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SIMPLIFIED SOLAR FRACTION ESTIMATION FOR SPACE AND WATER HEATIN--ETC(U)

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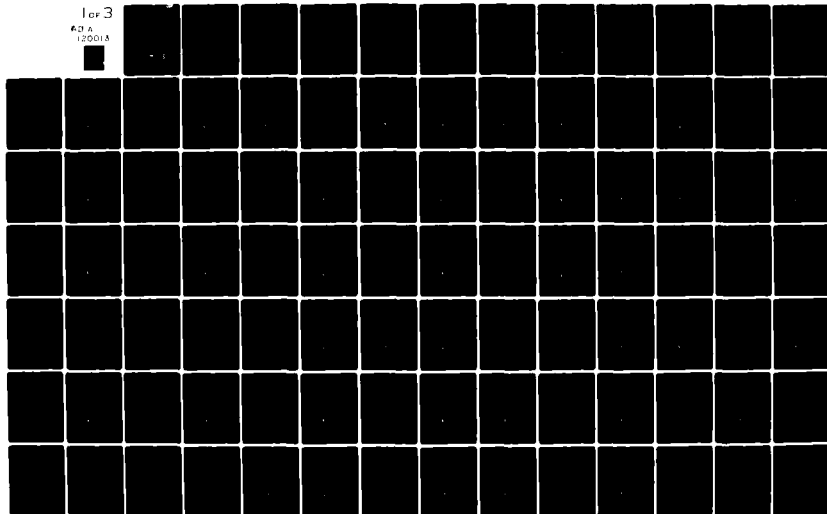
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**SIMPLIFIED SOLAR FRACTION ESTIMATION FOR SPACE
AND WATER HEATING AT DOD INSTALLATIONS
APPENDIX B - SPACE HEATING NOMOGRAPHS**

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**SEPTEMBER 1982
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This research report is presented as a competent treatment of the subject, worthy of publication. The United States Air Force Academy vouches for the quality of the research, without necessarily endorsing the opinions and conclusions of the author.

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This research report has been reviewed and is approved for publication.


THOMAS E. MCCANN, Lt Colonel, USAF
Director of Research and
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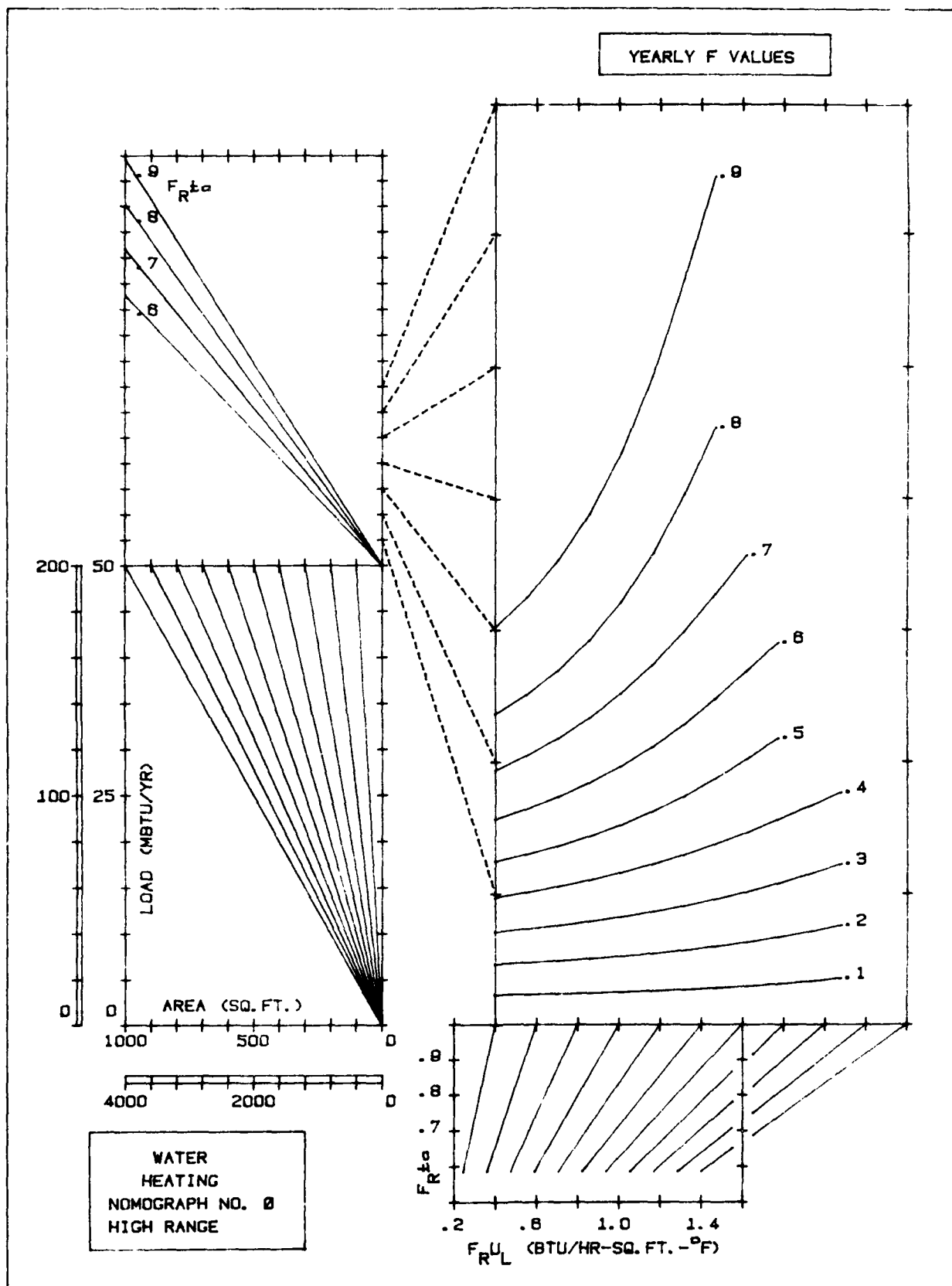
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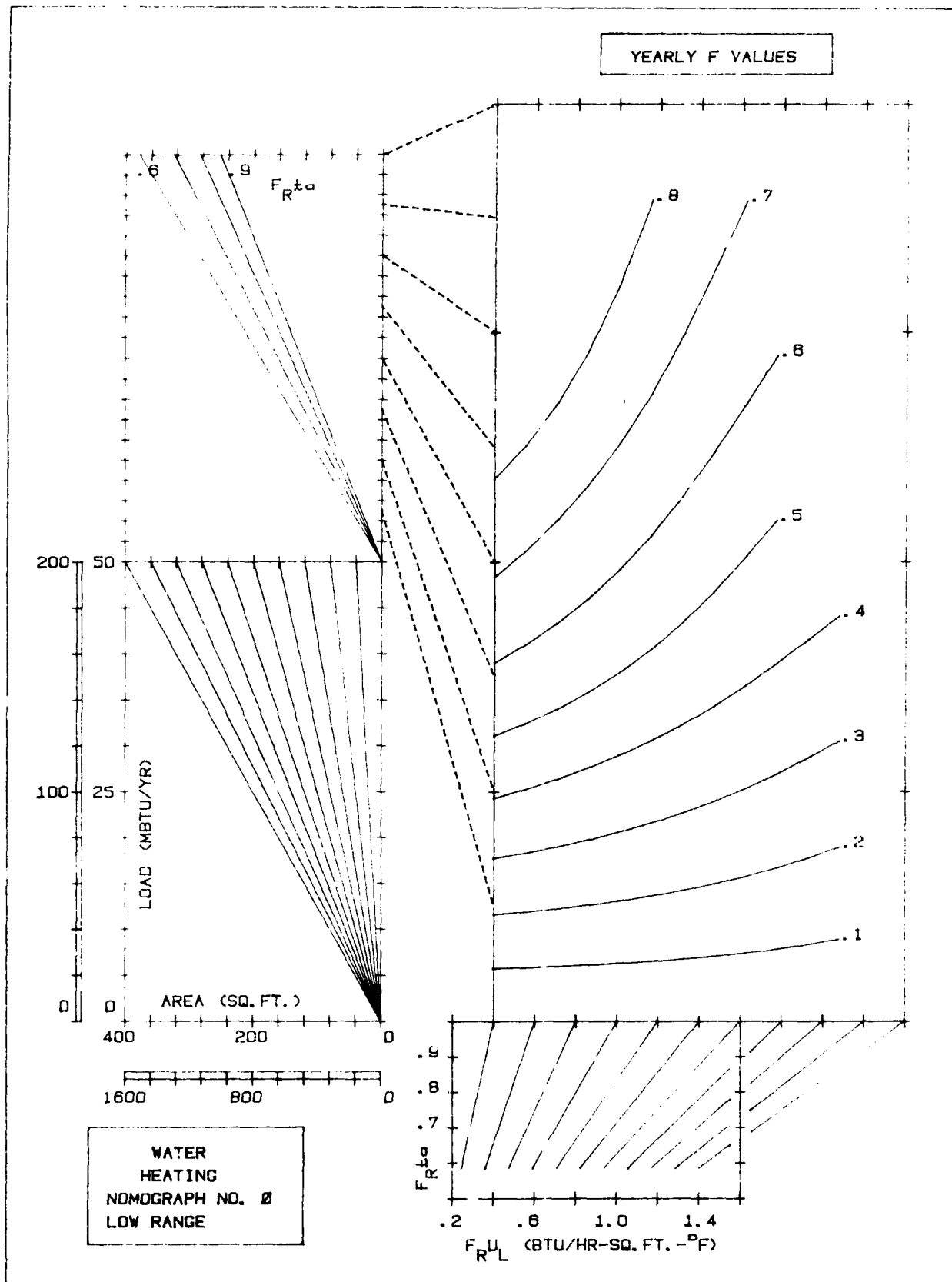
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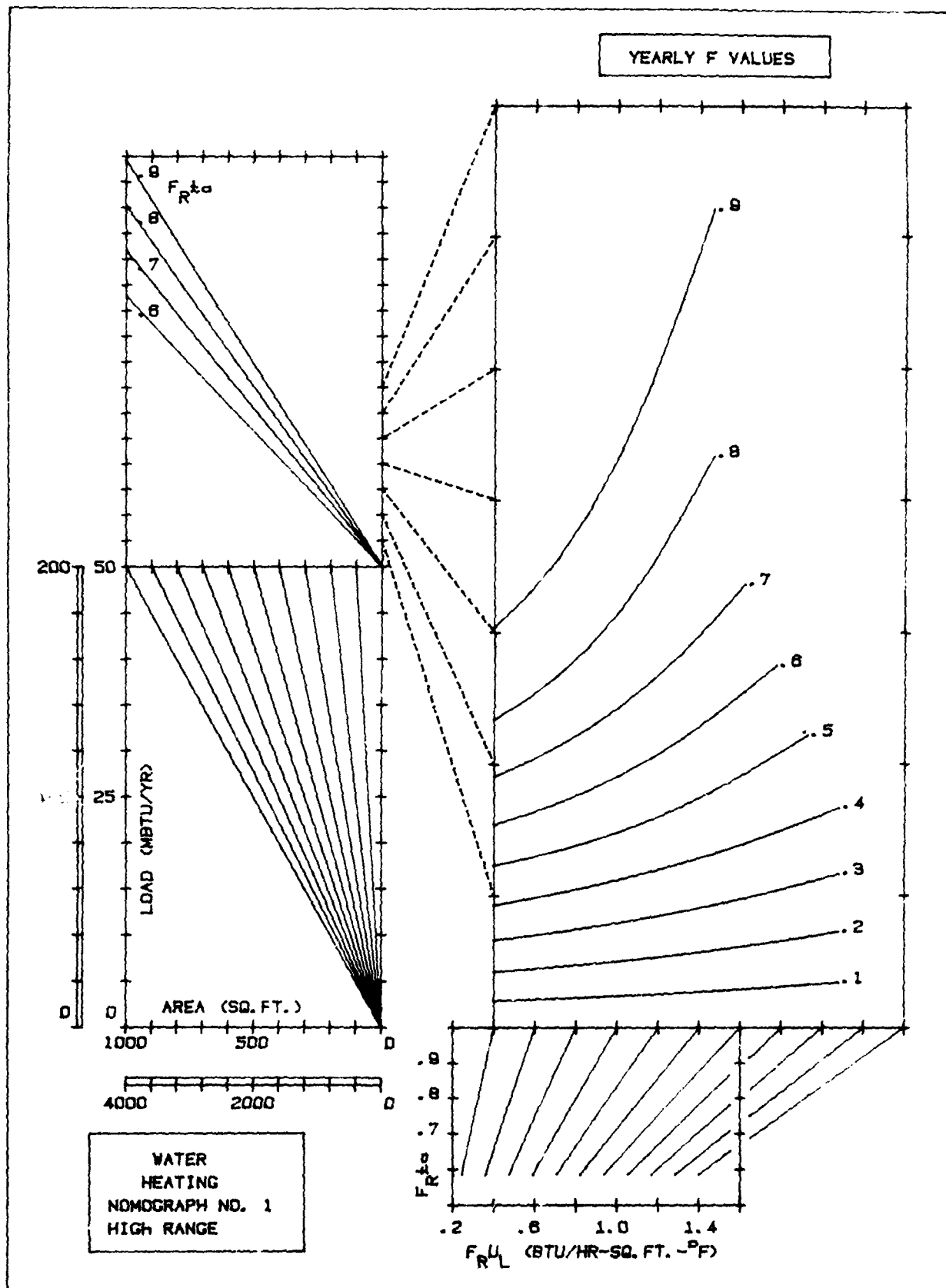
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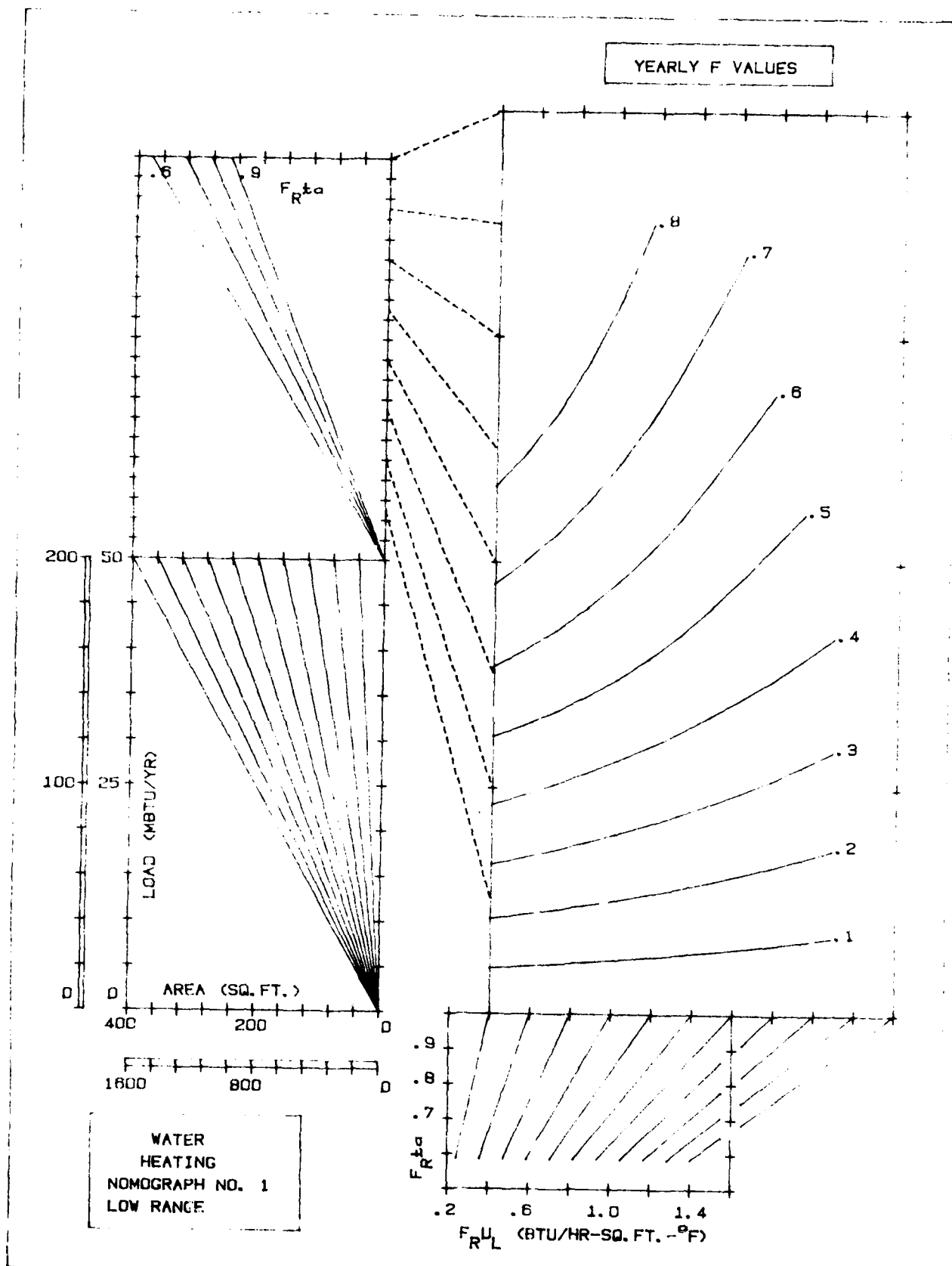
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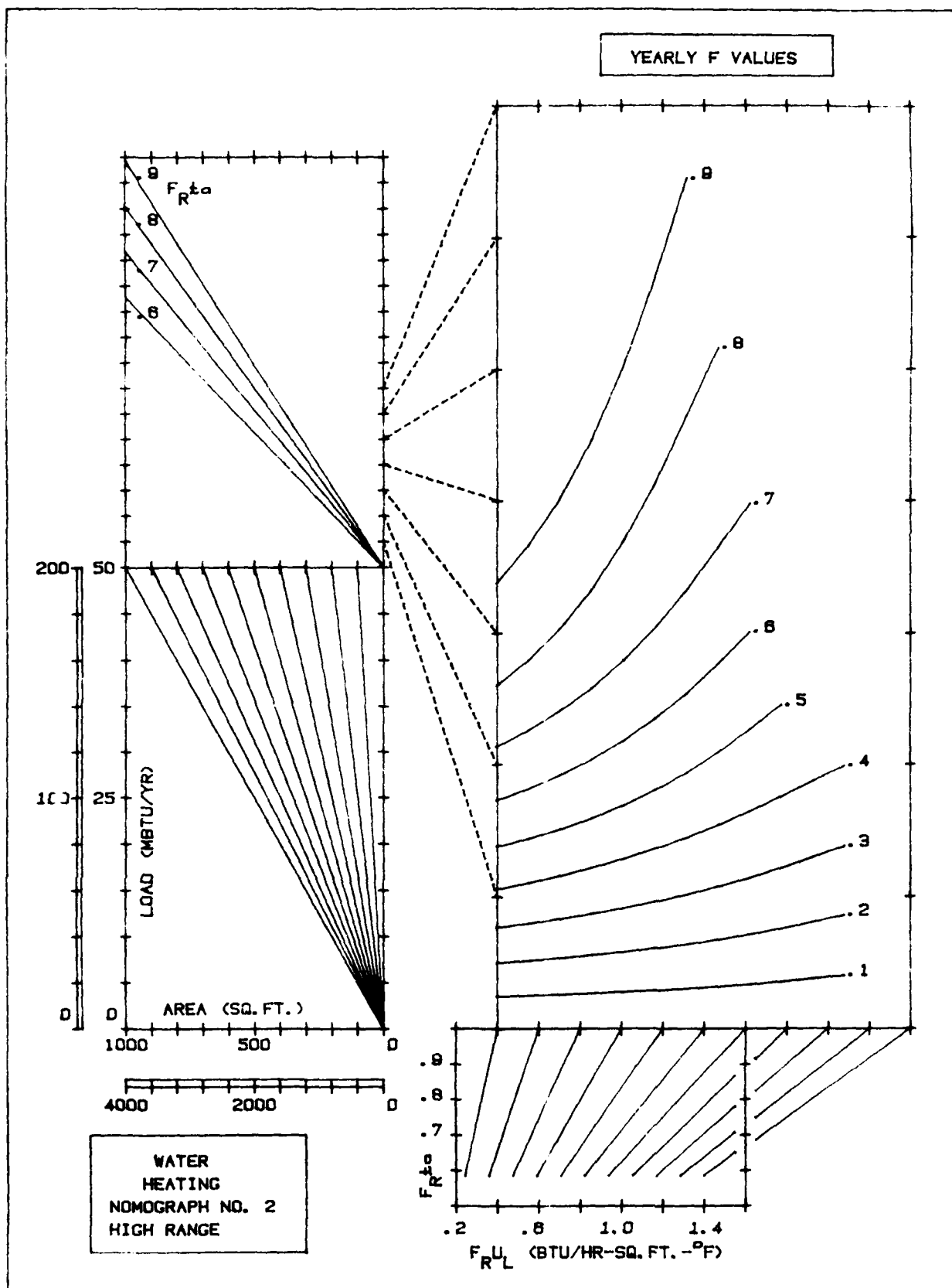
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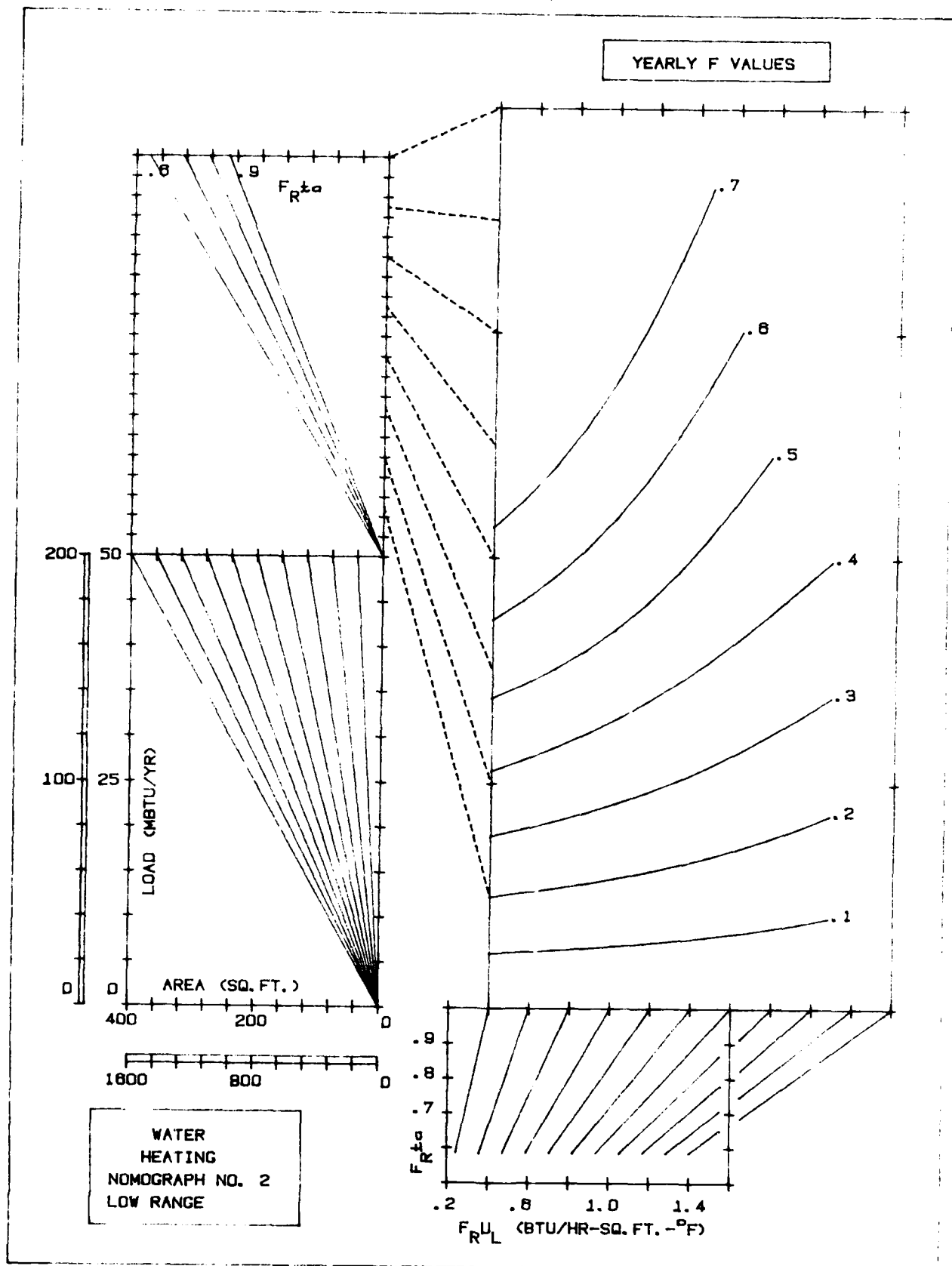
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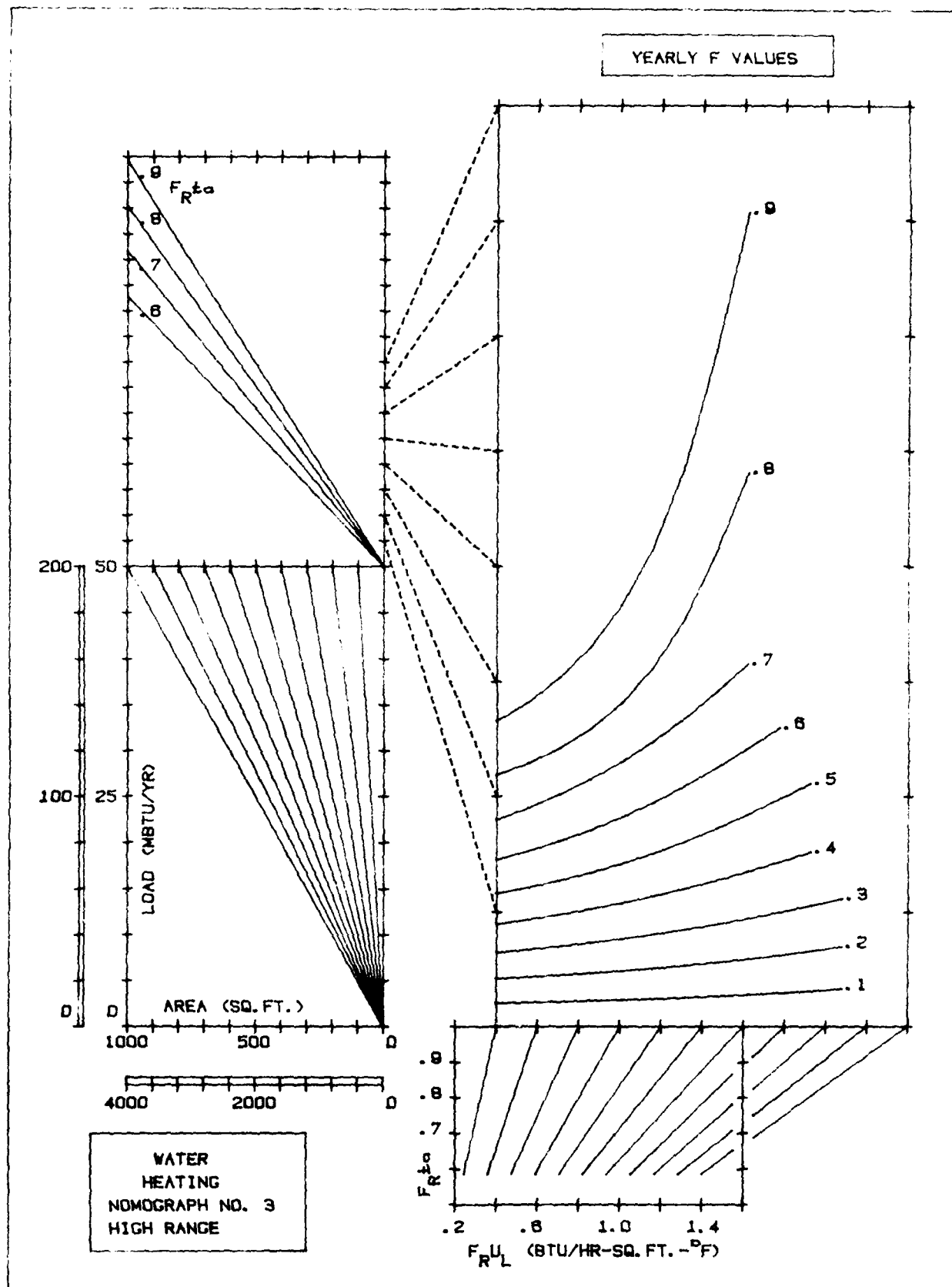
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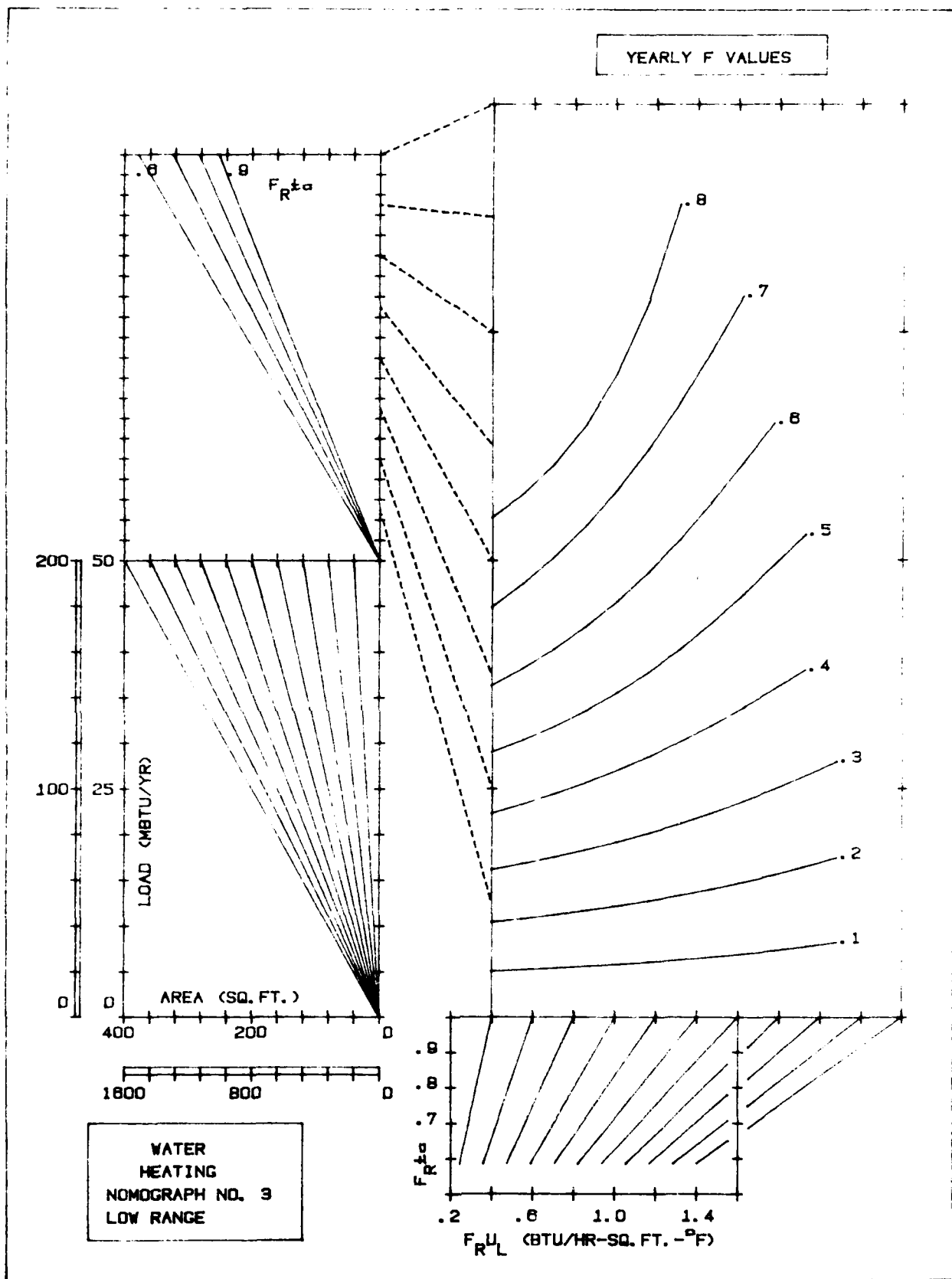


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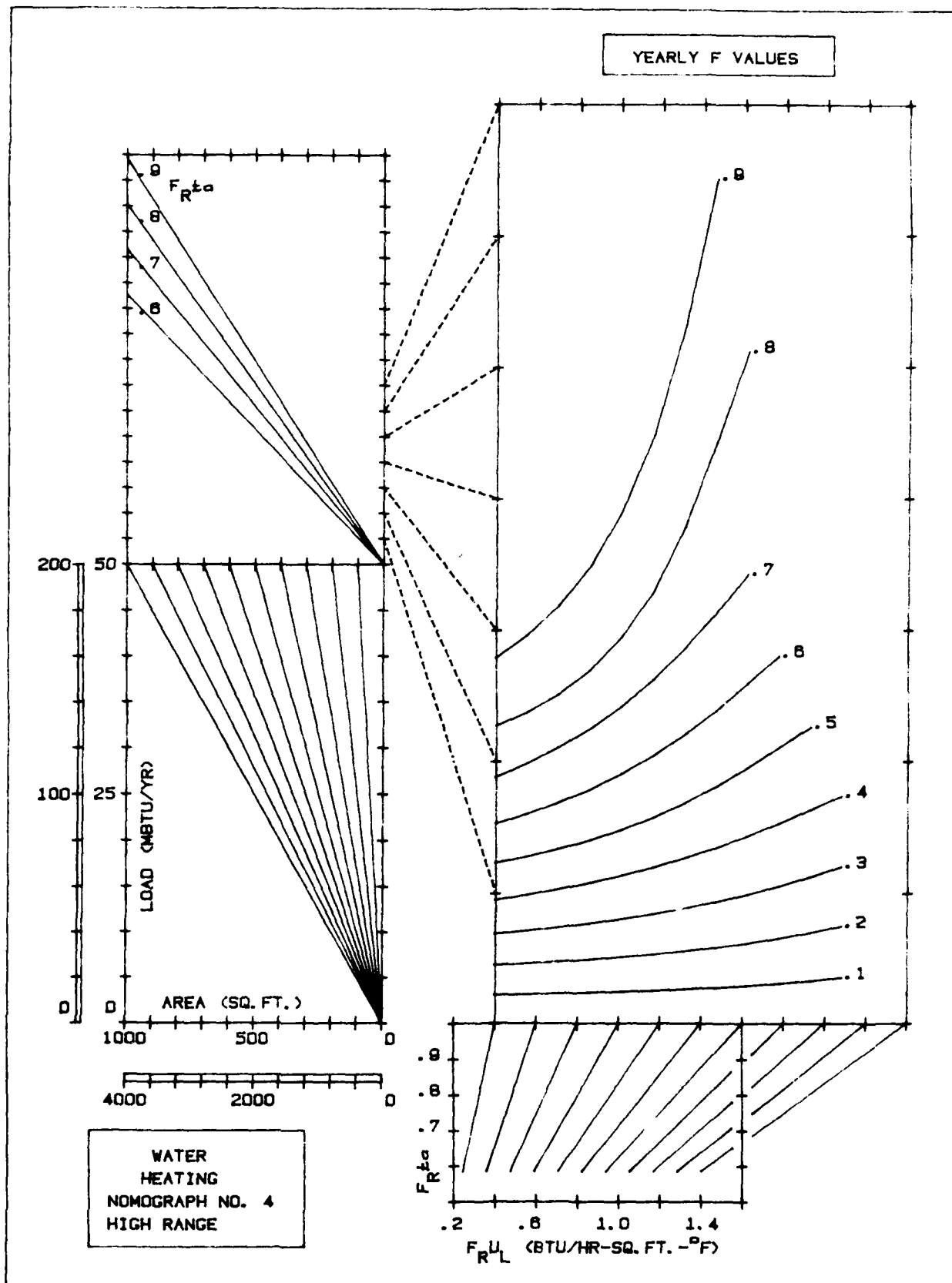


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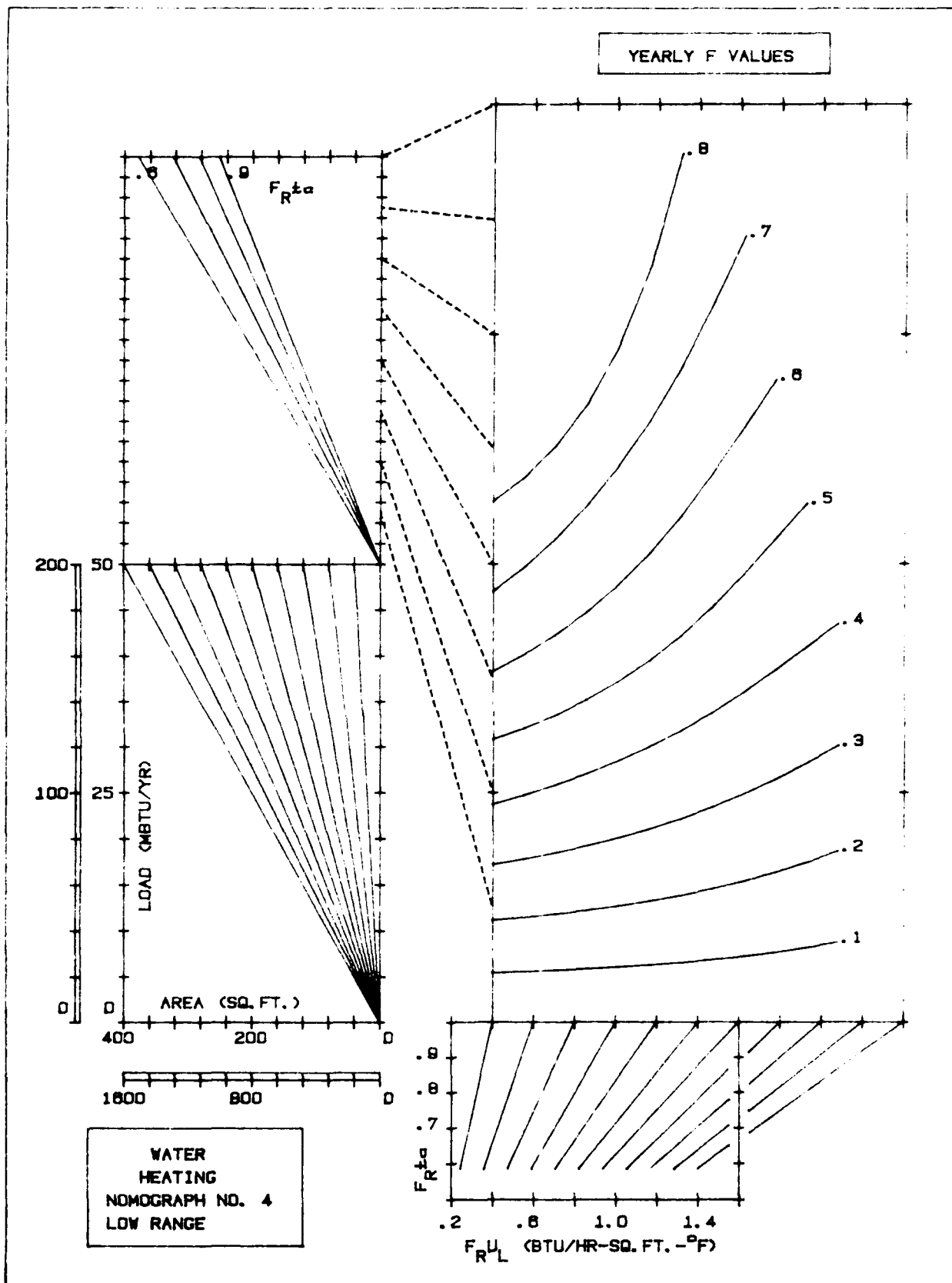




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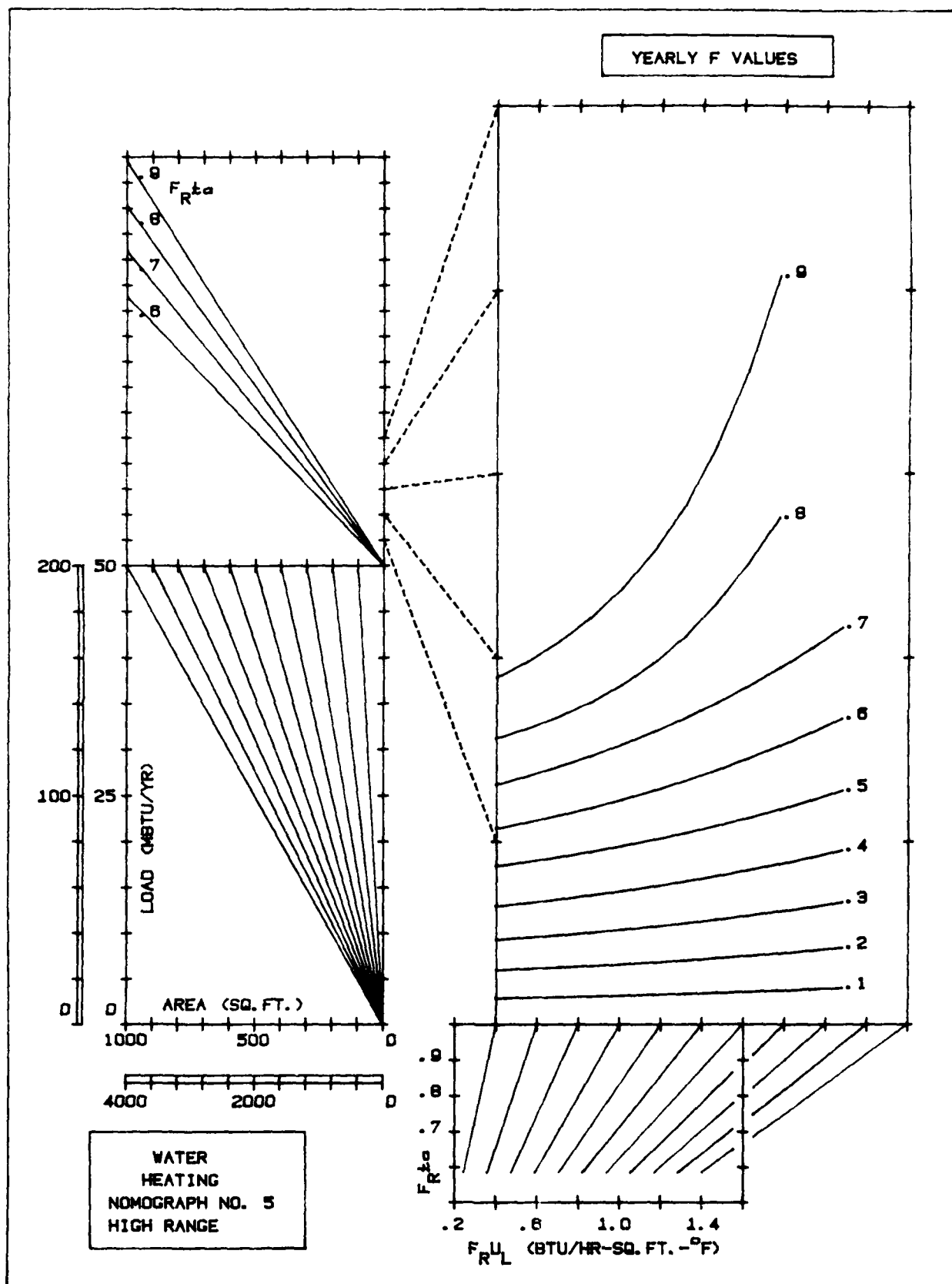


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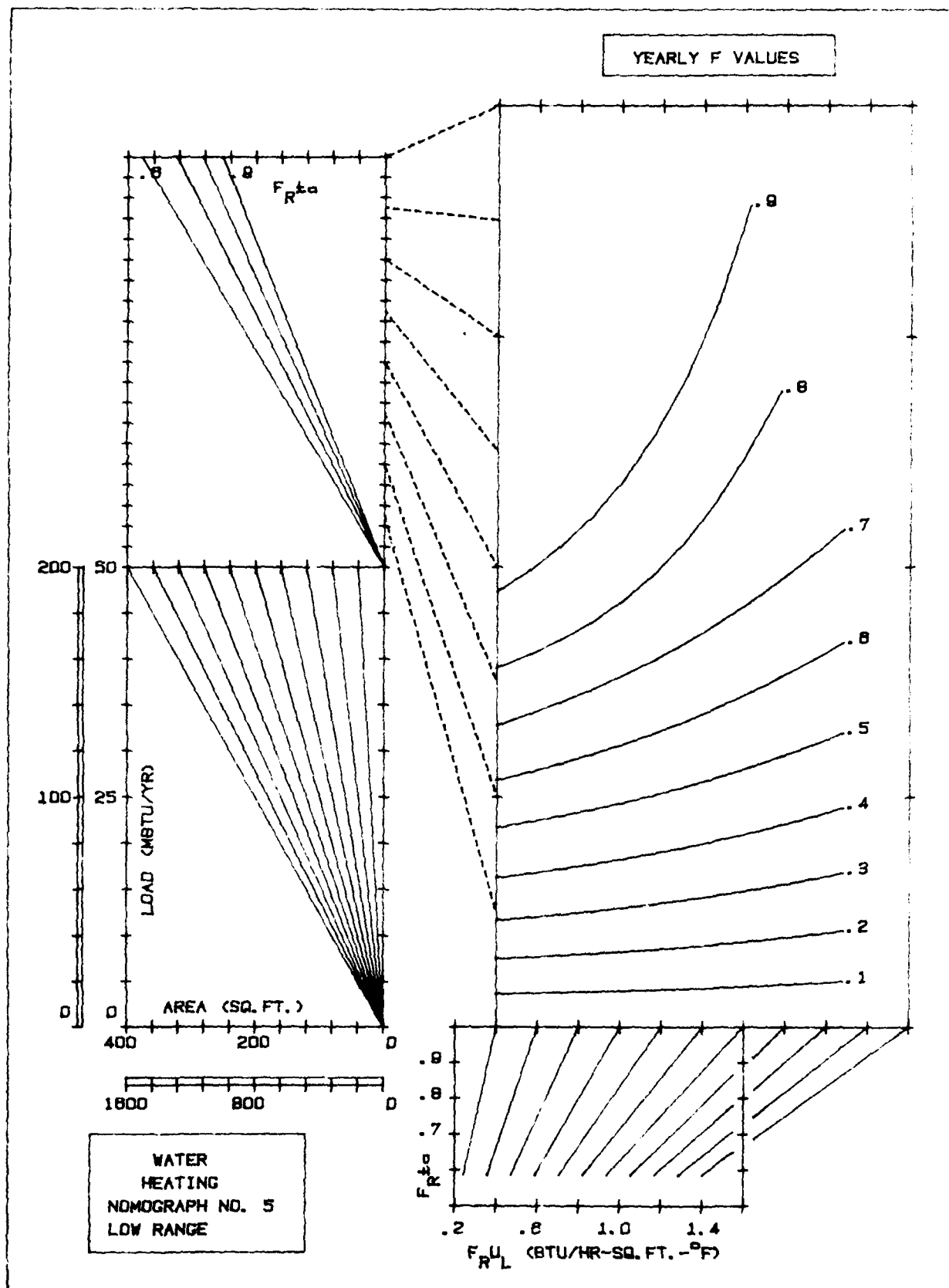


