

OCULAR SURFACE ANALYZER

DA-1 Standard/Expert
DA-3 Standard/Expert



AUTOMATIC QUANTITATIVE ANALYSIS
ACCURATE DIAGNOSIS

Technical parameter

Dry eye part	DA-1 Standard DA-1 Deluxe	DA-3 Standard	DA-3 Deluxe
T M H	Manual / Auto		
NIBUT	Auto		
Static lipid layer analysis	Manual / Auto		
Dynamic lipid layer analysis	Manual simple video comparison		video auto progression analysis (10nm)
Incomplete blink analysis	/		√
Ocular Redness Analysis	Manual / Auto		
Gland Opening	Manual		
Meibomian glands	Manual / Auto		
Corneal Staining	Manual / Auto		
Eye position recognition	Auto		
Questionnaire	3 types		
Report	Comprehensive/single item		
Slit Lamp part	DA-1 Standard	DA-1 Deluxe	
Optical effect	Excellent optical effect	Extrme optical effect	
Collector	SLR camera		
Spot Size	φ0.2, φ1, φ2, φ5, φ10, φ14		
Color filter	Heat absorbing,Grey filter , Red-free filter , Cobalt blue filter, Yellow filter		
Light source	Imported warm LED		
Joystick operation	Flexible slider design		
Aperture	5-gear front aperture		

Comprehensive and professional dry eye examination and diagnosis program

Almighty

Professional dry eye examination equipment, comprehensive function, to meet the needs of clinical research

Automatic

Full-automatic AI software+ Quantification of testing standards
easier diagnosis by doctors

Advanced

Professional-grade image acquisition system
Advanced AI algorithm combined with image comparison
World-class optical system

Report

The test report with pictures and describe , report clearly and in detail

Non-invasive

Pure infrared shooting
Reduce data interference

High Efficiency

Quickly complete the test and print the report to improve the efficiency of clinical testing

DA-1 Standard

- Ocular Surface Analyzer+Digital Slit Lamp
- Multi-function
- 7 items of dry eye detections to provide reliable basis for clinical diagnosis
- Better optics of slit lamp

LS-9D Digital Slit Lamp •

DA-1 Expert

- Digital slit lamp equipped with professional dry eye module
- Multi-function
- Excellent optics of slit lamp
- User friendly
- Simple operation and obtain professional images

LS-7DS Digital Slit Lamp •

DA-3 Standard/Expert

- Professional dry eye exam and analysis equipment
- Compact size, more convenient operation
- Create the most professional dry eye clinic for you immediately
- Professional CCD collector
- clear observation of acinar and gland openings
- Greater depth of field, uniform and clear photos



Automatic quantitative analysis Accurate diagnosis

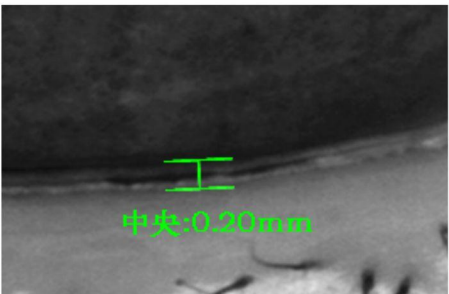
TMH

AI auto identification, auto measurement

Eliminate the tedious manual measurement process,
and the results are more accurate

