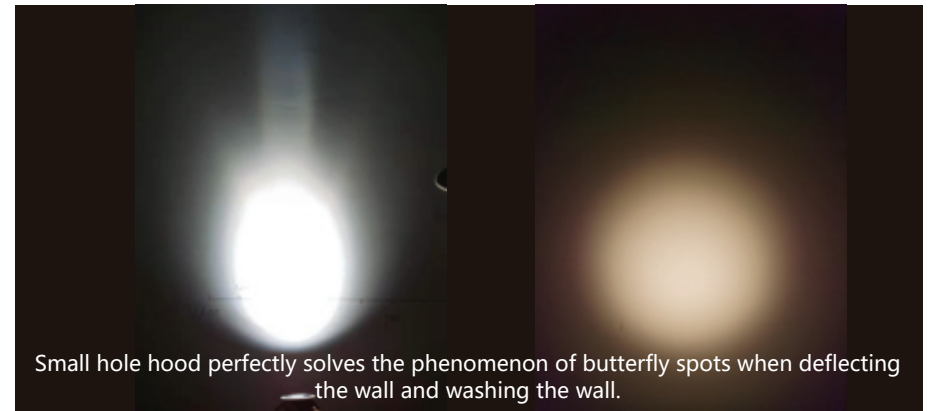


## Better anti-glare effect with a small hole hood

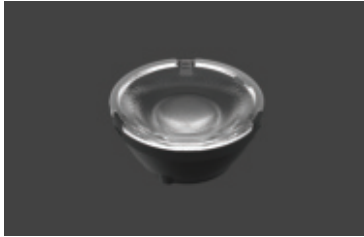


## Assembly size of small hole hood

Lens Dia (mm)	Hood Height (mm)	Hood Small hole Dia (mm)	Distance from hole to Lens (mm)
25	13	17	6
30	16	19	8
35	16	23	9
45	21	29	12
50	24	35	14
55	25	38	19
62	30	46	20
68	32	48	22
75	35	52	25
83	40	65	29

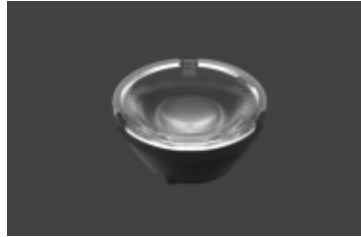






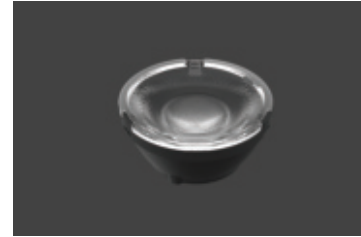
**20@11**

φ: 19mm H: 11mm  
Material: PMMA  
FWHM: 15°/24°/36°/50°  
Efficiency: 91%



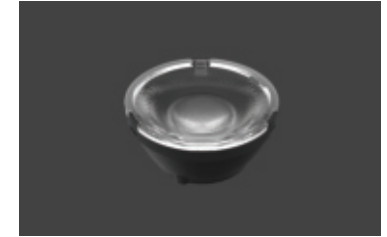
**20@12**

φ: 20mm H: 12mm  
Material: PMMA  
FWHM: 15°/24°/36°/50°  
Efficiency: 91%



**25@13**

φ: 25mm H: 13mm  
Material: PMMA  
FWHM: 15°/24°/36°/50°  
Efficiency: 91%



**30@16**

φ: 30mm H: 16mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%



**35@16**

φ: 35mm H: 16mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%



**45@21**

φ: 45mm H: 21mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%



**50@24**

φ: 50mm H: 24mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%



**55@25**

φ: 55mm H: 25mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%

# DARK



**62@30**

φ: 62mm H: 30mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 93%



**68@32**

φ: 68mm H: 32mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 91%



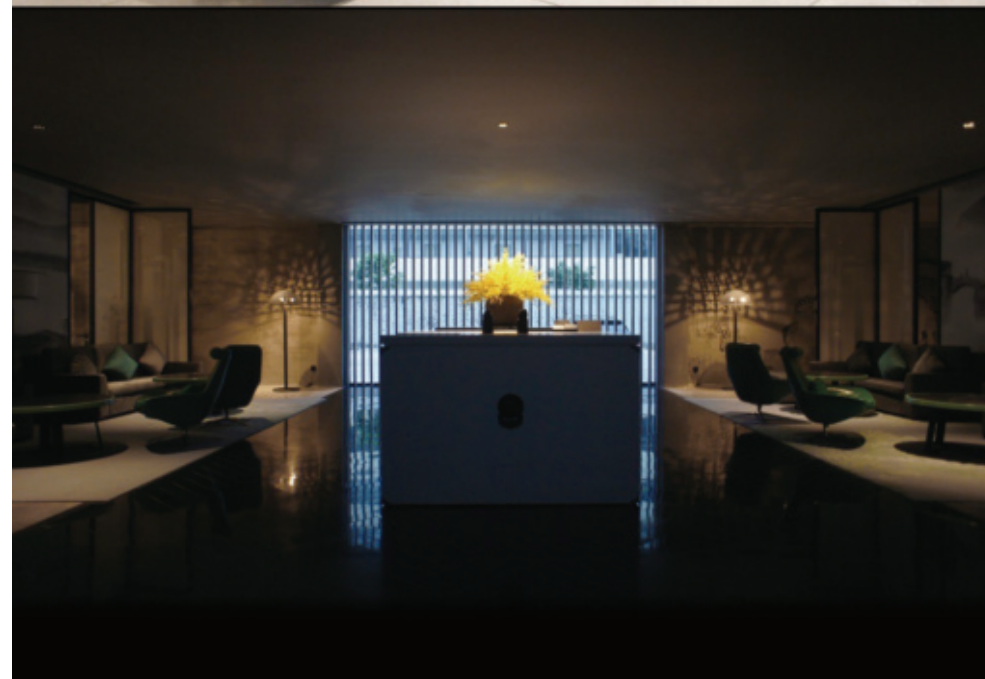
**75@35**

φ: 75mm H: 35mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°/70°  
Efficiency: 91%



**83@40**

φ: 83mm H: 40mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/50°/70°  
Efficiency: 91%

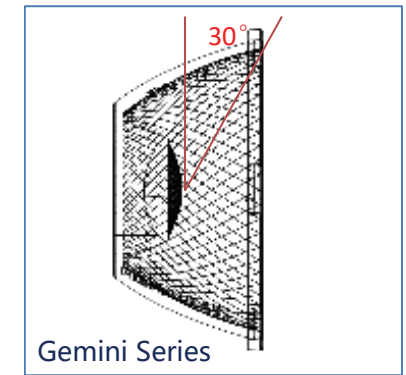
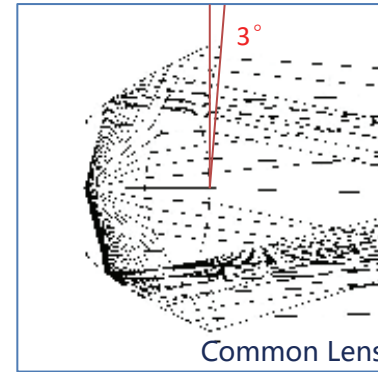


# GEMINI

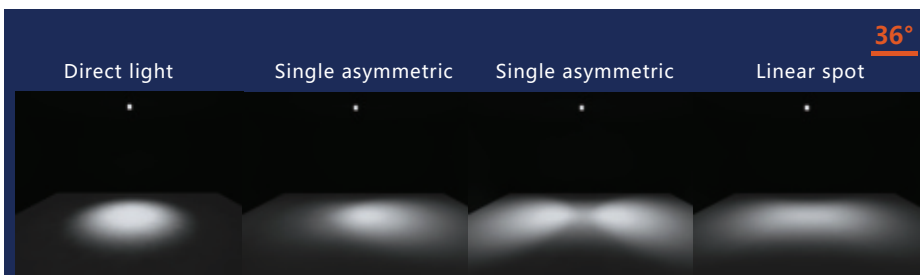
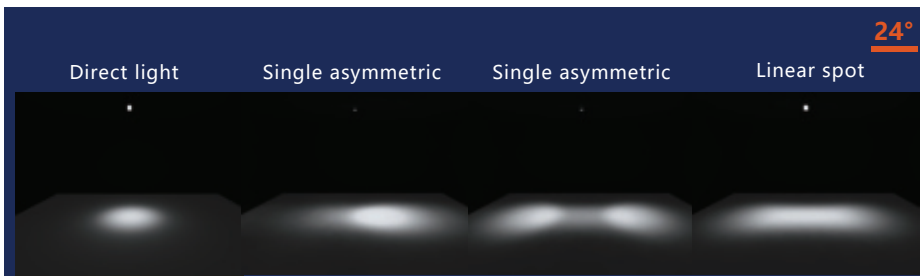
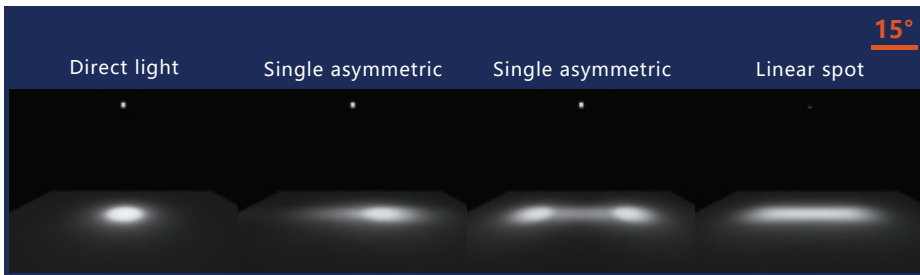
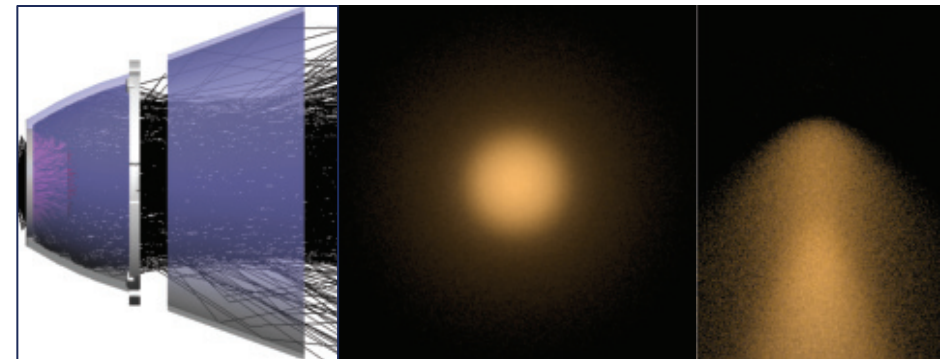
A reflector combined with a lens and a reflector



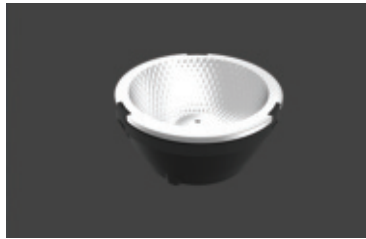
Comes with 30° anti-glare angle



Through the cross light distribution and the control of the proportion of the intermediate light, the wall washing light spot is also relatively clean.

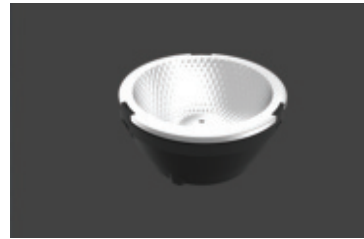


# GEMINI



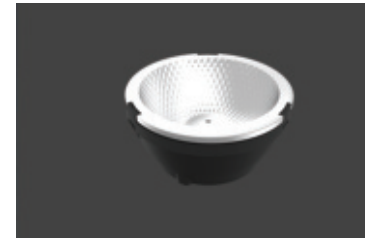
## 25@13

φ: 25mm H: 13mm  
Material: PC+ Aluminum coating  
FWHM: 18°/24°/36°/50°  
Efficiency: 80%



## 30@16

φ: 30mm H: 16mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



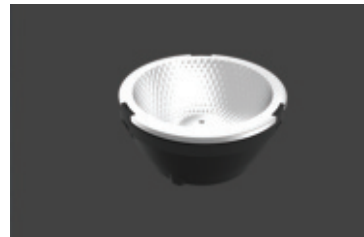
## 35@16

φ: 35mm H: 16mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



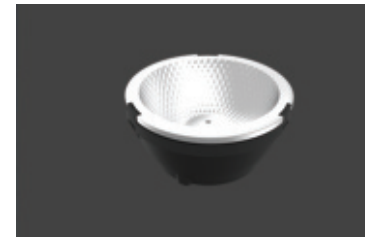
## 45@21

φ: 45mm H: 21mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



## 50@24

φ: 50mm H: 24mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



## 55@25

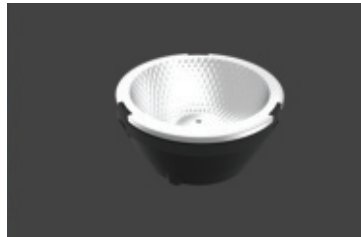
φ: 55mm H: 25mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%

# GEMINI



## 62@30

φ: 62mm H: 30mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



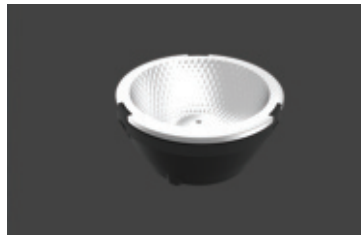
## 68@32

φ: 68mm H: 32mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



## 75@35

φ: 75mm H: 35mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



## 83@40

φ: 83mm H: 40mm  
Material: PC+ Aluminum coating  
FWHM: 15°/24°/36°/50°  
Efficiency: 80%



# MOONY

A clean wall washer lens can match with CCT changing COB



Lens+ White lens holder= high efficiency

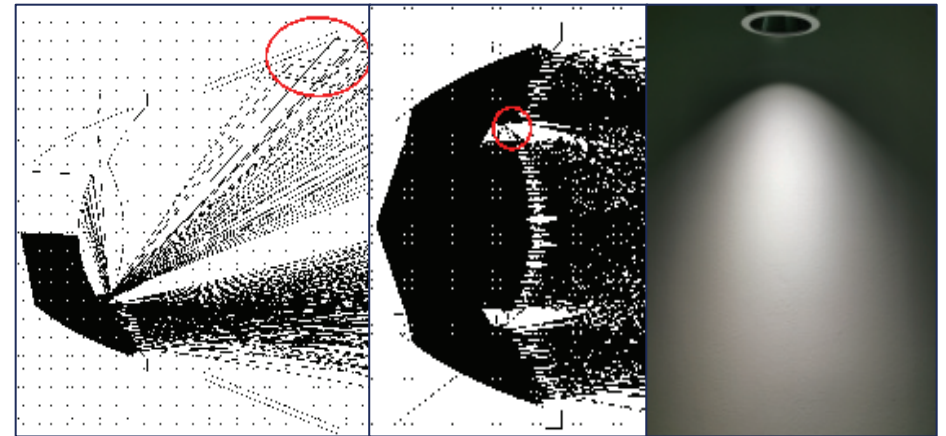


Lens+ Black lens holder= more anti-glare



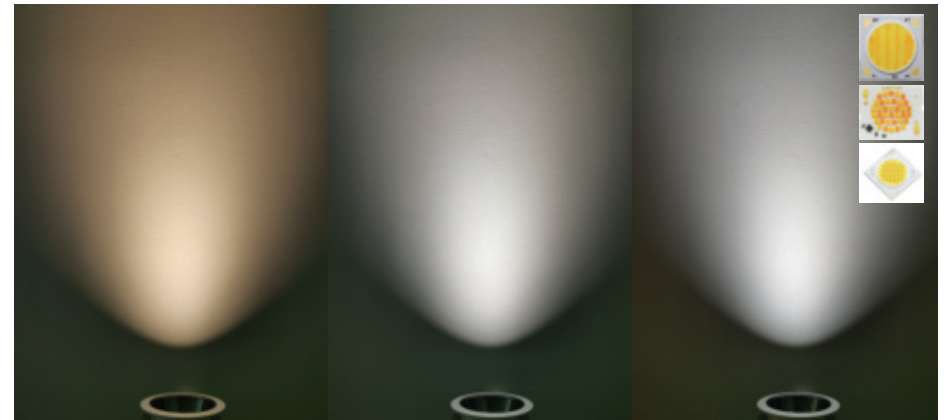
Smooth surface treatment, more conducive to anti-glare

Through the light control process, this part of the light is forcibly cut off by the anti-glare hood when it passes through the anti-glare hood, and a relatively obvious cut-off line is generated when washing the wall.

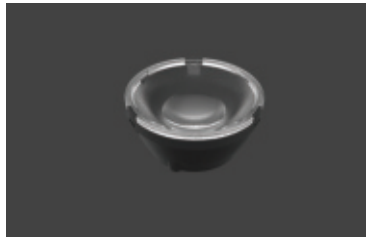


CCT changing COB can be matched

The light is split and concentrated through the microstructure of the lens, so that the color mixing of the light spot is more uniform.



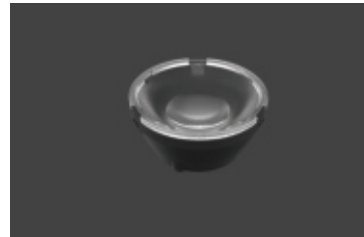
# MOONY



## 20@12

φ: 20mm H: 12mm

Under developing....



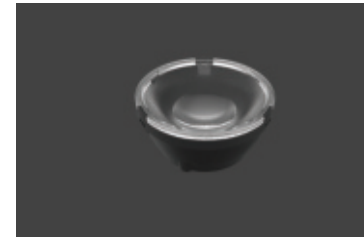
## 25@13

φ: 25mm H: 13mm

Material: PC/PMMA

FWHM: 18°/24°/36°/50°

Efficiency: 88%



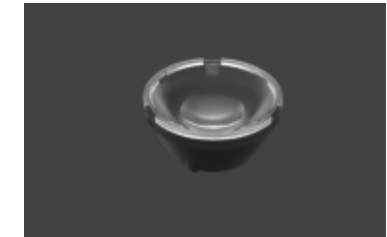
## 30@15

φ: 30mm H: 15mm

Material: PC

FWHM: 15°/24°/36°/50°

Efficiency: 88%



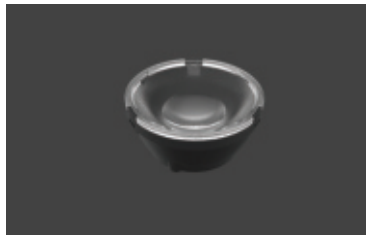
## 35@16

φ: 35mm H: 16mm

Material: PC

FWHM: 15°/24°/36°/50°

Efficiency: 88%



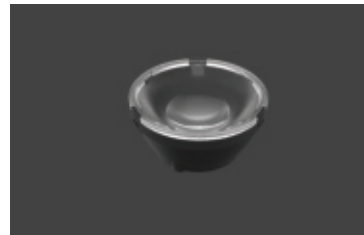
## 45@21

φ: 45mm H: 21mm

Material: PC

FWHM: 15°/24°/36°/50°

Efficiency: 88%



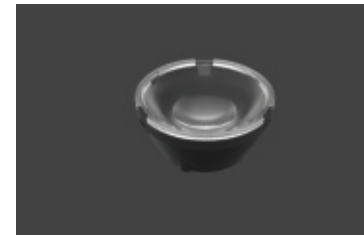
## 50@24

φ: 50mm H: 24mm

Material: PC

FWHM: 15°/24°/36°/50°

Efficiency: 88%



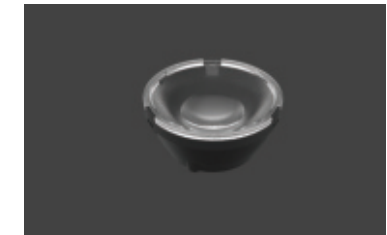
## 55@25

φ: 55mm H: 25mm

Material: PC

FWHM: 15°/24°/36°/50°

Efficiency: 88%



## 62@30

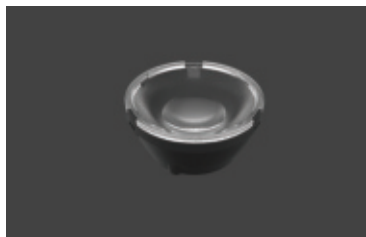
φ: 62mm H: 30mm

Material: PC

FWHM: 15°/24°/36°/50°

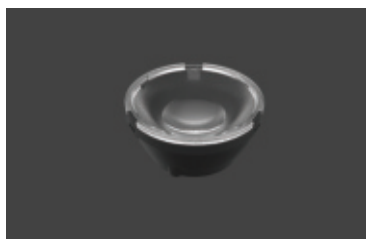
Efficiency: 88%

# MOONY



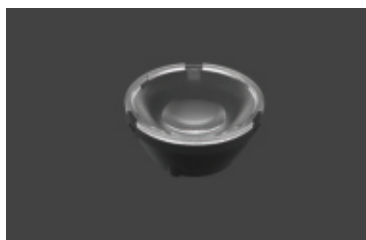
## 68@32

φ: 68mm H: 32mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



## 75@35

φ: 75mm H: 35mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



## 83@40

φ: 83mm H: 40mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



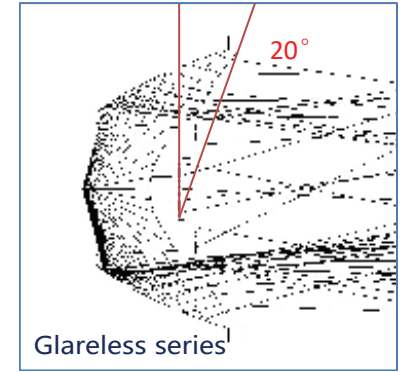
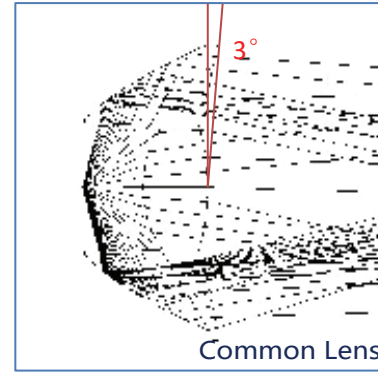


# GLARELESS

## A lens with anti-glare effect

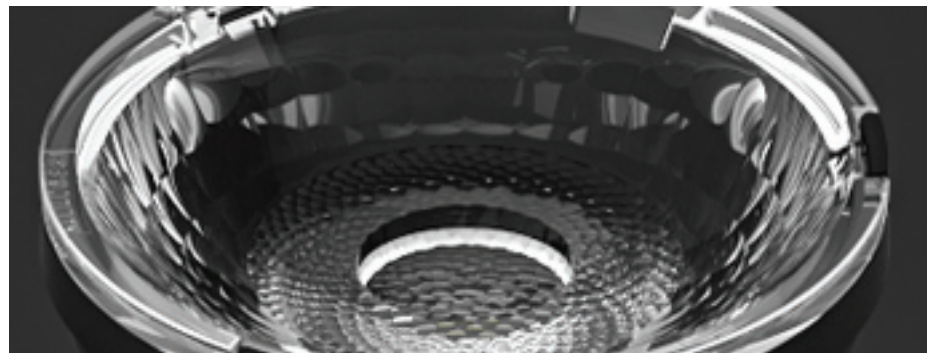


## Comes with 20° anti-glare angle



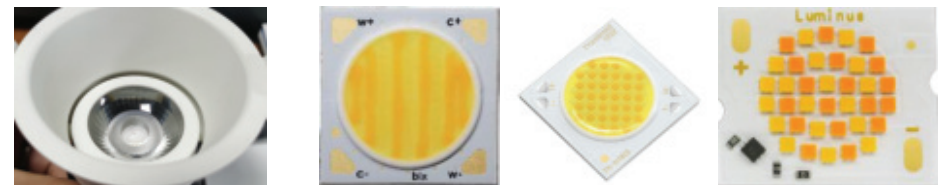
## Smooth the surface, more conducive to anti-glare

The light-emitting surface is smoothly treated, and there is no matte, sun-stripe and other structures, so that the light-emitting surface is no stray light and no glare.

