

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

Product Approval

Approval number:

Customer:

Manufacturer: Chengdu HercuLux Photoelectric Technology Co.,Ltd

PN	Code	Product
HK-62@22-30-D18-20-1g-1	1. 01. 4260	62@22-30°lens
HK-62@22-38-D18-20-1g-1	1. 01. 3026	62@22-38° lens
HK-62@22-60-D18-20-1g-1	1. 01. 3033	62@22-60° lens
HK-62@22-90-D18-20-1g-1	1. 01. 3052	62@22-90°lens



	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.

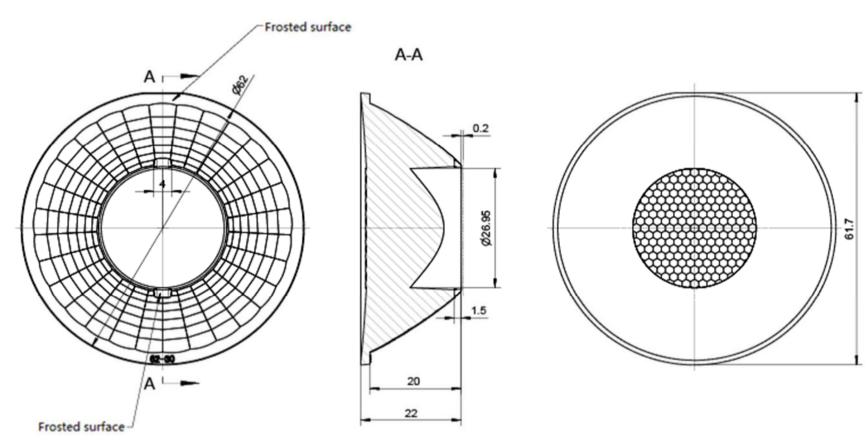


HERCULUX 恒坤光电 Product Approval

TEL: 0755-2937 1541 Date updated: 2019/4/9 FAX: 0755-2907 5140 www.hkoptics.com

Product Picture:	
PN:	HK-62@22-30-D18-20-1g-1
Size(L*W*H/Φ*H):	Ф:62mm; H:22mm
1.07.81418_HK-166@03-0223-S	PMMA
Effiency:	\
Temperature(Topr):	-40°C to +80°C
FWHM:	30°/38°/60°/90°
Matched LES:	D18



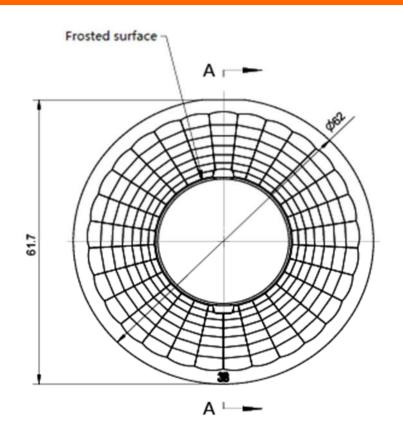


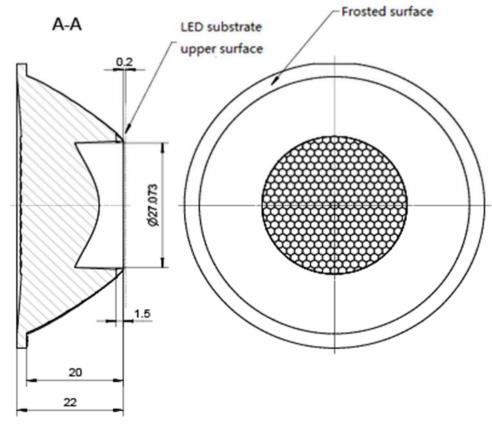
- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

Optical design						HK-62@22-30-D18-20-1g-1					
tructure desig			62@	62@22-30ºlens			1.01.4260				
Review					umber o	umber of drawin qty weight					
Validation			Material:	PMMA			CDHK				

MT5	Basic size	<3	3~10	24~65	65~140	140~250	250~450	>450
olerance ole (mm)	olerance valu	±0.1	±0.15	±0.35	±0.50	±0.80	±1.2	±2.0



