

## Chengdu HercuLux Photoelectric Technology Co.,Ltd **Product Approval**

Approval number:

Customer:

Manufacturer: Chengdu HercuLux Photoelectric Technology Co.,Ltd

PN	Code	Product	materials
HK-CY-75@15-15-D14-20-1g-1_DL	1.01.23112	HK Filmy 75@15-15° aluminizing lens	PC+Local aluminium plating
HK-CY-75@15-15-D14-20-1g-1	1. 01. 12862	HK Filmy 75@15-15° lens	PC
HK-CY-75@15-24-D14-20-1g-1	1. 01. 12863	HK Filmy 75@15-24° lens	PC
HK-CY-75@15-36-D14-20-1g-1	1. 01. 13039	HK Filmy 75@15-36° lens	PC
HK-CY-75@15-60-D14-20-1g-1	1. 01. 23221	HK Filmy 75@15-60° lens	PC



	Supplie	r confirmatio	n		Clier	nt confirmation	
Proposed		DATE		Qualified□			
Project manager		DATE		Unqualified□		DATE	
Audit		DATE		Audit		DATE	
Approved		DATE		Approved		DATE	
Stamp	p DATE			Stamp		DATE	

(Confirmation of acceptance by both parties must be signed and sealed)

Factory: Chengdu Shuangliu District, lot industrial park 2 road HercuLux Photoelectric Park

Phone: 028-85887727 (801) 028-85887990 (801) Fax: 028-85887730 http://www.herculux.cn/

Sales Dept: Shenzhen Nanshan District Nanshan Cloud Valley Innovation Industrial Park Comprehensive Service Building, 501-505

TEL: 0755-2937 1541 FAX: 0755-2907 5140

\*Approval In duplicate, for both supplier and customer.

# Disclaimer



Please use this product within the permitted range and environment according to the structure and material of the product. If the usage exceeds the recommended value, please test and verify by yourself. If the product is damaged due to out-of-range use, our company will not be responsible for the warranty.

#### Product material:

Customized products: The specifications and models of materials used are subject to the agreement between the two parties.

Conventional products: As a product that we continuously research and improve, under the premise of ensuring the quality and availability of the product, our company reserves the right to change the material. If the material specification and model change, without prior notice.

## product data:

The measurement data and dimensional tolerances of the 2D drawings in the product data sheet of this acknowledgement are for reference only, and the final size shall prevail in kind.

The measurement data presented in this acknowledgment is a performance test of the product based on our company's internal test conditions and quality requirements, and the reported data is a typical value of the average results of multiple measurements. Therefore, in some cases, the actual product may deviate from the data provided. We reserve the right to notify you in advance of this data.

## Product changes and improvements:

Changes and improvements of customized products are subject to the agreement between the two parties in the contract or technical documents.

As the conventional products that we continue to research and improve, our company reserves the right to make technical changes to its products, and reserves the right to make changes to data resulting from improvements without prior notice.

## Operation cautions:

- 1. Please wear clean gloves during product assembly to prevent product surface contamination.
- 2. Try to avoid touching the optical surface of the lens when taking the lens.
- 3. When the surface of the product is polluted, please wipe it gently with a soft cotton cloth dipped in analytically pure neutral solvent. It is forbidden to use industrial solvents (alcohol, isopropanol, acetone, ether, toluene, xylene, carbon tetrachloride, MMA monomerm, etc.) wipe.

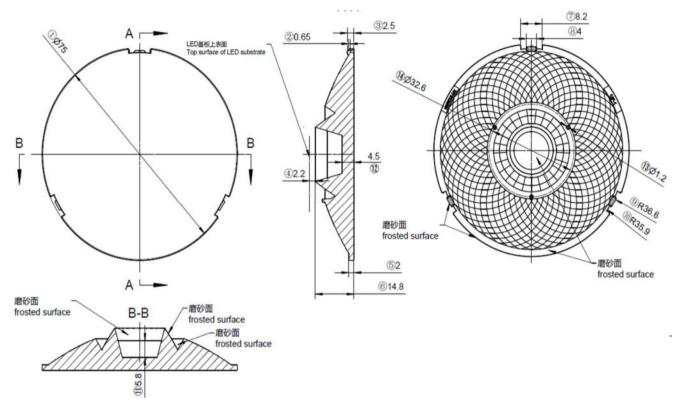


# HERCULUX Product Approval

TEL: 0755-2937 1541 Date updated: 2022/12/7 FAX: 0755-2907 5140 http://www.herculux.cn/

