



HERCULUX
恒坤光电

Chengdu HercuLux Photoelectric
Technology Co.,Ltd
Product Approval

Approval number :

Effective date of approval :

Customer :

Product : HK 4 degree-Indoor lens

Material Code 1.01.6723

PN : HK-40@15-4-3535-20-1g-1 (SN)

Manufacturer : Chengdu HercuLux Photoelectric Technology Co.,Ltd



Supplier confirmation				Client confirmation			
Proposed		DATE		Qualified <input type="checkbox"/>		DATE	
Project manager		DATE		Unqualified <input type="checkbox"/>		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

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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.



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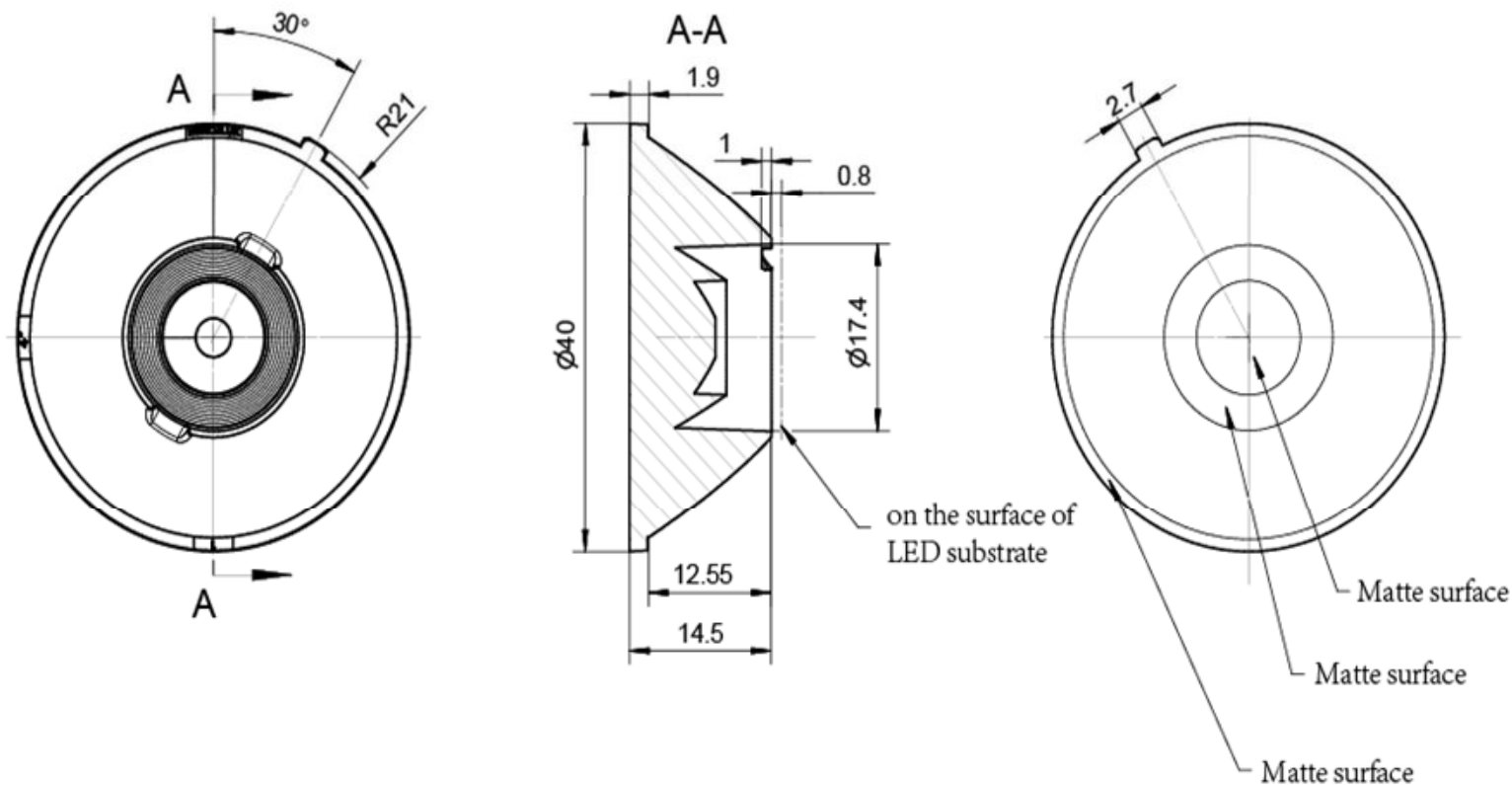
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Date updated: 2018/12/25

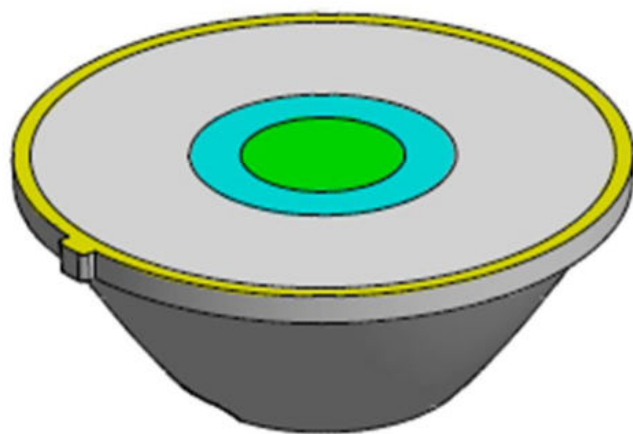
Product Picture:	
PN:	HK-40@15-4-3535-20-1g-1 (SN)
Size(L*W*H/Φ*H):	Φ:40mm; H:14.5mm
Material:	PC
Efficiency:	-40°C to +120°C
Temperature(Topr):	/
FWHM:	4°
Matched LES:	3535

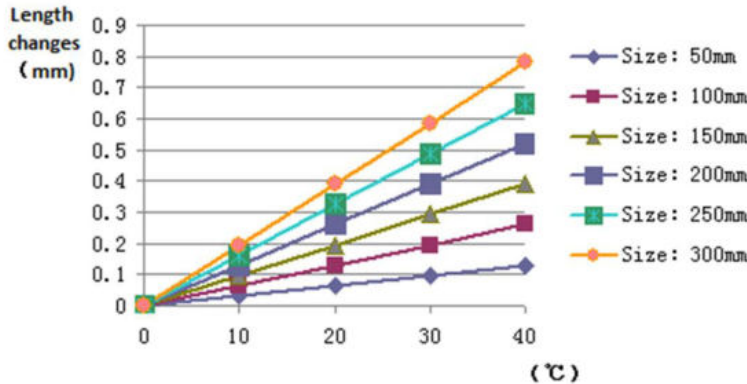


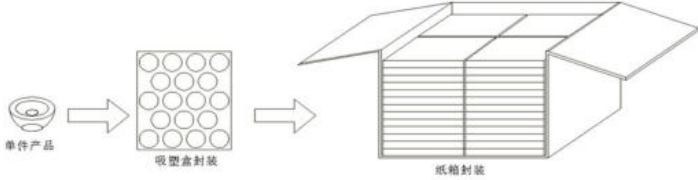
Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

Optical Design			HK 4 degree-Indoor lens	HK-40@15-4-3535-20-1g-1 (SN)	1.01.6723
Structure Design				Pages	Qty
Assess				2	
Authorized			Material:PC	CDHK	