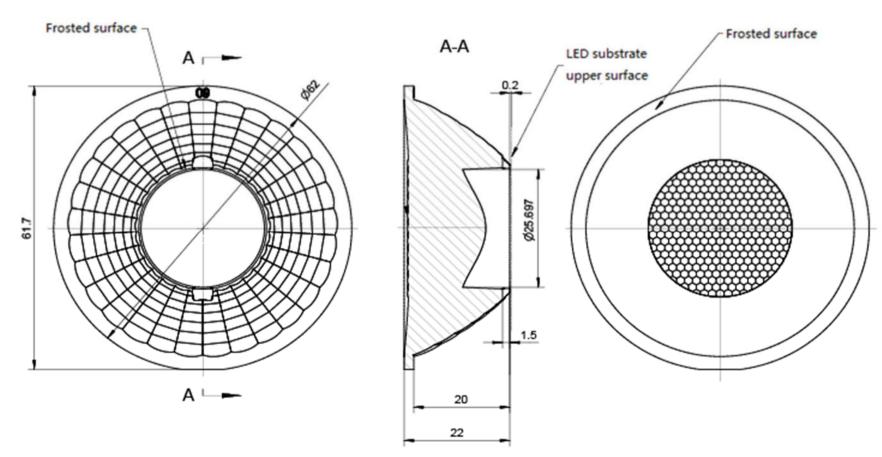




- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

Optical design								HK-62@22-38-D18-20-1g-1					
tructure desig					62@	62@22-38ºlens			1.01.3026				
Review							umber o	f drawin	qty	we	ight		
Validation					Material:	PMMA			CDHK				

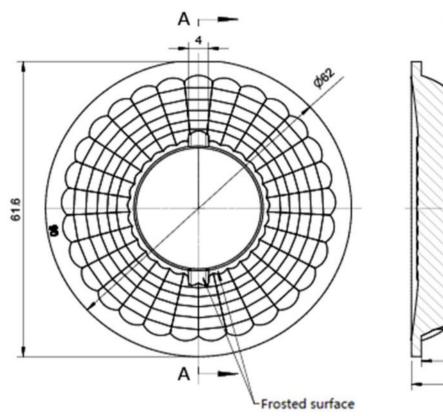


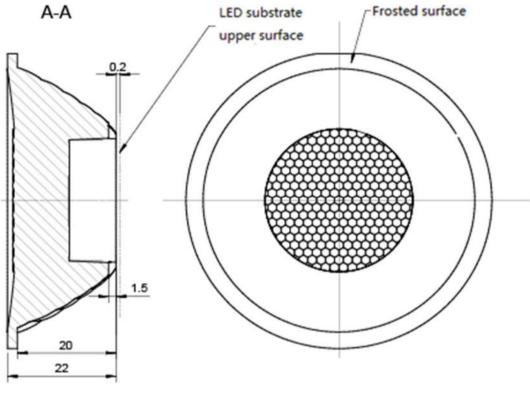


- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

					HK-62@22-60-D18-20-1g-1					
tructure de	sigi		62@	62@22-60ºlens			1.01.3033			
Review					umber of drawin qty weight				ight	
Validation			Material:	PMMA			CDHK			



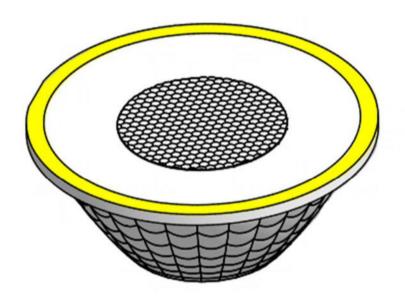


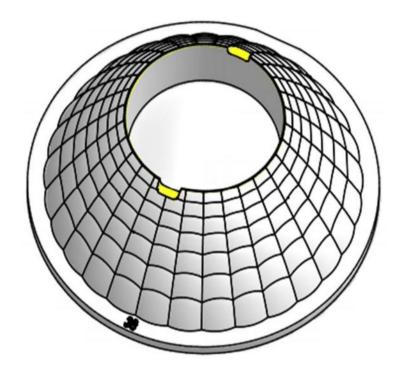


- 1. The 3D map is not indicated for rounded corners and draft angle.
- 2. The dimensional tolerances are not specified according to GB/T 14486 2008 MT5.
- 3, The surface has no flash, shrinkage, bubbles and other defects.

