



## OPTICAL ENERGY DESIGN & DEVICES

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HercuLux Optics is a high-tech enterprise dedicated to providing system solutions for LED lighting, UV curing, laser projection, AOI machine vision inspection and other applications. National Specialized, Specialized and New "Small Giant" High-tech Enterprises.



**HercuLux Optics** is a high-tech Specialized and Sophisticated SMEs dedicated to providing system solutions for applications such as LED lighting, UV curing, laser projection, and AOI machine vision inspection.

We have a R&D team with the background in the Institute of Optics and Electronics, Chinese Academy of Sciences, consisting of experts who have been working for decades in the fields of optics, precision optical molds and precision optical injection molding, fine chemicals and electronic control, as well as a highly efficient and passionate marketing team, which ensures fast product innovation, stable and reliable quality of the products, and fast and considerate service.

Since the start of our company, in order to address the secondary light distribution problems in many LED applications, the company has introduced products such as calculus anti-glare lens, nearly 100% efficiency of the adaptive colloidal street lamp lens, very small angle (less than 3 deg) outdoor spotlight lens, ultra-thin (thickness of less than 8mm) triple total reflection lens, the angle and spot shape of the optical lens module can be changed, efficiency of more than 90% of the zoom series, CCT changing COB can be matched full stroke high efficiency (greater than 80%) high center light intensity of the zoom optical module, MOS film, high temperature-resistant silicone materials and lens, anti-glare firefly series.

For the AOI machine vision inspection field, the introduction of photolithography plate plane shadowless light source, to fill the gaps in the domestic market; for the

printing curing field, the world's first introduction of full UV (A \ B \ C) LED direct contact with the large-scale printing press curing modules and systems, not only for the printing industry to save energy, but also for the printing industry to save energy, and the printing industry to save energy. system, not only for the printing industry energy saving and environmental protection to provide a perfect solution and further enhance the printing overprint accuracy and significantly reduce the odor of printed materials due to ozone.

**National High tech Enterprise** - Established in 2013; Obtained the national high-tech enterprise qualification in 2014; Obtaining the national high-tech enterprise qualification in 2014 was the first enterprise in Sichuan to obtain the national high-tech enterprise qualification the following year after its establishment.

**Computer Software Copyright** - To ensure the perfect presentation of design theoretical values on actual products, HercuLux has independently developed specialized optical conversion software and injection molding analysis precision compensation software.

**Patents** - The company has applied for more than 330 patents and has obtained 222 patent authorizations, including 11 authorized invention patents, 106 utility model patents, 105 appearance patents, and is currently applying for 3 PCT patents.

**R & D capabilities** - The R&D team of the company is composed of a team of experts with a background in the Institute of Optoelectronics, Chinese Academy of Sciences. There are 32 R&D personnel, accounting for 26.45% of the total number of employees. Among them, there are 8 full-time optical design engineers, including one senior engineer, three master's, and four undergraduate students.



008      DARK

032      RAINBOW

## KIRIN OPTICAL PLATFORM

012      GEMINI

036      V SERIES

056      PEAK PRO

070      LENS HOLDER

016      MOONY

040      ZOOM MODULE

058      SOFTY

072      LIGHT FILTER

020      GLARELESS

044      MAVIC & MAVIC PRO

062      FIREFLY-KIRIN

076      LIGHT HOOD

024      PEAK

050      KA PRO

066      SKYLINE-KIRIN

028      FILMY

054      MOONY PRO

068      COB HOLDER

**INDOOR**

082      PHOTON

092      BLACK HOLE

102      POLAROID

110      DIAMOND

086      KA

096      INFINITY

106      SUNFLOWER

114      NEBULA

090      CHAMELEON

100      FOCUS

108      WARTERFALL

116      CUSTOMIZED SOLUTIONS

# Products Code Rule





Filter Holder



Light Filter



Pin-pin replacement; COB holder: Same outer diameter,  
Screw position is consistent, Rotating interface is consistent.

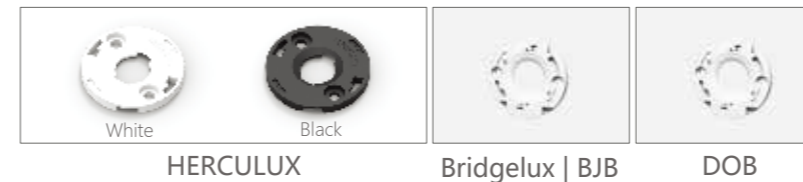
Lens



Lens Holder

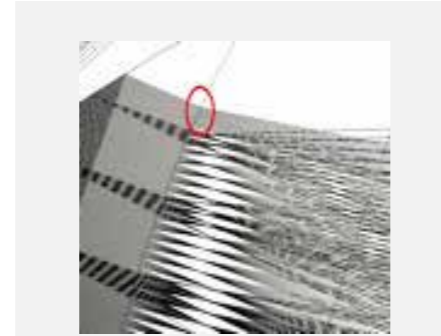
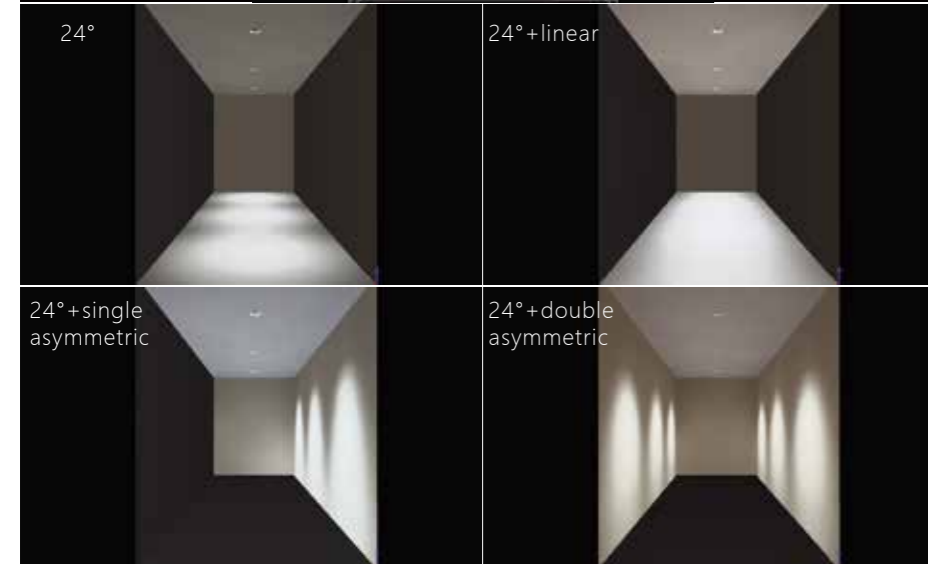
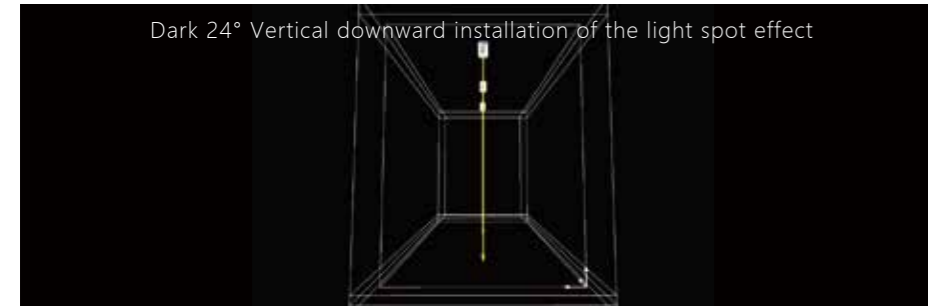


COB Holder



## DARK SERIES

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

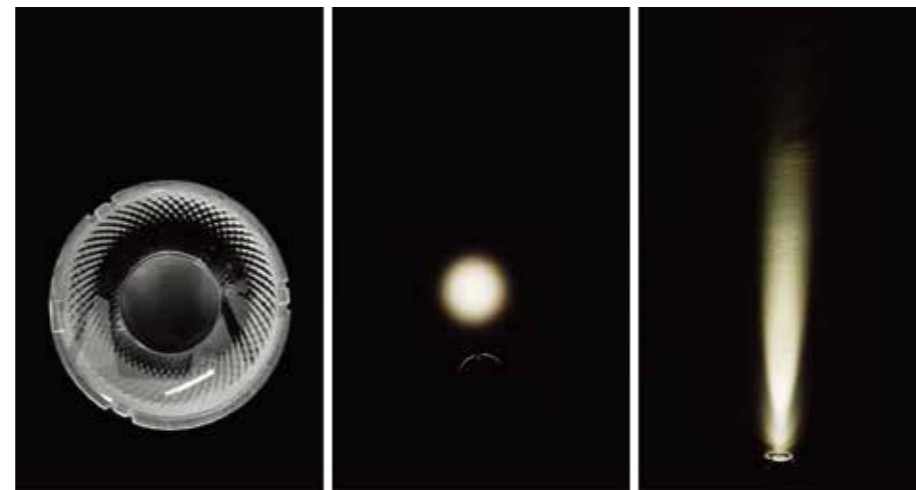


Based on the cross-light distribution design, coupled with the two-dimensional uniform light microstructure, the light spot can be softer, while the controllable light contributes relatively little to the background light, which makes the background light of the entire light spot.

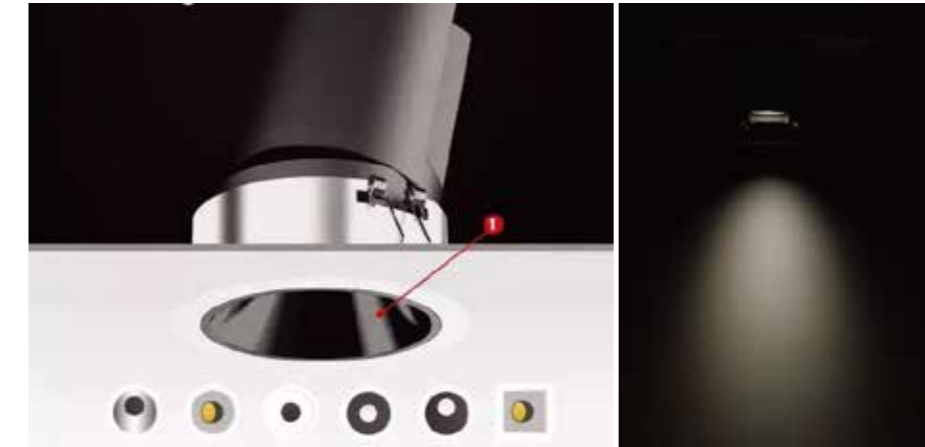


In order to achieve the best effect of the whole lamp, we will develop matching hoods on some lenses to make the optics of the lamp reach the best condition.

The unique optical design of the narrow beam angle makes the spot more concentrated while less glare.

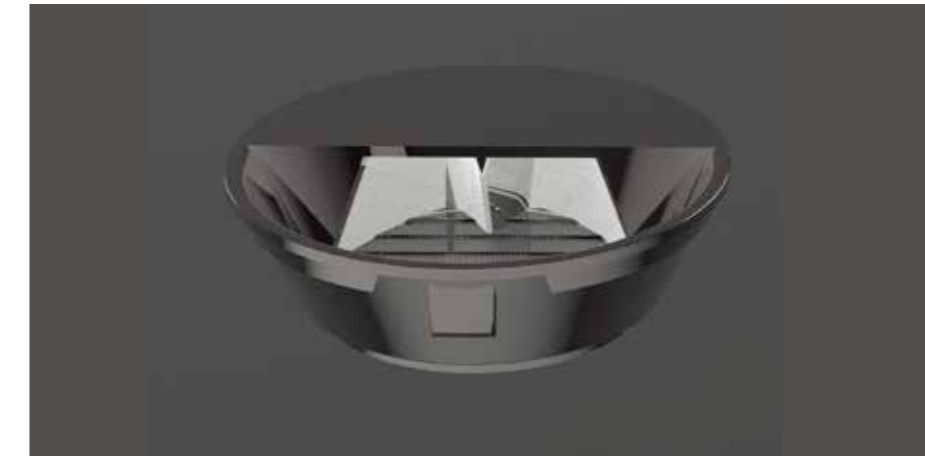


Hotel wall washer spotlight, deep anti-glare structure



Achieve the ultimate anti-glare effect

Principle make the lamp and lanterns with light holes smaller than the optical diameter, together with the small holes of the hood, hiding deeper and better control of glare, and the optical efficiency has little impact, but also to ensure that the spot effect.




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





Dark 20@11 (3535)	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.123411	20	11	10°	3535	70%	PMMA
	1.01.12754	20	11	15°	3535	91%/88%	PMMA/PC
	1.01.12755	20	11	24°	3535	91%/88%	PMMA/PC
	1.01.12756	20	11	36°	3535	91%/88%	PMMA/PC
	1.01.12757	20	11	50°	3535	91%/88%	PMMA/PC


Dark 20@11 (3030)	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12621	20	11	10°	3030	91%/88%	PMMA/PC
	1.01.12622	20	11	15°	3030	91%/88%	PMMA/PC
	1.01.12623	20	11	24°	3030	91%/88%	PMMA/PC
	1.01.12681	20	11	36°	3030	91%/88%	PMMA/PC


Dark 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23219	25	13	10°	D2.5	70%	PMMA
	1.01.92131	25	13	15°	D4	91%/88%	PMMA/PC
	1.01.92022	25	13	24°	D4	91%/88%	PMMA/PC
	1.01.92065	25	13	36°	D4	91%/88%	PMMA/PC
	1.01.92005	25	13	50°	D4	91%/88%	PMMA/PC


Dark 30@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12627	30	16	10°	D3.5	70%	PMMA
	1.01.92013	30	16	15°	D4	91%/88%	PMMA/PC
	1.01.92014	30	16	24°	D4	91%/88%	PMMA/PC
	1.01.92015	30	16	36°	D4	91%/88%	PMMA/PC
	1.01.92016	30	16	50°	D4	91%/88%	PMMA/PC


Dark 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12624	35	16	10°	D3.5	70%	PMMA
	1.01.91997	35	16	15°	D6	91%/88%	PMMA/PC
	1.01.92002	35	16	24°	D6	91%/88%	PMMA/PC
	1.01.92041	35	16	36°	D6	91%/88%	PMMA/PC
	1.01.92182	35	16	50°	D6	91%/88%	PMMA/PC


Dark 40@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33781	40	19	15°	D6	91%	PMMA
	1.01.33617	40	19	24°	D9	91%	PMMA
	1.01.33618	40	19	36°	D9	91%	PMMA
	1.01.44709	40	19	50°	D9	91%	PMMA


Dark 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02456	45	21	10°	D4	70%	PMMA+PC+Ceramic
	1.01.91887	45	21	15°	D6	91%/88%	PMMA/PC
	1.01.91831	45	21	24°	D6	91%/88%	PMMA/PC
	1.01.91889	45	21	36°	D6	91%/88%	PMMA/PC
	1.01.92073	45	21	50°	D6	91%/88%	PMMA/PC
	1.01.23269	45	21	60°	D6	91%/88%	PMMA/PC


Dark 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12626	50	24	10°	D6	91%	PMMA
	1.01.92006	50	24	15°	D9	91%/88%	PMMA/PC
	1.01.92007	50	24	24°	D9	91%/88%	PMMA/PC
	1.01.92062	50	24	36°	D9	91%/88%	PMMA/PC
	1.01.92150	50	24	50°	D9	91%/88%	PMMA/PC
	1.01.02442	50	24	50°	D6	91%	PMMA
	1.01.23389	50	24	80°	D9	91%	PMMA

Dark 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12632	55	25	10°	D6	91%	PMMA
	1.01.92028	55	25	15°	D9	91%/88%	PMMA/PC
	1.01.92029	55	25	24°	D9	91%/88%	PMMA/PC
	1.01.92074	55	25	36°	D9	91%/88%	PMMA/PC
	1.01.92046	55	25	50°	D9	91%/88%	PMMA/PC

Dark 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12634	62	30	10°	D6	91%	PMMA
	1.01.92023	62	30	15°	D9	91%/88%	PMMA/PC
	1.01.92040	62	30	24°	D9	91%/88%	PMMA/PC
	1.01.92072	62	30	36°	D9	91%/88%	PMMA/PC
	1.01.92180	62	30	50°	D9	91%/88%	PMMA/PC
	1.01.23393	62	30	80°	D9	91%	PMMA

Dark 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12630	68	32	10°	D9	91%	PMMA
	1.01.92018	68	32	15°	D9	91%	PMMA
	1.01.92019	68	32	24°	D12	91%	PMMA
	1.01.92055	68	32	36°	D12	91%/88%	PMMA/PC
	1.01.92177	68	32	50°	D12	91%	PMMA
	1.01.23289	68	32	60°	D12	91%	PMMA

Dark 75@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12628	75	35	10°	D9	91%	PMMA
	1.01.92024	75	35	15°	D12	91%	PMMA
	1.01.92025	75	35	24°	D14	91%/88%	PMMA/PC
	1.01.92068	75	35	36°	D14	91%/88%	PMMA/PC
	1.01.92080	75	35	50°	D14	91%/88%	PMMA/PC
	1.01.12854	75	35	70°	CLU038	91%	PMMA

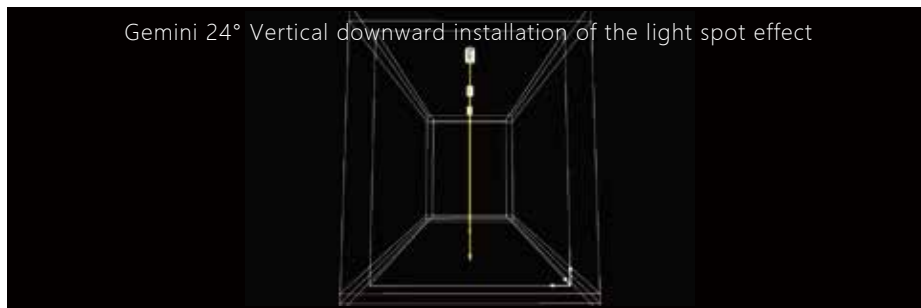
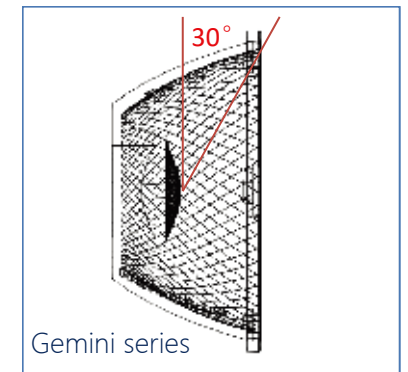
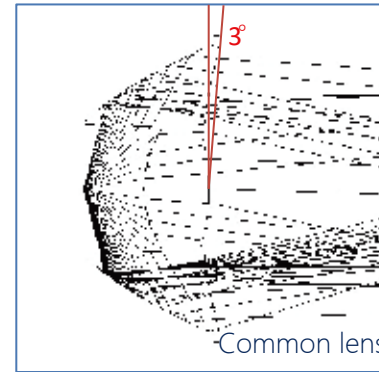
Dark 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12629	83	40	10°	D14	91%	PMMA
	1.01.02480	83	40	15°	D19	91%/88%	PMMA/PC
	1.01.02441	83	40	24°	D19	91%/88%	PMMA/PC
	1.01.02481	83	40	36°	D19	91%/88%	PMMA/PC
	1.01.02491	83	40	50°	D19	91%/88%	PMMA/PC
	1.01.12848	83	40	70°	CLU038	91%	PMMA