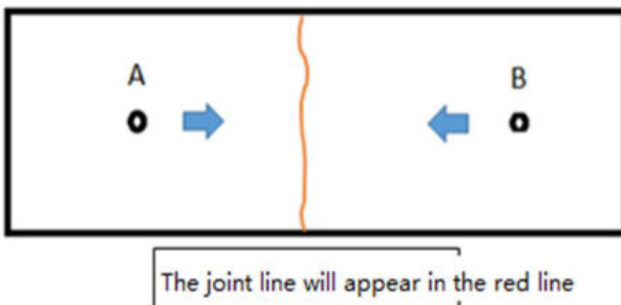
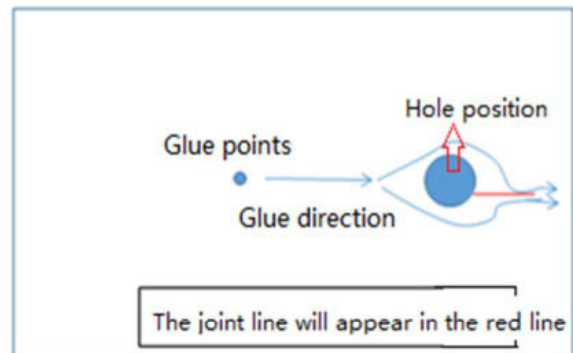
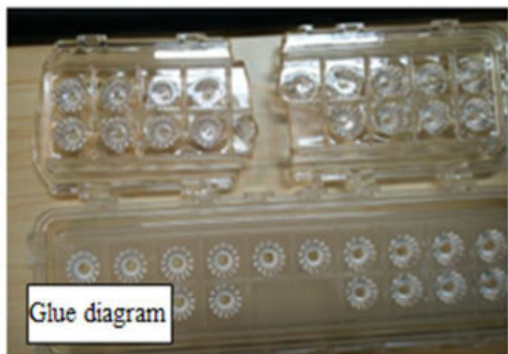
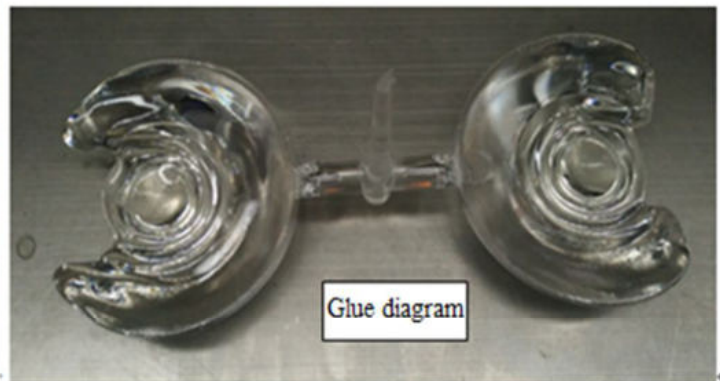


		Standard size	Upper Size limit	Lower size limit	Test result1	Test result2	Test result3	Test result4	Judgment	Remarks																																										
1.Size	external diameter	40	40.15	39.85	39.88	39.9	39.89	39.89	OK	Test environment: In 20 °C -25 °C environment to achieve thermal equilibrium after the test.																																										
	height	14.5	14.65	14.35	14.45	14.43	14.4	14.4	OK																																											
	Optical height	1.9	2.05	1.75	1.92	1.9	1.94	1.94	OK																																											
	Gate shear can not affect the appearance of the lamp																																																			
See attachment "Appearance Inspection Standards"																																																				
2.Appearance Quality	See attachment "Appearance Inspection Standards"	E	No burr	No burr	No burr	No burr	No burr	No burr	OK																																											
			No stains	No stains	No stains	No stains	No stains	No stains																																												
3.Material	PC				Color	Transparent			OK																																											
4.Optical index	Testing LED	CREE XPE																																																		
	FWHM	See light distribution curve																																																		
	Angle					3.8°	3.8°	3.8°	3.6°	OK																																										
	K Value					64.19	64.19	67.09	79.18	OK																																										
	Facula	See the signature sample																																																		
Comprehensive judgment	Qualified																																																			
Remarks:	<p>1、 Tool Number: V-Vernier Caliper 2D-Quadratic H-Height Gauge M-Tool Microscope P-Needle T-Thick Gauge R-Radius Gauge E-Visual.</p> <p>2、 Ambient temperature on the size of the product refer to the table on the right</p>																																																			
	<p style="text-align: center;">PC product size changes with temperature table</p>  <table border="1"> <caption>Data for PC product size changes with temperature table</caption> <thead> <tr> <th>Temperature (°C)</th> <th>50mm</th> <th>100mm</th> <th>150mm</th> <th>200mm</th> <th>250mm</th> <th>300mm</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>10</td> <td>0.05</td> <td>0.10</td> <td>0.15</td> <td>0.20</td> <td>0.25</td> <td>0.30</td> </tr> <tr> <td>20</td> <td>0.10</td> <td>0.15</td> <td>0.20</td> <td>0.25</td> <td>0.35</td> <td>0.45</td> </tr> <tr> <td>30</td> <td>0.15</td> <td>0.20</td> <td>0.25</td> <td>0.35</td> <td>0.45</td> <td>0.60</td> </tr> <tr> <td>40</td> <td>0.20</td> <td>0.25</td> <td>0.35</td> <td>0.50</td> <td>0.65</td> <td>0.80</td> </tr> </tbody> </table>										Temperature (°C)	50mm	100mm	150mm	200mm	250mm	300mm	0	0.00	0.00	0.00	0.00	0.00	0.00	10	0.05	0.10	0.15	0.20	0.25	0.30	20	0.10	0.15	0.20	0.25	0.35	0.45	30	0.15	0.20	0.25	0.35	0.45	0.60	40	0.20	0.25	0.35	0.50	0.65	0.80
Temperature (°C)	50mm	100mm	150mm	200mm	250mm	300mm																																														
0	0.00	0.00	0.00	0.00	0.00	0.00																																														
10	0.05	0.10	0.15	0.20	0.25	0.30																																														
20	0.10	0.15	0.20	0.25	0.35	0.45																																														
30	0.15	0.20	0.25	0.35	0.45	0.60																																														
40	0.20	0.25	0.35	0.50	0.65	0.80																																														
Precautions:	<p>1、 Wear clean gloves during lens assembly to prevent contamination of the lens surface.</p> <p>2、 Take the lens try to avoid touching the total reflection surface.</p> <p>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.</p>																																																			

PN	HK-40@15-4-3535-20-1g-1 (SN)			Product Name	HK 4 degree-Indoor lens		
Product material	PC			Customer			
Package diagram							
Product packing	18	Packet	4	BAG/LAYER			
	18	Floor/Cartron	1296	Piece/Box			
Packaging Materials	NO.	Material Code	Item name	Specification	Single box usage	Unit	Remarks
	1	2. 07. 0062	Blister box	23cm*21cm	72	PCS	
		2. 08. 0001	PE film	30cm*30cm	72	PCS	
	2	2. 06. 0005	Box label paper	6. 2cm*4. 2cm	72	PCS	
	3	2. 06. 0005	Box label paper	7. 6cm*6. 2cm	1	PCS	
	4	2. 06. 0003	Large partition	42cm*46. 8cm	19	PCS	
	7	2. 06. 0001	Large carton	42. 8cm*46. 8cm*36cm	1	PCS	
Remarks	Scattered packaging is not subject to this specification						

Special notice

When glue 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:



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

1.1.1 Sampling standards, sampling plan and AQL

Test level : GB/T2828.1-2012 The first part is according to the acceptance quality limit (AQL) retrieval batch inspection sampling plan, general inspection level II 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	H	Depth	mm
W	Width	mm	DS	Distance	mm
S	Proportion	mm ²	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, chip should be from the lens surface 500-550mm, in order to make the bad appearance can be correctly found, the illumination should not be less than 500Lux ;

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	Judging standard	Inspection equipment	Defect level		
		Testing method	MI	MA	CR
Check the sample	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.	Sample comparison, visual			√
	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;				
	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 things, impurities	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.	Visual, point card		√	
	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.				
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;	Visual		√	
	2: The remaining flow marks shall not appear in the optical surface, a single L ≤ 10mm, no more than two				
Bubble	No bubbles are allowed	Visual		√	
Foreign matter、Dark spots	Not obvious or $D \leq 0.3\text{mm}$ 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	√		
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	√		
Bad incision	1: Do not affect the product size, shall not penetrate the optical surface, the cut should be smooth;	Visual			√
	2: Laser cutting products, the optical surface burns shall not occur after the processing is completed. Beading must not affect product installation				
	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 $D \leq 1\text{ mm}$ and no more than 1 area within a 50x50 mm area	Visual		√	



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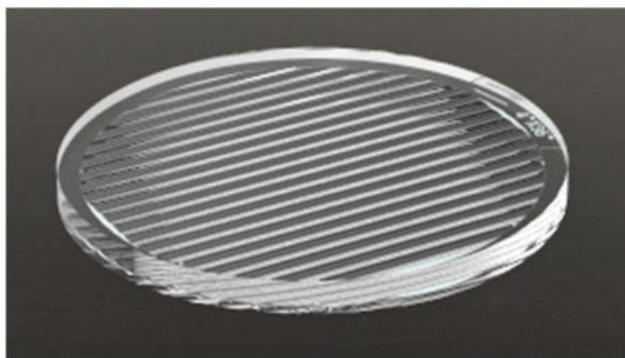
Approval number :