Optical design					HK-62@22-90-D18-20-1g-1					
tructure desig		62@								
Review		1		umber of	drawin	qty	we	ight		
Validation		Material:	PMMA			CDHK				

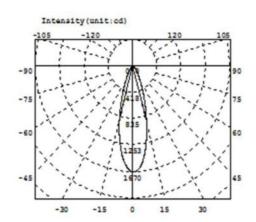


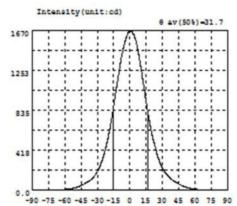




IES----







Intensity data: (deg , cd) C0-180

λ	I	λ	I	Α	1	λ	I	A	I	λ	I
-90.0	0.3822	-58.5	10.52	-27.0	272.3	4.5	1594	36.0	138.6	67.5	5.607
-88.5	0.5483	-57.0	12.65	-25.5	319.6	6.0	1534	37.5	123.6	69.0	4.892
-87.0	0.7913	-55.5	15.12	-24.0	372.7	7.5	1450	39.0	110.2	70.5	4.350
-85.5	1.020	-54.0	18.15	-22.5	435.1	9.0	1352	40.5	97.50	72.0	3.875
-84.0	1.160	-52.5	21.81	-21.0	505.7	10.5	1248	42.0	86.28	73.5	3.432
-82.5	1.417	-51.0	26.15	-19.5	585.8	12.0	1138	43.5	76.08	75.0	3.066
-81.0	1.620	-49.5	31.01	-18.0	673.5	13.5	1024	45.0	66.54	76.5	2.755
-79.5	1.825	-48.0	36.69	-16.5	773.4	15.0	913.1	46.5	57.90	78.0	2.449
-78.0	2.068	-46.5	43.37	-15.0	883.7	16.5	809.9	48.0	50.09	79.5	2.189
-76.5	2.273	-45.0	50.93	-13.5	995.3	18.0	713.4	49.5	43.00	81.0	2.020
-75.0	2.527	-43.5	58.95	-12.0	1102	19.5	624.8	51.0	36.43	82.5	1.815
-73.5	2.734	-42.0	67.84	-10.5	1208	21.0	546.5	52.5	30.82	84.0	1.635
-72.0	3.016	-40.5	77.27	-9.0	1311	22.5	480.4	54.0	25.88	85.5	1.468
-70.5	3.400	-39.0	87.34	-7.5	1407	24.0	416.5	55.5	21.40	87.0	1.295
-69.0	3.812	-37.5	98.59	-6.0	1488	25.5	353.9	57.0	17.75	88.5	1.130
-67.5	4.297	-36.0	112.0	-4.5	1555	27.0	307.3	58.5	14.76	90.0	0.9974
-66.0	4.812	-34.5	128.2	-3.0	1608	28.5	266.5	60.0	12.37		
-64.5	5.486	-33.0	147.2	-1.5	1646	30.0	231.1	61.5	10.41		
-63.0	6.307	-31.5	169.7	0.0	1663	31.5	201.3	63.0	8.807		
-61.5	7.399	-30.0	197.7	1.5	1658	33.0	177.2	64.5	7.449		
-60.0	8.781	-28.5	229.7	3.0	1634	34.5	156.1	66.0	6.413		

Electricity Parameter:

Current I: 0.1000A Power: 3.310W Voltage V: 33.09V PF: 1.000

Optical Parameter (Distance=2.559m):

Diffuse angle: @(25%): 46.9deg@(50%): 31.7deg@(75%): 20.4deg@(50%): 31.7deg

Diffuse angle: @(25%): 46.9deg@(50%): 31.7deg@(75%): 20.4deg@(50%): 31.7deg

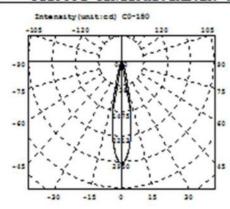
Imax=1663cd (C=0.0deg,G=0.5deg)

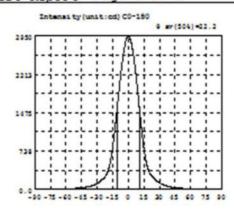
C0-180Plane Imax= 1663cd(G=0.5deg)

