

HERCULUX Chengdu HercuLux Photoelectric 恒坤光电 Tooksel C Technology Co.,Ltd

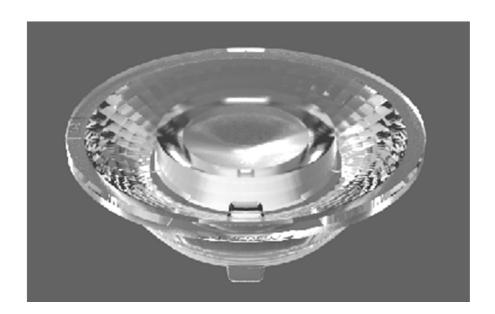
Product Approval

Approval number:

Customer:

PN	Code	Product
HK-35@10-24-D6-20-1g-1	1. 01. 6782	HK 35@10-24° Lens
HK-35@10-36-D6-20-1g-1	1. 01. 6784	HK 35@10-36° Lens
HK-35@10-15-D6-20-1g-1	1. 01. 6803	HK 35@10-15° Lens
HK-35@10-60-D6-20-1g-1	1. 01. 71149	HK 35@10-60° Lens

Manufacturer: Chengdu HercuLux Photoelectric Technology Co.,Ltd



	Supplier co	onfirmation	Client confirmation					
Proposed		DATE	Qualified□					
Project manager		DATE	Unqualified□		DATE			
Audit		DATE	Audit		DATE			
Approved		DATE	Approved		DATE			
Stamp		DATE	Stamp		DATE			

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

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

Phone: 028-85887727 (801) 028-85887990 (801) Fax: 028-85887730 www.hkoptics.com Sales Dept: Shenzhen Nanshan District Nanshan Cloud Valley Innovation Industrial Park Comprehensive Service Building,

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

^{*}Approval In duplicate, for both supplier and customer.

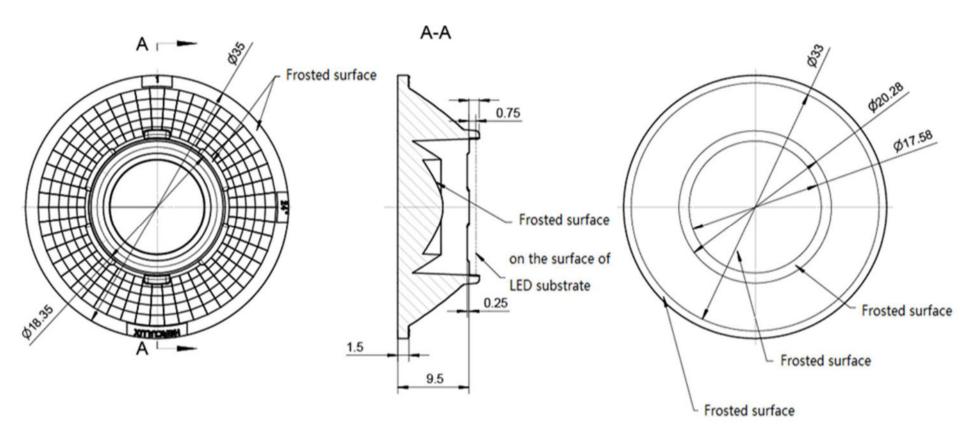


HERCULUX 恒坤光电 Product Approval

TEL: 0755-2937 1541 Date updated: 2019/5/31 FAX: 0755-2907 5140 www.hkoptics.com

Product Picture:	
PN:	HK-35@10-24-D6-20-1g-1
Size(L*W*H/Φ*H):	Ф:35mm; H:9.5mm
Material:	PC
Effiency:	\
Temperature(Topr):	-40°C to +120°C
FWHM:	15°/24°/36°/60°
Matched LES:	D6