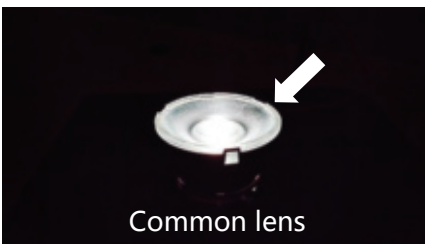
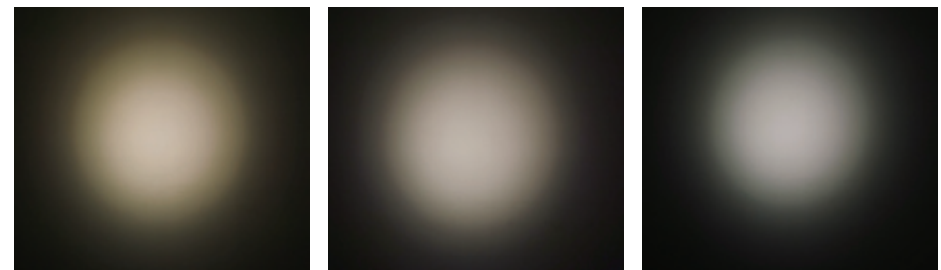


## CCT changing COB can be matched

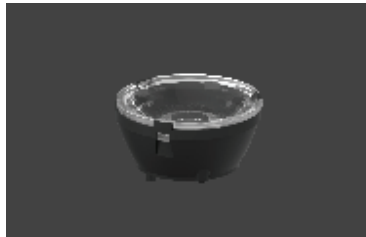
The reflective surface adopts calculus technology, so that the lens can match with CCT changing COB, and the spot is more uniform.



## Spot effect

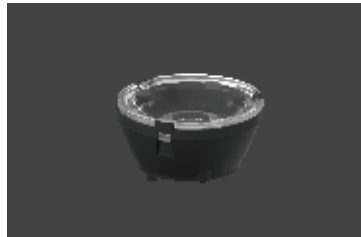


# GLARELESS



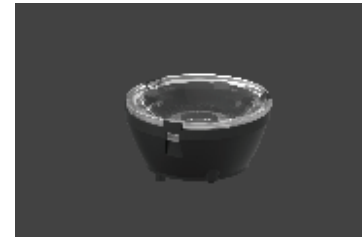
## 25@13

$\varphi$ : 25mm H: 13mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



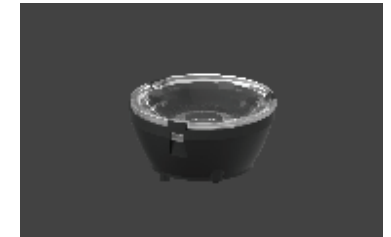
## 30@16

$\varphi$ : 30mm H: 16mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



## 35@16

$\varphi$ : 35mm H: 16mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



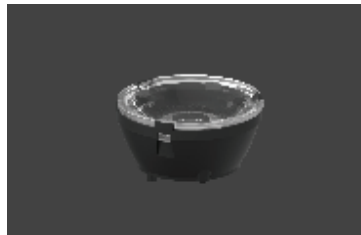
## 45@21

$\varphi$ : 45mm H: 21mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



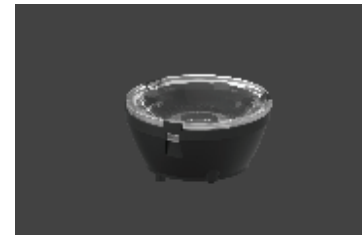
## 50@24

$\varphi$ : 50mm H: 24mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



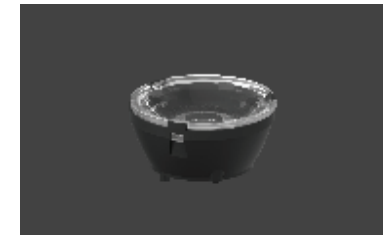
## 55@25

$\varphi$ : 55mm H: 25mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



## 62@30

$\varphi$ : 62mm H: 30mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



## 68@32

$\varphi$ : 68mm H: 32mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%

# GLARELESS



## 72@22

φ: 72mm H: 22mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%



## 75@35

φ: 75mm H: 35mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 88%

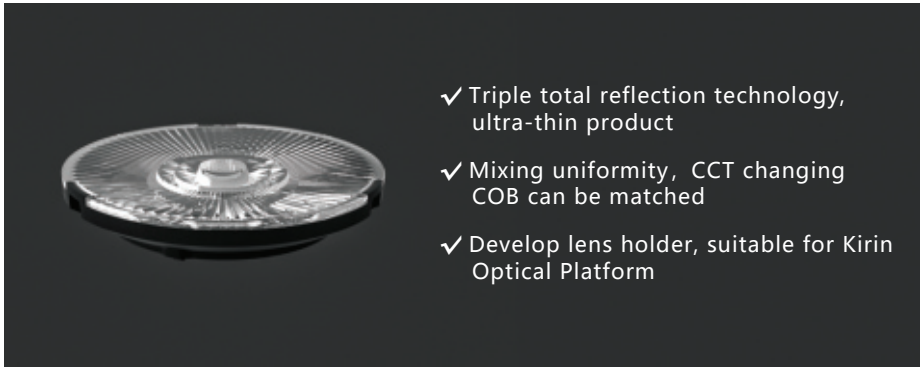


## 83@40

φ: 83mm H: 40mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%

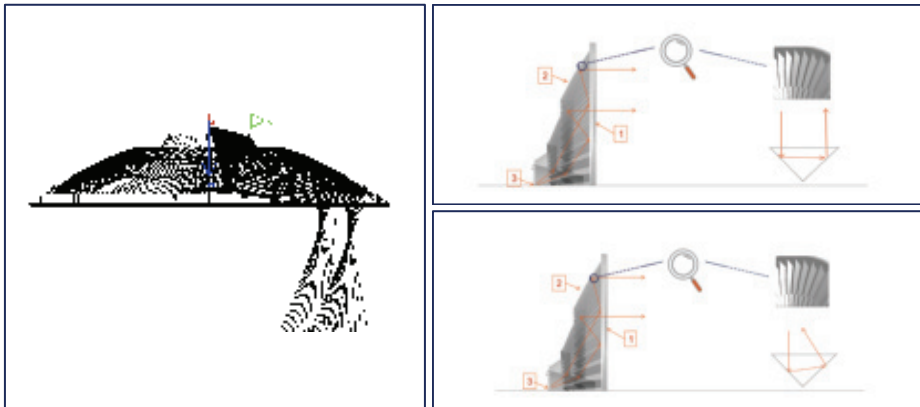
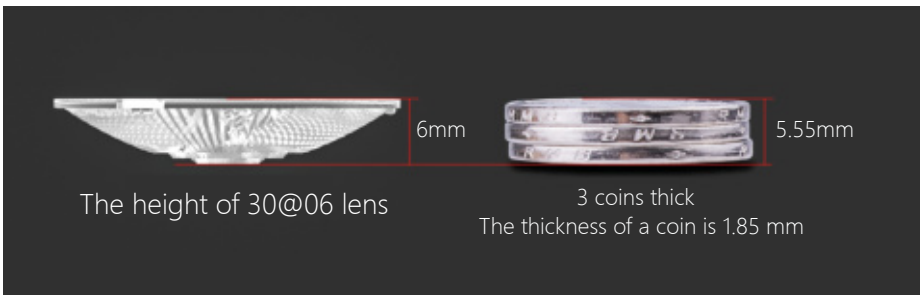


## A lens as thin as a cicada wing



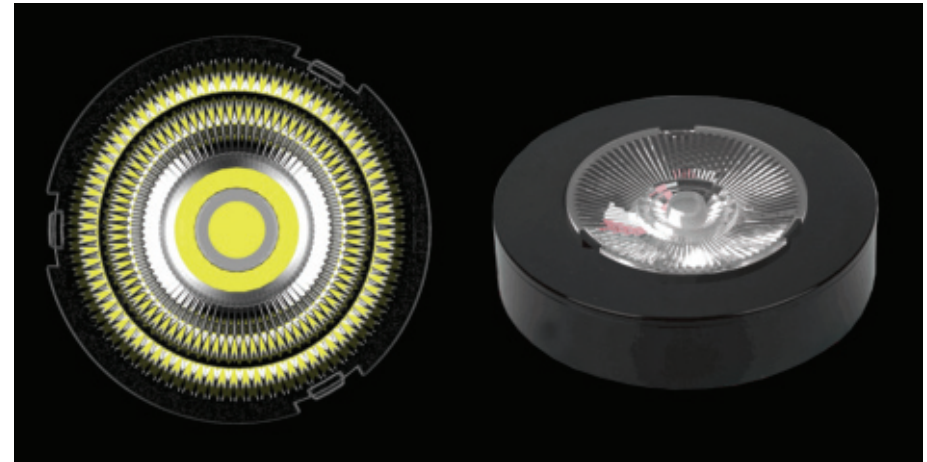
## Ultra-thin design

In the limited optical space, through triple total reflection technology, the optical path is increased to control lights effectively.



## Beautiful appearance

Combining calculus with three total reflections, the lens looks like a blooming flower, which is quite exquisite as the appearance of lamps.



## Triple total reflection technology: narrow angle can also match CCT changing COB





**30@06**

φ: 30mm H: 6mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**35@07**

φ: 35mm H: 7mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**45@09**

φ: 45mm H: 9mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**50@10**

φ: 50mm H: 10mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**55@11**

φ: 55mm H: 11mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**62@13**

φ: 62mm H: 13mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%

\*\*An angle marked in orange indicates that the angle is under development.

# FILMY



**68@13**

φ: 68mm H: 13mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**75@15**

φ: 75mm H: 15mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**83@17**

φ: 83mm H: 17mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**90@18**

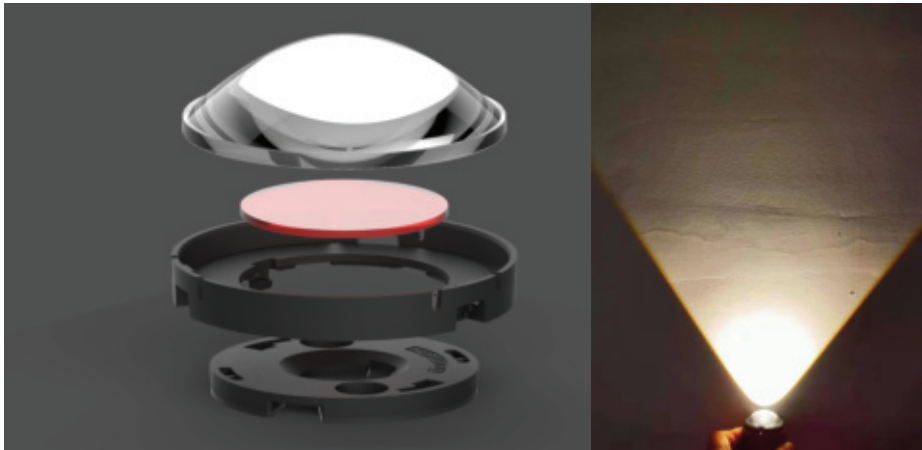
φ: 90mm H: 18mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%

\*\*An angle marked in orange indicates that the angle is under development.

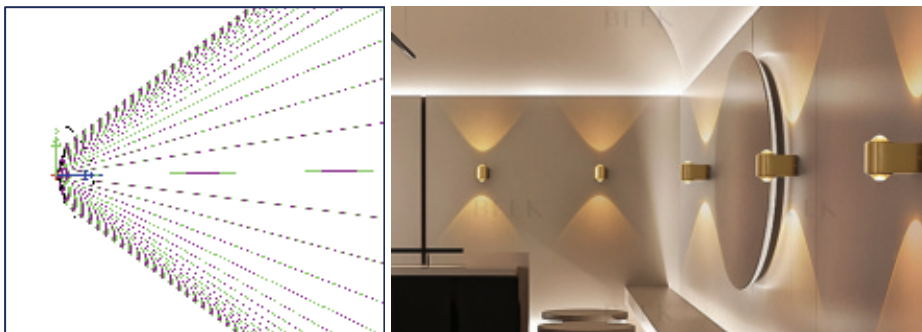


# RAINBOW

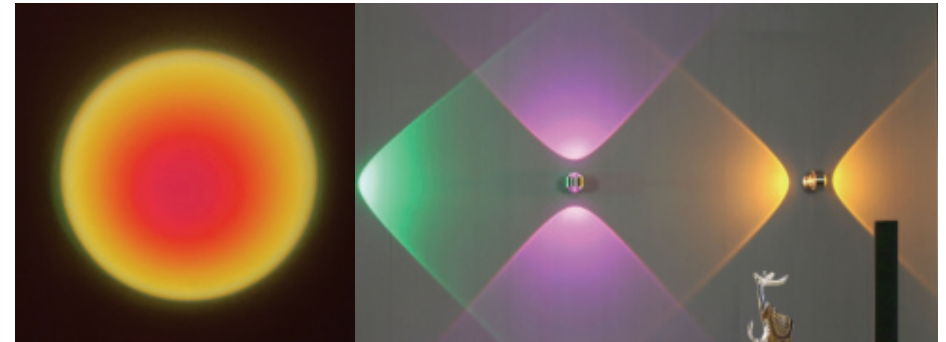
A lens like a eyes.



Aspherical design: Adjust the internal structure of the convex aspherical surface to make the light spot cut off and uniform.



Sunset effect: By adding coated lenses, the color of the light spot can be changed to achieve different lighting effects.

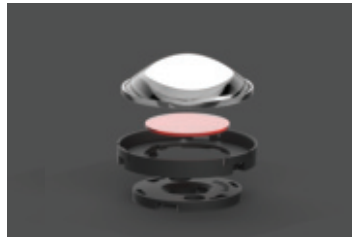


# RAINBOW



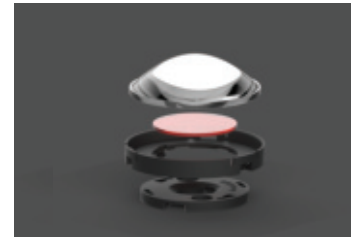
**18@05** Assembly outer diameter 20mm

$\varphi$ : 18mm H: 5mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



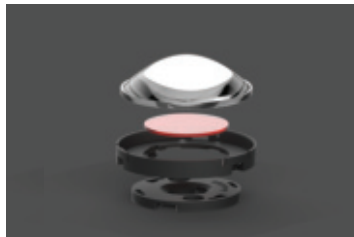
**25@06** Assembly outer diameter 28mm

$\varphi$ : 25mm H: 6mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



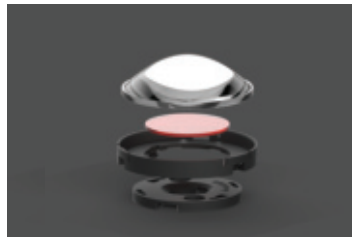
**32@09** Assembly outer diameter 35mm

$\varphi$ : 32mm H: 9mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



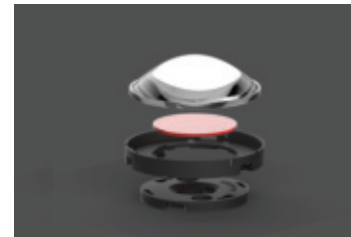
**42@12** Assembly outer diameter 45mm

$\varphi$ : 42mm H: 12mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



**47@15** Assembly outer diameter 50mm

$\varphi$ : 47mm H: 15mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%

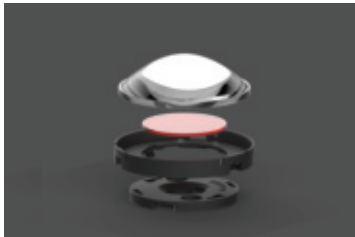


**52@15** Assembly outer diameter 55mm

$\varphi$ : 52mm H: 15mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



# RAINBOW



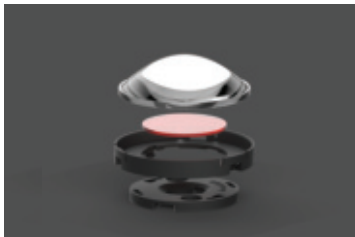
**58@16** Assembly outer diameter 20mm

$\varphi$ : 58mm H: 16mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



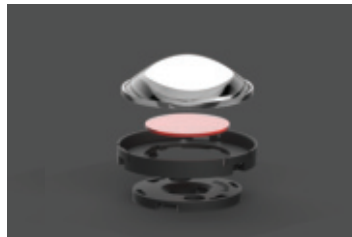
**64@19** Assembly outer diameter 28mm

$\varphi$ : 64mm H: 19mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



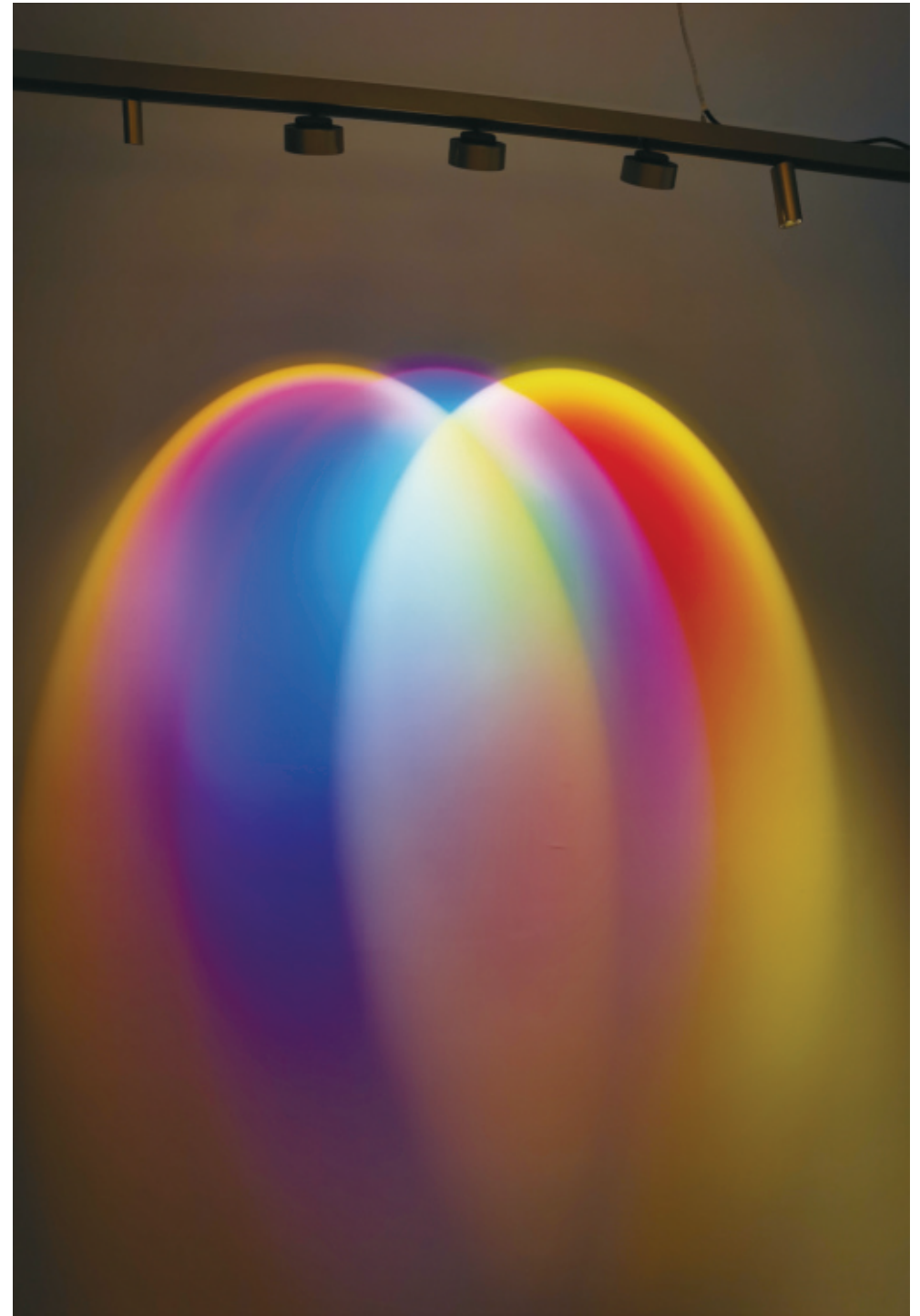
**71@18** Assembly outer diameter 45mm

$\varphi$ : 71mm H: 18mm  
Material: PC  
FWHM: 75°  
Efficiency: 88%



**79@18** Assembly outer diameter 50mm

$\varphi$ : 79mm H: 18mm  
Material: PC  
FWHM: 80°  
Efficiency: 88%



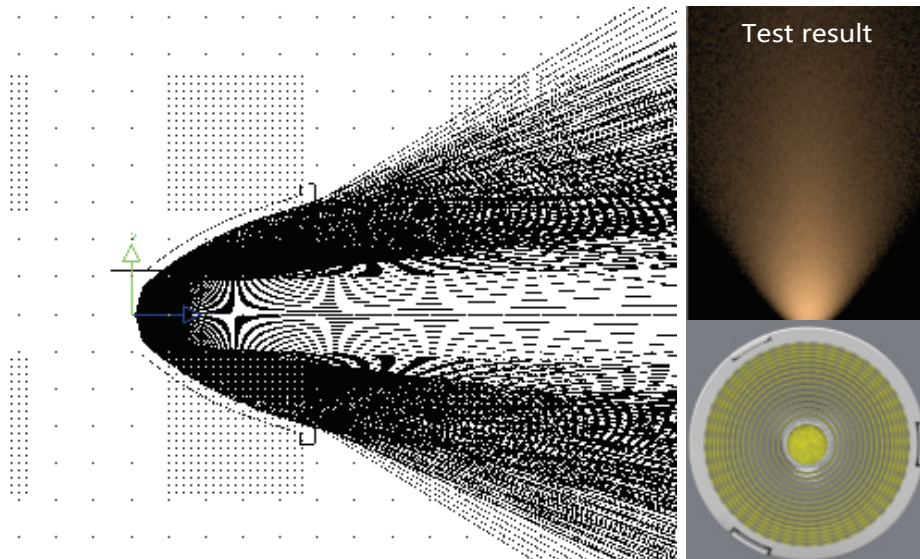
# V SERIES

## A reflector with anti-glare effect



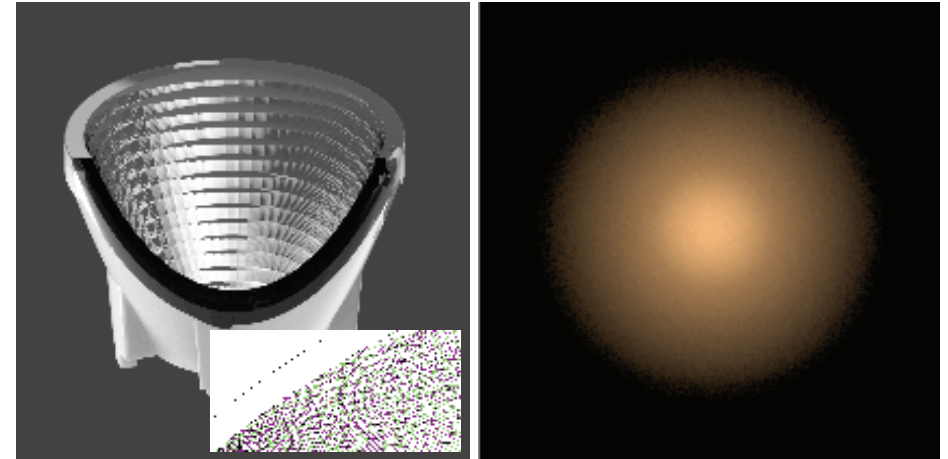
## Distribute lights appropriately

In order to uniform the wall-washing lights without delamination, for reflectors of different diameters, it's necessary to accurately the reflector's height, distribute the lights appropriately, and control the lights on the reflecting surface precisely.