CO-180Plane IO= 1663cd

IES----

GO1900L GONIOPHOTOMETER Test Report Page 1 Of 2





Intensity data: (deg , cd) C0-180

A	I	A	I	A	I	A	I	A	I	A	I
-90.0	0.6497	-38.5	8.527	-27.0	152.4	4.5	2643	36.0	68.65	67.5	4.432
-88.5	0.7390	-57.0	9.689	-25.5	178.5	6.0	2425	37.5	60.06	69.0	3.990
-87.0	0.8794	-35.5	10.96	-24.0	207.0	7.5	2165	39.0	52.03	70.5	3.579
-85.5	1.045	-54.0	12.29	-22.5	240.3	9.0	1882	40.5	43.98	72.0	3.257
-84.0	1.224	-52.5	13.95	-21.0	288.5	10.5	1580	42.0	37.10	73.5	2.899
-82.5	1.454	-51.0	15.98	-19.5	360.8	12.0	1290	43.5	31.46	75.0	2.590
-81.0	1.697	-49.5	18.23	-18.0	465.3	13.5	1009	45.0	27.71	76.5	2.294
-79.5	1.993	-48.0	20.71	-16.5	620.8	15.0	773.6	46.5	24.92	78.0	1.952
-78.0	2.324	-46.5	23.42	-15.0	829.7	16.5	591.6	48.0	22.74	79.5	1.643
-76.5	2.644	-45.0	26.69	-13.5	1080	18.0	459.8	49.5	19.90	81.0	1.386
-75.0	2.975	-43.5	30.25	-12.0	1343	19.5	361.6	51.0	16.70	82.5	1.166
-73.5	3.307	-42.0	33.36	-10.5	1621	21.0	296.4	32.5	14.45	84.0	0.9730
-72.0	3.615	-40.5	41.11	-9.0	1905	22.5	253.4	34.0	12.54	85.5	0.8087
-70.5	3.961	-39.0	47.02	-7.5	2191	24.0	222.4	55.5	10.98	87.0	0.6809
-69.0	4.360	-37.5	55.75	-6.0	2436	25.5	192.3	57.0	9.585	88.5	0.6001
-67.5	4.835	-36.0	61.10	-4.5	2652	27.0	163.5	38.5	8.323	90.0	0.6230
-66.0	5.343	-34.5	70.21	-3.0	2816	28.5	140.6	60.0	7.403		
-64.5	5.775	-33.0	80.95	-1.5	2918	30.0	120.5	61.5	6.364		
-63.0	6.256	-31.5	93.97	0.0	2944	31.5	103.8	63.0	5.948		
-61.5	6.860	-30.0	109.7	1.5	2908	33.0	89.91	64.5	3.444		
-60.0	7.619	-28.5	129.5	3.0	2803	34.5	78.54	66.0	4.950		

Electricity Parameter:

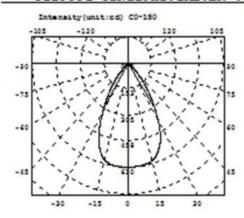
Current I: 0.1000A Power: 3.460W Voltage V: 34.59V PF: 1.000

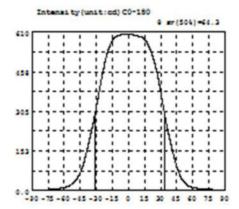
Optical Parameter (Distance=2.559m):

C0-180Plane IO= 2944cd



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Intensity data: (deg , cd) C0-180