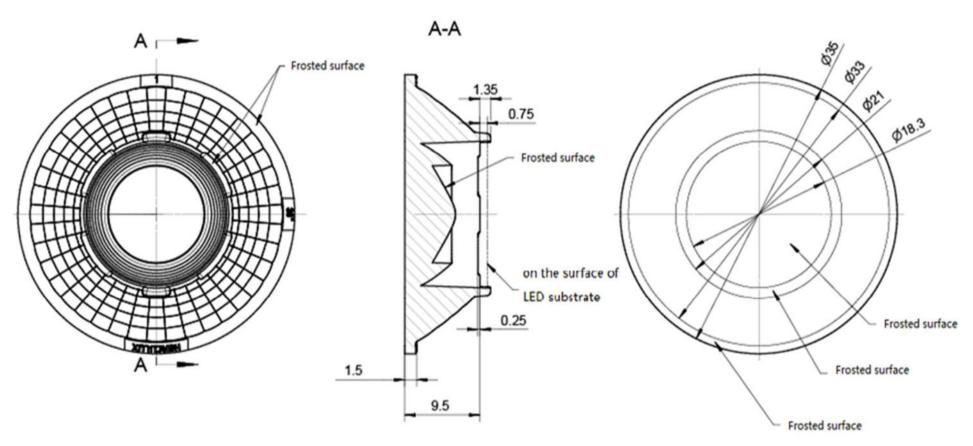




- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

tructure desig HK 35@1	10-24° Lens			1 01 6702				
	HK 35@10-24° Lens 1.01.6782							
Review		umber o	of drawin	qty	we	ight		
Validation Material:	PC	CDHK						



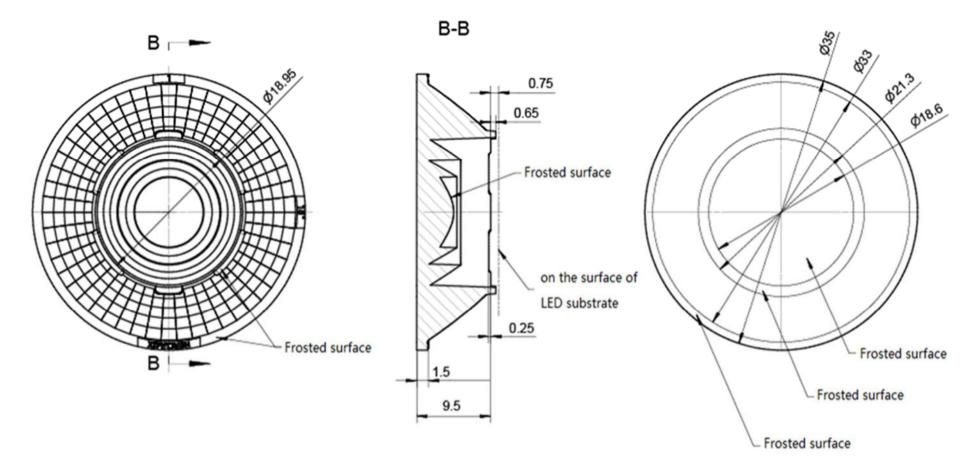


- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

Optical design			HK-35@10-36-D6-20-1g-1							
tructure desig		HK 35	@10-36° Lens		1.01.6784					
Review				umber o	umber of drawin qty weig					
Validation		Material:	PC		•	CDHK				

MT5 Tolerance	Basic size	<3	3~10	24~65	65~140	140~250	250~4	50 >	450				
	olerance valu	±0.1	±0.15	±0.35	±0.50	±0.80	±1.2		2.0				



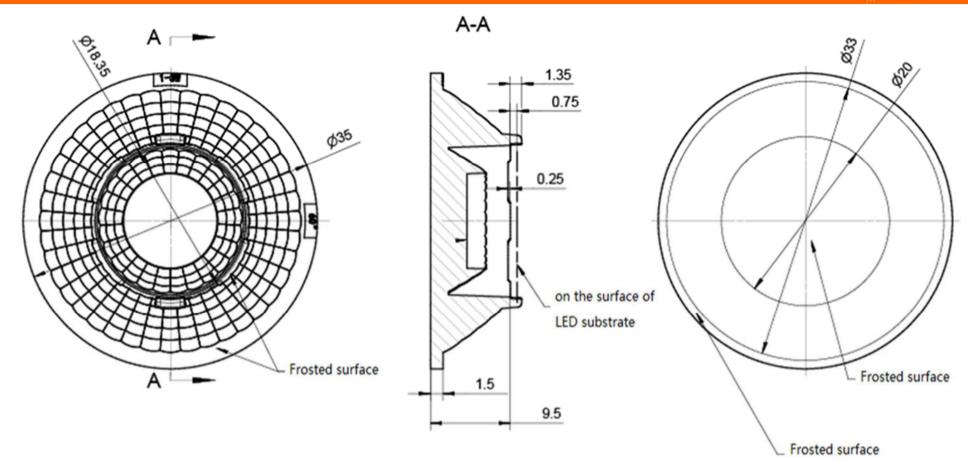


- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

(Optical design								HK-35	@10-15-D6-20)-1g-1		
61	ructure desig	I				HK 35@10-15° Lens 1.01.6803							
ľ	Review							umber o	f drawin	qty	we	ight	
	Validation					Material:	PC	CDHK					

