

Supplemental Table 1 16-point ordinal scale assigned to corresponding visual acuities for statistical analysis

| | |
|----|--------|
| 15 | 20/16 |
| 14 | 20/20 |
| 13 | 20/25 |
| 12 | 20/30 |
| 11 | 20/40 |
| 10 | 20/50 |
| 9 | 20/60 |
| 8 | 20/70 |
| 7 | 20/80 |
| 6 | 20/100 |
| 5 | 20/200 |
| 4 | 20/400 |
| 3 | CF |
| 2 | HM |
| 1 | LP |
| 0 | NLP |

Supplemental Table 2 Estimated z score latent thresholds corresponding to the ordinal values assigned in supplemental table 1.

| | |
|----|-------|
| 1 | -4.27 |
| 2 | -3.73 |
| 3 | -2.81 |
| 4 | -2.25 |
| 5 | -2.01 |
| 6 | -1.70 |
| 7 | -1.66 |
| 8 | -1.66 |
| 9 | -1.61 |
| 10 | -1.24 |
| 11 | -1.06 |
| 12 | -0.64 |
| 13 | 0.08 |
| 14 | 1.13 |
| 15 | 3.74 |

Supplemental Table 3 Percentage of patients falling within each visual acuity ordinal category for both observed values (left) and modeled values (right)

| Observed VA % | | | | Modeled VA % | | | |
|---------------|--------|--------|--------|--------------|--------|--------|--------|
| | VA | Preop | Postop | | VA | Preop | Postop |
| 1 | NLP | 0.98 | 0.00 | 1 | NLP | 0.00 | 0.00 |
| 2 | LP | 0.00 | 0.98 | 2 | LP | 0.01 | 0.00 |
| 3 | HM | 1.96 | 2.94 | 3 | HM | 0.24 | 0.00 |
| 4 | CF | 5.88 | 0.98 | 4 | CF | 0.98 | 0.00 |
| 5 | 20/400 | 1.96 | 1.96 | 5 | 20/400 | 0.97 | 0.00 |
| 6 | 20/200 | 3.92 | 1.96 | 6 | 20/200 | 2.23 | 0.00 |
| 7 | 20/100 | 0.00 | 0.98 | 7 | 20/100 | 0.46 | 0.00 |
| 8 | 20/80 | 0.00 | 0.00 | 8 | 20/80 | 0.00 | 0.00 |
| 9 | 20/70 | 0.98 | 0.00 | 9 | 20/70 | 0.49 | 0.00 |
| 10 | 20/60 | 6.86 | 1.96 | 10 | 20/60 | 5.31 | 0.03 |
| 11 | 20/50 | 4.90 | 0.00 | 11 | 20/50 | 3.68 | 0.05 |
| 12 | 20/40 | 9.80 | 2.94 | 12 | 20/40 | 11.59 | 0.49 |
| 13 | 20/30 | 17.65 | 9.80 | 13 | 20/30 | 27.17 | 6.79 |
| 14 | 20/25 | 20.59 | 25.49 | 14 | 20/25 | 33.98 | 47.66 |
| 15 | 20/20 | 23.53 | 46.08 | 15 | 20/20 | 12.89 | 44.98 |
| 16 | 20/16 | 0.98 | 4.90 | 16 | 20/16 | 0.01 | 0.00 |
| | | 100.00 | 100.00 | | | 100.00 | 100.00 |