A	I	A	I	A	1	A	I	A	I	A	I
-90.0	0.2930	-38.5	13.01	-27.0	391.6	4.5	599.2	36.0	246.0	67.3	6.422
-88.5	0.3828	-57.0	15.13	-25.5	425.8	6.0	597.3	37.5	216.4	69.0	3.867
-67.0	0.7020	-55.5	17.77	-24.0	456.3	7.5	396.9	39.0	189.0	70.5	5.262
-85.5	0.9948	-34.0	21.17	-22.5	485.6	9.0	595.7	40.5	163.1	72.0	4.737
-84.0	1.136	-32.5	25.68	-21.0	511.6	10.5	593.1	42.0	138.4	73.5	4.362
- 62 . 5	1.404	-31.0	31.20	-19.5	533.0	12.0	591.4	43.5	114.6	75.0	3.996
-81.0	1.763	-49.5	38.14	-18.0	552.1	13.5	388.5	45.0	93.43	76.3	3.664
-79.5	2.070	-48.0	46.83	-16.5	367.6	15.0	381.6	46.5	75.08	78.0	3.323
-78.0	2.412	-46.5	57.52	-15.0	579.1	16.5	575.8	48.0	59.69	79.5	3.010
-76.5	2.744	-45.0	70.68	-13.5	386.8	18.0	364.7	49.5	46.70	81.0	2.660
-75.0	3.013	-43.5	86.38	-12.0	392.3	19.5	352.3	51.0	36.28	82.5	2.288
-73.5	3.361	-42.0	104.7	-10.5	596.3	21.0	336.4	52.5	28.36	84.0	1.968
-72.0	3.745	-40.5	126.6	-9.0	598.2	22.5	518.9	34.0	22.95	85.5	1.781
-70.5	4.293	-39.0	150.8	-7.5	600.1	24.0	498.2	35.5	18.73	87.0	1.568
-69.0	5.517	-37.5	176.8	-6.0	600.8	25.5	474.1	37.0	15.62	88.5	1.240
-67.5	6.181	-36.0	204.0	-4.5	600.6	27.0	446.0	38.3	13.26	90.0	1.024
-66.0	6.962	-34.5	231.2	-3.0	601.1	28.5	415.0	60.0	11.41		
-64.5	7.812	-33.0	260.0	-1.5	602.1	30.0	378.7	61.5	9.900		
-63.0	8.777	-31.5	291.2	0.0	602.6	31.5	342.4	63.0	8.752		
-61.5	9.930	-30.0	323.4	1.5	602.6	33.0	309.3	64.5	7.840		
-60.0	11.27	-28.5	357.6	3.0	602.4	34.5	276.6	66.0	7.079		

Electricity Parameter:

Current I: 0.1000A Power: 3.310W Voltage V: 33.09V PF: 1.669

Optical Parameter (Distance=2.559m):

Diffuse angle: @(25%): 80.2deg@(50%): 64.3deg@(75%): 50.8deg@(50%): 64.3deg

Diffuse angle: @(25%): 80.2deg@(50%): 64.3deg@(75%): 50.9deg@(50%): 64.3deg

Imax=602.8cd (C=0.0deg,G=2.5deg)

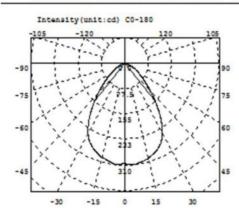
C0-180Plane Imax= 602.8cd(G=2.5deg)