Effective date of approval :

Customer :

PN	Material Code	Product
HK-43@04-4X36-XPE_35-01-1g-1	1.01.7960	Linear Lens (4°X36°)
HK-43@04-10X25-XPE_35-01-1g-1	1.01.7961	Elliptical spot Lens (10°X25°)
HK-43@04-10X36-XPE_35-01-1g-1	1.01.7962	Elliptical spot Lens (10°X36°)
HK-43@04-25-XPE_35-01-1g-1	1.01.7963	Circular spot Lens (25°)
HK-43@04-25X25-XPE_35-01-1g-1	1.01.7964	Square spot Lens (25°X25°)
HK-43@04-25X36-XPE_35-01-1g-1	1.01.7965	Rectanguiar Lens (25°X36°)
HK-43@04-36-XPE_35-01-1g-1	1.01.7966	Circular spot Lens (36°)
HK-43@04-36X36-XPE_35-01-1g-1	1.01.7967	Square spot Lens (36°X36°)

Manufacturer : Chengdu HercuLux Photoelectric Technology Co.,Ltd



Supplier confirmation				Client confirmation			
Proposed		DATE		Qualified <input type="checkbox"/>		DATE	
Project manager		DATE		Unqualified <input type="checkbox"/>		DATE	
Audit		DATE		Audit		DATE	
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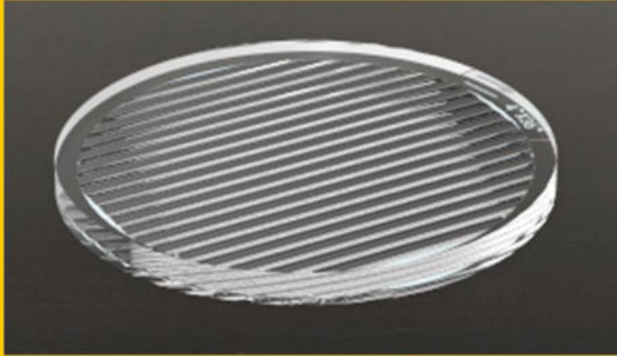
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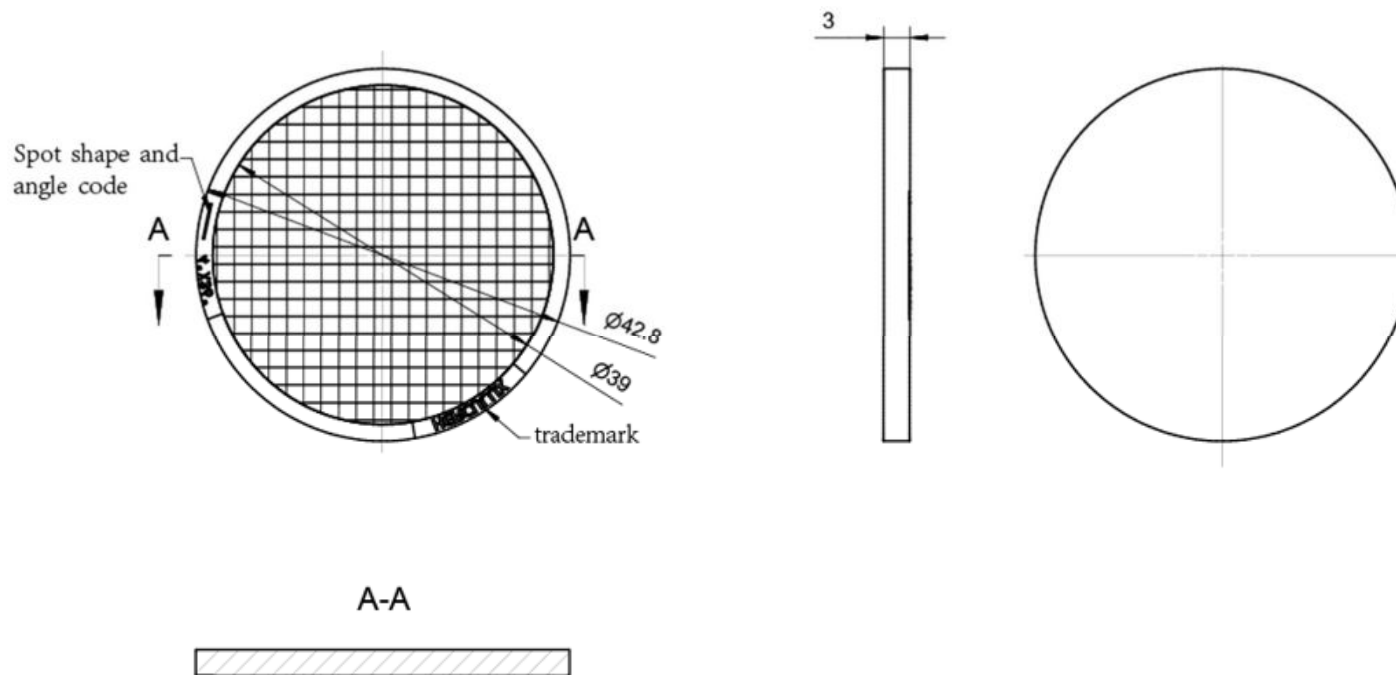
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Date updated: 2018/3/27

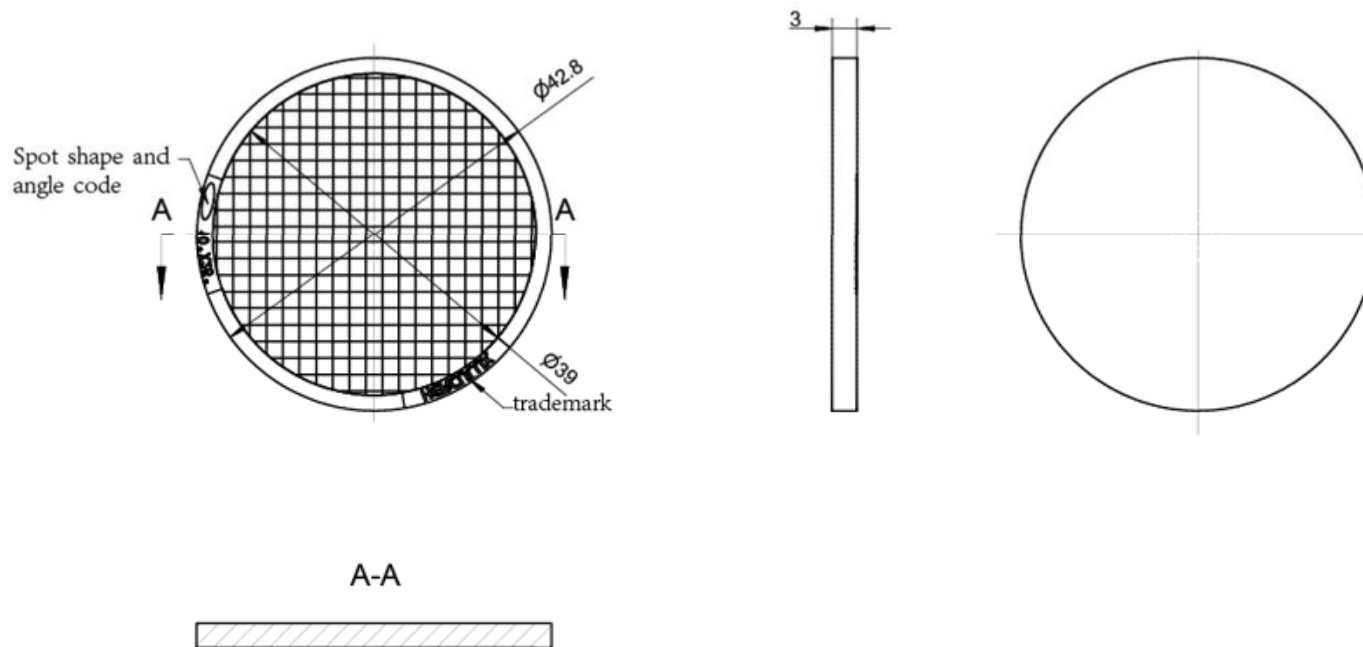
Product Picture:	
PN:	HK-43@04-4X36-XPE_35-01-1g-1
Size(L*W*H/Φ*H):	Φ:43mm; H:3mm
Material:	PC
Efficiency:	90%
Temperature(Topr):	-40°C to +120°C
FWHM:	36°X4°/25°X10°/36°X10°/25° /25X25°25°X36°/36°/36X36°
Matched LES:	CREE XPE_35



