

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Clear mylar templates used to measure latitude
and longitude of sample localities at scales of
1:63,360, and 1:250,000 between the latitudes
of 49°00'00" and 71°30'00" N. or S.

By

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This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards.

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ABSTRACT

Clear mylar overlay help expedite the recording of sample localities during both field and office work. These overlays allow for fast and accurate measurement of latitudes and longitudes. Presented here is a booklet of ~~210~~ computer-generated overlays at scales of 1:63,360 and 1:250,000 between the latitudes of 49°00'00" N. or S. to 71°30'00" N. or S. Copies of individual overlays are available from the U.S. Geological Survey Open-File Services Section, Branch of Distribution, USGS, Box 25425, Denver Federal Center, Denver, Colo., 80225, telephone (303) 234-5888.

INTRODUCTION

The use of computer-generated map plotting with a digitizer is rapid and relatively accurate, if diligent and careful control in handling is maintained. However, the computer-generated points should be spot checked to insure proper alinement to the proper latitude and longitude. This process is expedited if a clear mylar overlay at the proper scale is used (Campbell and VanTrump, 1981).

The following book of computer-generated clear mylar overlays will allow the hand checking or the transfer of points from one map to another at two scales with a minimum loss in accuracy.

DISCUSSION

Although computer plotting of sample localities is faster than hand plotting, not everyone who has the need to plot locations has the use of a computer. The hand plotting using the appropriate overlay is relatively fast and the accuracy should be within one percent of the overlay area coverage for both, or within 2 to 10 seconds depending on scale and latitude. The overlays will also allow the transfer of points between 1:63,360 and 1:250,000 scales. If a different size map scale is to be used, a scale ratio of latitude-longitude is determined at each latitude given or the clear mylars can be copied by a variable reduction copier to achieve the desired scale reduction.

As the distance between degrees latitude is constant from south to north, and as the distance between degrees longitude decreases from south to north (in the Northern Hemisphere) several sets of overlays will be required to cover the areas worked. For areas this far north (or south, in the Southern Hemisphere), continuous overlays are more useful due to the extreme convergence.

To cover all latitudes starting at 51°00'00" N. or S. through 71°30'00" N. or S. on a scale of 1:63,360, 165 clear mylar templates are needed. If these are plotted at every 7°30' latitude from 51°00' N. or S. latitude to 71°30' N. or S. latitude, complete continuous coverage is available, and less than 1 percent error occurs in reading a point.

To cover the area at a scale of 1:250,000, 45 clear mylar templates are required. These are to be plotted at 30-minute intervals, starting at lat 49°00' N. or S. to lat 71°30' N. or S.

CONCLUSIONS

The use of clear mylar overlays to expedite the location or transfer of points from one map scale to another is now feasible thanks to the advent of computer-generated templates. Overlays at any map scale can be generated within minutes using computer program resident in a computer and plotter (Plouff, written commun., 1982). A substantial saving in time and accuracy can be achieved through use of this booklet of computer-generated templates.

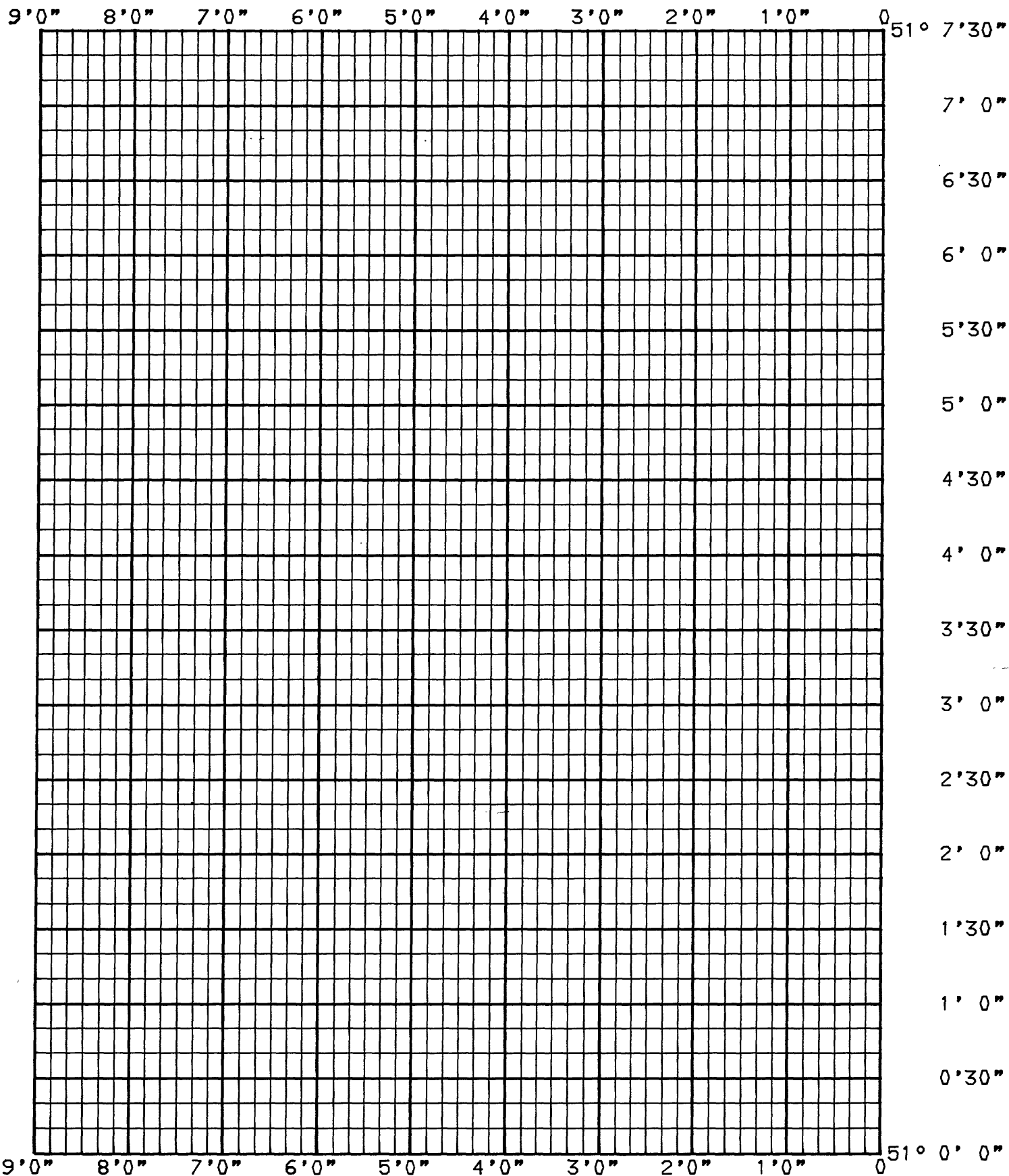
The error in locations is small (less than 2 or 5 seconds depending on the scale used) if the templates are used properly.

REFERENCES CITED

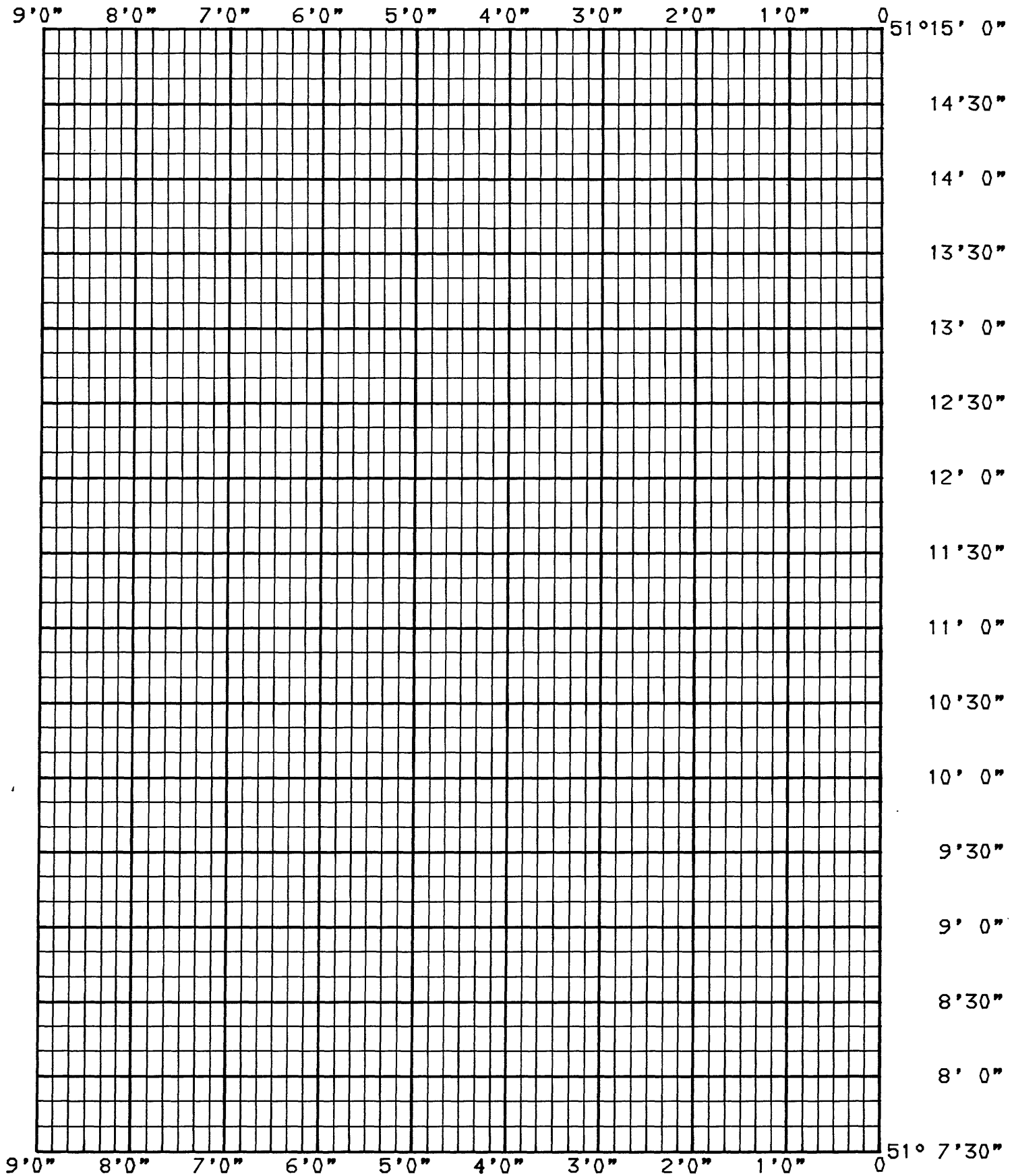
Campbell, W. L., and VanTrump, G., 1981, Catalog of available clear mylar templates used to determine latitude and longitude of sample localities at scales of 1:24,000, 1:62,500, 1:100,000, and 1:250,000 between the latitudes of 25°30' and 49°00' north or south latitude: U.S. Geological Survey Open-File Report 81-746.

Campbell, W. L., and VanTrump, G., 1981, Clear mylar templates used to measure latitude and longitude of sample localities at scales of 1:24,000, 1:62,500, 1:100,000, and 1:250,000: U.S. Geological Survey Open-File Report 81-747.

