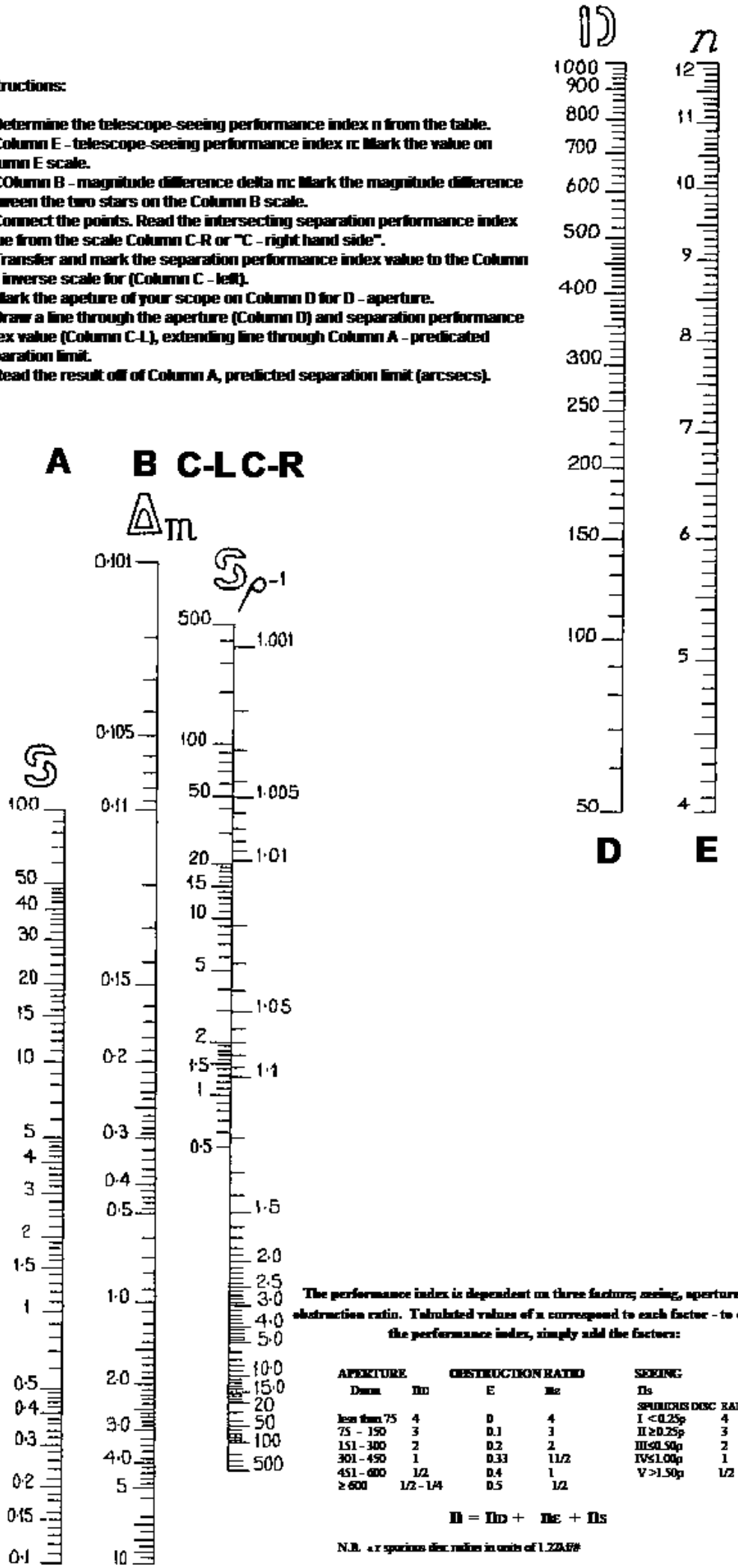
Instructions:

1) Determine the telescope-seeing performance index n from the table.
2) Column E – telescope-seeing performance index nε Mark the value on Column E scale.
3) COlumn B – magnitude difference delta nΔ Mark the magnitude difference between the two stars on the Column B scale.
4) Connect the points. Read the intersecting separation performance index value from the scale Column C-R or "C – right hand side".
5) Transfer and mark the separation performance index value to the Column C-L inverse scale for (Column C – left).
6) Mark the apeture of your scope on Column D for D – aperture.
7) Draw a line through the aperture (Column D) and separation performance index value (Column C-L), extending line through Column A – predicated separation limit.
8) Read the result off of Column A, predicted separation limit (arcsecs).



The performance index is dependent on three factors; seeing, aperture and obstruction ratio. Tabulated values of n correspond to each factor – to obtain the performance index, simply add the factors:

APERTURE		OBSTRUCTION RATIO		SEEING	
Diam	nD	E	nε	ns	
				SPURIOUS DISC	RAD.ρ
less than 75	4	0	4	I <0.25ρ	4
75 – 150	3	0.1	3	II ≥0.25ρ	3
151 – 300	2	0.2	2	III≤0.50ρ	2
301 – 450	1	0.33	1 1/2	IV≤1.00ρ	1
451 – 600	1/2	0.4	1	V >1.50ρ	1/2
≥ 600	1/2 – 1/4	0.5	1/2		

$$n = n_D + n_\varepsilon + n_s$$

N.B. ρ = spurious disc radius in units of 1.22λ/#