MT5	Basic size	<3	3∼10	24~65	65~140	140~250	250~	~450	>450			
Tolerance	Busic size	ŗ	3 10	21 03	05 110	110 250	230	.50	, 150			
	olerance valu	±0.1	±0.15	±0.35	±0.50	±0.80	±1.	2	±2.0			
table (mm)	olerance valu	±0.1	±0.13	±0.55	±0.50	±0.00	_ <u>-</u> 1.		± 2 .0			



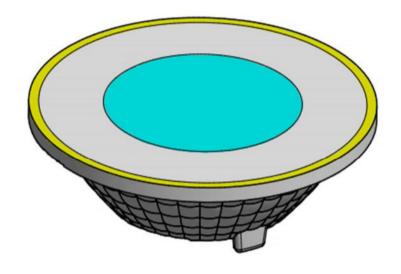


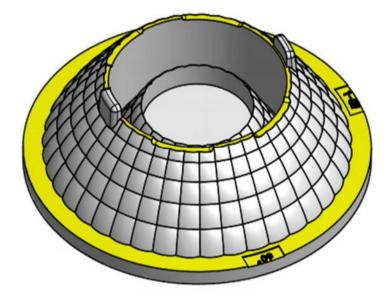
- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

Optical design	า			HK-35@10-60-D6-20-1g-1						
tructure desig	g	HK 35	@10-60° Lens			1.01.71149				
Review				umber of	f drawin	qty	we	ight		
Validation		Material: PC CDHK								

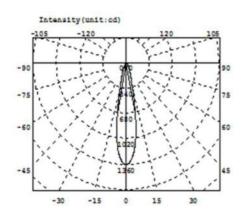
MT5 Tolerance	Basic size	<3	3~10	24~65	65~140	140~250	250~450	>45				
	olerance valu	±0.1	±0.15	±0.35	±0.50	±0.80	±1.2	±2.0	0			

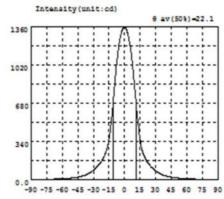












Intensity data: (deg , cd) C0-180

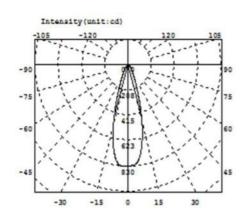
λ	I	λ	1	λ	1	λ	I	λ	1	Α	1
-90.0	1.593	-58.5	12.65	-27.0	111.0	4.5	1231	36.0	48.36	67.5	8.693
-88.5	1.899	-57.0	13.51	-25.5	126.2	6.0	1145	37.5	43.00	69.0	7.968
-87.0	2.250	-55.5	14.35	-24.0	143.2	7.5	1030	39.0	38.31	70.5	7.325
-85.5	2.669	-54.0	15.25	-22.5	162.9	9.0	889.4	40.5	34.35	72.0	6.815
-84.0	3.056	-52.5	16.41	-21.0	185.6	10.5	735.6	42.0	30.95	73.5	6.329
-82.5	3.664	-51.0	17.85	-19.5	210.3	12.0	585.9	43.5	27.96	75.0	5.746
-81.0	4.013	-49.5	19.54	-18.0	245.9	13.5	457.5	45.0	25.42	76.5	5.234
-79.5	4.160	-48.0	21.48	-16.5	294.3	15.0	354.7	46.5	23.09	78.0	4.676
-78.0	4.532	-46.5	23.79	-15.0	364.1	16.5	276.0	48.0	21.04	79.5	4.314
-76.5	5.149	-45.0	26.35	-13.5	462.0	18.0	230.5	49.5	19.28	81.0	4.073
-75.0	5.551	-43.5	29.25	-12.0	590.5	19.5	197.9	51.0	17.69	82.5	3.792
-73.5	6.138	-42.0	32.55	-10.5	741.5	21.0	173.0	52.5	16.40	84.0	3.412
-72.0	6.781	-40.5	36.43	-9.0	897.8	22.5	152.1	54.0	15.31	85.5	3.102
-70.5	7.299	-39.0	40.92	-7.5	1044	24.0	133.9	55.5	14.45	87.0	2.828
-69.0	7.883	-37.5	45.99	-6.0	1161	25.5	117.5	57.0	13.66	88.5	2.590
-67.5	8.609	-36.0	51.84	-4.5	1250	27.0	103.1	58.5	12.98	90.0	2.272
-66.0	9.155	-34.5	58.70	-3.0	1308	28.5	90.55	60.0	12.26		
-64.5	9.769	-33.0	66.49	-1.5	1344	30.0	79.65	61.5	11.50		
-63.0	10.37	-31.5	75.42	0.0	1352	31.5	70.01	63.0	10.81		
-61.5	11.01	-30.0	85.68	1.5	1338	33.0	61.73	64.5	10.11		
-60.0	11.82	-28.5	97.53	3.0	1295	34.5	54.56	66.0	9.516		