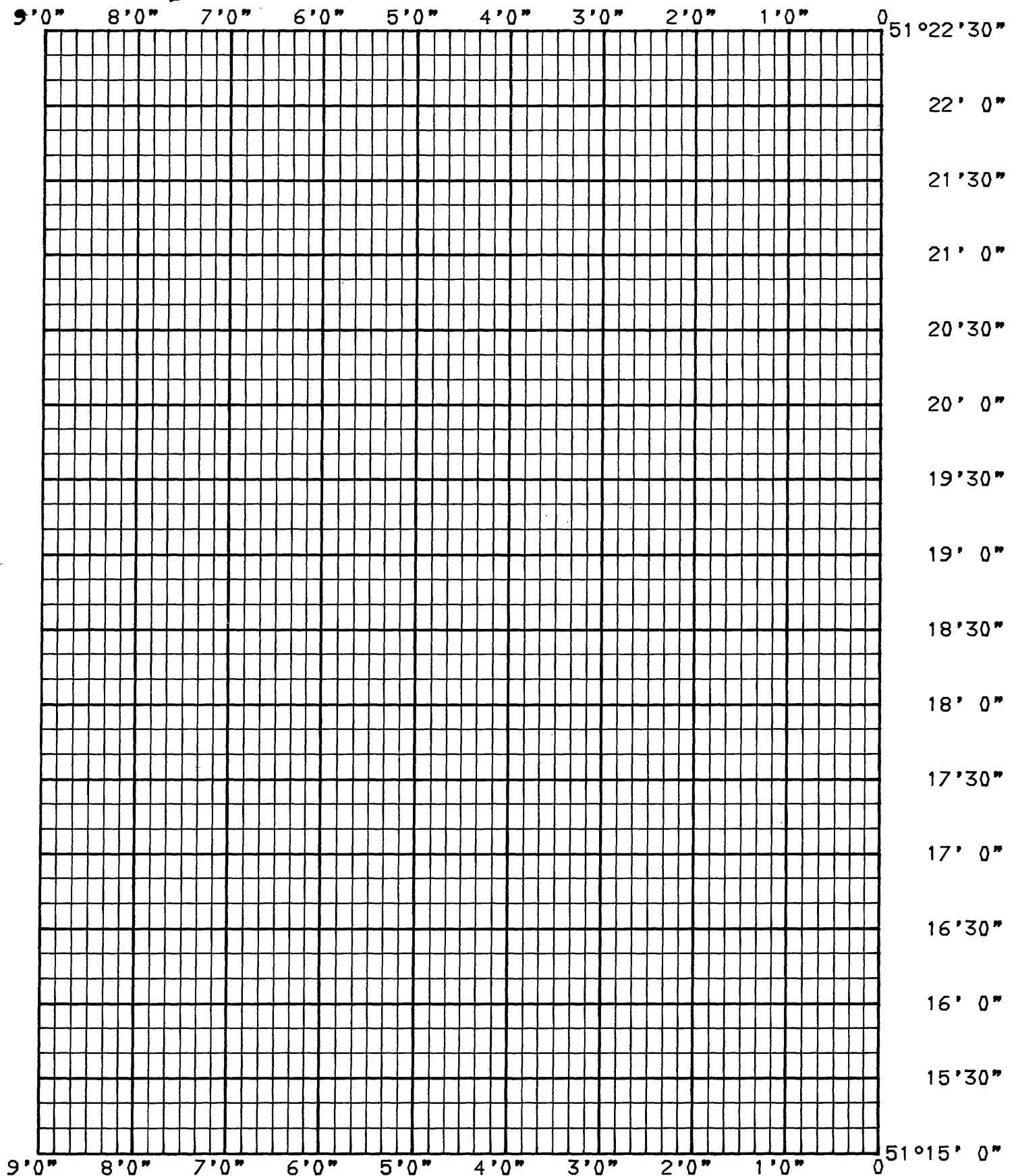
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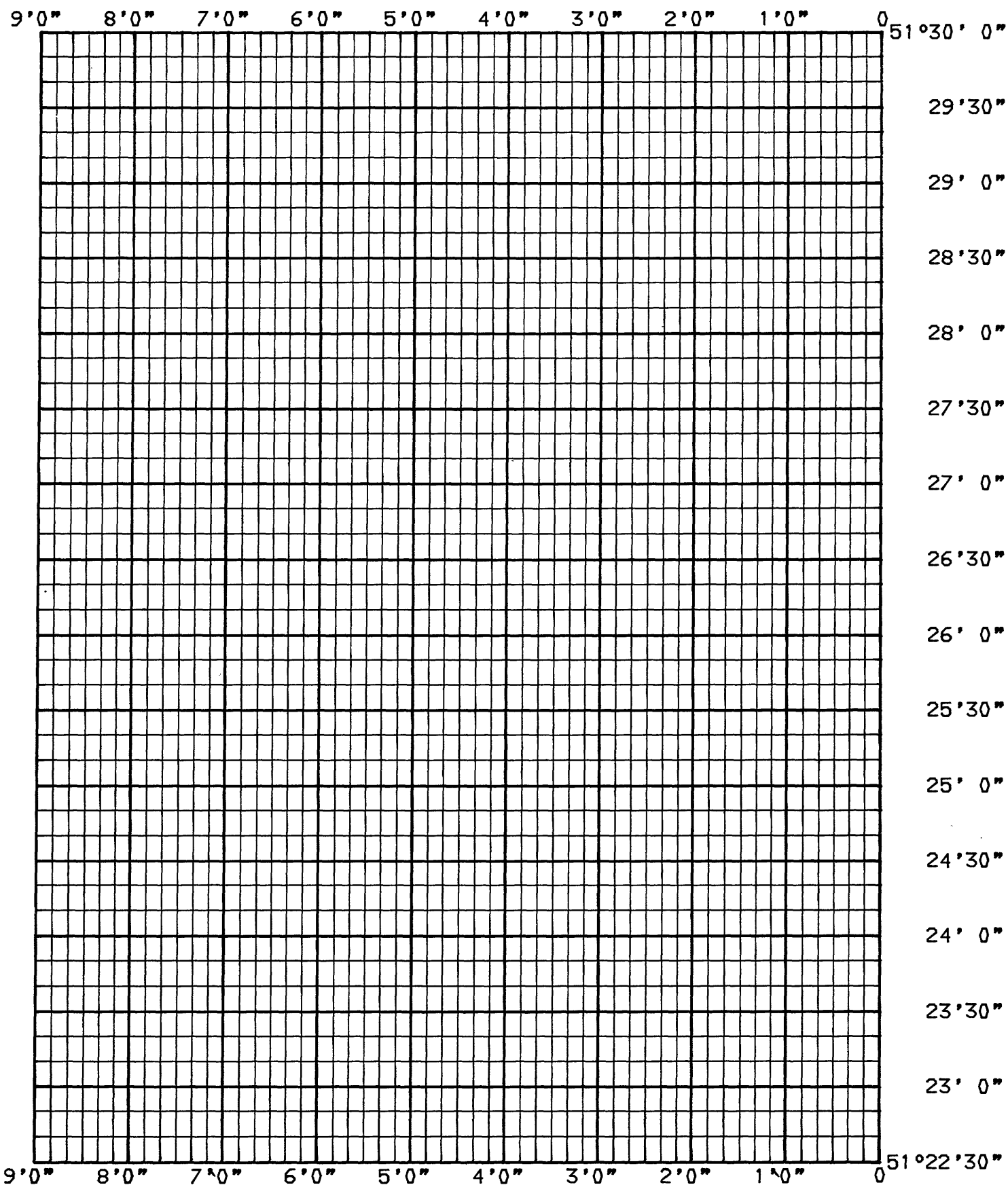
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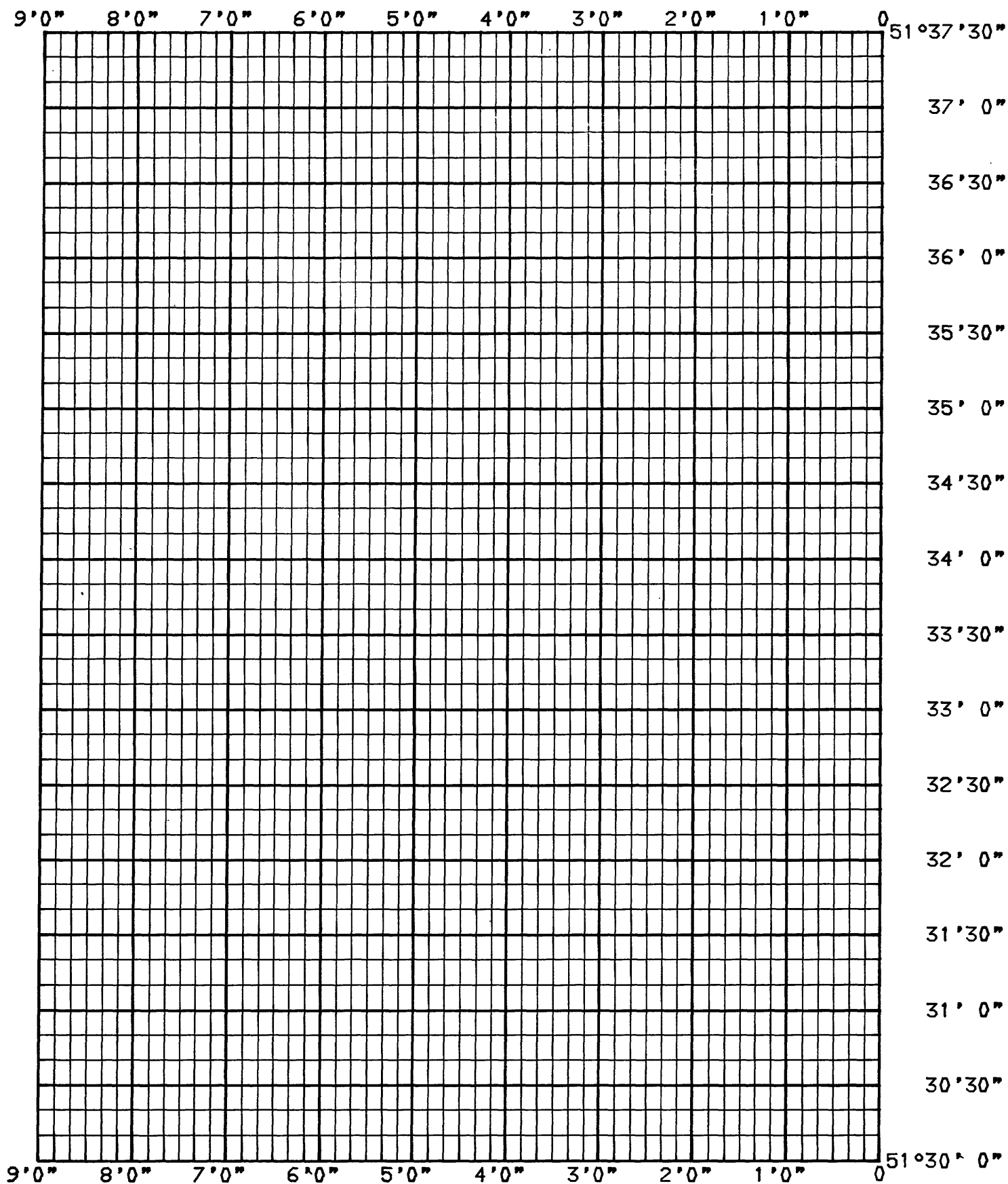
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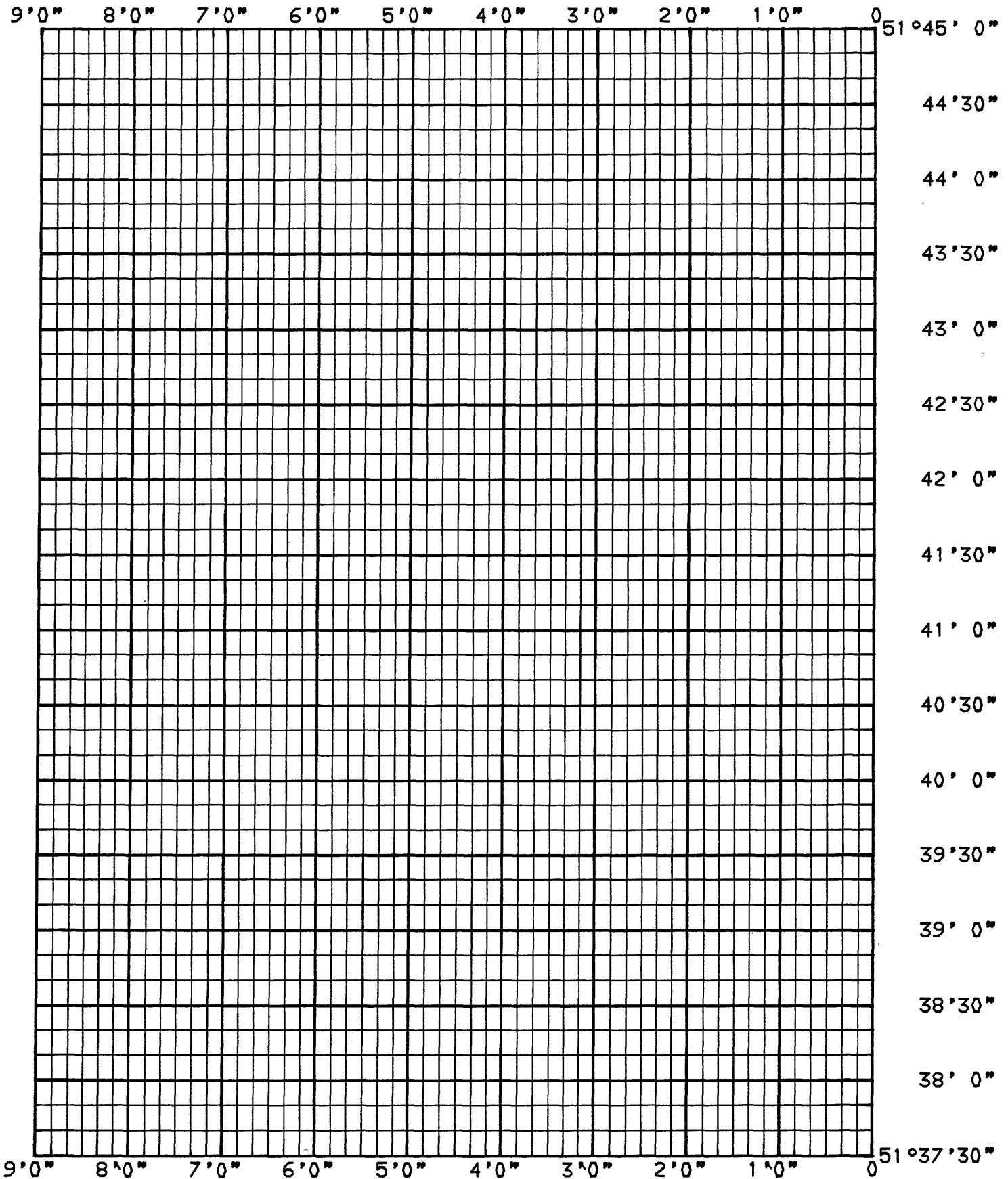
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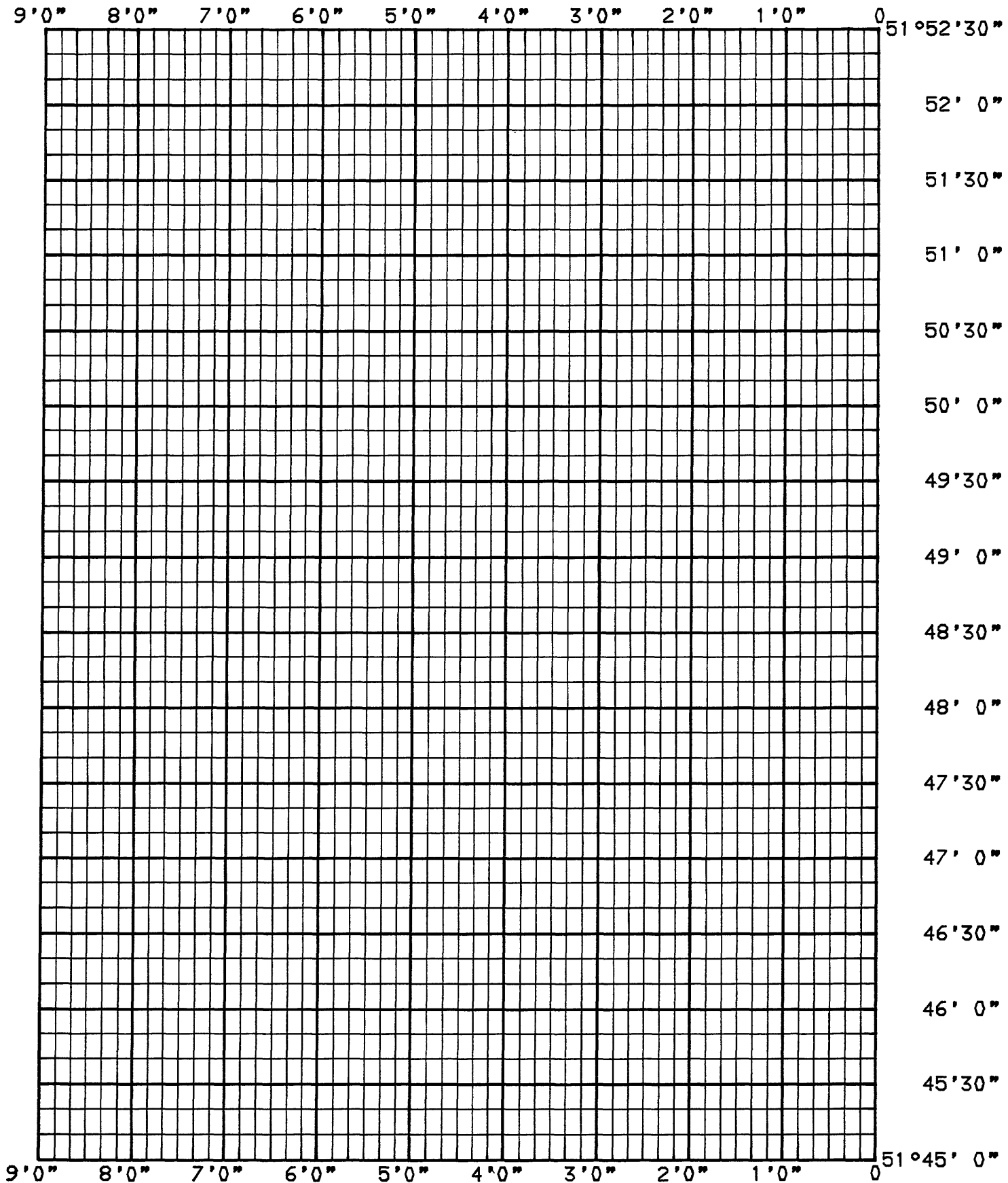
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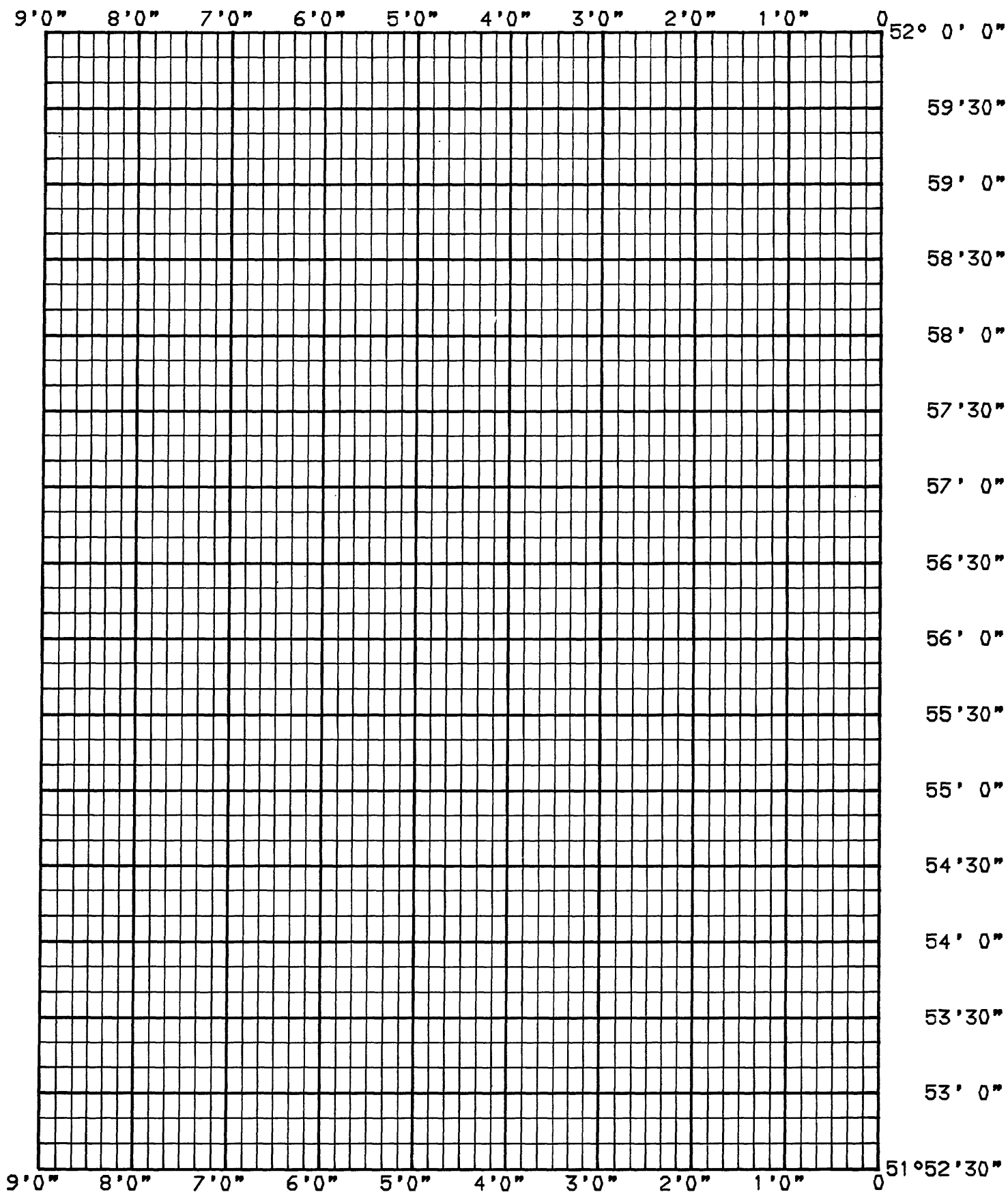
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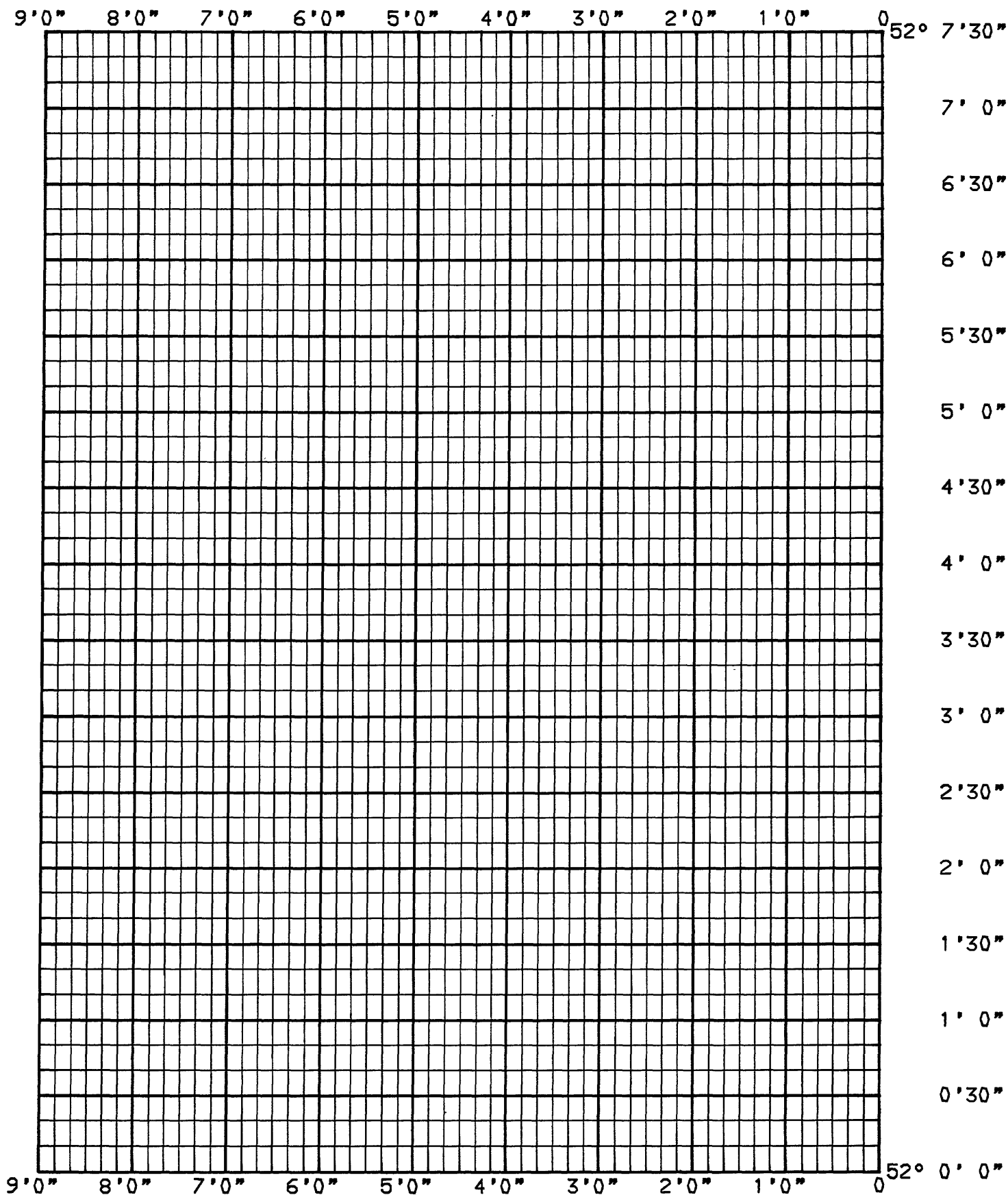
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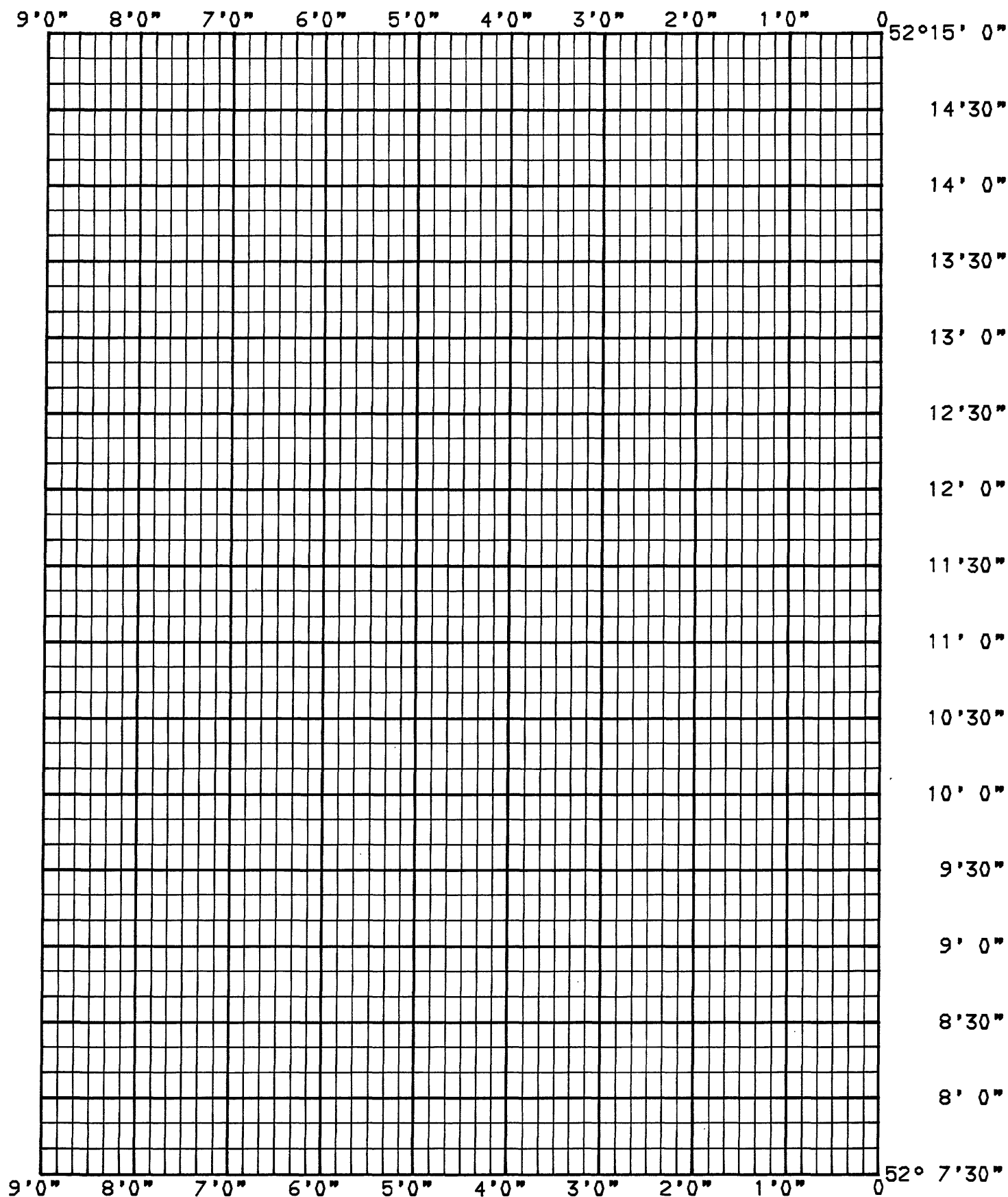
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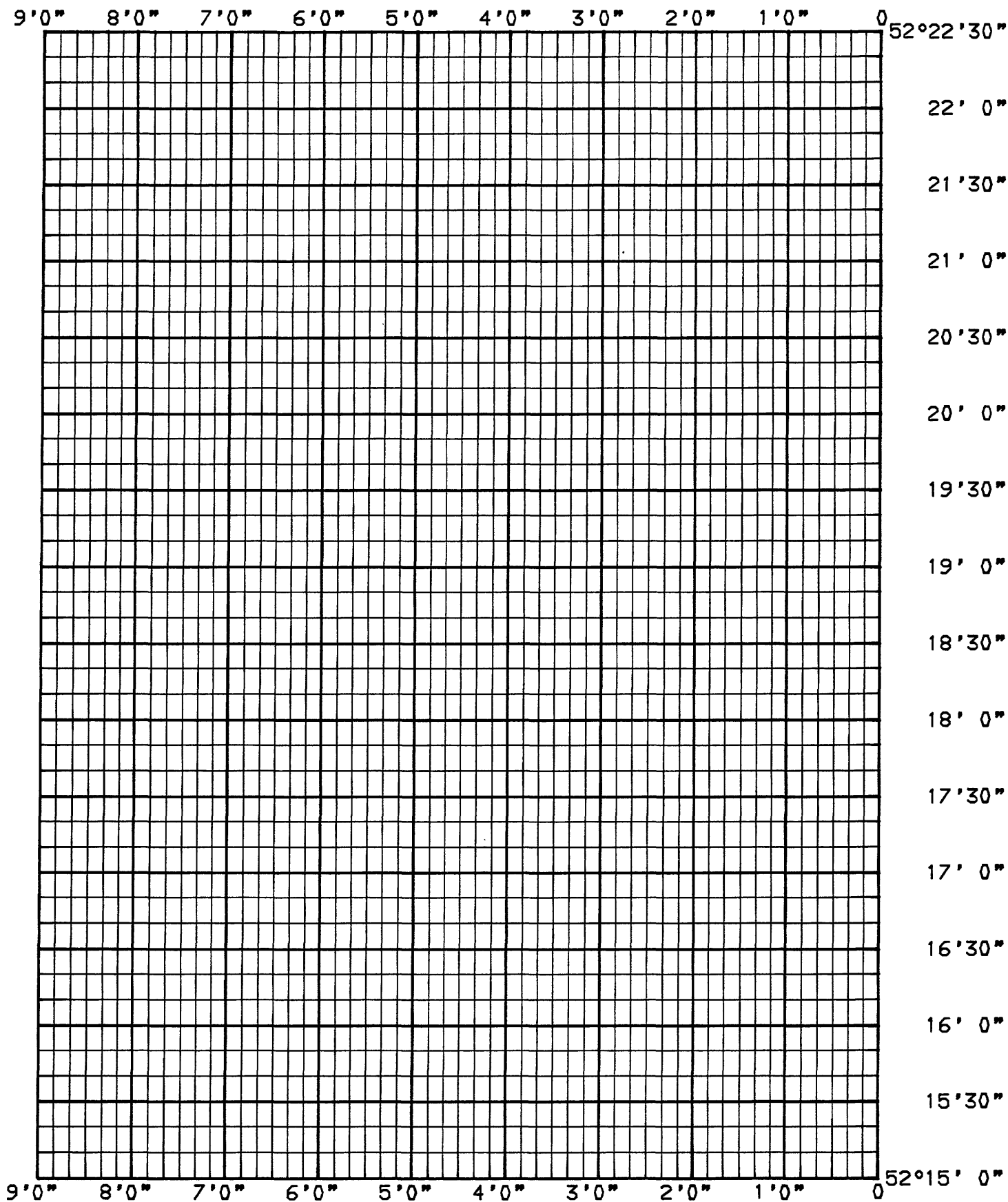
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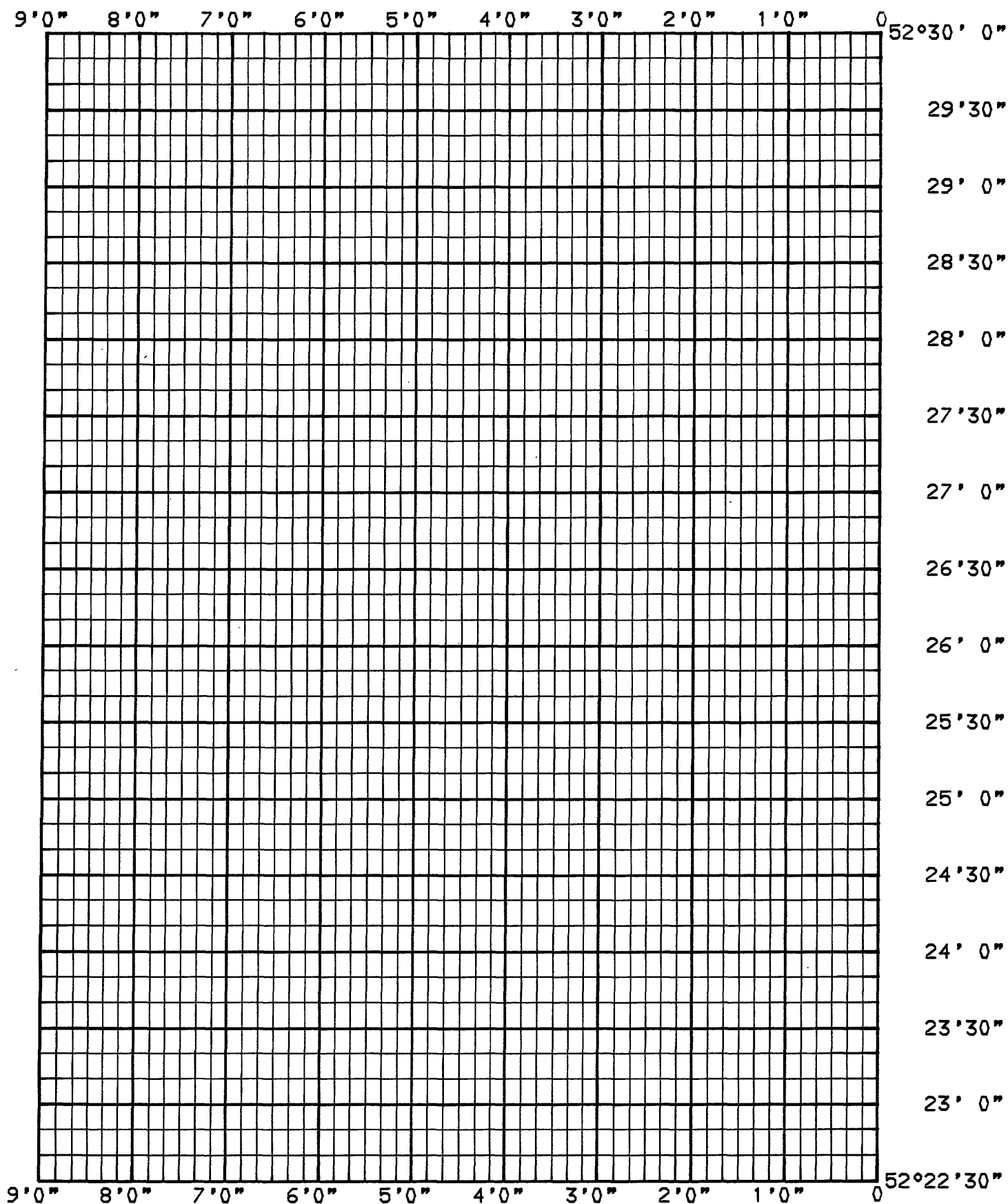
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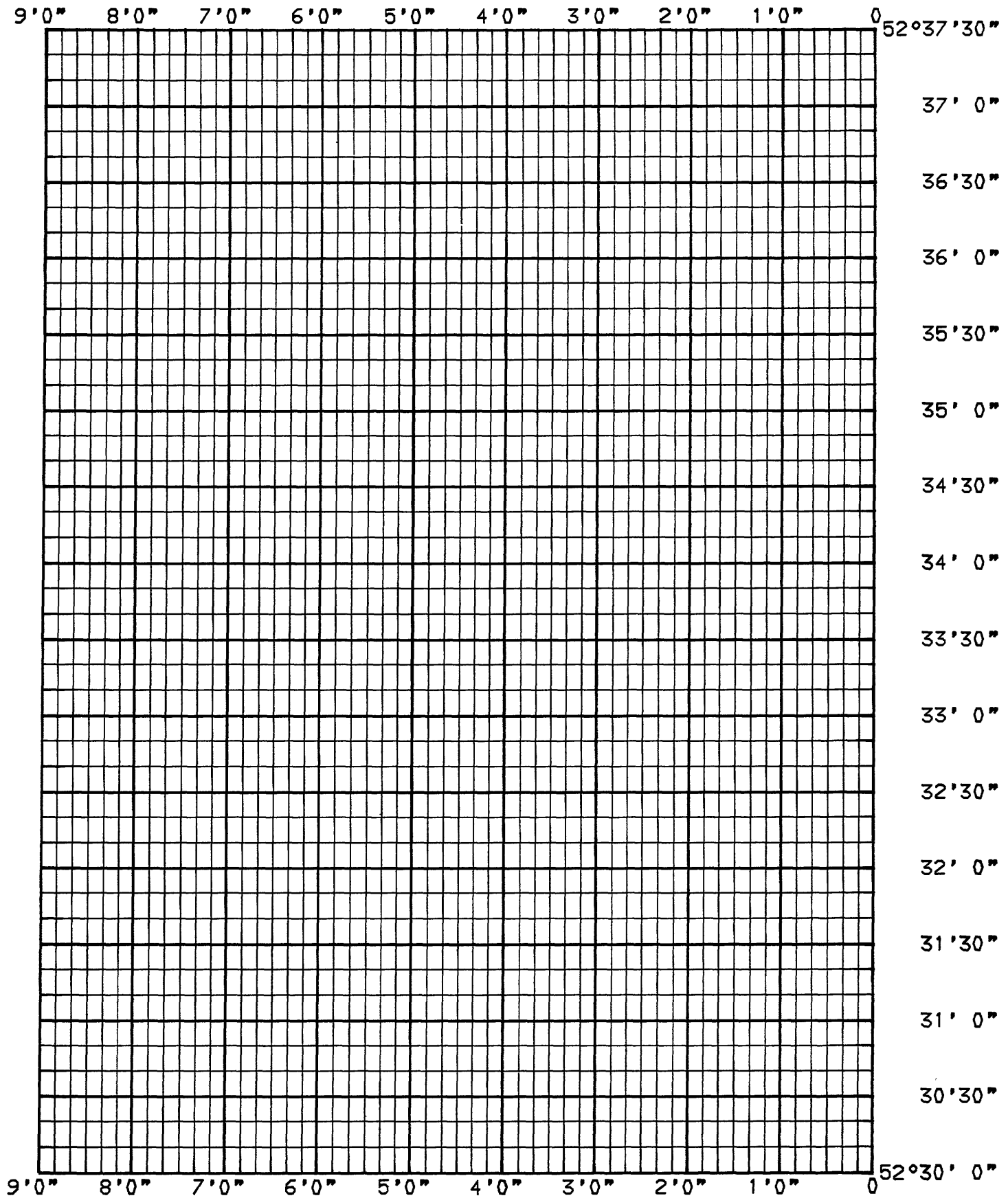
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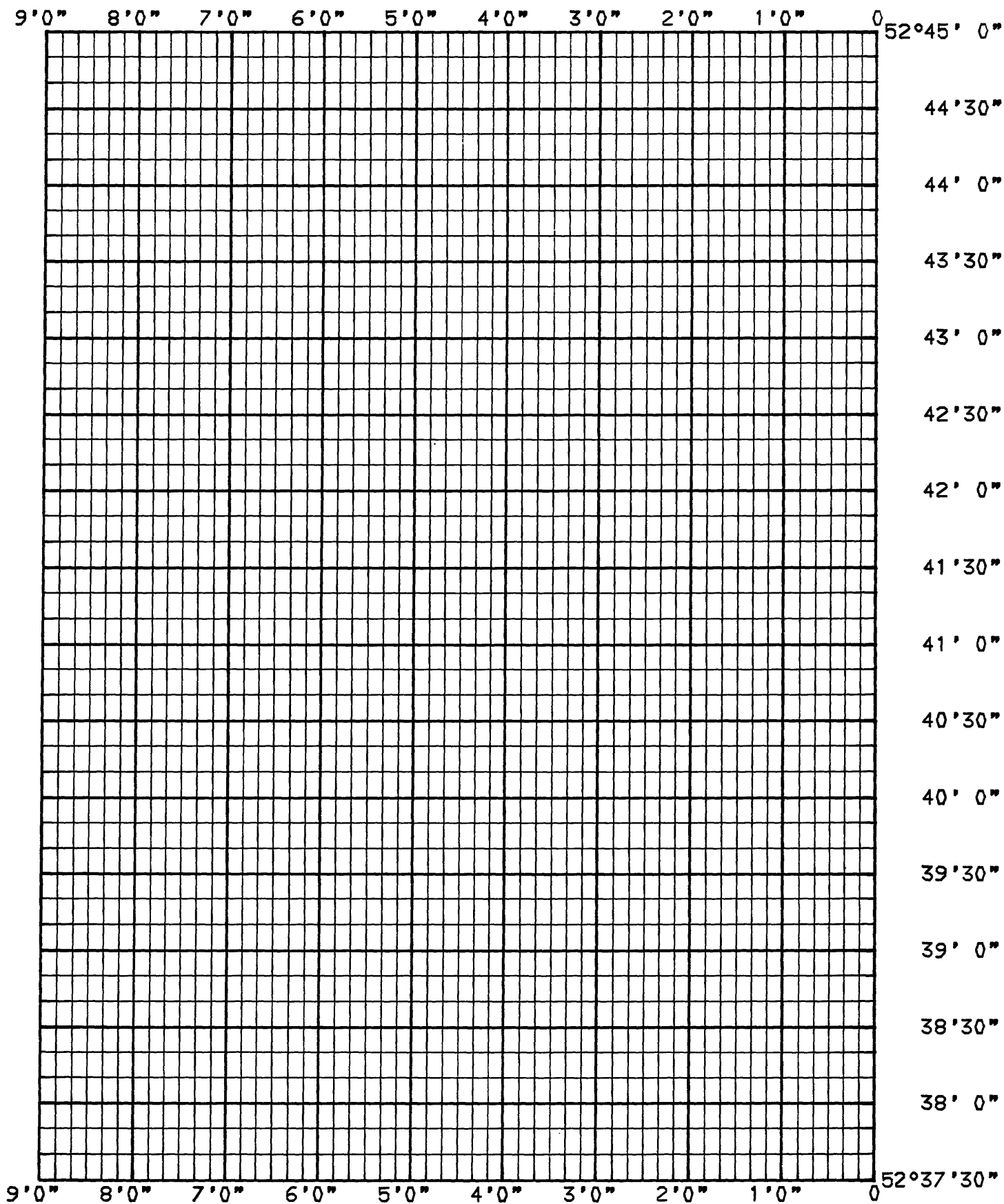
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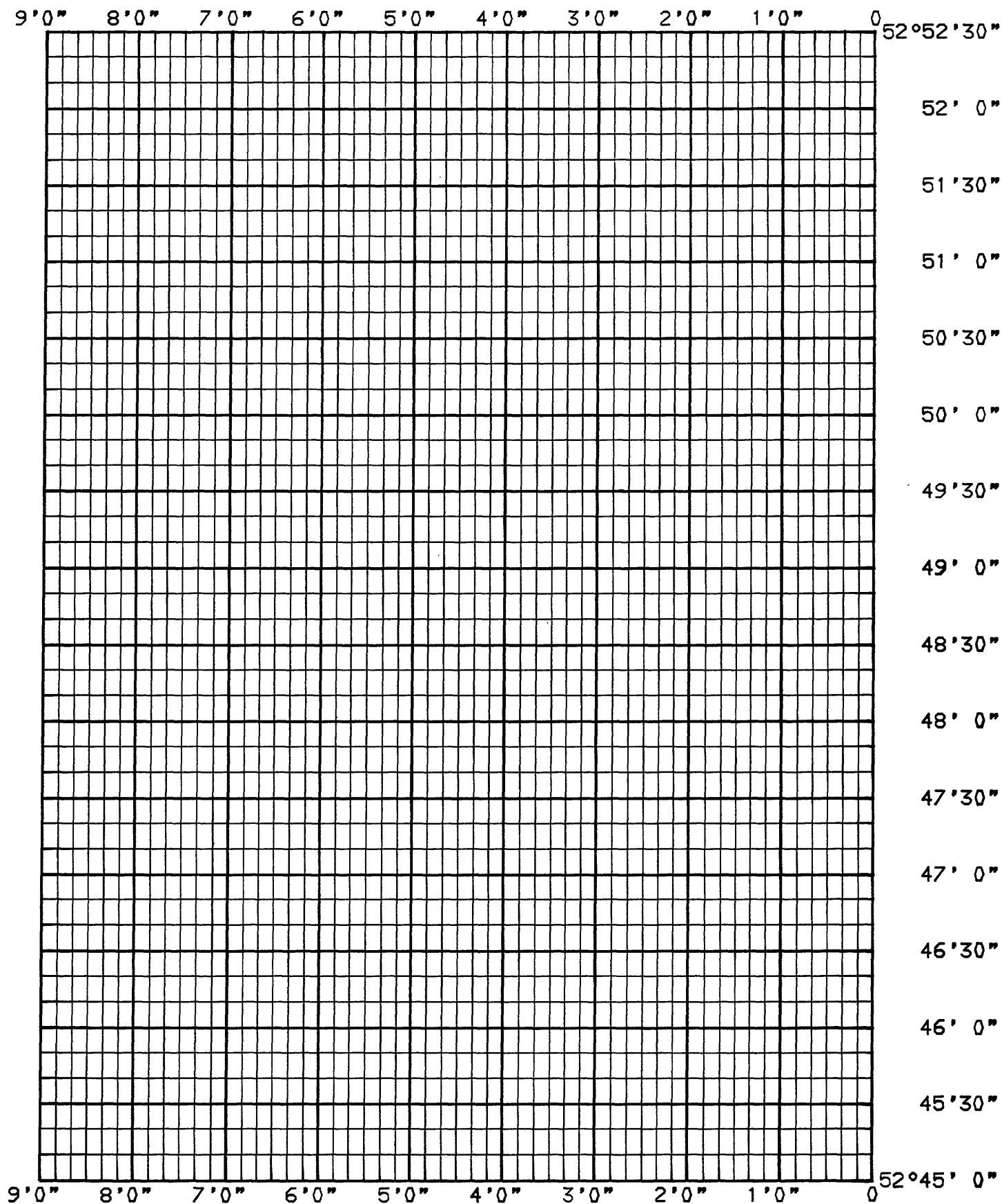
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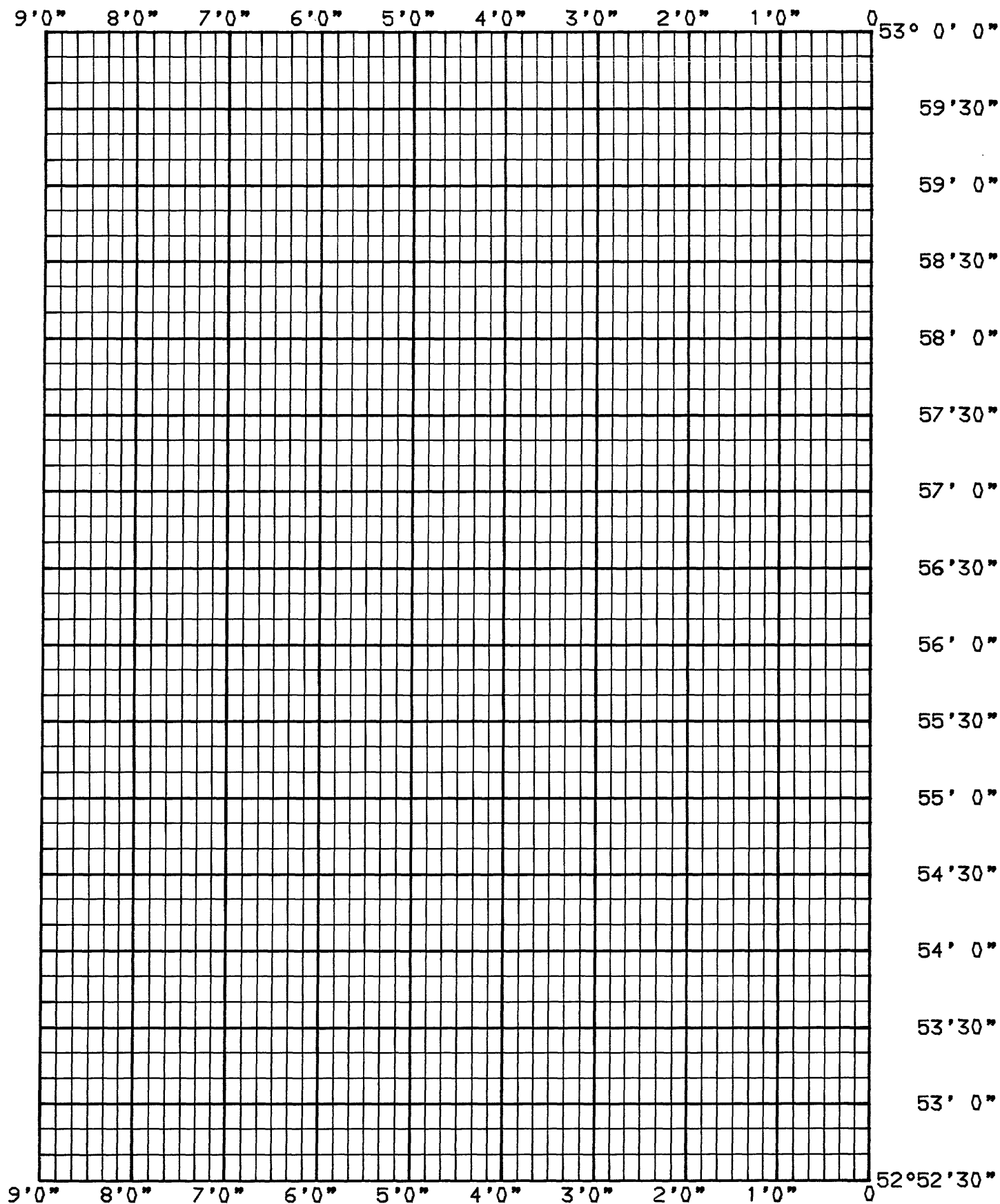
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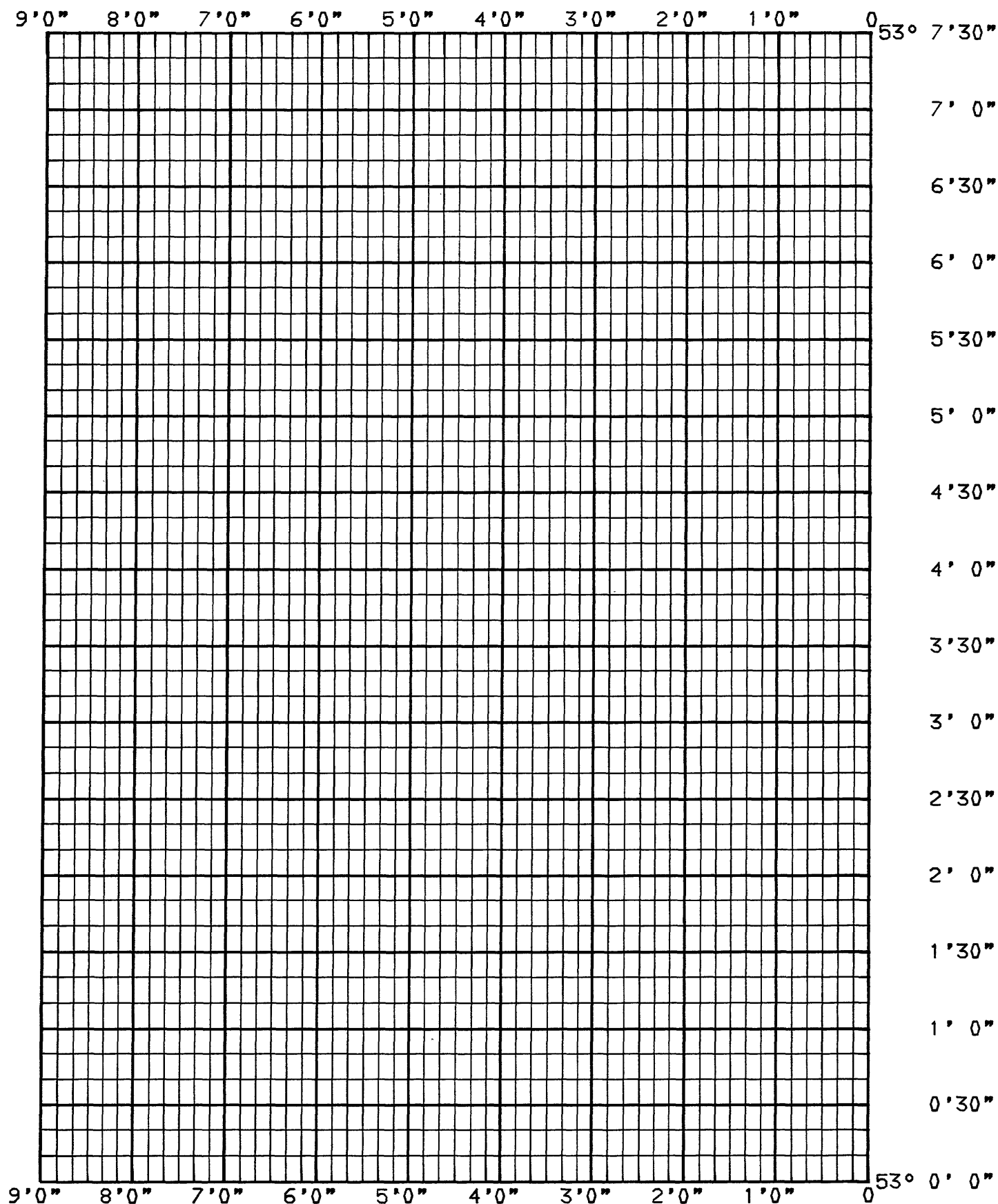
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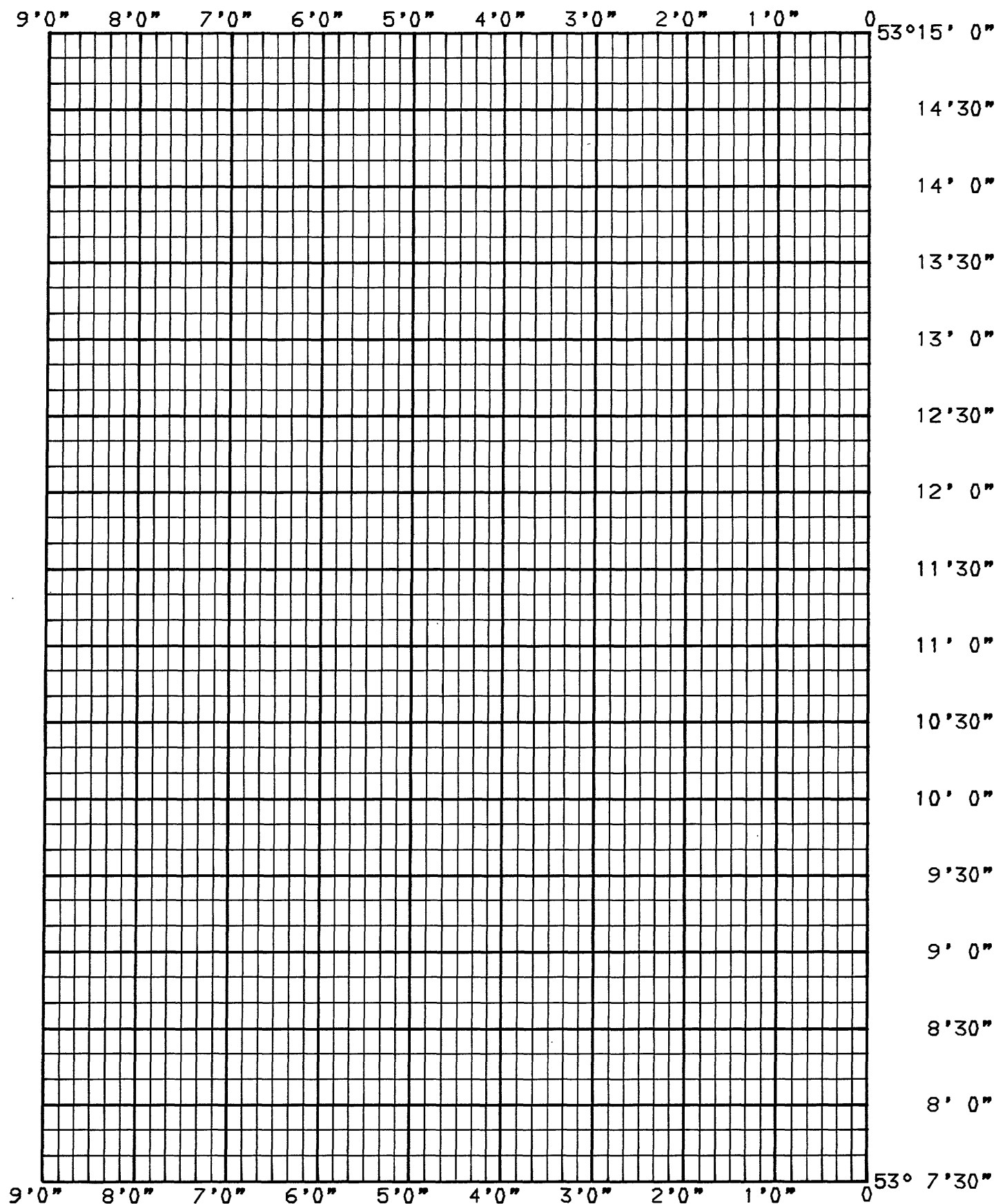
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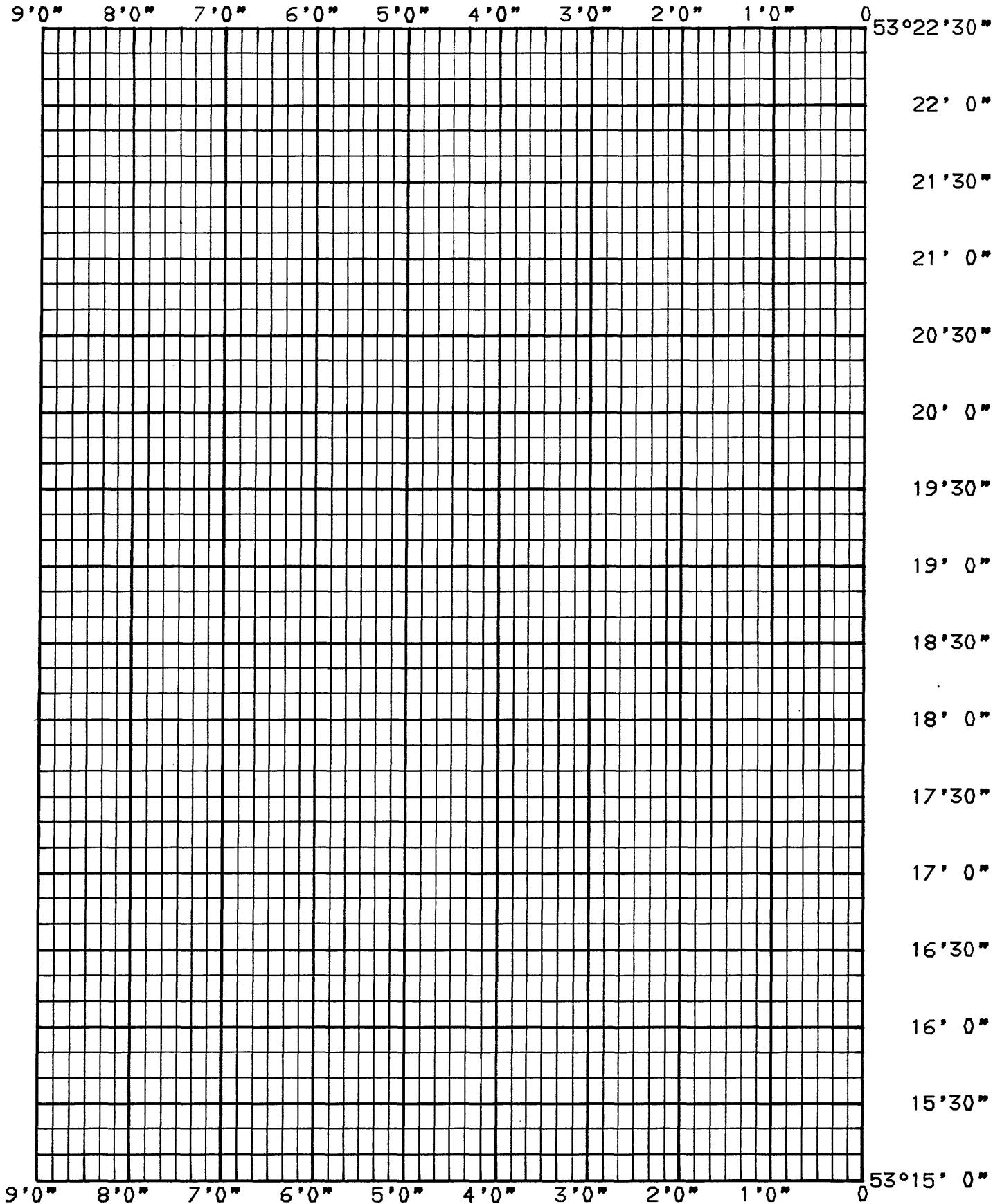
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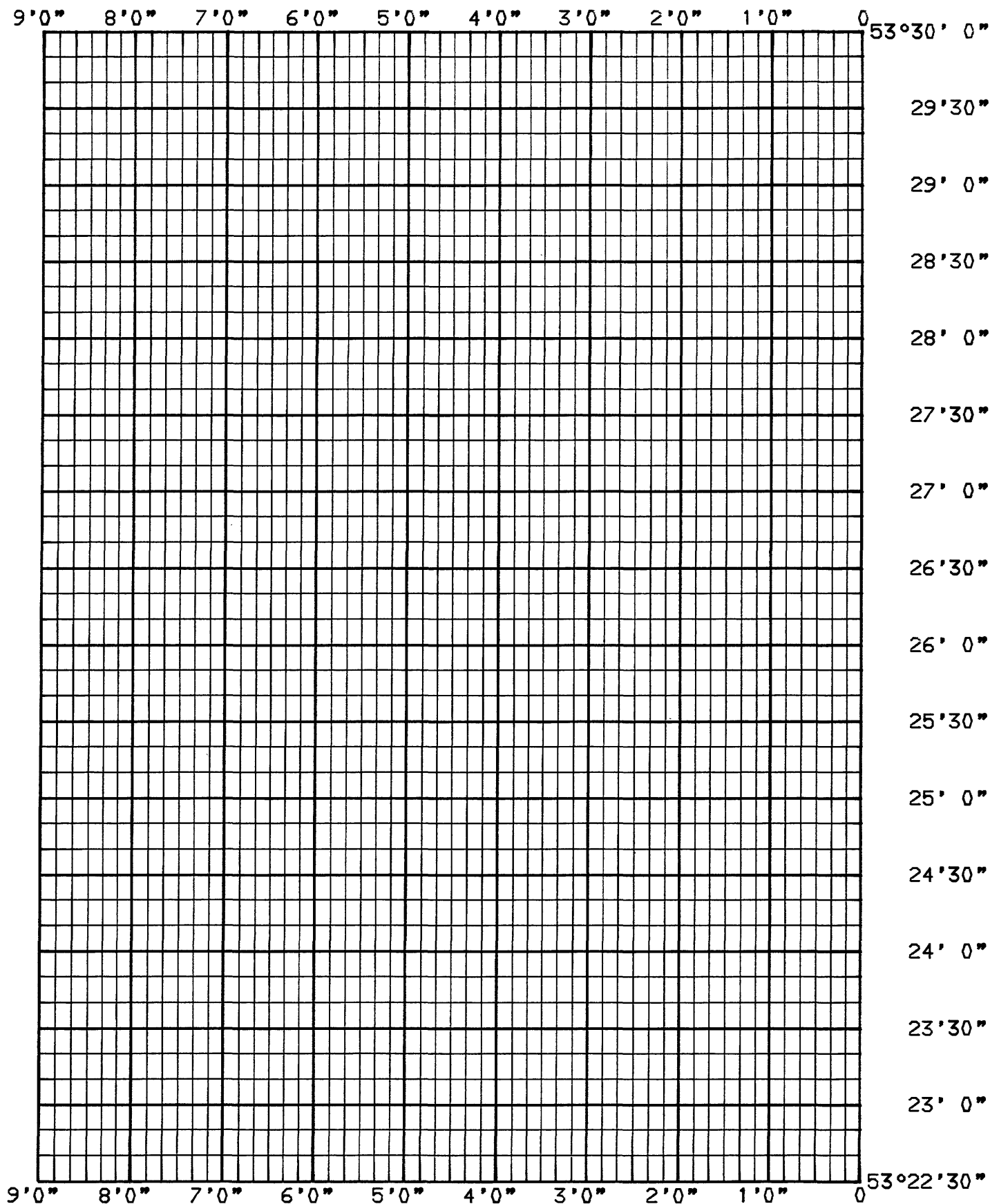
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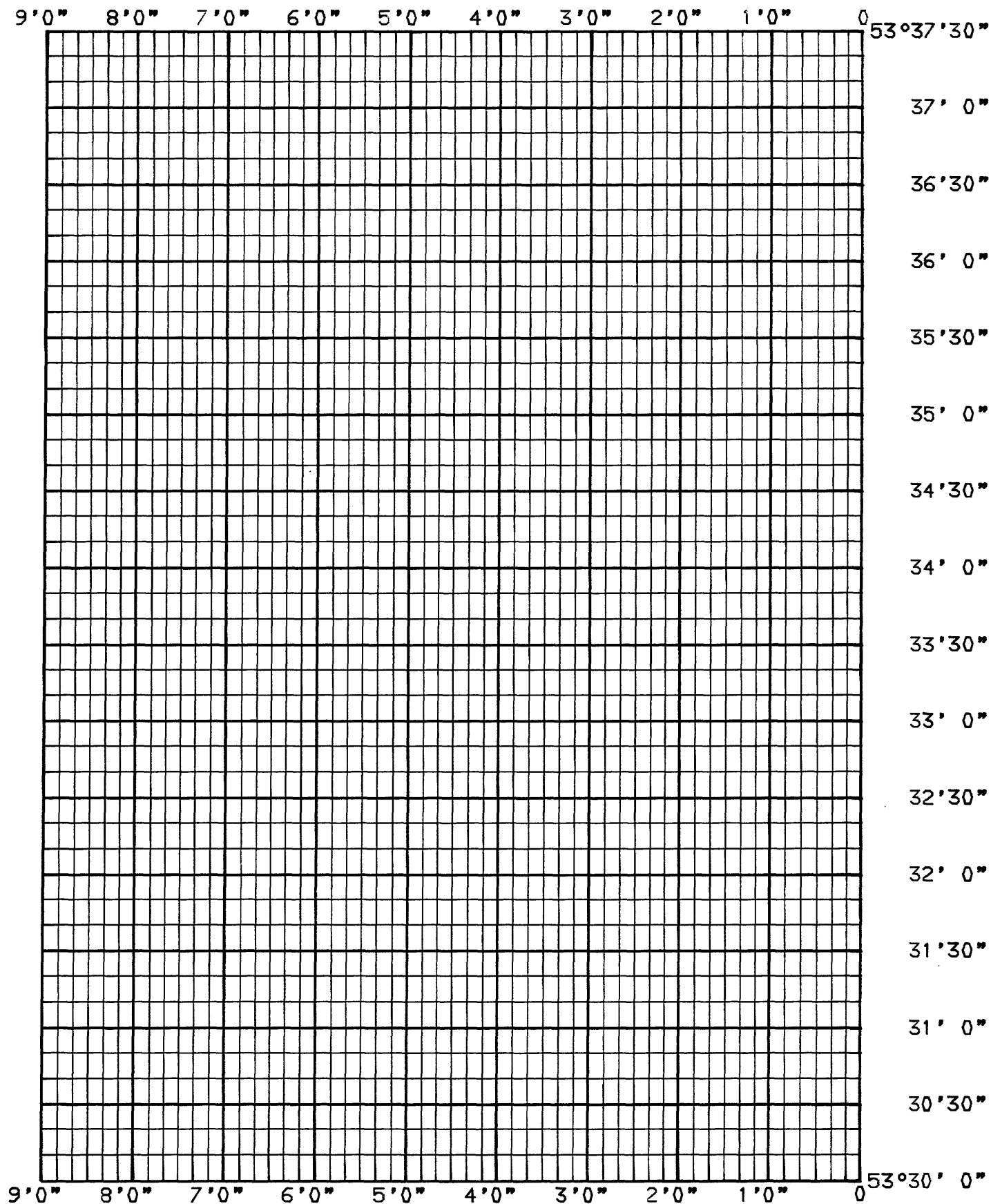
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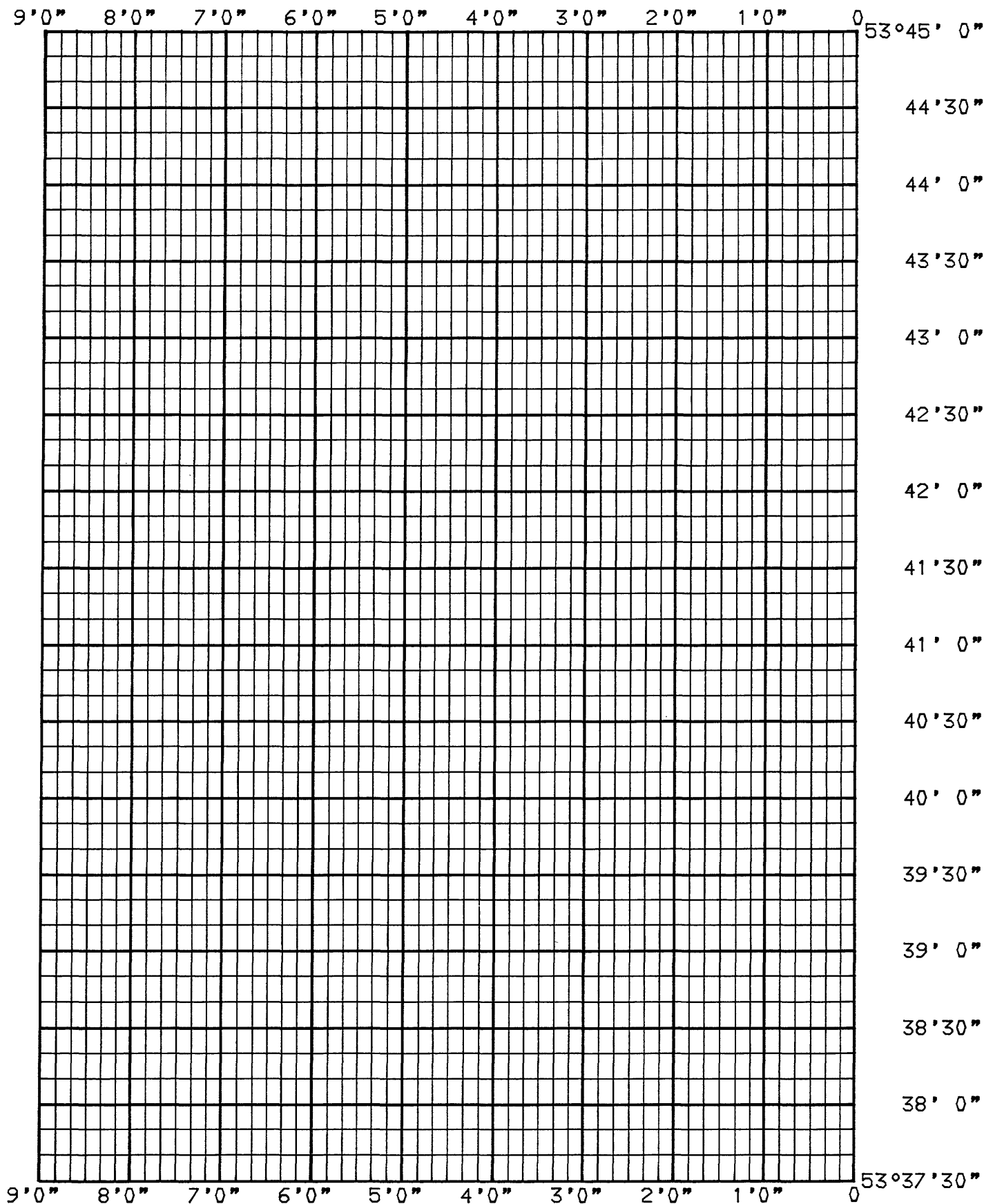
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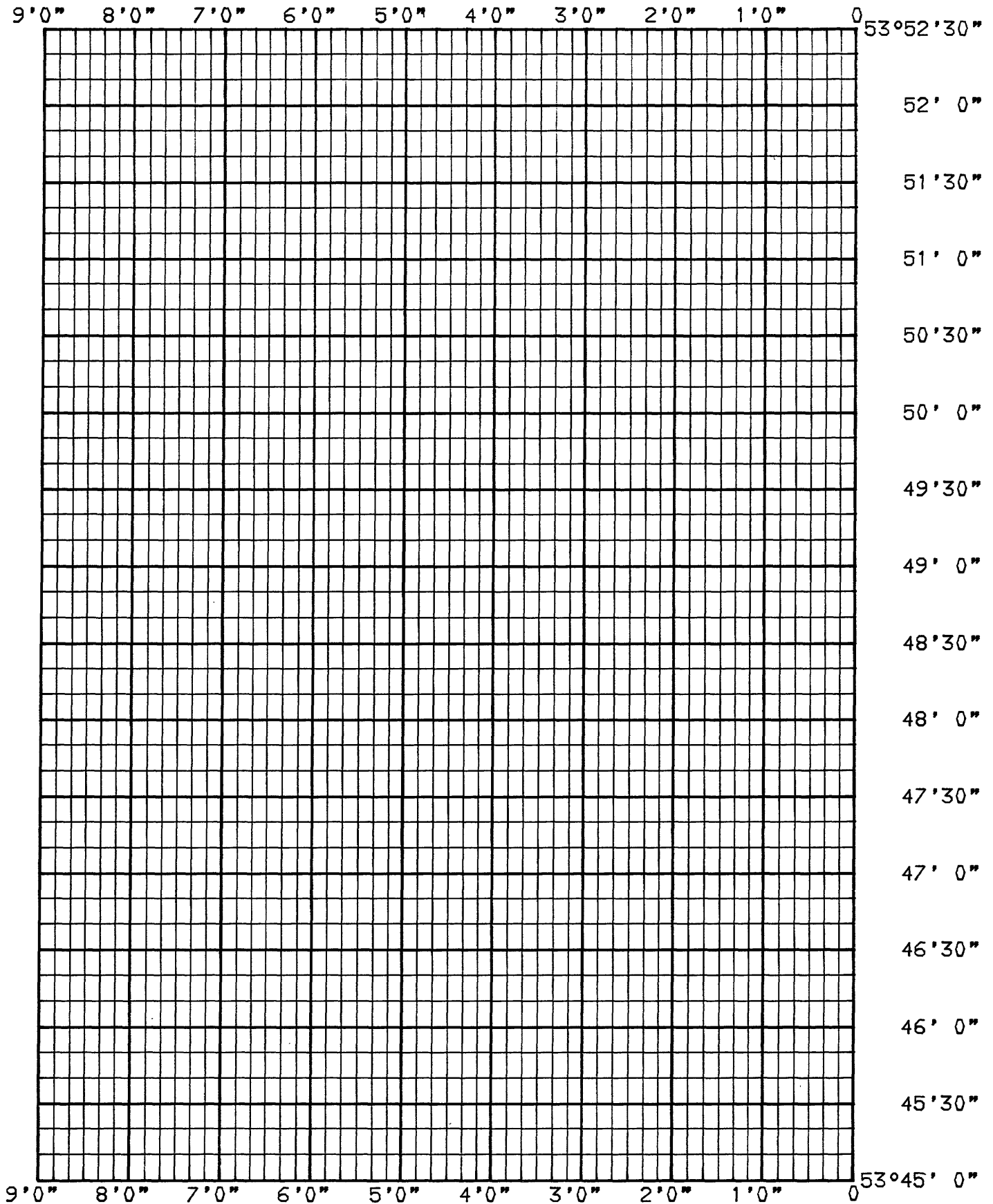
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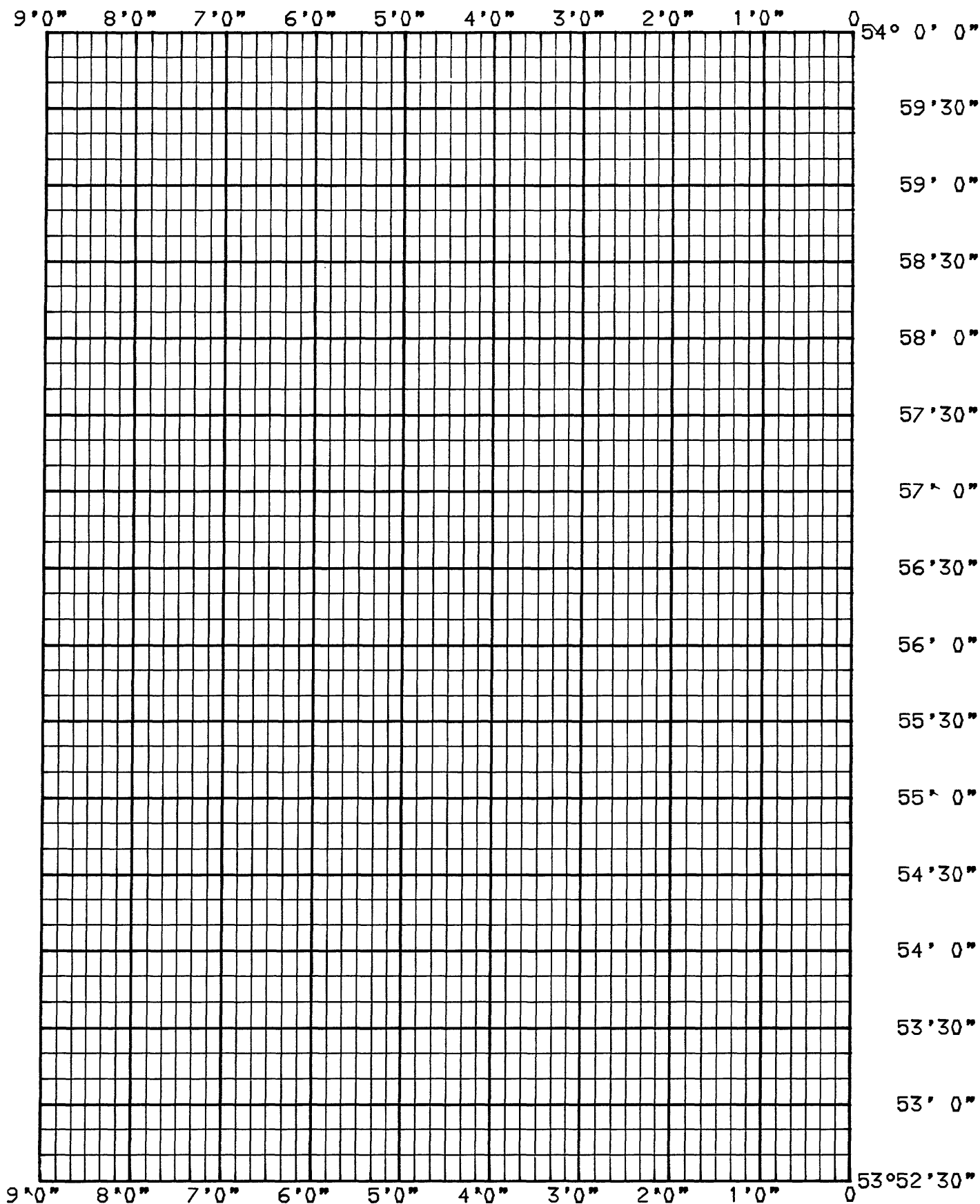
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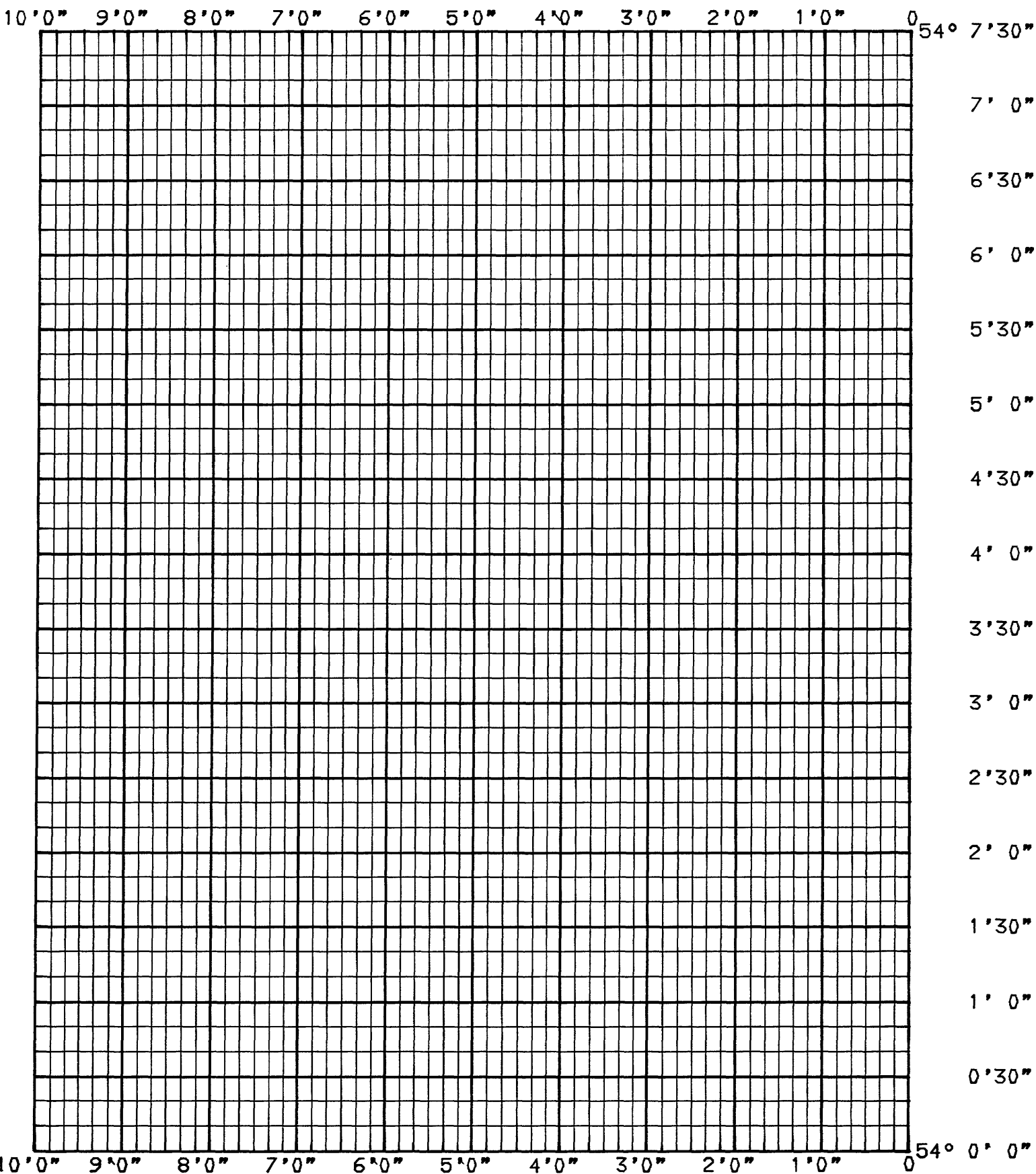
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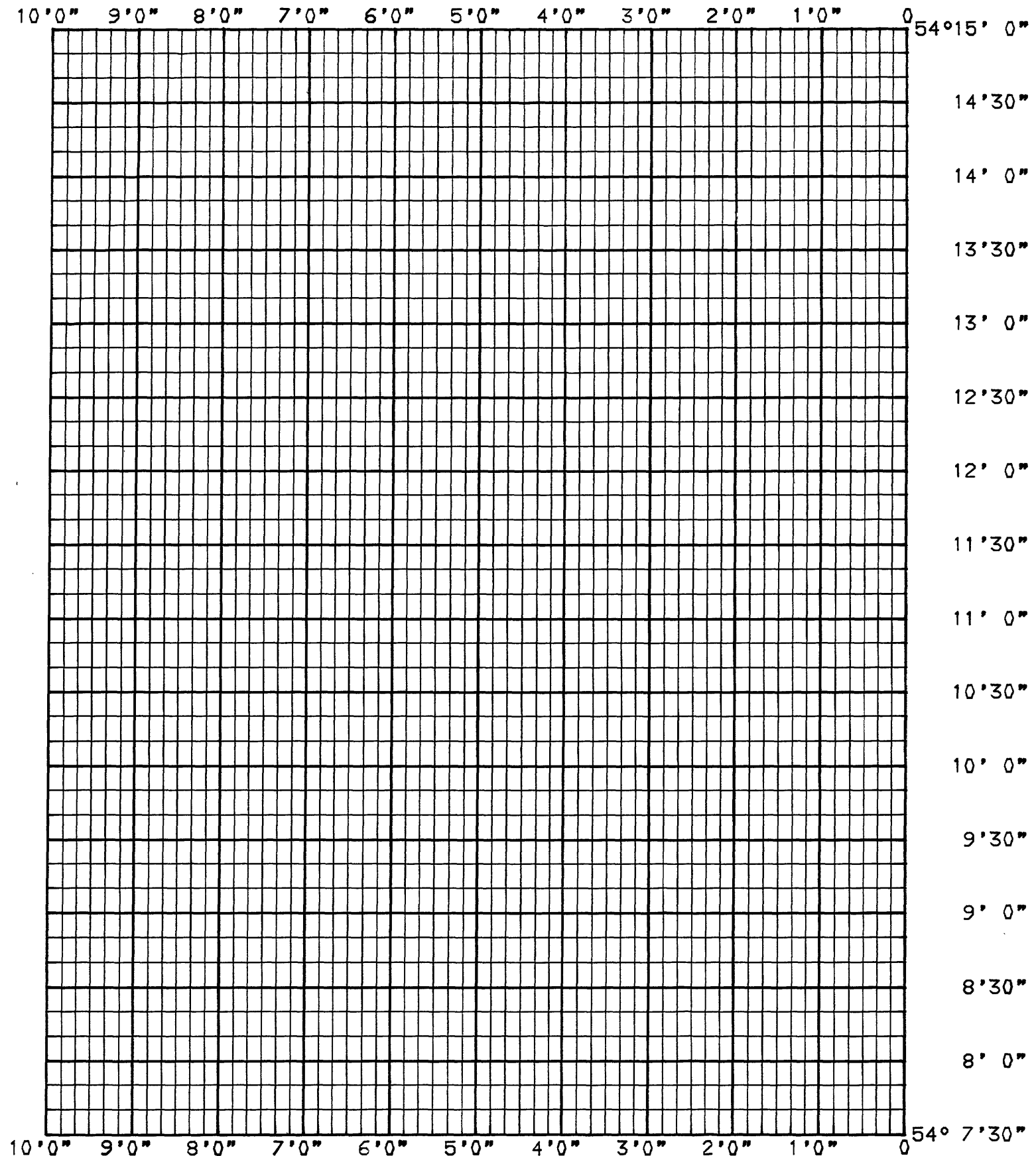
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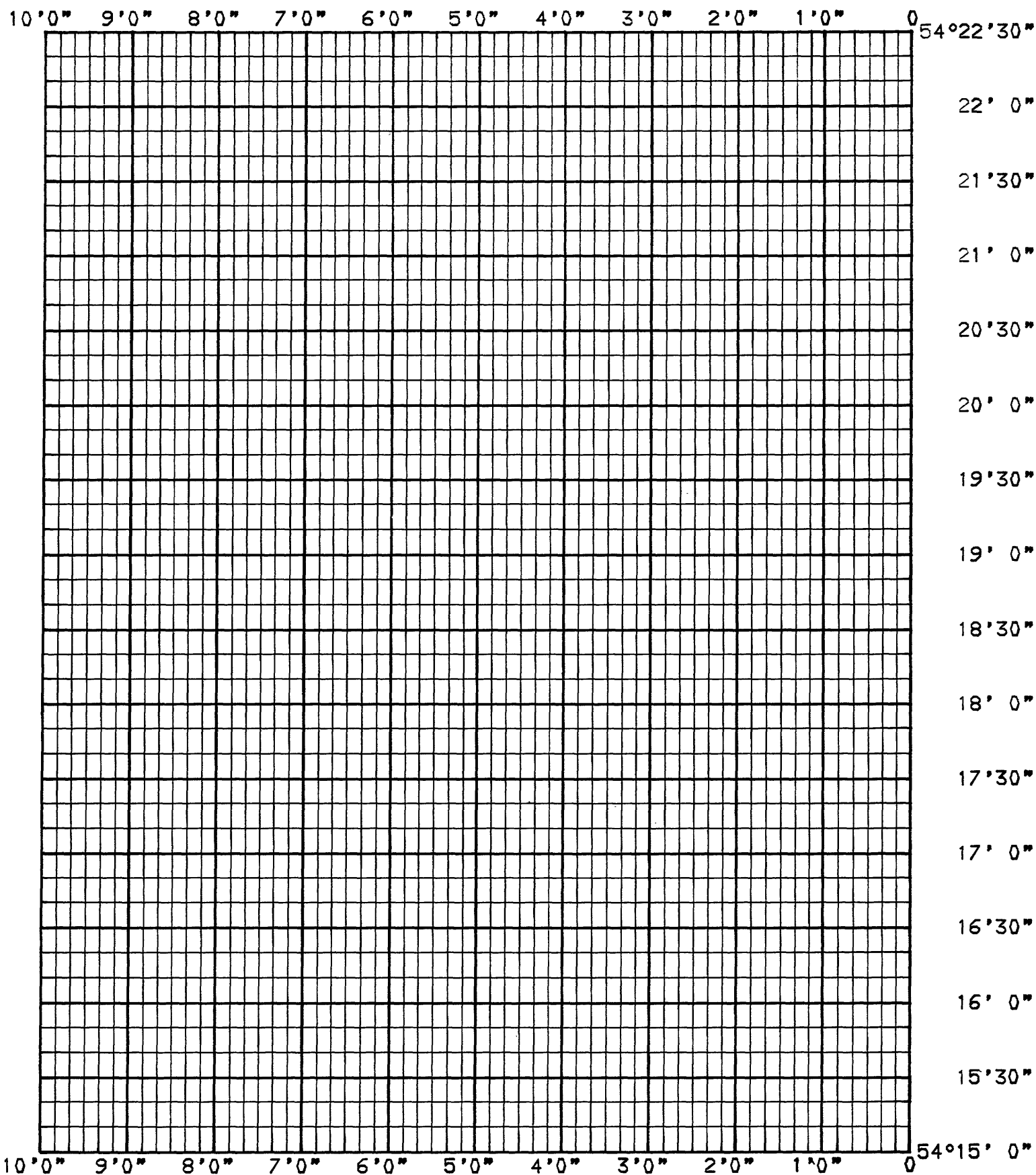
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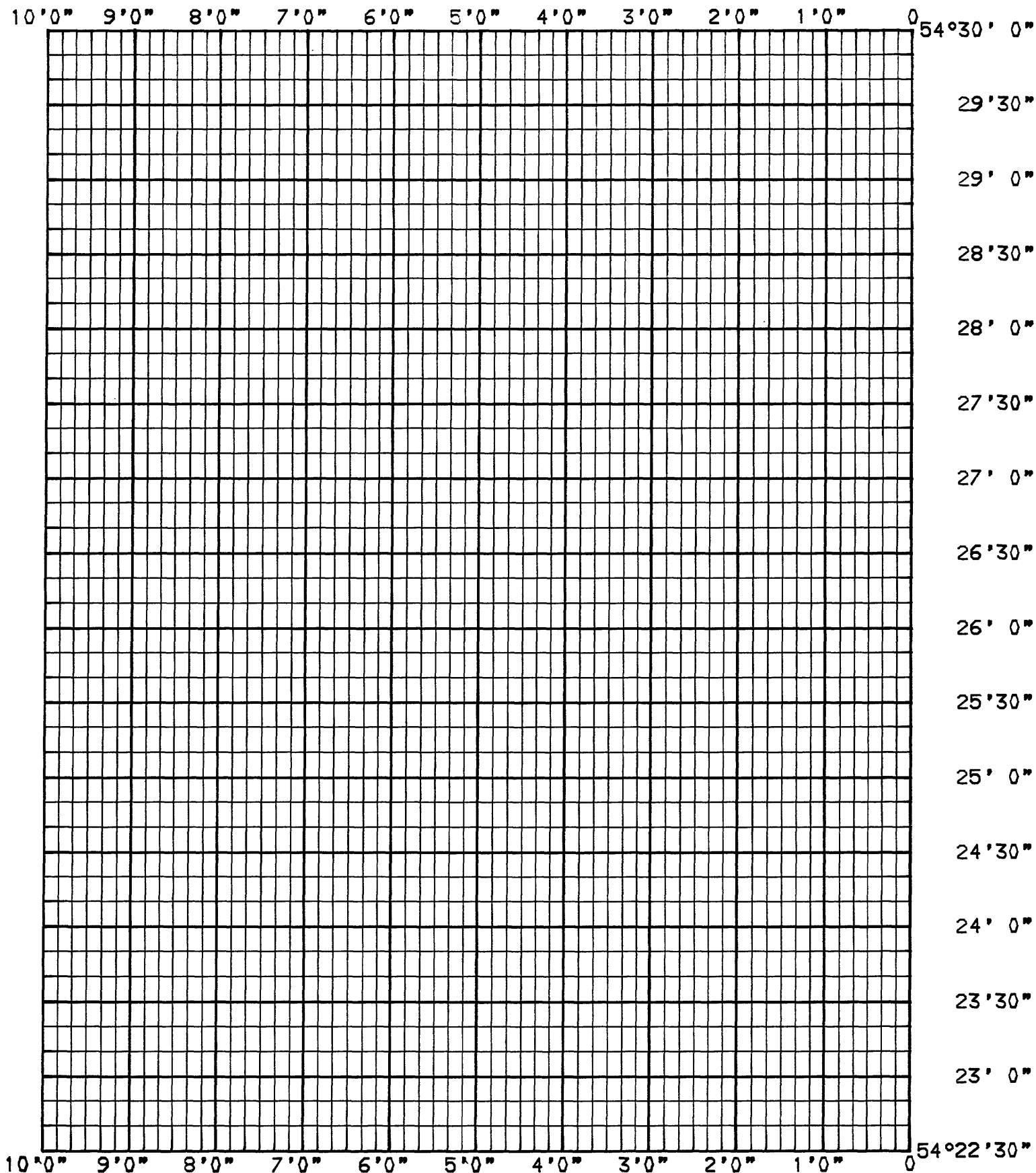
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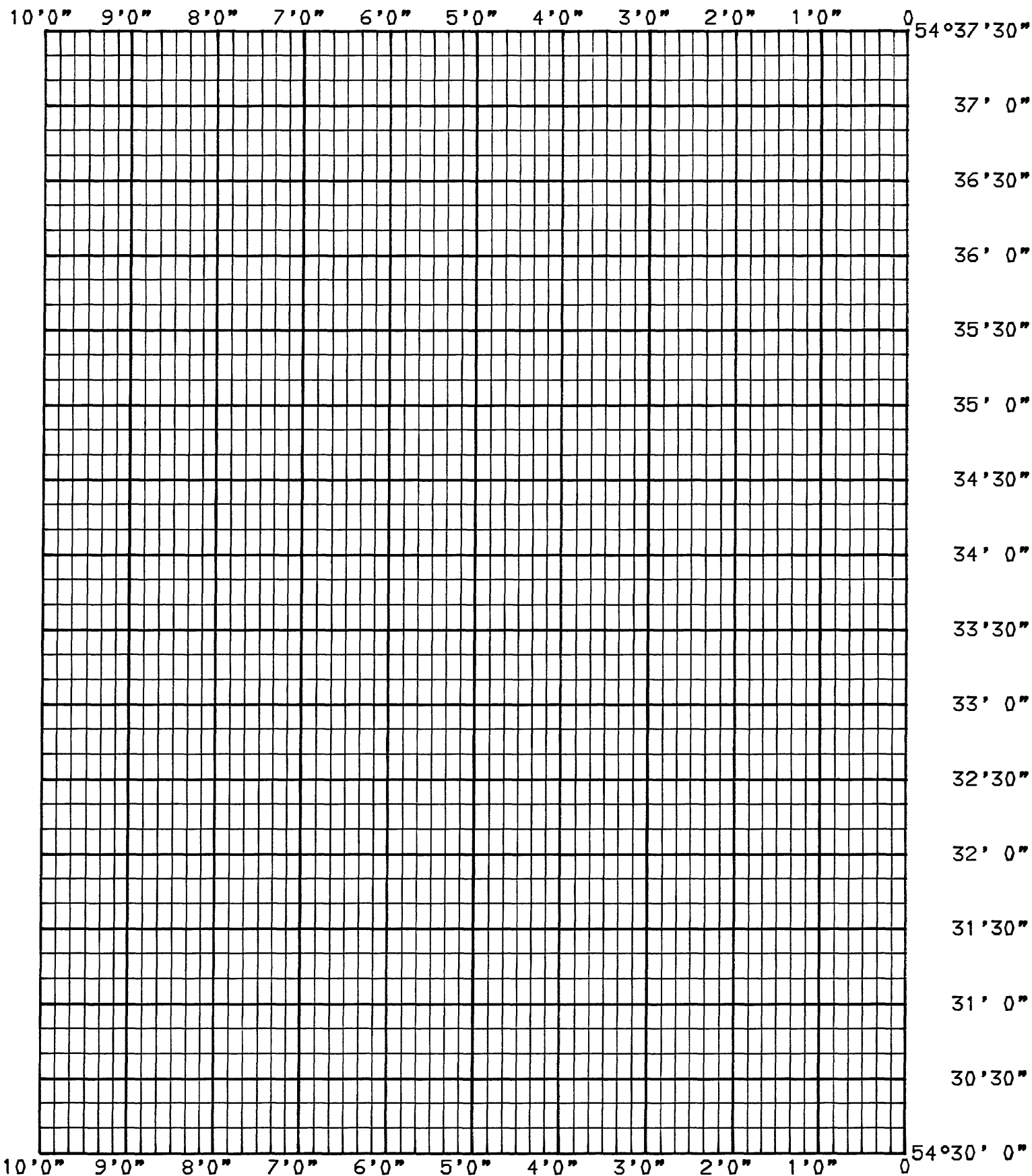
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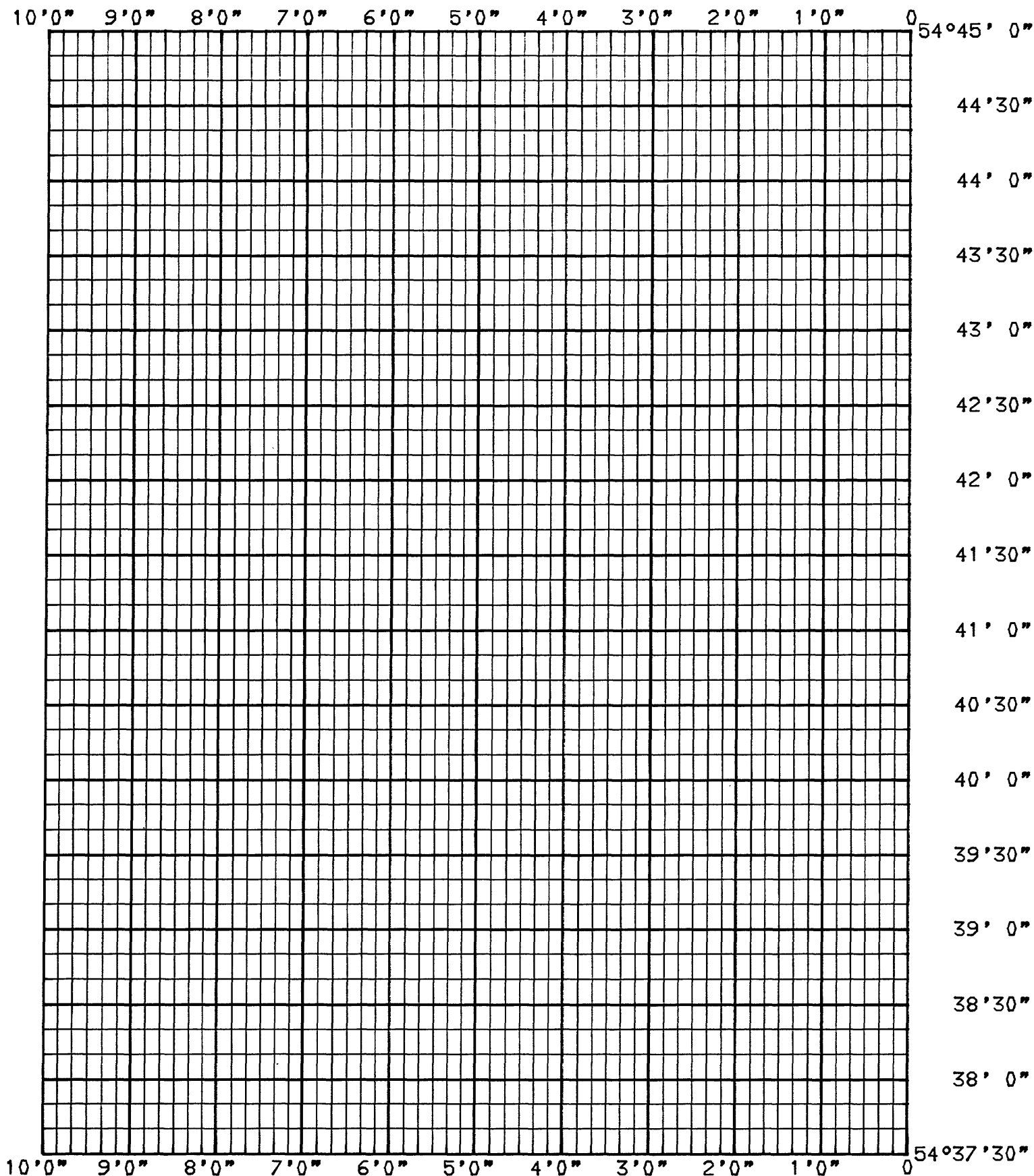
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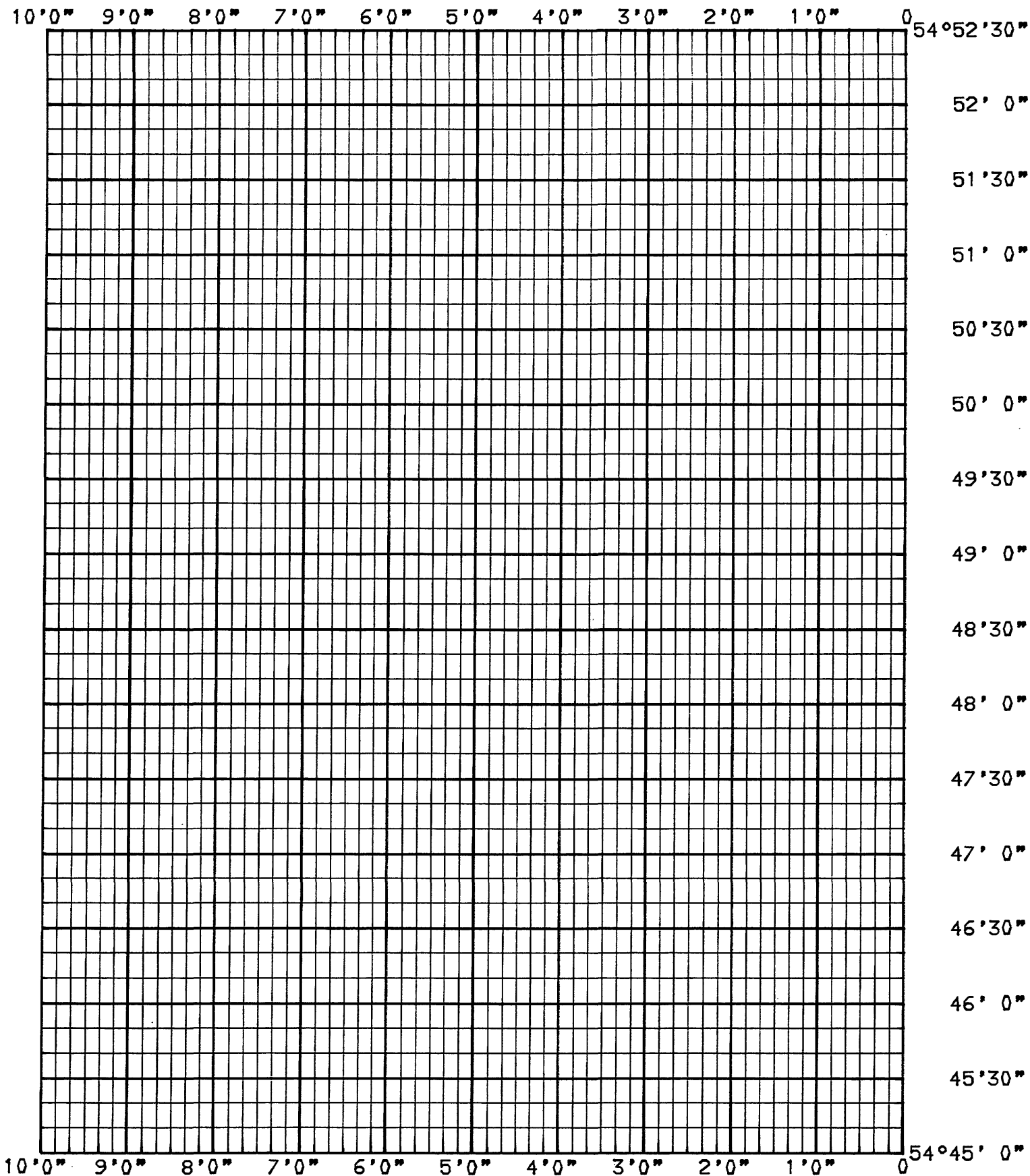
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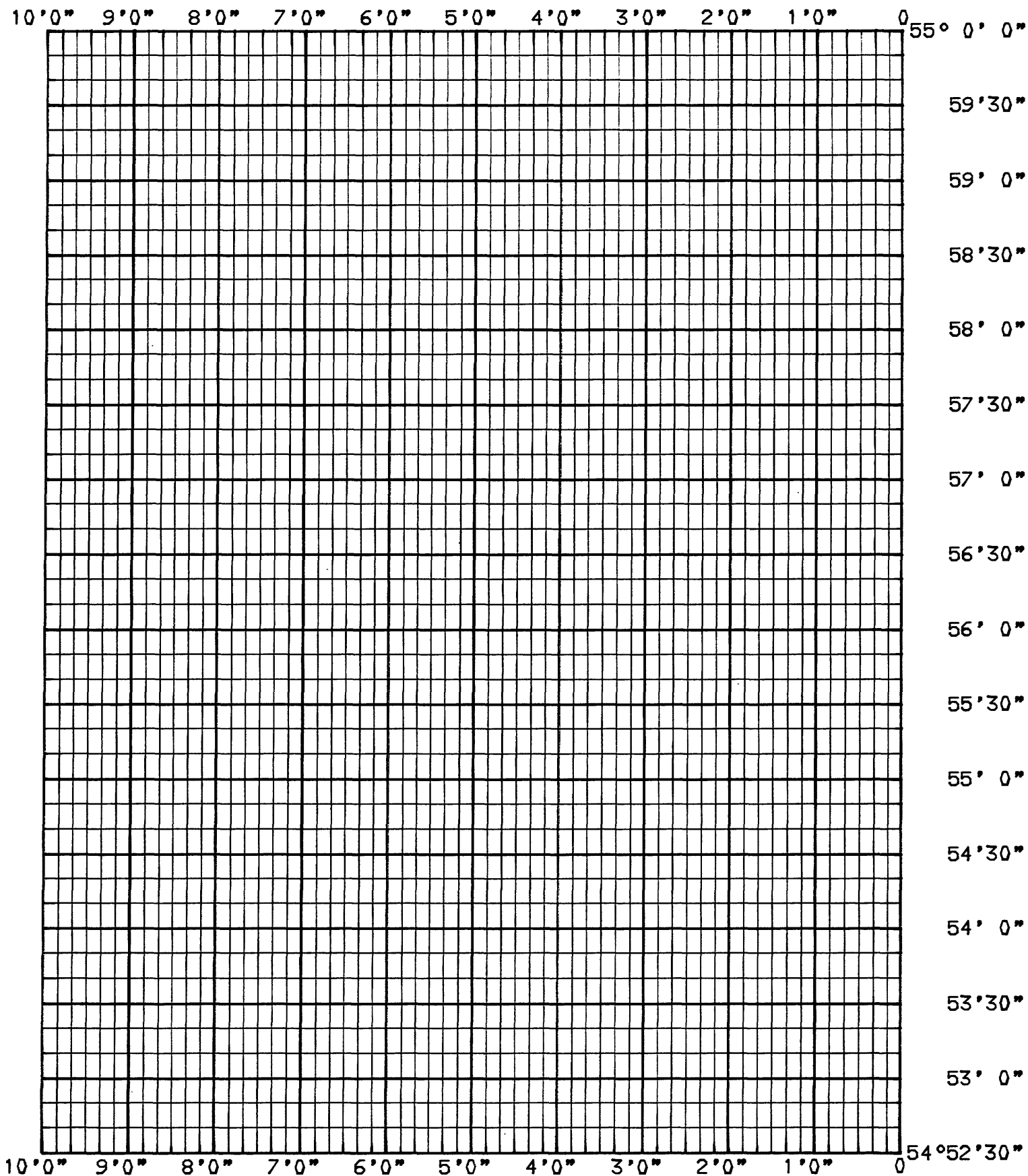
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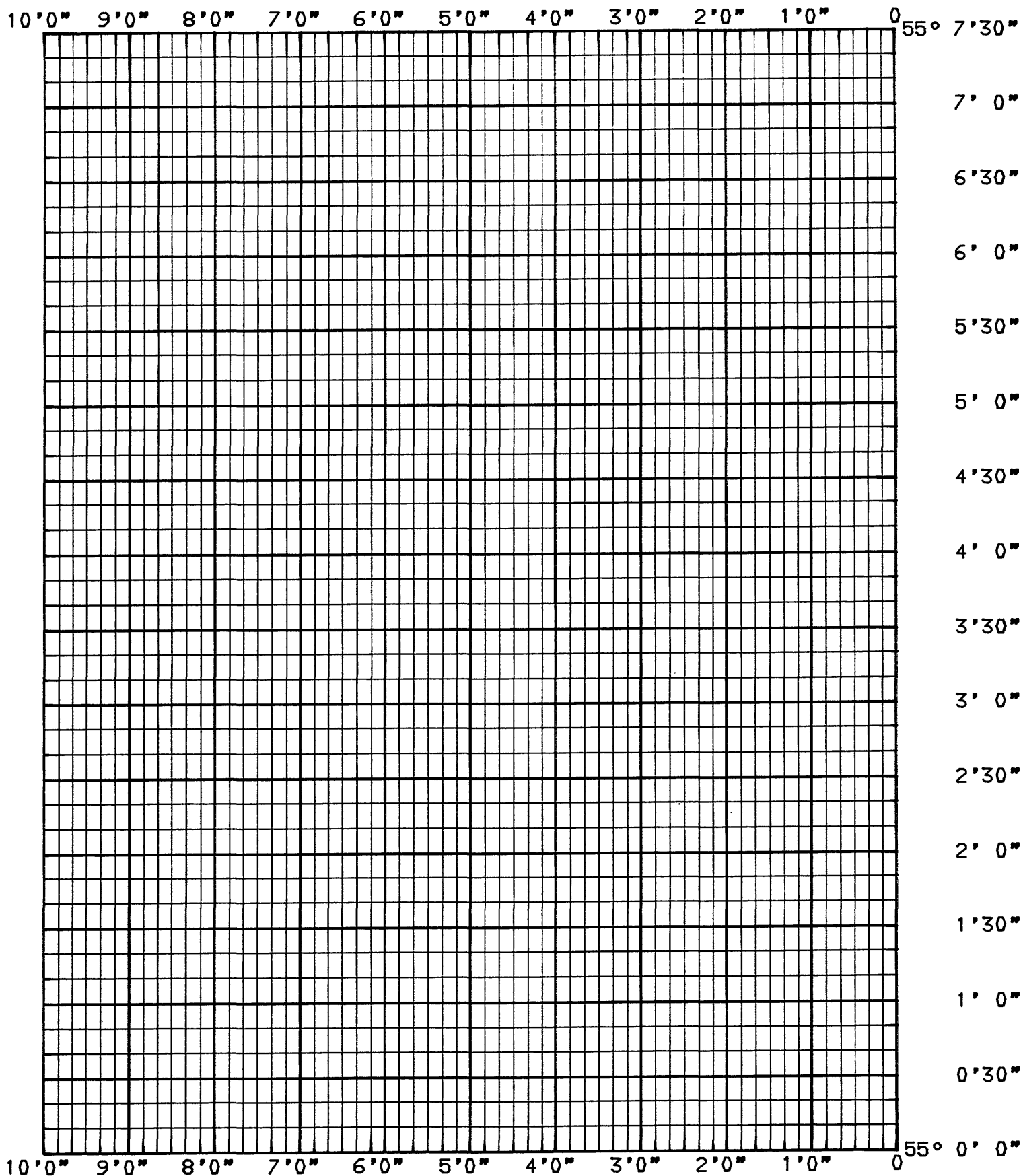
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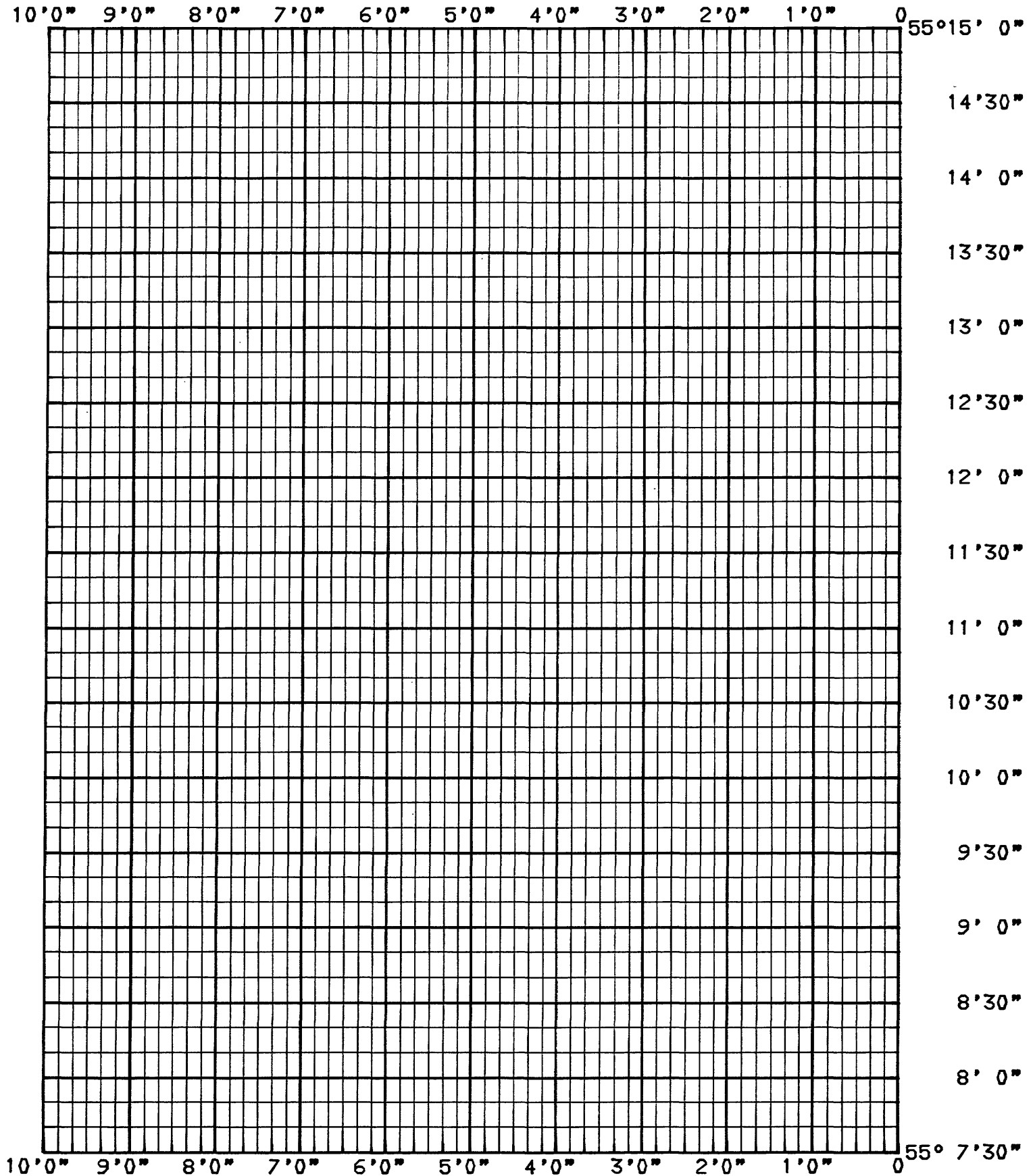
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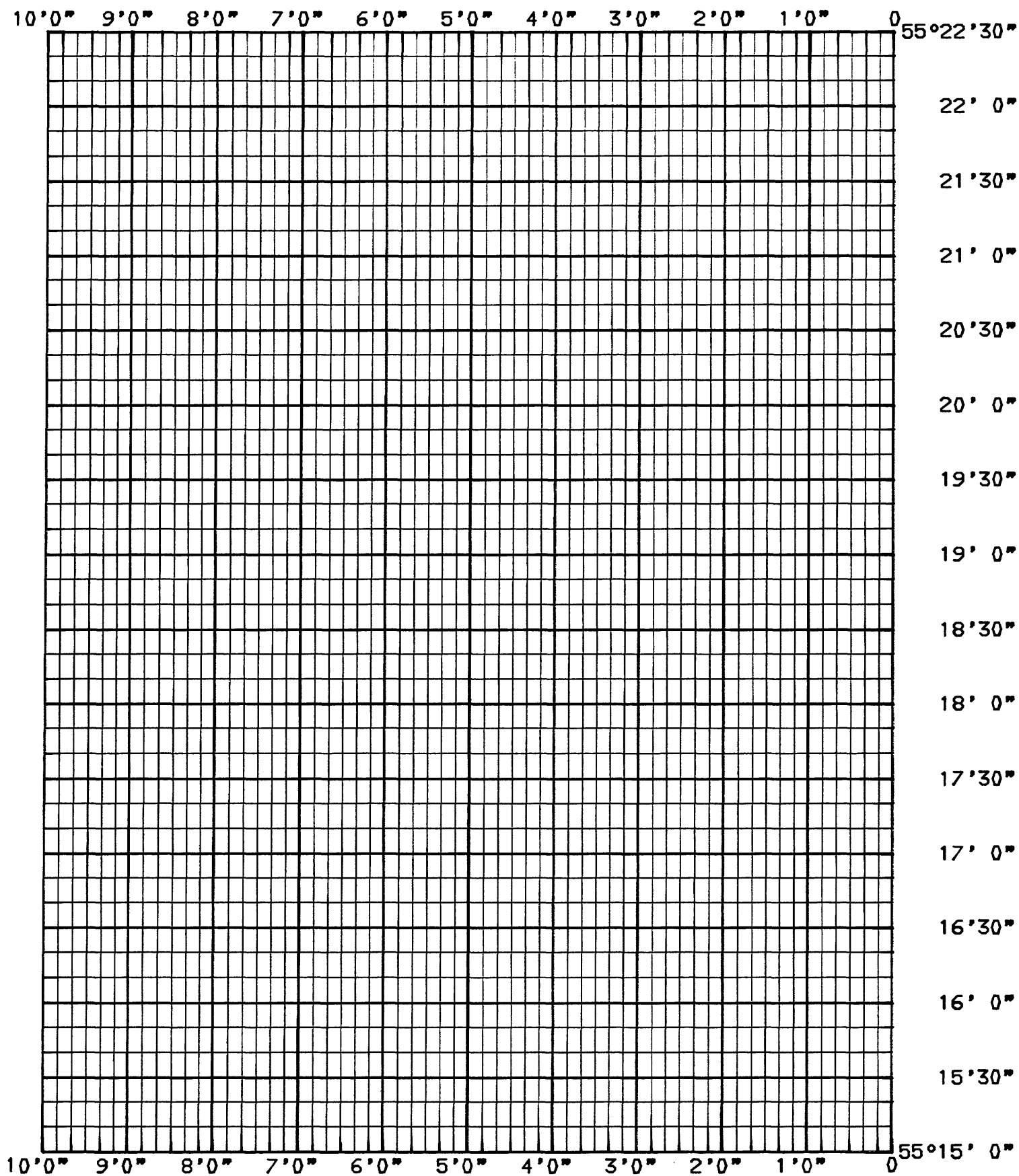
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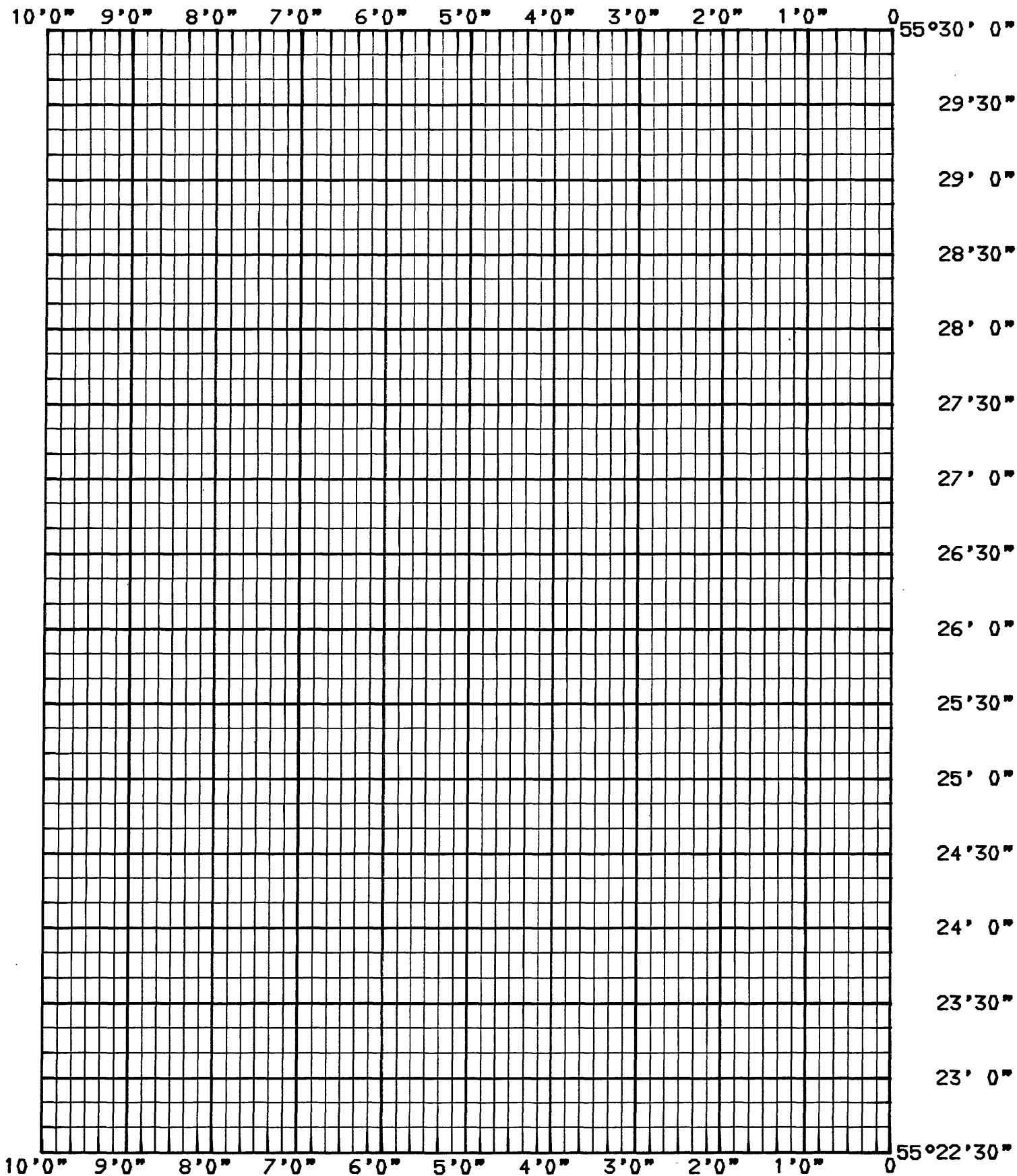
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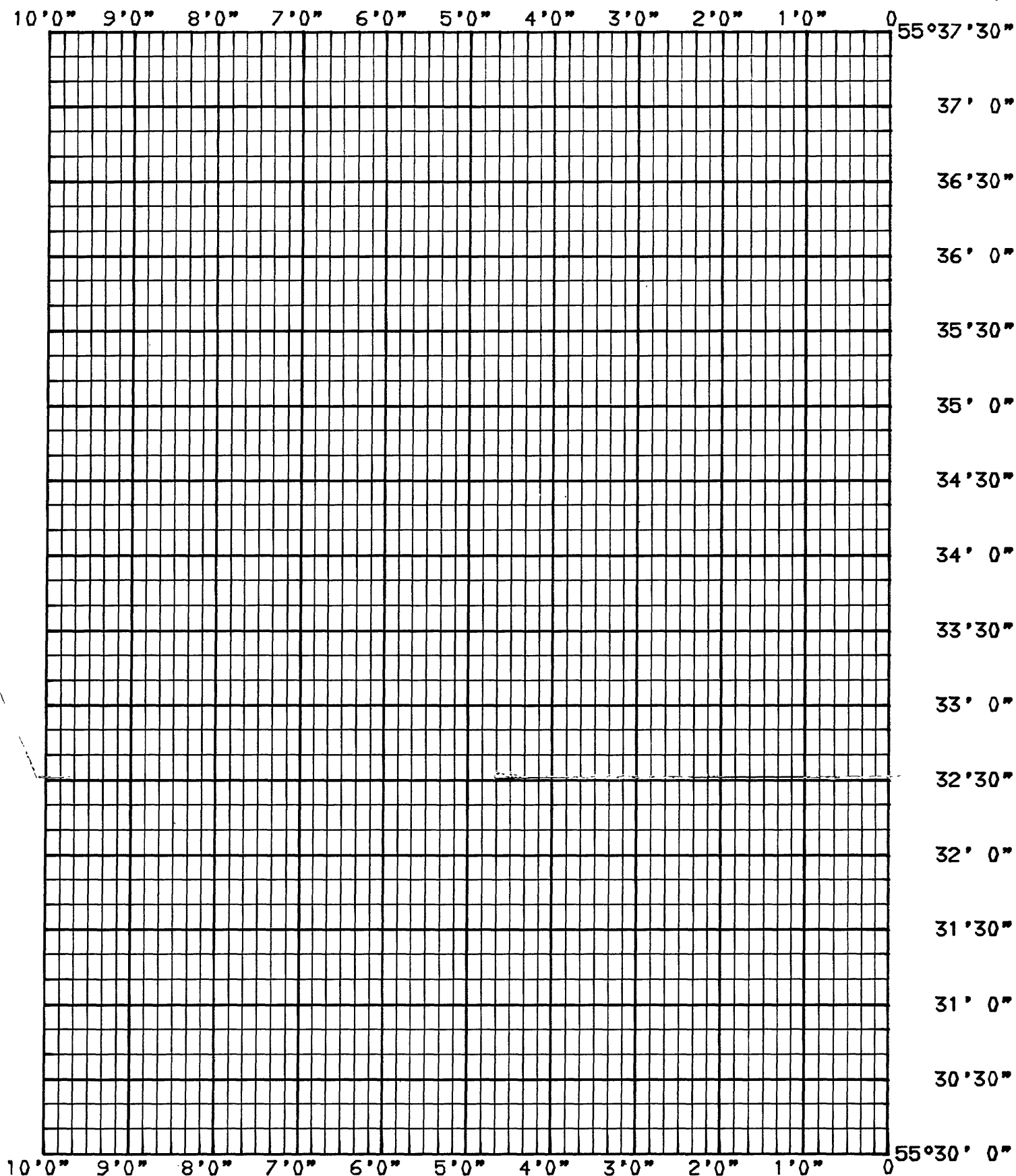
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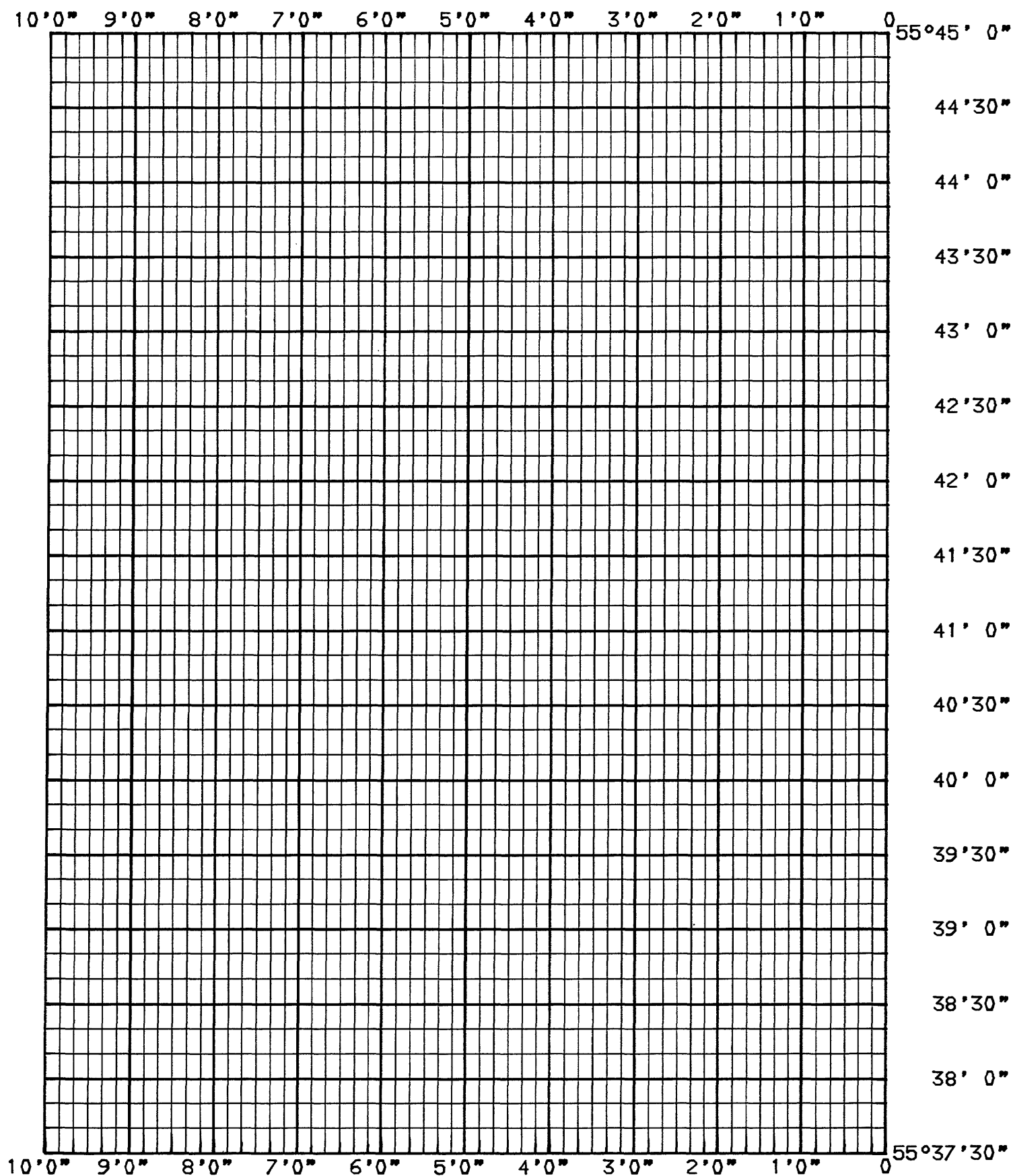
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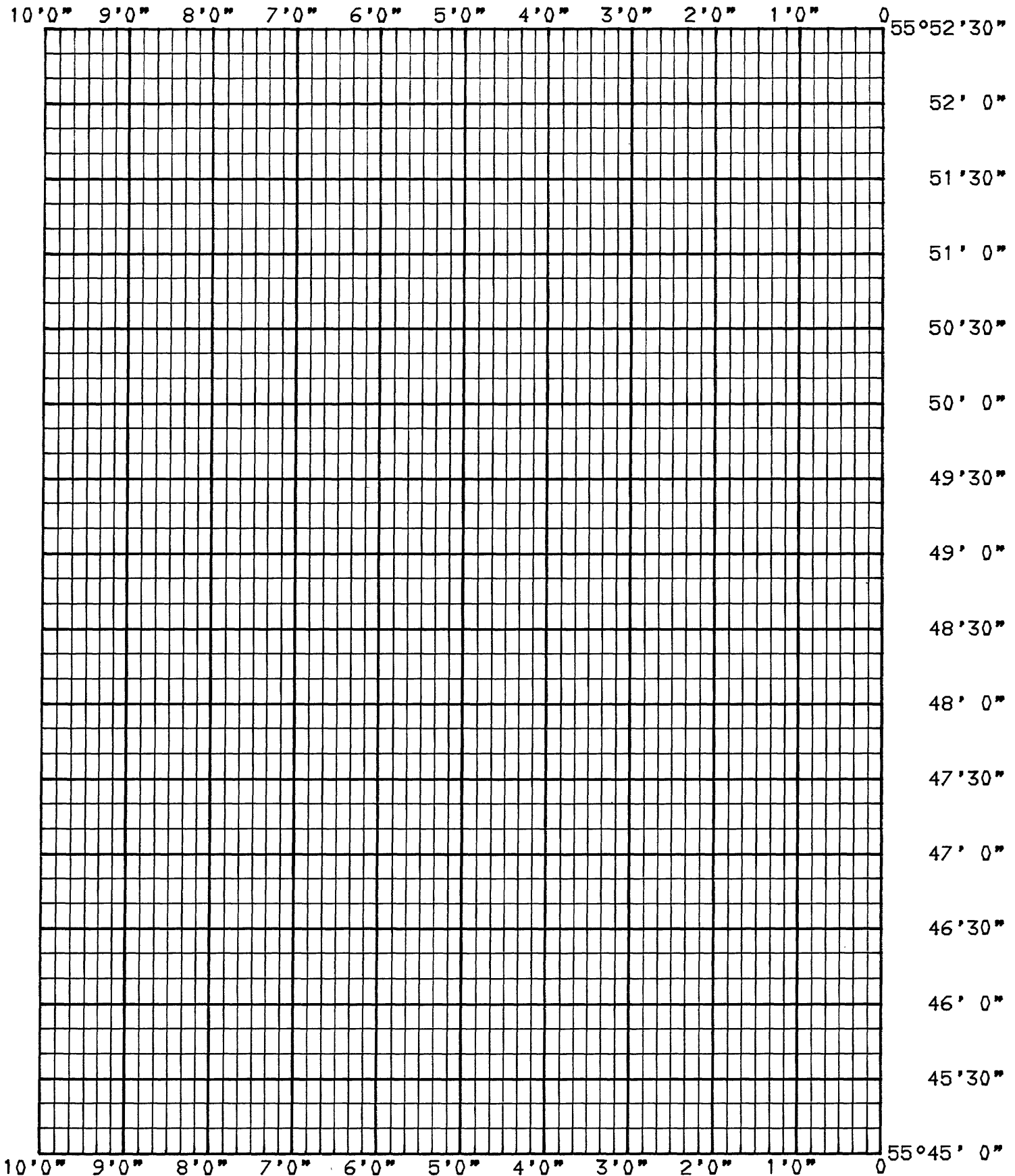
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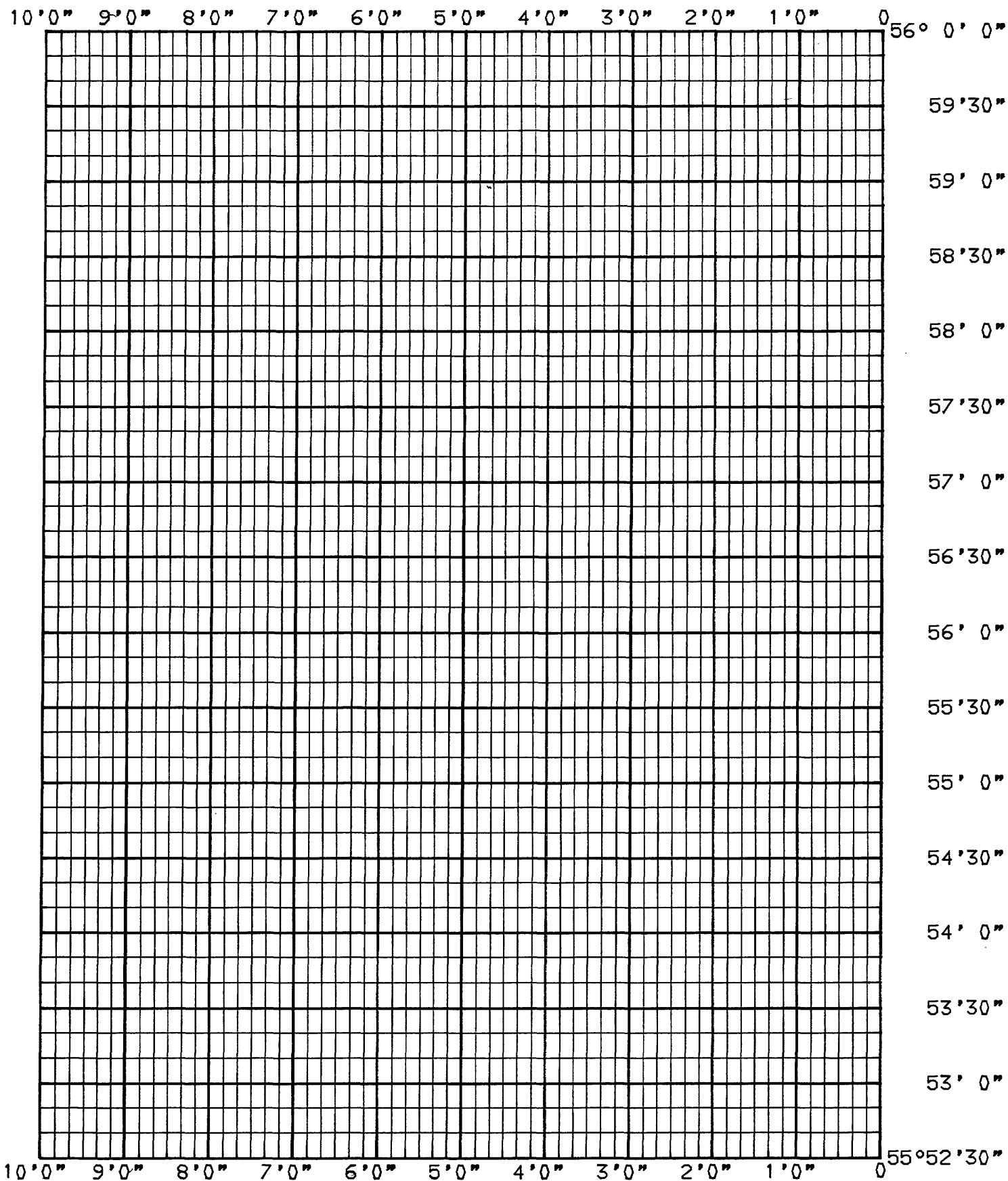
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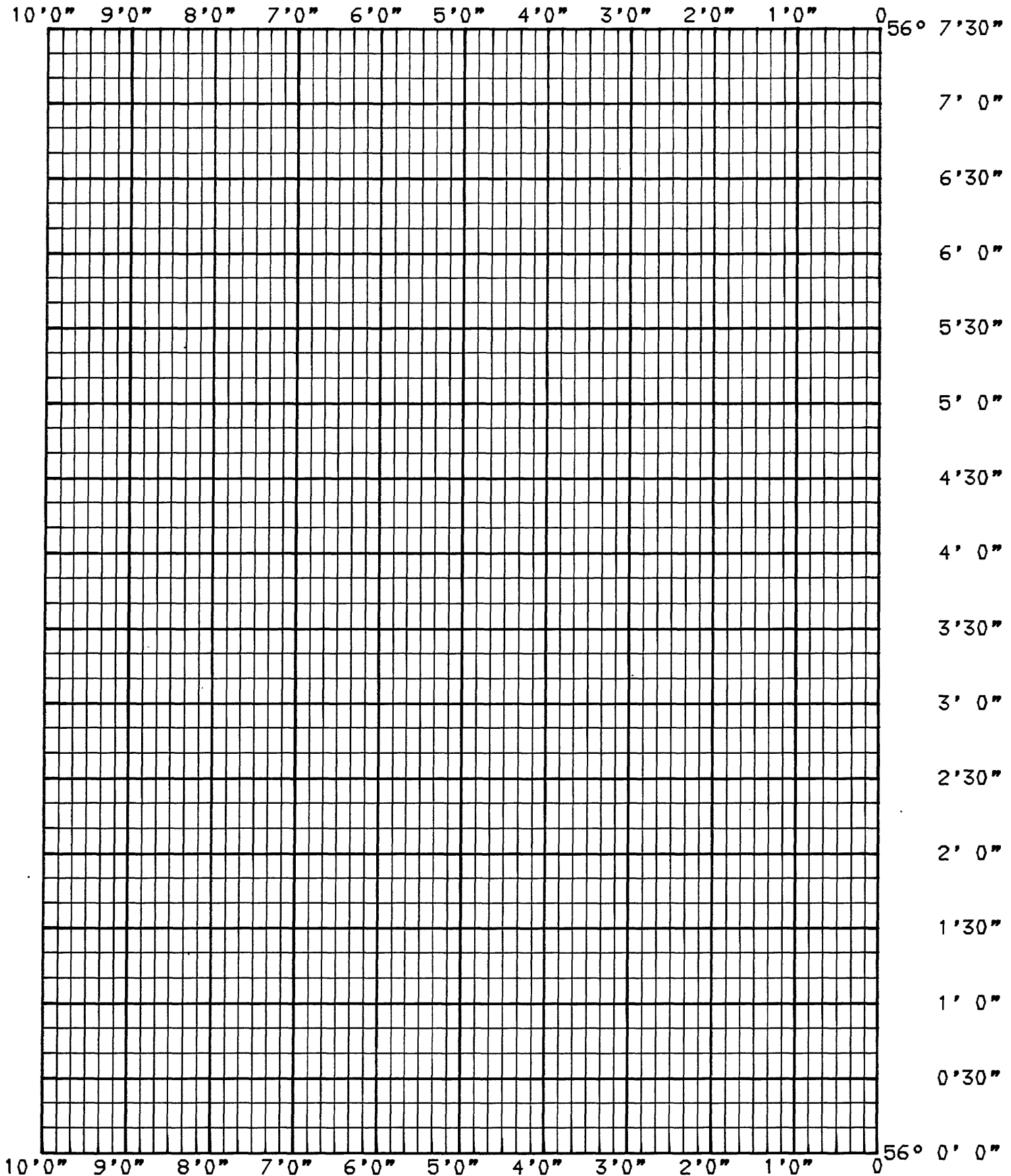
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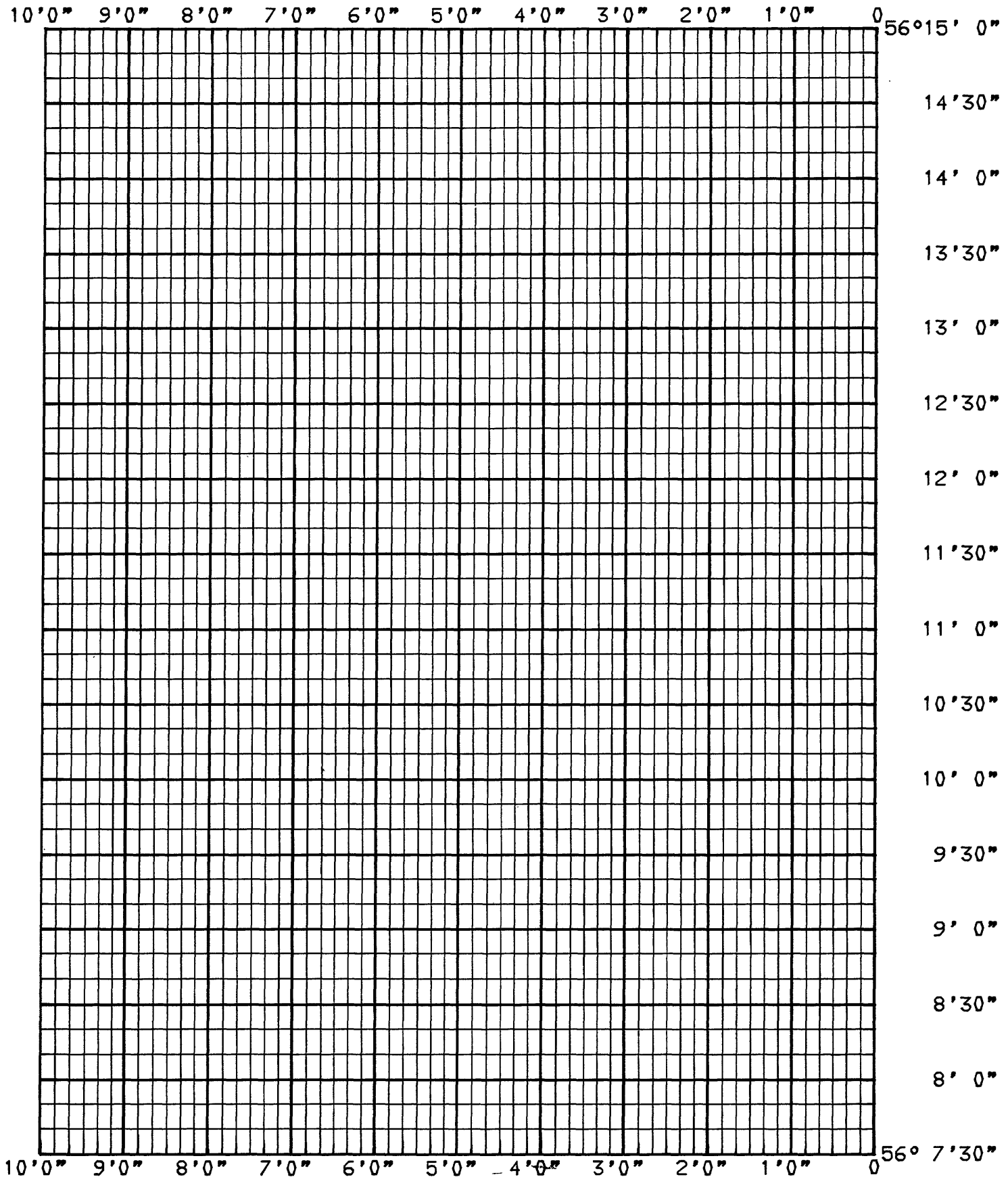
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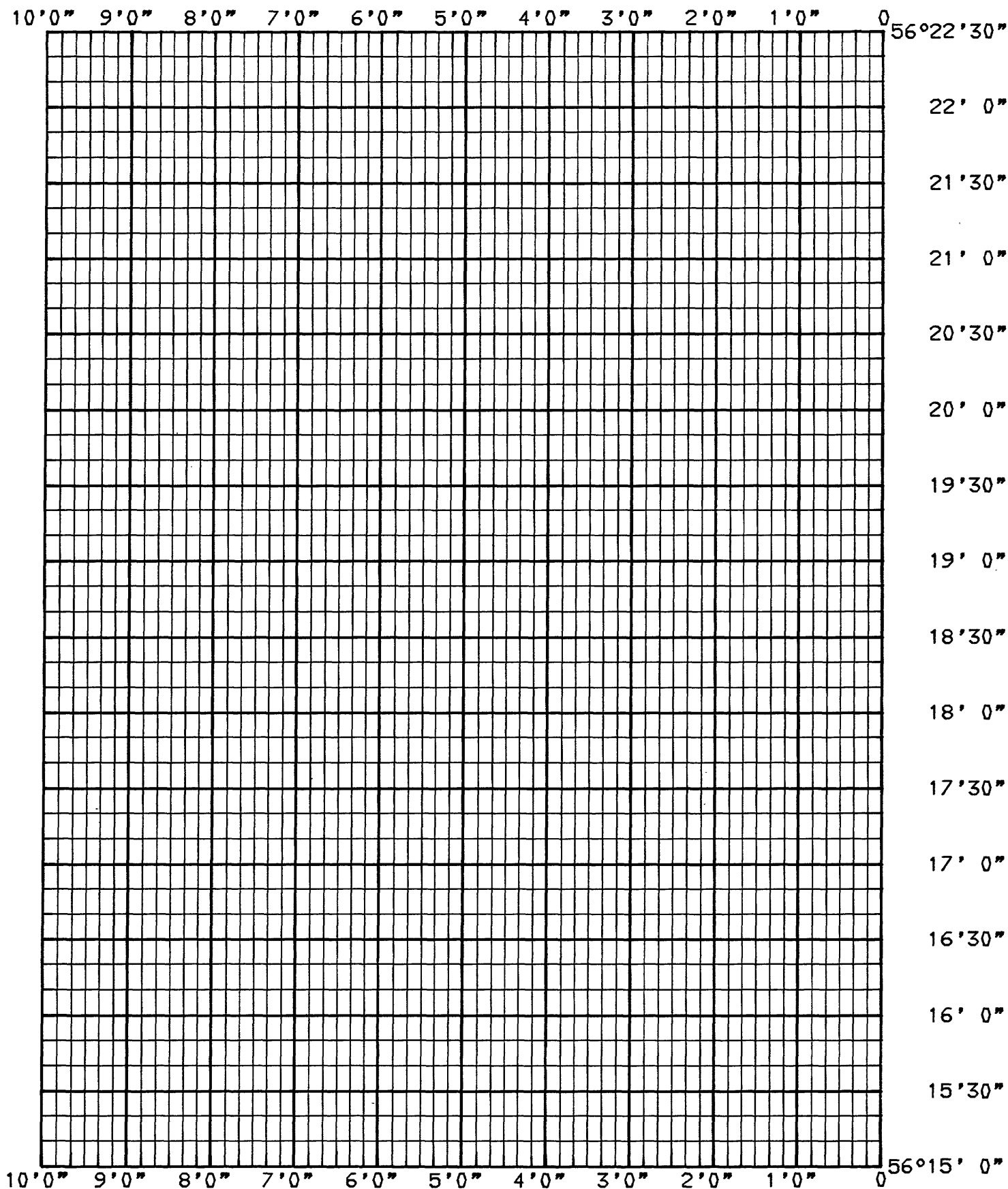
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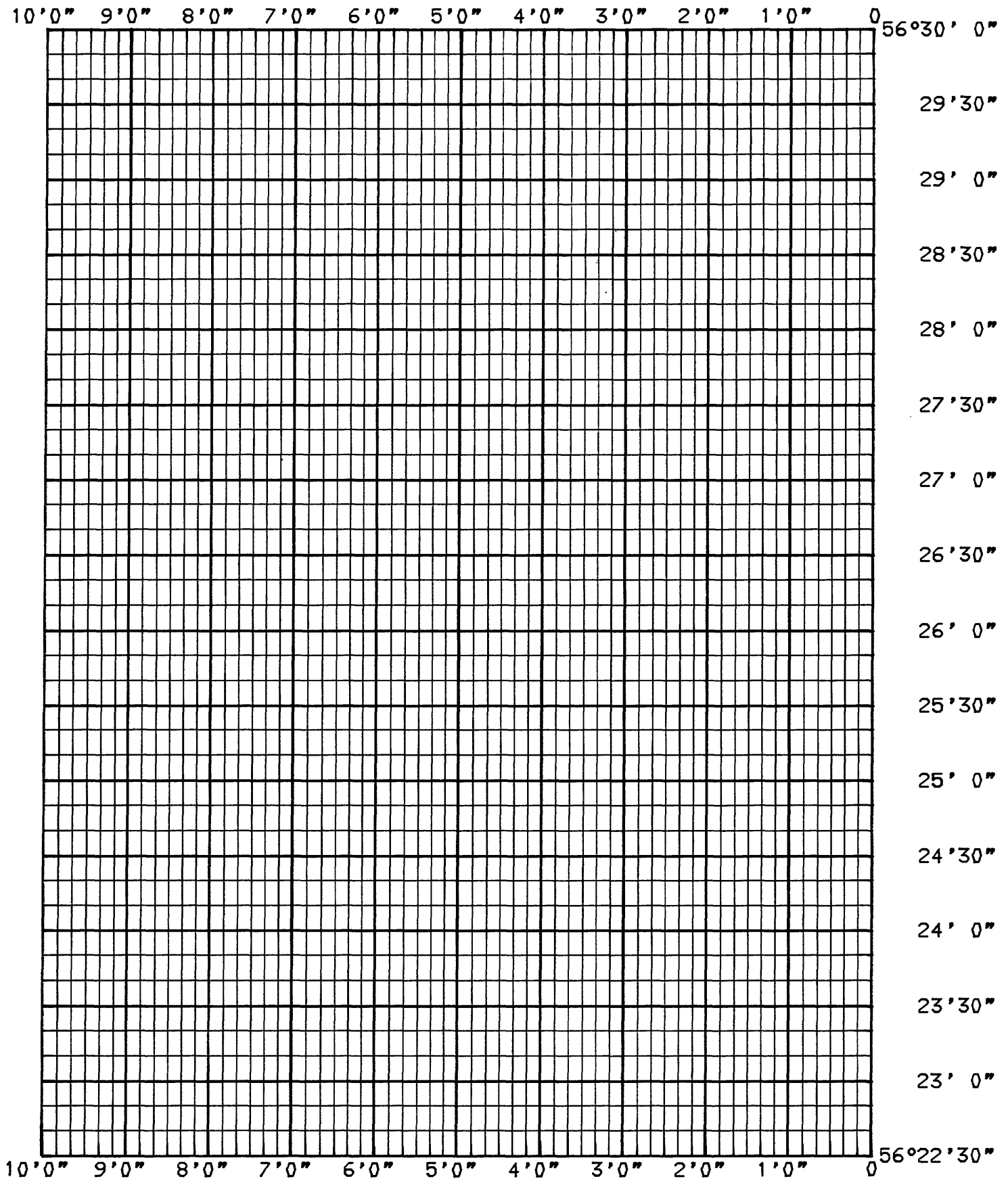
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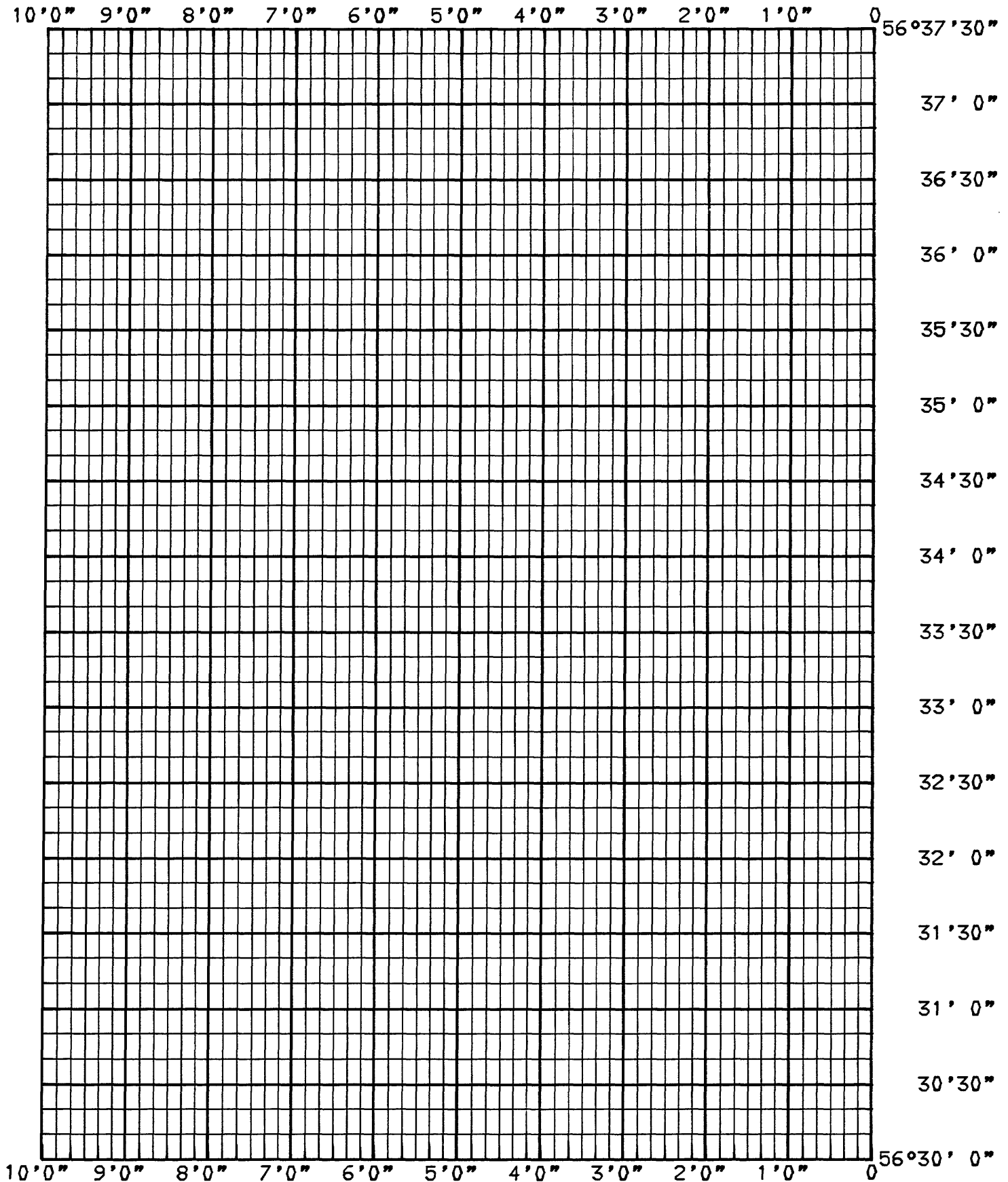
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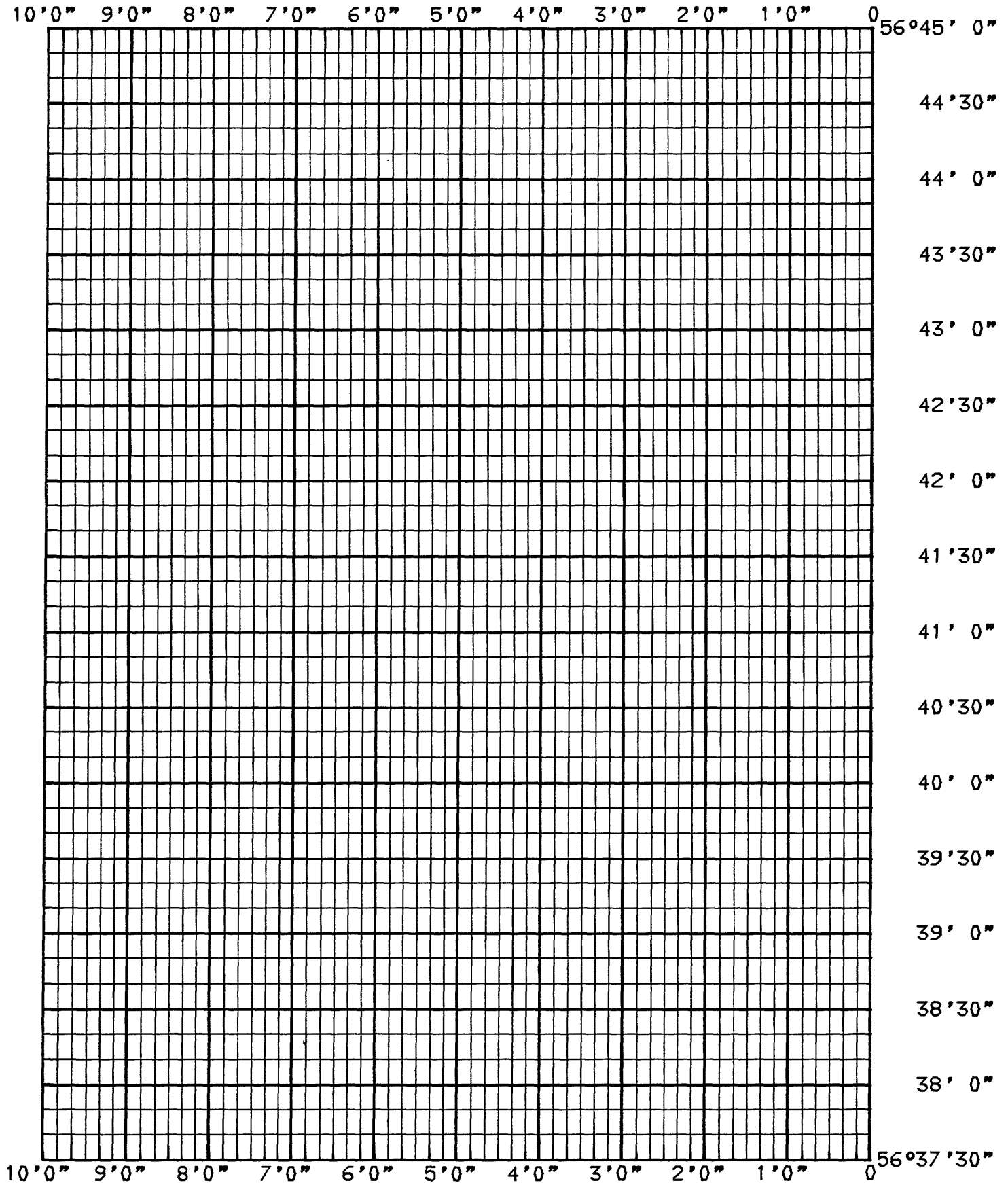
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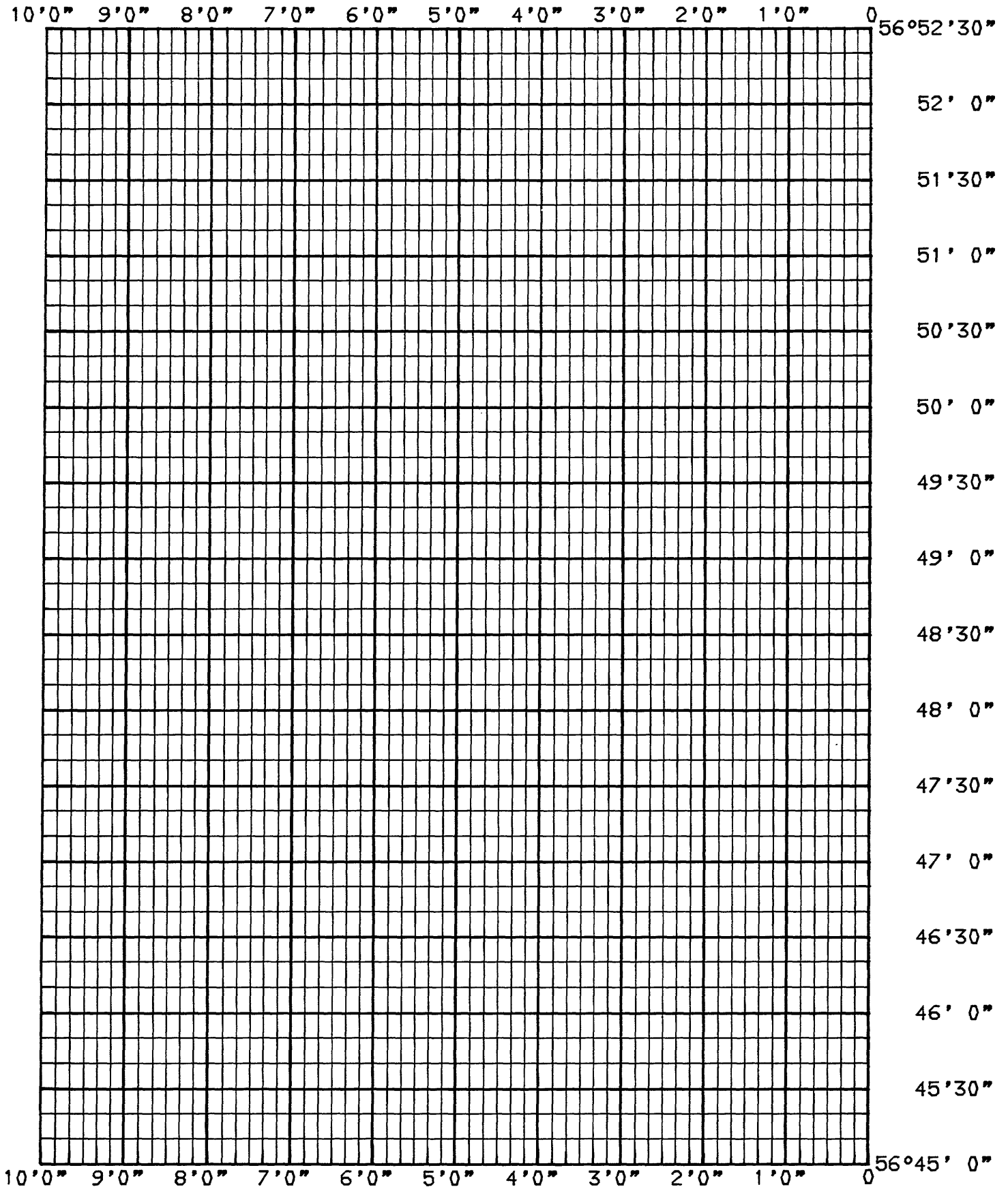
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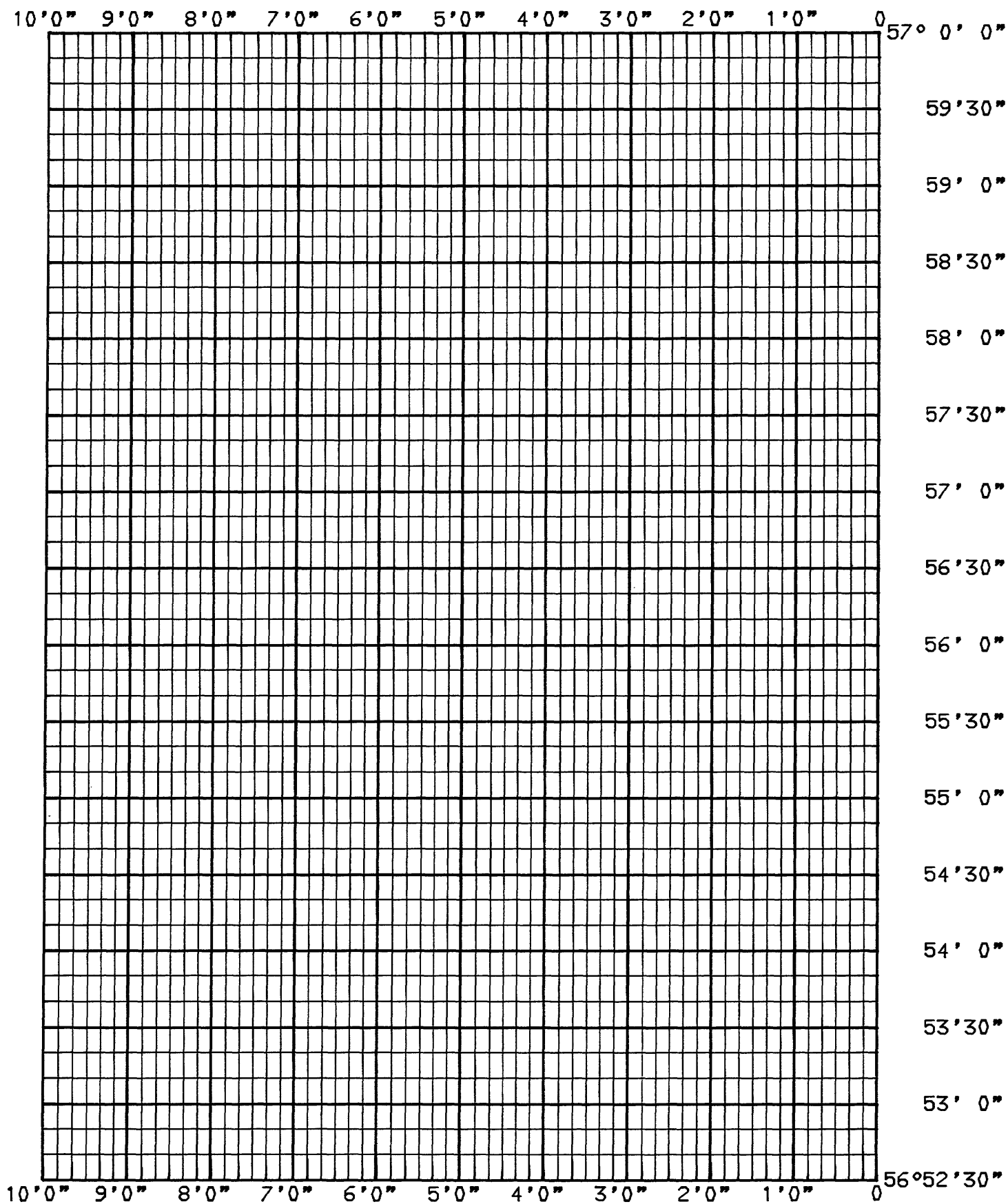
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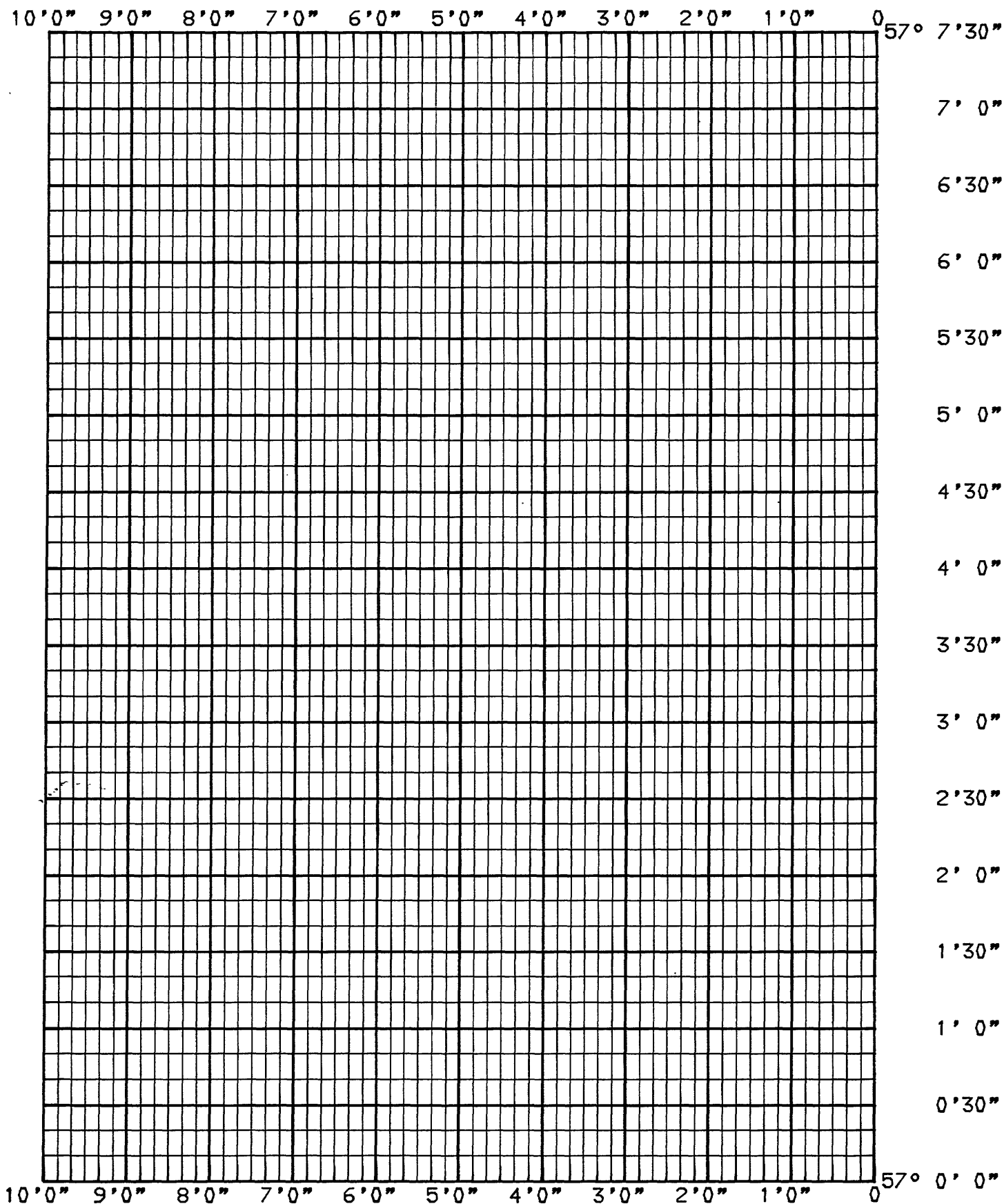
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $56^{\circ}45' 0''$ to $56^{\circ}52'30''$
Scale = 1/63,360