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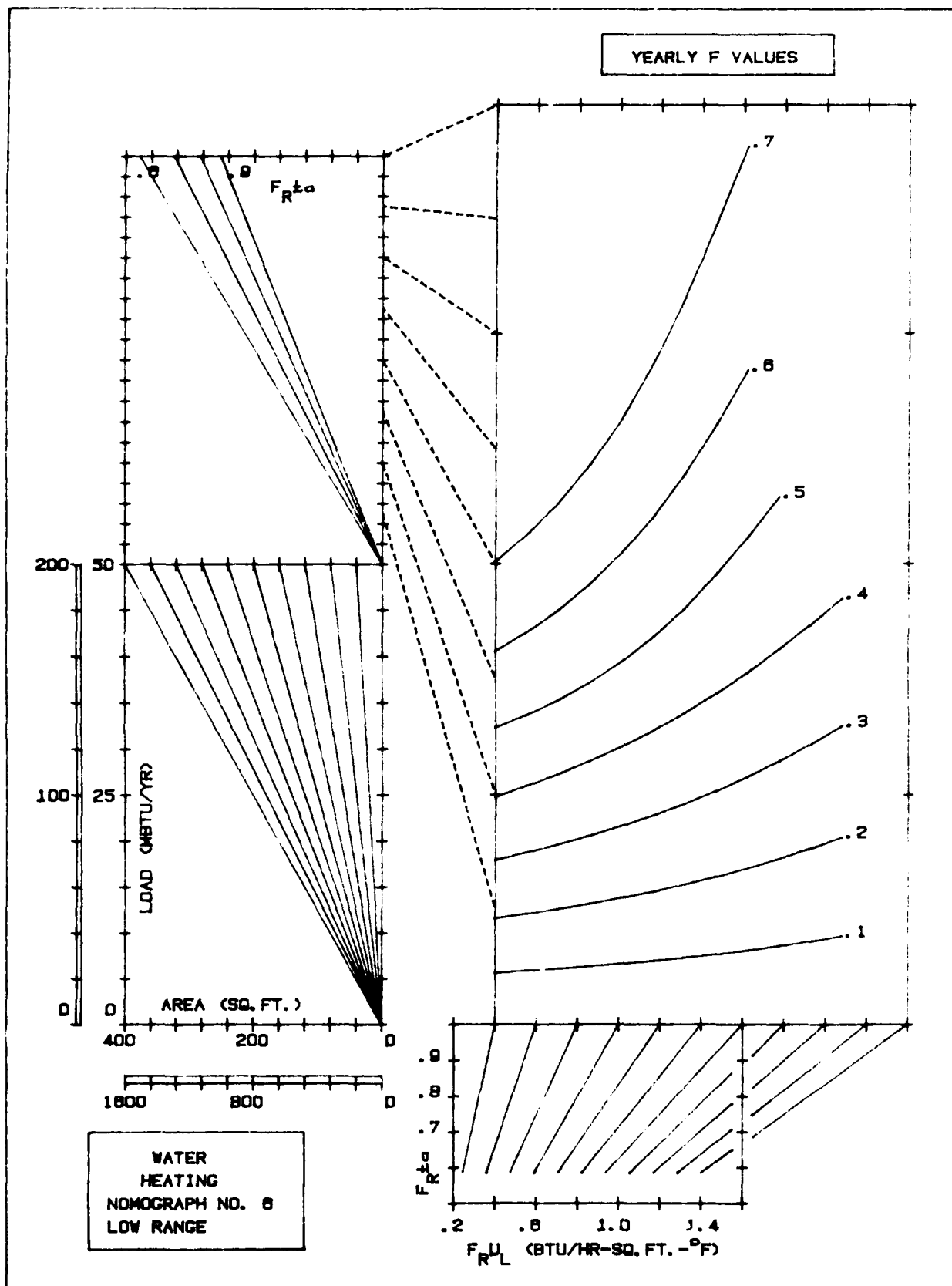


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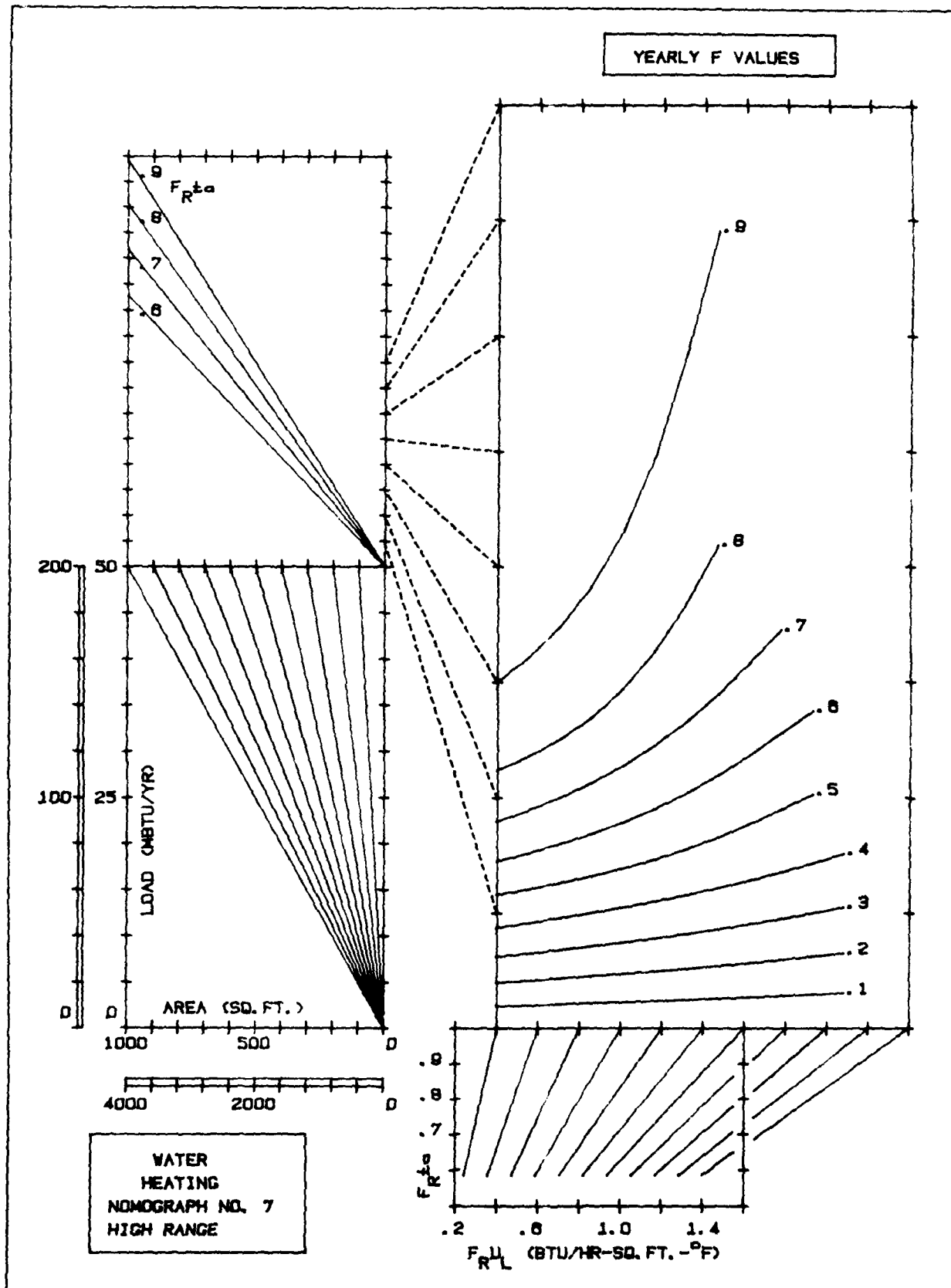