Product Picture:	
Size(L*W*H/Φ*H):	Φ:75mm; H:14.8mm
Material:	PC
Effiency:	\
Temperature(Topr):	Material extreme temperature resistance: -40°C to +120°C long-term use temperature: -40°C to +100°C
FWHM:	15°、24°、36°、60°
Matched LES:	D12、D14



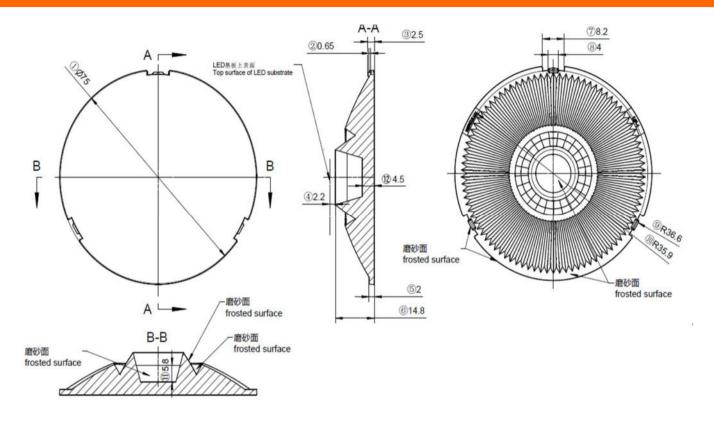


- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.
- \*4. When the lamp adopts rubber ring for waterproofing: the roughness of the contact surface between the radiator and the rubber ring is required: Ra<3.2µm

	Optical	l design						HK-	-CY-75@	@15-15-D14-20	)-1g-1_	DL
	tructur	e desig				HK Filmy 75	@15-15°aluminizing lens			1.01.23112		
ı	Rev	iow					10.13			qty	wei	ight
ı	IVEA	iew			<u> </u>							
	Validation					Material:	PC+Local aluminium plating			CDHK		
)^	~250	250^	~450	>4	450			,				

							V	iluation				iviateriai:	r e : Locar alaminam plating	CBTIK
MT5 Tolerance	Basic size	<3	3∼10	10~24	24~65	65~140	140~25	250	~450	>4	50			
	olerance valu	±0.1	±0.15	±0.2	±0.35	±0.50	±0.80	+	1.2	±2.	.0			



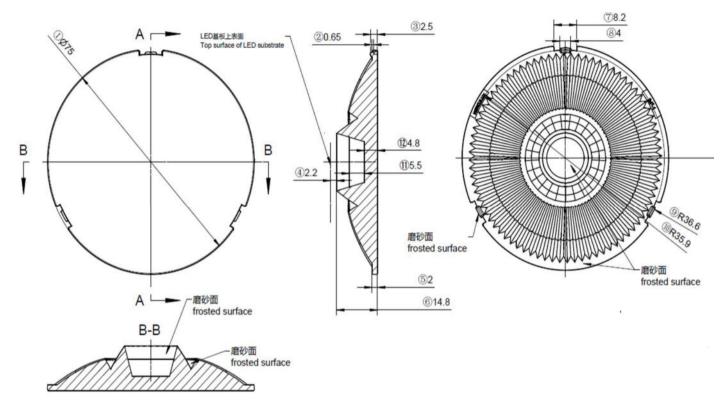


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	Optical	design						H	IK-CY-7	5@15-15-D14-	20-1g-1	
	tructur	e desig				HK Filmy	75@15-15°lens			1.01.12862		
r	Rev	iew						umber of	f drawin	qty	wei	ght
	Validation					Material:	PC		-	CDHK		
0^	~250	250~	~450	>4	450							

							Vai	uation			wateria:	FC	CDIIK
MT5 Tolerance	Basic size	<3	3~10	10~24	24~65	65~140	140~250	250~4	50 >	·450			
	olerance valu	±0.1	±0.15	±0.2	±0.35	±0.50	±0.80	±1.2		2.0			



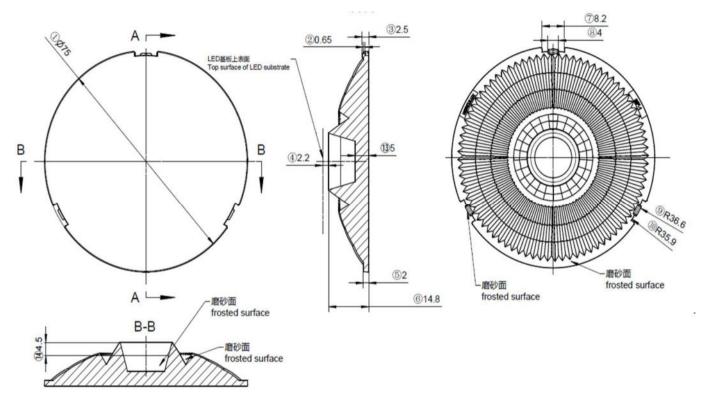


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	Optical	design						ı	HK-CY-7	5@15-24-D14-	20-1g-1	1
	tructur	e desig				HK Filmy	75@15-24°lens			1.01.12863		
	Pov	iow						umber o	f drawin	qty	we	ight
	Review											
	Validation					Material:	PC			CDHK		
)^	~250	250~	~450	>4	450							