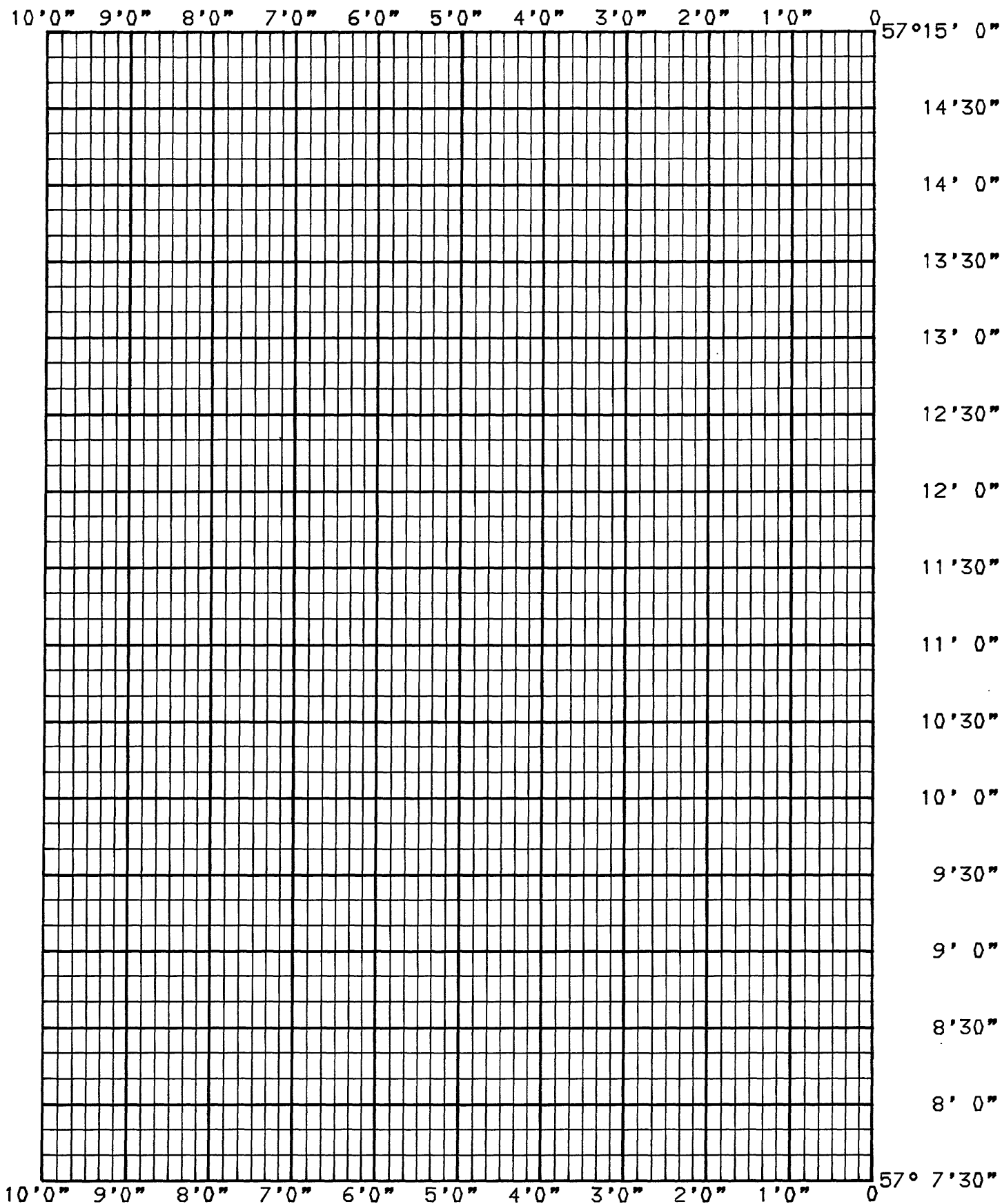
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W.L. Campbell & G. VanTrump Jr
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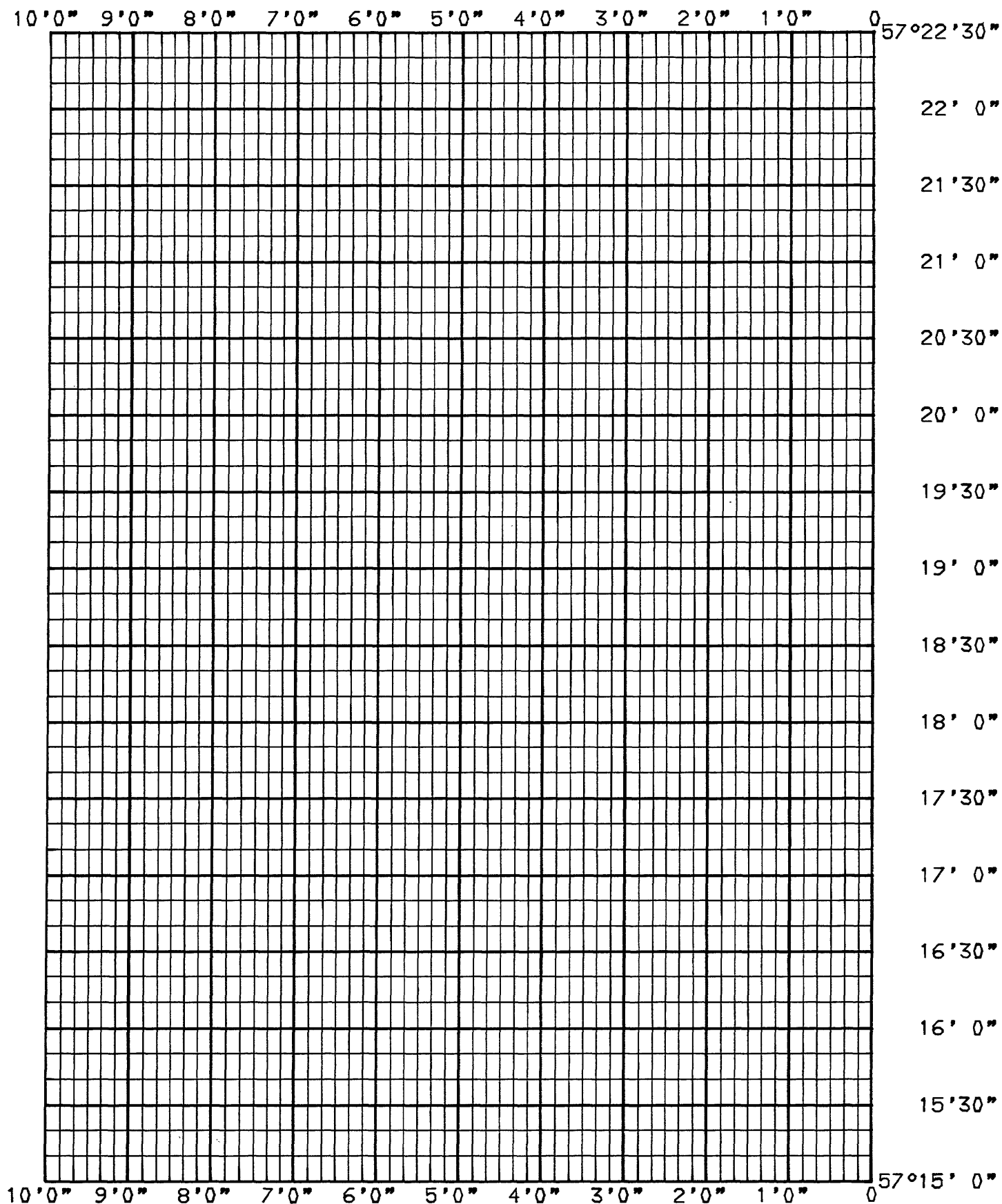
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W.L. Campbell & G. VanTrump Jr
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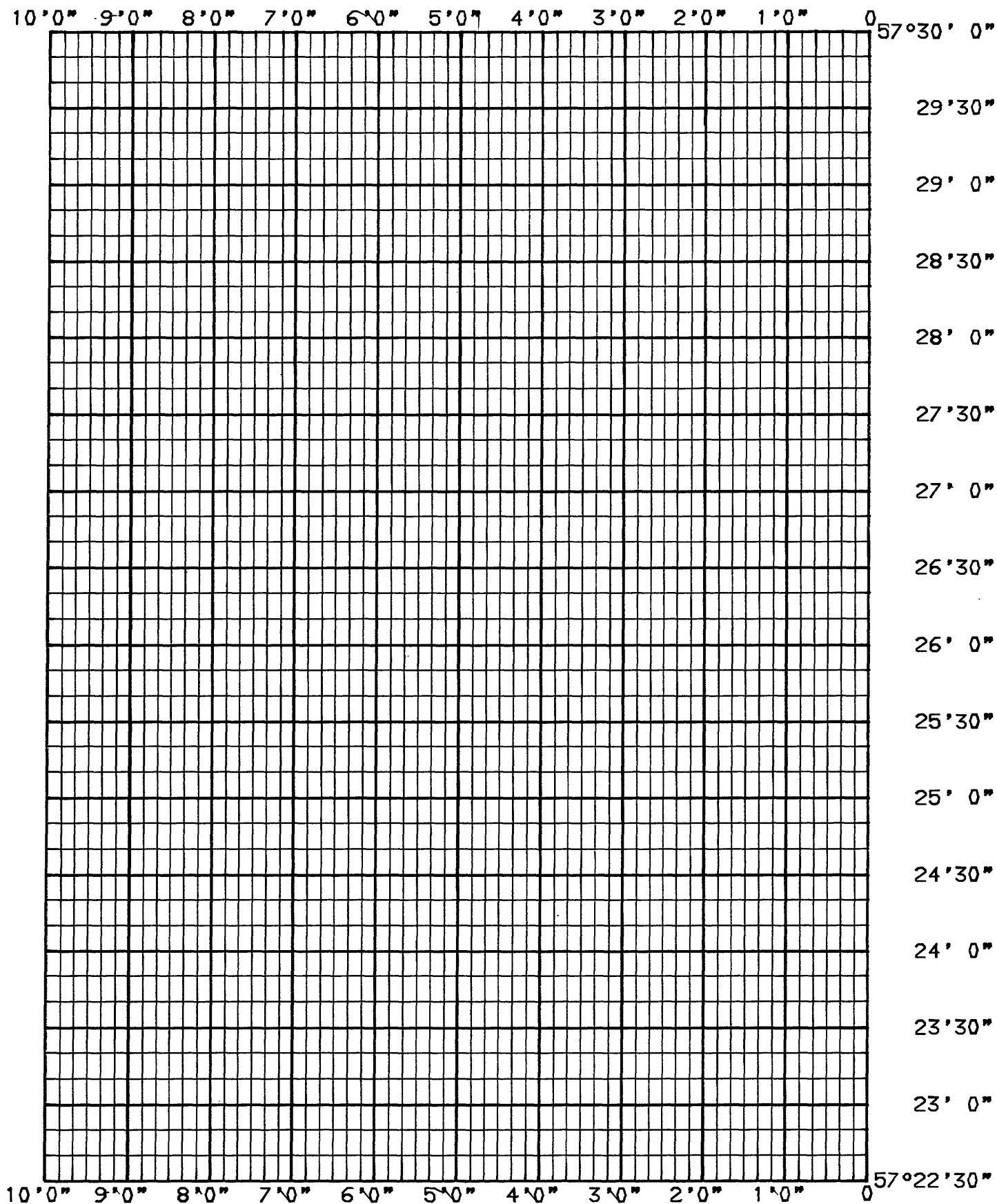
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W.L. Campbell & G. VanTrump Jr
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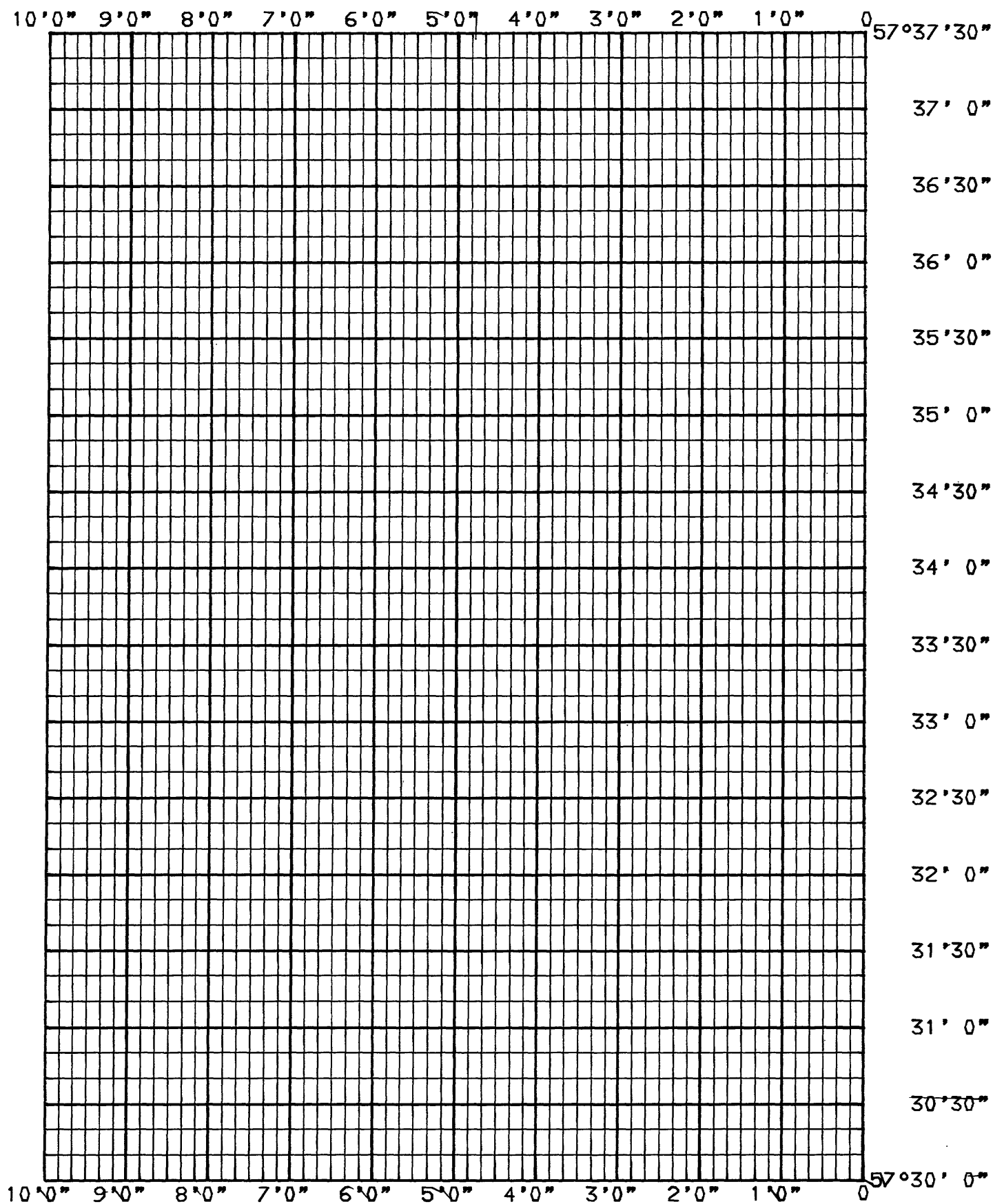
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W.L. Campbell & G. VanTrump Jr
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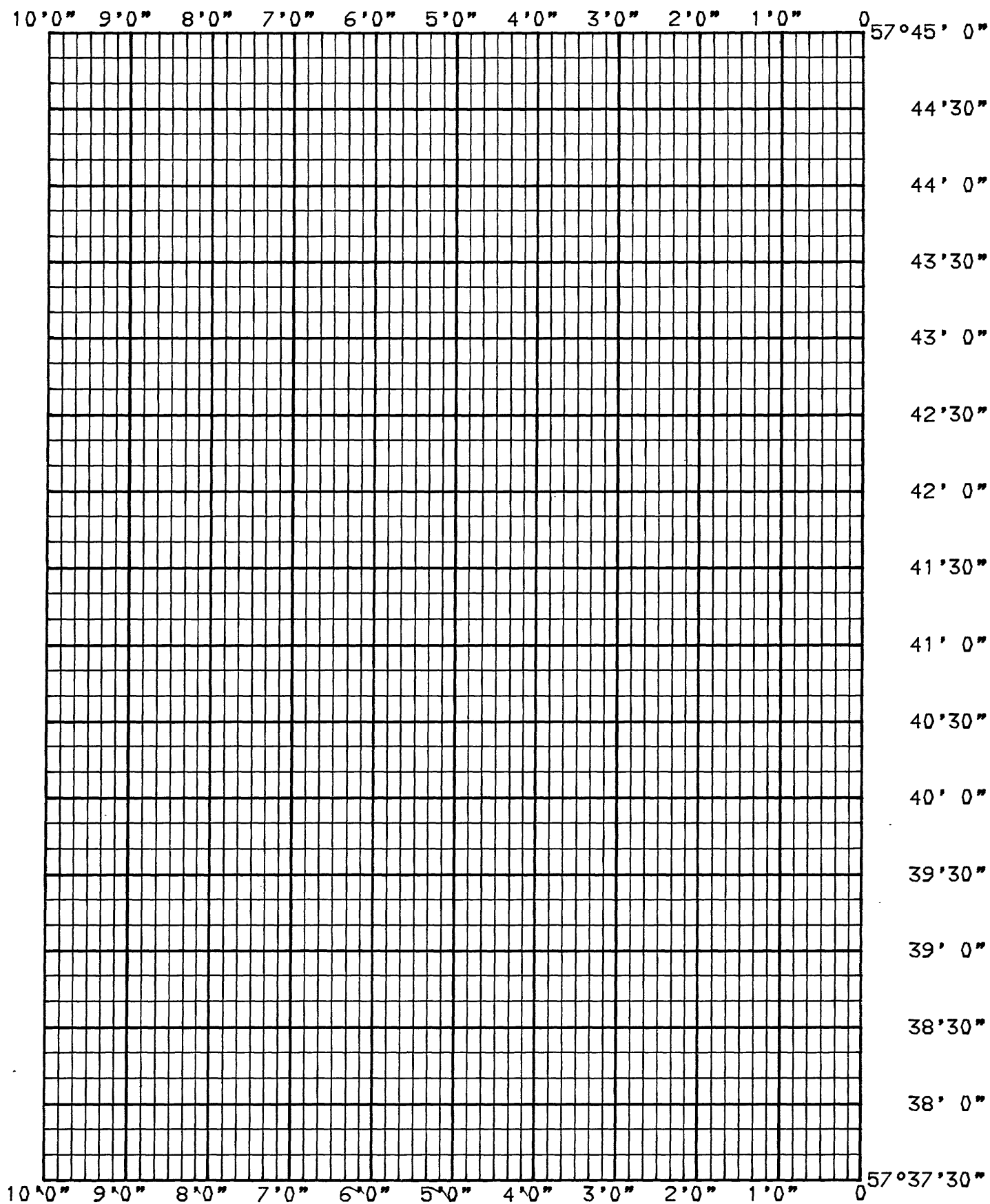
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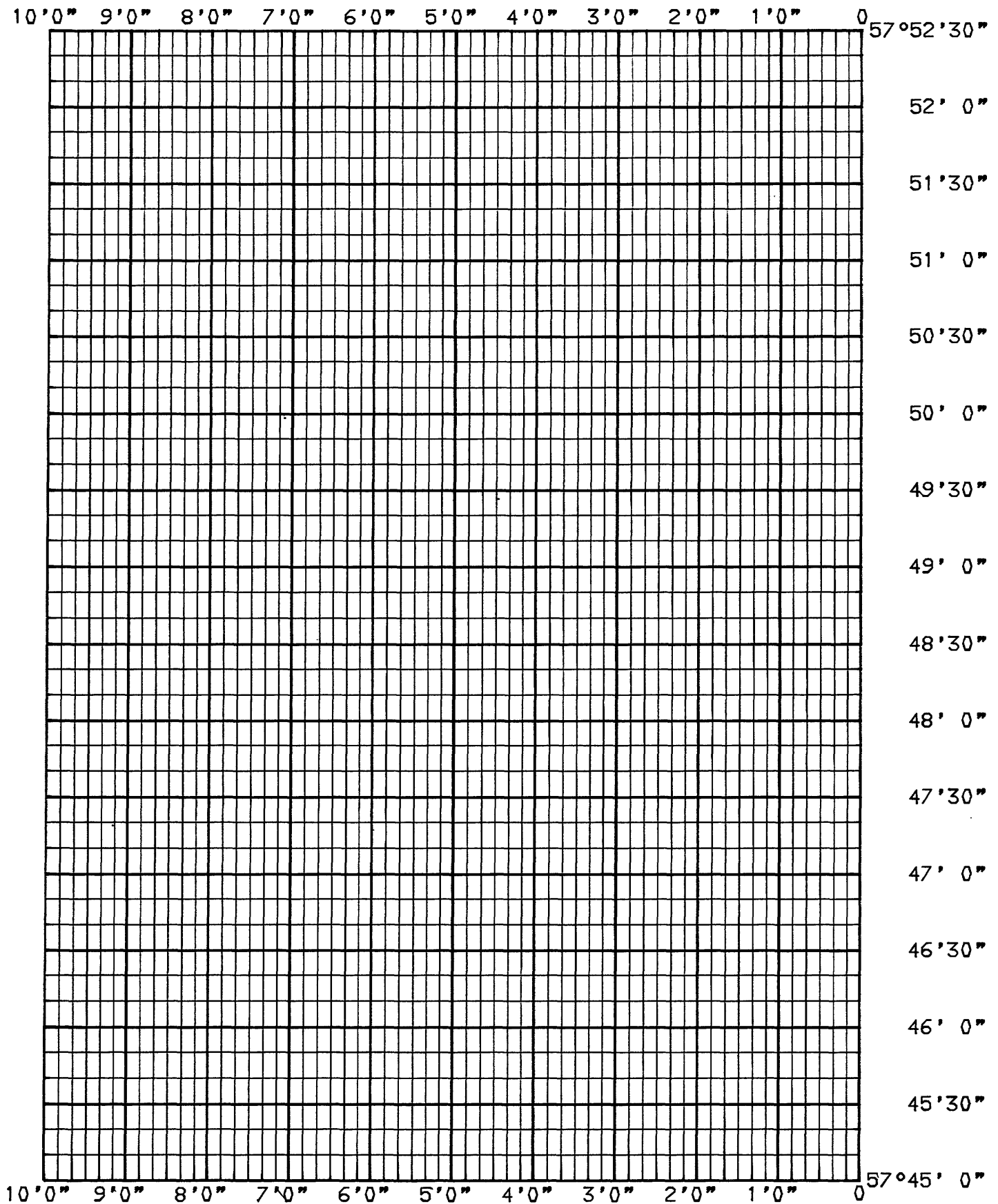
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W.L. Campbell & G. VanTrump Jr
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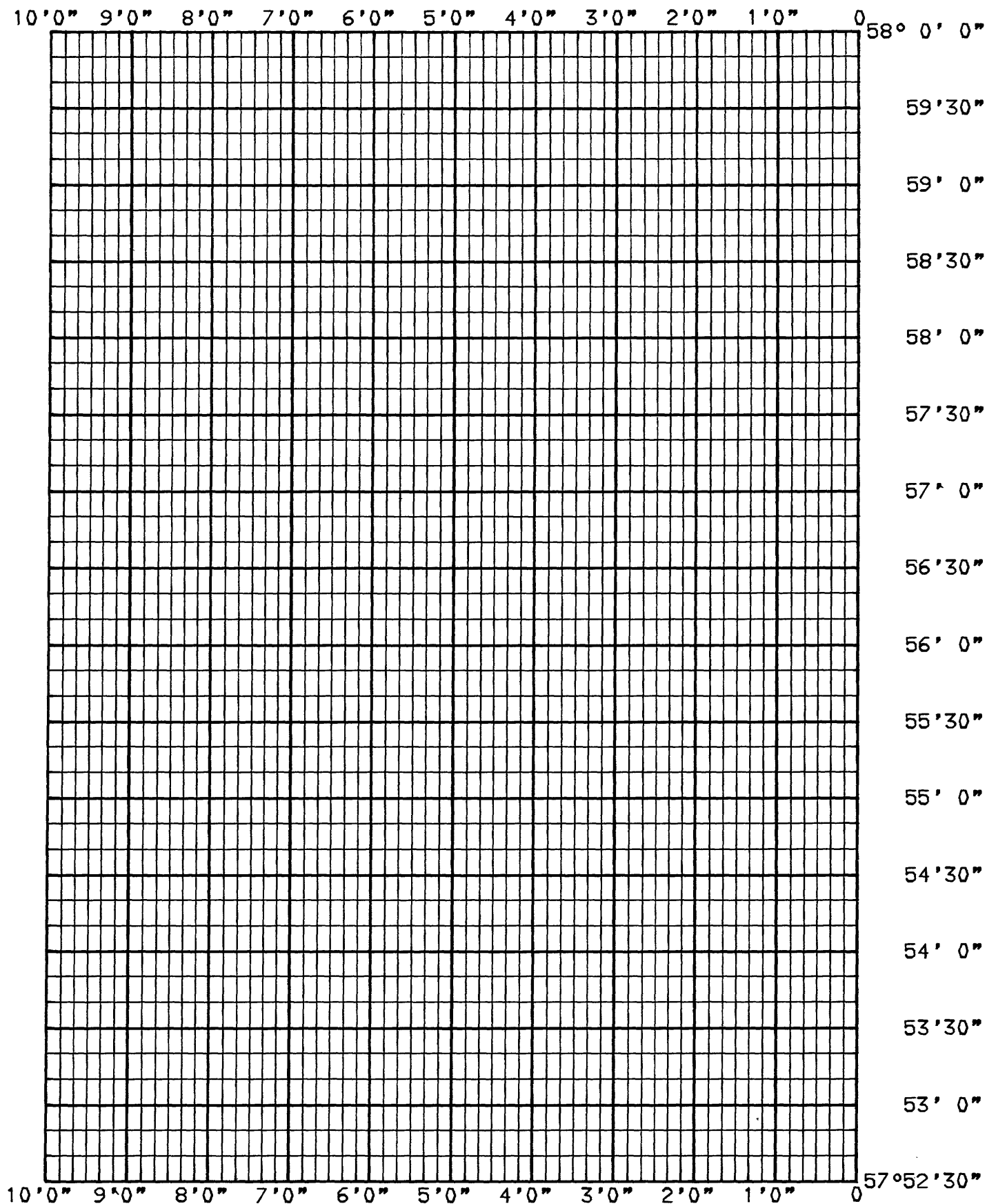
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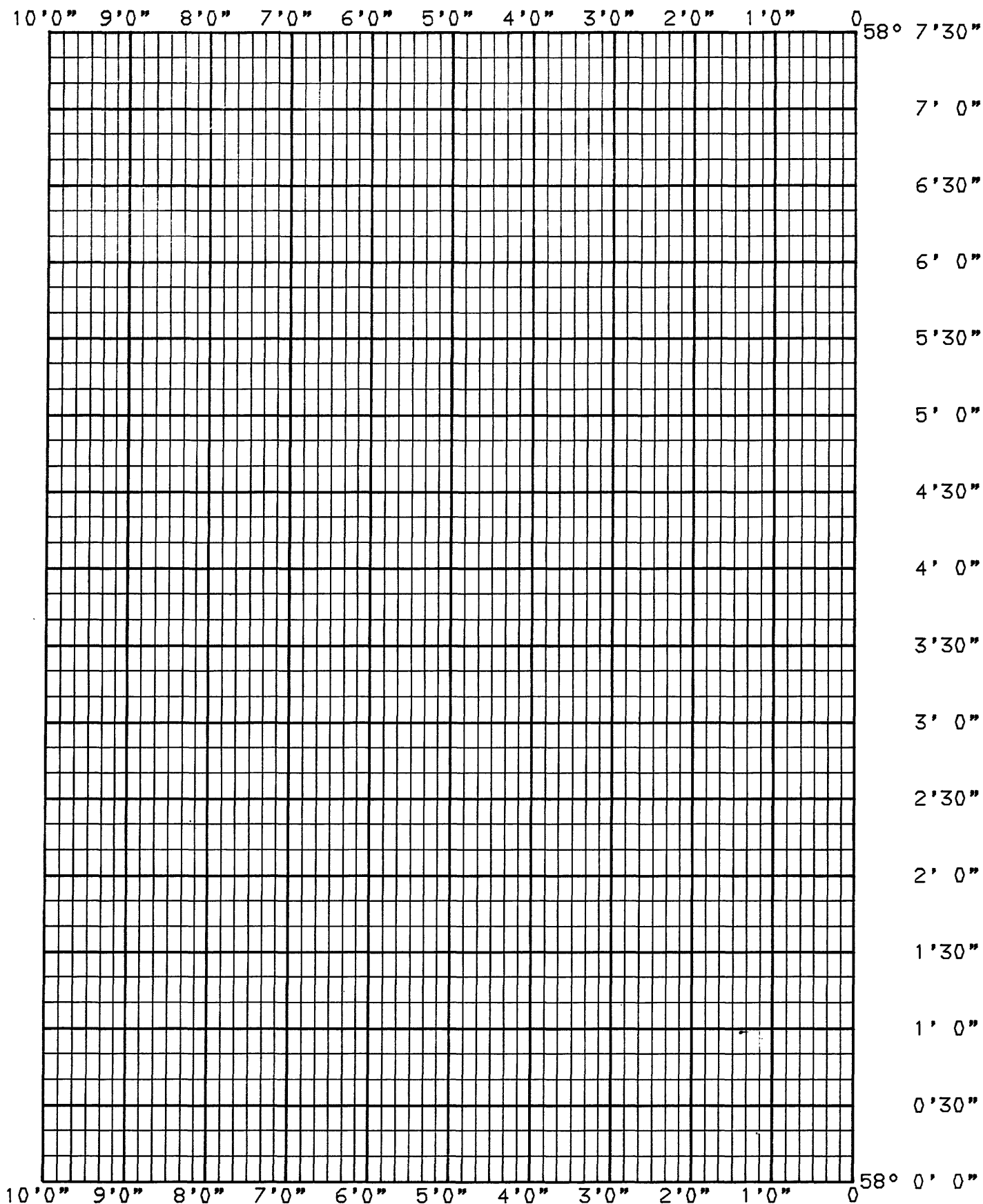
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W.L. Campbell & G. VanTrump Jr
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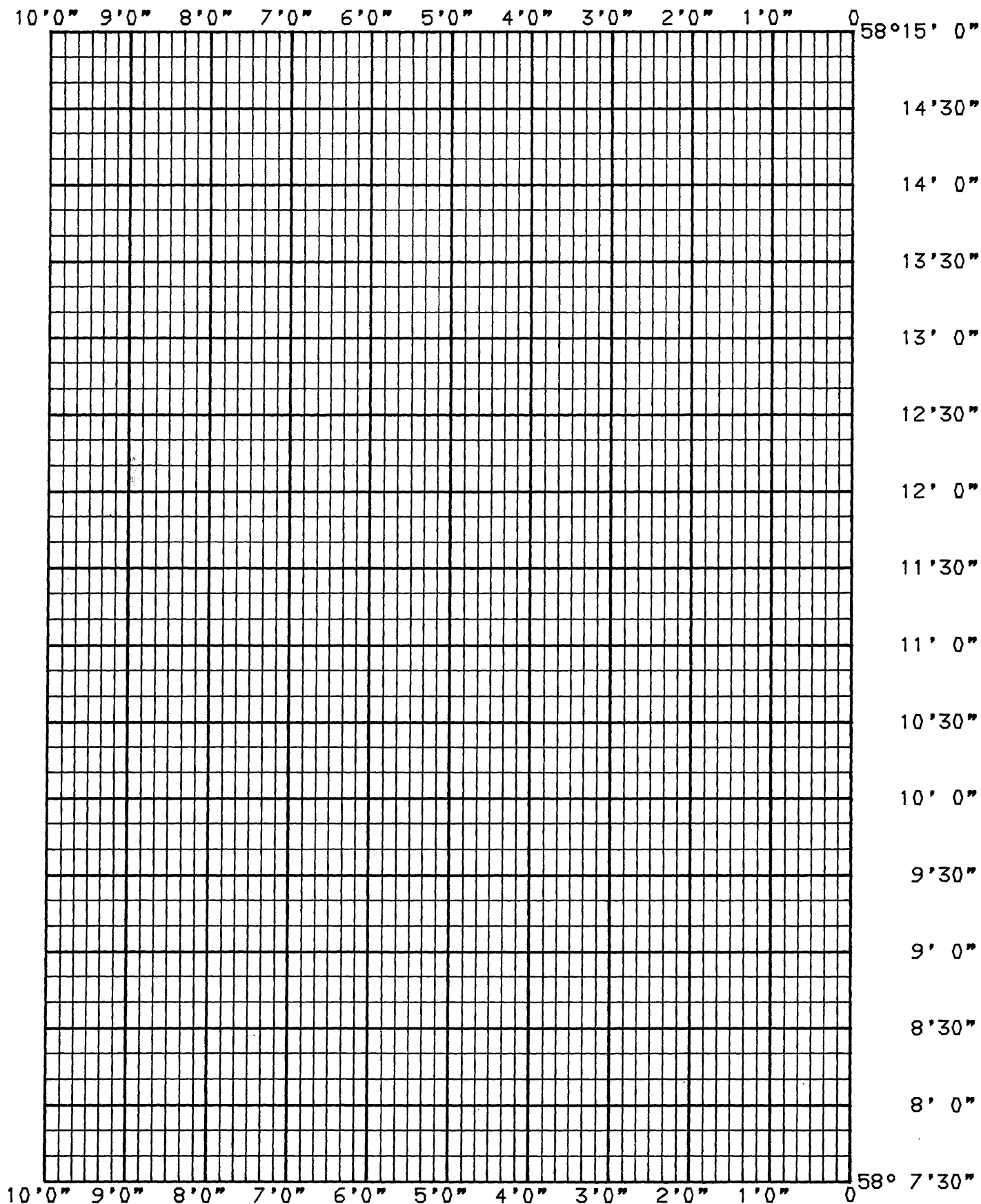
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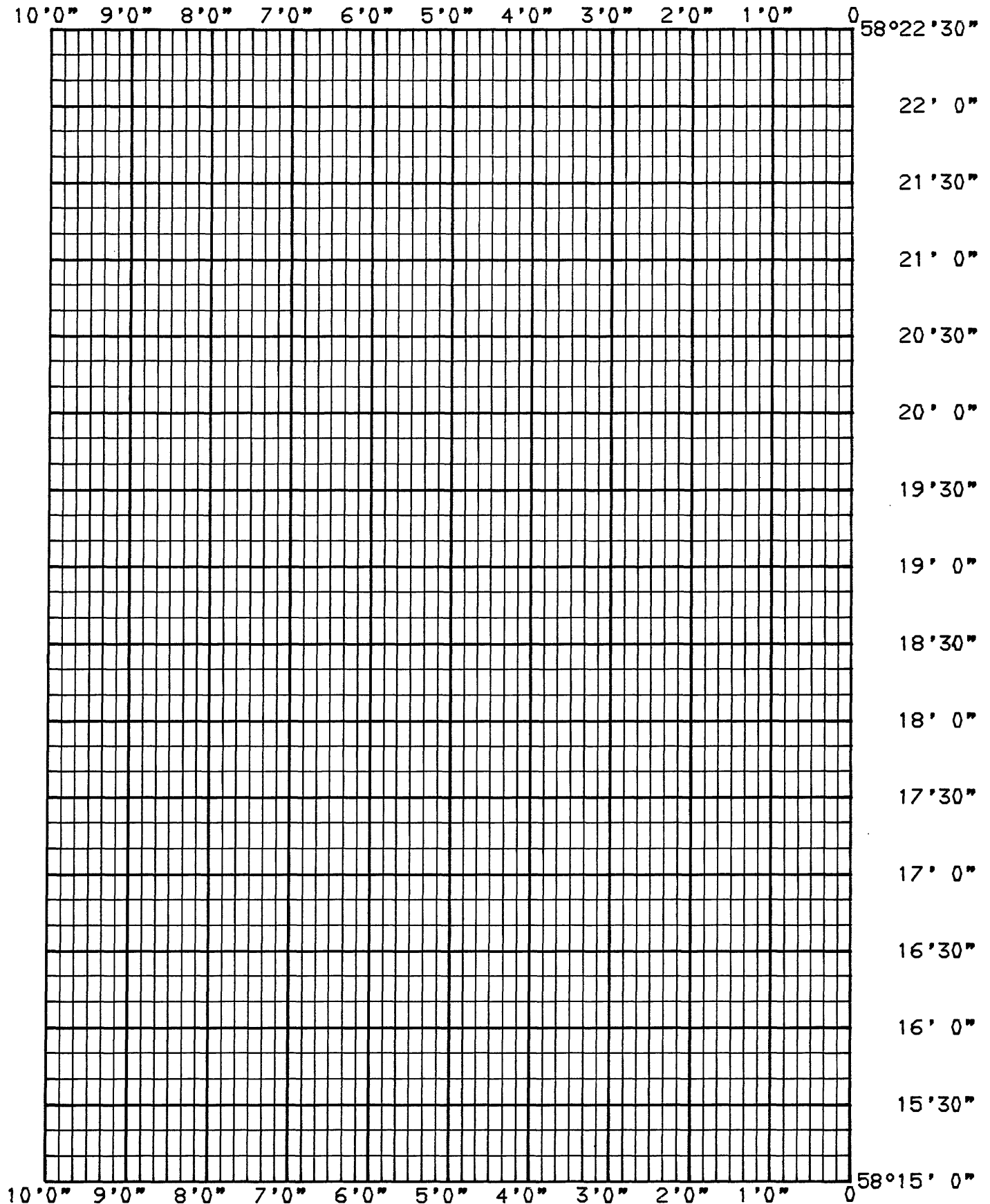
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W.L. Campbell & G. VanTrump Jr
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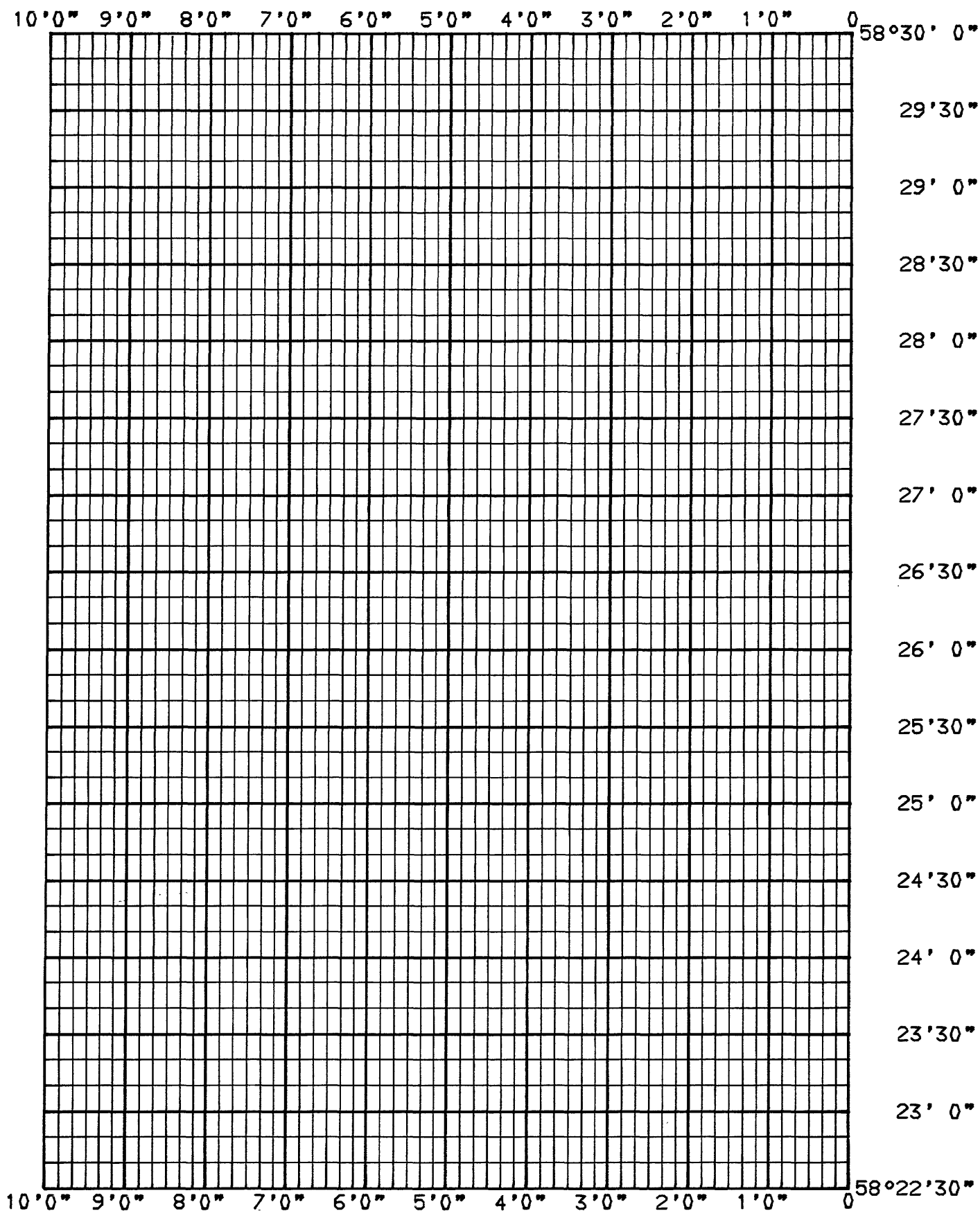
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $58^{\circ} 7' 30''$ to $58^{\circ} 15' 0''$
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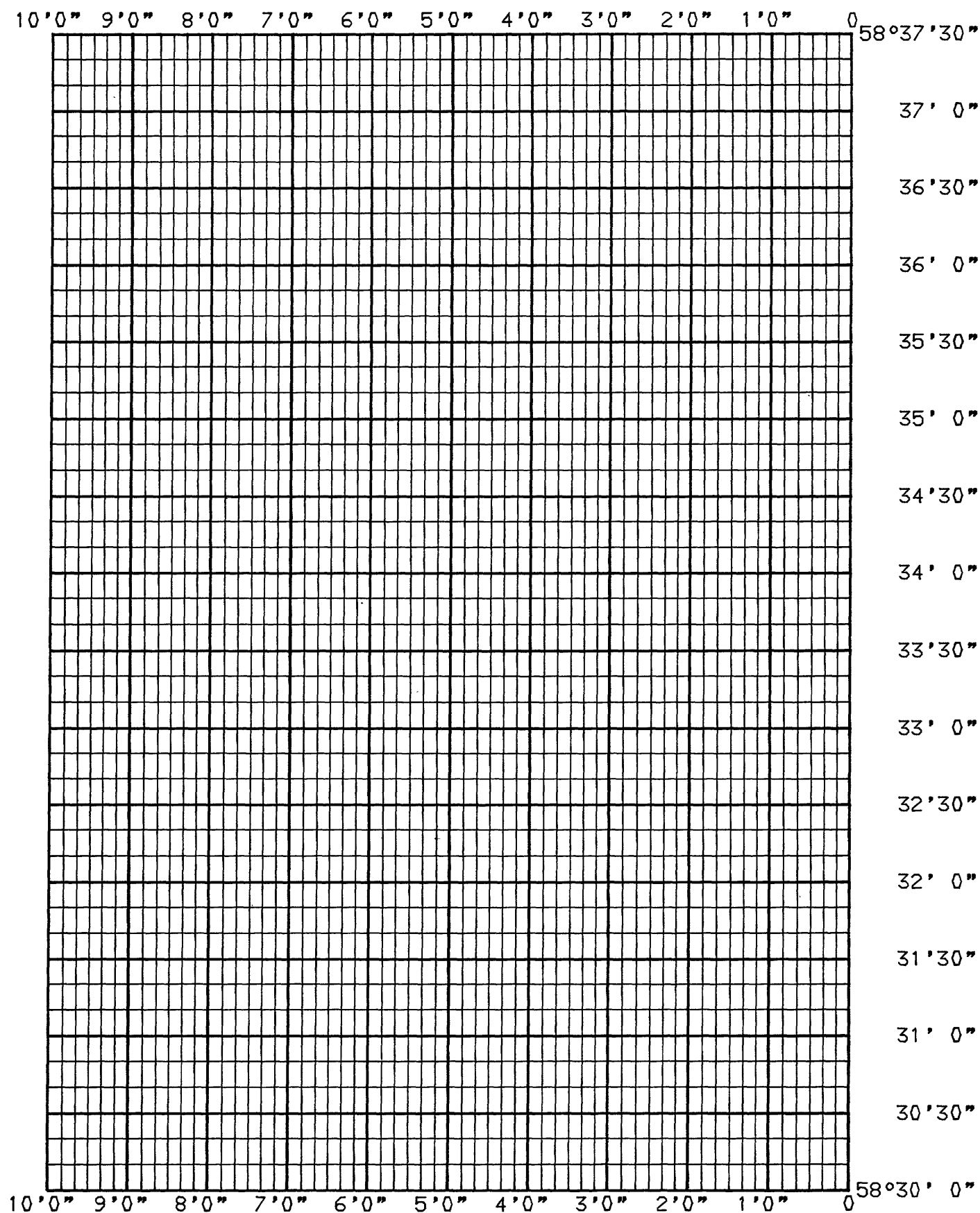
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W.L. Campbell & G. VanTrump Jr
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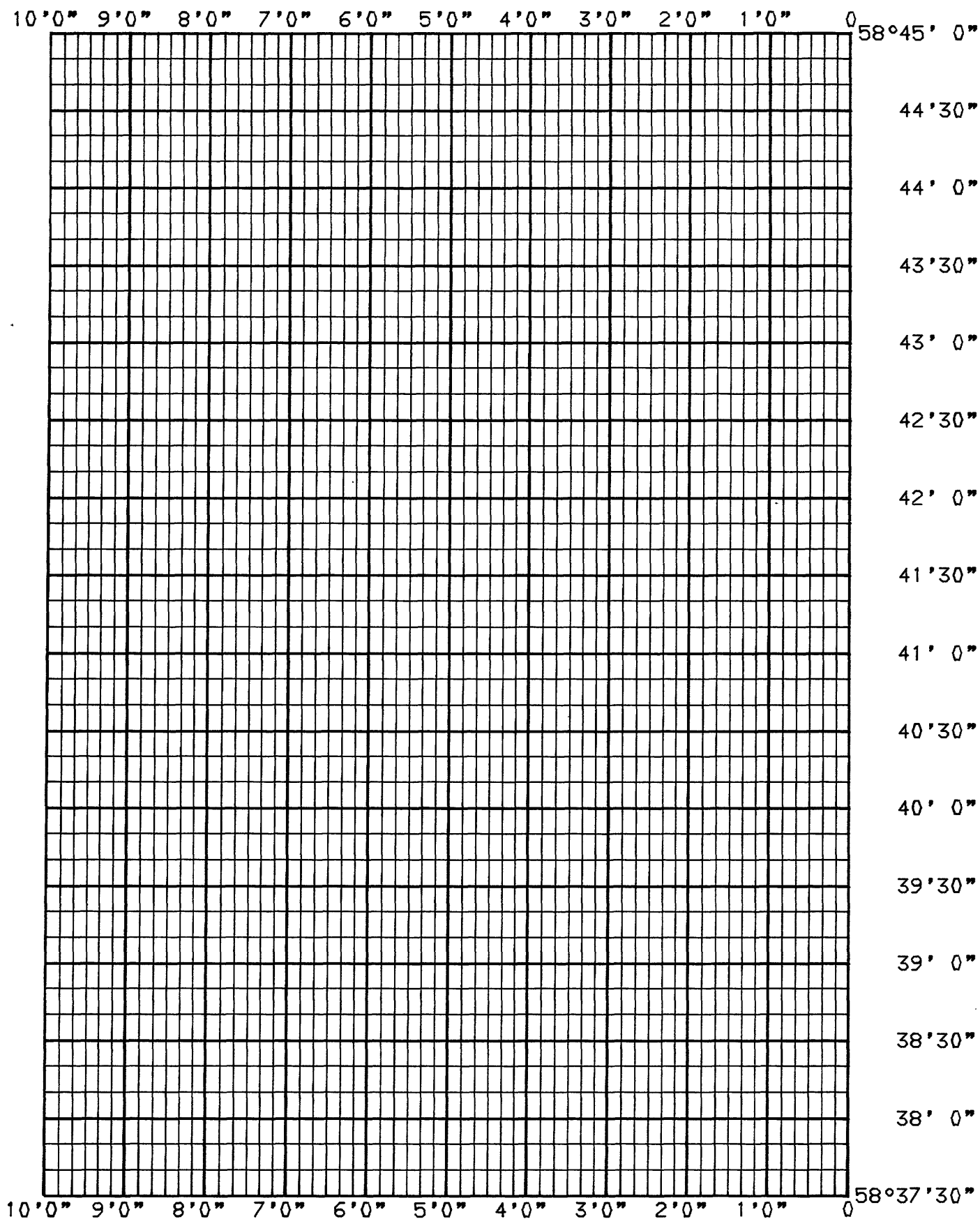
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W.L. Campbell & G. VanTrump Jr
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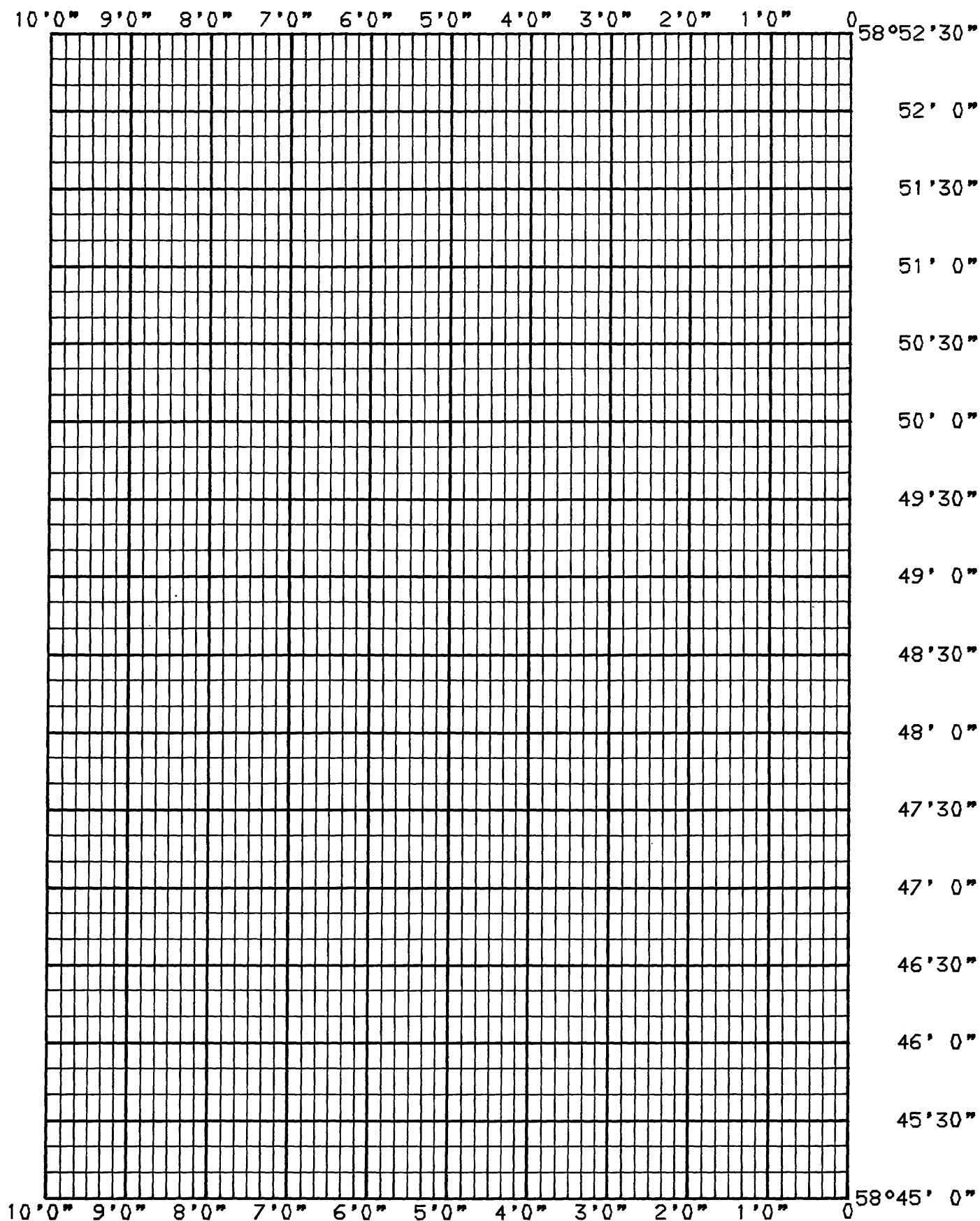
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



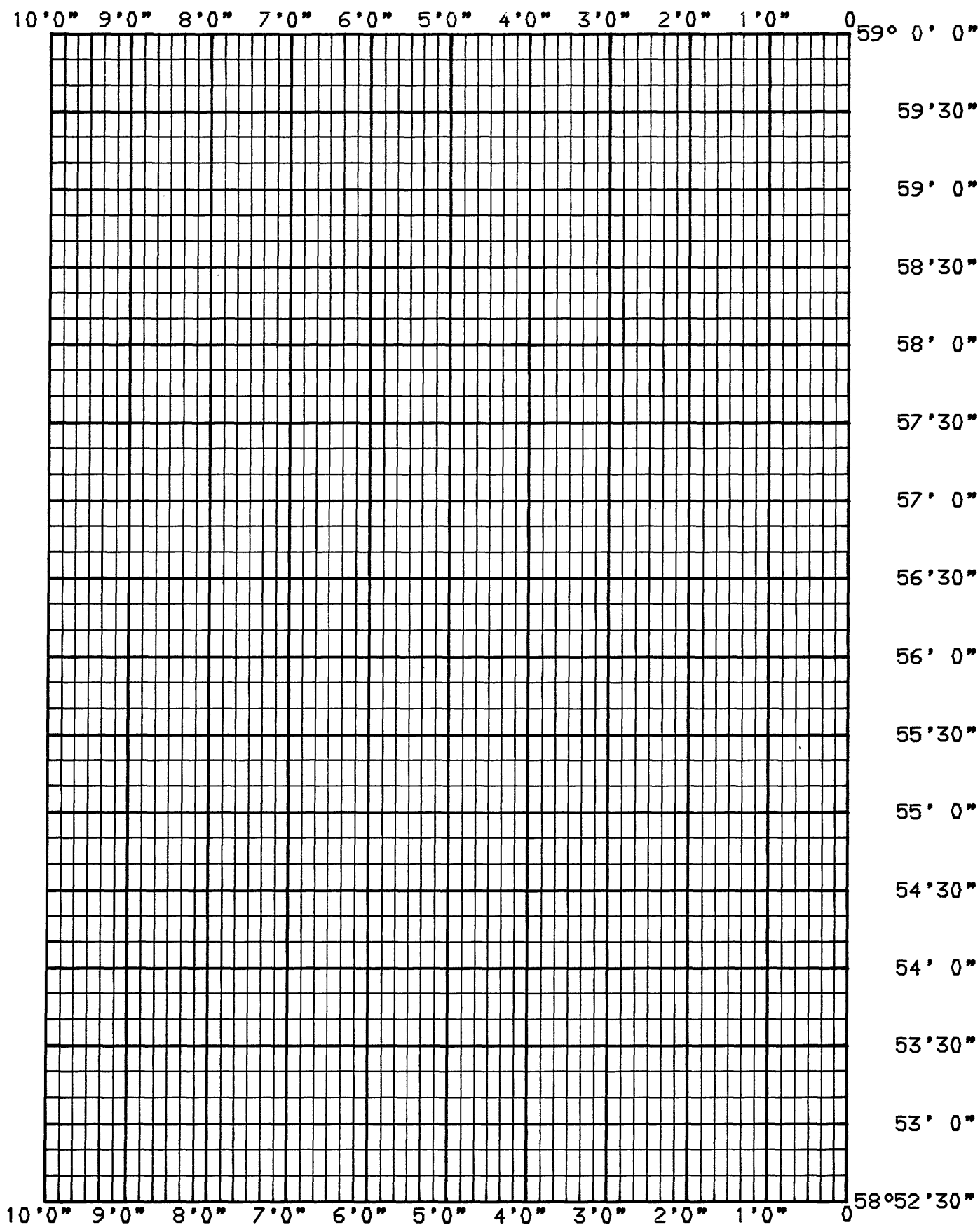
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



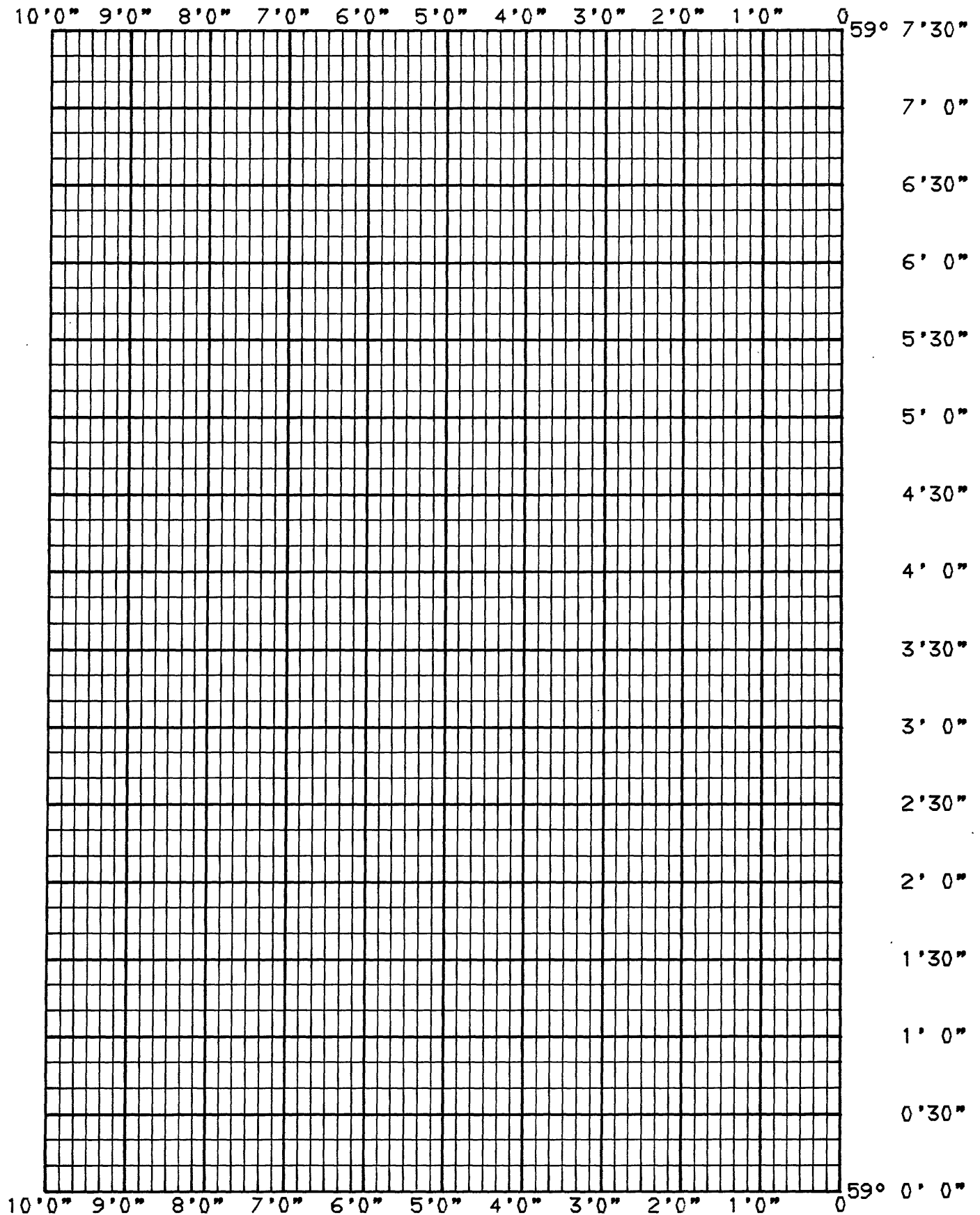
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



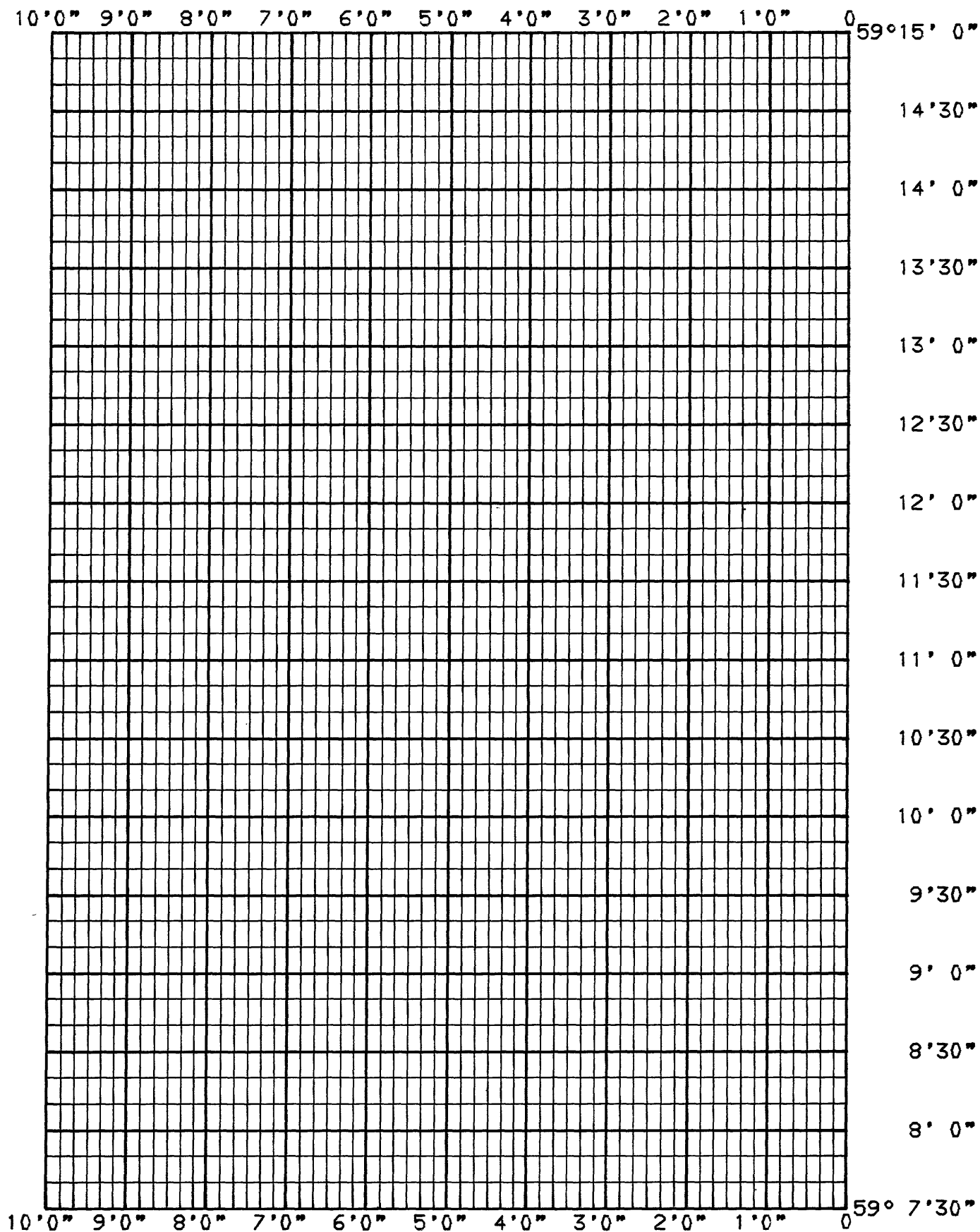
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W.L. Campbell & G. VanTrump Jr
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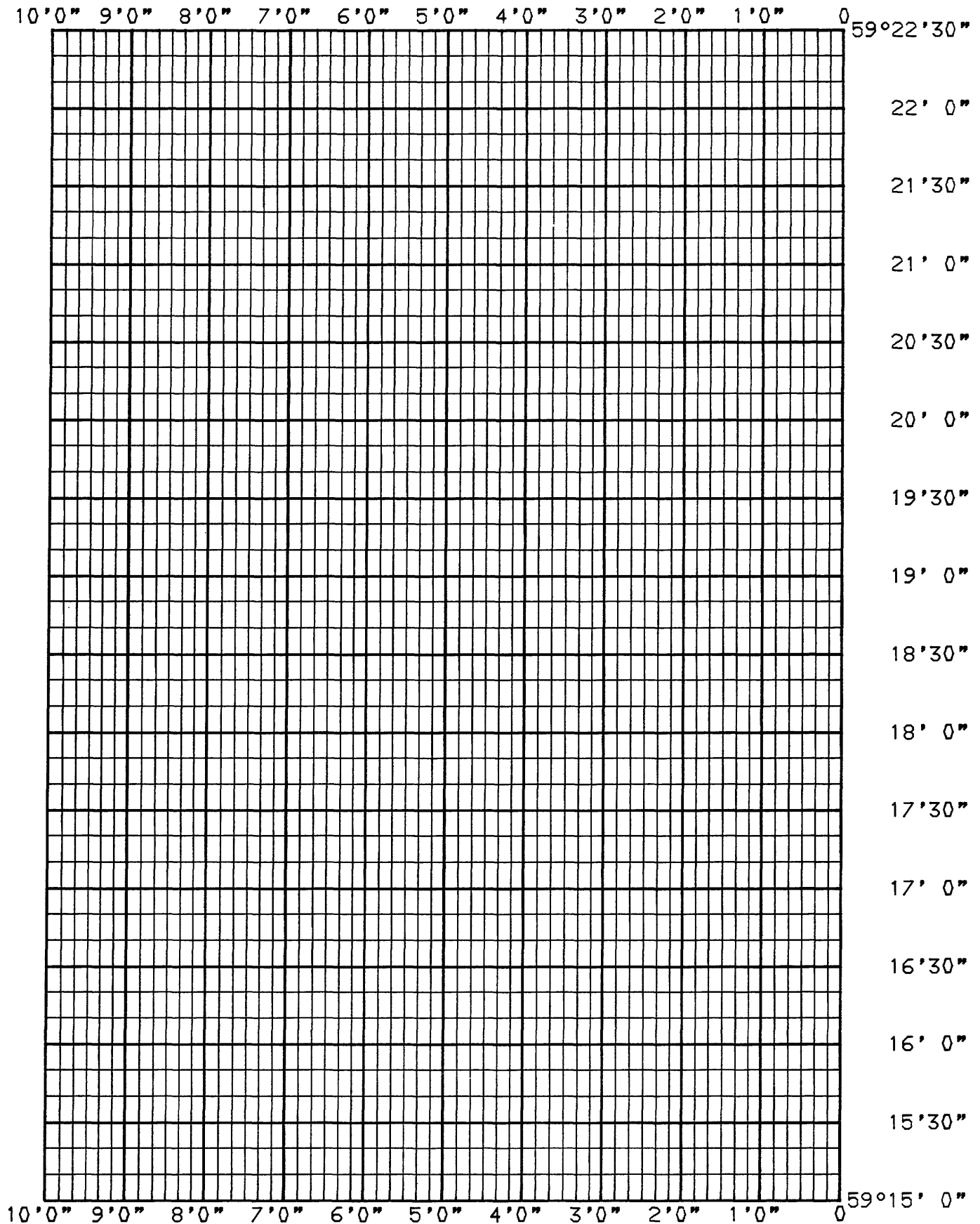
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W.L. Campbell & G. VanTrump Jr
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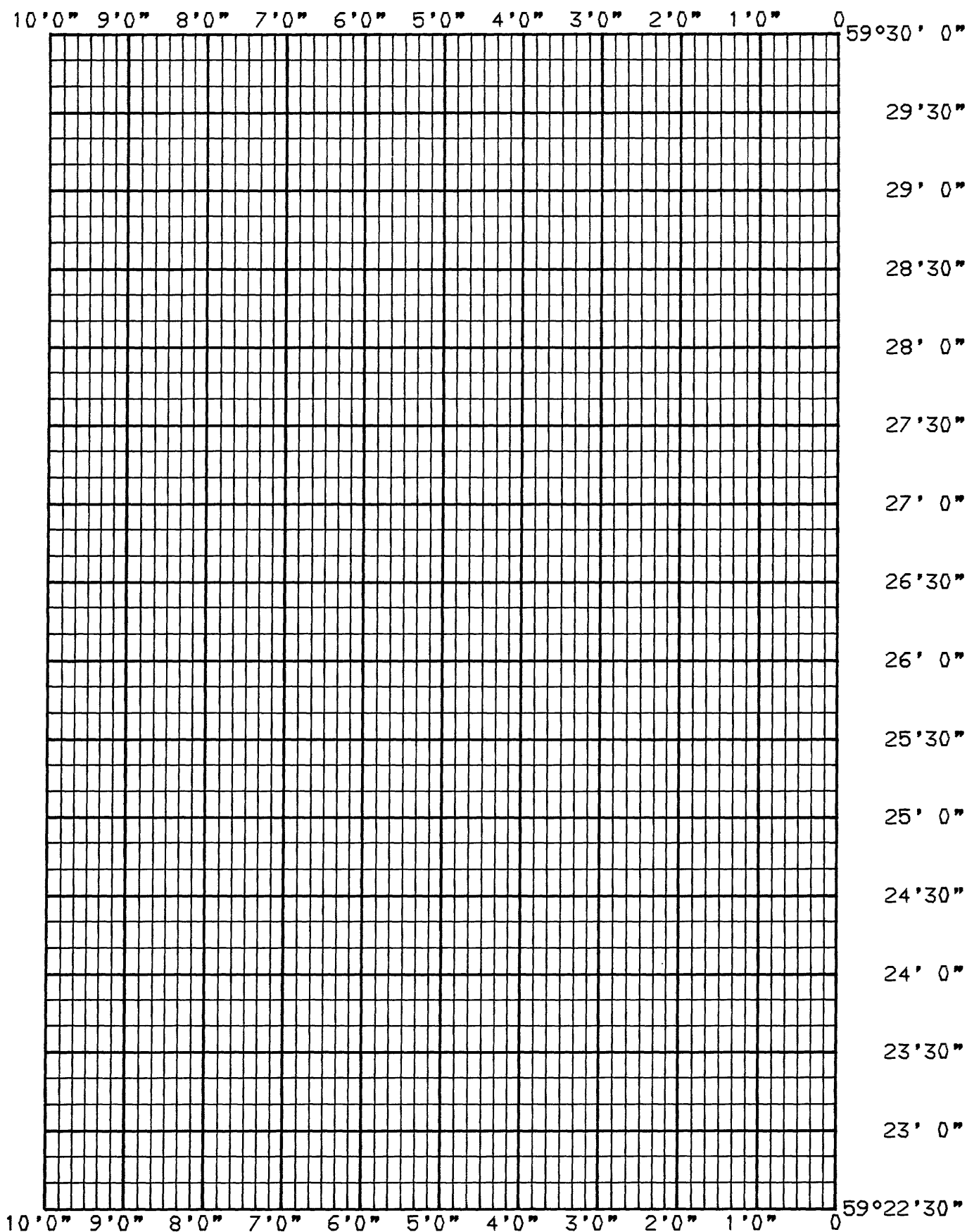
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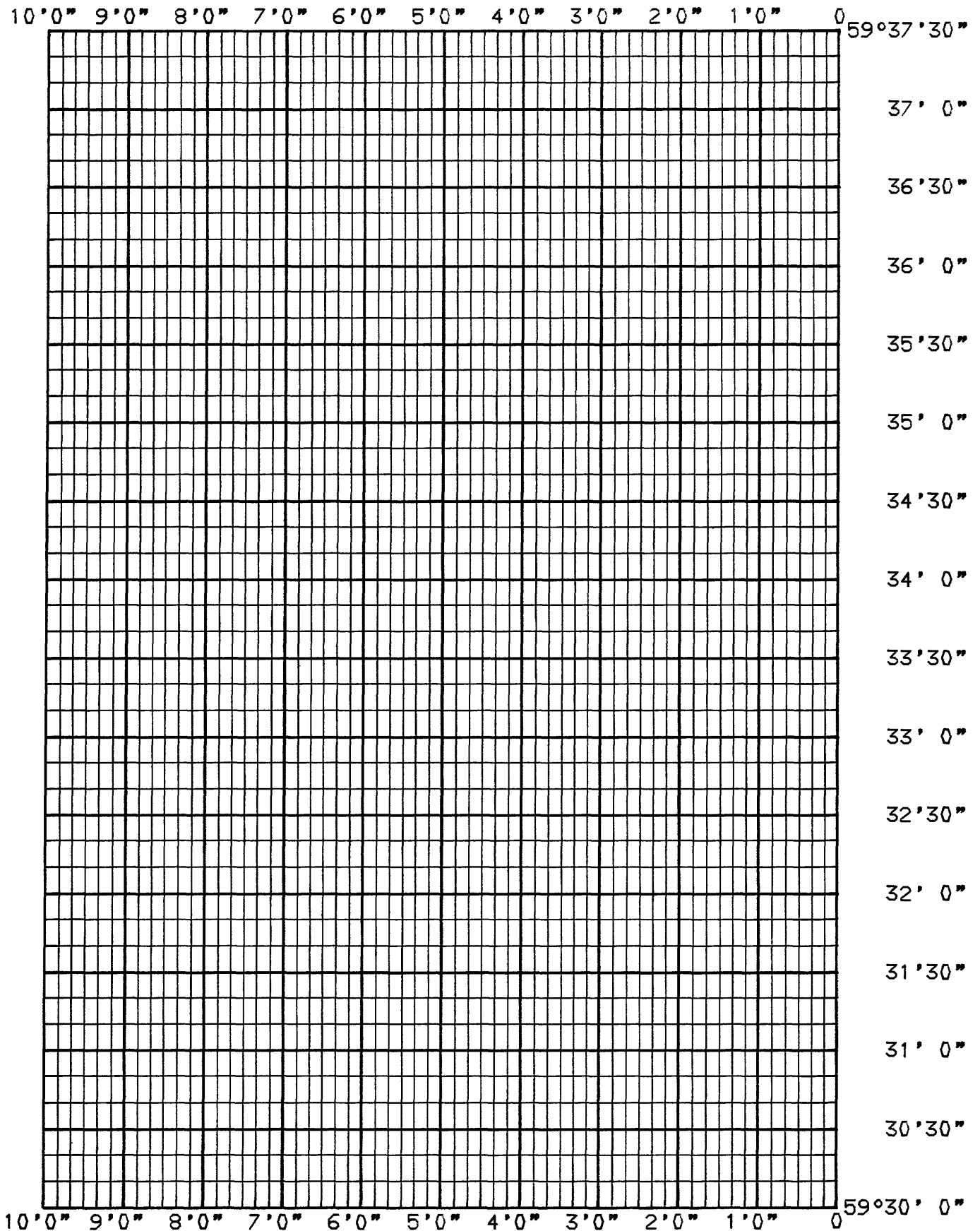
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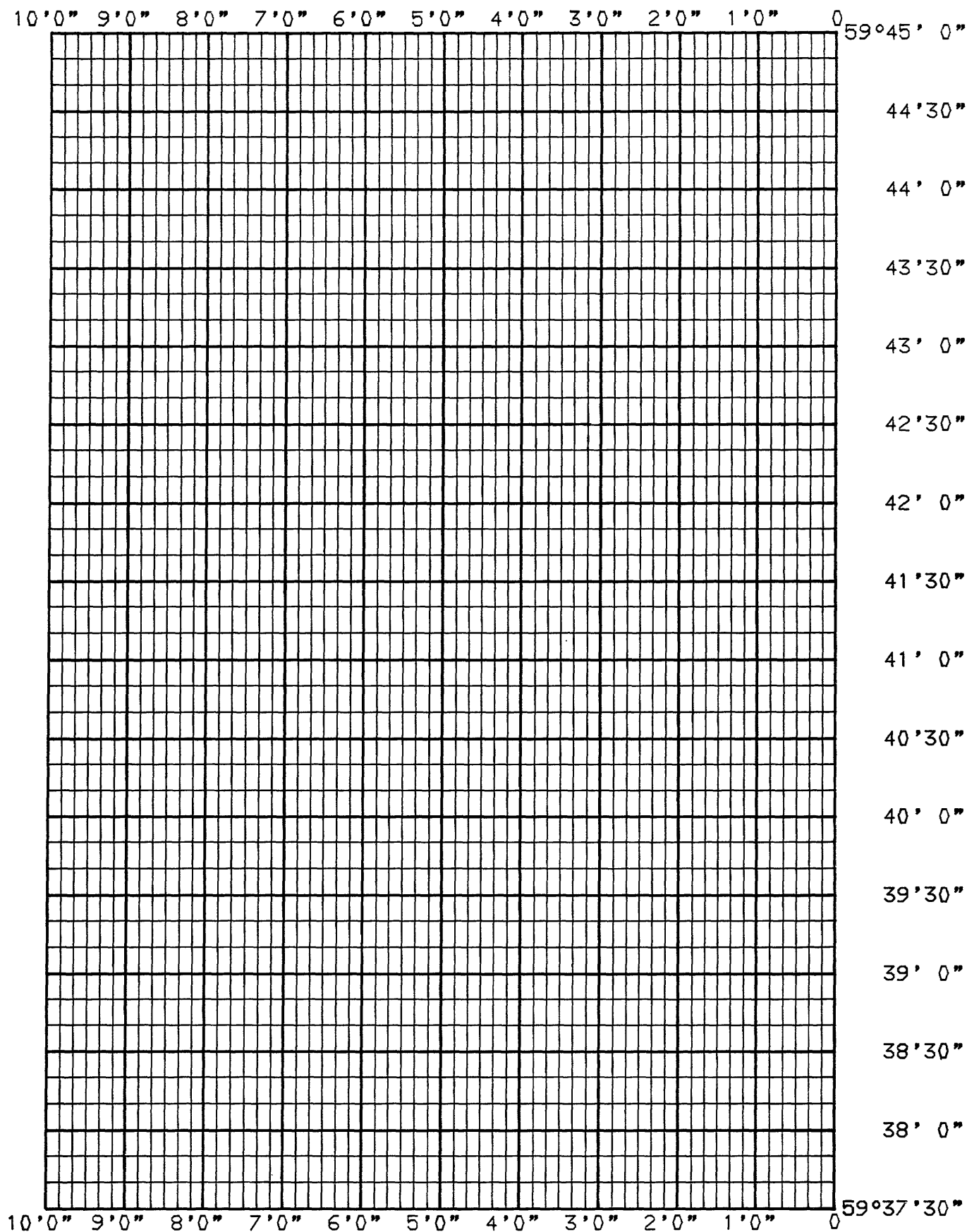
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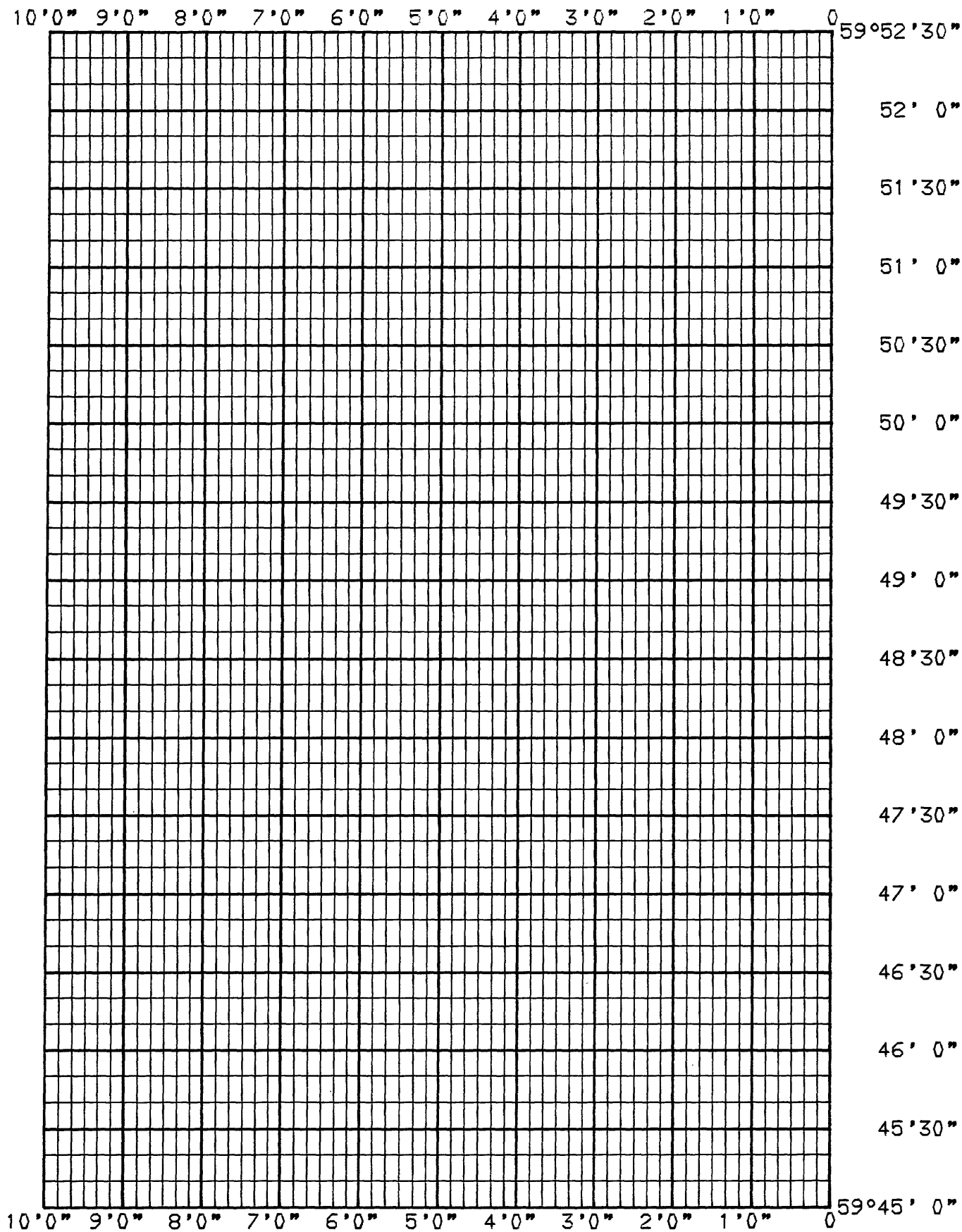
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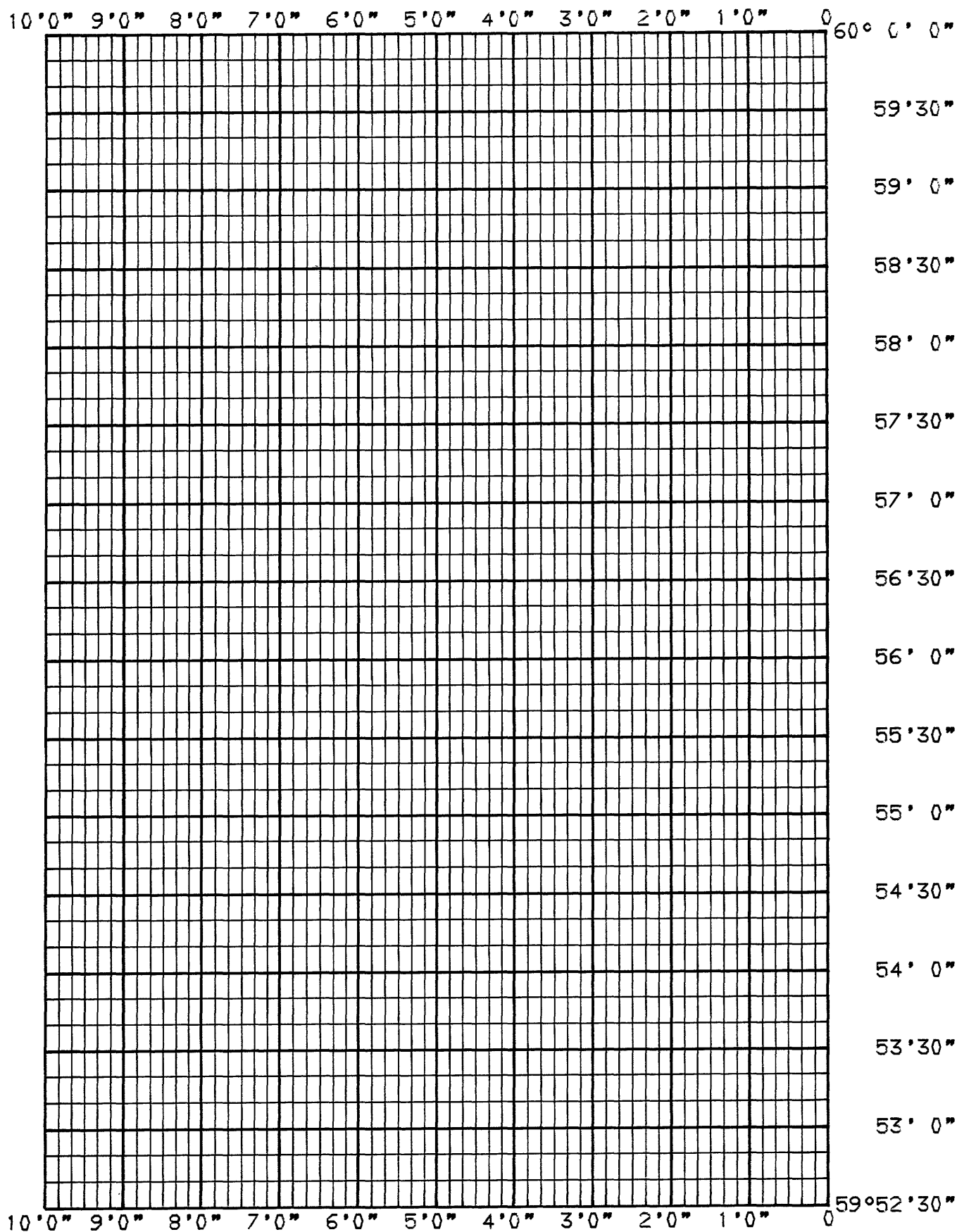
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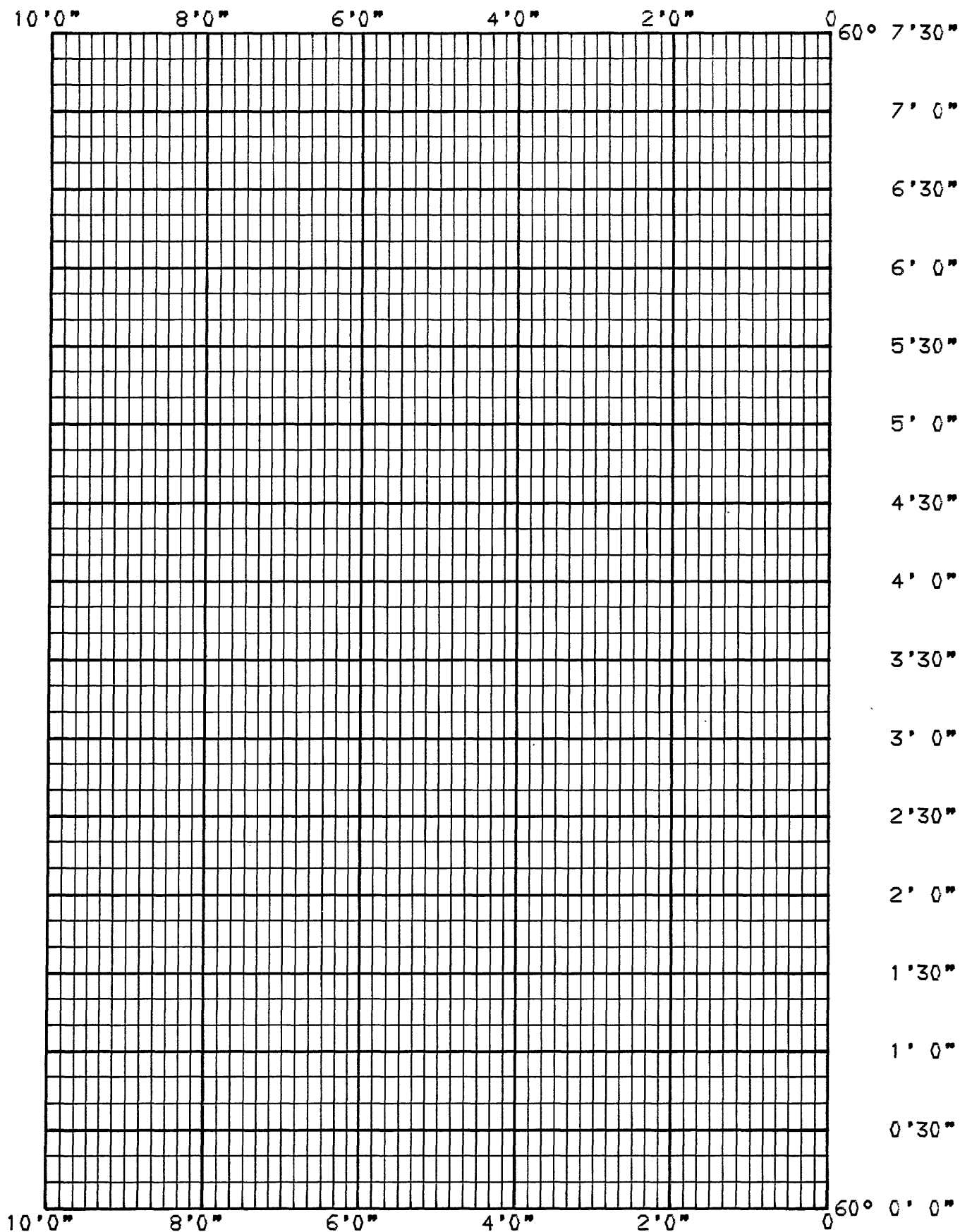
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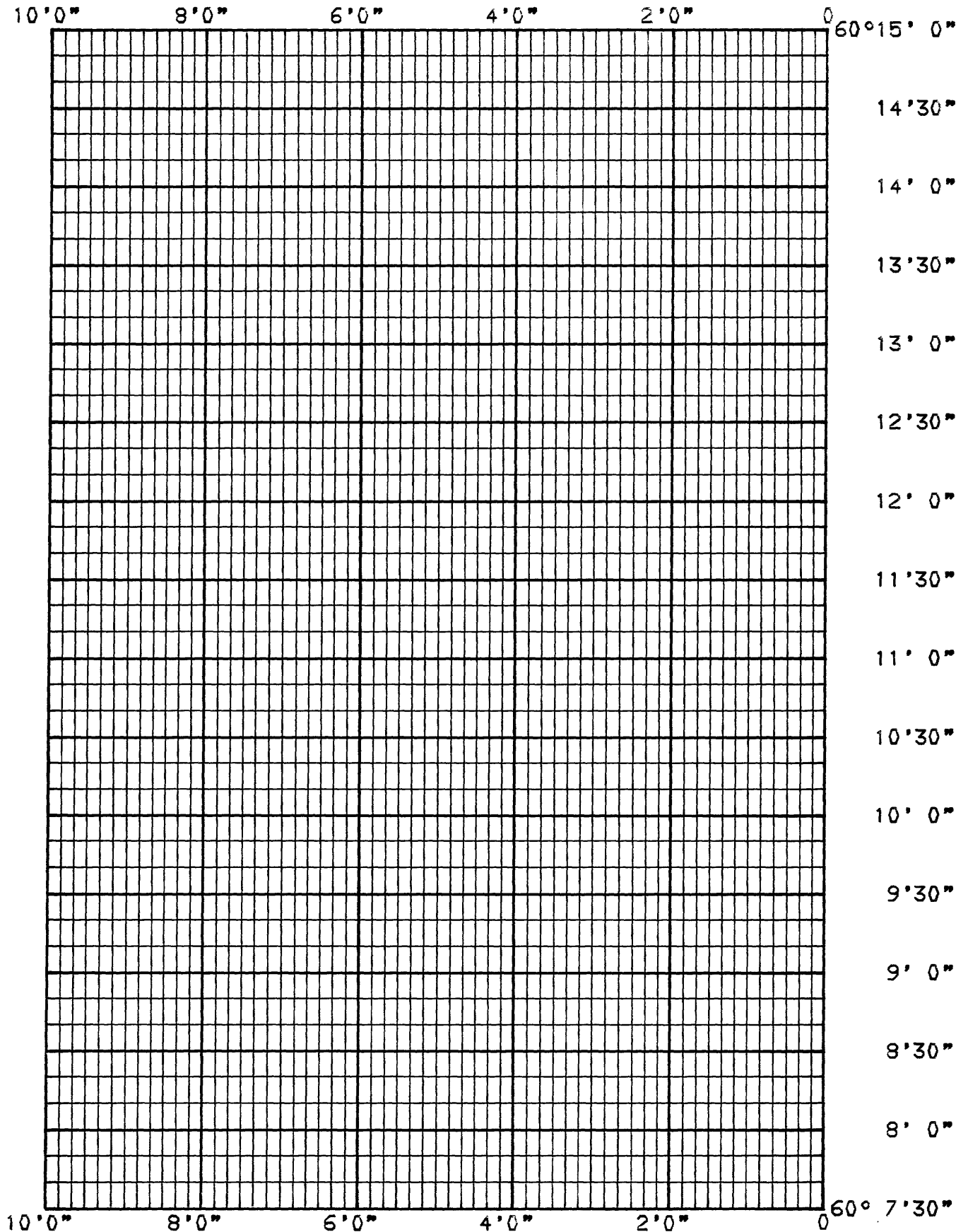
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W.L. Campbell & G. VanTrump Jr
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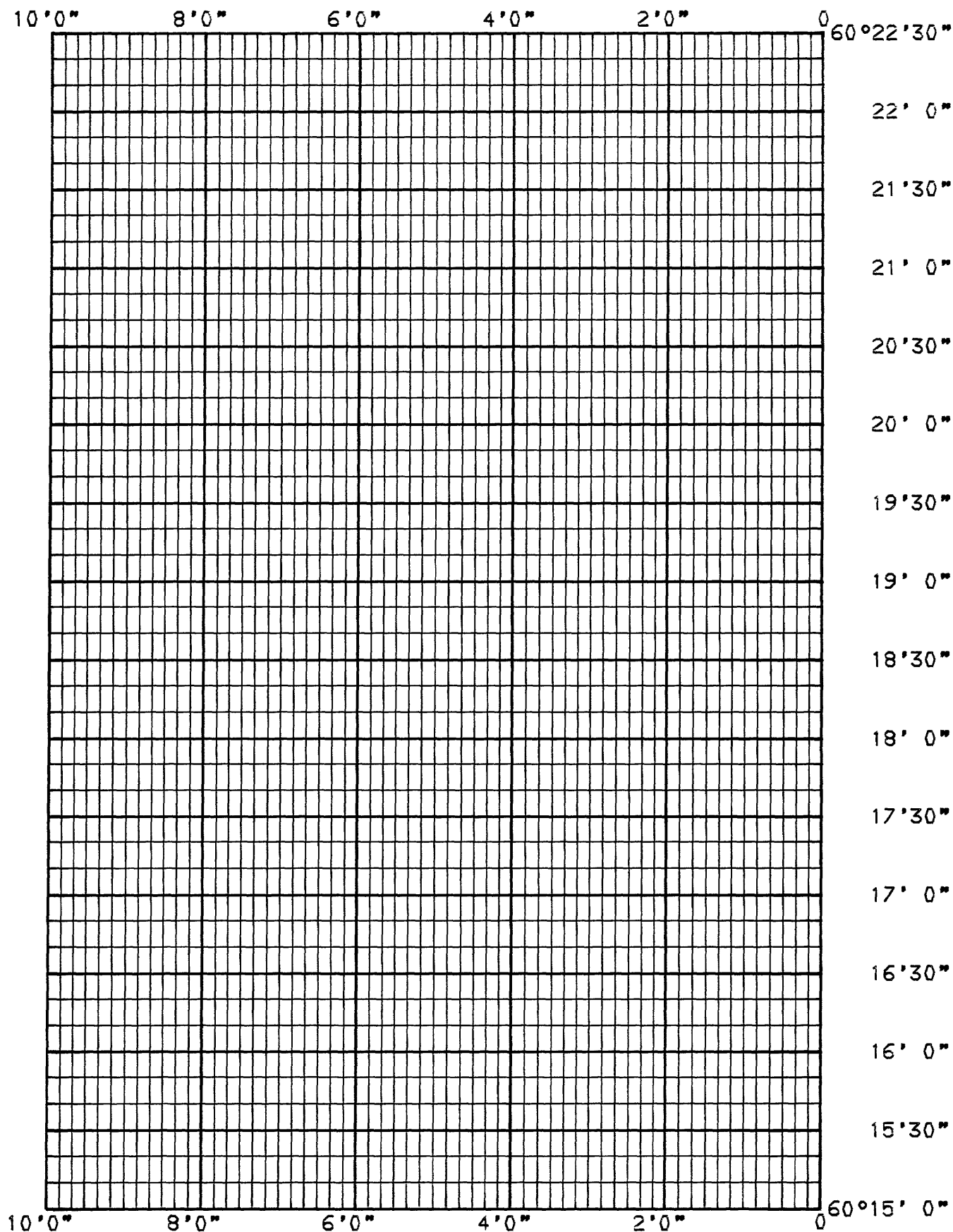
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W.L. Campbell & G. VanTrump Jr
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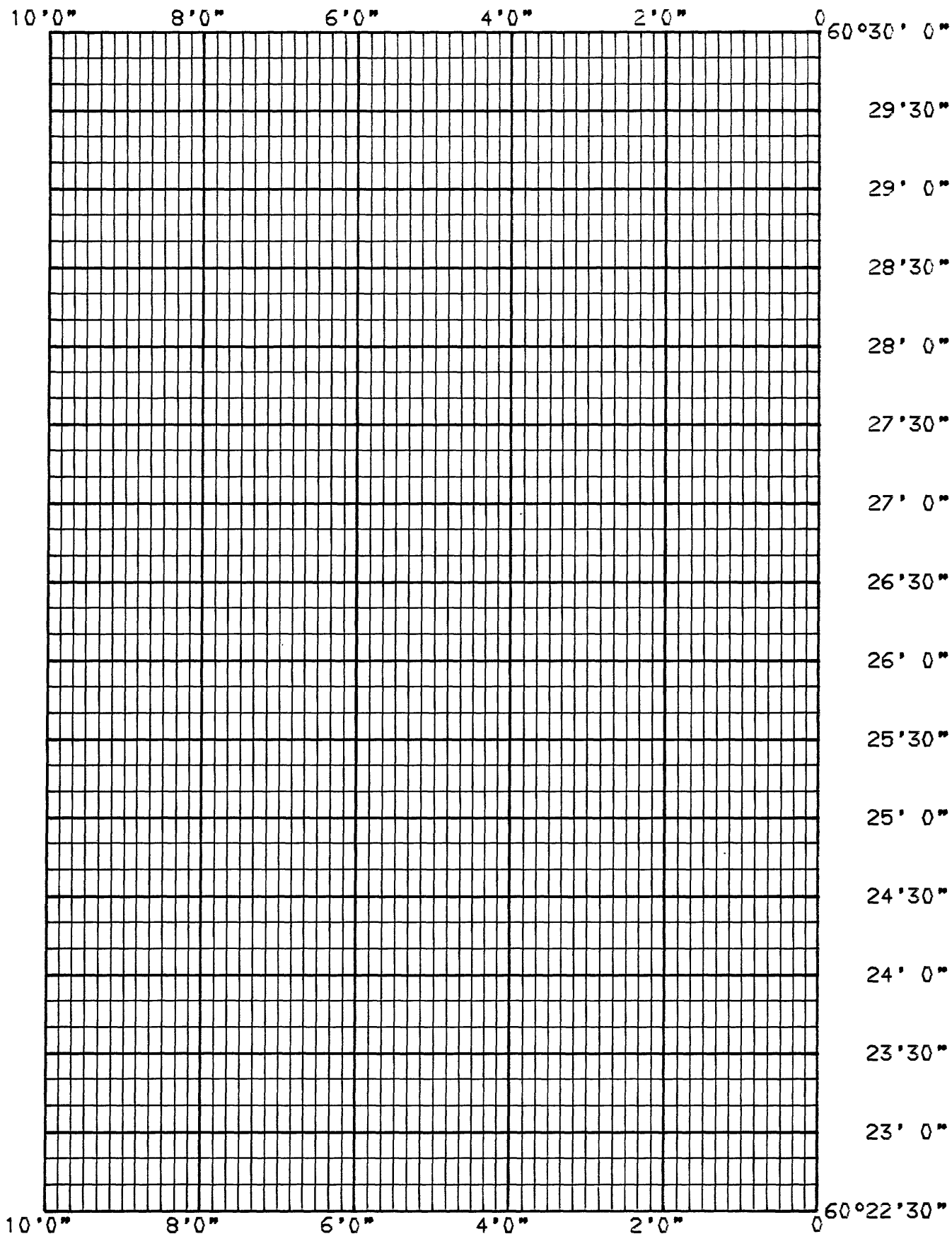
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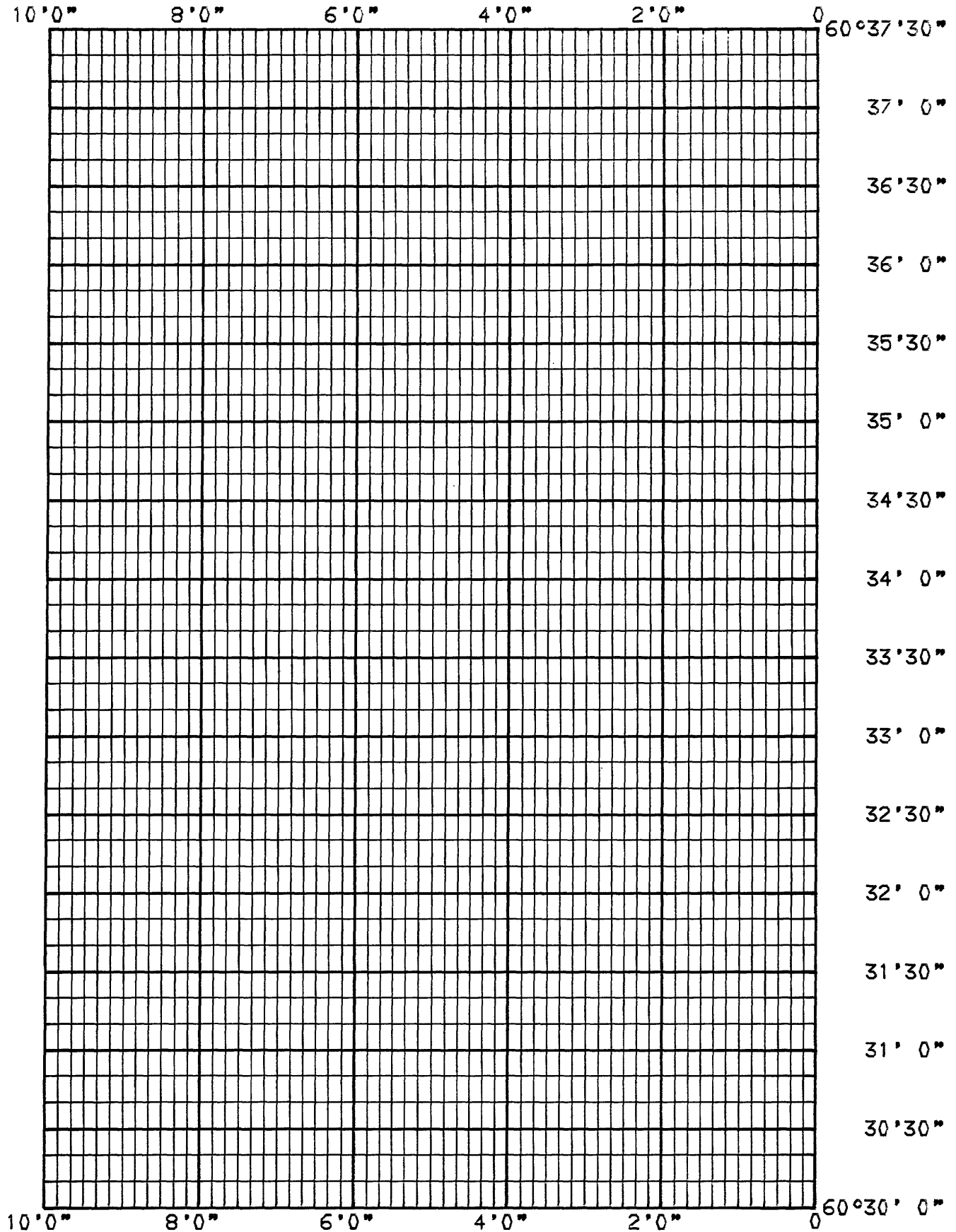
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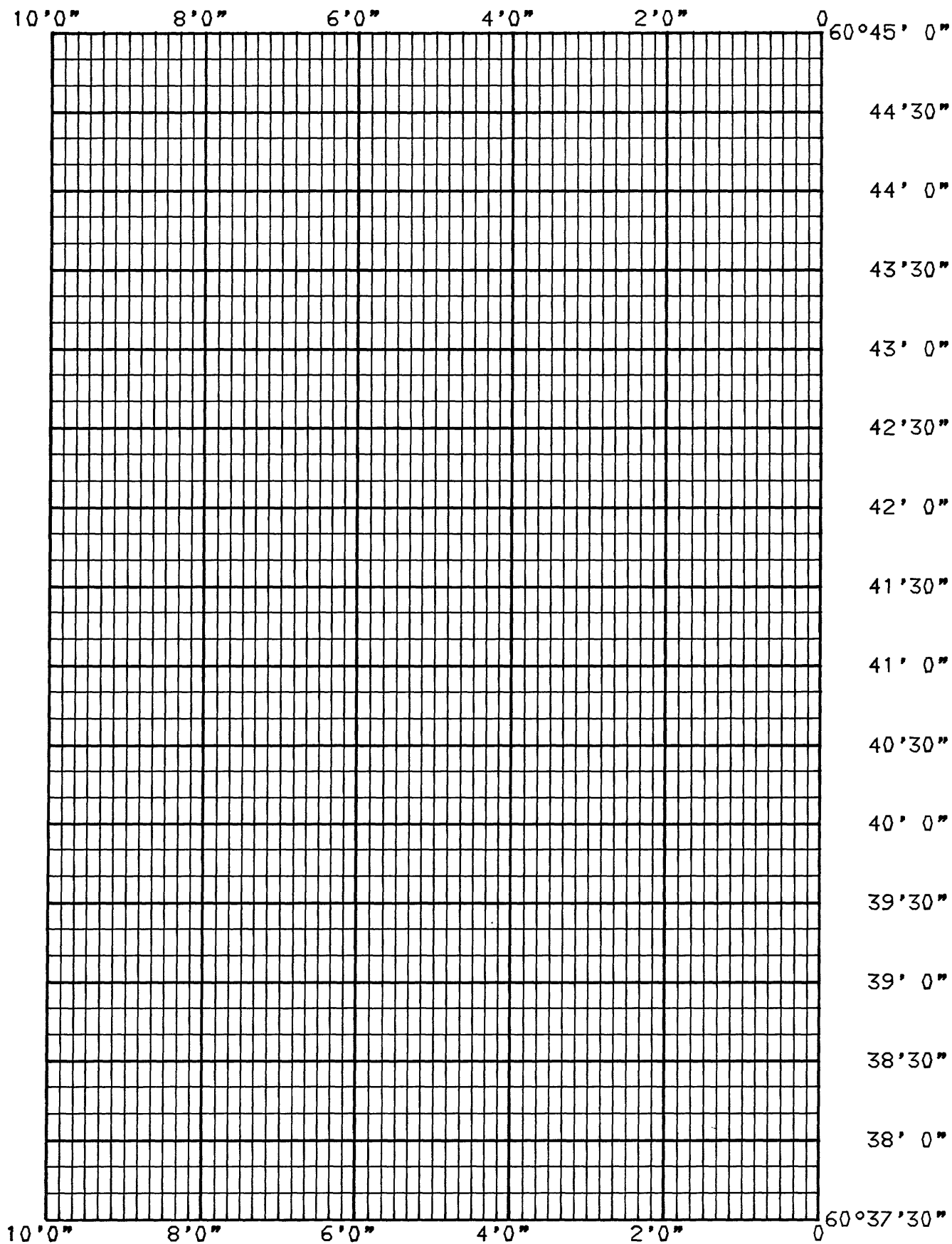
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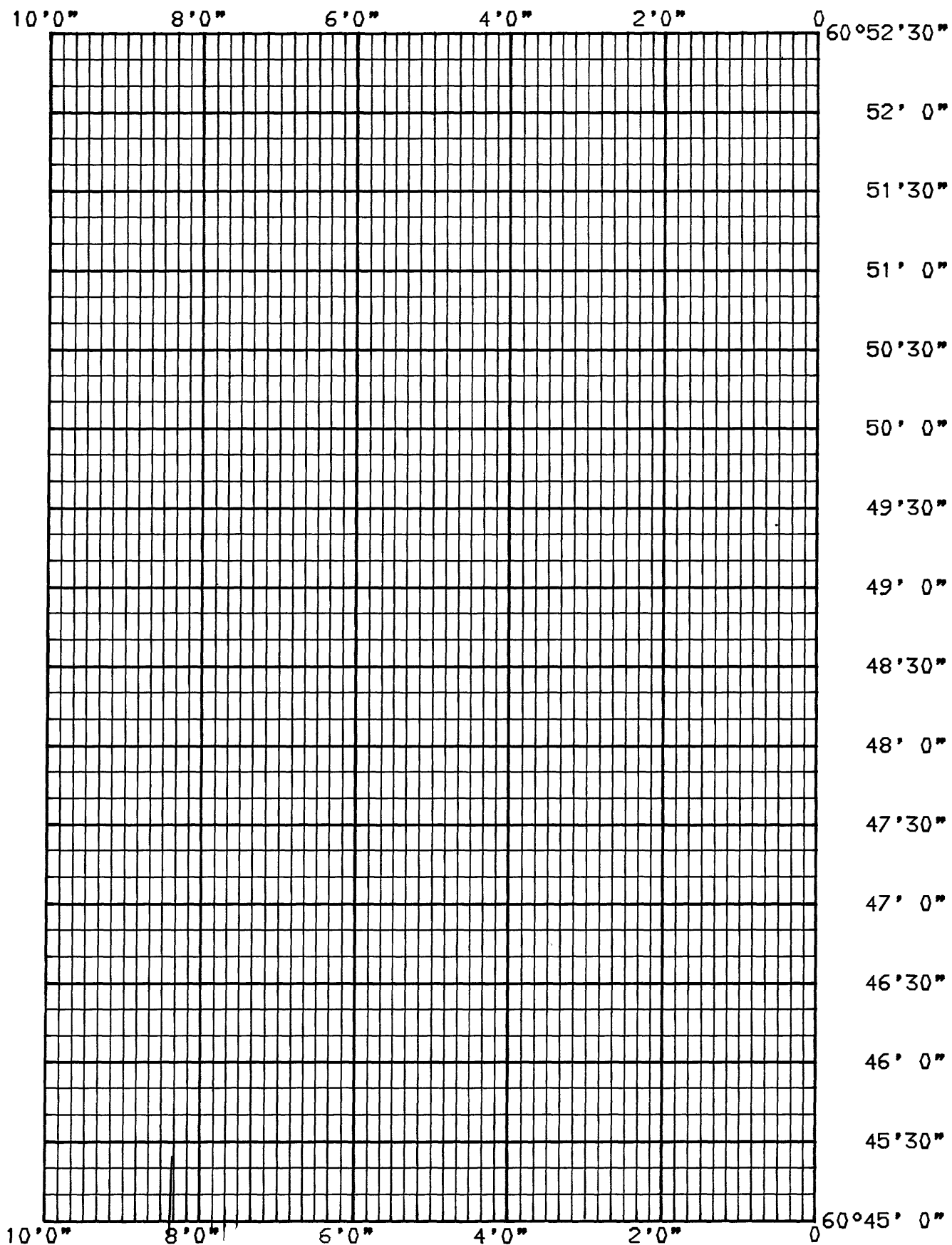
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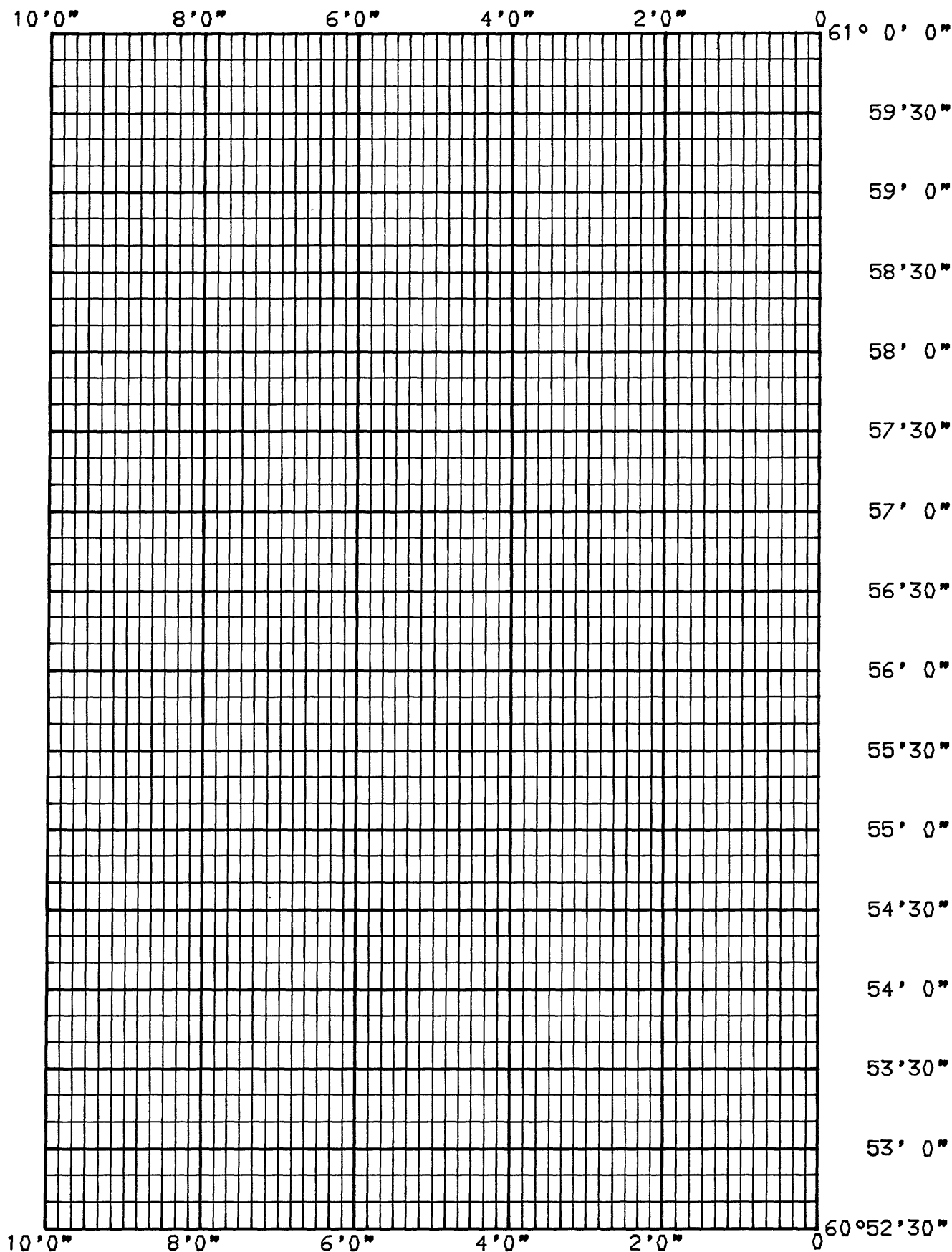
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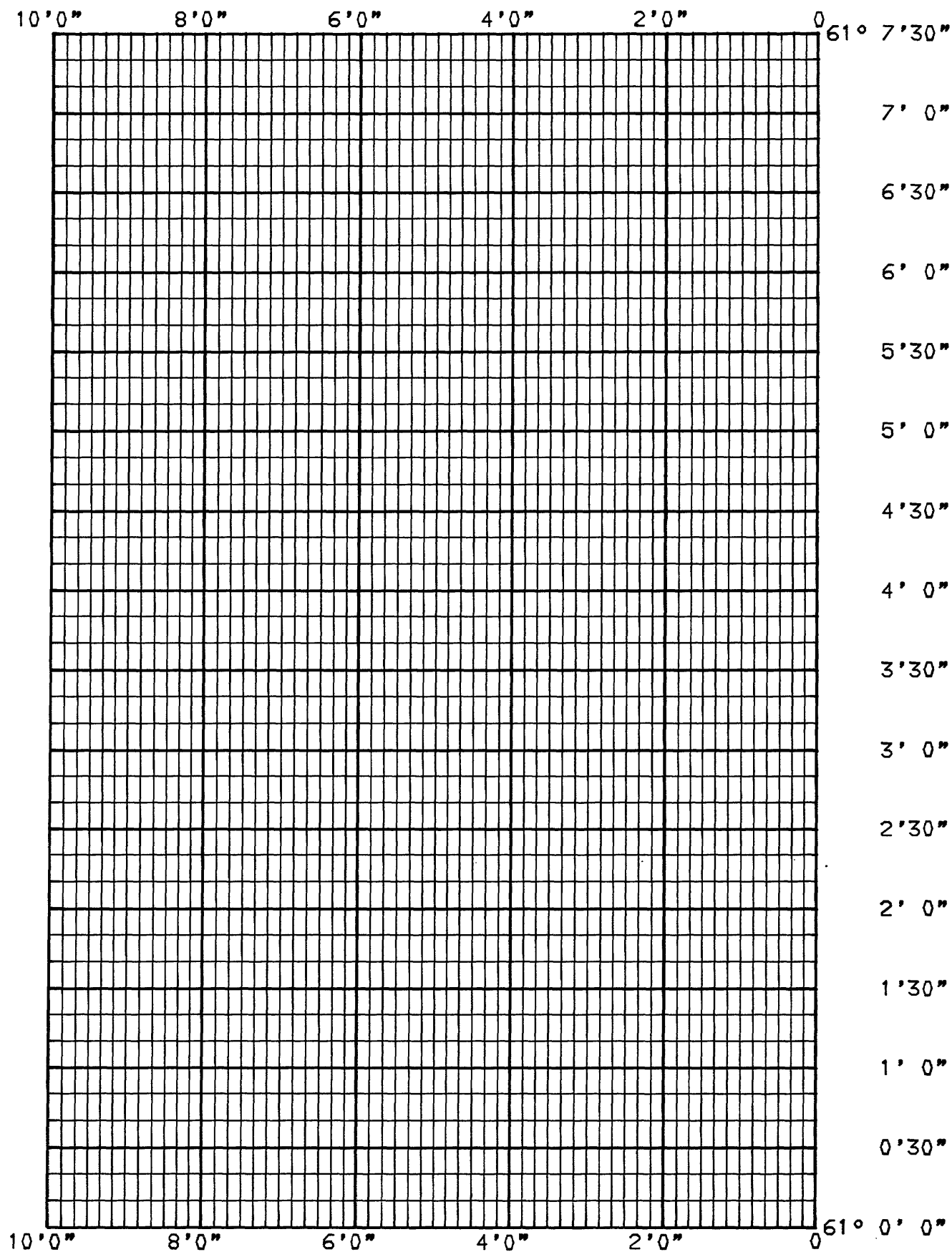
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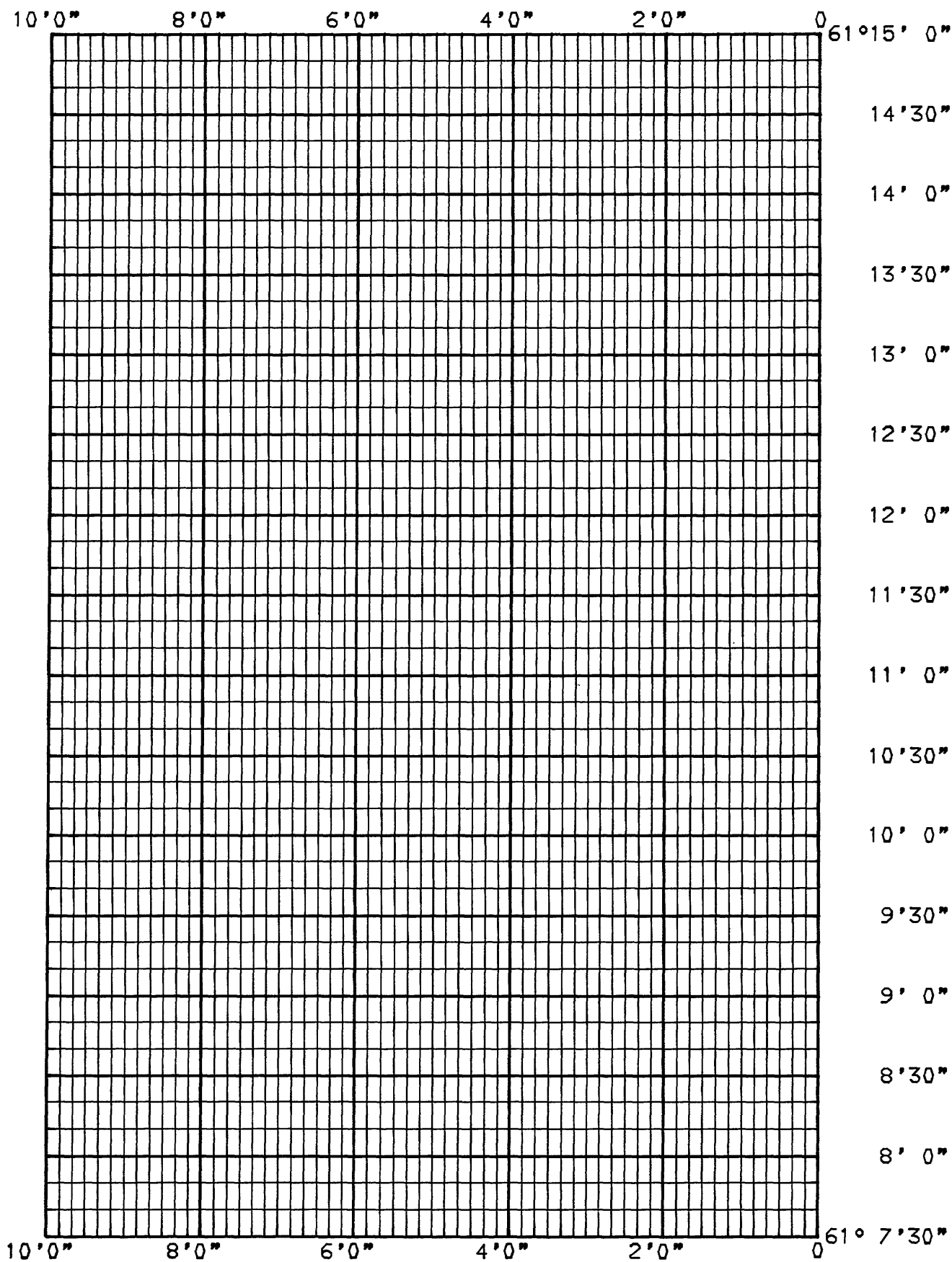
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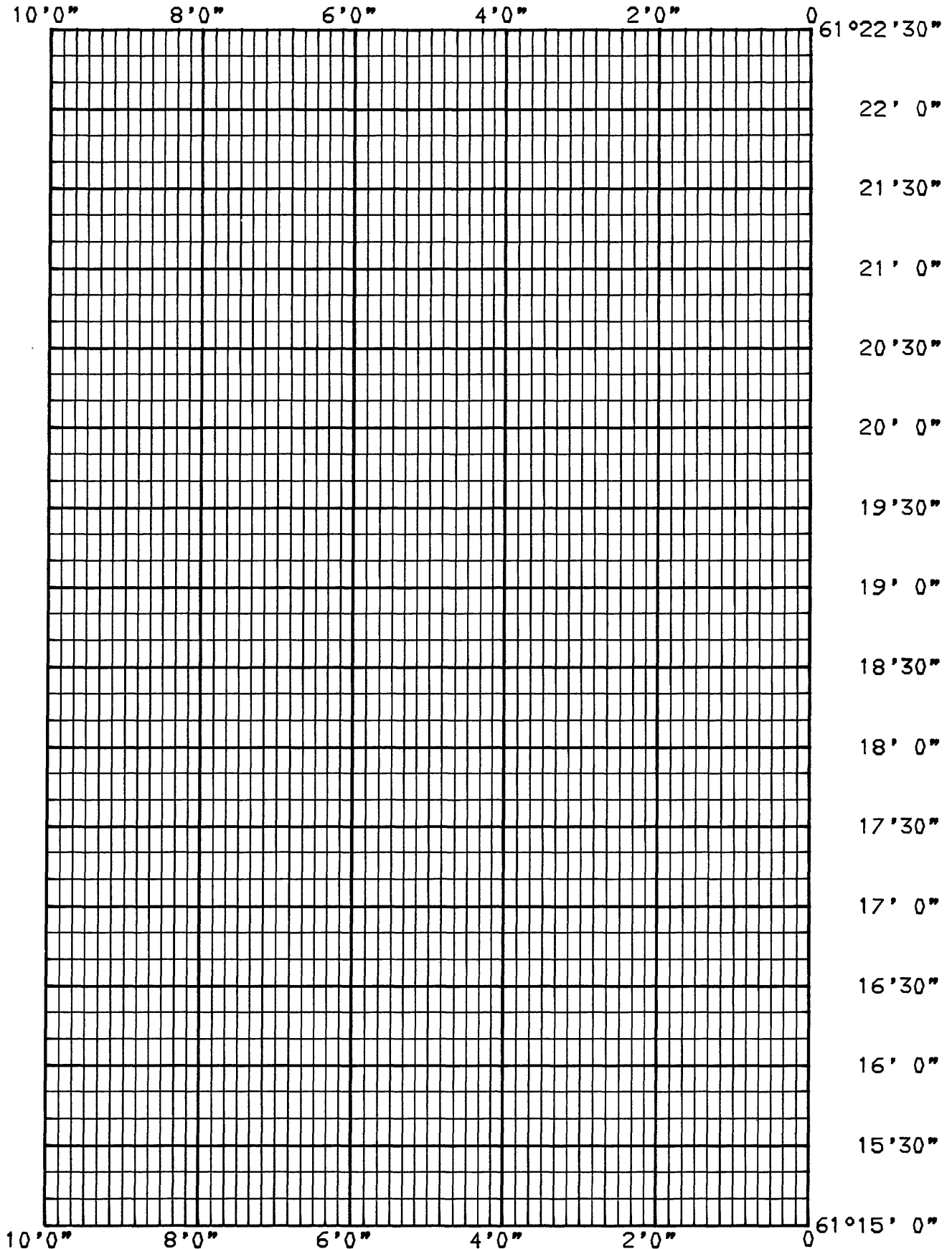
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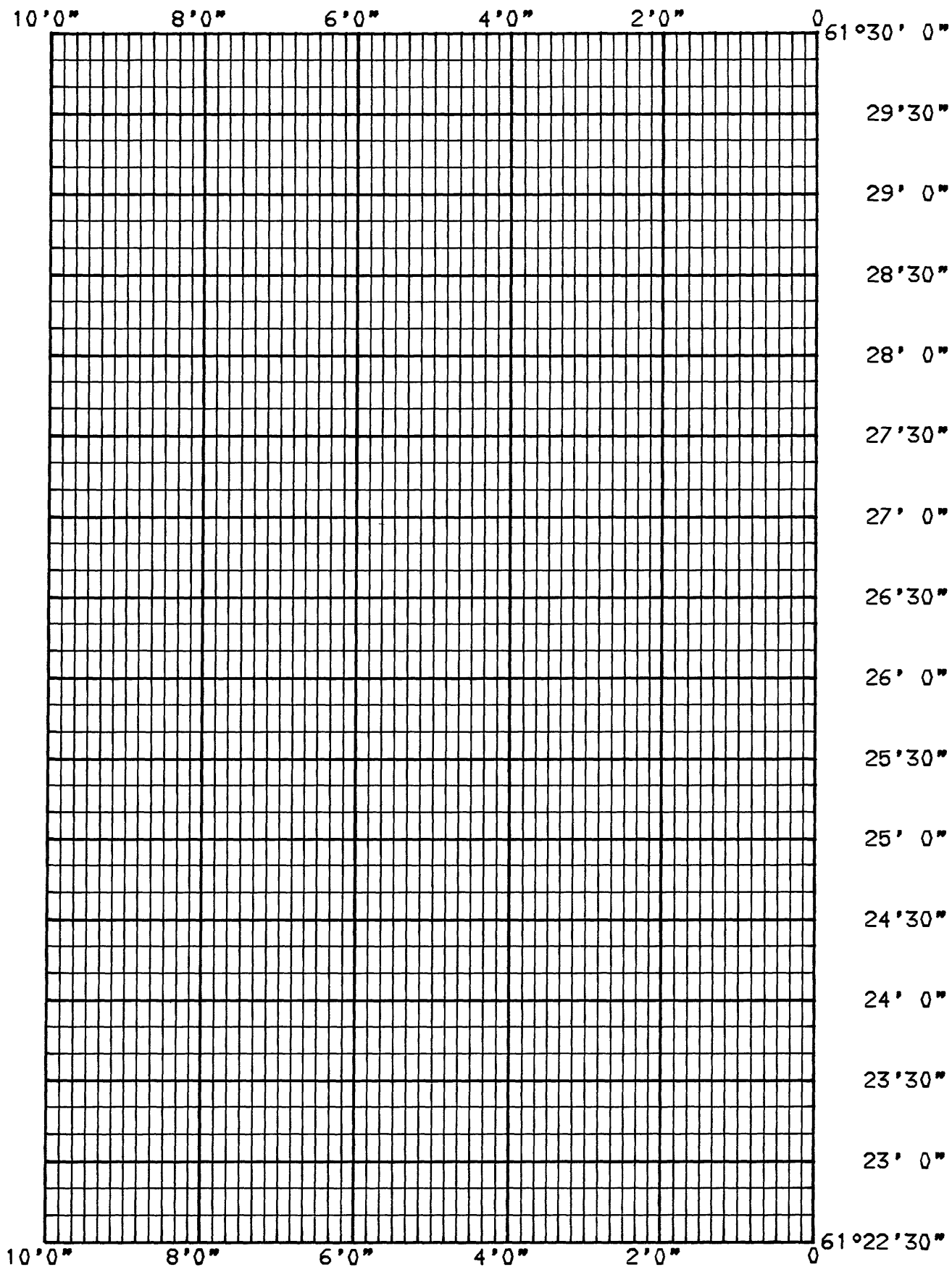
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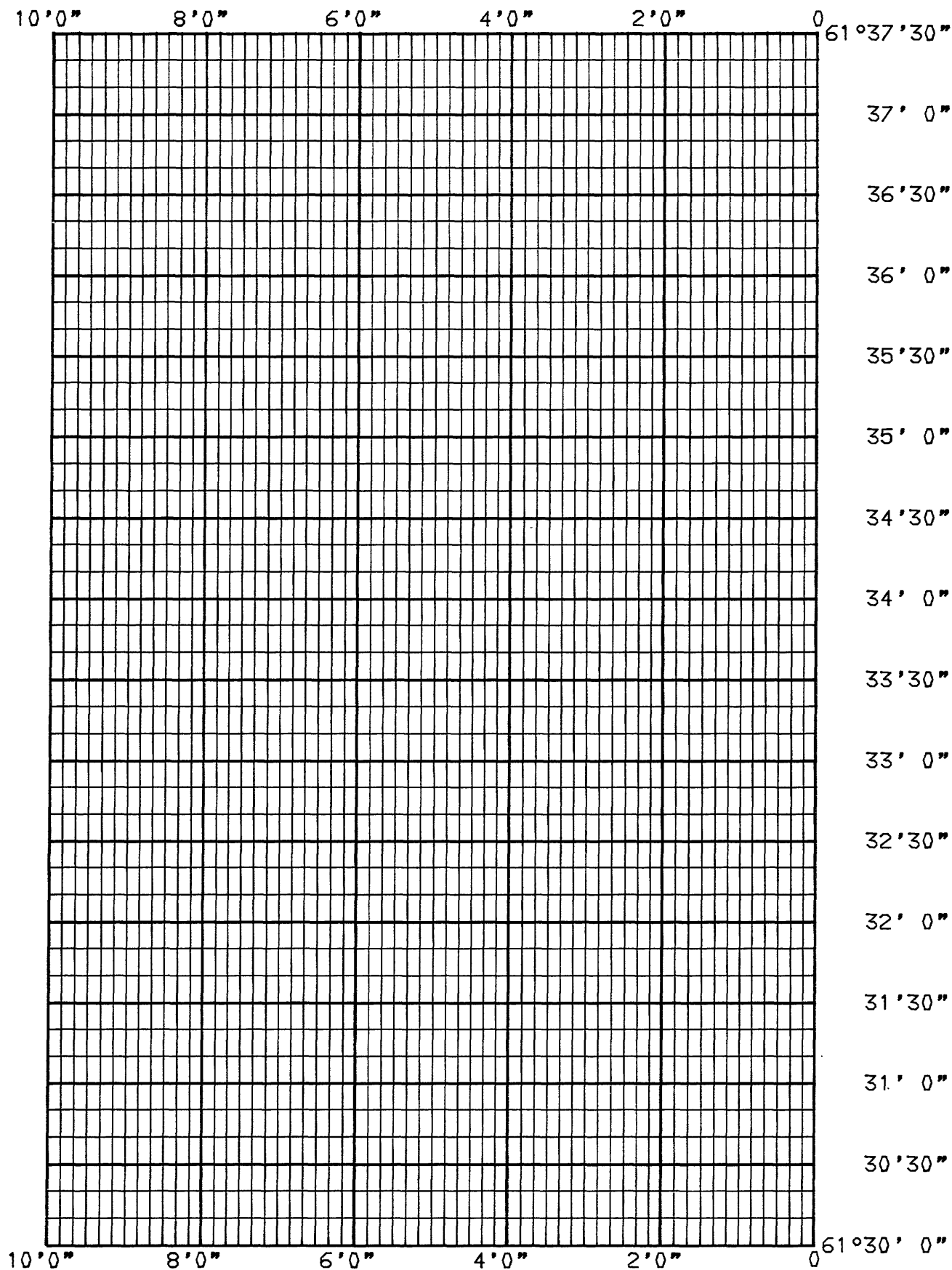
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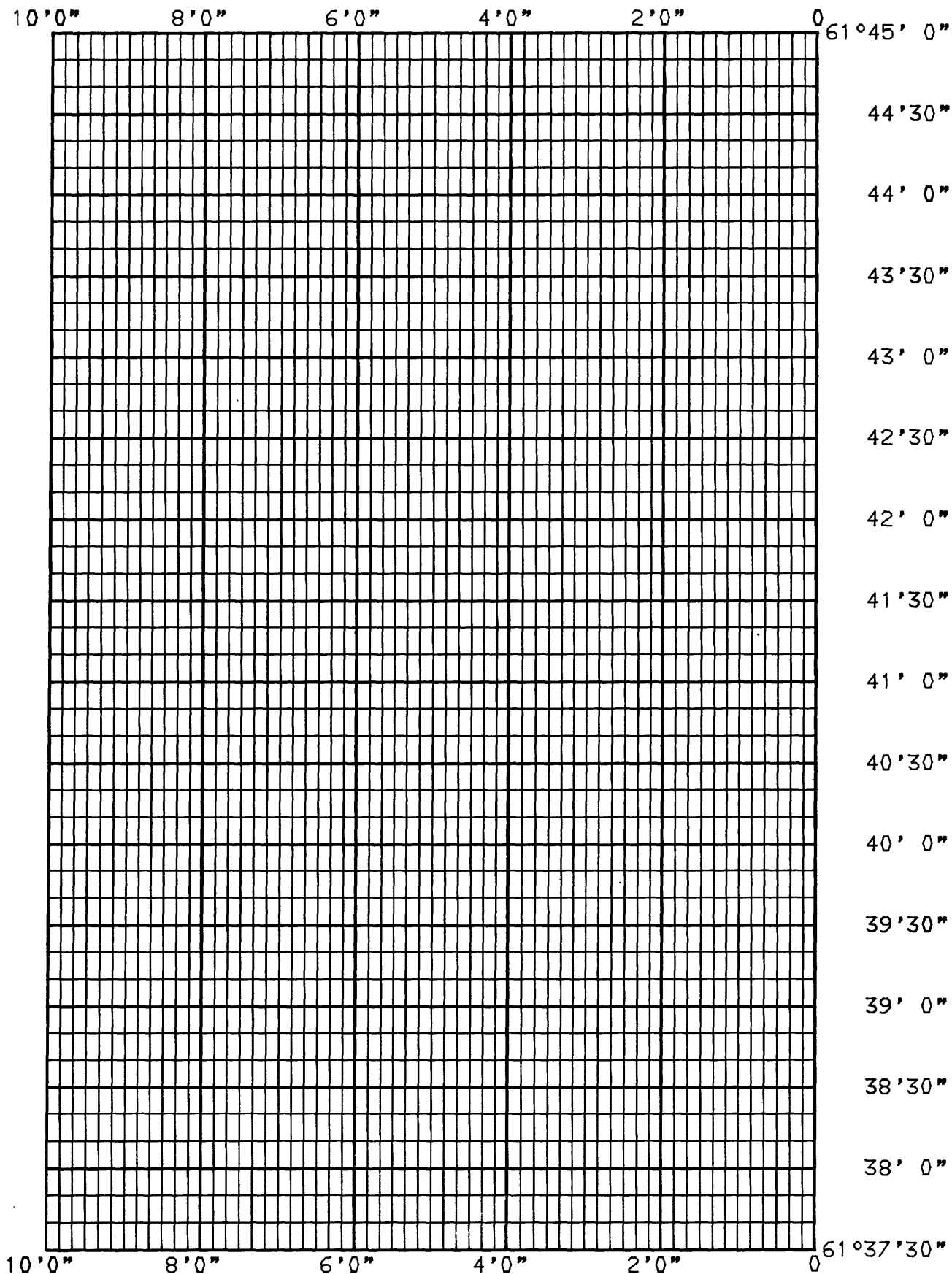
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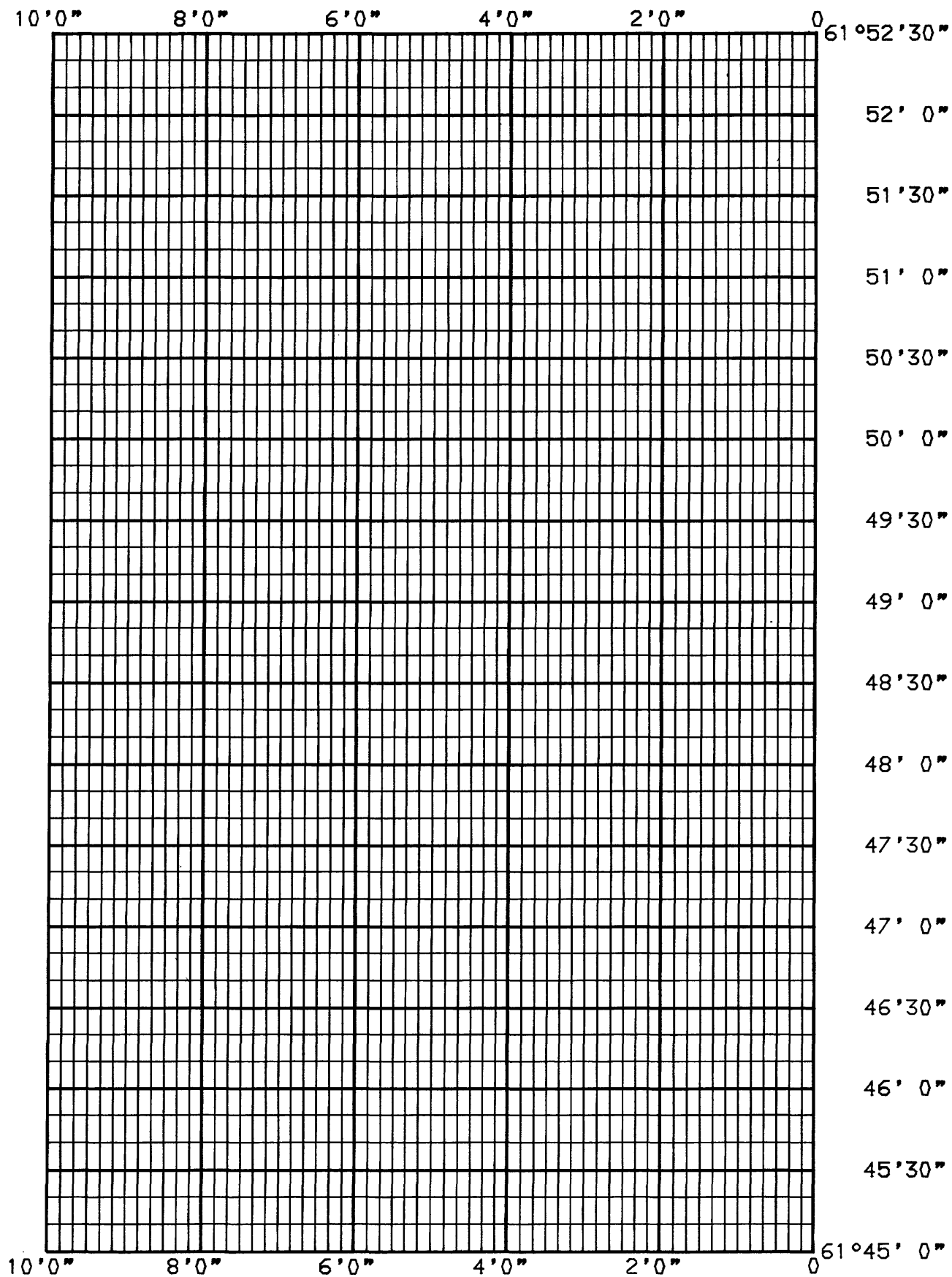
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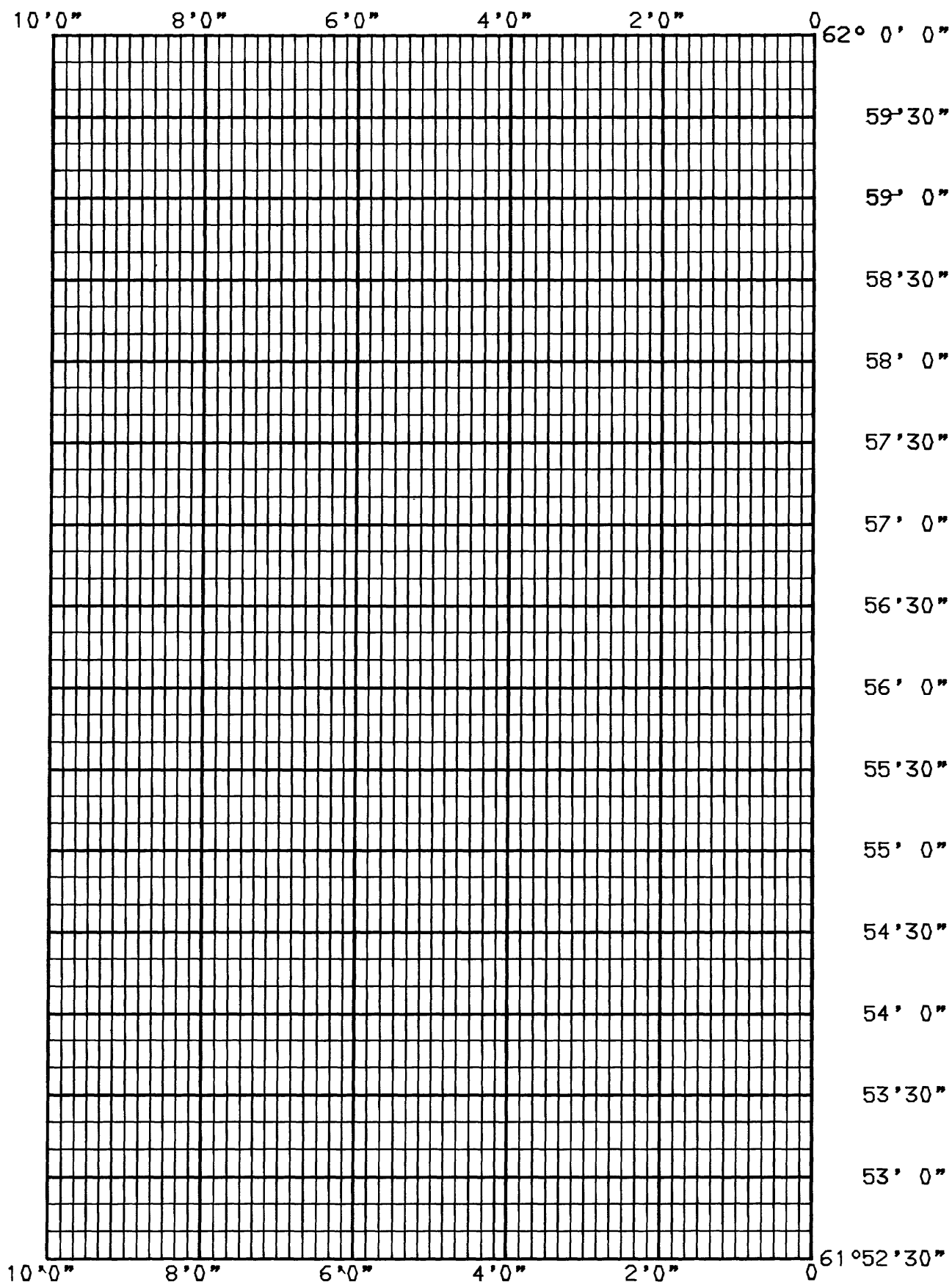
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W.L. Campbell & G. VanTrump Jr
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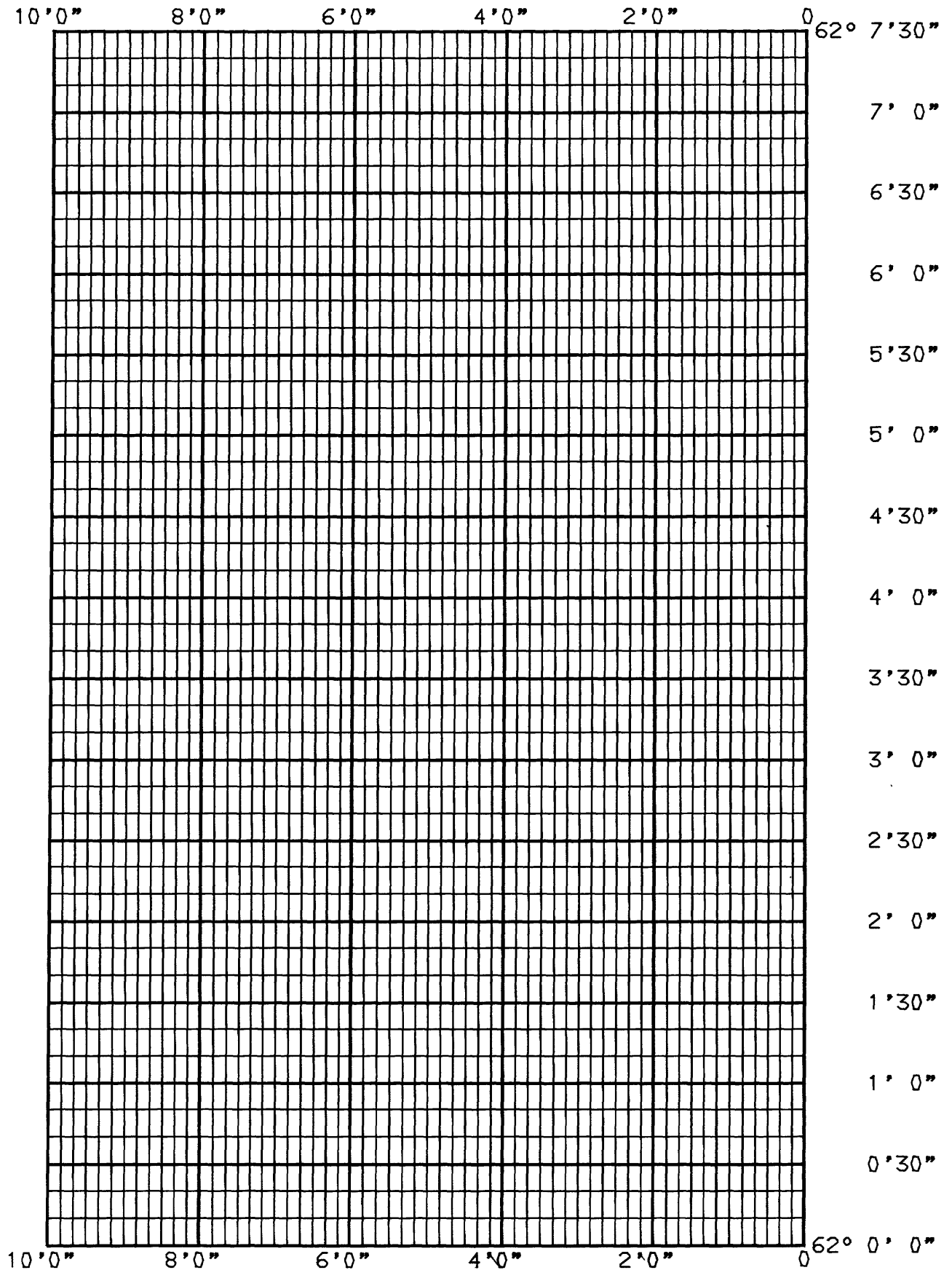
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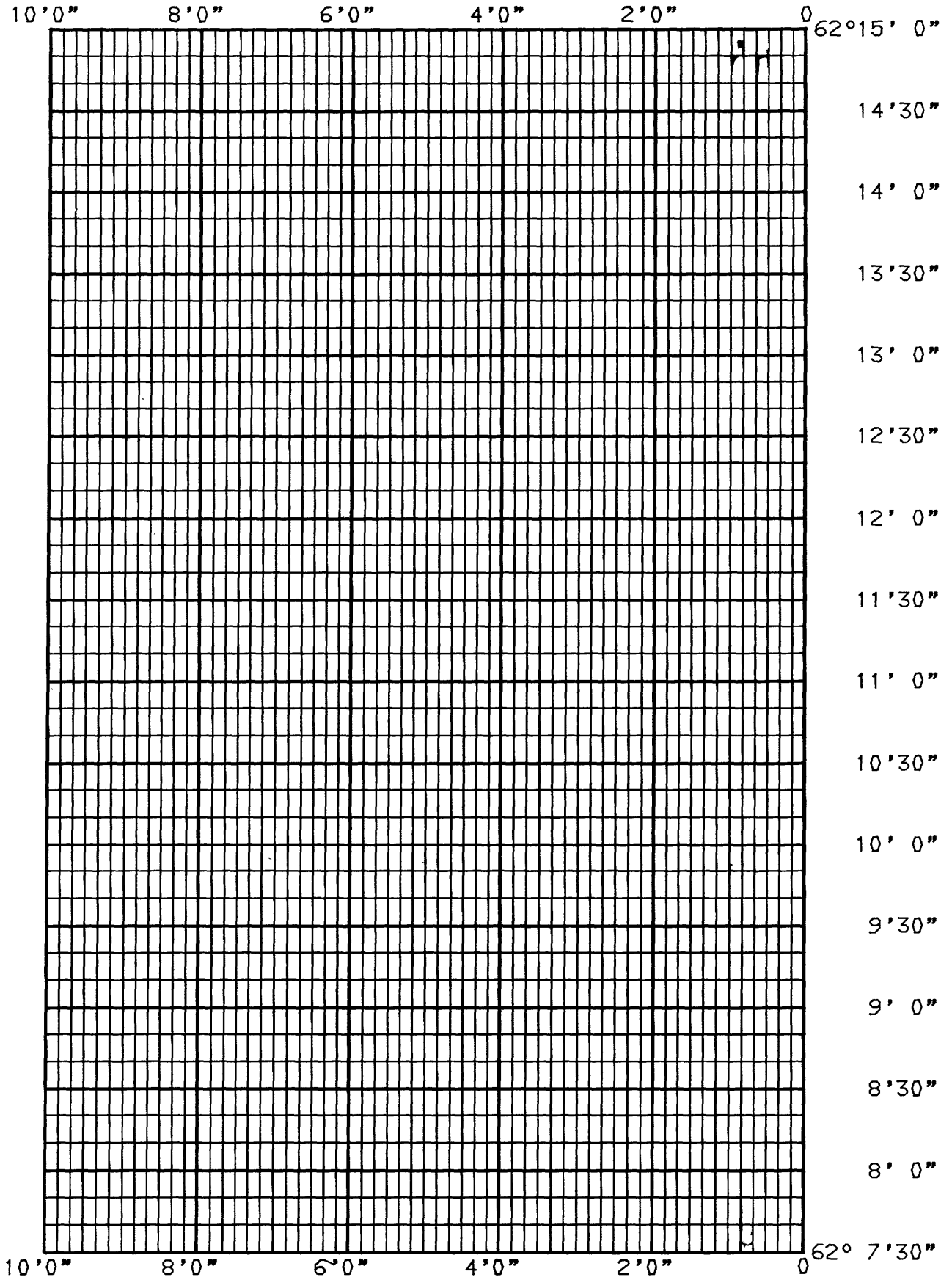
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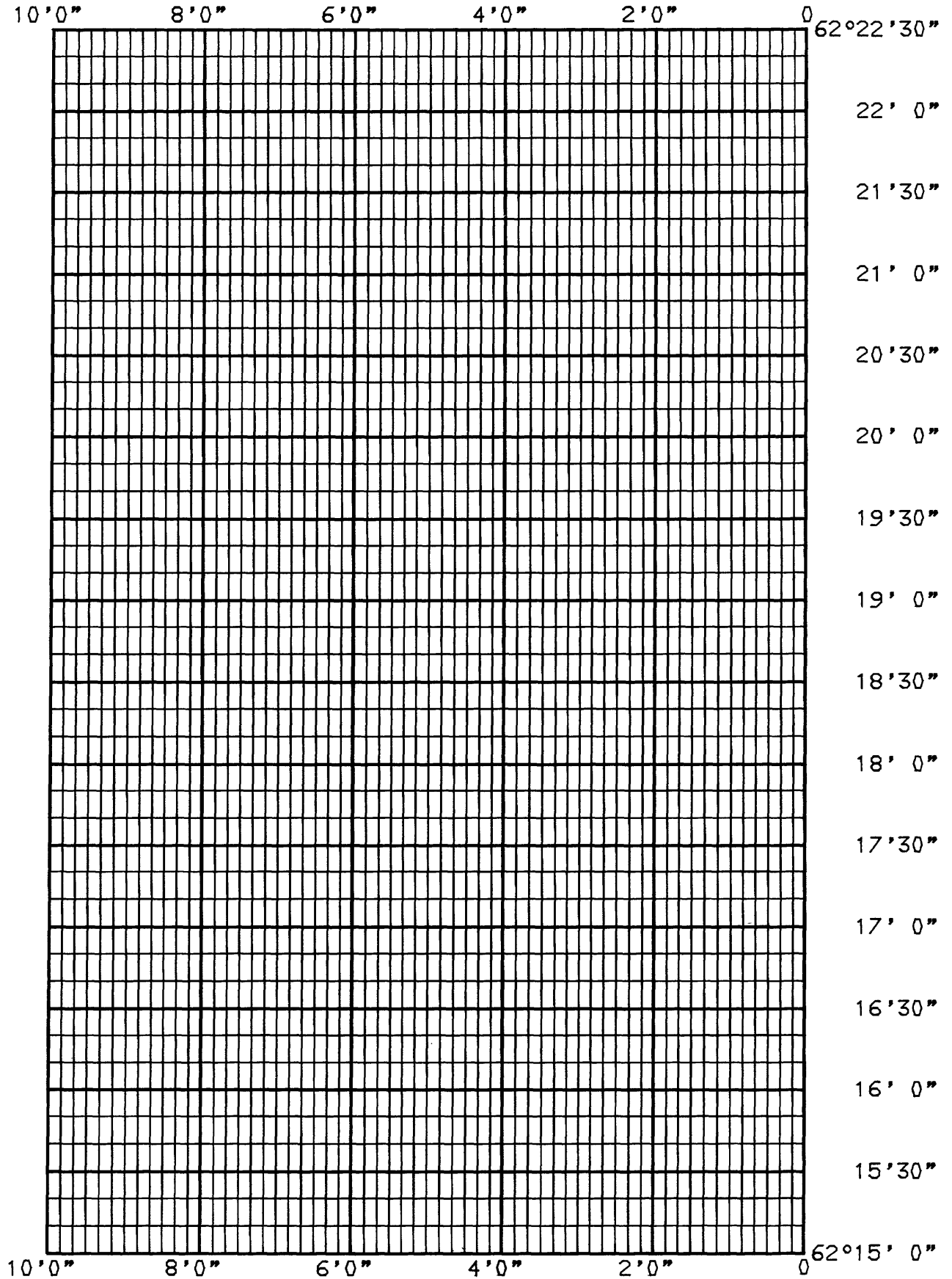
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