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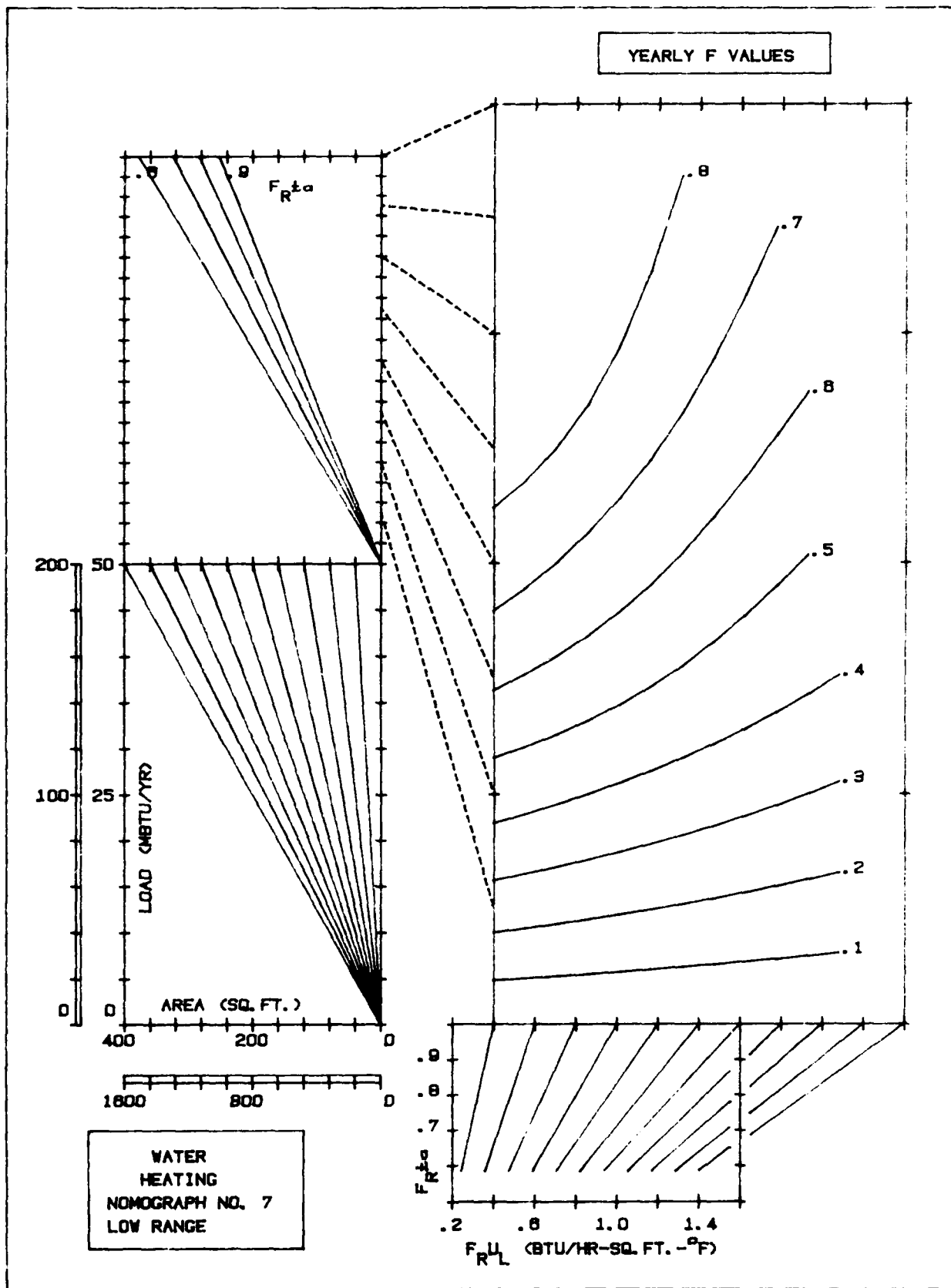
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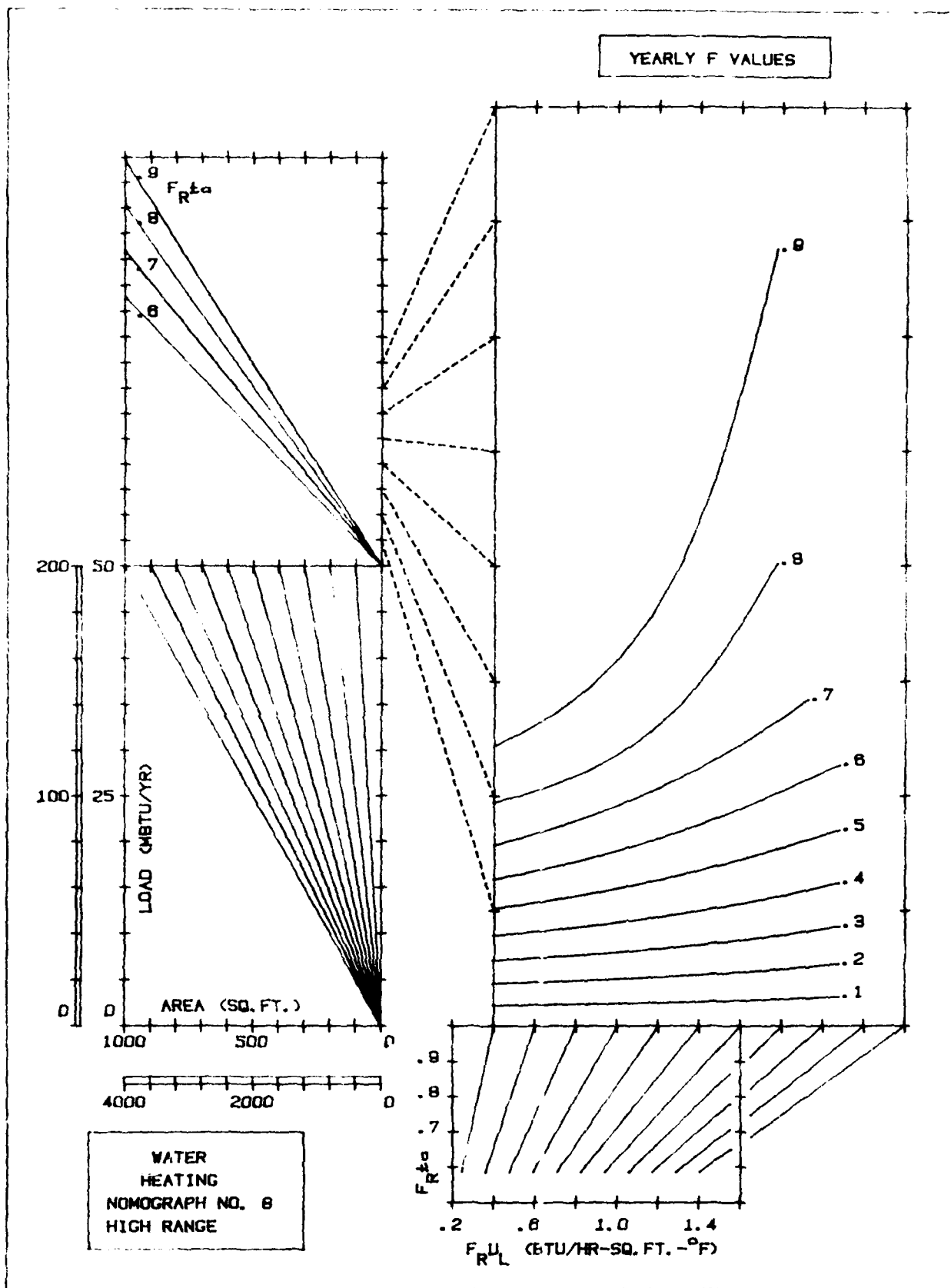
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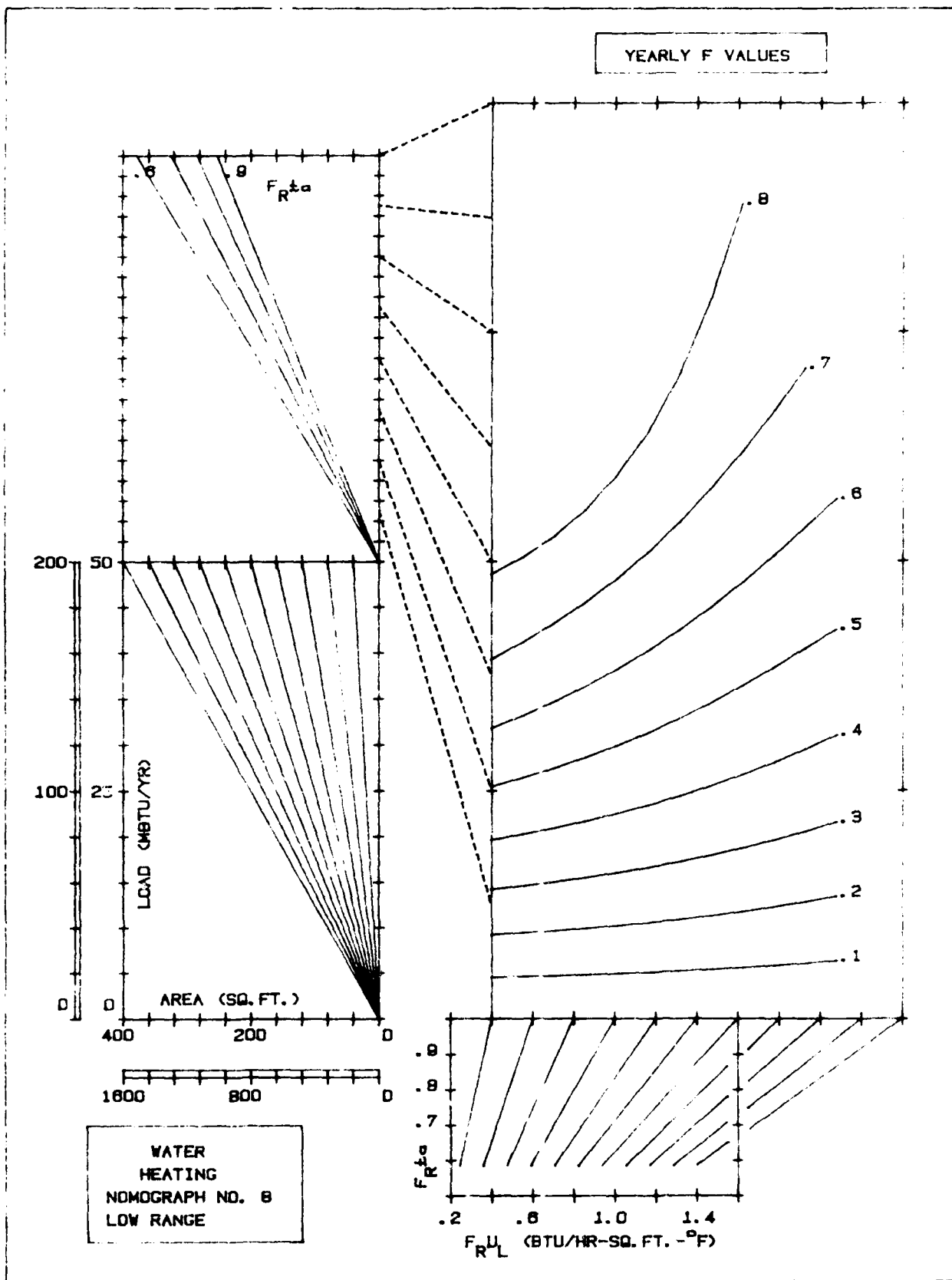
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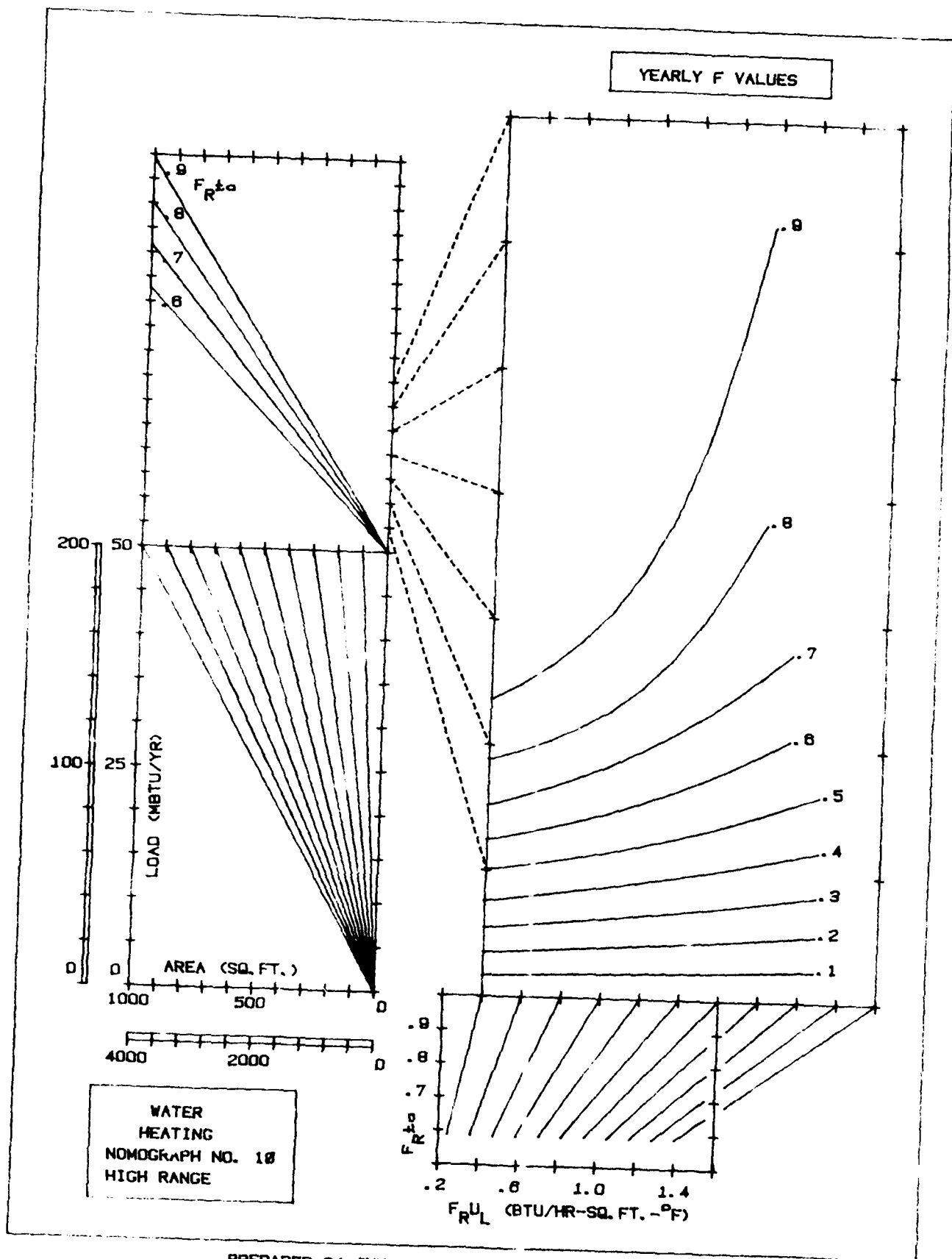
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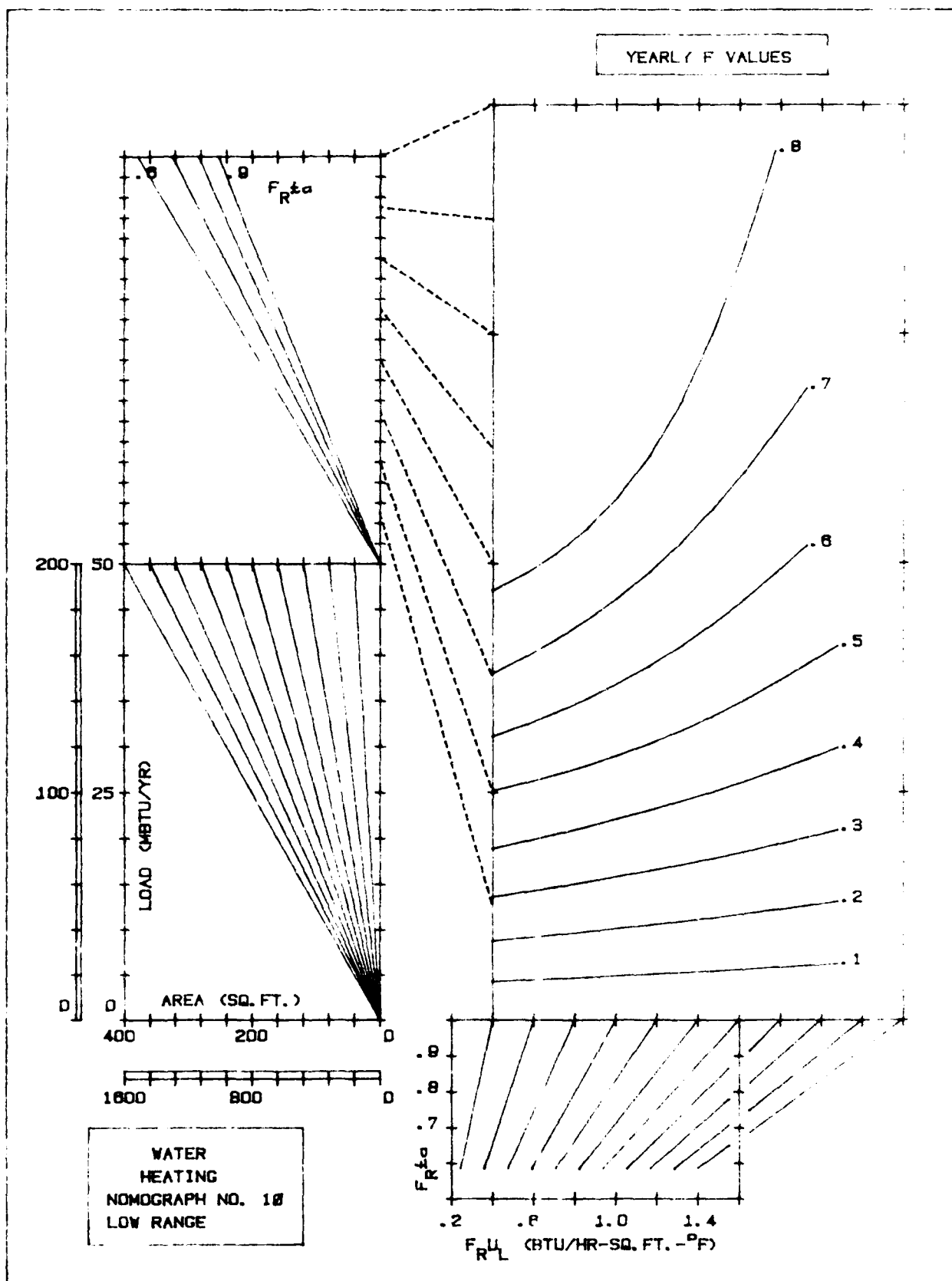
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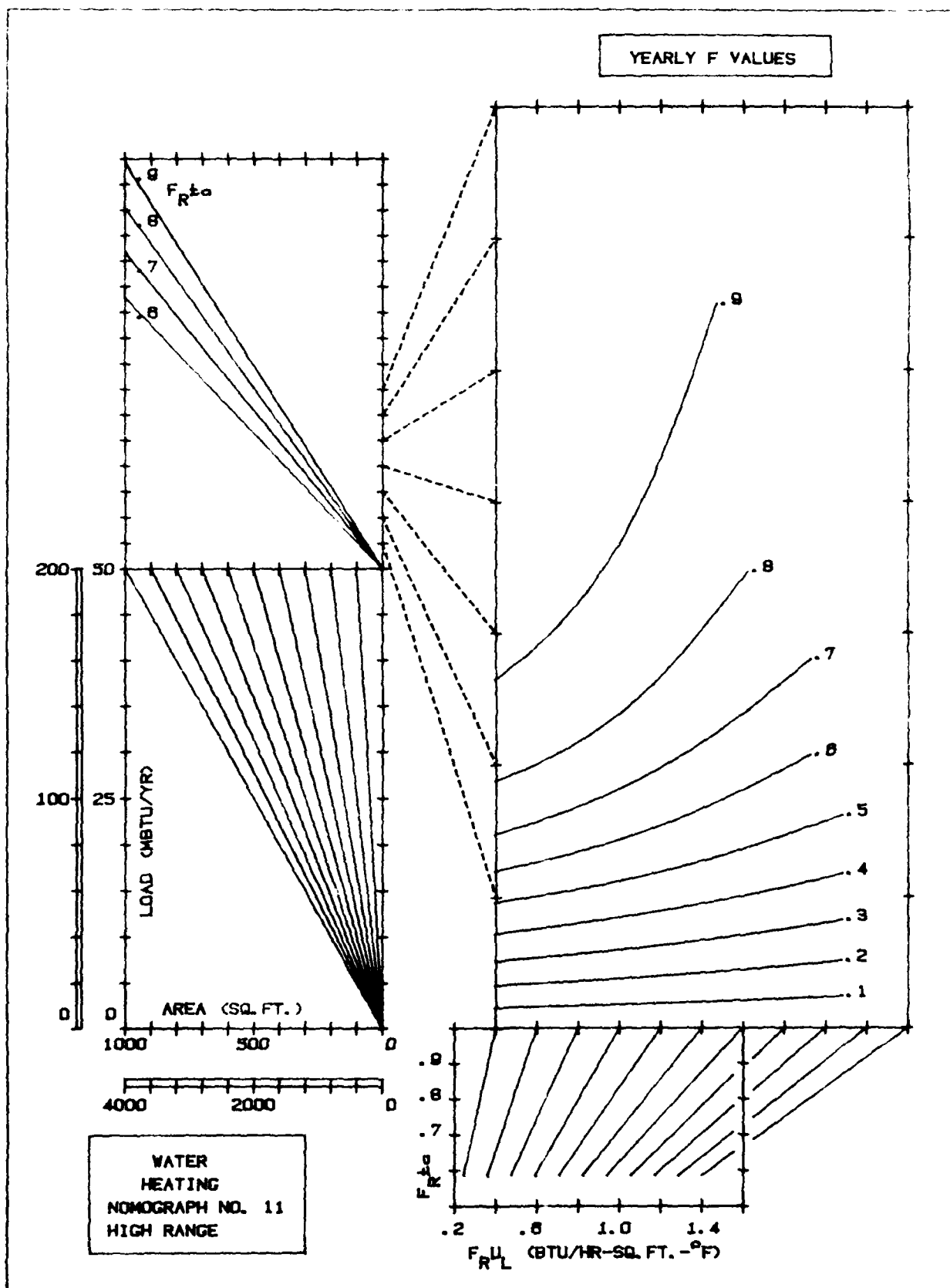
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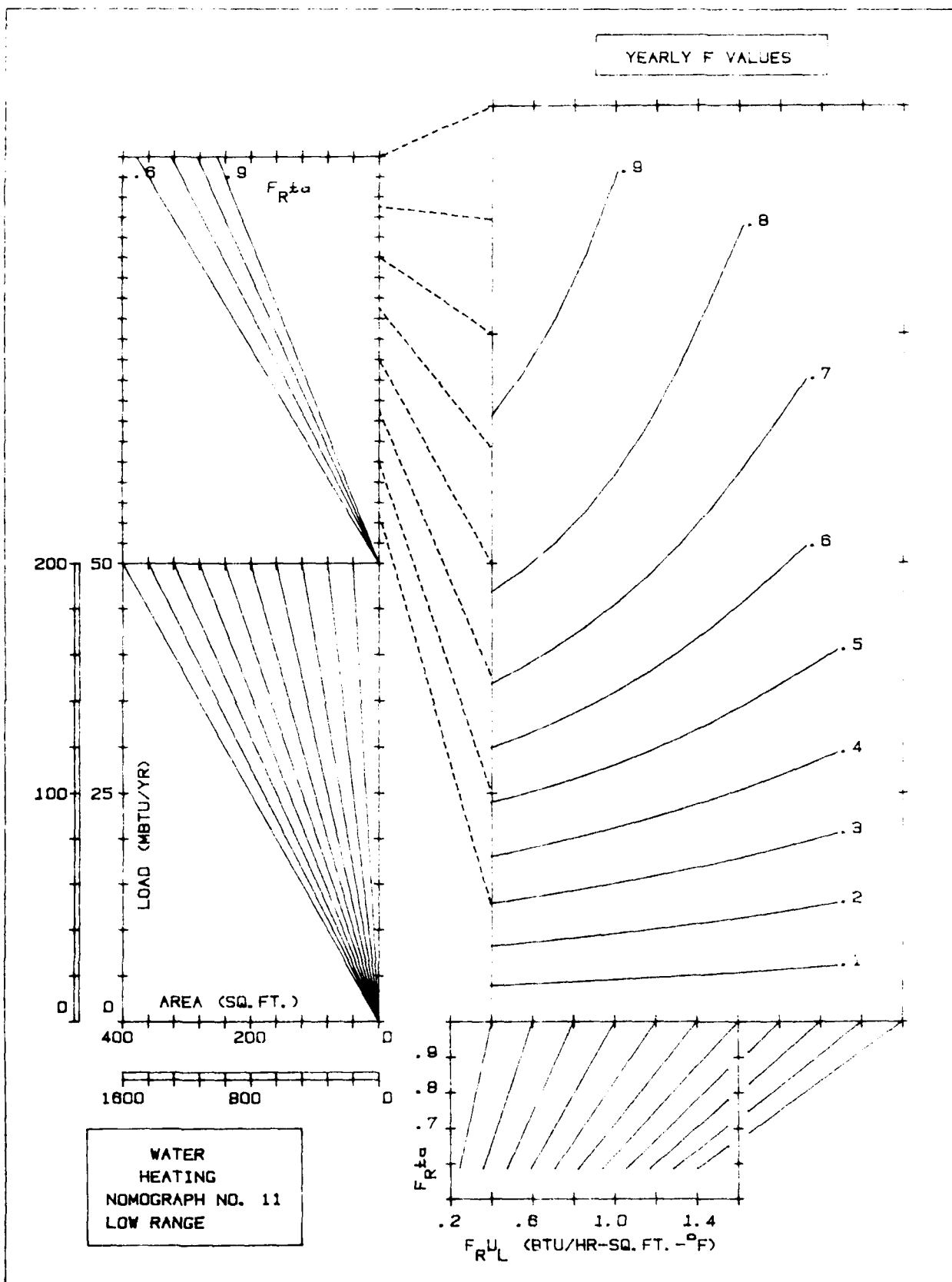
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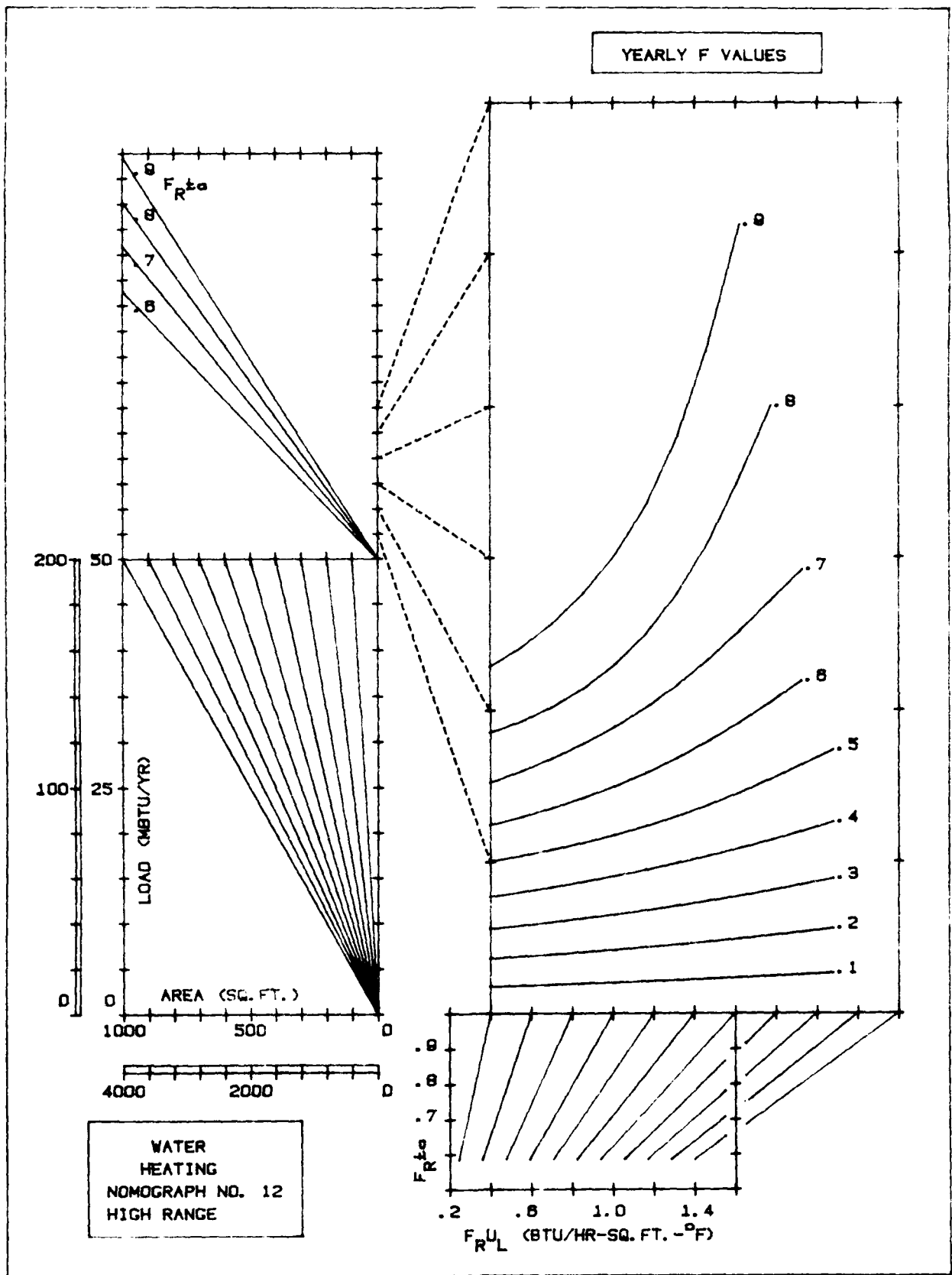
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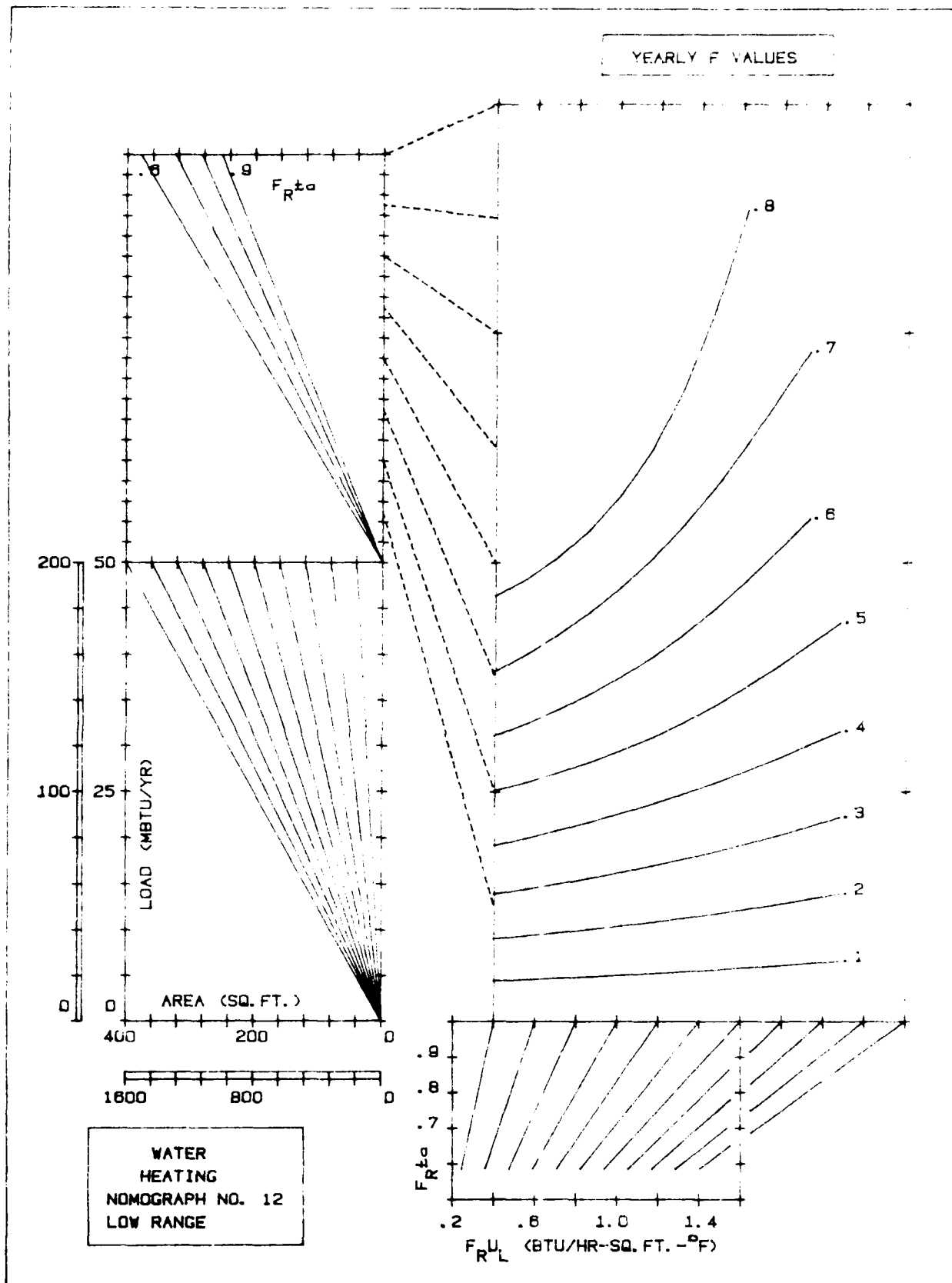
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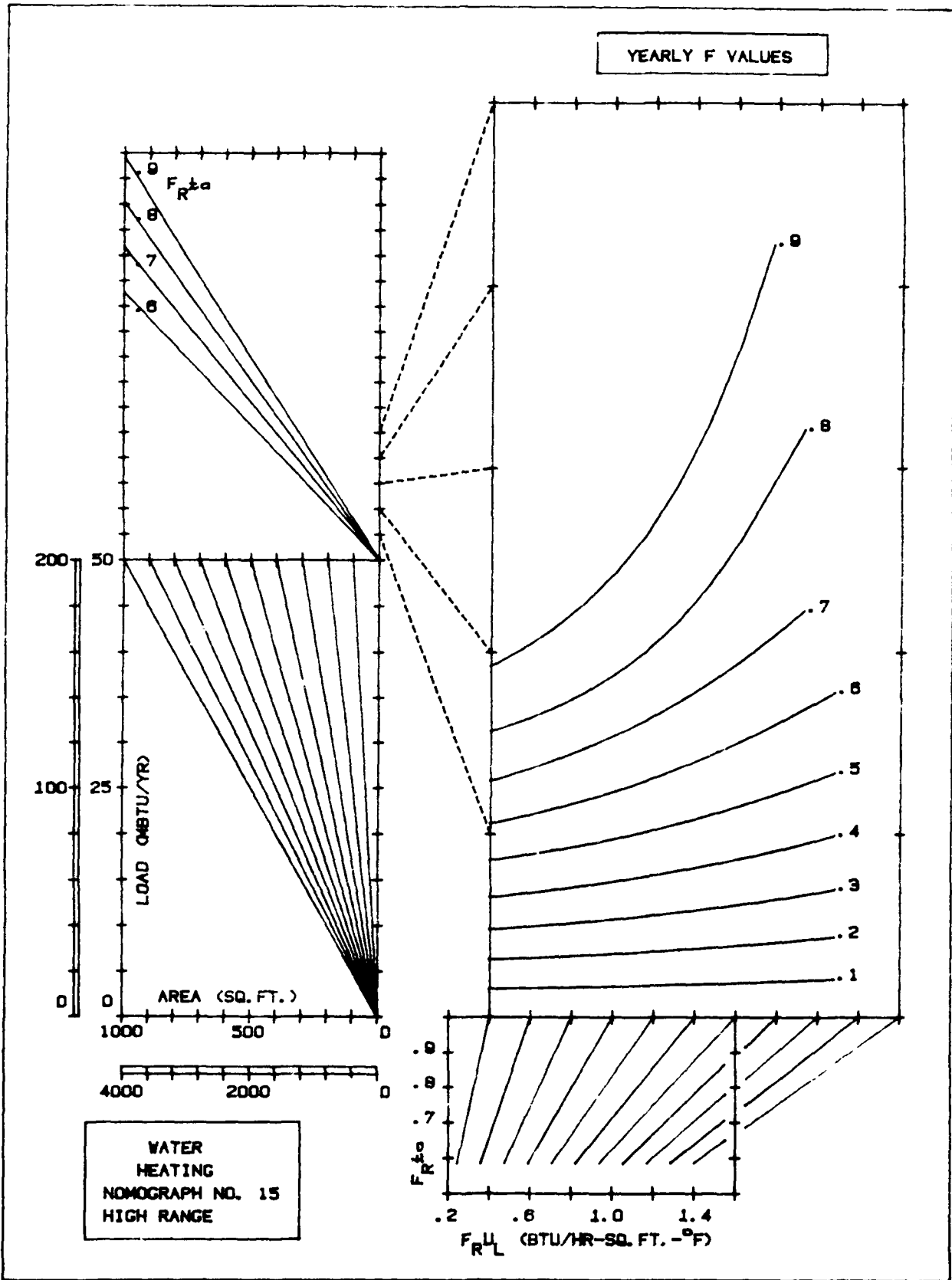
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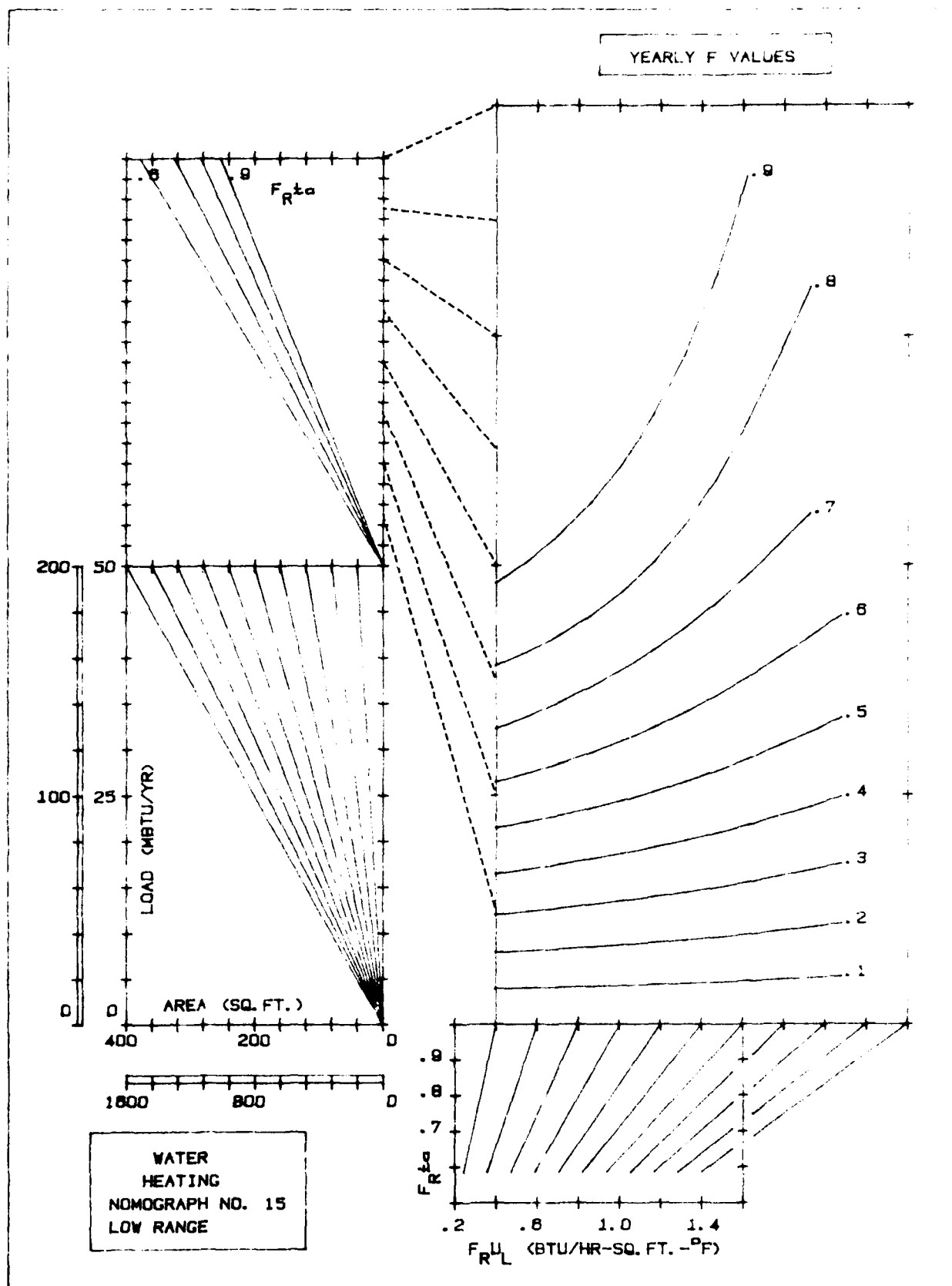
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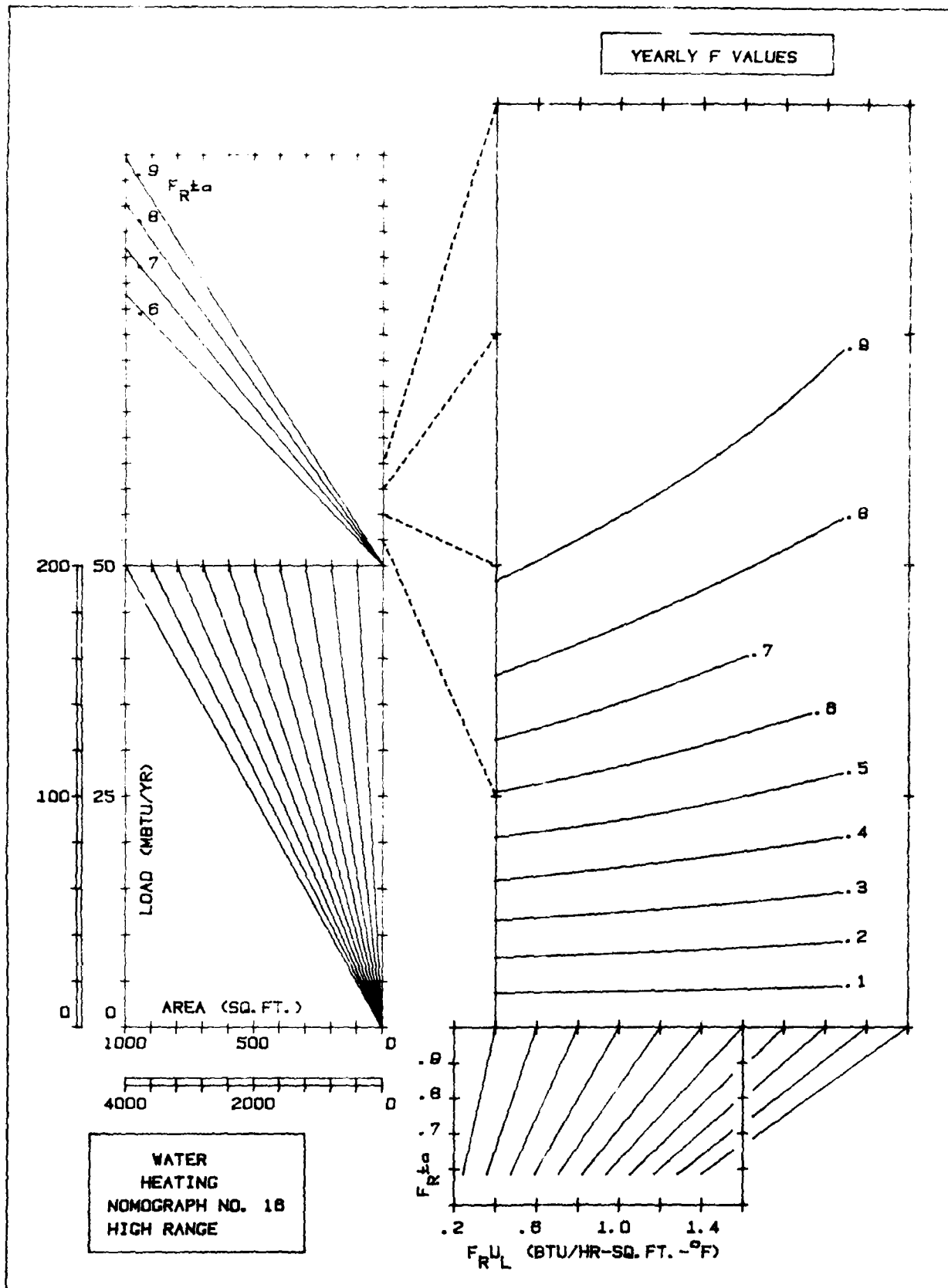
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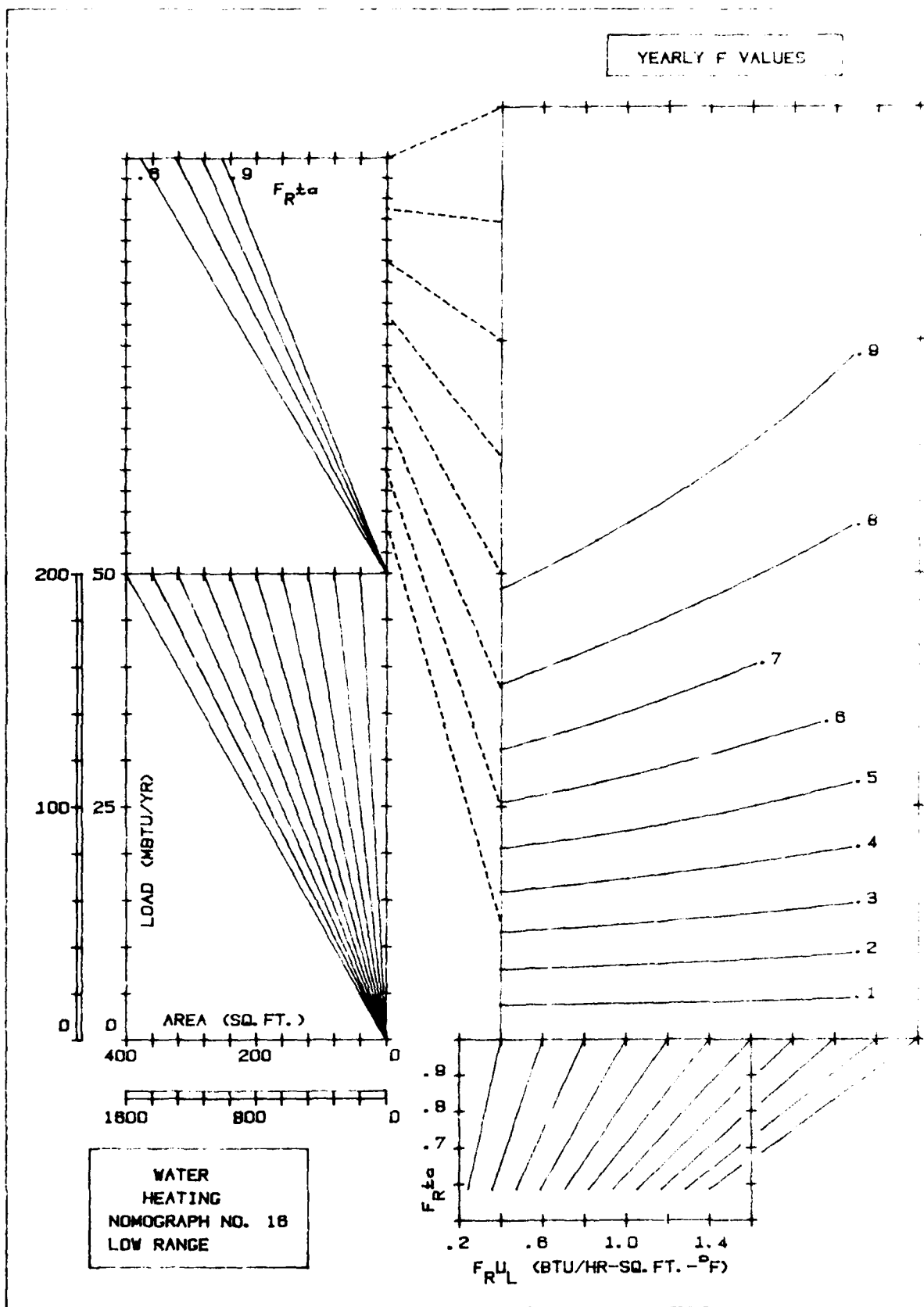
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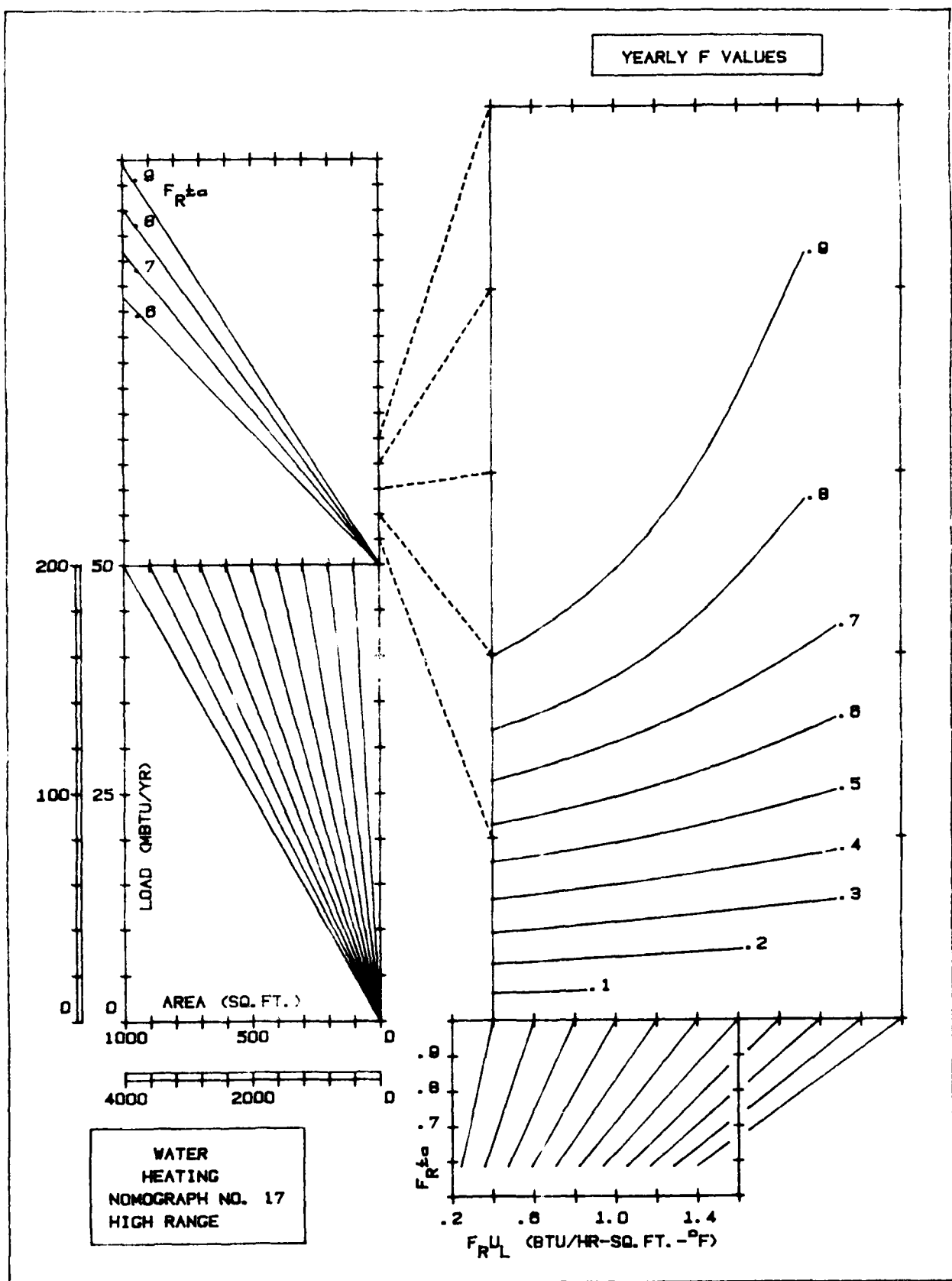
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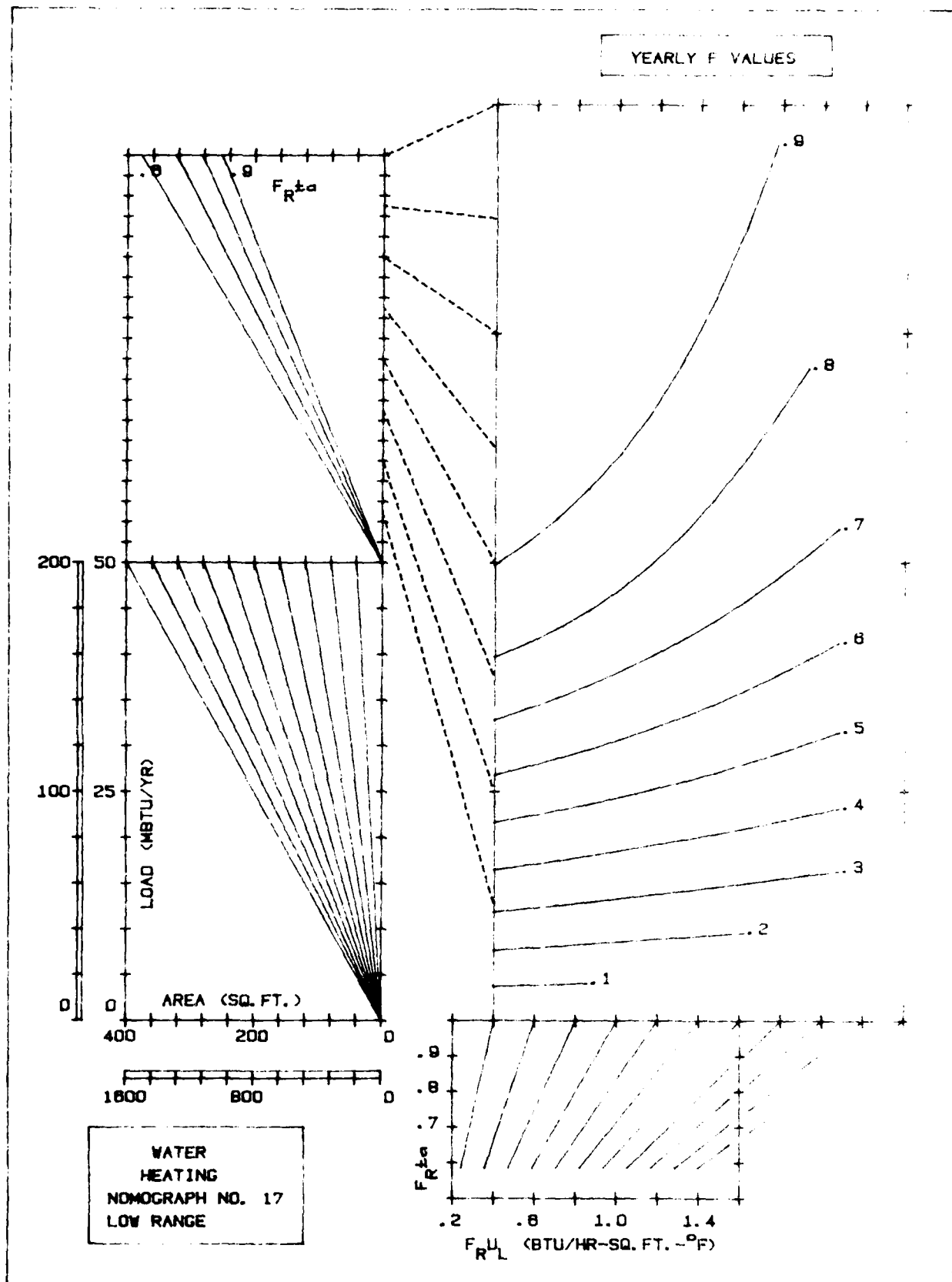
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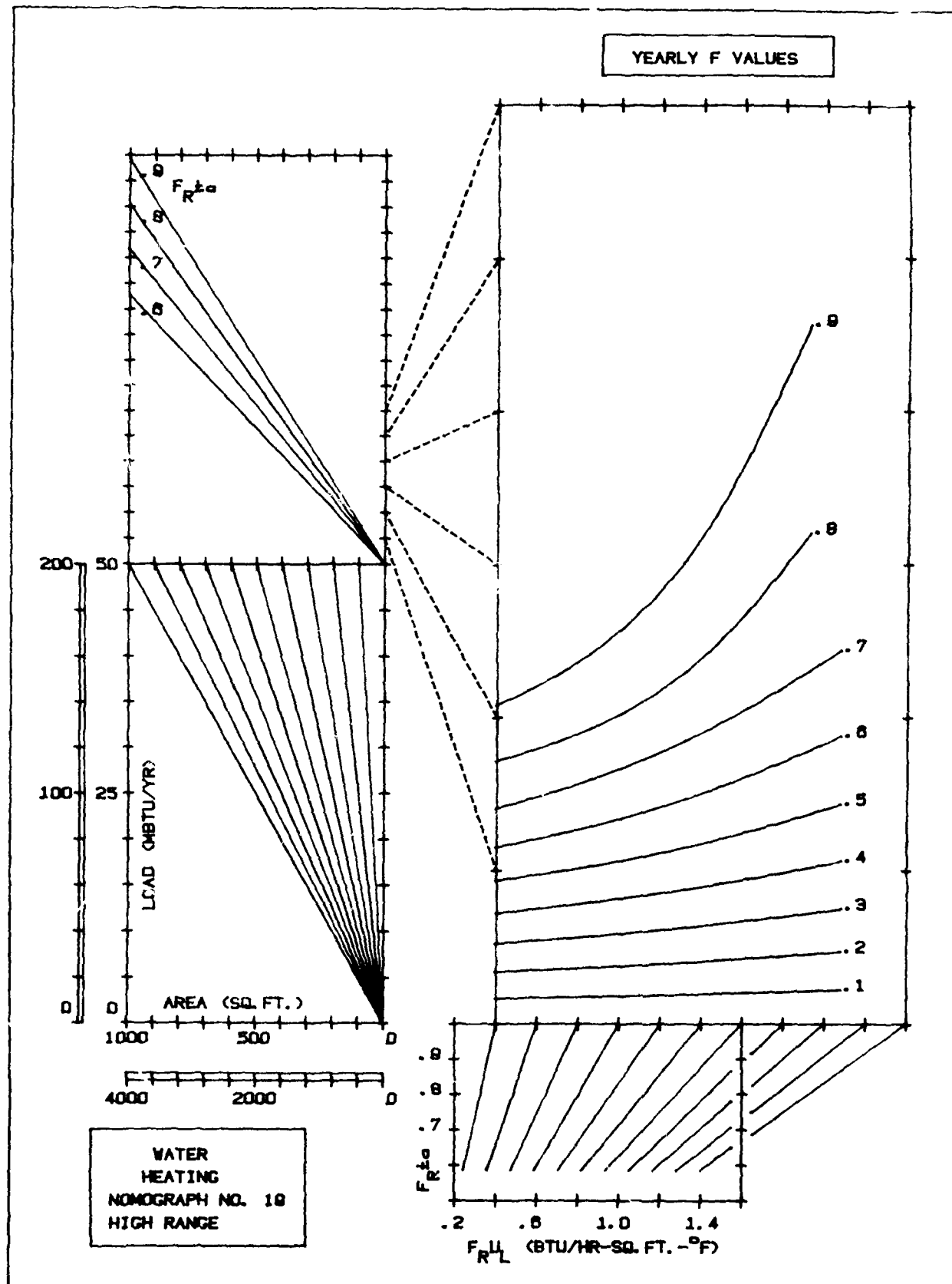
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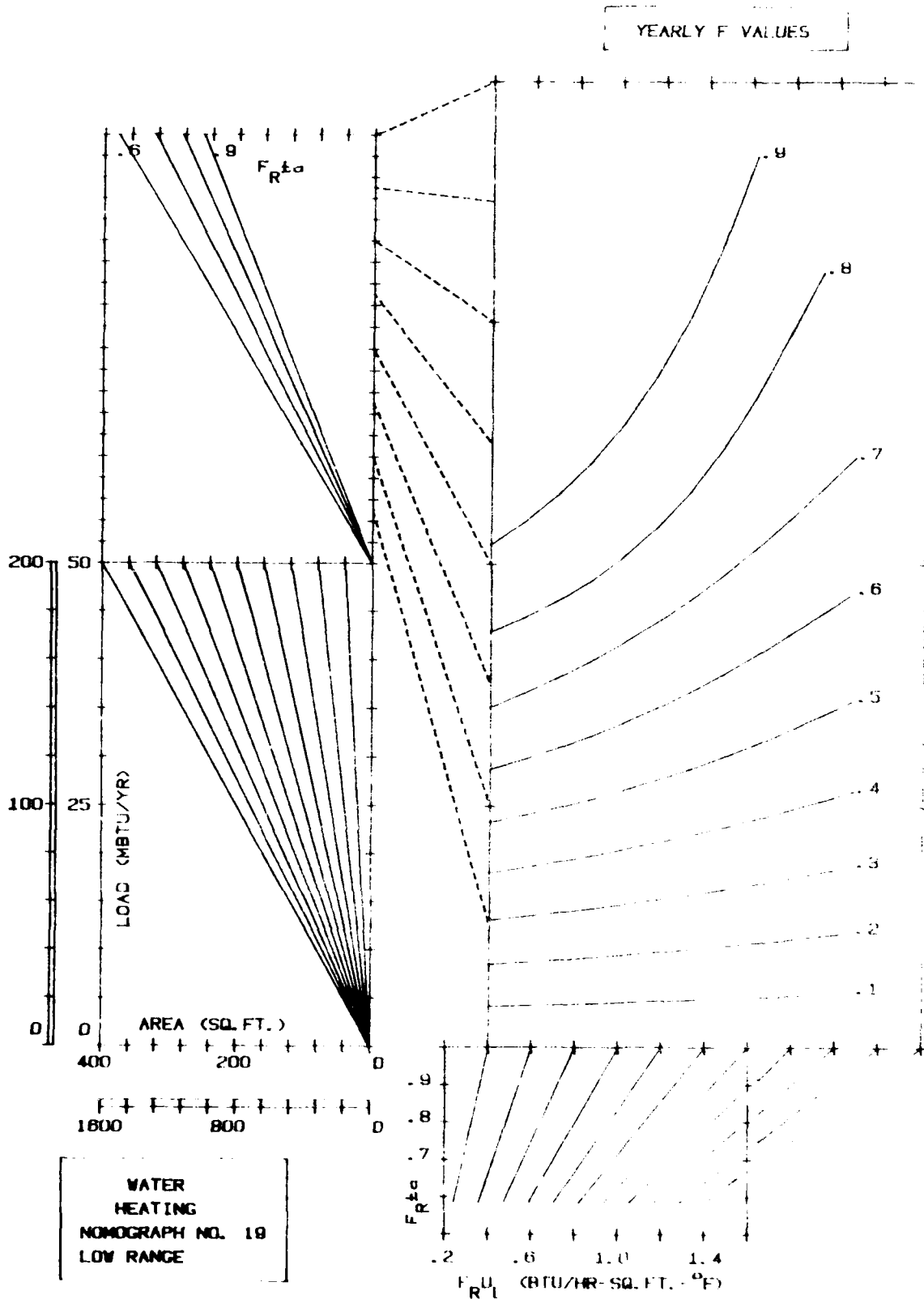
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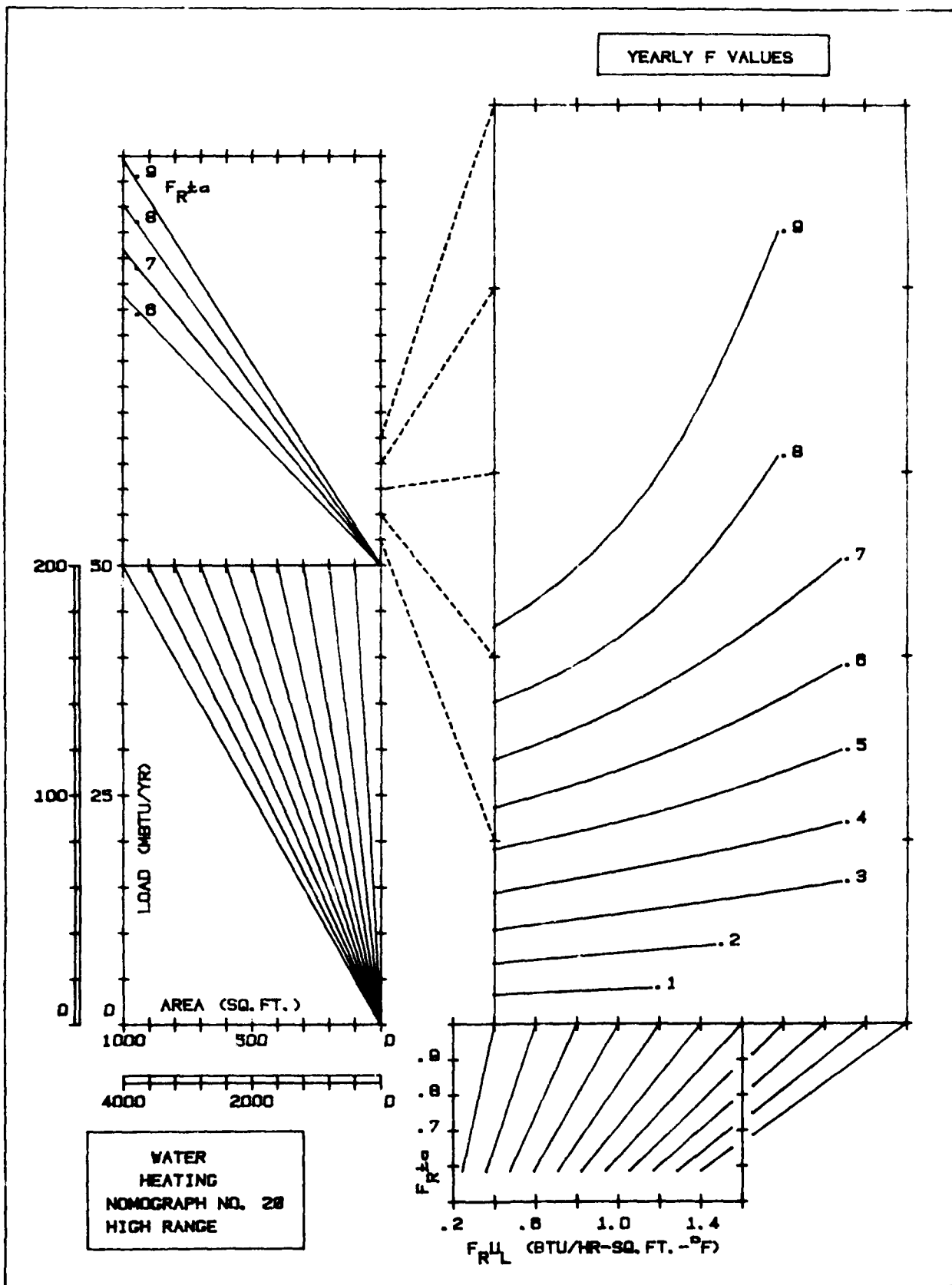
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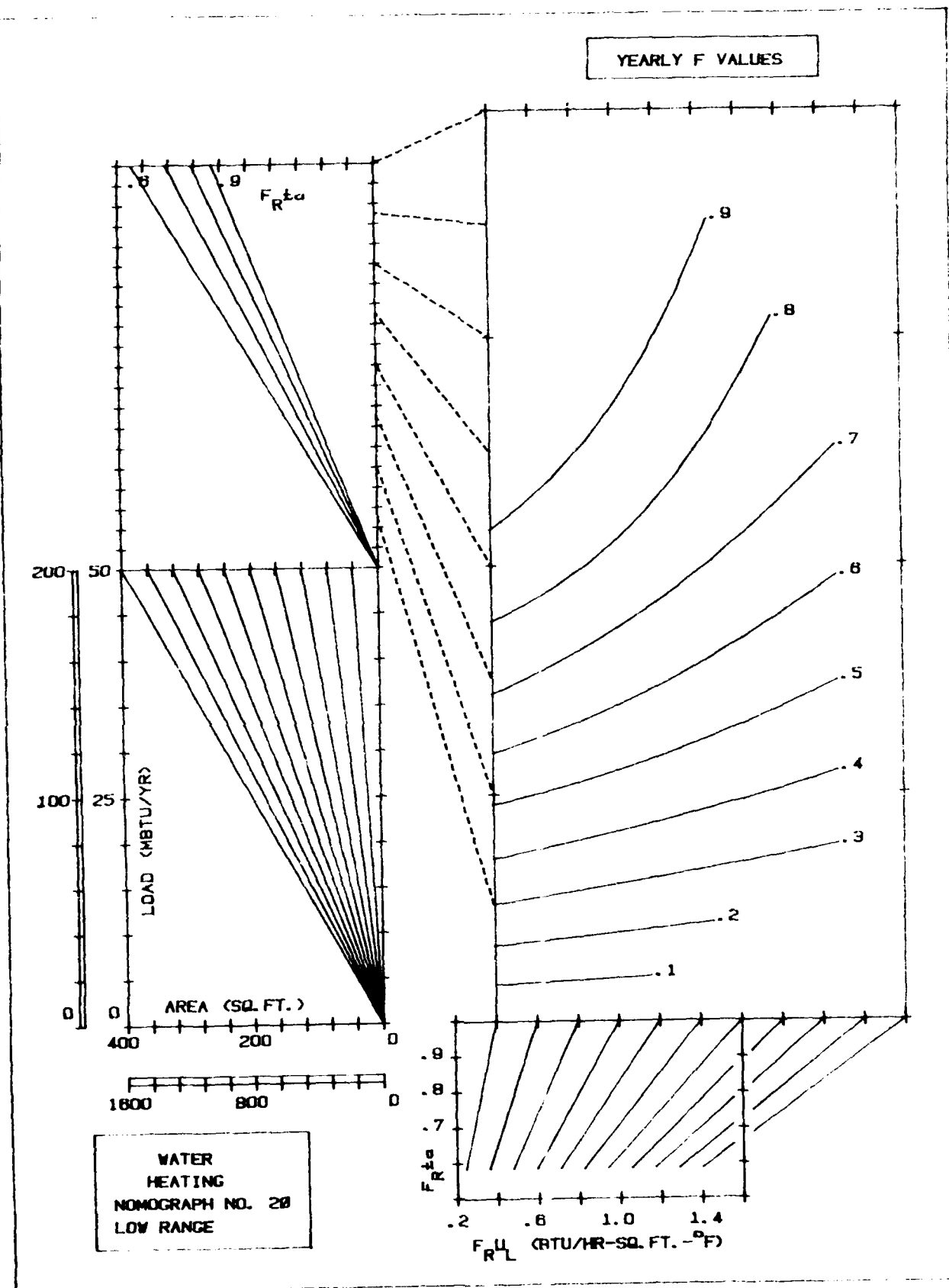
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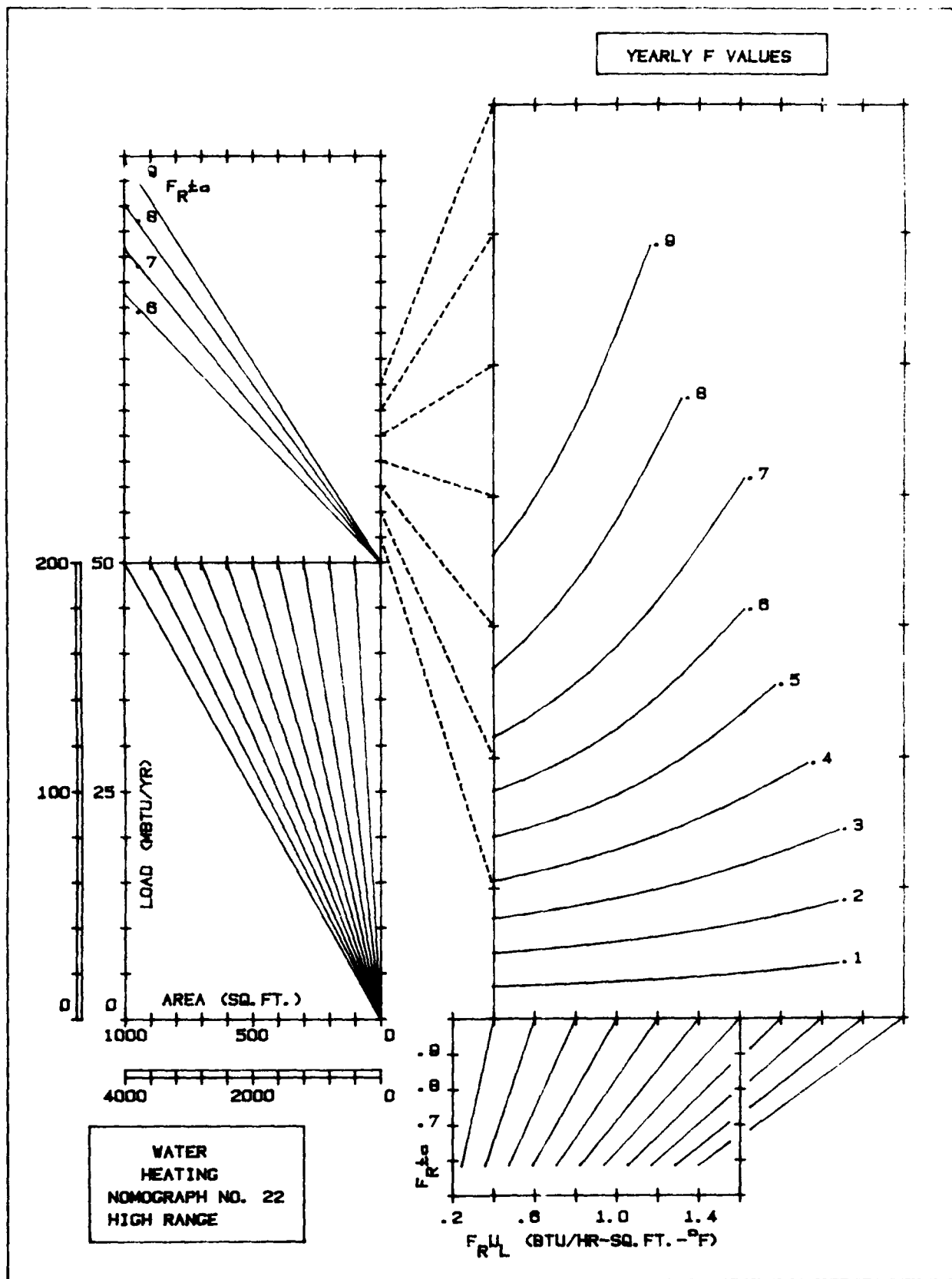
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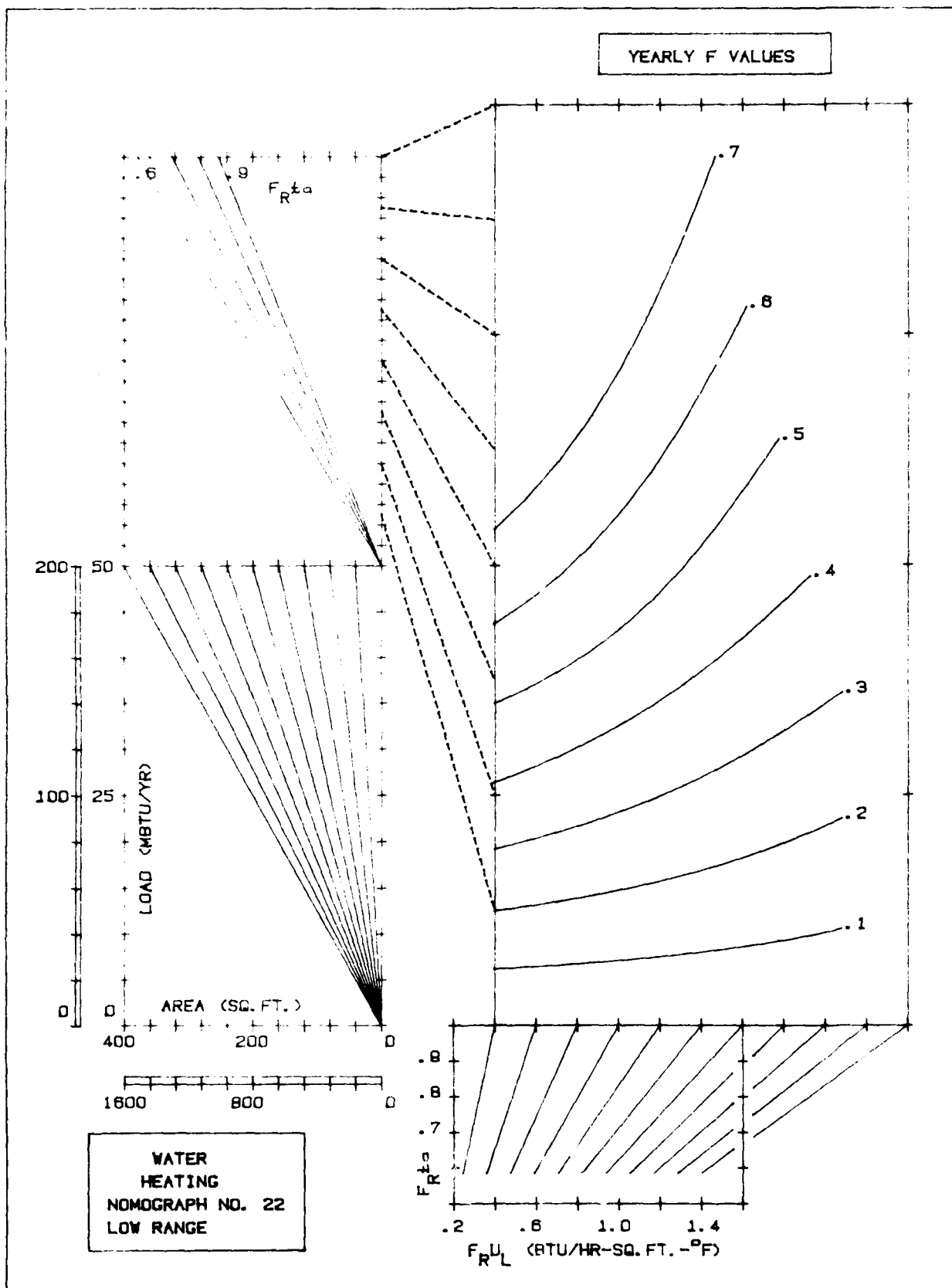
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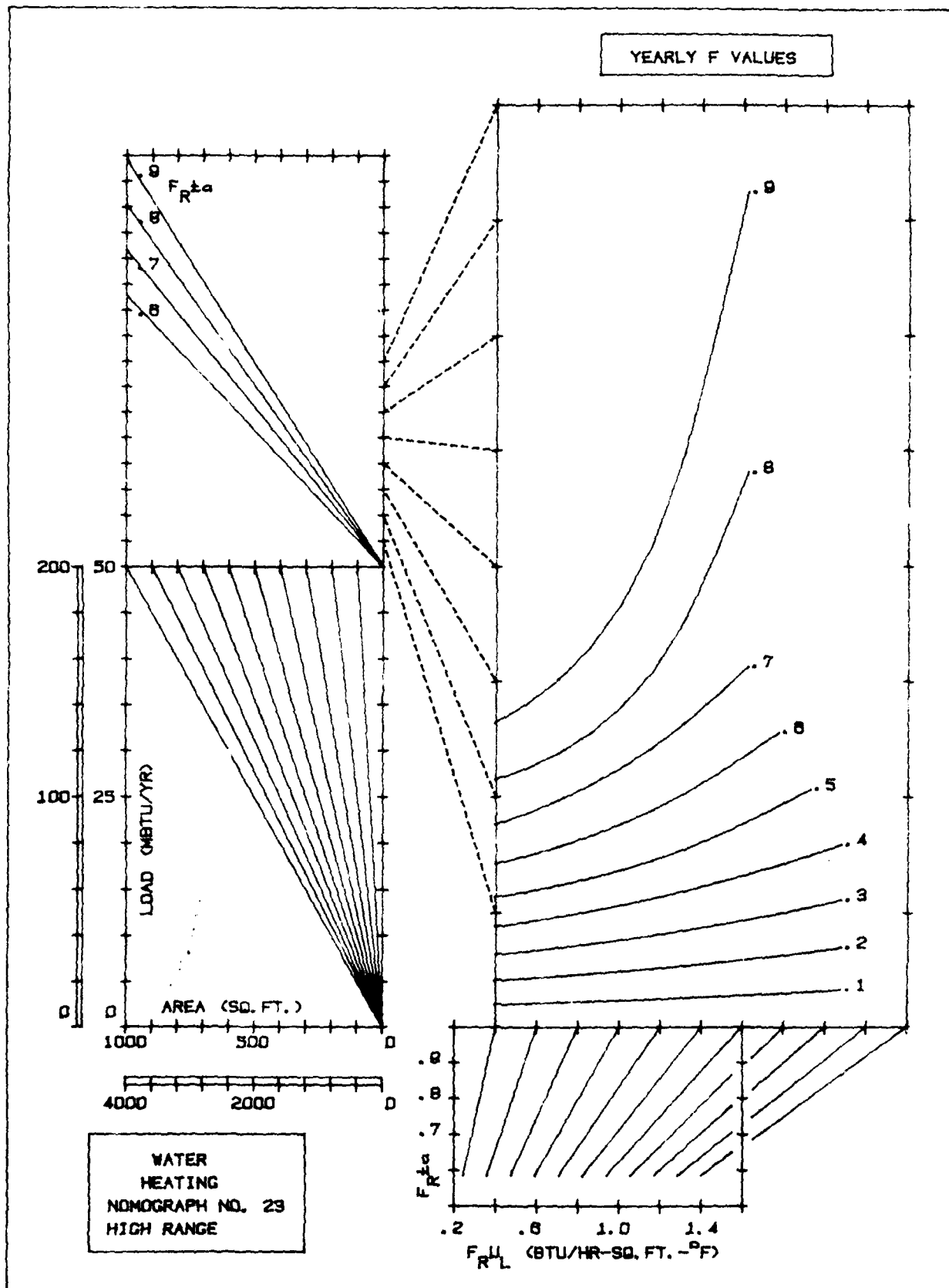
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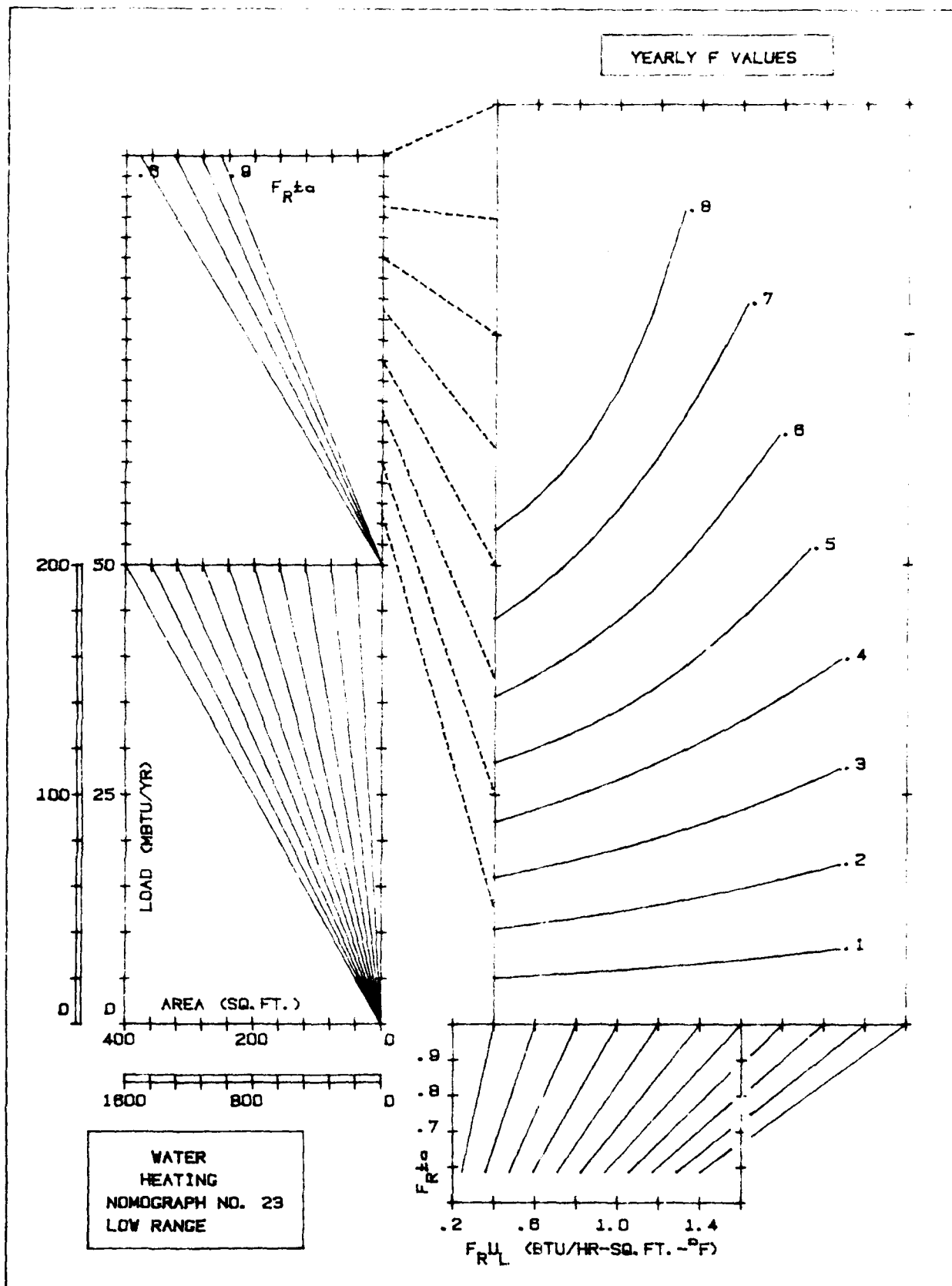
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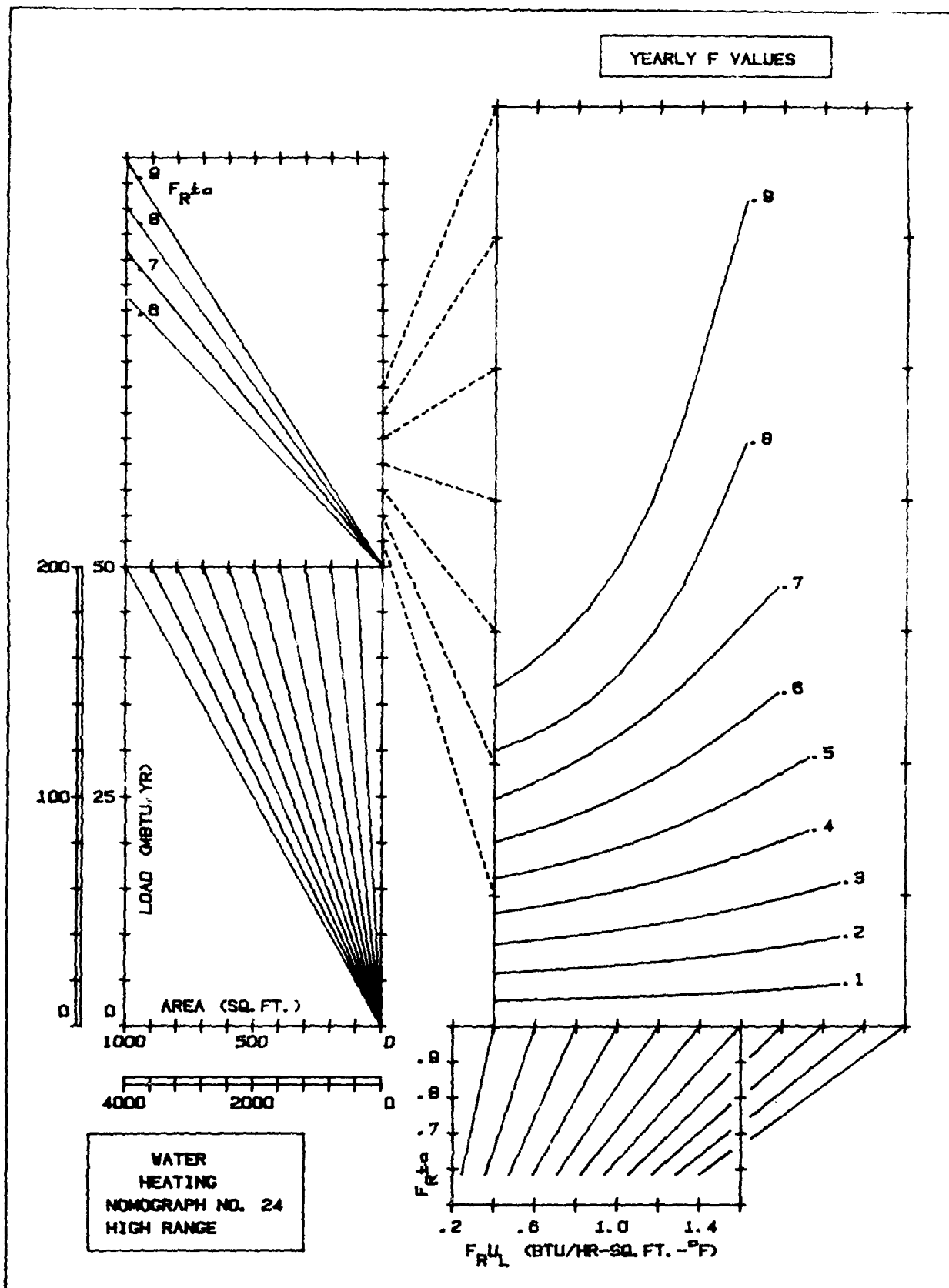
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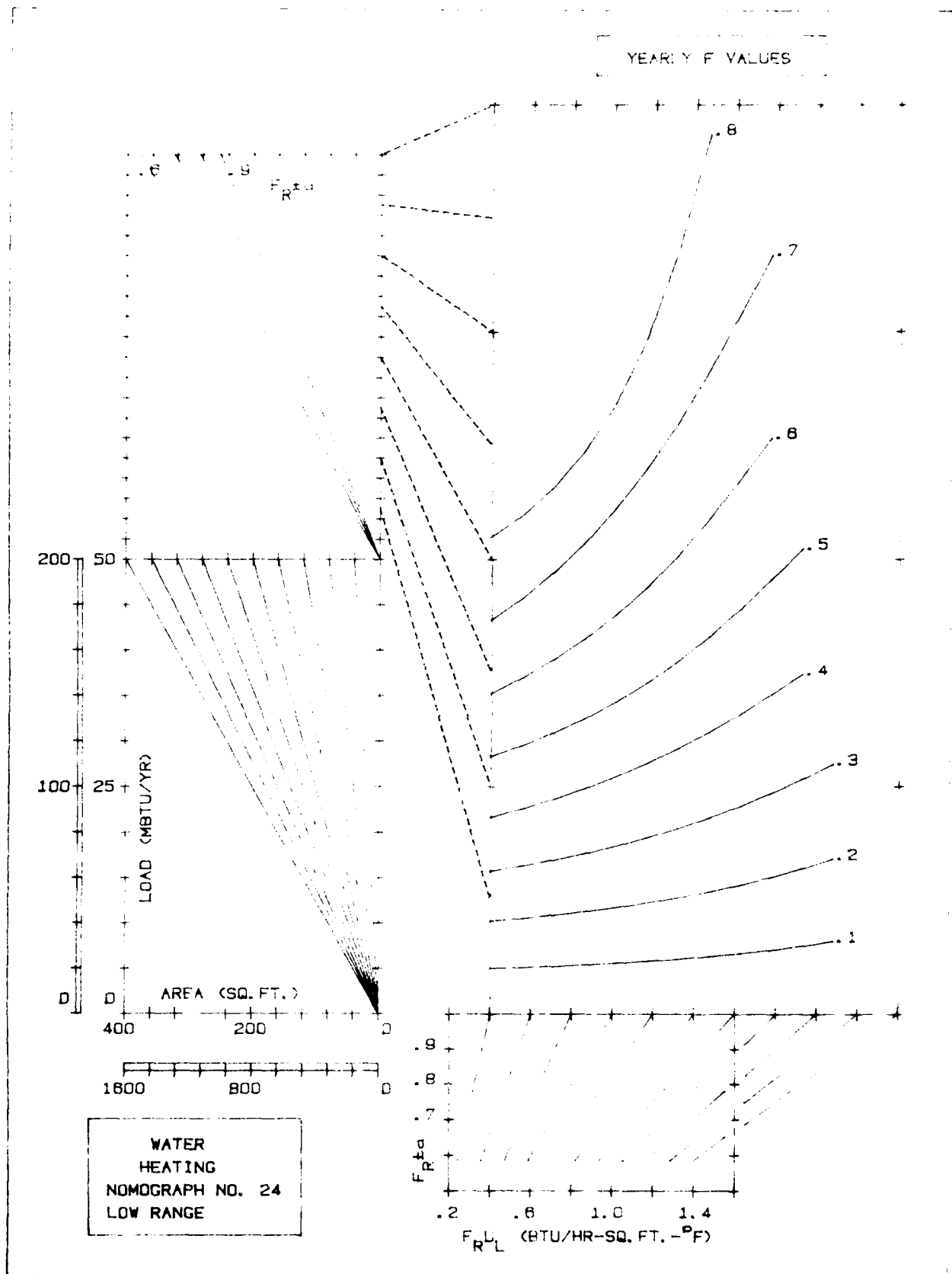
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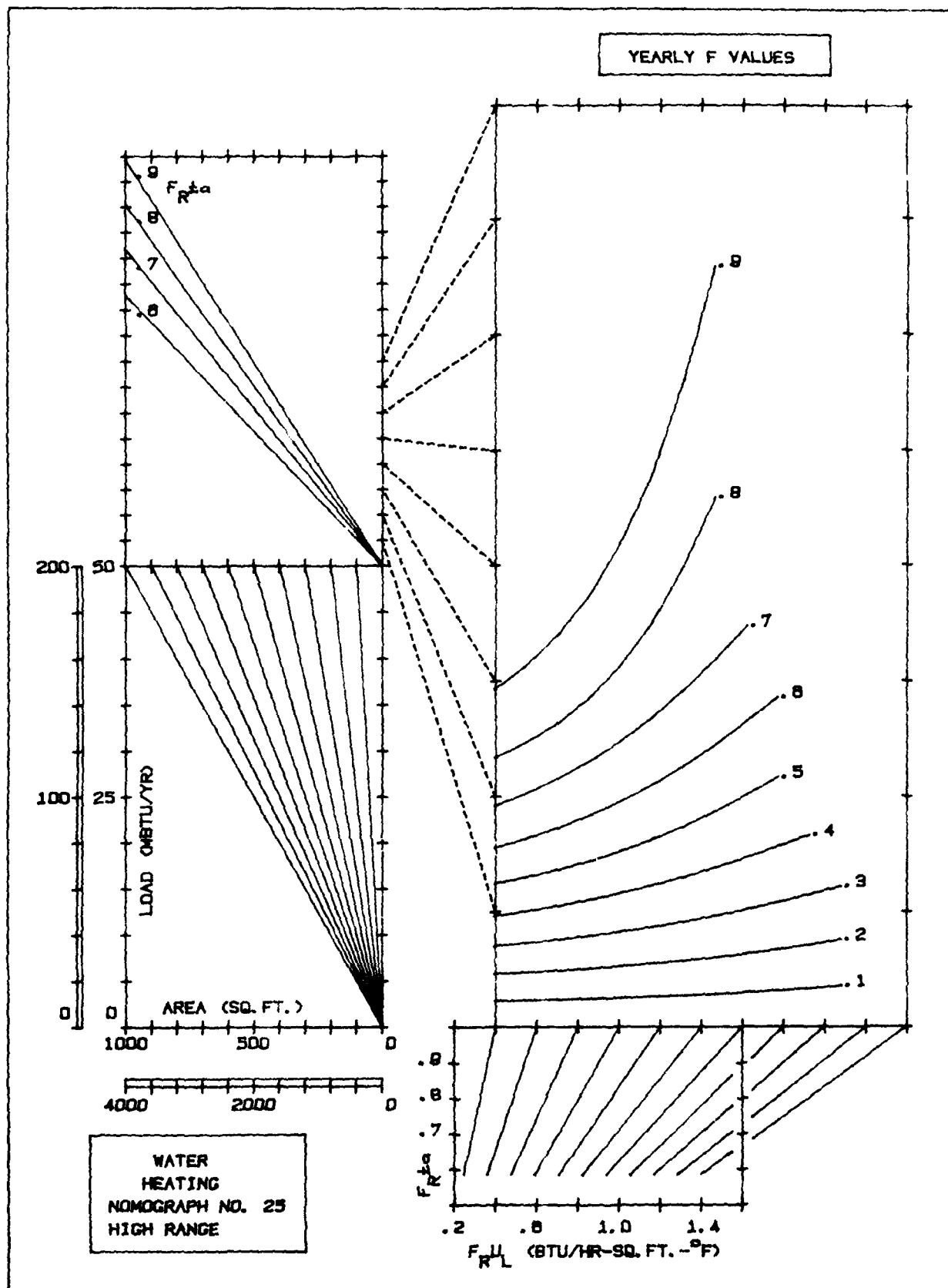


