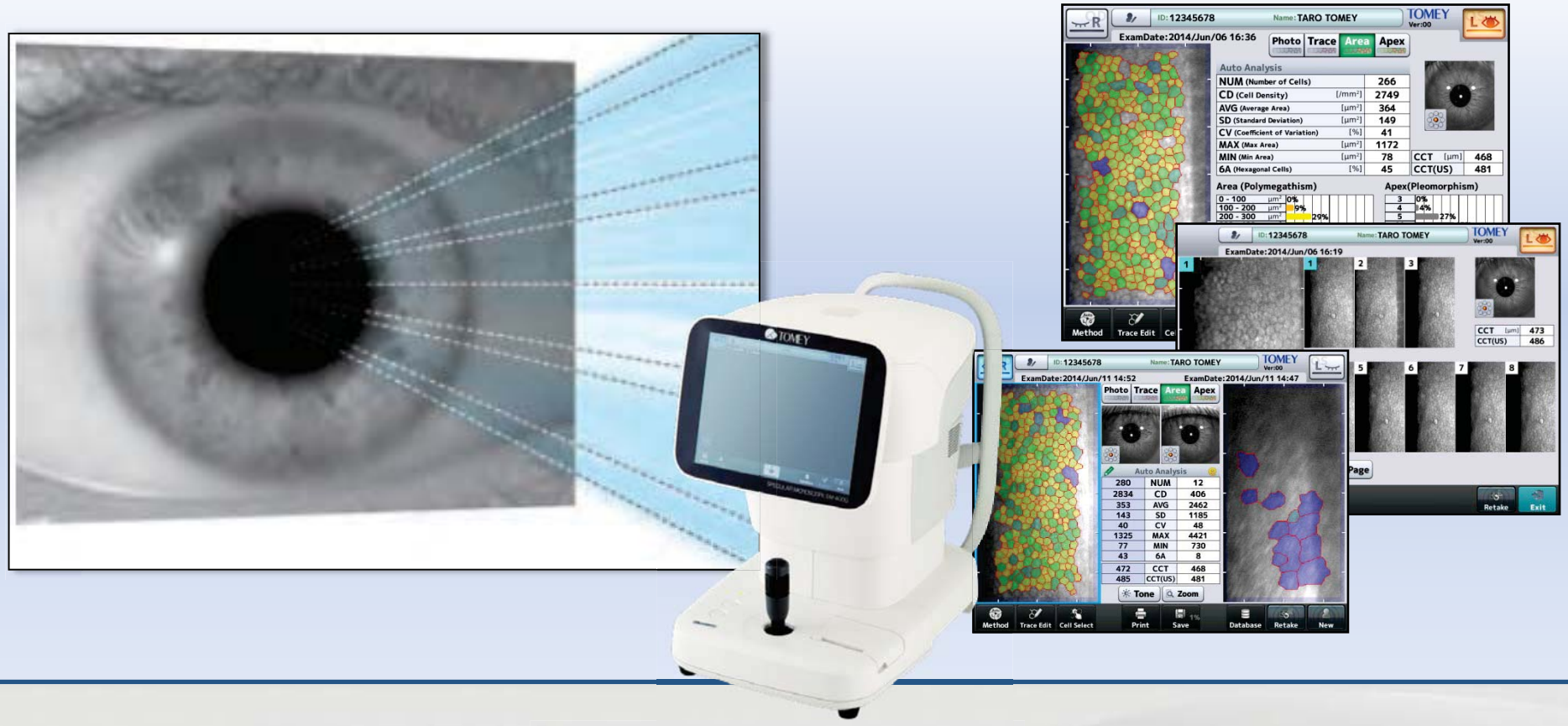
NEW SPECULAR MICROSCOPE

EM-4000



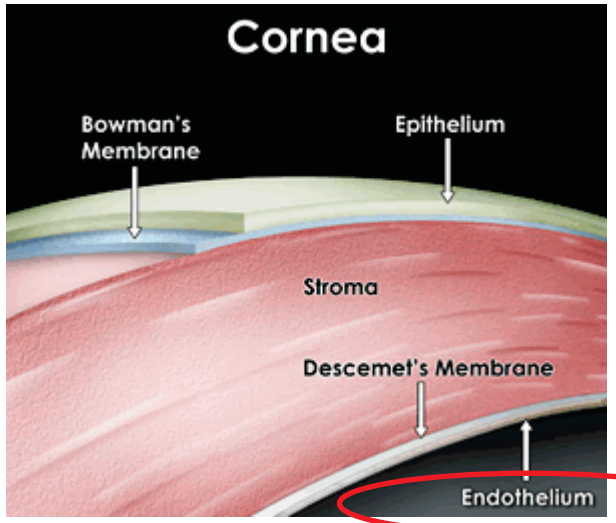
TOMEY

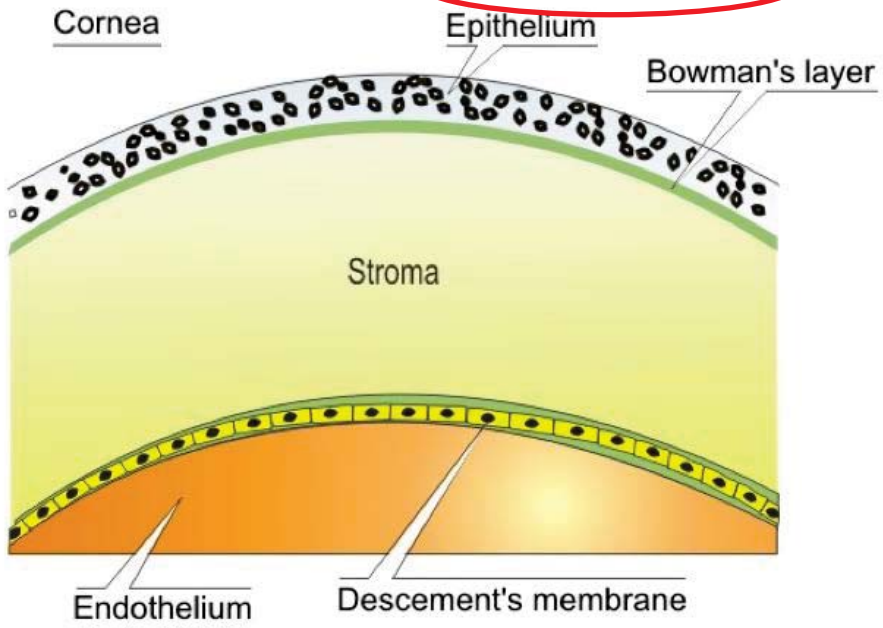
Why Endothelium Should Be Measured (1)

EM-4000

Endothelial Cell Density change by Aging

Age	CD (cells/mm2)
New born	3,000 - 4,000
10 - 19	2,900 - 3,500
20 - 29	2,600 - 3,400
30 - 39	2,400 - 3,200
40 - 49	2,300 - 3,100
50 - 59	2,100 - 2,900
60 - 69	2,000 - 2,800
70 - 79	1,800 - 2,600
80 - 89	1,500 - 2,300