Support manual measurement

Infrared/Visible light



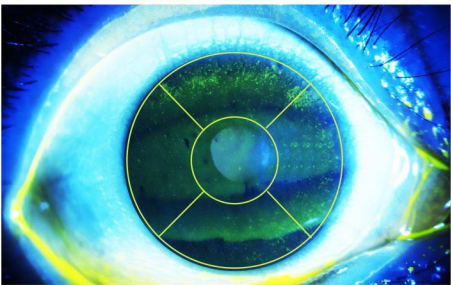
Corneal Staining Analysis

Professional yellow filter

Professional yellow filter with obvious fluorescence effect

Auto quantitative analysis

Support manual grading



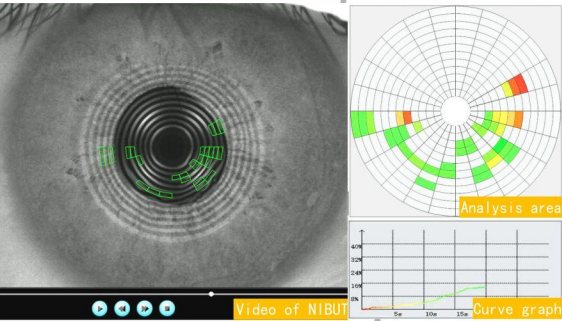
NIBUT

AI auto quantitative analysis

Using advanced AI algorithms to analyze
the shape of the Placido ring
Accurate analysis results,excellent repeatability

All-around

Provide first and average break time,Tear film break graph,
and curve graph to intuitive display tear film break
in an all-round



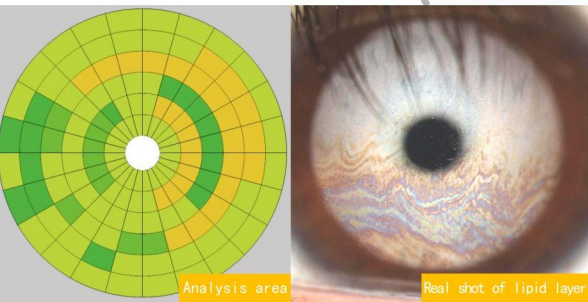
Lipid Layer Analysis

White ring design

Using white ring projection,can completely present the
true color and shape of the lipid layer

AI auto quantitative analysis

Lipid layer thickness measurement can be accurate to 10nm



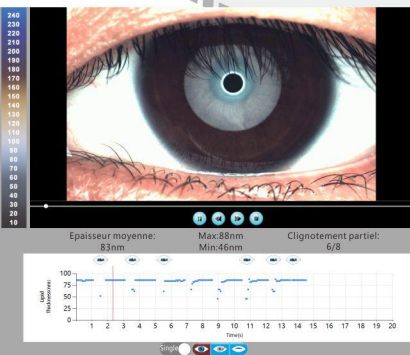
Lipid layer analyse

Incomplete blink analysis

provides multiple blinks of lipid layer flow data and provides graphs
Comprehensive and objective assessment of lipid layer status

Dynamic recording blinking process

Auto detection blinking completeness



Meibomian Gland Imaging Analysis

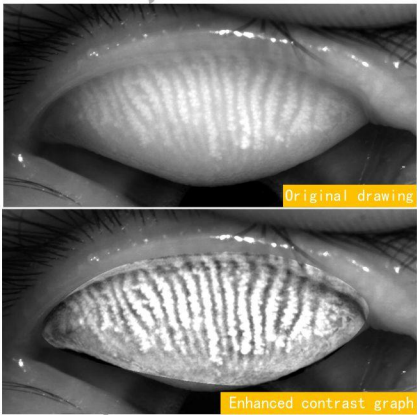
HD image

Professional infrared imaging can clearly observe the
morphology of the meibomian acini

AI auto quantitative analysis

Support auto identification, strengthen the contrast of glands

Support manual grading



Gland Opening

HD image

Can clearly obtain the overall shape of the eyelid margin Image
with subtle changes in gland openings