							Vali	uation			iviateriai:	rc	CDIIK
MT5 Tolerance	Basic size	<3	3∼10	10~24	24~65	65~140	140~250	250~450	>45	50			
	olerance valu	±0.1	±0.15	±0.2	±0.35	±0.50	±0.80	±1.2	±2.0	0			



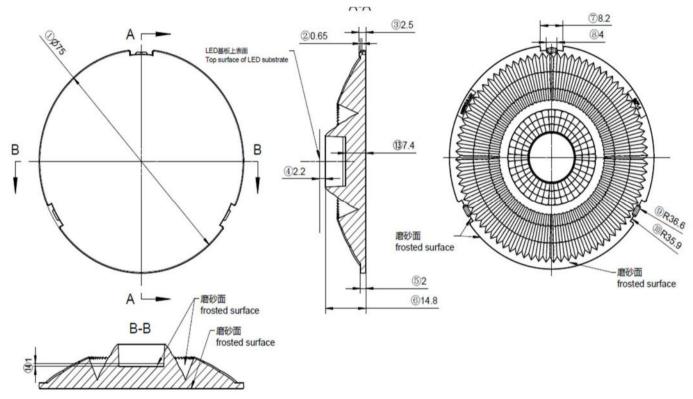


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	Optical	design						ı	HK-CY-7	'5@15-36-D14-	20-1g-1	L
	tructur	e desig				HK Filmy	75@15-36°lens			1.01.13039		
	Rev	iew.						umber o	f drawin	qty	wei	ight
ı	Review											
	Valida	ation				Material:	PC			CDHK		
)^	~250	250~	~450	>4	450							

							٧	andation				iviateriai.	1 6	EBIIK
MT5 Tolerance	Basic size	<3	3∼10	10~24	24~65	65~140	140~25	0 250	~450	>4	50			
	olerance valu	±0.1	±0.15	±0.2	±0.35	±0.50	±0.80	- +	1.2	±2	.0			



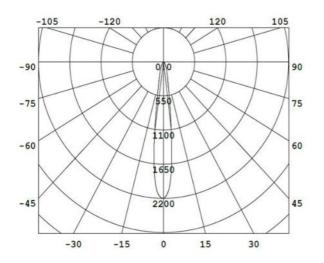


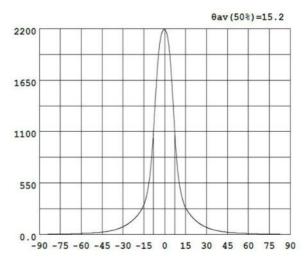
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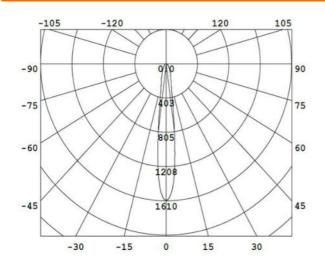
	Optical	design						ŀ	HK-CY-7	5@15-60-D14-	-20-1g-1	
	tructur	e desig				HK Filmy	75@15-60°lens			1.01.23221		
	Rev	iou						umber o	f drawin	qty	wei	ght
	Kev	iew										
	Validation					Material:	PC			CDHK		
)^	~250	250~	~450	>4	450							

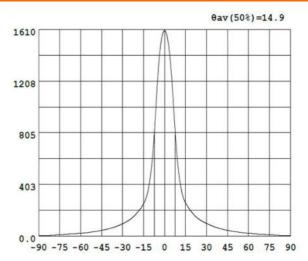
MT5 Tolerance	Basic size	<3	3∼10	10~24	24~65	65~140	140~250	250~450	>450		
	olerance valu	±0.1	±0.15	±0.2	±0.35	±0.50	±0.80	±1.2	±2.0		