# GEMINI SERIES

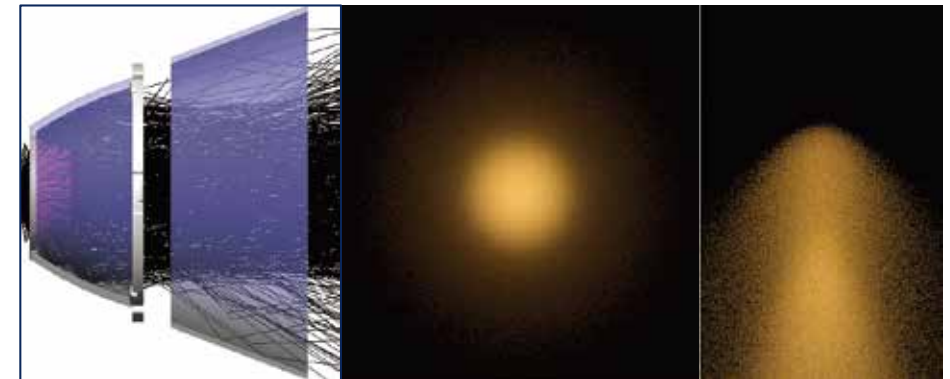
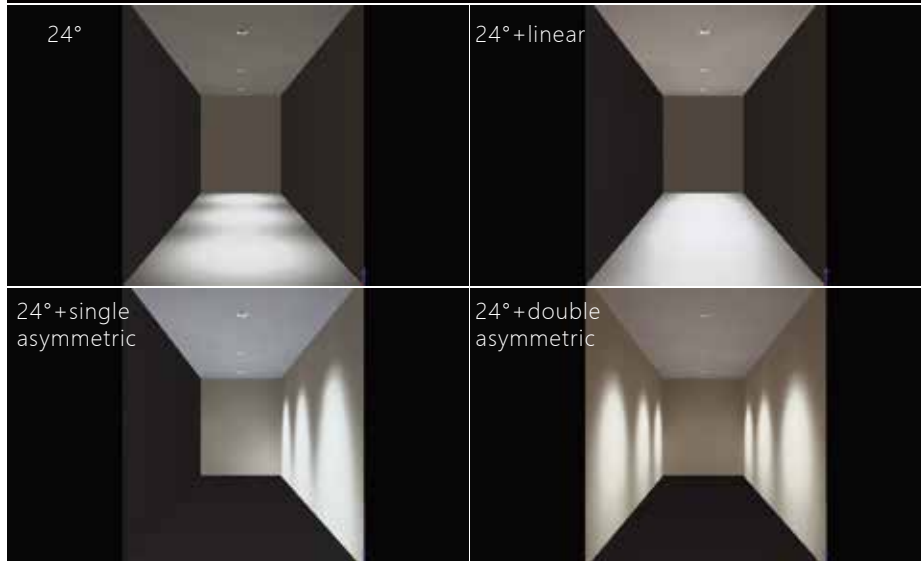
A reflector combines with a lens



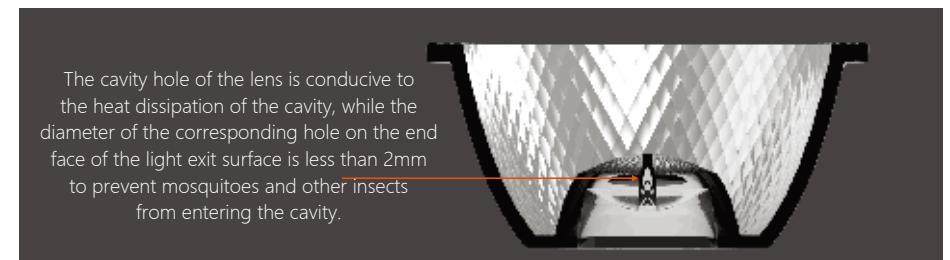
Comes with 30° anti-glare angle





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





Cross light control, reasonable light control




Gemini 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02242	25	13	18°	D4	80%	Vaccum
	1.08.02243	25	13	24°	D4	80%	Aluminum
	1.08.02244	25	13	36°	D4	80%	Aluminum
	1.08.12625	25	13	50°	D4	80%	Plating PC

Gemini 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02205	55	25	15°	D9	80%	Vaccum
	1.08.02210	55	25	24°	D9	80%	Aluminum
	1.08.02264	55	25	36°	D9	80%	Aluminum
	1.08.02265	55	25	50°	D9	80%	Plating PC


Gemini 30@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02305	30	16	15°	D4	80%	Vaccum
	1.08.02323	30	16	24°	D4	80%	Aluminum
	1.08.02325	30	16	36°	D4	80%	Aluminum
	1.08.02334	30	16	50°	D4	80%	Plating PC


Gemini 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02218	62	30	15°	D9	80%	Vaccum
	1.08.02315	62	30	24°	D9	80%	Aluminum
	1.08.02322	62	30	36°	D9	80%	Aluminum
	1.08.02307	62	30	50°	D9	80%	Plating PC


Gemini 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02251	35	16	15°	D6	80%	Vaccum
	1.08.02257	35	16	24°	D6	80%	Aluminum
	1.08.02273	35	16	36°	D6	80%	Aluminum
	1.08.02276	35	16	50°	D6	80%	Plating PC

Gemini 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02222	68	32	15°	D9	80%	Vaccum
	1.08.02241	68	32	24°	D12	80%	Aluminum
	1.08.02317	68	32	36°	D12	80%	Aluminum
	1.08.02331	68	32	50°	D12	80%	Plating PC

Gemini 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.92151	45	21	15°	D6	80%	Vaccum
	1.08.92115	45	21	24°	D6	80%	Aluminum
	1.08.02203	45	21	36°	D6	80%	Aluminum
	1.08.02196	45	21	50°	D6	80%	Plating PC

Gemini 75@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02283	75	35	15°	D12	80%	Vaccum
	1.08.02284	75	35	24°	D14	80%	Aluminum
	1.08.02311	75	35	36°	D14	80%	Aluminum
	1.08.02342	75	35	50°	D14	80%	Plating PC

Gemini 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02204	50	24	15°	D9	80%	Vaccum
	1.08.02209	50	24	24°	D9	80%	Aluminum
	1.08.02216	50	24	36°	D9	80%	Aluminum
	1.08.02217	50	24	50°	D9	80%	Plating PC

Gemini 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.12704	83	40	15°	D19	80%	Vaccum
	1.08.12696	83	40	24°	D19	80%	Aluminum
	1.08.12703	83	40	36°	D19	80%	Aluminum
	1.08.12708	83	40	50°	D19	80%	Plating PC

## MOONY SERIES

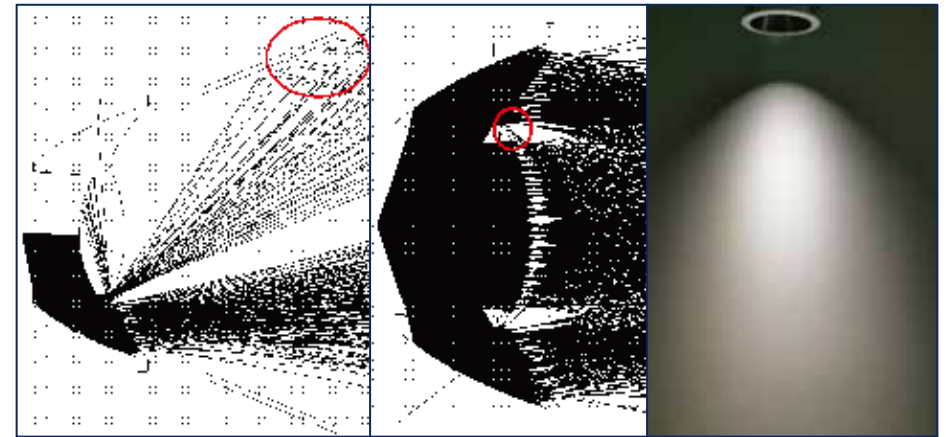
A clean wall washer lens can match with CCT changing COB



Moony series can achieve similar wall wash effect of reflector, with clean edge cutoff, even transition and no delamination, and can also be matched with CCT changing COB for smart lighting applications.




By strengthening the light on the receiving surface of the light emitting surface, this part of the light is forcibly cut off by the anti glare cover when passing through it, resulting in a clear cut-off line 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 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12959	25	13	18°	D4	91%/88%	PMMA/PC
	1.01.12818	25	13	24°	D4	91%/88%	PMMA/PC
	1.01.12869	25	13	36°	D4	91%/88%	PMMA/PC


Moony 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23168	55	25	15°	D9	88%	PC
	1.01.13010	55	25	24°	D9	88%	PC
	1.01.23164	55	25	36°	D9	88%	PC
	1.01.23173	55	25	50°	D9	88%	PC


Moony 30@15	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12774	30	15	15°	D6	88%	PC
	1.01.12775	30	15	24°	D6	88%	PC
	1.01.12776	30	15	36°	D6	88%	PC
	1.01.13064	30	15	50°	D6	88%	PC


Moony 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12980	62	30	15°	D9	88%	PC
	1.01.12976	62	30	24°	D9	88%	PC
	1.01.13013	62	30	36°	D9	88%	PC
	1.01.13056	62	30	50°	D9	88%	PC


Moony 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12736	35	16	15°	D6	88%	PC
	1.01.12700	35	16	24°	D6	88%	PC
	1.01.12746	35	16	36°	D6	88%	PC
	1.01.12927	35	16	50°	D6	88%	PC


Moony 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.13003	68	32	15°	D12	88%	PC
	1.01.12988	68	32	24°	D12	88%	PC
	1.01.13026	68	32	36°	D12	88%	PC
	1.01.13038	68	32	50°	D12	88%	PC

Moony 40@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33934	40	19	15°	D6	88%	PC
	1.01.33639	40	19	24°	D9	88%	PC
	1.01.33644	40	19	36°	D9	88%	PC
	1.01.33645	40	19	50°	D9	88%	PC

Moony 75@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23071	75	35	15°	D14	88%	PC
	1.01.12977	75	35	24°	D14	88%	PC
	1.01.13027	75	35	36°	D14	88%	PC
	1.01.13037	75	35	50°	D14	88%	PC

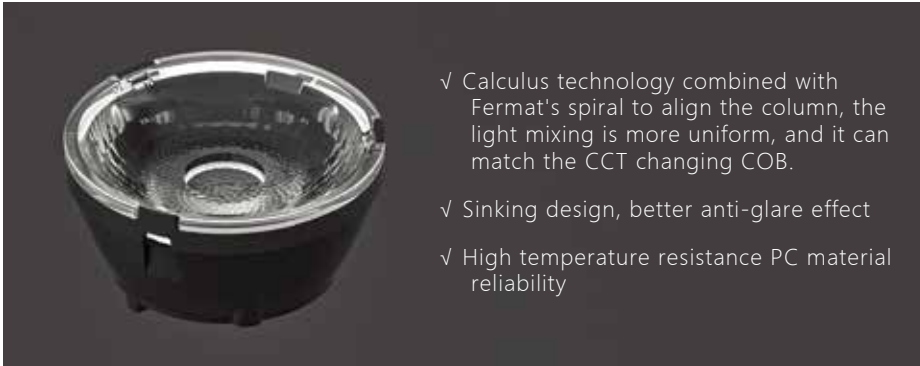
Moony 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12734	45	21	15°	D6	88%	PC
	1.01.12658	45	21	24°	D6	88%	PC
	1.01.12747	45	21	36°	D6	88%	PC
	1.01.12956	45	21	50°	D6	88%	PC

Moony 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23072	83	40	10°	D12	88%	PC
	1.01.12981	83	40	15°	D14	88%	PC
	1.01.13030	83	40	24°	D14	88%	PC
	1.01.13045	83	40	36°	D14	88%	PC

Moony 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12743	50	24	15°	D9	88%	PC
	1.01.12724	50	24	24°	D9	88%	PC
	1.01.12748	50	24	36°	D9	88%	PC
	1.01.12958	50	24	50°	D9	88%	PC

# GLARELESS SERIES

A lens with anti-glare effect

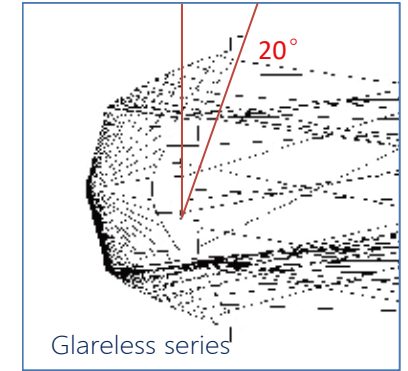
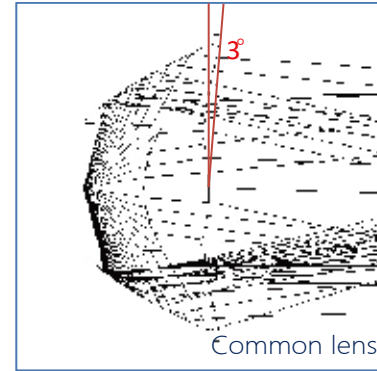


Smooth the surface, more conducive to anti-glare

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.



Come with 20° anti-glare angle




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	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12885	25	13	15°	D4	88%	PC
	1.01.12886	25	13	24°	D4	88%	PC
	1.01.12887	25	13	36°	D4	88%	PC
	1.01.12888	25	13	60°	D4	88%	PC


Glareless 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02551	55	25	15°	D9	88%	PC
	1.01.02552	55	25	24°	D9	88%	PC
	1.01.02553	55	25	36°	D9	88%	PC
	1.01.12860	55	25	60°	D9	88%	PC


Glareless 30@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02576	30	16	15°	D6	88%	PC
	1.01.02577	30	16	24°	D6	88%	PC
	1.01.02578	30	16	36°	D6	88%	PC
	1.01.12853	30	16	60°	D6	88%	PC


Glareless 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02566	62	30	15°	D12	88%	PC
	1.01.02548	62	30	24°	D12	88%	PC
	1.01.02573	62	30	36°	D12	88%	PC
	1.01.12805	62	30	60°	D12	88%	PC


Glareless 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02556	35	16	15°	D6	88%	PC
	1.01.02561	35	16	24°	D6	88%	PC
	1.01.02571	35	16	36°	D6	88%	PC
	1.01.12804	35	16	60°	D6	88%	PC


Glareless 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02560	68	32	15°	D12	88%	PC
	1.01.02547	68	32	24°	D12	88%	PC
	1.01.02572	68	32	36°	D12	88%	PC
	1.01.23069	68	32	60°	D12	88%	PC

Glareless 40@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.43938	40	19	15°	D6	88%	PC
	1.01.33711	40	19	24°	D9	88%	PC
	1.01.33728	40	19	36°	D9	88%	PC
	1.01.33755	40	19	60°	D9	88%	PC

Glareless 75@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02562	75	35	15°	D14	88%	PC
	1.01.02532	75	35	24°	D14	88%	PC
	1.01.02567	75	35	36°	D14	88%	PC
	1.01.12884	75	35	60°	D14	88%	PC

Glareless 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02559	45	21	15°	D6	88%	PC
	1.01.02537	45	21	24°	D9	88%	PC
	1.01.02539	45	21	36°	D9	88%	PC
	1.01.12861	45	21	60°	D9	88%	PC

Glareless 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02563	83	40	15°	D14	88%	PC
	1.01.02564	83	40	24°	D14	88%	PC
	1.01.02565	83	40	36°	D14	88%	PC
	1.01.12811	83	40	60°	D14	88%	PC

Glareless 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02581	50	24	15°	D9	88%	PC
	1.01.02582	50	24	24°	D9	88%	PC
	1.01.02590	50	24	36°	D9	88%	PC
	1.01.12803	50	24	50°	D9	88%	PC

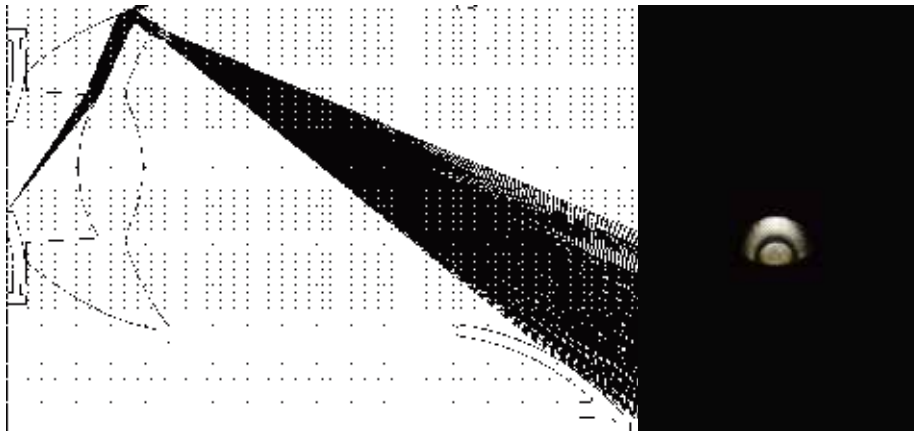
## PEAK SERIES

A clean wall-washing and extremely deep anti-glare lens



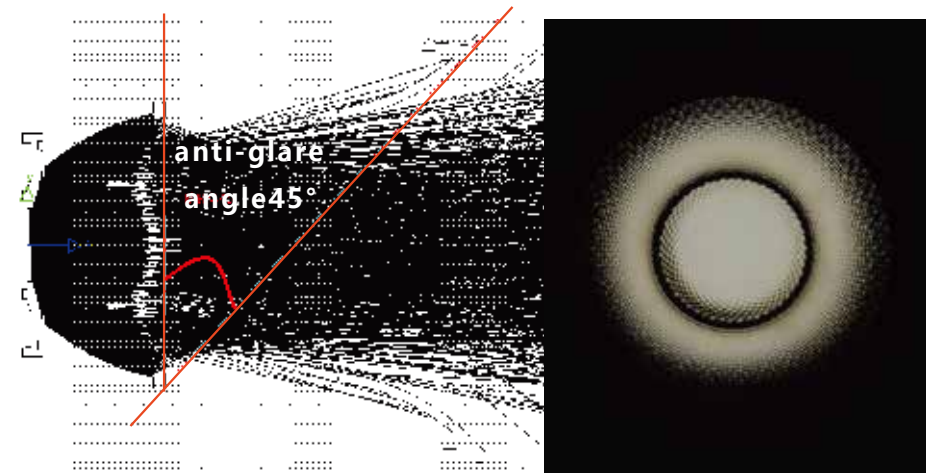
### Surface treatment, directional light control

Special treatment of the light in certain positions of the Peak series lens so that with the glare shield, some of the light just passes over the edge of the large opening of the glare shield, making it a more obvious cut-off line between light and dark when washing the wall.



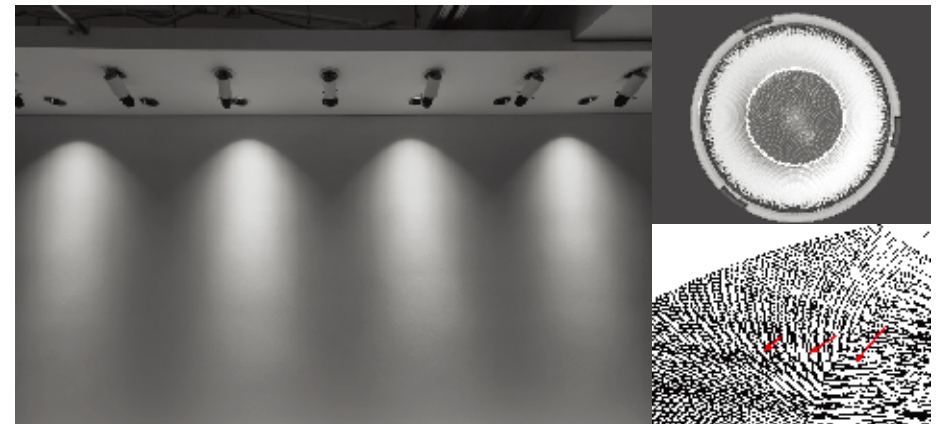
### Matching with light hood to achieve ultimate anti-glare


Adding microstructure on the surface of the lens makes the light cross-mix more evenly on the surface of the lens, and with the anti-glare cover developed by our company, the light spot of the wall washing is more even.




### More uniform light spot


The reflective surface treatment allows some of the light to cross-mix in multiple places within the lens and then mix again at the exit surface, resulting in a more uniform overall light spot.