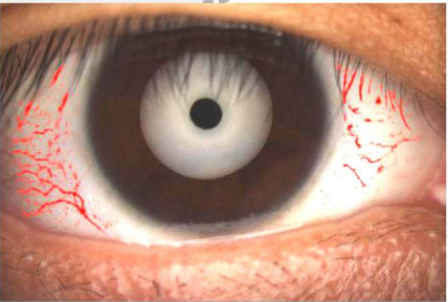
Ocular Redness Analysis

Auto quantitative analysis

Quantitative analysis and provide score of conjunctiva and ciliary

Provide enhancement graph and contrast graph

Support manual grading



Dry eye inspection report

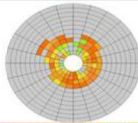
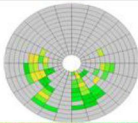
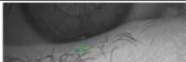
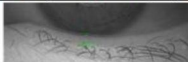
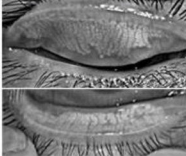
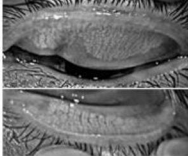
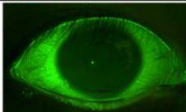
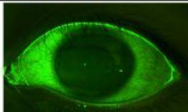
Rich in content 7 items of dry eye examination data are fully displayed on one report

Be clear at a glance Sufficient image and data combination, clear and detailed display of inspection results

Multiple templates

Questionnaire

Internationally common

Comprehensive Report					
ID:	20220705108004		Name:	Stacy Li	
Gender:	Female	Age:	36	Vision R:	L:
	OD	OS	OD	OS	
N I B U T			First:1.60s Average :4.82s	First:7.20s Average :15.06s	
	Normal: first<10s, average<14s; Critical: first>6~9s, average>7~13s; Dry eye: first<5s , average<7s				
T M H			Central:0.11mm	Central:0.18mm	
	[Infrared light] Normal: >0.2mm, Mild: <0.2mm, Moderate: <0.1mm, Serious: unmeasurable [Visible light] Normal: >0.35mm, Decreased tear secretion: <0.35mm				
L L A			Avg:30~80nm High:~80nm Low:<30nm	Avg:30~80nm High:~80nm Low:30~80nm	
	Reference 120~160nm 80~120nm >80nm 30~80nm <30nm <30nm				
R E			Nasal:0.5 Bitemporal:0.6	Nasal:0.6 Bitemporal:0.6	
	Red eyes Grade Index: 0: No hyperemia; >0-1: Mild; >1-2: Moderate; >2-3: Severe; >3: Serious				
G L A N D			Score:0.0	Score:0.0	
	Reference: 0-Normal; 1-Covered with capping; 2-Pouting or Obliteration; 3-Serious plugging or Gland opening atrophied.				
M E I B O			Def Rate:43% Score:1.2	Def Rate:39% Score:1.1	
	Def Rate:19% Score:0.5				
	Def Rate:22% Score:0.6				
	Score: 0-No deficiency; 1-Deficiency<33%; 2-Deficiency34%-66%; 3-Deficiency>67%. If percentage rate is higher, deficiency will be more obvious				
C S			Degree:0.0 Range:0.0	Degree:0.0 Range:0.0	
	Degree:0-no staining;1-Tiny Punctate staining;2-Thick epithelium loss;3-corneal epithelial erosion;4-Flake diffuse staining. Range:0-no loss;1- involved 1 quadrant;2-involved 2 quadrants;3-involved 3 quadrants;4-involved central of the cornea.				
Date: 2022-07-05 Doctor:					

Report of Partial Blinks					
Id:	20080705100004	Name:	Slacy JJ		
Gender:	Female	Age:	36	Victim No.:	L1
OD					
					
					

ID: 20220705108004 Name: Stacy Li

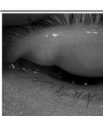
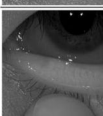
Gender: Female Age: 36

Vision R: L:

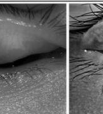
Analysis

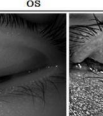
OD



OS






ID: 20220705108004 Gender: Female



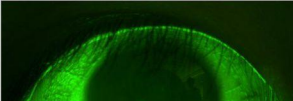
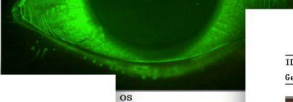