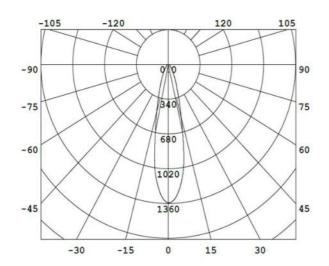


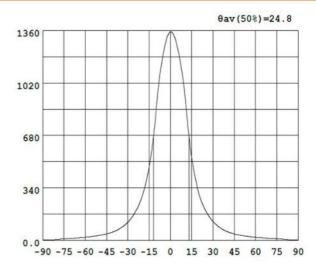




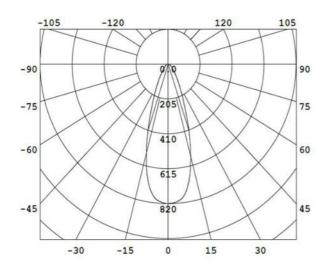


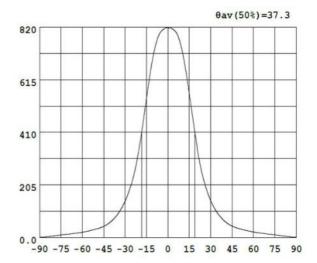




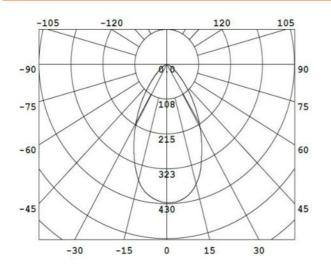


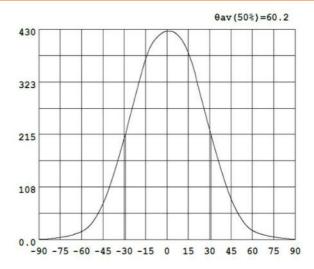














			Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diame	ter	75			75. 18	75. 11	75. 12	75. 1		Test environment: In 20 °C -25 °C
1.Size	heigh	nt	14.8			14.9	15	14. 86	15. 1		environment to achieve thermal
	thickn	ess	2			2. 15	2.14	2. 14	2. 15		equilibrium after the test.
					Gate s	hear can not aff	ect the appeara	nce of the lamp			•
					See a	ttachment "Appe	earance Inspecti	on Standards"			
2.Appea	rance	atta	See schment searance	E		No burr	No burr	No burr	No burr		ОК
Quality		Ins	pection ndards"	_		No stains	No stains	No stains	No stains		OK .
3.Materia	al		PC	+Local aluı	minium pla	ting	Color	Tra	nsparent		OK
	Testing	LED					CREE 1820	)			
4.Optica							n capability of the lens life.				
I index	angl	e				15.2°	15. 2°	15.3°	15.5°		
	K-va (CD/L					6. 07	6. 23	6. 23	5. 93		
	Effici	ency		_		84.90%	84. 40%	84. 20%	84.90%		
	Facula	See tl	he signatu	re sample		,	•				
Comprel judgn							Qualified				
Remarks 1、Tool Vernier C Quadrati M-Tool N Needle T Radius C 2、Amb on the si: refer to tl right	Number: Caliper 2 c H-Heig dicrosco -Thick C Gauge E- ient tem ze of the	D- ght Ga pe P- Sauge Visua peratu produ	R- al. ure uct	chang	h <sub>0.8</sub> ¬	product size o	changes with to	emperature ta	Size: 50m Size: 100 Size: 150 Size: 200 Size: 250 Size: 300	mm mm mm	

- 1. Please wear clean gloves during the lens assembly process to prevent the lens surface from being contaminated.
- Try to avoid touching the total reflection surface when taking the lens.
   The lens surface is contaminated. Only use a soft cotton cloth dipped in analytically pure neutral solvent to wipe gently. Do not wipe with industrial solvents (alcohol, isopropanol, acetone, ether, toluene, xylene, carbon tetrachloride, MMA Body, etc.).
- 4. The working temperature of the lens should be within the temperature resistance limit of the lens material. Exceeding the temperature resistance limit will cause the lens to crack or melt and affect the service life of the lens. It is recommended that the upper surface temperature of the LED colloid should be less than 120 degrees.