Peak 20@10	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23154	20	10	24°	D4	90%	PMMA
	1.01.23163	20	10	36°	D4	90%	PMMA


Peak 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.13050	25	13	24°	D4	90%	PMMA
	1.01.23143	25	13	36°	D4	90%	PMMA
	1.01.23183	25	13	36°	D6	90%	PMMA
	1.01.23433	25	13	15°V	D4	90%	PMMA
	1.01.23378	25	13	24°V	D4	90%	PMMA


Peak 30@15	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33466	30	15	15°	D4	90%	PMMA
	1.01.23448	30	15	24°	D6	90%	PMMA
	1.01.23139	30	15	36°	D6	90%	PMMA

Peak 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23222	35	16	15°	D6	90%	PMMA
	1.01.12962	35	16	24°	D6	90%	PMMA
	1.01.13016	35	16	36°	D6	90%	PMMA
	1.01.23212	35	16	50°	D6	90%	PMMA
	1.01.23354	35	16	15°V	D6	90%	PMMA
	1.01.23353	35	16	24°V	D6	90%	PMMA
	1.01.23432	35	16	36°V	D6	90%	PMMA

Peak 40@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23216	40	19	15°	D6	90%	PMMA
	1.01.23429	40	19	24°	D9	90%	PMMA

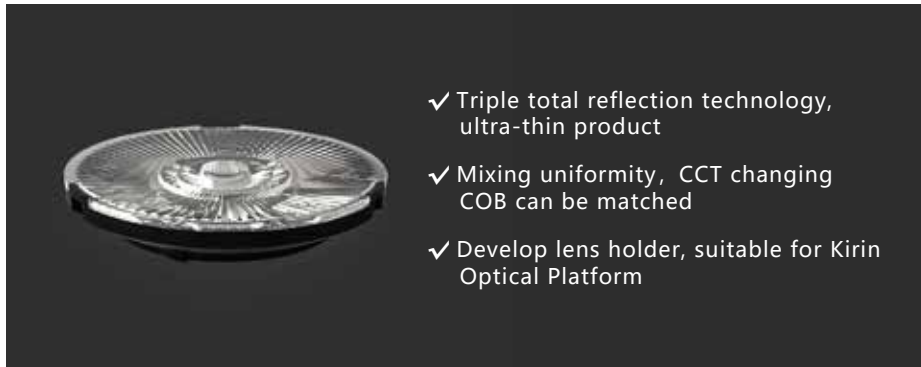
Peak 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23307	45	21	15°	D6	90%	PMMA
	1.01.12657	45	21	24°	D6	90%	PMMA
	1.01.23067	45	21	36°	D6	90%	PMMA
	1.01.23323	45	21	50°	D6	90%	PMMA
	1.01.23096	45	21	24°	D9	90%	PMMA
	1.01.23137	45	21	36°	D9	90%	PMMA
	1.01.23319	45	21	50°	D9	90%	PMMA
	1.01.23443	45	21	15°V	D6	90%	PMMA
	1.01.23413	45	21	24°V	D6	90%	PMMA

Peak 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23321	55	25	15°	D9	90%	PMMA
	1.01.23288	55	25	24°	D9	90%	PMMA
	1.01.23300	55	25	36°	D9	90%	PMMA

Peak 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23312	68	32	24°	D14.5	90%	PMMA
	1.01.23313	68	32	36°	D14.5	90%	PMMA

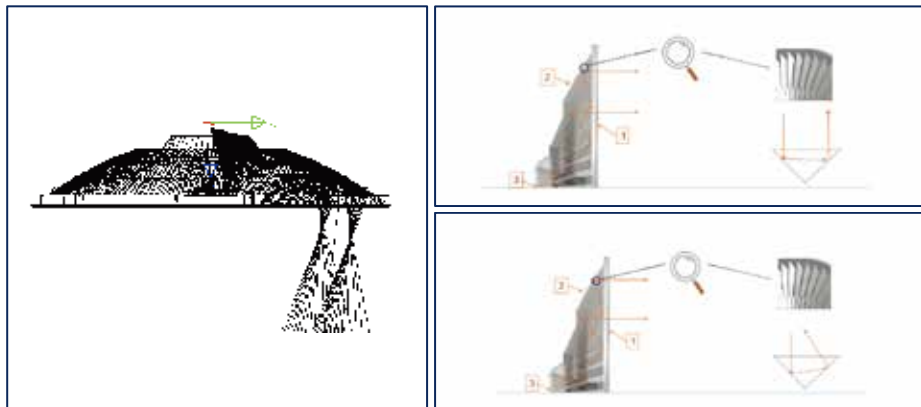
# FILMY SERIES

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



Filmy 30@06	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23111	30	06	10°	D6	85%	Vaccum Aluminum Plating
	1.01.12843	30	06	15°	D6	85%	PC
	1.01.12845	30	06	24°	D6	85%	PC
	1.01.12856	30	06	36°	D6	85%	PC
	1.01.23214	30	06	60°	D6	85%	PC

Filmy 35@07	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23107	35	07	10°	D6	85%	Vaccum Aluminum Plating
	1.01.02569	35	07	15°	D6	85%	PC
	1.01.12728	35	07	24°	D6	85%	PC
	1.01.12759	35	07	36°	D6	85%	PC
	1.01.12772	35	07	60°	D6	85%	PC

Filmy 40@08	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33648	40	08	15°	D9	85%	PC
	1.01.33649	40	08	24°	D9	85%	PC
	1.01.33650	40	08	36°	D9	85%	PC
	1.01.33653	40	08	60°	D9	85%	PC

Filmy 45@09	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.13042	45	09	10°	D6	85%	Vaccum Aluminum Plating
	1.01.12660	45	09	15°	D6	85%	PC
	1.01.12777	45	09	24°	D9	85%	PC
	1.01.12773	45	09	36°	D9	85%	PC
	1.01.13015	45	09	60°	D9	85%	PC

Filmy 50@10	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23309	50	10	10°	D6	85%	Vaccum Aluminum Plating
	1.01.02522	50	10	15°	D6	85%	PC
	1.01.12783	50	10	24°	D9	85%	PC
	1.01.12758	50	10	36°	D9	85%	PC
	1.01.13023	50	10	60°	D9	85%	PC

Filmy 55@11	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23108	55	11	10°	D9	85%	Vaccum Aluminum Plating
	1.01.12866	55	11	15°	D9	85%	PC
	1.01.12942	55	11	24°	D9	85%	PC
	1.01.23092	55	11	36°	D9	85%	PC
	1.01.23128	55	11	60°	D9	85%	PC

Filmy 62@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23104	62	13	10°	D9	85%	Vaccum Aluminum Plating
	1.01.12826	62	13	15°	D9	85%	PC
	1.01.12830	62	13	24°	D9	85%	PC
	1.01.13036	62	13	36°	D9	85%	PC
	1.01.13043	62	13	60°	D9	85%	PC

Filmy 68@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23332	68	13	10°	D12	85%	Vaccum Aluminum Plating
	1.01.12932	68	13	15°	D12	85%	PC
	1.01.23140	68	13	24°	D12	85%	PC
	1.01.23254	68	13	36°	D12	85%	PC
	1.01.23260	68	13	60°	D12	85%	PC

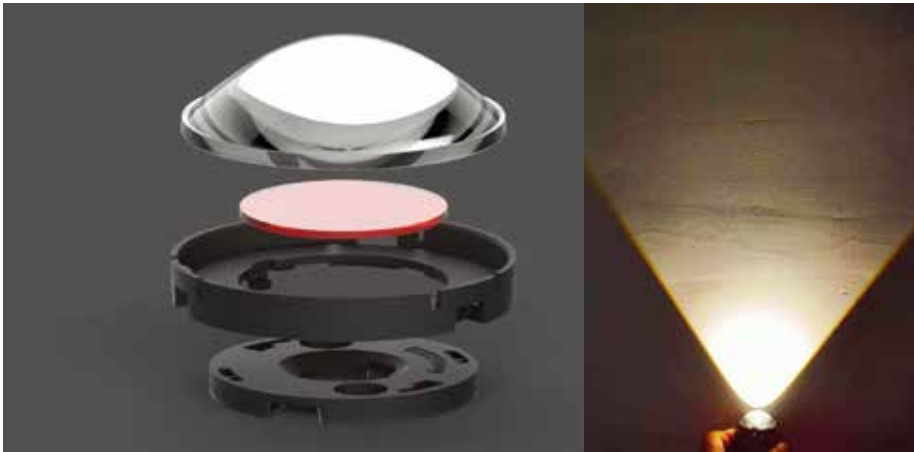
Filmy 75@15	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23112	75	15	10°	D14	85%	Vaccum Aluminum Plating
	1.01.12862	75	15	15°	D14	85%	PC
	1.01.12863	75	15	24°	D14	85%	PC
	1.01.13039	75	15	36°	D14	85%	PC
	1.01.23221	75	15	60°	D14	85%	PC

Filmy 83@17	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23209	83	17	10°	D14	85%	Vaccum Aluminum Plating
	1.01.12922	83	17	15°	D14	85%	PC
	1.01.23245	83	17	24°	D14	85%	PC
	1.01.23248	83	17	36°	D14	85%	PC
	1.01.23246	83	17	60°	D14	85%	PC

Filmy 90@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23264	90	18	10°	D14	85%	Vaccum Aluminum Plating
	1.01.12928	90	18	15°	D14	85%	PC
	1.01.23263	90	18	24°	D14	85%	PC
	1.01.23251	90	18	36°	D14	85%	PC
	1.01.23262	90	18	60°	D14	85%	PC

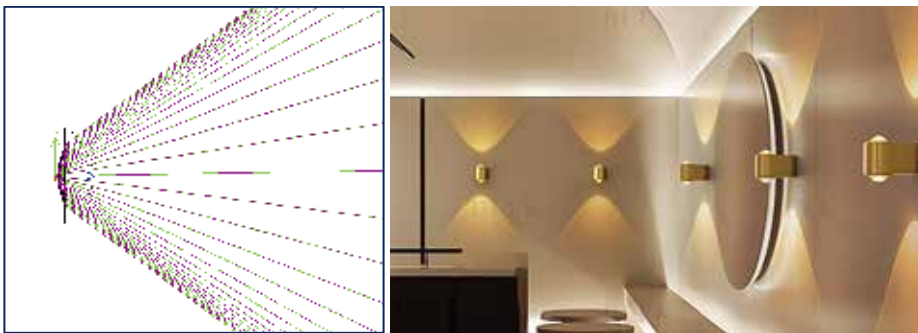
# RAINBOW SERIES

A lens like an eye



## Aspherical design:

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



## Suitable for Kirin optical platform:

The size is from 20-83mm. By using our customized lens holders, it can be assembled on our COB holders and realize a convenient replacement. It can also match with various COB brands through the corresponding COB holders.

## Sunset effect:

By adding color filter, the color of the light spot can be changed to achieve different lighting effects.

There are three sizes of sunset red color-changing filters, which can be applied to sunset lights, wall lights, atmosphere lights, etc. You can also customize different colors filters according to your own needs.

The specific parameters of the color filters are as follows:

Color filter	Size	Matching optics	Matching COB holder
Ø17.8	17.8@1.1	Rainbow lens D20/D25	D24 COB holder
Ø27	27@1.1	Rainbow lens D35/D45/D50/D55/D62/D68	D35 COB holder
Ø49.8	49.8@1.1	Rainbow lens D83/D75	D50 COB holder



Rainbow Series	PN	φ	H	FWHM	LES	Eff.	Mat.
Rainbow 18@05	1.01.12910	18	05	75°	XPG2	88%	PC
Rainbow 25@06	1.01.12918	25	06	75°	D4.5	88%	PC
Rainbow 32@09	1.01.12891	32	09	75°	D6	88%	PC
Rainbow 42@12	1.01.12893	42	12	75°	D6	85%	PC
Rainbow 47@15	1.01.12897	47	15	75°	D9	88%	PC
Rainbow 52@15	1.01.12967	52	15	75°	D9	88%	PC
Rainbow 58@16	1.01.12965	58	16	75°	D9	88%	PC
Rainbow 58@16	1.01.23230	58	16	95°	D9	88%	PC
Rainbow 64@19	1.01.12969	64	19	75°	D12	88%	PC
Rainbow 71@18	1.01.12963	71	18	75°	D14	88%	PC
Rainbow 79@18	1.01.12944	79	18	75°	D14	88%	PC

Rainbow Series	Assembly outer diameter
Rainbow 18@05	20mm
Rainbow 25@06	28mm
Rainbow 32@09	35mm
Rainbow 42@12	45mm
Rainbow 47@15	50mm
Rainbow 52@15	55mm
Rainbow 58@16	62mm
Rainbow 58@16	62mm
Rainbow 64@19	68mm
Rainbow 71@18	75mm
Rainbow 79@18	83mm

## V SERIES

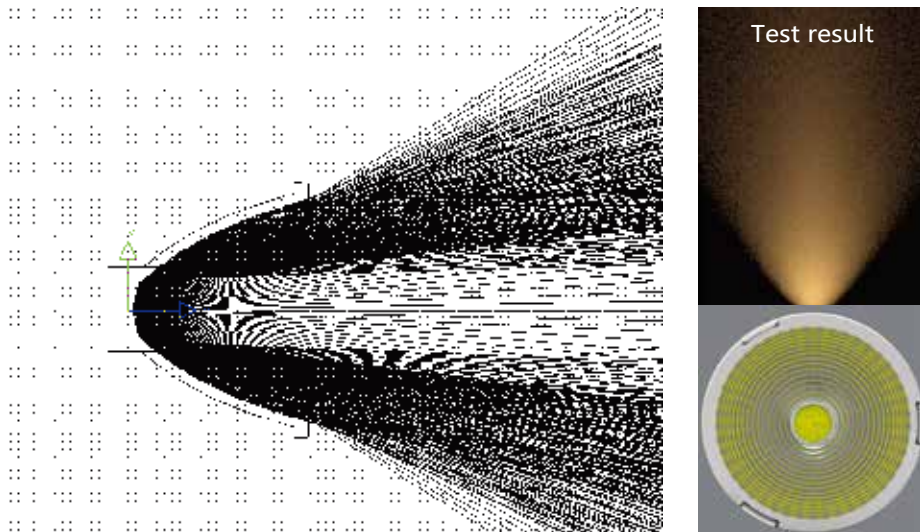
A reflector with anti-glare effect



- √ Pure reflector design, metal texture
- √ Develop lens holder, suitable for Kirin Optical Platform
- √ Light spot cut off, excessively uniform and clean

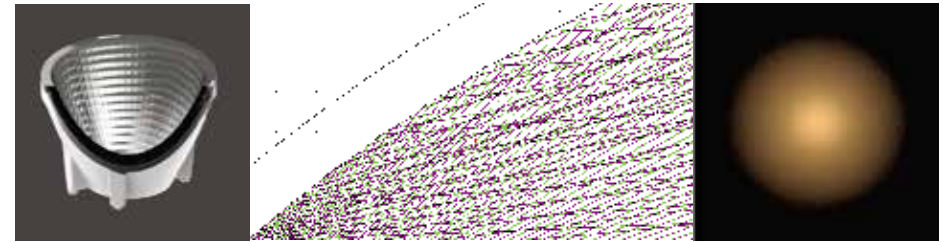
Distribute lights appropriately

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

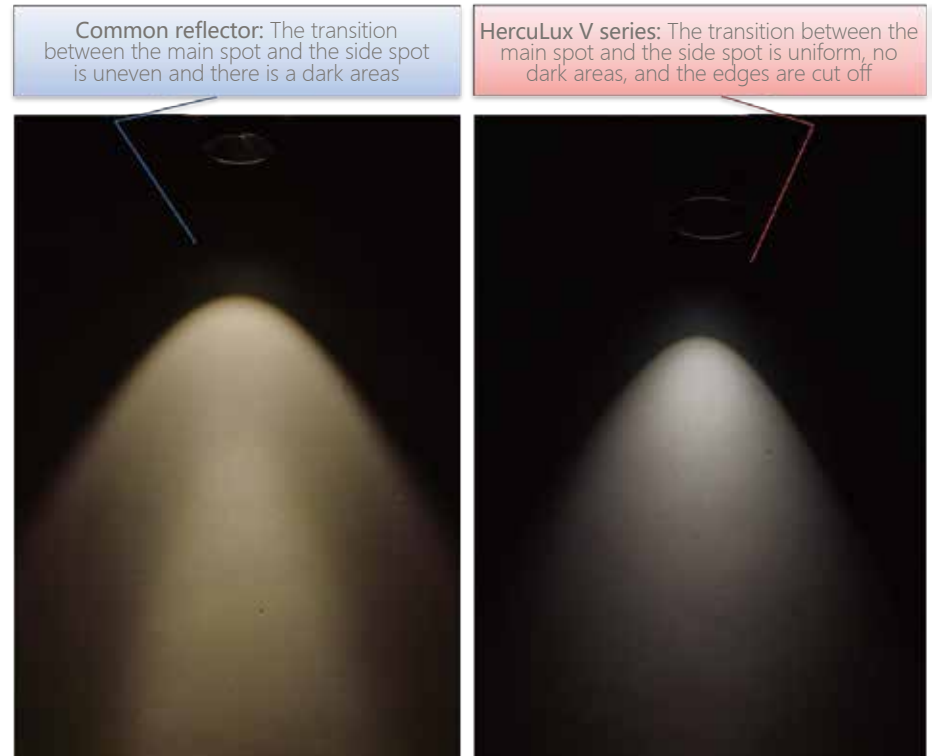



Light spot uniformity


On the basis of the reasonable distribution of the middle light and the light of the reflective surface, coupled with the reflective surface of the scaled surface differential structure, the light spot becomes more soft, and at the same time, it can be accurately controlled on the light of the reflective surface to avoid the occurrence of stratification. Dark ring and other phenomena.





Spot contrast





V 25@17	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23226	25	17	24°	D4	88%	Vaccum
	1.08.23232	25	17	36°	D4	88%	Aluminum
							Plating PC


V 30@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.02.33714	30	19	15°	D6	88%	Vaccum
	1.08.23166	30	19	24°	D6	88%	Aluminum
	1.08.23167	30	19	36°	D6	88%	Aluminum
	1.08.33477	30	19	50°	D6	88%	Plating PC


V 35@23	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.12722	35	23	15°	D6	88%	Vaccum
	1.08.12706	35	23	24°	D6	88%	Vaccum
	1.08.12796	35	23	36°	D6	88%	Aluminum
	1.08.12802	35	23	50°	D6	88%	Aluminum
	1.08.12821	35	23	24°	D9	88%	Plating PC
	1.08.13035	35	23	36°	D9	88%	Plating PC


V 40@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.33680	40	24	24°	D9	88%	Vaccum
	1.08.33682	40	24	36°	D9	88%	Aluminum
	1.08.33686	40	24	50°	D9	88%	Plating PC


V 45@34	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.02596	45	34	24°	D9	88%	Vaccum
	1.08.13022	45	34	36°	D9	88%	Aluminum
	1.08.33473	45	34	50°	D9	88%	Plating PC


V 50@36	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.12765	50	36	24°	D12	88%	Vaccum
	1.08.13029	50	36	36°	D12	88%	Aluminum
	1.08.33481	50	36	50°	D12	88%	Plating PC

V 55@39	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23240	55	39	24°	D12	88%	Vaccum
	1.08.23241	55	39	36°	D12	88%	Aluminum
	1.08.33475	55	39	50°	D12	88%	Plating PC

V 62@41	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23170	62	41	24°	D14.5	88%	Vaccum
	1.08.23171	62	41	36°	D14.5	88%	Aluminum
	1.08.33480	62	41	50°	D14.5	88%	Aluminum
							Plating PC

V 68@45	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23250	68	45	24°	D14.5	88%	Vaccum
	1.08.23377	68	45	36°	D14.5	88%	Aluminum
	1.08.33485	68	45	50°	D14.5	88%	Aluminum
							Plating PC

V 75@47	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23186	75	47	24°	D18	88%	Vaccum
	1.08.23187	75	47	36°	D18	88%	Aluminum
	1.08.33482	75	47	50°	D18	88%	Plating PC

V 83@60	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.23197	83	60	24°	D18	88%	Vaccum
	1.08.23299	83	60	36°	D18	88%	Aluminum
	1.08.33486	83	60	50°	D18	88%	Plating PC

## ZOOM SERIES

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, where in 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 30, 35, 45, 50, 55, 62, 75.



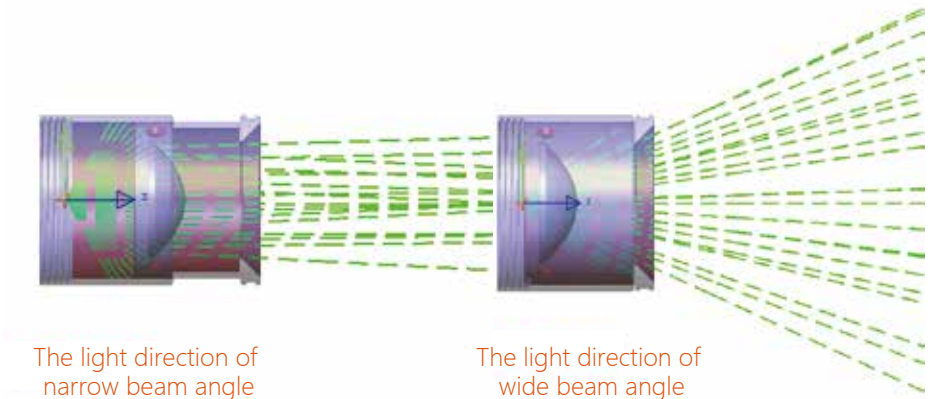
### Easy install

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  $38^\circ$  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.