## Uniform light spot

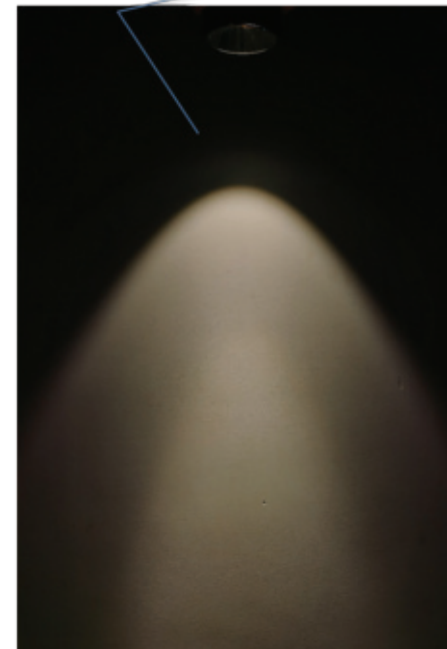
On the basis of rationally distributing the middle light and the reflective surface light, plus the scaly surface of the reflective surface, the light spot becomes more softer, and at the same time, the reflective surface light can be precisely controlled to avoid the phenomenon of delamination and dark areas.



## Spot contrast

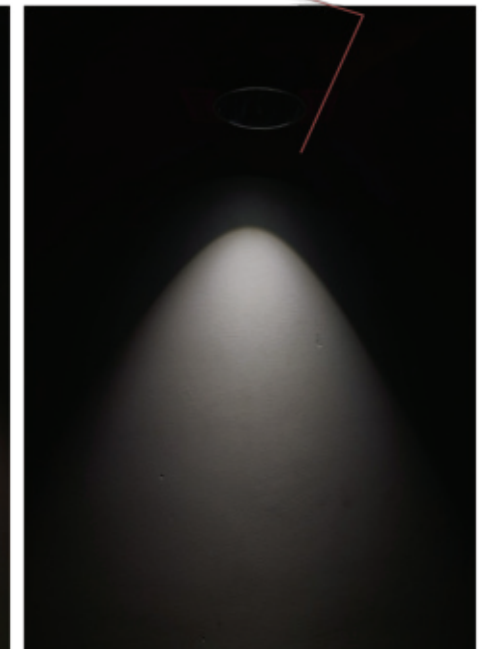
### Common reflector

The transition between the main spot and the side spot is uneven and there is a dark areas



### Herculux V series

The transition between the main spot and the side spot is uniform, no dark areas, and the edges are cut off



## V SERIES



**35@23**

φ: 35mm H: 23mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



**45@34**

φ: 45mm H: 34mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



**50@36**

φ: 50mm H: 36mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%



**62@41**

φ: 62mm H: 41mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 88%

\*\*An angle marked in orange indicates that the angle is under development. In the V series development plan, the outer diameter is consistent with other dimensions of the Kirin Optical Platform. The total planned outer diameters are 25, 30, 35, 45, 50, 55, 62, 68, 75, 83, and 90.



# ZOOM

## The main zoom product in the Kirin Optical Platform, zoom without changing sizes

The zoom module is composed of a lens, a lens holder, and a fixed holder, wherein the lens holder drives the lens to move back and forth in the fixed holder to realize the change of the focal length of the lens relative to the position of the LED, thereby realizing the change of the angle. In the zoom module development plan, the outer diameter is consistent with other dimensions of the Kirin Optical Platform. The total planned outer diameters are 25, 30, 35, 45, 50, 55, 62, 68, 75, 83, and 90.



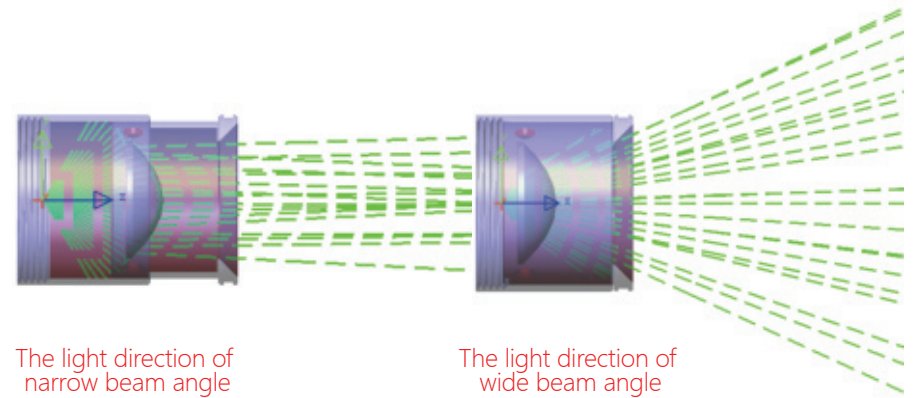
## Easy install

After the customer gets the zoom module, they only need to add a zoom connection structure and fix it on the lens holder with screws, that is, the module can be rotated on the Kirin Optical Platform holder, and the front part of the lamp can be completed by adding the lamp shell, and the structure is simple.



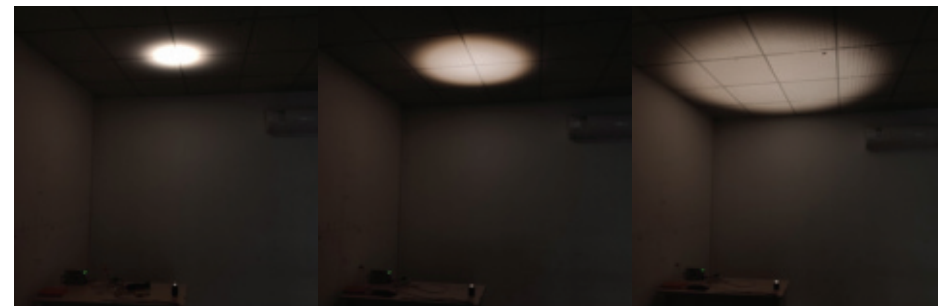
## Fermat microstructure design

The convex lens is partially designed with Fermat microstructure, which makes the overall light spot soft and cut off, and the transition light spot is more natural.



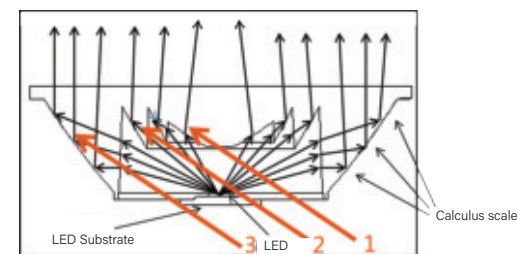
## Anti-glare effect

The zoom module has an anti-glare angle of 38° itself, and the anti-glare angle remains unchanged during the entire zooming process, so that the zoom module can achieve excellent anti-glare effect at all angles. The following pictures are the real shot effect of the small, medium and large angle.



Principle

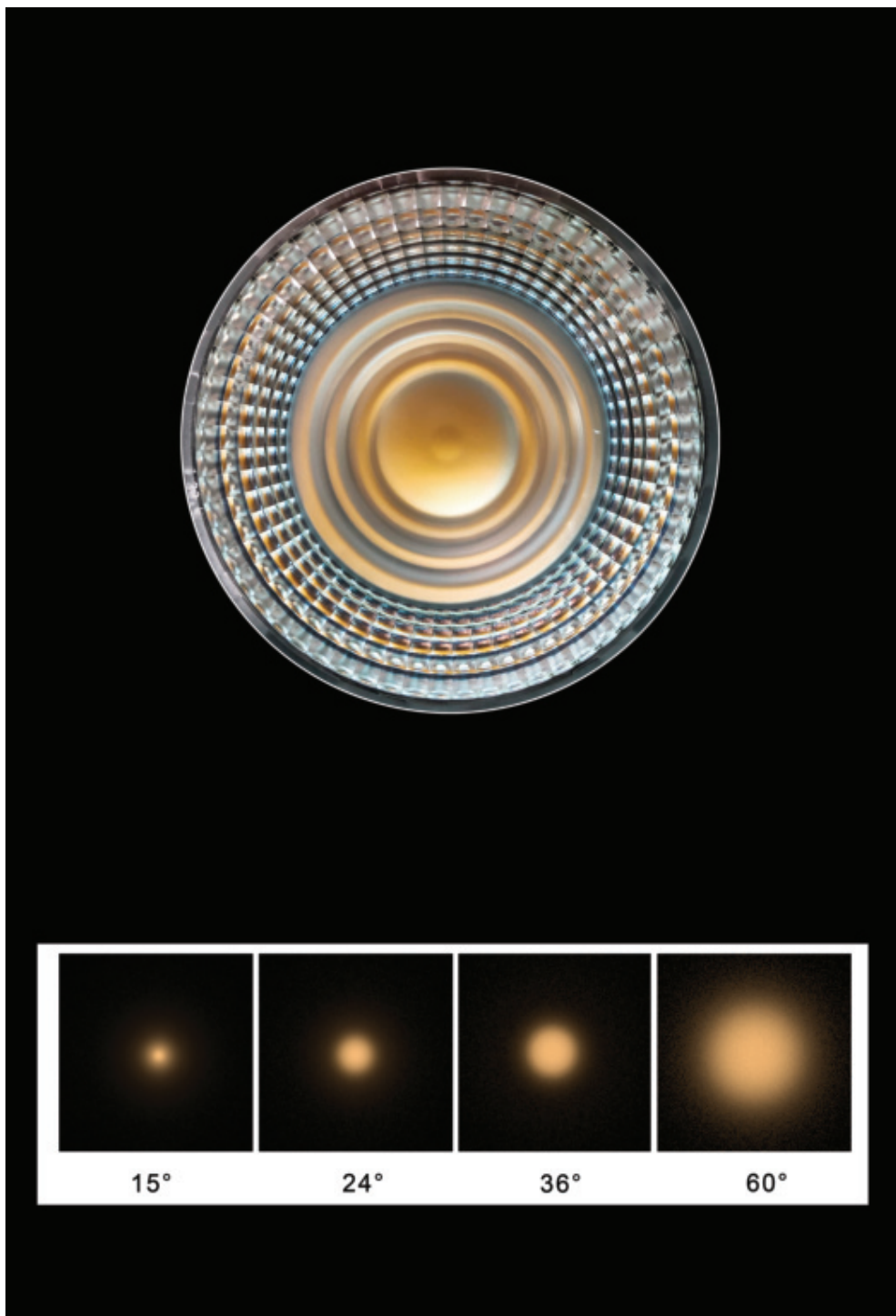
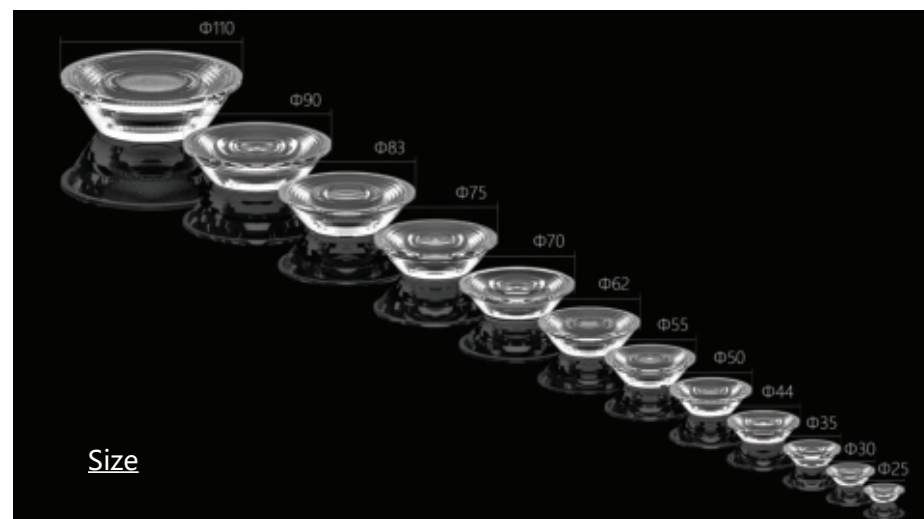
Photon Lens designed by one refracting surface and several fully reflecting surfaces, can control the light distribution well by lower lens height.



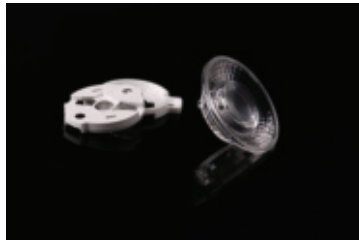
Why can make the light distribution well by lower lens height?

Area 1 is refracting surface, control the light from the middle of the LED, to control the small beam angle; Area 2 are fully reflecting surfaces, little far away from the COB, control some long lights to be small beam angle; Area 3 are periphery fully reflecting surfaces, control the outermost lights also the best lights, can make smaller beam angle and make a clear edge light spot

To sum up, the lens of the Photon series divides the light of the light source into several parts, and then optimizes each part. In the case of light spot cut-off, the central light intensity is high.

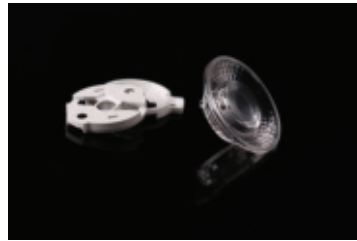


# PHOTON



## 25@07

φ: 25mm H: 6.7mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



## 30@08

φ: 30mm H: 8mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



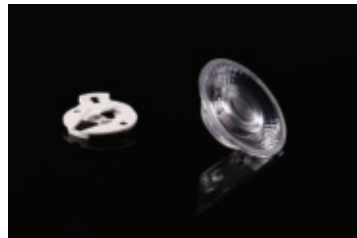
## 35@10

φ: 35mm H: 9.5mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



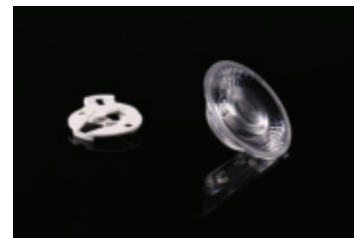
## 44@11

φ: 44mm H: 11.3mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



## 50@14

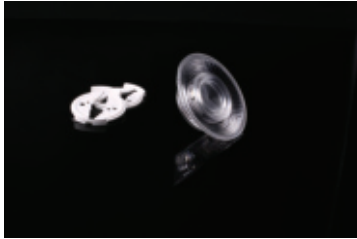
φ: 50mm H: 14mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



## 55@15

φ: 55mm H: 15mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%

# PHOTON



**62@18**

φ: 62mm H: 17.5mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**70@19**

φ: 70mm H: 18.5mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**75@21**

φ: 75mm H: 21.5mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



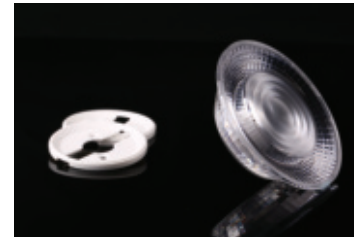
**83@22**

φ: 83mm H: 22mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



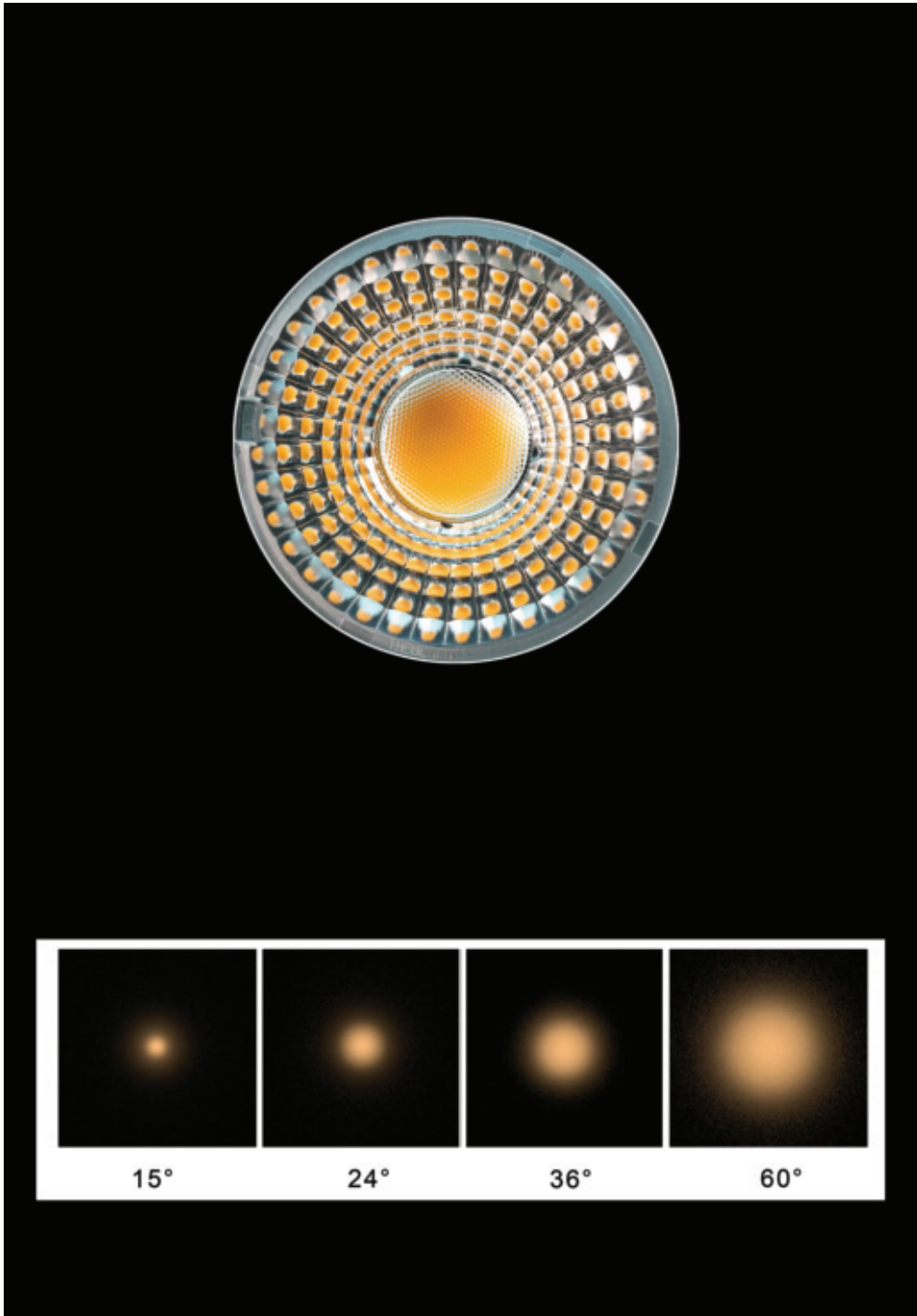
**90@22**

φ: 90mm H: 23.2mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



**110@32**

φ: 110mm H: 32mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 85%



Facula shape



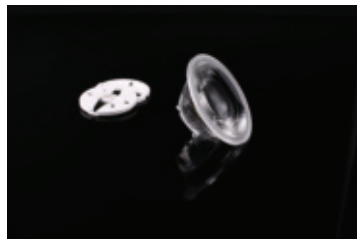
Commercial lighting application





**35@16**

φ: 35mm H: 16mm  
Material: PC/PMMA  
FWHM: 10°/15°/24°/36°/50°  
Efficiency: 90%

**40@20**

φ: 40mm H: 20mm  
Material: PC/PMMA  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%

**43@19**

φ: 43mm H: 19mm  
Material: PC/PMMA  
FWHM: 10°/15°/24°/36°/60°  
Efficiency: 90%

**45@21**

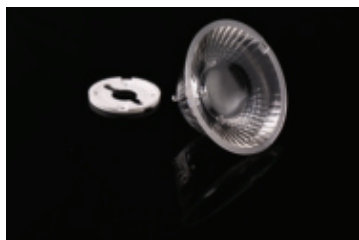
φ: 45mm H: 21mm  
Material: PMMA  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%

**50@25**

φ: 50mm H: 25mm  
Material: PMMA  
FWHM: 12°/15°/24°/36°/45°/60°  
Efficiency: 90%

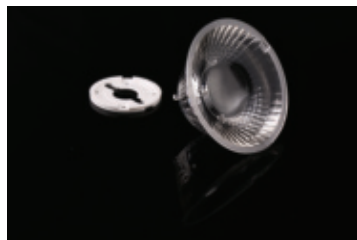
**55@24**

φ: 55mm H: 24mm  
Material: PMMA  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%