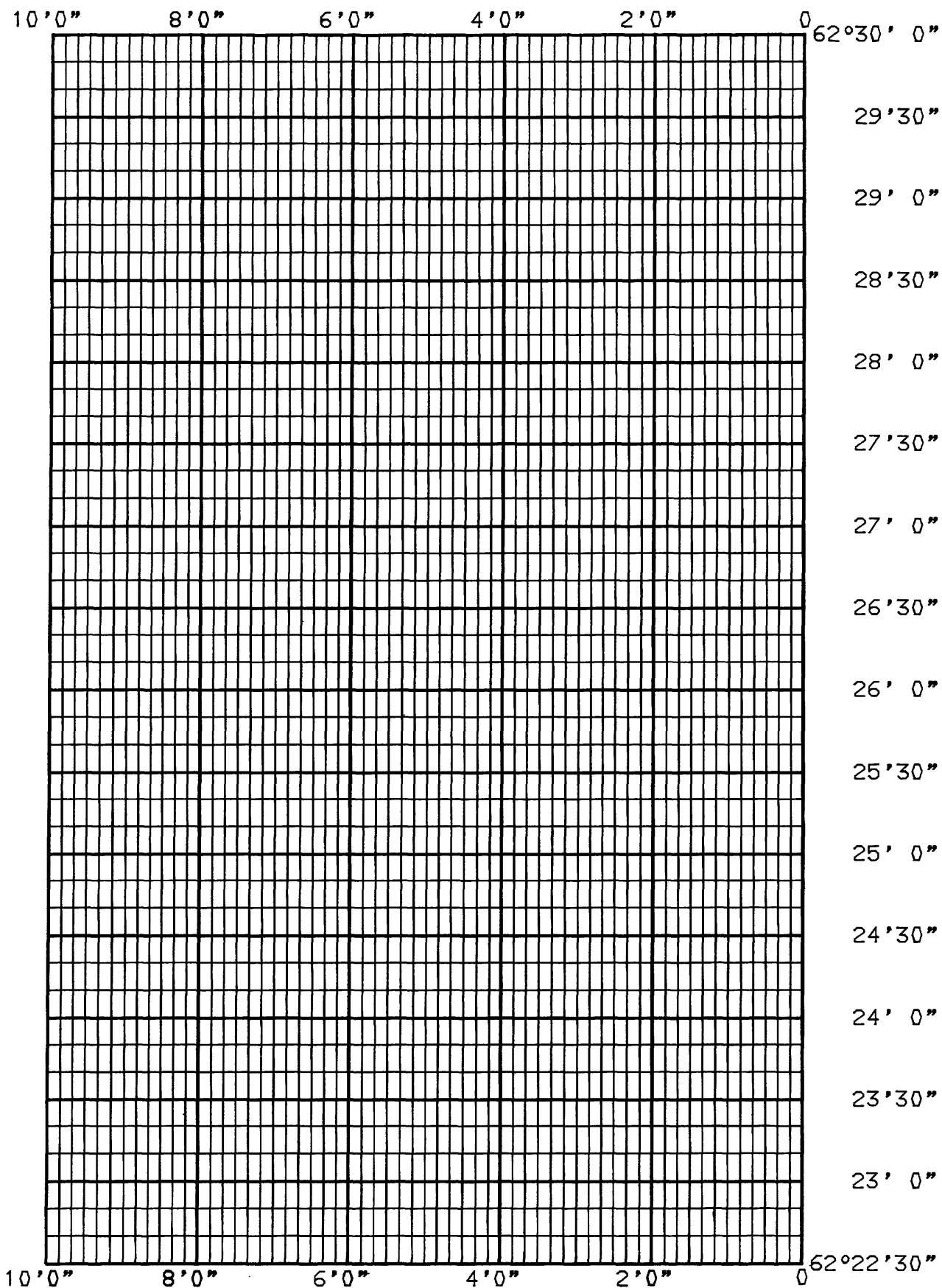
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Scale = 1/63,360



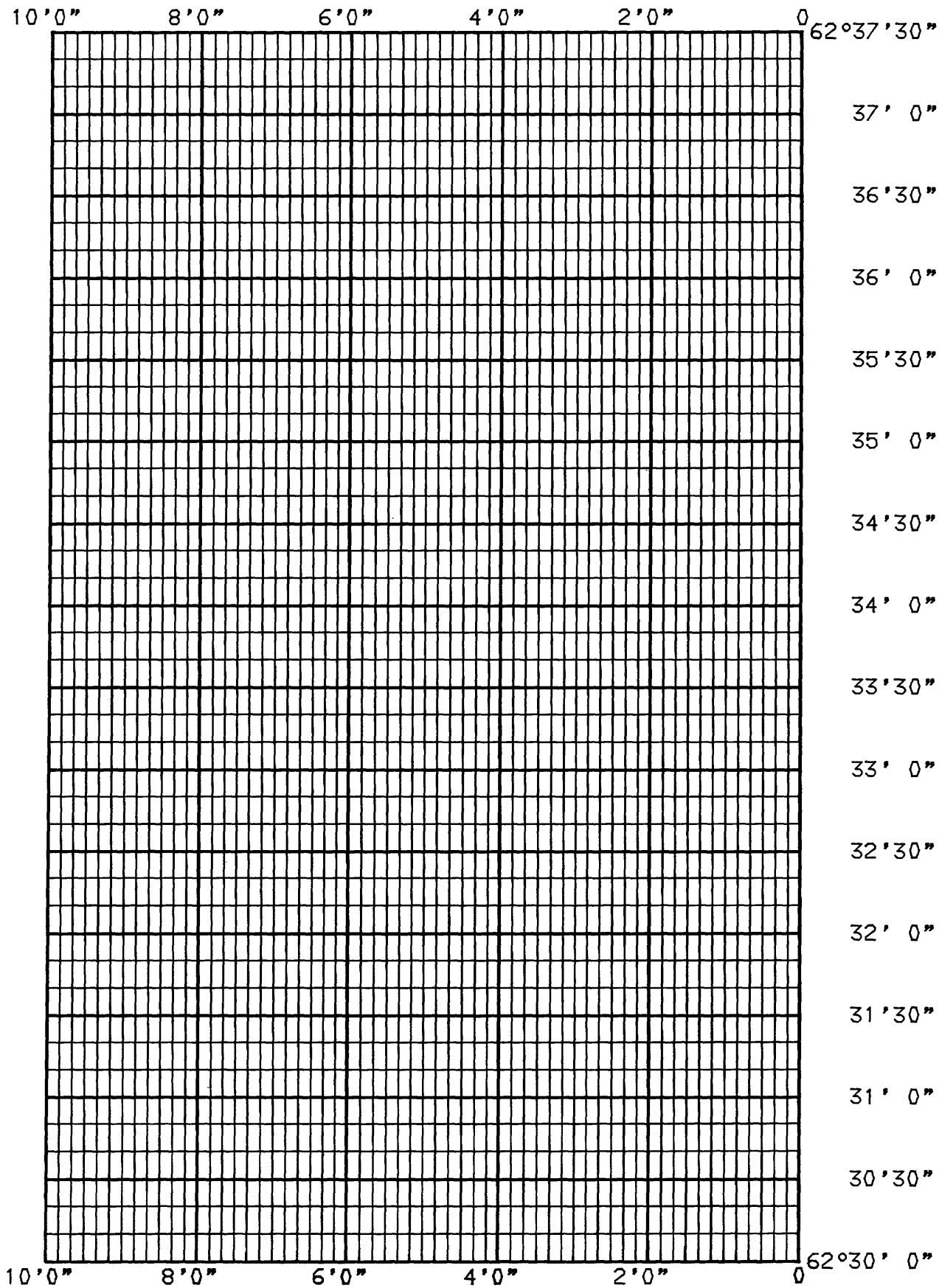
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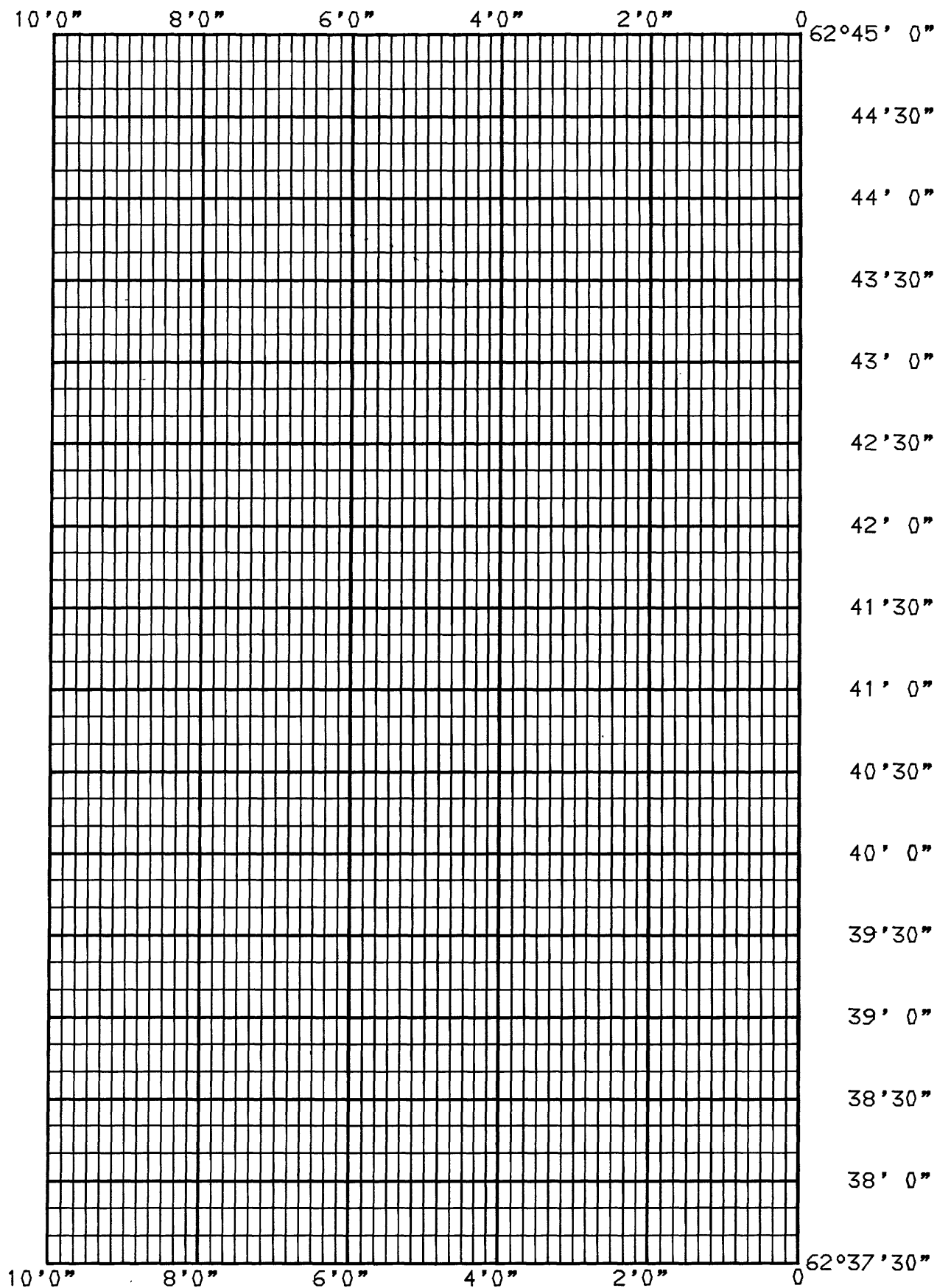
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Range of latitude = $62^{\circ}22'30''$ to $62^{\circ}30' 0''$
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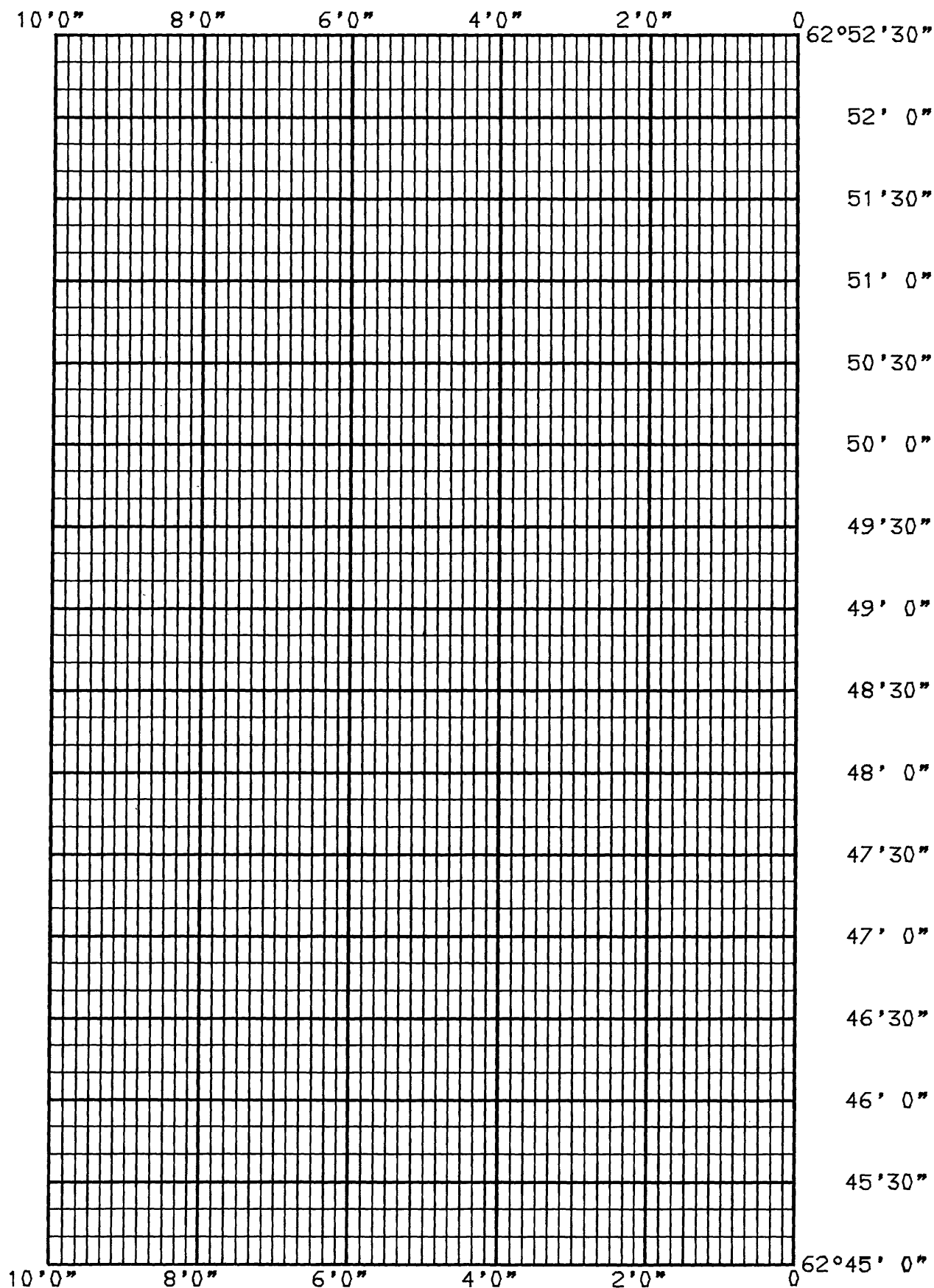
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



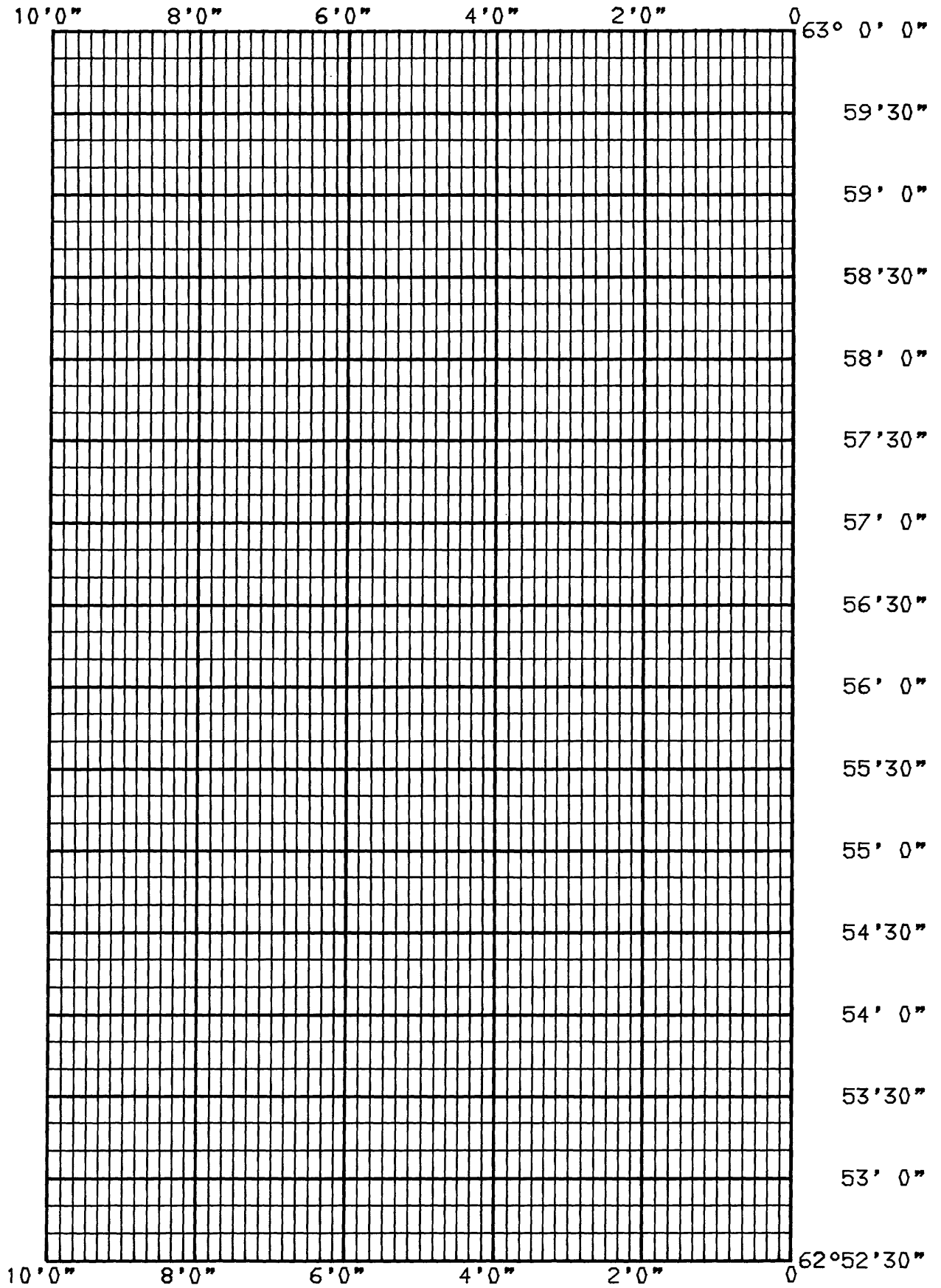
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W.L. Campbell & G. VanTrump Jr
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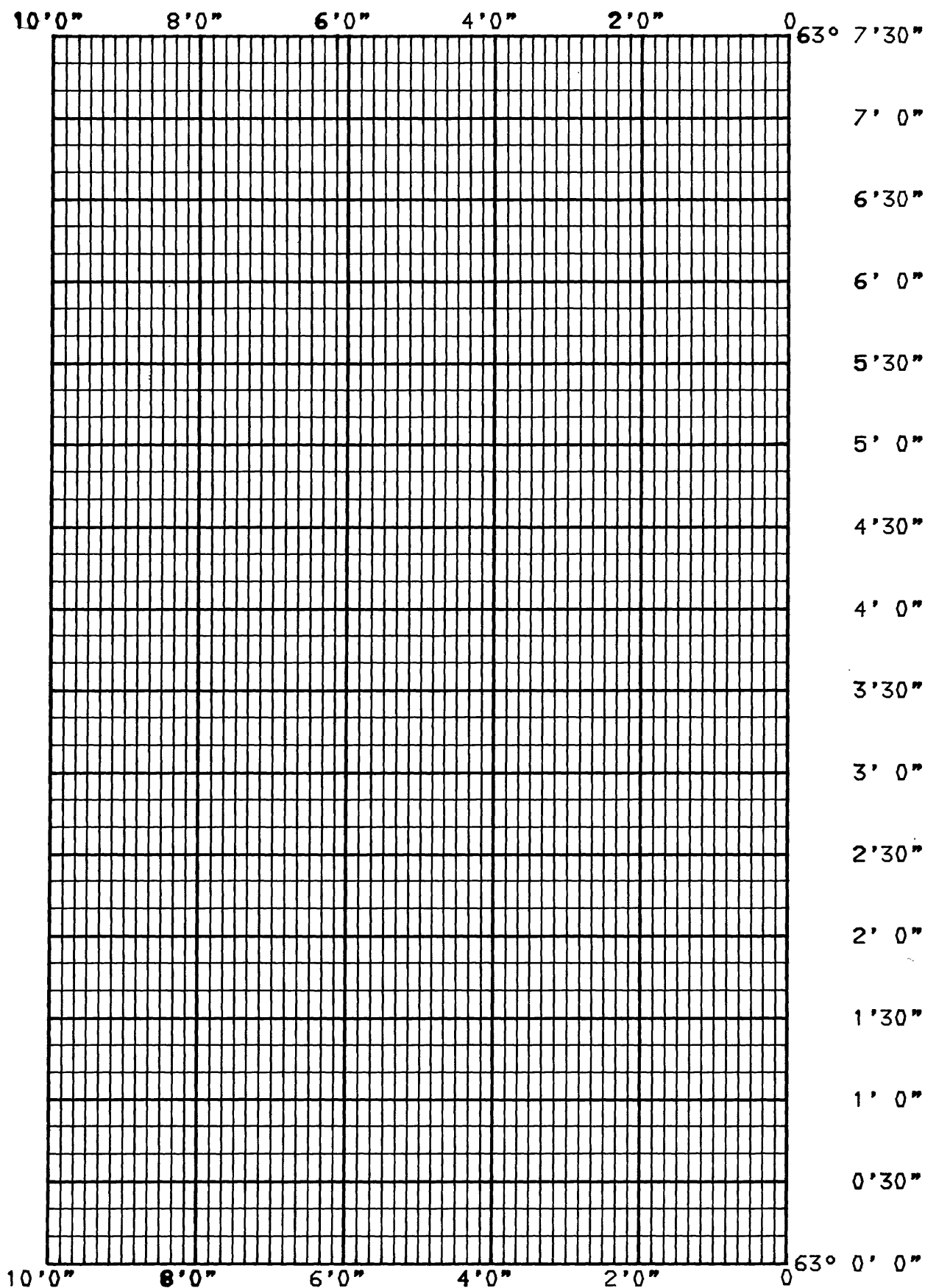
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $62^{\circ}45' 0''$ to $62^{\circ}52' 30''$
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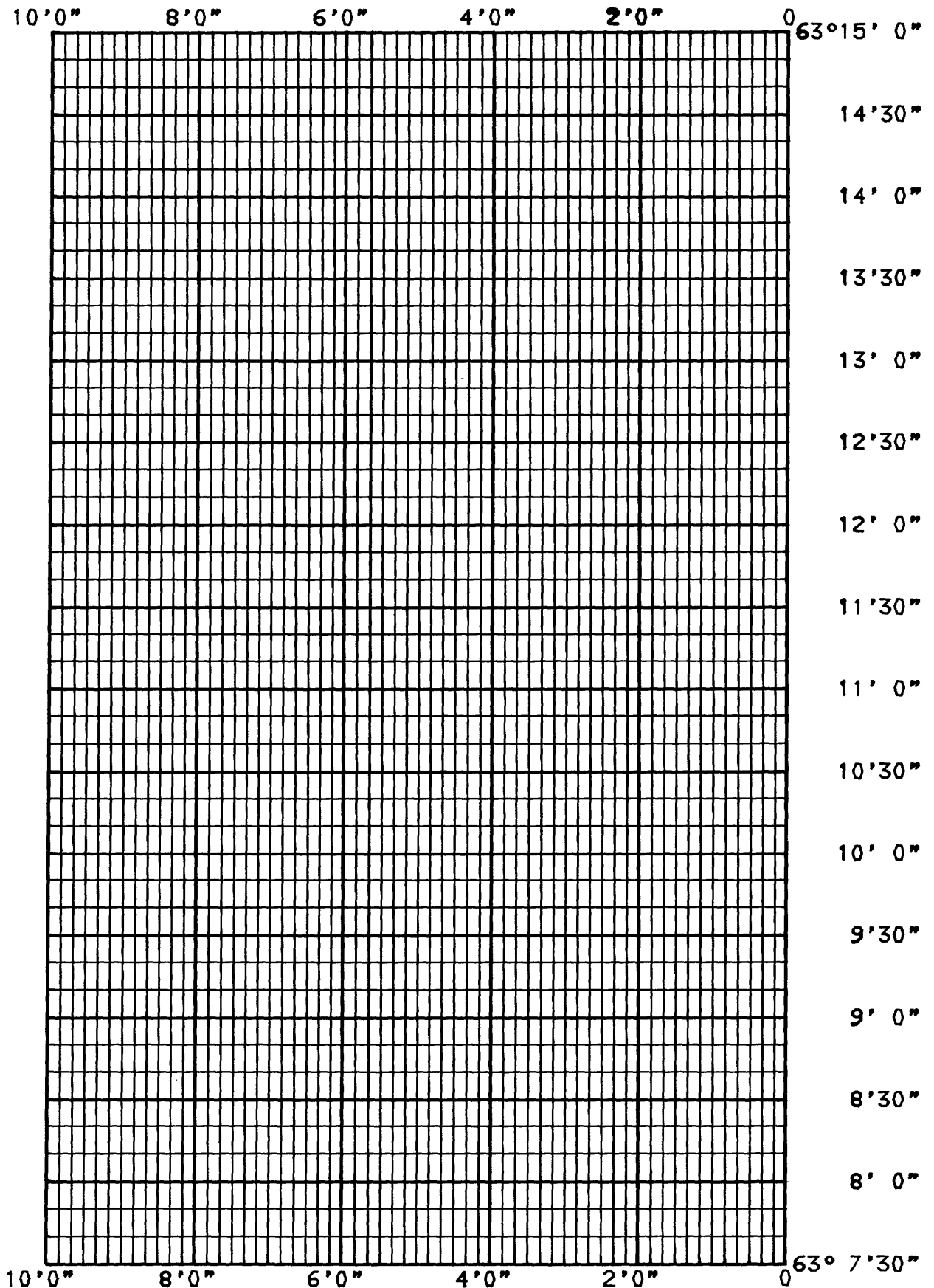
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W.L. Campbell & G. VanTrump Jr
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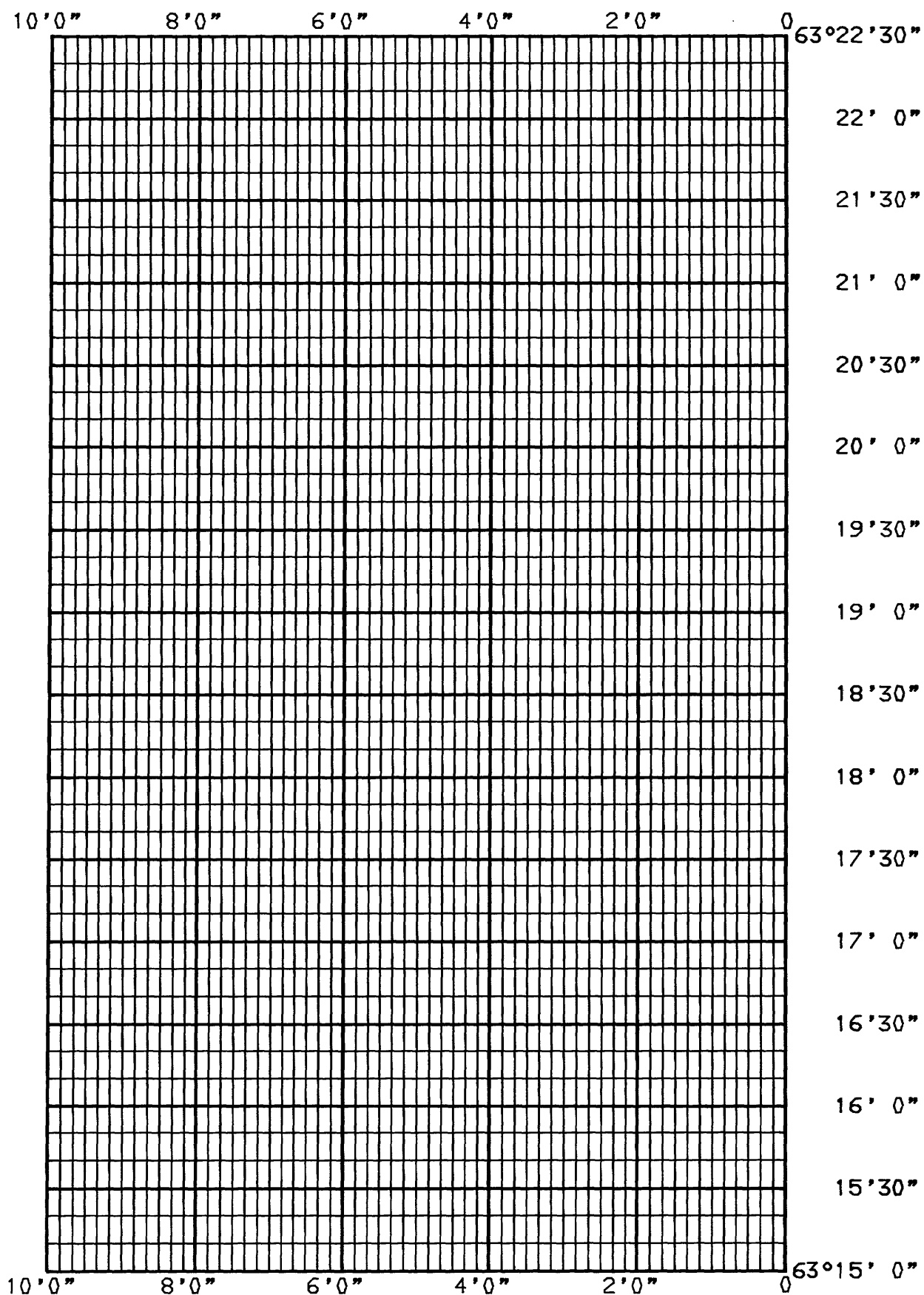
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W.L. Campbell & G. VanTrump Jr
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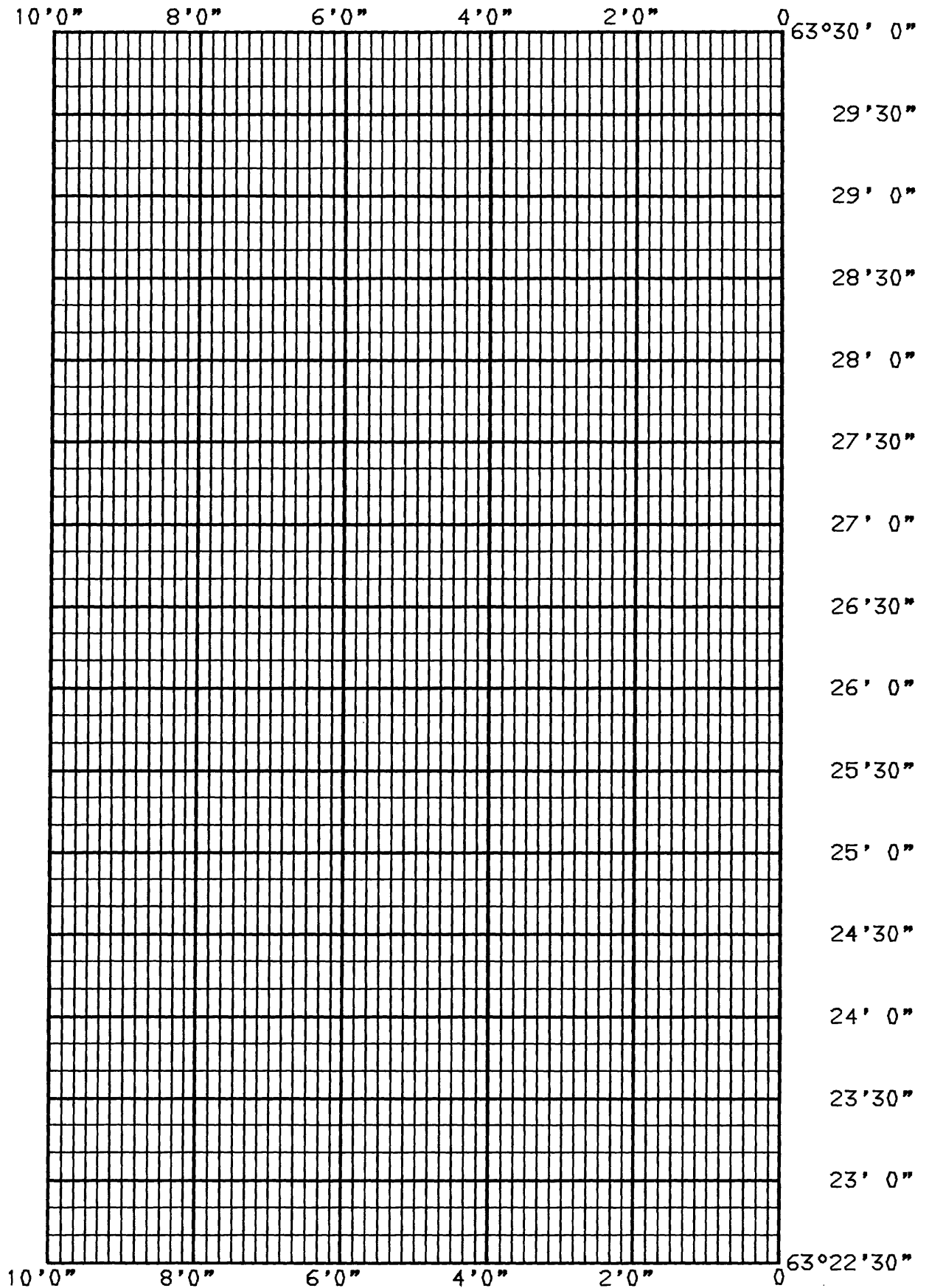
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $63^{\circ} 7' 30''$ to $63^{\circ} 15' 0''$
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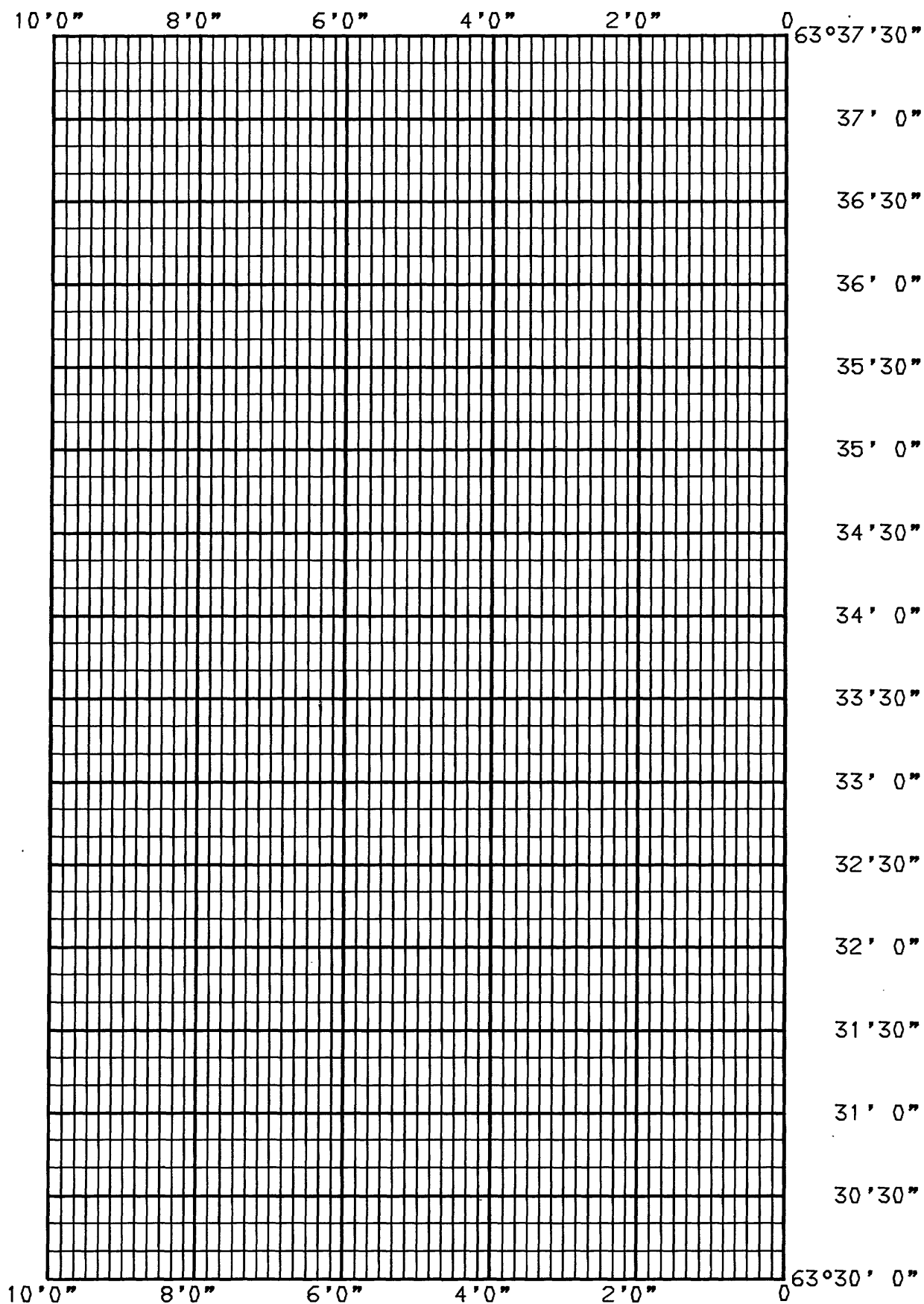
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W.L. Campbell & G. VanTrump Jr
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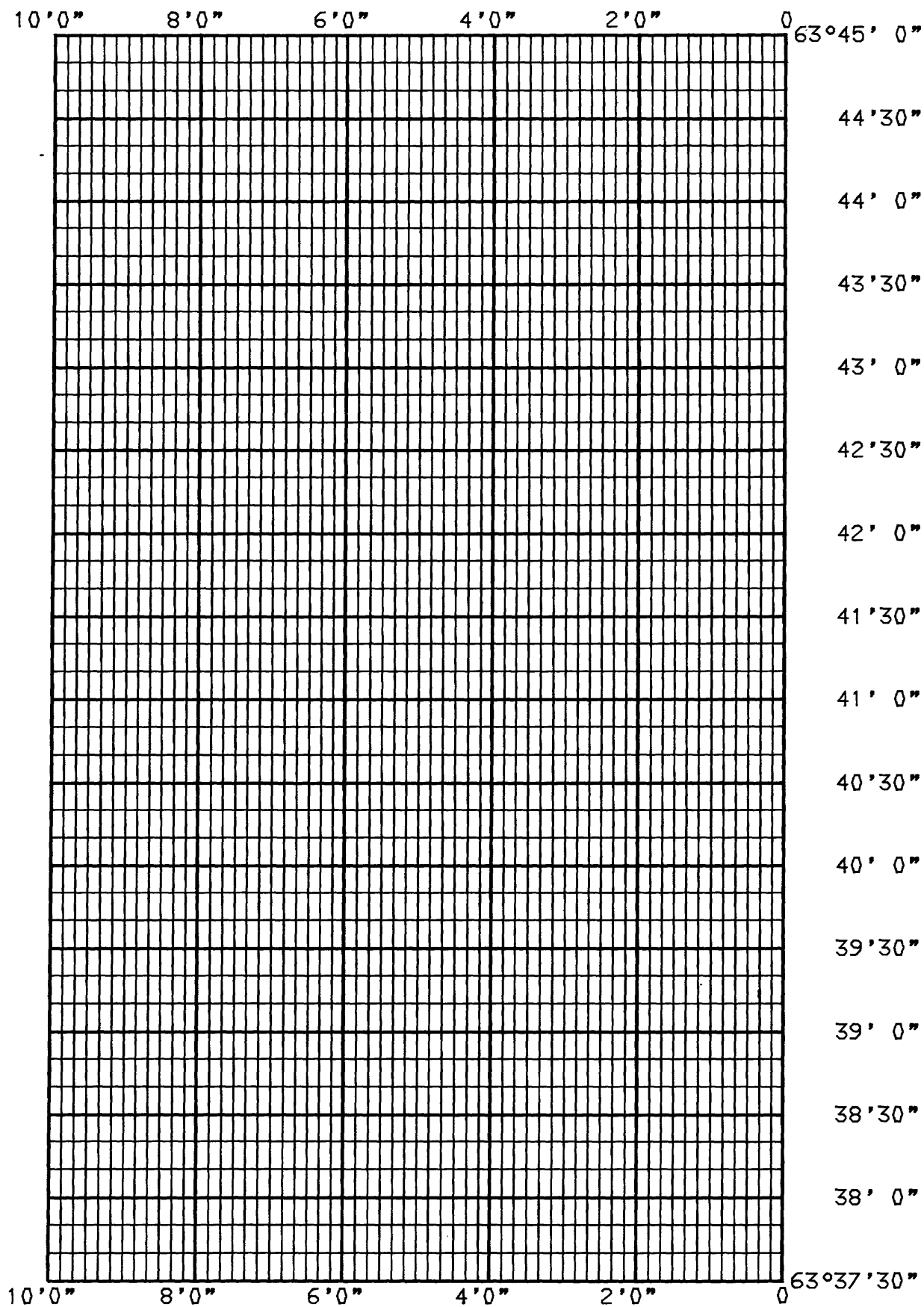
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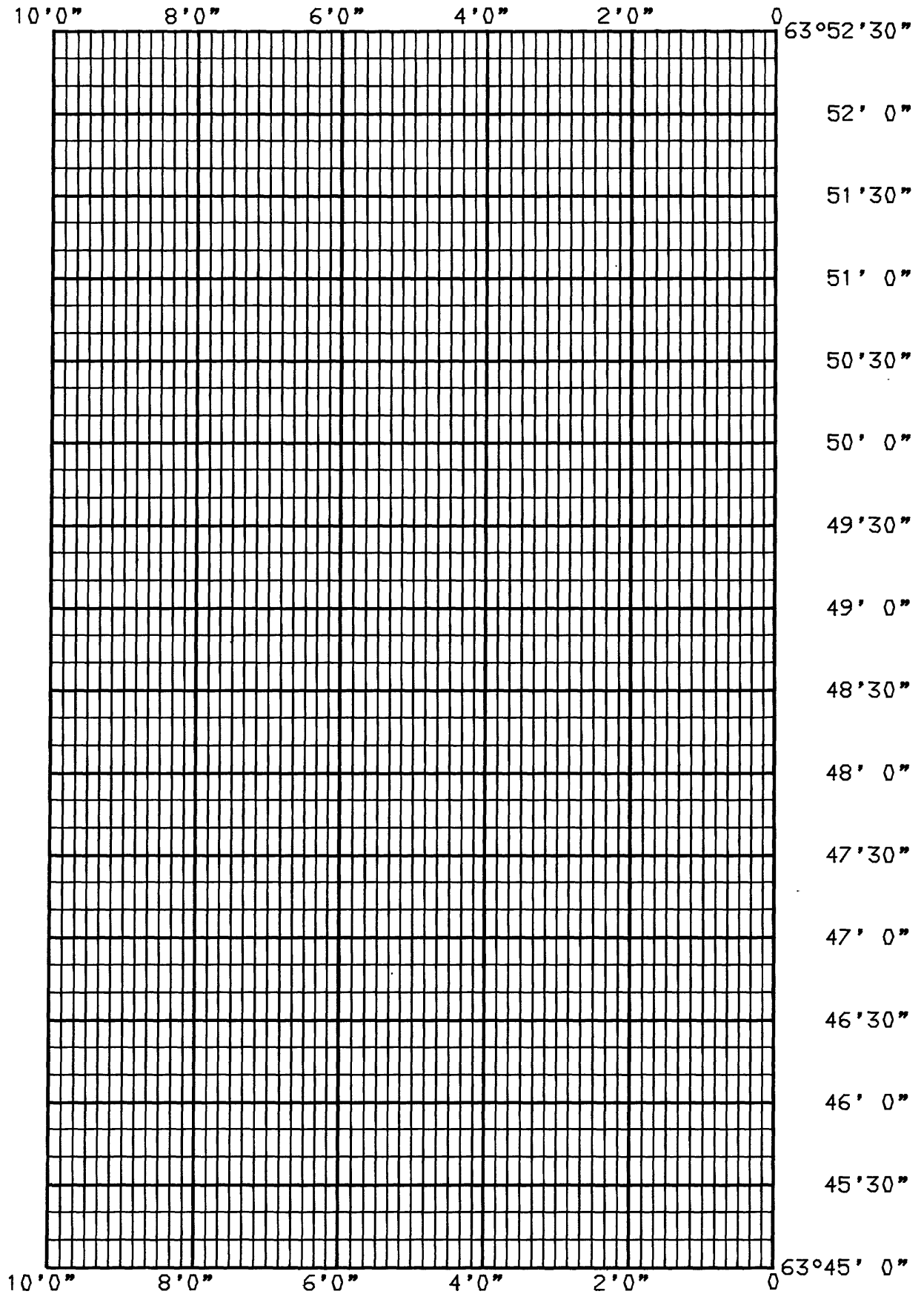
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $63^{\circ}30' 0''$ to $63^{\circ}37' 30''$
Scale = $1/63,360$