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

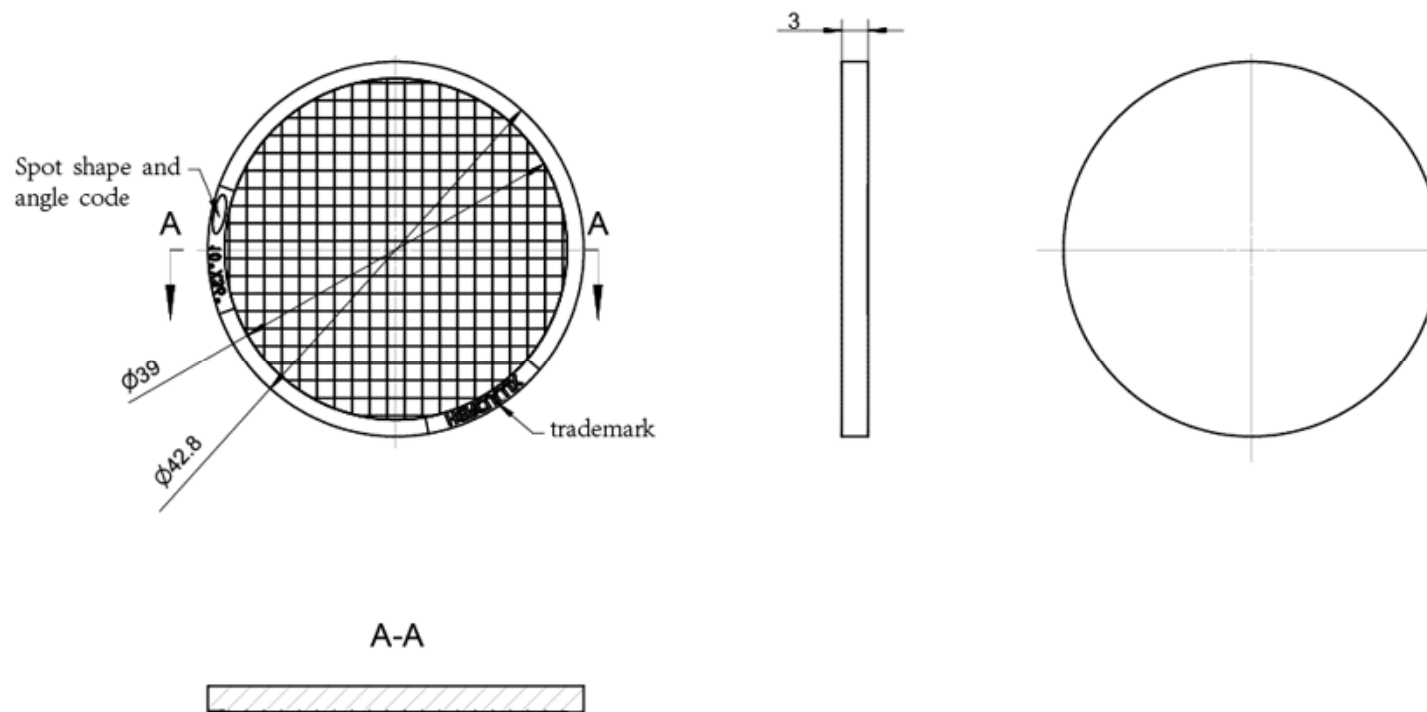
Optical Design		Linear Lens (4° X36°)	HK-43@04-4X36-XPE_35-01-1g-1		1.01.7960
Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

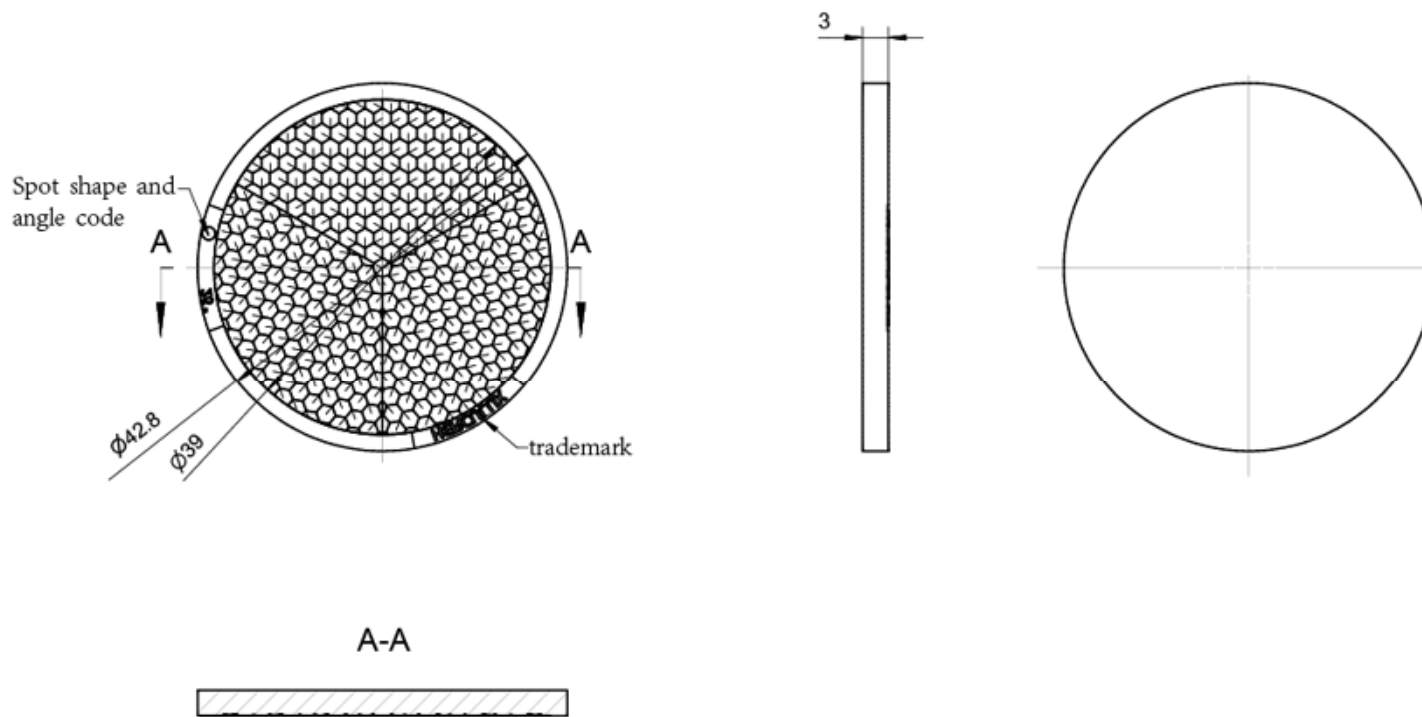
Optical Design		Elliptical spot Lens (10° X25°)	HK-43@04-10X25-XPE_35-01-1g-1		1.01.7961
Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
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3. The uncharted dimensional tolerance subiect to the 3D drawing.