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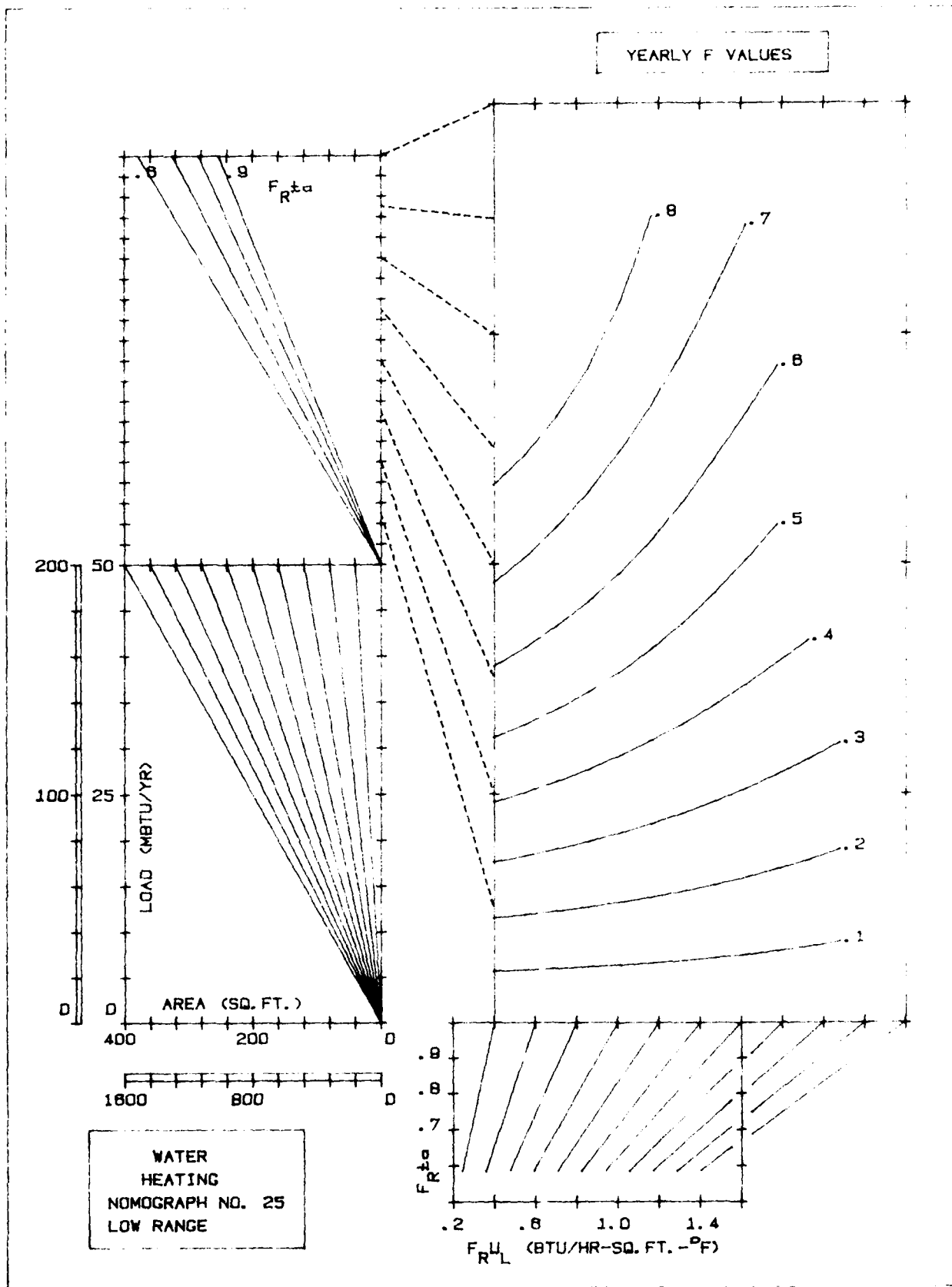


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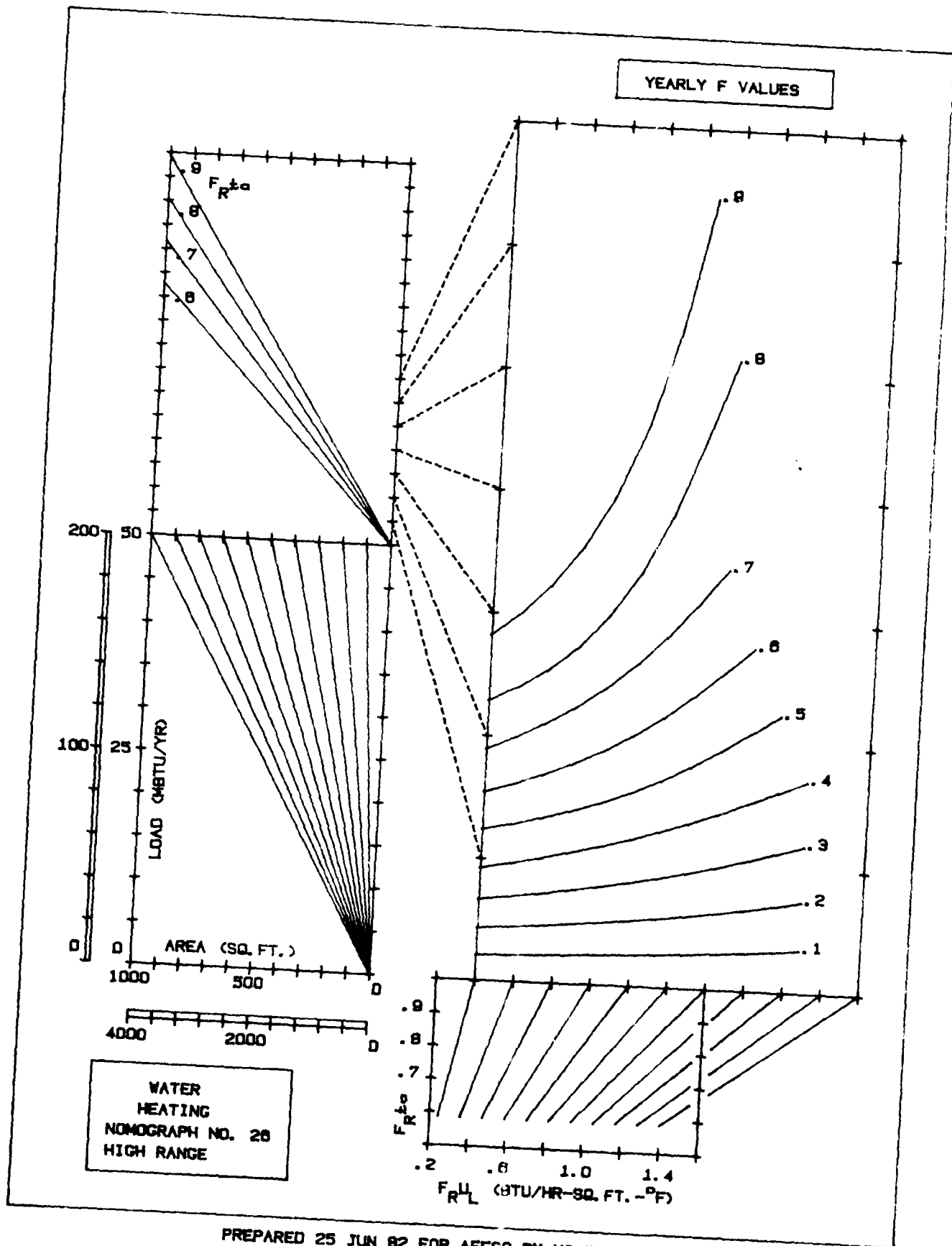
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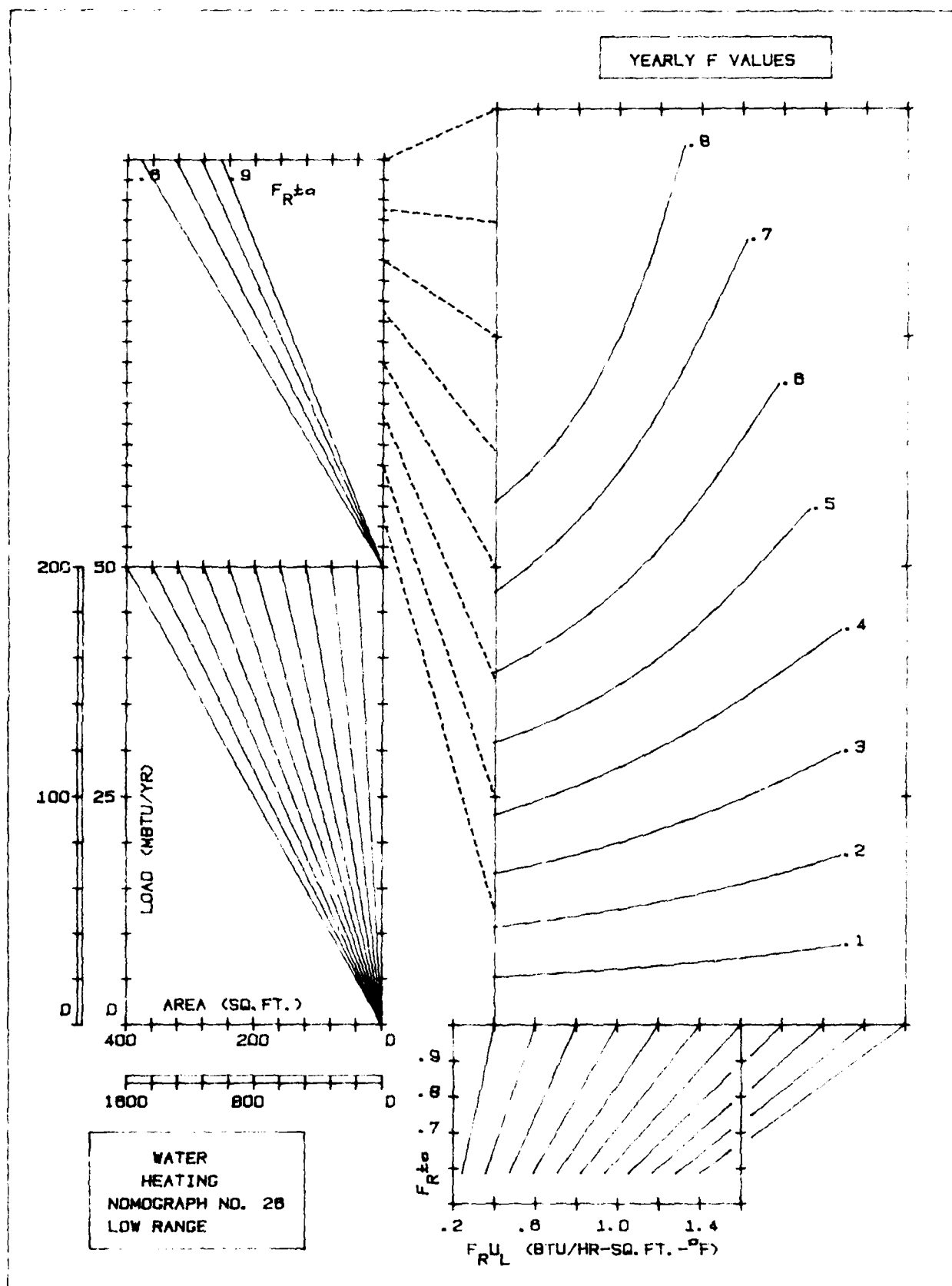
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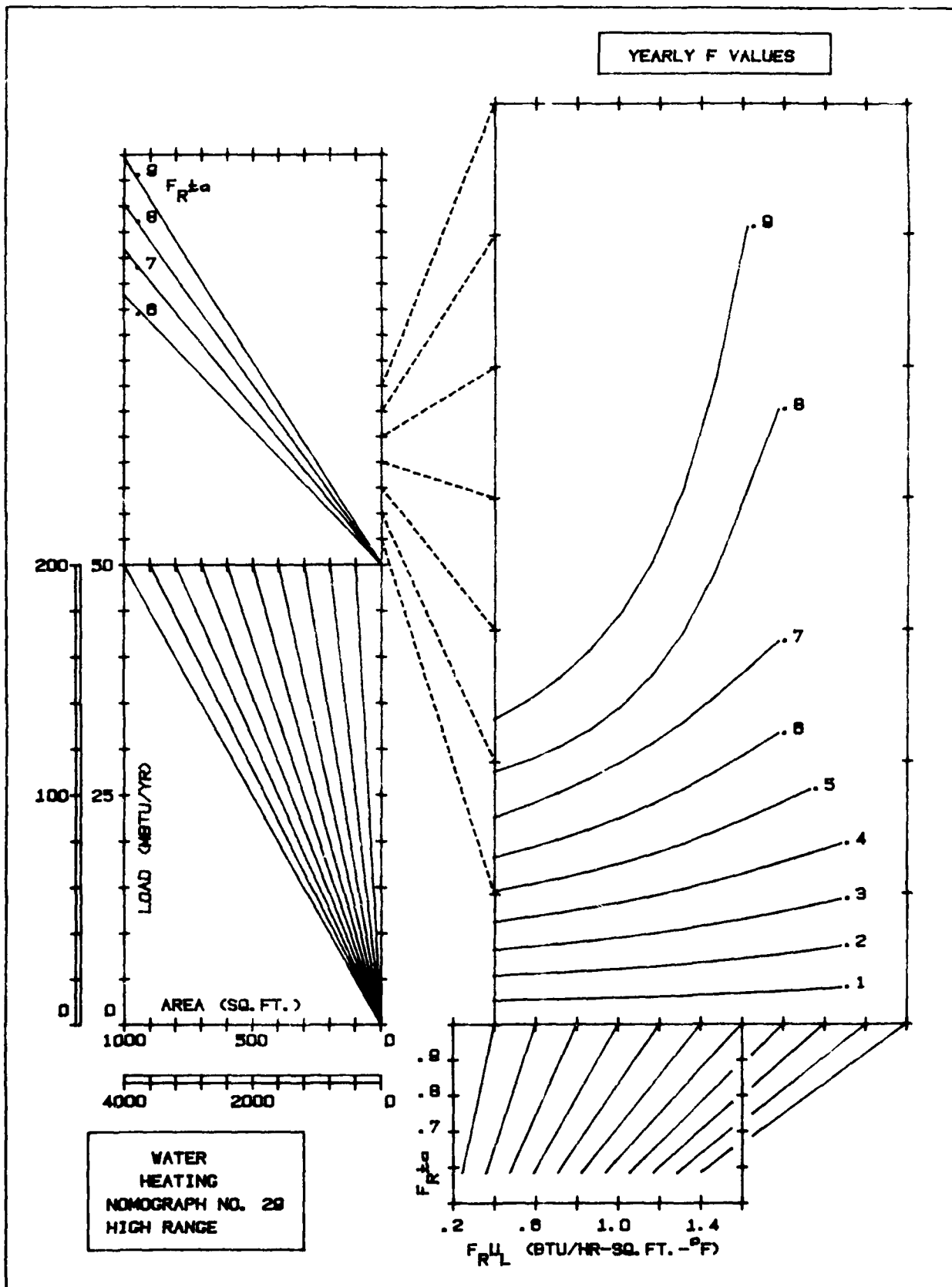
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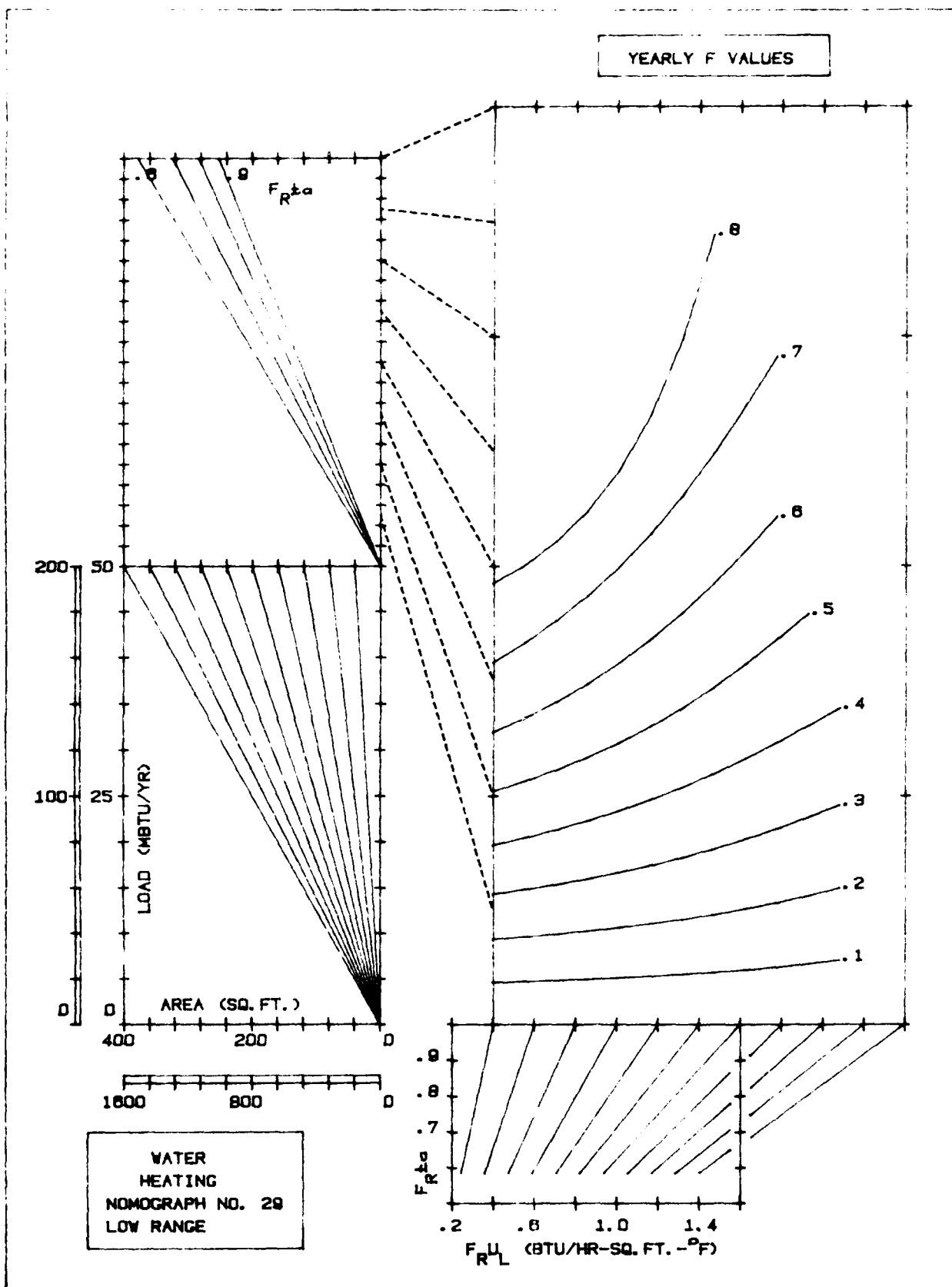
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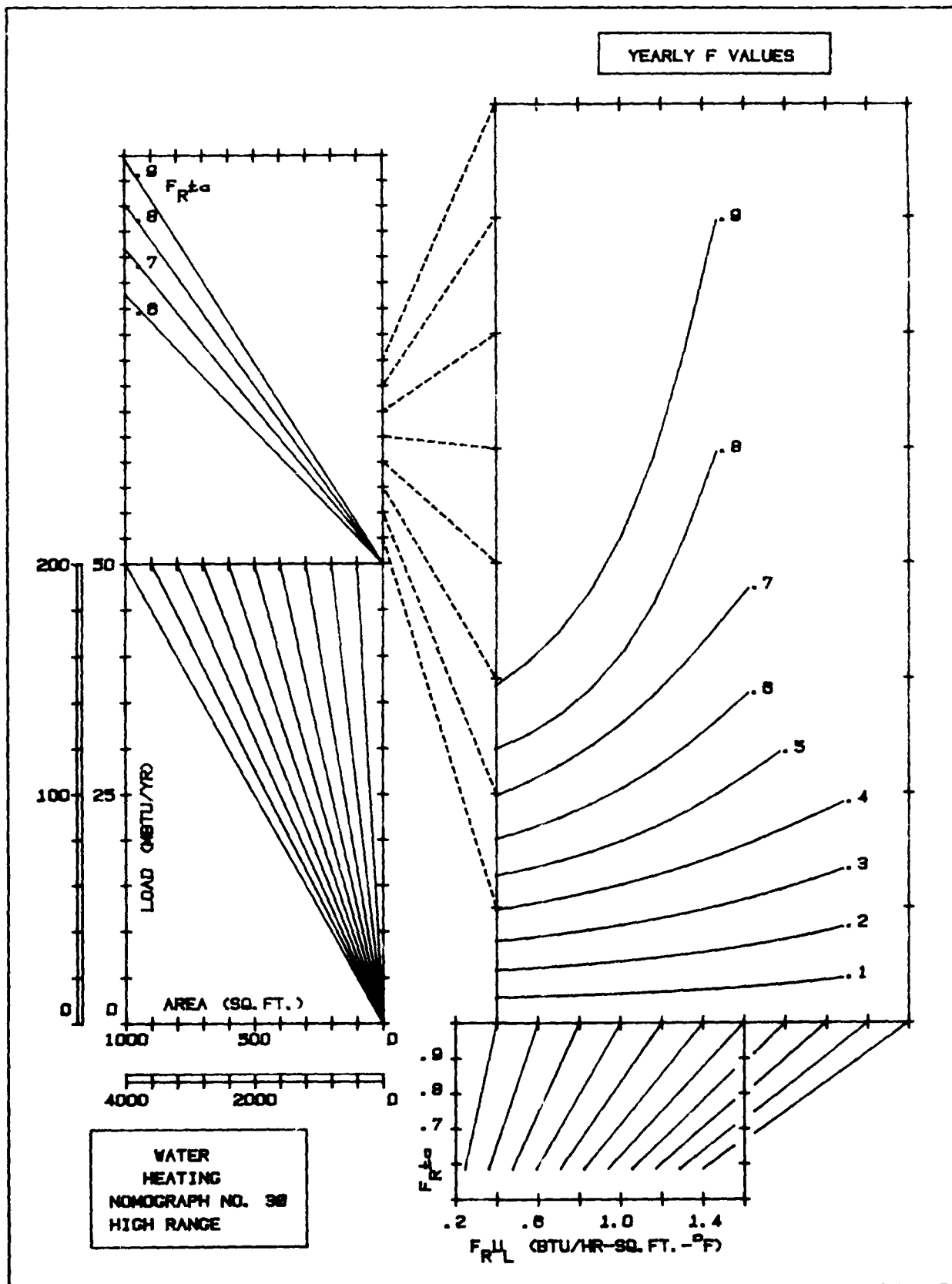
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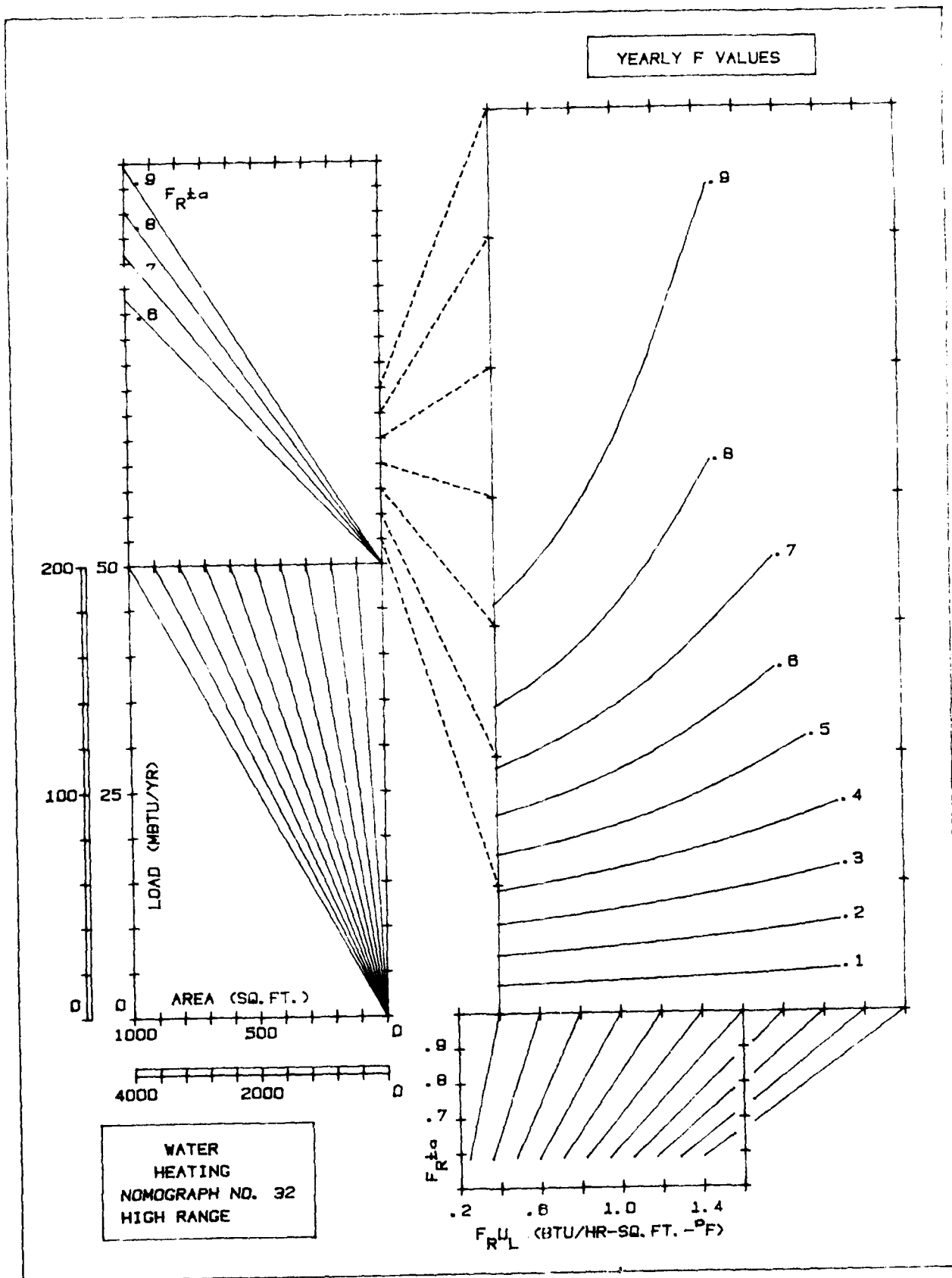


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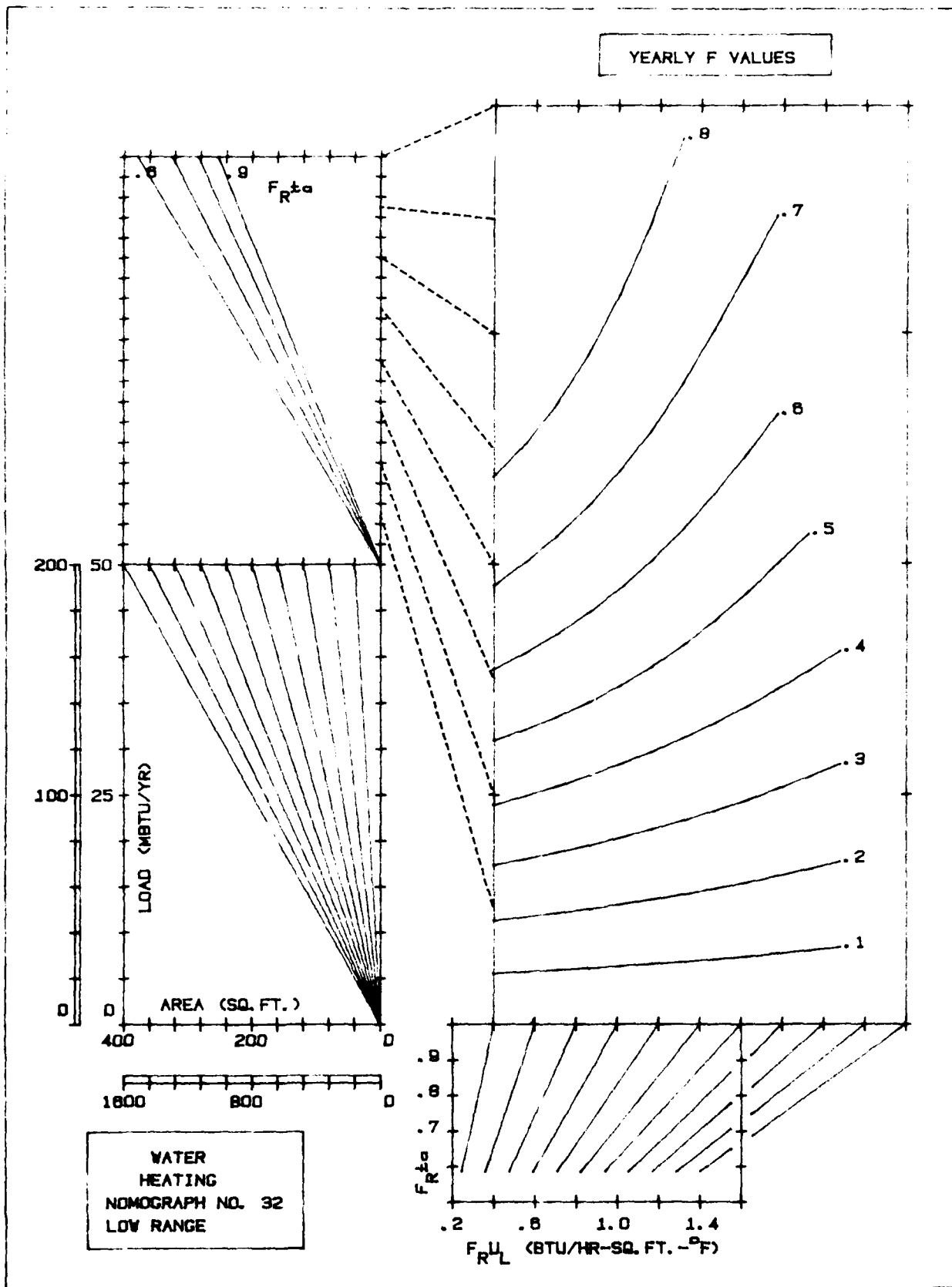