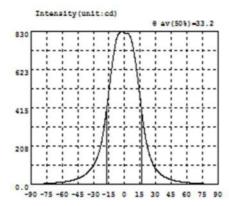
Current I: 0.1000A Power: 3.200W Voltage V: 32.00V PF: 1.000

Optical Parameter (Distance=2.410m):

CO-180Plane IO= 1352cd







Intensity data: (deg , cd) C0-180

A	I	λ	I	λ	I	A	I	A	1	λ	I
-90.0	1.630	-58.5	15.14	-27.0	137.1	4.5	810.9	36.0	50.82	67.5	8.350
-88.5	1.885	-57.0	16.30	-25.5	159.5	6.0	792.4	37.5	45.08	69.0	7.931
-87.0	2.167	-55.5	17.53	-24.0	187.3	7.5	760.6	39.0	40.11	70.5	7.479
-85.5	2.448	-54.0	19.03	-22.5	221.6	9.0	716.9	40.5	35.90	72.0	6.914
-84.0	2.885	-52.5	20.68	-21.0	265.1	10.5	663.2	42.0	32.26	73.5	6.219
-82.5	3.509	-51.0	22.54	-19.5	317.9	12.0	600.7	43.5	29.08	75.0	5.530
-81.0	3.981	-49.5	24.78	-18.0	377.4	13.5	534.3	45.0	26.35	76.5	4.827
-79.5	4.404	-48.0	27.19	-16.5	440.8	15.0	467.6	46.5	23.87	78.0	4.212
-78.0	4.981	-46.5	29.95	-15.0	509.4	16.5	397.9	48.0	21.69	79.5	3.586
-76.5	5.694	-45.0	33.10	-13.5	580.4	18.0	332.3	49.5	19.82	81.0	3.162
-75.0	6.310	-43.5	36.60	-12.0	645.6	19.5	276.1	51.0	18.14	82.5	2.878
-73.5	7.001	-42.0	40.59	-10.5	705.0	21.0	229.2	52.5	16.80	84.0	2.393
-72.0	7.698	-40.5	45.28	-9.0	754.6	22.5	191.3	54.0	15.62	85.5	2.029
-70.5	8.339	-39.0	50.53	-7.5	791.4	24.0	160.7	55.5	14.41	87.0	1.732
-69.0	9.019	-37.5	56.55	-6.0	813.4	25.5	135.7	57.0	13.38	88.5	1.507
-67.5	9.720	-36.0	63.45	-4.5	825.0	27.0	115.6	58.5	12.45	90.0	1.342
-66.0	10.39	-34.5	71.51	-3.0	827.9	28.5	99.31	60.0	11.59		
-64.5	11.17	-33.0	80.77	-1.5	826.2	30.0	85.93	61.5	10.80		
-63.0	12.02	-31.5	91.61	0.0	821.5	31.5	74.67	63.0	10.10		
-61.5	12.94	-30.0	104.0	1.5	820.6	33.0	65.35	64.5	9.462		
-60.0	13.98	-28.5	119.1	3.0	819.5	34.5	57.45	66.0	8.854		

Current I: 0.1000A Power: 3.490W Voltage V: 34.90V PF: 1.000

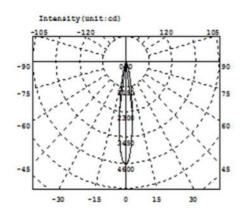
Optical Parameter (Distance=2.559m):