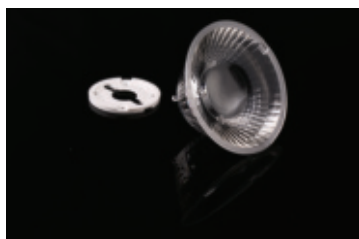
**62@31**

φ: 62mm H: 31mm  
Material: PMMA  
FWHM: 15°/24°/36°/45°/60°  
Efficiency: 90%



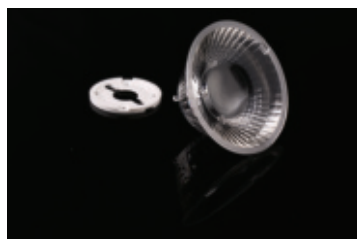
**69@30**

φ: 69mm H: 30mm  
Material: PMMA  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%



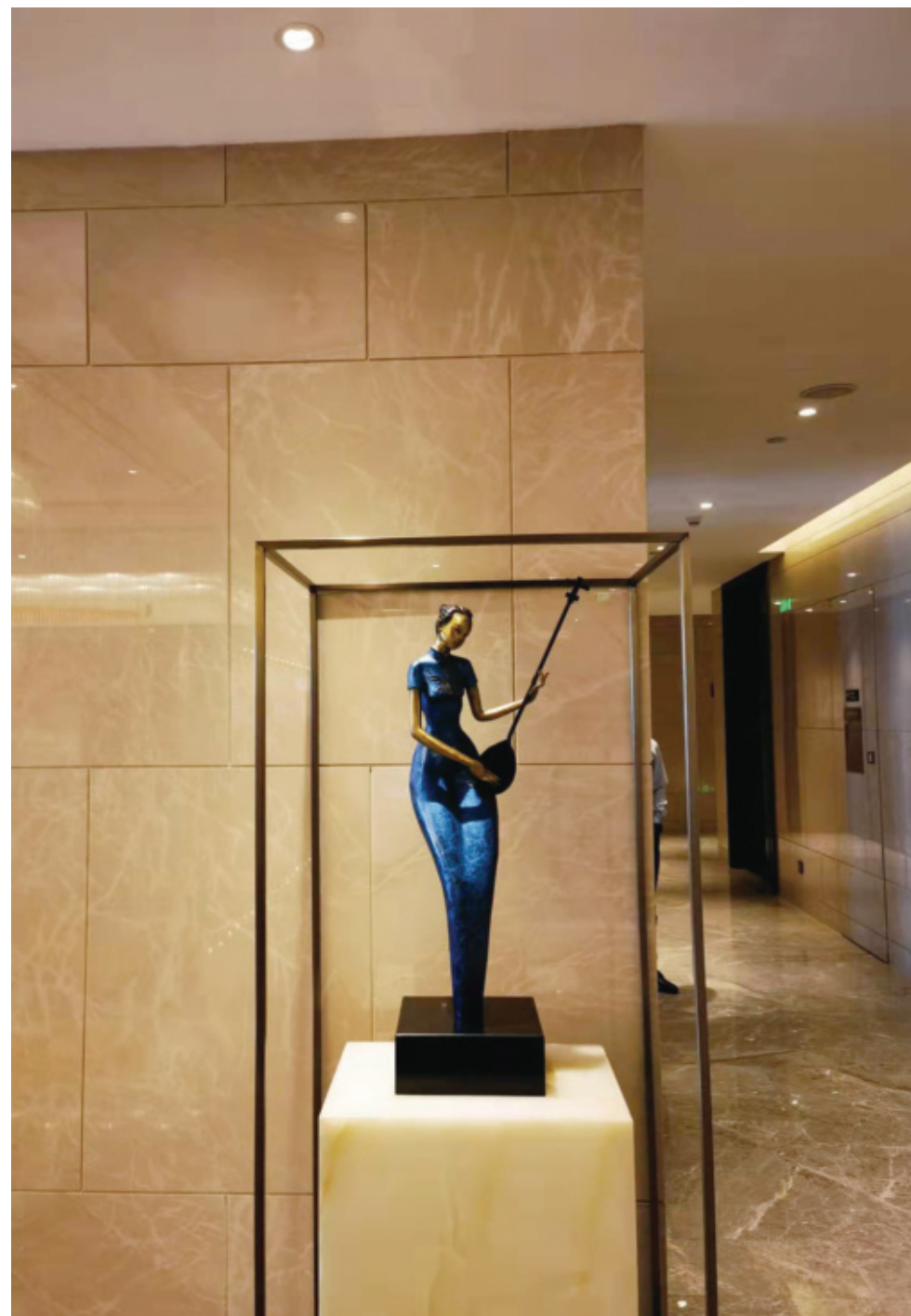
**72@33**

φ: 72mm H: 33mm  
Material: PMMA  
FWHM: 12°/15°/20°/24°/36°/60°  
Efficiency: 90%

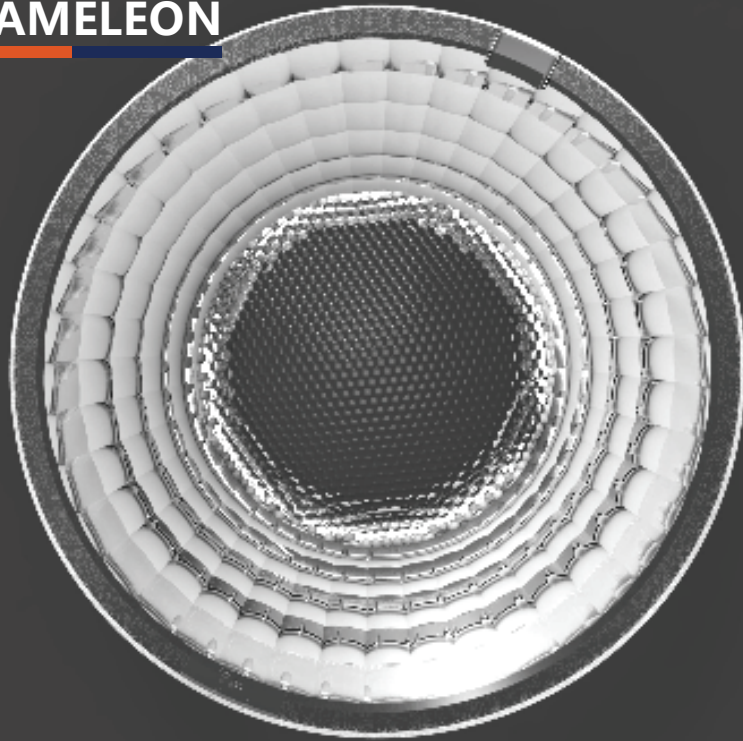


**75@31**

φ: 75mm H: 31mm  
Material: PMMA  
FWHM: 10°/15°/24°/36°/60°  
Efficiency: 92%



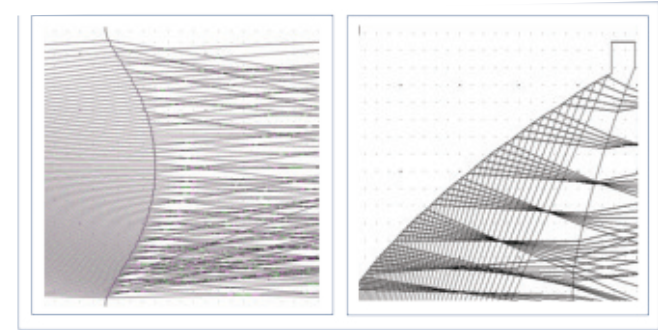
# CHAMELEON



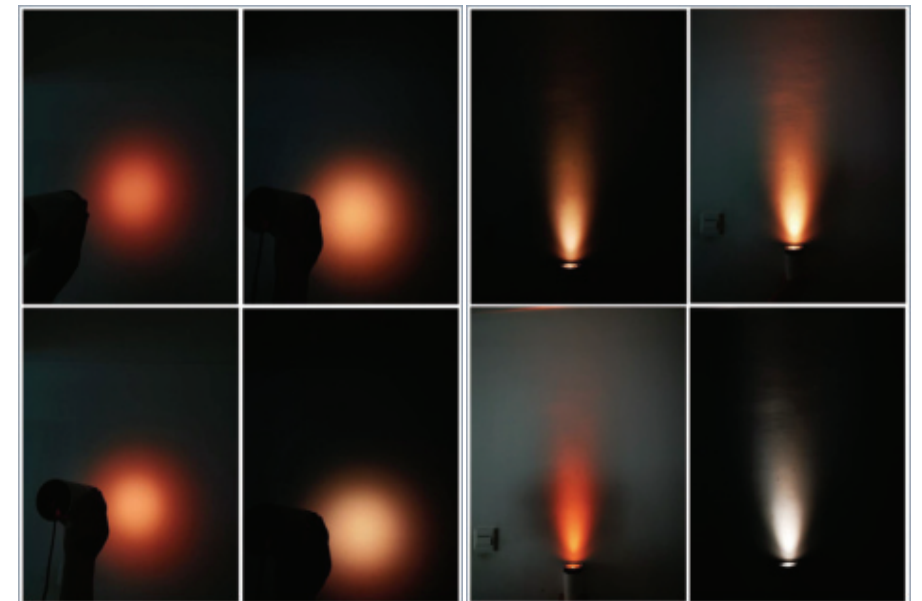
## Product Characteristics

Using calculus total reflection combined with local directional differential technology, while the color temperature and brightness of the light source change, the angle and color of the light spot are not affected.

Using the principle of calculus lens, the reflected light is differentiated to effectively mix light. Add a surface differential structure to the incident and exit convex surfaces, so that the transmitted light is evenly distributed, and the color is uniform.

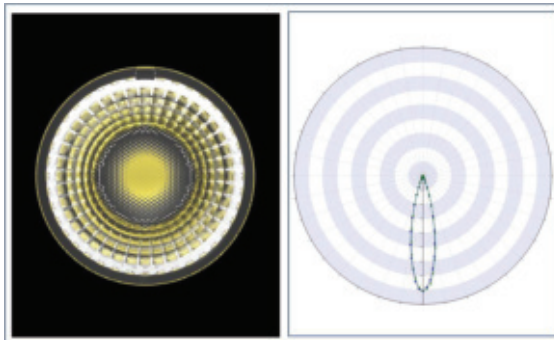


## Chameleon Series, Size: 55@21, 24° Lens Spot



## Principle of Design

The reflecting surface of the lens uses the principle of differential and integration. The light emitted by the light source is differentiated by a large number of scales, and the light source is divided into several sub-light sources (differential). Each sub-light source is presented separately on the illumination light field, and by rearranging and overlapping the centers, rotating and superimposing (integration), the light of different color temperatures is cross-distributed to achieve a mixed light effect. Differential redistribution of the light source not only makes the light more finely distributed and achieves a good light mixing effect, but also the brightness of the light emitting surface is uniform and even. The area reduces the glare of the lens. The transmission surface of the lens is arranged in a microstructure and a function array to control the intermediate light reasonably, and then the light from the light source is differentiated and superimposed in an orderly manner, thereby solving the problem of uneven mixing of light transmitted through the lens.



# CHAMELEON



**35@16**

φ: 35mm H: 16mm  
Material: PC/PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



**43@19**

φ: 43mm H: 19mm  
Material: PC/PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



**55@24**

φ: 55mm H: 24mm  
Material: PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



**62@31**

φ: 62mm H: 31mm  
Material: PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



**44@20**

φ: 44mm H: 20mm  
Material: PC  
FWHM: 24°/36°/60°  
Efficiency: 90%



**55@21**

φ: 55mm H: 21mm  
Material: PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



**72@33**

φ: 72mm H: 33mm  
Material: PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%



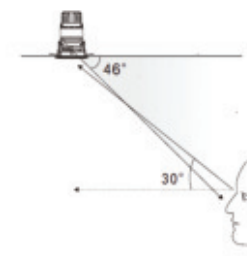
**75@31**

φ: 75mm H: 31mm  
Material: PMMA  
FWHM: 24°/36°/60°  
Efficiency: 90%

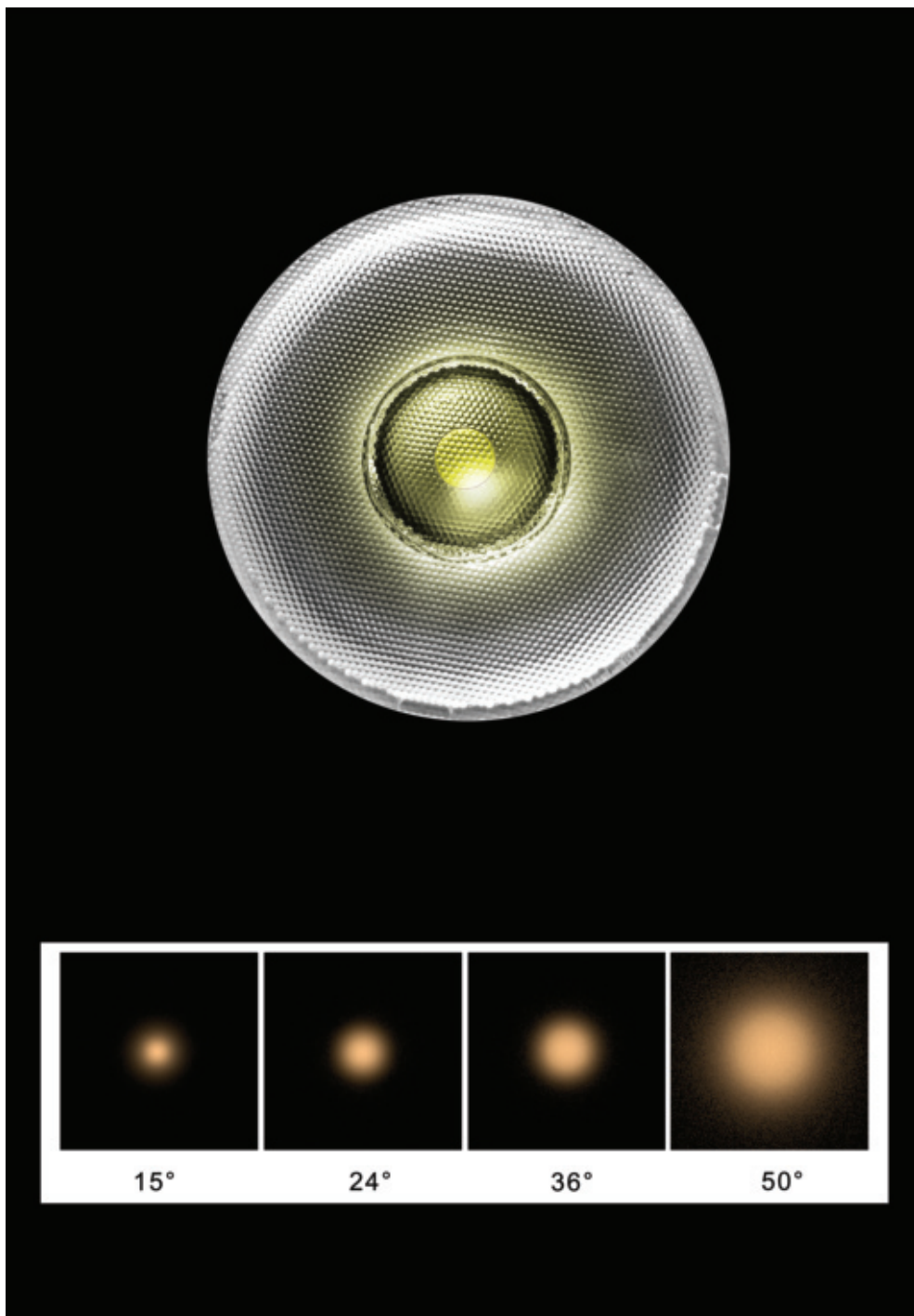
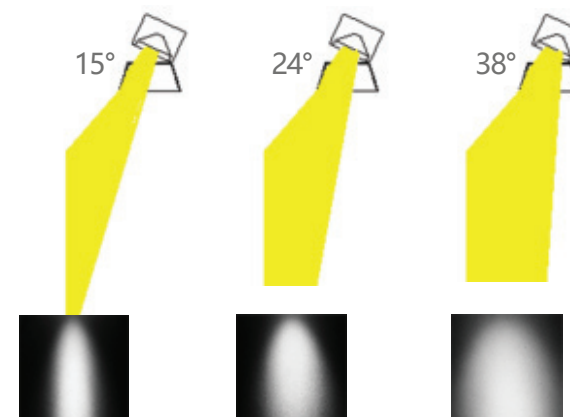
# BLACK HOLE

## Introduction

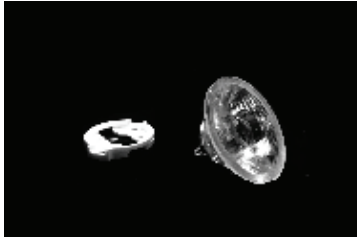
The Max shielding angle of the LED lamp is  $46^\circ$ , can avoid the glare effectively. The most accepted shielding angle of the human visual area always more than  $30^\circ$ , the other light in this area will occur the glare. So when the shielding angle of the LED lamp more than  $30^\circ$ , will control the light out the area to decrease glare.



The polarized light wash wall lamp should have the drift angle, normally have the problem of stratified facula because of the antiglare visor interfered the facula. Herculux Black Hole family special designed for the hotel, considered the effect of the front ring of the antiglare visor before designing, can distribute the light effectively, even when the customer replacing the front ring, the facula will transit uniformly.

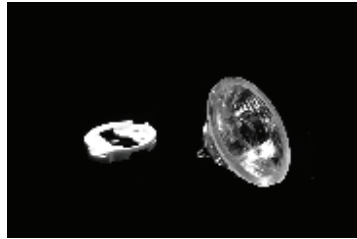


# BLACK HOLE



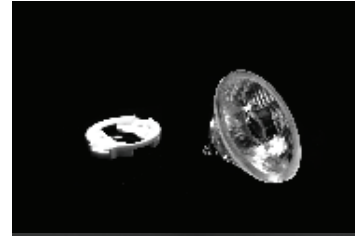
**28@14**

φ: 28mm H: 14mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 85%



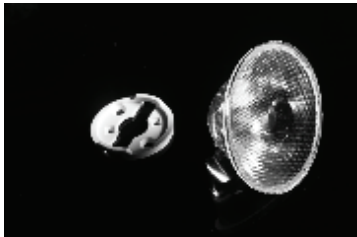
**30@15**

φ: 30mm H: 15mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 85%



**35@18**

φ: 35mm H: 18mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 85%



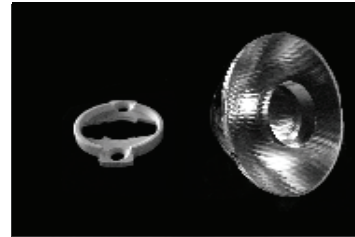
**45@24**

φ: 45mm H: 24mm  
Material: PC  
FWHM: 7°/10°/24°/34°/50°  
Efficiency: 85%



**50@24**

φ: 50mm H: 24mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 85%

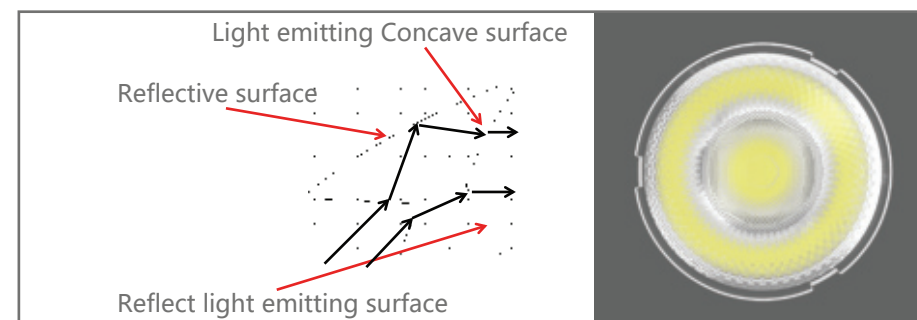


**62@24**

φ: 62mm H: 24mm  
Material: PC  
FWHM: 15°/24°/36°/50°  
Efficiency: 85%

## High efficiency (90%)

Zooming is achieved by properly distributing the ratio of reflected and refracted light during zooming, rather than actively losing light to achieve it, thereby achieving high efficiency.



## Short stroke

Beam angle of the intermediate refracted light is designed larger in a shorter stroke so that the Min and Max beam angles stroke difference are in a shorter range.



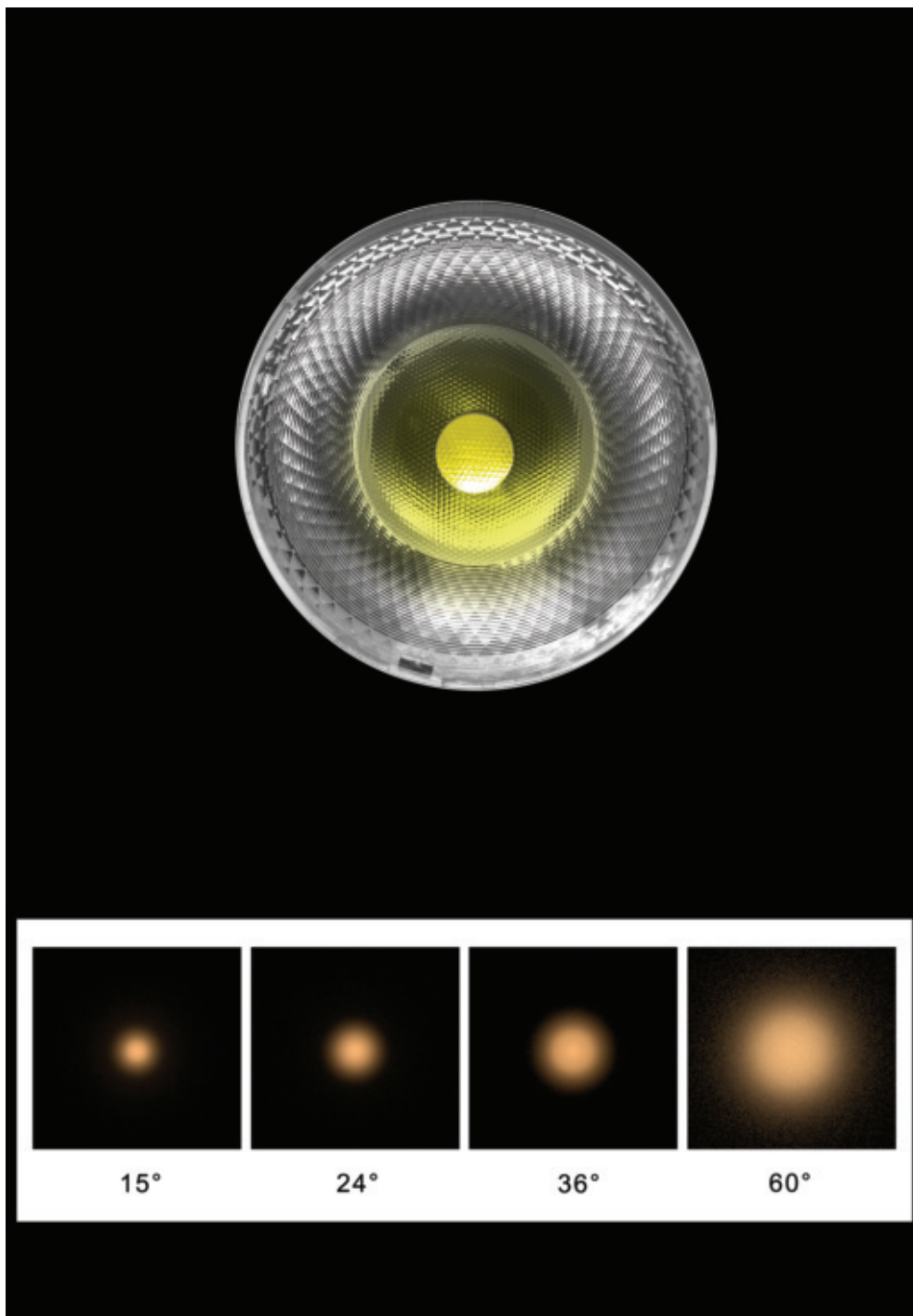
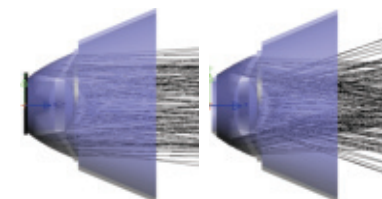
## Nice cutoff and fulfilled spot center (strong zoom capability):

The spot cutoff is generated by the intermediate refracted light; considering the overall zooming effect, the cutoff is made moderate by adding an appropriate compound eye to optimize the spot edge on the refracting light exit surface.