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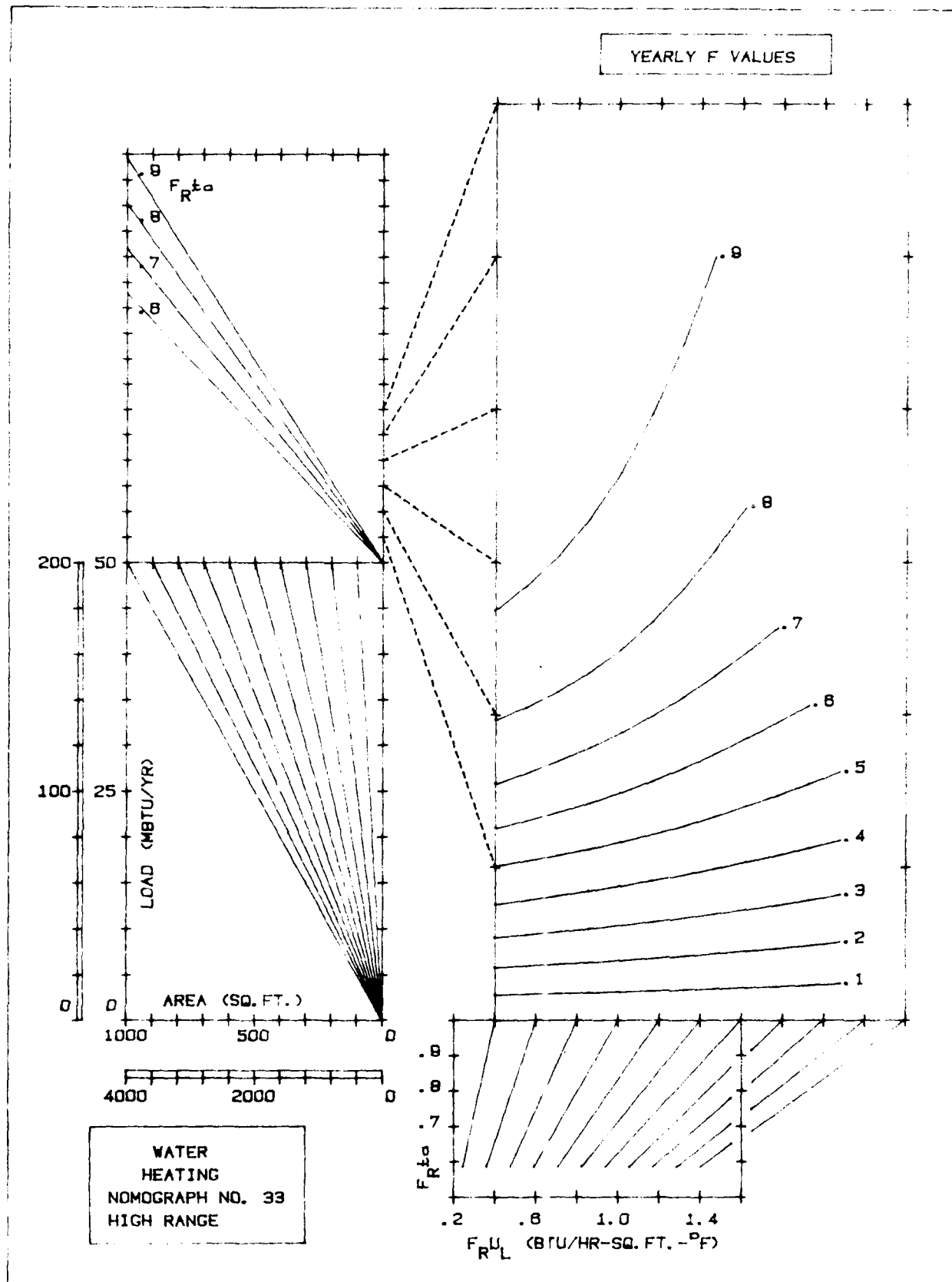
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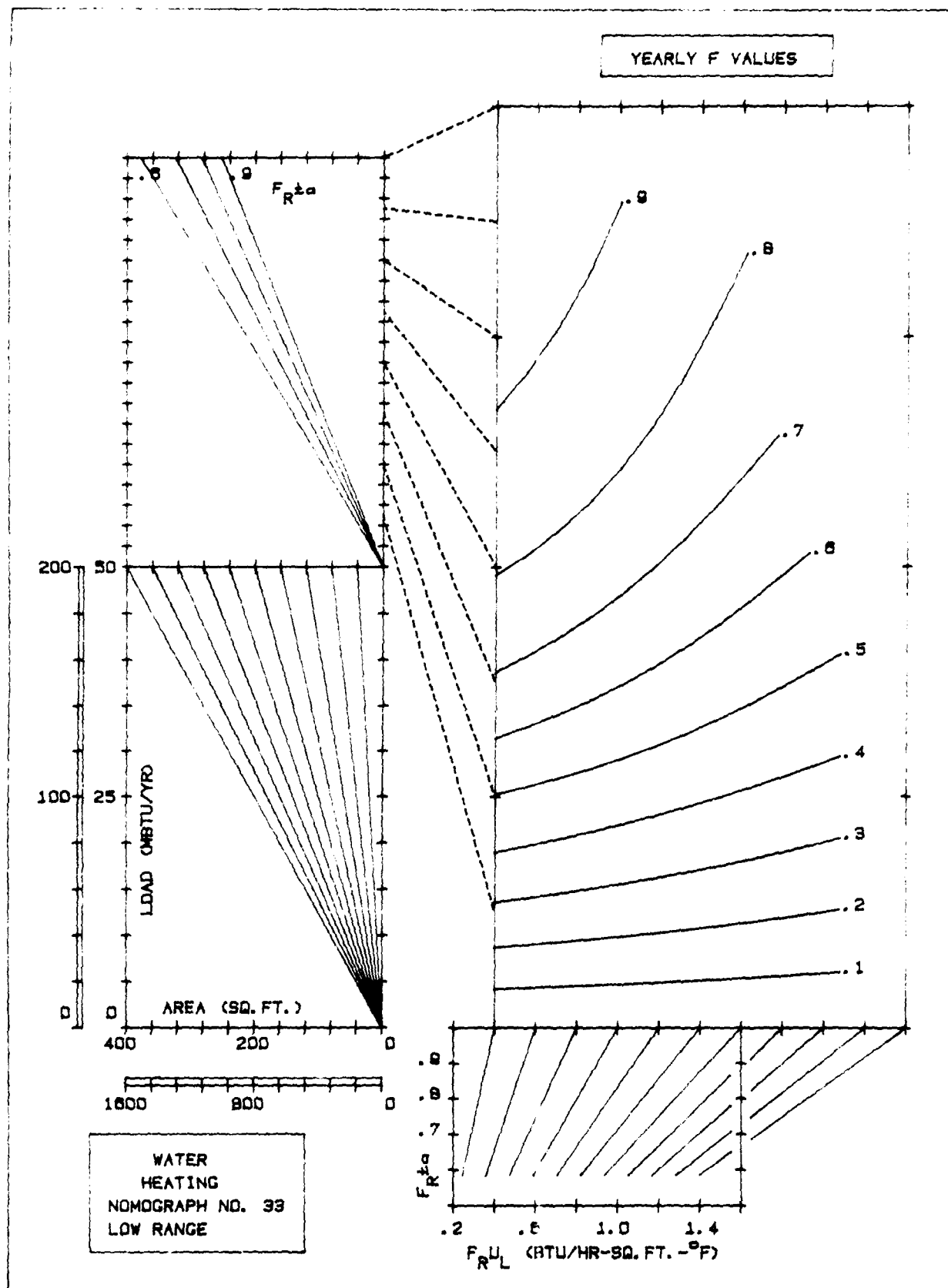
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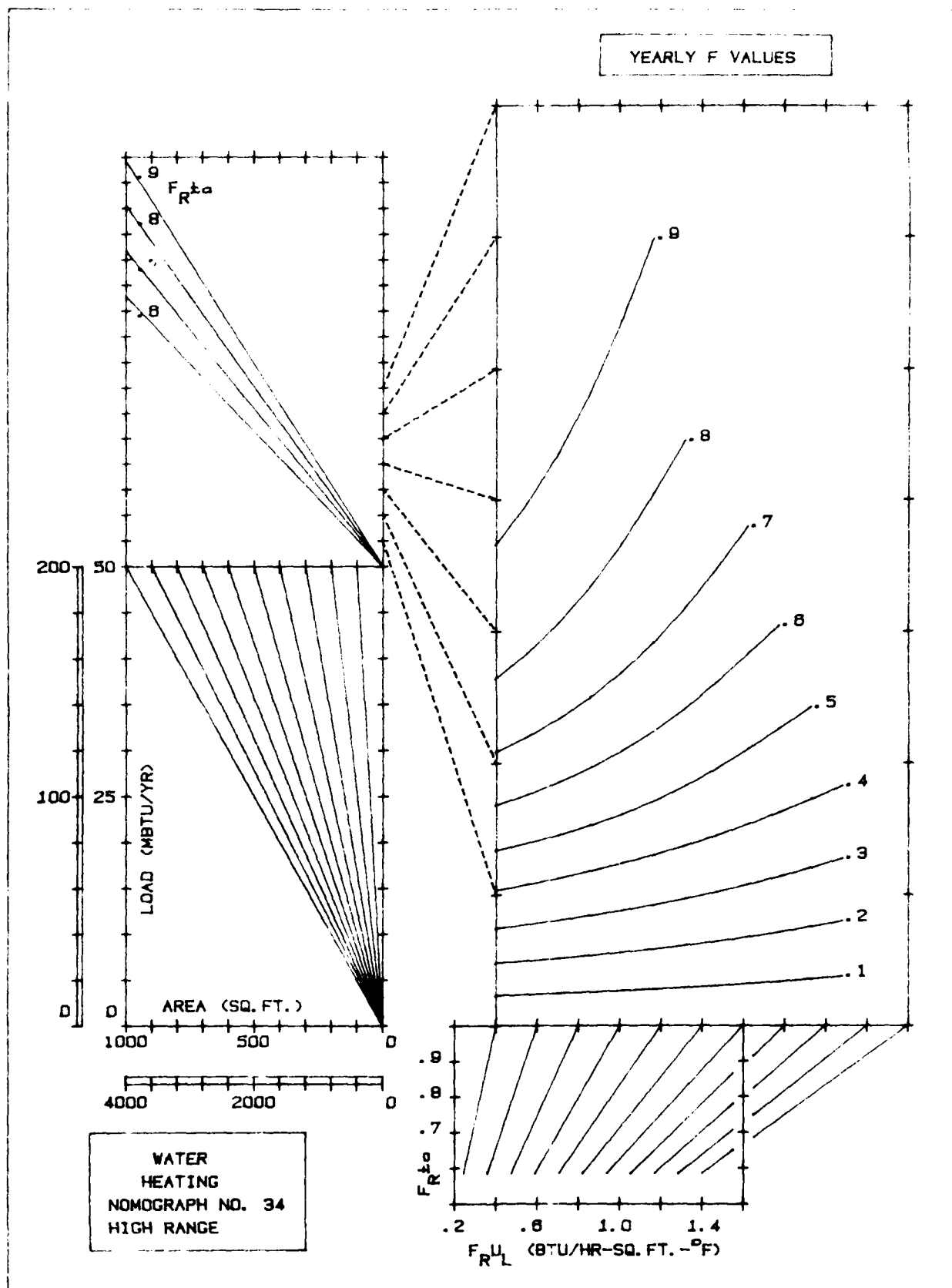
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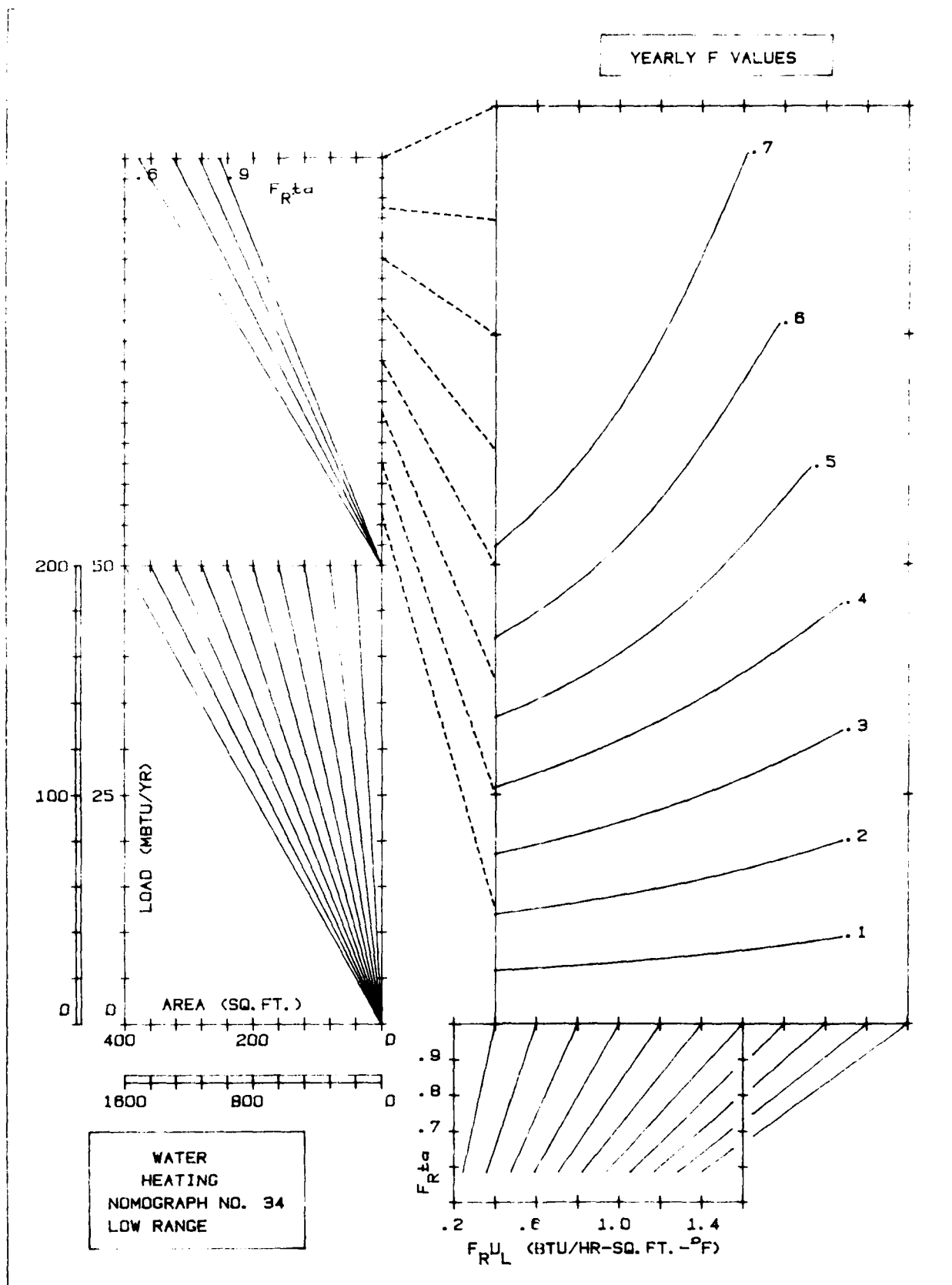
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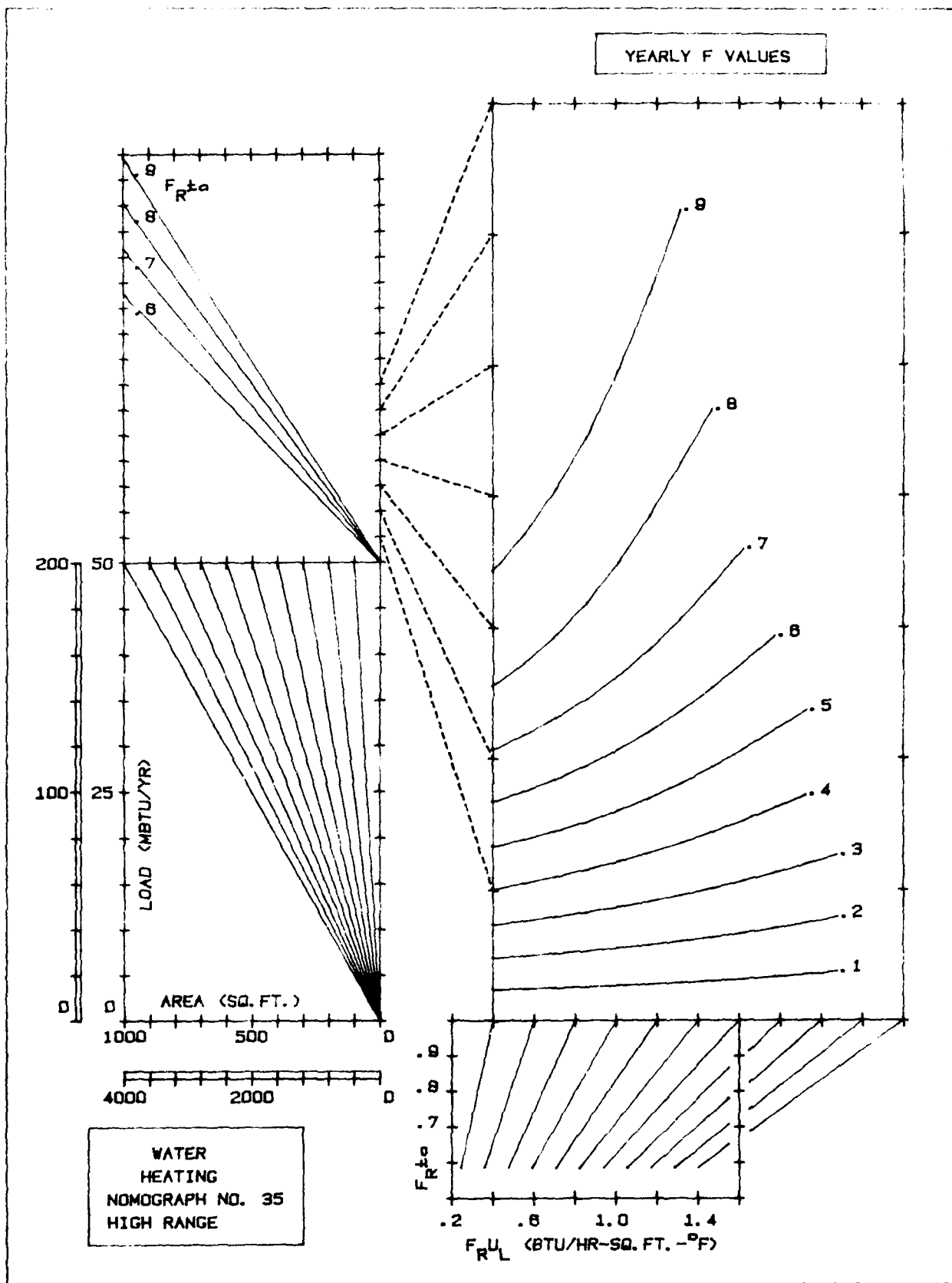
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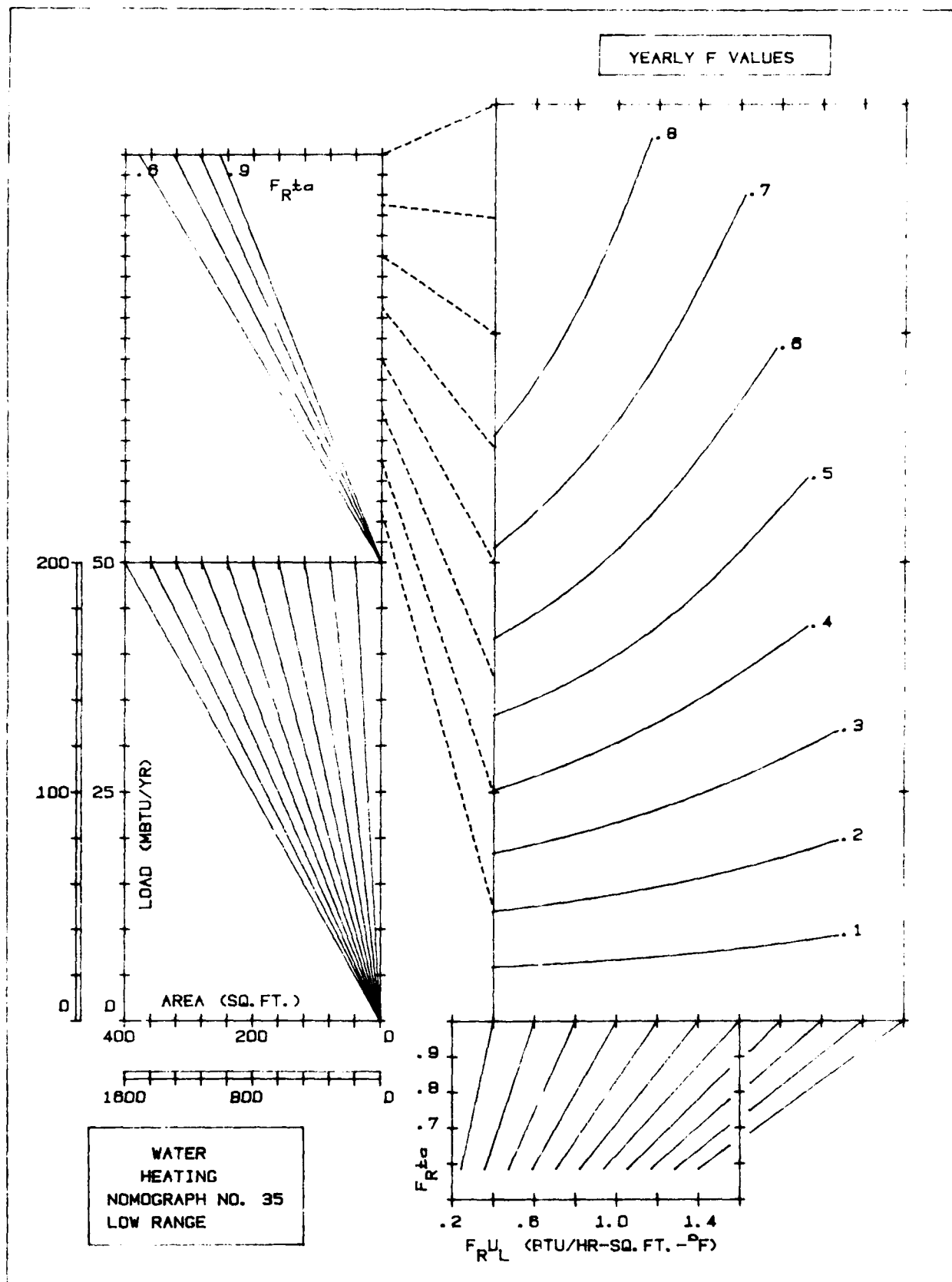
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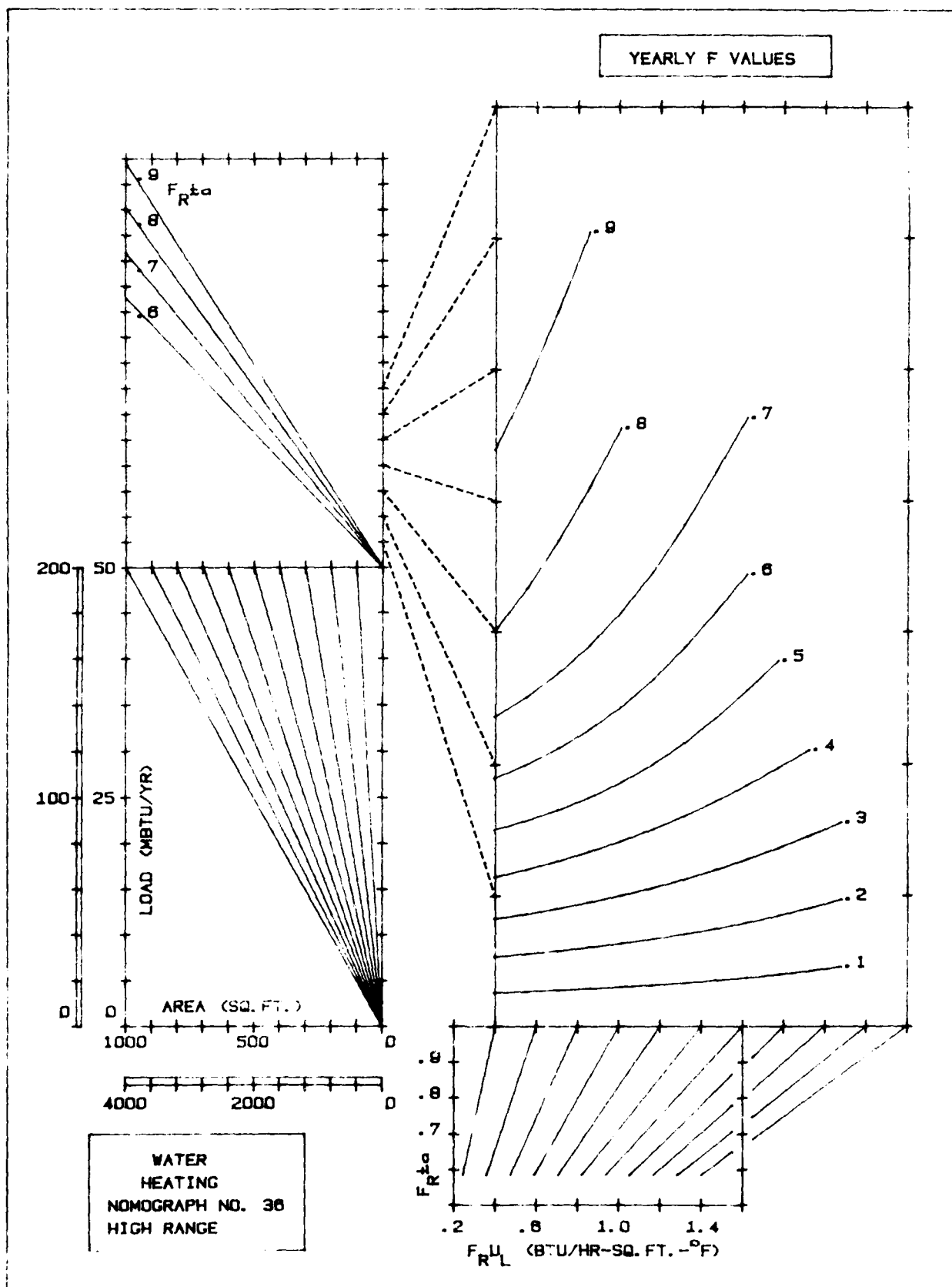
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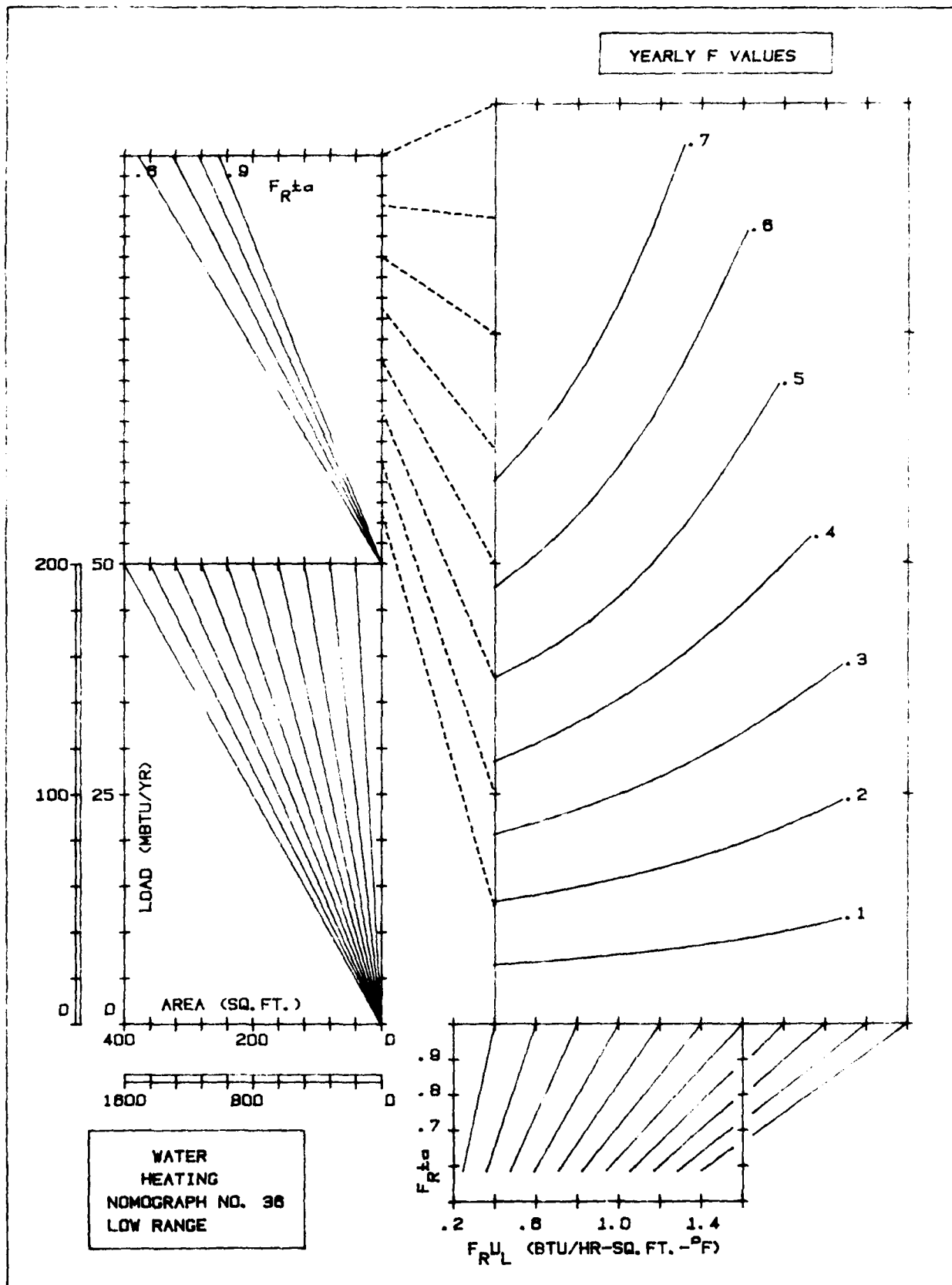
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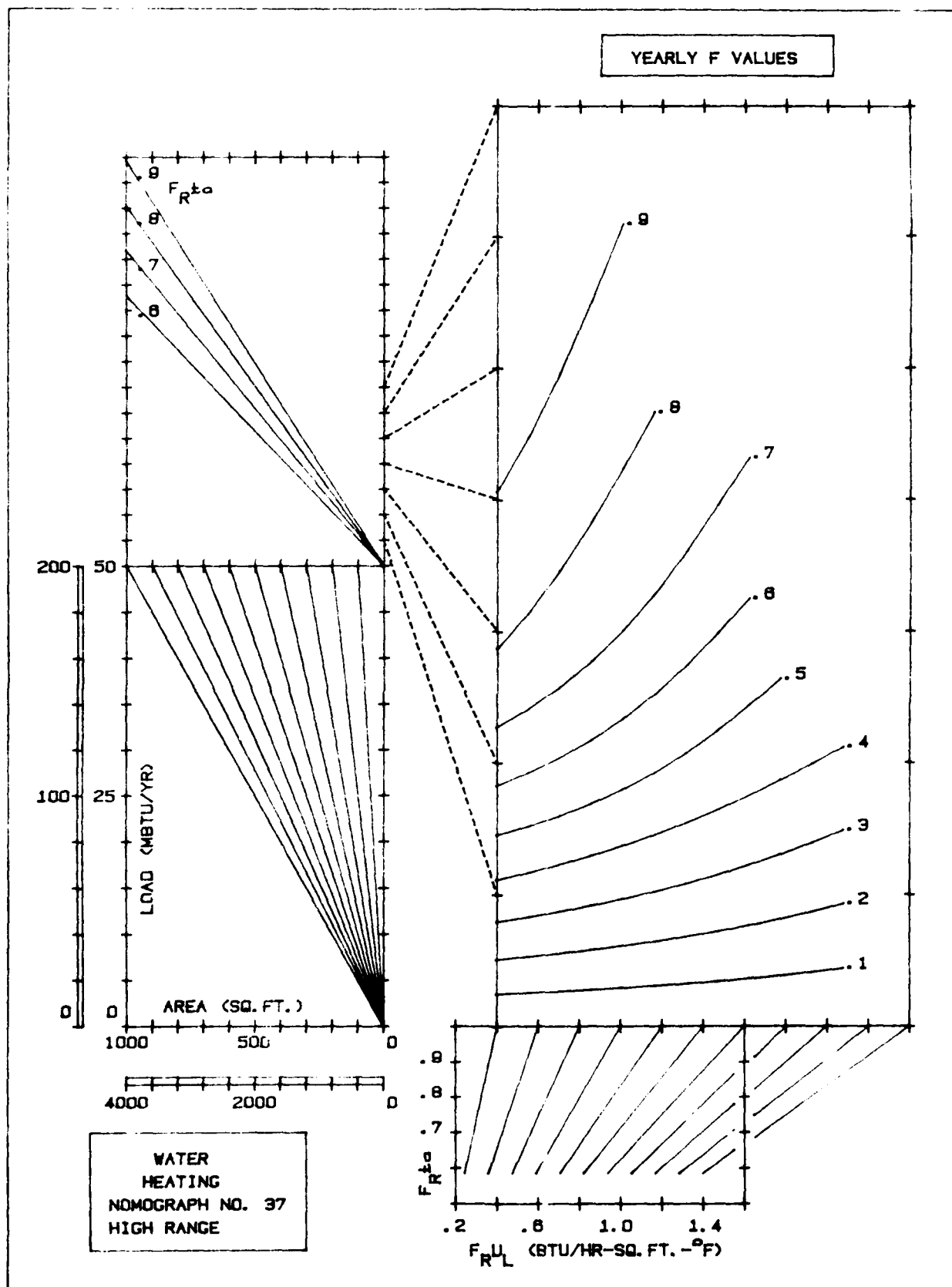
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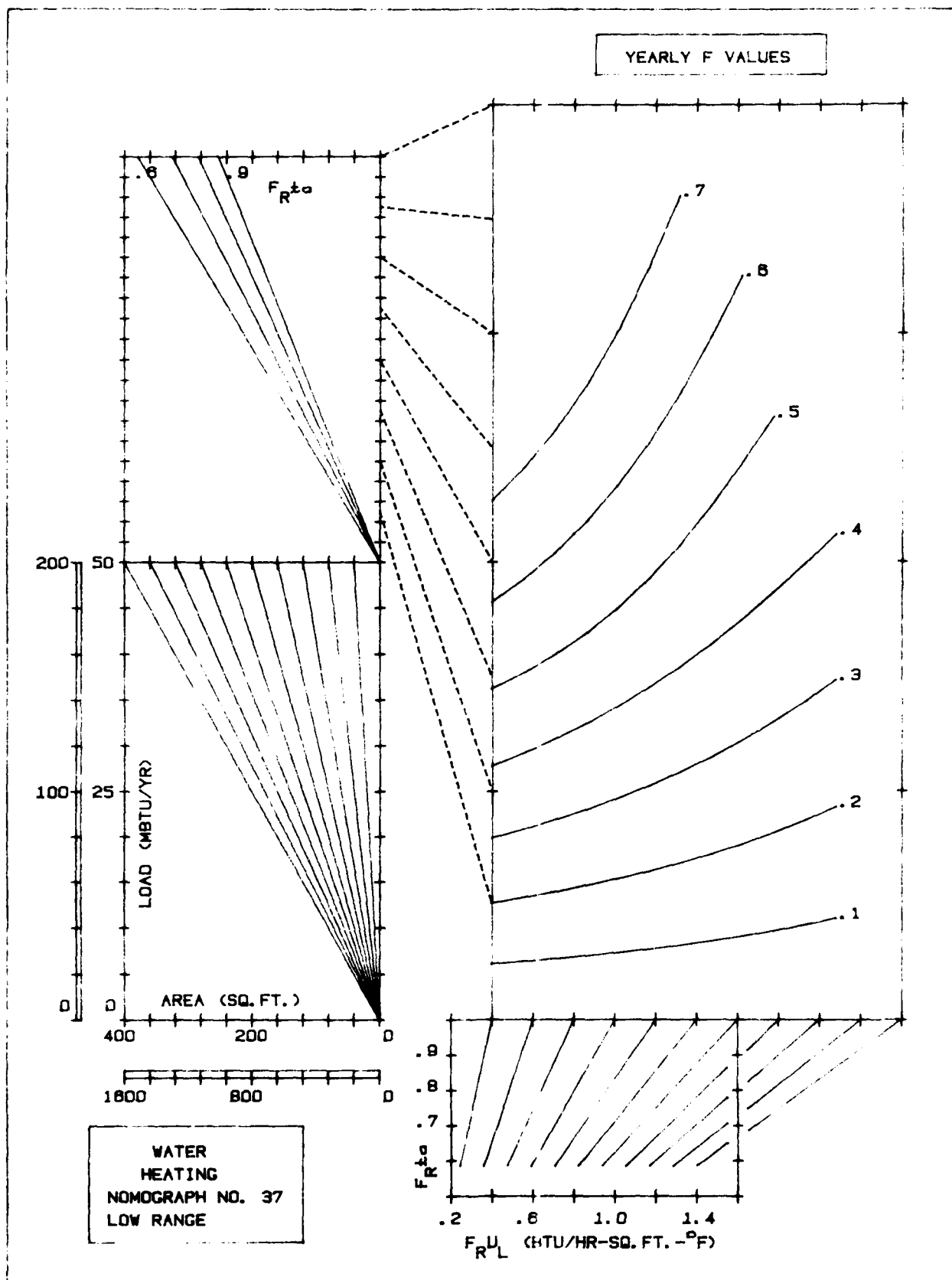
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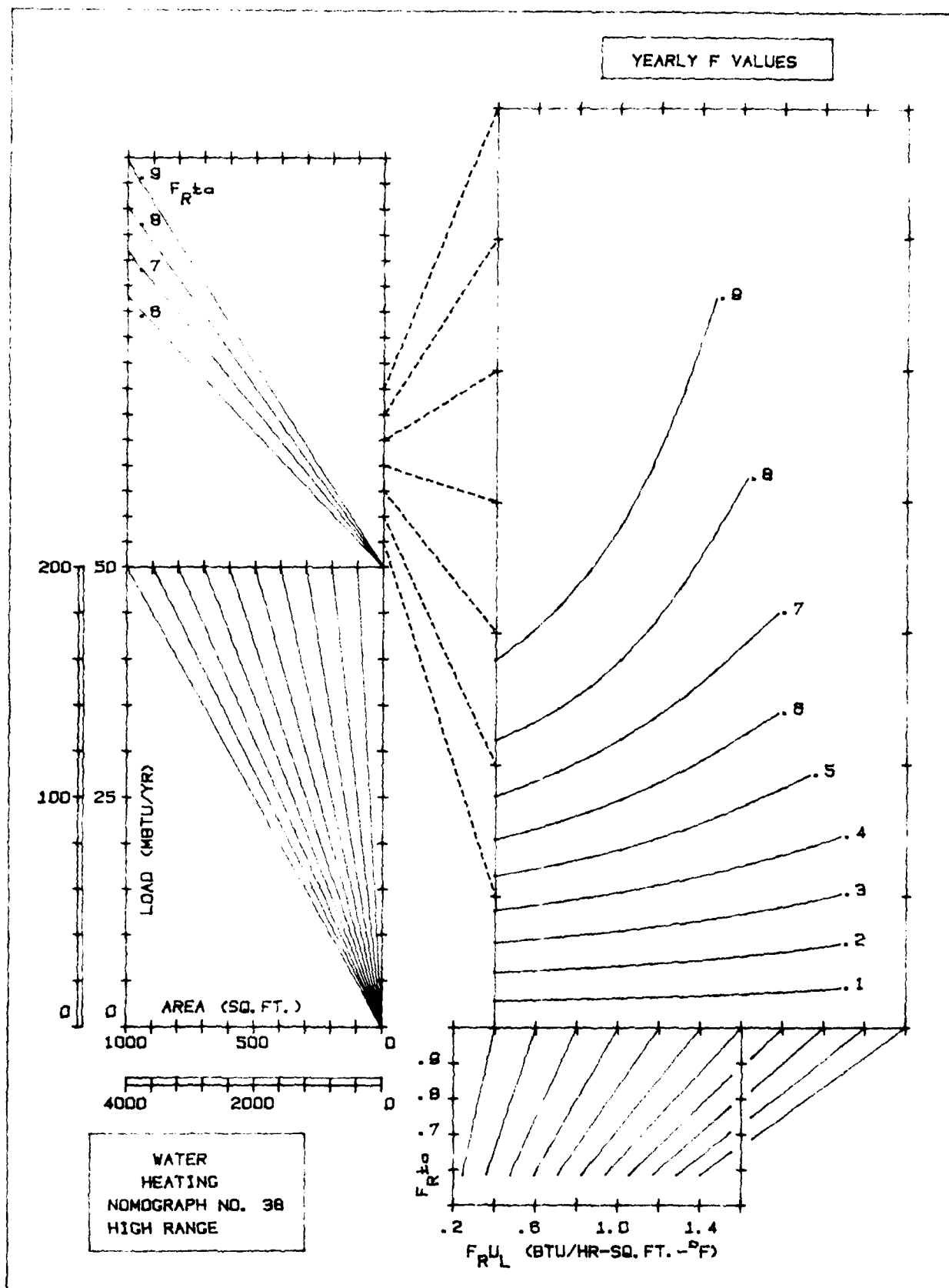


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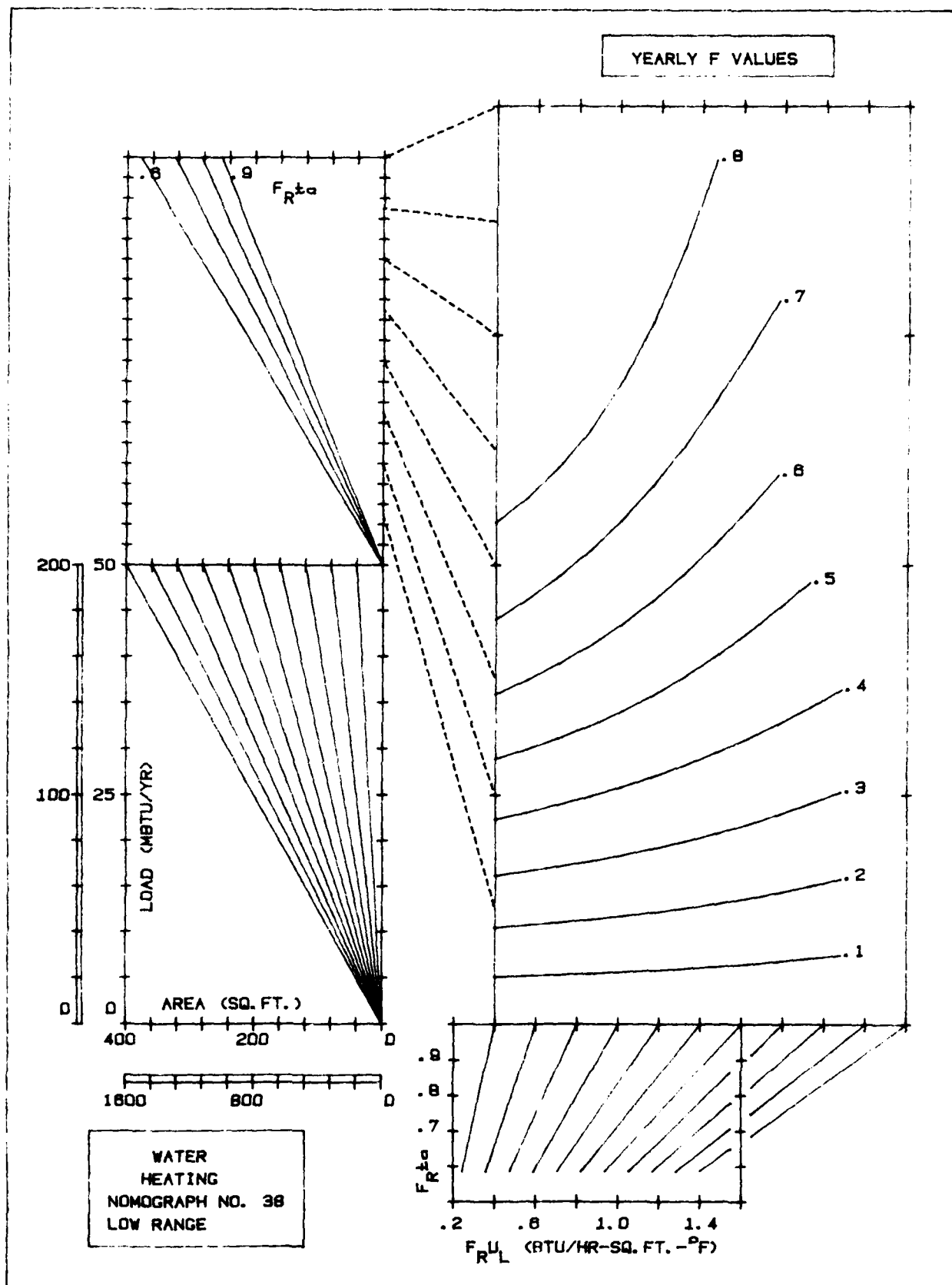


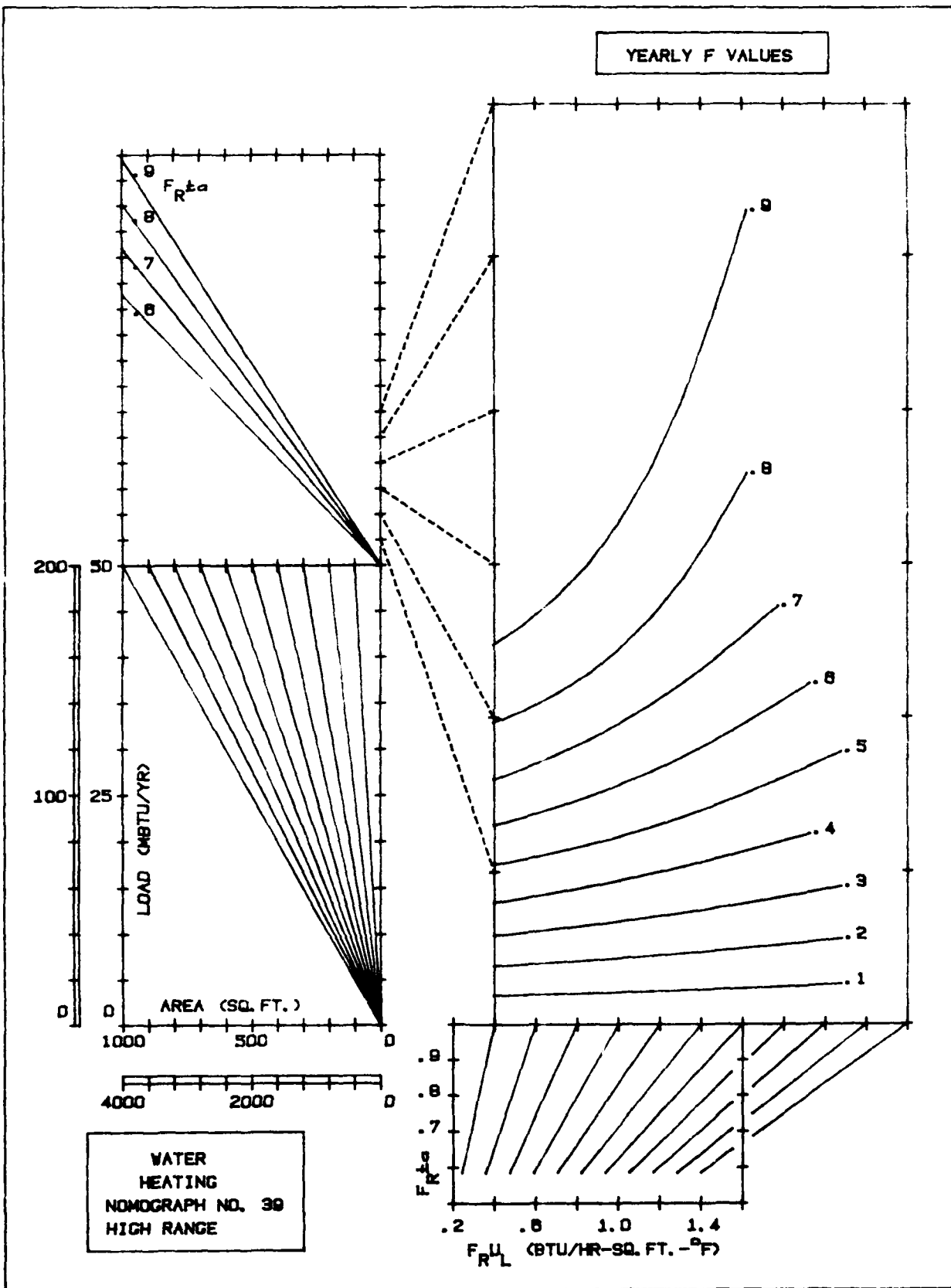
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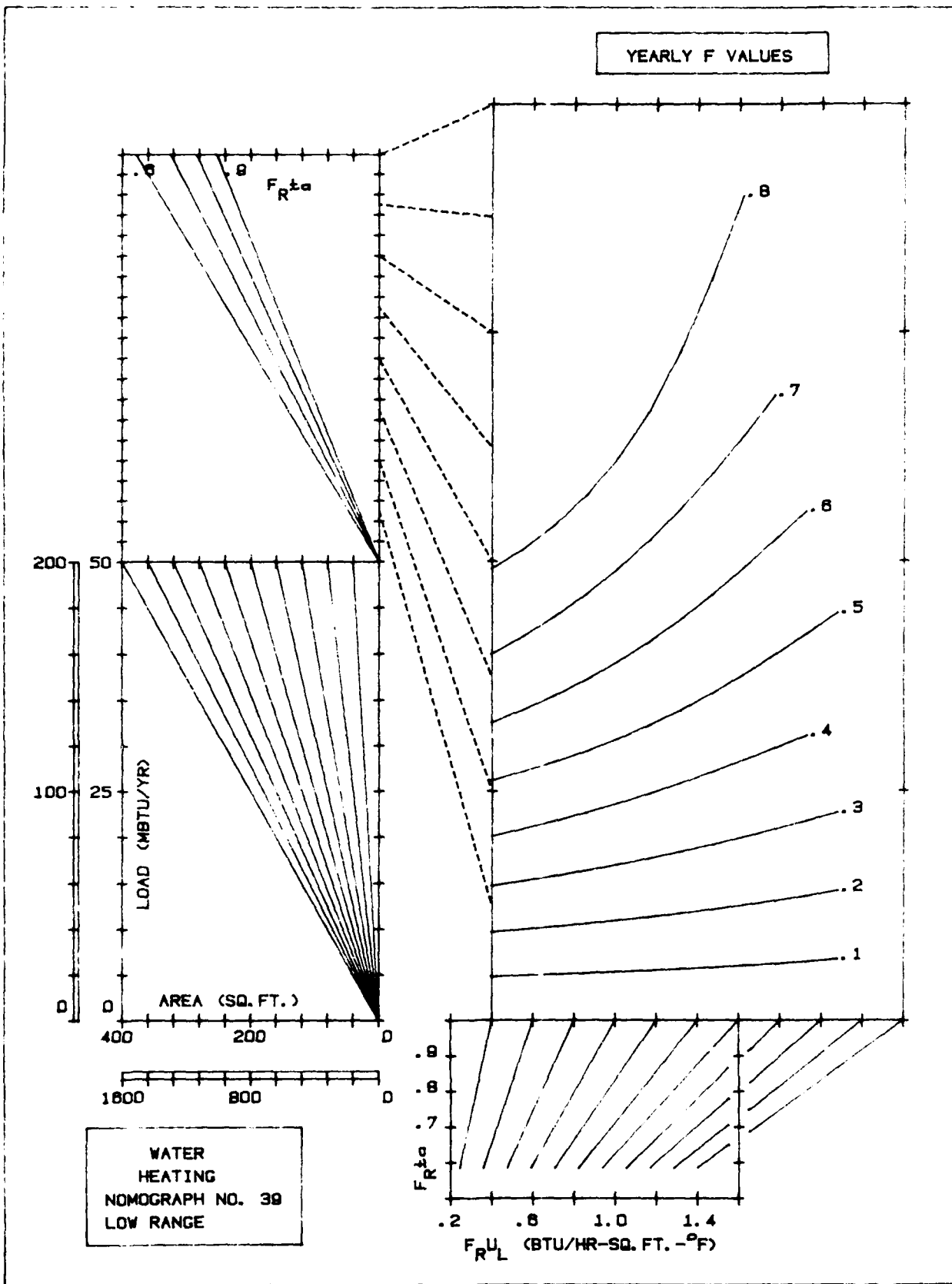