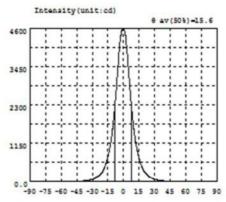
Equivalent Luminous flux: Φ eff= 377.4lm Efficiency: Eff=108.15lm/W

Diffuse angle: @ (25%): 44.9deg @ (50%): 33.2deg @ (75%): 24.0deg @ (50%): 33.2deg
Diffuse angle: @ (25%): 45.0deg @ (50%): 33.3deg @ (75%): 24.3deg @ (50%): 33.3deg
Imax=827.9cd (C=0.0deg,G=-3.0deg)
CO-180Plane Imax= 827.9cd (G=-3.0deg)

CO-180Plane IO= 821.5cd







Intensity data: (deg , cd) C0-180

λ	I	Α	1	λ	I	λ	1	λ	1	Α	1
-90.0	1.057	-58.5	11.90	-27.0	110.7	4.5	3460	36.0	37.24	67.5	7.540
-88.5	1.134	-57.0	12.54	-25.5	136.8	6.0	2842	37.5	32.37	69.0	6.948
-87.0	1.300	-55.5	13.27	-24.0	170.5	7.5	2283	39.0	28.45	70.5	6.366
-85.5	1.582	-54.0	14.02	-22.5	213.2	9.0	1810	40.5	25.49	72.0	5.812
-84.0	1.965	-52.5	14.93	-21.0	268.9	10.5	1428	42.0	23.25	73.5	5.369
-82.5	2.480	-51.0	15.84	-19.5	343.3	12.0	1125	43.5	21.52	75.0	4.905
-81.0	3.193	-49.5	16.76	-18.0	445.4	13.5	880.2	45.0	20.11	76.5	4.407
-79.5	3.702	-48.0	17.73	-16.5	579.7	15.0	689.6	46.5	18.85	78.0	3.983
-78.0	4.238	-46.5	18.77	-15.0	751.5	16.5	540.4	48.0	17.62	79.5	3.540
-76.5	4.726	-45.0	19.86	-13.5	970.7	18.0	420.5	49.5	16.42	81.0	3.097
-75.0	5.403	-43.5	21.18	-12.0	1245	19.5	322.5	51.0	15.30	82.5	2.503
-73.5	6.041	-42.0	22.88	-10.5	1594	21.0	256.3	52.5	14.26	84.0	2.239
-72.0	6.645	-40.5	25.14	-9.0	2030	22.5	205.8	54.0	13.29	85.5	2.058
-70.5	7.451	-39.0	28.04	-7.5	2561	24.0	166.9	55.5	12.47	87.0	2.001
-69.0	8.256	-37.5	31.79	-6.0	3178	25.5	136.1	57.0	11.74	88.5	2.048
-67.5	8.985	-36.0	36.28	-4.5	3813	27.0	111.4	58.5	11.08	90.0	2.124
-66.0	9.623	-34.5	42.04	-3.0	4299	28.5	91.18	60.0	10.48		
-64.5	10.07	-33.0	49.81	-1.5	4555	30.0	74.51	61.5	9.902		
-63.0	10.46	-31.5	60.33	0.0	4594	31.5	60.95	63.0	9.331		
-61.5	10.89	-30.0	73.61	1.5	4436	33.0	50.77	64.5	8.692		
-60.0	11.36	-28.5	90.20	3.0	4021	34.5	43.13	66.0	8.130		

Current I: 0.1000A Power: 3.660W Voltage V: 36.59V PF: 1.000

Optical Parameter (Distance=2.559m):

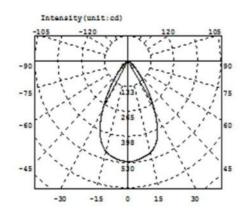
Equivalent Luminous flux: \$\phi\$ eff= 615.1lm Efficiency: Eff=168.06lm/W

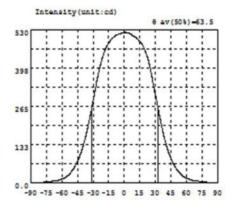
Diffuse angle: @(25%): 24.2deg@(50%): 15.6deg@(75%): 9.8deg @(50%): 15.6deg
Diffuse angle: @(25%): 24.2deg@(50%): 15.6deg@(75%): 9.8deg @(50%): 15.6deg
Imax=4599cd (C=0.0deg,G=-0.5deg)

