

**eTable 1. Classification of Visual Field Abnormalities in the IIHTT**

1. A visual field is definitely normal if all locations are within normal limits on the Total Deviation Plot.
2. A visual field or hemifield is definitely abnormal if **any** of the conditions below are met:  
*Primary Criteria:*
  - (a) The Glaucoma Hemifield Test (GHT) visual field index is abnormal (Outside Normal Limits or General Reduction of Sensitivity), and/or
  - (b) The PSD visual field index is abnormal ( $p < 5\%$ ), and/or*Secondary Criteria:*
  - (c) A single point is worse than the 0.5% probability level on the Total and/or Pattern Deviation Plot, and/or
  - (d) Two clustered points are beyond normal limits ( $p < 5\%$ ) in a clinically suspicious area<sup>1-5</sup> and at least one point is worse than the 1% level on the Total and/or Pattern Deviation Plot (a cluster is defined as two or more horizontally or vertically – not diagonally -- contiguous abnormal points with  $p < 5\%$ ), and/or
  - (e) Two or more points are beyond normal limits ( $p < 5\%$ ) in and/or around the peripapillary zone, and/or
  - (f) Three or more clustered points are worse than the 5% level on the Total and/or Pattern Deviation Plot **AND** the pattern of loss is consistent with ocular pathology.
3. A hemifield may have more than one classification with Enlarged Blind Spot (EBS) listed last.
4. In general, the pattern of abnormal points on the deviation plot (Total or Pattern) showing the greater number of abnormal points should be used to determine the appropriate classification for an abnormality. However, the other deviation plot as well as the gray scale should be evaluated to confirm the appropriateness of the classification. Abnormal points that are extraneous to the salient pattern should be ignored.
5. The superior and inferior hemifields of an abnormal field are evaluated separately, with the first designation being the superior hemifield and the second designation being the inferior hemifield.
6. A normal visual field is designated as **NL**.
7. An abnormal visual field is given a designation from the list below:

**I. Enlarged Blind Spot (EBS):**

A visual field abnormality in the nerve fiber bundle region that involves at least one point at the 0.5% or 1% level or two or more points at the  $p < 5\%$  level, and is contiguous with the blind spot. In addition, the grayscale abnormality will be weighted heavily for this determination.

**II. Generalized Depression:**

1. Widespread (Wsp): Diffuse visual field loss that includes all four quadrants. The GHT may show a General Reduction of Sensitivity or the MD must show  $p < 5\%$ . The PSD must not show a  $p < 5\%$  value. The majority of abnormal points on the Total Deviation Plot are not abnormal on the Pattern Deviation Plot.

**III. Arcuate Nerve Fiber Bundle Defects (NFB):**

2. Nasal Step (NS) Mild/Severe: Limited field loss adjacent to the nasal horizontal meridian with at least one abnormal point at or outside 15 degrees on the meridian. One or more points must persist on both the Total and Pattern deviation plots.
3. Pericentral (Pc): A relatively small visual field abnormality (2 or more adjacent locations that are outside normal limits) that is outside the papillomacular bundle region and beyond the 9 degrees of fixation, where one or more points are within this region and appear on both the Total and Pattern Deviation Probability plots.
4. Partial Arcuate (PArc): Visual field loss in the nerve fiber bundle region that extends incompletely from the blind spot to the nasal meridian. The defect is generally contiguous with either the blind spot or the nasal meridian and must include at least one abnormal location in the temporal visual field. One or more points must persist on both the Total and Pattern deviation plots.
5. Arcuate (Arc): Significant visual field loss in the nerve fiber bundle region, extending across contiguous abnormal points from the blind spot to at least one point outside 15 degrees adjacent to the nasal meridian. The majority of the points must persist on both the Total and Pattern deviation plots.

**IV. Other and Neurologic-like Abnormalities:**

6. Vertical Step (VS): Limited visual field loss that respects the vertical meridian and that includes at least two abnormal points at or outside 15 degrees along the vertical meridian. One or more points must persist on both the Total and Pattern deviation plots.
7. Quadrant (Q): Significant visual field loss throughout an entire quadrant that respects the vertical midline. Essentially all points must have a  $p < 5\%$  value on the Total Deviation Plot and one or more points must persist on both the Total and Pattern deviation plots.

8. Superior Depression (SD): Two or more abnormal points in the very superior region. One or more points must persist on both the Total and Pattern deviation plots.
9. Inferior Depression (ID): Two or more abnormal points in the very inferior region. One or more points must persist on both the Total and Pattern deviation plots.
10. Partial Peripheral Rim (PPR): Generally continuous field loss outside 15 degrees, but not in all quadrants and must have some curvature. One or more points must persist on both the Total and Pattern deviation plots.

**V. Cental Abnormalities:**

11. Paracentral (Pc): A relatively small visual field abnormality that is within 9 degrees of fixation, where one or more points are within this region and appear on both the Total and Pattern Deviation Probability plots and is generally not contiguous with the blind spot or the nasal meridian. In particular, it does not involve points outside 15 degrees that are adjacent to the nasal meridian.