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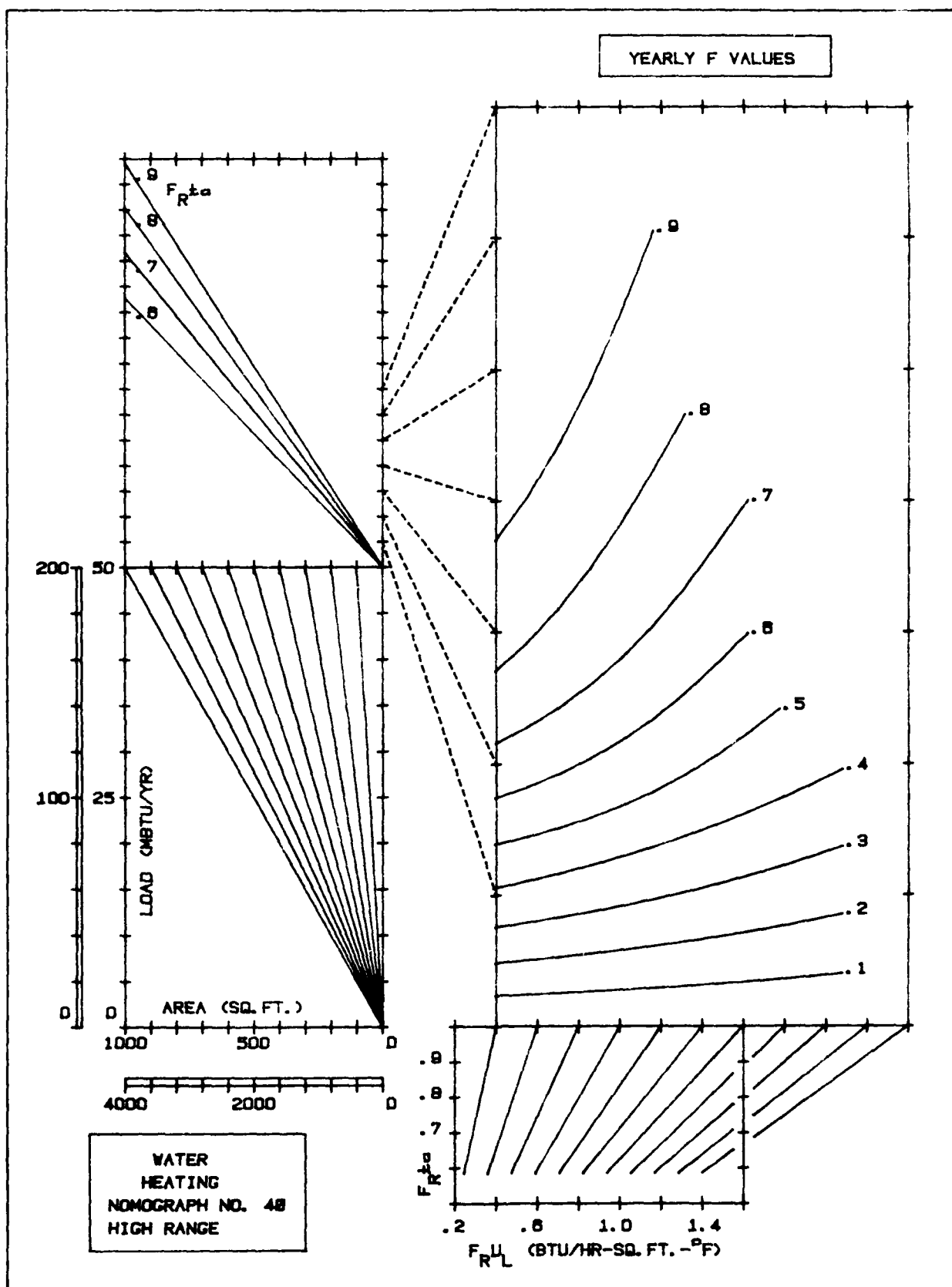




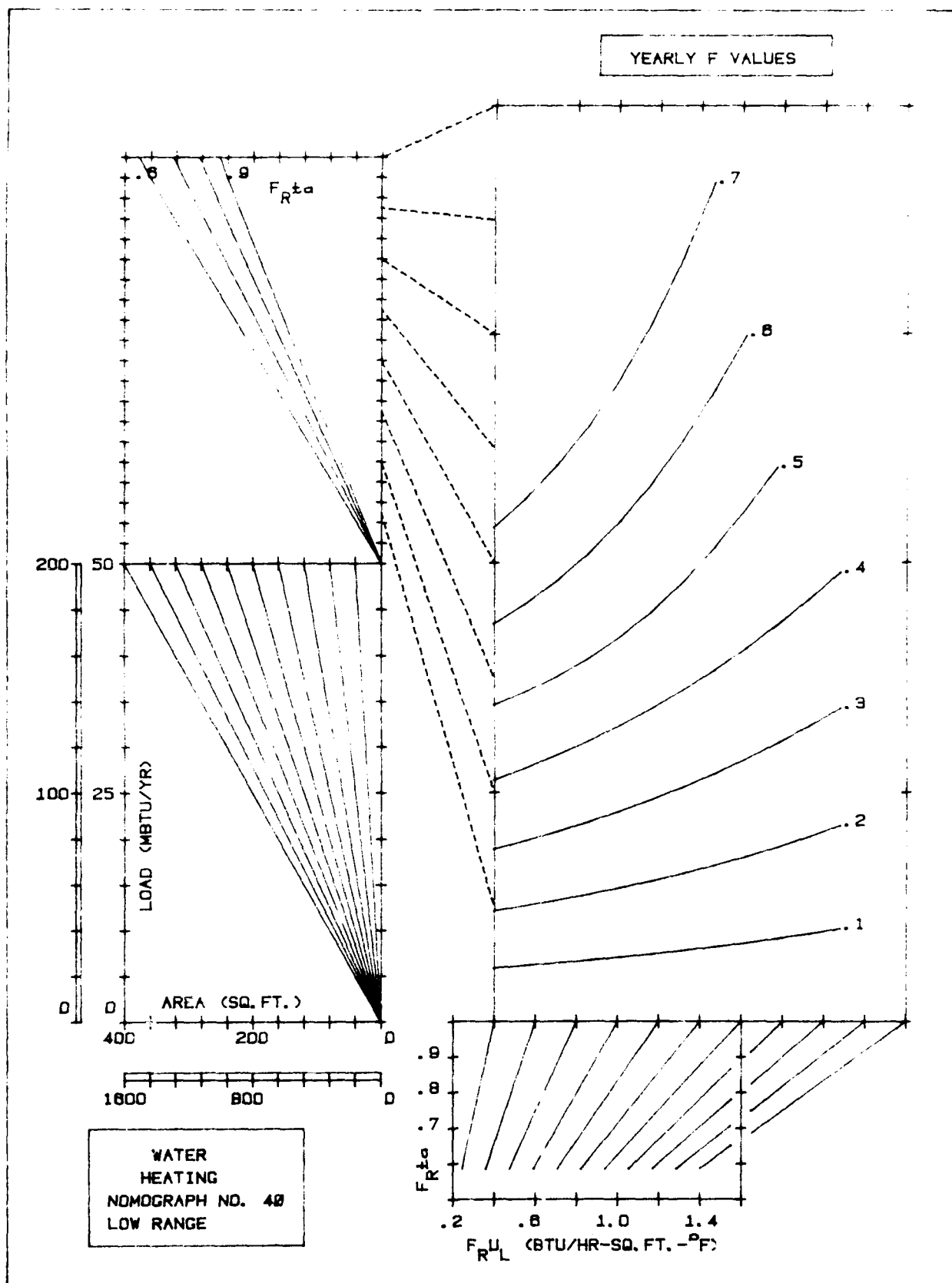
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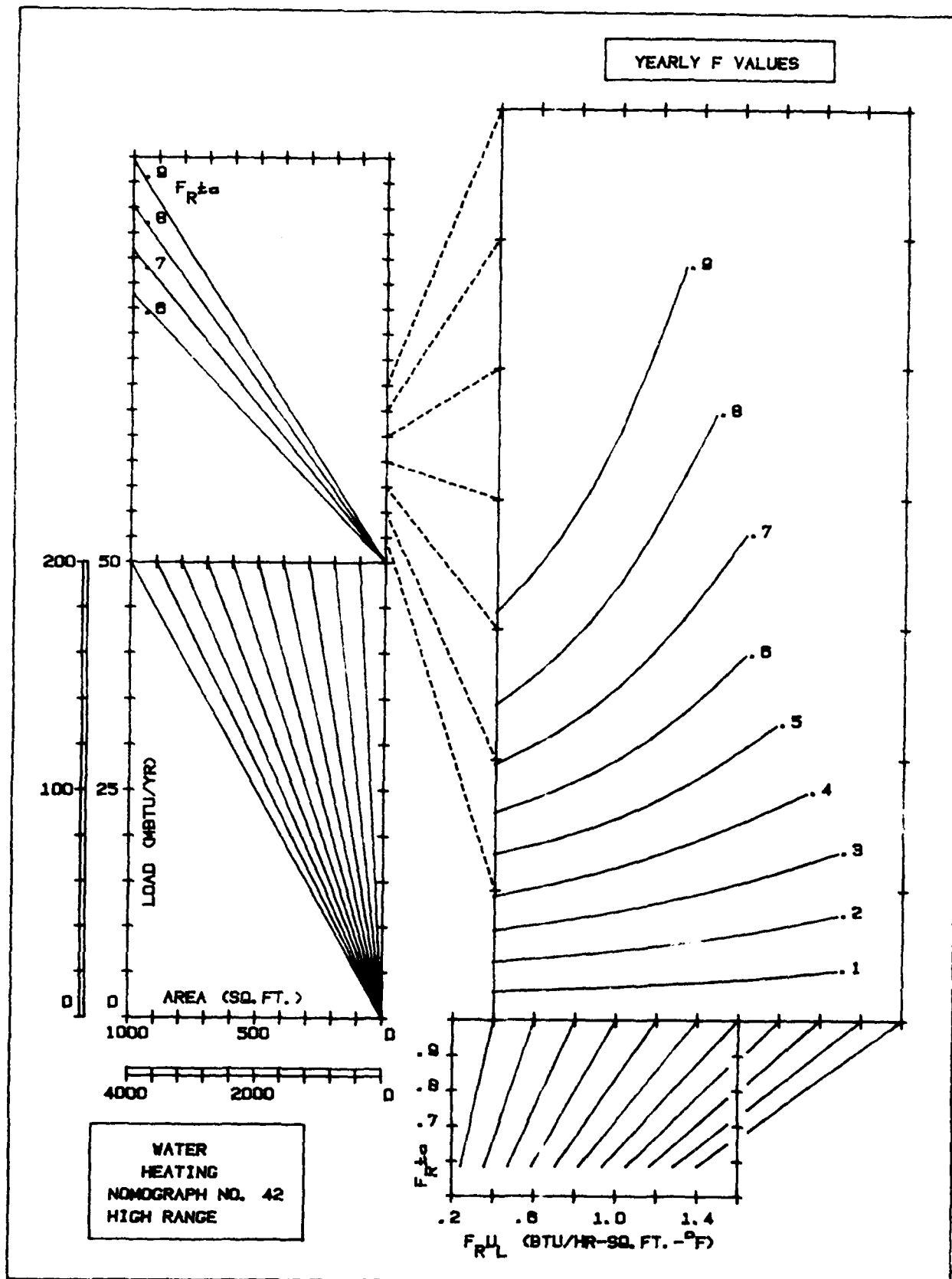
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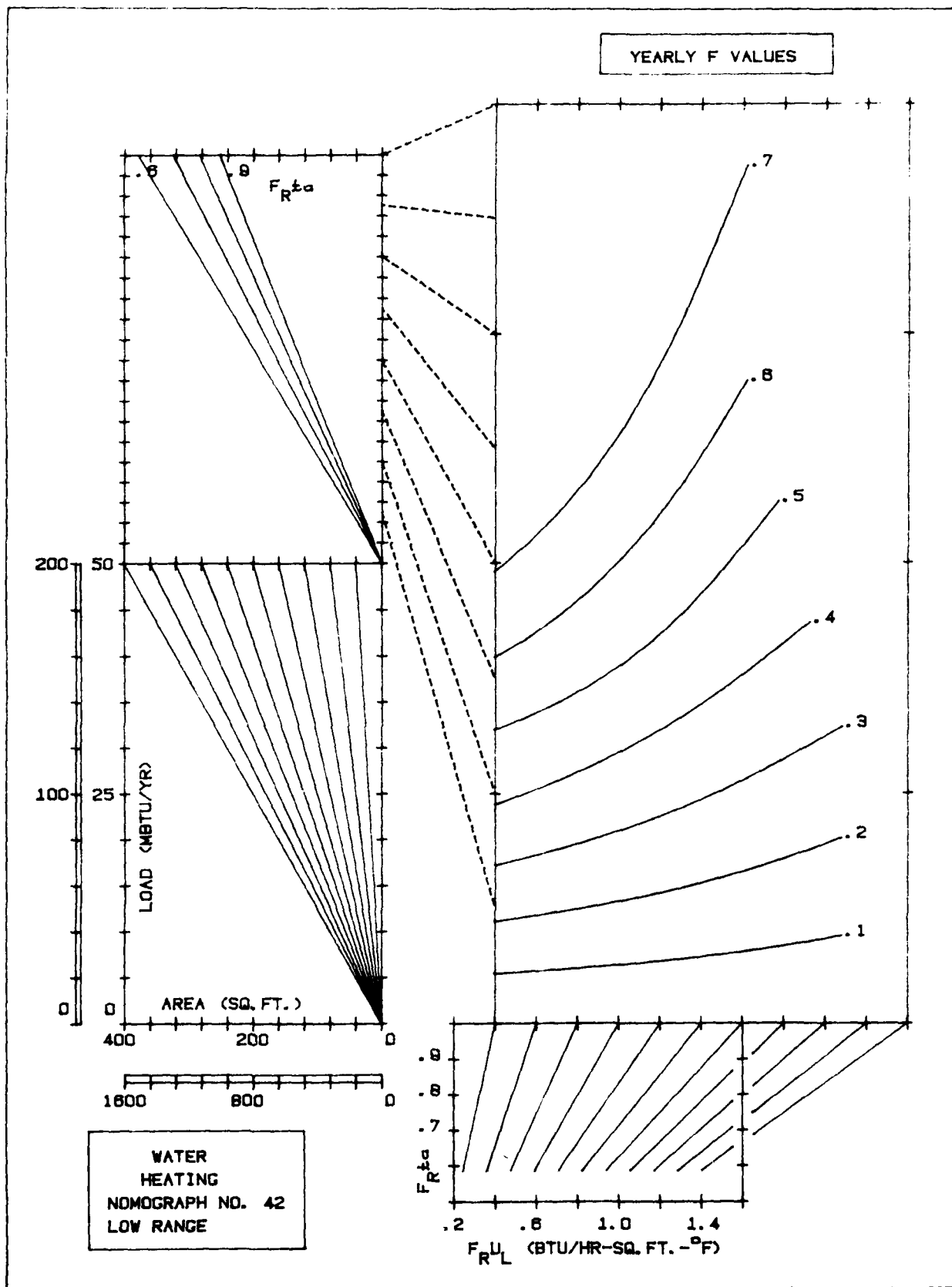
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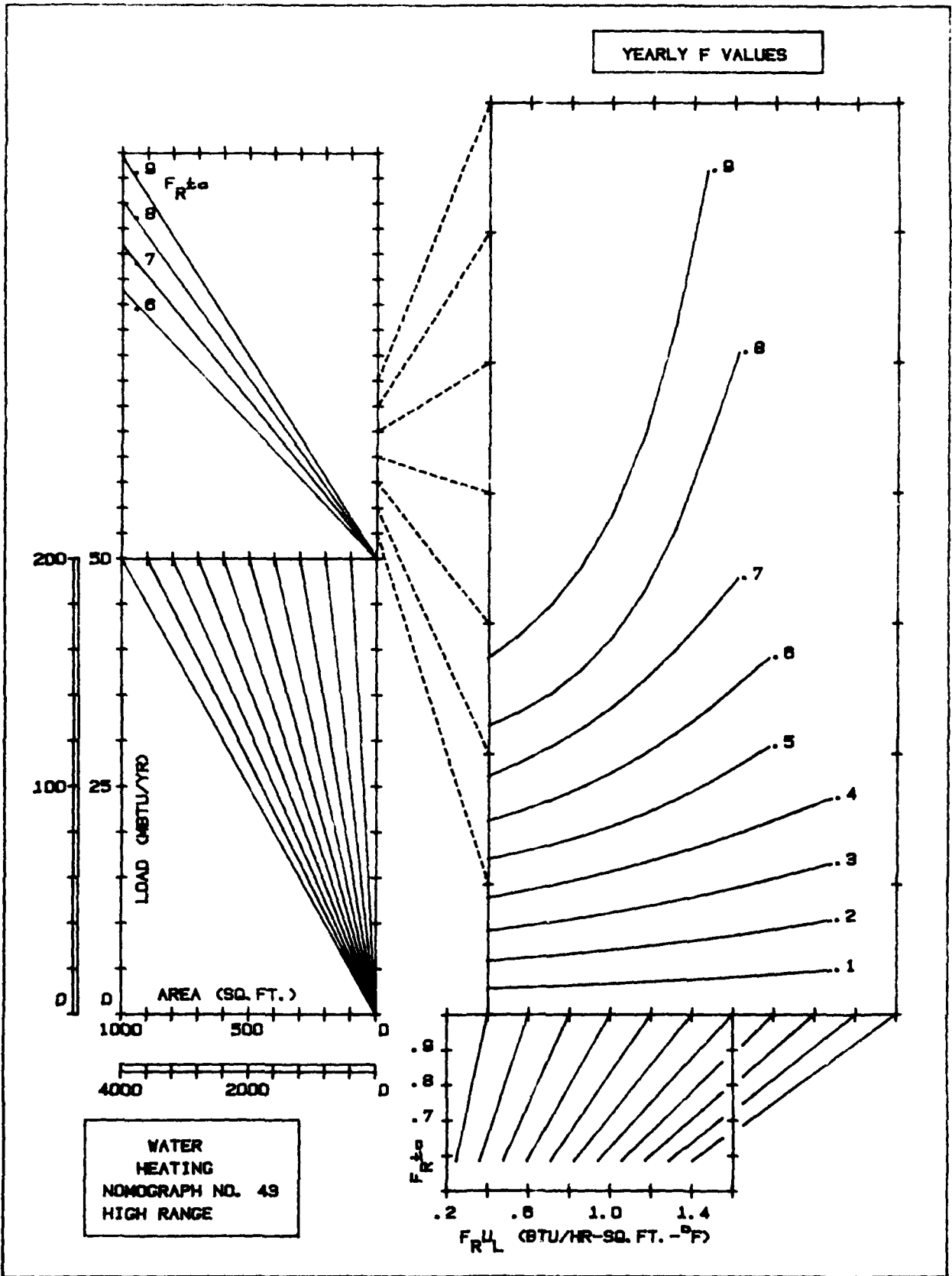
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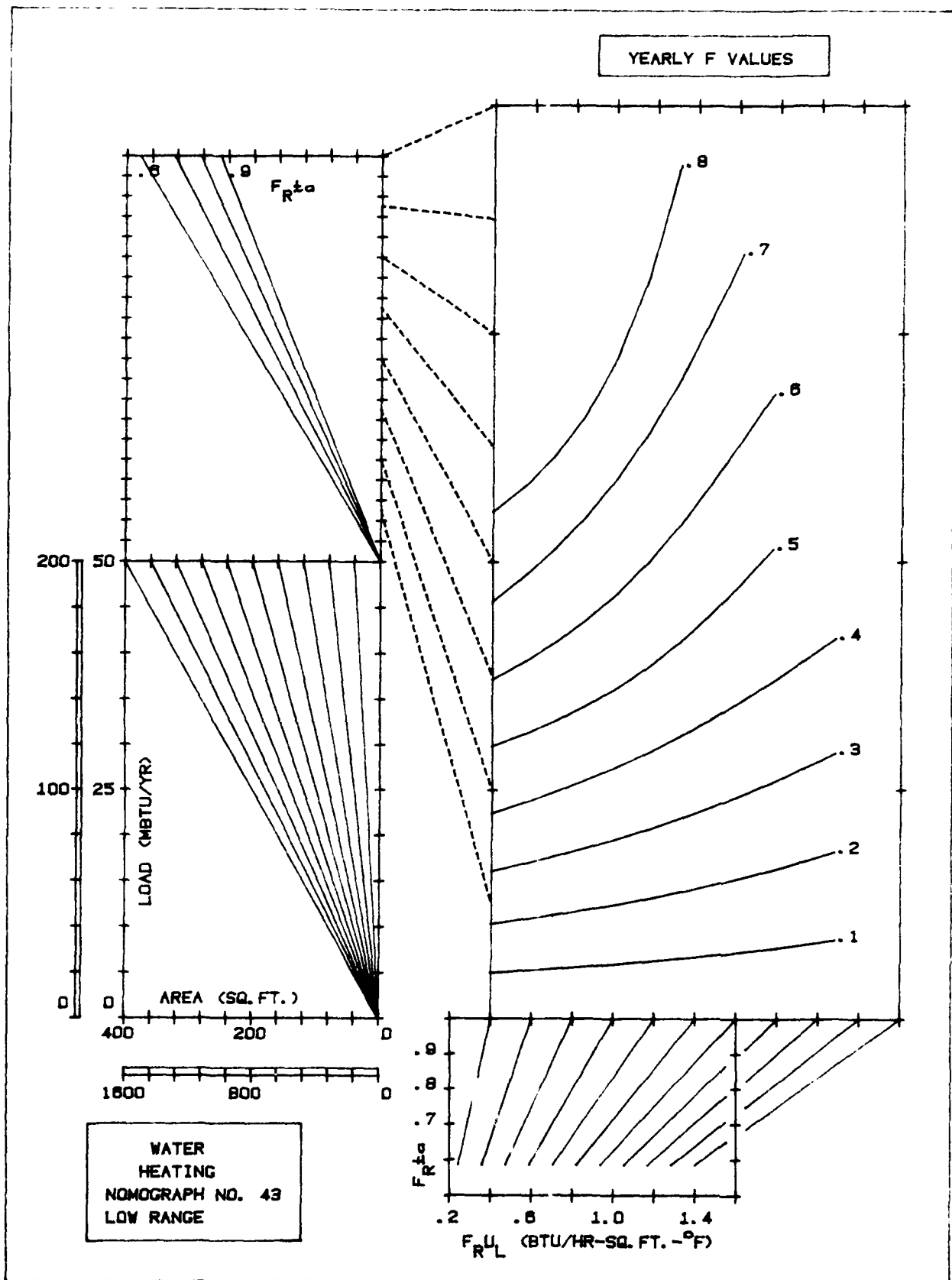
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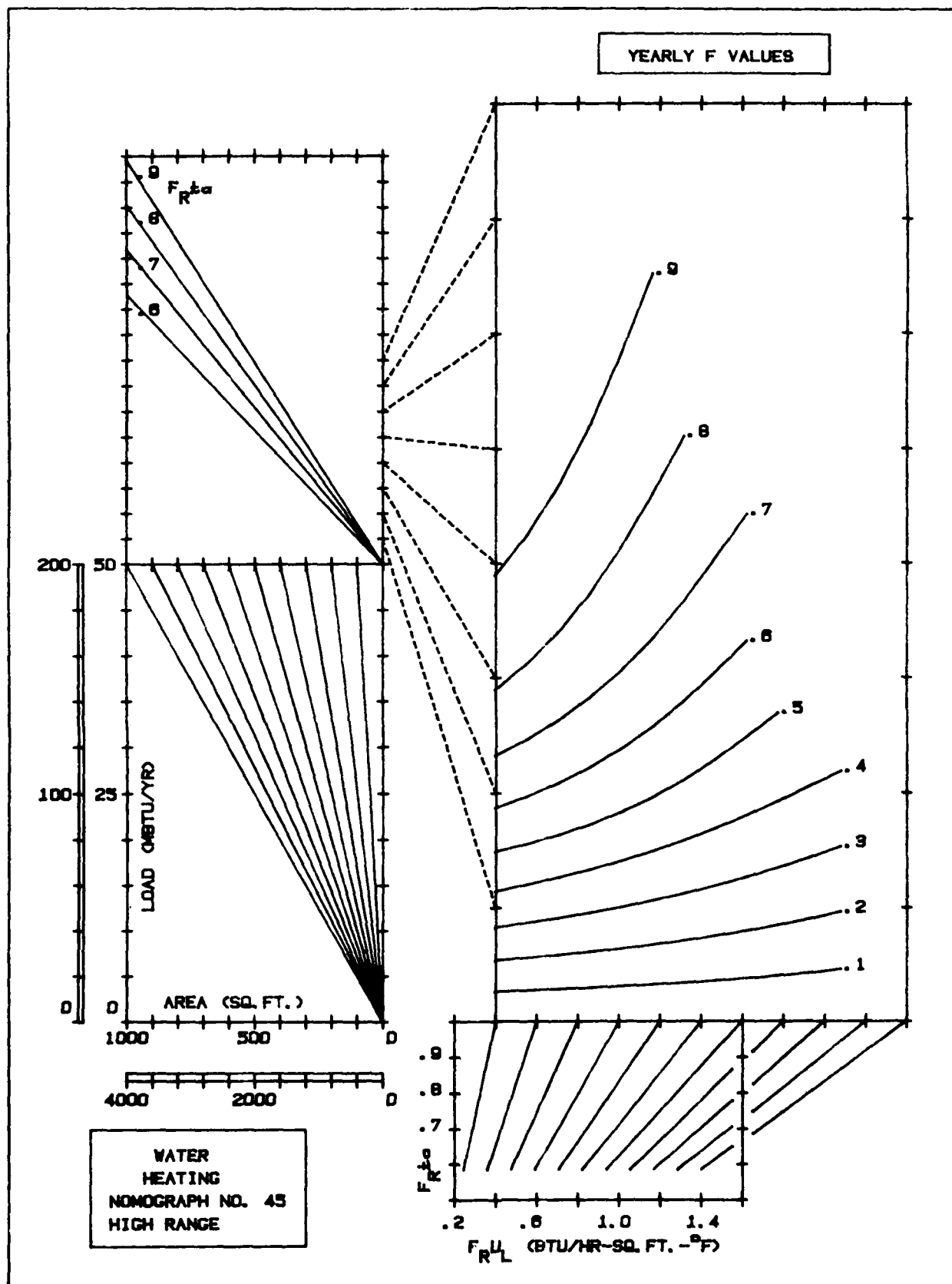
PREPARED 14 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

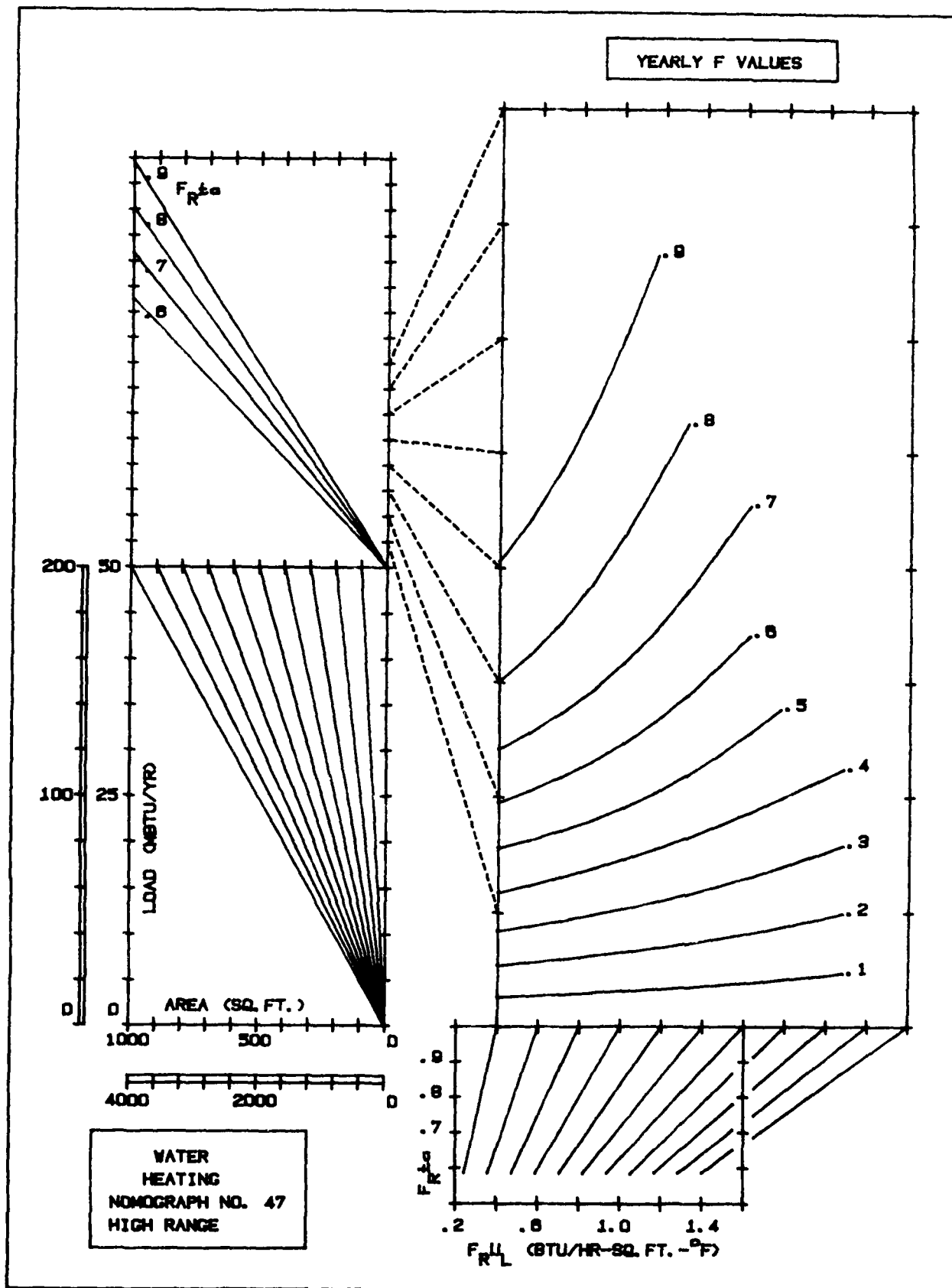


PREPARED 14 JUL 62 FOR AFESC BY USAFA/DFMS

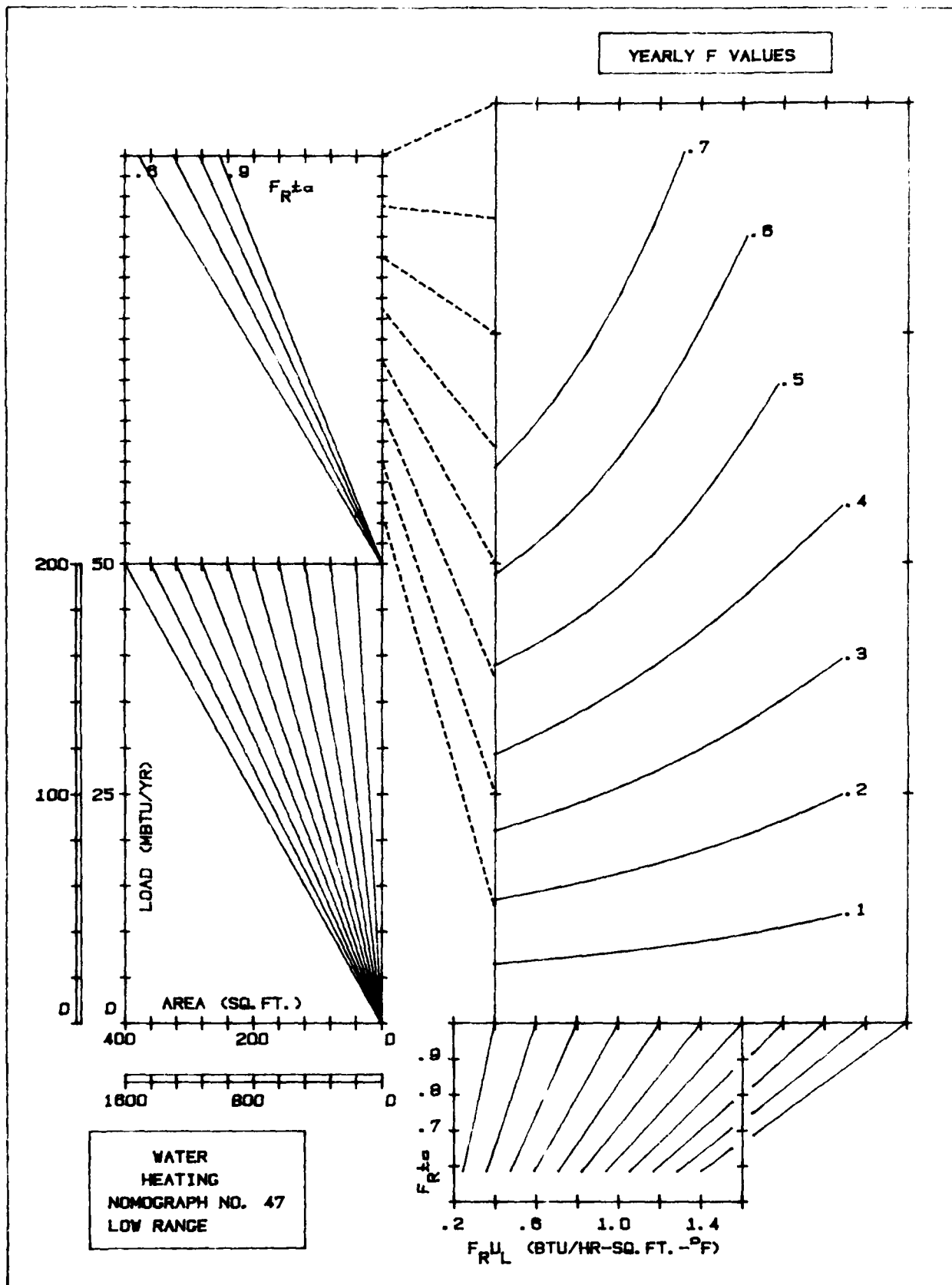


PREPARED 28 JUN 62 FOR AFESC BY USAFA/DFMS

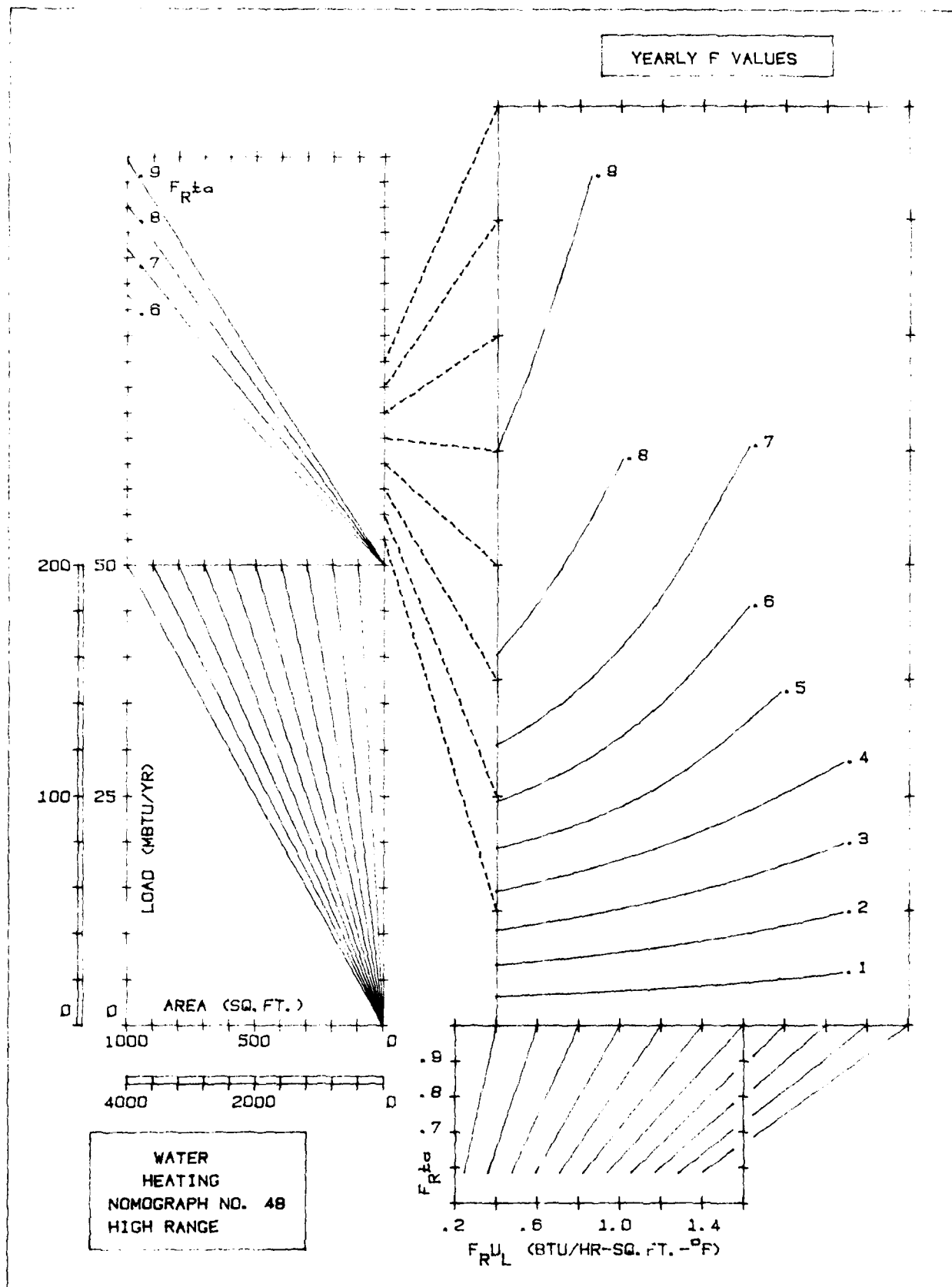
C72



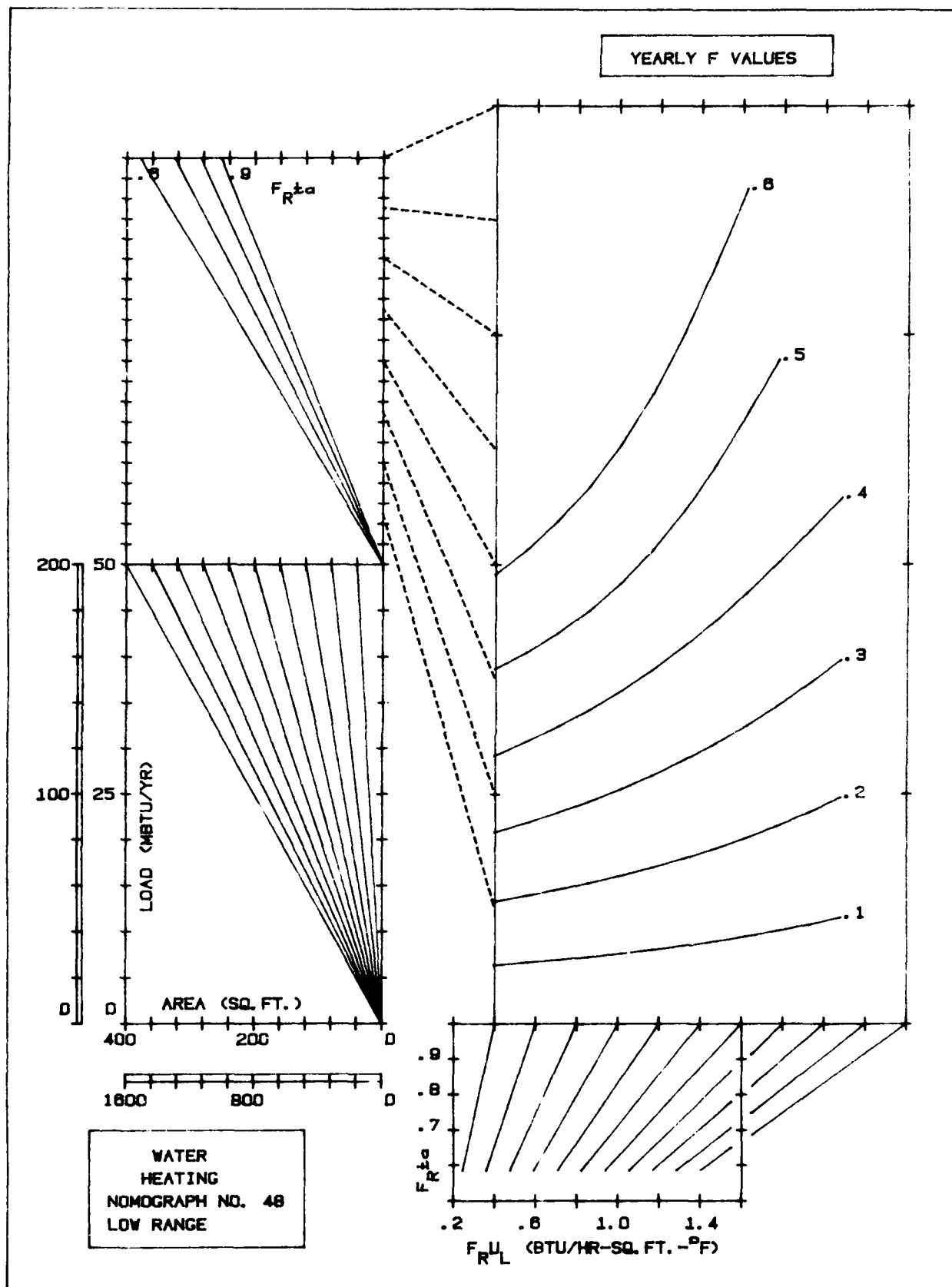
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



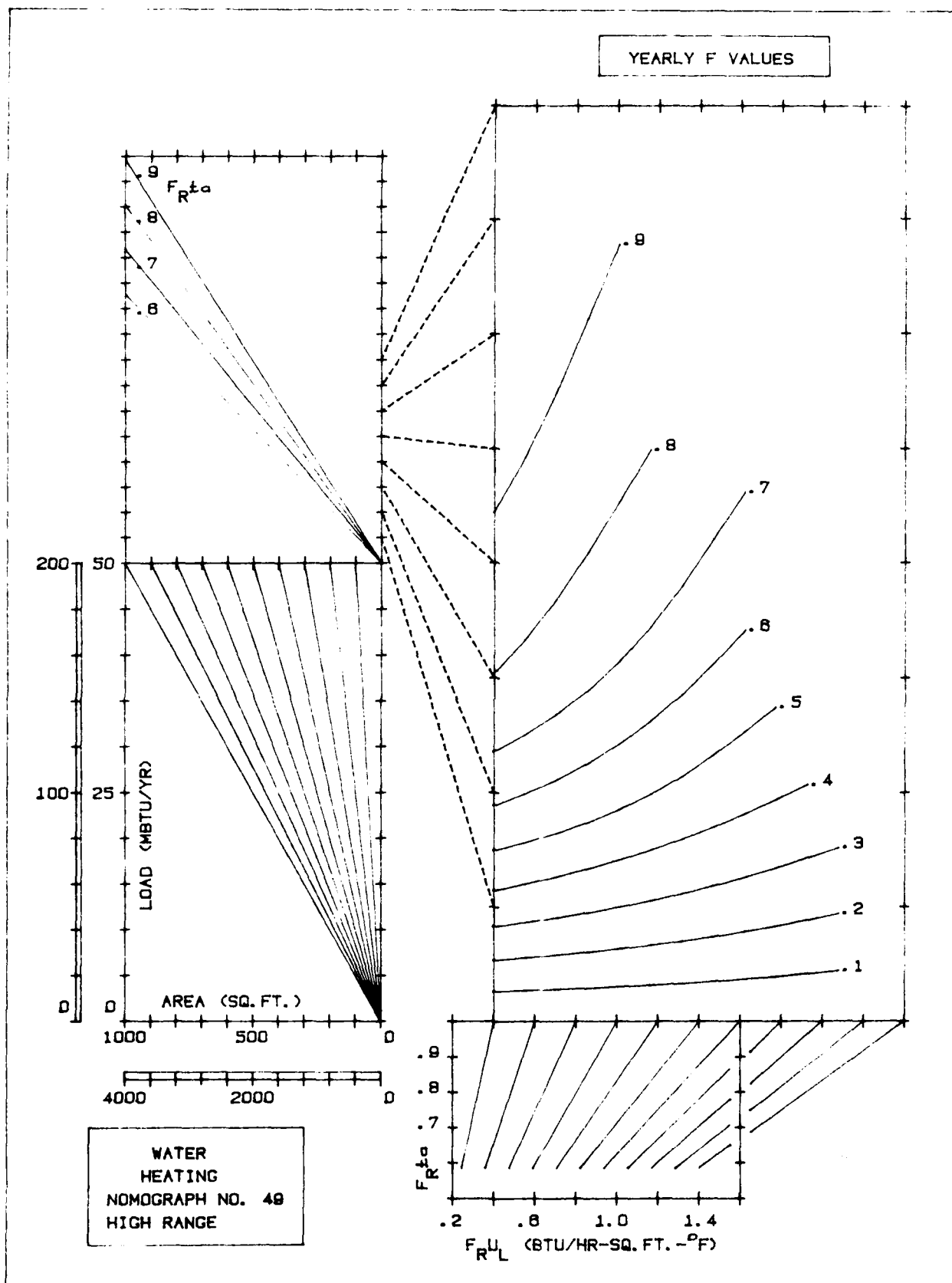
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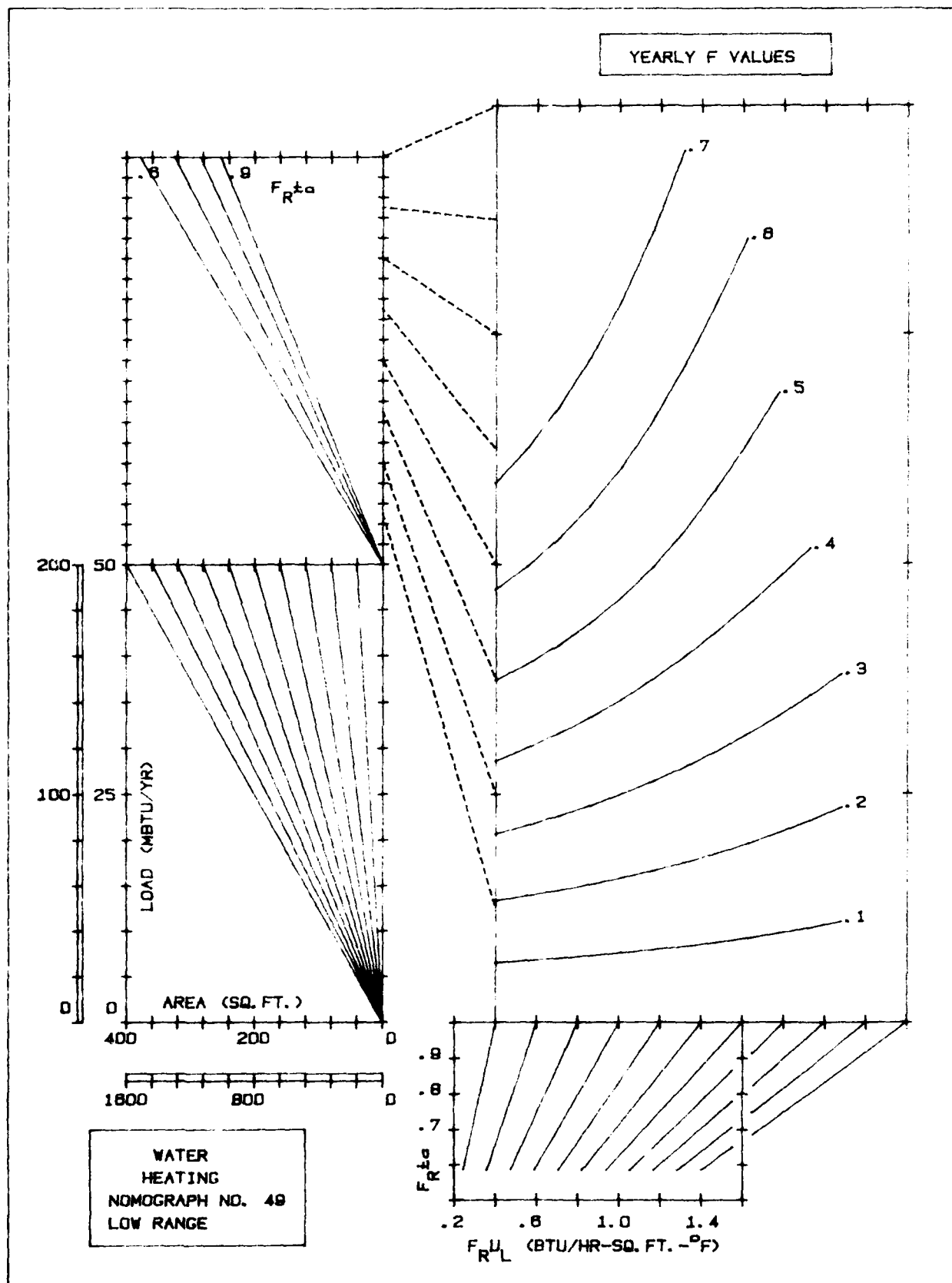
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