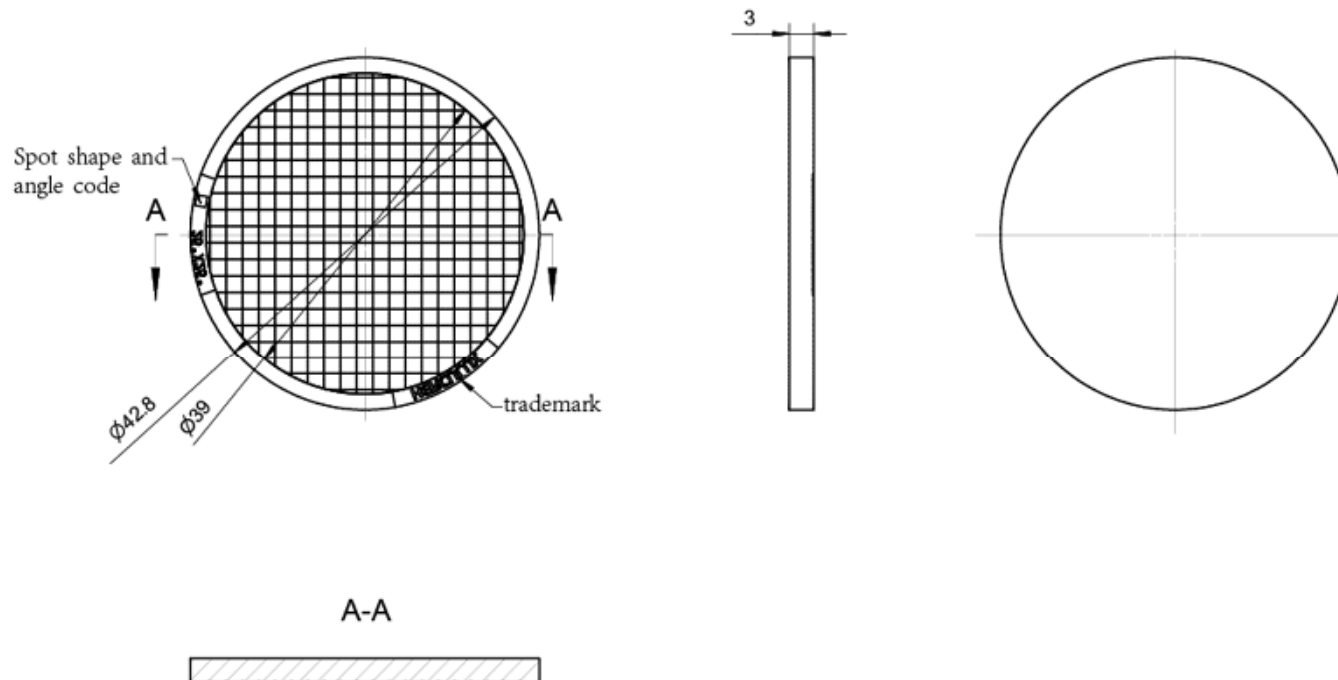
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Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

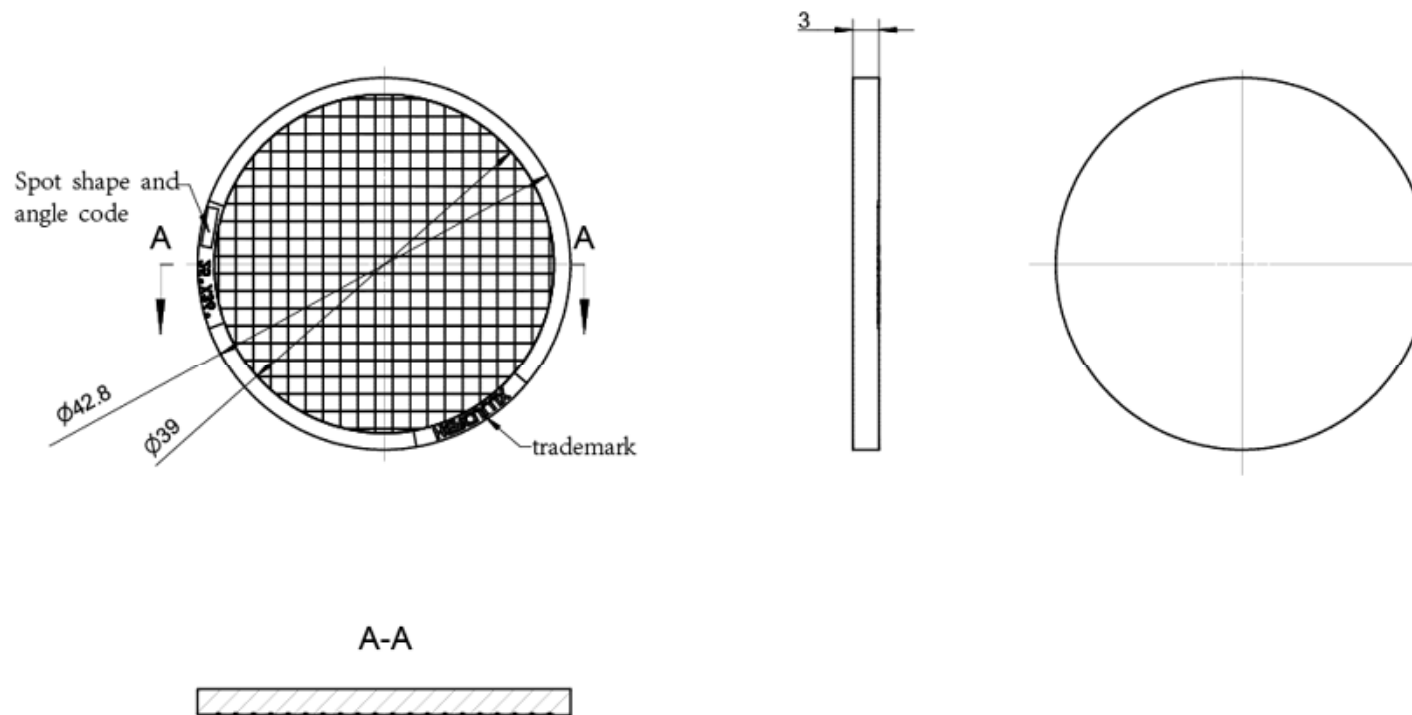
Optical Design		Circular spot Lens (25°)	HK-43@04-25-XPE_35-01-1g-1		1.01.7963
Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

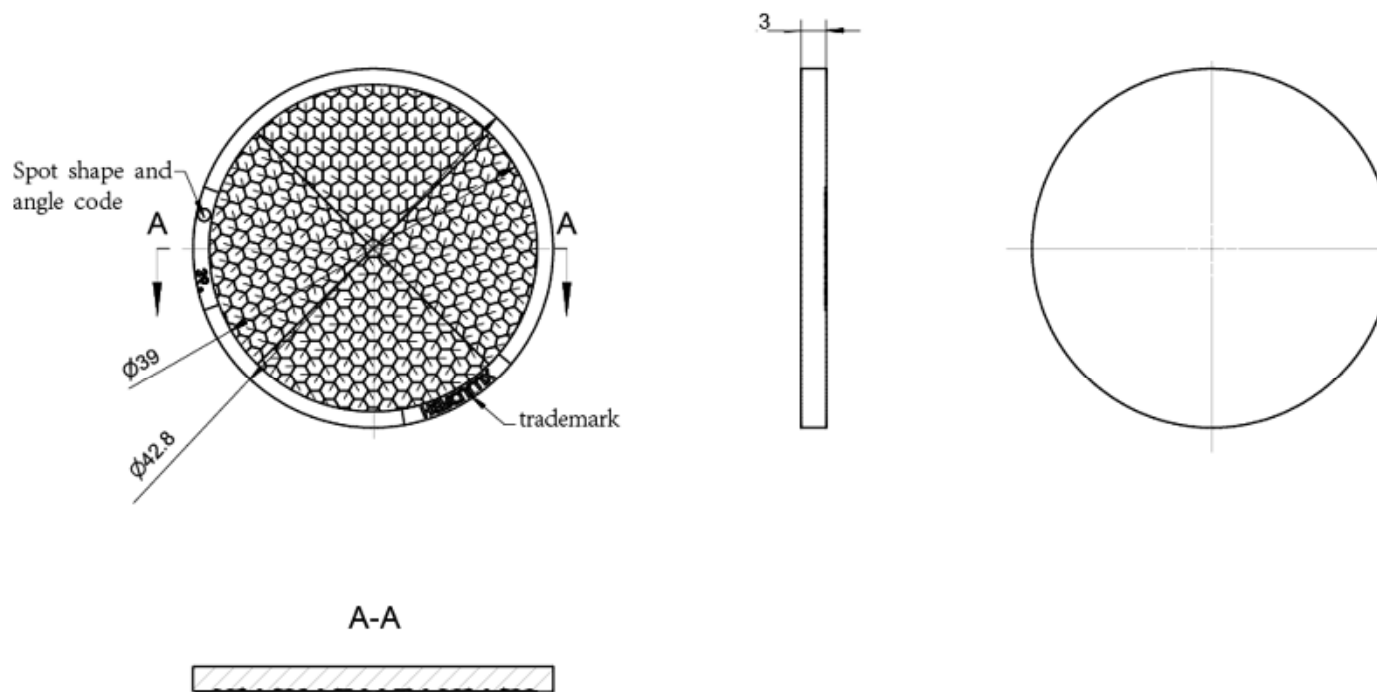
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Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subiect to the 3D drawing.
3. The uncharted dimensional tolerance subiect to the 3D drawing.