**VI. Normal**

eTable 2a. IIHTT hemifield abnormality classification frequencies for the study and non-study eyes at *baseline* by superior and inferior hemifield (n = 125 subjects). Results are combined over two examinations.

| <b>Classification</b>  | <b>Study Eye</b>          |             |                           |             | <b>Fellow Eye</b>         |             |                           |             |
|--|---------------------------|-------------|---------------------------|-------------|---------------------------|-------------|---------------------------|-------------|
|  | <b>Superior Hemifield</b> |             | <b>Inferior Hemifield</b> |             | <b>Superior Hemifield</b> |             | <b>Inferior Hemifield</b> |             |
|  | <b>n</b>                  | <b>%</b>    | <b>n</b>                  | <b>%</b>    | <b>n</b>                  | <b>%</b>    | <b>n</b>                  | <b>%</b>    |
| Localized Nerve Fiber Bundle Defects (with and without an EBS) | 197                       | 79%         | 196                       | 78%         | 126                       | 50%         | 135                       | 54%         |
| EBS (no localized NFB defects)                                 | 21                        | 8%          | 31                        | 13%         | 40                        | 16%         | 48                        | 19%         |
| Diffuse  | 11                        | 5%          | 9                         | 4%          | 14                        | 6%          | 13                        | 5%          |
| Neurologic-Like/Other  | 6                         | 2%          | 8                         | 3%          | 8                         | 3%          | 9                         | 4%          |
| Central  | 0                         | 0%          | 0                         | 0%          | 0                         | 0%          | 0                         | 0%          |
| Normal   | 15                        | 6%          | 6                         | 2%          | 62                        | 25%         | 45                        | 18%         |
| <b>Total</b>   | <b>250</b>                | <b>100%</b> | <b>250</b>                | <b>100%</b> | <b>250</b>                | <b>100%</b> | <b>250</b>                | <b>100%</b> |

eTable 2b. IIHTT hemifield abnormality classification frequencies for the study and non-study eyes at *baseline* (n = 125 subjects). Results are combined over two examinations.

| <b>Classification</b>  | <b>Study Eye</b> |             | <b>Non-Study Eye</b> |             | <b>Both Eyes</b> |             |
|--|------------------|-------------|----------------------|-------------|------------------|-------------|
|  | <b>Total</b>     | <b>%</b>    | <b>Total</b>         | <b>%</b>    | <b>Total</b>     | <b>%</b>    |
| Localized Nerve-Fiber Bundle Defects (with and without an EBS) | 393              | 79%         | 261                  | 52%         | 654              | 65%         |
| EBS (no localized NFB defects)                                 | 52               | 10%         | 88                   | 18%         | 140              | 14%         |
| Diffuse  | 20               | 4%          | 27                   | 5%          | 47               | 5%          |
| Neurologic-Like/Other  | 14               | 3%          | 17                   | 4%          | 31               | 3%          |
| Central  | 0                | 0%          | 0                    | 0%          | 0                | 0%          |
| Normal   | 21               | 4%          | 107                  | 21%         | 128              | 13%         |
| <b>Total</b>   | <b>500</b>       | <b>100%</b> | <b>500</b>           | <b>100%</b> | <b>1,000</b>     | <b>100%</b> |

eTable 3a. IIHTT hemifield abnormality classification frequencies for the study and non-study eyes at 6 months by superior and inferior hemifield (n = 125 subjects). Results are combined over two examinations.

| Classification   | Study Eye          |             |                    |             | Fellow Eye         |             |                    |             |
|--|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
|  | Superior Hemifield |             | Inferior Hemifield |             | Superior Hemifield |             | Inferior Hemifield |             |
|  | n                  | %           | n                  | %           | n                  | %           | n                  | %           |
| Localized Nerve Fiber Bundle Defects (with and without an EBS) | 102                | 42%         | 117                | 48%         | 64                 | 26%         | 86                 | 35%         |
| EBS (no localized NFB defects)                                 | 40                 | 16%         | 54                 | 22%         | 36                 | 15%         | 52                 | 21%         |
| Diffuse  | 13                 | 5%          | 17                 | 7%          | 10                 | 4%          | 14                 | 6%          |
| Neurologic-Like/Other  | 4                  | 2%          | 4                  | < 1%        | 4                  | 2%          | 3                  | 1%          |
| Central  | 2                  | < 1%        | 2                  | < 1%        | 6                  | 2%          | 9                  | 4%          |
| Normal   | 85                 | 35%         | 52                 | 21%         | 125                | 51%         | 81                 | 33%         |
| <b>Total</b>   | <b>246</b>         | <b>100%</b> | <b>246</b>         | <b>100%</b> | <b>245</b>         | <b>100%</b> | <b>245</b>         | <b>100%</b> |

eTable 3b. IIHTT hemifield abnormality classification frequencies for the study and non-study eyes at 6 months (n = 125 subjects). Results are combined over two examinations.