Innovatively adding a two-dimensional uniform light microstructure to the surface of the lens, so that the light intensity is softened, the central light intensity can be guaranteed; in particular, the wide beam angle central spot has a certain compensation Better anti-glare effectm angle spot center is fulfilled.

## Better anti-glare effect

In the process of zooming, the main light of the narrow beam angle is emitted along the optical axis direction, while the main light is deflected away from the hood at a wide beam angle, only very little light reaches the hood regardless of the beam angles. So the new lens can be matched with a deeper anti-glare cover to achieve a better anti-glare effect comparing to conventional KA.





**35@15-15\_36**

φ: 35mm H: 15mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%



**35@14-35\_60**

φ: 35mm H: 14mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%



**55@25-15\_36**

φ: 55mm H: 25mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%



**55@23-35\_60**

φ: 55mm H: 23mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%



**45@20-15\_36**

φ: 45mm H: 20mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%



**45@18-35\_60**

φ: 45mm H: 18mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%



**62@28-15\_36**

φ: 62mm H: 28mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%

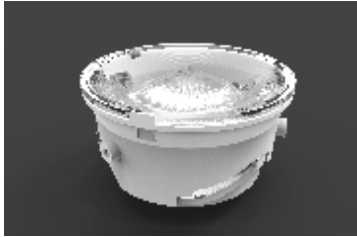


**62@26-35\_60**

φ: 62mm H: 26mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%



# INFINITY



**72@33-15\_36**

φ: 72mm H: 33mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%



**72@29-35\_60**

φ: 72mm H: 29mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%



**75@34-15\_36**

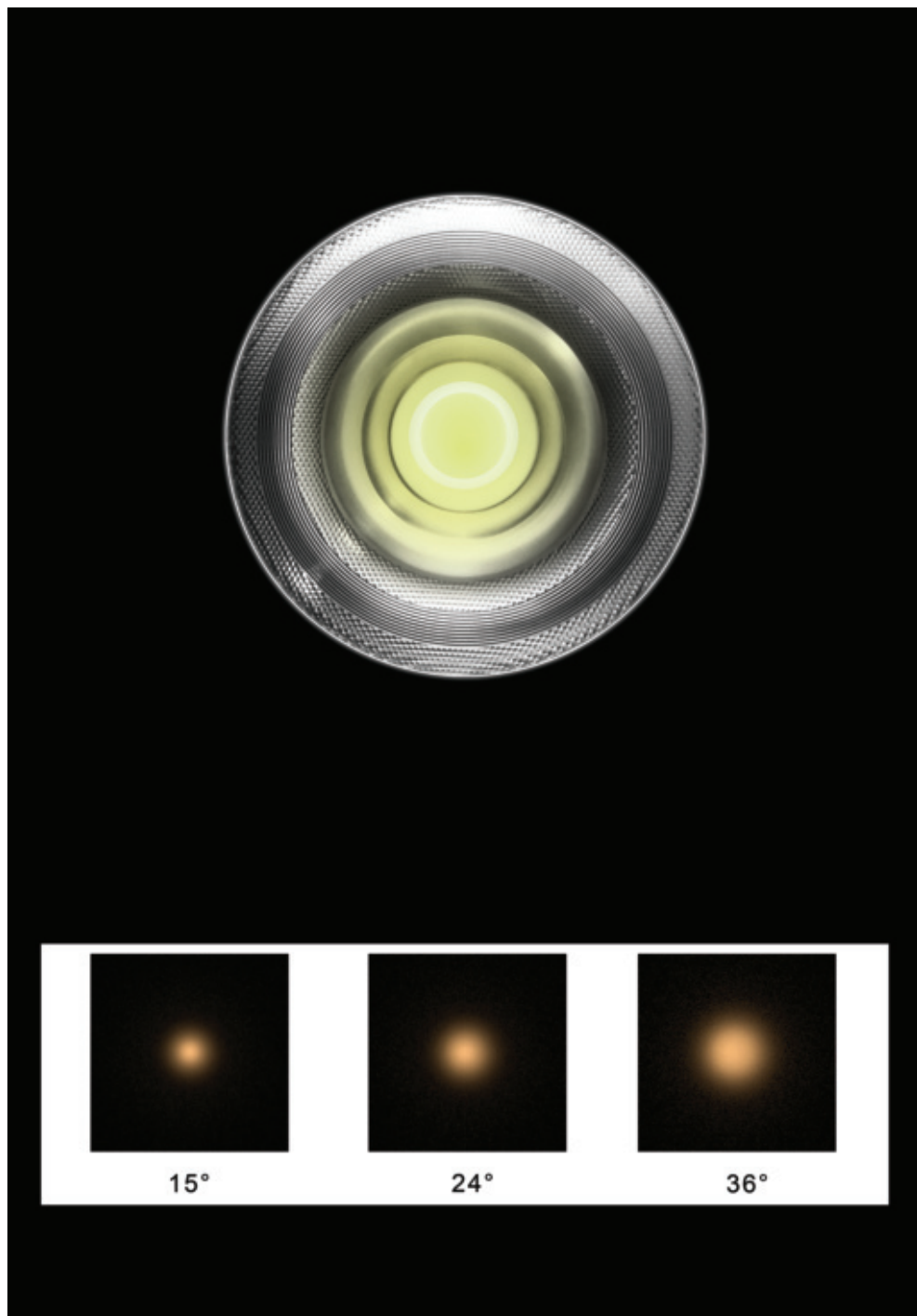
φ: 75mm H: 34mm  
Material: PMMA  
FWHM: 15°~36°  
Efficiency: 90%~92%



**75@30-36\_60**

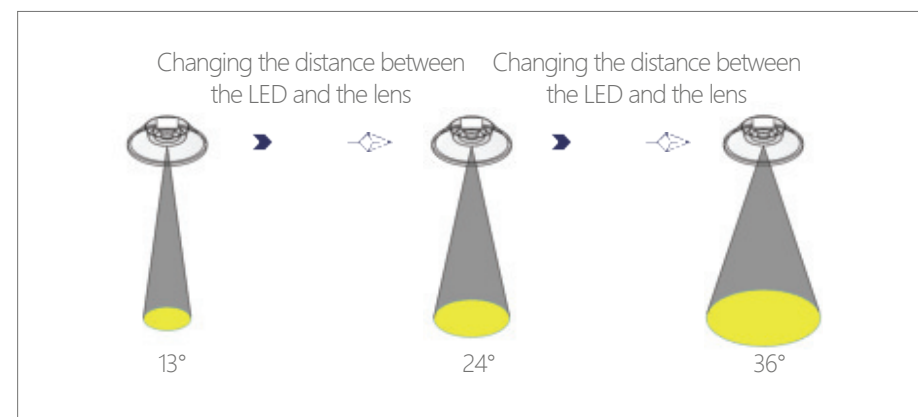
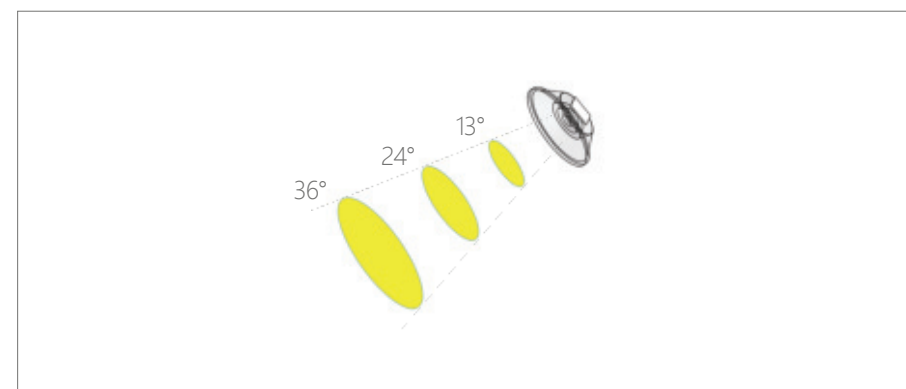
φ: 75mm H: 30mm  
Material: PMMA  
FWHM: 35°~60°  
Efficiency: 90%~92%





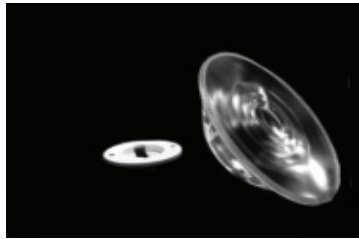
Introduction

Different with the traditional convex lens, the focus family can keep the same efficiency when zooming. By the special optical designing, each reflection surfaces have the same uniform energy to achieve good uniformity without the dark in the middle.



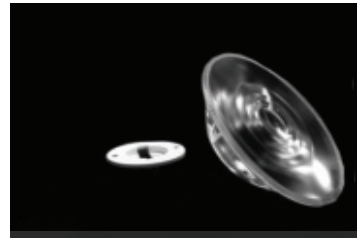
Product characteristics

Fresnel lens has unique optical properties, which can change the optical angle and the size of the spot by changing the distance between light source and lens.



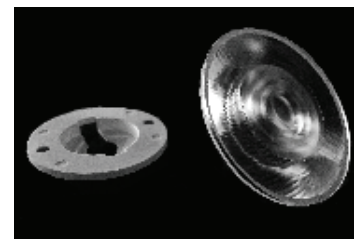
**35@10**

φ: 35mm H: 10mm  
Material: PC  
FWHM: 13°~36°  
Efficiency: 85%



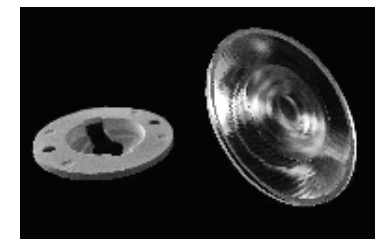
**44@13**

φ: 44mm H: 13mm  
Material: PC  
FWHM: 13°~36°  
Efficiency: 85%



**50@14**

φ: 50mm H: 14mm  
Material: PC  
FWHM: 13°~38°  
Efficiency: 85%



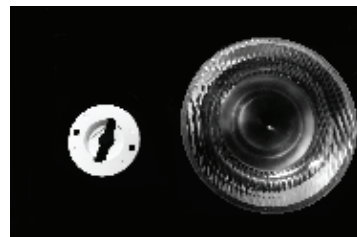
**62@17**

φ: 62mm H: 17mm  
Material: PC  
FWHM: 13°~36°  
Efficiency: 85%



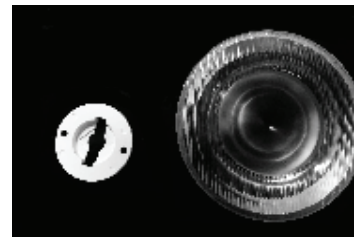
**72@20**

φ: 72mm H: 20mm  
Material: PC  
FWHM: 13°~36°  
Efficiency: 85%



**75@19**

φ: 75mm H: 19mm  
Material: PC  
FWHM: 13°~38°  
Efficiency: 85%

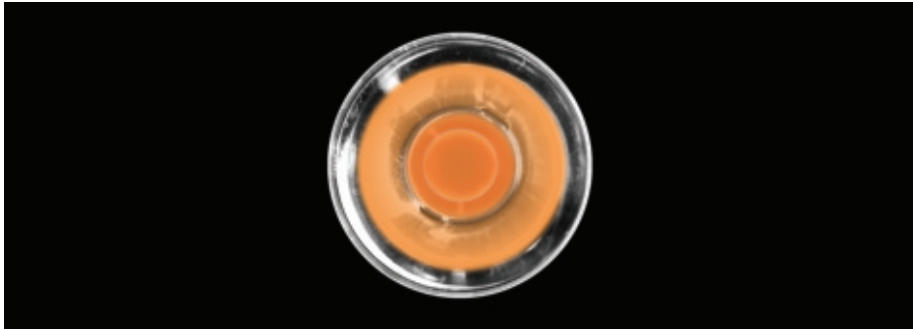


**90@24**

φ: 90mm H: 24mm  
Material: PC  
FWHM: 13°~38°  
Efficiency: 85%

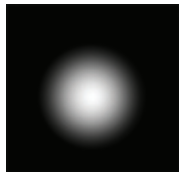
# POLAROID

## Lens front view

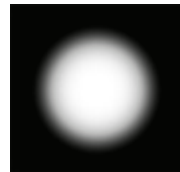


## Facula shape

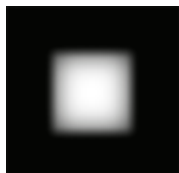
Polaroid Filter A:  
25°



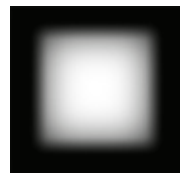
Polaroid Filter B:  
36°



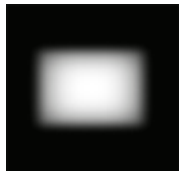
Polaroid Filter C:  
25°×25°



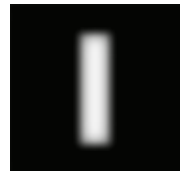
Polaroid Filter D:  
36°×36°



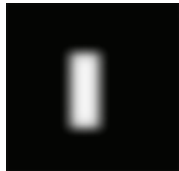
Polaroid Filter E:  
25°×36°



Polaroid Filter F:  
10°×25°



Polaroid Filter G:  
10°×36°



Polaroid Filter H:  
4°×36°

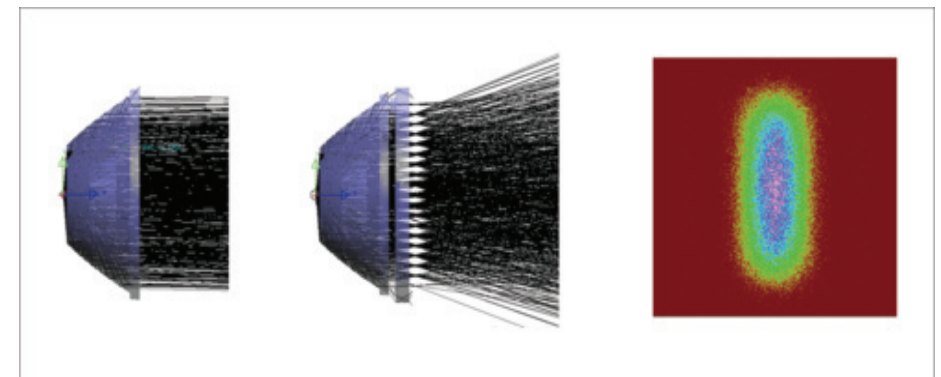
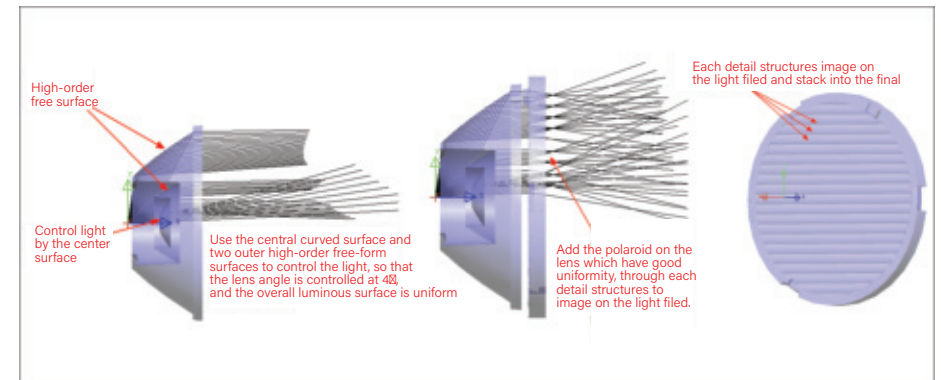


## Introduction

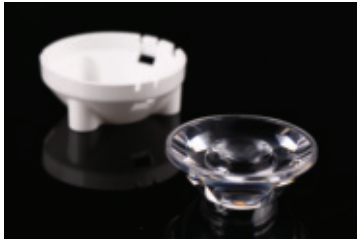
Polaroid means using the normally narrow beam angle circle optics to achieve different beam angle, different shape of the facula. Main application is the partial lighting in the art exhibition, not only can achieve different facula requirements, but also can decrease the cost effectively.

## Principle

Redistributing the collimating light by each tiny structures to achieve different beam angle and different shape optics, then mixed to achieve different target facula.



# POLAROID



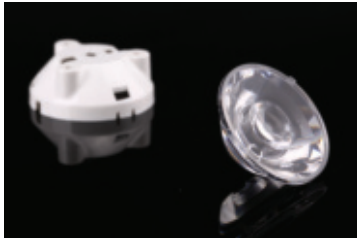
**30@11**

φ: 30mm H: 11mm  
Material: PC  
FWHM: 6°  
Efficiency: 90%



**35@21**

φ: 35mm H: 21mm  
Material: PC  
FWHM: 7°  
Efficiency: 90%



**40@15**

φ: 40mm H: 15mm  
Material: PC  
FWHM: 4° / 6.9°  
Efficiency: 90%



**50@18**

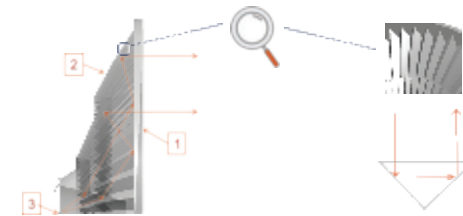
φ: 50mm H: 18mm  
Material: PC  
FWHM: 3°  
Efficiency: 90%



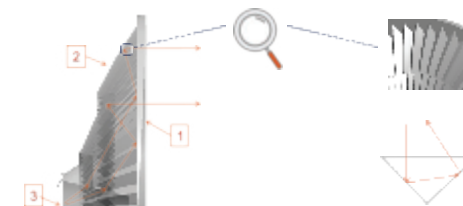
# SUNFLOWERS

## Design Principle

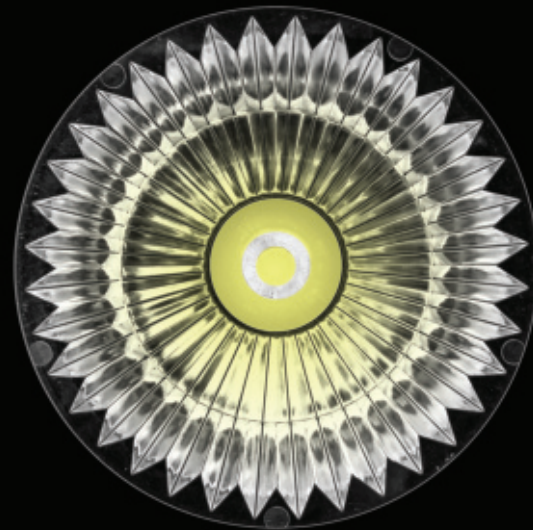
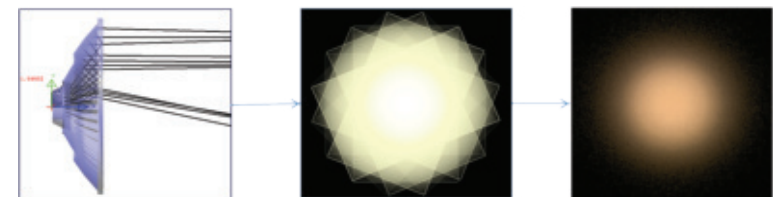
Triple-Reflection technology is a great innovation based on Calculus technology, greatly reduced the lens height compare with the original calculus lens, let the light reflect three times inside the lens, make sure get good light distribution with lower height lens.



Graphic 1 is a fully reflecting surface and a optical emitting surface, light from graphic 3(LED) fully reflected to graphic 2(included angle) by the surface 1, then totally reflect two times in the included angle, at last all lights emit out from surface 1 by total three times reflection.

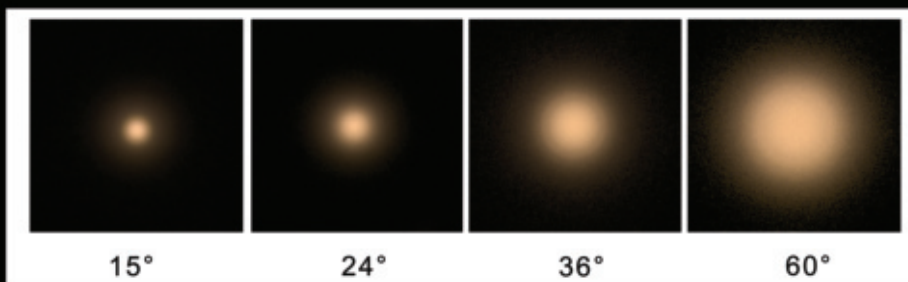


The reflect surfaces of included angle 2 are all fully reflecting surface, control the lens angle by adjust the surface shape. Ultrathin thickness 8mm, thinner than thinner, save more space for designer. Application: MR16/GU10/Downlight/Par20.