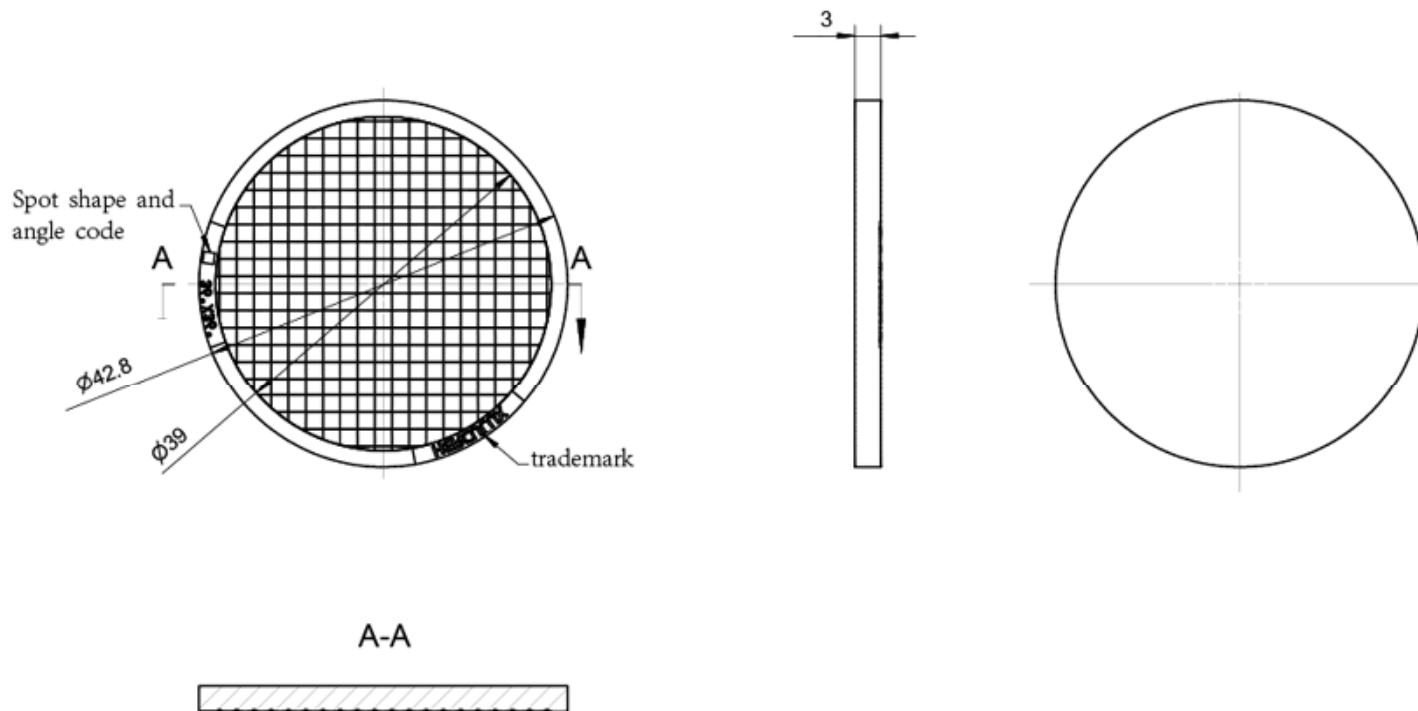
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Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



Technical Requirement:

1. The surface don't have any defects of flash, shrink and bubble.
2. The uncharted fillet and pattern draft subject to the 3D drawing.
3. The uncharted dimensional tolerance subject to the 3D drawing.

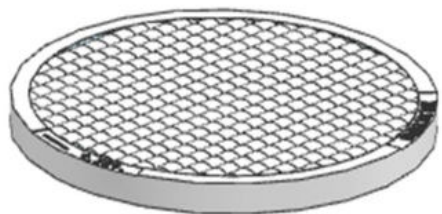
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Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	



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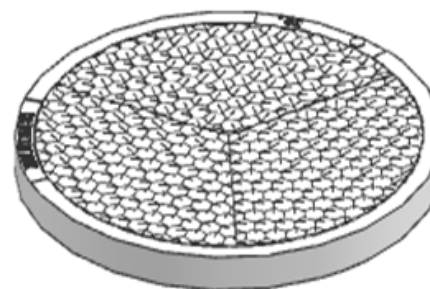
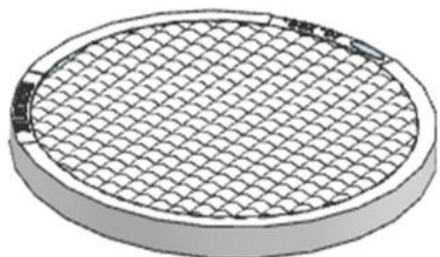
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Structure Design			Pages	Qty	Weight
Assess			1		
Authorized		Material	PC	CDHK	

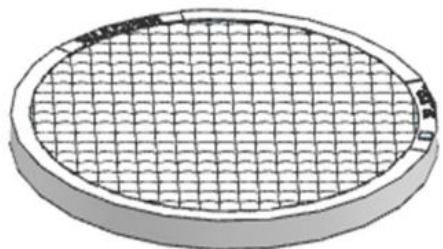


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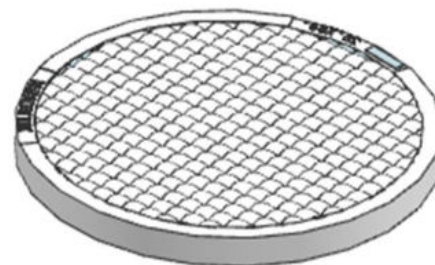


1. 01. 7961

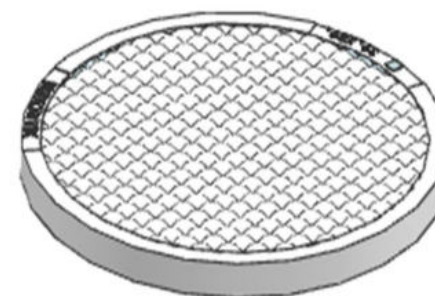
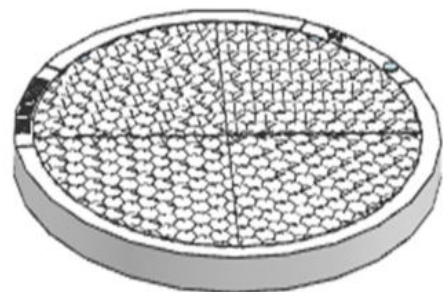


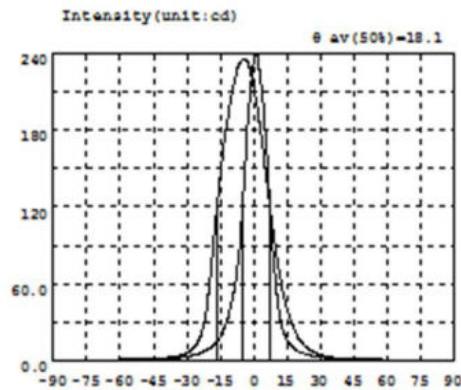
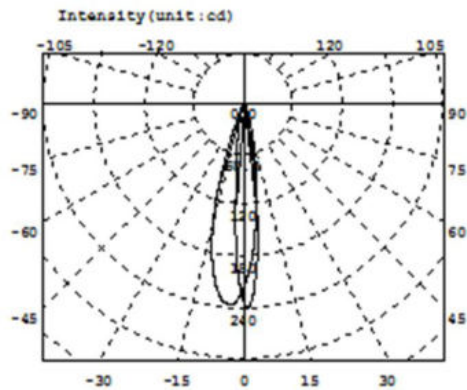