Zoom Series	PN	φ	H	FWHM	LES	Eff.	Mat.
Zoom 22@06	1.01.12997	22	06	15°-45°	D6	/	PC
Zoom 27@08	1.01.13000	27	08	15°-50°	D6	/	PC
Zoom 32@09	1.01.33641	32	09	15°-50°	D9	/	PC
Zoom 37@12	1.01.12951	37	12	10°-50°	D6	/	PC
Zoom 42@13	1.01.12994	42	13	15°-45°	D9	/	PC
Zoom 47@15	1.01.13018	47	15	15°-45°	D9	/	PC
Zoom 54@16	1.01.23273	54	16	15°-50°	D9	/	PC
Zoom 58@15	1.01.337761	58	15	15°-60°	D12	/	PC
Zoom 65@19	1.01.23398	65	19	10°-50°	D12	/	PC
Zoom 73@19	1.01.33721	73	19	14°-60°	D14	/	PC

Zoom Series	Assembly outer diameter
Zoom 22@06	30mm
Zoom 27@08	35mm
Zoom 32@09	40mm
Zoom 37@12	45mm
Zoom 42@13	50mm
Zoom 47@15	55mm
Zoom 54@16	62mm
Zoom 58@15	68mm
Zoom 65@19	75mm
Zoom 73@19	83mm

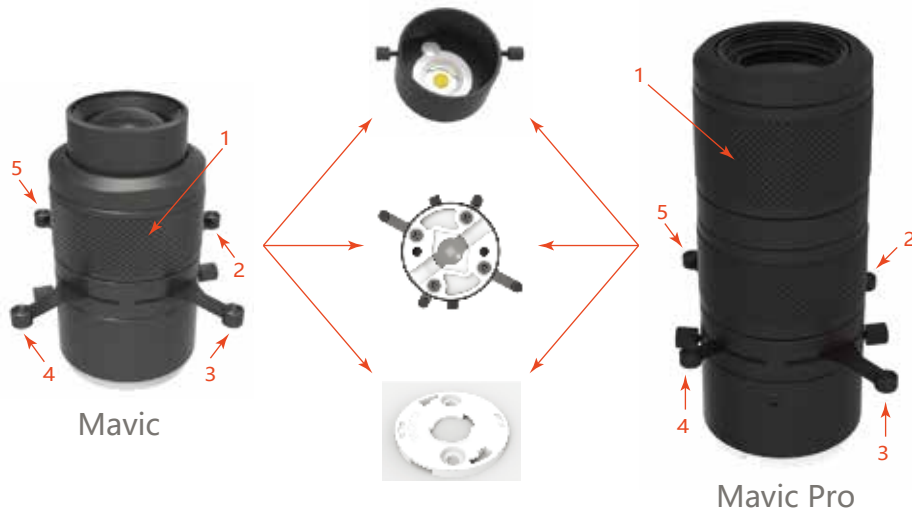


# MAVIC & MAVIC PRO SERIES

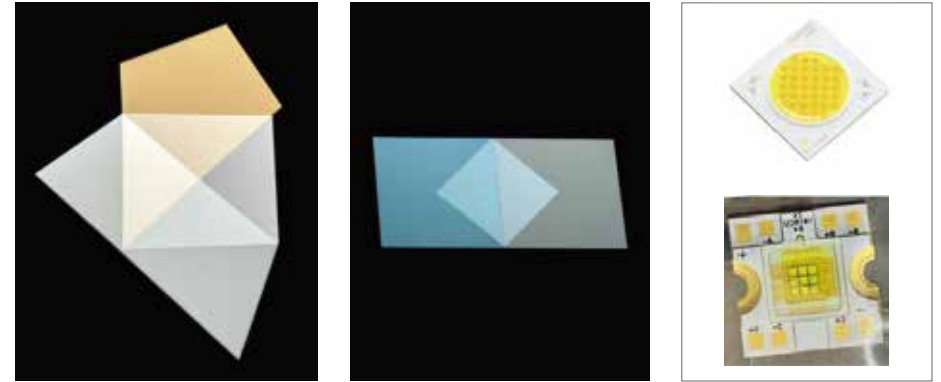
A lens with ultra small size and clean light spot



Same base, consistent with the screw hole position of the Kirin platform D35 light source holder.



Suitable for normal COB and DW&TW COB.



Can adjust to any shape and rotate 360 degrees.



High precision, can show more details.



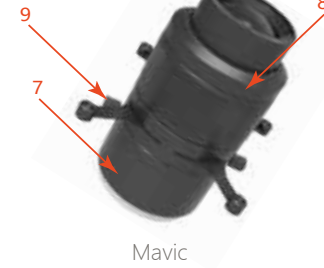
# MAVIC & MAVIC PRO

Easy assembly and strong compatibility

Step 1: Unscrew the screws and replace the conventional light source bracket **6**.

Step 2: Install component **7** directly onto the light source and lock the screws.

Step 3: Install component **8** onto component 7, with the screws on the side of the screws.



Series	PN	φ	H	FWHM	LES	Eff.	Mat.
MAVIC 18	1.09.44325H	18	31.2	55°	D2.4/3535	43%	/
MAVIC PRO 18	1.09.44326H	18	41.2	15°-36°	D2.4/3535	43%	/
MAVIC 28	1.09.44327H	28	51.2	55°	D2.4/D4	43%	/
MAVIC PRO 28	1.09.44328H	28	75.7	15°-36°	D2.4/D4	43%	/
MAVIC 38	1.09.23380H	38	68.0	55°	D4/D6	43%	/
MAVIC PRO 38	1.09.33515H	38	108	15°-36°	D4/D6	43%	/
MAVIC 48	1.09.44331H	48	94.2	55°	D6/D9	43%	/
MAVIC PRO 48	1.09.44332H	48	135	15°-36°	D6/D9	43%	/
MAVIC 58	1.09.44333H	58	119	55°	D9/D12	45%	/
MAVIC PRO 58	1.09.44334H	58	159	15°-36°	D9/D12	48%	/

The lens can rotate 360 degrees and can be used for logos

Loosen the hand screws **9** on both sides, and the lamp **8** can rotate 360° around accessory **7**, making it flexible and adaptable to the needs of multiple views and angles. It can also be used for logo lights, and the logo sheet needs to be customized separately.

# MAVIC & MAVIC PRO SERIES

## Mavic substructure

The bracket complies with the Zhaga standard and is compatible with the substrate sizes of most light sources on the market, allowing for a 1:1 replacement.



Substructure	
Mavic 28 substructure	1.09.54651
Mavic 38 substructure	1.09.54652
Mavic 48 substructure	1.09.54663-ASM
Mavic 58 substructure	1.09.54654-ASM

## Customizable GOBO effect

All sizes of Herculux Mavic & Mavic Pro Series are compatible with customizable GOBO plates, which can be customized with special patterns or company logo.



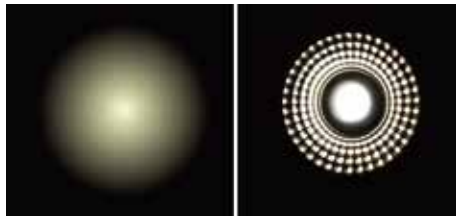
GOBO Holder	
Mavic 18 GOBO holder	1.07.54458
Mavic 28 GOBO holder	1.07.54459
Mavic 38 GOBO holder	1.07.33571-ASM
Mavic 48 GOBO holder	1.07.54460-ASM
Mavic 58 GOBO holder	1.07.54461-ASM

# KA PRO SERIES

The KA Pro is a major upgrade based on Calculus technology. Compared to the KA series, the KA pro offers a significant increase in main center light intensity and efficiency.



## KA Pro Product Features



- ✓ Calculus technology with uniform spot and cut-off
- ✓ High light intensity in the main center
- ✓ Higher light efficiency
- ✓ Superior color mixing ability
- ✓ Perfectly adapted to Kirin Optical Platform

## Color mixing ability:

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

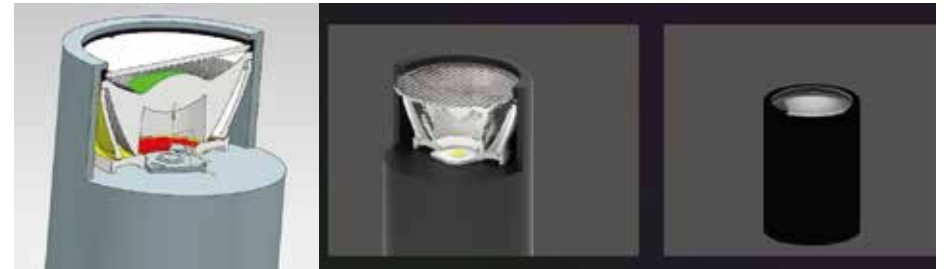


## Test Situation

Series	Diameter	Height	Materials	Angle	K-value	Efficiency
KA-Pro series	50	24	PMMA	24°	5.3	93.7%
KA series				24°	4.6	92.8%
KA-Pro series				36°	3.0	94.3%
KA series				36°	2.5	91.3%


## Matching filter


KA PRO series, matched with different variable filter to realize different lighting effects, single asymmetric, double asymmetric, linear, wall wash, transparent filter. Track light + wall washer, suitable for track light fixtures, no need to add deeper light hood.





## Comparison Application


Luminaire spacing	1M	1M	1M
Distance from wall	1M	1M	1M
Wall height	3.6M	3.6M	3.6M
Base lens	12°	24°	36°
Luminaire Offset Angle	35	35	35
Light distribution curve			


KA PRO 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12885_KAP	25	13	15°	D4	92%	PMMA
	1.01.12888_KAP	25	13	60°	D4	92%	PMMA


KA PRO 30@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02576_KAP	30	16	15°	D6	92%	PMMA
	1.01.02577	30	16	24°	D6	92%	PMMA
	1.01.02578	30	16	36°	D6	92%	PMMA
	1.01.12853_KAP	30	16	60°	D6	92%	PMMA


KA PRO 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02556_KAP	35	16	15°	D6	92%	PMMA
	1.01.33935	35	16	24°	D6	92%	PMMA
	1.01.33936	35	16	36°	D6	92%	PMMA
	1.01.12804_KAP	35	16	60°	D6	92%	PMMA


KA PRO 40@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.43938_KAP	40	19	15°	D6	92%	PMMA
	1.01.33711	40	19	24°	D9	92%	PMMA
	1.01.33728	40	19	36°	D9	92%	PMMA
	1.01.33755_KAP	40	19	60°	D9	92%	PMMA


KA PRO 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02559_KAP	45	21	15°	D9	92%	PMMA
	1.01.33773	45	21	24°	D9	92%	PMMA
	1.01.33926	45	21	36°	D9	92%	PMMA
	1.01.12861_KAP	45	21	60°	D9	92%	PMMA


KA PRO 50@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02581_KAP	50	25	15°	D9	92%	PMMA
	1.01.33725	50	25	24°	D9	92%	PMMA
	1.01.33775	50	25	36°	D9	92%	PMMA
	1.01.12803_KAP	50	25	60°	D9	92%	PMMA

KA PRO 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02551_KAP	55	25	15°	D9	92%	PMMA
	1.01.43948	55	25	24°	D12	92%	PMMA
	1.01.43949	55	25	36°	D12	92%	PMMA
	1.01.12860_KAP	55	25	60°	D12	92%	PMMA

KA PRO 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02566_KAP	62	30	15°	D12	92%	PMMA
	1.01.43950	62	30	24°	D12	92%	PMMA
	1.01.44050	62	30	36°	D12	92%	PMMA
	1.01.12805_KAP	62	30	60°	D12	92%	PMMA

KA PRO 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02560_KAP	68	32	15°	D12	92%	PMMA
	1.01.33778	68	32	24°	D12	92%	PMMA
	1.01.33802	68	32	36°	D12	92%	PMMA
	1.01.23069_KAP	68	32	60°	D12	92%	PMMA

KA PRO 75@31	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02562_KAP	75	31	15°	D14	92%	PMMA
	1.01.33816	75	31	24°	D14	92%	PMMA
	1.01.33927	75	31	36°	D14	92%	PMMA
	1.01.12884_KAP	75	31	60°	D14	92%	PMMA

KA PRO 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02563_KAP	83	40	15°	D14	92%	PMMA
	1.01.43946	83	40	24°	D14	92%	PMMA
	1.01.44003	83	40	36°	D14	92%	PMMA
	1.01.12811_KAP	83	40	60°	D14	92%	PMMA

# MOONY PRO SERIES

## Hard grazing wall

Grazing wall as a unique category (no sub-light spots, clear light and shadow, sharp spots, layered) gives users a unique experience and is loved by many users. Some users prefer hard grazing wall, but others favor soft grazing wall.


The Moony Pro Series (soft grazing wall) and Peak Pro Series (hard grazing wall) are great additions to the Kirin Optical platform, offering more beautiful designs and personalized needs for the field of home lighting without main lights.





## COB Compatible

Both regular color temperatures and dual-color temperature light sources on the market can be compatible, easily controlled.



MOONY PRO 28@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44033	28	13	15°	D3	88%	PC
	1.01.33887	28	13	24°	D4	88%	PC
	1.01.33892	28	13	36°	D4	88%	PC
	1.01.33905	28	13	50°	D4	88%	PC

MOONY PRO 35@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33739	35	18	15°	D4	88%	PC
	1.01.33625	35	18	24°	D6	88%	PC
	1.01.33724	35	18	36°	D6	88%	PC
	1.01.33733	35	18	50°	D6	88%	PC

MOONY PRO 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33882	45	21	15°	D6	88%	PC
	1.01.33863	45	21	24°	D9	88%	PC
	1.01.33870	45	21	36°	D9	88%	PC
	1.01.33883	45	21	50°	D9	88%	PC

# PEAK PRO SERIES

## Soft grazing wall

Grazing wall as a unique category (no sub-light spots, clear light and shadow, sharp spots, layered) gives users a unique experience and is loved by many users. Some users prefer hard grazing wall, but others favor soft grazing wall.


The Moony Pro Series (soft grazing wall) and Peak Pro Series (hard grazing wall) are great additions to the Kirin Optical platform, offering more beautiful designs and personalized needs for the field of home lighting without main lights.





## COB Compatible

Both regular color temperatures and dual-color temperature light sources on the market can be compatible, easily controlled.



PEAK PRO 28@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33608	28	13	15°	D4	88%	PC
	1.01.33738	28	13	24°	D4	88%	PC

PEAK PRO 35@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33924	35	18	15°	D4	88%	PC
	1.01.33636	35	18	24°	D6	88%	PC
	1.01.33663	35	18	36°	D6	88%	PC
	1.01.33932	35	18	50°	D6	88%	PC

PEAK PRO 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.43979	45	21	15°	D4	88%	PC
	1.01.33772	45	21	24°	D9	88%	PC
	1.01.33791	45	21	36°	D9	88%	PC

# SOFTY SERIES

## Advantages of silicone lens

- √ Zero InnerStress, completely prevent stress cracking.
- √ High Molding Accuracy, molecular-level replication between the silicone and the mold, surface precision can achieve μ-level.
- √ High toughness, the material is soft and elastic, making it easy to form and unmold complex structures.
- √ High weatherability, HercuLux self-innovated silicone, high aging resistance, yellowing resistance and optical stability, long service life.
- √ Recyclable, liquid silicone can be recycled into silicone oil, environmentally friendly.
- √ Same dimensions as all Kirin platform, and can be directly interchanged.

**Long service life:** In the process of synthesizing Silicone, we strictly control the content of chloride ions in the silicone resin, controlling it to be less than 1 ppm, and allow the platinum salt initiator to fully react during the synthesis. So the degree of yellowing of our silicone lenses is almost negligible!

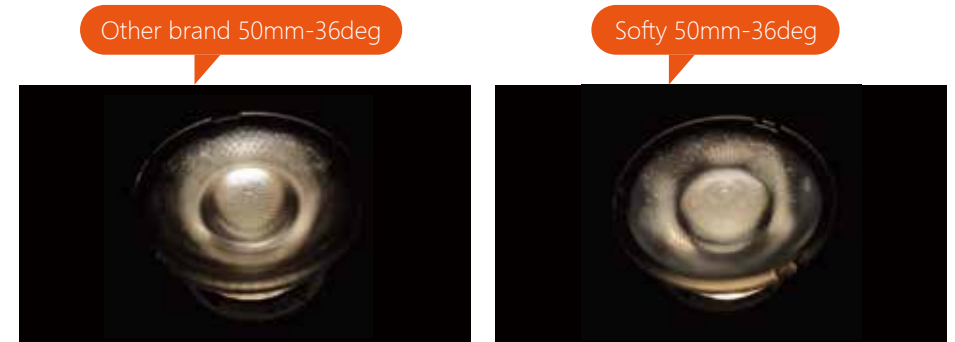
**How to verify the yellowing resistance of silicone lens:** Leave it at 150°C for more than 240 hours to verify its anti-yellowing performance. Comparison of HercuLux silicone lens and other brands after being placed in a 150°C environment for 500 hours.



## Not easy to absorb dust


The physical properties of liquid silicone are designed, and a protective layer is formed on the lens surface through the secret process self-developed by HercuLux, so as to prevent dust adsorption or static electricity generation.


Silicone has a low refractive index, and interface reflection is uncontrollable, resulting in reduced light energy. In TIR lens design, it can effectively reduce glare in the intermediate area caused by interface reflection.




## Market Analysis

Metric	Silicone	PC	PMMA	Glass
Temperature resistance	-50-150°C	≤120°C	≤90°C	≤300°C
Efficiency	92-94%	88-90%	90-92%	96%
Dust resistance	Coating treatment required	Less prone to dust	Less prone to dust	Easy to absorb water stains
Seismic resistance	Elastic impact resistance	High toughness	Brittle, prone to cracking	Fragile
Machinability	Capable of machining complex structures	Capable of machining conventional structures	Capable of machining conventional structures	Capable of machining simple structures
Machining accuracy	Vert high accuracy	Good accuracy	Good accuracy	Poor accuracy
Cost	Tall	Moderate	Moderate	Tall
Environmental Protection	Recyclable into silicone oil Very environmentally friendly	Recycling is complicated	Recycling is complicated	Recycling is complicated


SOFTY 20@11	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.43969	20	11	15°	3535	94%	Silicone
	1.01.43970	20	11	24°	D4	94%	Silicone
	1.01.43971	20	11	36°	D4	94%	Silicone
	1.01.43972	20	11	50°	D4	94%	Silicone


SOFTY 25@13	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54635	25	13	15°	D3	94%	Silicone
	1.01.44076	25	13	24°	D6	94%	Silicone
	1.01.44140	25	13	36°	D6	94%	Silicone
	1.01.44369	25	13	50°	D6	94%	Silicone


SOFTY 30@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44398	30	16	10°	D3	94%	Silicone
	1.01.44210	30	16	15°	D4	94%	Silicone
	1.01.44186	30	16	24°	D4	94%	Silicone
	1.01.44187	30	16	36°	D4	94%	Silicone
	1.01.44191	30	16	50°	D4	94%	Silicone


SOFTY 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44382	35	16	10°	D3	94%	Silicone
	1.01.44129	35	16	15°	D4	94%	Silicone
	1.01.23439	35	16	24°	D6	94%	Silicone
	1.01.44114	35	16	36°	D6	94%	Silicone
	1.01.44132	35	16	50°	D6	94%	Silicone


SOFTY 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54512	45	21	10°	D4	94%	Silicone
	1.01.33559	45	21	24°	D9	94%	Silicone
	1.01.33560	45	21	36°	D9	94%	Silicone
	1.01.44070	45	21	50°	D9.8	94%	Silicone


SOFTY 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44400	50	24	10°	D4	94%	Silicone
	1.01.44358	50	24	15°	D9	94%	Silicone
	1.01.44296	50	24	24°	D9.8	94%	Silicone
	1.01.44303	50	24	36°	D9.8	94%	Silicone
	1.01.44344	50	24	50°	D9.8	94%	Silicone

SOFTY 55@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44389	55	25	10°	D6	94%	Silicone
	1.01.44089	55	25	24°	D12	94%	Silicone
	1.01.44193	55	25	36°	D12	94%	Silicone
	1.01.44249	55	25	50°	D12	94%	Silicone

SOFTY 62@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44084	62	30	24°	D14	94%	Silicone
	1.01.33557	62	30	36°	D14	94%	Silicone
	1.01.54635	62	30	50°	D14	94%	Silicone

SOFTY 68@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54464	68	32	10°	D6	94%	Silicone
	1.01.44146	68	32	24°	D14.5	94%	Silicone
	1.01.44390	68	32	36°	D14.5	94%	Silicone
	1.01.54449	68	32	50°	D14.5	94%	Silicone

SOFTY 75@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54513	75	35	10°	D8	94%	Silicone

SOFTY 83@40	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54451	83	40	10°	D9	94%	Silicone
	1.01.33666	83	40	24°	D22	94%	Silicone

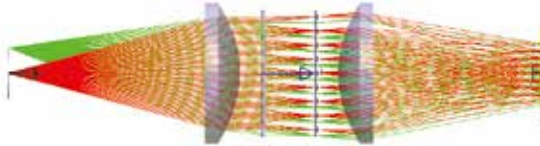
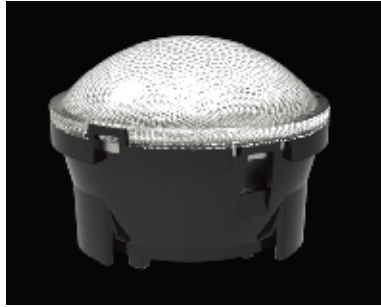
Standard products are under continuous development and can be customised.