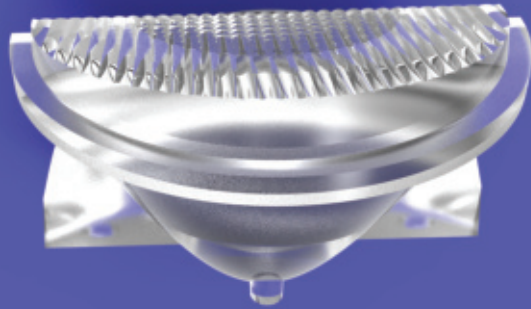


## SUNFLOWERS: HK-45@08-XX-7070-20-1g-1

$\varphi$ : 45mm H: 8mm Material: PC Efficiency: 88% FWHM: 15°/24°/36°/60°



# WATERFALL



## Structure design

The structure of the lens is matched with the design method of the lens, and the holder design has its own anti-glare function. (Due to the inconsistency of different lamps, HercuLux can provide design reference for the holder)

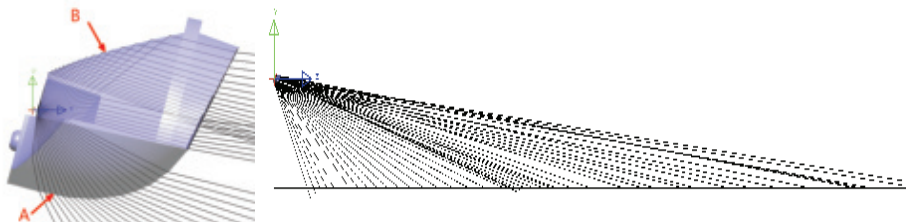


## Product characteristics

High wall washing height, uniform light spot, high efficiency, applicable to low-pole lighting such as indoor wall washing and outdoor guardrail lights.

## Light distribution

Using a combined light distribution, the optics at the top and bottom of the wall can be separated. The optical part of the lens is separated into part A (transmission type) and part B (total reflection type). The two parts are combined with light distribution to achieve wall washing lighting. The combination of the transmissive surface and the reflective surface makes the wall wash height high, close to the wall, and wide horizontal distance.



### 35@23

φ: 35mm      H: 23mm

Material: PMMA

Efficiency: 80%



### 47@38

φ: 47mm      H: 38mm

Material: PMMA

Efficiency: 80%

# AURORA

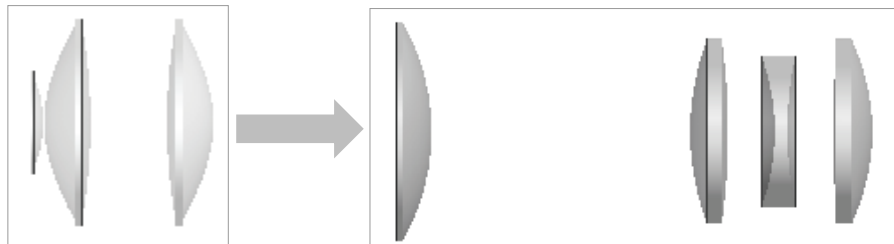


## Aurora lens light-cut function

The original light-cutting function is retained, and the shape of the light spot can be freely changed by blocking the light and imaging. This upgrade inserts all use magnetic suction, which is more fluent and more balanced than before.

## Aurora lens optical principle

Aurora completely abandons the previous optical surface, the upgraded light spot has no blue edges and is more uniform and cut off, and this upgrade is a glass lens that can carry higher power.



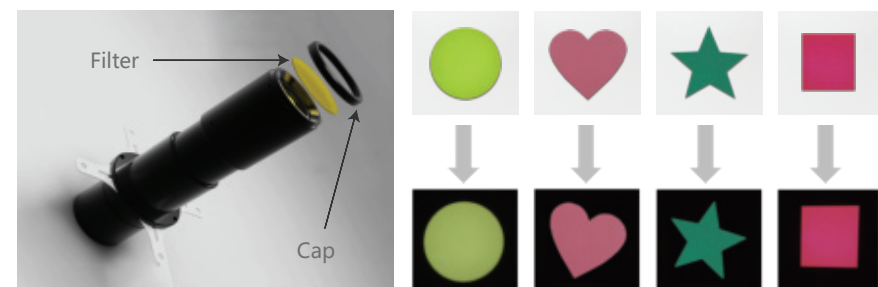
## Aurora lens projection function

Aurora adds a logo light function. By changing the LOGO film and adjusting the front lens, you can get different logo imaging. The logo film mounting ring uses magnetic suction to make installation convenient and simple.



## Aurora lens Color changing function

Aurora has added a filter function. By installing different filters, you can get the same spot as the color of the filter. Aurora can get different colors of light spots by changing the filter, and it can also cut the light spots into different shapes.



Application: Museum lighting, Art exhibition lighting or lighting used in special application.



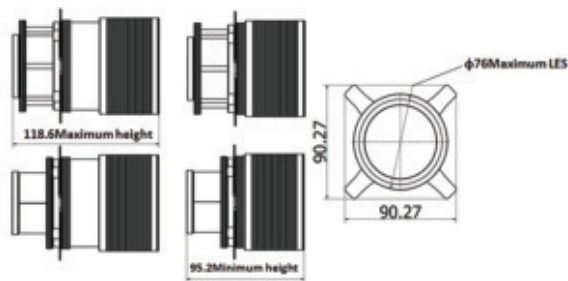
# TRANSFORMERS



**TRANSFORMERS: HK-76@95-199----ASM**

Size: L:119mm D:76mm  
Efficiency: 70%

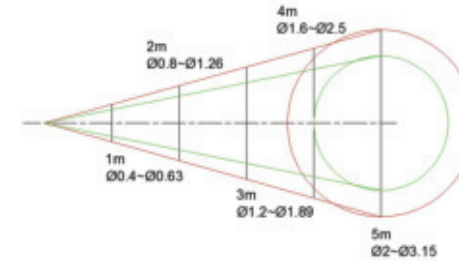
## Structure diagram



## Introduction

This product consists of triple lens plus special structure. By moving the front and center lenses, the product can be made into circular patches of different sizes with clear or blurred borders.

At the same time, through four inserts, the product can also freely adjust the circular spot to the following types of light spots.

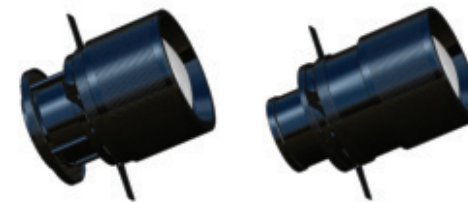


## Instructions

Transformers, its initial form is as follows:

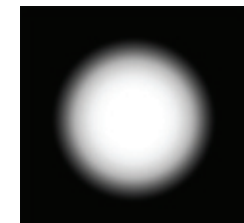
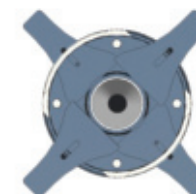


At this moment, turn left and right respectively 1, 2, Get the following pattern:



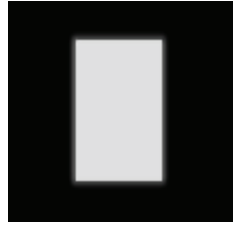
Pulling the part pointed by arrow 1 can change the sharpness of the spot boundary; Pulling the part pointed by arrow 2 changes the spot size. At the same time plug four inserts; Spin can change the spot shape arbitrarily, as the following example shows:

Insert the initial state as the right, A circular spot.



# TRANSFORMERS

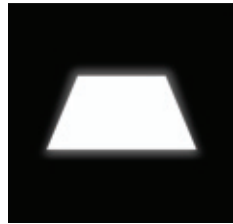
Changing the position of the insert, the circular spot will change to a rectangular spot as shown below, as shown below.



Change the position of the insert, as shown below, the circular spot will become a parallelogram spot.



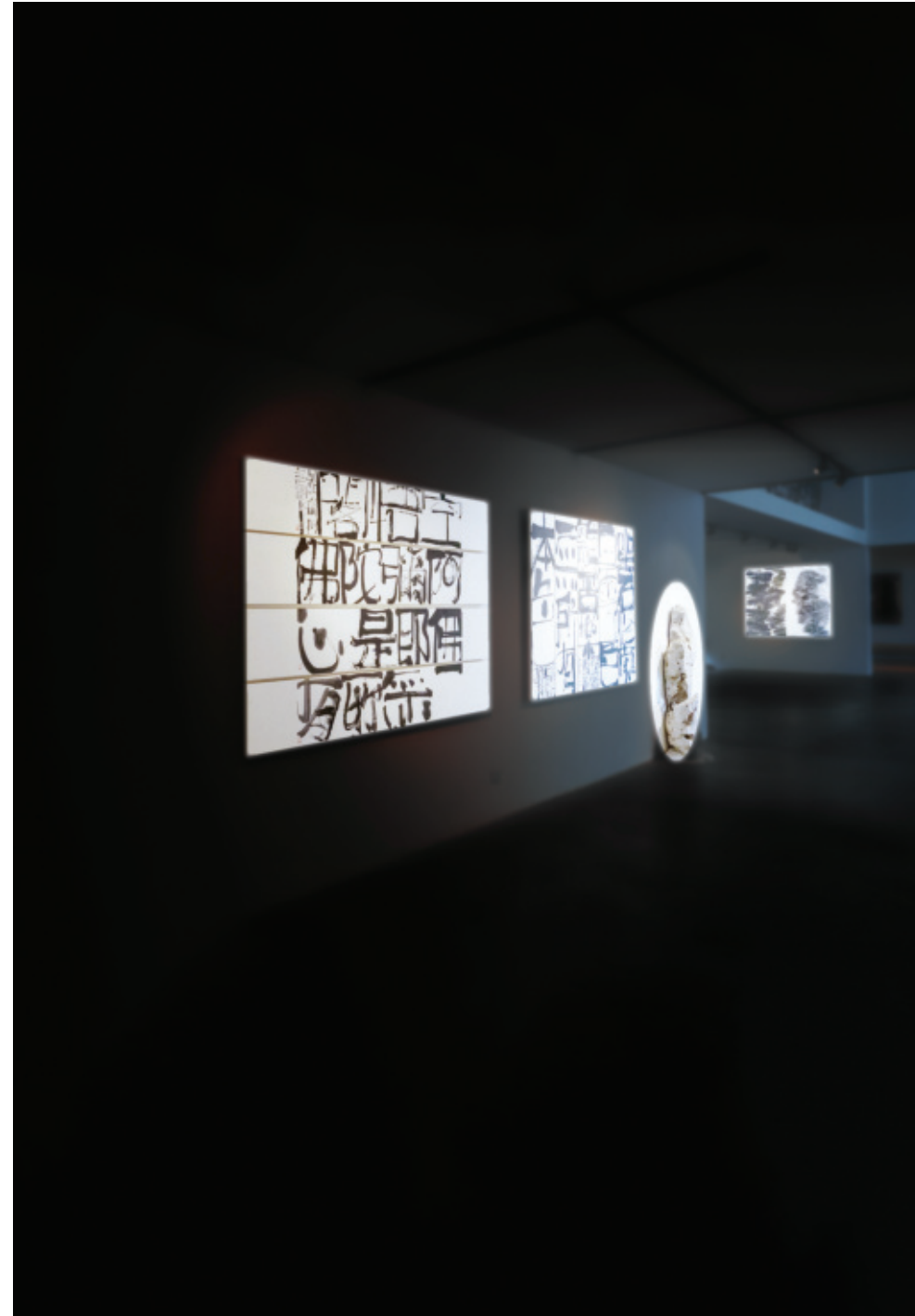
Change the insert position, as shown below, the circular spot will become a trapezoidal spot.



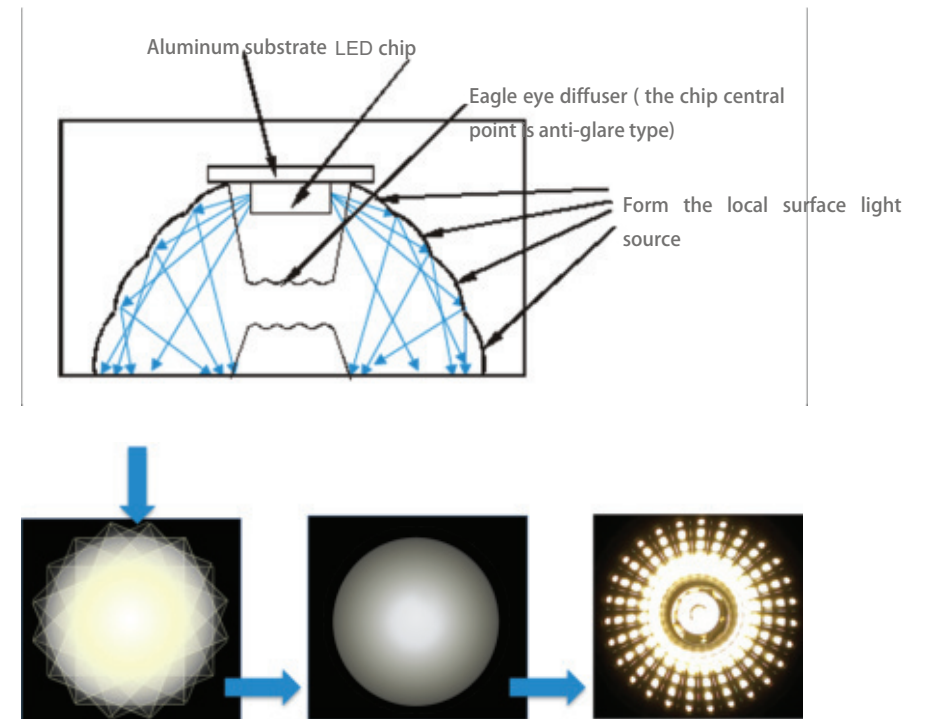
## Cooling installation size



When customers create cooling base, the remaining size can be customized, in addition to the size marked on the map for a fixed size. Application: Museum lighting, Art exhibition lighting or lighting used in special application.



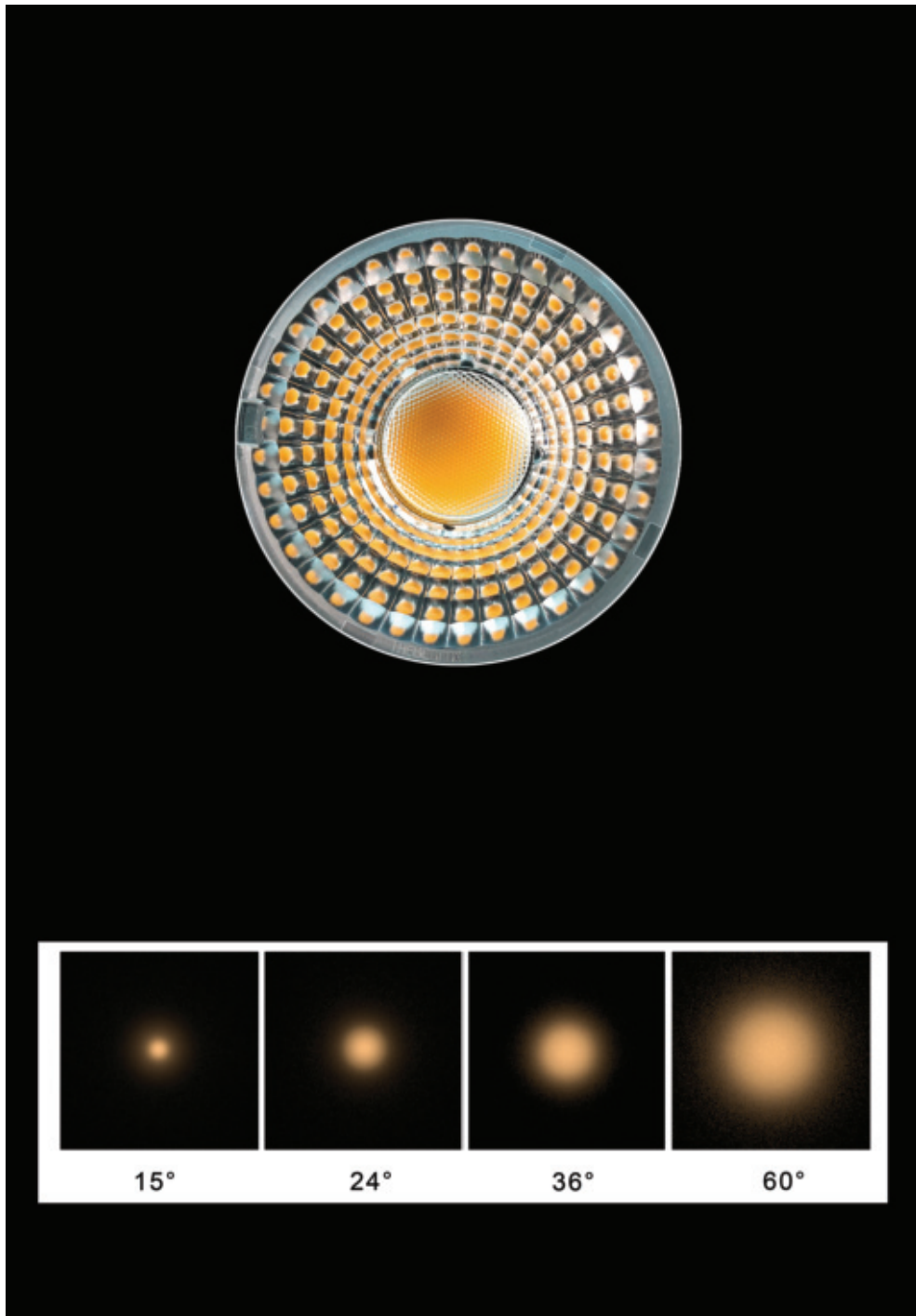
Principle



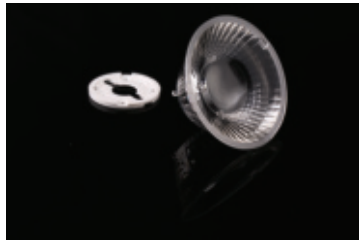
Make segmentation differential process for the wave surface of several scale light sources. In this way, the light source will be cut into several sub-light sources. (differential calculus for light source);

Each sub-light source forms sub-facula on the light field. The centers coincide with each other, rotate and overlay (differential calculus of light field) and form a lighting field with uniform color;

The light received by each scale would be consistent or with uniform change. In this way, the glaring surface of lens would have the same brightness and prevent dazzling.

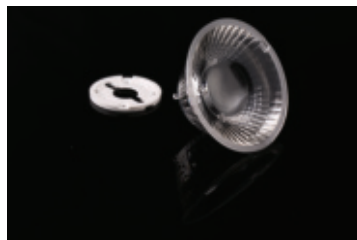


# DIAMOND



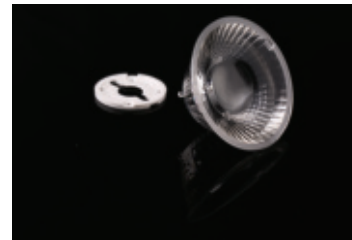
**35@12.4**

φ: 35mm H: 12.4mm  
Material: PMMA  
FWHM: 24°/38°  
Efficiency: 92%



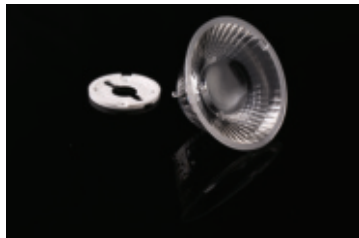
**35@17**

φ: 35mm H: 17.2mm  
Material: PMMA  
FWHM: 15°/24°/38°/60°  
Efficiency: 92%



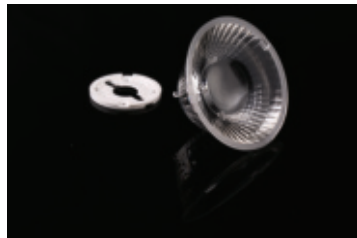
**43@22.8**

φ: 43mm H: 22.8mm  
Material: PMMA  
FWHM: 15°/24°/36°/60°/90°/120°  
Efficiency: 92%



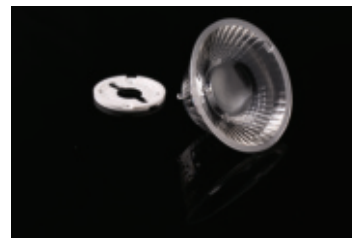
**44@18**

φ: 44mm H: 18mm  
Material: PMMA  
FWHM: 24°/38°  
Efficiency: 92%



**44@20**

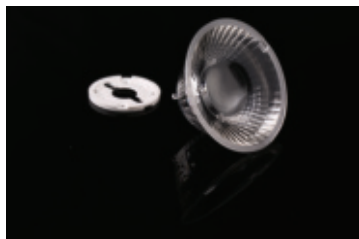
φ: 44mm H: 20mm  
Material: PC  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%



**46@24**

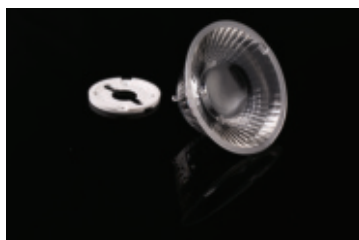
φ: 44.5mm H: 24.4mm  
Material: PMMA  
FWHM: 10°  
Efficiency: 92%