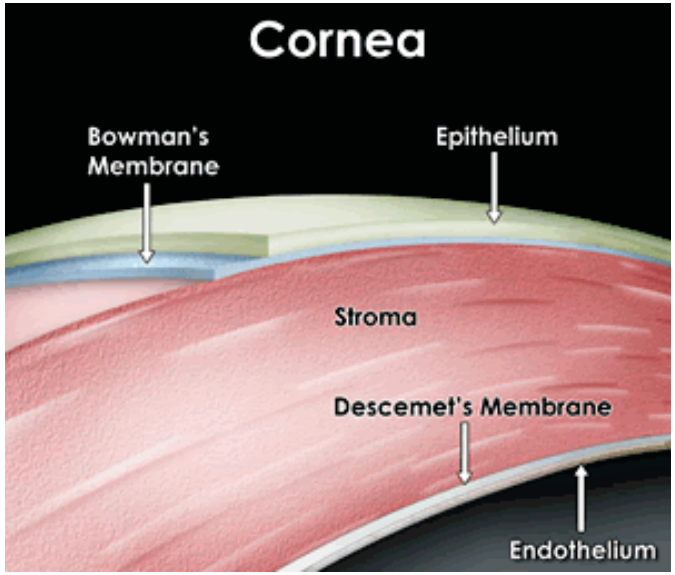


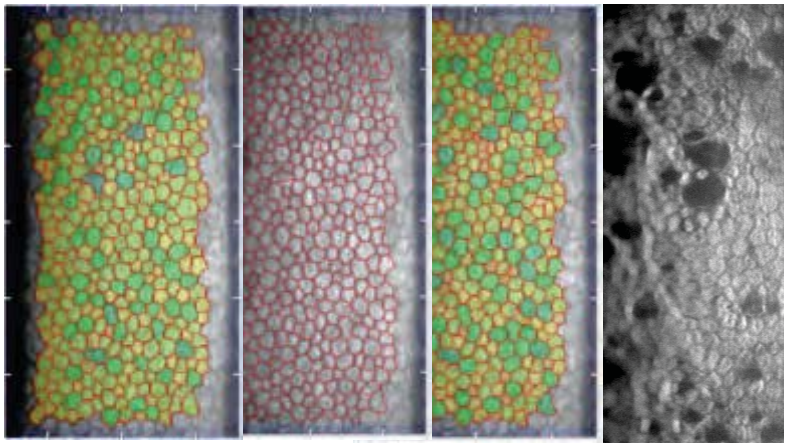


TOMEY TECHNOLOGY AND VISION

Why Endothelium Should Be Measured (2)

EM-4000





Various Clinical application

Pre-surgery:

- Keratorefractive surgery
- Cataract Surgery
- Phakic IOL surgery
- Contact Lens Fitting

Cornea disease:

- Physical forces
- Cornea guttata(Fuchs Dystrophia)
- Polymorphism

Post surgery:

- Keratoplasty
- IOL, Catarract surgery

New EM-4000 Features

EM-4000

1. Newly well-designed shape
2. TOMEY standardized screen menu
   w/ larger (10.4”) TFT touch screen
3. Para-central fixation lamp
   (Wider capturing)
4. Various analysis methods
   (TOMEY Center Method)
5. Built-in printer with auto-cutter
6. Internal database (SD card)
7. Easy operation and Fast analysis

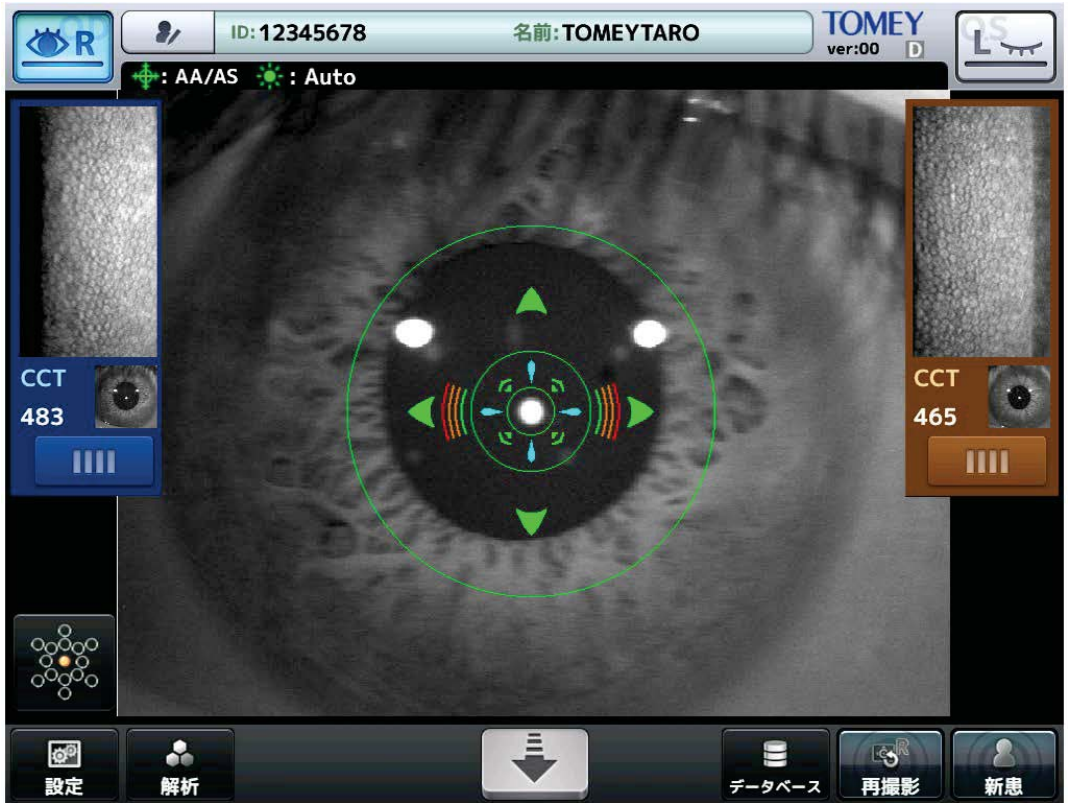
TOMEY SPECULAR Microscope
EM-4000

TOMEY Standardized screen with Full-auto operation

EM-4000

OA-2000

- **Operation with new GUI**
  - Same layout as OA-2000
  - 10.4 inch touch screen
  - Same designed buttons
- **Automatic measurement**
  - Touch screen controlled
  - Auto-aligment
  - Automatic light adjustment
  - Auto-shot