		Standar	Upper	Lower					Jud	
		d size	Size limit	size Iimit	Test result1	Test result2	Test result3	Test result4	gme nt	Remarks
diame	ter	75			75. 03	75. 07	75. 05	75. 05		lest environment: In 20 °C -25
heigl	nt	14.8			14. 94	14. 87	14. 88	14.9		°C environment
thickn	ess	2			2. 13	2.09	2. 1	2. 1		to achieve thermal
				Gate sh	near can not affe	ect the appearan	ce of the lamp			
				See at	tachment "Appe	arance Inspection	on Standards"			
ance	attac	hment	F		No burr	No burr	No burr	No burr		ОК
	Insp	ection	_		No stains	No stains	No stains	No stains		OK
al			P	2		Color	Tra	nsparent		OK
Testing	LED					CREE 1820	0			
source of the test, if it is required to be out of range. According to the heat dissipation conditions of the use environment, the lens should be fully tested and teste						t dissipation cap ted and tested to	ability of the lam	np and		
	-					· ·			_	
					15. 1°	15.0°	14.9°	14.9°	_ `	
			<u> </u>		4. 36	4. 55	4. 42	4. 25		
Effici	ency				84. 60%	84. 90%	84. 20%	84. 20%		
Facula	See th	ne signati	ıre sample	9	`					
nensive nent						Qualified	d			
Caliper 2 C H-Heig Ticroscop C-Thick Co Gauge E- ient tem Ze of the	D- pht Gau pe P- Sauge Visual peratur produ	R- re	chan	gth <sub>0.8</sub>	PC product size		***	Size: 50mm Size: 100mm Size: 150mm Size: 200mm Size: 250mm		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ance  Testing The reconsource  FWH  ang1 K-va. (CD/L Effici Facula lensive lent  : Number: aliper 2 : H-Heig icroscol -Thick Cauge E-ent temple of the	attac "Appe Insp Stan  I Testing LED The recomme source of the co FWHM angle K-value (CD/LM) Efficiency Facula See tr ensive eent  ENumber: V- aliper 2D- EH-Height Gar icroscope P- Thick Gauge auge E-Visual eent temperature of the product	See attachment "Appearance Inspection Standards"  Testing LED  The recommended siz source of the test, if it is conditions of FWHM  angle  K-value (CD/LM)  Efficiency  Facula See the signature ensivement  See the signature ensivement	See attachment "Appearance Inspection Standards"  I PO  Testing LED  The recommended size and pow source of the test, if it is required conditions of the use  FWHM  angle  K-value (CD/LM)  Efficiency  Facula See the signature sample lensive lent  ENUMBER: V-aliperature change E-Visual. ent temperature de of the product	Gate si  See attachment "Appearance Inspection Standards"  I PC  Testing LED  The recommended size and power rating source of the test, if it is required to be out conditions of the use environm FWHM  angle  K-value (CD/LM)  Efficiency  Facula See the signature sample lensive lent  Length 0.8 changes (mm) 0.6  H-Height Gauge icroscope P- Thick Gauge R- auge E-Visual. ent temperature te of the product	Gate shear can not affer See attachment "Apperatus Inspection Standards"  The recommended size and power rating of the LED light source of the test, if it is required to be out of range. Accorditions of the use environment, the lens shource of the test, if it is required to be out of range. Accorditions of the use environment, the lens shource of the test, if it is required to be out of range. Accorditions of the use environment, the lens shource of the test, if it is required to be out of range. Accorditions of the use environment, the lens shource of the test, if it is required to be out of range. According to the use environment, the lens shource of the use environment of the use	Gate shear can not affect the appearan  See attachment "Appearance Inspection Standards"  I PC Color  Testing LED CREE 1820  The recommended size and power rating of the LED light source recommens source of the test, if it is required to be out of range. According to the hear conditions of the use environment, the lens should be fully test of the see light distribution angle See the signature sample  EMUMBER: Value (CD/LM)  Engive lent  PC product size changes with changes (mm) 0.6  CHEE 1820  CREE 18	Gate shear can not affect the appearance of the lamp  See attachment "Appearance Inspection Standards"  No burr No burr No burr  No burr No burr No burr  No stains No stains  I PC Color Tra  Testing LED CREE 1820  The recommended size and power rating of the LED light source recommended for this lessource of the test, if it is required to be out of range. According to the heat dissipation cap conditions of the use environment, the lens should be fully tested and tested to see light distribution curve  angle See light distribution curve  4. 36 4. 55 4. 42  Efficiency 84. 60% 84. 90% 84. 20%  Facula See the signature sample ensive lent  PC product size changes with temperature  Cualified  PC product size changes with temperature of the product lend to the product lend to the le	Gate shear can not affect the appearance of the lamp  See attachment "Appearance Inspection Standards"  No burr No burr No burr No burr No burr No stains No stains  No stains No stains No stains No stains  PC Color Transparent  Testing LED CREE 1820  The recommended size and power rating of the LED light source recommended for this lens should be consumed to the test, if it is required to be out of range. According to the heat dissipation capability of the land conditions of the use environment, the lens should be fully tested and tested to prevent the lens for the value (CD/LM)  Angle See the signature sample  See light distribution curve  4. 36  4. 55  4. 42  4. 25  Efficiency 84. 60%  Set the signature sample  PC product size changes with temperature table  Sumber: V-aliper 2D-Birth-Height Gauge Related to the product of the produc	Gate shear can not affect the appearance of the lamp  See attachment "Appearance Inspection Standards"  No burr No burr No burr No burr No burr No burr No stains No s