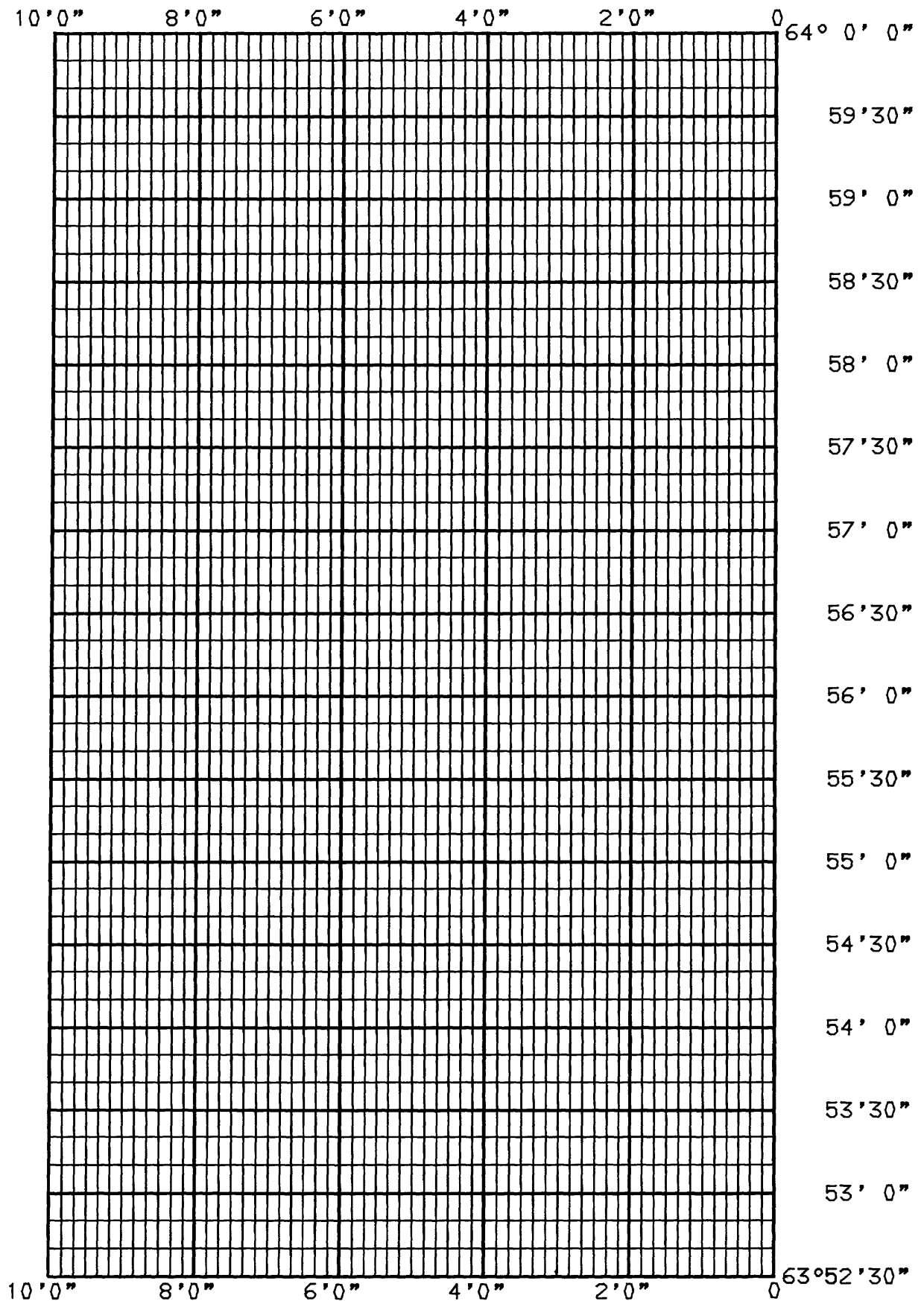
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $63^{\circ}37'30''$ to $63^{\circ}45' 0''$
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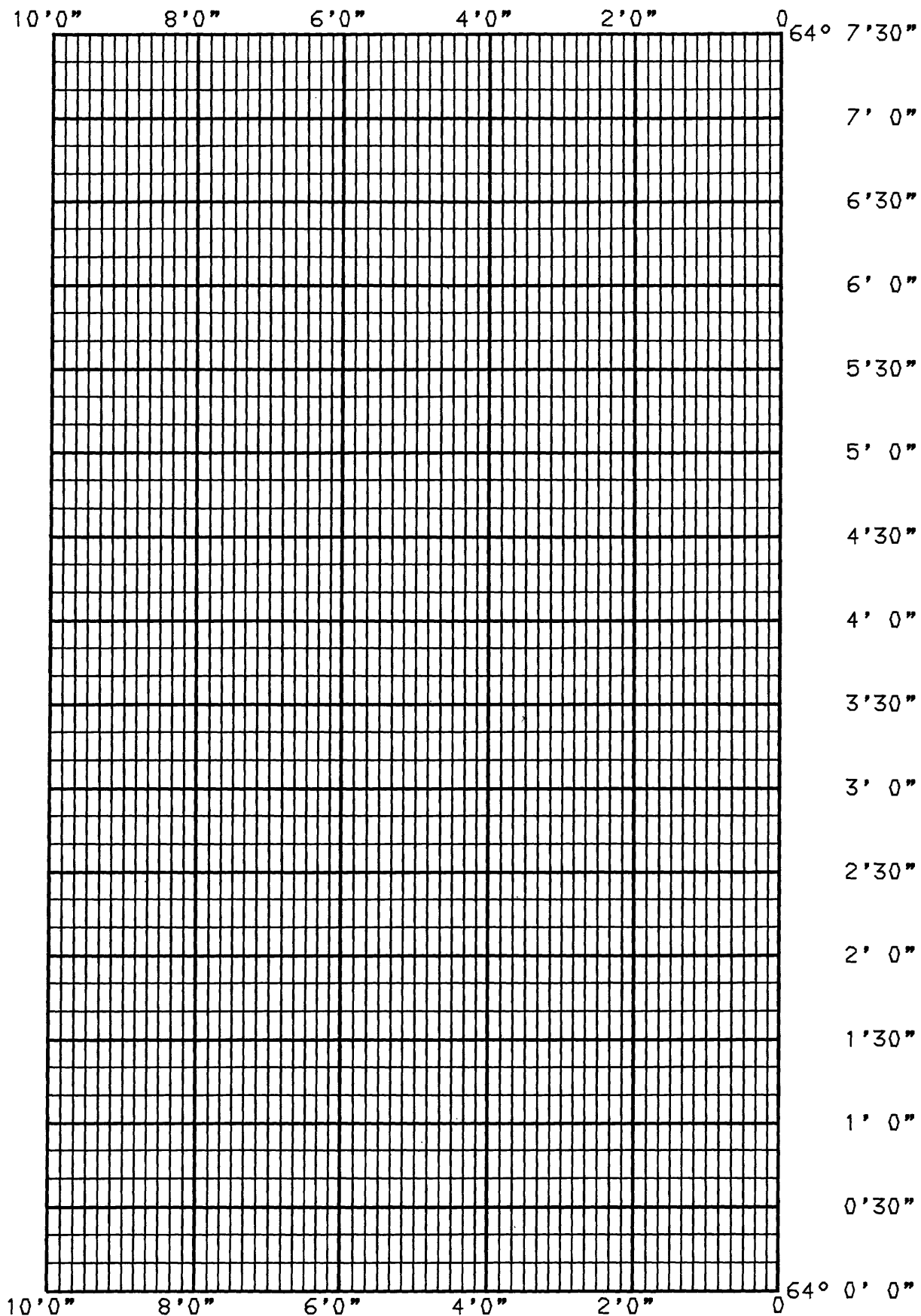
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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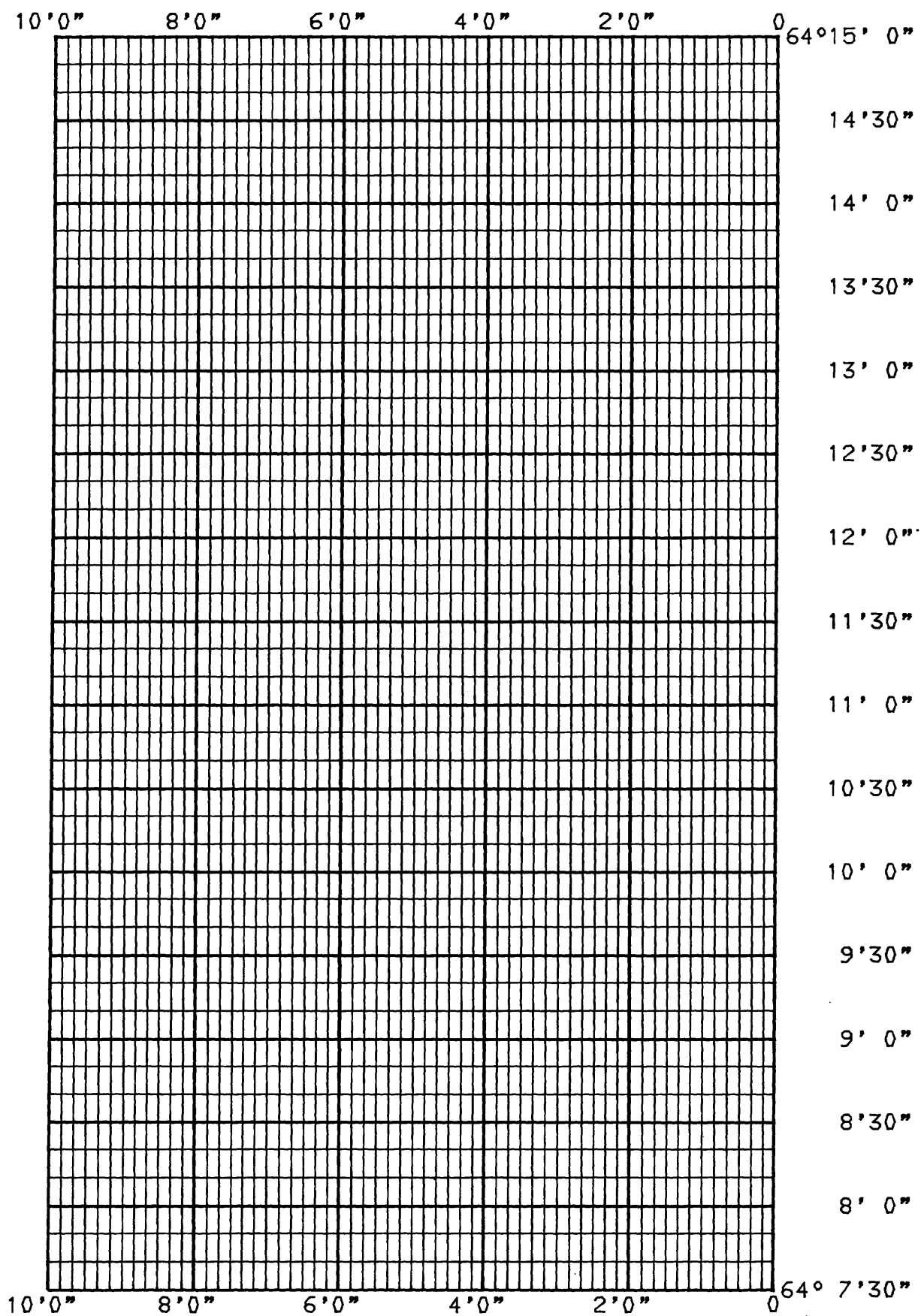
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W.L. Campbell & G. VanTrump Jr
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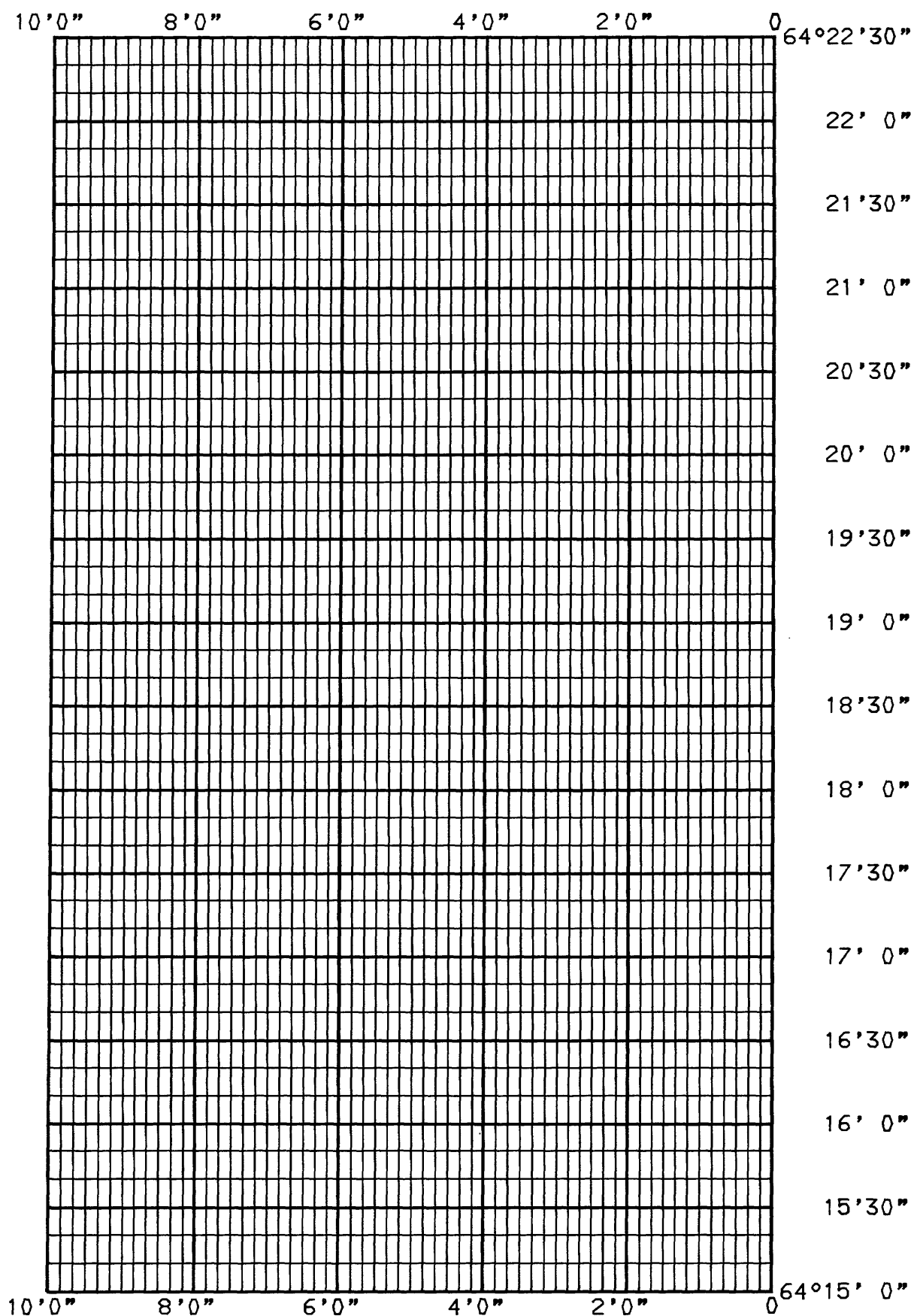
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W.L. Campbell & G. VanTrump Jr
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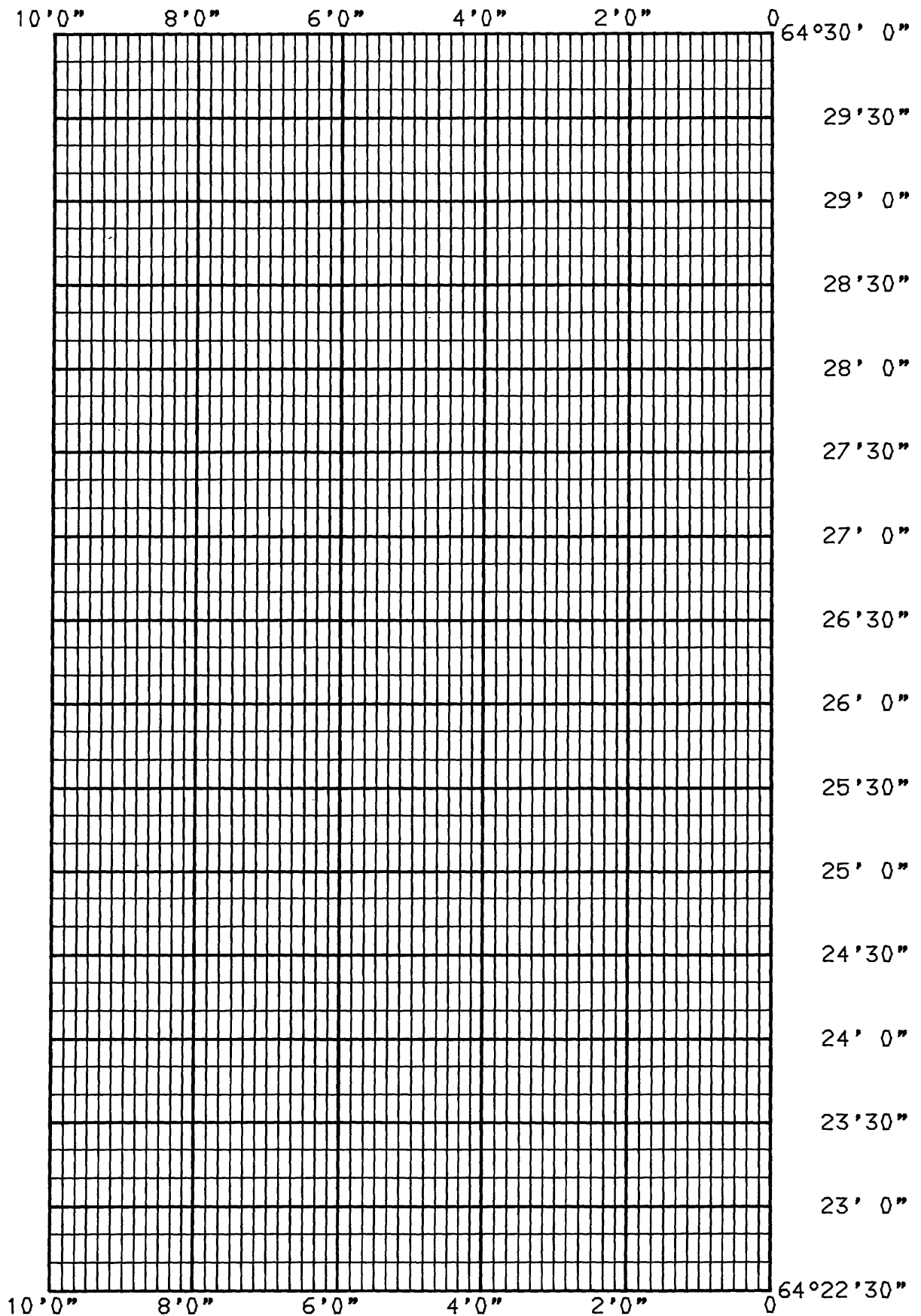
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W.L. Campbell & G. VanTrump Jr
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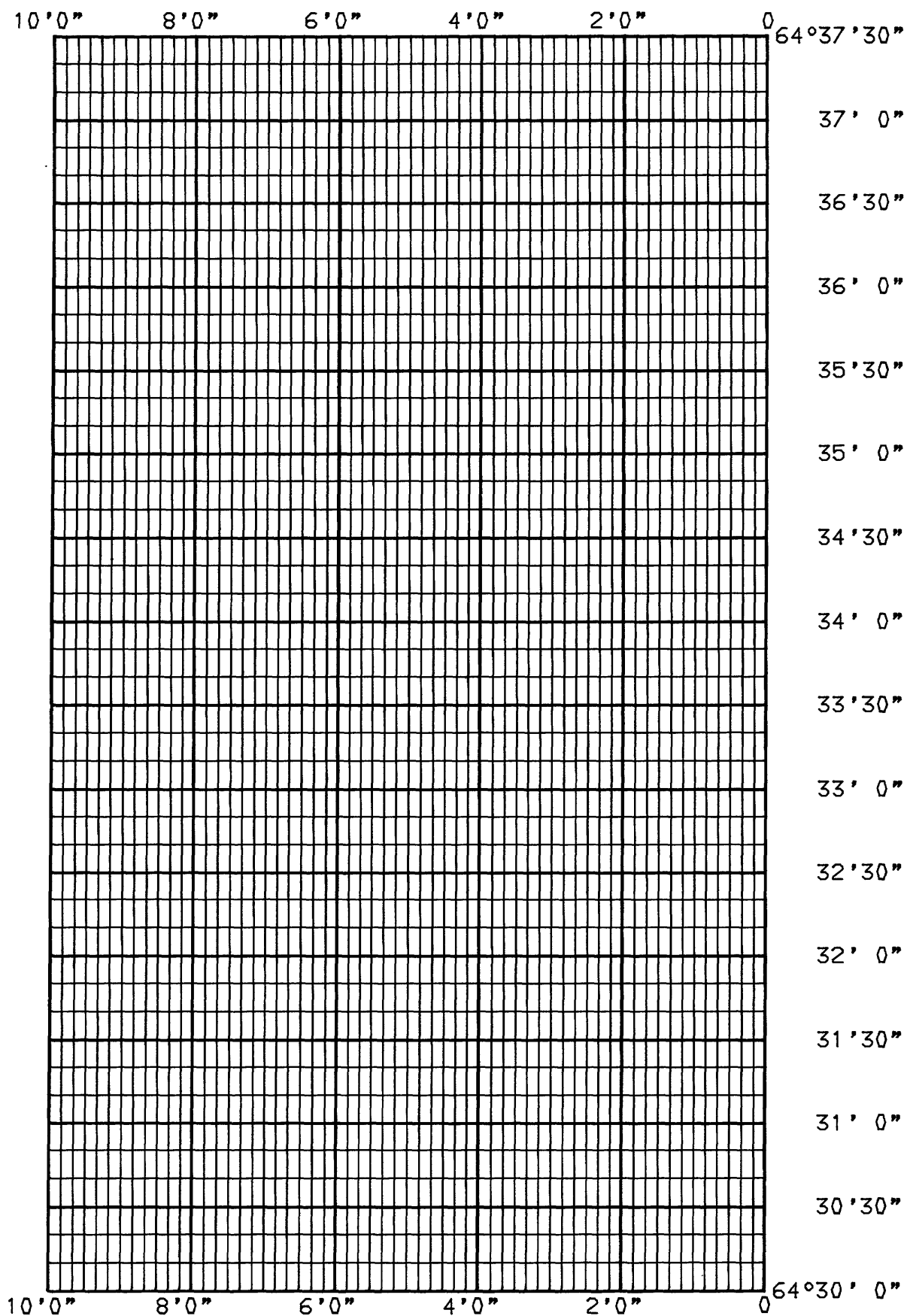
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W.L. Campbell & G. VanTrump Jr
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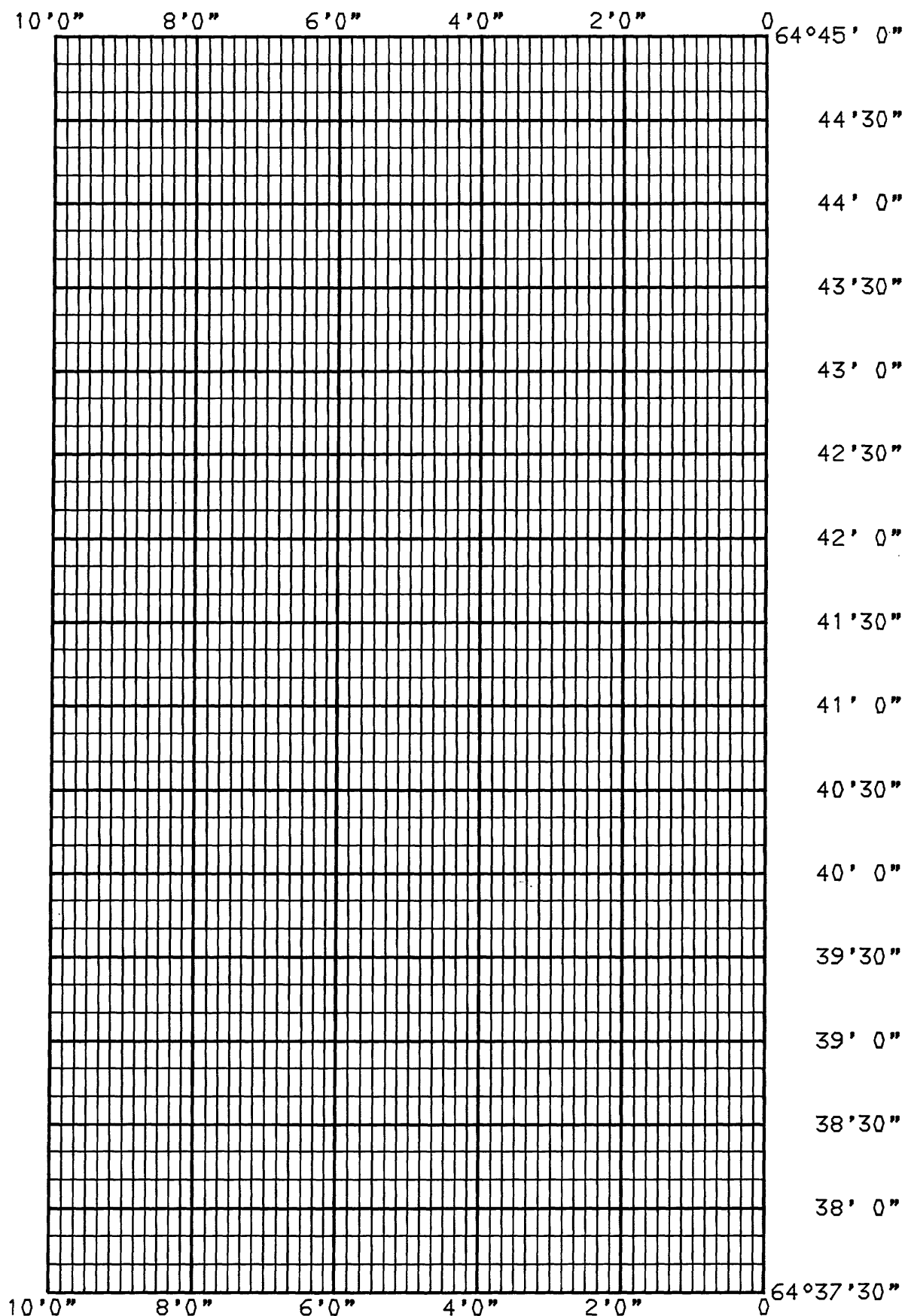
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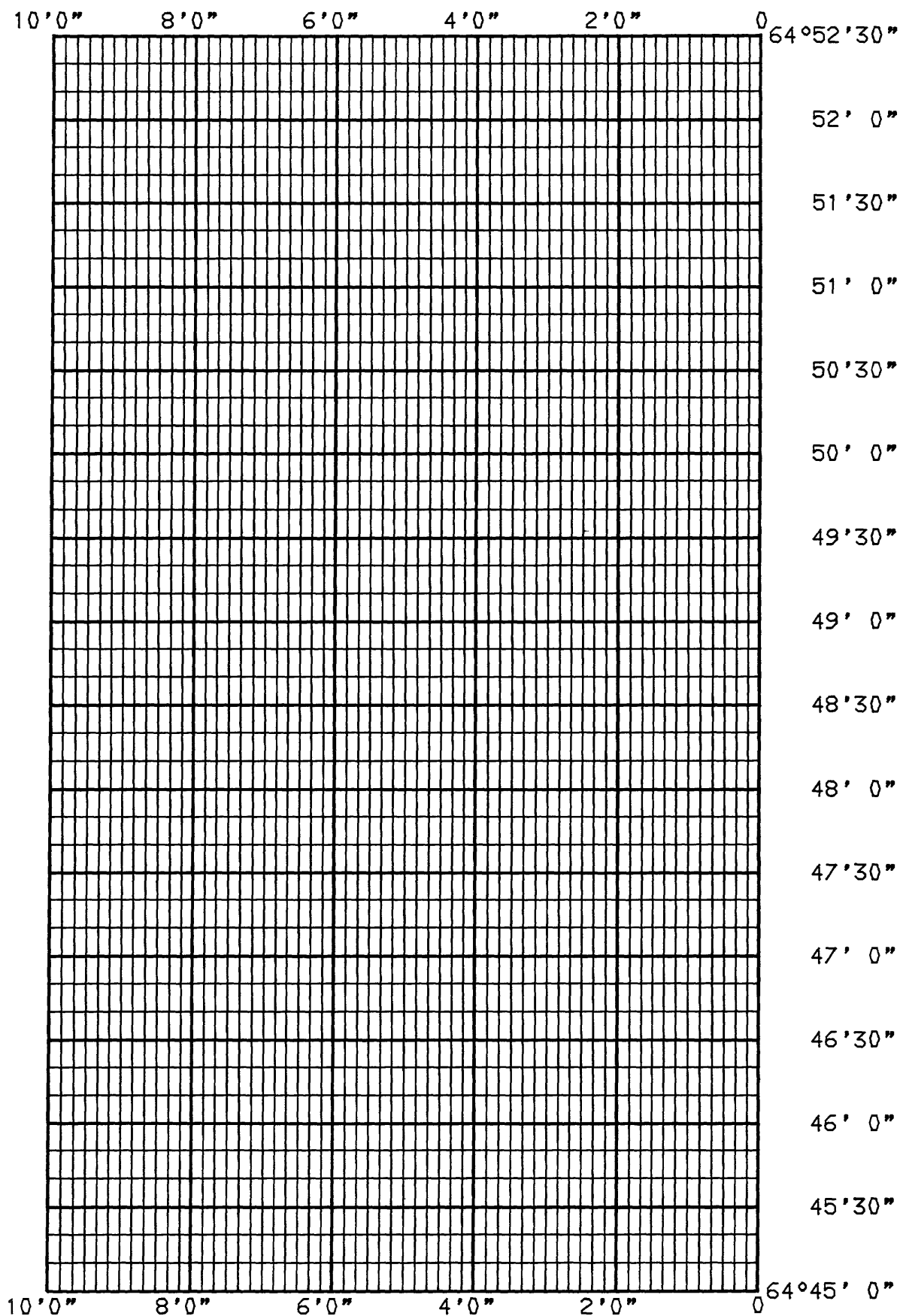
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W.L. Campbell & G. VanTrump Jr
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Scale = $1/63,360$



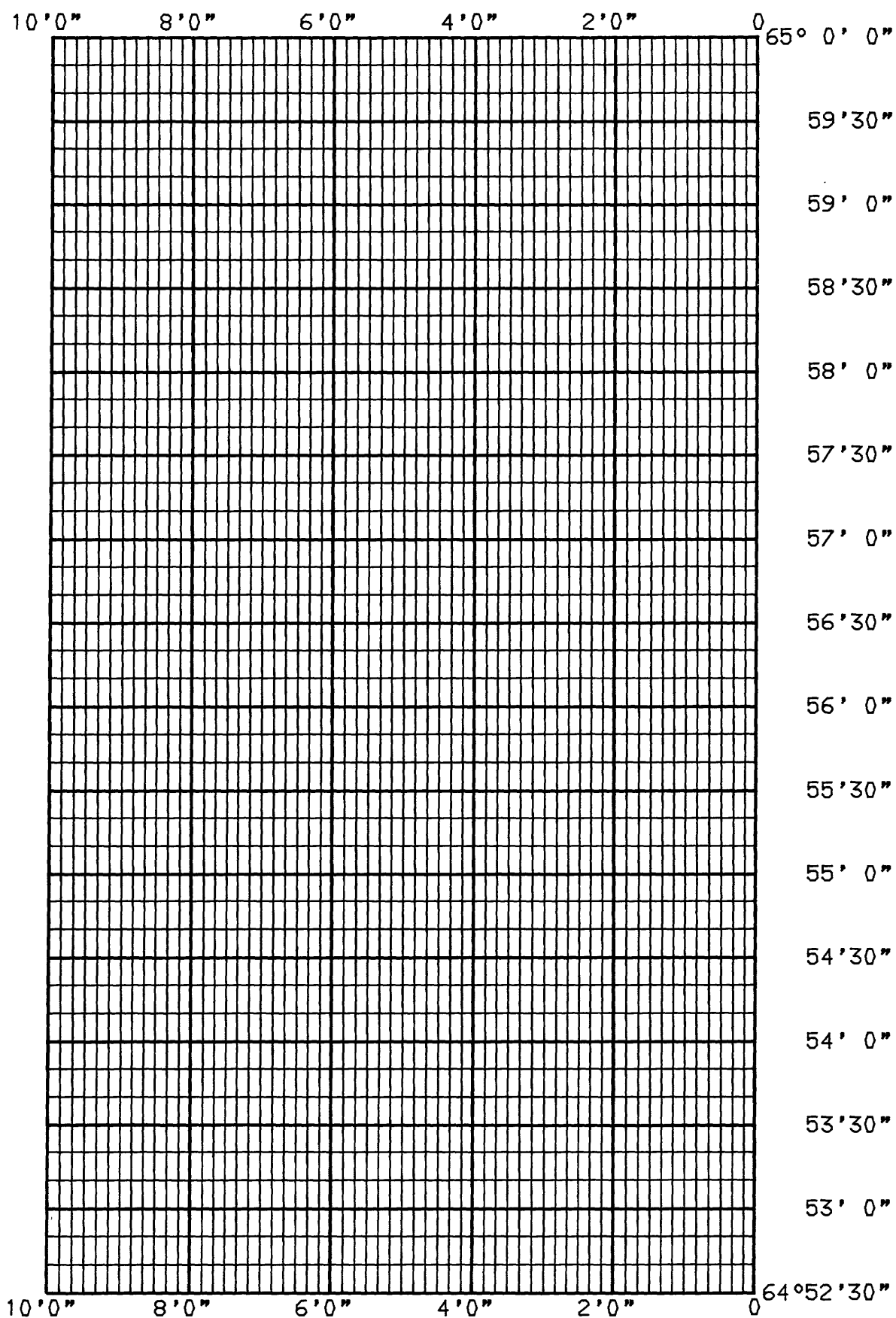
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W.L. Campbell & G. VanTrump Jr
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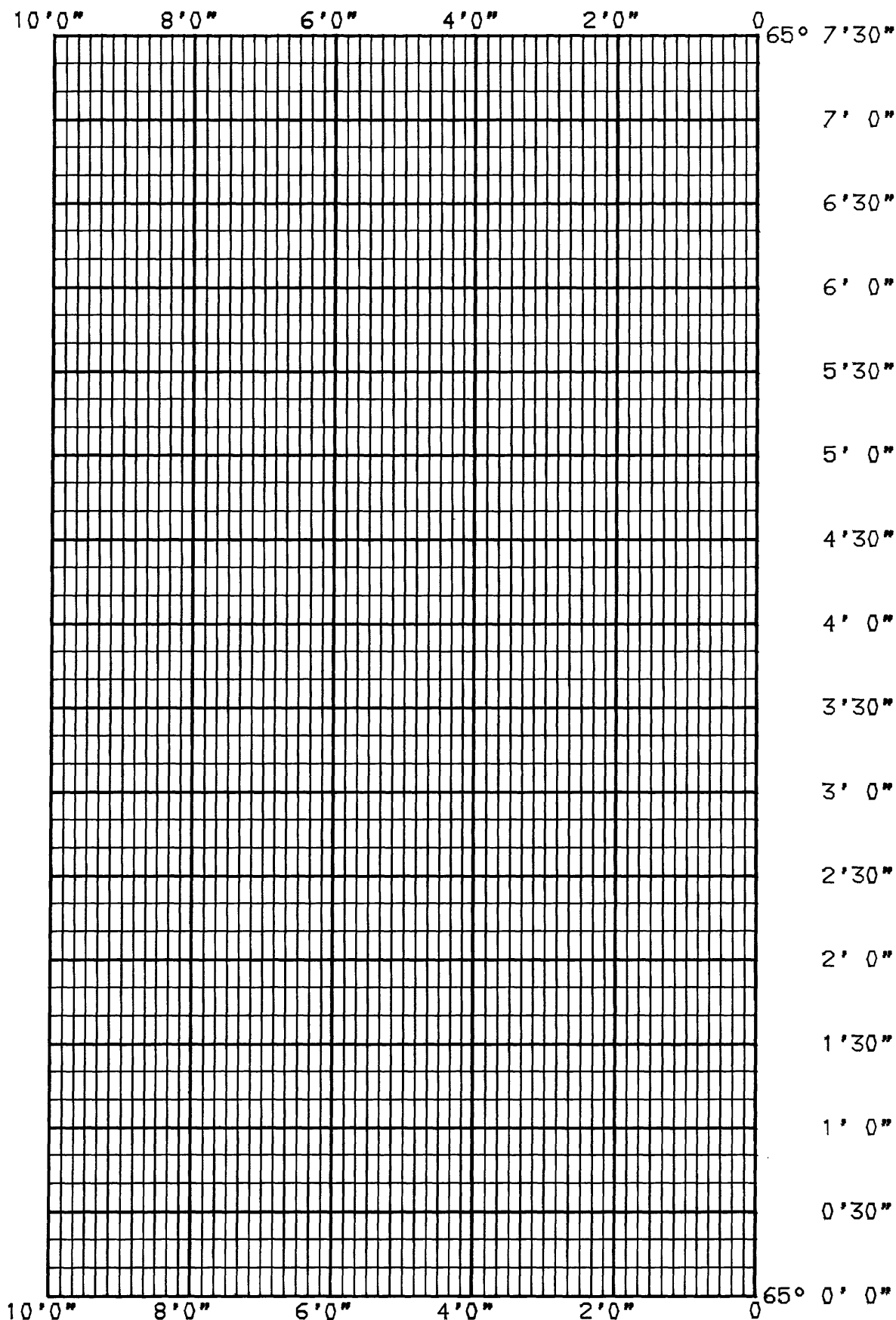
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/63,360



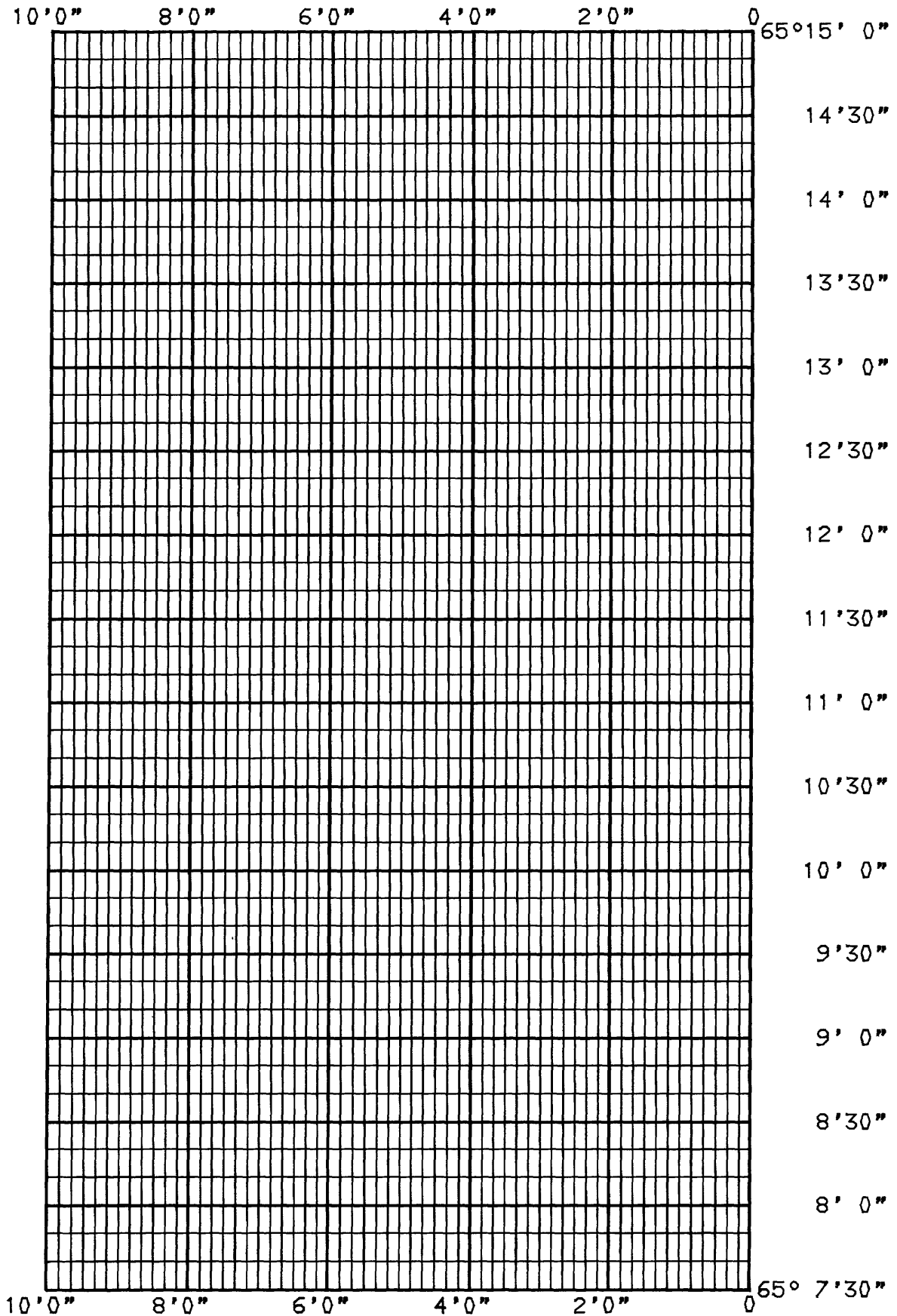
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W.L. Campbell & G. VanTrump Jr
Range of latitude = $64^{\circ}52'30''$ to $65^{\circ} 0' 0''$
Scale = 1/63,360



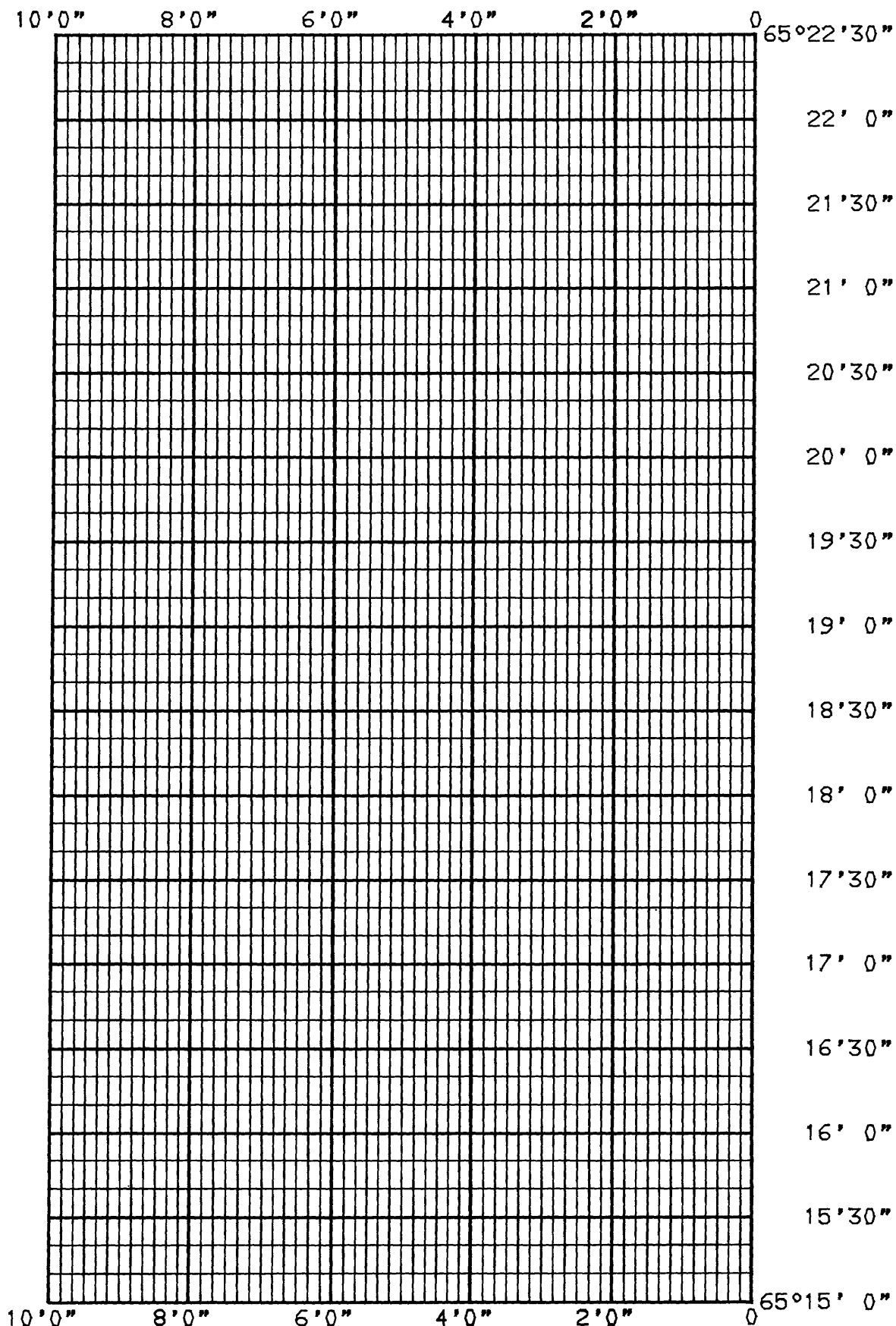
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W.L. Campbell & G. VanTrump Jr
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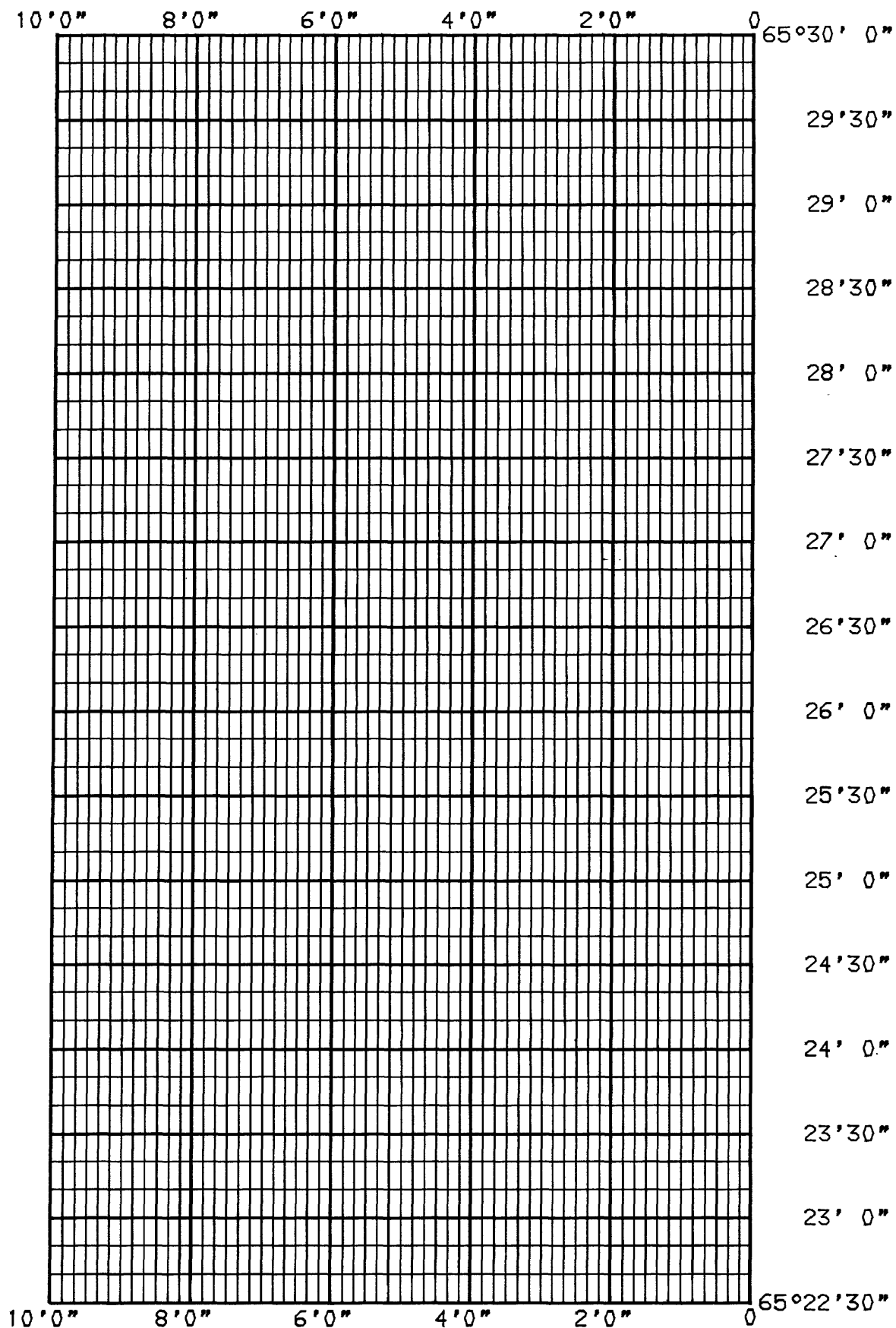
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W.L. Campbell & G. VanTrump Jr
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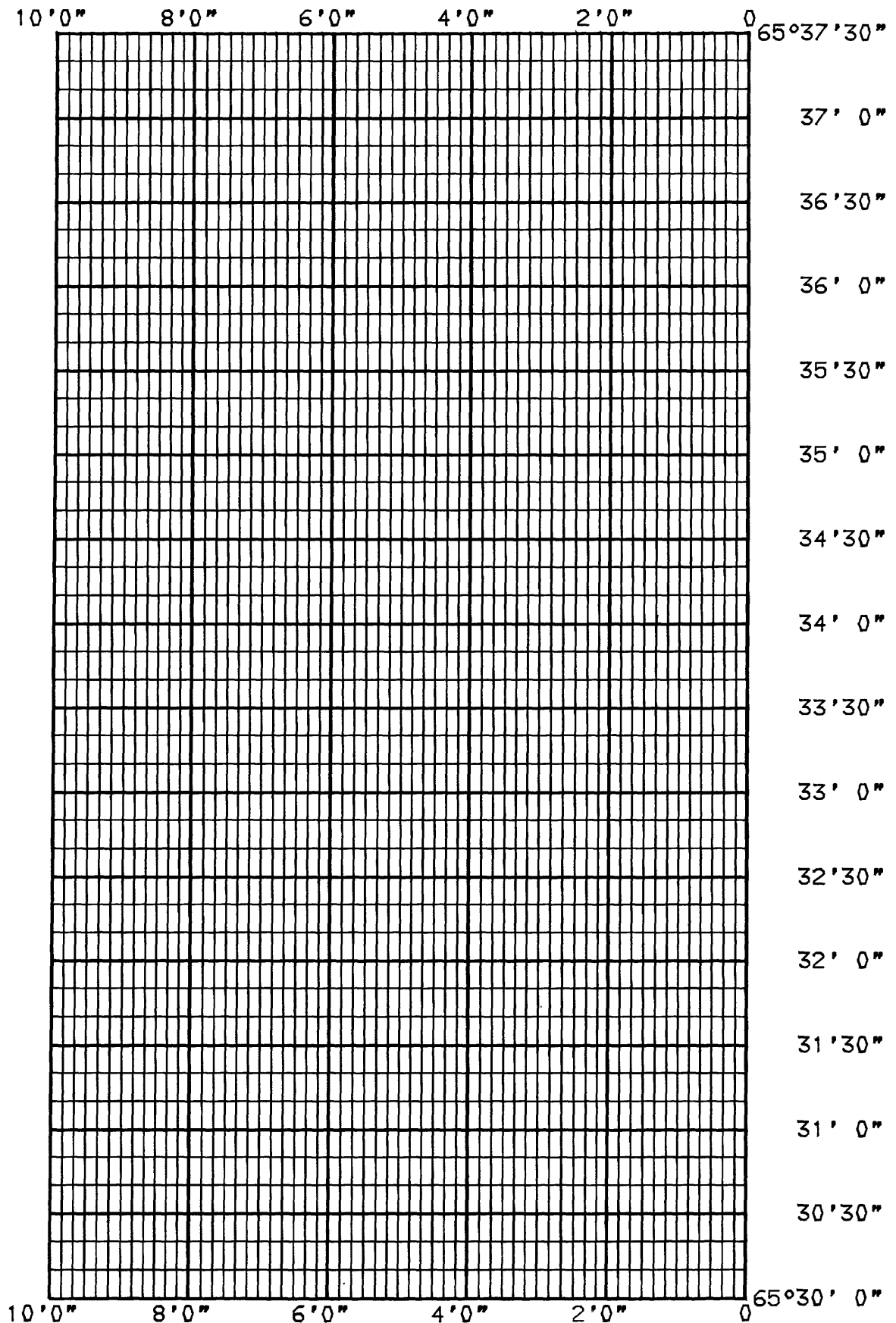
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W.L. Campbell & G. VanTrump Jr
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Scale = $1/63,360$



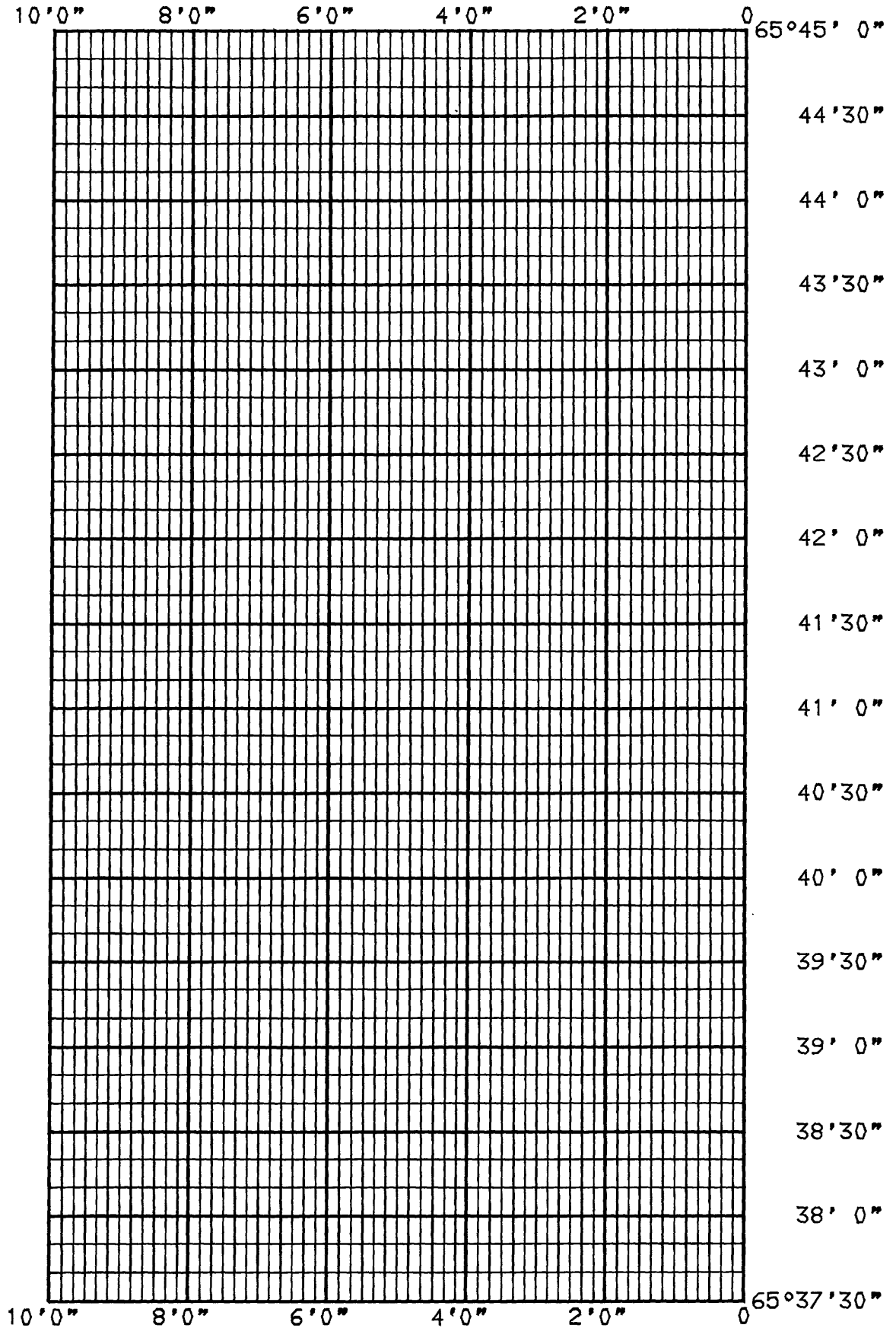
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W.L. Campbell & G. VanTrump Jr
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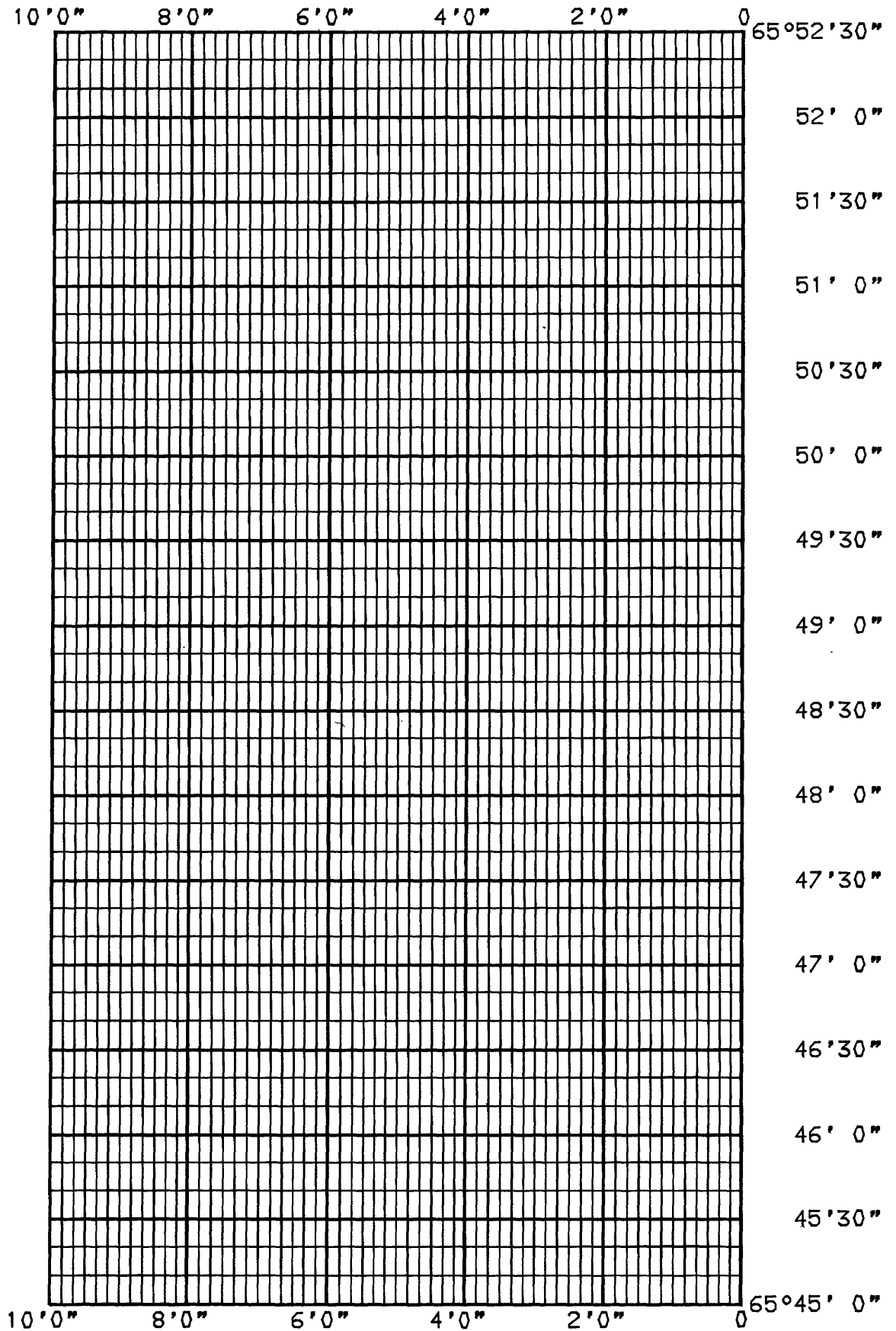
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W.L. Campbell & G. VanTrump Jr
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Scale = $1/63,360$