CO-180Plane Imax= 4599cd (G=-0.5deg)

CO-180Plane IO= 4594cd







Intensity data: (deg , cd) C0-180

λ	1	A	1	Α	1	λ	I	λ	1	λ	I
-90.0	1.401	-58.5	16.15	-27.0	342.0	4.5	517.5	36.0	195.7	67.5	8.856
-88.5	1.452	-57.0	18.89	-25.5	368.0	6.0	514.8	37.5	171.6	69.0	7.868
-87.0	1.503	-55.5	22.46	-24.0	393.0	7.5	511.5	39.0	150.0	70.5	7.143
-85.5	1.529	-54.0	26.84	-22.5	414.2	9.0	508.0	40.5	130.5	72.0	6.506
-84.0	1.657	-52.5	32.62	-21.0	433.1	10.5	504.8	42.0	113.3	73.5	5.963
-82.5	1.874	-51.0	39.08	-19.5	449.9	12.0	499.9	43.5	98.18	75.0	5.385
-81.0	2.171	-49.5	46.46	-18.0	464.1	13.5	495.1	45.0	84.72	76.5	4.736
-79.5	2.583	-48.0	54.56	-16.5	474.8	15.0	489.9	46.5	72.97	78.0	4.046
-78.0	3.145	-46.5	64.40	-15.0	484.5	16.5	482.4	48.0	62.49	79.5	3.373
-76.5	3.772	-45.0	75.65	-13.5	491.9	18.0	473.3	49.5	53.13	81.0	2.782
-75.0	4.348	-43.5	87.99	-12.0	498.1	19.5	462.0	51.0	45.23	82.5	2.399
-73.5	4.958	-42.0	102.1	-10.5	503.3	21.0	447.4	52.5	38.29	84.0	2.157
-72.0	5.534	-40.5	118.3	-9.0	507.5	22.5	430.8	54.0	32.39	85.5	2.090
-70.5	6.130	-39.0	136.4	-7.5	511.1	24.0	411.5	55.5	27.07	87.0	2.085
-69.0	6.724	-37.5	156.4	-6.0	513.9	25.5	387.3	57.0	22.94	88.5	2.156
-67.5	7.458	-36.0	178.7	-4.5	515.9	27.0	357.6	58.5	19.52	90.0	2.187
-66.0	8.343	-34.5	203.4	-3.0	517.3	28.5	330.4	60.0	16.79		
-64.5	9.432	-33.0	228.5	-1.5	519.4	30.0	302.6	61.5	14.49		
-63.0	10.63	-31.5	256.1	0.0	520.3	31.5	274.9	63.0	12.66		
-61.5	12.11	-30.0	286.2	1.5	520.1	33.0	247.7	64.5	11.18		
-60.0	13.88	-28.5	313.5	3.0	520.3	34.5	221.2	66.0	9.873		

Current I: 0.1000A Power: 3.640W Voltage V: 36.40V PF: 1.000

Optical Parameter (Distance=2.559m):

CO-180Plane IO= 520.3cd



		;	Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamet	er	35			34.91	34.96	34.93	35		Test environment: In 20 °C -25 °C
1.Size	thickne	ess	1.5			1.57	1.54	1.59	1.56		environment to achieve thermal equilibrium after the
	hight		9.5			9.44	9.51	9.41	9.46		test.
				Gate	shear can ı	not affect th	e appearar	nce of the la	ımp		
				See	attachment	"Appearan	ce Inspecti	on Standard	ds"		
2.Appear	rance	atta	See chment earance	E	1	No burr	No burr	No burr	No burr		OK
Quality	Inspe		pection ndards"	_	N	o stains	No stains	No stains	No stai	ns	5
3.Materia	al			PC	•		Color	Tra	nsparent		OK
	Testing	LED					D6	l			
4.Optica	to the so	ource c	of the test,	if it is requ	ired to be o	out of range nt, the lens	. According	to the heat fully tested	dissipatio	n capa	uld be comparable ability of the lamp event the lens life.
I index	angle	9				22. 2°	22. 3°	22.5°			
	K-val	ue									
	Efficie	ency				87.35%	87. 92%	86. 33%			
	Facula	See th	ne signatu	re sample		,					
	ehensive ment					•	Qı	ualified			
				Lengt	-	product siz	e changes	with tem	perature	table	•
Remarks: 1. Tool Number: V-Vernier Caliper 2D-Quadratic H- Height Gauge M-Tool Microscope P-Needle T- Thick Gauge R-Radius Gauge E-Visual. 2. Ambient temperature on the size of the product refer to the table on the right			on	Lengt chang (mn	es 0.8	10	20	30	* -	Siz	ze: 50mm ze: 100mm ze: 150mm ze: 200mm ze: 250mm ze: 300mm
Drogautic											