# FIREFLY-KIRIN SERIES

## Development Background

Currently, in commercial lighting and hotel lighting, there are very few optics that good color mixing, especially nowadays, it is difficult to guarantee the spot quality after the color COB comes out, and secondly, the spot quality is not good, and It's very harsh.

Firefly-Kirin series, using Herculux patented "Light cone correction technology" technology. Comply with Zhaga standard, super color mixing ability.



Light cone correction technology, The design concept comes from imaging optics, which combines imaging optics with energy optics.  
To achieve the following two objectives:  
1: Uniform irradiance on the exit surface.  
2: Expanding LEDs from point light sources to surface light sources.

## Conforms to Zhaga standards:

From the time of project approval, we require the design of the whole series of products to meet the pin to pin replacement with Kirin optical platform products, fully in line with Zhaga standards.



## Superb color mixing ability and ultra-high center light intensity:

Herculux's patented "light cone correction technology" achieves excellent color uniformity, high illuminance uniformity on the lens surface to achieve high CBCP, excellent light distribution angle and ultra-low glare performance.





## Parameter comparison:

Test conditions	COB: 6mm Tunable CCT COB			Power:7.1W		
Product series	FWHM(50%)	FWHM(10%)	LM	CBCP	K value	Efficiency
Firefly-Kirin $\phi 35-24^\circ$	23.9	42.7	564LM	2739CD	4.85	86%
Other brands $\phi 35-24^\circ$	24.9	44.4	552LM	2251CD	4.07	84%
Firefly-Kirin $\phi 35-36^\circ$	35.7	57	554LM	1428CD	2.57	85%
Other brands $\phi 35-36^\circ$	35.6	60.7	541LM	1236CD	2.28	83%
Firefly-Kirin $\phi 35-60^\circ$	59.8	78	558LM	596CD	1	85%
Other brands $\phi 35-60^\circ$	52.9	93.6	483LM	518.8CD	1.07	74%


## Spot Comparison:





FIREFLY KIRIN 21@14	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54531	21	14	24°	D4	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.54532	21	14	36°	D4	87%	
	1.01.54533	21	14	60°	D4	87%	


FIREFLY-KIRIN 40@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33915	40	30	24°	D9	87%	PMMA+Vacuum Aluminum Plating PC


FIREFLY KIRIN 28@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44030	28	19	24°	D6	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.44031	28	19	36°	D6	87%	
	1.01.44032	28	19	60°	D6	87%	

FIREFLY-KIRIN 45@34	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33717	45	34	24°	D9	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.33718	45	34	36°	D9	87%	
	1.01.33745	45	34	60°	D9	87%	
	1.01.33873	45	34	Wall washing	D9	87%	
	1.01.44061	45	34	20°-50°	D9	87%	

FIREFLY-KIRIN 30@17	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33912	30	17	24°	D6	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.44006	30	17	36°	D6	87%	
	1.01.44008	30	17	60°	D6	87%	

FIREFLY-KIRIN 50@38	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33741	50	38	24°	D9	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.33786	50	38	36°	D9	87%	
	1.01.33875	50	38	60°	D9	87%	
	1.01.33874	50	38	Wall washing	D9	87%	

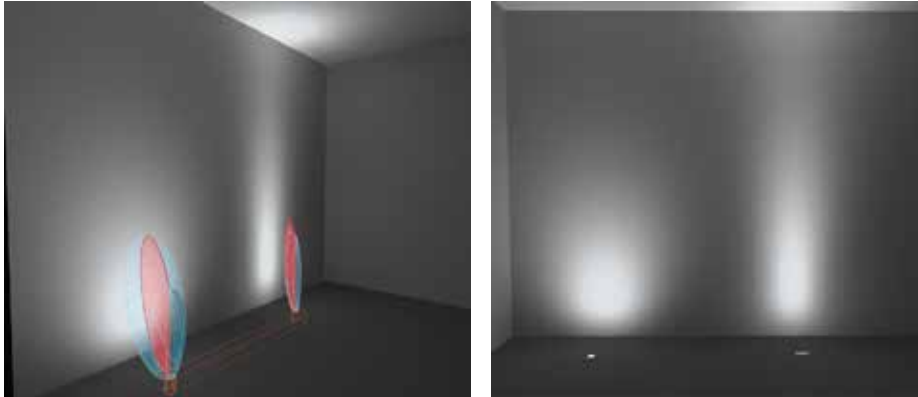
FIREFLY-KIRIN 35@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33742	35	25	24°	D9	87%	PMMA+Vacuum Aluminum Plating PC
	1.01.33800	35	25	36°	D6	87%	
	1.01.33797	35	25	60°	D6	87%	
	1.01.33872	35	25	Wall washing	D6	87%	

FIREFLY-KIRIN 55@39	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.33743	55	39	24°	D9	87%	PMMA+Vacuum Aluminum Plating PC

## SKYLINE-KIRIN SERIES

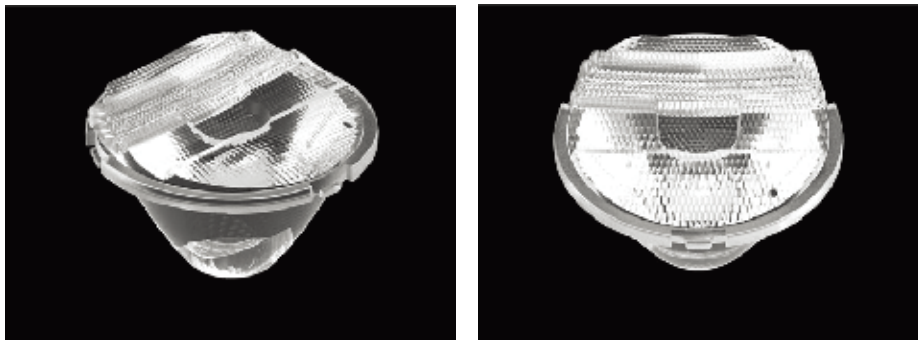
At present, due to the large deflection angle of conventional wall washing lenses, the light spot are concentrated in some areas of the wall, and the wall washing distance of more than 3m cannot be achieved.


Skyline-Kirin perfectly solves this problem, the light spot with small angle deflection can be washed higher, and the light spot uniformity is very good.





### Skyline-Kirin Product Features:

- √ The height of the wall wash is very high
- √ The light spot uniformity is very good
- √ Meet the Zhaga standard, Perfectly adapted to Kirin Optical Platform



SKYLINE-KIRIN 30@20	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54580	30	20	16×20	D4	/	PMMA

SKYLINE-KIRIN 35@22	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.44417	35	22	16×20	D6	/	PMMA

SKYLINE-KIRIN 50@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.54547	50	30	16×20	D6	/	PMMA

# COB HOLDER

Can buckle with the lens holder; Same COB holder can match different COB Substrate size and COB brand.

	
	
<b>D35 COB HOLDER</b>	
Outer diameter	35mm
Hight	3.5mm
Screw holde distance	25mm
Type	18
<b>Matchable optics</b>	
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
Moony series	D25/D30/D35/D45/D50/D55/D62/D68
Peak series	D30/D35/D45/D50/D55/D62/D68
Filmy series	D30/D35/D45/D50/D55/D62/D68
V series	D30/D35/D45/D50/D55/D62/D68
Rainbow series	D35/D45/D50/D55/D62/D68
Zoom Module	D35/D45/D50

**Meets the assembly standards of ZHAGA.** Interchangeable with solderless holders such as BJB, with consistent outer diameter,screw positioning,and rotating interface.

	
	
<b>D24 COB HOLDER</b>	
Outer diameter	24mm
Hight	3.4mm
Screw holde distance	19mm
Type	6
<b>Matchable optics</b>	
Series	Optical diameter
Dark series	D25/D30/D35
Glareless series	D25/D30/D35
Gemini series	D25/D30/D35
Moony series	D25/D30/D35
Peak series	D25/D30/D35
Filmy series	D30
V series	D35

	
	
<b>D50 COB HOLDER</b>	
Optical diameter	50mm
Hight	5.2mm
Screw holde distance	35mm
Type	13
<b>Matchable optics</b>	
Series	Optical diameter
Dark series	D75/D83
Glareless series	D75/D83
Gemini series	D75/D83
Moony series	D75/D83
Peak series	D75/D83
Filmy series	D75/D83
V series	D75/D83
Rainbow series	D75/D83
Zoom Module	D75/D83

# LENS HOLDER

Twisting method, can be rotated with BJB solderless holder and other **ZHAGA** solderless holders. Three colours, different colours, different effects.  
Size:  $\phi 45/\phi 50/\phi 55/\phi 62/\phi 68/\phi 75$



Install the lens at the buckle position

Rotate and fix it at the buckle position

## Test Comparison:

Test condition:  $\phi 45$ ; Test COB:  $\phi 9$

	Black	White	Crystal	Black	White	Crystal	Black	White	Crystal	Black	White	Crystal	Black	White	Crystal
Standard angle(°)	10			15			24			36			50		
Measured angle(°)	18.1	18.1	17.9	18.8	18.7	18.4	23.3	23.2	22.9	35.9	35.9	35.4	51.9	51	50.4
K value(cd/lm)	8.04	6.97	7.01	6.68	6.25	6.26	5.35	5.09	5.18	2.74	2.62	2.69	1.36	1.37	1.38
Efficiency	63.85%	74.33%	73.13%	90.61%	92.59%	91.37%	90.61%	95.63%	94.81%	88.71%	93.17%	92.32%	88.81%	94%	92.34%

## UGR Comparison:



灯型	色温	光通量	照度	UGR	测试距离	测试高度
晶	5000K	100lm	100lx	14.4	1m	1m
晶	5000K	100lm	100lx	8.5	1m	1m
晶	5000K	100lm	100lx	5	1m	1m

灯型	色温	光通量	照度	UGR	测试距离	测试高度
晶	5000K	100lm	100lx	14.4	1m	1m
晶	5000K	100lm	100lx	8.5	1m	1m
晶	5000K	100lm	100lx	5	1m	1m

灯型	色温	光通量	照度	UGR	测试距离	测试高度
晶	5000K	100lm	100lx	14.4	1m	1m
晶	5000K	100lm	100lx	8.5	1m	1m
晶	5000K	100lm	100lx	5	1m	1m

## Glare Comparison:



# LIGHT FILTER

## 6 types of Filter for the Kirin platform

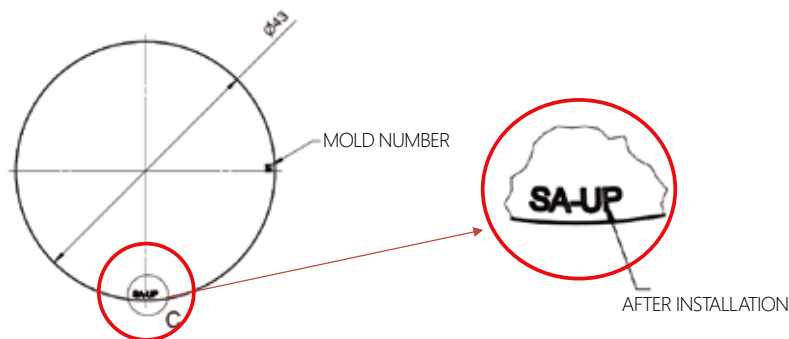
Linear/ Single Asymmetric/ Double Asymmetric/ Wall Washing/ Transparent / Heavy/Light Matte



### Identification of Filter

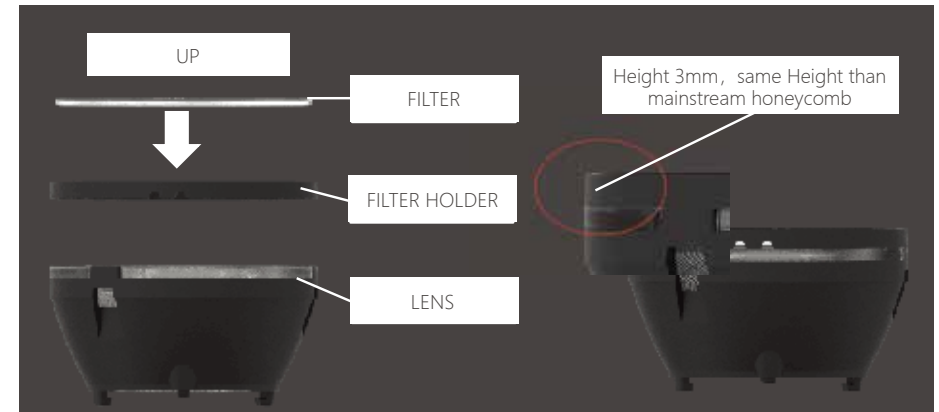
Filter can be identified by the naked eye. Transparent: has a smooth and shiny surface on both sides. Light /Heavy Matte: while the soft has a smooth and shiny surface on both sides. Single Asymmetric: has the words "SA-UP" marked on the surface. Double Asymmetric: the double polarizer has the words "DA-UP" marked on the surface. Linear: has the words "60XX-UP" marked on the surface. Wall washing: has the words "XQ" marked on the surface.

transparent surface	Matte surface	SA-UP	DA-UP	60XX-UP	XQ
Transparent	Light Matte	Single Asymmetric	Double Asymmetric	Linear	Wall washing

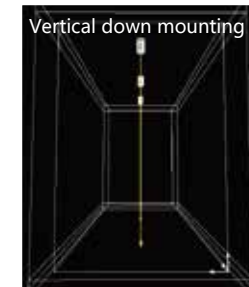


### Installation method

The transparent and light&heavy matte without optical structure can be installed directly, while Linear, Asymmetric, double Asymmetric, and wall washing filter with optical structure need to be installed with the smooth surface facing up, and the direction with the words SA-UP/DA-UP/60XX-UP-/XQ is the direction of the light spot .

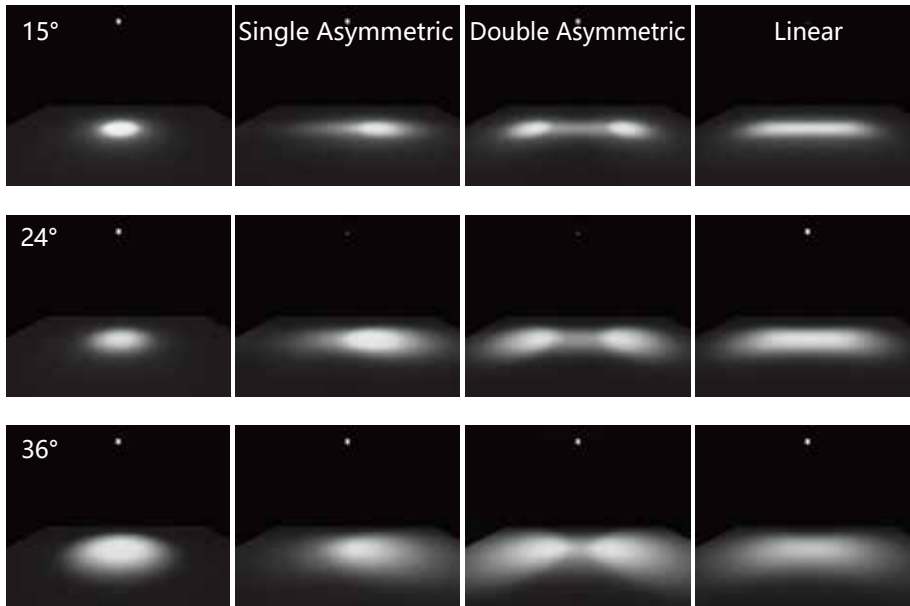


### Application



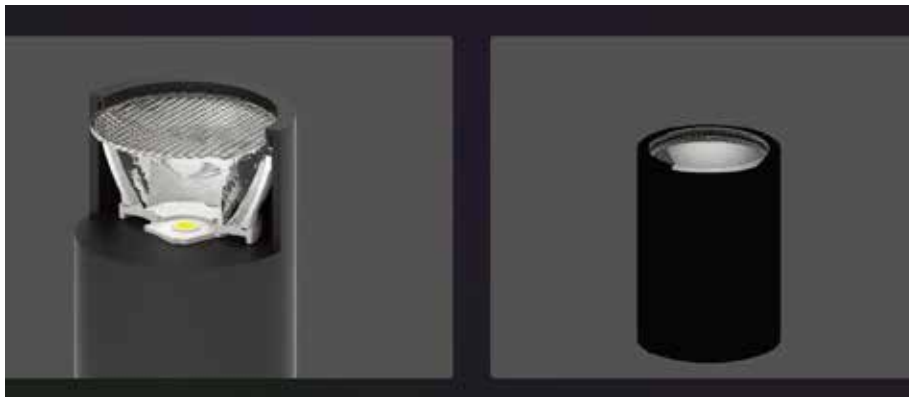
# LIGHT FILTER

Different filters with different lenses will get different spot effects.

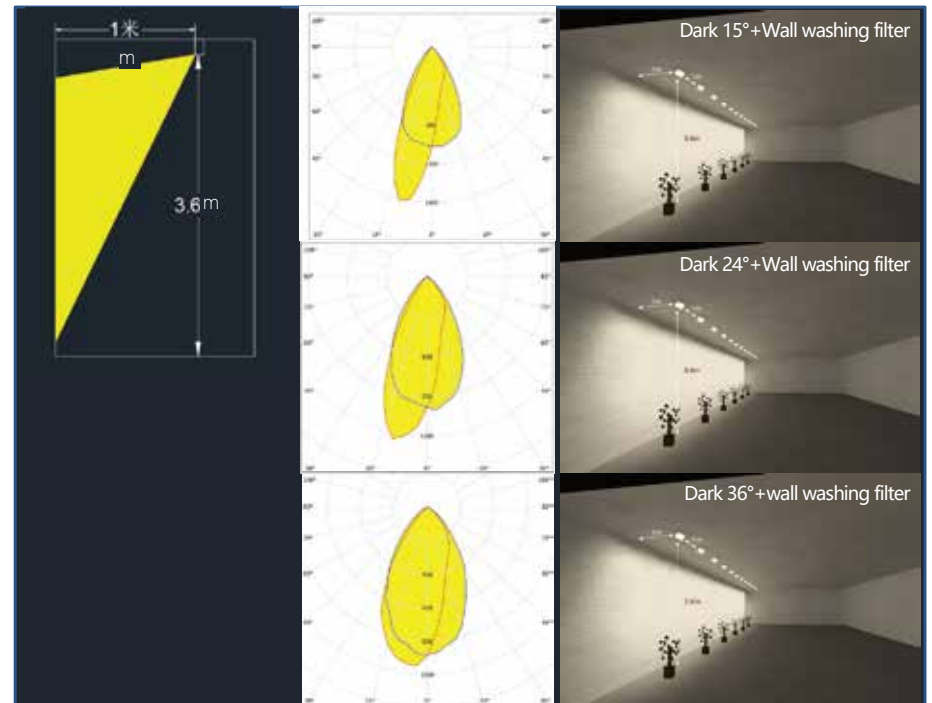


## Wall washing filter

Suitable for track lighting fixtures without deepened anti-glare louver.