EM-4000 operation screen

TOMEY TECHNOLOGY AND VISION

Analysis Speed (Quick measurement)
EM-4000

EM-4000 measurement mode

1~2 SEC PER EYE!!

Analysis Speed

Company	EM-4000	EM-3000	T company	N company	C company
Auto Analysis	1-2 sec	8-10 sec	Checking	3-5 sec	Checking

TOMEY TECHNOLOGY AND VISION

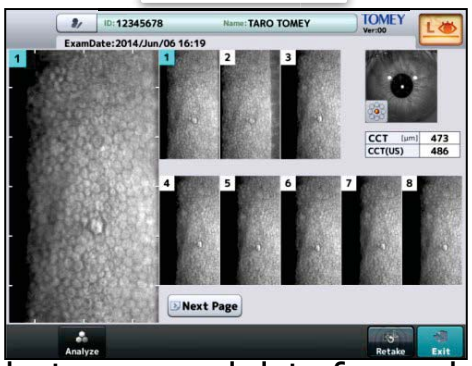
AUTO Trace/Analysis Method
EM-4000

QUICK & EASY
YET FULL ANALYZING CHOICE

STEP1

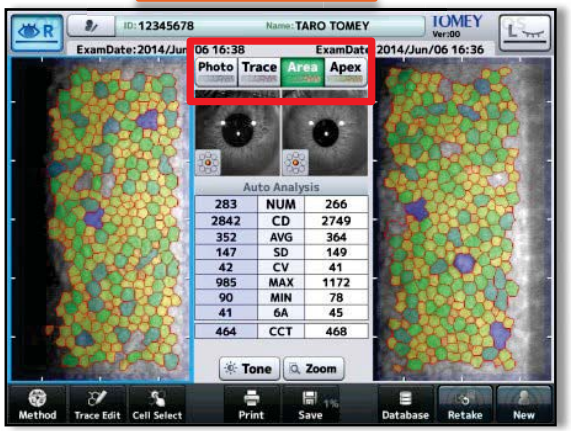
EM-4000 measurement mode

STEP2



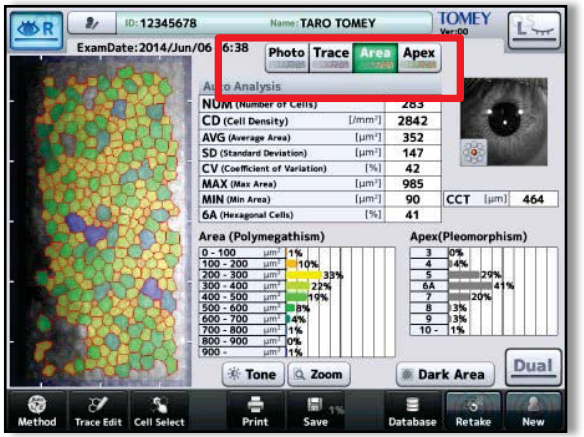
Select measured data for analysis

STEP3



Right/Left Eye mode

OR

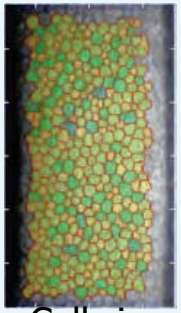


Single Eye mode

Analyzing modes of measured data

Measured data

(Auto) trace



Cell size

Cell shape

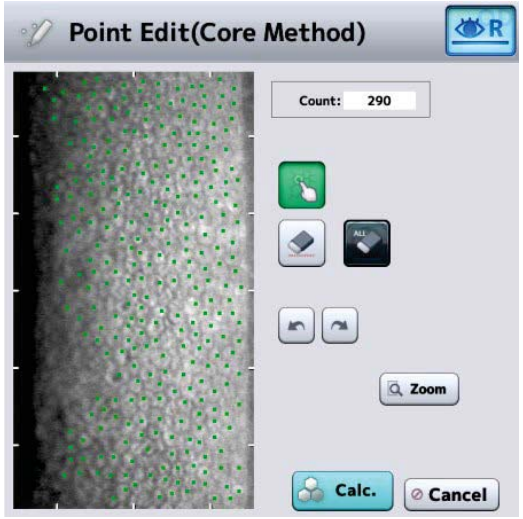