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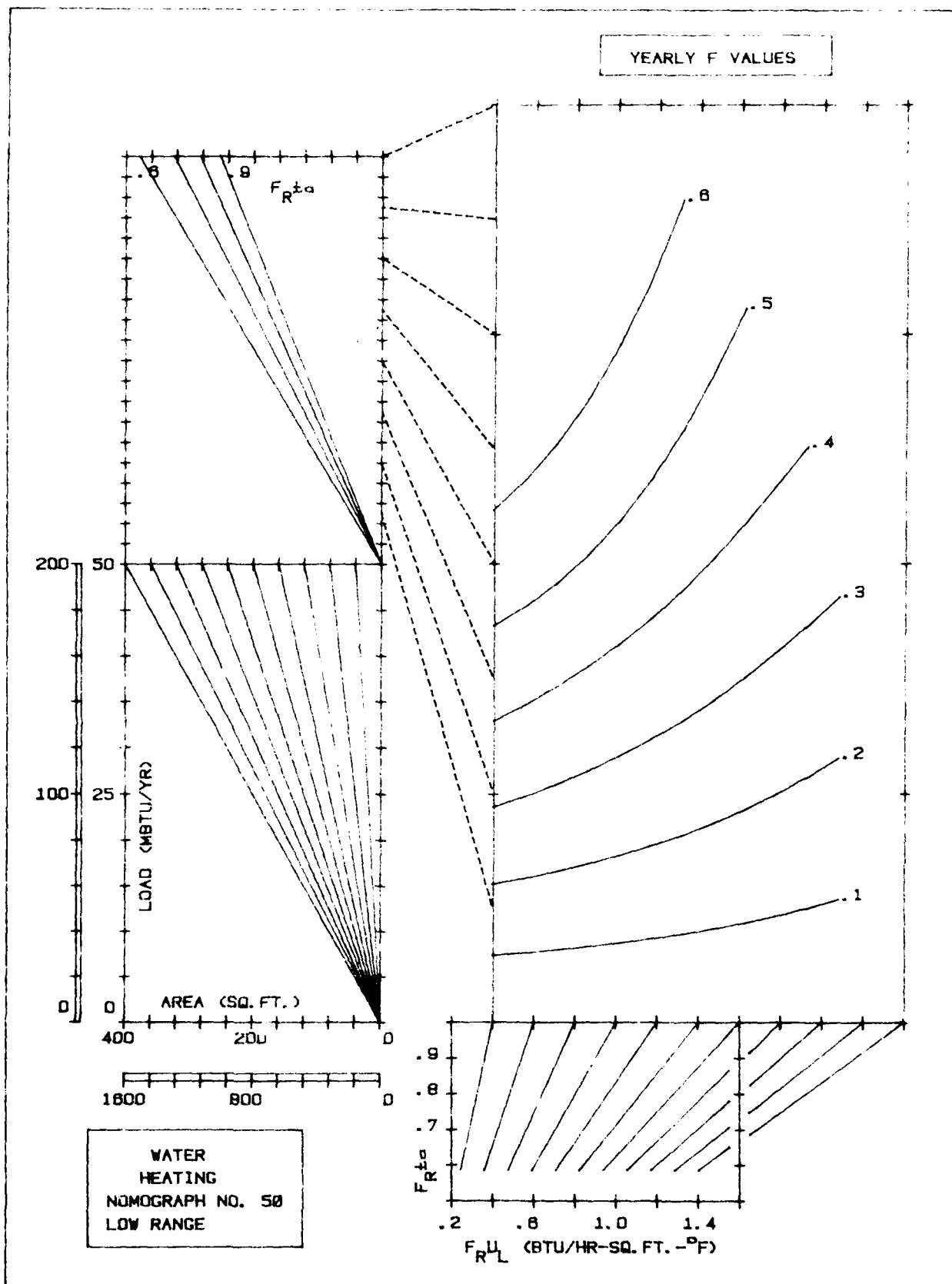


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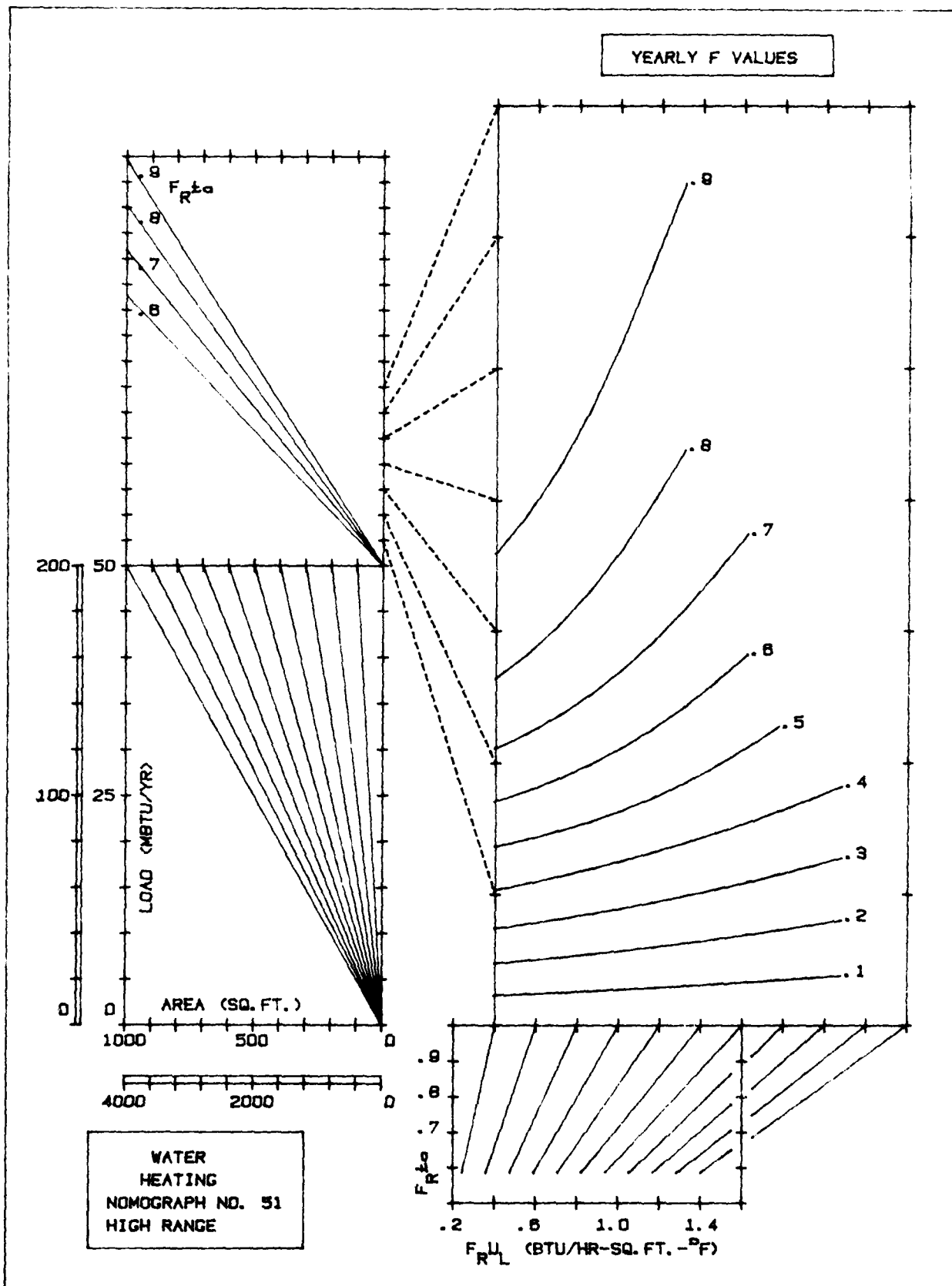
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WATER HEATING NOMOGRAPH NO. 50,
HIGH RANGE, NOT USABLE

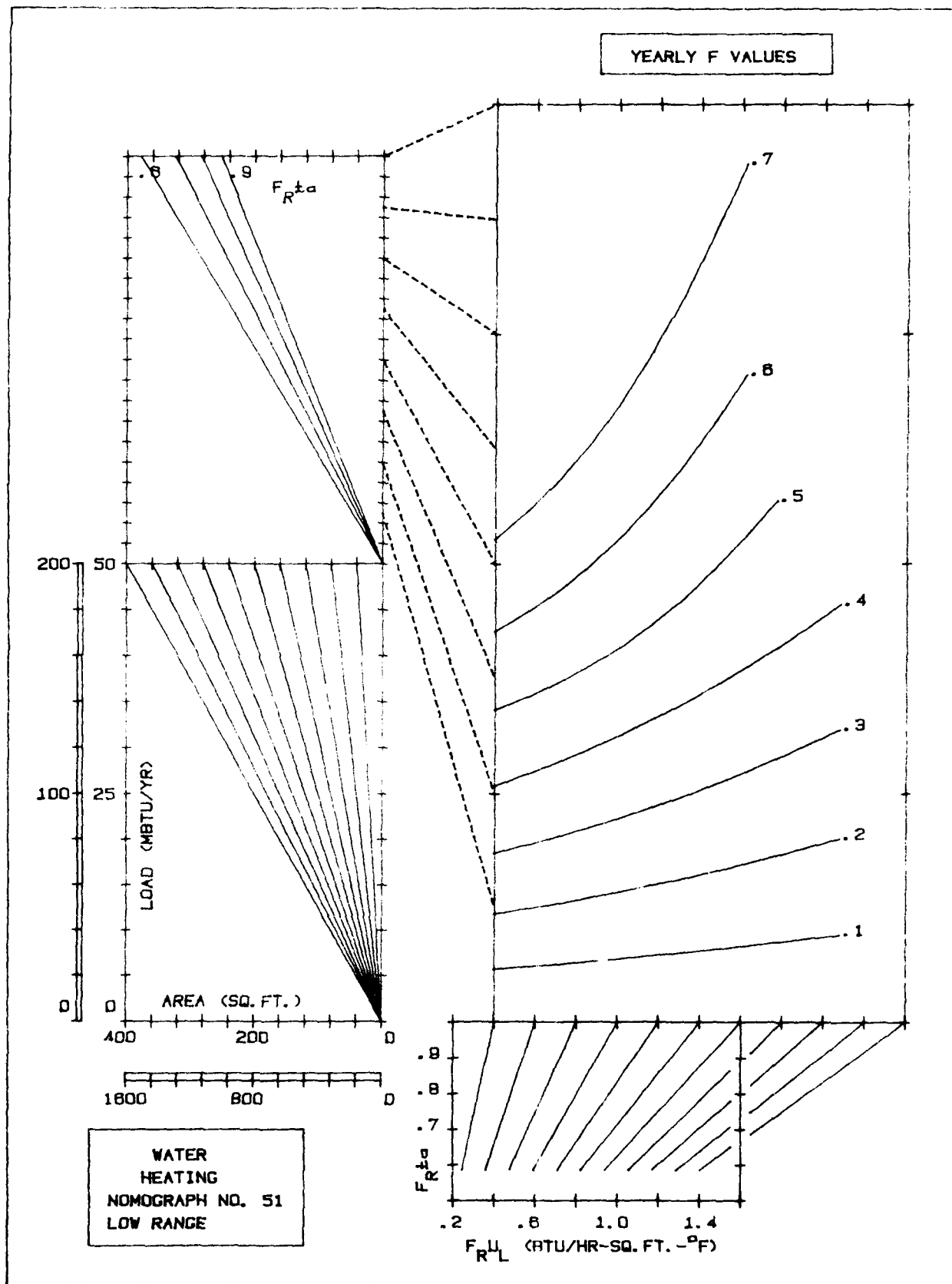


PREPARED 22 JUL 82 FOR AFESC BY USAFA/DFMS

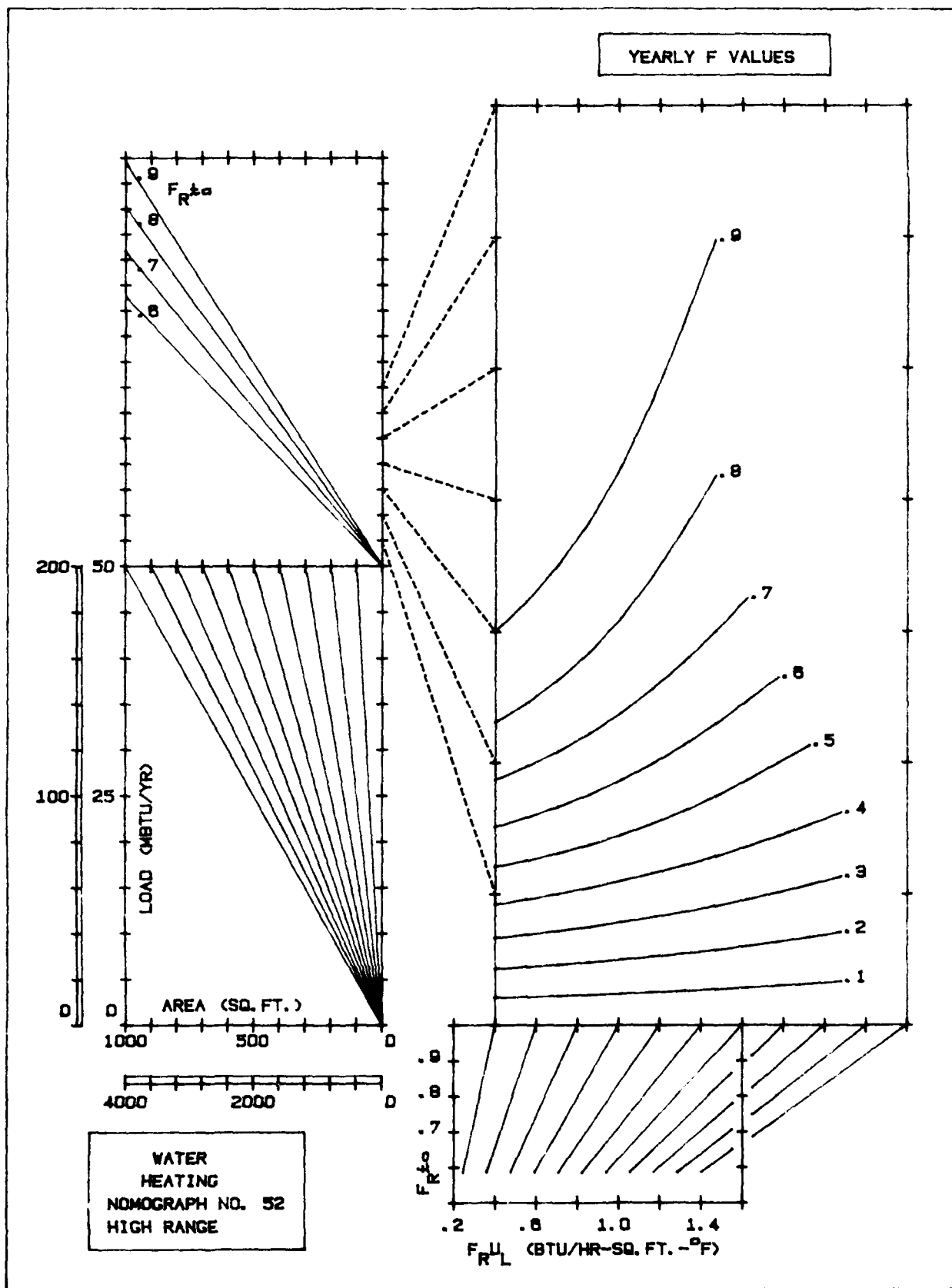
C80



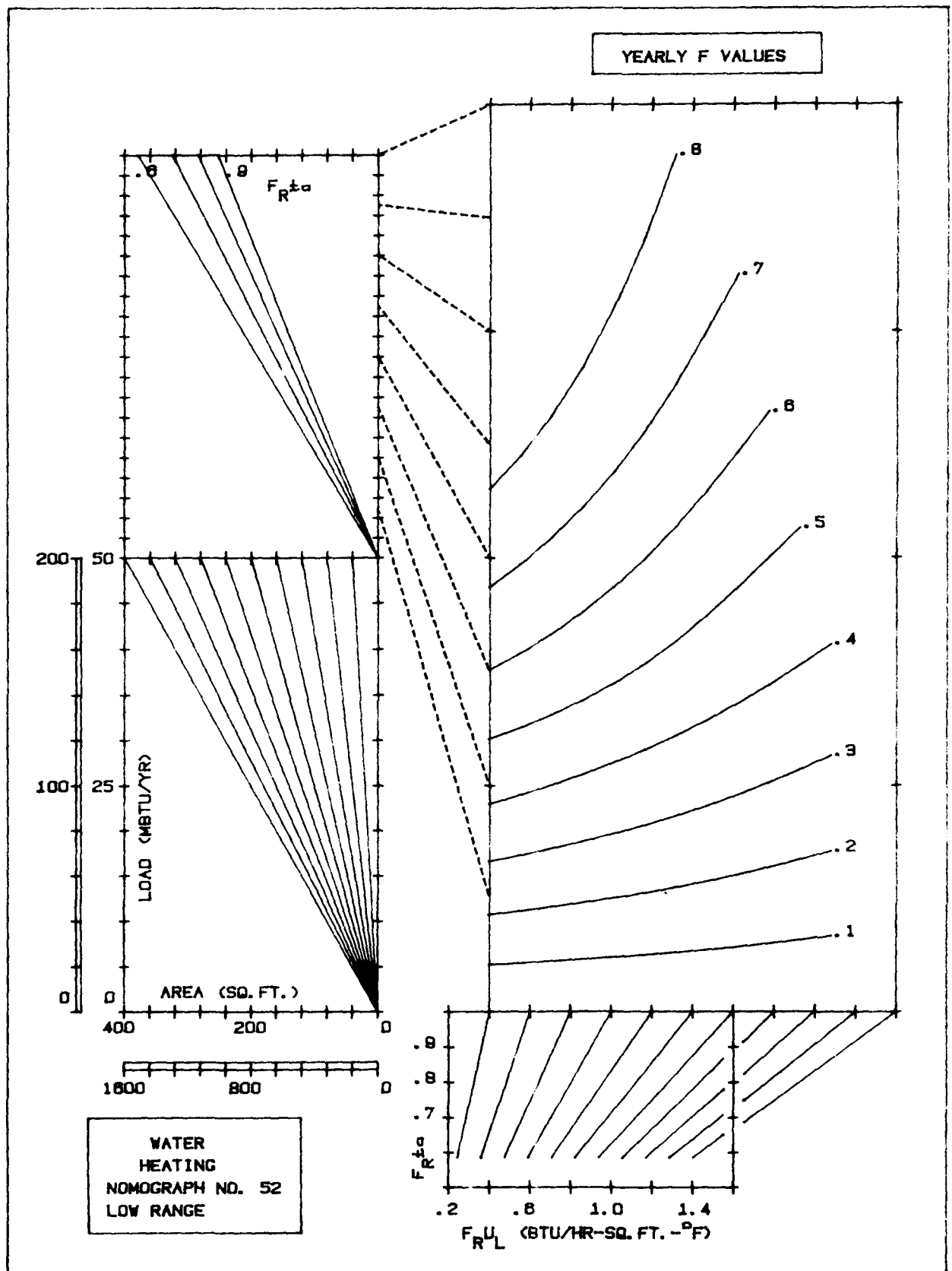
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



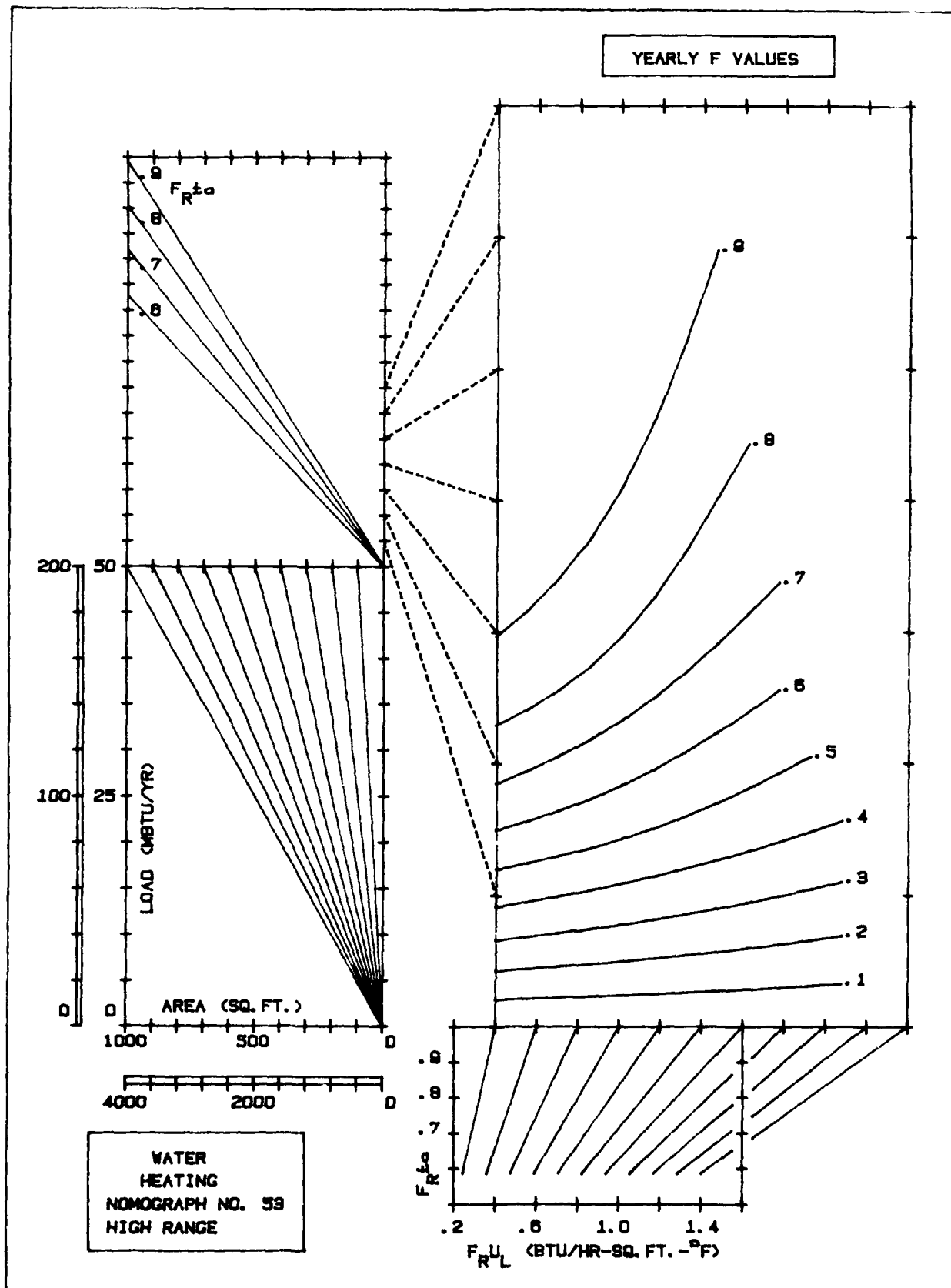
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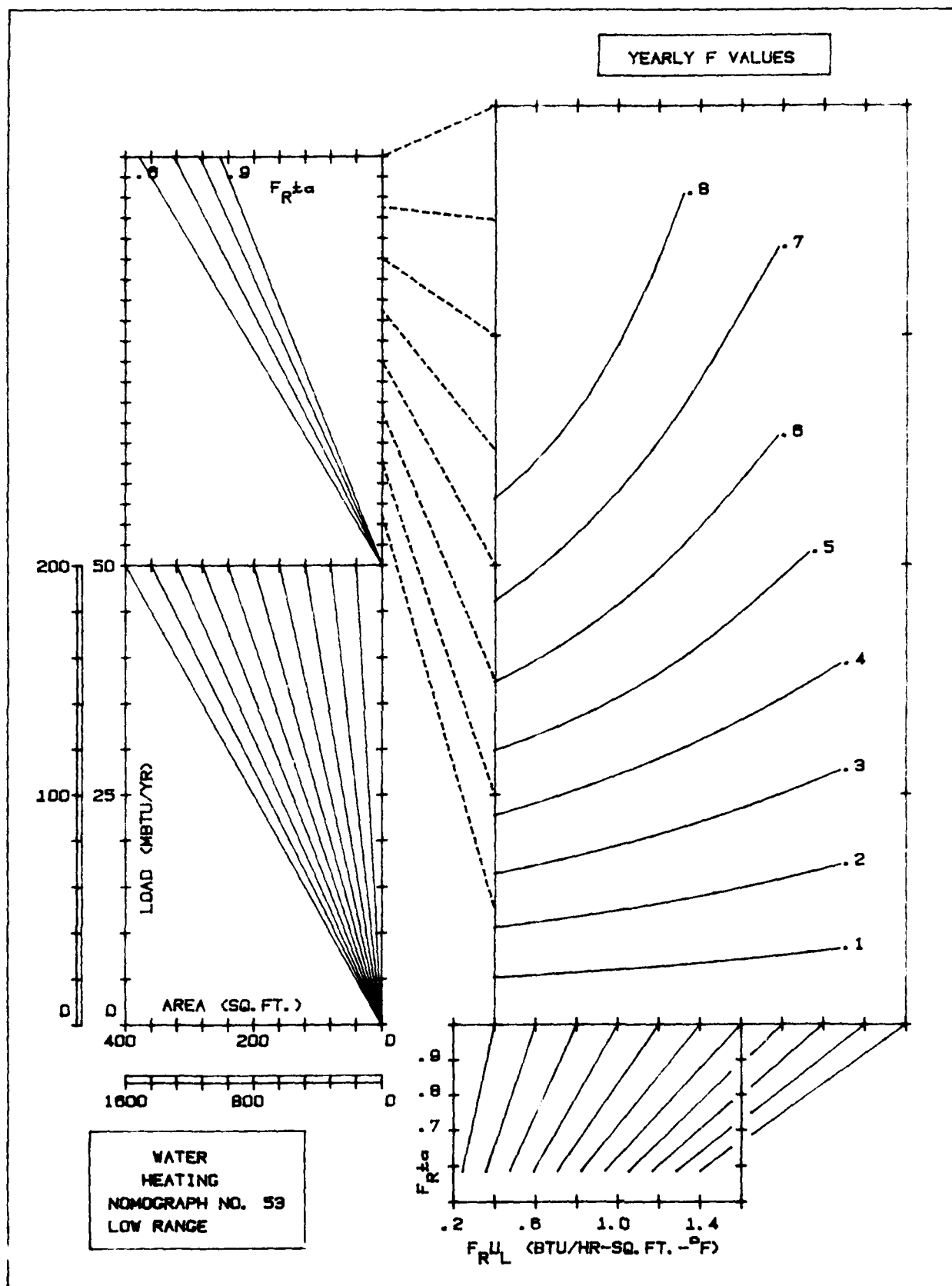
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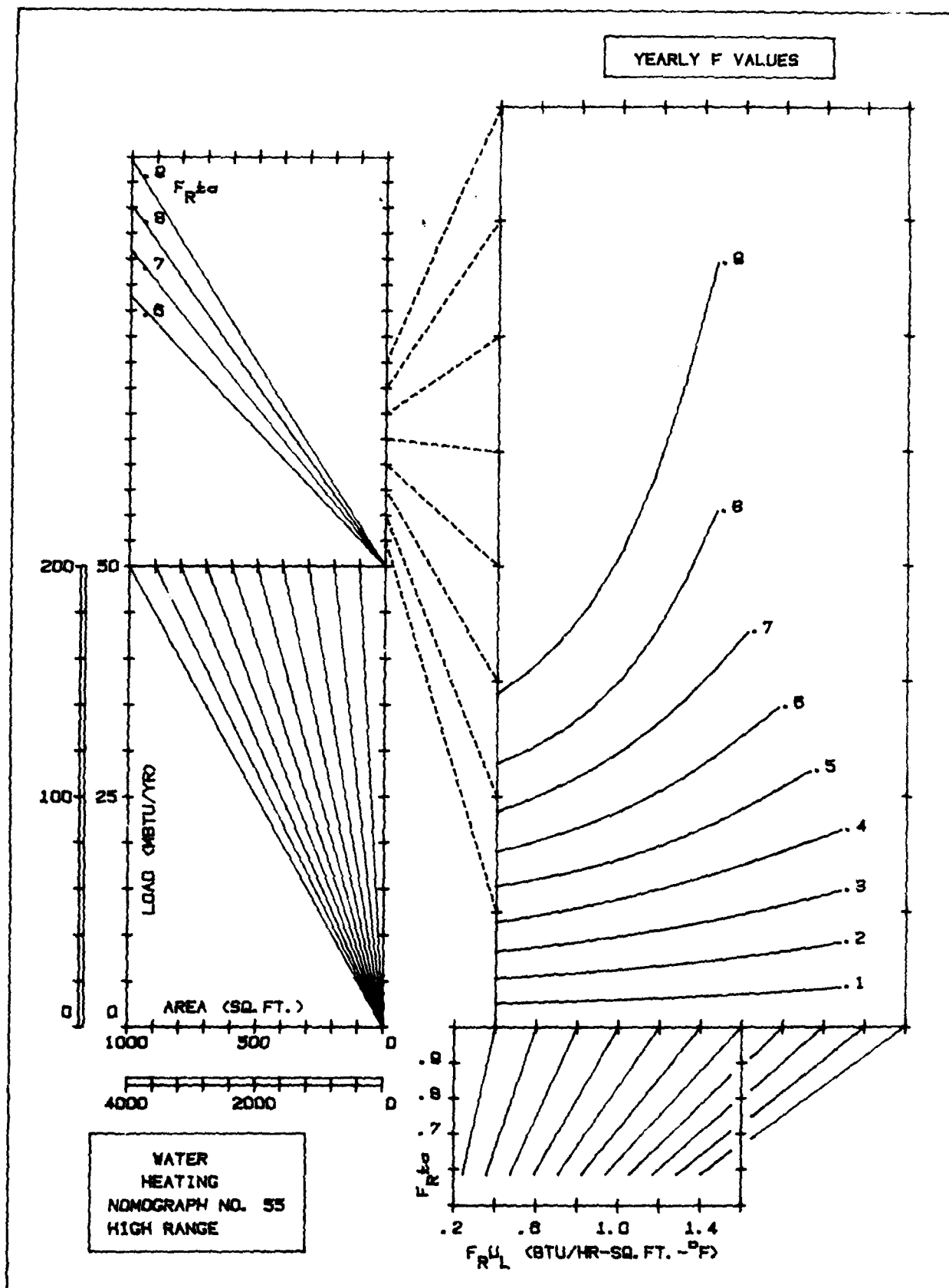
PREPARED 14 JUL 82 FOR AFESC BY USAFA/DFMS



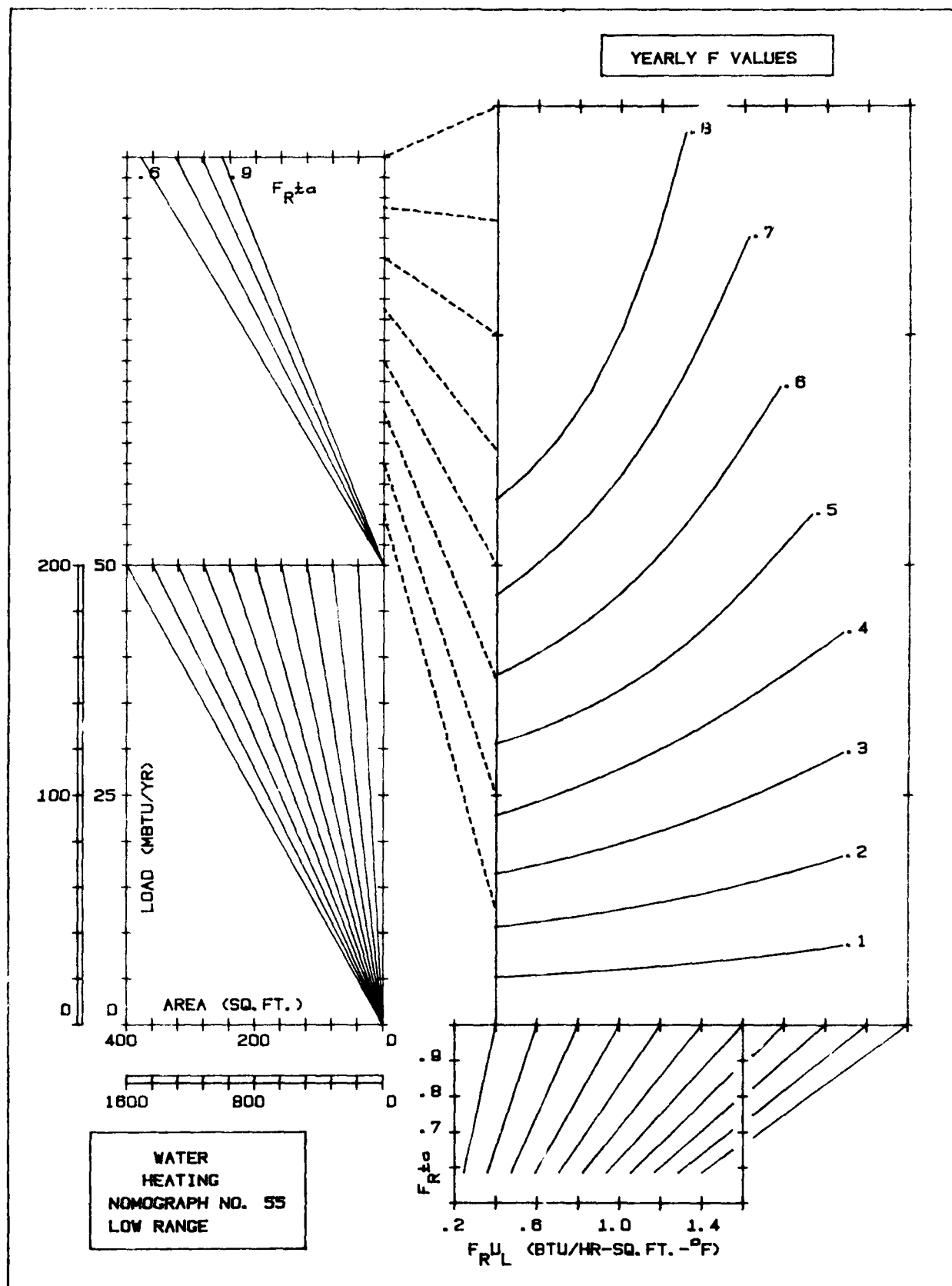
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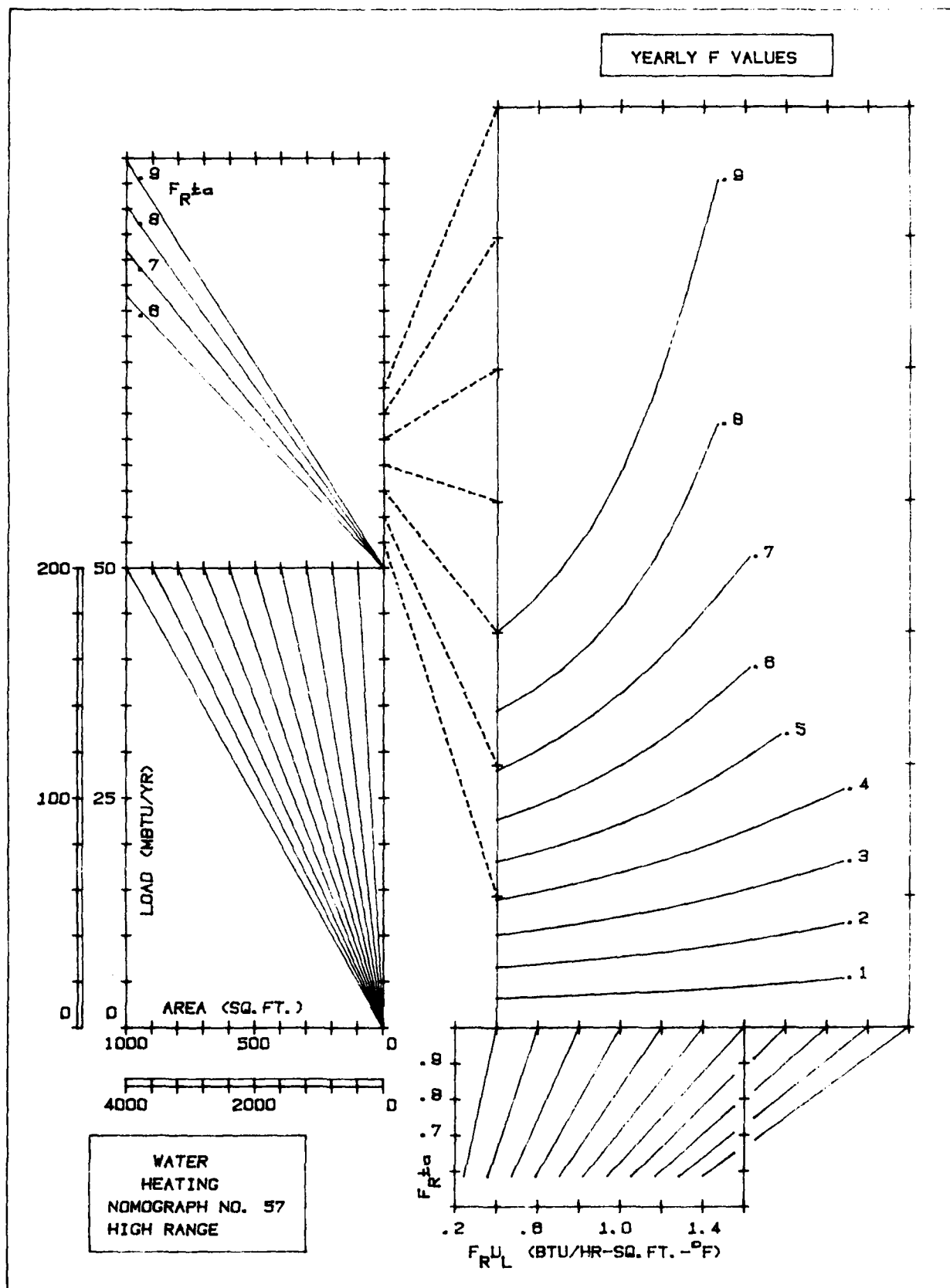
PREPARED 15 JUL 62 FOR AFESC BY USAFA/DFMS



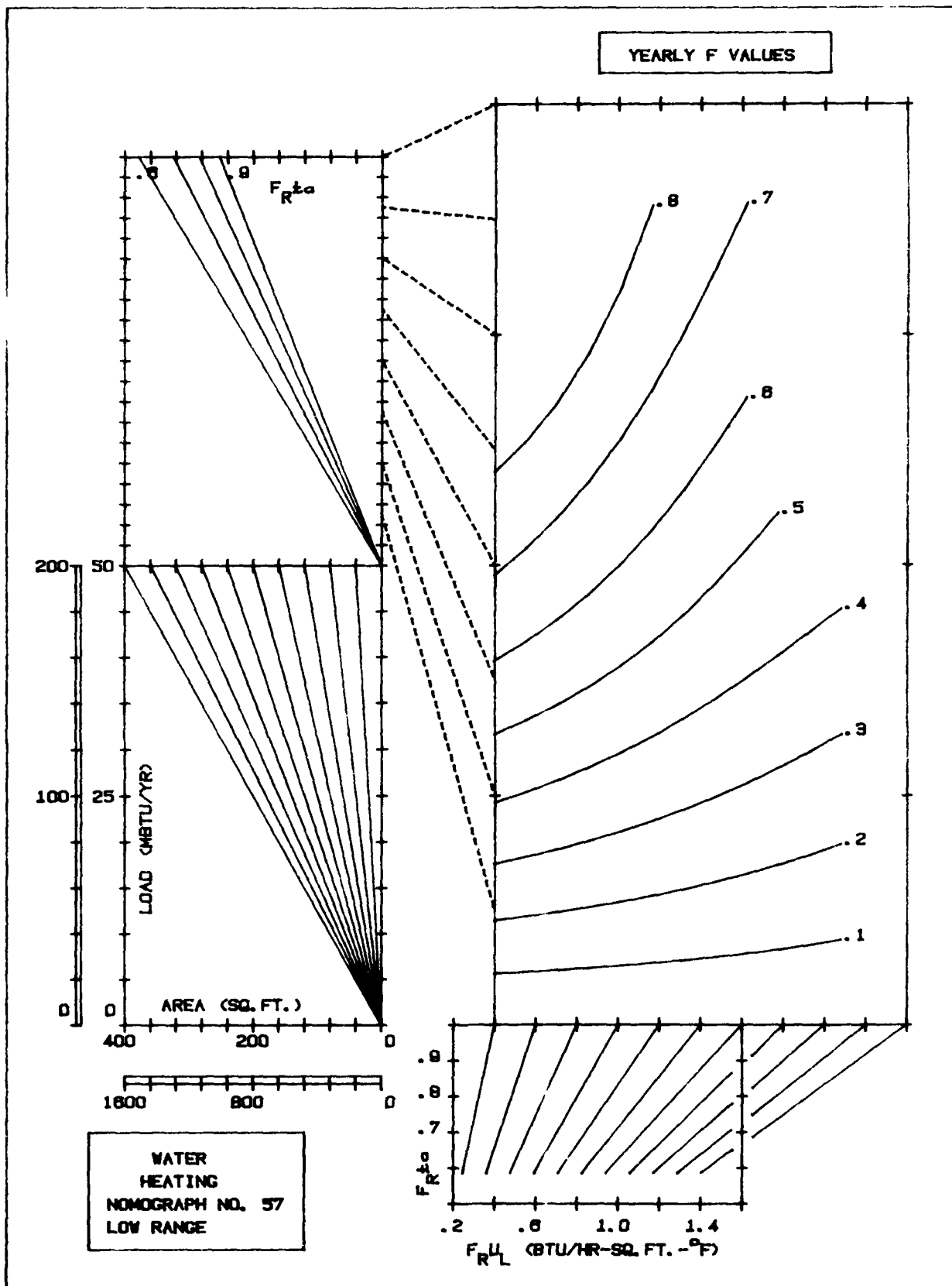
PREPARED 28 JUN 62 FOR AFESC BY USAFA/DFMS



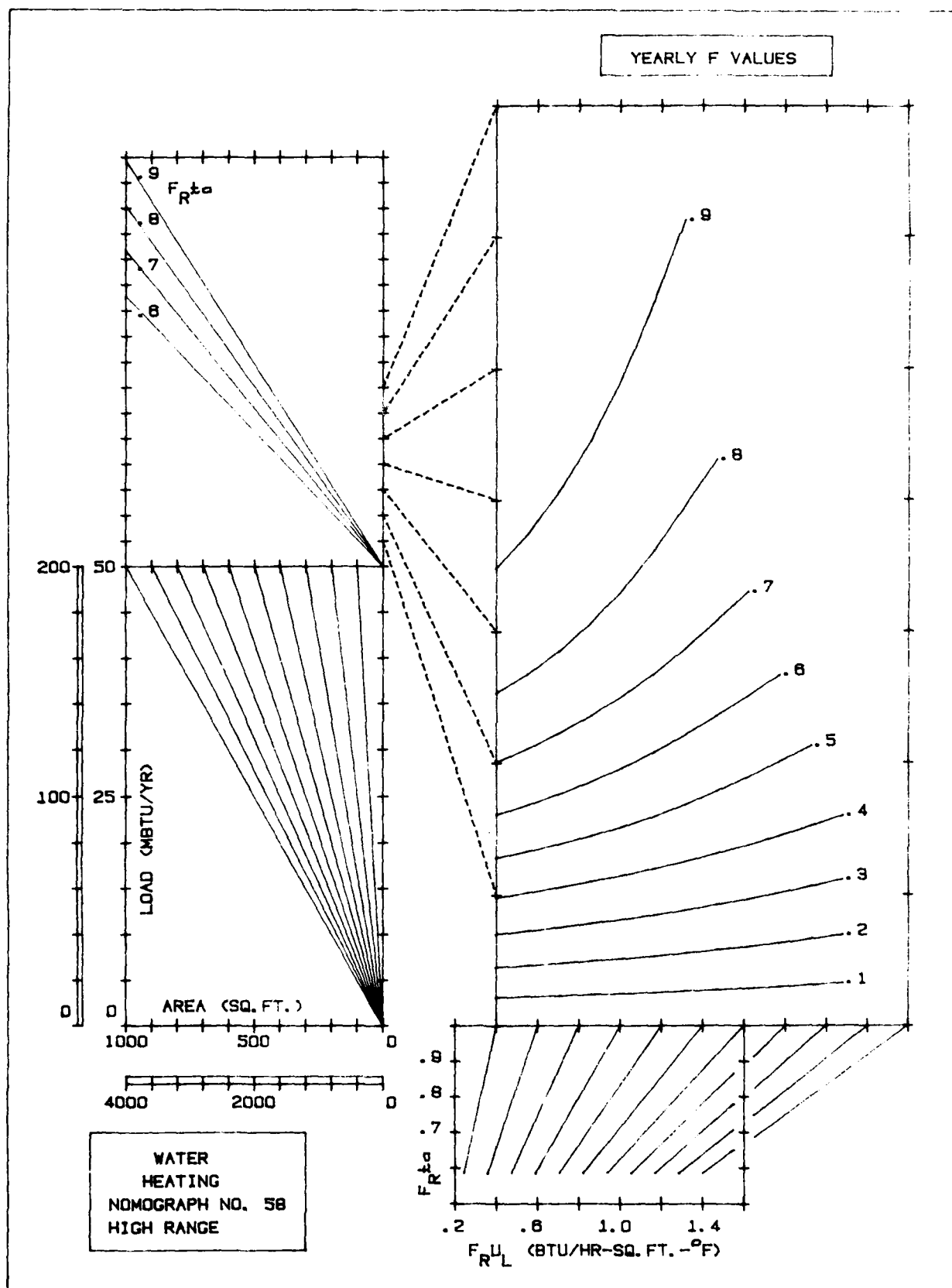
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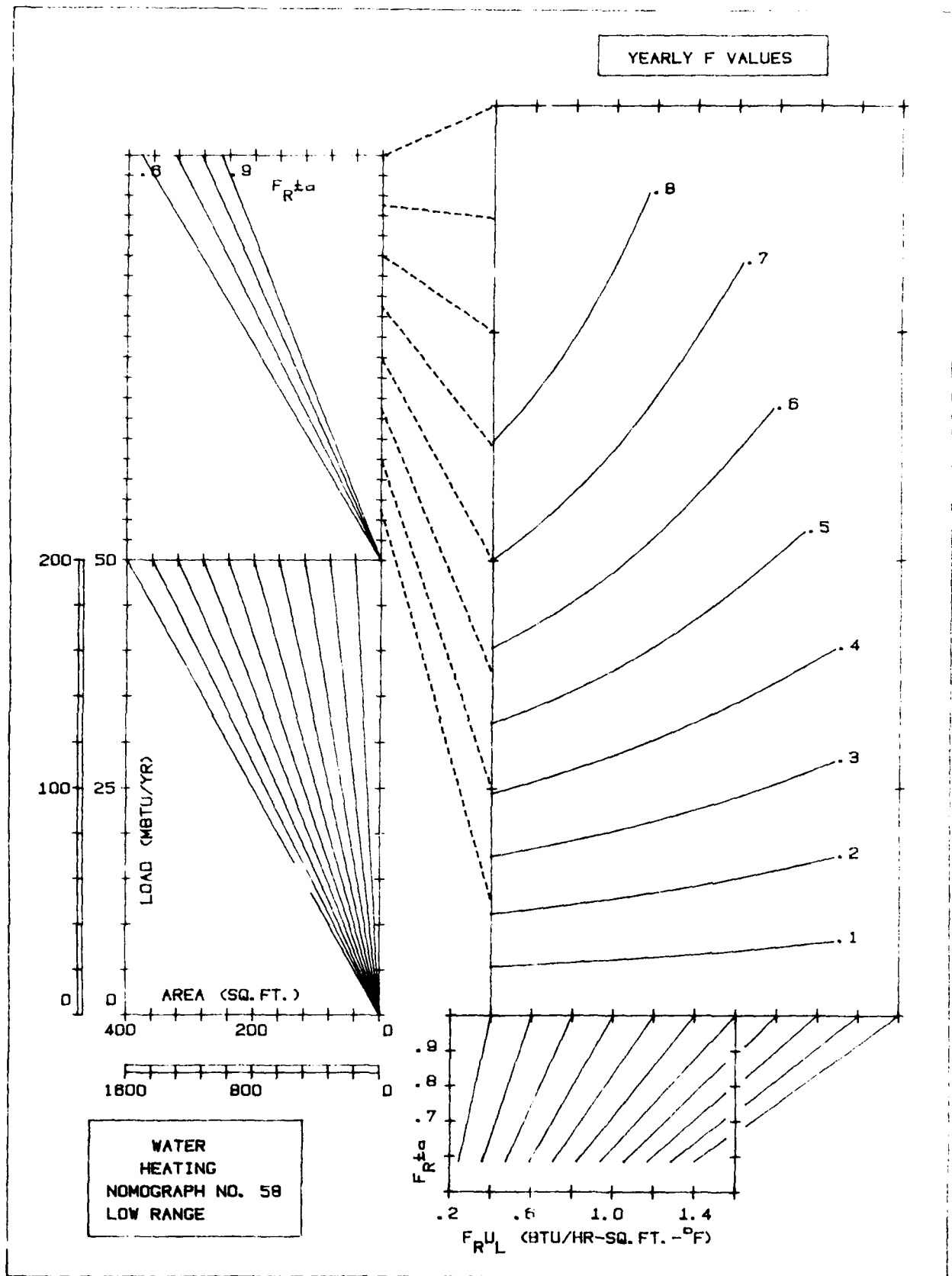
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 28 JUN 62 FOR AFESC BY USAFA/DFMS