## Lens Effects



## Size

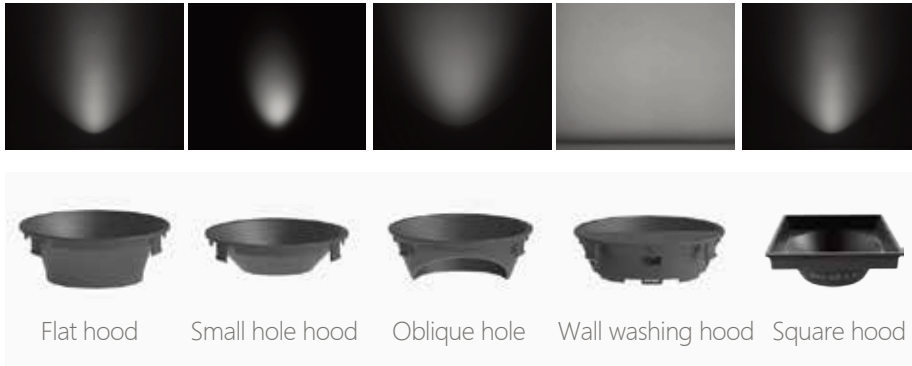
For the Kirin Optical Platform series products, corresponding size-variable lenses have been developed. Specific sizes include:  $\varnothing 25$ ,  $\varnothing 30$ ,  $\varnothing 35$ ,  $\varnothing 45$ ,  $\varnothing 50$ ,  $\varnothing 55$ ,  $\varnothing 62$ ,  $\varnothing 68$ ,  $\varnothing 75$ , and  $\varnothing 83$ , with support for customized development. The embedded ring height for variable lenses of different sizes is 3mm. The actual diameter and height of the variable lenses are slightly smaller than the corresponding embedded ring sizes.



# LIGHT HOOD

## Various types are choosable

Small hole hood, oblique hole hood, flat hood, wall washing hood Various forms of hoods, switch at will. The installation method is the same, can be switched at will.



## Multiple colors available and customizable

There are currently four colors available: bright black, bright gold, bright silver, and matte black. Customization of other colors is also acceptable.



## Small hole hood

Principle make 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 can be guaranteed. The small hole hood perfectly solves the phenomenon of butterfly spots when deflecting the wall and washing the wall.



Types & Color	Size	Distance between light-hood & lens	Small hole Diameter	Adaptable lens	Adaptable filter	
Oblique: Matte Black/ Bright Black/ Bright Gold/ Bright Silver	D: 33.5mm H: 10.68mm	h: 5.2mm	/	Dark25/Gemini25/ Moony25/Peak25	Single asymmetric/ Double asymmetric/ Linear spot/ Matte filter	
	D: 50mm H: 9.65mm	h: 12mm	/	Dark30/Gemini30/ Moony30/Peak30		
	D: 50mm H: 17.89mm	h: 5.2mm	/	Dark35/Gemini35/ Moony35/Peak35		
	D: 68mm H: 23.45mm	h: 5mm	/	Dark35/Gemini35/ Moony35/Peak35		
	D: 68mm H: 25mm	h: 5.17mm	/	Dark45/Gemini45/ Moony45/Peak45		
	D: 70mm H: 28mm	h: 5.2mm	/	Dark50/Gemini50/ Moony50/Peak50		
	D: 100mm H: 36.3mm	h: 7mm	/	Dark55/Gemini55/ Moony55/Peak55		
	D: 100mm H: 37mm	h: 8mm	/	Dark62/Gemini62/ Moony62/Peak62		
	D: 145mm H: 50.9mm	h: 8mm	/	Dark68/Gemini68/ Moony68/Peak68		
	D: 145mm H: 52.07mm	h: 10mm	/	Dark75/Gemini75/ Moony75/Peak75		
	Small hole: Matte Black/ Bright Black/ Bright Gold/ Bright Silver	D: 68mm H: 20.77mm	h: 9mm	d: 23mm		Dark35/Gemini35/ Moony35/Peak35
		D: 68mm H: 17.77mm	h: 12.4mm	d: 29mm		Dark45/Gemini45/ Moony45/Peak45

# LIGHT HOOD

## Peak series lens & Flat hood

Kirin Optical Platform Peak series lens with flat hood Wall washing is clean, without delamination, and the light spot is uniform.



## Flat hood matching information sheet



MN	1.07.23184	1.07.23141	1.07.23142	1.07.23190	1.07.23161	1.07.23217	1.07.23083
Flat Hood Diameter	33.5	50	50	50	68	68	68
Peak Diameter	PEAK 20@10	PEAK 25@13	PEAR 30@15	PEAK 35@16		PEAK 40@19	PEAK 45@21
15°				1.01.23222			1.01.23307(D6)
24°	1.01.23154	1.01.13050	1.01.13021	1.01.12962		1.01.23216	1.01.12657(D6) 1.01.23096(D9)
36°	1.01.23163	1.01.23143	1.01.23139	1.01.13016			1.01.23067(D6) 1.01.23137(D9)
50°				1.01.23212			1.01.23319(D6) 1.01.23319(D9)

## Dark series lens & Small hole hood

Kirin Optical Platform Dark series lens with small hole hood Uniform light spot, deeper anti-glare.



## Small hole hood matching information sheet

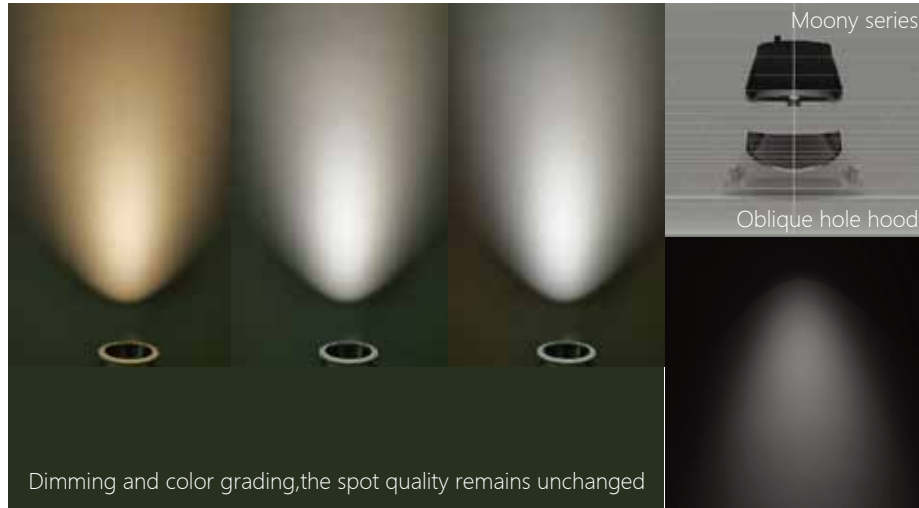


Hood Diameter	33.5	50	50	68	68	68	70	100	90	100	145	
Hood MN	1.07.12752	1.07.12663	1.07.12745	1.07.02471	1.07.92058 (D6)		1.07.12764 (D9)	1.07.23079	1.07.12670	1.07.12813	1.07.12665	1.07.12731
Matching Dark Diameter	25	30	35	35	45	45	50	55	62	62	68	

# LIGHT HOOD

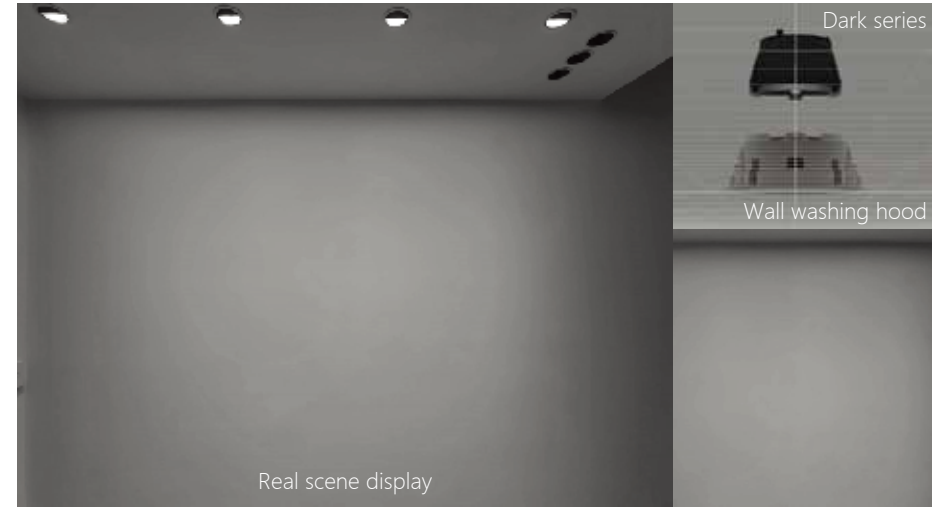
## Dark/Moony & Oblique hood

Kirin Optical Platform Moony/Dark series lenses with oblique hole hood, The edge of the spot is cut off cleanly and the transition is even.



## Dark series lens & Wall washing hood solution

Kirin Optical Platform Dark series lenses with wall washing hood, The entire wall has uniform brightness and the skyline is clear.



## Oblique hole hood matching information sheet

<b>Hood Diameter</b>	50	68	68	70	100	100	145	145
<b>Hood MN</b>	1.07.92096	1.07.02440	1.07.02335	1.07.92097	1.07.92135	1.07.92104	1.07.92118	1.07.92102
<b>Matching Dark/Moony diameter</b>	35	35	45	50	55	62	68	75

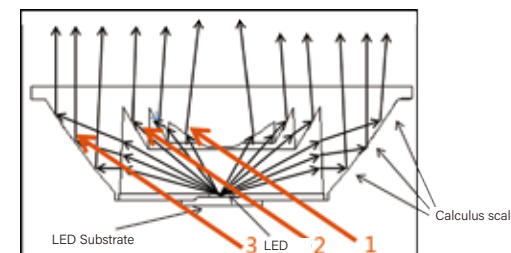
## Recommended wall washing hood solution

	35 Opening scheme	55 Opening scheme	75 Opening scheme	95 Opening scheme
<b>Wall Washing Hood MN</b>	1.07.23206 /1.07.23206	1.07.23295_A /1.07.23295_B	1.07.23130	1.01.23310
<b>Recommended optics</b>	Dark D25-15° 1.01.92131	Dark D35-15° 1.01.91997	Dark D45-15° 1.01.91887	Dark D50-15° 1.01.92006

# PHOTON SERIES

## Principle

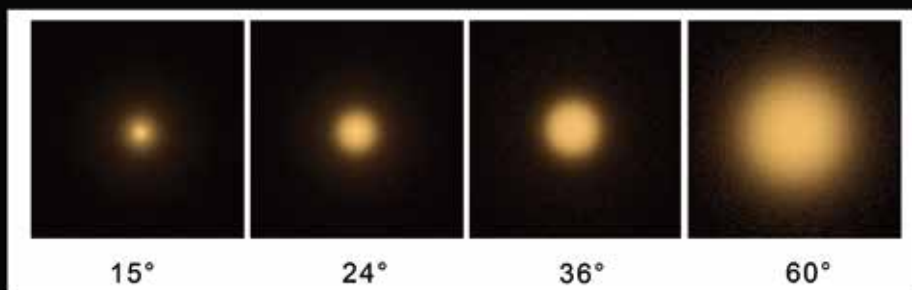
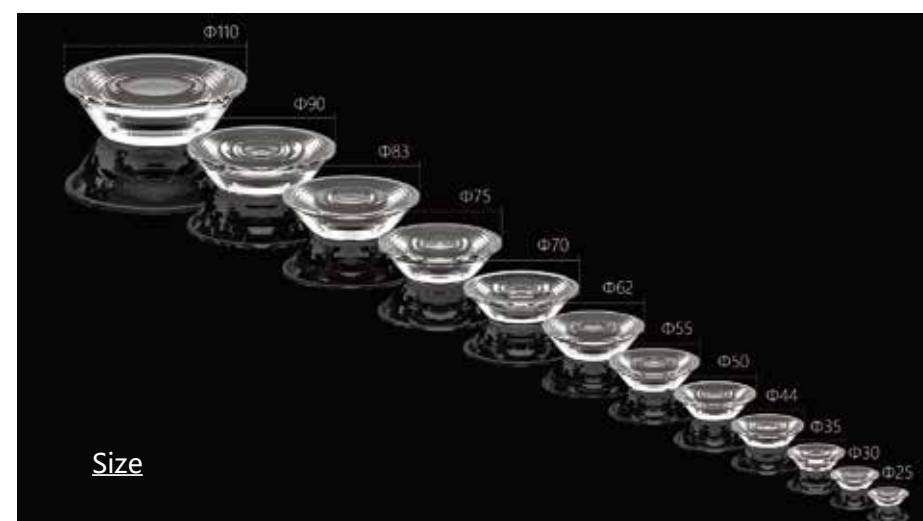
Photon Lens designed by one refracting surface and several fully reflecting surfaces, can control the light distribution well by lower lens height.





## 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 more 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 case of light spot cut-off, the central light intensity is high.




PHOTON 25@07	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02505	25	07	15°	D4	85%	PC
	1.01.02506	25	07	24°	D6	85%	PC
	1.01.02507	25	07	36°	D6	85%	PC
	1.01.02508	25	07	60°	D6	85%	PC
	1.01.23086	25	07	36°(WW)	D6	85%	PC
	1.01.23203	25	07	60°(WW)	D6	85%	PC


PHOTON 30@08	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02523	30	08	15°	D4	85%	PC
	1.01.02524	30	08	24°	D6	85%	PC
	1.01.02525	30	08	36°	D6	85%	PC
	1.01.02526	30	08	60°	D6	85%	PC


PHOTON 35@10	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12960	35	10	10°	D3.5	85%	PC
	1.01.6803	35	10	15°	D6	85%	PC
	1.01.6782	35	10	24°	D6	85%	PC
	1.01.6784	35	10	36°	D6	85%	PC
	1.01.33503	35	10	45°	D6	85%	PC
	1.01.71149	35	10	60°	D6	85%	PC
	1.01.12824	35	10	15°(WW)	D6	85%	PC
	1.01.12841	35	10	24°(WW)	D6	85%	PC
	1.01.12842	35	10	24°(CM)	D6	85%	PC
	1.01.23074	35	10	36°(CM)	D9	85%	PC
	1.01.23179	35	10	36°(WW)	D6	85%	PC
	1.01.23138	35	10	60°(WW)	D9	85%	PC
	1.01.23459	35	10	DA	D6	85%	PC
	1.01.23460	35	10	SA	D6	85%	PC


PHOTON 44@10	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.12954	44	10	30°X40° (WW)	D9	85%	PC


PHOTON 44@11	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6752	44	11	15°	D3.5	85%	PC
	1.01.6753	44	11	24°	D6	85%	PC
	1.01.12654	44	11	24°	D6	85%	PC
	1.01.6754	44	11	36°	D6	85%	PC
	1.01.12655	44	11	36°	D6	85%	PC
	1.01.02606	44	11	45°	D6	85%	PC
	1.01.81383	44	11	60°	D6	85%	PC
	1.01.23388	44	11	60°	D6	85%	PC
	1.01.23194	44	11	15°(CM)	D6	85%	PC
	1.01.12838	44	11	24°(CM)	D9	85%	PC
	1.01.23180	44	11	15°(WW)	D6	85%	PC
	1.01.12841	44	11	24°(WW)	D9	85%	PC
	1.01.23077	44	11	36°(WW)	D6	85%	PC
	1.01.23176	44	11	60°(WW)	D6	85%	PC


DA - Double asymmetric SA - Asymmetric WW - Wall washing CM - Color mixing

PHOTON 50@14	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6582	50	14	12°	D6	85%	PC
	1.01.6637	50	14	24°	D6	85%	PC
	1.01.6638	50	14	36°	D6	85%	PC
	1.01.33502	50	14	45°	D6	85%	PC
	1.01.81364	50	14	60°	D9	85%	PC
	1.01.23199	50	14	15°(CM)	D6	85%	PC
	1.01.12839	50	14	24°(CM)	D6	85%	PC
	1.01.12920	50	14	36°(CM)	D6	85%	PC
	1.01.23461	50	14	SA	D9	85%	PC
	1.01.23462	50	14	DA	D9	85%	PC


PHOTON 55@15	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02360	55	15	12°	D6	85%	PC
	1.01.02361	55	15	24°	D9	85%	PC
	1.01.02362	55	15	36°	D9	85%	PC
	1.01.02363	55	15	60°	D9	85%	PC


PHOTON 62@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6900	62	18	15°	D9	85%	PC
	1.01.6907	62	18	24°	D9	85%	PC
	1.01.6906	62	18	36°	D9	85%	PC
	1.01.81515	62	18	60°	D9	85%	PC

PHOTON 70@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6837	70	19	15°	D9	85%	PC
	1.01.6735	70	19	24°	D9	85%	PC
	1.01.6736	70	19	36°	D9	85%	PC
	1.01.33505	70	19	45°	D11	85%	PC
	1.01.81365	70	19	60°	D9	85%	PC

PHOTON 75@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6599	75	21	12°	D9	85%	PC
	1.01.6646	75	21	24°	D9	85%	PC
	1.01.6647	75	21	36°	D9	85%	PC
	1.01.81606	75	21	60°	D9	85%	PC

PHOTON 83@22	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6874	83	22	15°	D12	85%	PC
	1.01.6875	83	22	24°	D12	85%	PC
	1.01.6876	83	22	36°	D12	85%	PC
	1.01.33504	83	22	45°	D12	85%	PC
	1.01.81516	83	22	60°	D12	85%	PC

PHOTON 90@22	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6598	90	22	12°	D12	85%	PC
	1.01.6642	90	22	24°	D12	85%	PC
	1.01.6645	90	22	36°	D12	85%	PC
	1.01.7992	90	22	65°	D19	85%	PC

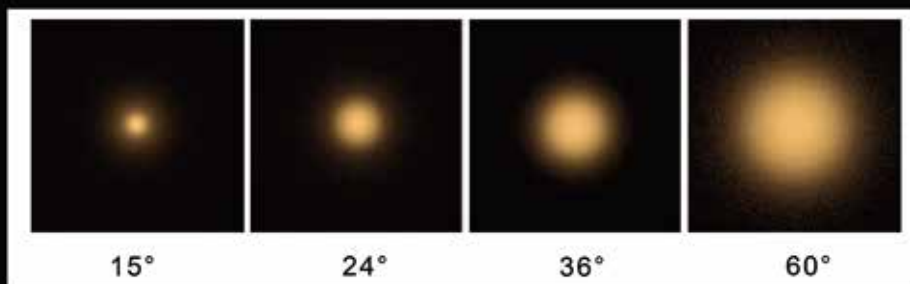
PHOTON 110@32	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02312	110	32	15°	D14	85%	PC
	1.01.02313	110	32	24°	D14	85%	PC
	1.01.92129	110	32	36°	D14	85%	PC
	1.01.92091	110	32	60°	D14	85%	PC


# KA SERIES


## Light spot performance





## Commercial lighting application





KA 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91863 PMMA	35	16	10°	XHP35	90%	PC
	1.01.81566 PMMA	35	16	15°	D6	90%	PC
	1.01.81567 PMMA	35	16	24°	D6	90%	PC
	1.01.81568 PMMA	35	16	36°	D6	90%	PC
	1.01.81581 PMMA	35	16	60°	D6	90%	PC
	1.01.91863 PC	35	16	10°	XHP35	88%	PC
	1.01.81566 PC	35	16	15°	D6	88%	PC
	1.01.81567 PC	35	16	24°	D6	88%	PC
	1.01.81568 PC	35	16	36°	D6	88%	PC
	1.01.81581 PC	35	16	60°	D6	88%	PC


KA 40@20	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.92160	40	20	15°	D6	90%	PMMA
	1.01.92161	40	20	24°	D9	90%	PMMA
	1.01.92162	40	20	36°	D9	90%	PMMA
	1.01.92181	40	20	60°	D9	90%	PMMA
	1.01.92162 PC	40	20	36°	D9	88%	PC


KA 43@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91844 PMMA	43	19	10°	D4	90%	PMMA
	1.01.81392 PMMA	43	19	18°	D9	90%	PMMA
	1.01.81393 PMMA	43	19	24°	D9	90%	PMMA
	1.01.81394 PMMA	43	19	36°	D9	90%	PMMA
	1.01.81395 PMMA	43	19	60°	D9	90%	PMMA
	1.01.91844 PC	43	19	10°	D4	88%	PC
	1.01.81392 PC	43	19	18°	D9	88%	PC
	1.01.81393 PC	43	19	24°	D9	88%	PC
	1.01.81394 PC	43	19	36°	D9	88%	PC
	1.01.81395 PC	43	19	60°	D9	88%	PC