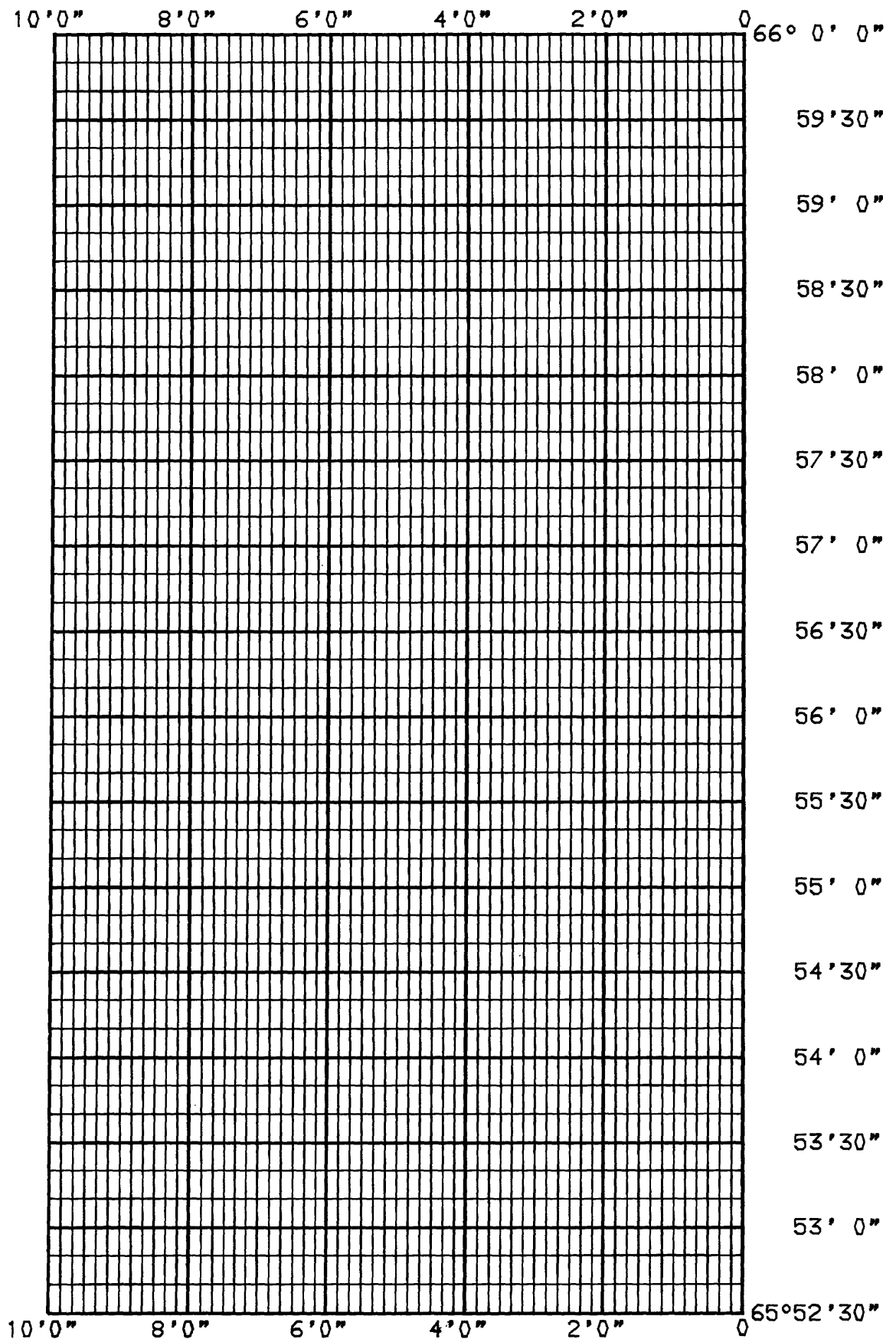
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W.L. Campbell & G. VanTrump Jr
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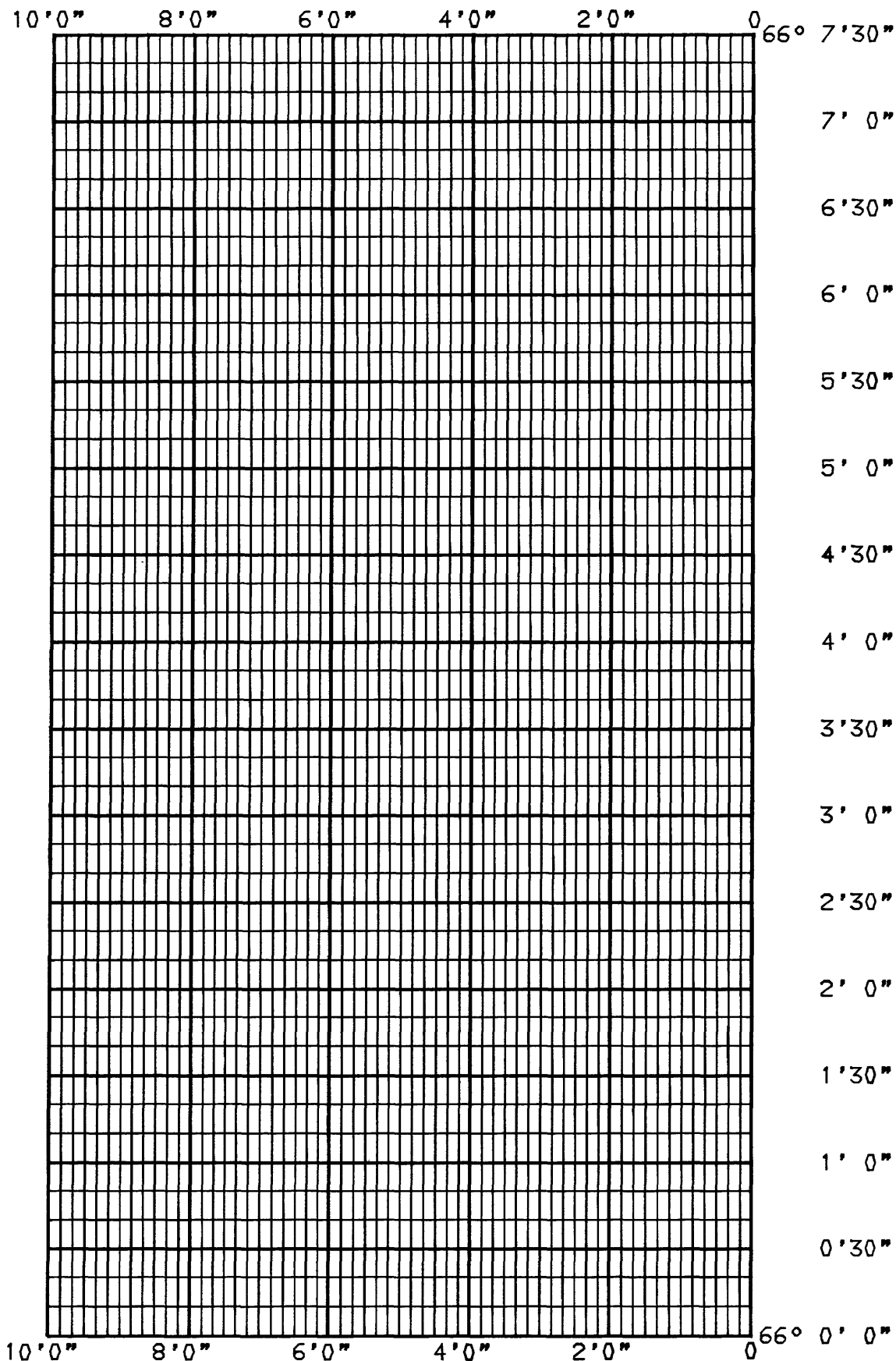
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W.L. Campbell & G. VanTrump Jr
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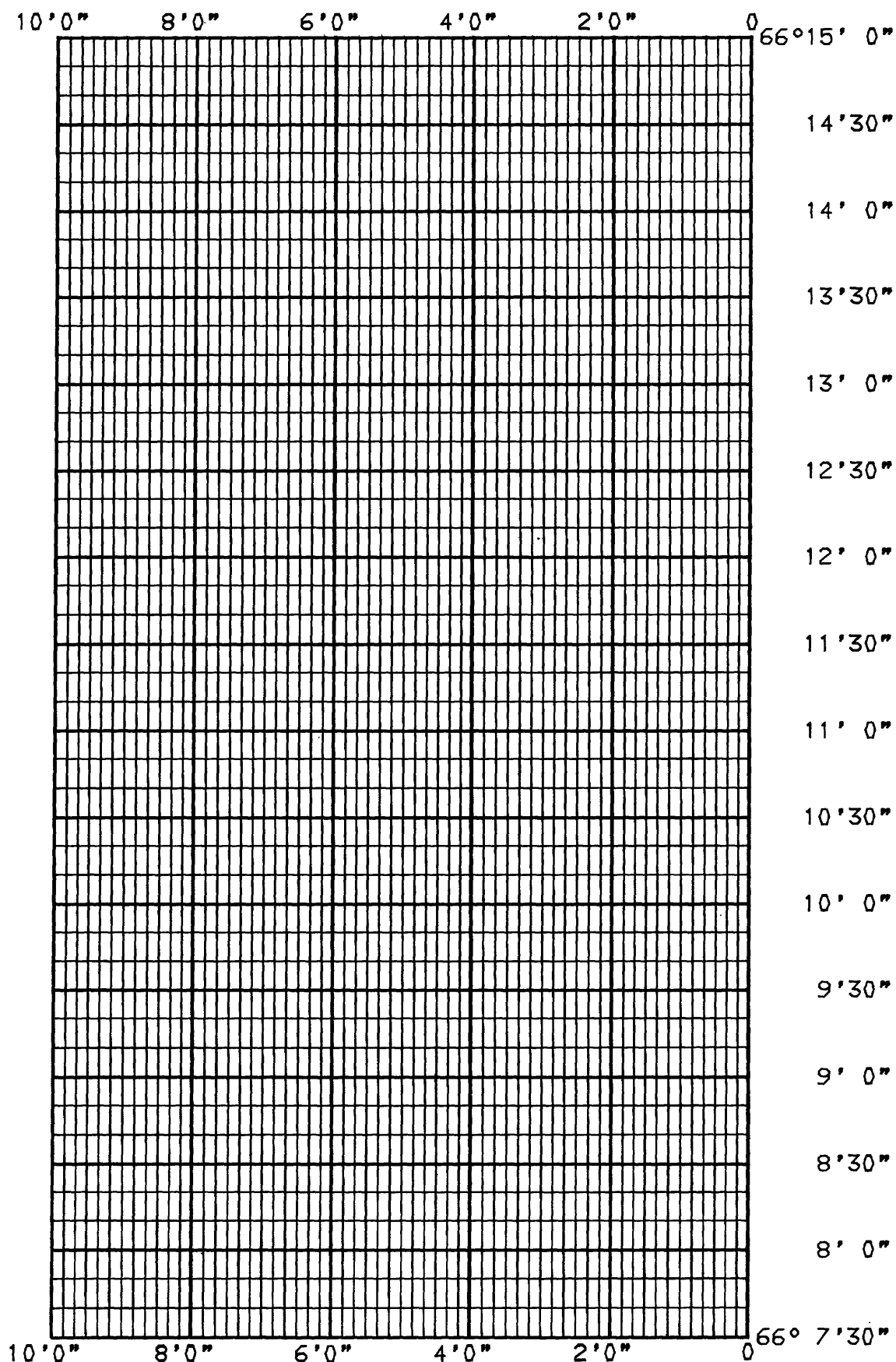
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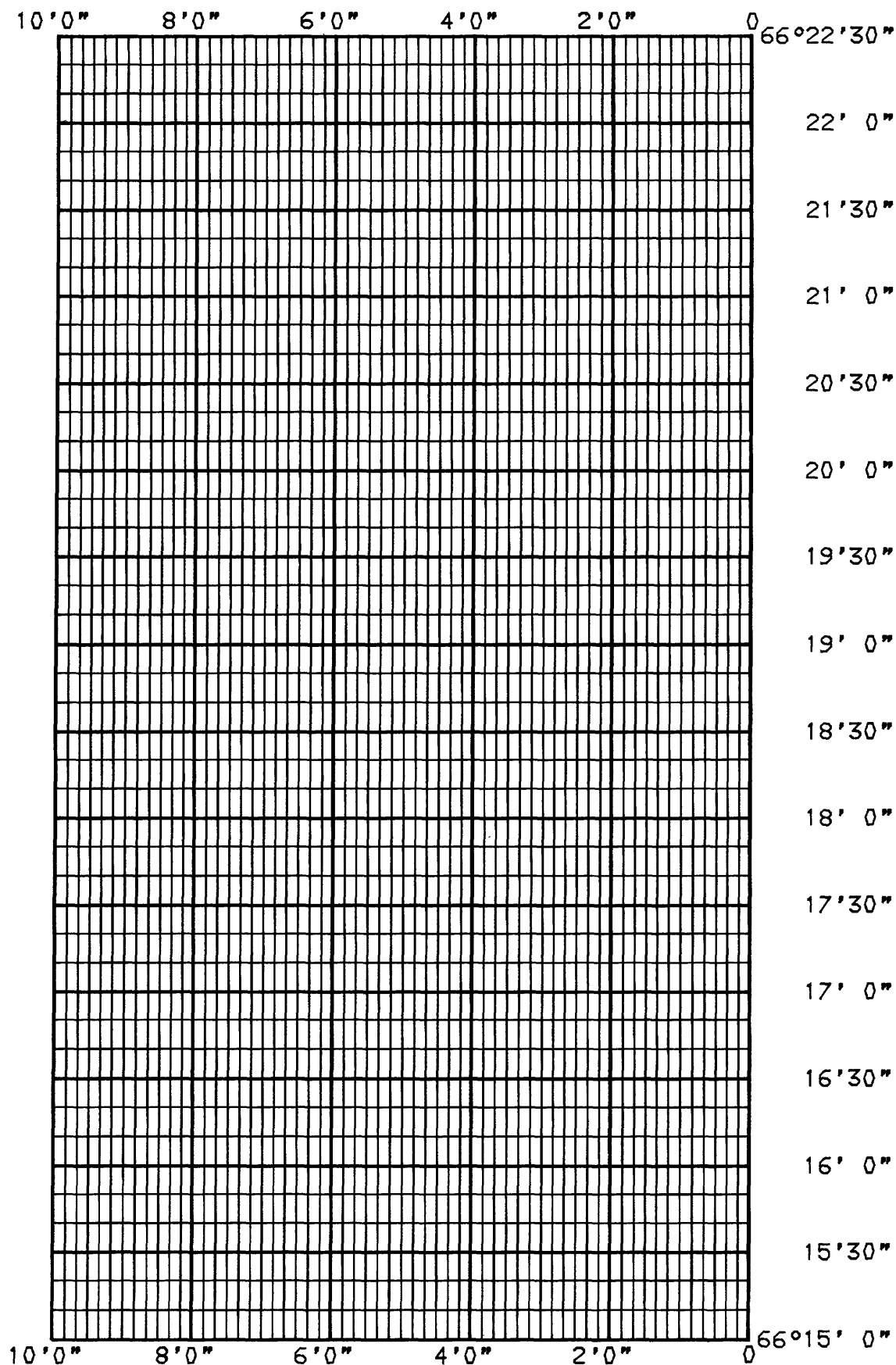
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W.L. Campbell & G. VanTrump Jr
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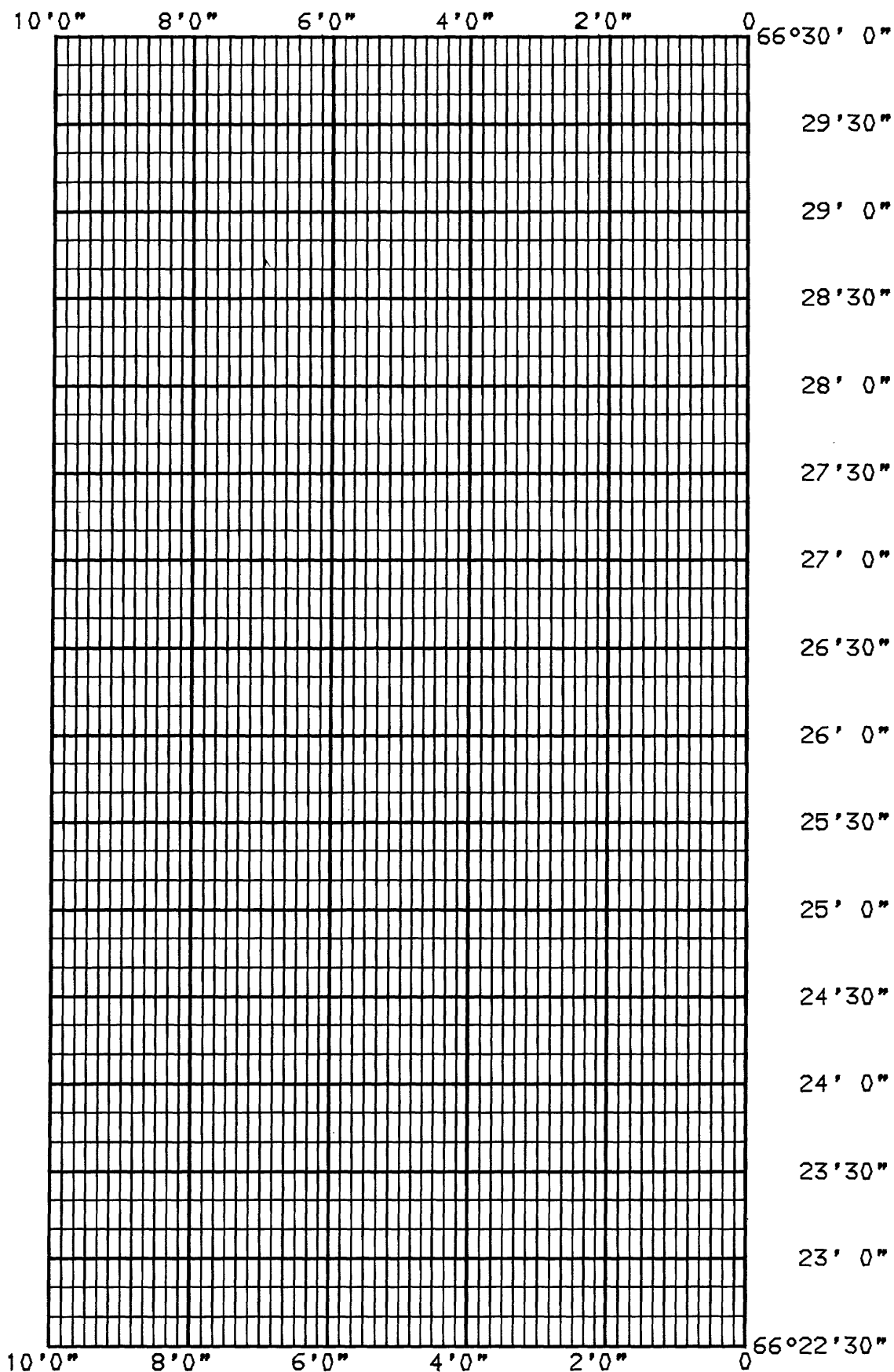
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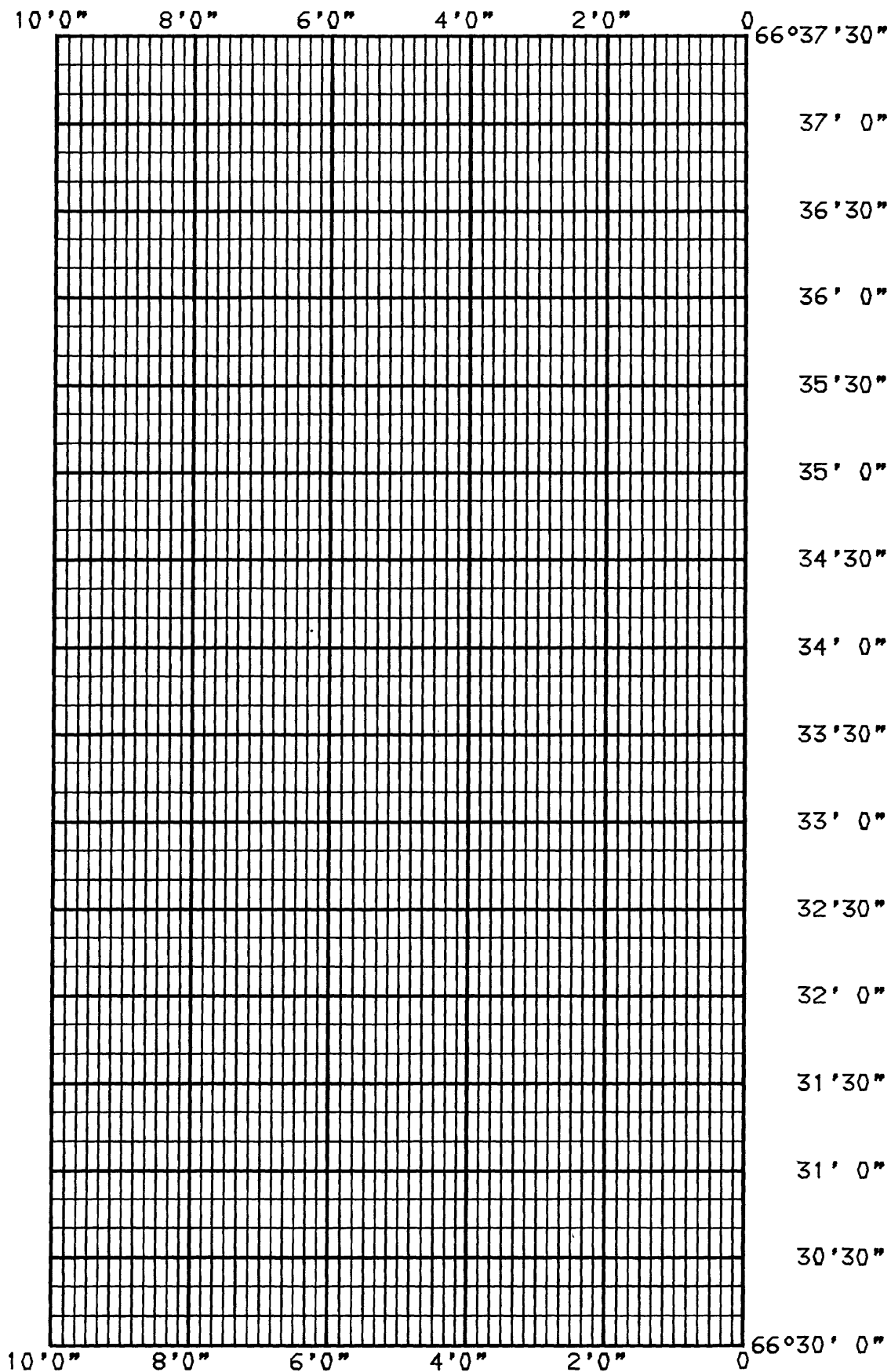
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W.L. Campbell & G. VanTrump Jr
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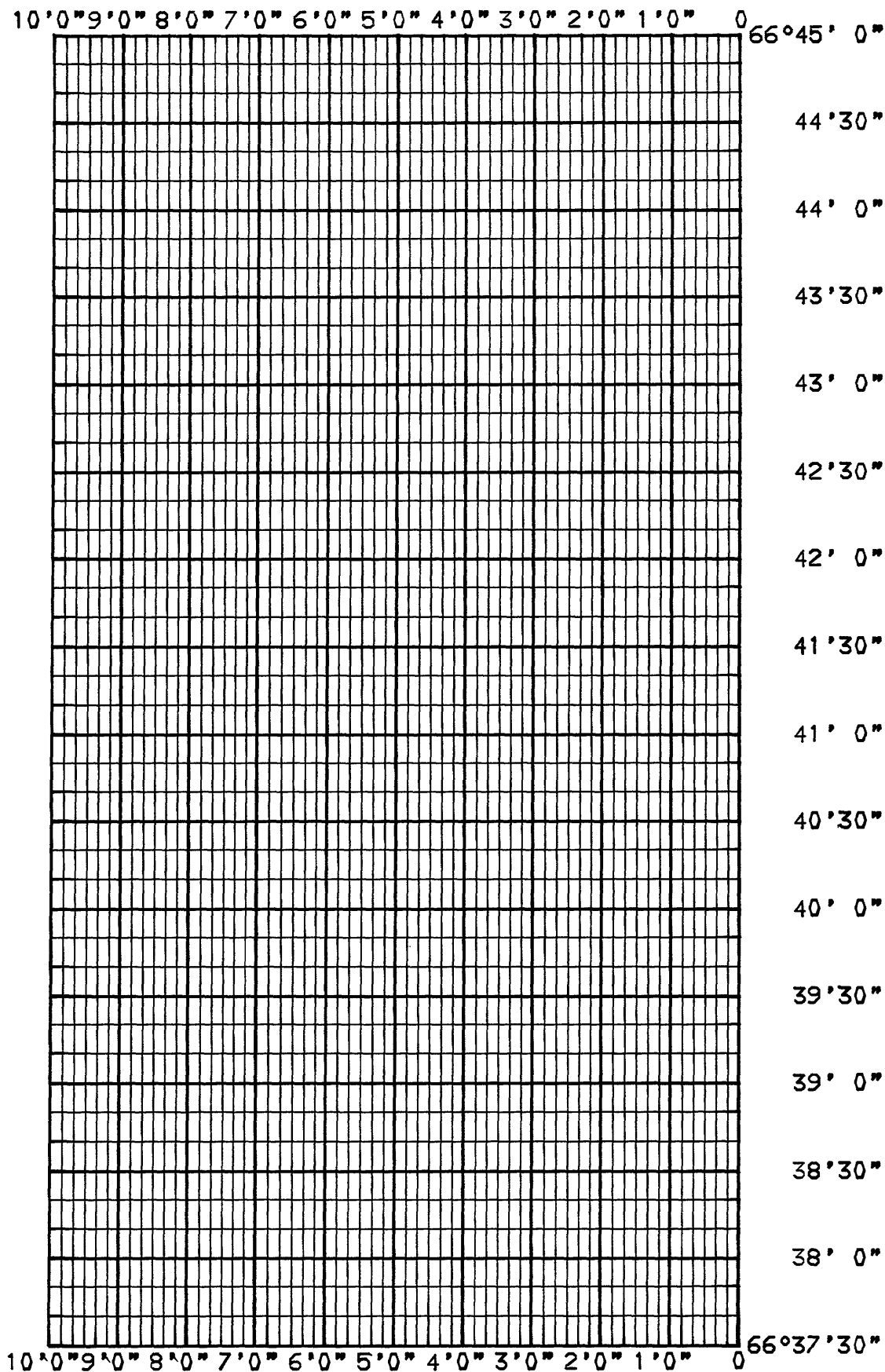
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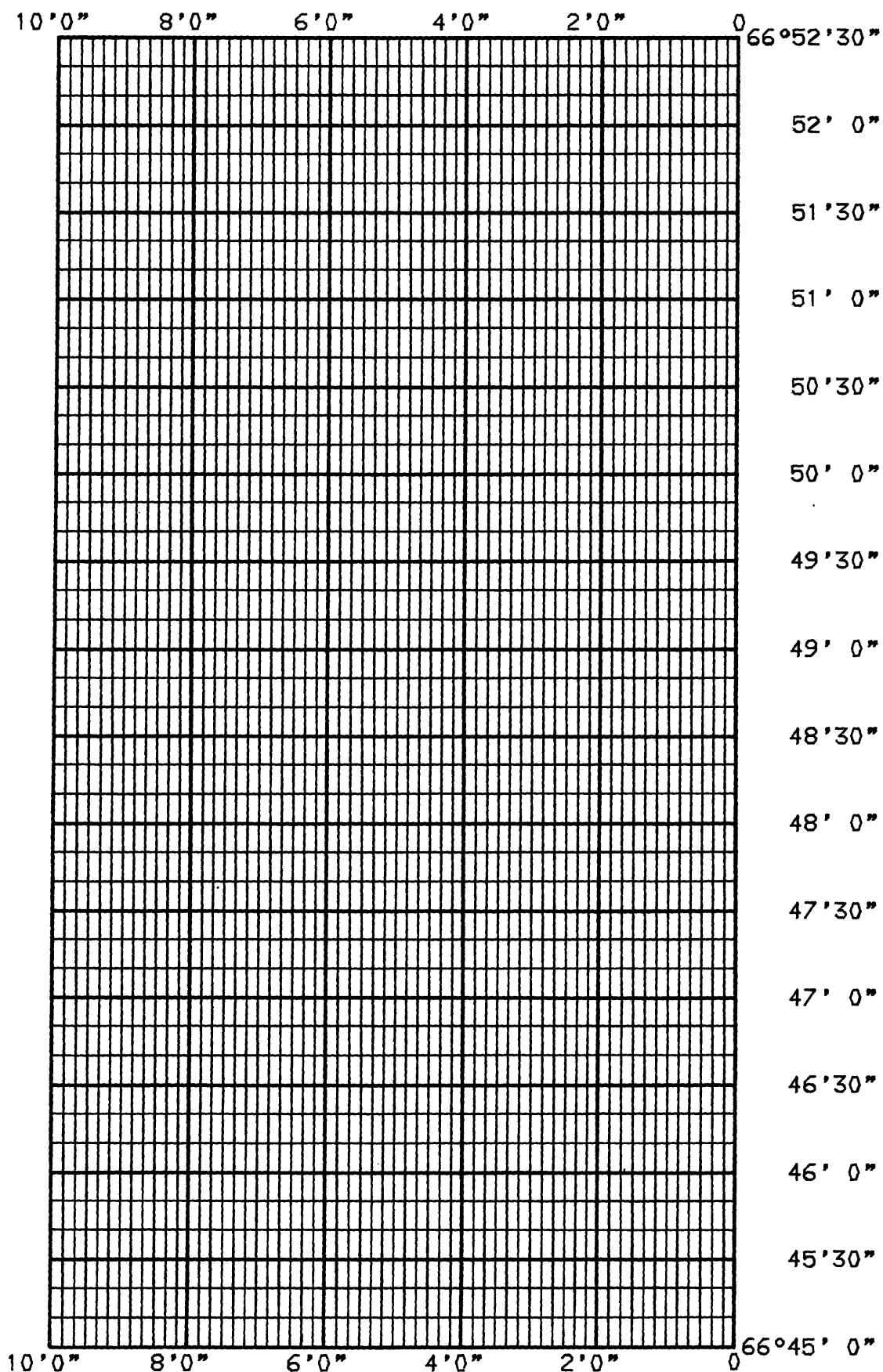
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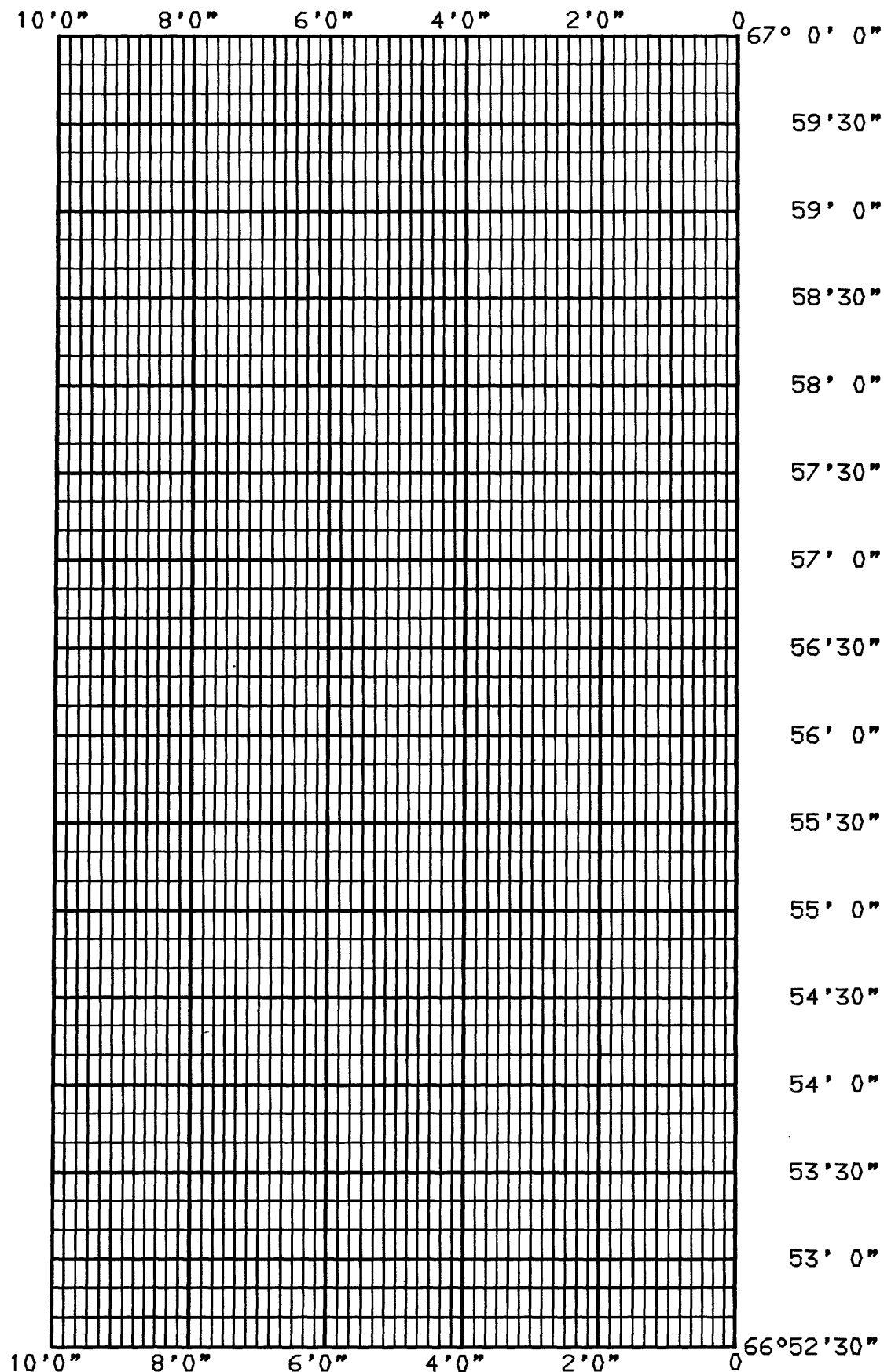
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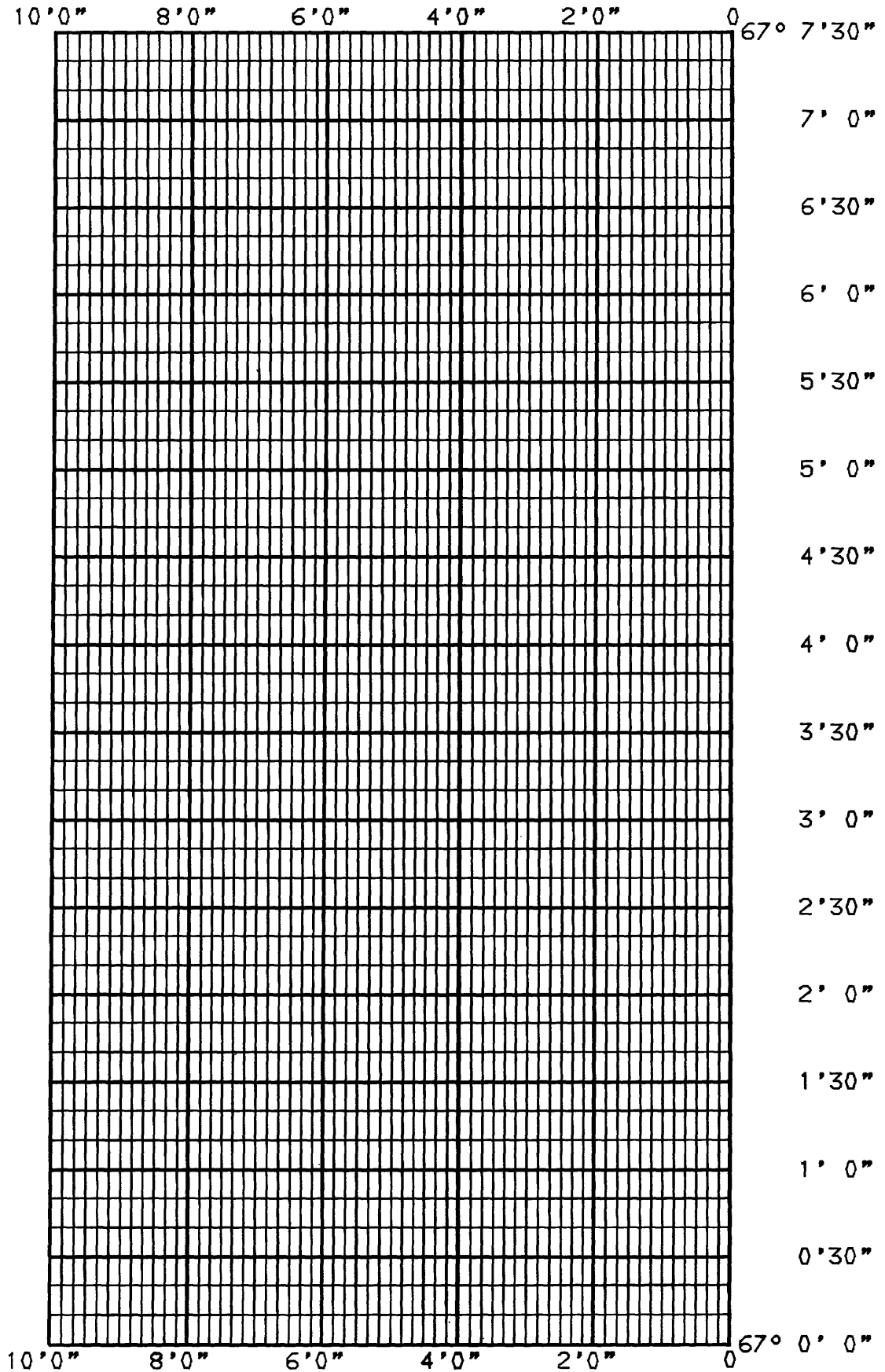
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W.L. Campbell & G. VanTrump Jr
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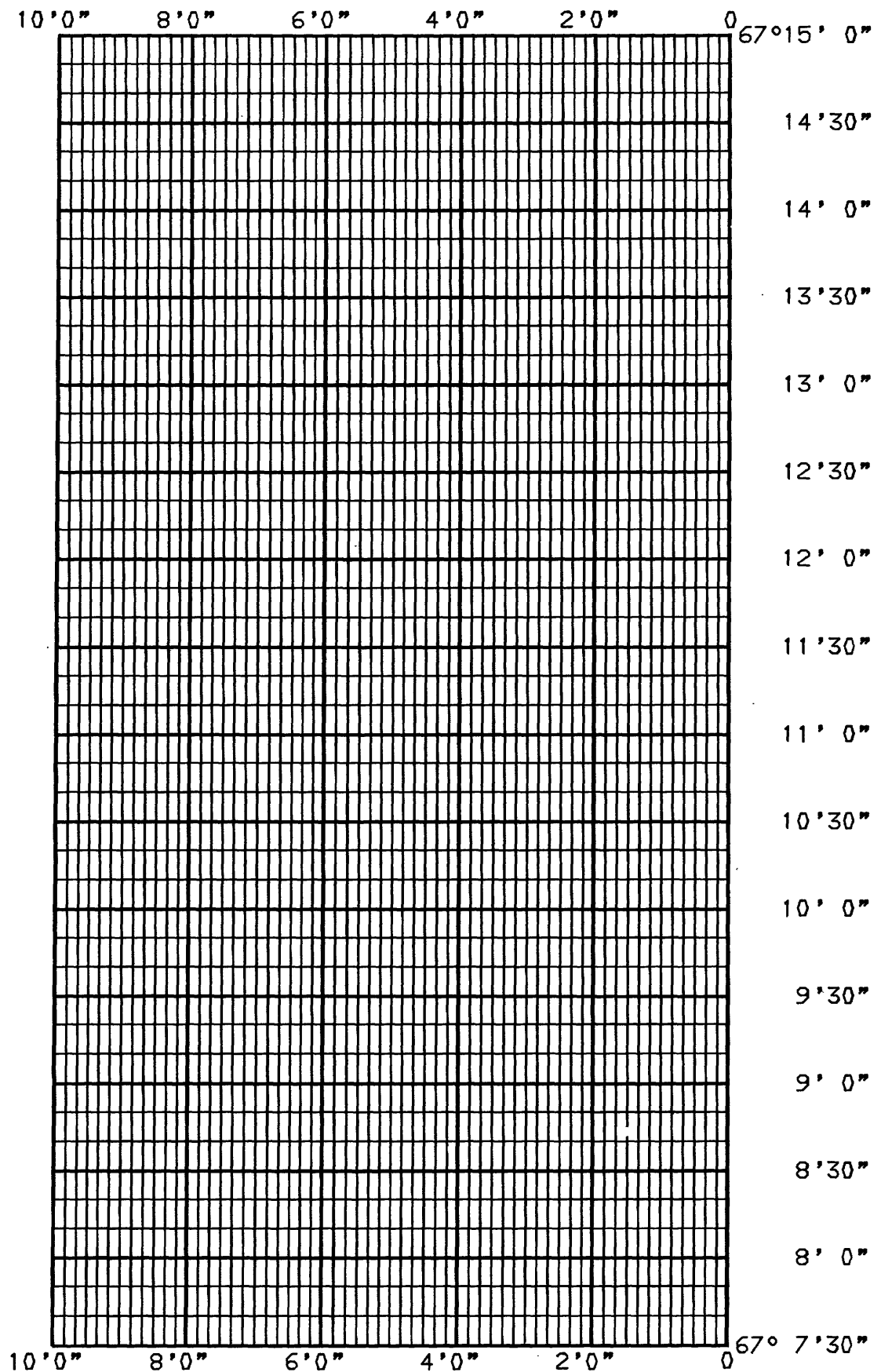
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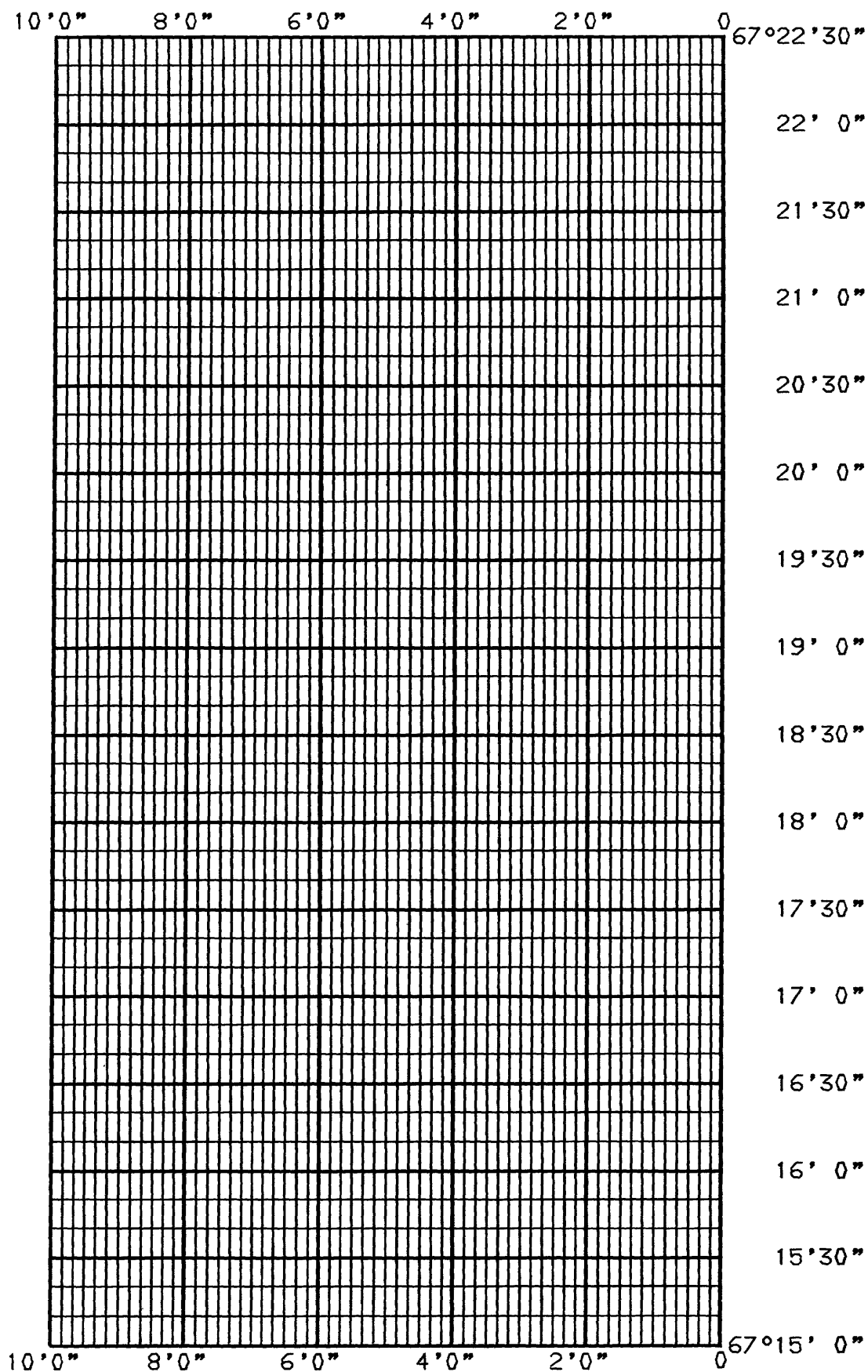
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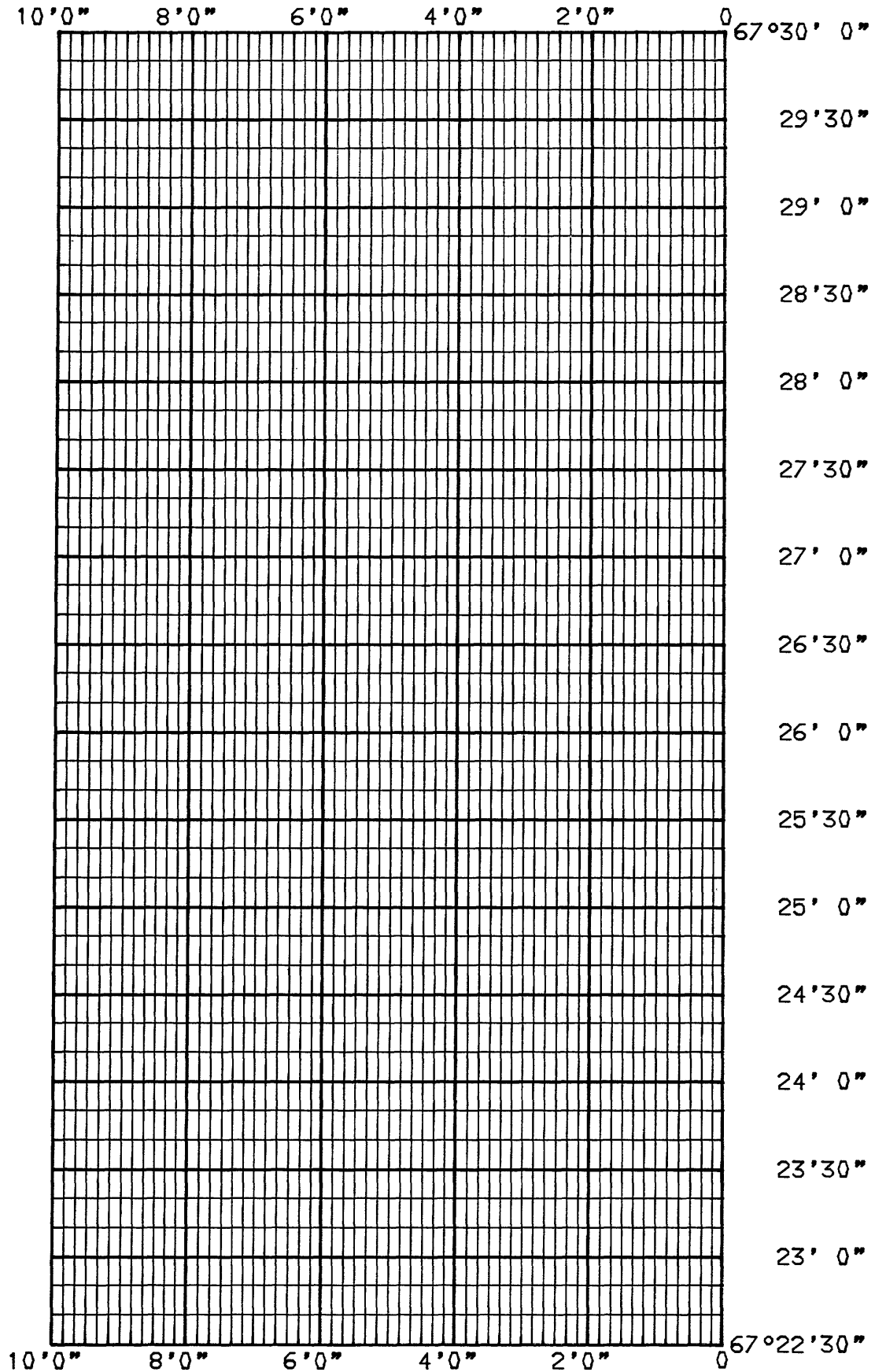
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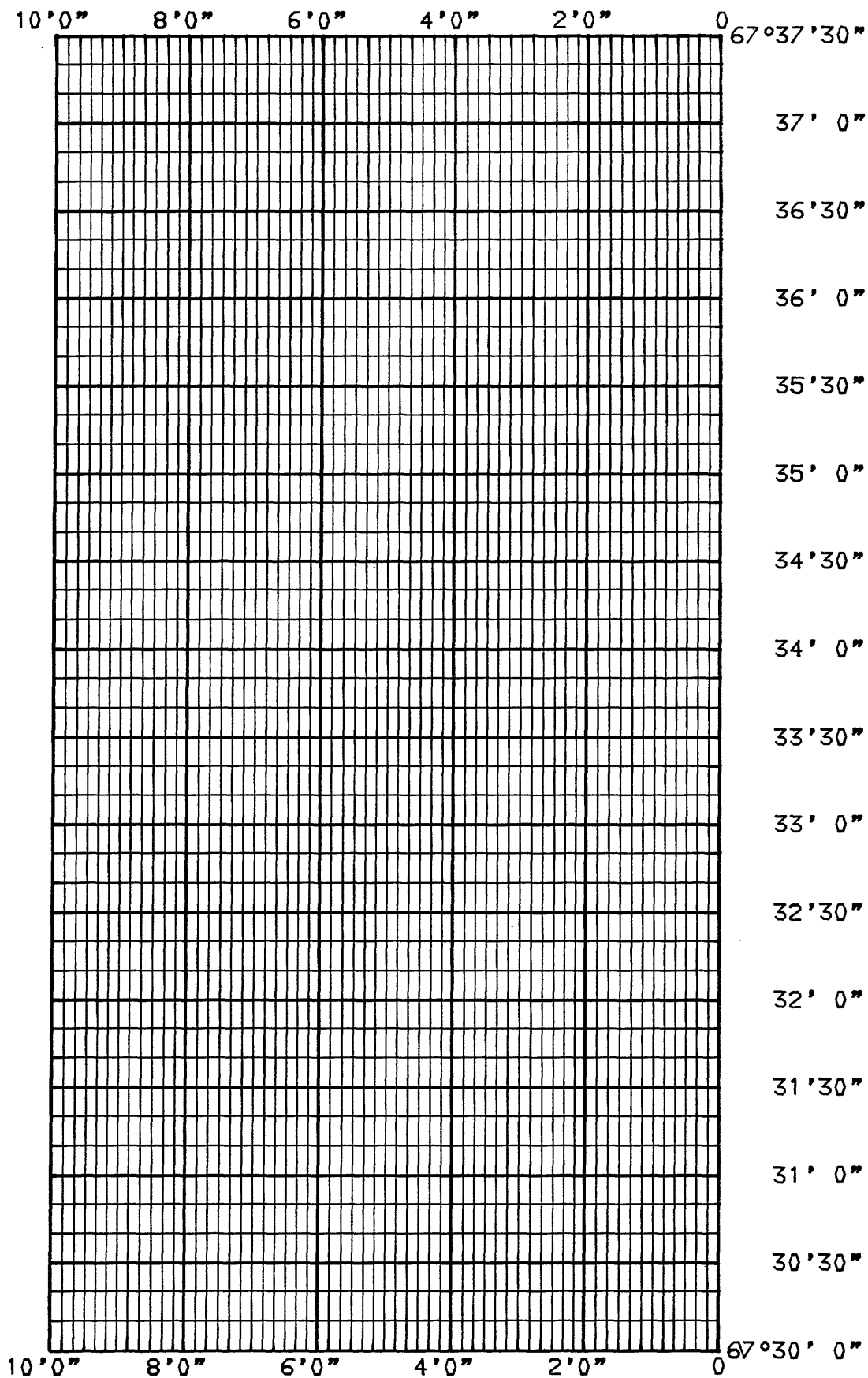
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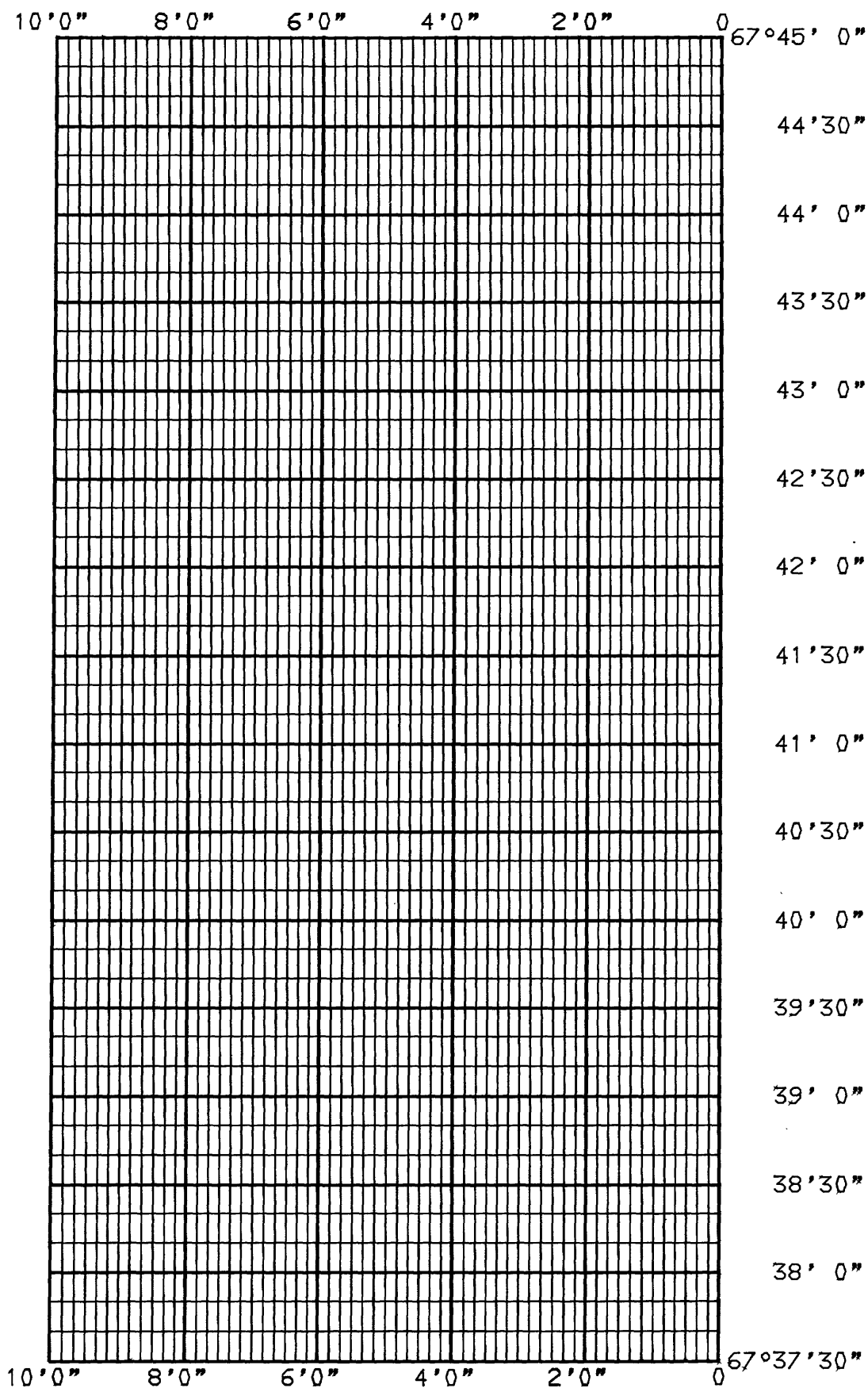
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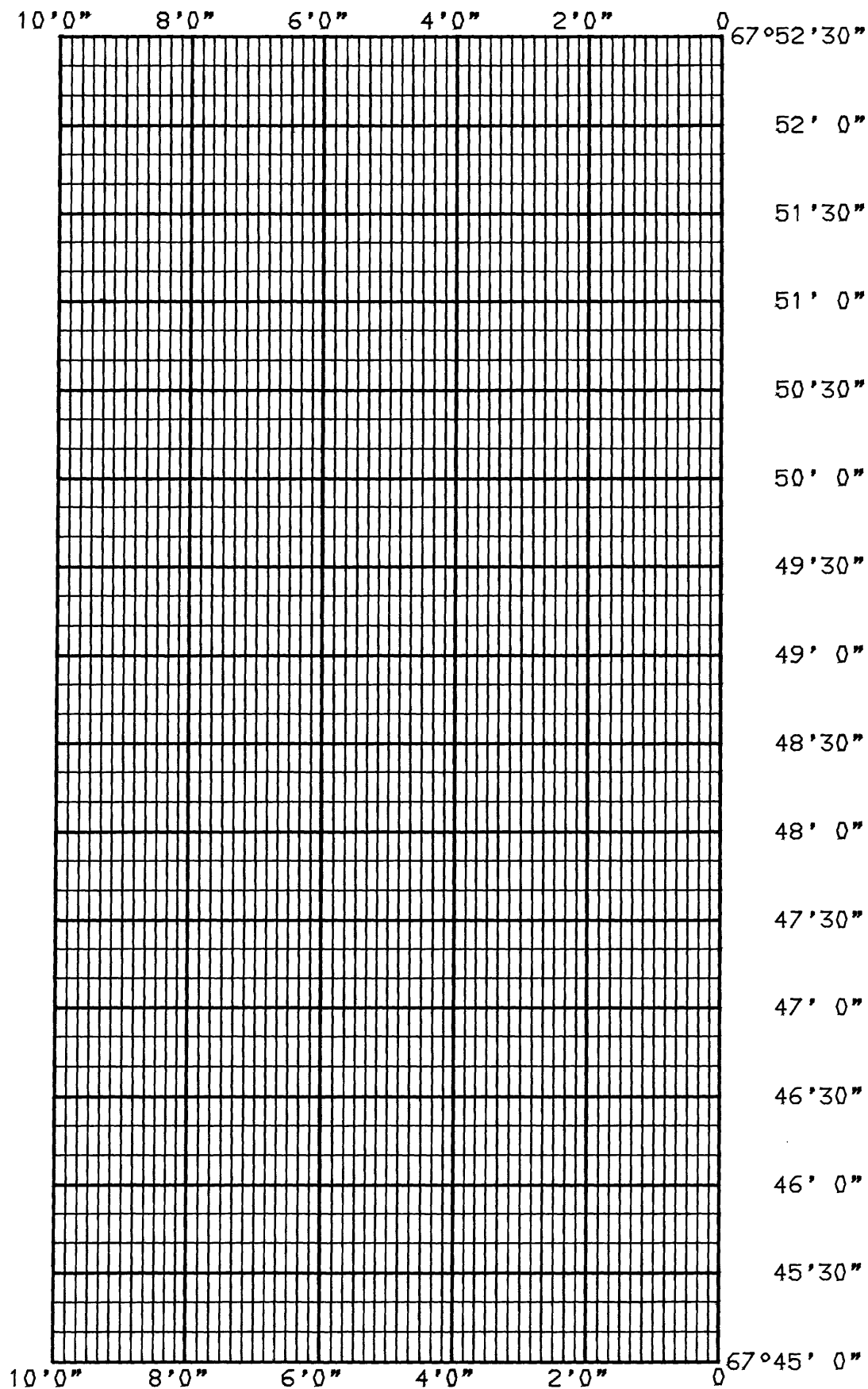
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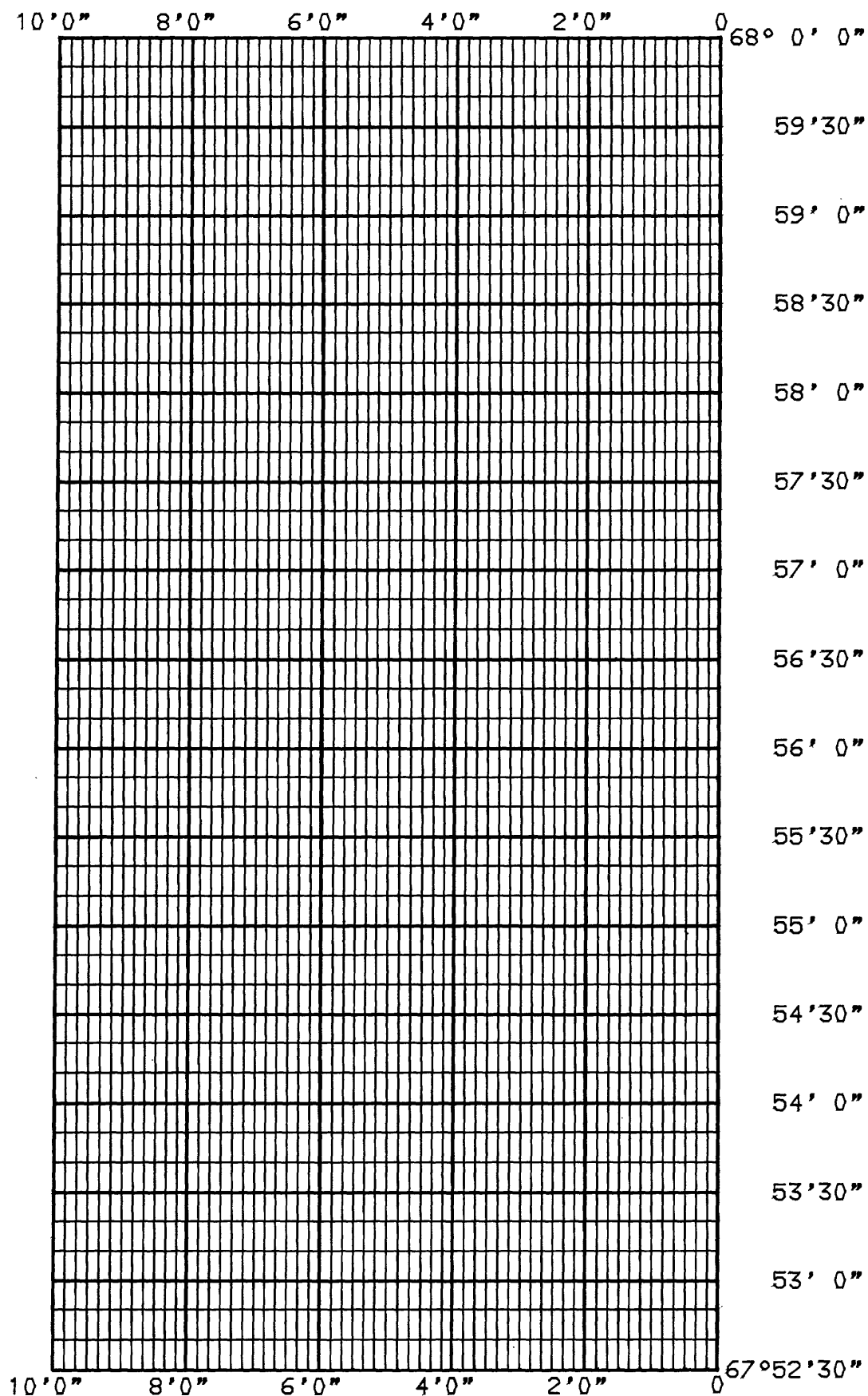
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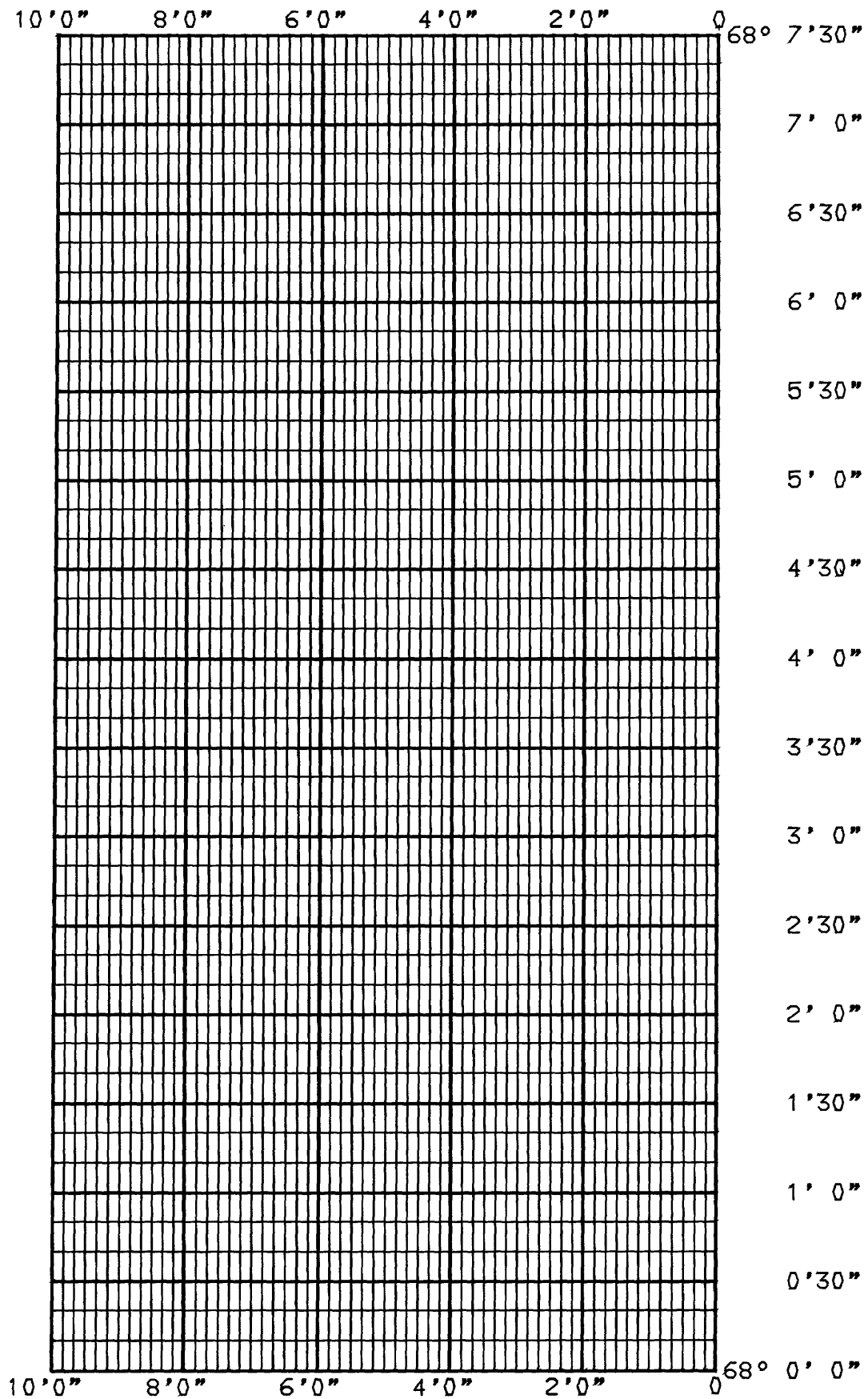
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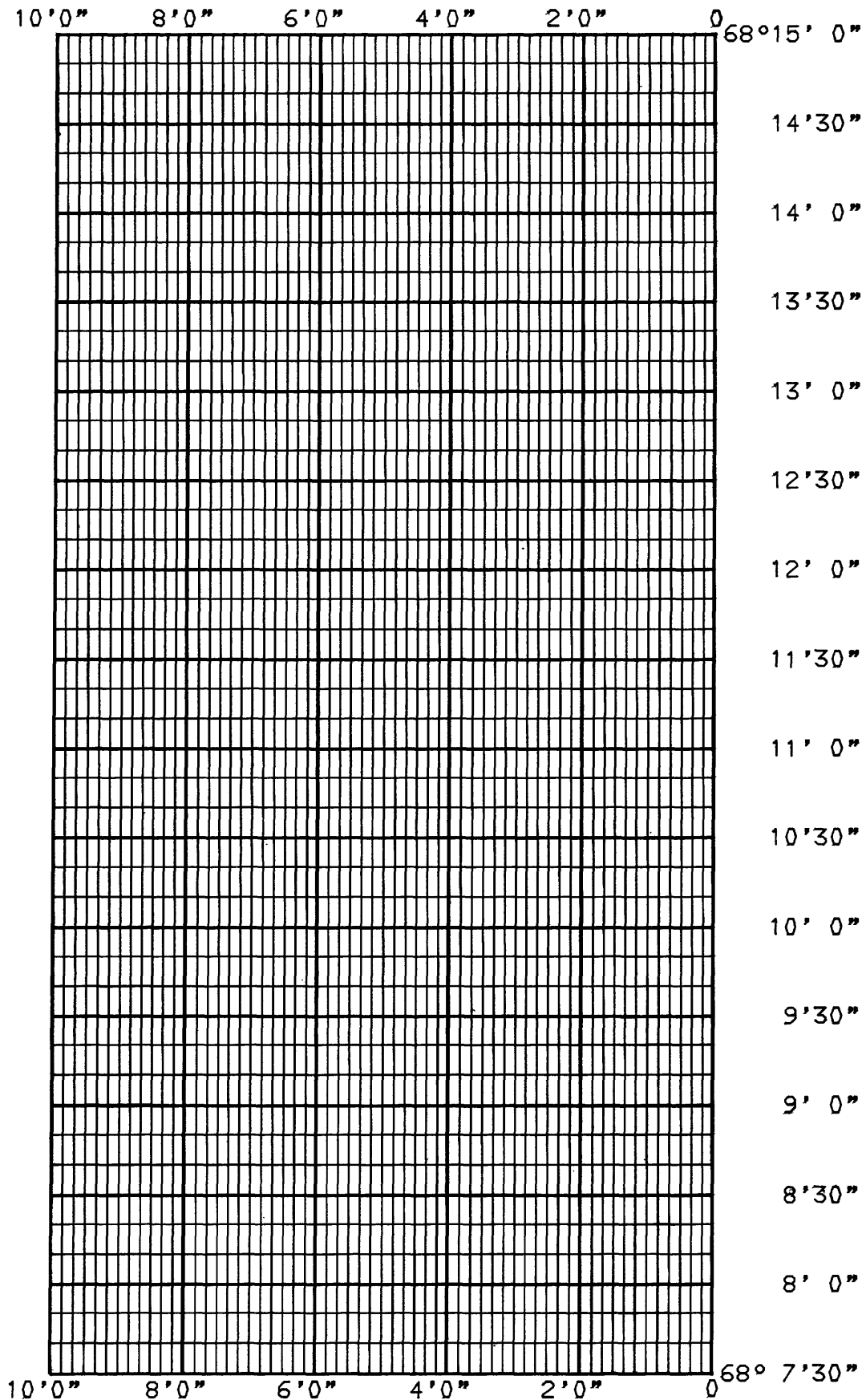
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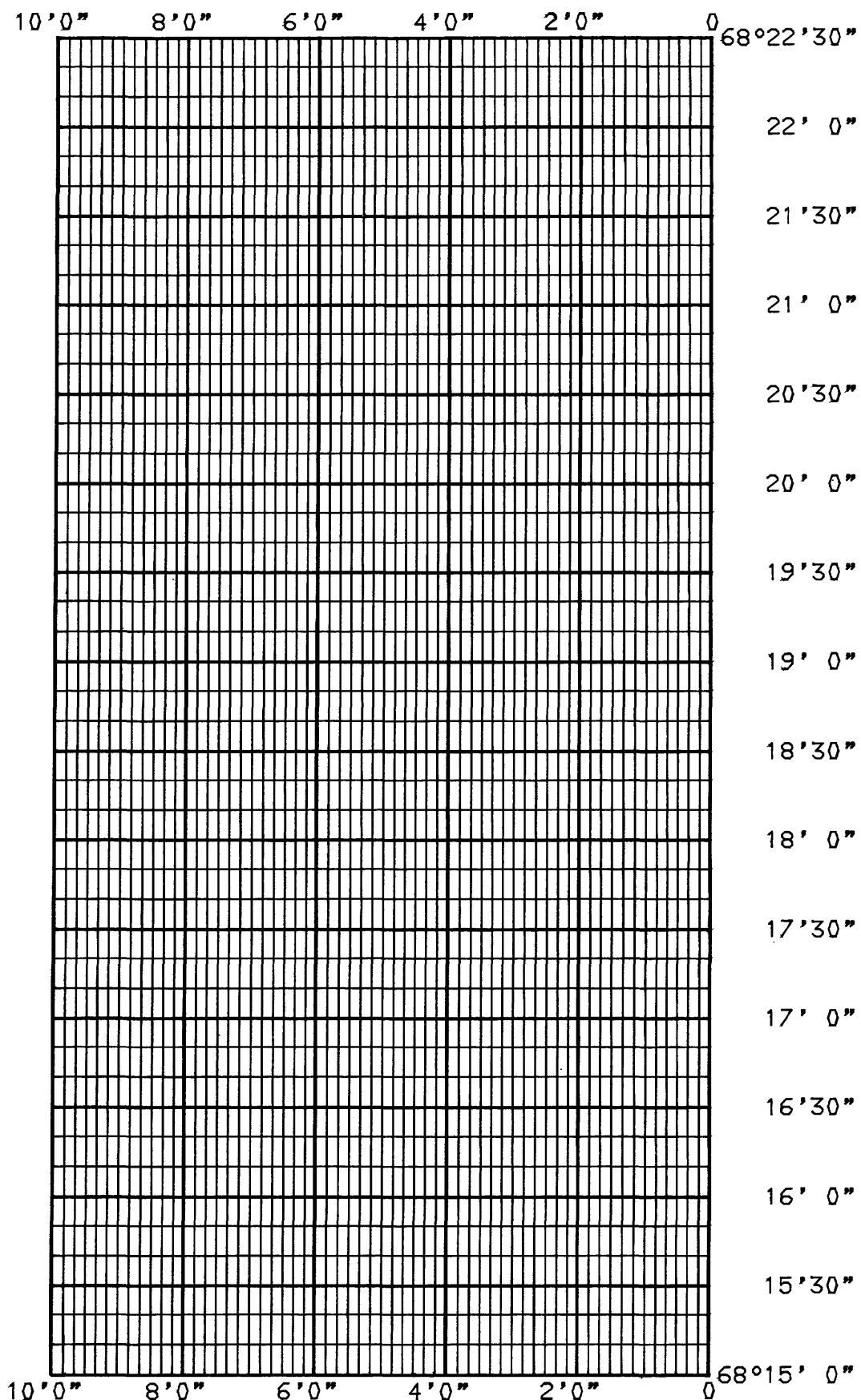
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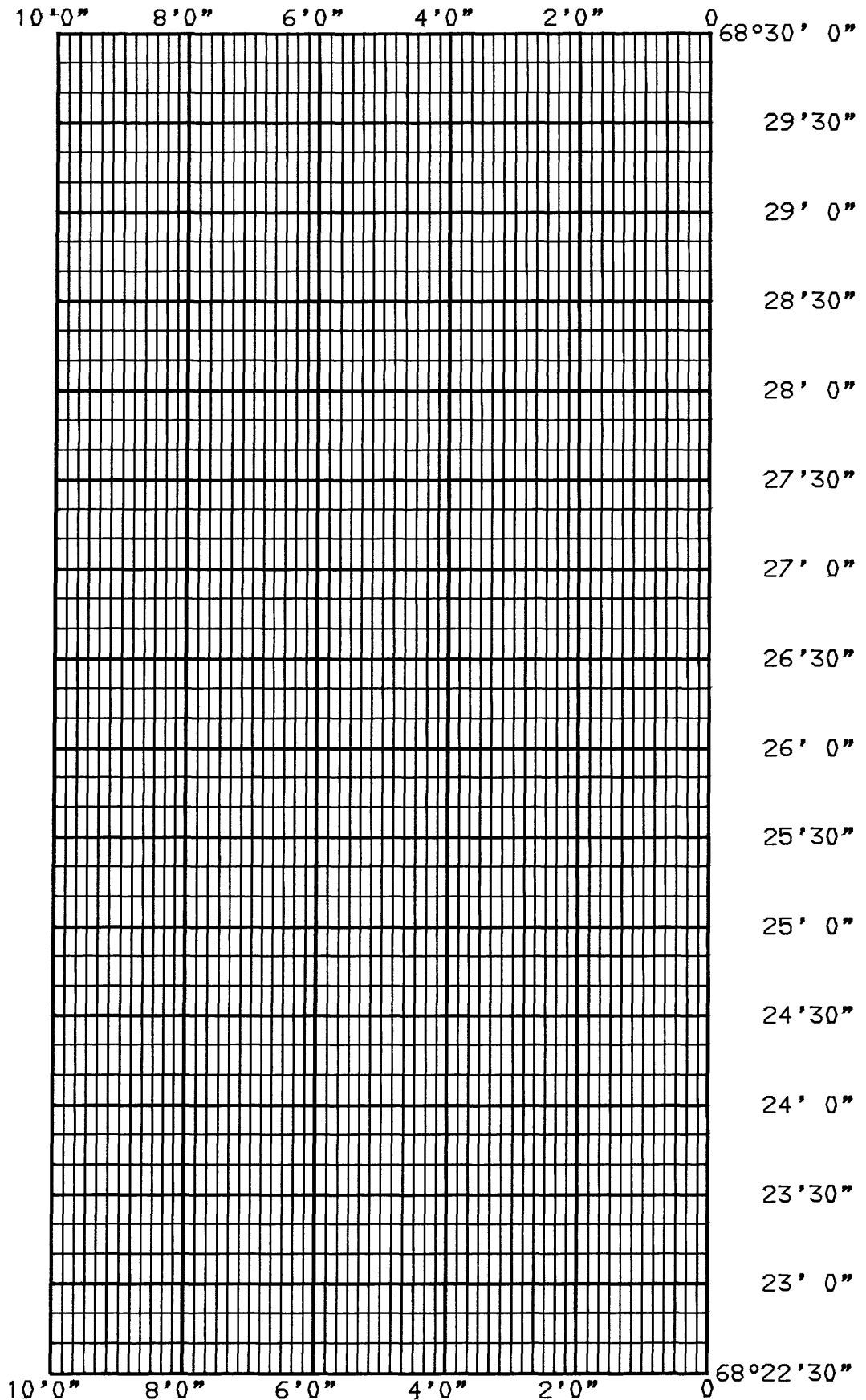
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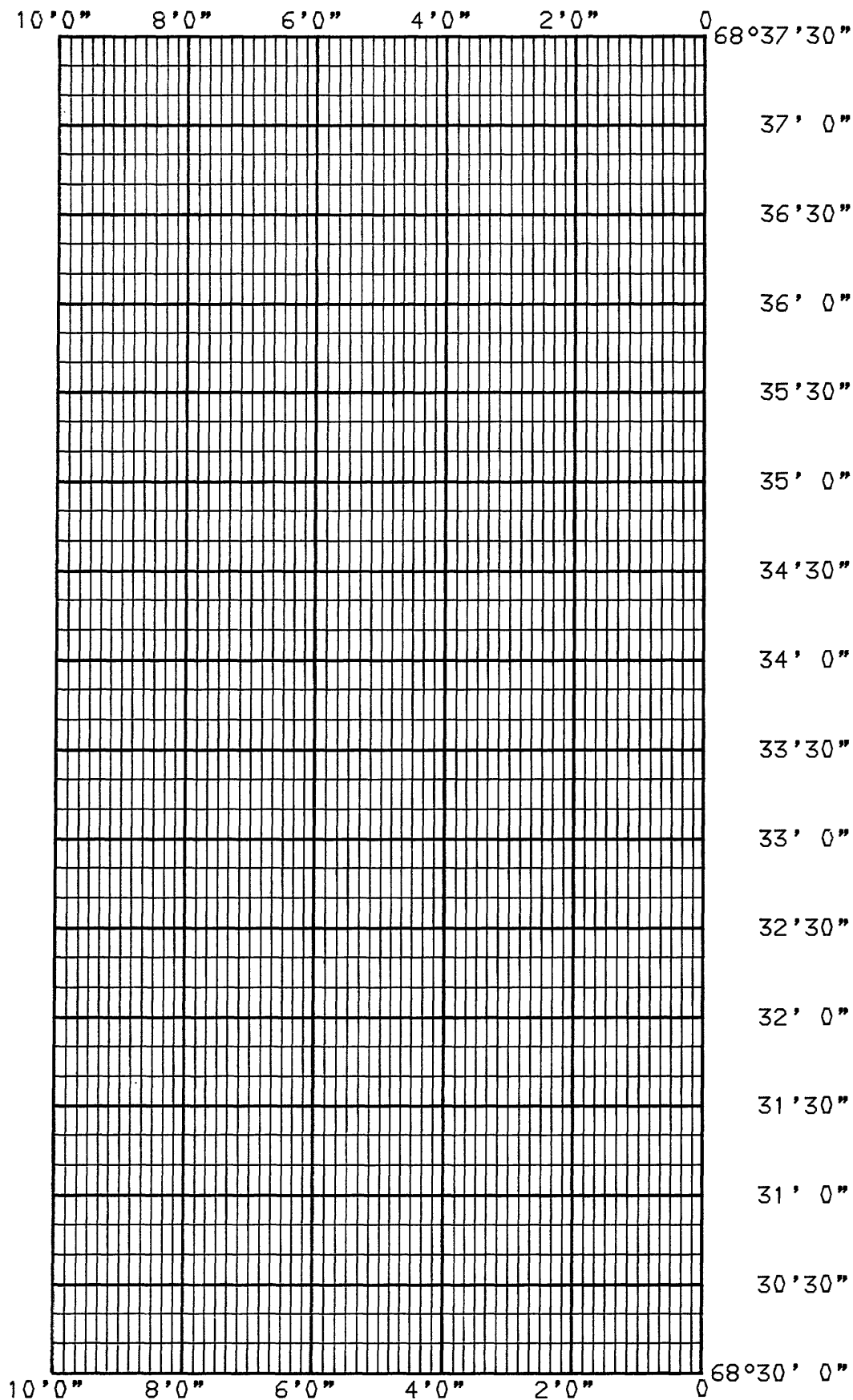
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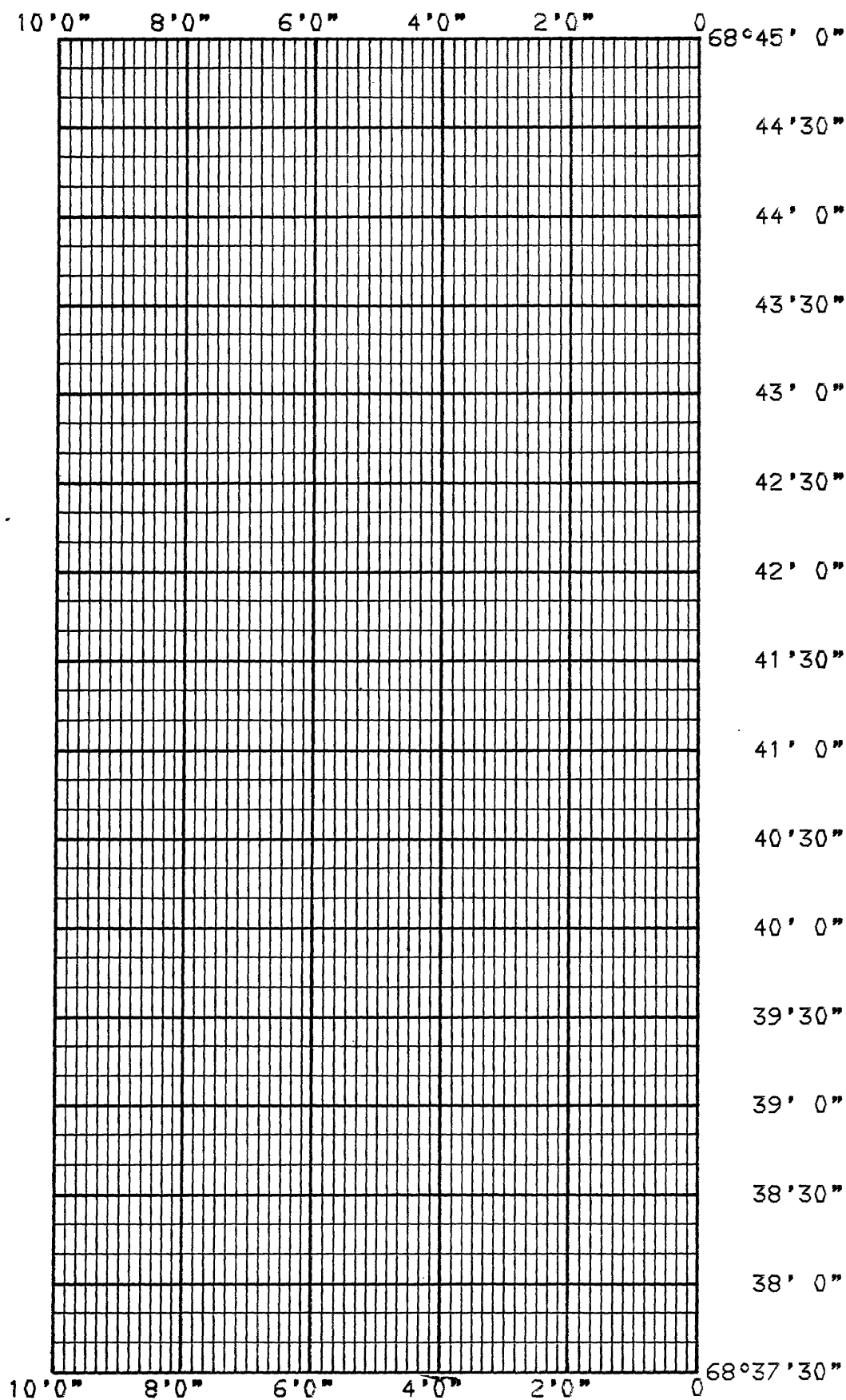
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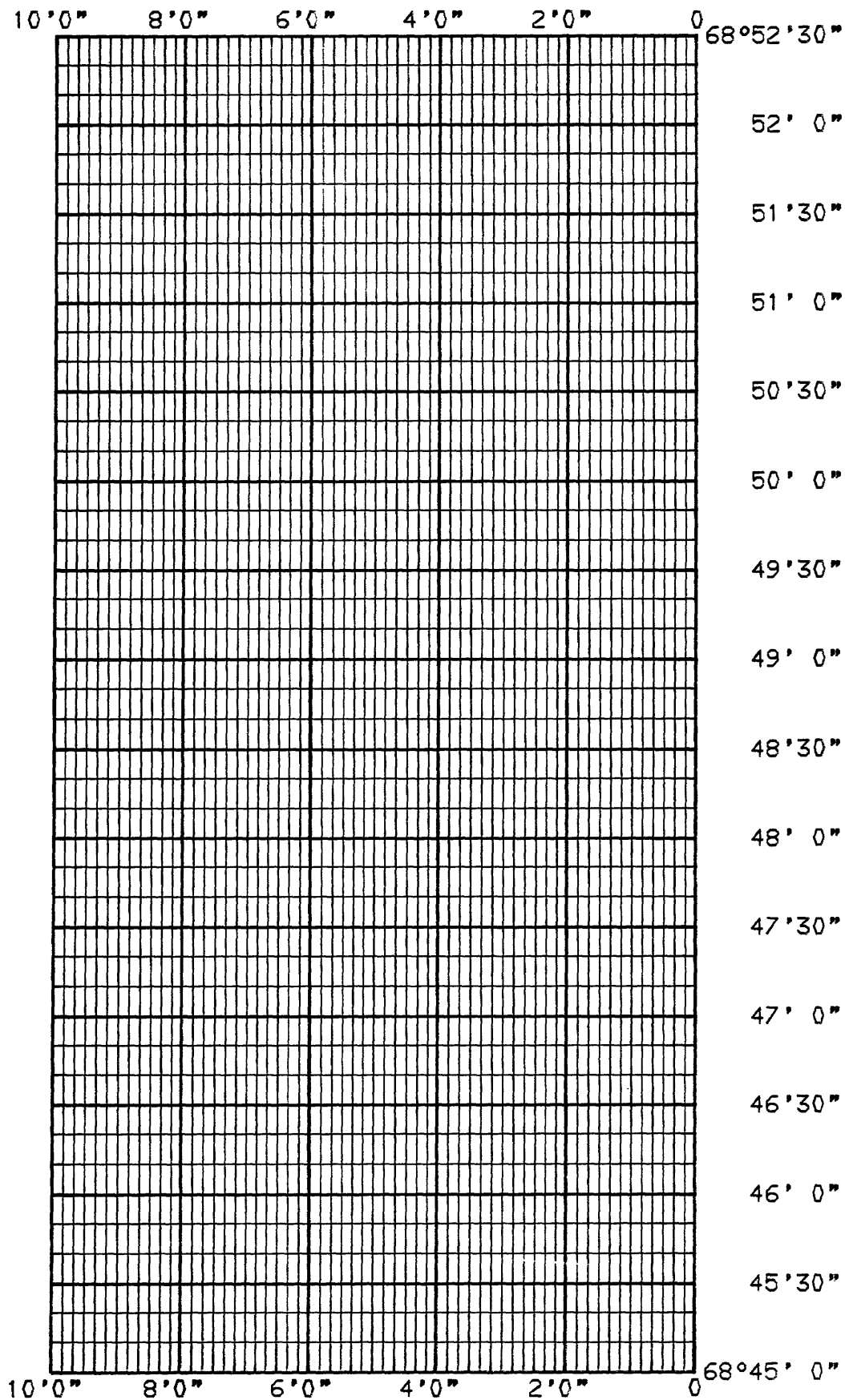
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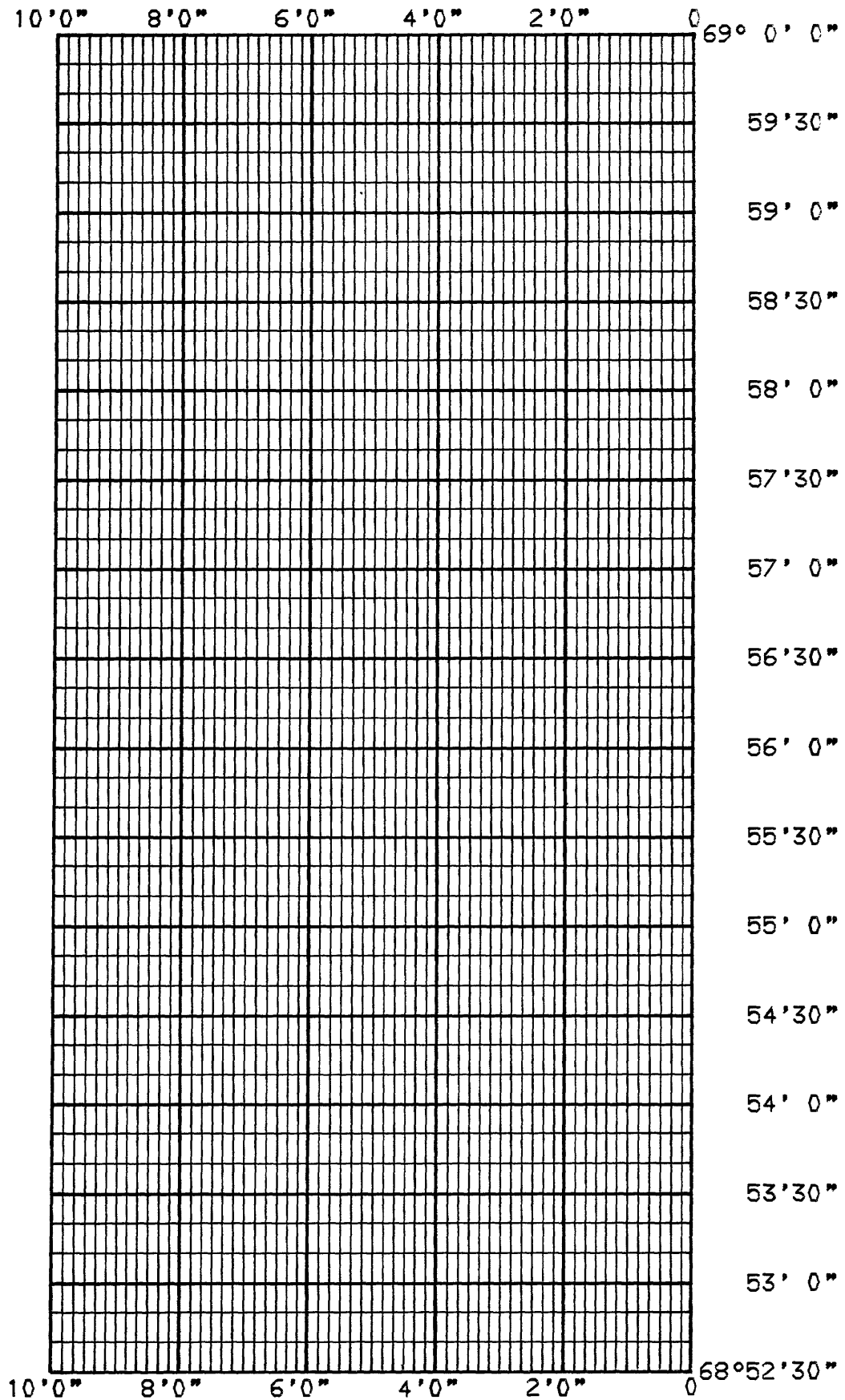
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W.L. Campbell & G. VanTrump Jr
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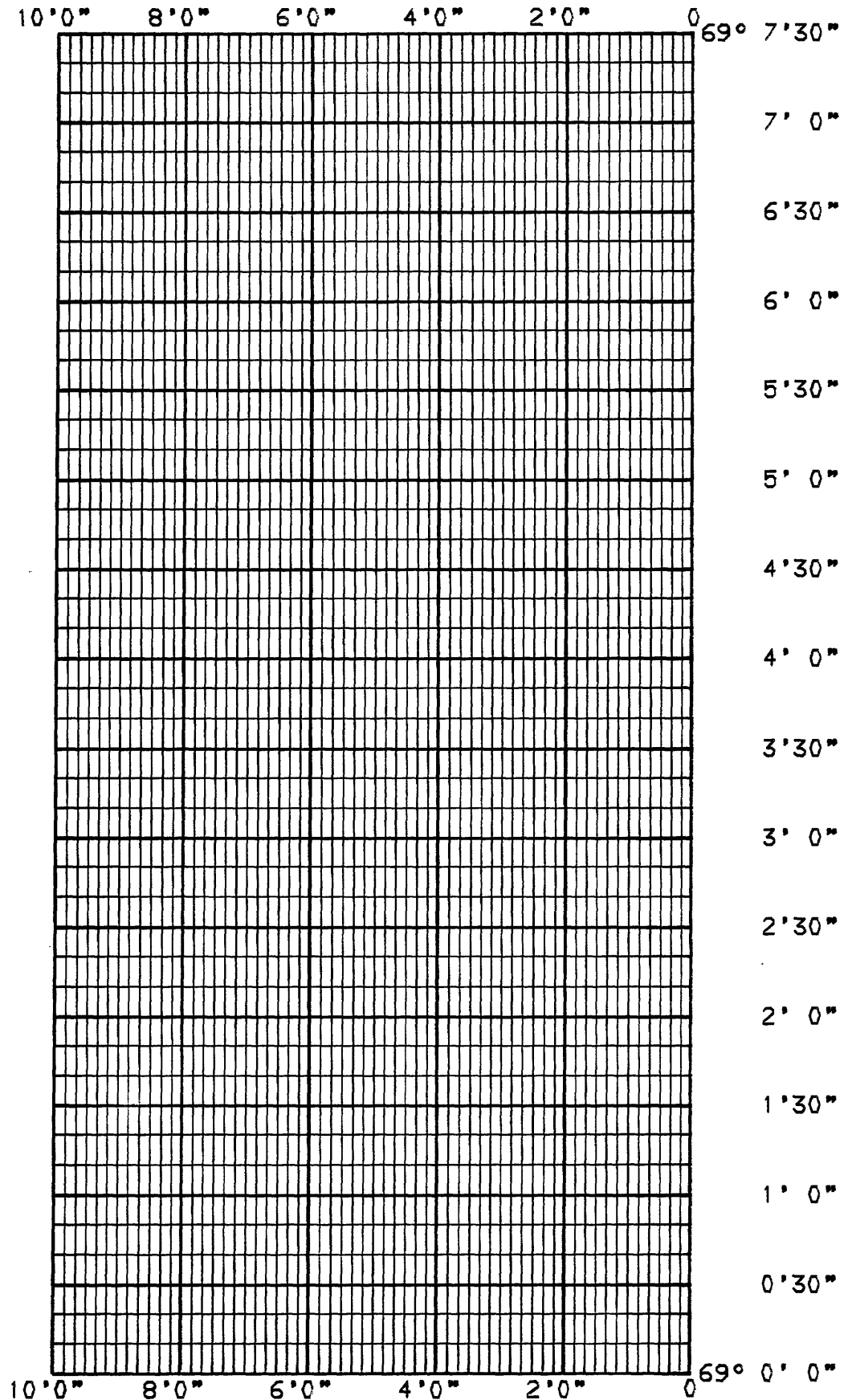
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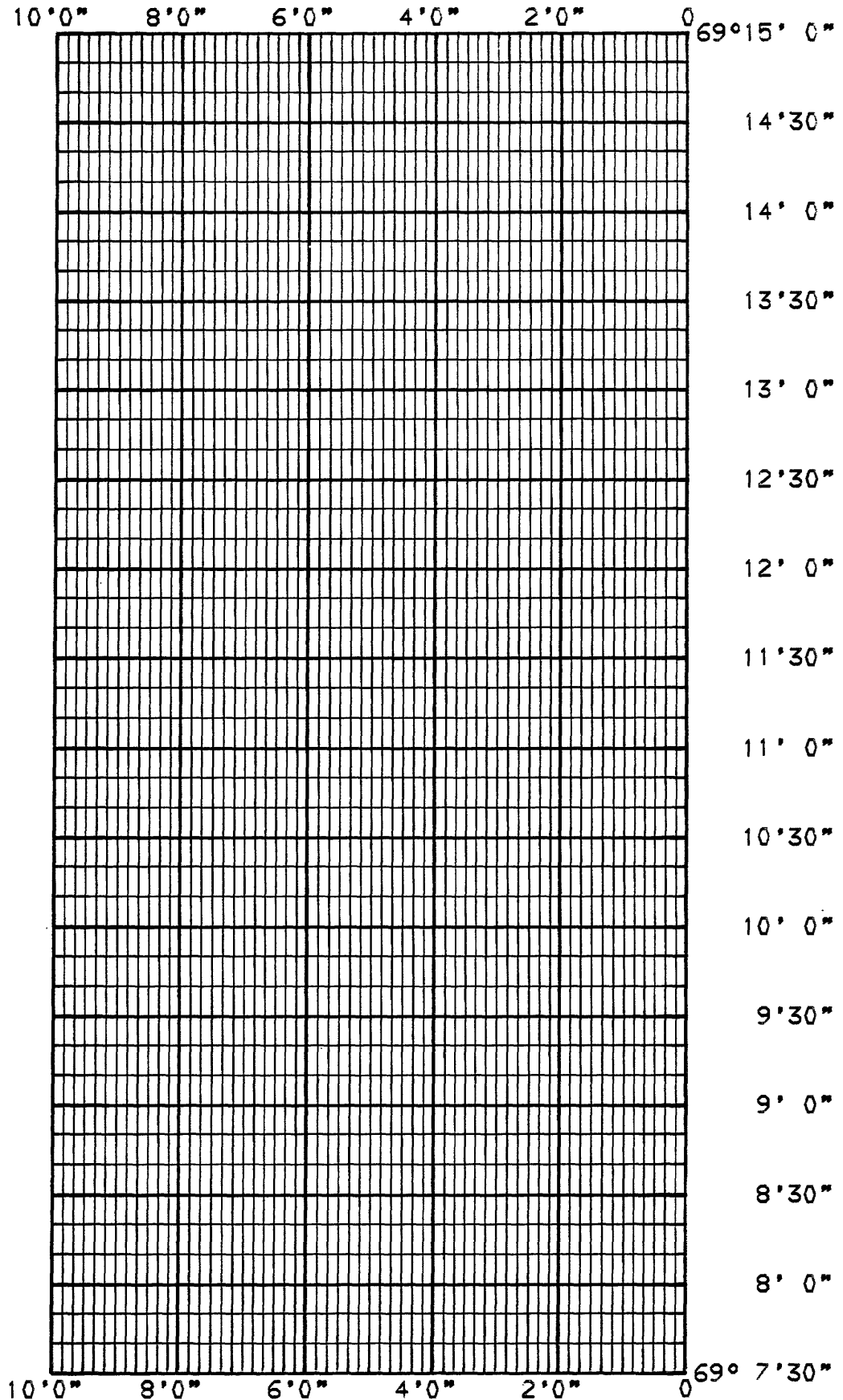
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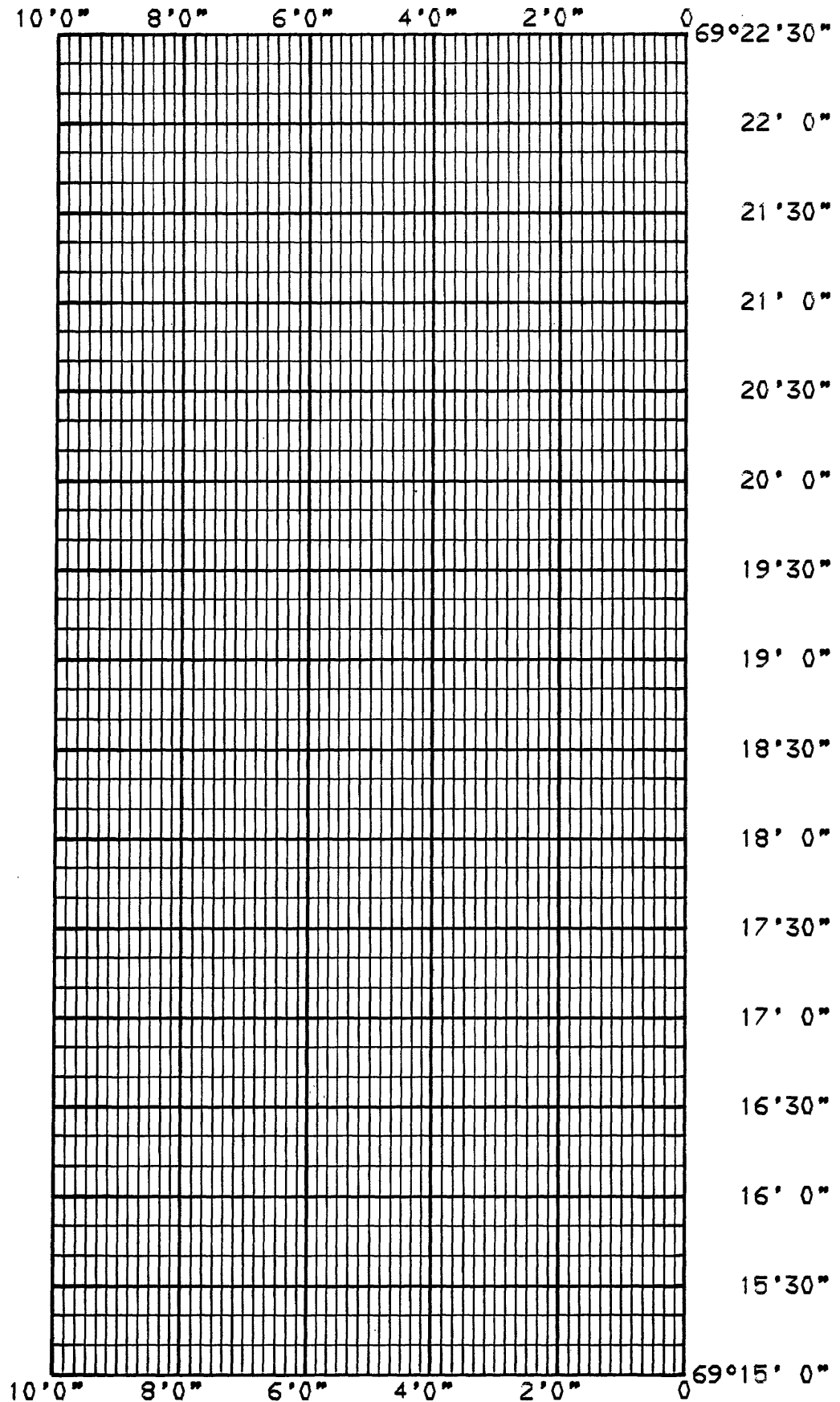
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W.L. Campbell & G. VanTrump Jr
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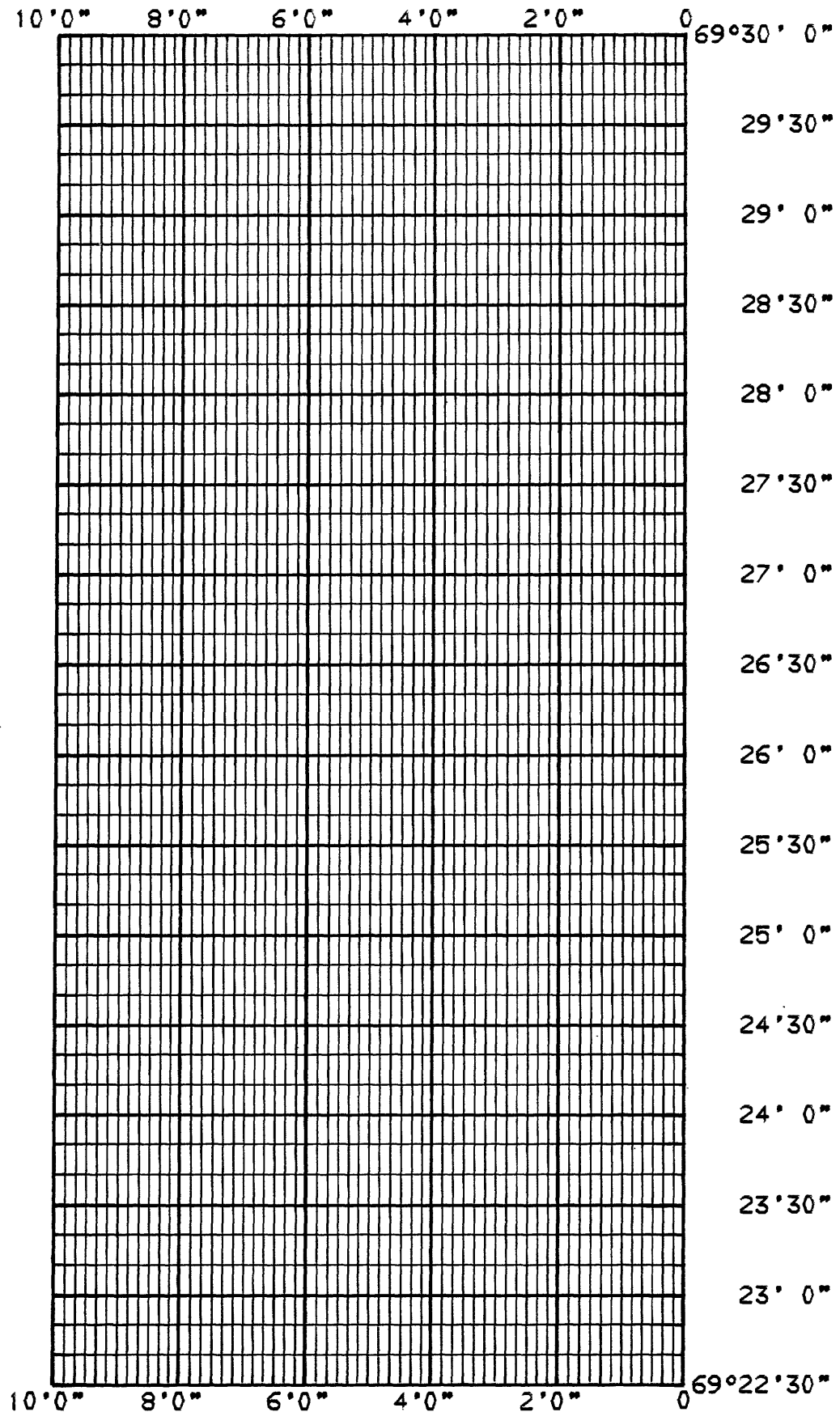
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W.L. Campbell & G. VanTrump Jr
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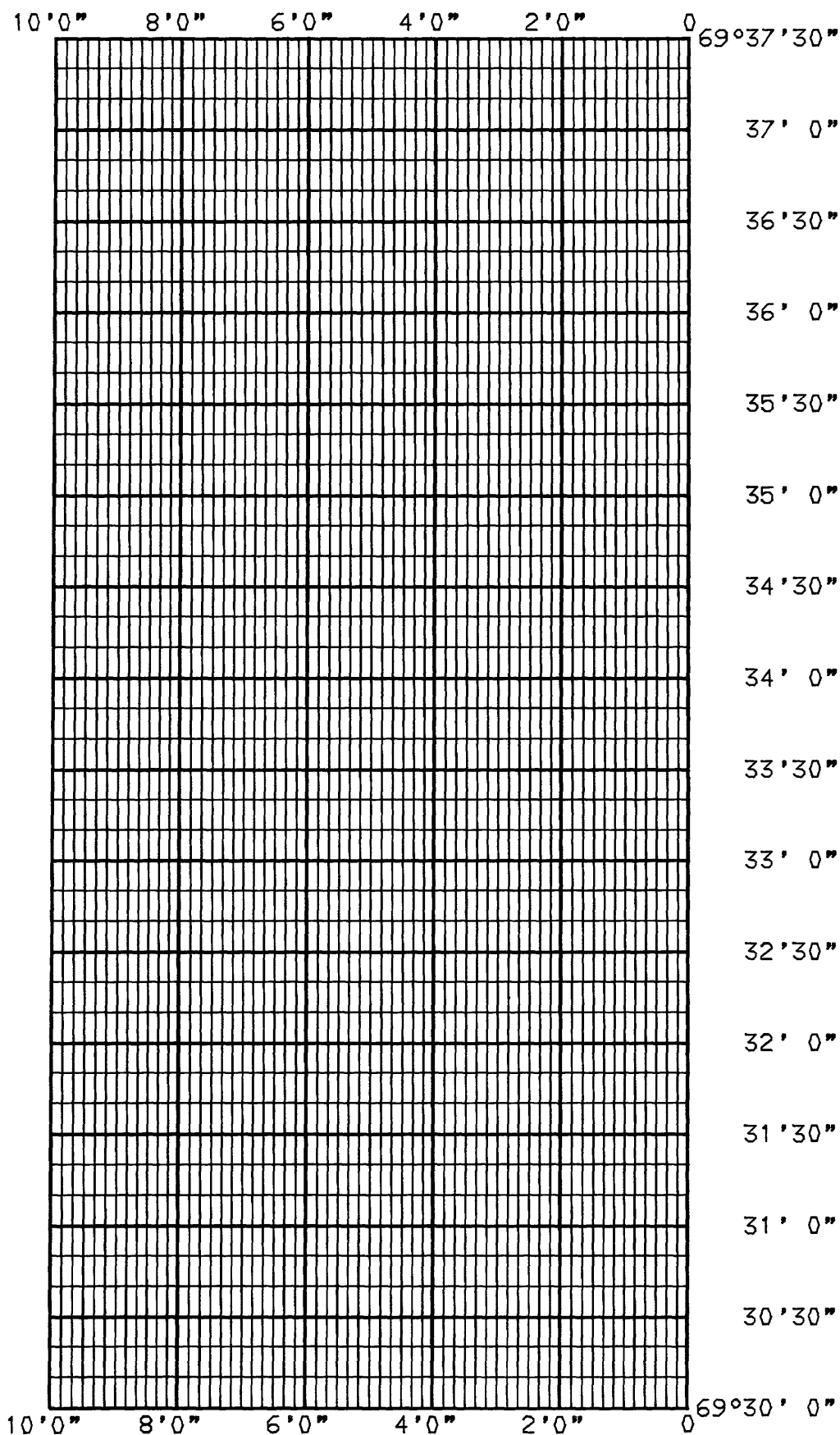
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W.L. Campbell & G. VanTrump Jr
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Scale = $1/63,360$



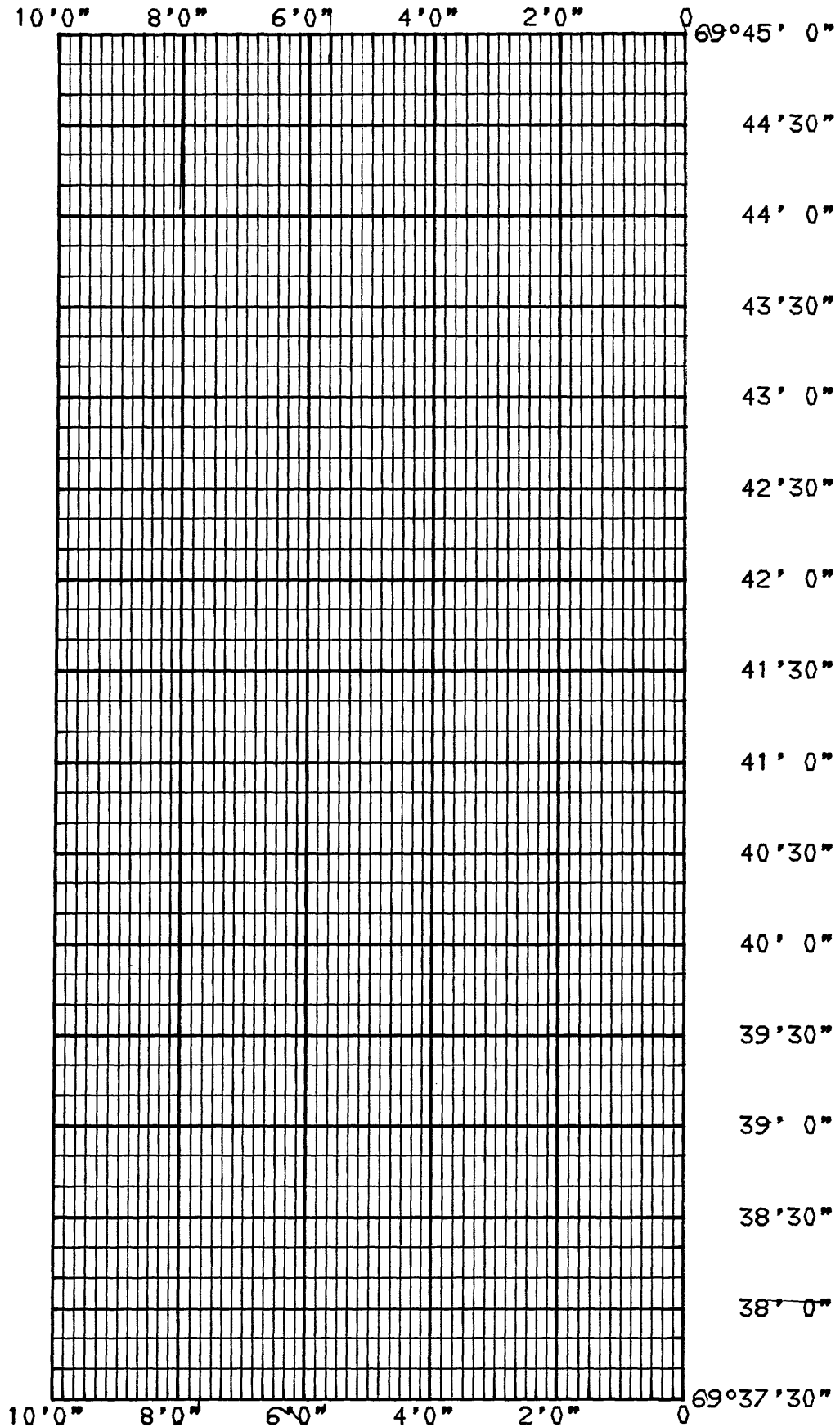
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W.L. Campbell & G. VanTrump Jr
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Scale = $1/63,360$



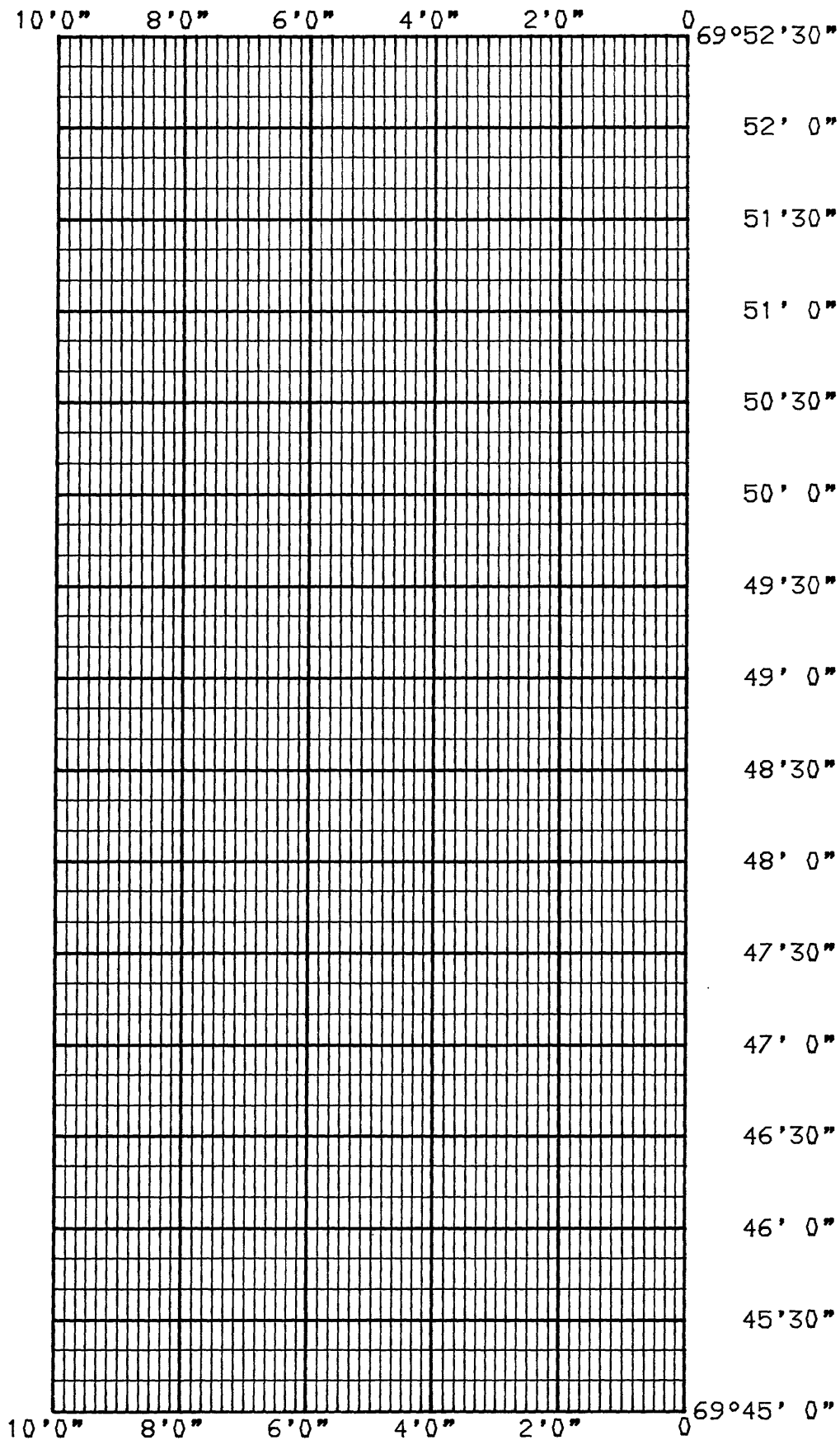
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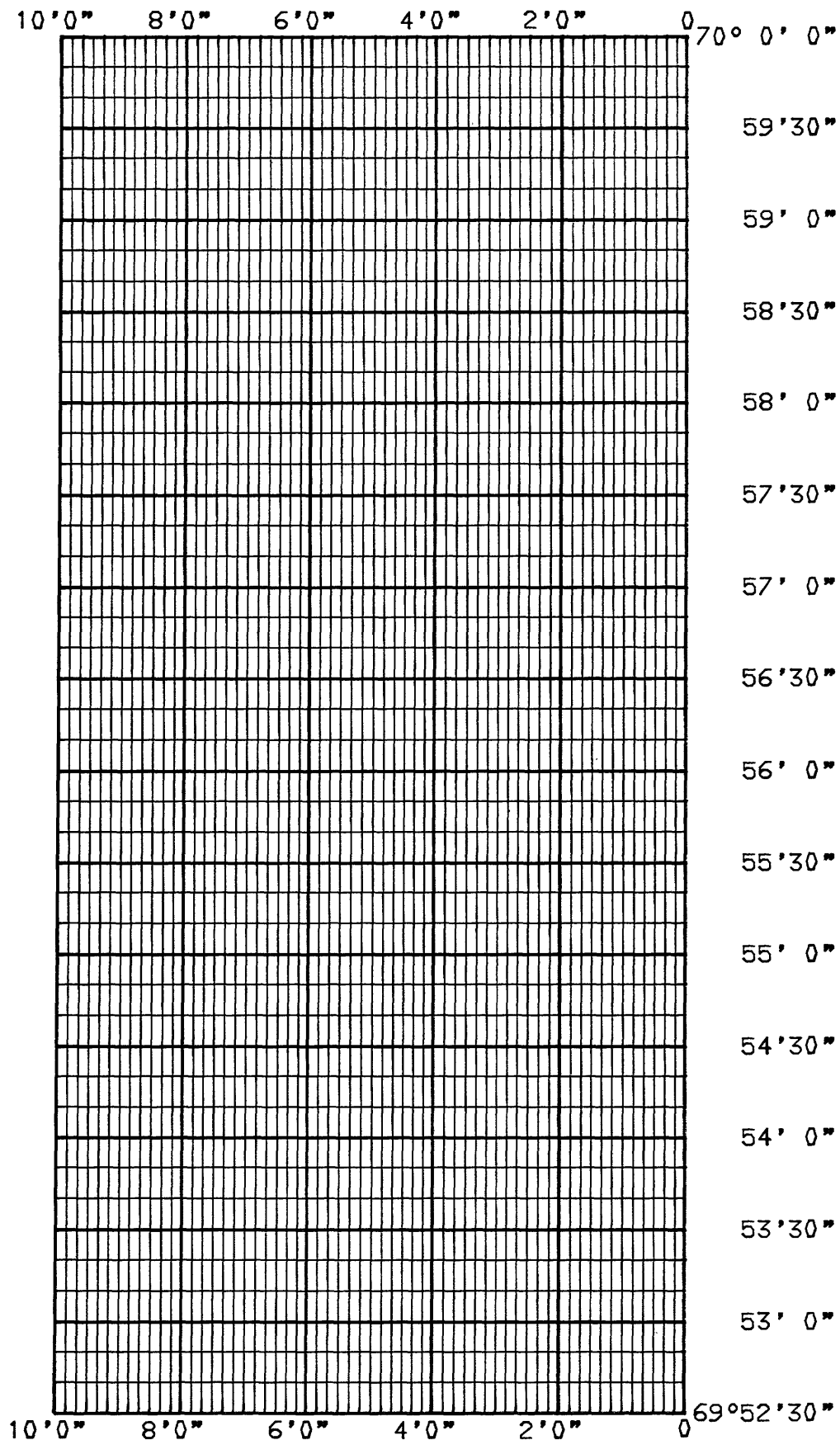
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W.L. Campbell & G. VanTrump Jr
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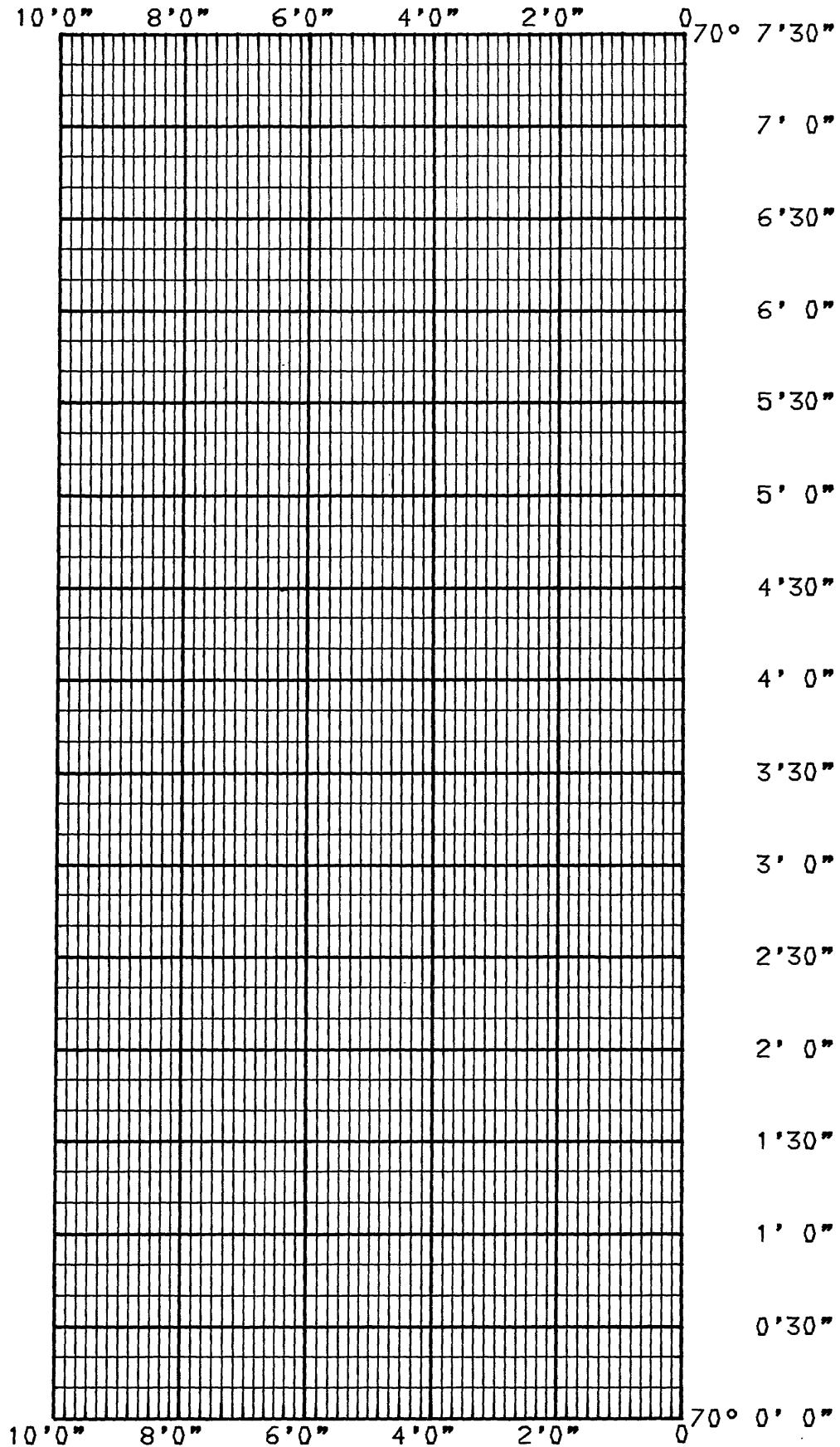
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W.L. Campbell & G. VanTrump Jr
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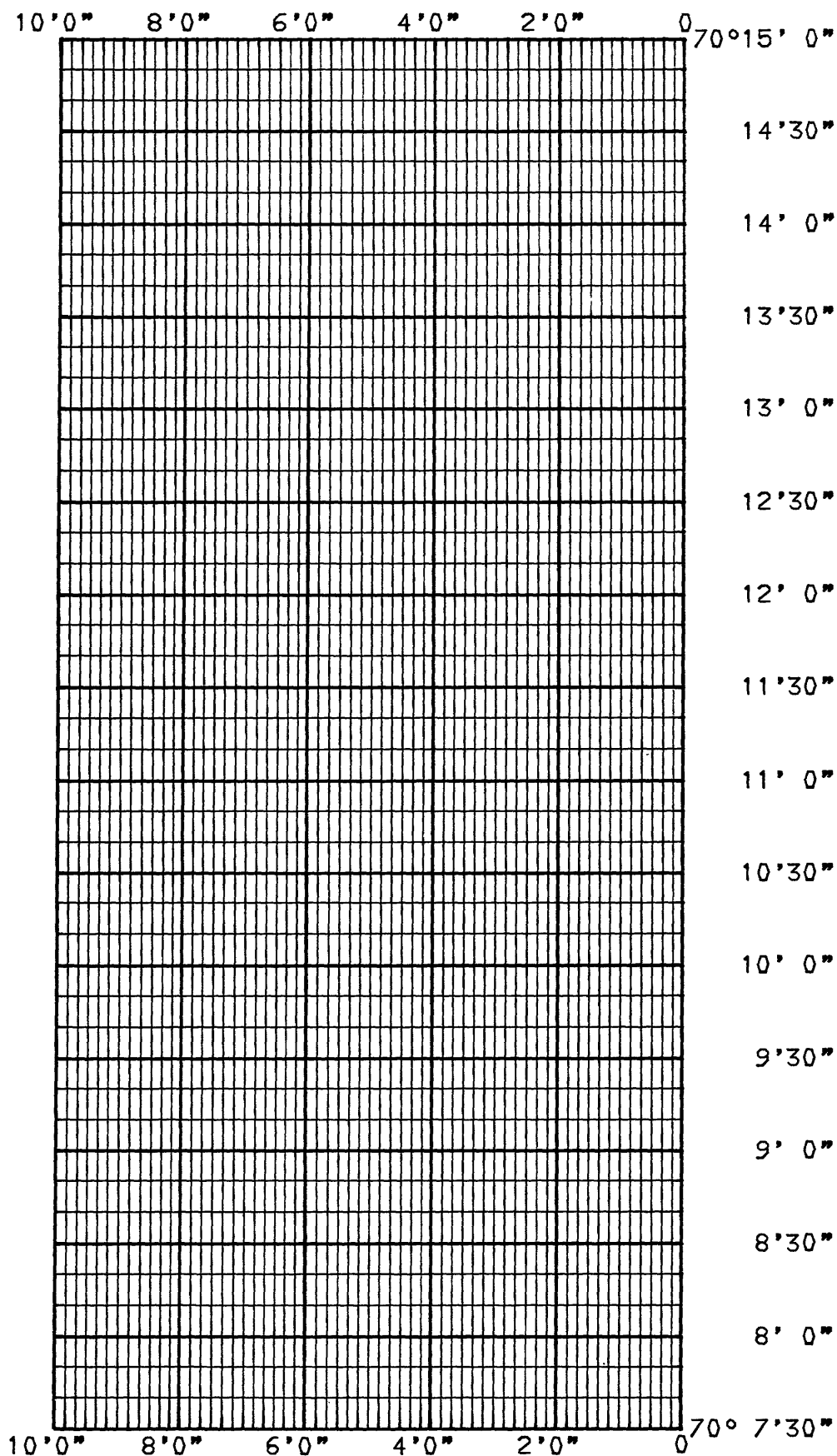
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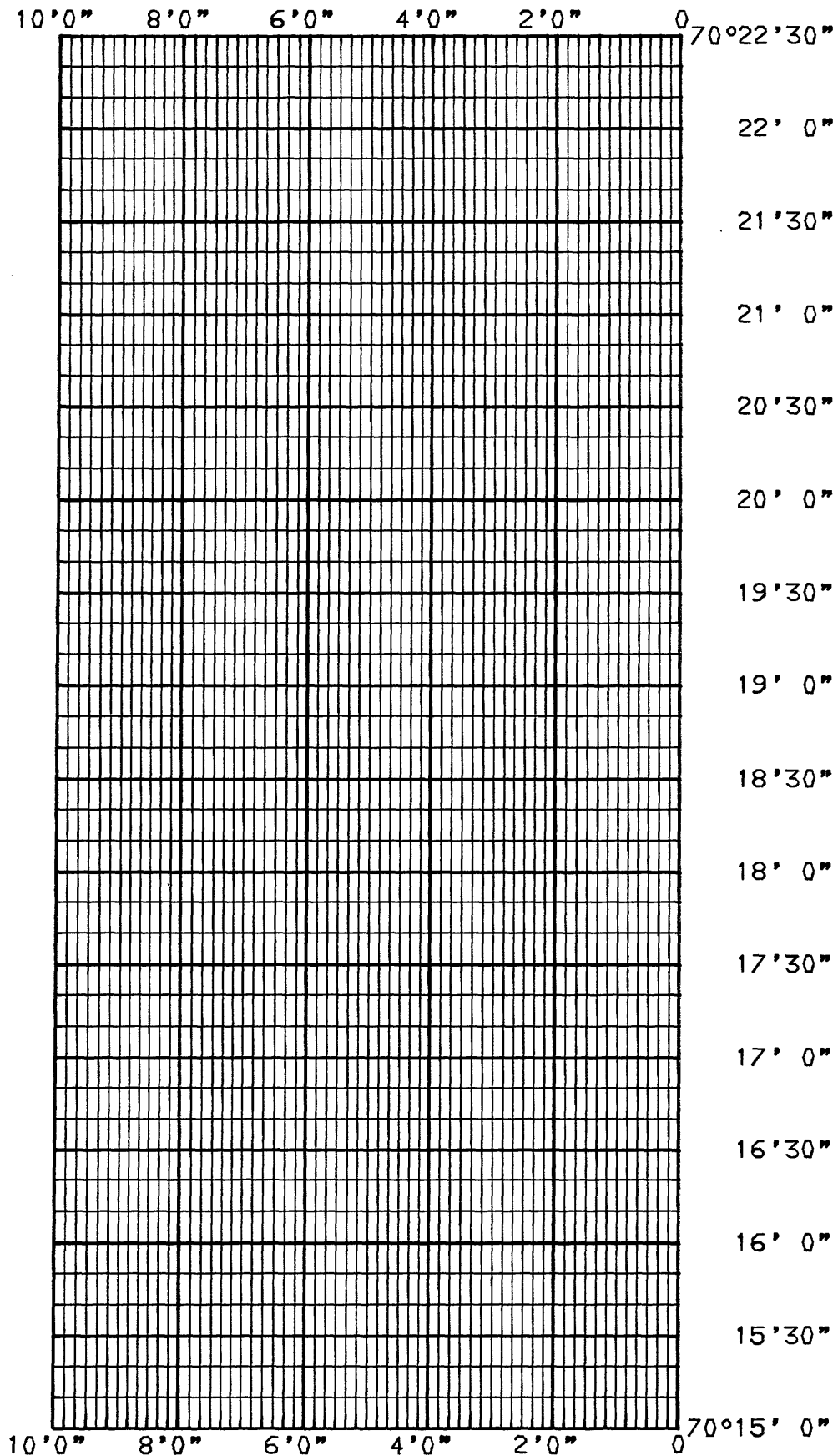
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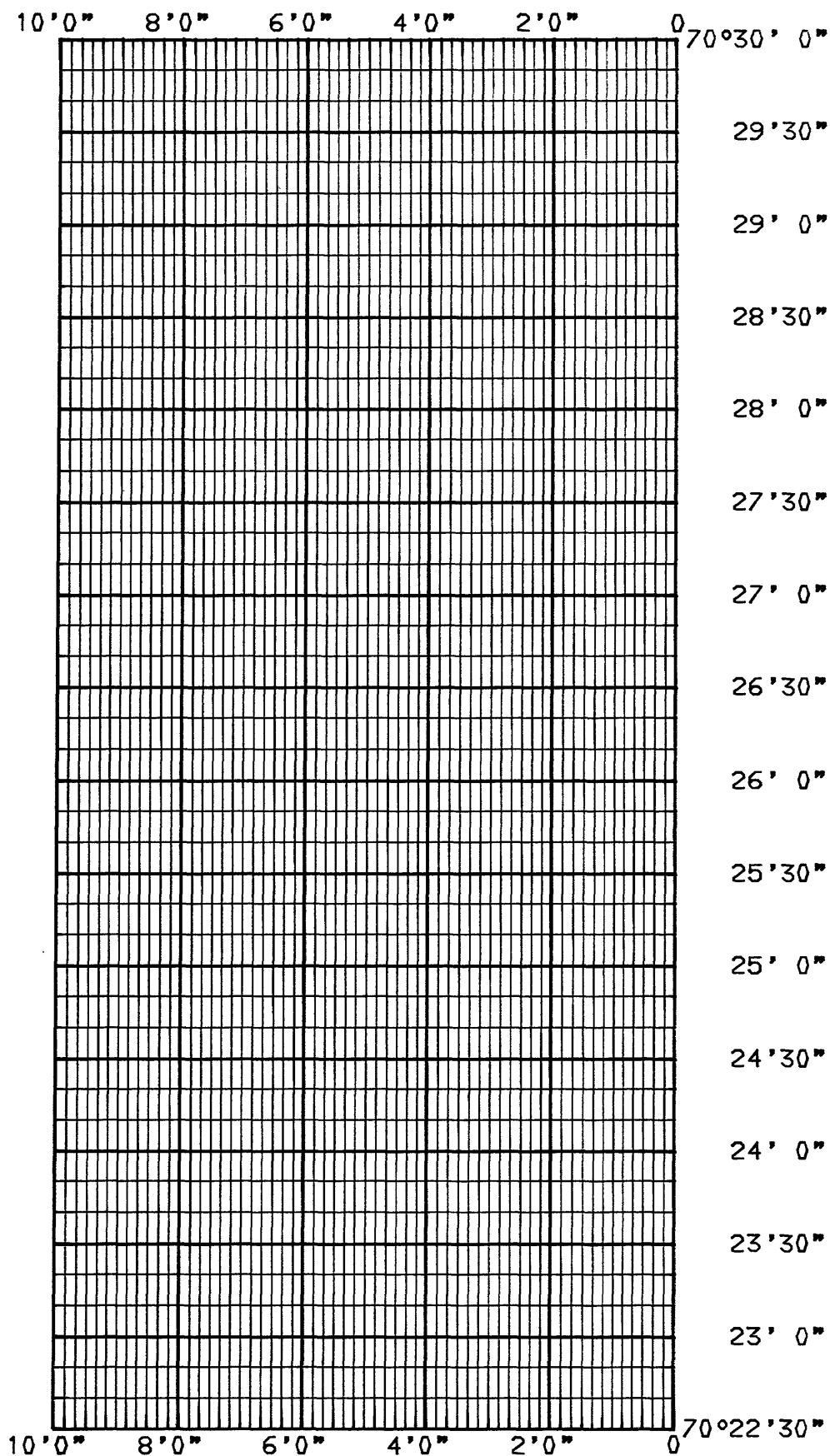
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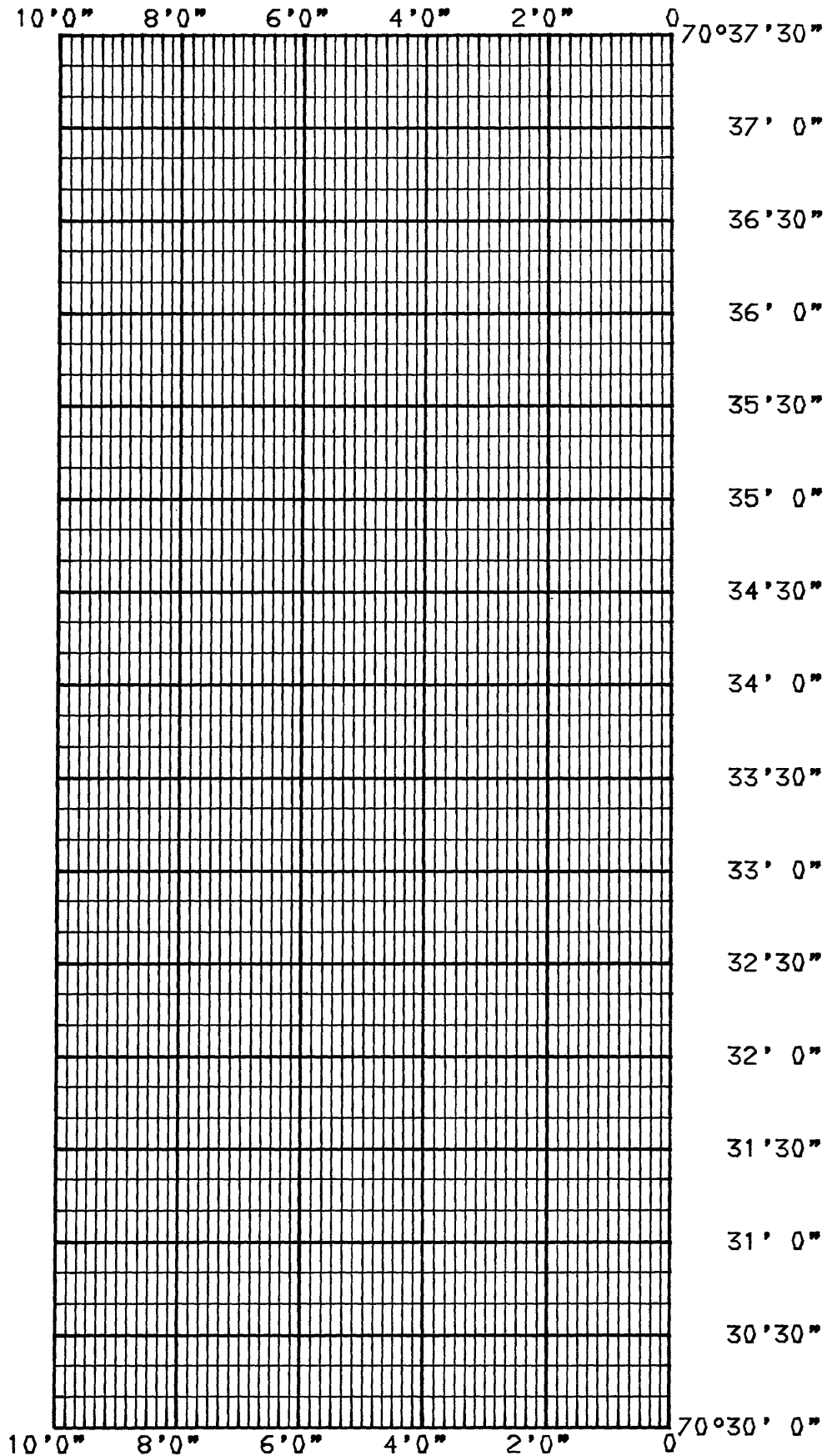
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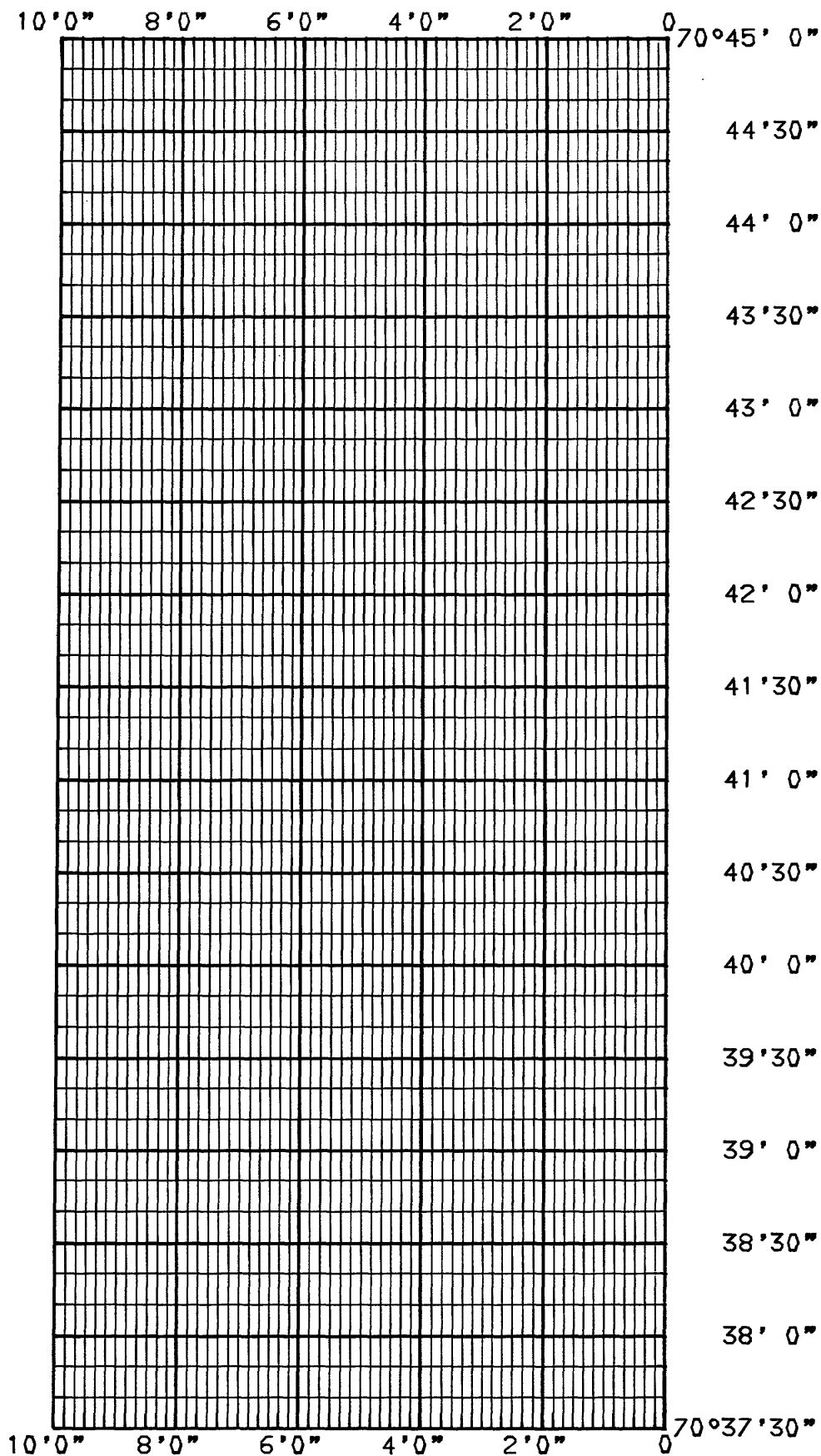
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Range of latitude = $70^{\circ}22'30''$ to $70^{\circ}30' 0''$
Scale = 1/63,360



