

PRO · ON-DEVICE AI ANALYSIS

Bed: ___ · Patient: [REDACTED] · Age: 45 yrs · Sex: Female

Provider: Ajay Bakshi · Specialty: Neuro

BILATERAL REACTIVITY REDUCED

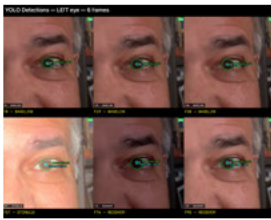
Reduced constriction — CP Left (OS) 10.4%, Right (OD) 9.4% (normal $\geq 15\%$).
Baseline: Left 3.87 mm, Right 3.66 mm.

CLINICAL FINDINGS

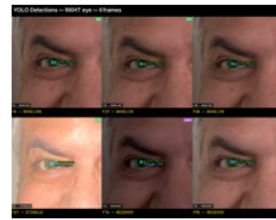
- SYMMETRY** L 3.87 mm | R 3.66 mm
Diff: 0.21 mm (normal ≤ 1.0 mm)
- REACTIVITY** L: Weak (10.4%) · R: Minimal (9.4%) (normal CP $\geq 15\%$)
- SPEED** L: 2.4 mm/s · R: 2.1 mm/s (normal MCV 1.5–7.0 mm/s)
- PATTERN** Bilateral symmetric reduction — both eyes diminished

DETECTION EVIDENCE — ANNOTATED EYE IMAGES

L



R



Bilateral PLR — 2s baseline, 1s flash, 5s recovery (8s total) · Torch 100%

Quality A · L 81% · R 87% valid

PER-EYE METRICS

METRIC	LEFT (OS)	RIGHT (OD)	NORMAL RANGE	STATUS
Baseline Pupil Diameter	3.87 mm	3.66 mm	2.0 – 8.0 mm	●●
Constriction Percent	10.4%	9.4%	15 – 45%	●●
Latency	439 ms	N/A	180 – 300 ms	●●
Max Constriction Velocity	2.4 mm/s	2.1 mm/s	1.5 – 7.0 mm/s	●●
Avg Dilation Velocity	0.8 mm/s	0.7 mm/s	0.4 – 1.8 mm/s	●●
T75 Recovery	0.45 s	N/R	0.5 – 3.0 s	●●
Valid Frames	140/173 (81%)	150/173 (87%)	$\geq 80\%$ ideal	●●

● Normal ● Borderline ● Abnormal ● N/A

Latency: not measurable when constriction is minimal. T75 recovery may be unreliable when constriction percent is below 10%.

BILATERAL COMPARISON

METRIC	VALUE	NORMAL RANGE	STATUS
Anisocoria	0.21 mm	0.0 – 1.0 mm	● Normal
Constriction Asymmetry	1.0%	$\leq 10\%$	● Normal
Velocity Asymmetry	0.3 mm/s	≤ 1.0 mm/s	● Normal
RAPD Score	0.07 log units	0.0 – 0.3 log units	● Normal
RAPD Classification	Absent – None	—	●

TEST CONDITIONS

Device: iPhone (iOS 18.6.2)
Torch: 100%Camera: Rear, 1920x1080, 30 fps
Protocol: 2s + 1s + 5s = 8s

METHODOLOGY

Pupil diameter is measured using a two-pass detection pipeline: Apple Vision framework face landmarks provide initial iris and pupil localization, with a PupiLUX proprietary pupil detector as secondary. Diameters are calibrated to millimeters using a horizontal visible iris diameter (HVID) reference of 11.7 mm (population average). Signal processing applies a 4th-order Butterworth low-pass filter (4 Hz cutoff) followed by Savitzky–Golay smoothing (window 7, order 3) to reduce noise while preserving PLR dynamics. Blink and movement artifacts are rejected before metric extraction.

DISCLAIMER

This report is generated by PupiLUX™, a smartphone-based pupillometry screening tool developed by R.TeJ Health Analytics. It is intended for informational and screening purposes only and does not constitute a clinical diagnosis.

PupiLUX is not a regulated medical device. All measurements are derived from smartphone camera recordings and may be affected by ambient lighting, patient cooperation, camera quality, and other environmental factors. Results should be interpreted by a qualified healthcare professional in the context of a complete clinical evaluation.

Do not make treatment decisions based solely on this report. Always correlate findings with clinical examination, patient history, and other diagnostic tests as appropriate.

Examined by: _____

Designation: _____

Time: _____

Signature: _____