KA 45@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.71248	45	21	15°	D6	90%	PMMA
	1.01.71217	45	21	24°	D6	90%	PMMA
	1.01.71252	45	21	36°	D6	90%	PMMA
	1.01.81522	45	21	60°	D6	90%	PMMA


KA 50@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.81640	50	25	12°	D6	90%	PMMA
	1.01.81641	50	25	24°	D6	90%	PMMA
	1.01.81642	50	25	36°	D6	90%	PMMA
	1.01.12837	50	25	45°	CLU028	90%	PMMA
	1.01.91671	50	25	60°	D6	90%	PMMA


KA 55@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.5498	55	21	15°	D9	90%	PMMA
	1.01.5495	55	21	20°	D9	90%	PMMA
	1.01.7990	55	21	24°	D9	90%	PMMA
	1.01.7991	55	21	36°	D9	90%	PMMA
	1.01.81457	55	21	60°	D9	90%	PMMA


KA 55@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91904	55	24	10°	D6	90%	PC
	1.01.71024	55	24	15°	D9	90%	PC
	1.01.71045	55	24	24°	D9	90%	PC
	1.01.23317	55	24	24°	D9	90%	PC
	1.01.71046	55	24	36°	D9	90%	PC
	1.01.91785	55	24	60°	D9	90%	PC


KA 55@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23084	55	30	15°	D9	90%	PMMA
	1.01.13028	55	30	24°	D9	90%	PMMA
	1.01.23085	55	30	36°	D9	90%	PMMA

KA 62@31	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.71155	62	31	15°	D9	90%	PMMA
	1.01.71186	62	31	24°	D9	90%	PMMA
	1.01.71187	62	31	36°	D9	90%	PMMA
	1.01.12840	62	31	45°	D9	90%	PMMA
	1.01.81485	62	31	60°	D9	90%	PMMA

KA 66@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.23320	66	35	15°	D9	90%	PMMA
	1.01.23322	66	35	24°	D9	90%	PMMA
	1.01.23324	66	35	36°	D9	90%	PMMA
	1.01.23338	66	35	60°	D9	90%	PMMA

KA 69@30	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91834 M	69	30	15°	D10	90%	PMMA
	1.01.91834	69	30	15°	D10	90%	PMMA
	1.01.91842	69	30	24°	D10	90%	PMMA
	1.01.91888	69	30	36°	D10	90%	PMMA
	1.01.02346	69	30	60°	D10	90%	PMMA

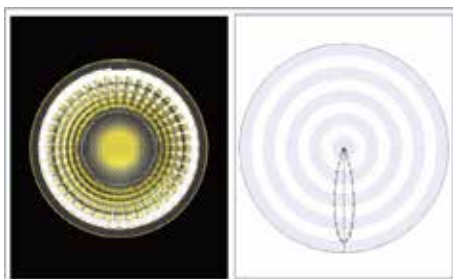
KA 72@33	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6914	72	33	12°	D9	90%	PMMA
	1.01.6771	72	33	24°	D9	90%	PMMA
	1.01.6878	72	33	36°	D9	90%	PMMA
	1.01.81460	72	33	60°	D9	90%	PMMA

KA 75@31	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6823	75	31	15°	D12	90%	PMMA
	1.01.6833	75	31	24°	D12	90%	PMMA
	1.01.6834	75	31	38°	D12	90%	PMMA
	1.01.81470	75	31	60°	D12	90%	PMMA

# CHAMELEON SERIES

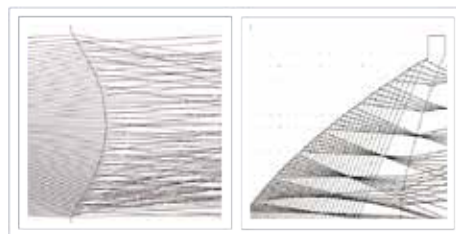
## Principle of Design

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.




## Product Characteristics


Using calculus total reflection combined with local directional differential technology, while the color temperature and brightness of the light source changing, 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





CHAMELEON 35@16	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.92088	35	16	24°	D6	90%	PMMA
	1.01.12829	35	16	36°	D6	90%	PMMA
	1.01.81581	35	16	60°	D6	90%	PMMA


CHAMELEON 43@19	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02282	43	19	24°	D9	80%	PC
	1.01.81394	43	19	36°	D9	90%	PMMA
	1.01.81395	43	19	60°	D9	90%	PMMA


CHAMELEON 44@20	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.92057	44	20	24°	D9	80%	PC
	1.01.4357	44	20	36°	D9	80%	PC
	1.01.4358	44	20	60°	D9	80%	PC

CHAMELEON 55@21	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91993	55	21	24°	D9	90%	PMMA
	1.01.02540	55	21	36°	D9	90%	PMMA
	1.01.81457	55	21	60°	D9	90%	PMMA

Chameleon 55@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02274	55	24	24°	D9	90%	PMMA
	1.01.02541	55	24	36°	D9	90%	PMMA
	1.01.91785	55	24	60°	D9	90%	PMMA

Chameleon 62@31	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02327	62	31	24°	D9	90%	PMMA
	1.01.71187	62	31	36°	D9	90%	PMMA
	1.01.81485	62	31	60°	D9	90%	PMMA

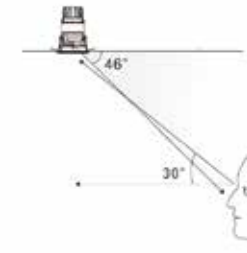
Chameleon 72@33	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.92093	72	33	24°	D15	90%	PMMA
	1.01.02535	72	33	36°	D12	90%	PMMA
	1.01.81460	72	33	60°	D9	90%	PMMA

Chameleon 75@31	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.02326	75	31	24°	D15	90%	PMMA
	1.01.02536	75	31	36°	D12	90%	PMMA
	1.01.81470	75	31	60°	D12	90%	PMMA

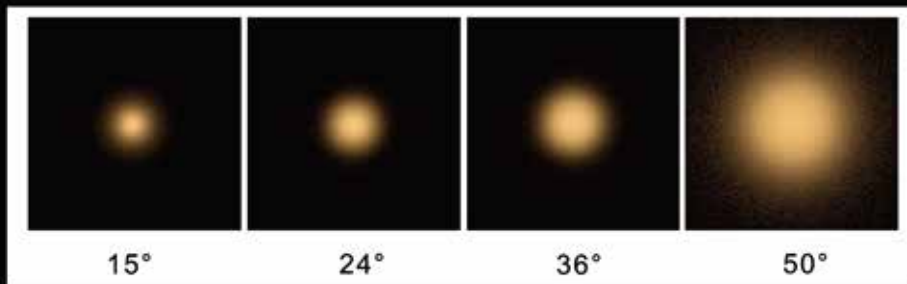
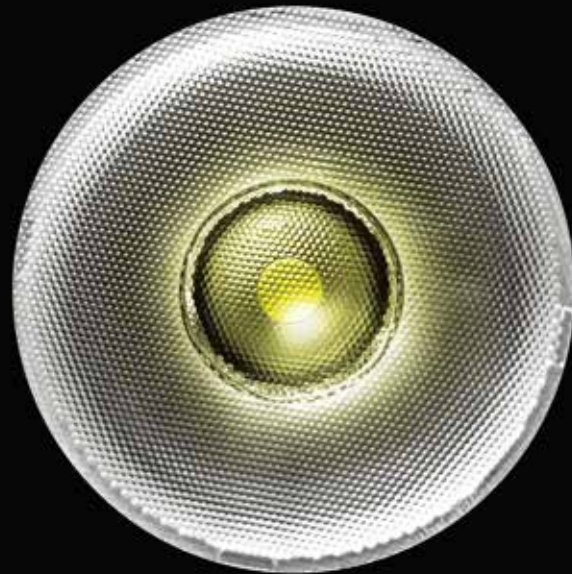
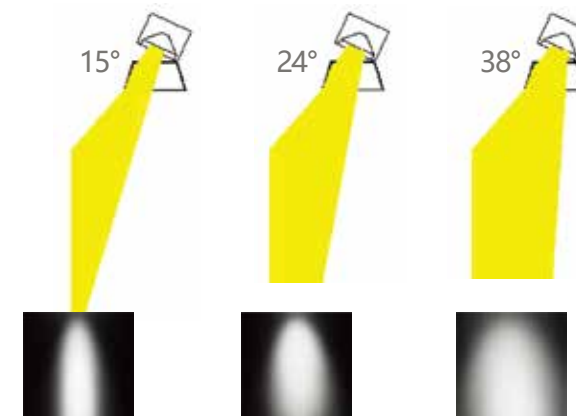
# BLACK HOLE SERIES

## Introduction


The Max shielding angle of the LED lamp is 46°, can avoid the glare effectively. The most accepted shielding angle of the human visual is area always more than 30°, the other light in this area will occur the glare. So when the shielding angle of the LED lamp more than 30°, Black Hole 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 is specially 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 light spot will transit uniformly.





BLACK HOLE 28@14	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91835	28	14	15°	D4	85%	PC
	1.01.91836	28	14	24°	D4	85%	PC
	1.01.91840	28	14	36°	D4	85%	PC
	1.01.02343	28	14	60°	D4	85%	PC

BLACK HOLE 30@15	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91816	30	15	15°	D4	85%	PC
	1.01.91817	30	15	24°	D6	85%	PC
	1.01.91818	30	15	36°	D6	85%	PC
	1.01.91979	30	15	50°	D6	85%	PC

BLACK HOLE 35@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.7935	35	18	15°	D4.5	85%	PC
	1.01.7936	35	18	24°	D4.5	85%	PC
	1.01.7937	35	18	36°	D4.5	85%	PC
	1.01.81535	35	18	60°	D4.5	85%	PC
	1.01.02195	35	18	24°	D6	85%	PC

BLACK HOLE 45@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.6879	45	24	10°	XHP35	85%	PC
	1.01.81303	45	24	10°	D4	85%	PC
	1.01.91864	45	24	15°	D6	85%	PC
	1.01.6575	45	24	24°	D6	85%	PC
	1.01.81537	45	24	24°	D6	85%	PC
	1.01.6576	45	24	34°	D6	85%	PC
	1.01.71228	45	24	60°	D6	85%	PC
	1.01.33586	45	24	15°	D9	85%	PC
	1.01.33587	45	24	24°	D9	85%	PC
	1.01.33588	45	24	36°	D9	85%	PC
	1.01.33589	45	24	50°	D9	85%	PC

BLACK HOLE 50@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.71114	50	24	15°	D9	85%	PC
	1.01.71263	50	24	24°	D9	85%	PC
	1.01.71264	50	24	36°	D9	85%	PC
	1.01.81616	50	24	50°	D9	85%	PC

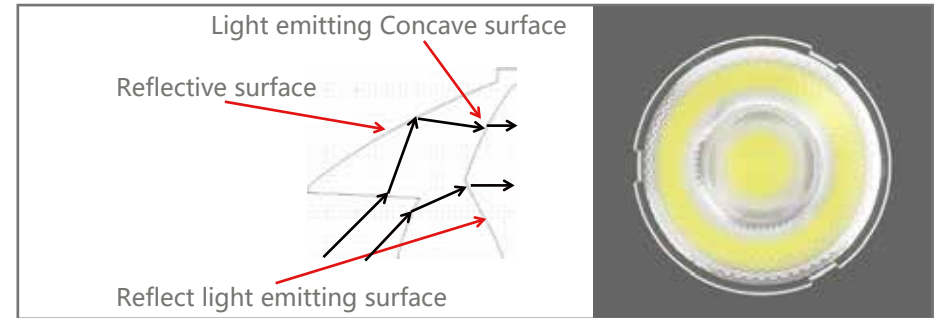
BLACK HOLE 62@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.81439	62	24	15°	D9	85%	PC
	1.01.81561	62	24	24°	D9	85%	PC
	1.01.81562	62	24	36°	D9	85%	PC
	1.01.81559	62	24	60°	D14	85%	PC



# INFINITY SERIES

## 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.



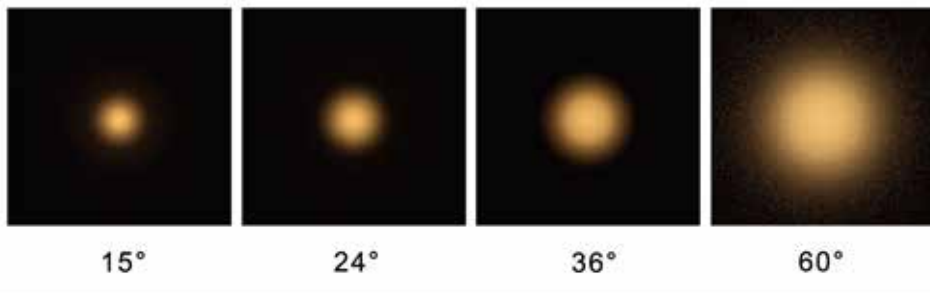
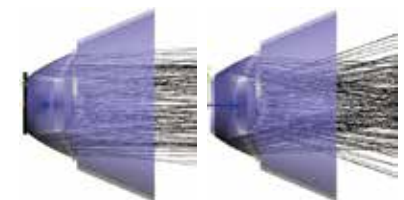
## Nice cutoff and fulfilled spot center (strong zoom capability):


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; Especially for the wide beam angle central spot, it has a certain compensation effect, making the center of the wide beam angle spot full.


## 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.





INFINITY 35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91754	35	15	15°_36°	D4	90%-92%	PMMA
	1.01.91949	35	14	35°_60°	D4	90%-92%	PMMA

INFINITY 45	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91678	45	20	15°_36°	D9	90%-92%	PMMA
	1.01.91948	45	18	35°_60°	D6	90%-92%	PMMA

INFINITY 55	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.91665	55	25	15°_36°	D9	90%-92%	PMMA
	1.01.91947	55	23	35°_60°	D9	90%-92%	PMMA

INFINITY 62	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.81657	62	28	15°_36°	D9	90%-92%	PMMA
	1.01.91943	62	26	35°_60°	D9	90%-92%	PMMA

INFINITY 72	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.81656	72	33	15°_36°	D12	90%-92%	PMMA
	1.01.91946	72	29	35°_60°	D12	90%-92%	PMMA

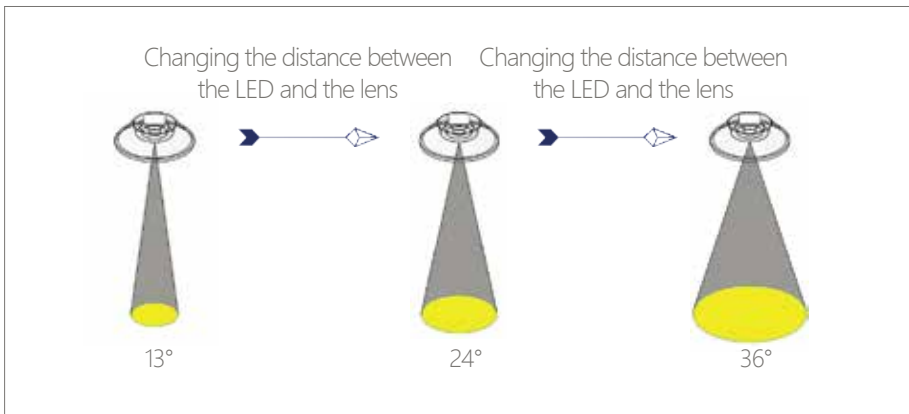
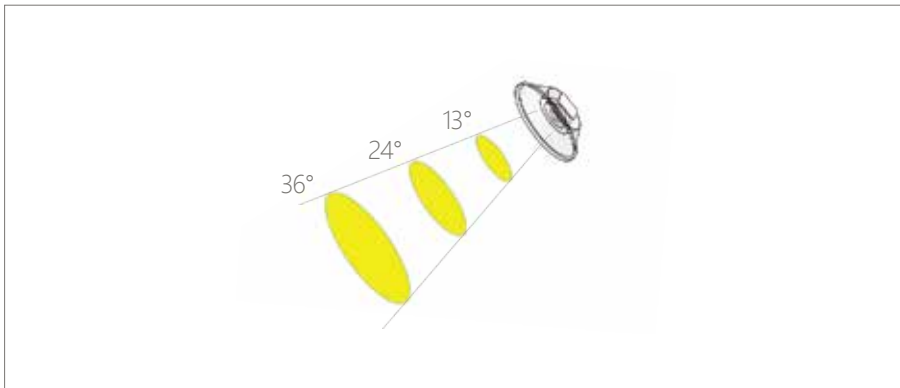
INFINITY 75	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.81403	75	34	15°_36°	D12	90%-92%	PMMA
	1.01.91730	75	30	35°_60°	D12	90%-92%	PMMA



# FOCUS SERIES

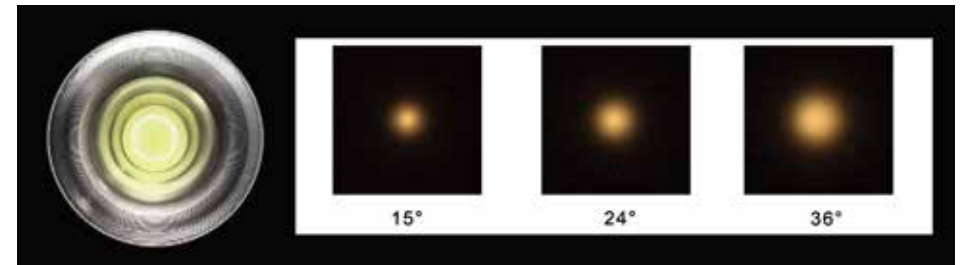
## Introduction

Different with the traditional convex lens, 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.



Focus Series	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
FOCUS 35	1.01.91799	35	10	15°-36°	D4	85%	PC
FOCUS 44	1.01.91774	44	13	15°-36°	D6	85%	PC
FOCUS 50	1.01.7921	50	14	13°-40°	D6	85%	PC
FOCUS 62	1.01.91797	62	17	15°-36°	D9	85%	PC
FOCUS 72	1.01.91791	72	20	15°-36°	D9	85%	PC
FOCUS 75	1.01.6920	75	19	13°-40°	D9	85%	PC
FOCUS 90	1.01.6913	90	24	13°-40°	D12	85%	PC

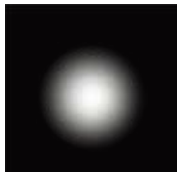
# POLAROID SERIES

## Lens front view



## Facula shape

Polaroid Filter A:  
25°



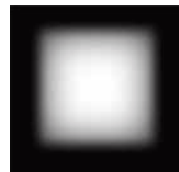
Polaroid Filter B:  
36°



Polaroid Filter C:  
25°×25°



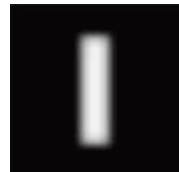
Polaroid Filter D:  
36°×36°



Polaroid Filter E:  
25°×36°



Polaroid Filter F:  
10°×25°



Polaroid Filter G:  
10°×36°



Polaroid Filter H:  
4°×36°

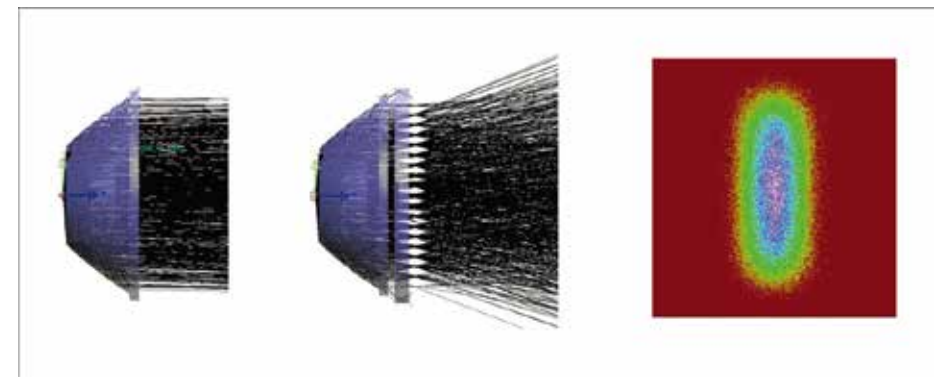
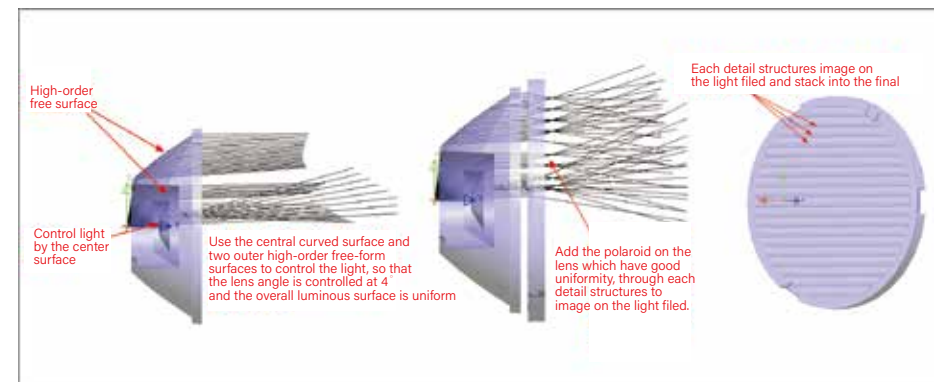



## Introduction


Polaroid means using the normally narrow beam angle circle optics to achieve different beam angle, different shape of the light spot. 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.

