LogMAR ⇄ decimal ⇄ Snellen ⇄ Letter score

[Part of Michael Bach's 'Visual Acuity Cheat Sheet']

LogMAR	Decimal notation	Snellen (ft)	Snellen (m)	Category	Letter score[4] @4 m[7]	Letter score[4] @1 m ≙E-ETDRS[6]
-0.30	2.0	20/10	6/3.0		70+30[7]	100
-0.20	1.6	20/12	6/3.8		65+30	95
-0.10	1.26	20/16	6/4.8		60+30	90
0.00	1.0	20/20	6/6.0		55+30	85
0.10	0.8	20/25	6/7.5		50+30	80
0.20	0.63	20/30	6/9.5		45+30	75
0.30	0.5	20/40	6/12		40+30	70
0.40	0.4	20/50	6/15	mild impairment[1]	35+30	65
0.50	0.32	20/60	6/19	moderate imp.[1]	30+30	60
0.60	0.25	20/80	6/24	"	25+30	55
0.70	0.2	20/100	6/30	"	20+30	50
0.80	0.16	20/125	6/38	"	15+30	45
0.90	0.13	20/160	6/48	"	10+30	40
1.00	0.10	20/200	6/60	"	5+30	35
1.10	0.08	17/250	6/75	severe imp.[1]	'off chart'@4m	30
1.20	0.063	20/300	6/95	"	↓	25
1.30	0.050	20/400	6/120	"		20
1.40	0.040	(20/500)[5]	(6/150)[5]	↓ blindness[1]		15
1.50	0.032	(20/600)[5]	(6/190)[5]			10
1.60	0.025	(20/800)[5]	(6/240)[5]			5
1.70	0.020	(20/1000)[5]	(6/300)[5]			'off chart'@1m
1.80	0.016			CF[2]		↓
1.90	0.013			**CF[2•3]**		
2.00	0.010			CF[2]		
2.10	0.0079					
2.20	0.0063			HM[2]		
2.30	0.0050			**HM[2•3]**		
2.40	0.0040			HM[2]		
2.50	0.0032					
2.60	0.0025					
2.70	0.0020			LP[3]		
2.80	0.0016					
2.90	0.0013					
3.00	0.0010			NLP[3]		

CF: counting fingers, HM: hand movement, LP: light perception, NLP: no LP.

[1]WHO definitions of distance vision impairment.

[2]Based on data from Schulze-Bonsel et al. 2006 and Lange et al. 2009.

[3]Imputations / suggestions. I largely agree with Holladay (2004) "[these] are not actually visual acuity measurements, but simply the detection of a stimulus …" Still, numbers here are useful, e.g. to quantitatively document intervention success, aggregate data, etc. Note: these values are not on an interval scale.

[4]The "simple" Letter Score, where errors before the last line are not considered.

[5]Values in parentheses represent plausible extensions of ISO 8596.

[6]Beck et al. (2003), page 197, Table 1; or "ETDRS#7".

[7]To maintain acuity across distance, adding 30 to the 4-m results equates to 1-m results.