# DIAMOND



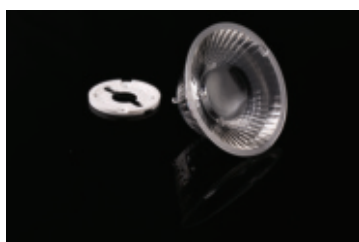
## 52@25

φ: 52mm H: 25mm  
Material: PMMA  
FWHM: 15°/24°/36°  
Efficiency: 92%



## 55@21

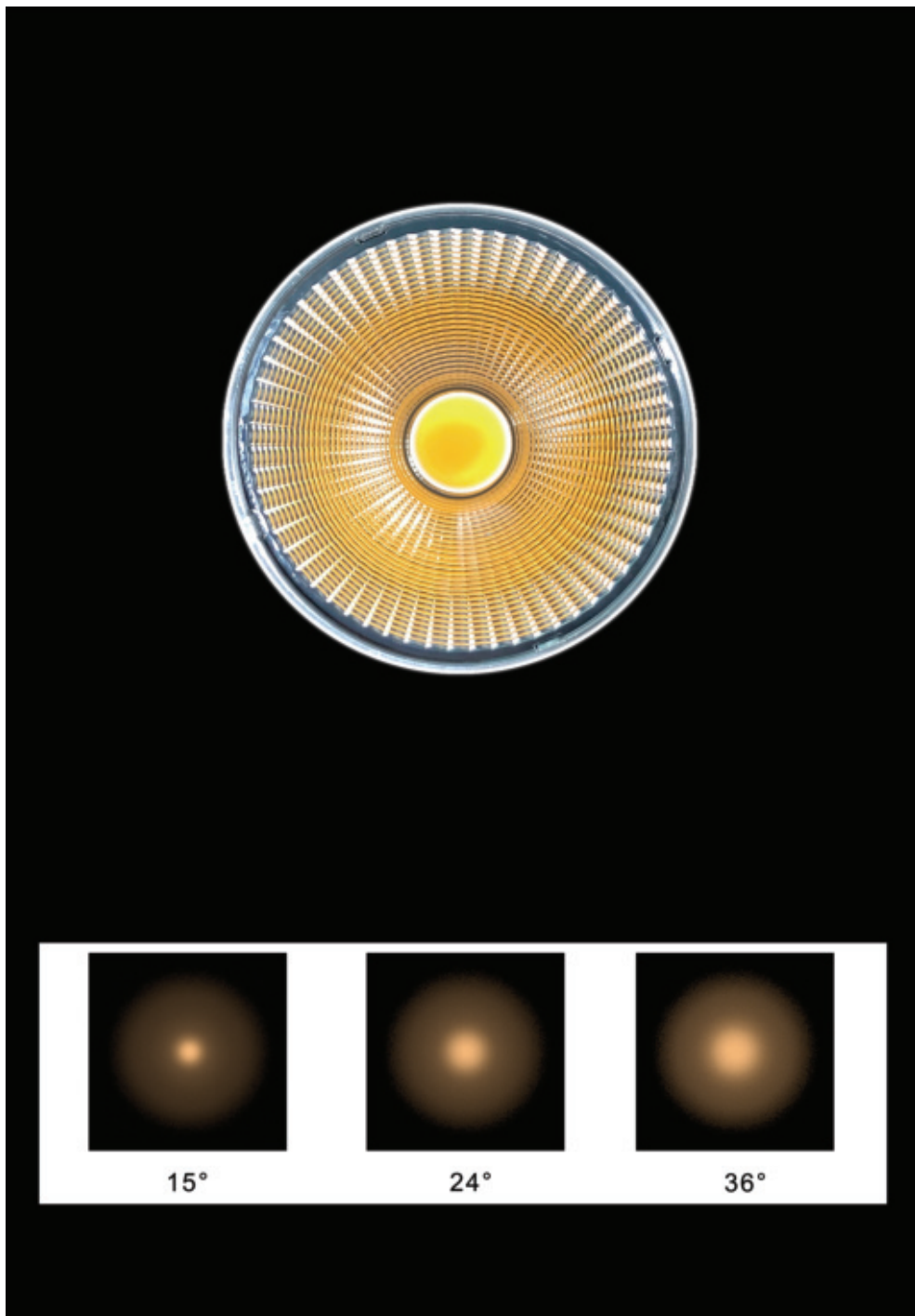
φ: 55mm H: 21mm  
Material: PMMA  
FWHM: 15°/24°/36°/60°  
Efficiency: 90%



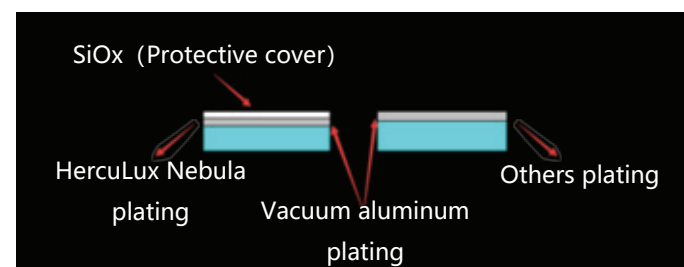
## 62@22

φ: 62mm H: 22mm  
Material: PMMA  
FWHM: 30°/38°/60°/90°  
Efficiency: 92%





Features



1、 Assembly:

Easy assembling own buckle design and supporting holder design, easy for assembling and precise positioning

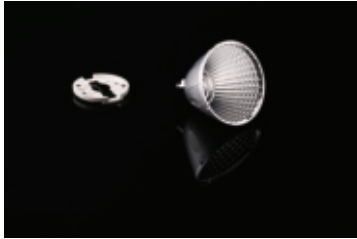
2、 Flexible replacement:

Easy Changing By special buckle and supporting holder and holder design, can easy change the reflector to get different beam angle in project site;

3、 Coating technology:

SiOx plating Automotive-grade reflective glass vacuum Plating technology of aluminum and SiOx, separate air and the aluminum plating, Superior anti-corrosion performance, can pass NaOH Alkali solution testing.

# NEBULA



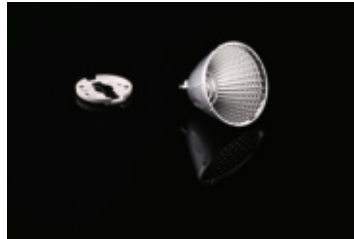
## 44@20

φ: 44mm H: 20mm

Material: PC+ Vacuum Aluminum  
Plating PC+SiOx

FWHM: 15°/24°/36°

Efficiency: 90%



## 50@35

φ: 50mm H: 35mm

Material: PC+ Vacuum Aluminum  
Plating PC+SiOx

FWHM: 15°/24°/36°

Efficiency: 90%



## 69@46

φ: 69mm H: 46mm

Material: PC+ Vacuum Aluminum  
Plating PC+SiOx

FWHM: 15°/24°/36°

Efficiency: 90%



## 75@54

φ: 75mm H: 54mm

Material: PC+ Vacuum Aluminum  
Plating PC+SiOx

FWHM: 15°/24°/36°

Efficiency: 90%



## 95@64

φ: 95mm H: 64mm

Material: PC+ Vacuum Aluminum  
Plating PC+SiOx

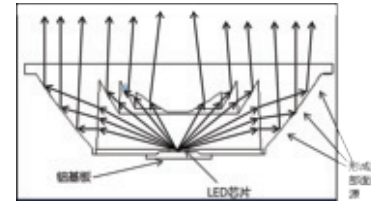
FWHM: 15°/24°/36°

Efficiency: 90%

# LIGHTNING

## Principle

Adapted the calculus and Fresnel technology, have good effect although the short height assemble, and lower UGR importantly.

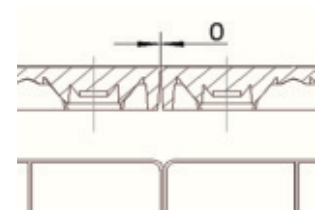


## Appearance

HercuLux adopted the calculus and Fresnel technology, make the lens looked beautiful, the scales' space create the similar effect like the grid when lighting, and the surface brightness is more downy. Own technology, enough patents.

## Structure

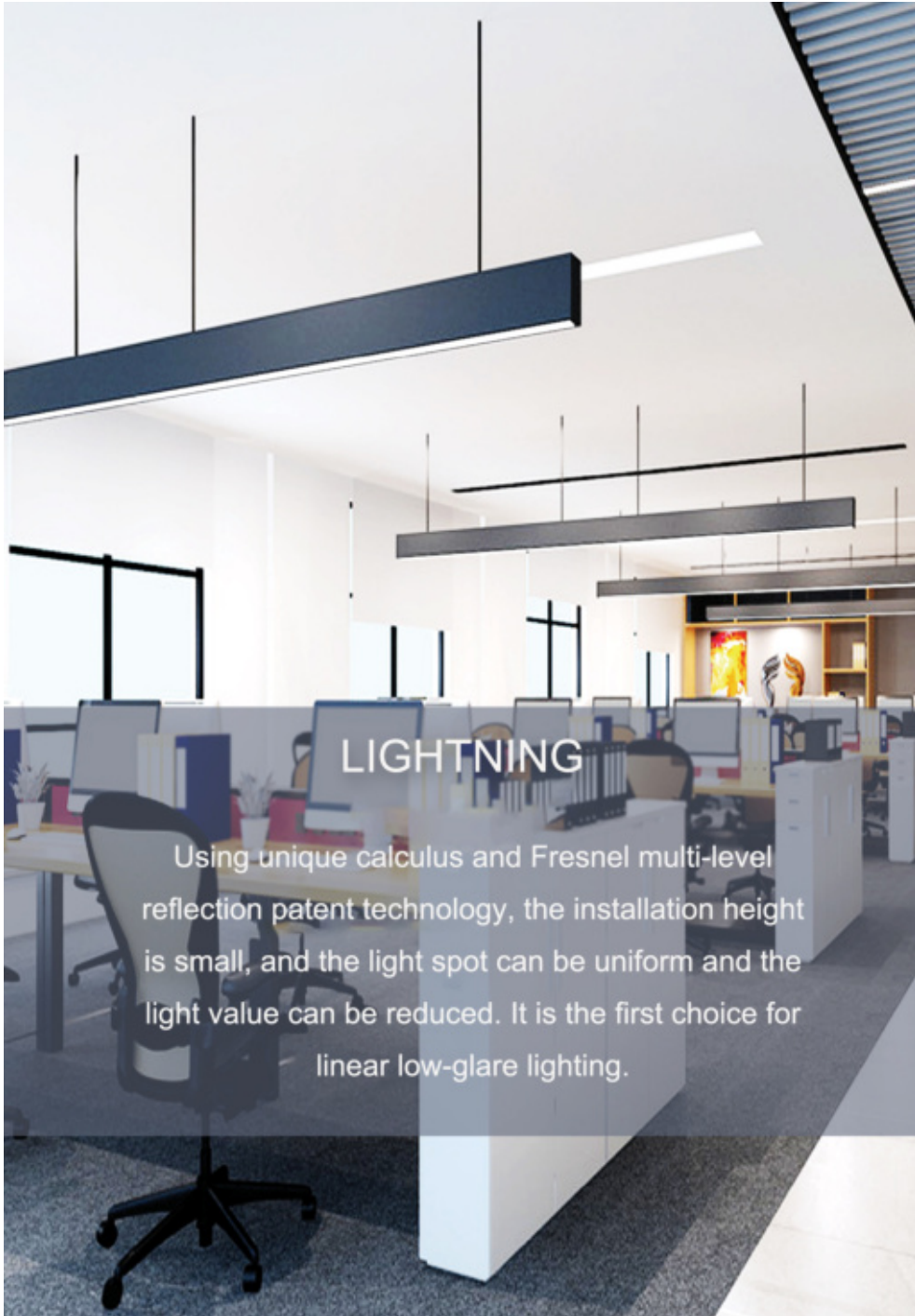
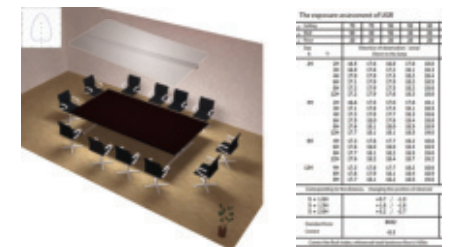
1、Injecting the glue from the module front surface, upper is bigger than the under, can achieve the lens zero clearance assembled.



2、Optical PC material, enough heat and weather resistance, UL-94: V2; UV cut : f1.

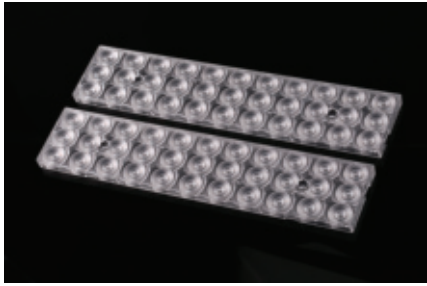
## UGR

UGR In our optical designing experience, the better angle for the office lighting is 80°, lower UGR



**LIGHTNING**  
Using unique calculus and Fresnel multi-level reflection patent technology, the installation height is small, and the light spot can be uniform and the light value can be reduced. It is the first choice for linear low-glare lighting.





**LIGHTNING**

HK-286@10-XX-3030-22-1g-33

Size: L:286mm W:61mm

FWHM: 30°/60°/80°

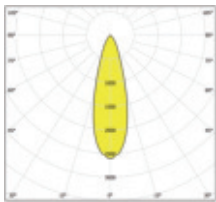
Material: PC

Efficiency: 86%

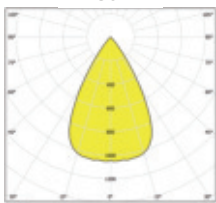
Application: Linear Light

Lens by LED:

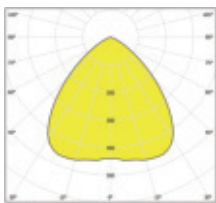
SMD 3030/2835



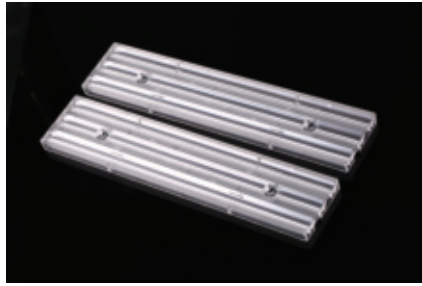
30°



60°



80°



**LIGHTNING**

HK-286@10-XX-3030-22-1g-3

Size: L:286mm W:61mm

FWHM: Asymmetric/Double asymmetric

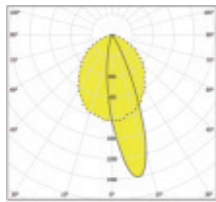
Material: PC

Efficiency: 86%

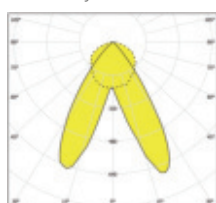
Application: Linear Light

Lens by LED:

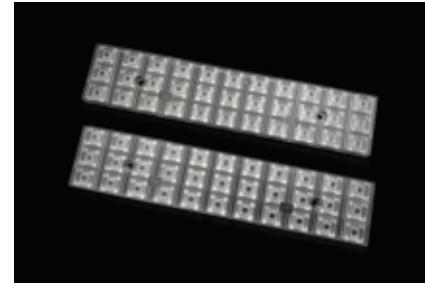
SMD 3030/2835



Asymmetric



Double asymmetric



**LIGHTNING**

HK-286@08-XX-3030-22-1g-33

Size: L:286mm W:61mm

FWHM: 30°/60°/80°

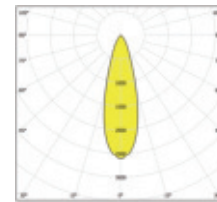
Material: PMMA

Efficiency: 88%

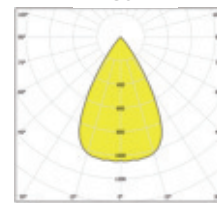
Application: Linear Light

Lens by LED:

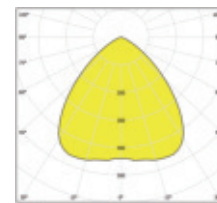
SMD 3030/2835



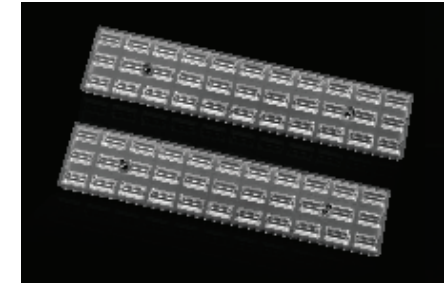
30°



60°



80°



**LIGHTNING**

HK-286@08-XX-3030-22-1g-33

Size: L:286mm W:61mm

FWHM: Asymmetric/Double asymmetric

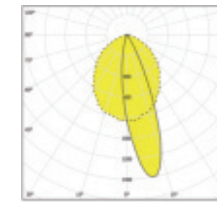
Material: PMMA

Efficiency: 88%

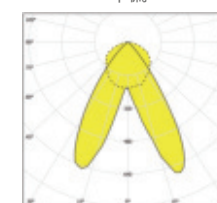
Application: Linear Light

Lens by LED:

SMD 3030/2835



单偏



双偏



Comet

The unique calculus imitation COB technology is adopted to perfectly solve the color mixing problem of discrete SMD light sources and achieve high K value light distribution. The light spot transitions evenly.



Comet

HK-45@13-XX-3030-22-1g-1

Size:  $\Phi$ : 45 mm H: 13.3mm

FWHM: 30°

Material: PC

Efficiency: 88%

Application: PAR16、Down Light

Lens by LED:

Copy COB: 6PCS 3030 , 6PCS 2835



Comet

HK-51@16-XX-3030-22-1g-1

Size:  $\Phi$ : 51.3 mm H: 16.3mm

FWHM: 25°/40°

Material: PC

Efficiency: 88%

Application: PAR20、Down Light

Lens by LED:

Copy COB: 6PCS 3030 , 6PCS 2835



Comet

HK-73@20-XX-3030-22-1g-1

Size:  $\Phi$ : 73.3 mm H: 20.3mm

FWHM: 25°/40°

Material: PC

Efficiency: 88%

Application: PAR30、Down Light

Lens by LED:

Copy COB: 6PCS 3030 , 6PCS 2835



Comet

HK-83@24-XX-3030-22-1g-1

Size:  $\Phi$ : 94.2 mm H: 24mm

FWHM: 25°/40°

Material: PC

Efficiency: 88%

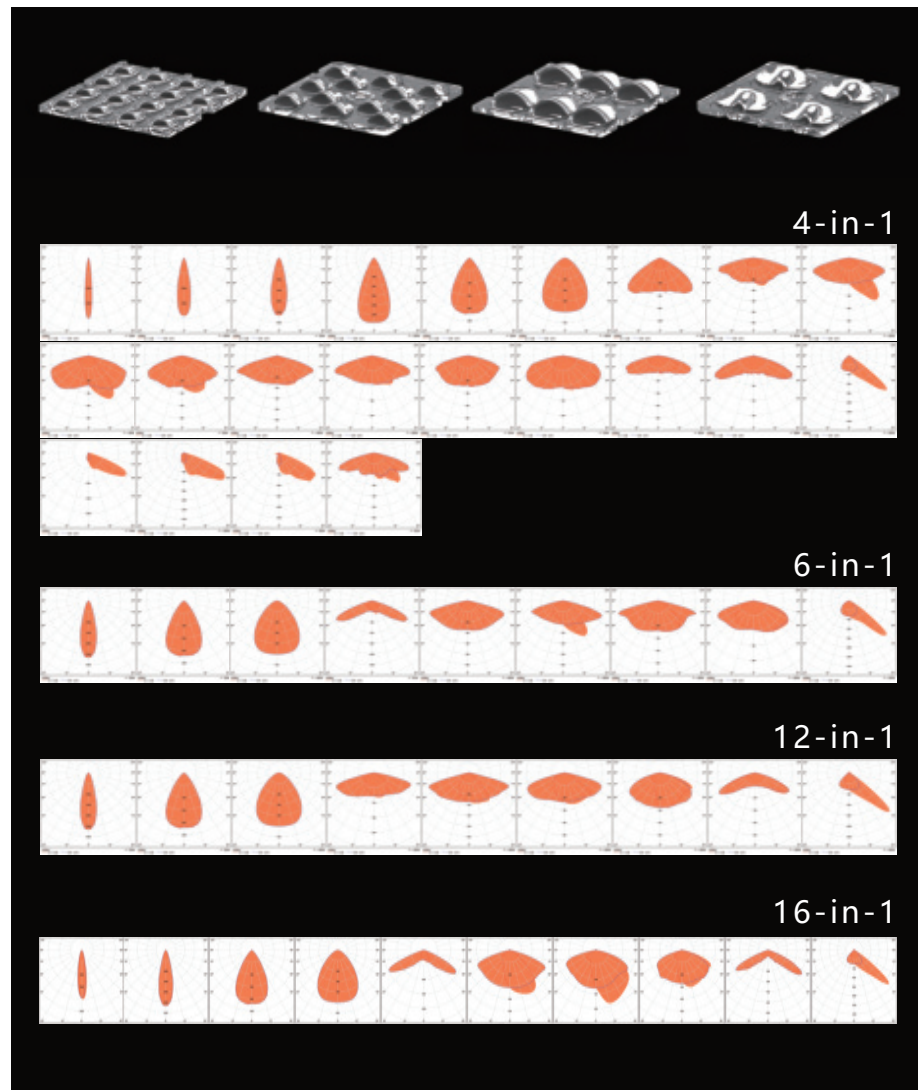
Application: PAR38、Down Light

Lens by LED:

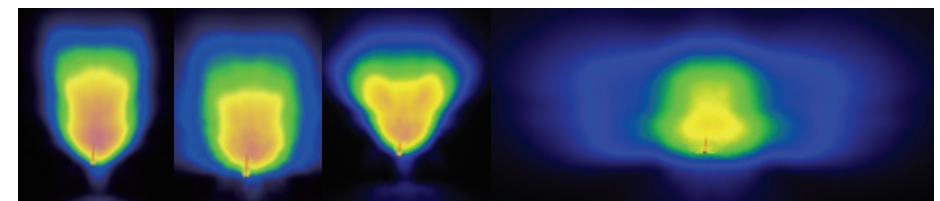
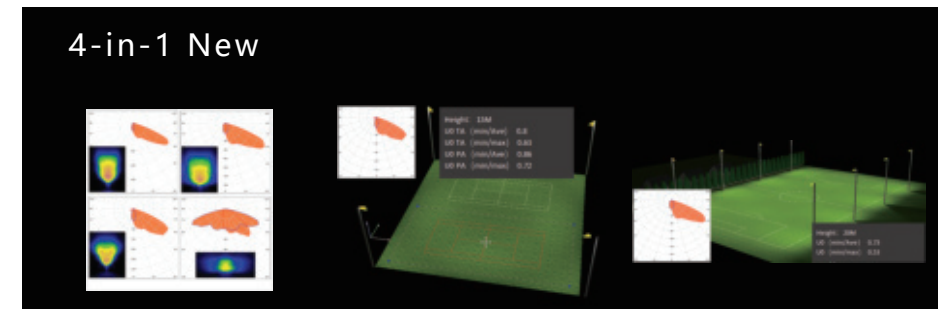
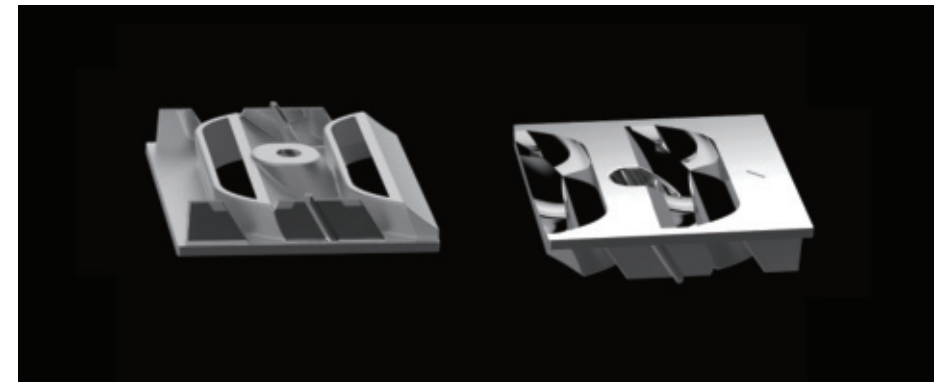
Copy COB: 6PCS 3030 , 6PCS 2835

# MATRIX

HercuLux outdoor Matrix platform shows a standard module with a square size of 50mm x 50mm. Based on this modular size, different forms of optics are developed. 4-in-1, 6-in-1, 12-in-1, 16-in-1, and each form of optics has a lot of light distribution options.