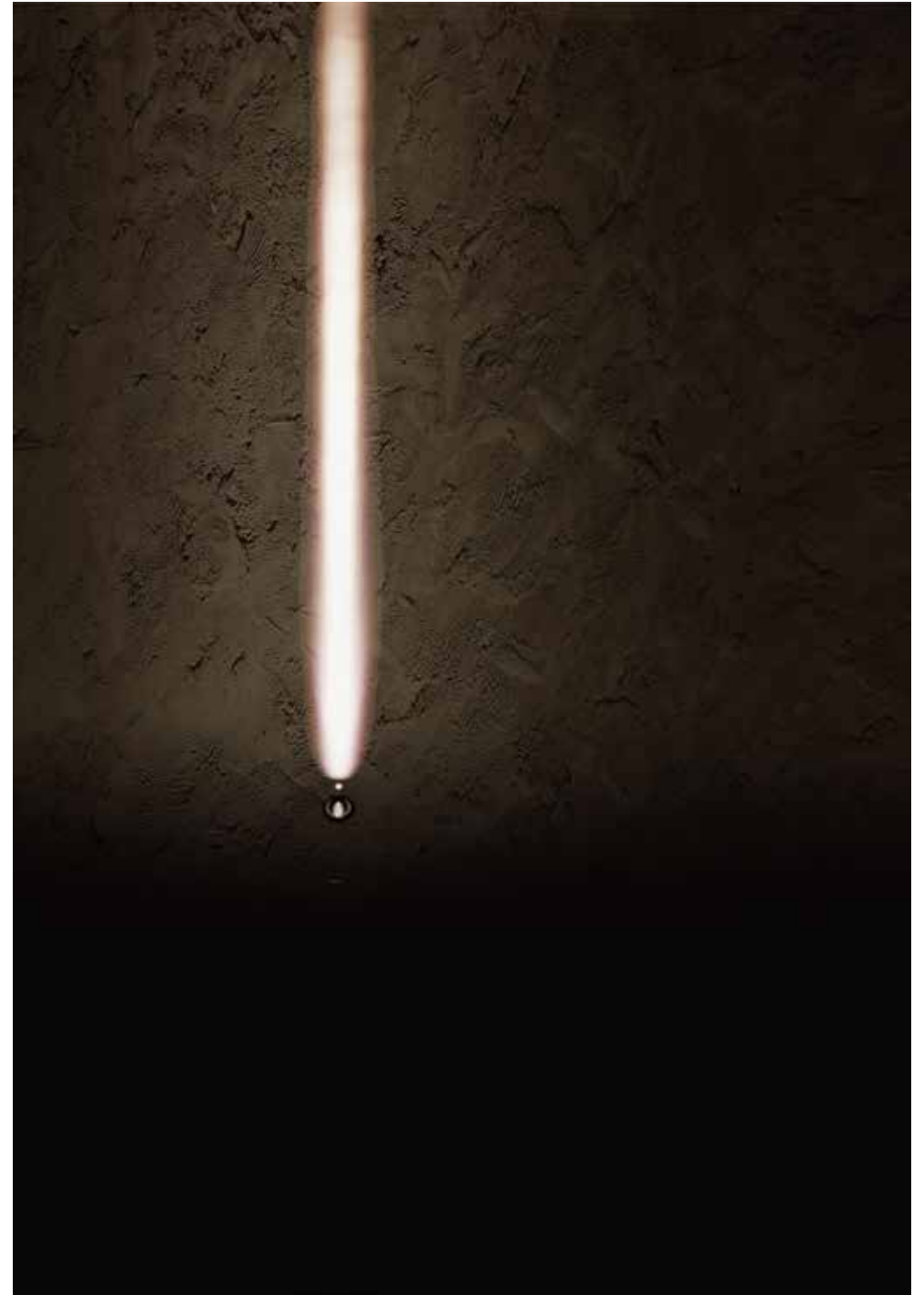


POLAROID 30	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
	1.01.71270	30	11	6°	3535	90%	PC

POLAROID 35	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
	1.01.81496	35	21	7°	3535	90%	PC

POLAROID 40	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
	1.01.6723	40	15	4°	3535	90%	PC

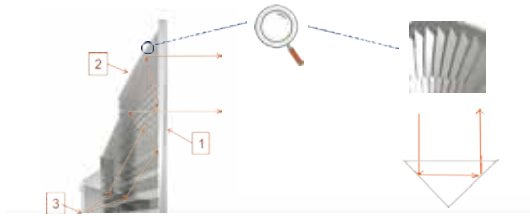
POLAROID 50	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
	1.01.71272	50	18	3°	3535	90%	PC



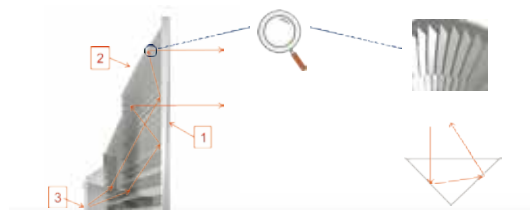
# SUNFLOWER SERIES

## Design Principle

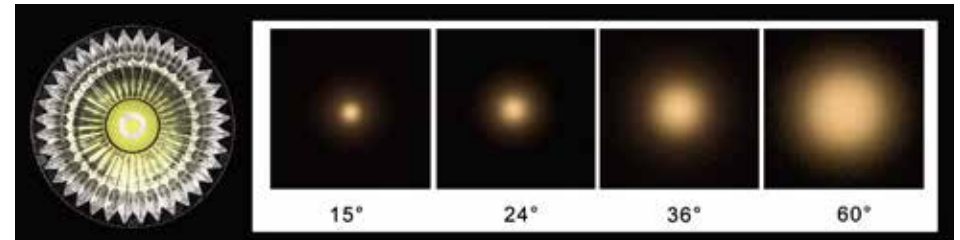
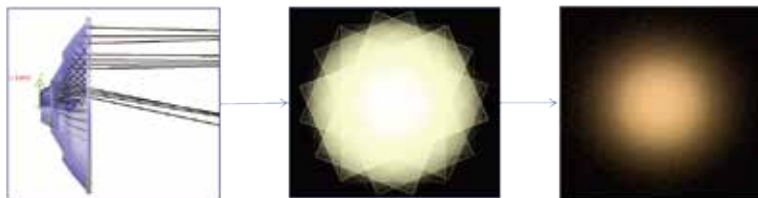
Triple-Reflection technology is a great innovation based on Calculus technology, greatly reduced the lens height compare with the original calculus lens, let the light reflect three times inside the lens, make sure get good light distribution with lower height lens.



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.



SUNFLOWER 45@08	PN	$\varphi$	H	FWHM	LES	Eff.	Mat.
	1.01.6793	45	08	12°	7070	88%	PC
	1.01.6794	45	08	24°	7070	88%	PC
	1.01.6795	45	08	36°	7070	88%	PC
	1.01.81435	45	08	60°	7070	88%	PC
	1.01.91955	45	08	10°	D4	88%	PC
	1.07.91956	8	2	/	/	/	PC

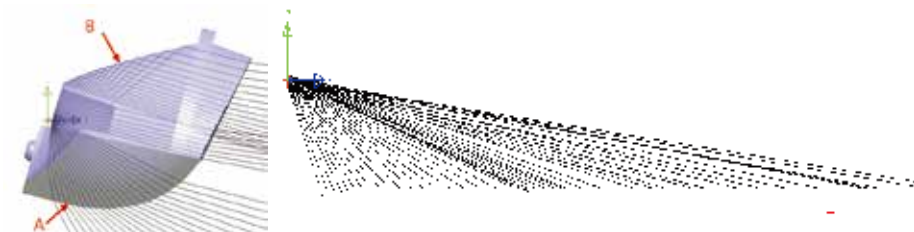
# WATERFALL SERIES



## 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.

## 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)



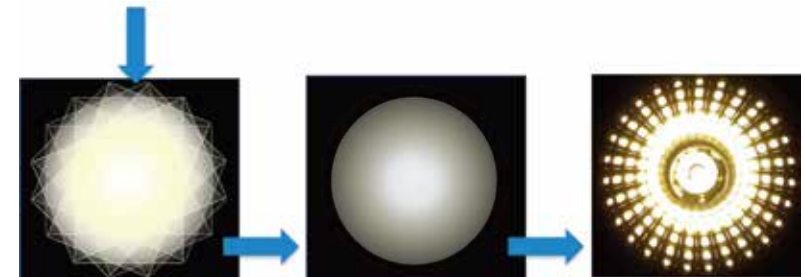
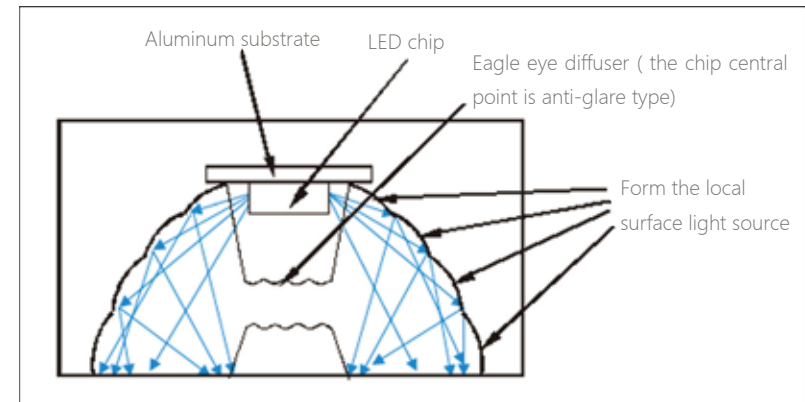
WATERFALL 35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.02.02355	35	23	WW	D4	80%	PC

WATERFALL 47	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.02.02208	47	38	WW	D6	80%	PC

WW - Wall washing

# DIAMOND SERIES

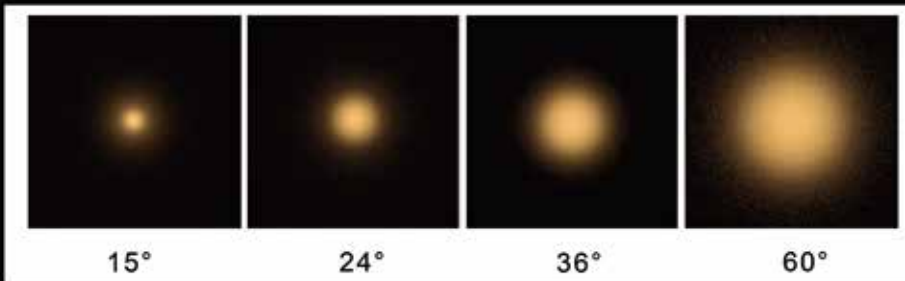
## Principle





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	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.3111	35	12.4	24°	D6	92%	PMMA
	1.01.3112	35	12.4	38°	D6	92%	PMMA


DIAMOND 35@17	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.3018	35	17	15°	D6	92%	PMMA
	1.01.3019	35	17	24°	D6	92%	PMMA
	1.01.3020	35	17	38°	D6	92%	PMMA
	1.01.3056	35	17	60°	D6	92%	PMMA


DIAMOND 43@22.8	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.3046	43	22.8	10°	D9	92%	PMMA
	1.01.3039A	43	22.8	24°	D9	92%	PMMA
	1.01.3002A	43	22.8	38°	D9	92%	PMMA
	1.01.3042A	43	22.8	60°	D9	92%	PMMA
	1.01.3029A	43	22.8	90°	D9	92%	PMMA
	1.01.4214	43	22.8	120°	D9	92%	PMMA

DIAMOND 44@18	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.3113	44	18	24°	D9	92%	PMMA
	1.01.3114	44	18	38°	D9	92%	PMMA

DIAMOND 44@20	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.5423	44	20	15°	D9	90%	PC
	1.01.5413	44	20	24°	D9	90%	PC
	1.01.4357	44	20	24°	D9	90%	PC
	1.01.4358	44	20	36°	D9	90%	PC

DIAMOND 46@24	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.5398	46	24	10°	D6	90%	PC

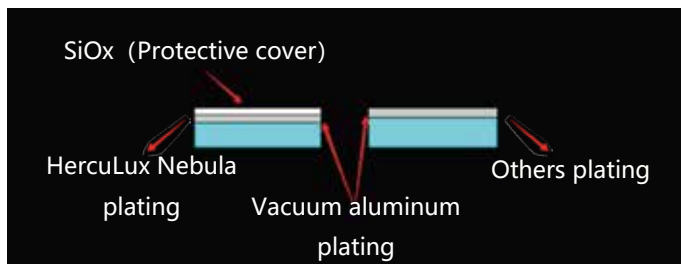
DIAMOND 52@25	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.4286	52	25	15°	D6	90%	PC
	1.01.4288	52	25	24°	D6	90%	PC
	1.01.5429	52	25	35°	D6	90%	PC

DIAMOND 62@22	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.01.4260	62	22	30°	D18	92%	PMMA
	1.01.3026	62	22	38°	D18	92%	PMMA
	1.01.3033	62	22	60°	D18	92%	PMMA
	1.01.3052	62	22	90°	D18	92%	PMMA



# NEBULA SERIES

## Features



### 1. Assembly:

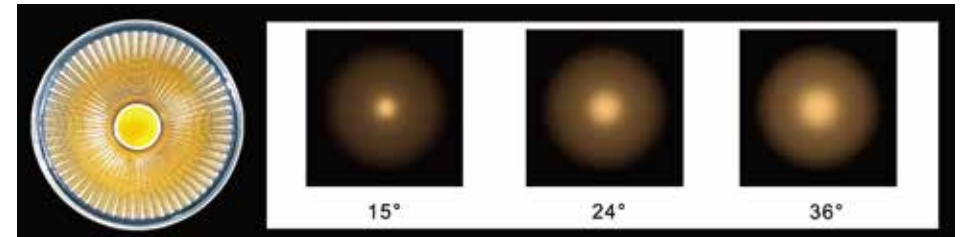
Easy assembling own buckle design and supporting holder design, easy for assembling and precise positioning

### 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	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.6603	44	20	15°	D9	90%	Vaccum
	1.08.6604	44	20	24°	D9	90%	Aluminum
	1.08.6605	44	20	36°	D9	90%	Plating PC
	1.07.6618	41	1	/	/	/	PC

NEBULA 50@35	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.6606	50	35	15°	D9	90%	Vaccum
	1.08.6607	50	35	24°	D9	90%	Aluminum
	1.08.6608	50	35	36°	D9	90%	Plating PC
	1.07.6619	48	2	/	/	/	PC

NEBULA 69@46	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.6609	69	46	15°	D12	90%	Vaccum
	1.08.6610	69	46	24°	D12	90%	Aluminum
	1.08.6611	69	46	36°	D12	90%	Plating PC
	1.07.6620	66	2	/	/	/	PC

Nebula 75@54	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.6612	75	54	18°	D18	90%	Vaccum
	1.08.6613	75	54	24°	D18	90%	Aluminum
	1.08.6614	75	54	36°	D18	90%	Plating PC
	1.07.6621	72	2	/	/	/	PC

Nebula 95@64	PN	φ	H	FWHM	LES	Eff.	Mat.
	1.08.6615	95	64	15°	D18	90%	Vaccum
	1.08.6616	95	64	24°	D18	90%	Aluminum
	1.08.6617	95	64	36°	D18	90%	Plating PC
	1.07.6622	90	2	/	/	/	PC

# CUSTOMIZED SOLUTIONS

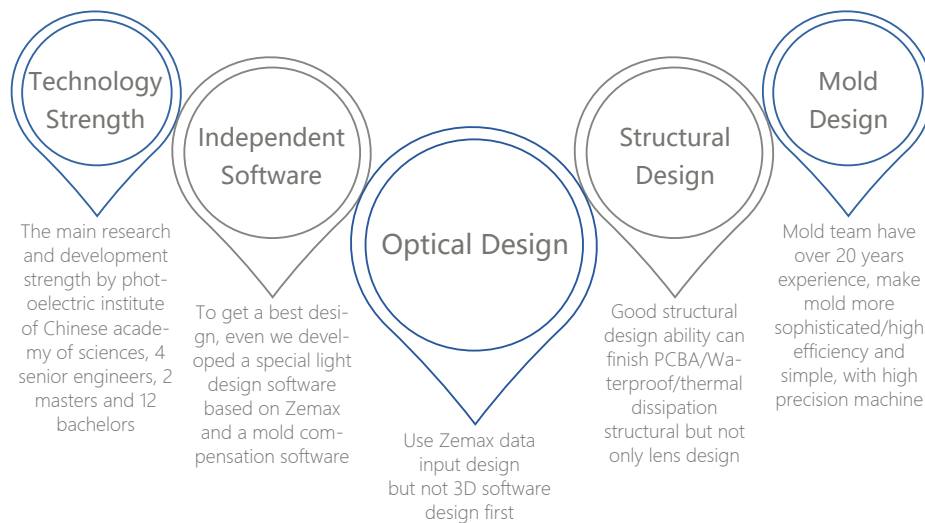
In addition to the standard mold products introduced in the catalogue, HercuLux can also provide customized solution services. With a professional design team and a complete industrial chain, tailor-made for customers, seeking the best solution for the project.

## Extended Polynomial Lens

The Extended Polynomial surface shape is defined by:

$$z = \frac{cr^2}{1 + \sqrt{1 - (1+k)c^2r^2}} + \sum_{i=1}^N A_i E_i(x, y).$$

HercuLux adopts imaging optical design software: Zemax to do data input level design to achieve more accurate chip level design.



and use Light tools or Tracpro to test and then adjust, can get more sophisticated high-order free-form surface

**Quick response for Design: Optical design → Structural design → Optical simulation → Mold assess → Injection molding analysis**

Optical design, structural design, mold design, injection molding production, quality inspection, HercuLux has a complete industrial chain to ensure that optical products can be independently controlled in each link, so that product quality, appearance, performance and other aspects are the best state!

## Custom Process

**Kindly provide detail requirements:**

1. Lens size requirement; 2. Optical requirement(FWHM),Target IES will be better; 3. Lens Efficiency; 4. Assembly drawing sharing; 5. LED; 6. Material: PC or PMMA; 7. Application; 8. Other special information.

**Optical Design Report:**

Our R&D will process to optical designing according to your optical requirement, designing in 2-5 days and we will share you the design report.

**Structure Design:**

If you are satisfied with the optical report, we could process to structure designing. Please kindly provide the assembly drawing, structure drawing and any file is helpful for us to design structure.

**Structure Confirm:**

Confirm the structure (Step file): 1. Whether the lens structure conflict with the PCB; 2. Whether the lens structure conflict with the Lamp's structure; 3. Whether the lens structure conflict with the component location; 4. etc.

**Quotation:**

Quotation for Mold and product: 1. It depends on the mold size and its complexity; 2. Quotation includes Test Mold fee and Final Mold fee and price for unit product. (Test Mold is not absolutely necessary, it is according to the complexity of the mold.)

**Customer PO Arrangement:**

After you confirm the quotation, please kindly share your PO.

**PI and Payment Arrangement:**

We will arrange PI and we process to payment issue. After payment is done, we will process to mold production.

**Mold Production:**

We need 30-35 working days to produce the mold, then will send you the samples which mold produce when the mold finished.

**Confirm The Samples:**

Whether the samples is same with the optical design and structure design.

**Mass Production:** If the samples checking is OK, Procedure as below: 1. Your mass order; 2. Our PI arrangement; 3. Your payment arrangement; 4. Mass production.

Self-built 20000 m<sup>2</sup> HercuLux park



More than 100 precision injection machines



Complete mold processing chain with a constant temp precision processing area



Self-built PC Vacuum Aluminum Plating workshop, One Spraying Production Line, Two Vacuum Plating Machine, 100000 Level Purification Workshop