| Classification   | Study Eye Total | %           | Non-Study Eye Total | %           | Both Eyes Total | %           |
|--|-----------------|-------------|---------------------|-------------|-----------------|-------------|
| Localized Nerve-Fiber Bundle Defects (with and without an EBS) | 219             | 45%         | 150                 | 31%         | 369             | 38%         |
| EBS (no localized NFB defects)                                 | 94              | 19%         | 88                  | 18%         | 182             | 19%         |
| Diffuse  | 30              | 6%          | 24                  | 5%          | 54              | 5%          |
| Neurologic-Like  | 8               | 2%          | 7                   | 1%          | 15              | 1%          |
| Central  | 4               | < 1%        | 15                  | 3%          | 19              | 2%          |
| Normal   | 137             | 28%         | 206                 | 42%         | 343             | 35%         |
| <b>Total</b>   | <b>492</b>      | <b>100%</b> | <b>490</b>          | <b>100%</b> | <b>982</b>      | <b>100%</b> |

eTable 4a. IIHTT baseline abnormality classification frequencies for the study eye by superior and inferior hemifield and treatment assignment. (n = 125 subjects). Results are combined over two examinations.

| Classification   | Placebo            |             |                    |             | Acetazolamide      |             |                    |             |
|--|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
|  | Superior Hemifield |             | Inferior Hemifield |             | Superior Hemifield |             | Inferior Hemifield |             |
|  | n                  | %           | n                  | %           | n                  | %           | n                  | %           |
| Localized Nerve Fiber Bundle Defects (with and without an EBS) | 89                 | 78%         | 91                 | 80%         | 108                | 79%         | 105                | 77%         |
| EBS (no localized NFB defects)                                 | 9                  | 8%          | 13                 | 11%         | 12                 | 9%          | 18                 | 13%         |
| Generalized/Diffuse  | 5                  | 4%          | 3                  | 3%          | 6                  | 4%          | 6                  | 4%          |
| Neurologic-Like/Other  | 5                  | 4%          | 3                  | 3%          | 1                  | 1%          | 5                  | 4%          |
| Central  | 0                  | 0%          | 0                  | 0%          | 0                  | 0%          | 0                  | 0%          |
| Normal   | 6                  | 6%          | 4                  | 3%          | 9                  | 7%          | 2                  | 2%          |
| <b>Total</b>   | <b>114</b>         | <b>100%</b> | <b>114</b>         | <b>100%</b> | <b>136</b>         | <b>100%</b> | <b>136</b>         | <b>100%</b> |

eTable 4b. IIHTT 6-month abnormality classification frequencies for the study eye by superior and inferior hemifield and treatment assignment. (n = 125 subjects). Results are combined over two examinations.

| Classification   | PLB                |             |                    |             | ACZ                |             |                    |             |
|--|--------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
|  | Superior Hemifield |             | Inferior Hemifield |             | Superior Hemifield |             | Inferior Hemifield |             |
|  | n                  | %           | n                  | %           | n                  | %           | n                  | %           |
| Localized Nerve Fiber Bundle Defects (with and without an EBS) | 57                 | 50%         | 58                 | 51%         | 45                 | 34%         | 59                 | 45%         |
| EBS (no localized NFB defects)                                 | 11                 | 10%         | 21                 | 18%         | 29                 | 22%         | 33                 | 25%         |
| Generalized/Diffuse  | 5                  | 4%          | 9                  | 8%          | 8                  | 7%          | 8                  | 7%          |
| Neurologic-Like/Other  | 1                  | 1%          | 2                  | 2%          | 3                  | 2%          | 2                  | 2%          |
| Central  | 1                  | 1%          | 1                  | 1%          | 1                  | < 1%        | 1                  | < 1%        |
| Normal   | 39                 | 34%         | 23                 | 20%         | 46                 | 35%         | 29                 | 22%         |
| <b>Total</b>   | <b>114</b>         | <b>100%</b> | <b>114</b>         | <b>100%</b> | <b>132</b>         | <b>100%</b> | <b>132</b>         | <b>100%</b> |

eTable 5. Inter-reader agreement results for the baseline and six month classifications. The values are the numbers (percentages) of hemifields on which 2/3 or 3/3 readers agreed on the classification of the visual field defects.

Baseline (165 subjects):

| <b>Superior Hemifields</b><br>n = 660 | <b>Inferior Hemifields</b><br>n = 660 | <b>Total</b><br>n = 1,320 |
|---------------------------------------|---------------------------------------|---------------------------|
| <b>628 (95%)</b>                      | <b>597 (91%)</b>                      | <b>1,225 (93%)</b>        |

Baseline (125 subjects):

| <b>Superior Hemifields</b><br>n = 500 | <b>Inferior Hemifields</b><br>n = 500 | <b>Total</b><br>n = 1,000 |
|---------------------------------------|---------------------------------------|---------------------------|
| <b>469 (94%)</b>                      | <b>465 (93%)</b>                      | <b>934 (93%)</b>          |

6 months (125 subjects):

| <b>Superior Hemifields</b><br>n = 491 | <b>Inferior Hemifields</b><br>n = 491 | <b>Total</b><br>n = 982 |
|---------------------------------------|---------------------------------------|-------------------------|
| <b>424 (87%)</b>                      | <b>413 (84%)</b>                      | <b>837 (85%)</b>        |