#### Precautions

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			Standar d size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diame	ter	75			75. 08	75. 07	75. 08	75. 02		l est environment: In 20 °C -25
1.Size	heig	ht	14.8			14. 7	14.66	14.65	14.7		°C environment
	thickr	ness	2			2. 15	2. 12	2. 12	2.11		to achieve thermal
					Gate s	hear can not aff	ect the appeara	nce of the lamp			
					See a	ttachment "Appe	earance Inspecti	ion Standards"			
2.Appea	rance	atta	See chment earance	E		No burr	No burr	No burr	No burr		OK
Quality		Ins	pection ndards"	_		No stains	No stains	No stains	No stains	i	
3.Materia	al			Р	С		Color	Tra	nsparent		OK
	Testing	LED					CITIZEN CLU	038			
	source	of the test, if it is required to be out of rang conditions of the use environment, the				ut of range. Accoment, the lens sh	nould be fully tes	at dissipation cap sted and tested t	pability of the lar	mp an	d the actual
4.Optic						1	ee light distribution		T		
al index	ang			25. 7°		24.8°	24.8°	24.9°			
	K-va (CD/I		_	2.73		2.86	2. 79	2. 88			
	Effici	ency				90.60%	90. 20%	90. 50%	90.60%		
		See t	he signat	ure sampl	е	`					
Compre e juda							Qualifie	d			
Remarks 1、Tool Vernier ( Quadrati Gauge N Microsco Thick Ga Gauge E 2、Amb on the si refer to t	Numbe Caliper 2 ic H-Hei M-Tool ope P-N auge R- E-Visual bient ten ize of th	2D- ght eedle Radiu npera e proo	s ture duct			PC product size	e changes with		Size: 50mm Size: 100mm Size: 150mm Size: 200mm Size: 250mm Size: 300mm		

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		Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamete	er 75			75. 02	75. 07	75. 04	75. 04		Test environment: In 20 ℃ -25 ℃
1.Size	height	14.8			14. 95	14. 93	14. 94	14. 93		environment to achieve thermal
	thickne	ss 2			2. 22	2. 26	2. 25	2. 2		equilibrium after the test.
		•	•	Gate	shear can not a	ffect the appear	ance of the lamp	)		
				See	attachment "Ap <sub>l</sub>	pearance Inspec	tion Standards"			
2.Appear	rance	See attachment Appearance	E		No burr	No burr	No burr	No burr		OK
Quality		Inspection Standards"			No stains	No stains	No stains	No stains		OK .
3.Materia	al		P	2		Color	Tra	nsparent		OK
	Testing L	EC				CITIZEN CLU	J 038			
	of the te	st, if it is requi environment, t	red to be or	ut of range	. According to the y tested and tes		on capability of t le lens life.	he lamp and the		ole to the source
4.Optica I index					37. 3°	37. 3°	37.8°	36.6°	_	
rindex	angle K-valı								/	$\overline{}$
	(CD/LM			90, 90%		1. 71 91. 10%	1. 68 91. 20%	1. 73 90. 40%	_	_
	Efficie Facula S	ee the signatu	re sample		90.90%	91.10%	91.20%	90.40%		
Comprel	L	oc the dignate	ire sample			0 115 1				
e judgr						Qualified				
Vernier C Quadratic Gauge M Microsco Thick Ga Gauge E 2、Amb on the siz	Number: Caliper 2E c H-Heigl I-Tool ope P-Nee luge R-R	edle T- adius erature product	chan	th <sub>0.8</sub>	PC product size	changes with	30	Size: Size: Size: Size: Size: Size: Size: (°C)	100n 150n 200n 250n	nm nm nm nm

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   The lens surface is contaminated. Only use a soft cotton cloth dipped in analytically pure neutral solvent to wipe gently. Do not wipe with industrial solvents (alcohol, isopropanol, acetone, ether, toluene, xylene, carbon tetrachloride, MMA Body, etc.).
- 4. The working temperature of the lens should be within the temperature resistance limit of the lens material. Exceeding the temperature resistance limit will cause the lens to crack or melt and affect the service life of the lens. It is recommended that the upper surface temperature of the LED colloid should be less than 120 degrees.