TOMEY
TECHNOLOGY AND VISION

NEW Analysis Method (Core method)
EM-4000

Analysis screen after Core Method

TOMEY Core Method

NEW additional analysis method, TOMEY Core method, is available by pointing a center of cell for the count.(similar to KONAN Center Method)



Core Method screen

Company	EM-4000	EM-3000	T company	N company	C company
Center Method	Available	NOT available	NOT available	Available	NOT available

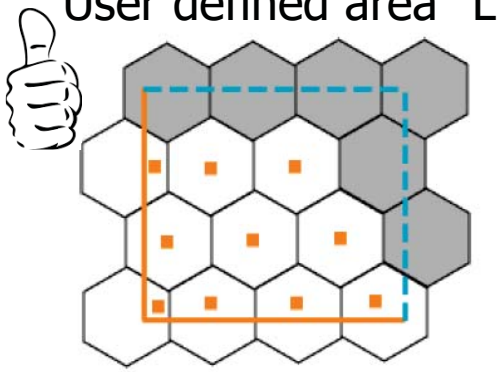
TOMEY TECHNOLOGY AND VISION

TOMEY L-cont Method (User' s specified area analyzation)

EM-4000

The cell in the L-shaped-range is counted for analyzation!

User defined area "L"

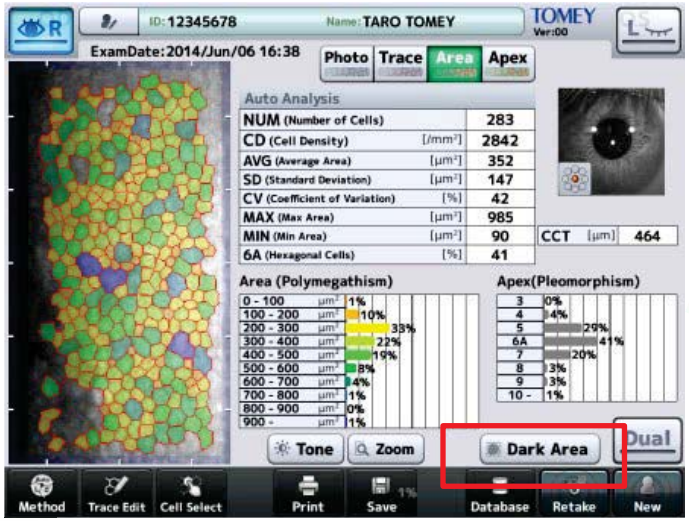


Company	EM-4000	EM-3000	T company	N company	C company
Center Method	YES	YES	NO	NO	NO