- 1. Wear clean gloves during lens assembly to prevent contamination of the lens surface.
- 2. Take the lens try to avoid touching the total reflection surface.
- 3. When the lens surface contamination, you can only gently wipe with soft cotton sticky neat neutral solvent, not allowed to wipe with industrial solvents.
- 4. The working temperature of the lens should be within the temperature limit of the lens material. Exceeding the temperature limit will cause damage to the lens and affect the service life of the lens.



		S	Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamet	er	35			34.99	35.04	34.92	34.93		Test environment: In 20 °C -25 °C
1.Size	thickne	ss	1.5		/	1.42	1.47	1.5	1.56		environment to achieve thermal
	hight		9.5			9.42	9.56	9.47	9.58		equilibrium after the test.
				Gate	shear can i	not affect th	e appearar	nce of the la	ımp		
				See	attachment	t "Appearan	ce Inspecti	on Standard	ds"		
2.Appear	ance	attac	See chment earance	E	1	No burr	No burr	No burr	No bu	rr	ОК
Quality		Insp	ection dards"	1	N	o stains	No stains	No stains	No stains		O.K
3.Materia	al		<u>'</u>	PC				Tra	nsparent		OK
	Testing	ED					D6				
4.Optica	to the so	ource of actual c	f the test,	if it is requ	ired to be c	out of range ent, the lens	. According	to the heat fully tested	dissipatio	n capa	uld be comparable ability of the lamp event the lens life.
I index	angle	9				35.6°	35.9°	35. 2°			
•	K-val	ue							$\overline{}$		
	Efficie	ncy				88. 50%	89. 90%	89. 30%	$\overline{}$		
	Facula		e signatui	re sample		,	l				
	hensive ment			<u> </u>			Qı	ıalified			
						roduct size	changes	with temp	erature t	able	
Remarks: 1. Tool Number: V-Vernier Caliper 2D-Quadratic H- Height Gauge M-Tool Microscope P-Needle T- Thick Gauge R-Radius Gauge E-Visual. 2. Ambient temperature on the size of the product refer to the table on the right			on	Length change (mm)	s 0.8	10	20	30	* -	Size: Size: Size:	50mm 100mm 150mm 200mm 250mm
Dragautions											

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		5	Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamet	er	35			34.98	35.01	35.03	34.97		Test environment: In 20 °C -25 °C
1.Size	thickne	ss	1.5			1.52	1.58	1.56	1.54		environment to achieve thermal equilibrium after the
	hight		9.5			9.5	9.52	9.53	9.49		test.
				Gate	shear can	not affect th	ne appearar	nce of the la	amp		
				See	attachmen	t "Appearar	ice Inspecti	on Standar	ds"		
2.Appear	ance	attad	See chment earance	E		No burr	No burr	No burr	No burr		OK
Quality		Insp	pection ndards"	_	N	lo stains	No stains	No stains	No stai	ns	
3.Materia	ıl			PC			Color	Tra	nsparent		OK
	Testing I	LED					D6				
4.Optica	to the so	ource o	of the test,	if it is requ	ired to be	out of range ent, the lens	. According	to the heat fully tested	dissipatio	n capa	uld be comparable ability of the lamp event the lens life.
I index	angle	9					15. 3°	15.7°	15.4°		
	K-val	ue					7.85	7. 55	7. 57		
	Efficie	ency				89. 51%	89. 08%	93. 23%	90.61%		
	Facula	See th	e signatui	re sample		,	l				
	ehensive ment					· ·	Qı	ualified			
Caliper 2 Height Ga Microsco	Number: V D-Quadra auge M-To pe P-Neeo uge R-Ra	tic H- ool dle T-	er	Length change (mm	0.9 es 0.8) 0.7 0.6 0.5 0.4 0.3	product siz	e changes	with temp		Size Size Size	e: 50mm e: 100mm e: 150mm e: 200mm e: 250mm
2 Ambi the size of to the tab	2. Ambient temperature on the size of the product refer to the table on the right				0.2 0.1 0	10	20	30	40 (°C)		e: 250mm e: 300mm

