Spatial freq. (CPD)	Orient.	Contrast sensitivity for Grating				Contrast sensitivity for Central Gabor			
		Transient	Sustained	Median diff.	Sig. (2-tailed)	Transient	Sustained	Median diff.	Sig. (2-tailed)
0.5	Horiz.	2.00	1.84	0.18	0.03	1.36	0.86	0.39	0.03
	Vert.	2.13	1.98	0.17	0.08	1.44	1.17	0.35	0.12
8	Horiz.	1.10	1.12	0.10	0.17	0.99	1.39	0.05	0.92
	Vert.	1.44	1.26	0.09	0.35	1.41	1.19	0.03	0.35

Supplementary Table 1 – Results of Wilcoxon signed rank tests comparing median contrast sensitivity (CS) for transient and sustained stimuli, for grating and central Gabor stimuli. Figures are $\log_{10}$ CS.

Supplementary Figure 1

Prototype example visual stimuli for psychophysics experiments, shown at high contrast. A. Full screen grating (Experiment 1) B. Central Gabor patch (Experiment 2. Exact spread of Gaussian envelope approximates but does not match that used for the experiments). C. Eccentric Gabor patch (Experiment 3), placed as near as possible to the patient's visual field defect, and in the corresponding position in the unaffected hemifield, for comparison (opposite hemifield stimulus not displayed simultaneously, therefore not shown). Stimuli are displayed in greyscale; fixation spots were red in the experiment.

A: Grating **B: Central Gabor** **C: Eccentric Gabor**

Horizontal Vertical

CONTROLS (E.M.MEANS)

Vertical
Horizontal

Vertical
Horizontal

Left hemifield
Right hemifield

PATIENTS

1

Vertical
Horizontal

Vertical
Horizontal

Normal hemifield
Affected hemifield

2

3

4

5

6

Normal hemifield
Affected hemifield

7

log₁₀ contrast sensitivity

Spatial frequency (cycles per degree)

0.5 1 4 8 16   0.5 1 4 8 16   0.5 1 4 8   0.5 1 4 8

Supplementary Figure 2

Individual contrast sensitivity (CS) functions for all patients, for all experiments. Above the patient plots,

CS functions pooled for all 20 healthy participants, consisting of estimated marginal means from ANOVAs

(labelled E.M.MEANS), are shown for comparison. Error bars show the estimated sample standard

deviation. For the grating and central Gabor stimuli, horizontal and vertical stimuli are plotted as separate

lines on the same plot (solid and dashed lines respectively). For the eccentric Gabor stimuli, horizontal

and vertical stimuli are presented in separate plots, with each hemifield plotted as a separate line on each

plot (normal hemifield solid line, affected field dashed line).