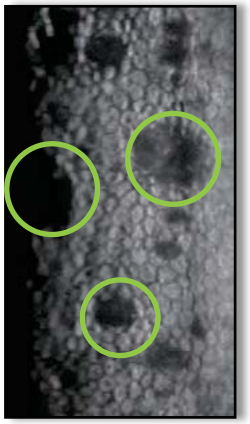
TOMEY TECHNOLOGY AND VISION

DARK area analysis mode
EM-4000

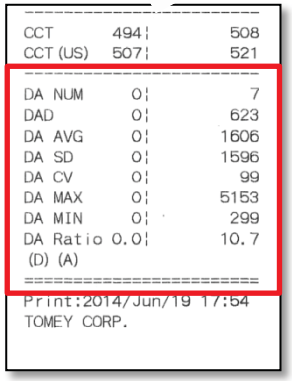
FURTHER ANALYSIS

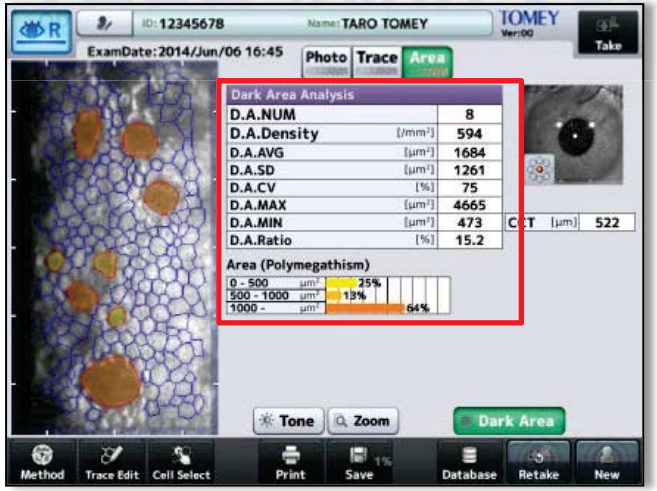


EM-4000 analysis screen



Dark area





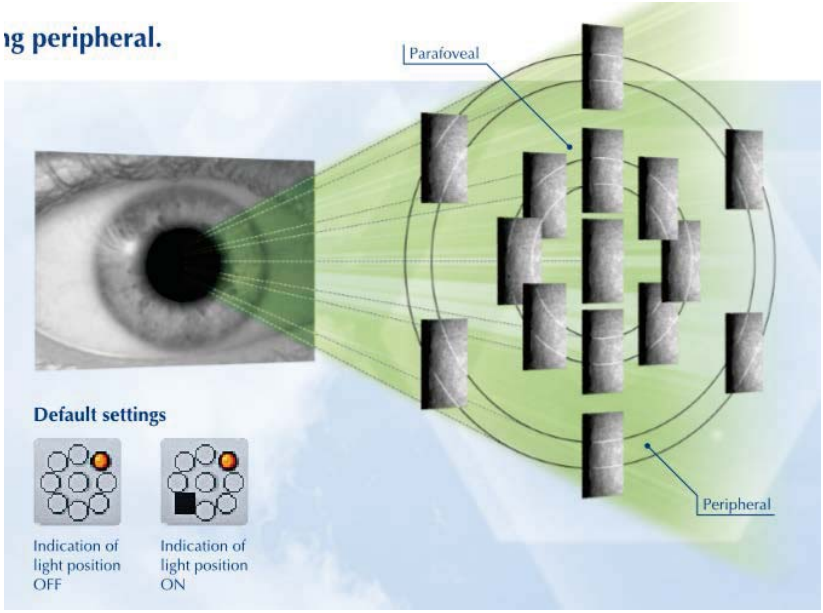
DARK Area analysis screen
with Dark area number, Density,
Dark area ratio and more at glance

With EM-4000 setting,
Dark area analysis can be added to
printed information.

Para-central & Near-central w/ Fixation light position

EM-4000

Measuring area 0.25 x 0.54mm is achieved with central points as well as 8 Near-central points & 6 Para-central points



Company	EM-4000	EM-3000	T Company	N Company	C Company
Para-Central	Available	NOT available	Available	Available	NOT available

TOMEY TECHNOLOGY AND VISION

Internal Data Base

EM-4000

With Internal data base on SD card,
About 16,000 patients in 32GByte for analysis can be stored.

Comparison check with pre & post surgery can be checked on EM-4000 unit.

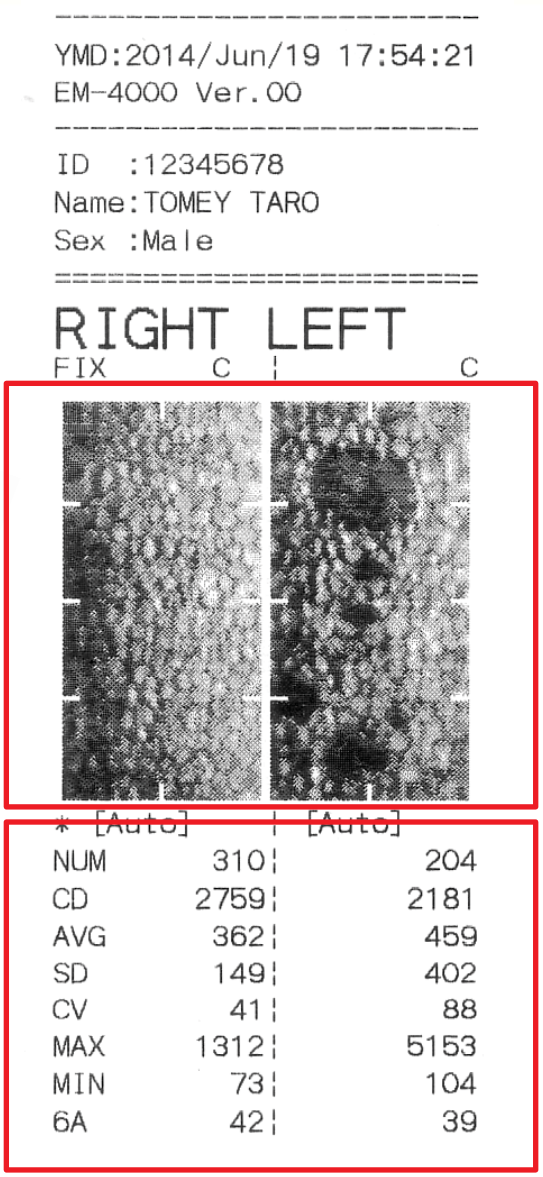
Company	EM-$000	EM-3000	T Company	N Company	C company
Internal DB	YES	NO	NO	NO	Checking

