DYNAMIC VISION REPORT: METRIC DICTIONARY

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FIXATION STABILITY *Fixations refers to all metrics related to the stopping point (fixation) of the eye.*	
METRIC	**DEFINITION**
Fixation Location - Right Eye (%)	The ability to keep your eyes from shifting over time for right, left, or both eyes. Central (>50% of fixation points on the central 2 degrees), Poor Central (<50% but >25% within 2 degrees), Eccentric (<25% within 2 degrees), Stable (>75% within 2 degrees), Relatively Stable (<75% within 2 degrees BUT >75% within 4 degrees), Unstable (<75% in 4 degrees).
Fixation Location - Left Eye (%)	
Fixation Location (%)	
Fixation Stability - Right Eye (%)	
Fixation Stability - Left Eye (%)	
Fixation Stability (%)	
Gaze Position Band 1 (≤ 1°)	Percentage of gaze that fell less than or equal to 1 degree of the target center
Gaze Position Band 2 (> 1° and ≤ 2°)	Percentage of gaze that fell between 1 and 2 degrees from the target center
Gaze Position Band 3 (> 2° and ≤ 4°)	Percentage of gaze that fell between 2 and 4 degrees from the target center
Gaze Position Band 4 (> 4°)	Percentage of gaze that fell outside 4 degrees from the target center
Bivariate Contour Ellipse Area - BCEA (pixels squared)	The amount of variation measured around a point of fixation. Microsaccades and drifts of the human eye cause corrections of the eye back to a central point. These slight eye movements form an area of dispersion in the shape of an ellipse that is measured by the BCEA.
Depth (+/- mm)	Refers to the difference between the point of convergence and the screen. Ideal result is zero. Negative number shows a point of convergence behind the screen. A positive number shows a point of convergence in front of the screen. Close to zero is best.
Fixation Dispersion - Right Eye (mm)	Distance between each gaze point and the target stimuli, averaged over the entire test for all gaze points.
Fixation Dispersion - Left Eye (mm)	

CHOICE REACTION TIME & DISCRIMINATE REACTION TIME *Reaction Time refers to how long it took you to see, process and respond to three different targets (the alien, planet and astronaut) each with a different key and how accurate you were.*	
Saccadic Latency (ms)	Refers to the time between when the stimuli appear, and the eye first leaves the center of the Solar System. Lower is better.
Visual Reaction Speed (ms)	The average time difference between when the arrow begins shooting from the solar system to when the eye hits the target (e.g.: alien). Lower is better.
Processing Speed (ms)	The average difference between when the eye hits the target (e.g.: alien) and the button is pressed. Lower is better
Reaction Time (ms)	Measures difference between when the arrow begins shooting from the solar system and the user presses the button. This is inclusive of both visual reaction speed and processing speed. This is then averaged over number of trials.
Response Accuracy (%)	Response Accuracy is the tally of the correct responses, divided by the number of trials and then multiplied by 100.
Distractibility (#)	Distractibility refers to your ability to pay attention to the task at hand. Refers to the number of times the users gaze waivers during the test.
Impulsivity (#)	Refers to your ability to be "patient", waiting for the information to present itself before responding. Refers to the number of times the user responds before a "go" signal (the arrow) is presented.
NINE POINT MOTOR FUNCTION *Each point in this section denotes the average fixation point of each eye in relation to the corresponding calibration point, measured during the 9-point calibration performed at the beginning of the test protocol.*	
Pupillary Distance (mm)	Distance Between Eyes is measured from the center of your left and right pupils.
DISPARITY METRICS (D)	
• Midline Primary	The average distance between the left eye and the right eye points of gaze "dots" on the screen at that location.
• Superior Left	
• Superior Right	
• Inferior Left	
• Inferior Right	
• Midline Left	
• Superior Midline	
• Midline Right	
• Inferior Midline	
• Mean Pupil Diameter (mm)	Pupil diameter is the size of the pupil during the last phase of the test. It is reported as average, standard deviation and range.
• Horizontal Displacement (D)	Horizontal deviation of the distance between the eye and the target at that specific location. Closer to zero is better.
• Vertical Displacement (D)	Vertical deviation of the distance between the eye and the target at that specific location. Closer to zero is better.

