
# Super Pinhole Macula - 300300

## Introduction

The Super Pinhole Macula was designed to provide an efficient method to help determine of the postoperative level of visual acuity a prospective cataract patient could potentially achieve. Prior to committing to cataract or other opacity therapy it is important to know that substantial vision improvement is a likely potential, meaning there are no retinal or neurological issues that will not allow vision improvement despite cataract removal.

Other potential uses include:

- Testing retinal acuity in patients with other media or opacity problems
- Rapid potential vision screening without refraction for vitroretinal, retinal vascular and neuro-ophthalmic patients
- Rapid potential vision screening for patients with large or irregular refractive errors
- Rapid retinal visual acuity testing without refraction in post-surgical cases, such as cystoid macular edema

### Contents

Each Kit includes:

- Light Box with handles approx. 9 1/2 x 10 1/2 x 2 1/2 in (24x27x6 cm)
- 300304 - Sloan Letter Chart (Black with white letters)
- Power Supply with power cord (European plugs to be furnished by customer)
- 700010 - Multiple Pinhole Spectacle Occluder
- Instructions

### Options

The Super Pinhole Macula can also be powered from a rechargeable battery pack (p/n 914003). This product includes three Velcro strips to be used to secure the battery pack to the back of the Illuminator Box.

### Storage

Store in a cool dry place. Protect from static electric shock.

### Test Environment Lighting

Test is conducted with room lights off.

### Pre-test Considerations

It is recommended to obtain an ocular medical history in order to determine likelihood of eye conditions in addition to the obvious cataract or other opacity. Any other conditions could be a predictor of postoperative vision improvement.

Be aware of other factors that may affect results such as literacy, language, senility, and fatigue. It is also possible that the cataract is so severe as to inhibit any potential acuity determination.

### Preparation

Maximal dilation of the pupils is recommended. Focus on what appears to be the worst eye first. Set up the patient with the best distance correction in a trial frame with the other eye occluded. This may have to be the ‘best corrected’ Rx prior to severe cataract development.

# Super Pinhole Macula - Continued

## Testing Procedure

Explain to the patient that the intent of this test is to work together to find any possible 'holes' or 'windows' of acuity in an effort to determine residual vision behind the cataract. Encourage the patient to maneuver the head and change orientation to 'find' the best viewing 'window'.

Ask the patient to read the row with the largest letters and work row by row to the smallest letters.

Continue until the patient says they can 'no longer can read the letter sizes' or the patient starts to make numerous mistakes.

Repeat for opposite eye.

## Scoring

Record the level of visual acuity for each eye in a manner similar to any other acuity test.

## Interpretation of Results

If the best acuity level is 20/70 and no better, suspect more issues than cataract.

## References:


1. Fish, G.F> et al: A Comparison of Visual Function Tests in Eyes with Maculopathy. Ophthalmology 93:1, 1771 187. 1986.
2. Eye -Comparison of the Guyton–Minkowski Potential Acuity Meter (PAM) and the Haag-Streit Lotmar Visometer (Visometer) in their ability to predict postoperative best. www.nature.com/eye/journal/v21/n2/full/6702165a.html
3. Potential acuity meter accuracy in cataract patients. Journal of Cataract & Refractive Surgery, Volume 26, Issue 8, Pages 1238-1241 P. Gus from: Eye (2006) 20, 1345–1351. doi:10.1038/sj.eye.6702106; published online 23 September 2005
4. Potential acuity meter accuracy in cataract patients. Patrícia Ioschpe Gus MD, , a, Idel Kwitko MDa, Daniela Roehe MDa and Sérgio Kwitko MD. Journal of Cataract & Refractive Surgery, Volume 26, Issue 8, August 2000, Pages 1238-1241


## Also available

### Super Pinhole Charts - (5 feet/1.5 meters)

Proportionally-spaced (LogMAR); line sizes range from 20/100 to 20/20 (6/30 to 6/6) equivalent, 0.25 to 1.25.





**A** Sloan Letters . . . . . **300304**
**B** Sloan Letters Scrambled . . . . . **300305**
**C** LEA Numbers . . . . . **300306**
**D** LEA Symbols . . . . . **300307**


**E** Single ended black occluder . . . . . **204004**
**F** Single pinhole & black occluder . . . . . **120101**
**G** 17 pinhole & black occluder . . . . . **481800**
**H** Short handle black occluder . . . . . **120100**
**I** Short handle single pinhole occluder . . . . . **120301**
**J** Short handle 48 pinhole occluder . . . . . **120300**

Optional Battery Pack . . . . . **914003**