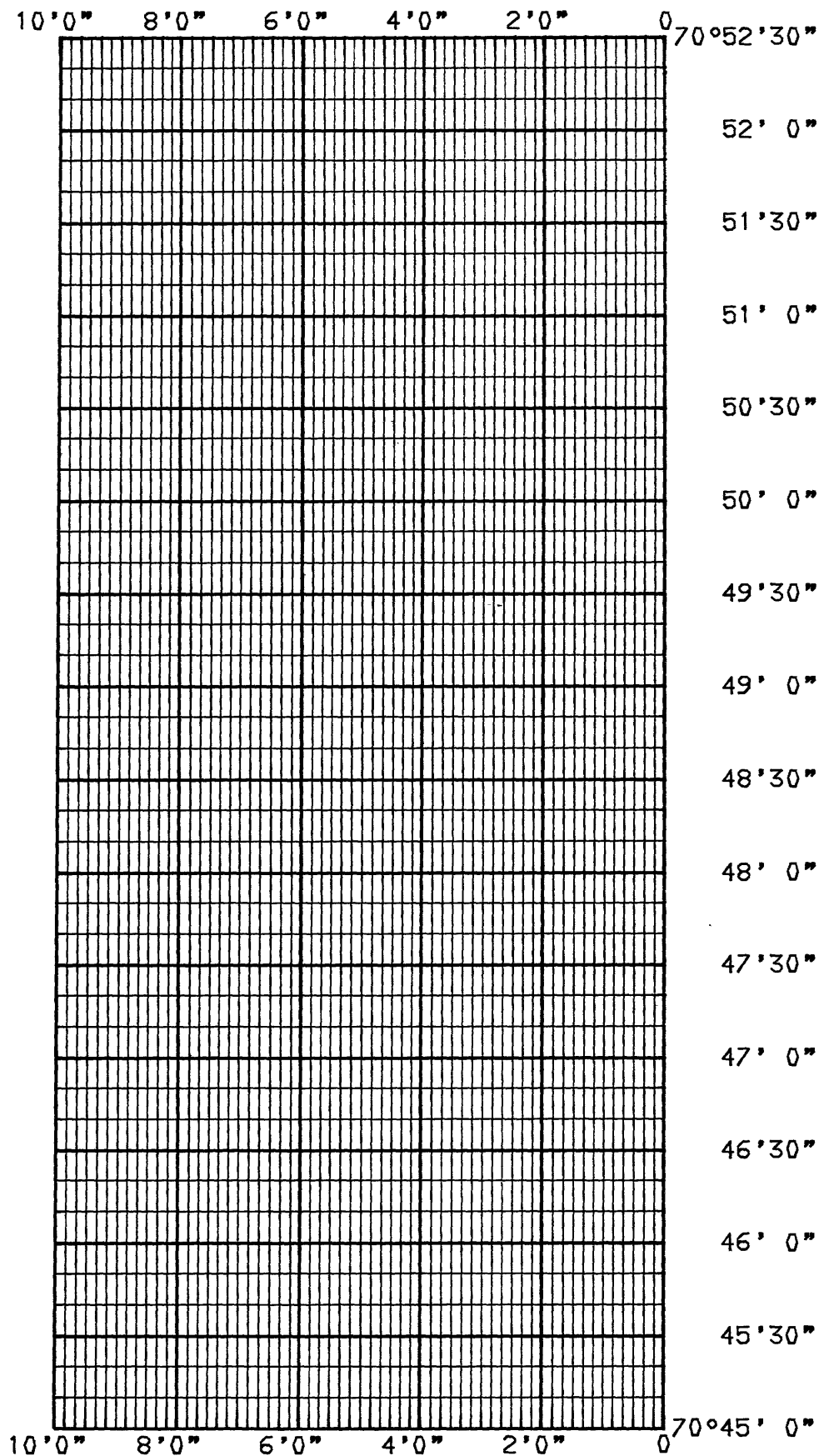
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $70^{\circ}30' 0''$ to $70^{\circ}37'30''$
Scale = $1/63,360$



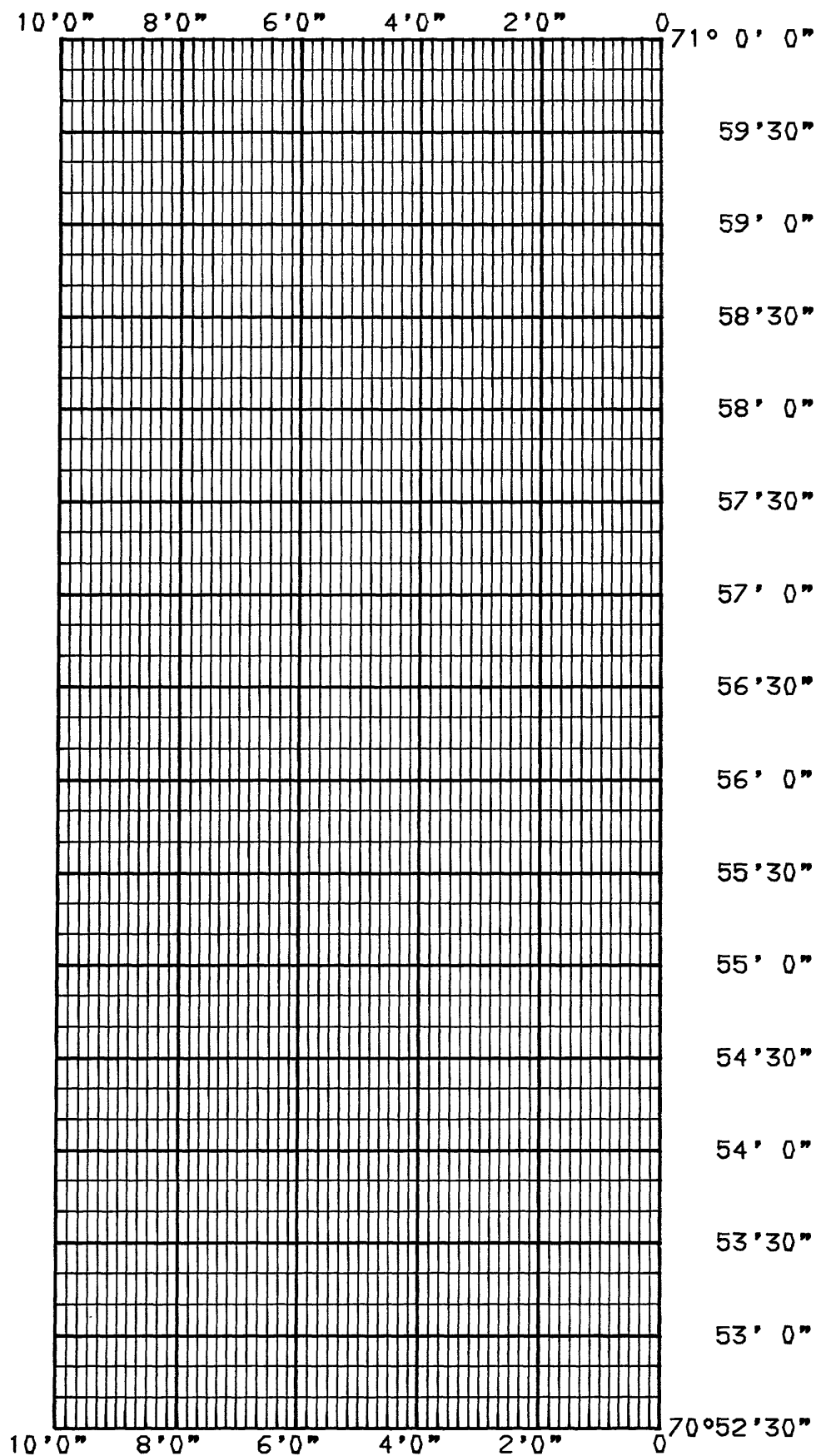
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $70^{\circ}37'30''$ to $70^{\circ}45' 0''$
Scale = 1/63,360



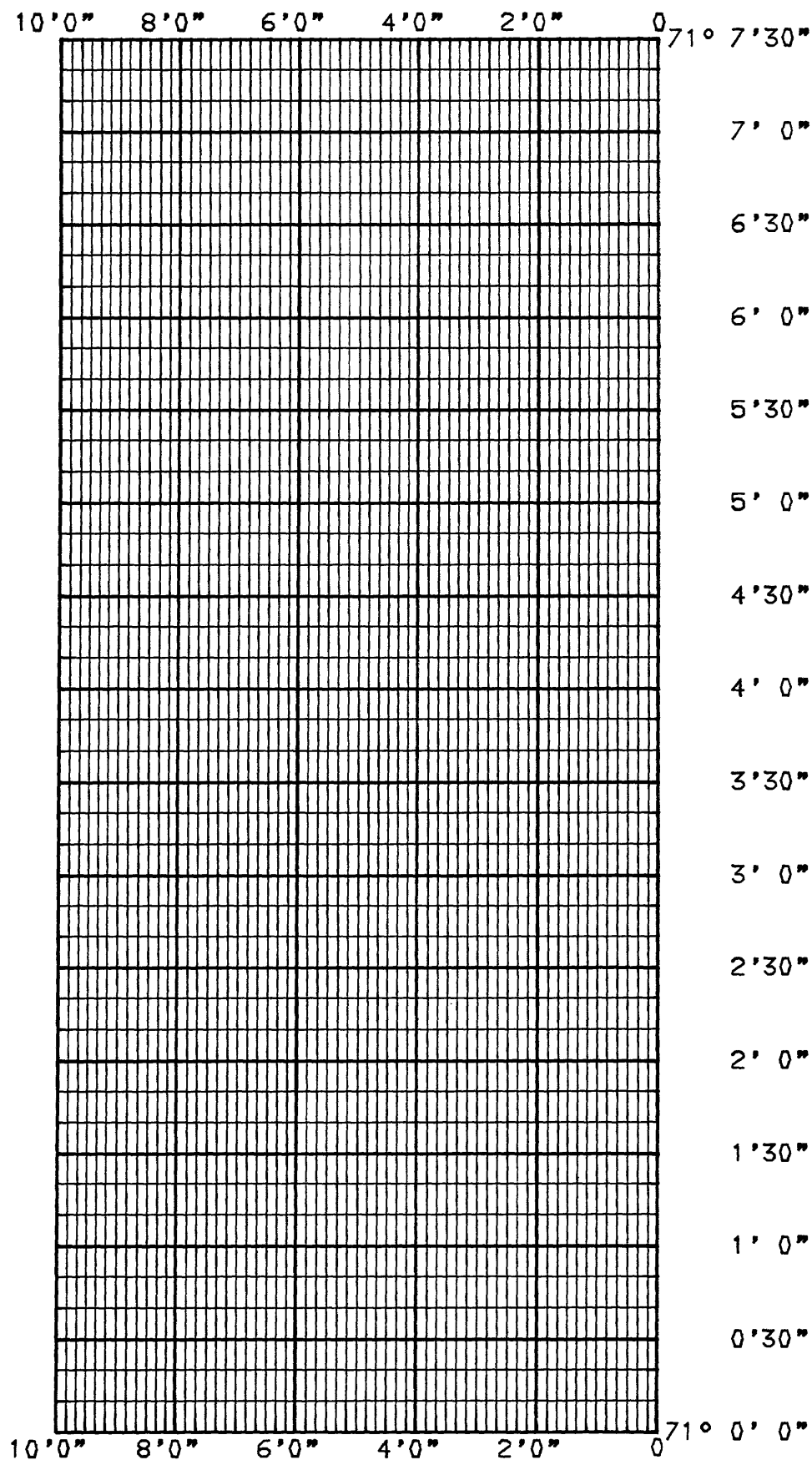
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $70^{\circ}45' 0''$ to $70^{\circ}52'30''$
Scale = 1/63,360



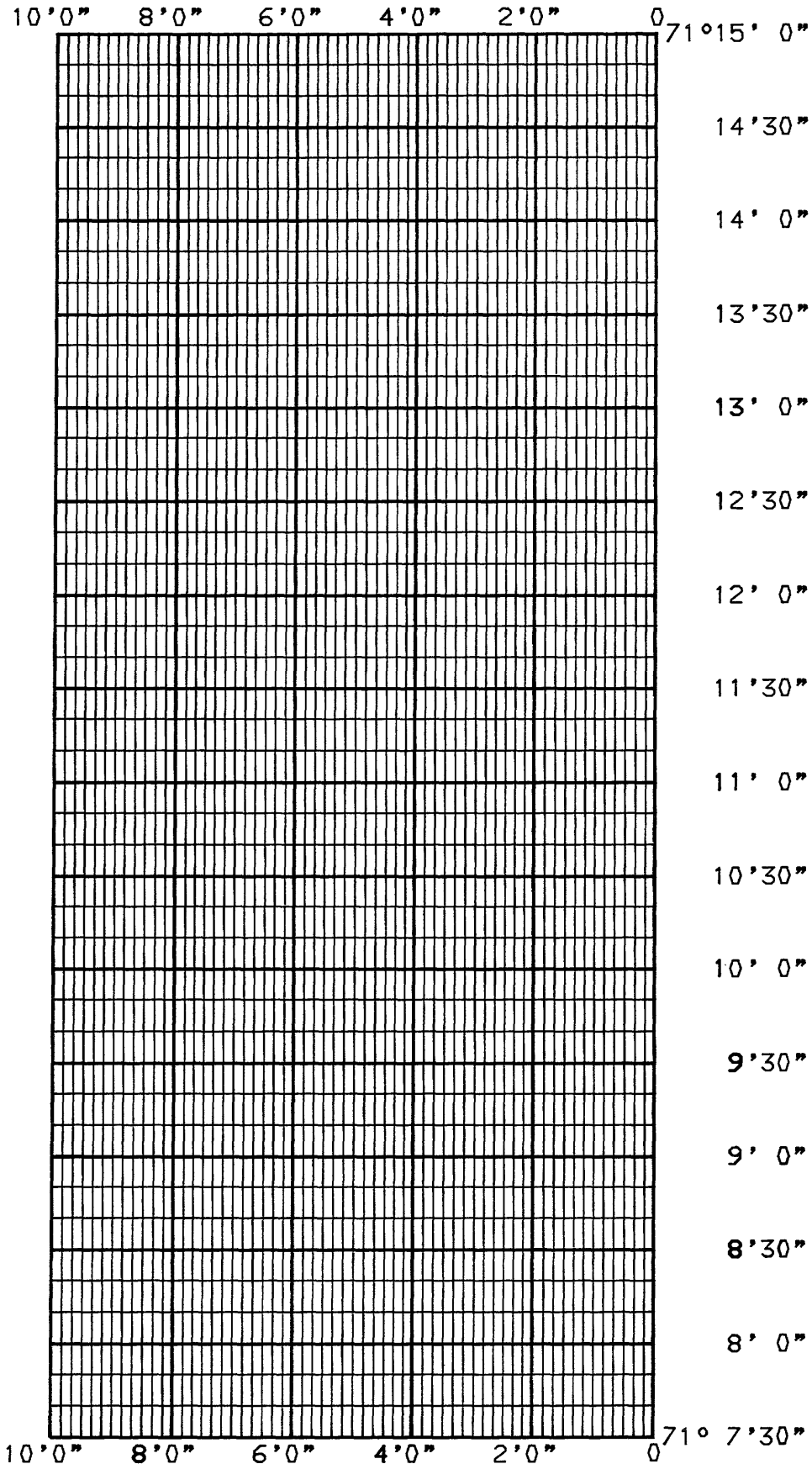
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $70^{\circ}52'30''$ to $71^{\circ} 0' 0''$
Scale = 1/63,360



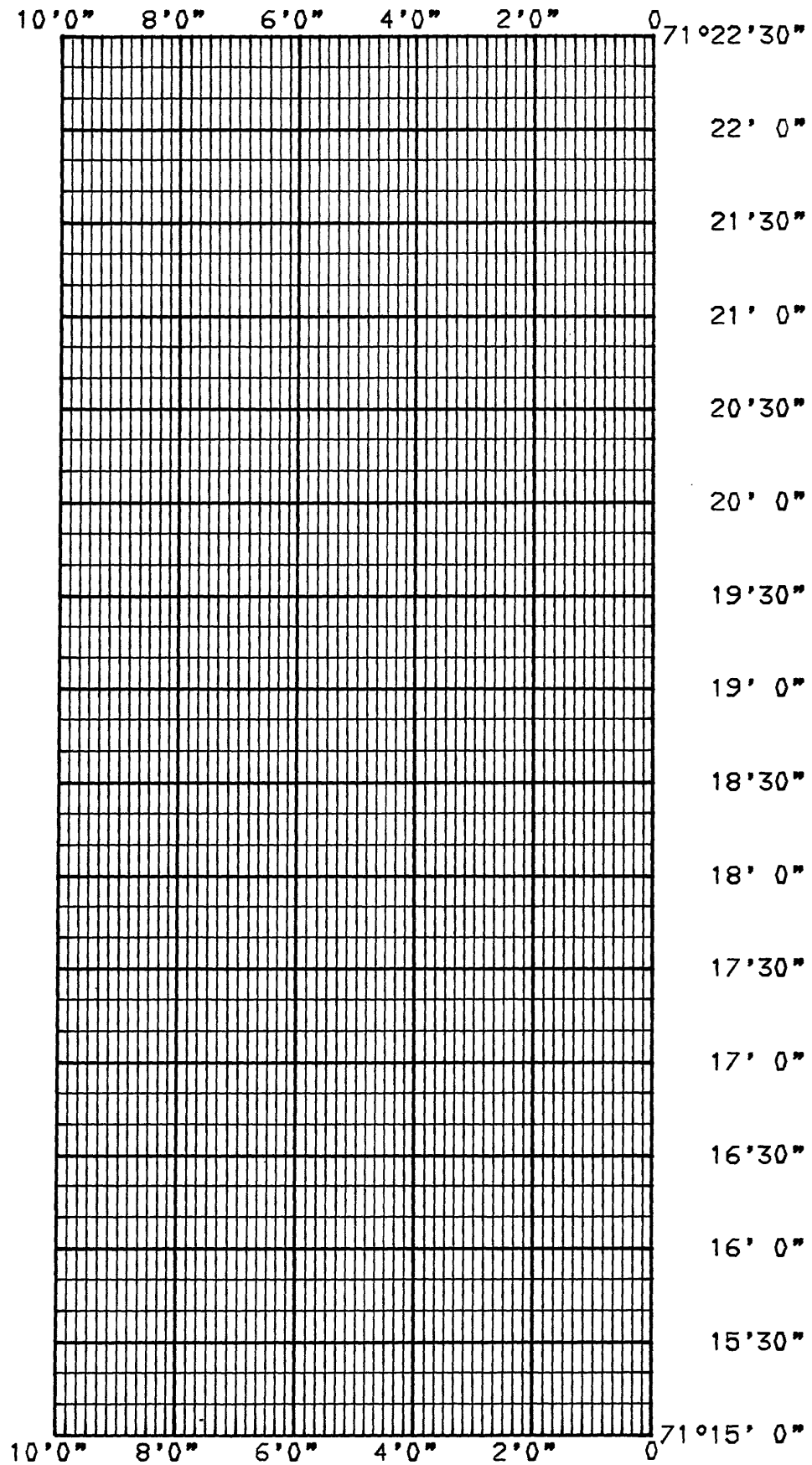
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $71^{\circ} 0' 0''$ to $71^{\circ} 7' 30''$
Scale = 1/63,360



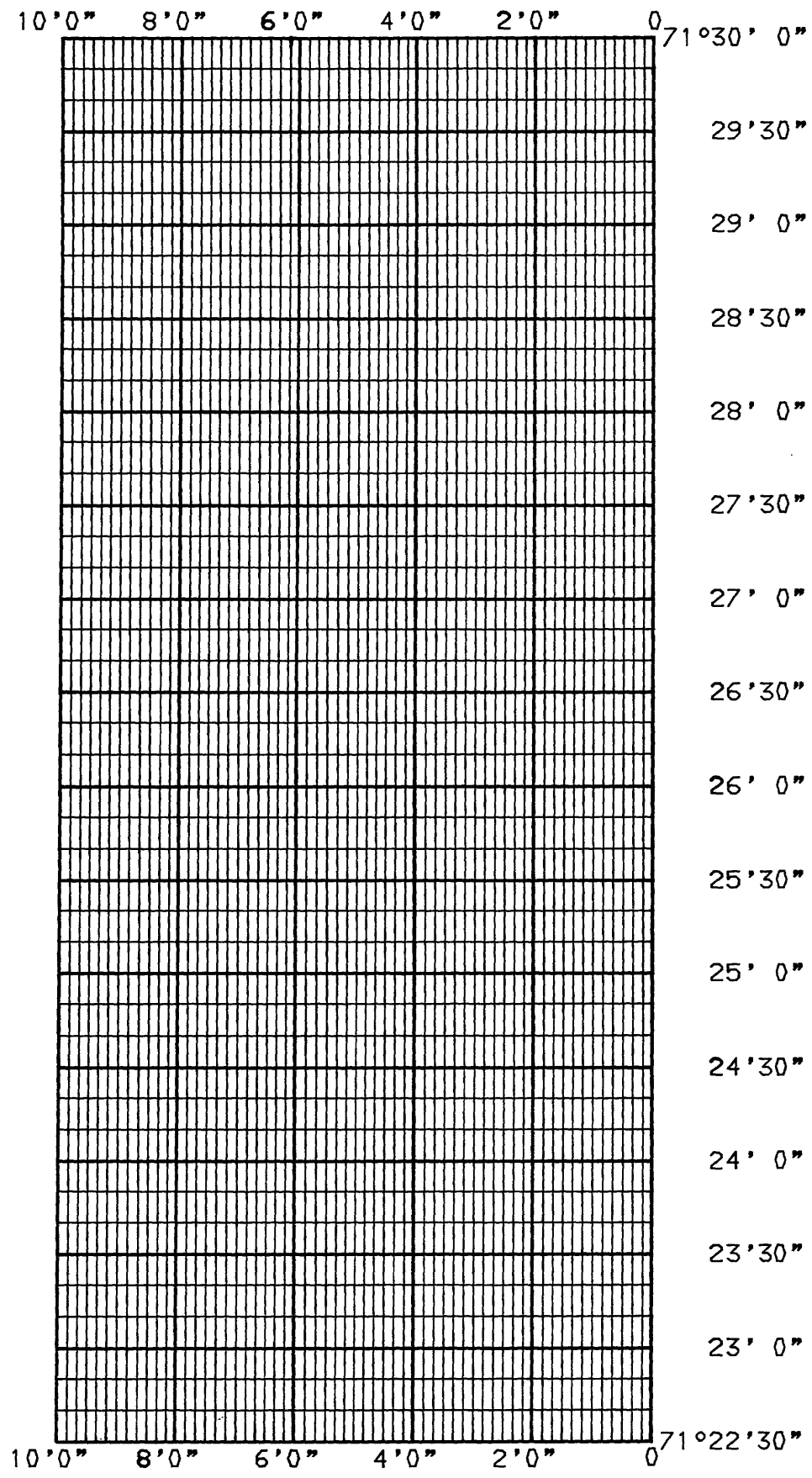
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $71^{\circ} 7' 30''$ to $71^{\circ} 15' 0''$
Scale = $1/63,360$



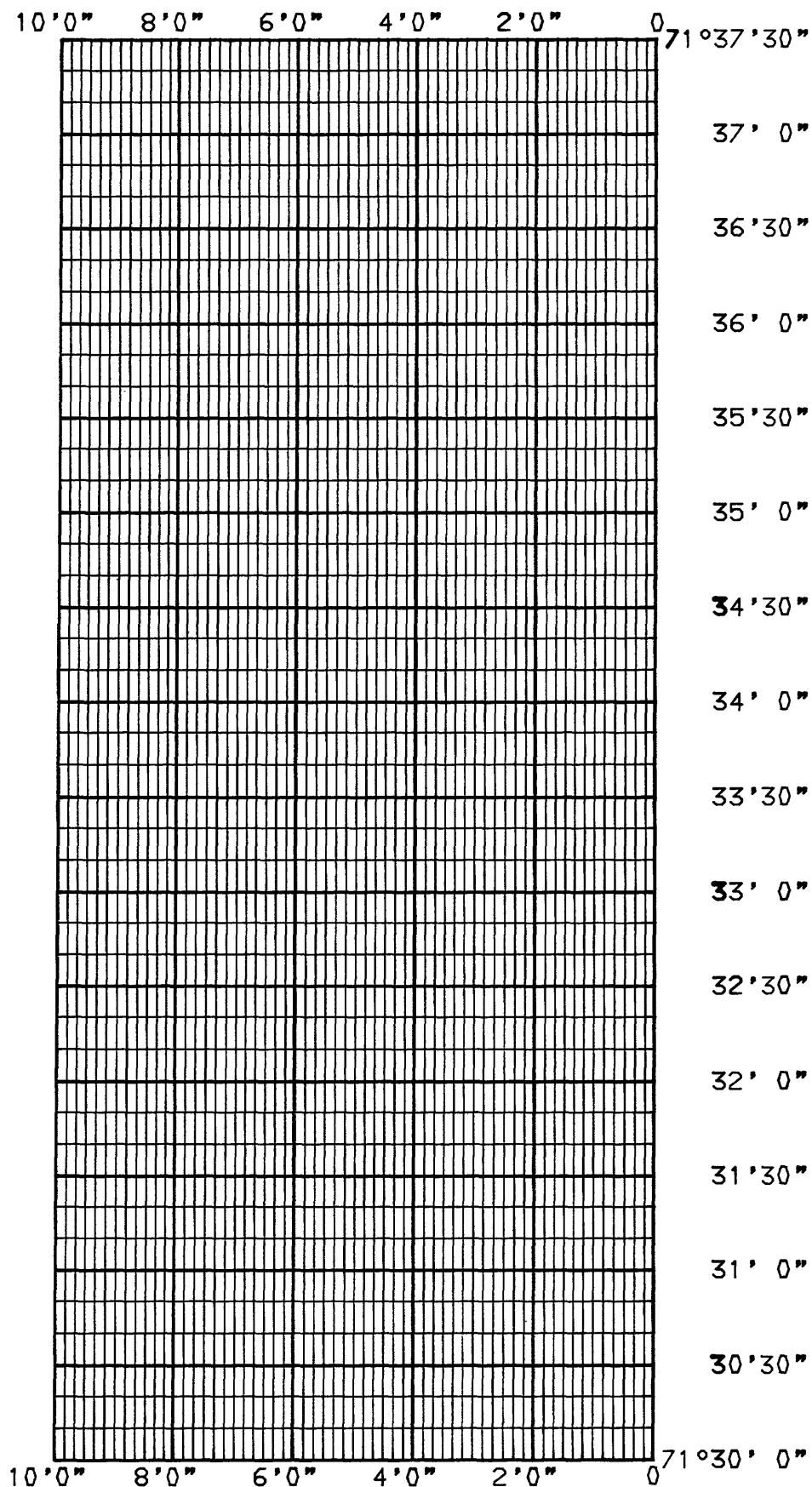
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $71^{\circ}15' 0''$ to $71^{\circ}22'30''$
Scale = 1/63,360



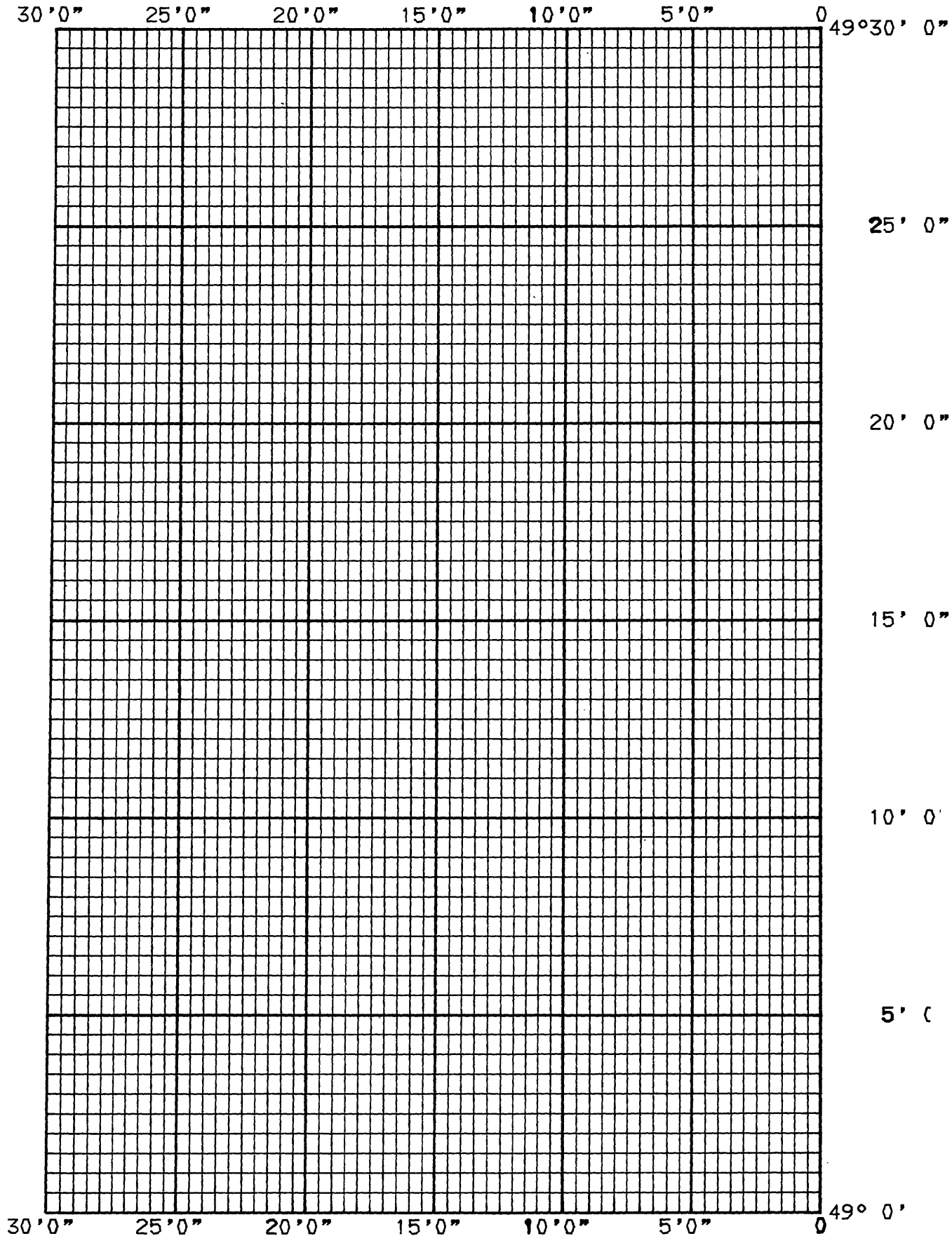
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = 71°22'30" to 71°30' 0"
Scale = 1/63,360



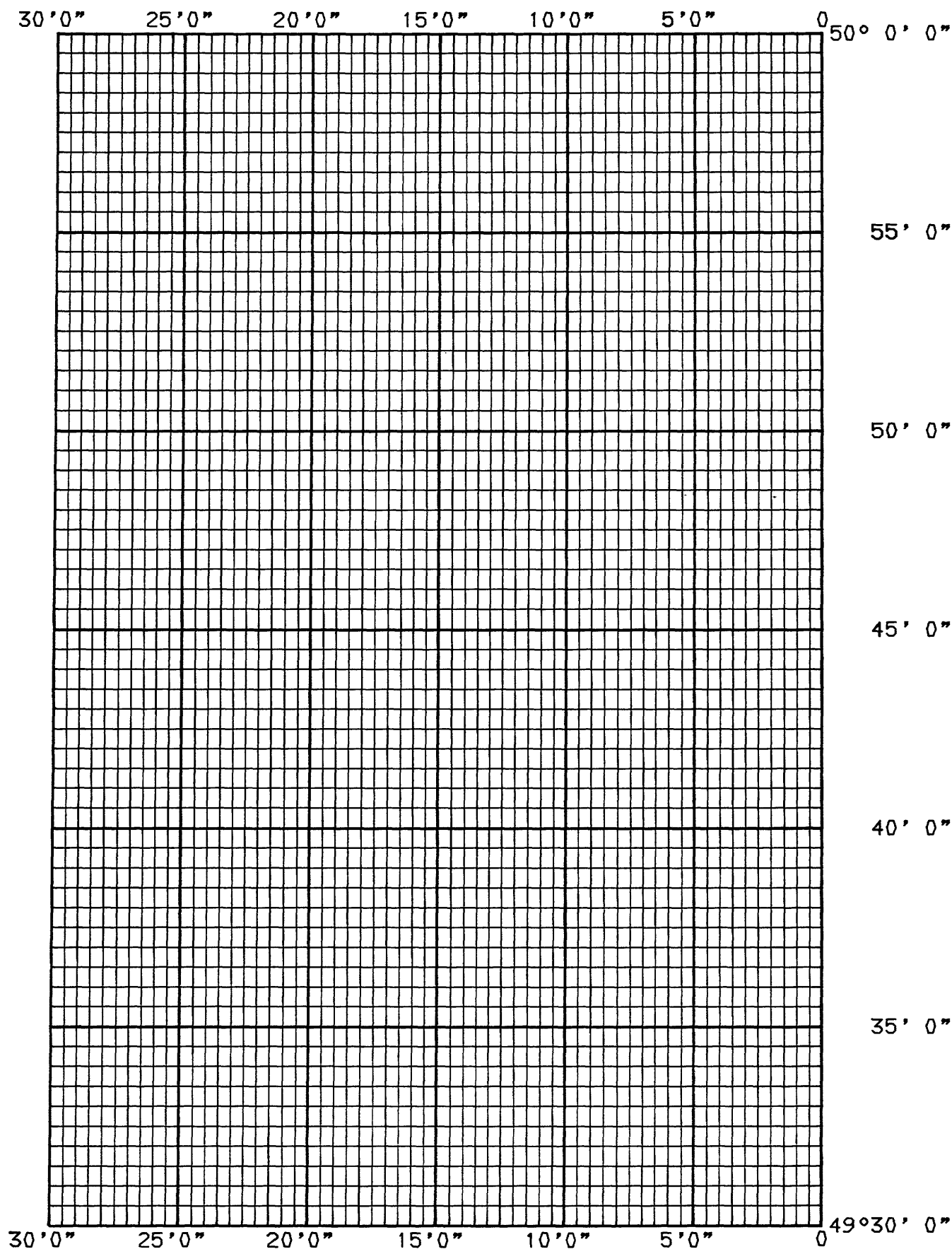
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $71^{\circ}30' 0''$ to $71^{\circ}37'30''$
Scale = $1/63,360$



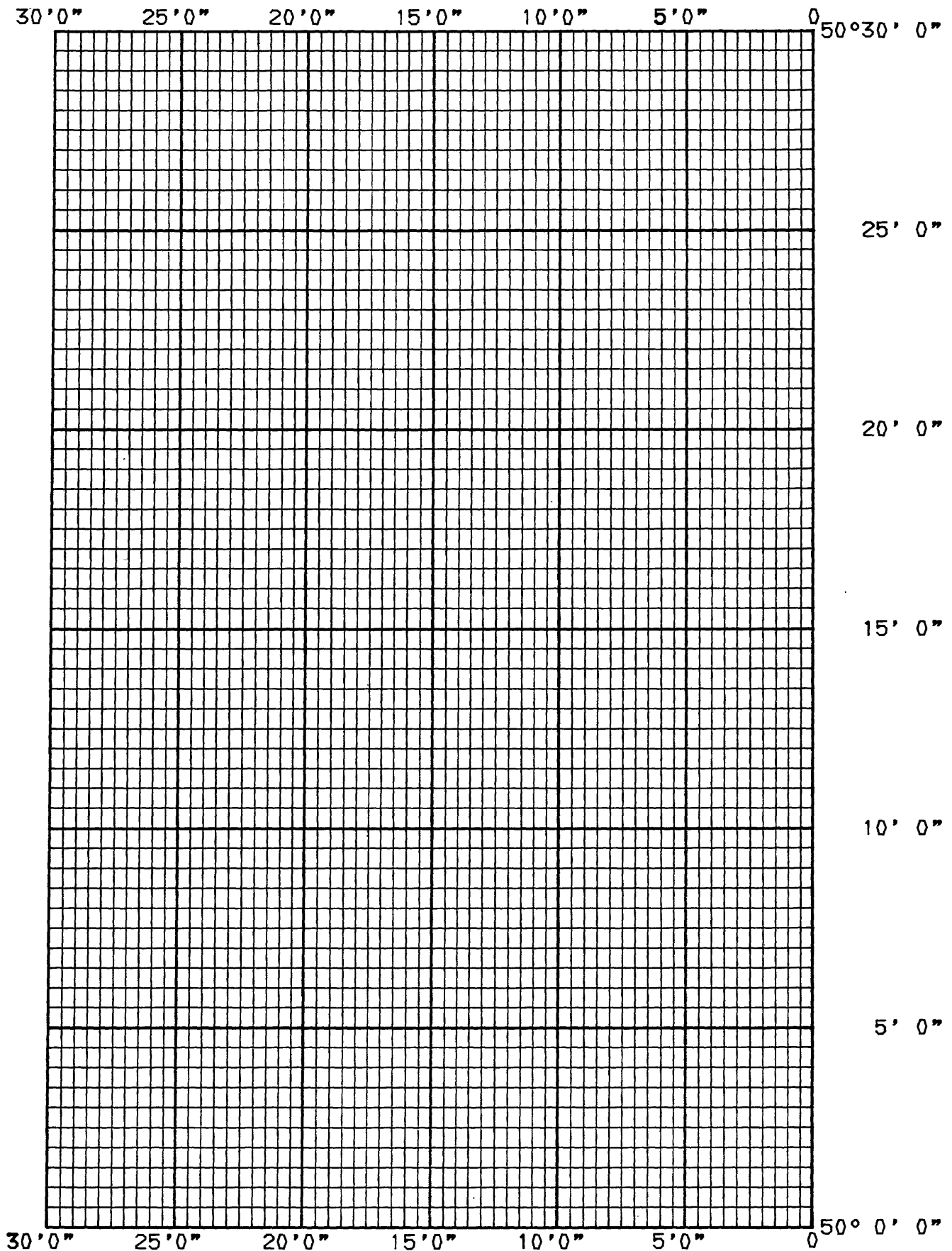
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $49^{\circ} 0' 0''$ to $49^{\circ} 30' 0''$
Scale = 1/250,000



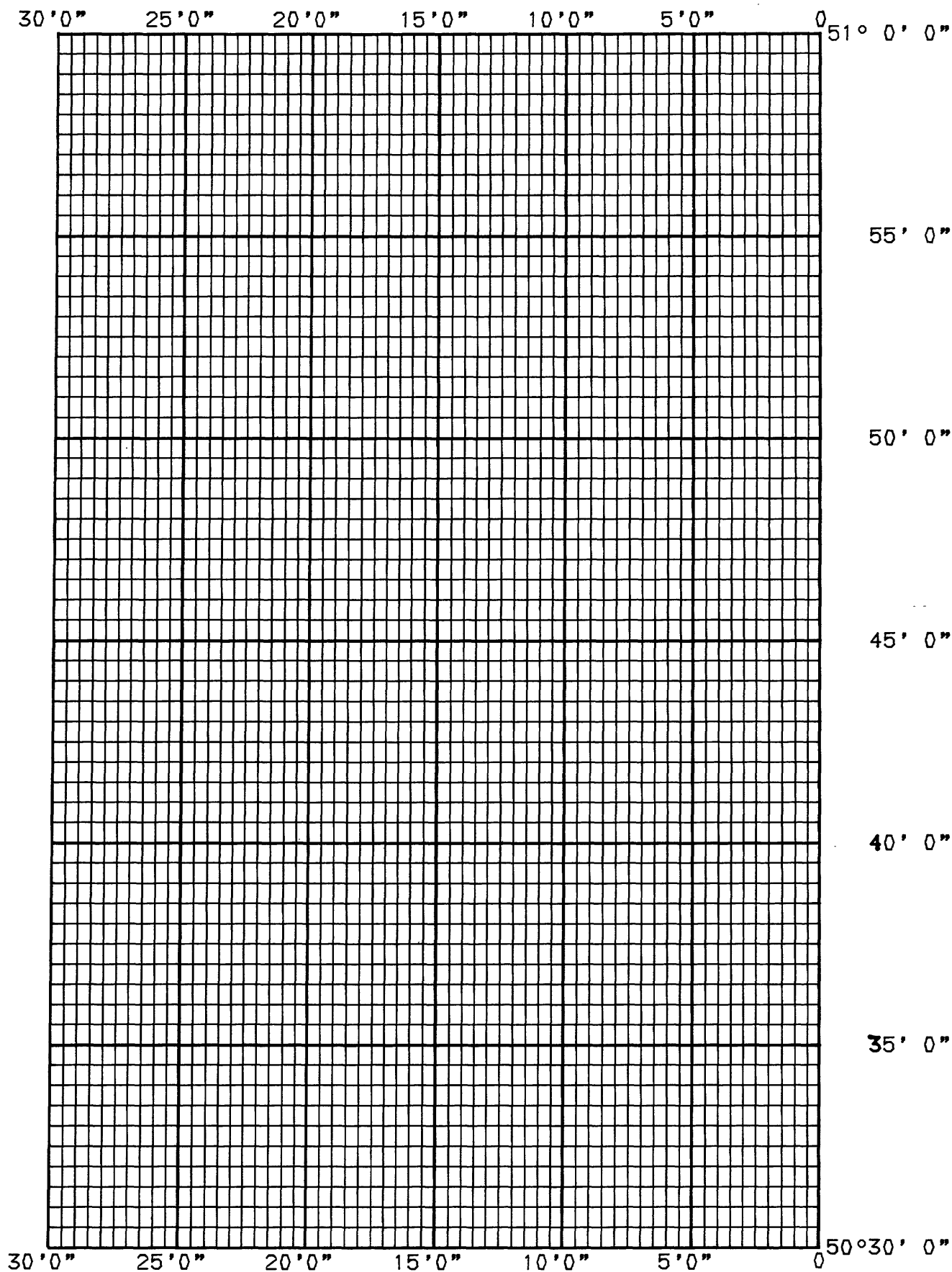
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $49^{\circ}30' 0''$ to $50^{\circ} 0' 0''$
Scale = 1/250,000



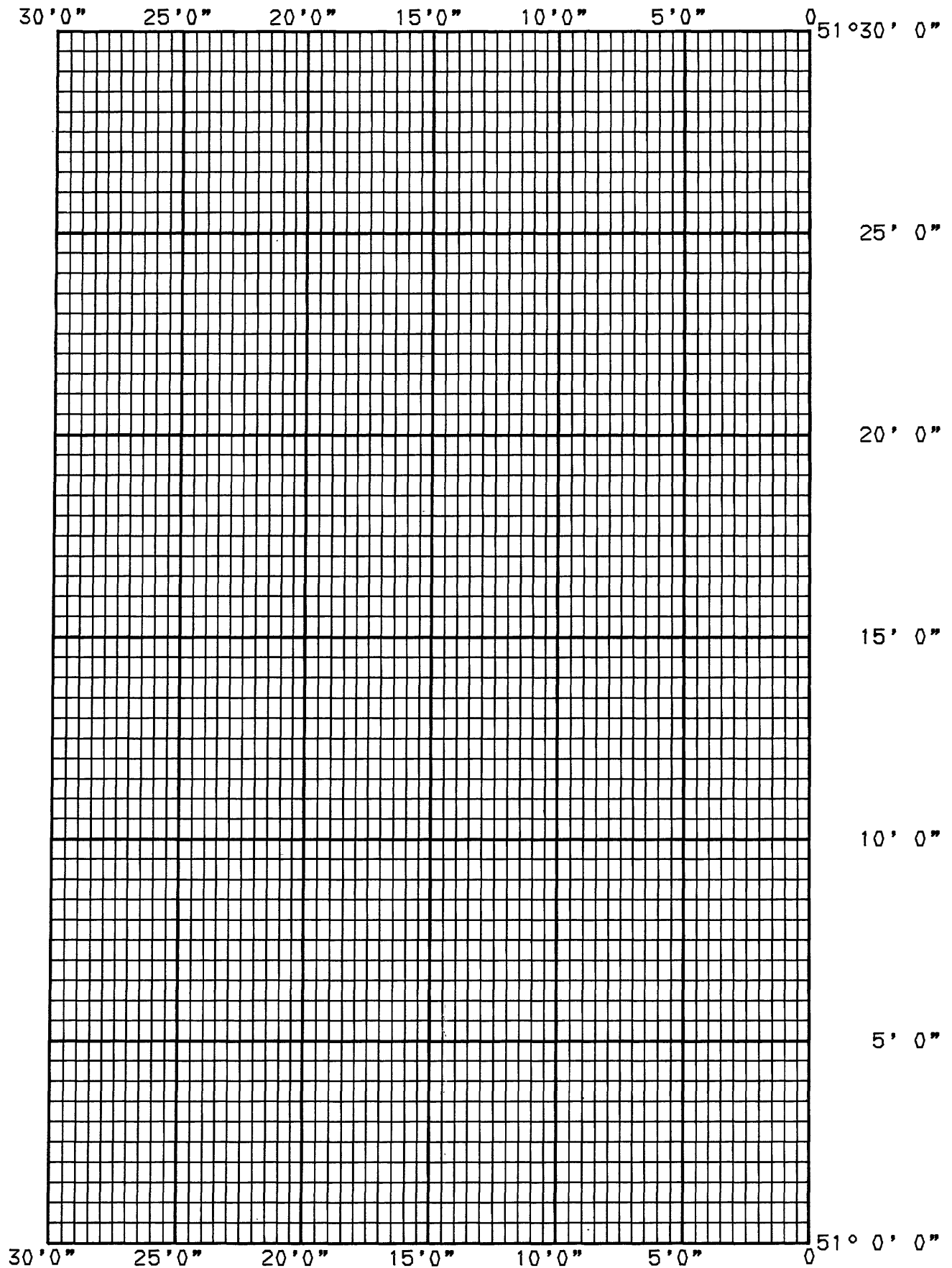
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



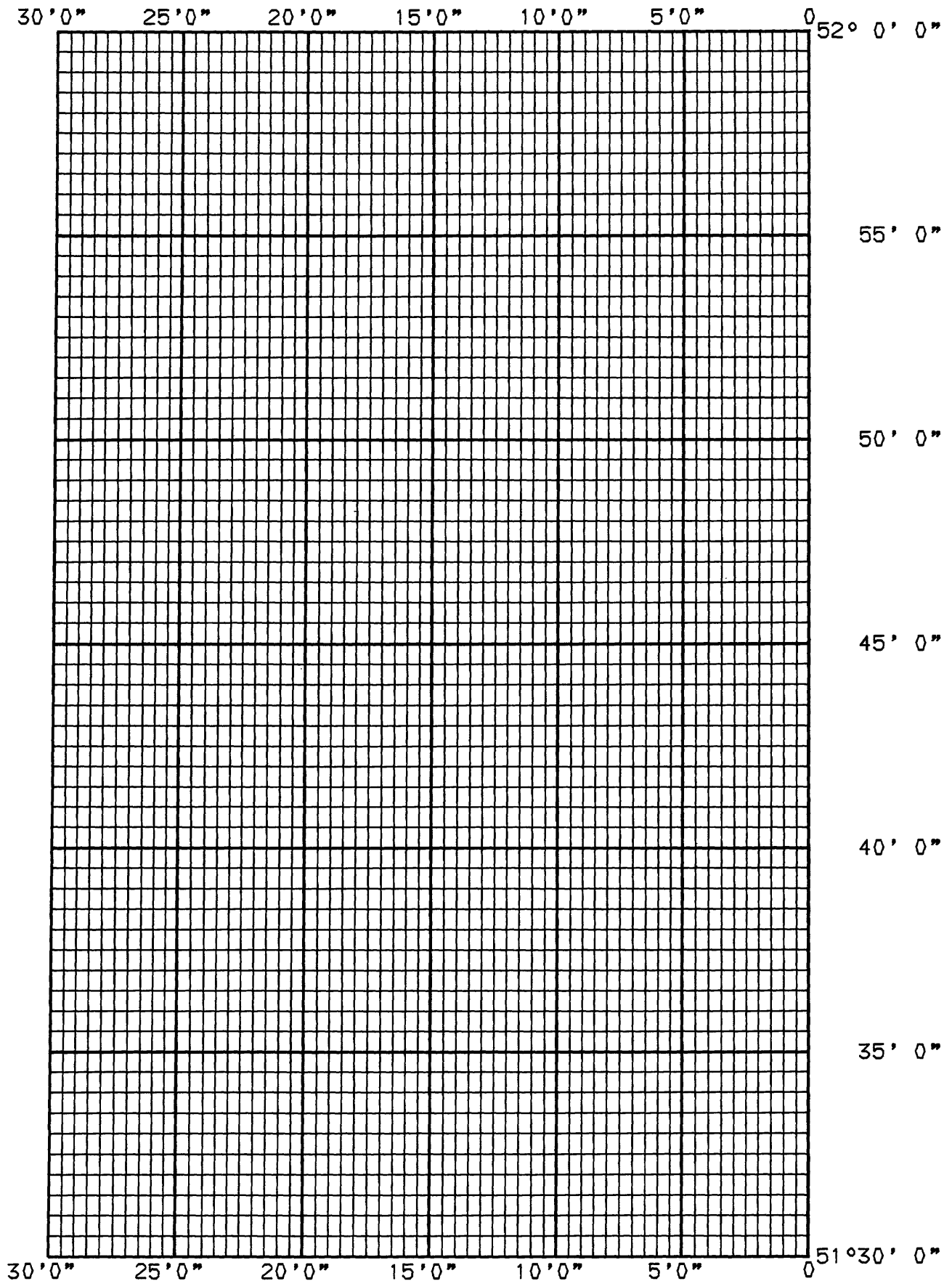
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $50^{\circ}30' 0''$ to $51^{\circ} 0' 0''$
Scale = 1/250,000



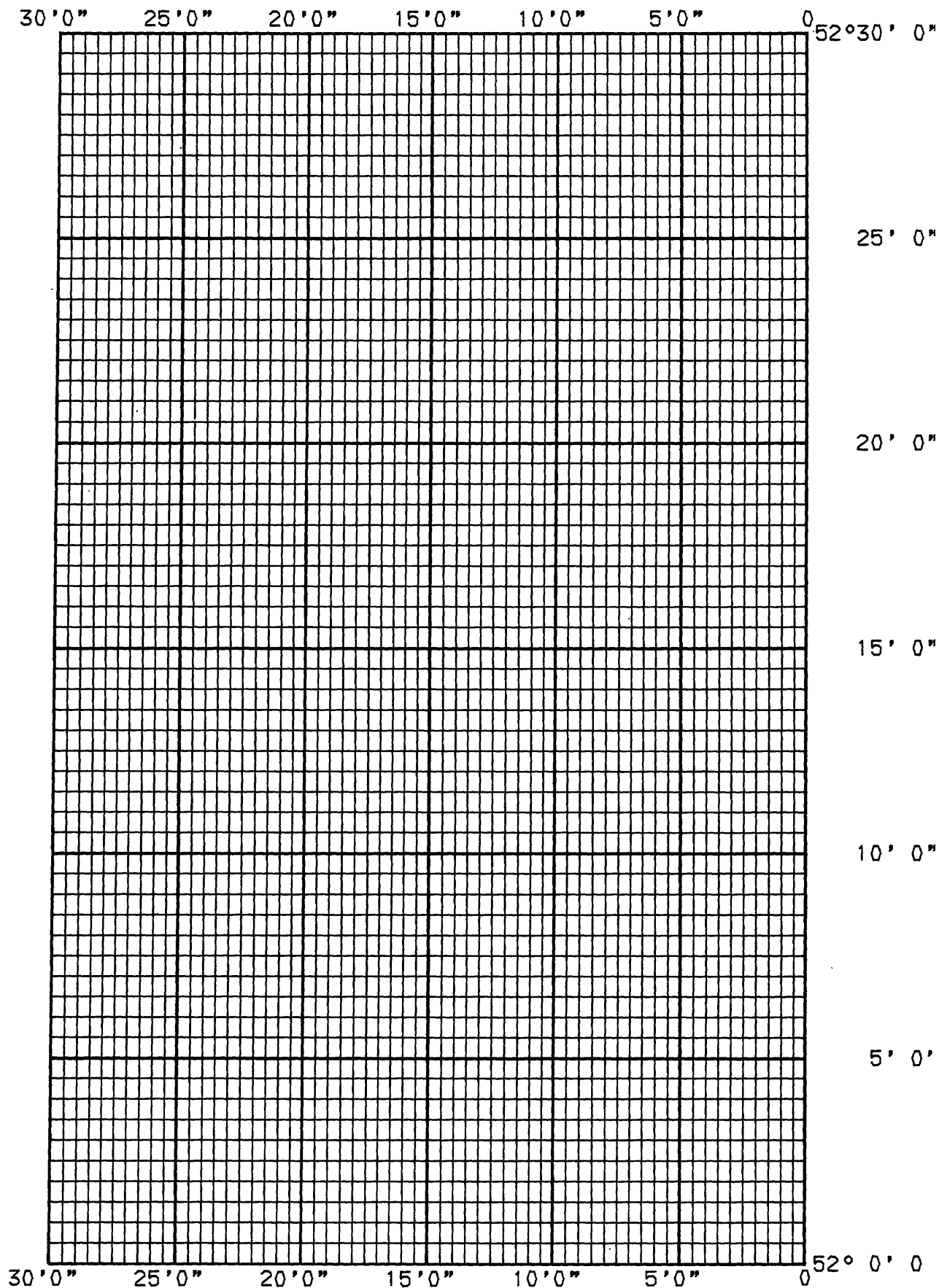
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $51^{\circ} 0' 0''$ to $51^{\circ} 30' 0''$
Scale = 1/250,000



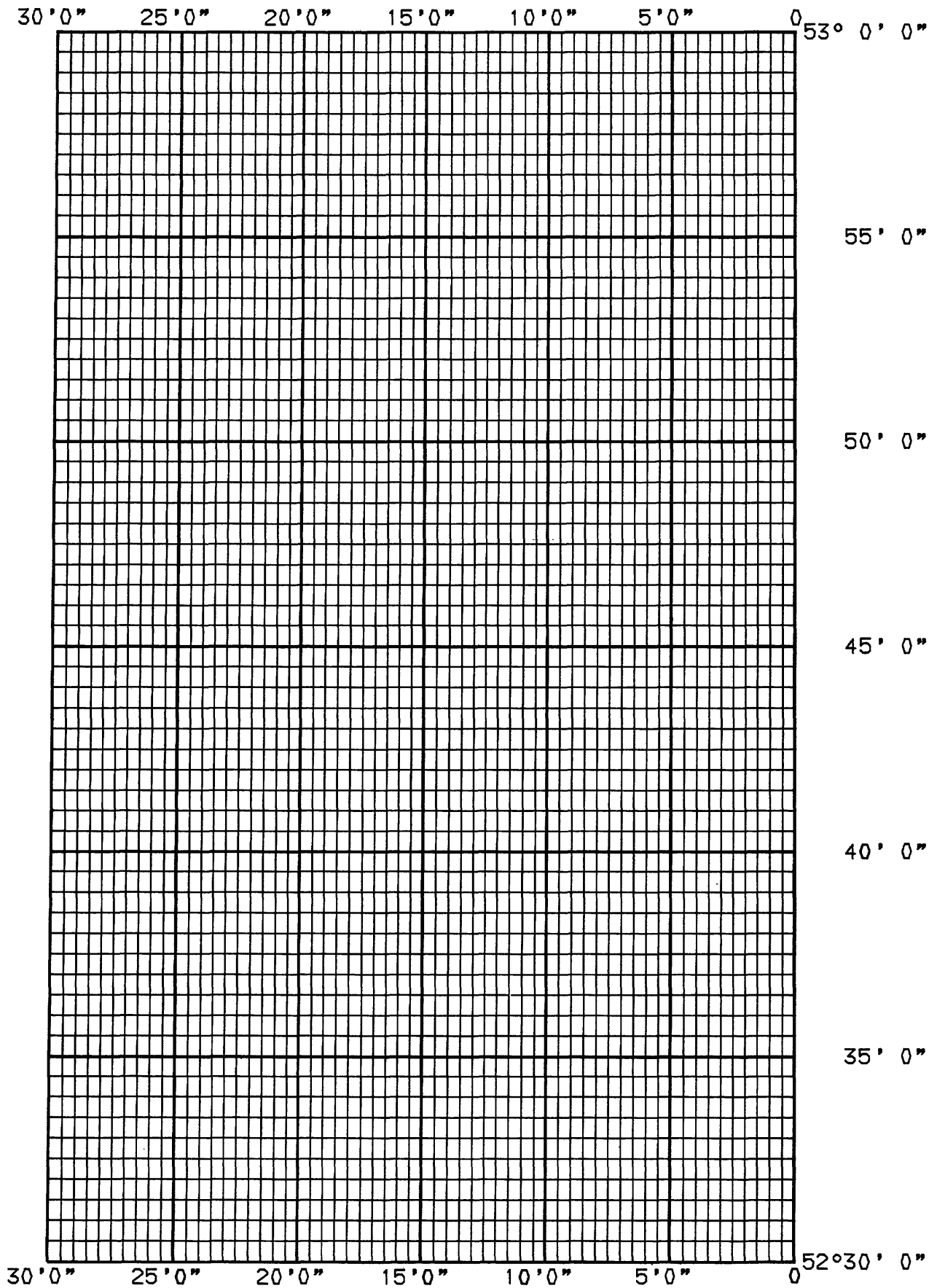
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $51^{\circ}30'0''$ to $52^{\circ}0'0''$
Scale = 1/250,000



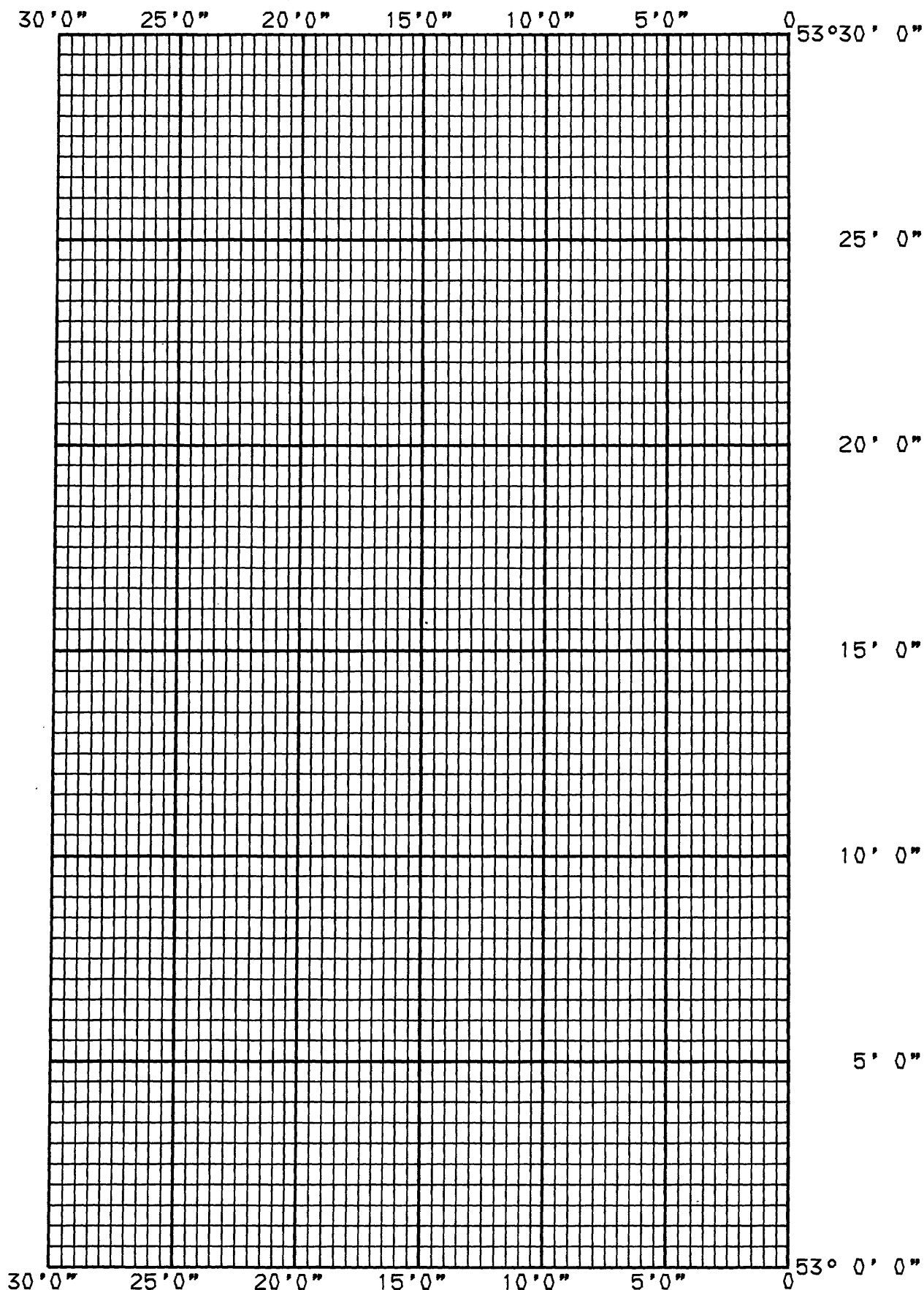
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $52^{\circ} 0' 0''$ to $52^{\circ} 30' 0''$
Scale = 1/250,000



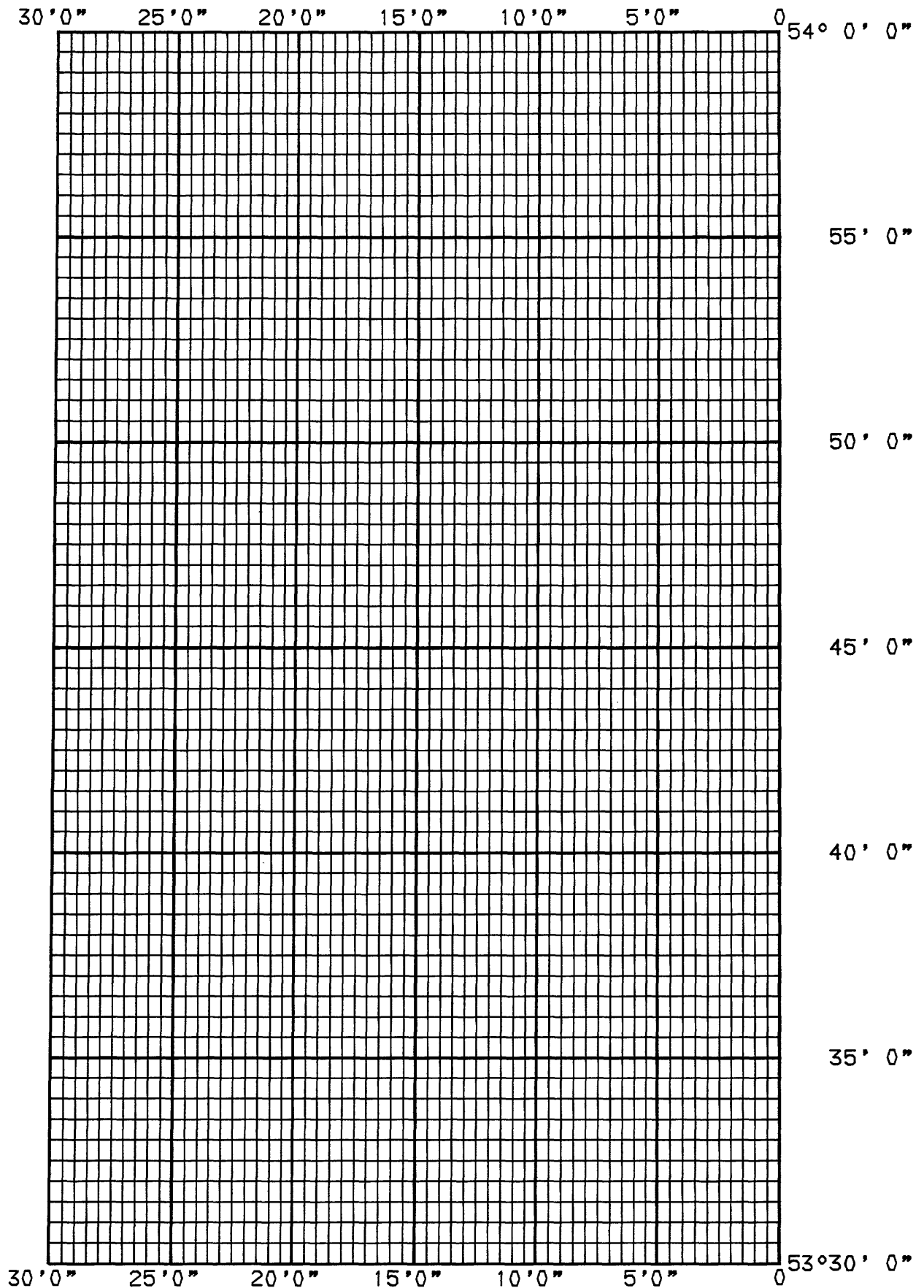
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $52^{\circ}30'0''$ to $53^{\circ}0'0''$
Scale = 1/250,000



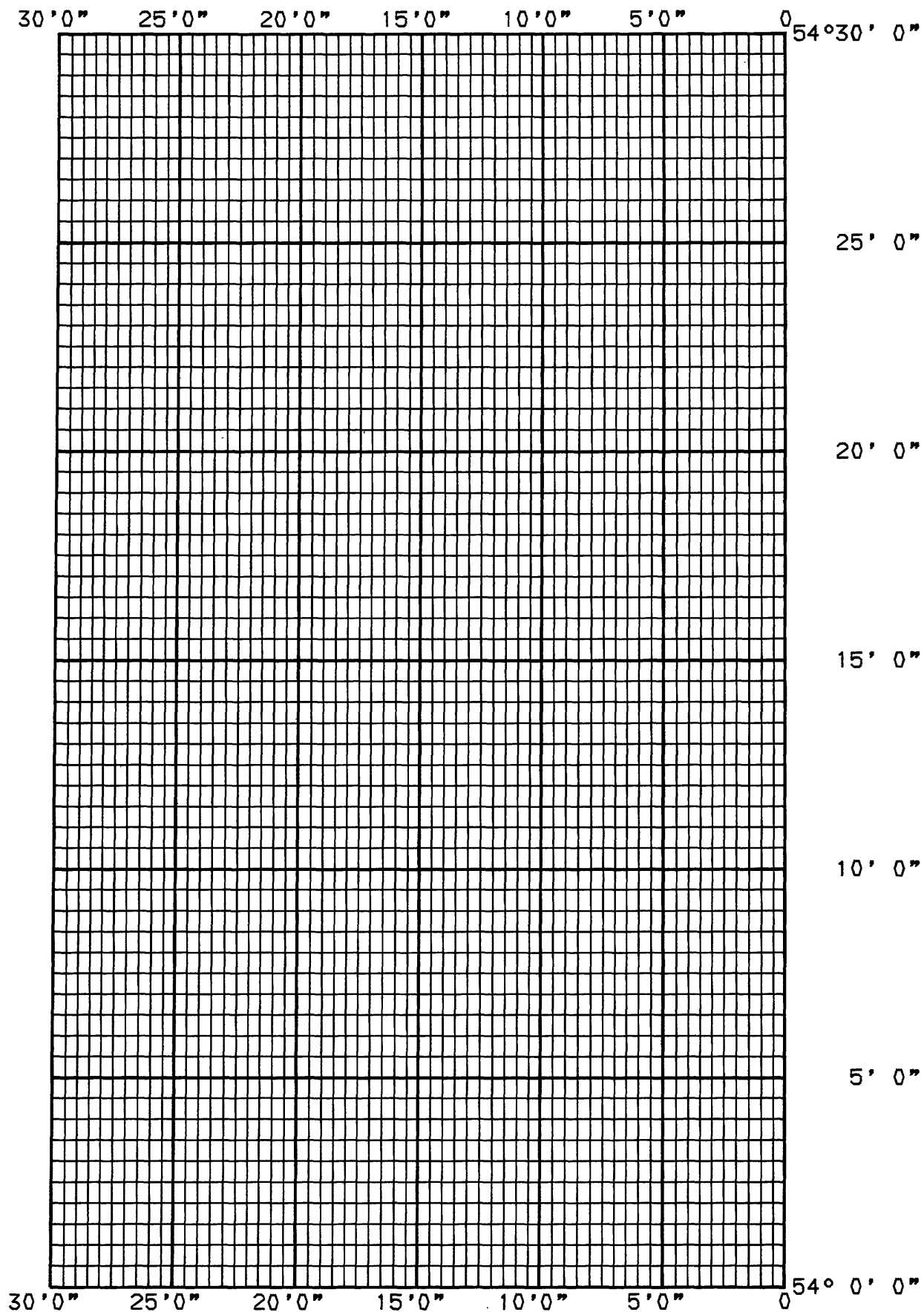
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $53^{\circ} 0' 0''$ to $53^{\circ} 30' 0''$
Scale = 1/250,000



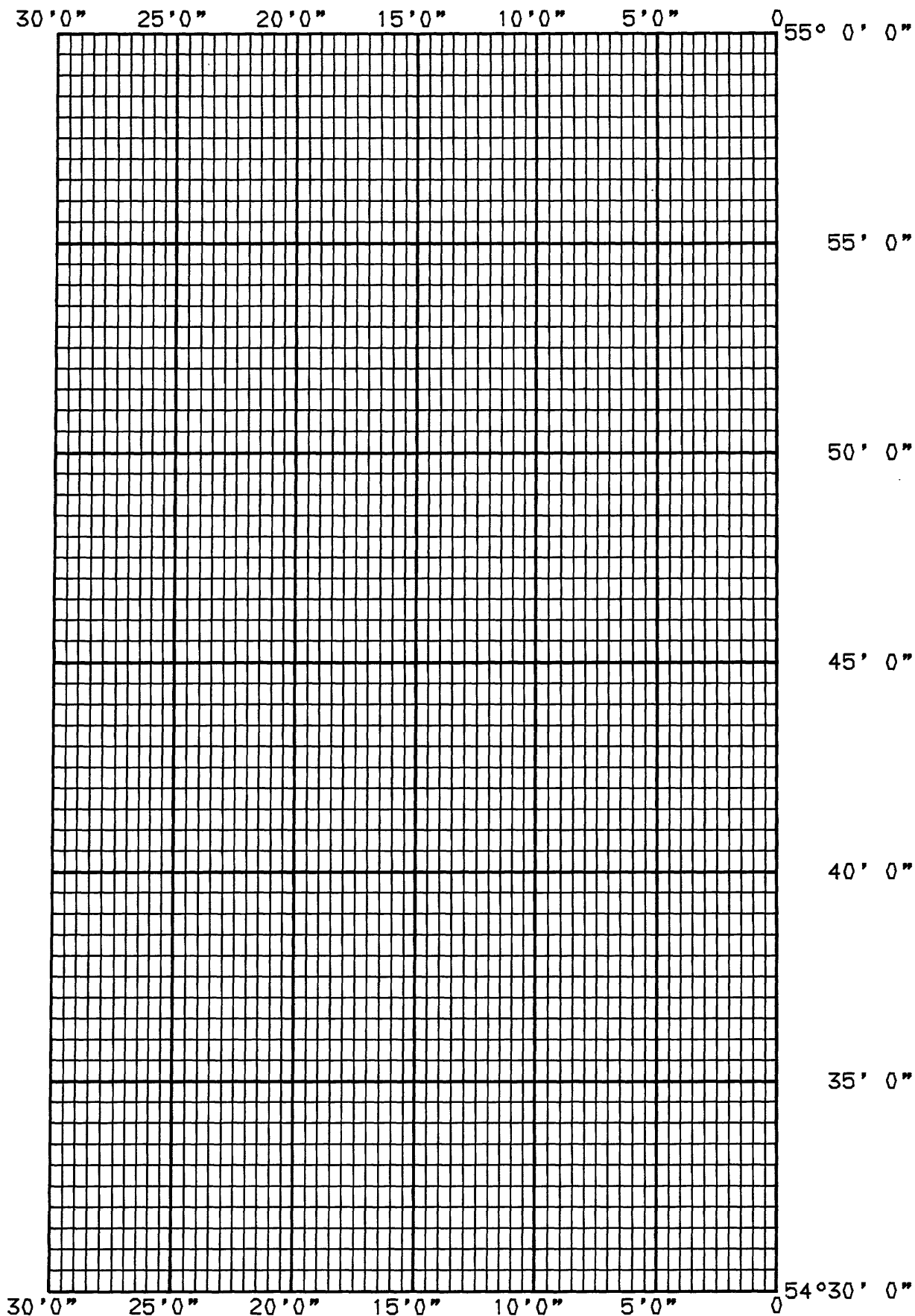
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $53^{\circ}30'0''$ to $54^{\circ}0'0''$
Scale = 1/250,000



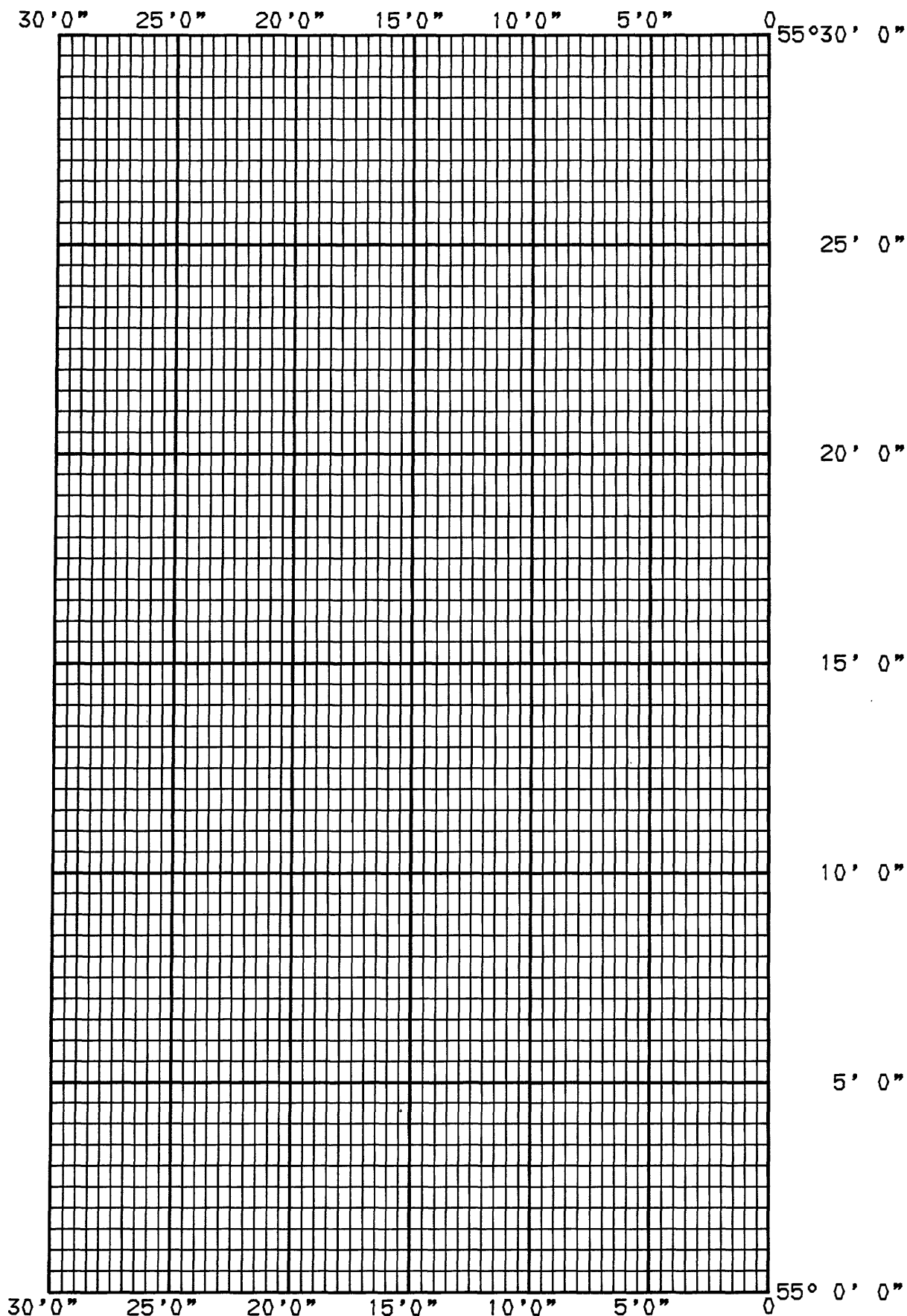
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $54^{\circ} 0' 0''$ to $54^{\circ} 30' 0''$
Scale = 1/250,000



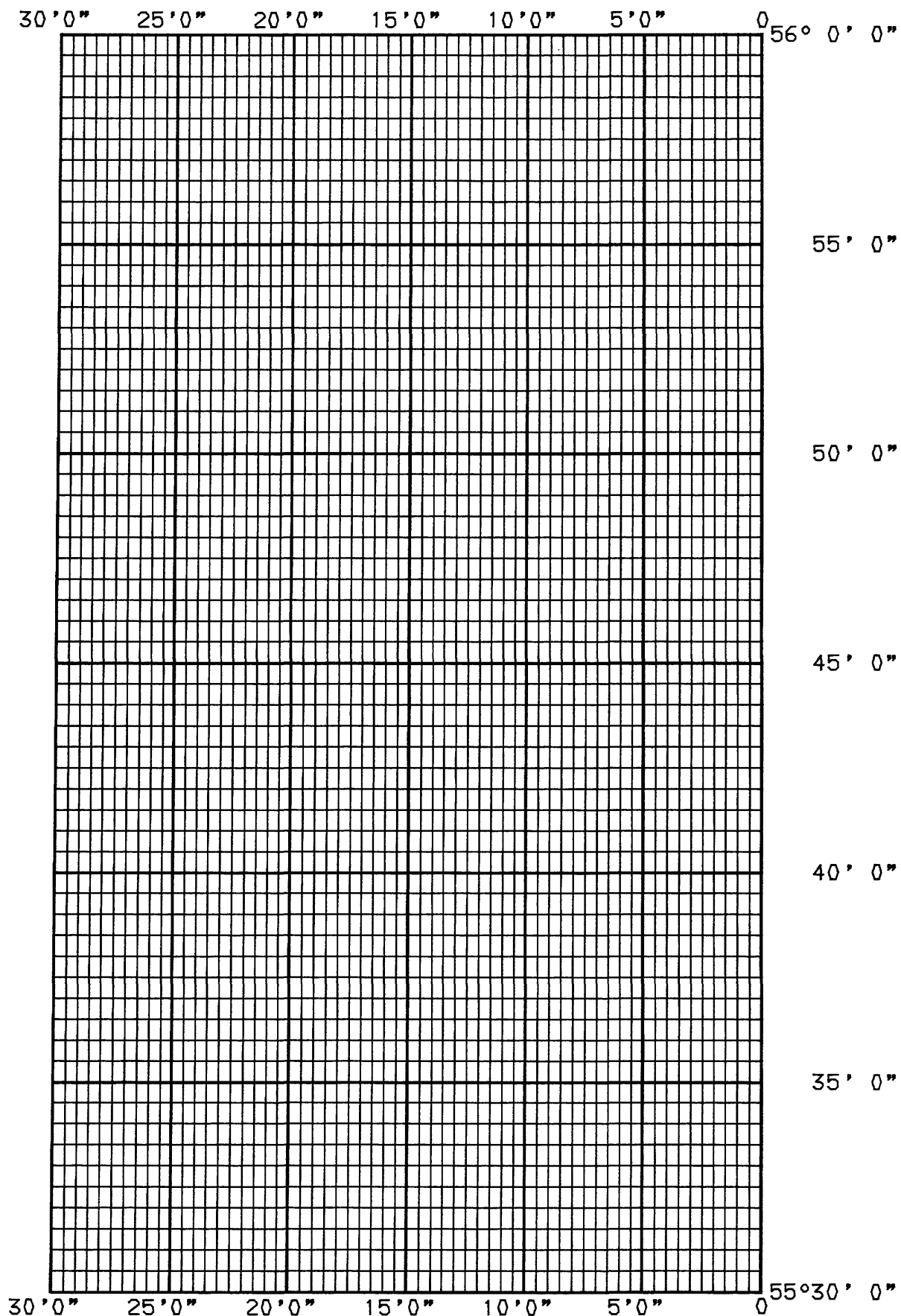
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $54^{\circ}30'0''$ to $55^{\circ}0'0''$
Scale = 1/250,000



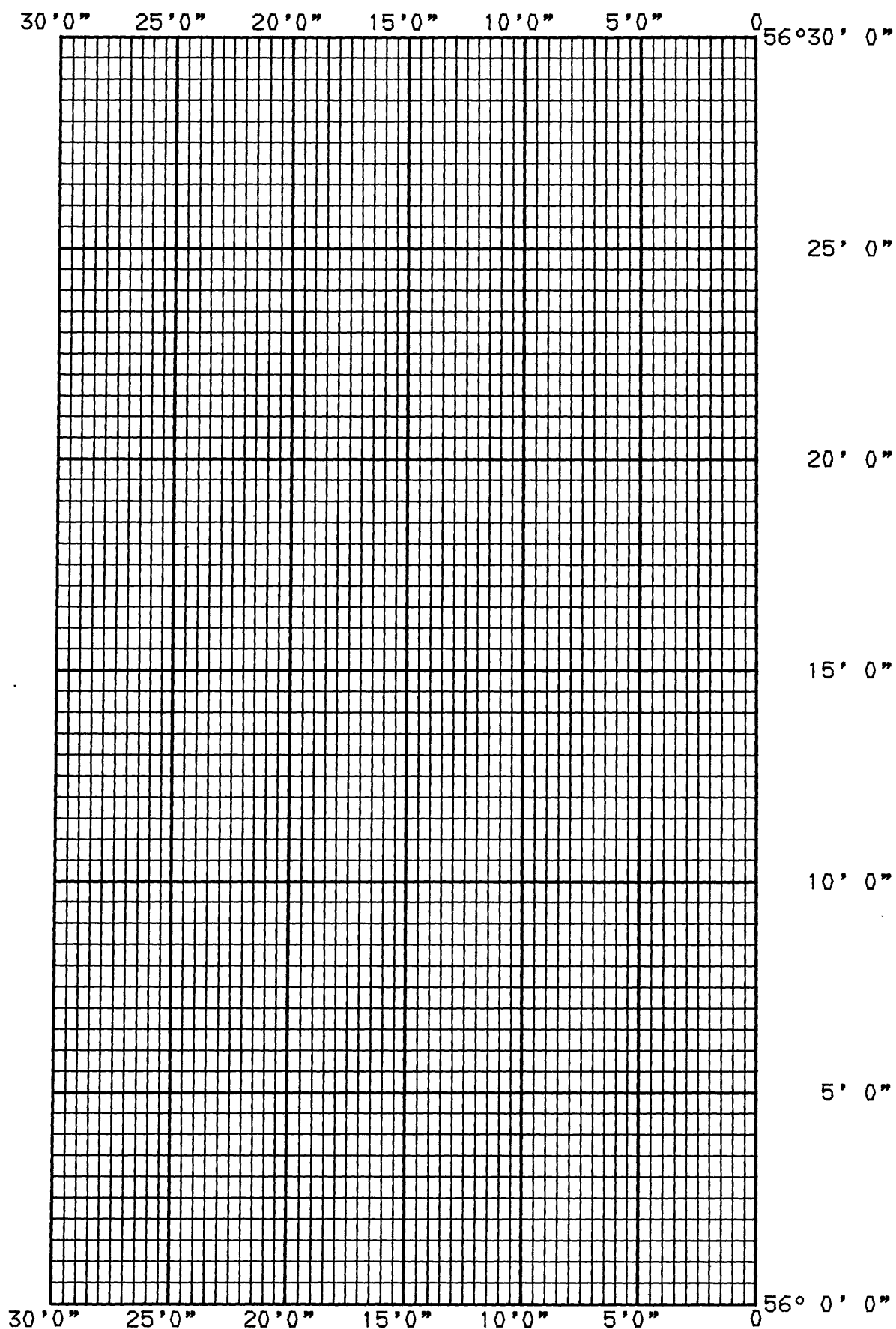
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $55^{\circ} 0' 0''$ to $55^{\circ} 30' 0''$
Scale = 1/250,000



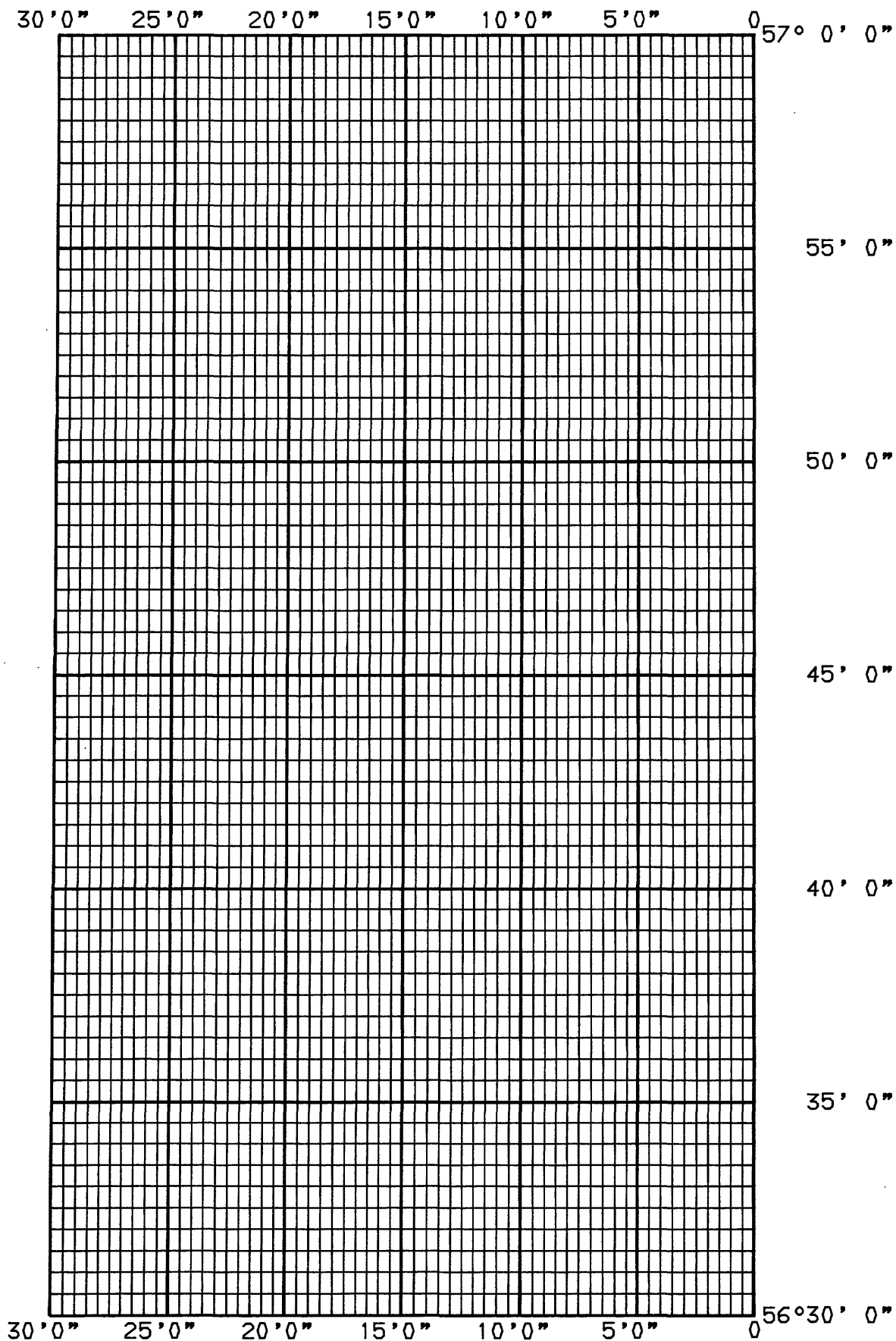
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $55^{\circ}30' 0''$ to $56^{\circ} 0' 0''$
Scale = 1/250,000



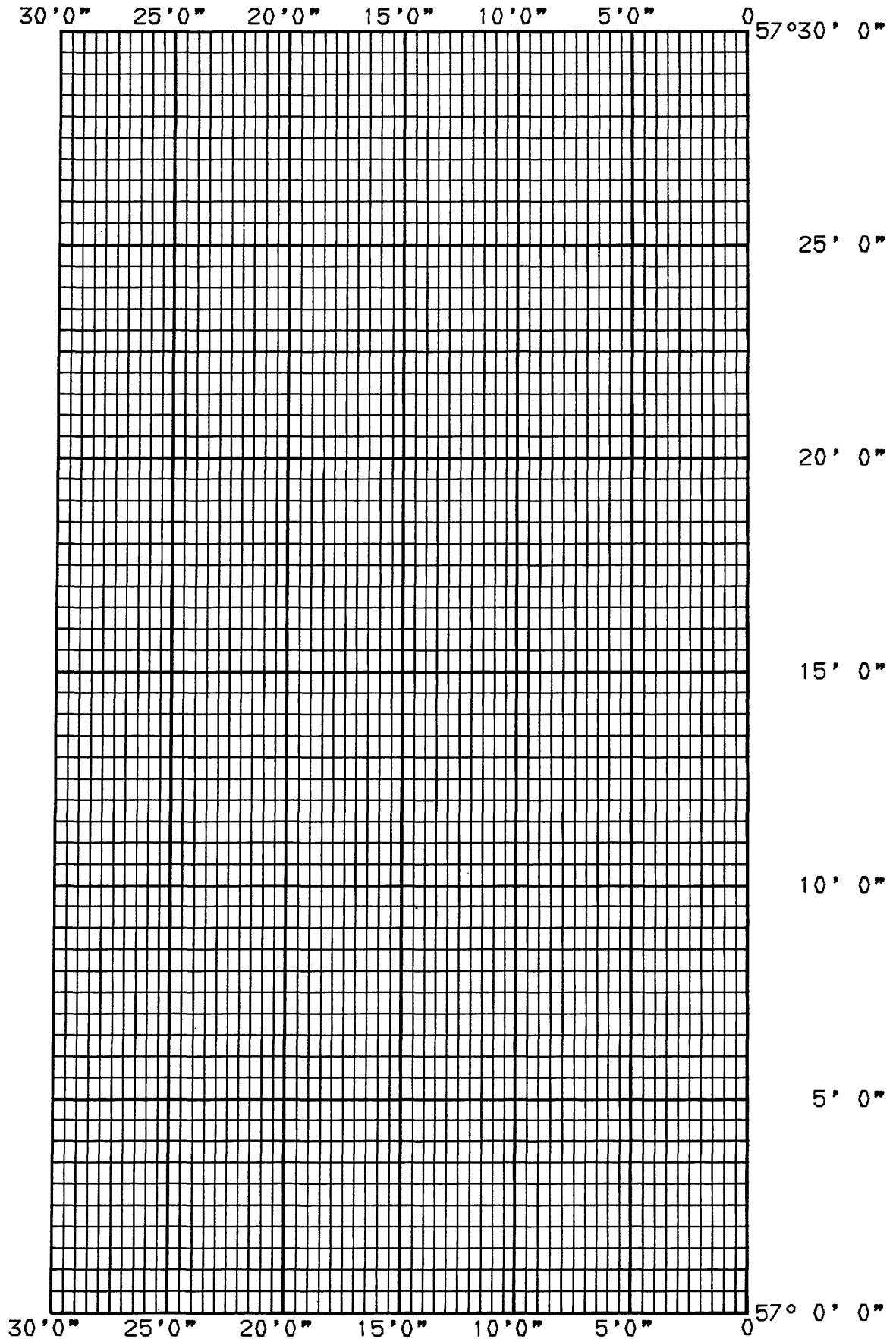
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $56^{\circ} 0' 0''$ to $56^{\circ} 30' 0''$
Scale = 1/250,000