According to TM-15-07 (revised edition), the data of backward light is a very important parameter in many lighting standards. In this regard, the newly launched 4-in-1 mainly reduces the proportion of backward light to achieve a more reasonable light distribution. For the stadium lighting scheme, reducing the backward light will also greatly improve the viewing effect and improve the effective utilization of light.



MATRIX	Size (L:50mm W:50mm)			
	PN	Material	FWHM	Lens by LED
4-in-1	HK-50@12-10-3535-02-1g-4	PC/PMMA	10°	5050/3535
	HK-50@09-25-XTE-20-1g-4		25°	
	HK-50@09-50-XTE-20-1g-4		50°	
	HK-50@10-30-5050-20-1g-4		30°	
	HK-50@10-60-5050-20-1g-4		60°	
	HK-50@10-90-5050-20-1g-4		90°	
	HK-50@09-120X50-5050-#0-1g-4		120°X50°	
	HK-50@09-150X65-5050-#0-1g-4		150°X65°	
	HK-50@09-150X60-5050-#0-1g-4		150°X60°	
	HK-50@09-140X30-5050-#0-1g-4		140°X30°	
	HK-50@09-148-5050-#0-1g-4		148°	
	HK-50@09-150X60-5050-#0-1g-4_T2S		150°X60°	
	HK-50@09-150X70-5050-#0-1g-4_T3M		150°X70°	
	HK-50@08-150X50-5050-#0-1g-4_T2-2		150°X50°	
	HK-50@08-150X70-5050-#0-1g-4		150°X70°	
	HK-50@10-22X100-5050-#0-1g-4		22°X100°	
	HK-50@09-150X50-5050-#0-1g-4		150°X50°	
	HK-50@09-150X65-5050-#0-1g-4		150°X65°	
	HK-50@10-22X138-5050-#0-1g-4		22°X138°	
	6-in-1		HK-50@10-30-5050-20-1g-6	
HK-50@08-60-5050-#0-1g-6		60°		
HK-50@07-90-5050-#0-1g-6		90°		
HK-50@07-80X156-5050-#0-1g-6		80°X156°		
HK-50@07-96X155-5050-#0-1g-6		96°X155°		
HK-50@07-120X148-5050-#0-1g-6		120°X148°		
HK-50@09-20X100-5050-#0-1g-6	20°X100°			

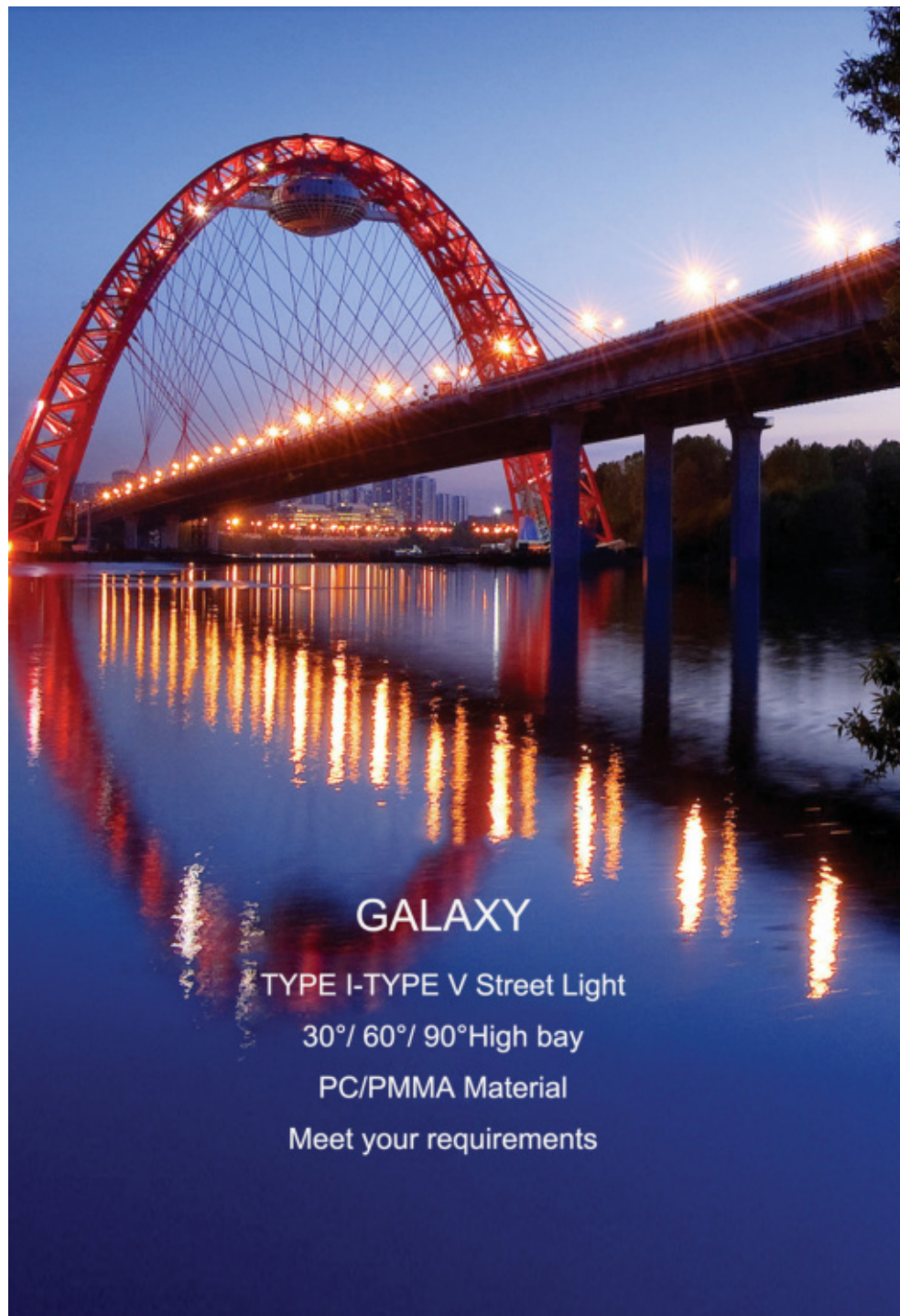
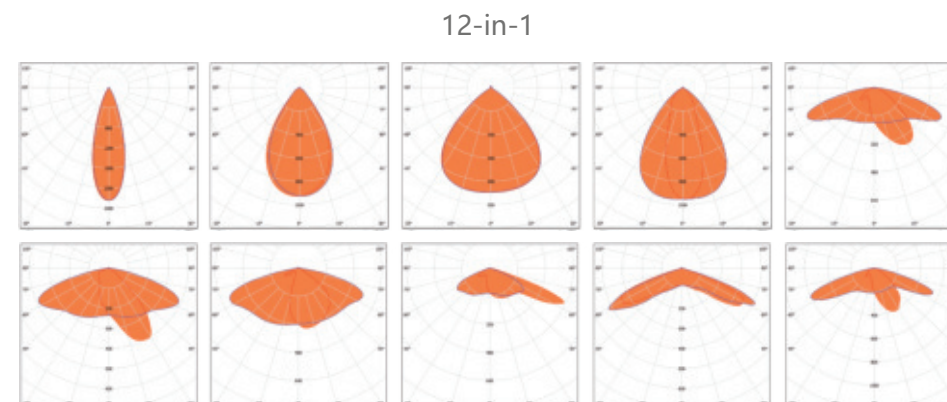
MATRIX	Size (L:50mm W:50mm)			
	PN	Material	FWHM	Lens by LED
12-in-1	HK-50@06-30-3030-20-1g-12	PC/PMMA	30°	3535/3030
	HK-50@05-60-3030-#0-1g-12		60°	
	HK-50@06-60-3030-20-1g-12		60°	
	HK-50@05-90-3030-#0-1g-12		90°	
	HK-50@04-160X90-3030-#0-1g-12		160°X90°	
	HK-50@05-150X75-3030-#0-1g-12		150°X75°	
	HK-50@05-156X75-3030-#0-1g-12		156°X75°	
	HK-50@04-50X140-3030-#0-1g-12		50°X140°	
	HK-50@05-135-3030-#0-1g-12		135°	
	HK-50@07-22X100-3030-#0-1g-12		22°X100°	
16-in-1	HK-50@07-20-3030-20-1g-16	PC/PMMA	20°	3535/3030
	HK-50@06-30-3030-#1-1g-16		30°	
	HK-50@05-60-3030-#0-1g-16		60°	
	HK-50@06-60-3030-20-1g-16		60°	
	HK-50@04-90-3030-#0-1g-16		90°	
	HK-50@05-140X70-3030-#0-1g-16		140°X70°	
	HK-50@05-70X150-3030-#0-1g-16		70°X150°	
	HK-50@04-150X80-3030-#0-1g-16		150°X80°	
	HK-50@04-50X140-3030-#0-1g-16		50°X140°	
	HK-50@04-140X140-3030-#0-1g-16		140°X140°	
HK-50@06-22X100-3030-#0-1g-16	22°X100°			

## Features

- 1、 The installation is flexible, and the number of lenses can be flexibly selected according to the power /module of the lamp;
- 2、 The matching light source is diversified 56-in-1 lens can match the common 2835/3030 light source in the market; 28-in-1 can match the common 5050 light source in the market; 12-in-1 lens can match the common 5050 light source in the market;
- 3、 Complete light distribution to meet North American road standards, European standards and GB-CJJ45-2015 (ME4);
- 4、 Special optical form to effectively control the backward light.

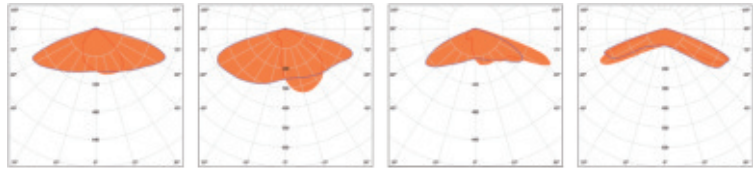
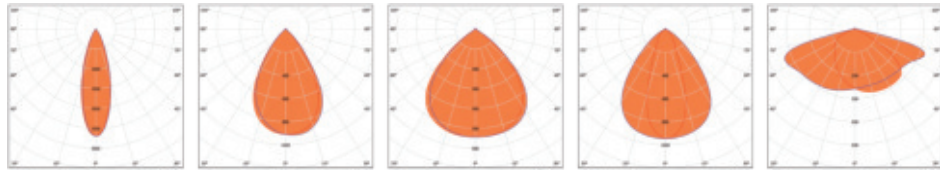


## Light distribution

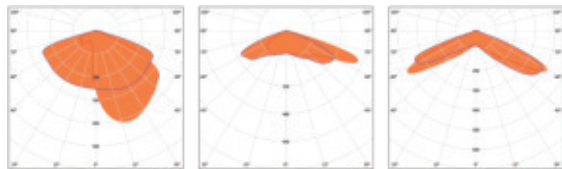
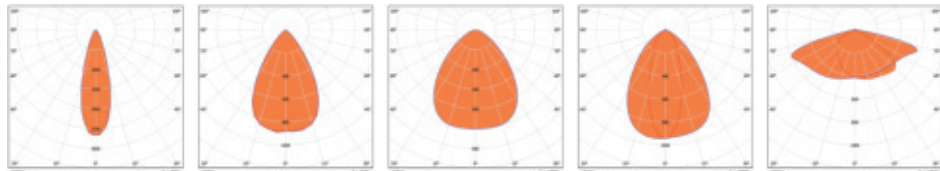


Light distribution

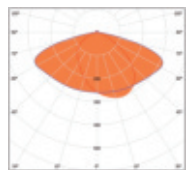
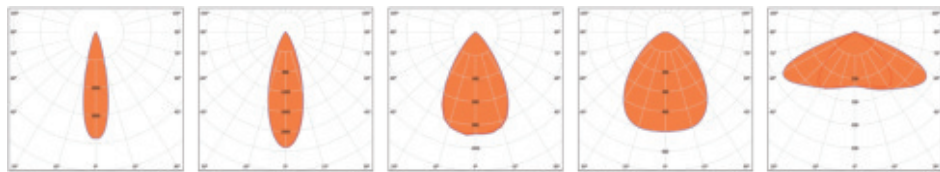
28-in-1



56-in-1



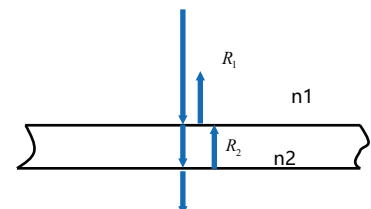
60-in-1



GALAXY	PN	Material	FWHM	Lens by LED
12-in-1 Size L:173mm W:71.4mm	HK-173@12-30-5050-20-1g-12	PC/PMMA	30°	5050
	HK-173@10-60-5050-#0-1g-12		60°	
	HK-173@09-90-5050-#0-1g-12		90°	
	HK-173@10-40X80-5050-#0-1g-12		40°X80°	
	HK-173@11-50X148-5050-#0-1g-12		50°X148°	
	HK-173@09-42X150-5050-#0-1g-12		42°X150°	
	HK-173@12-60X150-5050-#0-1g-12		60°X150°	
	HK-173@10-30X140-5050-#0-1g-12		30°X140°	
	HK-173@08-140-5050-#0-1g-12		140°	
HK-173@11-50x148-5050-#0-1g-12H	50°X148°			
28-in-1 Size L:260mm W:70mm	HK-260@11-30-5050-20-1g-28	PC/PMMA	30°	5050
	HK-260@09-60-5050-#0-1g-28		60°	
	HK-260@07-90-5050-#0-1g-28		90°	
	HK-260@10-40X80-5050-00-1g-28		40°X80°	
	HK-260@08-150X80-5050-#0-1g-28		150°X80°	
	HK-260@10-65x152-5050-#0-1g-28		65°X152°	
	HK-260@10-30X140-5050-#0-1g-28		30°X140°	
	HK-260@08-140-5050-#0-1g-28		140°	
HK-260@08-150X70-5050-#0-1g-28	150°X70°			
56-in-1 Size L:260mm W:70mm	HK-260@09-30-3030-20-1g-56	PC	60°	3030
	HK-260@07-60-3030-#0-1g-56		90°	
	HK-260@07-90-3030-#0-1g-56		160°X90°	
	HK-260@07-40X80-3030-#0-1g-56		150°X75°	
	HK-260@07-150X80-3030-#0-1g-56		156°X75°	
	HK-260@07-63X150-3030-20-1g-56		50°X140°	
	HK-260@07-13X138-3030-#0-1g-56		135°	
HK-260@07-138-3030-#0-1g-56	22°X100°			
60-in-1 Size L:252mm W:70mm	HK-252@09-24-3030-20-1g-60	PC	24°	3030
	HK-252@09-36-3030-20-1g-60		36°	
	HK-252@07-60-3030-#0-1g-60		60°	
	HK-252@07-90-3030-#0-1g-60		90°	
	HK-252@07-150X70-3030-#0-1g-60 HK-252@07-135X100-3030-#0-1g-60		150°X70° 135°X100°	

## Basic Concepts

When lights pass by a surface with differentiated refractive index, they will be reflected by the surface.

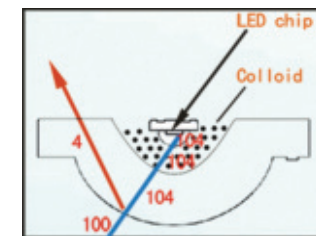
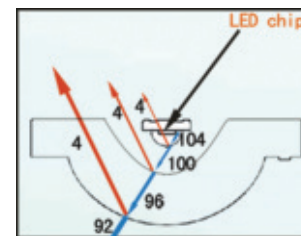


If  $n1=1$  ( Air ),  $n2=1.5$  (Common optical materials)

$$R1=R2=\left(\frac{n1-n2}{n1+n2}\right)^2=\left(\frac{1-1.5}{1+1.5}\right)^2\approx 4\%$$

$$R1+R2\approx 8\%$$

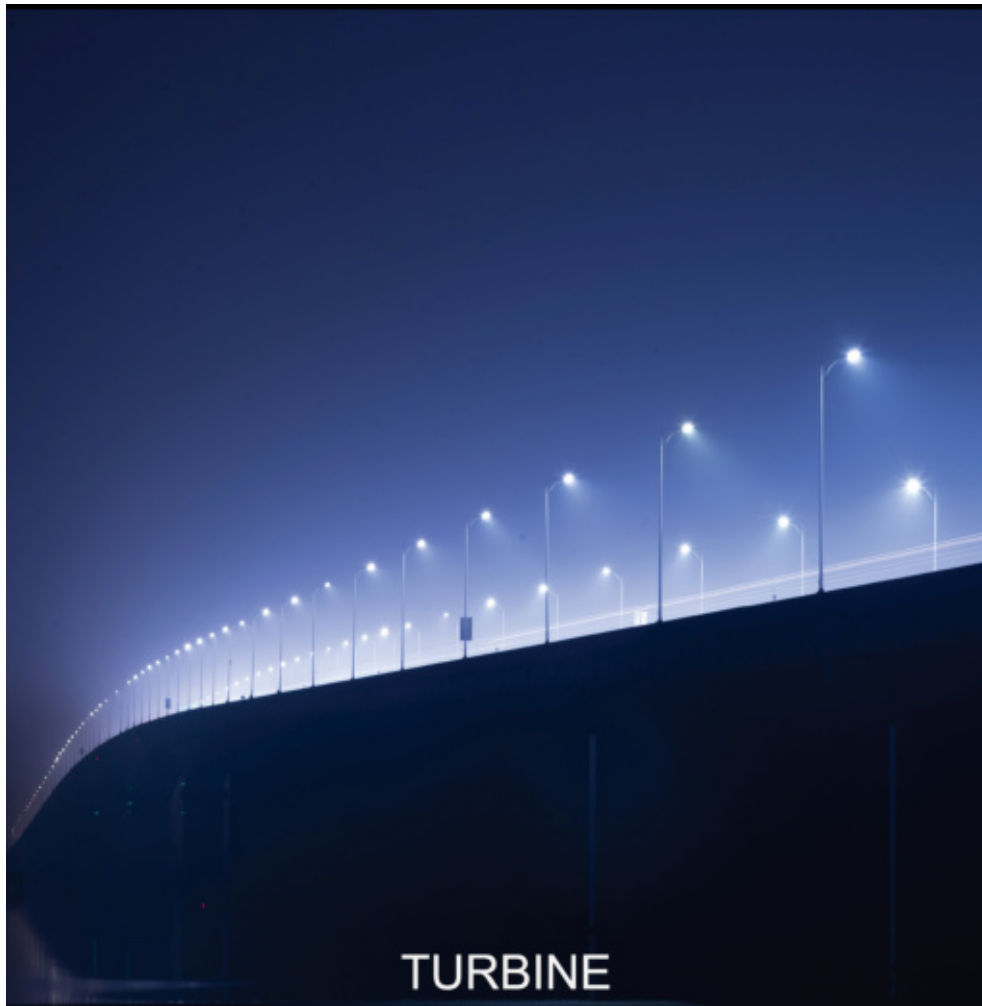
## Principles



## Technological advantages

Increase 8% of luminous efficiency, save 8% of cost, save 8% of energy;  $8\%+8\%>16\%$

Phosphors can be added to the colloid; High color temperature LED can be used to achieve low color temperature luminous flux output, and even adjust the color temperature (the benefits are obvious).



**TURBINE**

Self-adaptive Glue Technology

Lens Efficiency  $\geq 100\%$

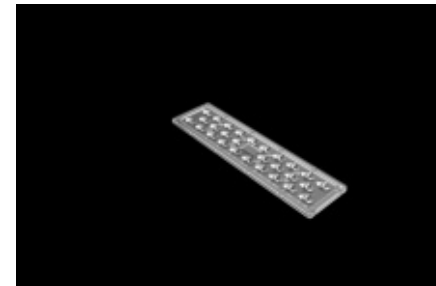
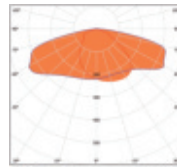
Application: Street Lamp/High Bay/Tunnel Lamp

# TURBINE



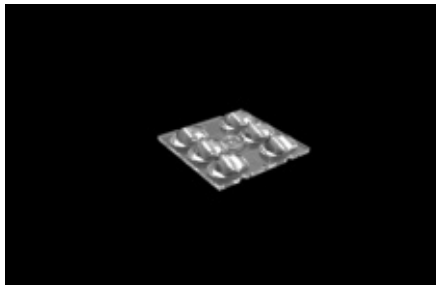
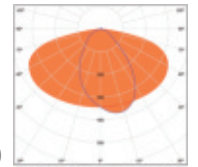
HK-50@09-155X80-5050-#0-0g-4

Size: L:50mm W:50mm  
FWHM: 155°X80°  
Material: PC  
Efficiency: 99%  
Application: Outdoor  
Lens by LED: SMD 5050



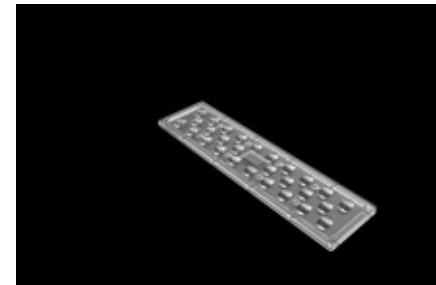
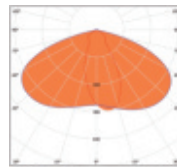
HK-260@09-150x70-5050-#0-0g-28

Size: L:260mm W:70mm  
FWHM: 150°X70°  
Material: PC  
Efficiency: 99%  
Application: Outdoor  
Lens by LED: SMD 5050



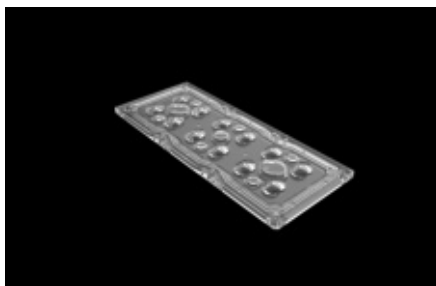
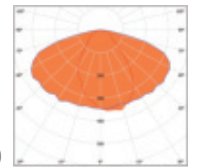
HK-50@09-150X70-5050-#0-0g-6

Size: L:50mm W:50mm  
FWHM: 150°X70°  
Material: PC  
Efficiency: 99%  
Application: Outdoor  
Lens by LED: SMD 5050



HK-260@09-150x70-5050-#0-0g-28-V

Size: L:260mm W:70mm  
FWHM: 150°X70°  
Material: PC  
Efficiency: 99%  
Application: Outdoor  
Lens by LED: SMD 5050



HK-173@08-150x100-5050-#0-0g-12

Size: L:173mm W:71.4mm  
FWHM: 150°X100°  
Material: PC  
Efficiency: 99%  
Application: Outdoor  
Lens by LED: SMD 5050