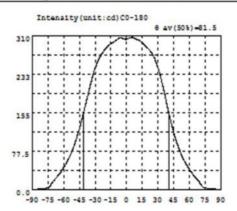
CO-180Plane IO= 602.6cd

IES----



GO1900L GONIOPHOTOMETER Test Report Page 1 Of 2





Intensity data: (deg , cd) C0-180

λ	I	λ	I	Α	I	λ	I	λ	I	λ	I
-90.0	0.3277	-58.5	50.45	-27.0	260.5	4.5	306.4	36.0	194.8	67.5	21.37
-88.5	0.6794	-57.0	56.04	-25.5	266.9	6.0	306.7	37.5	179.8	69.0	17.29
-87.0	1.245	-55.5	61.96	-24.0	272.0	7.5	304.9	39.0	165.8	70.5	12.18
-85.5	1.753	-54.0	68.53	-22.5	276.5	9.0	302.9	40.5	152.1	72.0	7.694
-84.0	2.036	-52.5	75.62	-21.0	281.0	10.5	301.7	42.0	139.3	73.5	4.935
-82.5	2.263	-51.0	83.45	-19.5	284.4	12.0	300.0	43.5	126.6	75.0	4.270
-81.0	2.570	-49.5	92.13	-18.0	287.9	13.5	298.1	45.0	114.5	76.5	3.765
-79.5	2.944	-48.0	101.6	-16.5	291.1	15.0	296.0	46.5	103.6	78.0	3.339
-78.0	3.300	-46.5	112.1	-15.0	293.8	16.5	293.0	48.0	94.06	79.5	2.927
-76.5	3.827	-45.0	122.8	-13.5	295.2	18.0	289.5	49.5	85.22	81.0	2.630
-75.0	4.333	-43.5	134.4	-12.0	297.3	19.5	286.1	51.0	77.06	82.5	2.339
-73.5	6.287	-42.0	147.0	-10.5	300.1	21.0	283.1	52.5	69.61	84.0	2.080
-72.0	11.25	-40.5	159.8	-9.0	302.1	22.5	279.1	54.0	62.78	85.5	1.732
-70.5	16.32	-39.0	172.7	-7.5	304.5	24.0	274.3	55.5	56.57	87.0	1.130
-69.0	20.05	-37.5	185.9	-6.0	306.2	25.5	269.0	57.0	51.11	88.5	0.5411
-67.5	23.47	-36.0	199.0	-4.5	305.4	27.0	262.4	58.5	45.98	90.0	0.3660
-66.0	27.25	-34.5	211.6	-3.0	303.8	28.5	253.8	60.0	41.07		
-64.5	31.45	-33.0	223.4	-1.5	302.6	30.0	244.3	61.5	36.57		
-63.0	35.50	-31.5	234.7	0.0	302.6	31.5	233.4	63.0	32.27		
-61.5	39.88	-30.0	244.8	1.5	304.2	33.0	221.4	64.5	28.37		
-60.0	44.95	-28.5	253.3	3.0	305.5	34.5	208.5	66.0	24.80		

Electricity Parameter:

Current I: 0.1000A Power: 3.300W Voltage V: 33.00V PF: 1.000

Optical Parameter (Distance=2.410m):

Diffuse angle: @(25%): 103.2deg@(50%): 81.5deg@(75%): 64.0deg@(50%): 81.5deg

Diffuse angle: @(25%): 103.6deg@(50%): 82.0deg@(75%): 64.8deg@(50%): 82.0deg

Imax=306.8cd (C=0.0deg,G=5.5deg)

C0-180Plane Imax= 306.8cd(G=5.5deg)