		Standa	rd Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamet	er <b>75</b>			74. 98	74. 97	74. 93	74. 93		Test environment: In 20 °C -25 °C
1.Size	heigh	t 14.8			14. 7	14.78	14.73	14. 75		environment to achieve thermal
	thickn	ess 2			2.05	2.07	2.08	2.07		equilibrium after the test.
				Gate	shear can not a	ffect the appear	ance of the lamp	)		
				See	attachment "Ap	pearance Inspec	ction Standards"			
2.Appear	rance	See attachmen "Appearand			No burr	No burr	No burr	No burr		OK
Quality		Inspectior Standards			No stains	No stains	No stains	No stains		OK .
3.Materia	al		Р	С		Color	Tra	nsparent		OK
	Testing	LEC				CITIZEN CLU	038			
4.Optica I index	the use environm 4.Optica		required to be out of range. According to nent, the lens should be fully tested and 60. 2°  0. 89  90. 80%		y tested and tes S 60. 2° 0. 89		ne lens life.	61. 4° 0. 87 90. 50%		al conditions of
	Efficie Facula S		ature sample		,	<u> </u>	<u> </u>	<u> </u>		
Comprel e judgr	hensiv		<u> </u>		I	Qualified				
Remarks 1、Tool I Vernier C Quadrati Gauge M Microsco Thick Ga Gauge E 2、Amb on the siz refer to the	Number: Caliper 2 c H-Heiç I-Tool pe P-Ne puge R-F -Visual. ient tem ze of the	D- pedle T- cadius perature product	chan	th 0.8	PC product size	changes with	30	Size: Size: Size: Size: Size: Size: Size: Size:	100r 150r 200r 250r	nm nm nm nm

- 1. Please wear clean gloves during the lens assembly process to prevent the lens surface from being contaminated.
- Try to avoid touching the total reflection surface when taking the lens.
   The lens surface is contaminated. Only use a soft cotton cloth dipped in analytically pure neutral solvent to wipe gently. Do not wipe with industrial solvents (alcohol, isopropanol, acetone, ether, toluene, xylene, carbon tetrachloride, MMA Body, etc.).
- 4. The working temperature of the lens should be within the temperature resistance limit of the lens material. Exceeding the temperature resistance limit will cause the lens to crack or melt and affect the service life of the lens. It is recommended that the upper surface temperature of the LED colloid should be less than 120 degrees.



PI	N	HK-CY-75@15-15-D14-20	)-1g-1_DL	Product Name	HK Filmy 75@15-15	5°alumin	izing lens
Product	material	PC+Local aluminium	plating	Customer			
Package	diagram	Single Va	cuum packa	ge Bo	ox package		>
Product	packing	6	A/ Box	4	pcs/Layer		
		15	Layer/Box	360	A/ Carton		
	NO.	Part No	Part name	Size	Dosage	Unit	Remarks
	1	2. 07. 0115	Blister box	23cm*21cm	60	BAG	
Packagin ·	2	2. 08. 0001	PE film	25cm*27cm	60	PCS	
g Materials	3	2. 06. 0005	Reel label paper	62mm*42mm	60	PCS	
Materials	4	2. 06. 0005	Box label paper	62mm*70mm	1	PCS	
	5	2. 06. 0003	big plate	46cm*42cm	16	PCS	
	6	2. 06. 0011	big flat carton	48cm*44cm*37	cm 1	PCS	
Remarks		The loose packing is not subje	ect to this specif	fication. Customer	's requirements shall	prevail	



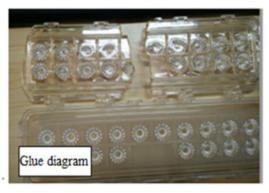
#### Special notice

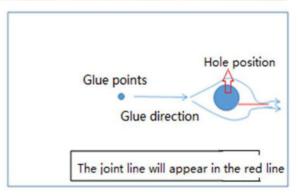
When gule pass through holes, columns and other structures, or part of the thin structure, will form a weld line. The product which uses multi-point injection welding line will appear because of the combination of sol, as shown below:

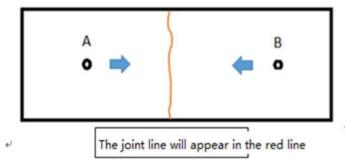
#### Syntneti











#### Please note:

The appearance of lines in the structure of the product as well as at the screw hole is a normal phenomenon, will not affect the actual use of the product, and can not be avoided at this stage.