TOMEY TECHNOLOGY AND VISION

Built-in Printer for diagnostic information EM-4000

- **Easy printing**

For measured data and image data.

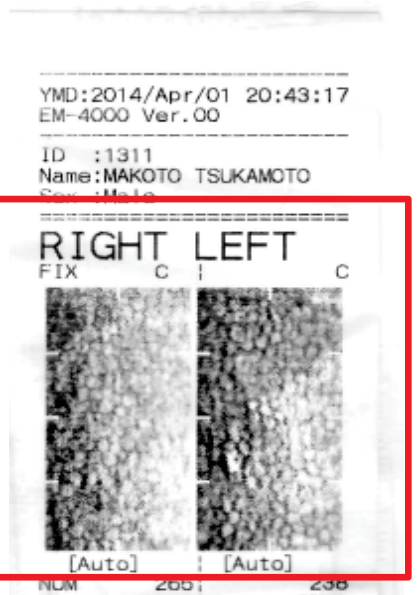


TOMEY TECHNOLOGY AND VISION

New Functions compared with EM-3000

EM-4000

- **Built-in printer**
  - Printing of analysis values and cell-images.
- **Database**
  - SD card as storage
  - Storage of approximately 16,000 patients.
- **Additional Analysis: Core Method**
  - Manual analysis of cell density
  - KONAN center method
- **Fixation lights for Para-central exams**
  - Additional 8 fixation lights.



TOMEY TECHNOLOGY AND VISION

Customization of data output
EM-4000

(Fig. 1)

Functions that may be assigned to a button are as follows.

Export

Print

Save

Save & Export

Print & Export

Print & Save

ALL (Export, Print, and Save)

Comparison With EM-3000 (Improvements)

EM-4000

	EM-3000	EM-4000
Measurement areas (Possibility)	• Center • Peripheral 6 point	• Center • Peripheral 6 points • Near central 8 points
Analysis method	• Auto-trace • L-count • Dark area	• Auto-trace • L-count (manual/auto) • Dark area • Core method
internal Database function	Not Supported	SD card (32 GB) (16,000 patients)
Patient Follow-up	only with TB-1000	YES R&R L&L view
Built in printer	**No**	**Yes**
Monitor Size	8.4 inch	10.4 inch
Monitor tilt	Not Supported	Yes
Connectors	LAN	LAN / USB /USB PictBridge

Comparison With Competitors

EM-4000

	TOMEY EM-4000	N company	T company	K company	C company
Measurement image by 1 shot	16	16	1	1	9
Measurement range	0.54×0.25	0.55×0.25	0.55×0.25	0.4×0.24	0.54 x 0.27
Measurement Point	Center1＋periphery 6 points ＋Para central 8points	Center1＋periphery 6 points ＋Para central 8points	Center3＋periphery 6 points ＋Para central 8points	Center1＋periphery 4 points	Center1＋ periphery 6 points
Possibility for manual analysis	L-count/ Core method/Trace method	1 kind of Manual Analysis	Not Supported	Center method/Flex center method/ Trace method	1 kind of Manual Analysis
Database function	Supported	Not Supported	Not Supported	Not Supported	Supported
Language	ENG/JAP	ENG/JAP	ENG/JAP	ENG/JAP	Eng./German/ Italian/Spanish/ Portuguese/Dutch
Panoramic Measurement	Not Supported	Not Supported	Supported	Not Supported	Not Supported
Display Size	10.4 inch	8.4 inch	10.4 inch	15 inch	10.4inch

EM-4000

Thank you for your attention!