SMOOTH PURSUITS *Pursuits refers to all metrics related to the movement of the eye in relation to an object (smooth pursuit).*	
Efficiency (mm)	The error in the users' gaze is from the ideal pathway. Lower is better.
Eye Target Velocity Error (dps)	Speed represented in degrees per second off target. A low number is better.
Fixation (%)	Fixation is a stopping point of the eye that allows the user to see in detail, and are reported as a percentage of the test time. Fixation and Saccade % should be low.
Horizontal Synchronization SP (0-1)	Refers to stay on/off target in horizontal/vertical (x and y) plane. 1.0 is perfect.
Intrusion (#)	Saccadic eye movements that are in the y direction between periods of smooth pursuit eye movements
Latent Smooth Pursuit (%)	Refer to % of time tester is 7 mm or more behind target at the same speed as the target.
On Target Smooth Pursuit (%)	Refers to % of time within 9mm of the target while in SP.
Pathway Length Difference - (mm)	Refers to the average difference in distance between the right and left eye gaze pathways. Ideal score is zero. Lower is better.
Predictive Smooth Pursuit (%)	Refer to % of time tester is 7 mm or more ahead of target at the same speed as the target.
Saccade (%)	Fast eye movements that move the eyes from one point of interest to the next. They are calculated outside (above or below) the velocity range of the target and reported as a percentage of test time.
Smooth Pursuit (%)	Eye movements that follow the target within a velocity range of the target and are reported as a percentage of the test time. Higher is better.
Vertical Synchronization SP (0-1)	Refers to stay on/off target in horizontal/vertical (x and y) plane. 1.0 is perfect.

SACCADES *Saccades refers to all metrics related to the quick movement of the eye to relocate foveal vision (saccade).*	
Saccade (#)	Refers to number of saccades tallied for a single test. 1 saccade is from one black dot to the other.
Fixation (#)	Refers to number of times user stops moving their eye. On-Target, overshot, undershot, misses refers to accuracy of the saccade and proximity of eye gaze point to the dot when fixating.
On Target (#)	Is a tally of x, y coordinates within the top and bottom targets. These “hits” are tallied across the length of the test and are reported as a total number of target hits. On-Target refers to accuracy of the saccade and proximity of eye gaze point to the dot when fixating.
Overshot Target (#)	Is a tally of x, y coordinates that appear slightly beyond the targets to the top and bottom side. These “hits” are tallied across the length of the test and are reported as a total number of target overshot. Bandwidth refers to the distance from eye gaze point to dot.
Undershot Target (#)	Are a tally of x, y coordinates that appear slightly inside the targets to the bottom and top side. These “hits” are tallied across the length of the test (10 seconds) and are reported as a total number of target undershot.
Missed (#)	A target miss is recorded when no target is hit and the user has passed the center of the screen in the direction of the target.
Saccadic Efficiency (mm)	Refers to how far the error in the users' gaze is from the ideal pathway. Lower is better.
Saccadic Targeting (mm)	Refers to the distance each "hit" or fixation was compared to the ideal target. Lower is better
Speed/Accuracy Trade-off (dps/mm)	Refers to the trade-off that occurs between moving your eyes quickly but also being accurate.
Saccadic Recovery (mm)	Refers to the difference in the path taken before and after a fixation. A wide, looping path is inefficient. A narrow path is ideal.
Saccadic Variance (mm)	Refers to the variability or dispersion when trying to move eye gaze between targets.
Saccadic Velocity (d/s)	Refers to the average velocity made by the saccades across the test time. Higher is better.