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		S	Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Jud gme nt	Remarks
	diamet	er	35			3.5	34.97				Test environment: In 20 °C -25 °C
1.Size	thickne	ss	1.5			1.59	1.52				environment to achieve thermal equilibrium after the
	hight	:	9.5			9.59	9.57				test.
				Gate	shear can	not affect th	e appearar	nce of the la	ımp		
				See a	attachmen	t "Appearan	ce Inspecti	on Standar	ds"		
2.Appear	rance	attac	See chment carance	E		No burr	No burr	No burr	No burr		OK
Quality		Insp	ection dards"	_	N	lo stains	No stains	No stains	No stai	ns	
3.Materia	al			PC	•		Color	Tra	nsparent		OK
	Testing	_ED					D6				
4.Optica	to the so	te recommended size and power ration the source of the test, if it is required the actual conditions of the use en				out of range ent, the lens	. According	to the heat fully tested	dissipation	п сара	ability of the lamp
I index	angle	9									
	K-val	ue									
	Efficie	ency				89. 08%	90. 03%	90. 16%	89. 43%		
	Facula	See the	e signatu	re sample		`	•				
	ehensive ment					•	Qı	ualified			
Remarks: 1. Tool Number: V-Vernier Caliper 2D-Quadratic H- Height Gauge M-Tool Microscope P-Needle T- Thick Gauge R-Radius Gauge E-Visual. 2. Ambient temperature on the size of the product refer to the table on the right				Length change (mm)	0.9 s 0.8	roduct size	e changes v	with temp	40	Size: Size: Size:	: 50mm : 100mm : 150mm : 200mm : 250mm : 300mm
									(℃)		

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PI	N	HK-35@10-24-D6-20-	1g-1	Product Name	HK 35@10-	24° Len	s
Product	material	PC		Customer			
Package	diagram	© → Single Vac	cuum packa	ge Bo	x package		>
Product	packing	27	A/ Box	4	Box/Layer		
		16	Layer/Box	1728	A/ Carton		
	NO.	Part No	Part name	Size	Dosage	Unit	Remarks
	1	2.07.0011	Blister box	23cm*21cm	64	BAG	
Dookooin	2	2.08.0001	PE film	30cm*30cm	64	PCS	
Packagin g	3	2.06.0005	Reel label paper	6.2cm*8cm	64	PCS	
Materials	4	2.06.0005	Box label paper	6.2cm*9.2cm	1	PCS	
	5	2.06.0003	big plate	46.8cm*42.8cm	17	PCS	
	6	2.06.0015	big flat carton	48cm*44cm*19cr	m 1	PCS	
Remarks		The loose packing is not subjec	at to this specif	ication. Customer's	requirements shall	prevail	



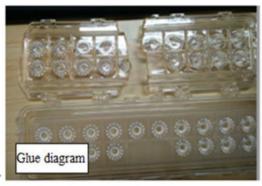
Special notice

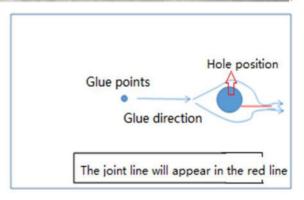
When gule pass through holes, columns and other structures, or part of the thin structure, will form a weld line. The product which uses multi-point injection welding line will appear because of the combination of sol, as shown below:

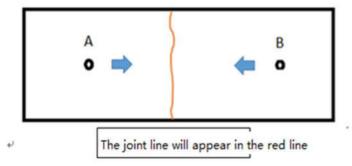
Syntneti











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 Π 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	Ħ	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	Defec	t level	
resciteriis	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	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	√	
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			√
Deformation	Insufficient filling shall not affect the appearance of the assembly and the exposed surfaces.	Visual, feeler		√
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	√	
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	 1 : Product does not allow the presence of flow marks and welding lines unless the structure can not be avoided; 2: The remaining flow marks shall not appear in the optical surface, a single L ≤ 10mm, no more than two 	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	√		
	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 \leq 1 mm and no more than 1 area within a 50x50 mm area	Visual		√	