

APPENDIX B: Definitions of Eye Tracking Metric Categories**Appendix Table B1.** Gaze Position Metrics.

Eye Tracking Metrics	Definition
Area	Pupil gaze area (width of screen viewed multiplied by height of screen viewed) averaged over the entire assessment—metrics include the mean and median for both the left and right eyes as well as the difference in area between the left and right eyes
Aspect Ratio	Pupil gaze aspect ratio (height of screen viewed divided by width of screen viewed) averaged over the entire assessment—metrics include the mean and median for both the left and right eyes as well as the difference between the left and right eyes
BOX Score	A binary classifier derived from a best subset regression model that combines many of the eye tracking metrics obtained from this assessment and has been used for diagnostic purposes
Distance	Length of the visual path recording (X and Y coordinates with respect to the moving visual target)—metrics include the mean and variance of the distance across each segment of the screen (top, right, bottom left) for both the left and right eyes as well as the difference between the left and right eyes. Skew is also calculated (how far the mean is from the median) for all of the above categories
Height	Visual path recording of the left and right sides of the screen (in Y coordinates)—metrics include the mean, median and variance for both the left and right eyes as well as the difference between the left and right eyes
Width	Visual path recording of the top and bottom sides of the screen (in Y coordinates)—metrics include the mean, median and variance for both the left and right eyes as well as the difference between the left and right eyes
Velocity	Velocity across each segment of the screen (top, right, bottom, left) for each eye as well as the difference between the left and right eyes
Blinks	Number of total blinks, blink length for each eye for the entire assessment—metrics include mean and median blink length, number of blinks for each eye, as well as differences between the left and right eyes

Appendix Table B2. Saccadic Movement Metrics.

Saccade Travel	The distance traveled in gaze position for all saccades—metrics include the mean, median and variance of the distance in both the X and Y directions for each eye, as well as for each segment of the screen (top, right, bottom, left).
Saccade Length	The length of saccades in milliseconds during the assessment—metrics include the mean and median lengths for both the left and right eyes across each segment of the screen (top, right, bottom, left) as well as the differences between the left and right eyes
Saccade Speed	The speed in spatial coordinates (X and Y) per millisecond of saccades—metrics include the mean, median, and variance of the speed for both the left and right eyes across each segment of the screen (top, right, bottom, left) as well as the differences between the left and right eyes

AppendixTable B3. Pupillary Dynamic Metrics.

Pupil Size	Area of the pupil—metrics include mean, median, maximum, minimum, and variance of pupil size in both the left and right eyes as well as differences between the left and right eyes over the entire assessment
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