Score: 0-No deficiency; 1-Deficiency<33%; 2-Deficiency34%-66%; 3-Deficiency>66%



Eye	Score
1	0
2	0
3	0
4	0
5	0

Date: 2022-07-05

Doctor:

Corneal Staining Report			
ID#	20220705108004	Name#	Stacy LI
Gender#	Female	Age#	36
		Vision R#	L#
		OD	Analysis
			
		Degree:0.0 Range:0.0	
		OS	
			
		Vision R# L# Analysis	
			
		Def Rate:43% Score:1.2	
		OD	
			
		Score:0.0	

Report of LLT(dynamic)

ID: 20220705108004

Name: Stacy Li

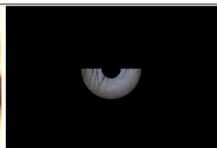
Gender: Female

Age: 36

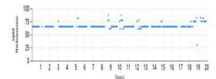
Vision R:

L:

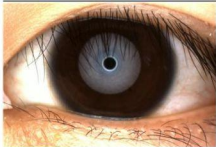
OD

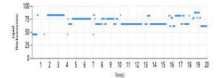
67mm	High: 88mm	11/11
Average	Low: 30mm	Part-Blinks



OS

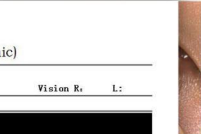



72mm	High: 88mm	2/7
Average	Low: 46mm	Part-Blinks



Date: 2022-07-05

Doctor:

Gland Opening Report			
ID:	20220705108004	Name:	Stacy LJ
Gender:	Female	Age:	36
OD		Vision R: L:	
			
Score: 0.0		Score: 0.0	
			
Score: 0.0		Score: 0.0	

(dynamic)

Vision R: L:

or Obstruction, >Severe plugging or Gland opening atrophy.

1. Symptoms		At this visit	Within past 72 hours	Within past 3 months			
		Yes	No	Yes	No	Yes	No
Dryness, Grittiness or Scratchiness	☐						
Corrosion or Irritation	☐						
Burning or Watery	☐						
Eye Fatigue	☐						
2. FREQUENCY of your symptoms		Constant					
Dryness, Grittiness or Scratchiness	☐	☐					
Corrosion or Irritation	☐	☐					
Burning or Watery	☐	☐					
Eye Fatigue	☐	☐					
3. SEVERITY of your symptoms		Intolerable, cannot live normally					
Dryness, Grittiness or Scratchiness	☐	☐					
Corrosion or Irritation	☐	☐					
Burning or Watery	☐	☐					
Eye Fatigue	☐	☐					
Have you experienced any of the following during the last week?				All of the time	Most of the time		
1. Eyes are sensitive to light?				☐	☐		
2. Eyes that feel gritty?				☐	☐		
3. Painful or sore eyes?				☐	☐		
4. Blurred vision?				☐	☐		
5. Poor vision?				☐	☐		
				Subtotal score for area			
Have problems with your eyes limited you in performing any of the following during the last week?				All of the time	Most of the time		
6. See above				☐	☐		

Have you experienced any of the following during the last week?	All of the time	Most of the time	Half of the time	Some of the time	None of the time
1. Eyes are sensitive to light?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
2. Eyes that feel gritty?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
3. Painful or sore eyes?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
4. Blurred vision?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
5. Poor vision?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
Subtotal score for answers 1 to 5:					
Have problems with your eyes limited you in performing any of the following during the last week?	All of the time	Most of the time	Half of the time	Some of the time	None of the time
6. Reading?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
7. Driving at night?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
8. Working with a computer or bank machine (ATM)?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
9. Watching TV?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
Subtotal score for answers 6 to 9:					
Have your eyes felt uncomfortable in any of the following situations during the last week?	All of the time	Most of the time	Half of the time	Some of the time	None of the time
10. Windy conditions?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
11. Places or areas with low humidity/dry?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
12. Areas that are air conditioned?	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
Subtotal score for answers 10 to 12:		Total score:		OSDI score:	