CO-180Plane IO= 302.6cd



										1
		Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	result4	me	Remarks
diamet	er	62			61.92	61.9			\setminus	Test environment: In 20 °C -25 °C environment to
height	:1	20			20.04	20.06				achieve thermal equilibrium after the test.
			Gate	shear can	not affect th	ne appearar	nce of the la	amp		
			See	attachmen	t "Appearan	ice Inspecti	on Standar	ds"		
ance	atta		ent		No burr	No burr	No burr No burr			OK
	Ins	pection	ı	N	lo stains	No stains	No stains	No stains	;	OK .
al			PMM	4		Color	Tra	nsparent		OK
Testing I	LED					D18				
to the so and the FWHI angle K-val	ource actual M e ue	of the test, conditions	if it is requ	ired to be	out of range ent, the lens	. According should be	to the heat fully tested	dissipation of	capal	oility of the lamp
ehensive			· ·			Οι	ıalified			
Number: N D-Quadra auge M-To pe P-Nee uge R-Ra -Visual. ient tempe of the prod	tic H- ool dle T- dius erature luct re	e on	change	n es 0.8 —	AA produc			*	Size Size Size Size Size	ble :: 50mm
	height ance I Testing I The reco to the so and the FWHI angle K-val Efficie Facula Phensive ment I Number: V D-Quadra auge M-To pe P-Nee uge R-Ra Visual. ent tempe of the proof	Testing LED The recommer to the source and the actual FWHM angle K-value Efficiency Facula See tenensive ment : Number: V-Vern D-Quadratic Hauge M-Tool pe P-Needle Tuge R-Radius-Visual. ent temperature	diameter 62 height1 20 See attachment "Appearance Inspection Standards" I Testing LED The recommended size at to the source of the test, and the actual conditions FWHM angle K-value Efficiency Facula See the signatue thensive ment : Number: V-Vernier D-Quadratic H-auge M-Tool pe P-Needle T-uge R-Radius-Visual. ent temperature on of the product refer	diameter 62 height 20 Gate See ance See attachment "Appearance Inspection Standards" I PMM/ Testing LED The recommended size and power reaction to the source of the test, if it is requand the actual conditions of the use FWHM angle K-value Efficiency Facula See the signature sample chensive ment : Length change (mm D-Quadratic H-auge M-Tool pe P-Needle T-uge R-Radius-Visual. ent temperature on of the product refer	diameter 62 height1 20 Gate shear can See attachment "Appearance Inspection Standards" I PMMA Testing LED The recommended size and power rating of the to the source of the test, if it is required to be and the actual conditions of the use environment FWHM angle K-value Efficiency Facula See the signature sample thensive ment PMM Length changes 0.8 (mm) 0.7 D-Quadratic H- auge M-Tool pe P-Needle T- uge R-Radius Visual. ent temperature on of the product referile on the right	diameter 62 Size limit size limit result1 diameter 62 61.92 height1 20 20.04 Gate shear can not affect the See attachment "Appearance Inspection Standards" No burr No burr No burr No stains Testing LED The recommended size and power rating of the LED lights to the source of the test, if it is required to be out of range and the actual conditions of the use environment, the lens FWHM See light angle K-value Efficiency Facula See the signature sample See light changes 0.8 (mm) 0.7 D-Quadratic H-auge M-Tool pe P-Needle T-uge R-Radius Visual. ent temperature on of the product refer the on the right	diameter 62 Size limit size limit result1 result2 diameter 62 61.92 61.9 Gate shear can not affect the appearant See attachment "Appearance Inspection Standards" No burr No burr No burr Standards" No stains Standards The recommended size and power rating of the LED light source recot to the source of the test, if it is required to be out of range. According and the actual conditions of the use environment, the lens should be FWHM See light distribut See light distribut See light distribut See light distribut See R-value Efficiency Facula See the signature sample See R-value Changes 0.8 (mm) 0.7 Octobre P-Needle T-uge R-Radius Visual. See the product refer light on the right Octobre Size India No. 1 Octobre P-Needle T-uge R-Radius Visual. See India No. 1 Octobre P-Needle T-uge R-Radius Octobre P-Needle R-Uge R-Radius Octobre P-Needl	diameter 62 Size limit size limit result1 result2 result3 diameter 62 61.92 61.9 height1 20 20.04 20.06 Gate shear can not affect the appearance of the leta shear can not	Standard Size Siz	diameter 62 61.92 61.9 61.92 61.9 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 Standards" Testing LED No stains Standards Testing LED D18 The recommended size and power rating of the LED light source recommended for this lens should to the source of the test, if it is required to be out of range. According to the heat dissipation capal and the actual conditions of the use environment, the lens should be fully tested and tested to present the present See light distribution curve angle K-value Efficiency FWHM See light distribution curve Gualified PMMA product size changes with temperature tall Length changes 0.8 (mm) 0.7 Size pe N-headle T-uge R-Radius Visual. 0.3 O.2 O.5 Size of the product refer led on the right of the pr

- 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
1.Size	diamet	er	62			61.95	62. 03	61. 97			Test environment: In 20 °C -25 °C environment to
	height	:1	20			20. 08	19. 97	20. 01			achieve thermal equilibrium after the test.
				Gate	shear can	not affect th	e appearar	nce of the la	amp		
				See	attachmen	t "Appearan	ce Inspecti	on Standar	ds"		
2.Appear	rance	attac	eee hment earance	E	ı	No burr	No burr	No burr	No bu	rr	OK
Quality		Insp	ection dards"	J	٨	lo stains	No stains	No stains	No stai	ns	
3.Materia	al			PMM	A		Color	Tra	nsparent		OK
	Testing	LED					D18	•			
4.Optica I index		actual c	of the test, if it is required to			ent, the lens		fully tested			
		_				88. 09%	87. 18%		$\overline{}$	_	
	Efficie Facula		o cianotu	re sample		00.09%	07.10%				
Compre	ehensive	See in	Signatu	re sample							
	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						MA produc	t size chan	iges with t		Siz Siz Siz Siz Siz	te: 50mm te: 100mm te: 150mm te: 200mm te: 250mm te: 300mm