1. 01. 7964



1. 01. 7965





Intensity data:(deg , cd) C0-180

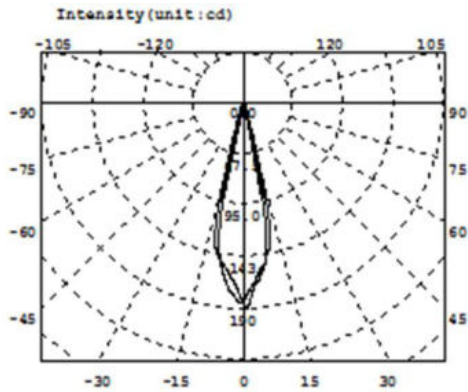
A	I	A	I	A	I	A	I	A	I	A	I
-90.0	0.4713	-58.5	1.328	-27.0	10.41	4.5	160.5	36.0	2.966	67.5	0.9226
-88.5	0.4716	-57.0	1.367	-25.5	13.57	6.0	138.1	37.5	2.744	69.0	0.8943
-87.0	0.5099	-55.5	1.422	-24.0	18.76	7.5	117.4	39.0	2.528	70.5	0.8432
-85.5	0.5608	-54.0	1.522	-22.5	28.02	9.0	97.51	40.5	2.340	72.0	0.8153
-84.0	0.5987	-52.5	1.667	-21.0	43.46	10.5	79.90	42.0	2.208	73.5	0.7539
-82.5	0.6365	-51.0	1.923	-19.5	65.38	12.0	64.17	43.5	2.033	75.0	0.7411
-81.0	0.6630	-49.5	2.002	-18.0	92.96	13.5	51.00	45.0	1.897	76.5	0.7027
-79.5	0.6765	-48.0	1.973	-16.5	119.6	15.0	40.96	46.5	1.791	78.0	0.6731
-78.0	0.7037	-46.5	1.977	-15.0	144.2	16.5	32.71	48.0	1.698	79.5	0.6389
-76.5	0.7516	-45.0	2.062	-13.5	165.8	18.0	26.11	49.5	1.629	81.0	0.5860
-75.0	0.7908	-43.5	2.221	-12.0	184.9	19.5	20.41	51.0	1.587	82.5	0.5605
-73.5	0.8174	-42.0	2.394	-10.5	201.0	21.0	15.96	52.5	1.548	84.0	0.5128
-72.0	0.8558	-40.5	2.604	-9.0	214.7	22.5	12.70	54.0	1.462	85.5	0.4983
-70.5	0.9184	-39.0	2.812	-7.5	225.9	24.0	10.44	55.5	1.386	87.0	0.4586
-69.0	0.9454	-37.5	3.087	-6.0	232.6	25.5	8.667	57.0	1.293	88.5	0.4358
-67.5	0.9852	-36.0	3.451	-4.5	234.8	27.0	7.234	58.5	1.210	90.0	0.4943
-66.0	1.036	-34.5	3.934	-3.0	233.4	28.5	6.139	60.0	1.127		
-64.5	1.100	-33.0	4.565	-1.5	225.6	30.0	5.191	61.5	1.073		
-63.0	1.184	-31.5	5.429	0.0	213.1	31.5	4.349	63.0	1.037		
-61.5	1.222	-30.0	6.564	1.5	198.2	33.0	3.734	64.5	0.9895		
-60.0	1.275	-28.5	8.182	3.0	180.7	34.5	3.250	66.0	0.9510		

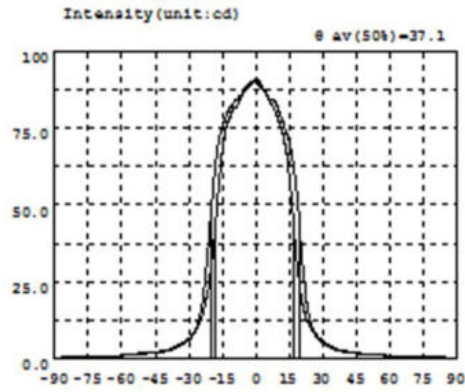
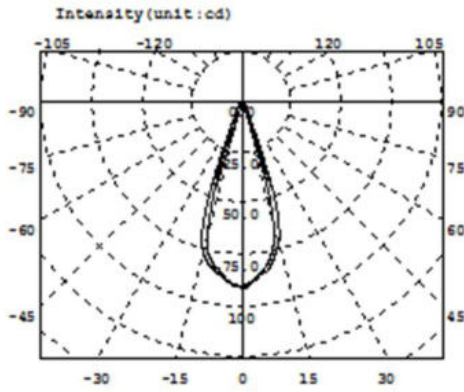
Electricity Parameter:

Current I: 0.1000A Power: 0.2890W
Voltage V: 2.900V PF: 0.000

Optical Parameter (Distance=2.559m) :

Equivalent Luminous flux: Φ_{eff} = 40.41lm Efficiency: Eff=139.83lm/W
Diffuse angle: @ (25%) : 25.3deg @ (50%) : 18.1deg @ (75%) : 12.1deg @ (50%) : 18.1deg
Diffuse angle: @ (25%) : 26.0deg @ (50%) : 19.0deg @ (75%) : 13.4deg @ (50%) : 19.0deg
Imax=238.9cd (C=90.0deg,G=1.0deg) C0-180Plane Imax= 234.8cd(G=-4.0deg)
C0-180Plane I0= 213.1cd





Intensity data: (deg , cd) CO-180

A	I	A	I	A	I	A	I	A	I	A	I
-90.0	0.4713	-58.5	1.386	-27.0	9.475	4.5	86.22	36.0	3.258	67.5	0.9454
-88.5	0.4715	-57.0	1.430	-25.5	12.57	6.0	83.93	37.5	2.907	69.0	0.9096
-87.0	0.4850	-55.5	1.507	-24.0	17.84	7.5	82.16	39.0	2.655	70.5	0.8482
-85.5	0.5350	-54.0	1.571	-22.5	26.76	9.0	80.00	40.5	2.501	72.0	0.7994
-84.0	0.5609	-52.5	1.790	-21.0	39.22	10.5	76.98	42.0	2.293	73.5	0.7875
-82.5	0.5615	-51.0	2.277	-19.5	52.24	12.0	73.14	43.5	2.144	75.0	0.7388
-81.0	0.6242	-49.5	2.206	-18.0	63.49	13.5	68.05	45.0	2.025	76.5	0.6921
-79.5	0.6745	-48.0	2.085	-16.5	71.15	15.0	59.58	46.5	1.871	78.0	0.6752
-78.0	0.7014	-46.5	1.980	-15.0	75.47	16.5	47.70	48.0	1.740	79.5	0.6389
-76.5	0.7406	-45.0	2.079	-13.5	78.19	18.0	34.74	49.5	1.638	81.0	0.5678
-75.0	0.7771	-43.5	2.206	-12.0	80.83	19.5	24.45	51.0	1.532	82.5	0.5495
-73.5	0.8046	-42.0	2.359	-10.5	82.63	21.0	17.54	52.5	1.454	84.0	0.5223
-72.0	0.8523	-40.5	2.573	-9.0	83.79	22.5	13.38	54.0	1.392	85.5	0.5096
-70.5	0.8802	-39.0	2.844	-7.5	84.98	24.0	10.87	55.5	1.331	87.0	0.4586
-69.0	0.9313	-37.5	3.275	-6.0	85.92	25.5	9.226	57.0	1.271	88.5	0.4459
-67.5	0.9823	-36.0	3.706	-4.5	87.36	27.0	7.890	58.5	1.248	90.0	0.3859
-66.0	1.009	-34.5	4.213	-3.0	89.14	28.5	6.748	60.0	1.171		
-64.5	1.060	-33.0	4.740	-1.5	90.17	30.0	5.826	61.5	1.111		
-63.0	1.098	-31.5	5.535	0.0	89.56	31.5	4.945	63.0	1.082		
-61.5	1.155	-30.0	6.321	1.5	88.87	33.0	4.289	64.5	1.028		
-60.0	1.277	-28.5	7.587	3.0	87.67	34.5	3.774	66.0	1.009		

Electricity Parameter:

Current I: 0.1000A Power: 0.2890W
Voltage V: 2.900V PF: 0.000

Optical Parameter (Distance=2.559m) :

Equivalent Luminous flux: Φ_{eff} = 39.67lm Efficiency: Eff=137.27lm/W
Diffuse angle: @ (25%): 43.1deg @ (50%): 37.1deg @ (75%): 30.7deg @ (50%): 37.1deg
Diffuse angle: @ (25%): 43.1deg @ (50%): 37.1deg @ (75%): 30.8deg @ (50%): 37.1deg
Imax=90.69cd (C=90.0deg,G=0.5deg) CO-180Plane Imax= 90.17cd(G=-1.5deg)
CO-180Plane IO= 89.56cd

1.Size		Standard size	Upper Size limit	Lower size limit	7960	7962	7963	7964	7965	7966	7967	Judge
	diameter	42.8	42.95	42.65	42.79	42.9	42.9	42.8	42.8	42.9	42.9	
	thickness	3	3.1	2.9	3.02	3.06	3.01	3.04	2.97	2.99	3.03	
Gate shear can not affect the appearance of the lamp												
See attachment "Appearance Inspection Standards"												