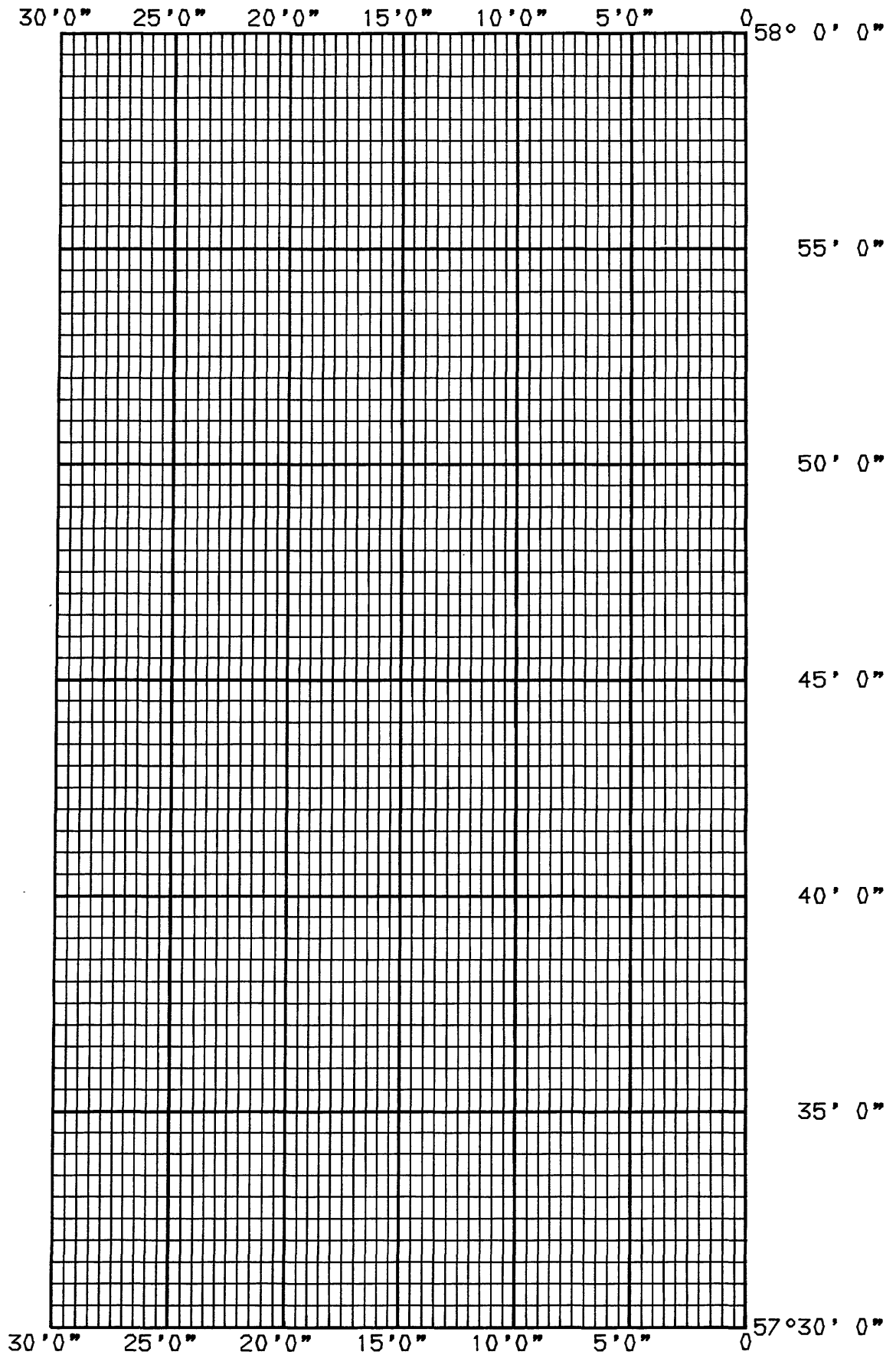
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



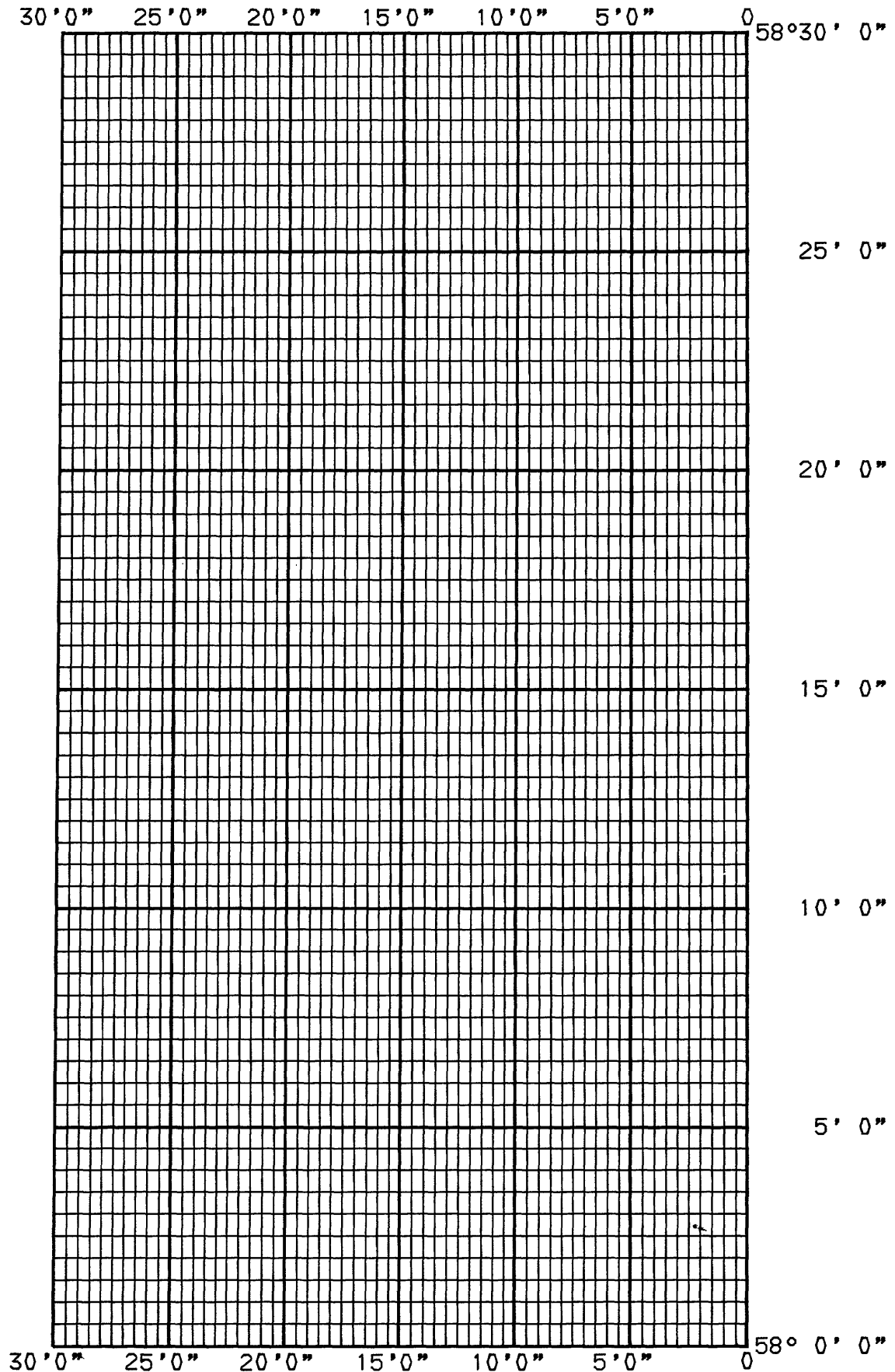
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $57^{\circ} 0' 0''$ to $57^{\circ} 30' 0''$
Scale = 1/250,000



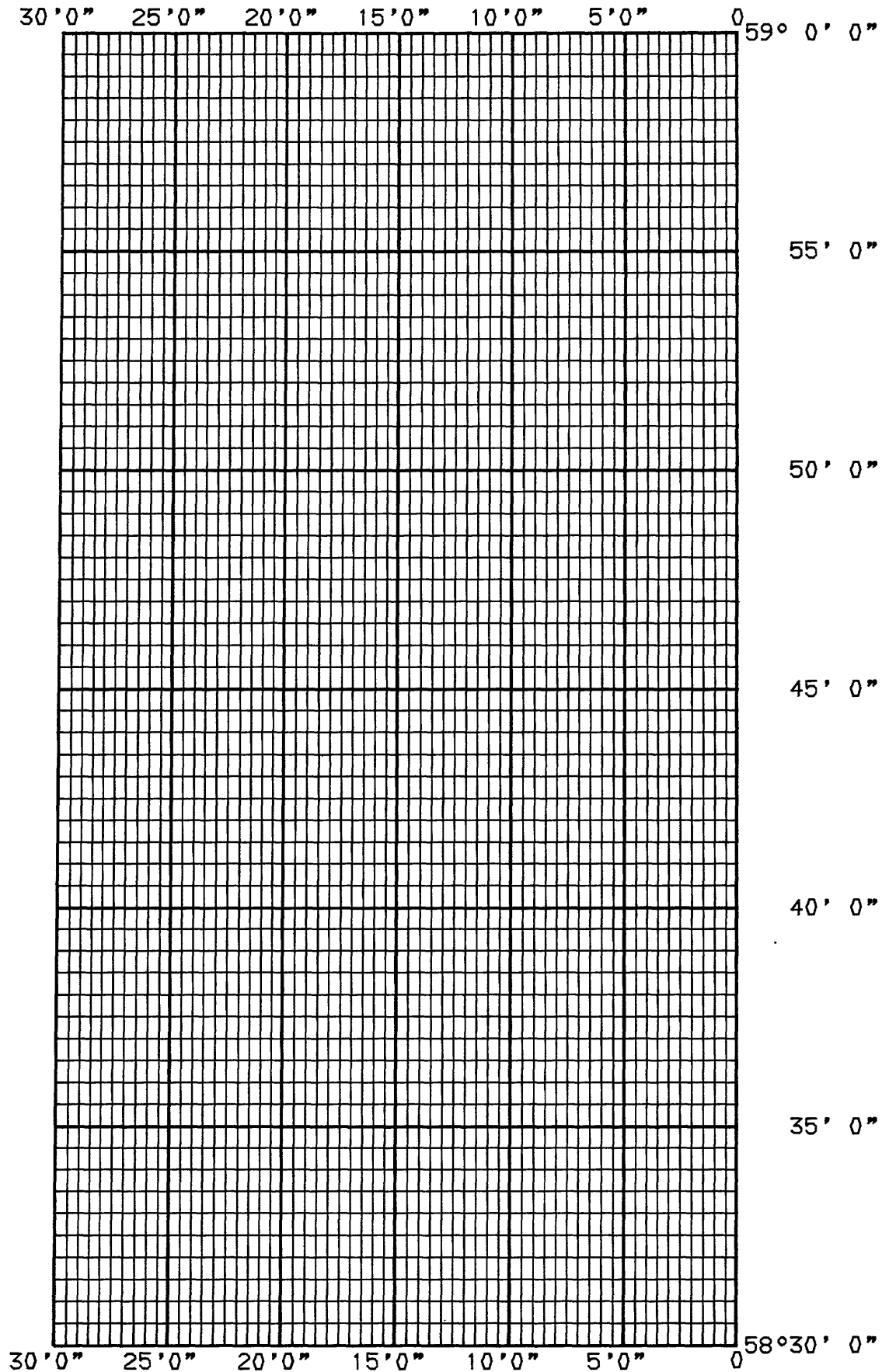
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



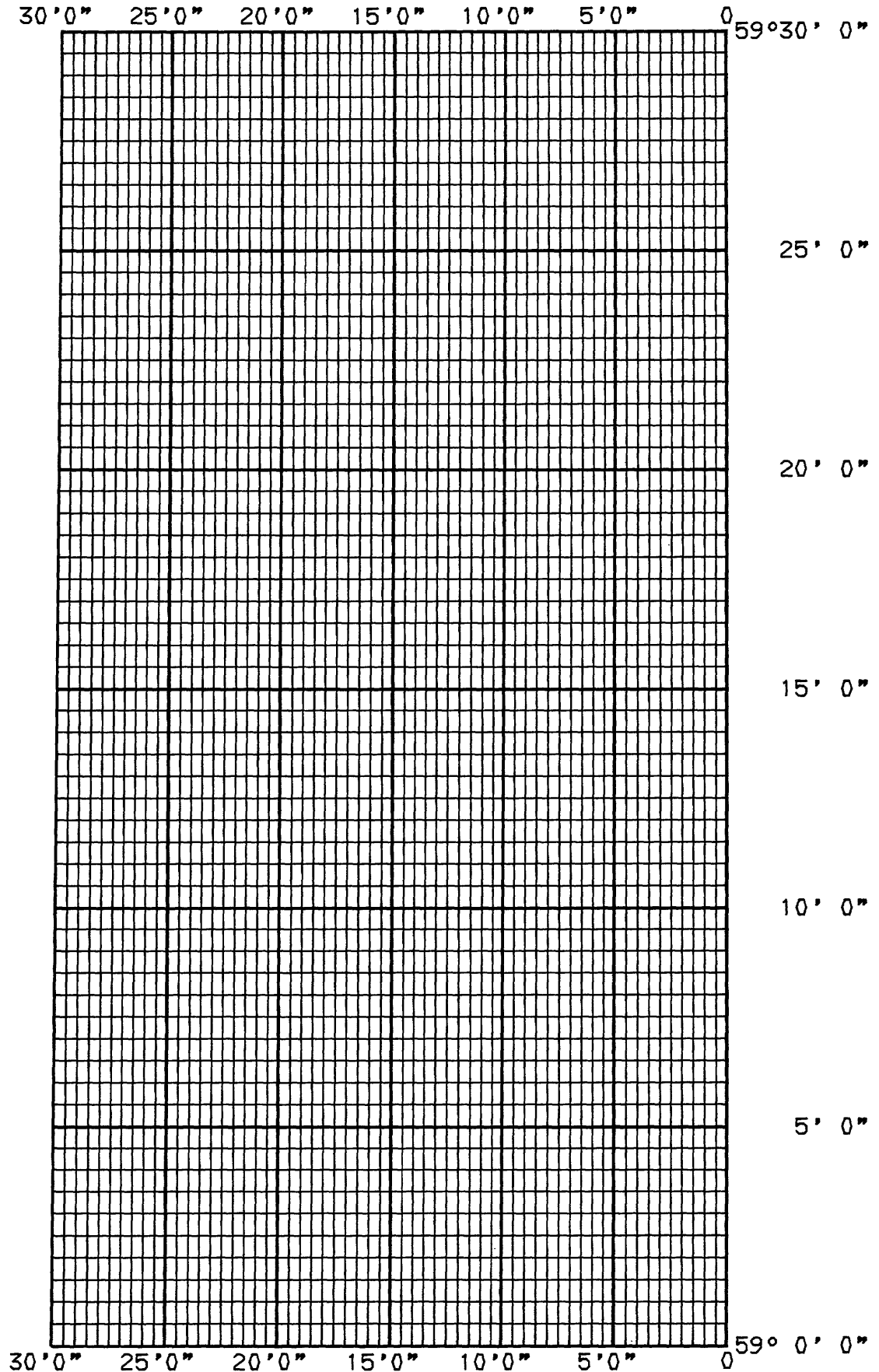
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



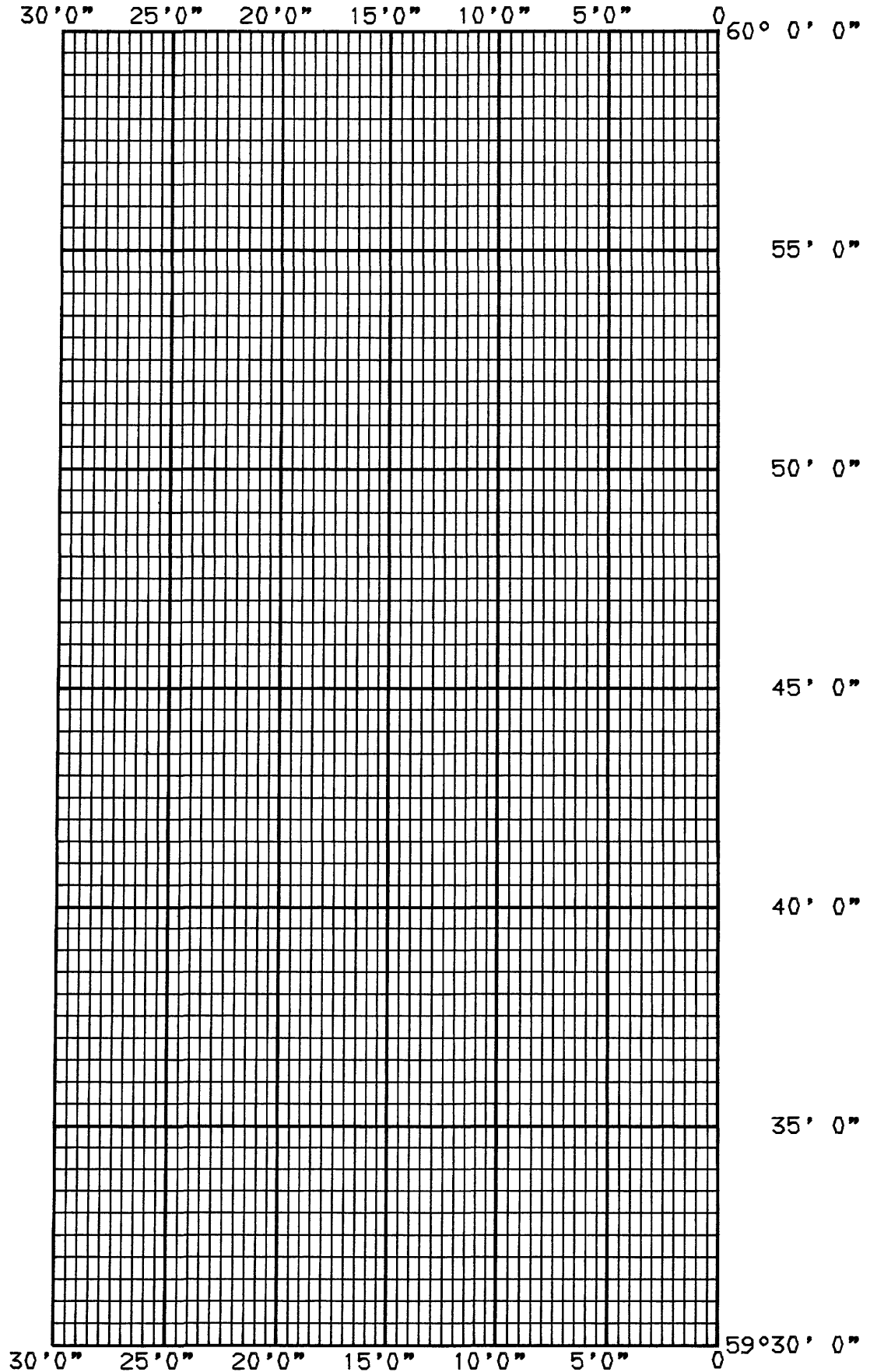
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



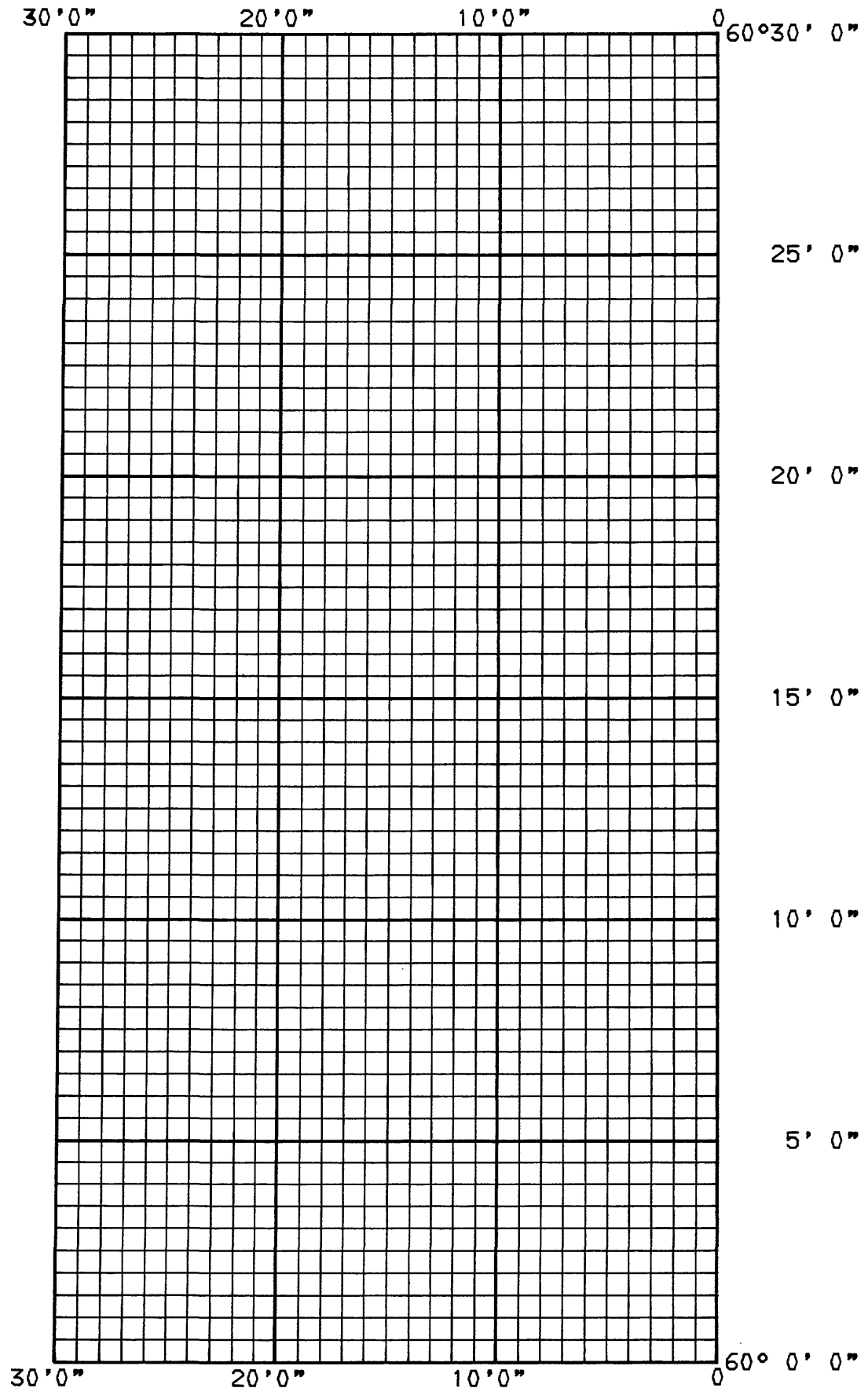
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $59^{\circ} 0' 0''$ to $59^{\circ} 30' 0''$
Scale = 1/250,000



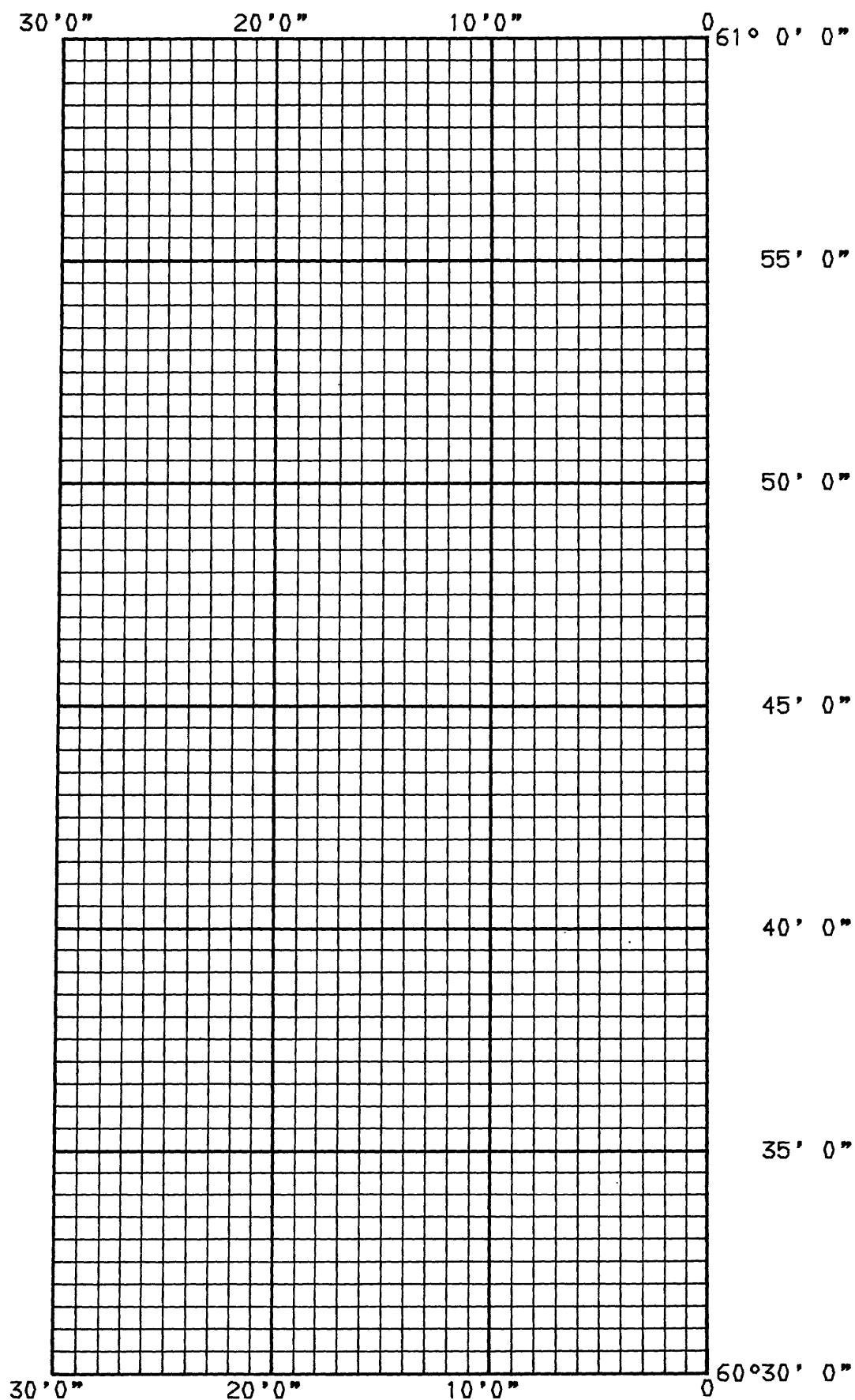
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $59^{\circ}30' 0''$ to $60^{\circ} 0' 0''$
Scale = 1/250,000



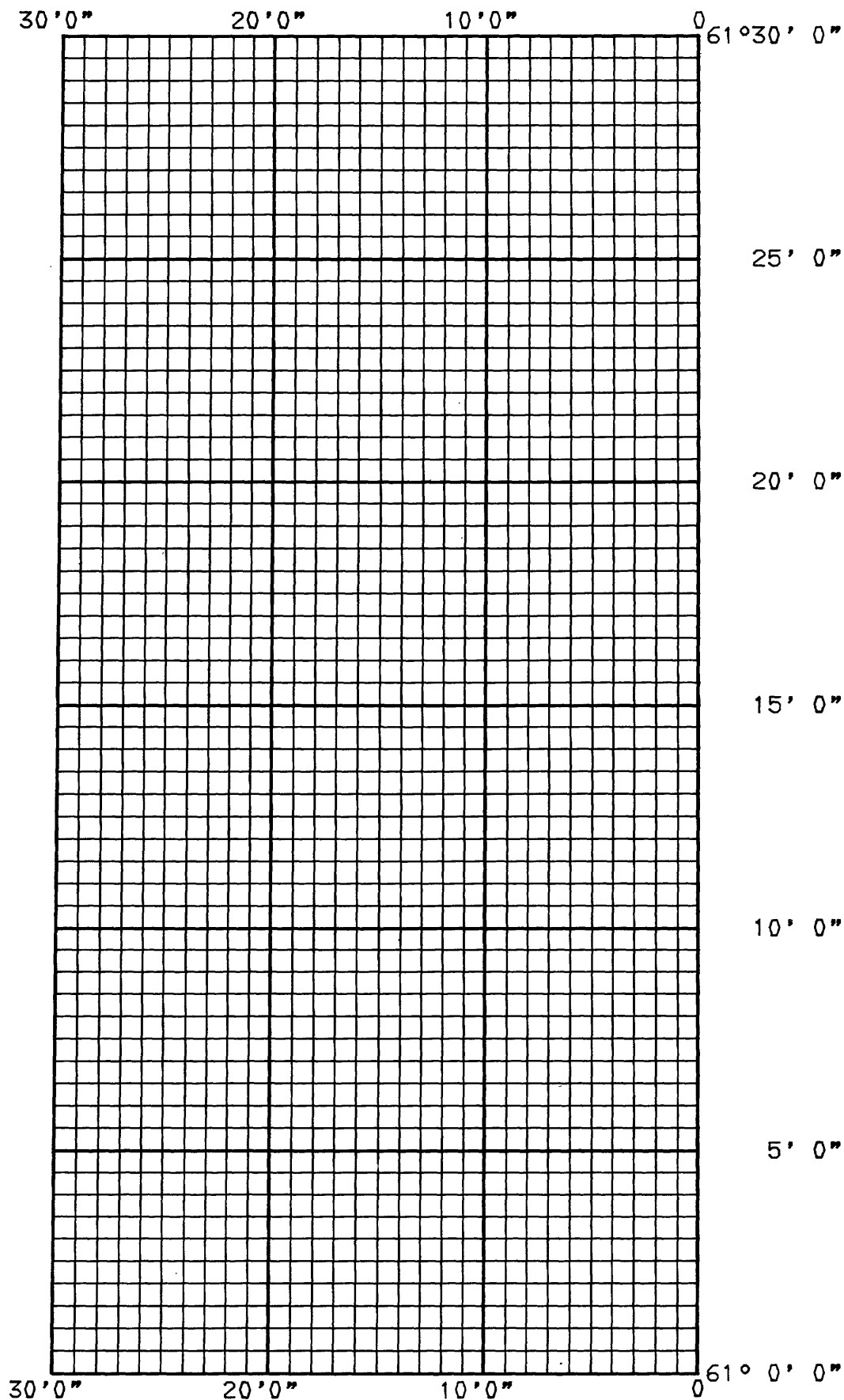
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $60^{\circ} 0' 0''$ to $60^{\circ} 30' 0''$
Scale = 1/250,000



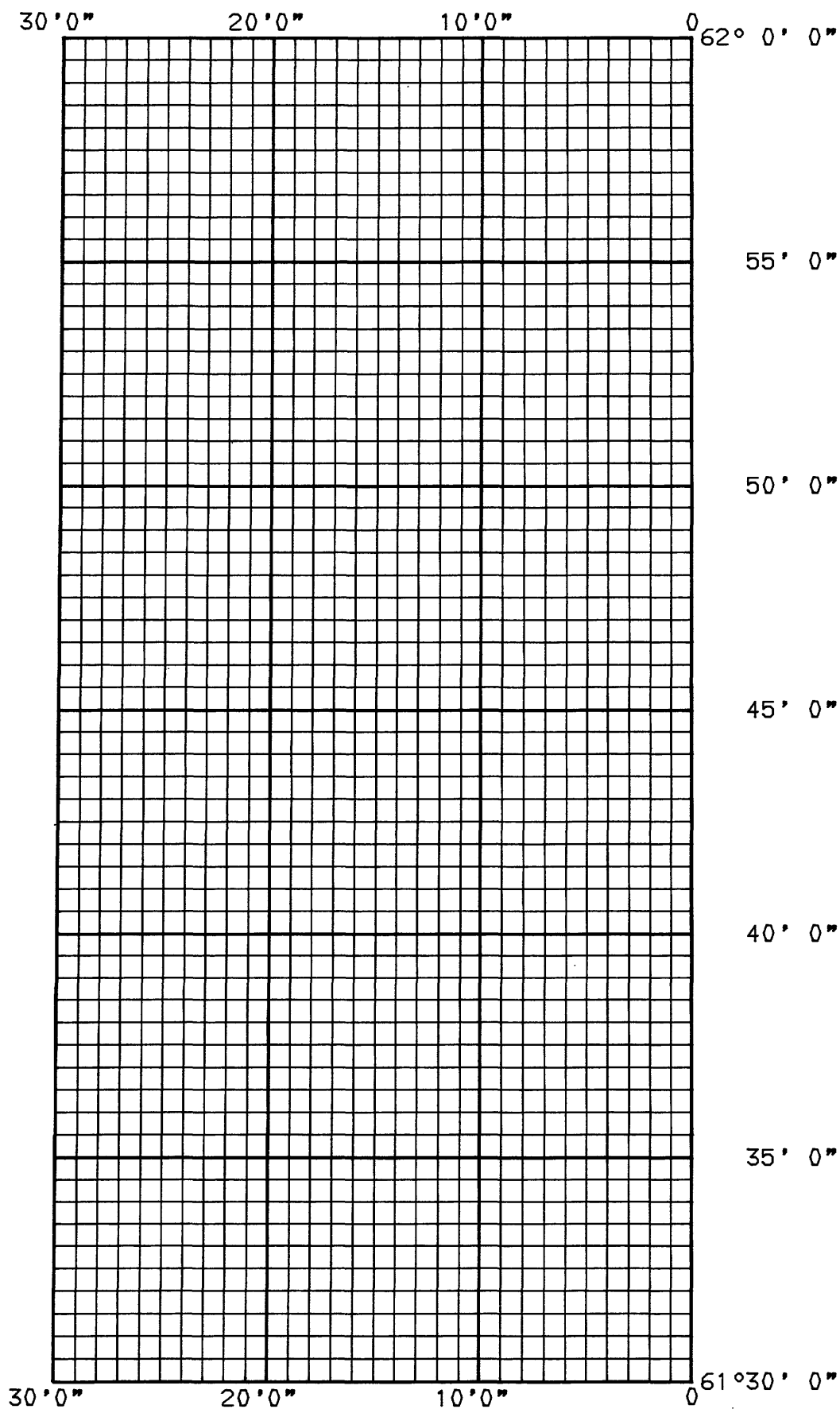
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $60^{\circ}30' 0''$ to $61^{\circ} 0' 0''$
Scale = 1/250,000



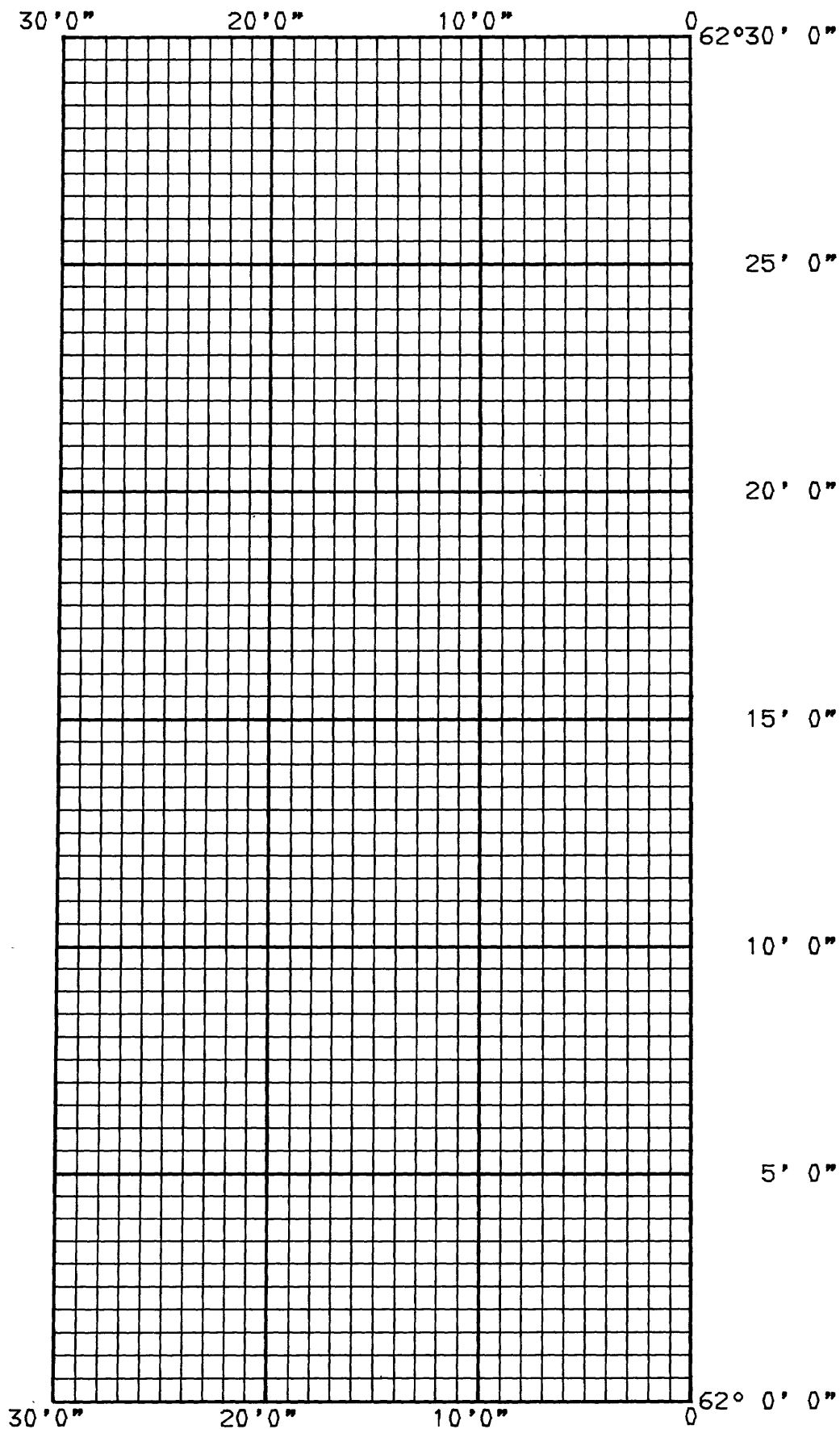
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $61^{\circ} 0' 0''$ to $61^{\circ} 30' 0''$
Scale = 1/250,000



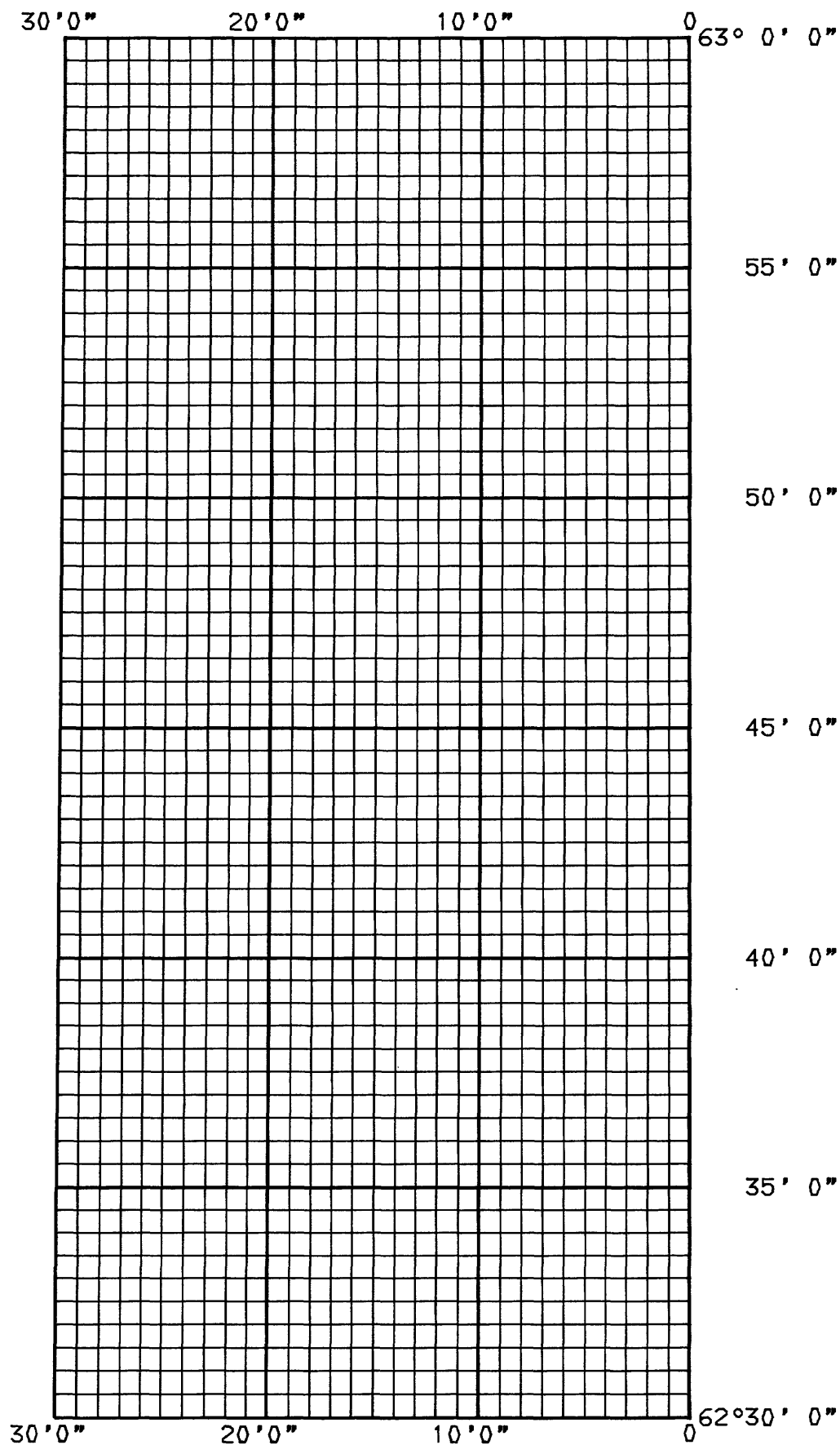
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $61^{\circ}30'0''$ to $62^{\circ}0'0''$
Scale = 1/250,000



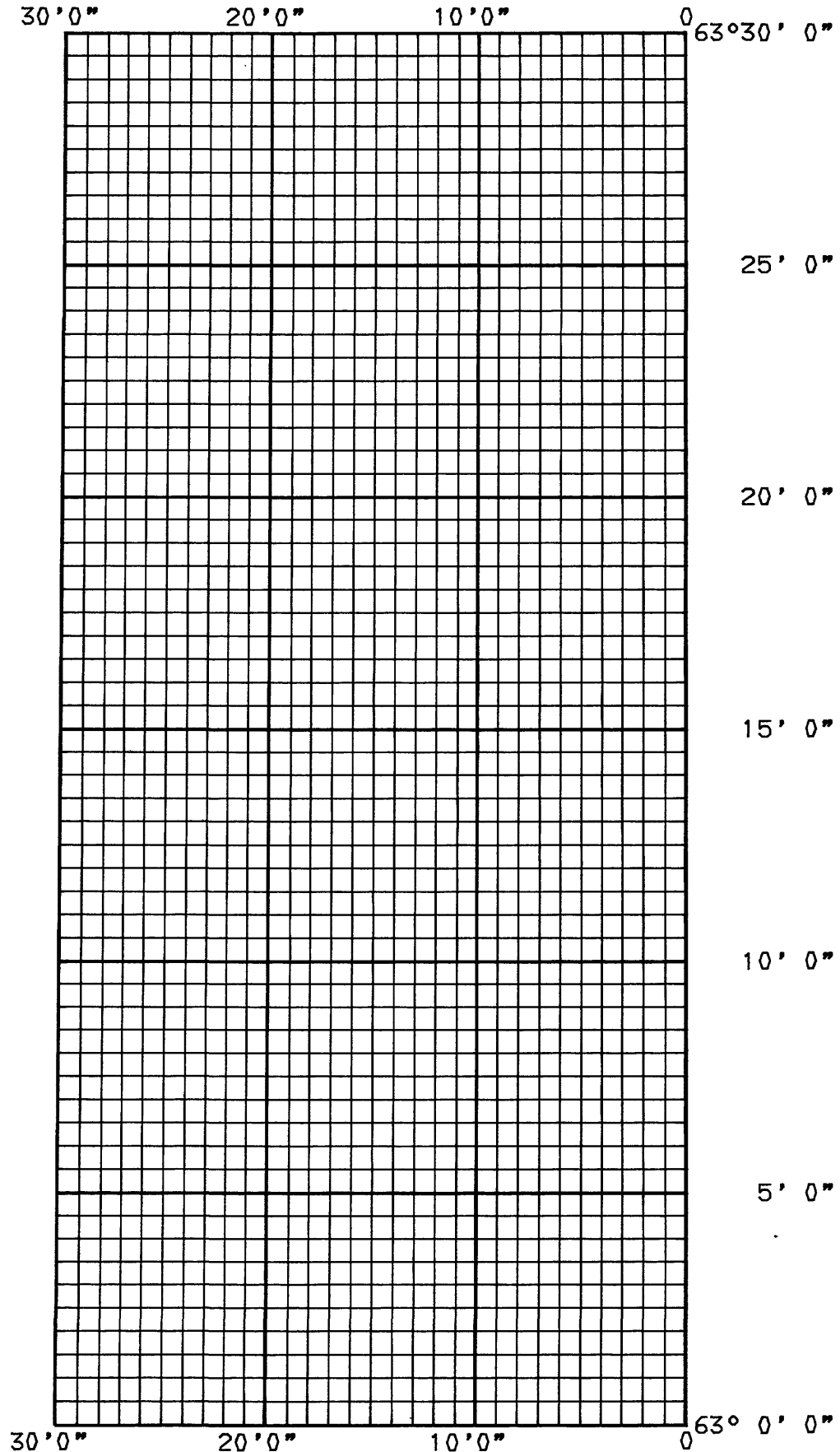
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W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000.



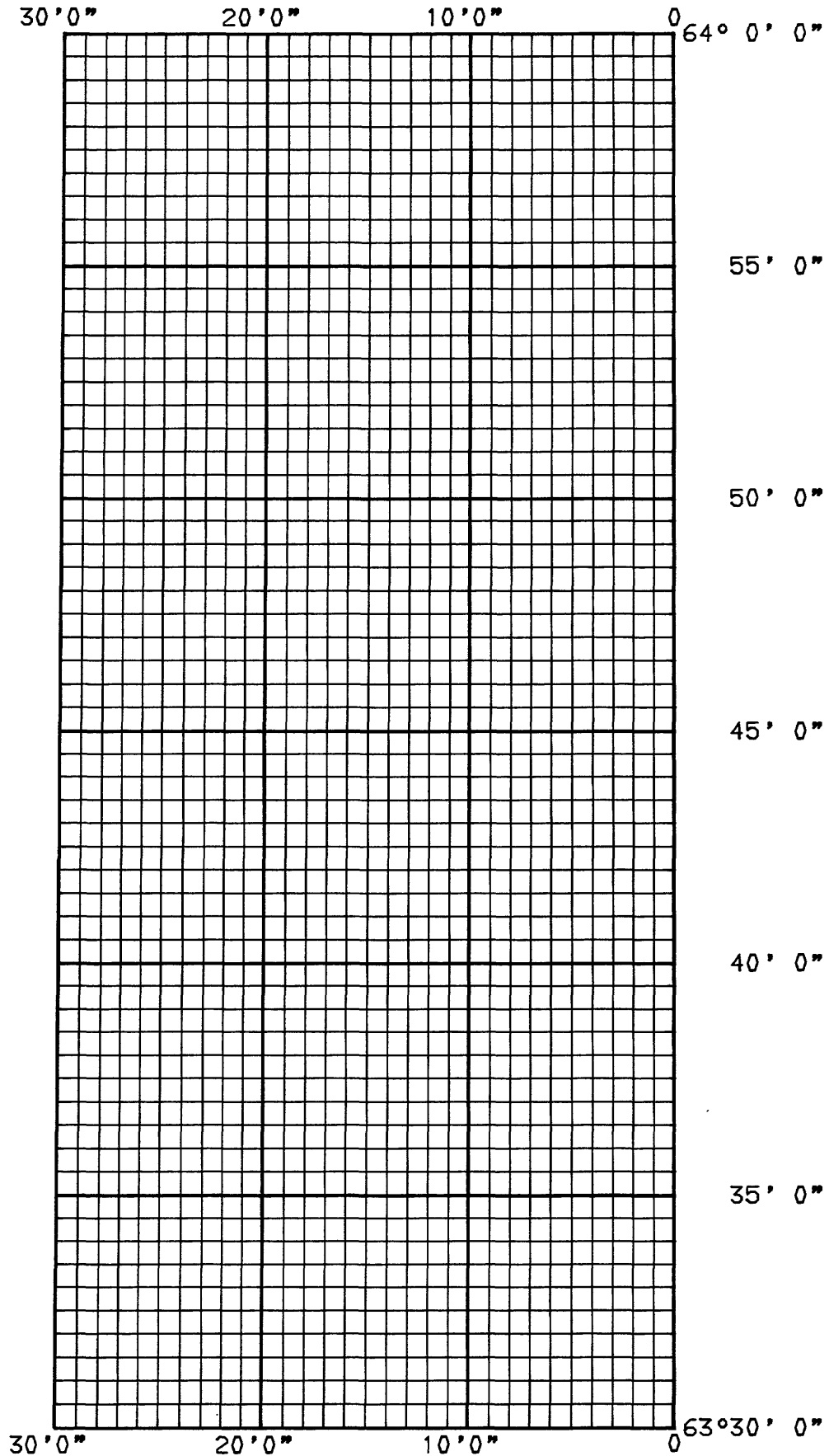
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $62^{\circ}30' 0''$ to $63^{\circ} 0' 0''$
Scale = 1/250,000



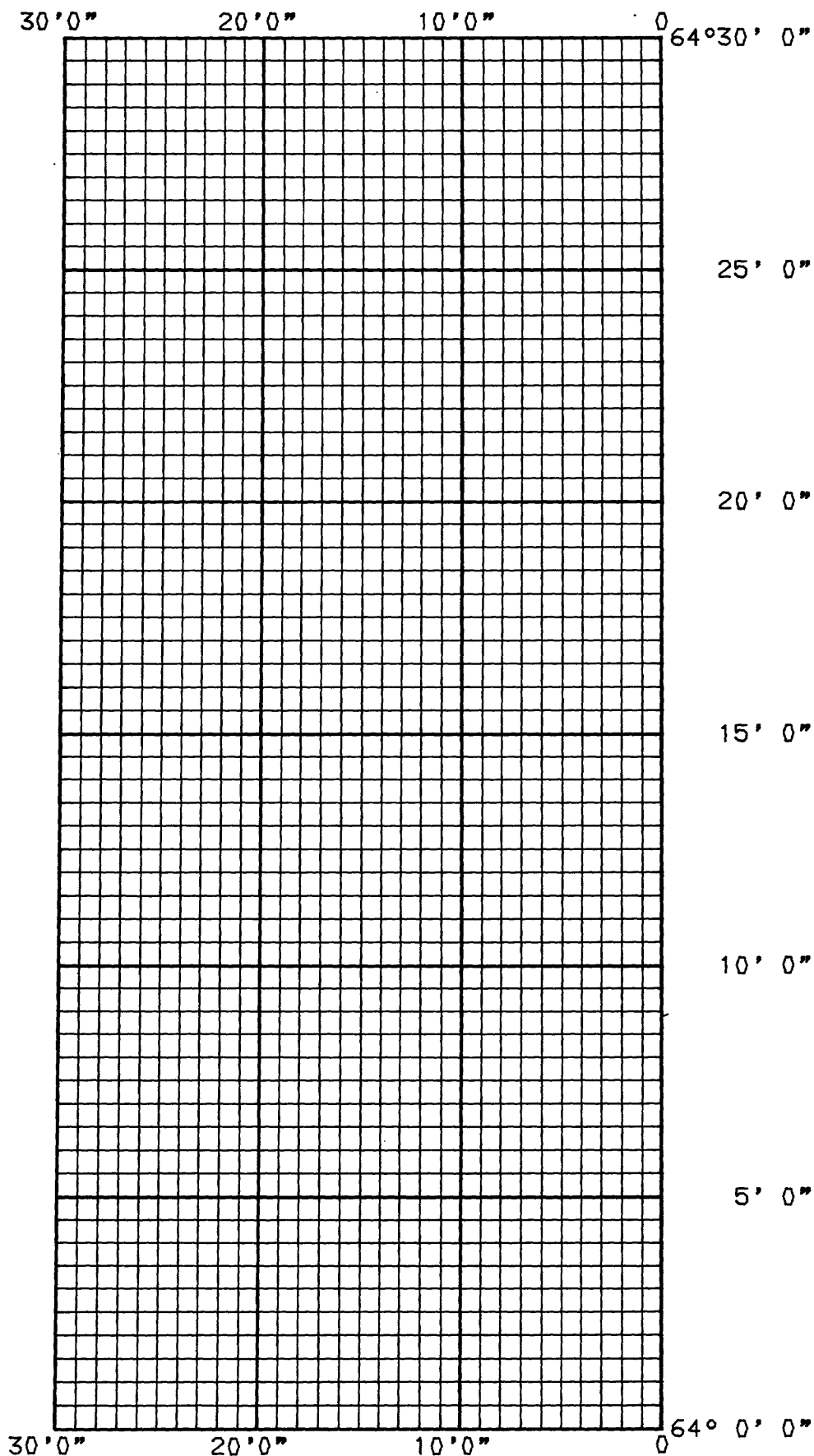
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $63^{\circ} 0' 0''$ to $63^{\circ} 30' 0''$
Scale = 1/250,000



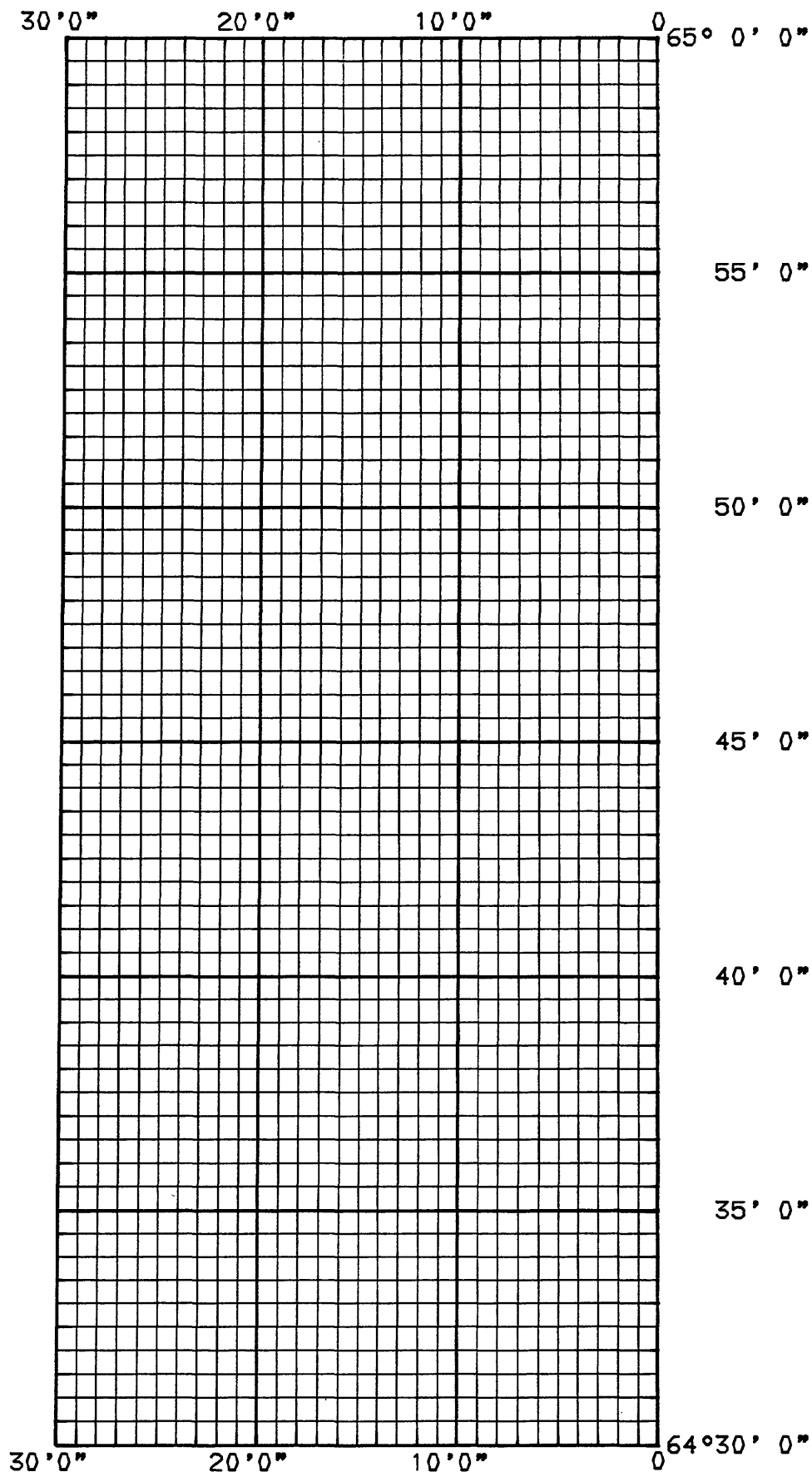
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $63^{\circ}30' 0''$ to $64^{\circ} 0' 0''$
Scale = 1/250,000



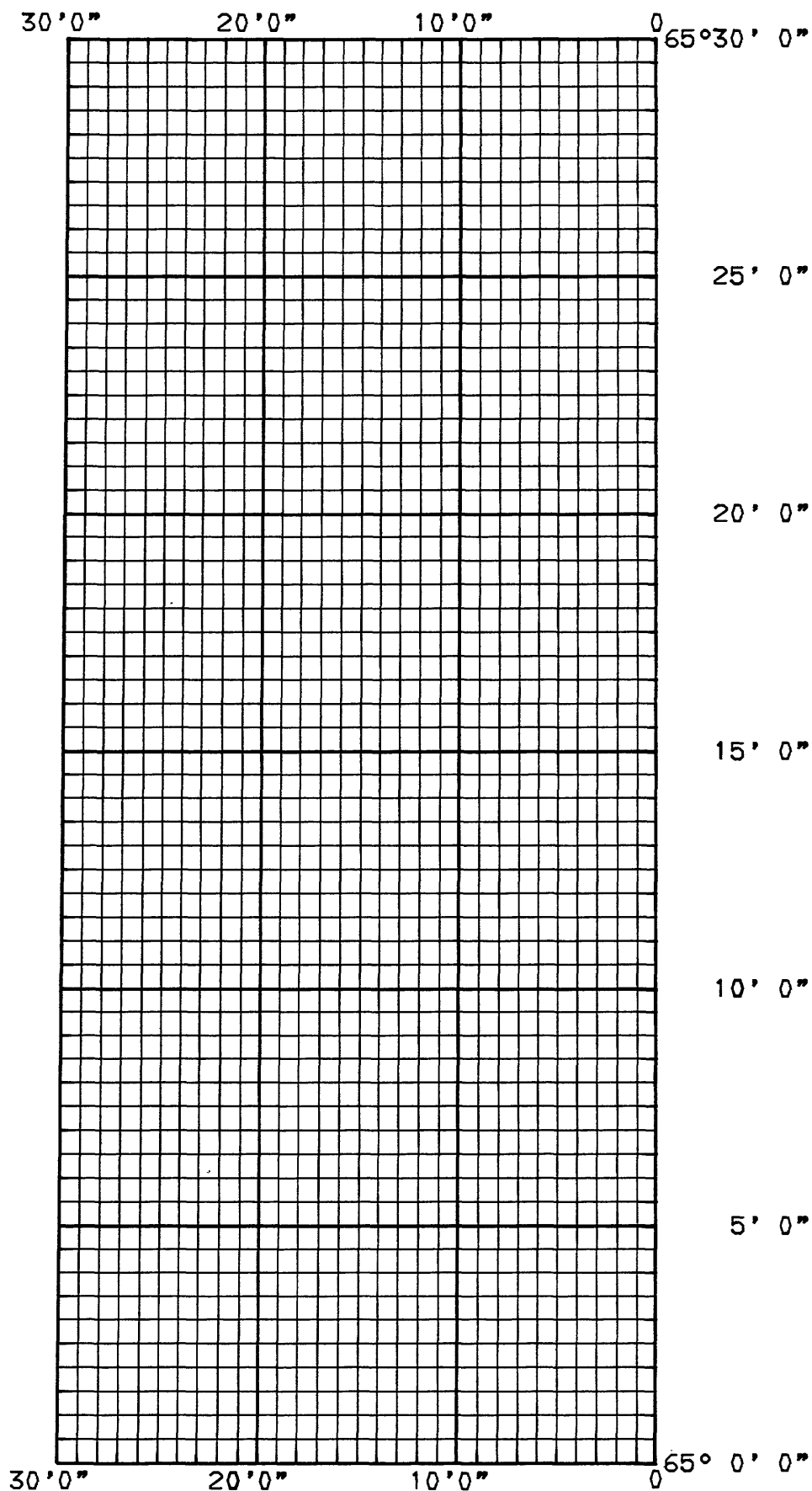
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $64^{\circ} 0' 0''$ to $64^{\circ} 30' 0''$
Scale = 1/250,000



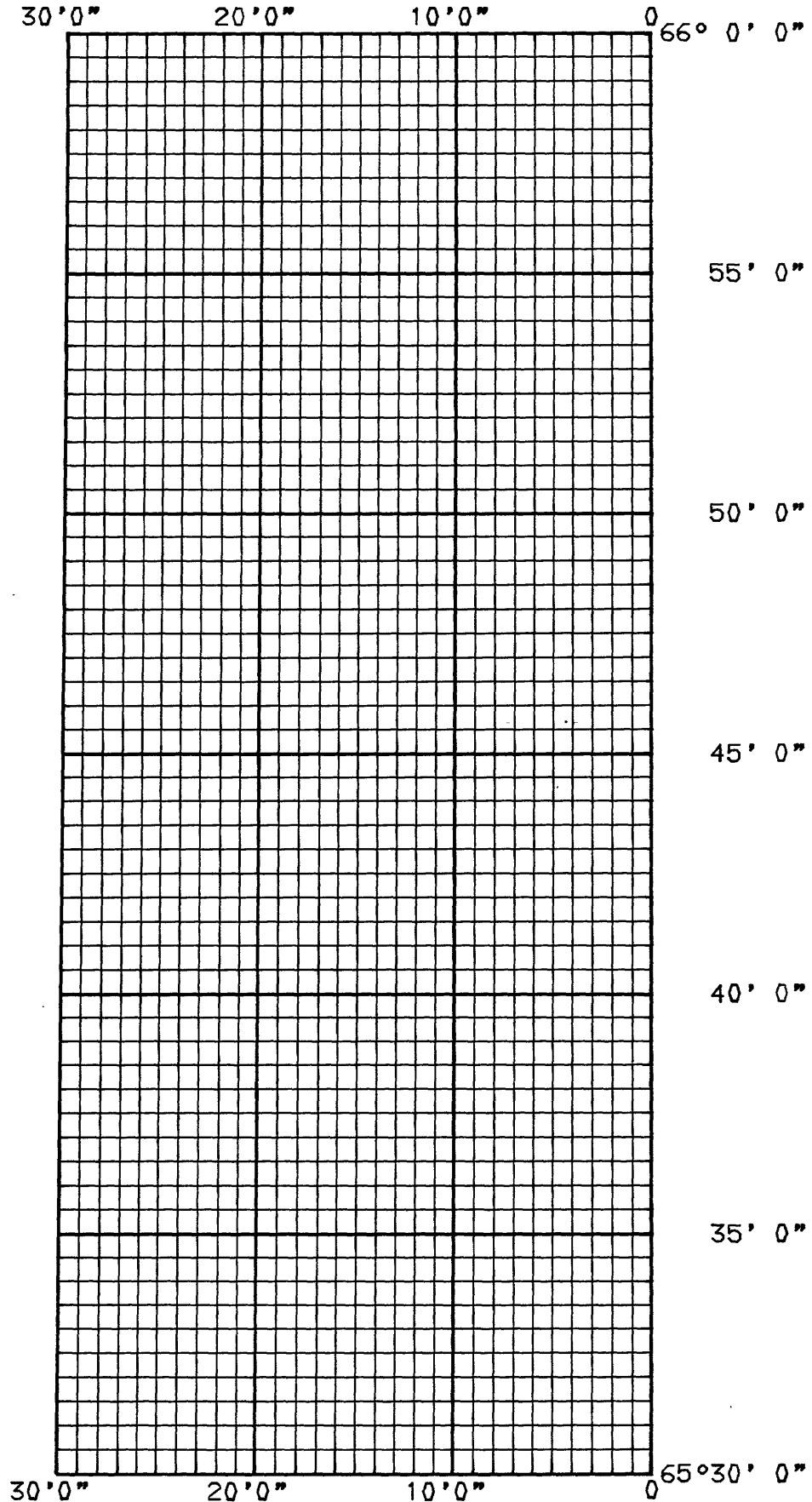
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $64^{\circ}30' 0''$ to $65^{\circ} 0' 0''$
Scale = 1/250,000



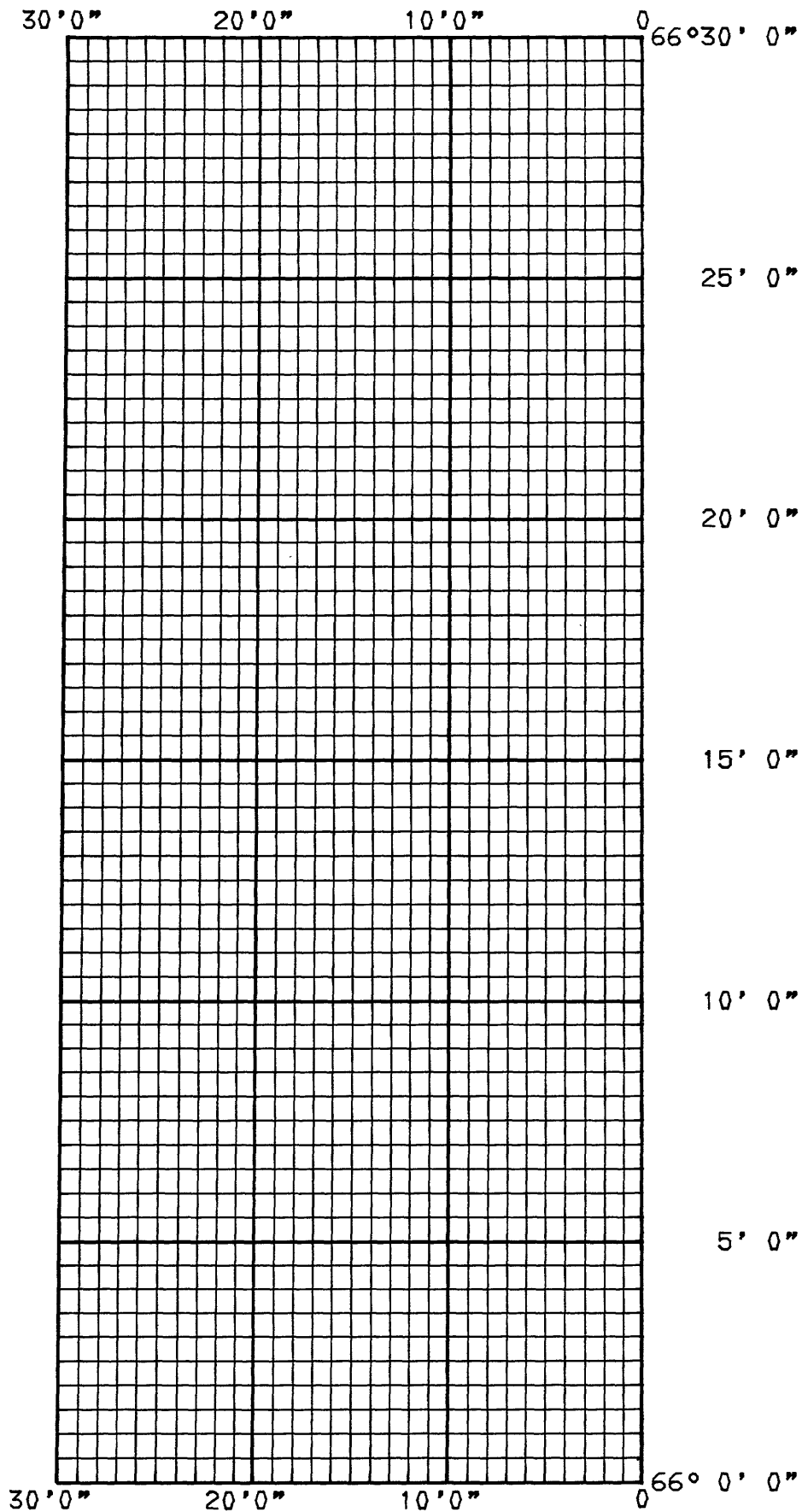
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $65^{\circ} 0' 0''$ to $65^{\circ} 30' 0''$
Scale = 1/250,000



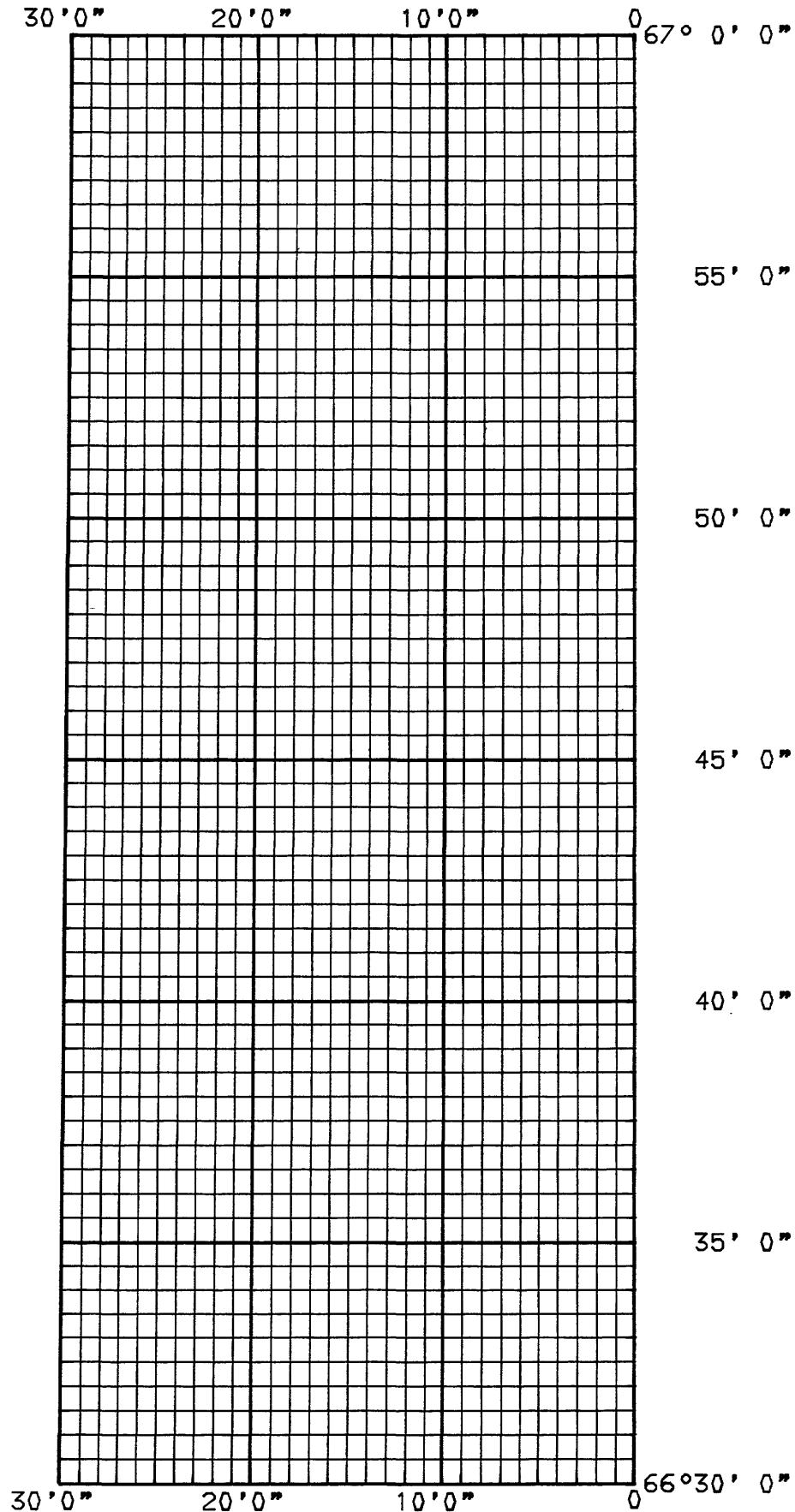
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $65^{\circ}30'0''$ to $66^{\circ}0'0''$
Scale = 1/250,000



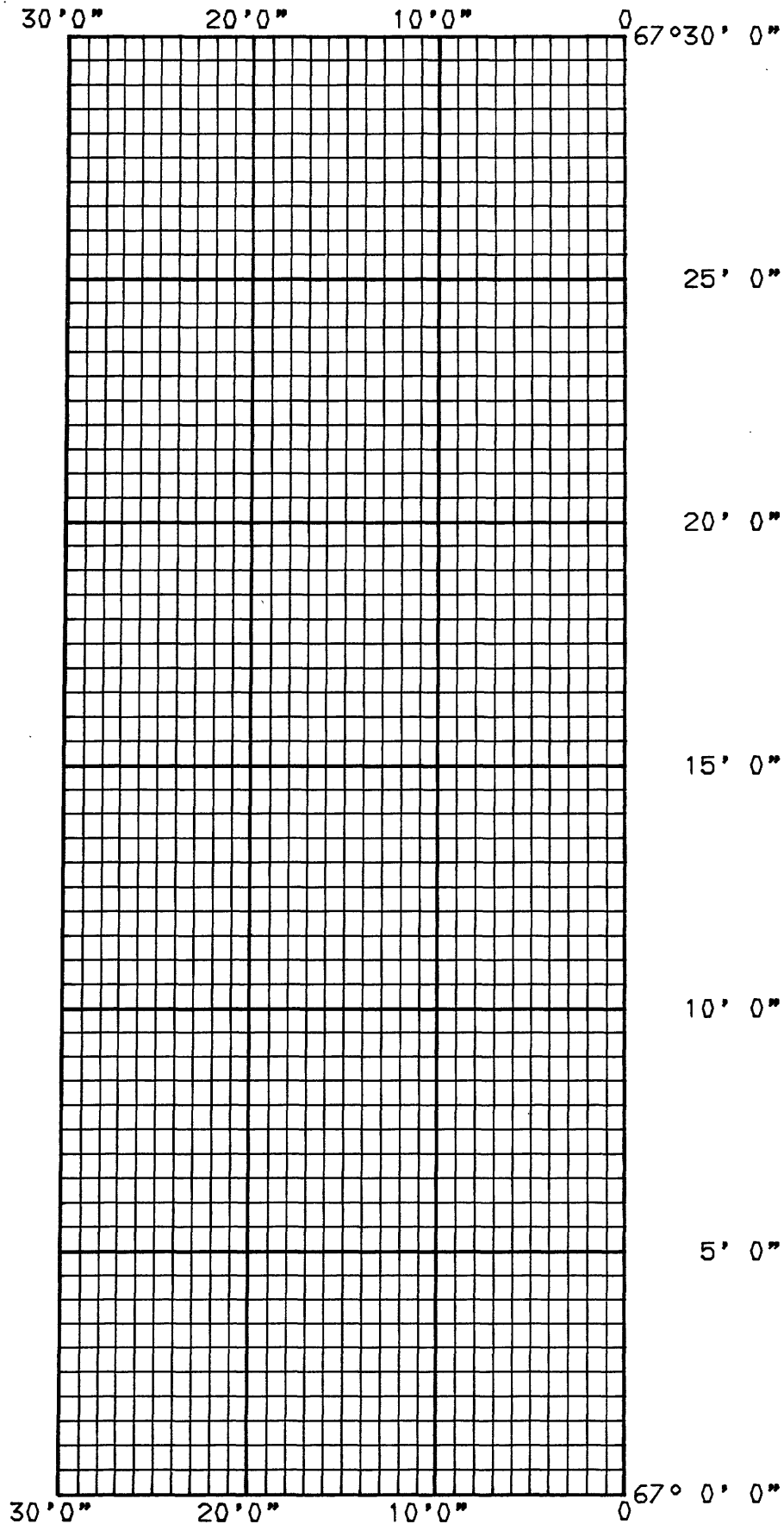
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $66^{\circ} 0' 0''$ to $66^{\circ} 30' 0''$
Scale = 1/250,000



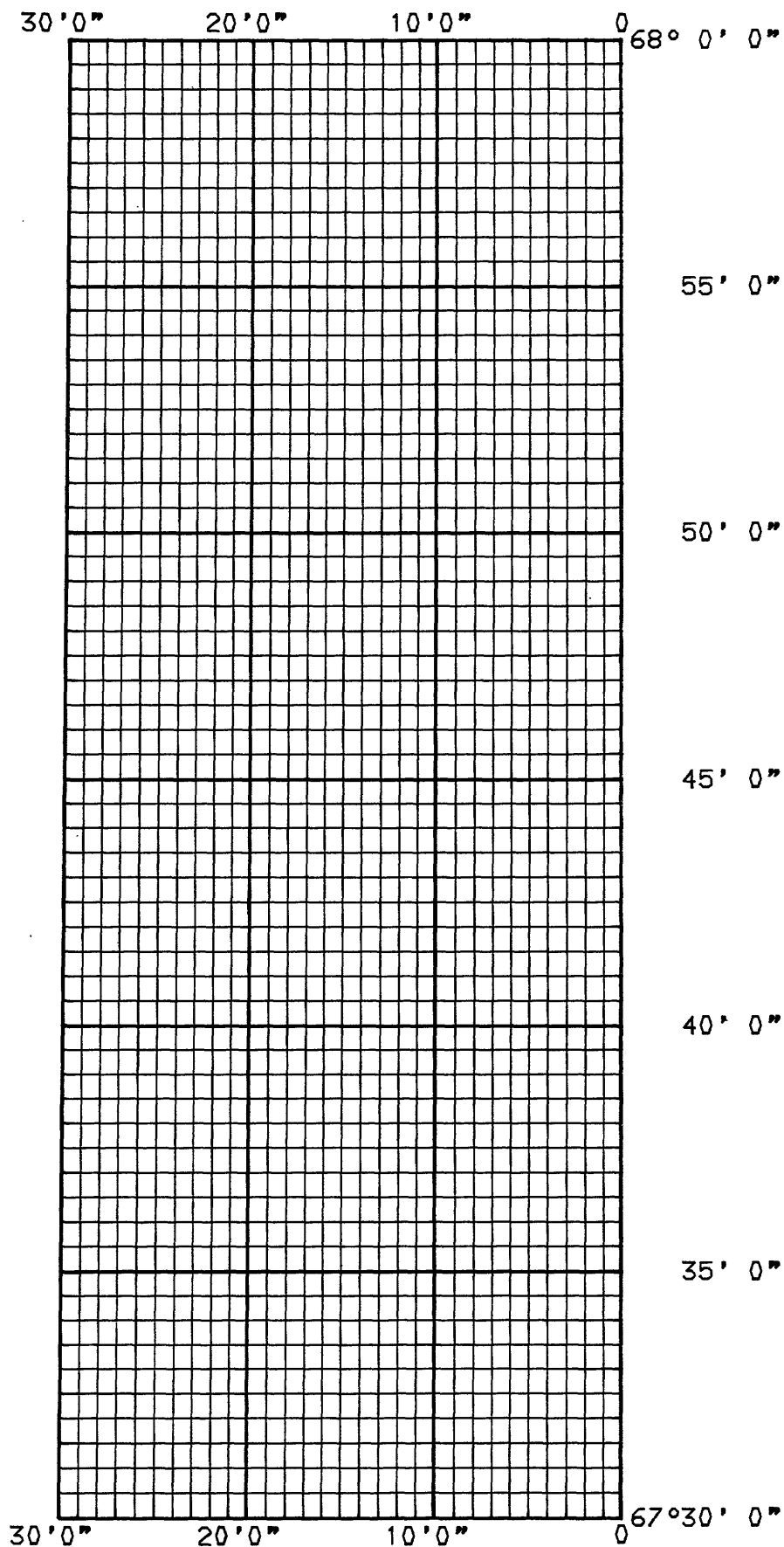
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $66^{\circ}30' 0''$ to $67^{\circ} 0' 0''$
Scale = 1/250,000



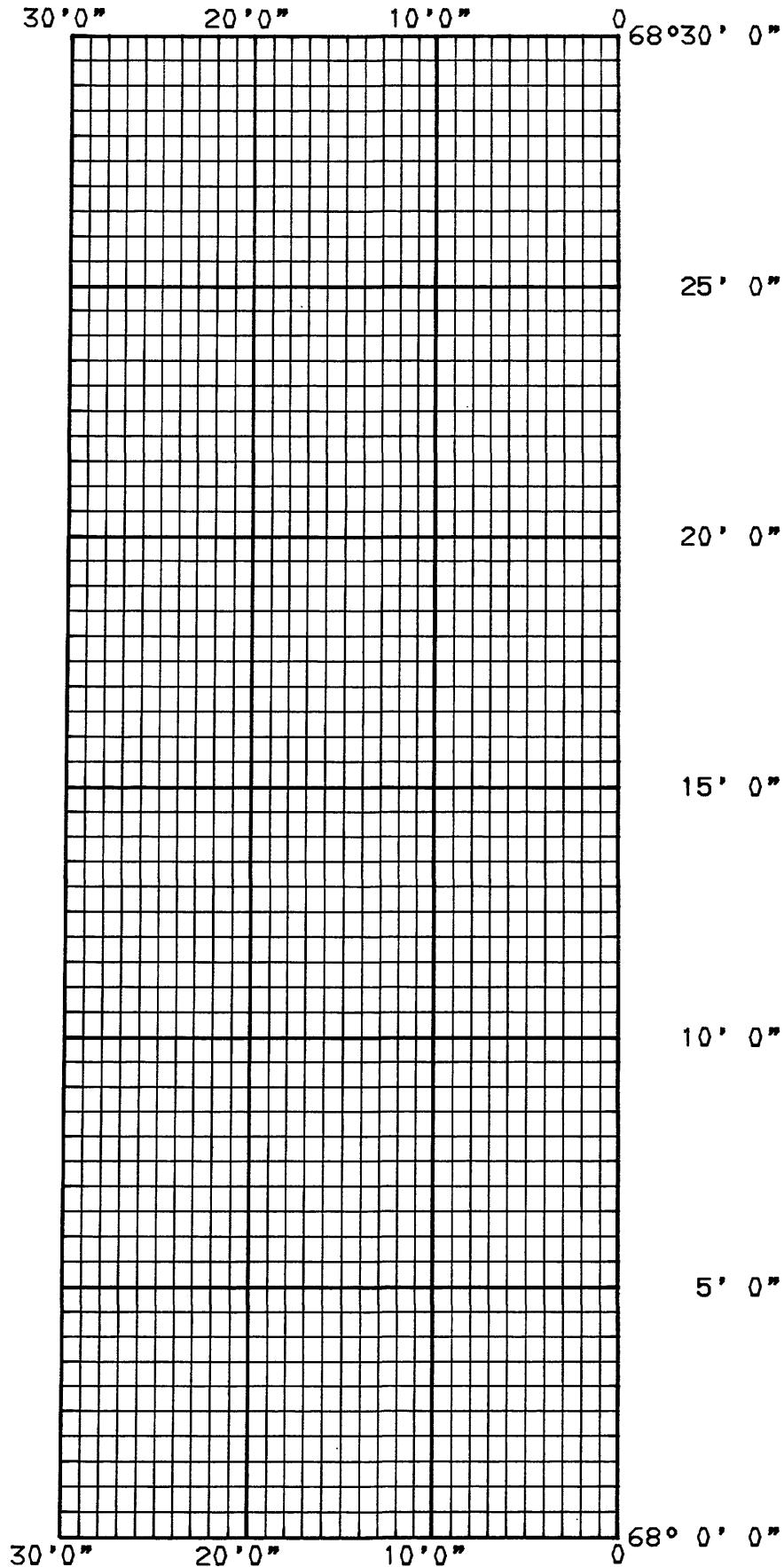
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $67^{\circ} 0' 0''$ to $67^{\circ} 30' 0''$
Scale = 1/250,000



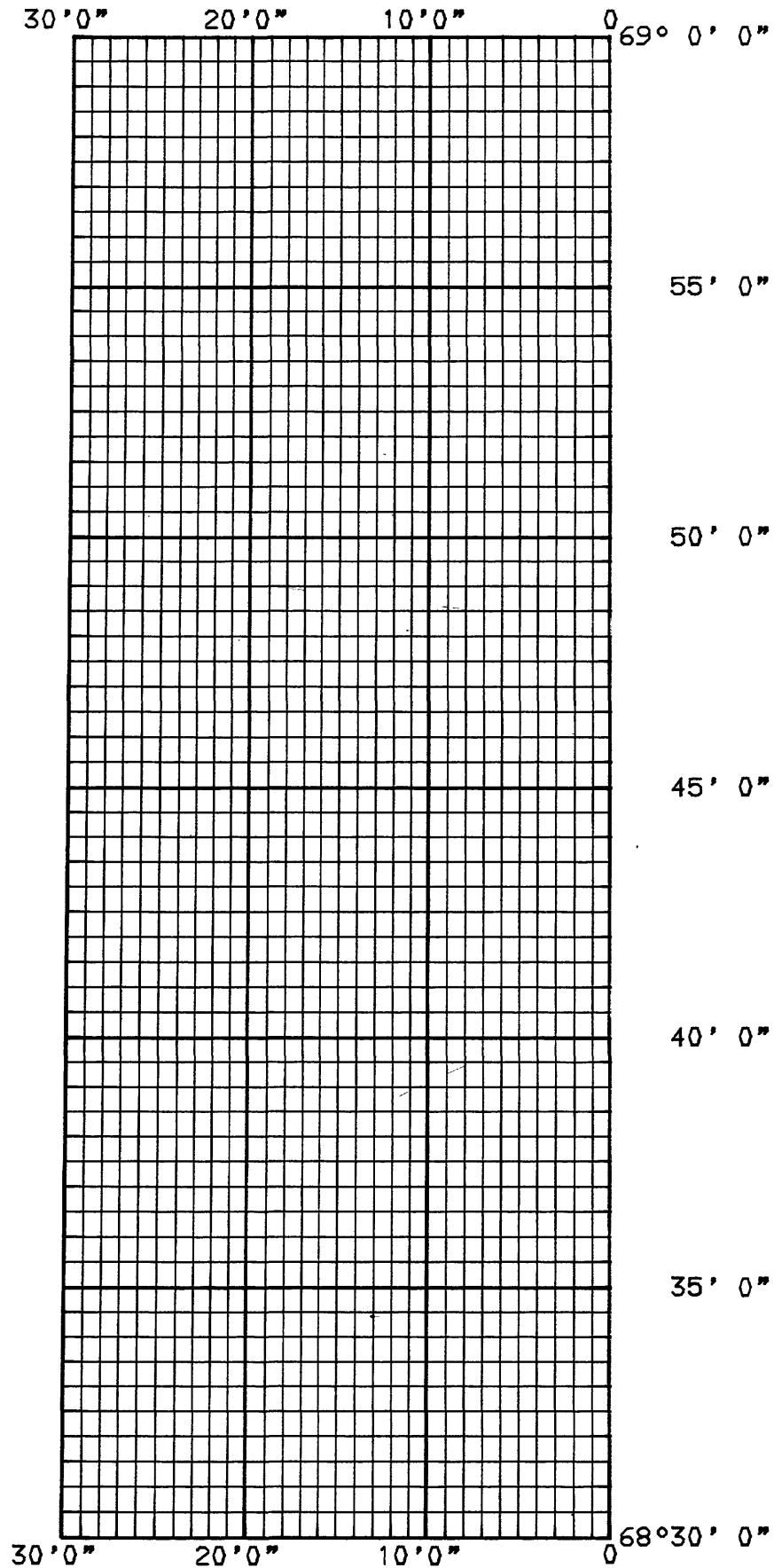
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $67^{\circ}30' 0''$ to $68^{\circ} 0' 0''$
Scale = 1/250,000



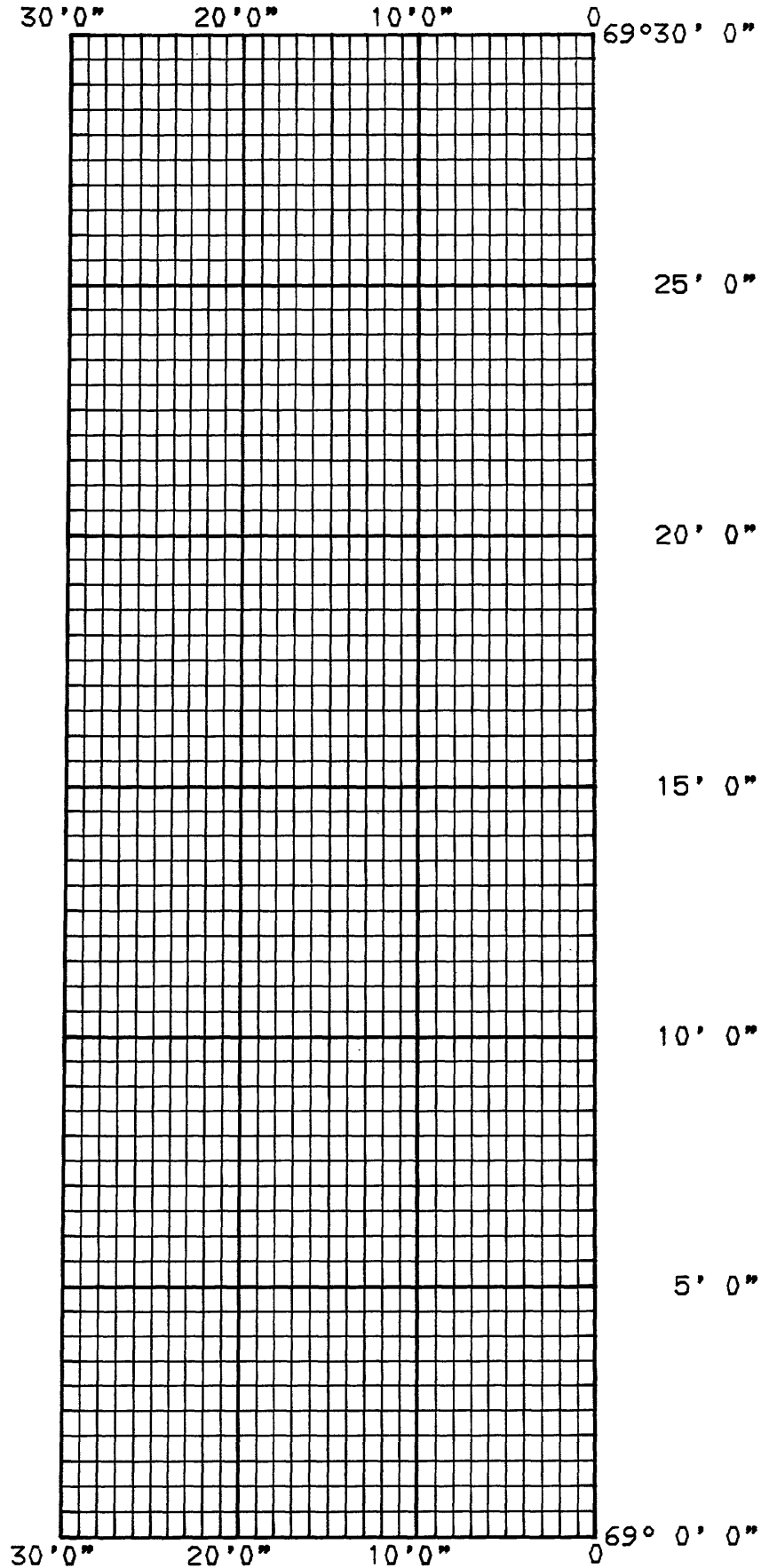
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $68^{\circ} 0' 0''$ to $68^{\circ} 30' 0''$
Scale = 1/250,000



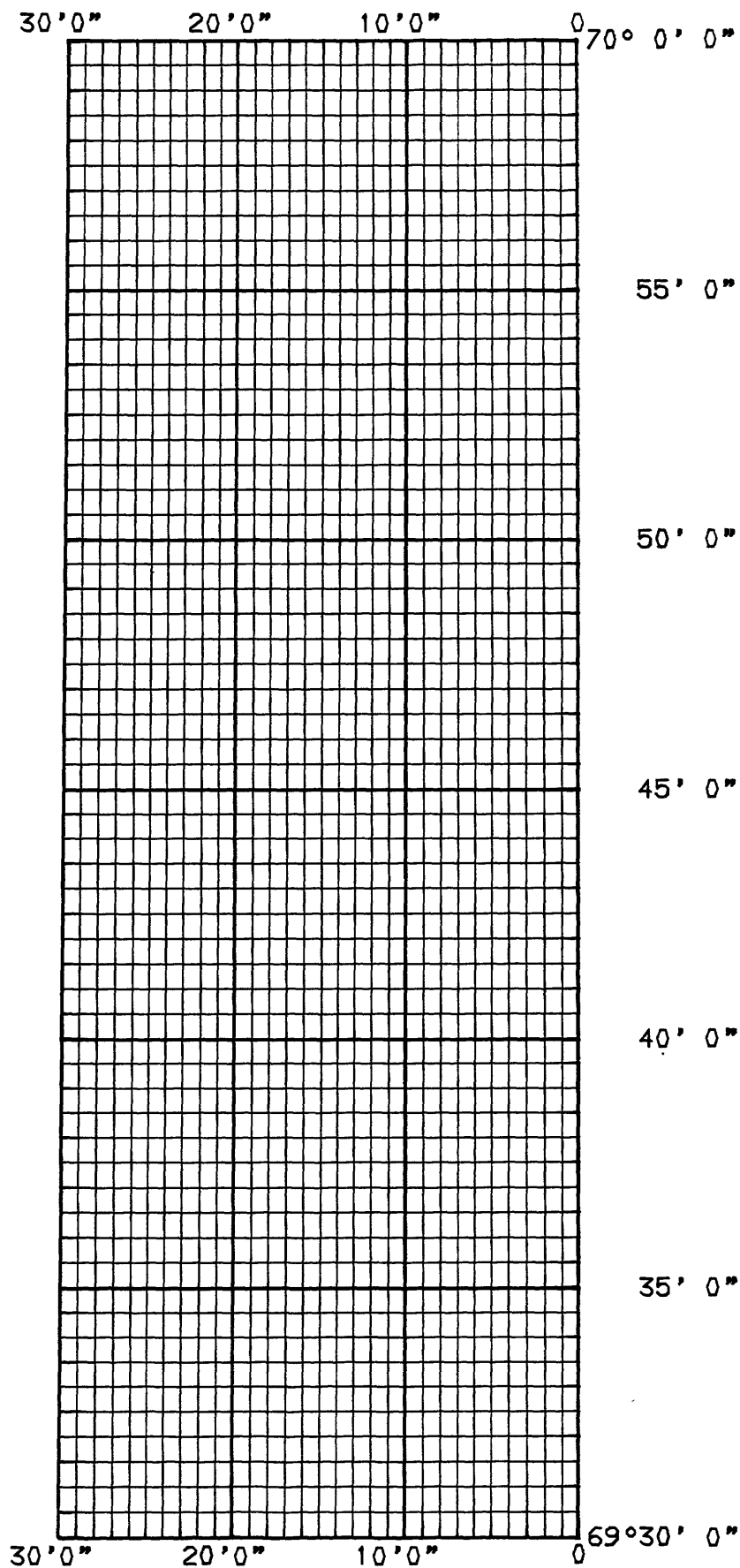
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
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Scale = 1/250,000



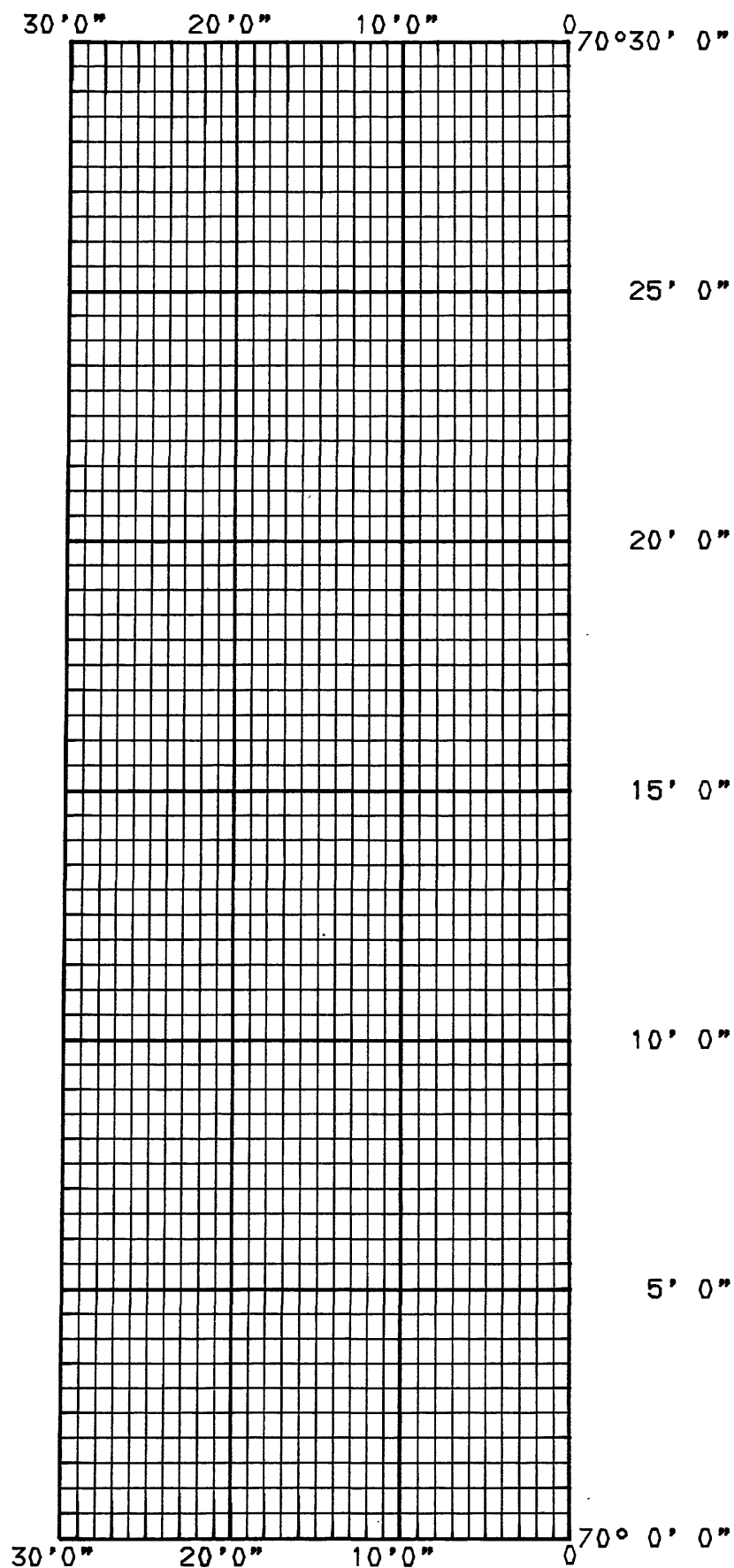
U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $69^{\circ} 0' 0''$ to $69^{\circ} 30' 0''$
Scale = 1/250,000



U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $69^{\circ}30'0''$ to $70^{\circ}0'0''$
Scale = $1/250,000$



U.S.G.S. Open-File Report 82-724
W.L. Campbell & G. VanTrump Jr
Range of latitude = $70^{\circ} 0' 0''$ to $70^{\circ} 30' 0''$
Scale = 1/250,000



U.S.G.S. Open-File Report 82-724

J. S. Campbell & G. Van Trump Jr

Range of Latitude = $70^{\circ}30'0''$ to $71^{\circ}0'0''$

Range of Scale = $1/250,000$ to $1/30,000$