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		Si	tandard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	result4	Jud gme nt	Remarks
1.Size	diamet	ter	62			62.02	62.03	61.99			Test environment: In 20 °C -25 °C environment to
1.0120	heigh	t1	20			20.04	20.06	20.01			achieve thermal equilibrium after the test.
				Gate	shear can	not affect th	ne appearar	nce of the la	ımp		
		See attachment "Appearance Inspection Standards"									
2.Appear	rance	attach	ee nment arance	ment		No burr	No burr	No burr	No burr		OK
Quality		Inspe	ection dards"	ion		lo stains	No stains	No stains	No stain	ıs	OK .
3.Materia	al			PMM	A		Color	Tra	nsparent		OK
	Testing	LED					D18				
4.Optica I index	and the	actual co				ent, the lens		fully tested			ability of the lamp event the lens life.
	Efficie	ency				87. 00%	87. 12%				
	Facula	See the	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					n es 0.8 —	AA produc	t size chan	iges with t	**************************************	Siz Siz Siz Siz	ee: 50mm ee: 100mm ee: 150mm ee: 200mm ee: 250mm ee: 300mm

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							_			
		Si	tandard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test gm result4 nt	
1.Size	diamet	er	62			62.01	61.99	62.04		Test environment: In 20 °C -25 °C environment to
1.0120	height	:1	20			19.98	20.02	19.99		achieve thermal equilibrium after the test.
				Gate	shear can	not affect th	ne appearar	nce of the la	amp	
				See	attachmen	t "Appearan	ice Inspecti	on Standard	ds"	
2.Appear	rance	attach	ee nment arance	nent		No burr	No burr	No burr	No burr	OK
Quality	Inspe			ion		o stains	No stains	No stains	No stains	
3.Materia	al			PMM	4		Color	Tra	nsparent	OK
	Testing	LED					D18			-
4.Optica I index	and the FWHI	actual co				ent, the lens		fully tested		pability of the lamp prevent the lens life.
	K-val	_								
	Efficie					81.92%	81. 90%			
	Facula	See the	signatu	re sample						
	ehensive ment						Qι	ualified		
Caliper 2 Height Gamicrosco Thick Gamicrosco Gauge Earth Ambithe size of	Number: V D-Quadra auge M-To pe P-Need luge R-Ra	tic H- ool dle T- dius erature o luct refe	on	Length change (mm	n es 0.8 —	10	t size chan	ges with t	* * *	Size: 50mm Size: 100mm Size: 150mm Size: 200mm Size: 250mm Size: 300mm

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PI	N	HK-62@22-30-D18-20	-1g-1	Product Name	62@22-3	0ºlens	
Product	material	PMMA		Customer			
Package	diagram	Single Vac	cuum packa	ge Bo	x package		~
Product	packing	10	A/ Box	4	Box/Layer		
	. 5	12	Layer/Box	480	A/ Carton		
	NO.	Part No	Part name	Size	Dosage	Unit	Remarks
	1	2.07.0019	Blister box	23cm*21cm	48	BAG	
Dookogin	2	2.08.0001	PE film	30cm*30cm	48	PCS	
Packagin g	3	2.06.0005	Reel label paper	6.2cm*8cm	48	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	13	PCS	
	6	2.06.0015	big flat carton	48cm*44cm*19cr	n 1	PCS	
Remarks		The loose packing is not subject	t to this specif	ication. Customer's	requirements shall	orevail	



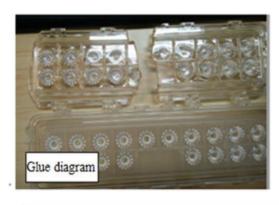
Special notice

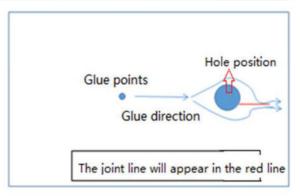
When gule pass through holes, columns and other structures, or part of the thin structure, will form a weld line. The product which uses multi-point injection welding line will appear because of the combination of sol, as shown below:

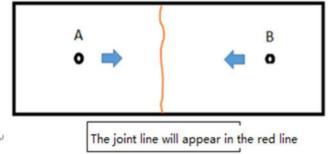
Syntneti











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 description	Unit	Code	Code description	Unit
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			
restitems	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		√	