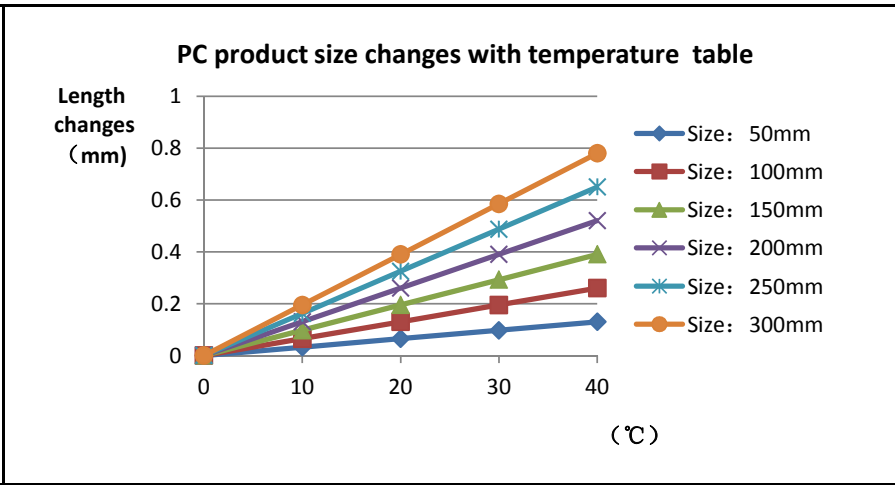
2.Appearance Quality	See attachment "Appearance Inspection Standards"	E	No burr	No burr	No burr	No burr	OK
			No stains	No stains	No stains	No stains	

3.Material	PC		Color	Transparent	OK
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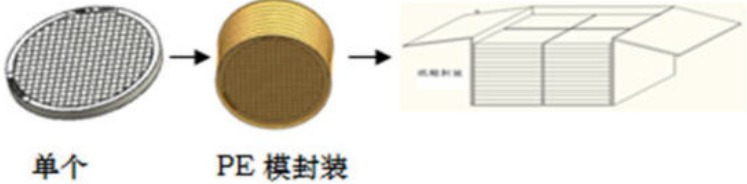
4.Optical index	Testing LED	CREE XPE_35									
	FWHM	See light distribution curve									
		angle	angle	transmittance	Judge		angle	angle	transmittance	Judge	
	17960	36±3° X4±1°	34.8° X3.8°	96.00%		17961	25±2° X10±2°	24.9° X10.9°	96.00%		
	17962	36±3° X10±2°	35.3° X12.1°	96.30%		17963	25±2°	24.6°	96.20%		
	17964	25X25±2°	25.6° X25.5°	96.10%		17965	25±2° X36±3°	24.8° X35.7°	96.40%		
	17966	36±3°	35.4°	96.30%		17967	36X36±3°	37° X37.2°	96.10%		
Facula	See the signature sample										

Comprehensive judgment	Qualified				
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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、 Test environment: In 20 °C -25 °C environment to achieve thermal equilibrium after the test. (Ambient temperature on the size of the product refer to the table on the right)

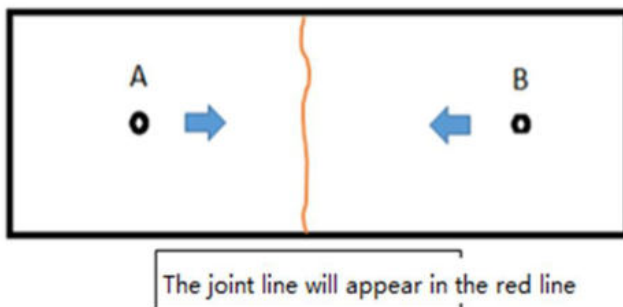
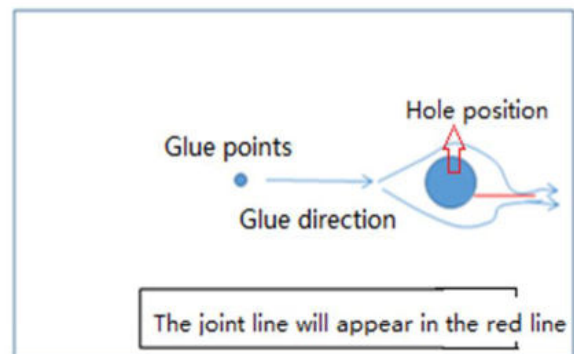
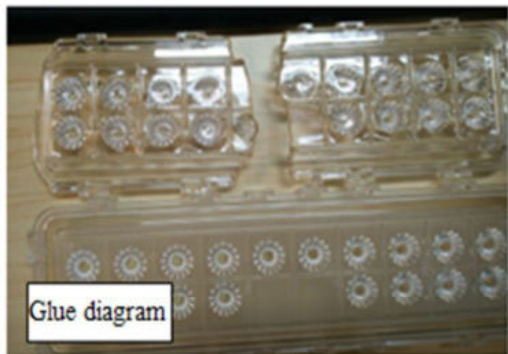
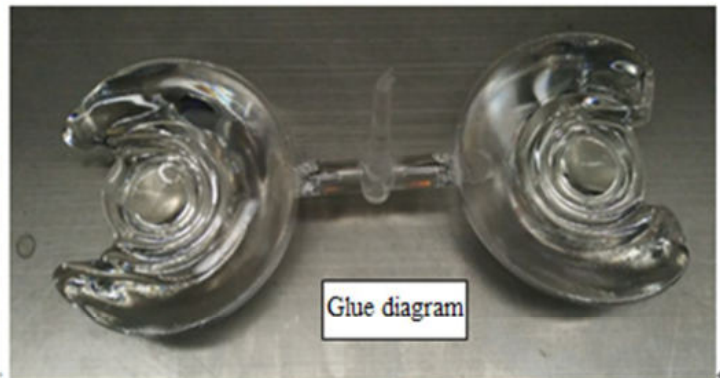


Precautions:
 1、 Wear clean gloves during lens assembly to prevent contamination of the lens surface.
 2、 Take the lens try to avoid touching the total reflection surface.
 3、 When the lens surface contamination, you can only gently wipe with soft cotton sticky neat neutral solvent, not allowed to wipe with industrial solvents.

PN	HK-43@04-4X36-XPE_35-01-1g-1		Product Name	Linear Lens (4°X36°)			
Product material	PC		Customer				
Package diagram	 <p style="text-align: center;"> 单个 PE 模封装 </p>						
Product packing	8	The number of	48	One layer number			
	384	Floor/Carton					
Packaging Materials	NO.	Part No	Part name	Size	Dosage	Unit	Remarks
	1	2.08.0001	PE film	30cm*30cm	384	BAG	
	2	2.06.0005	Reel label paper	6.2cm*8cm	384	PCS	
	3	2.06.0005	Box label paper	6.2cm*9.2cm	1	PCS	
	4	2.06.0007	Middle plate	39*29cm	9	PCS	
	5	2.06.00012	Middle carton	40*30*26cm	1	PCS	
Remarks	Scattered packaging is not subject to this specification						

Special notice

When glue 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:



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

1.1.1 Sampling standards, sampling plan and AQL

Test level : GB/T2828.1-2012 The first part is according to the acceptance quality limit (AQL) retrieval batch inspection sampling plan, general inspection level II 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	H		Depth	mm
W	Width	mm	DS		Distance	mm
S	Proportion	mm ²	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, chip should be from the lens surface 500-550mm, in order to make the bad appearance can be correctly found, the illumination should not be less than 500Lux ;

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	Judging standard	Inspection equipment	Defect level		
		Testing method	MI	MA	CR
Check the sample	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.	Sample comparison , visual			
	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;				

	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 things, impurities	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.	Visual, point card		√	
	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.				
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;	Visual		√	
	2: The remaining flow marks shall not appear in the optical surface, a single L ≤ 10mm, no more than two				

Bubble	No bubbles are allowed	Visual		√	
Foreign matter、Dark spots	Not obvious or $D \leq 0.3\text{mm}$ 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	√		
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	√		
Bad incision	1: Do not affect the product size, shall not penetrate the optical surface, the cut should be smooth;	Visual			√
	2: Laser cutting products, the optical surface burns shall not occur after the processing is completed. Beading must not affect product installation				
	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 $D \leq 1\text{ mm}$ and no more than 1 area within a 50x50 mm area	Visual		√	