

(X) R1 ( ) R2 ( ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( )  
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### **PELLI-ROBSON CONTRAST SENSITIVITY AND PUPIL SIZE WITH ACRYSOF NATURAL WF, ACRYSOF NATURAL AND AMO SENSAR INTRAOCULAR LENSES**

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**PURPOSE:** To compare Pelli-Robson Letter Chart contrast sensitivity in patients who received Acrysof Natural WF, Acrysof Natural or AMO Sensar intraocular lenses (IOLs). **METHODS:** Prospective, randomized and double-blinded study. One hundred and twenty eyes of sixty patients were randomly divided into three groups: 40 eyes received Acrysof Natural WF IOL (group I), 40 eyes received Acrysof Natural IOL (group II) and 40 eyes received AMO Sensar IOL (group III). Contrast sensitivity was measured using Pelli-Robson letter-based chart after 45 to 90 days postoperatively. Both eyes were tested with distance correction and the test was always performed on photopic conditions, with a mean luminance of 85 cd/m<sup>2</sup> (accepted range from 60 to 120 cd/m<sup>2</sup>). The test distance correction used was 1 meter. Pupil diameter was measured under photopic, mesopic and scotopic conditions. **RESULTS:** Mean age in each group was: 69yo (Acrysof WF), 70yo (SN60) and 68.2yo (AR40). All eyes in all groups had BSCVA ≥ 20/25. There were no statistically significant contrast sensitivity differences between the three groups. The mean values of log contrast sensitivity were 1.62±0.08 in group I; 1.59±0.10 in group II and 1.58±0.10 in group III. Photopic pupil diameter in our study varied from 2.5 to 4.5 mm in all groups. The mean pupil diameter values were: 3.57±0.50mm in group I; 3.39±0.65mm in group II and 3.55±0.66mm in group III. **CONCLUSION:** The Pelli-Robson contrast sensitivity values in the three groups were within normal values for the patient's age. The patients pupil diameter do not affected contrast sensitivity results. The Acrysof Natural WF showed great values, but it was not statistically significant.