#### Appearance inspection standards

#### 1 Operating procedures

1.1.1Sampling standards, sampling plan and AQL

Test level: GB/T2828.1-2012The first part is according to the acceptance quality limit (AQL) retrieval batch inspection sampling plan, general inspection level  $\Pi$  level, CR class defect coefficient 0, MA defect rejection level AQL = 0.65, MI class defect rejection level AQL = 1.0; defect level please see 5.4.

2 Code table

Code	Code	Unit	Code	Code	Unit
	description			description	
N	Amount/pcs	pcs	D	Diameter	mm
L	Length	mm	Н	Depth	mm
W	Width	mm	DS	Distance	mm
S	Proportion	mm²	SS	Offset	mm

#### 3 Test conditions

- 3.1 Sight distance and working hours: Sight distance should be 30-35cm, each side of the inspection time does not exceed 12s, the visual angle of 45-135 degrees;
- 3.2 Light: 2x40w cool white fluorescent lamp, the light source is 500-550mm away from the lens surface; in order to make the appearance defect can be correctly recognized, the illumination should be 500-1000Lux, and the observation time is 10 seconds.
  - 3.3 Visual inspection staff should be 1.0 (including corrected visual acuity) above, no color blindness, color weakness.

#### 4 Appearance inspection standards

Test items	ludging standard	Inspection equipment	Defect level		
reschenis	Judging standard	Testing method	MI	MA	CR
	When start the machine and process, all products have to check the appearance of the sample, the appearance of the sample is divided into qualified samples and limited samples.				
Check the sample	1: Qualified sample refers to the appearance and structure standard of the product which recognized by the client, the sample size should be confirmed before mass production;	Sample comparison , visual			√

1		Ī	1	Ī	
	2: The limited sample refers to the limit of a particular exceptionally developed sample. Limit the sample only for its specific point of exception to confirm; The priority is higher than the other criteria in this table. When there is a limited sample, the limit sample shall prevail.				
Raw edge	Not allowed to affect the size and assembly	Visual, point card		√	
Scratch	1: Non-optical surface and non-exposed surface scratches should be visually insignificant and the length is less than 1/10 of the maximum surface size.	Visual, point card, calipers		<b>√</b>	
Fingerprint	Fingerprints are not allowed on all products	Visual		√	
Foreign objects, black spots, white spots	The product may not be attached to foreign objects, including oil, fiber, dregs of water gap and so on				<b>√</b>
Deformation	Insufficient filling shall not affect the appearance of the assembly and the exposed surfaces.	Visual, feeler			<b>√</b>
Poor ejection	Products may not appear bad ejection, including no convex top, thimble printed on the assembly surface shall not be higher than the product surface, non-assembled surface thimble height should not exceed the product size tolerances; thimble printing should be less than the product surface and no more than 0.3; thimble surface treatment should be consistent with the product side.  Ejection strain: the optical surface and the appearance of the exposed surface after assembly are not allowed to have a strain, and the structural surface does not allow visual obvious strain.	Visual, point card		✓	
Insufficient filling	Insufficient filling shall not affect the appearance of the assembly and the exposed surfaces, The signature sample shall prevail.	Visual, point card		<b>√</b>	
Shrink	When the entire surface of the product shrinks, the optical properties and dimensions must meet the requirements, and the visual will not significantly affect the appearance.Part shrink reference point defects	Visual, point card		√	
Flow marks、Welding line	<ol> <li>Product does not allow the presence of flow marks and welding lines unless the structure can not be avoided;</li> <li>The remaining flow marks shall not appear in the optical surface, a single L ≤ 10mm, no more than two</li> </ol>	Visual		✓	

Bubble	No bubbles are allowed	Visual		√	
Foreign objects, black spots, white spots	Not obvious or D ≤ 0.3mm black spots and foreign bodies in the area of 100x100mm not more than 1; Exceeded foreign matter black spots is judged bad.	Visual, point card	V		
Damaged	No damage is allowed	Visual			√
Cold glue	Optical surface may not have cold glue, non- optical surface cold glue should meet the visual is not obvious.	Visual	<b>√</b>		
	1: Do not affect the product size, shall not penetrate the optical surface, the cut should be smooth;				
Bad incision	2: Laser cutting products, the optical surface burns shall not occur after the processing is completed. Beading must not affect product installation	Visual			√
	3: Three molds and hot runner gate shall not appear residue.				
Scrub	Scrub surface should be uniform, off the scrub phenomenon should not be obvious, A single off scrub imprint requires D ≤ 1 mm and no more than 1 area within a 50x50 mm area	Visual		√	