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

ca3

AD-A120 013

AIR FORCE ACADEMY CO

F/G 13/1

SIMPLIFIED SOLAR FRACTION ESTIMATION FOR SPACE AND WATER HEATIN--ETC(U)

SEP 82 N S PACHECO, D G KNIOLA, J F SHEEDY

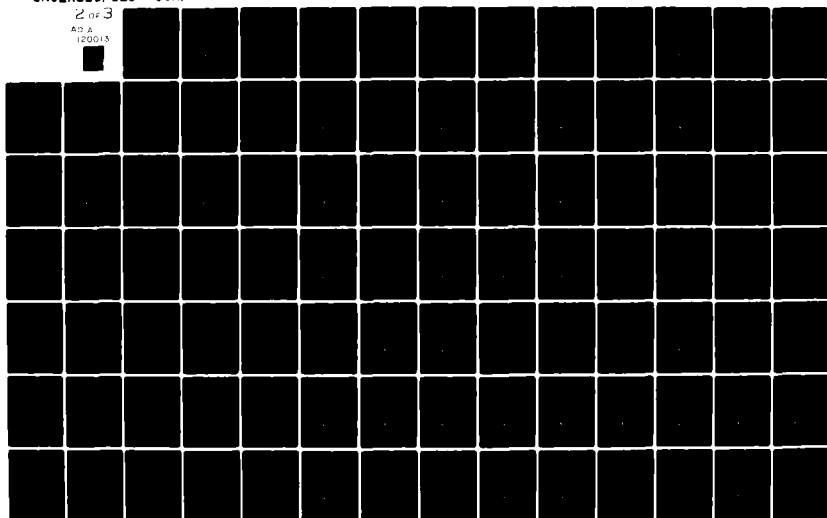
UNCLASSIFIED

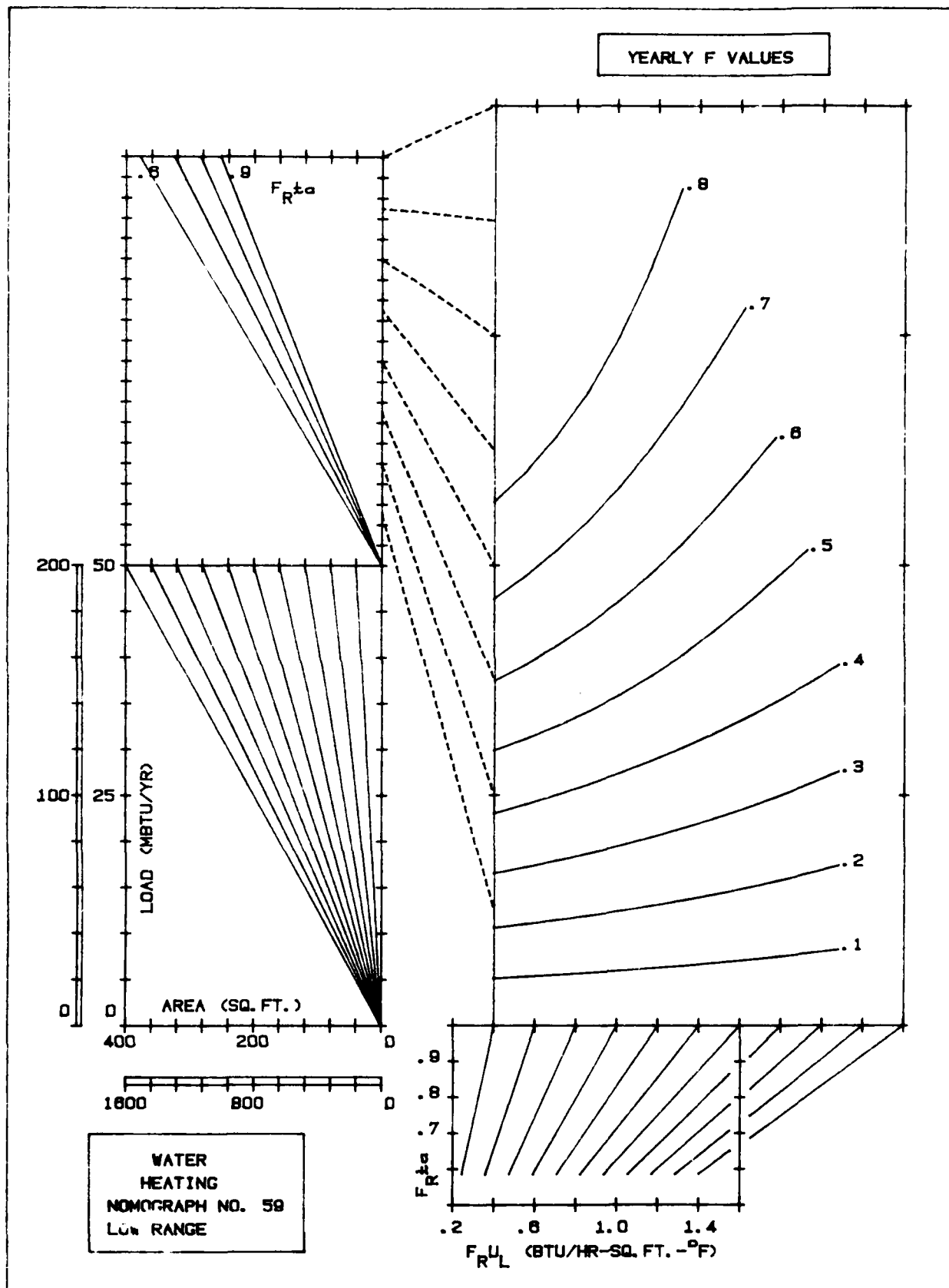
USAF-TR-82-6-APP-B

NL

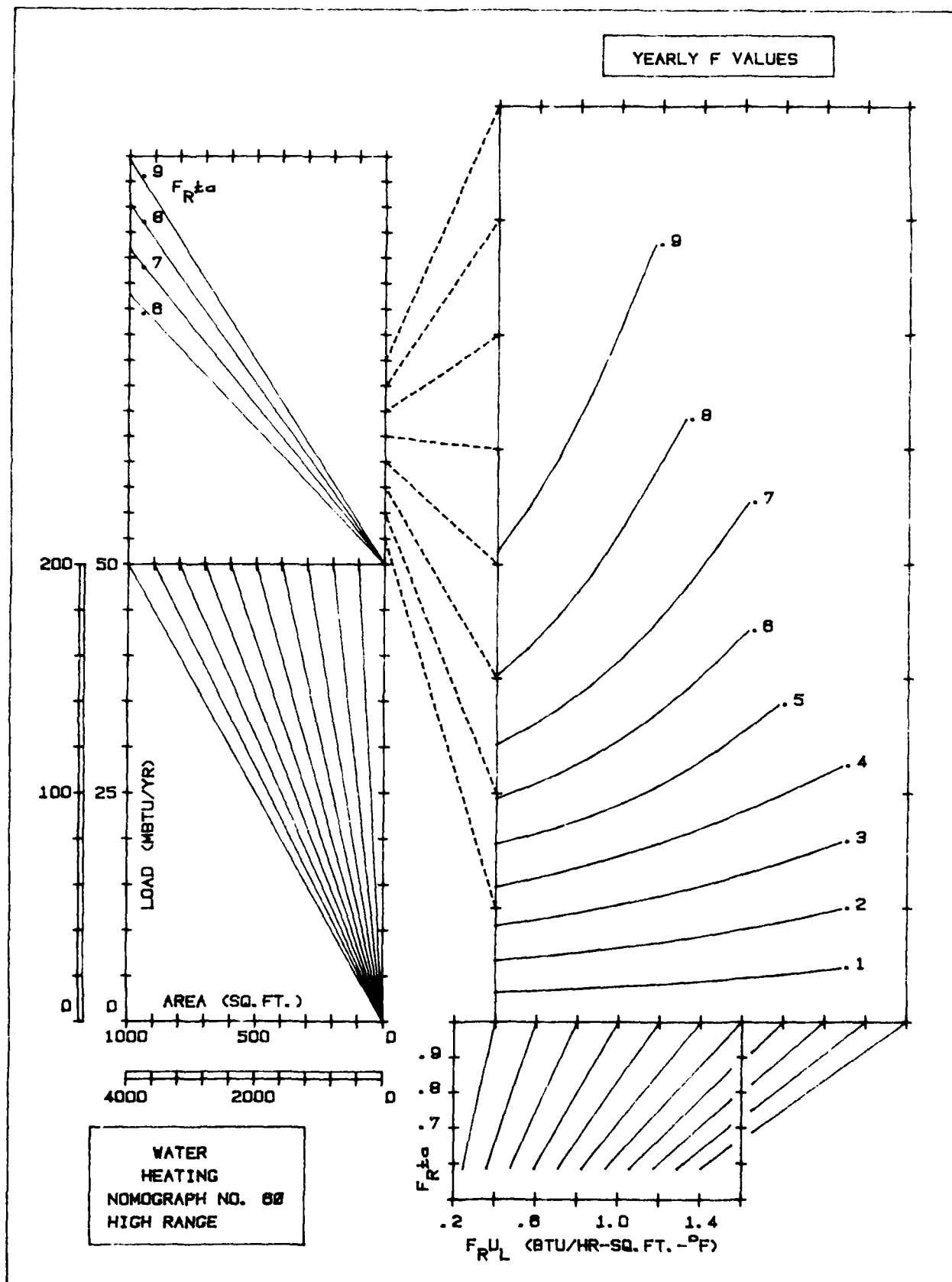
2 of 3

AD A
120013

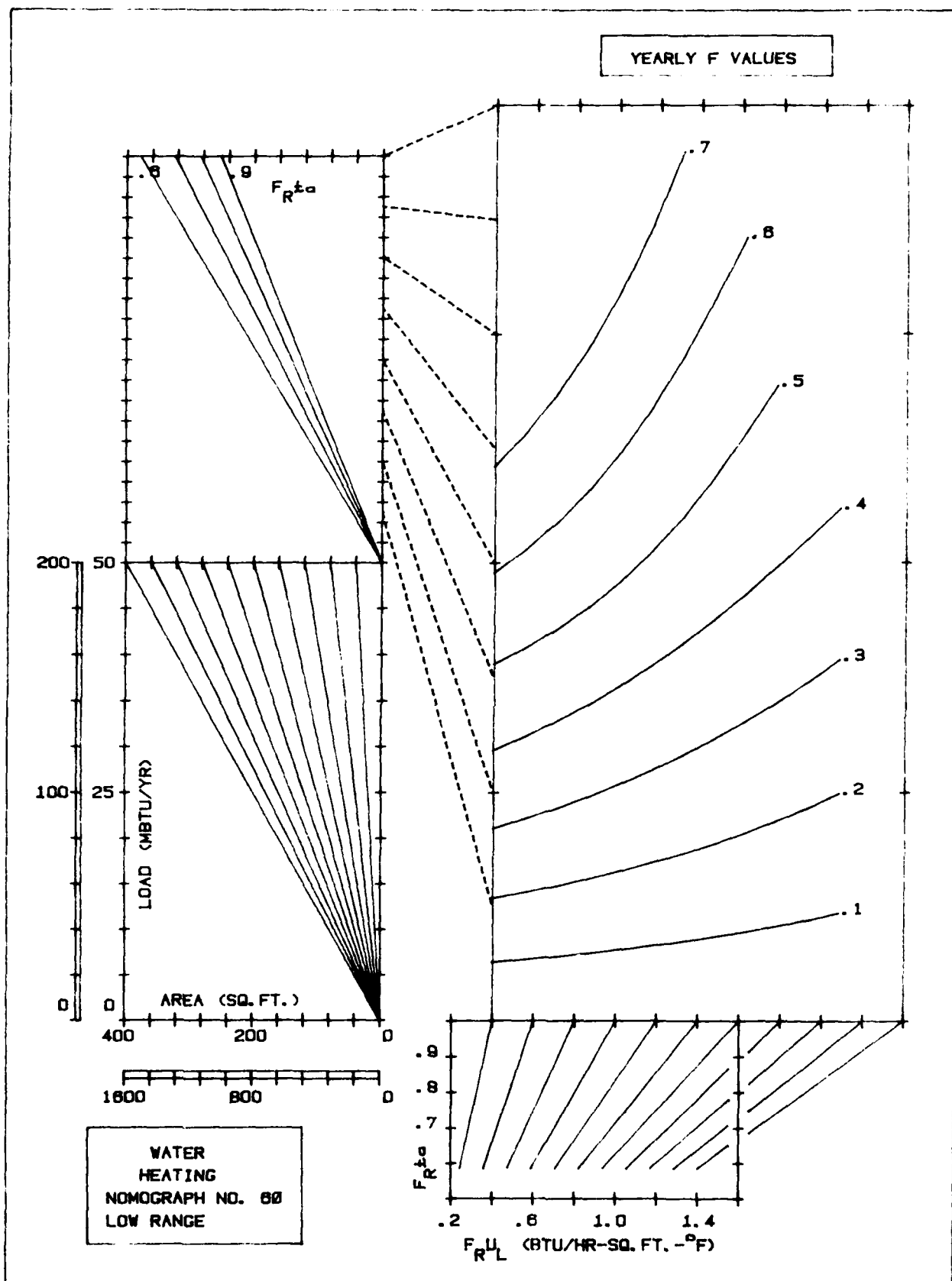




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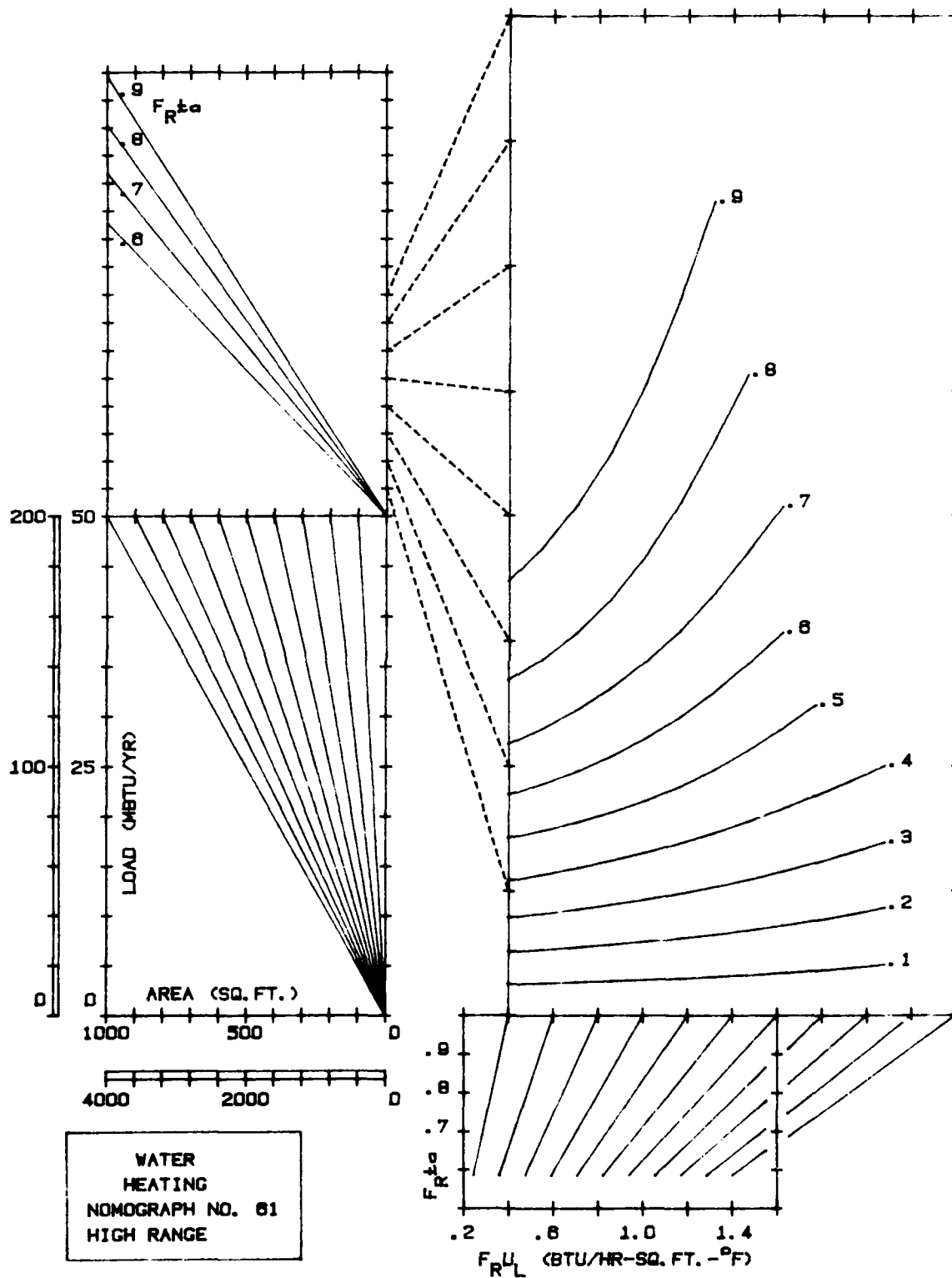


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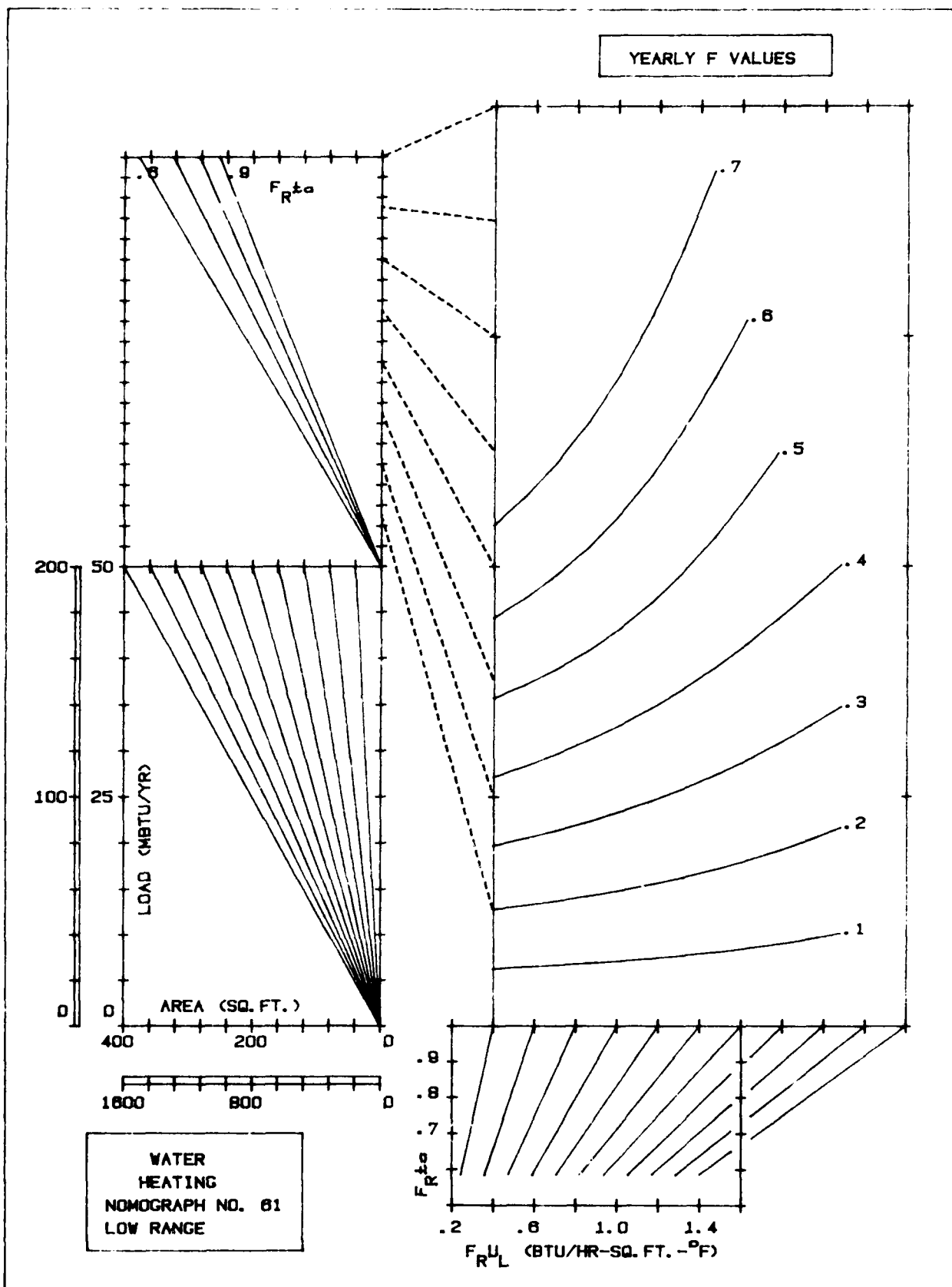


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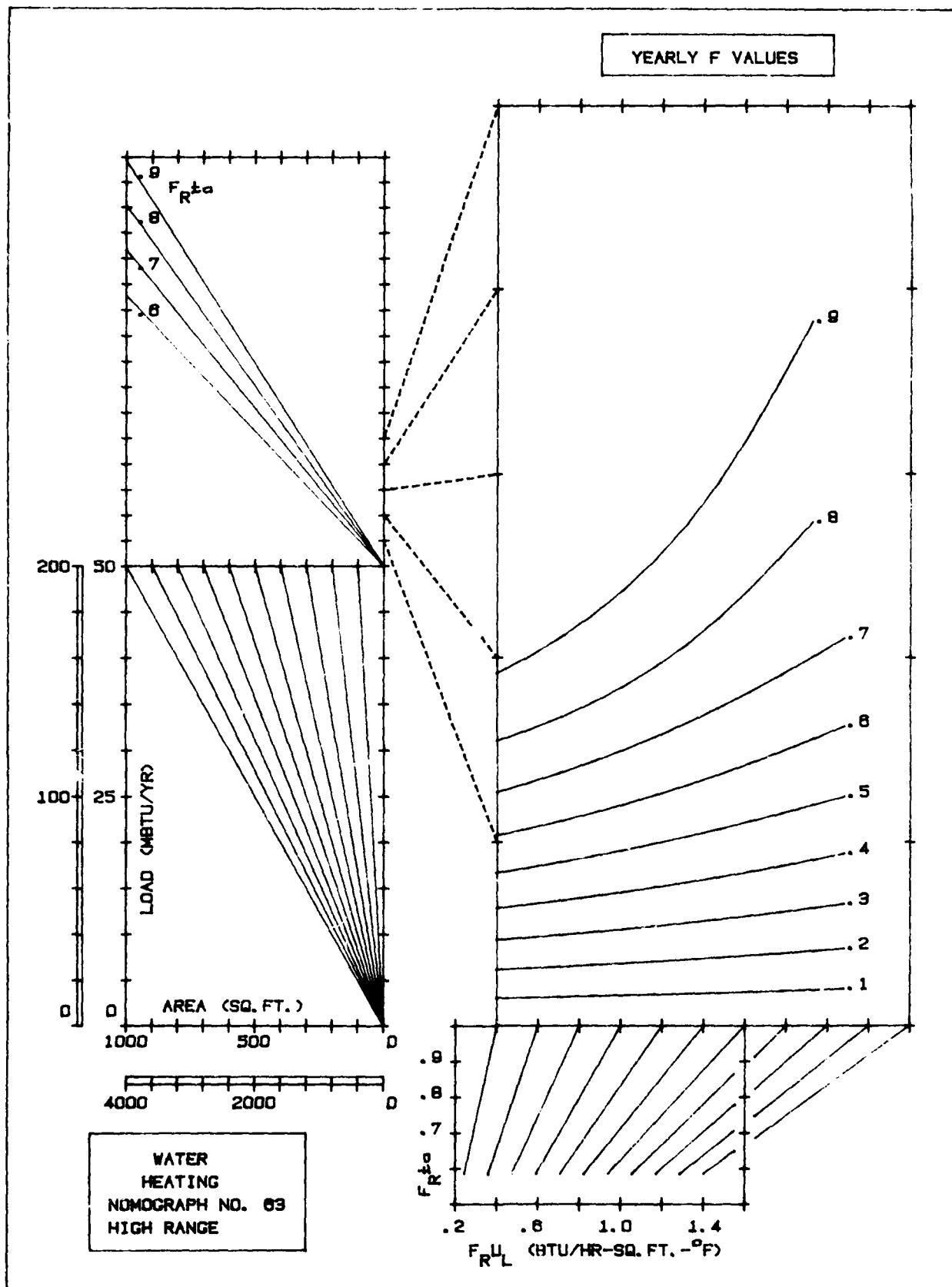
YEARLY F VALUES



PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

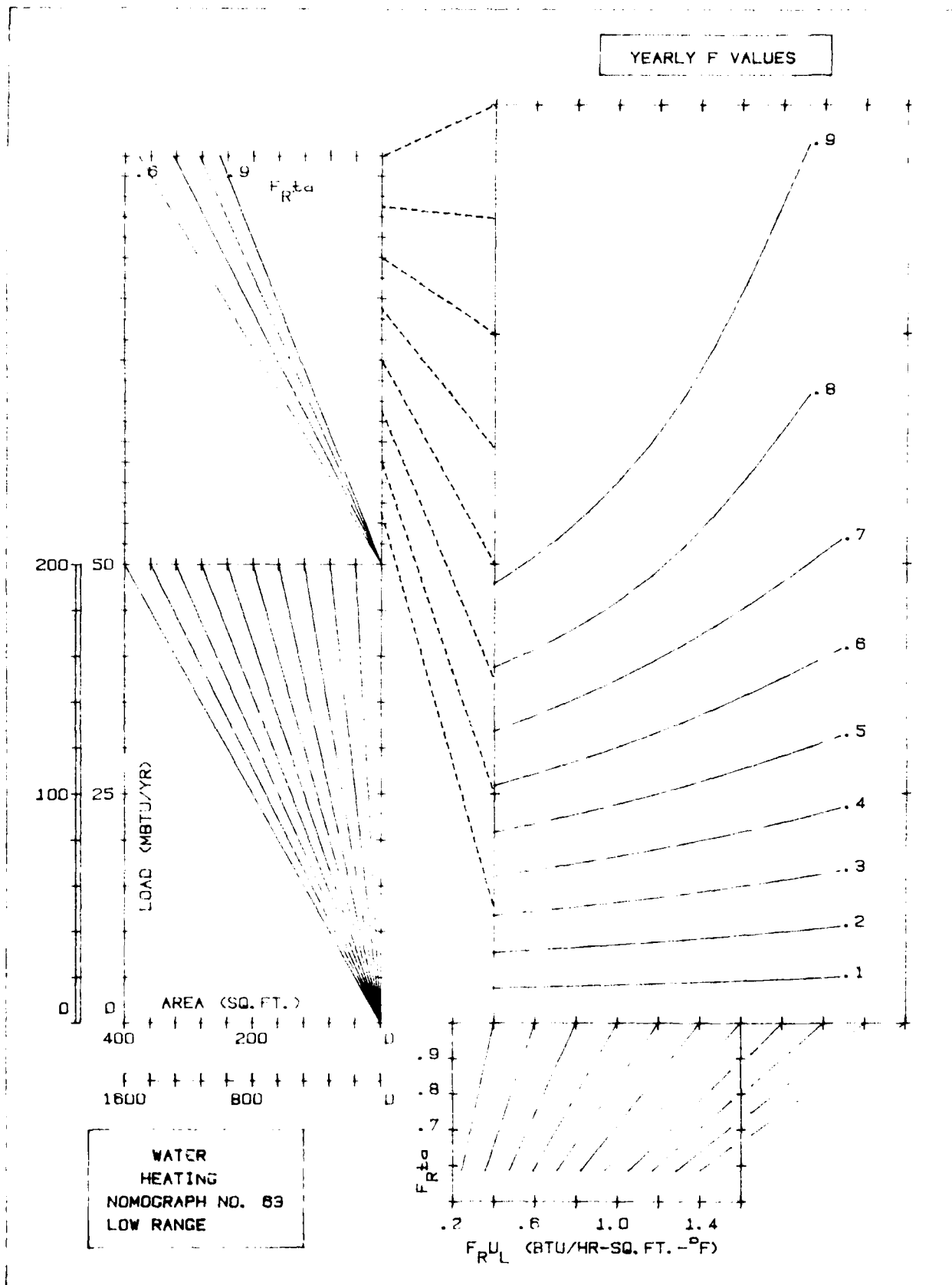


PREPARED 15 JUL 62 FOR AFESC BY USAFA/DFMS



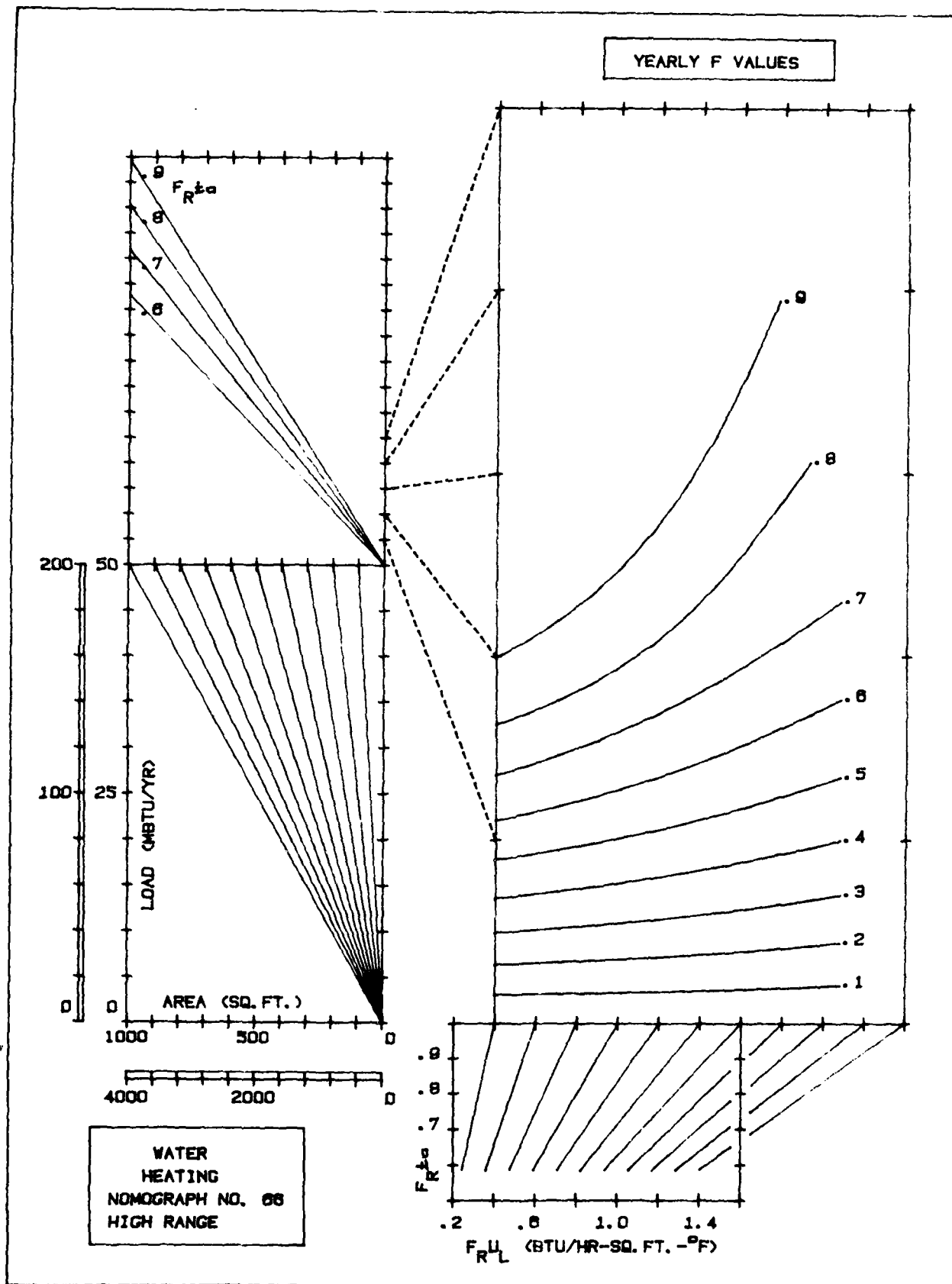
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

C99



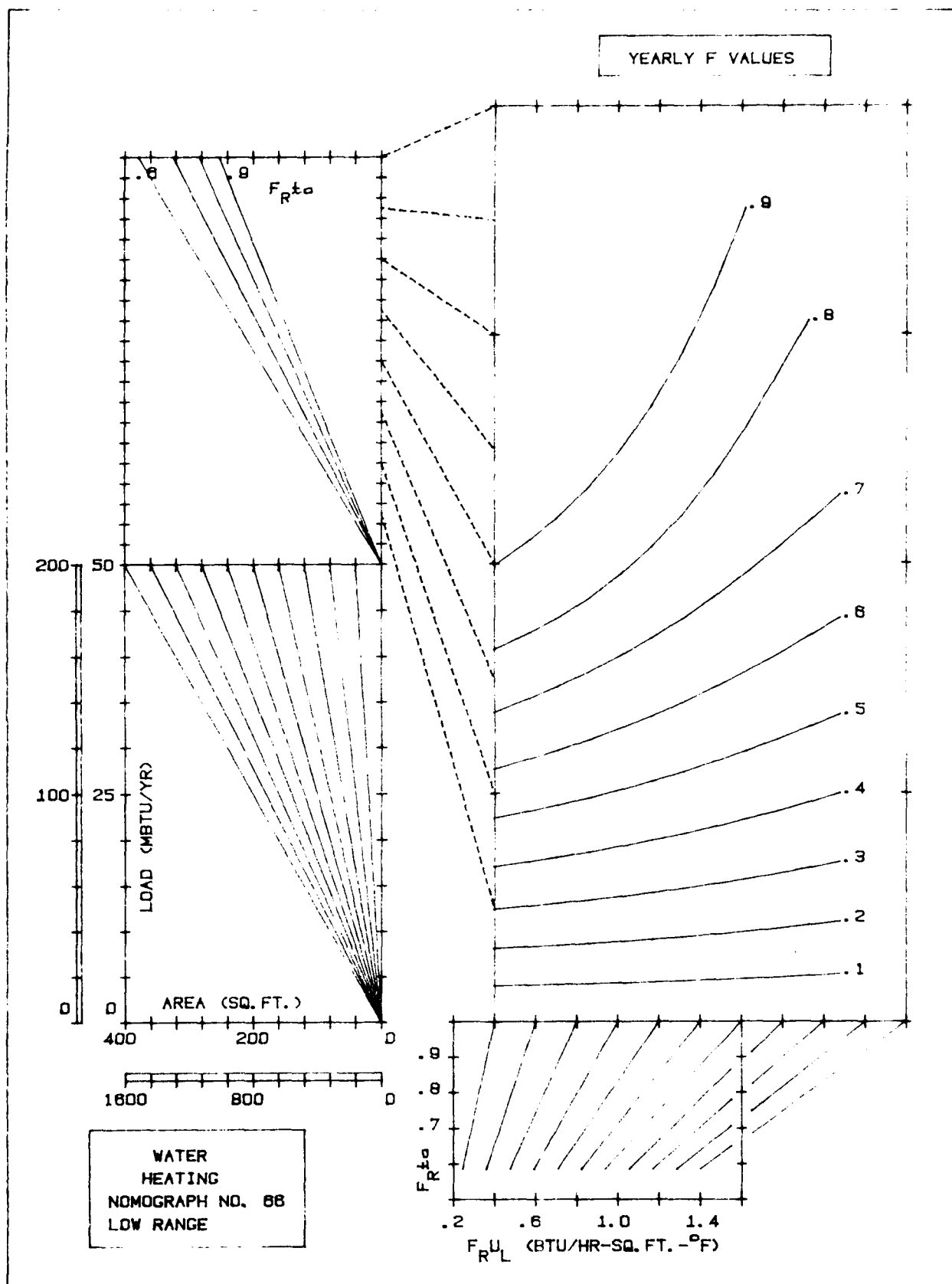
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C100

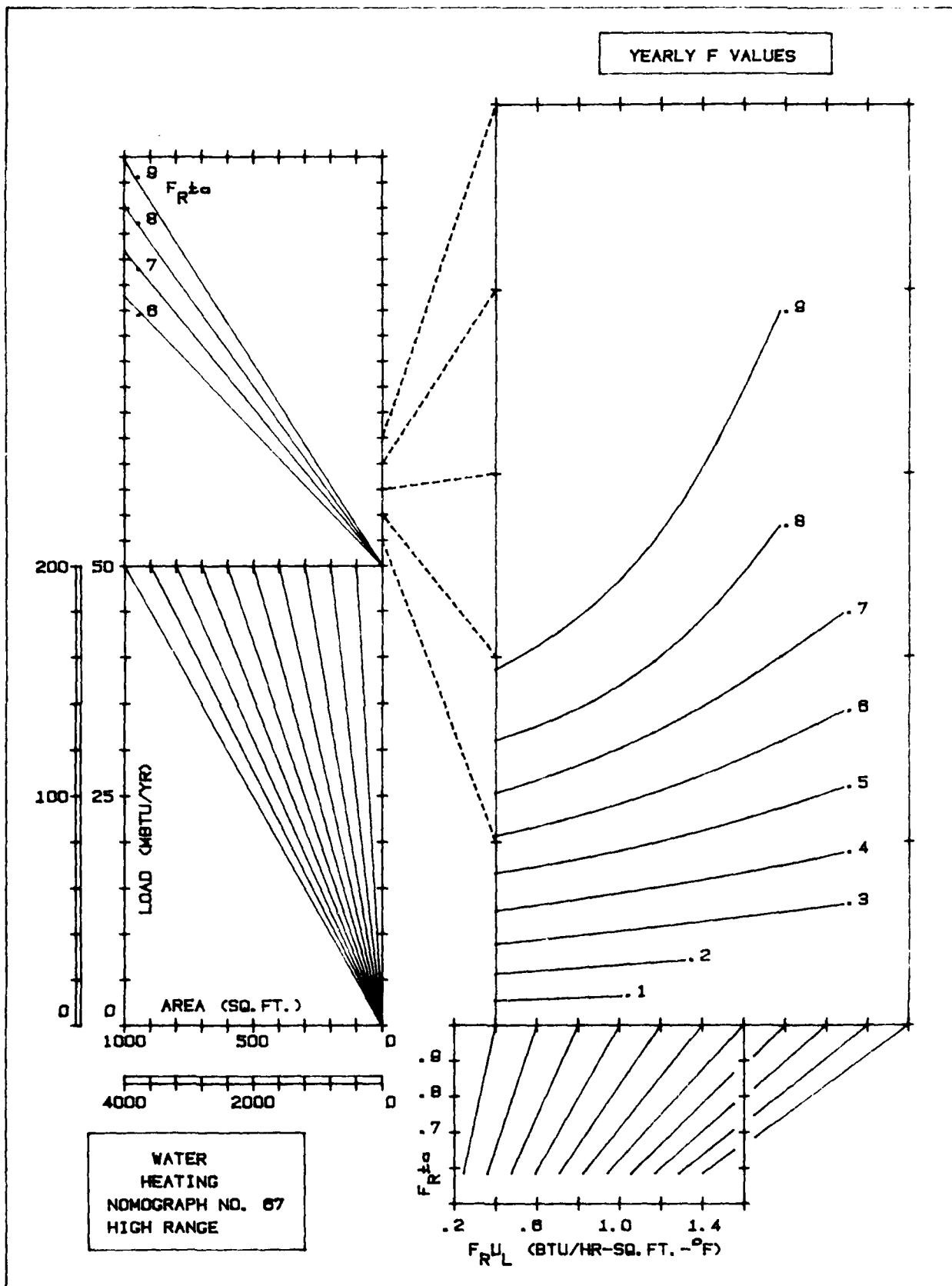


PREPARED 28 JUN 62 FOR AFESC BY USAFA/DFMS

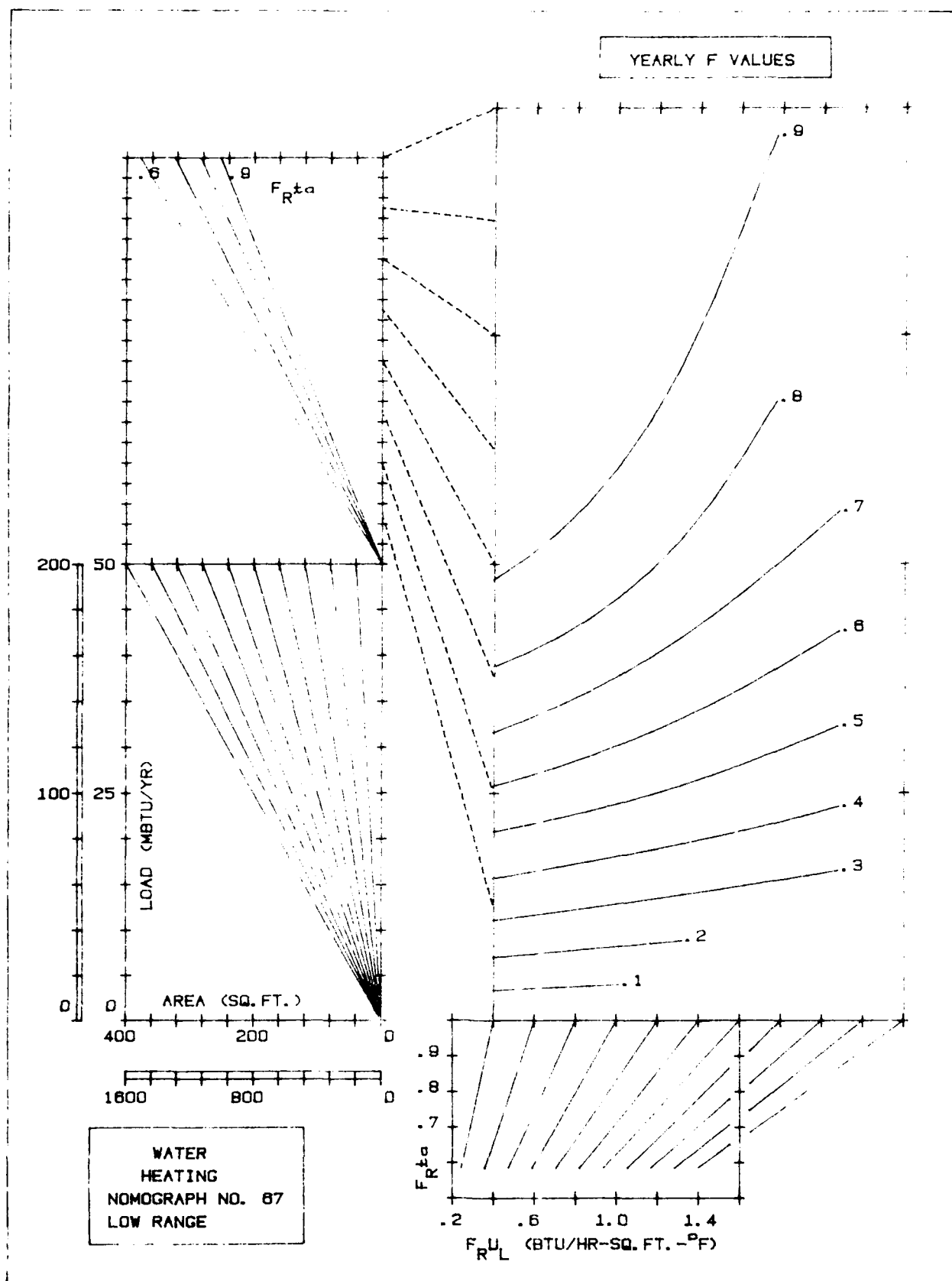
C101



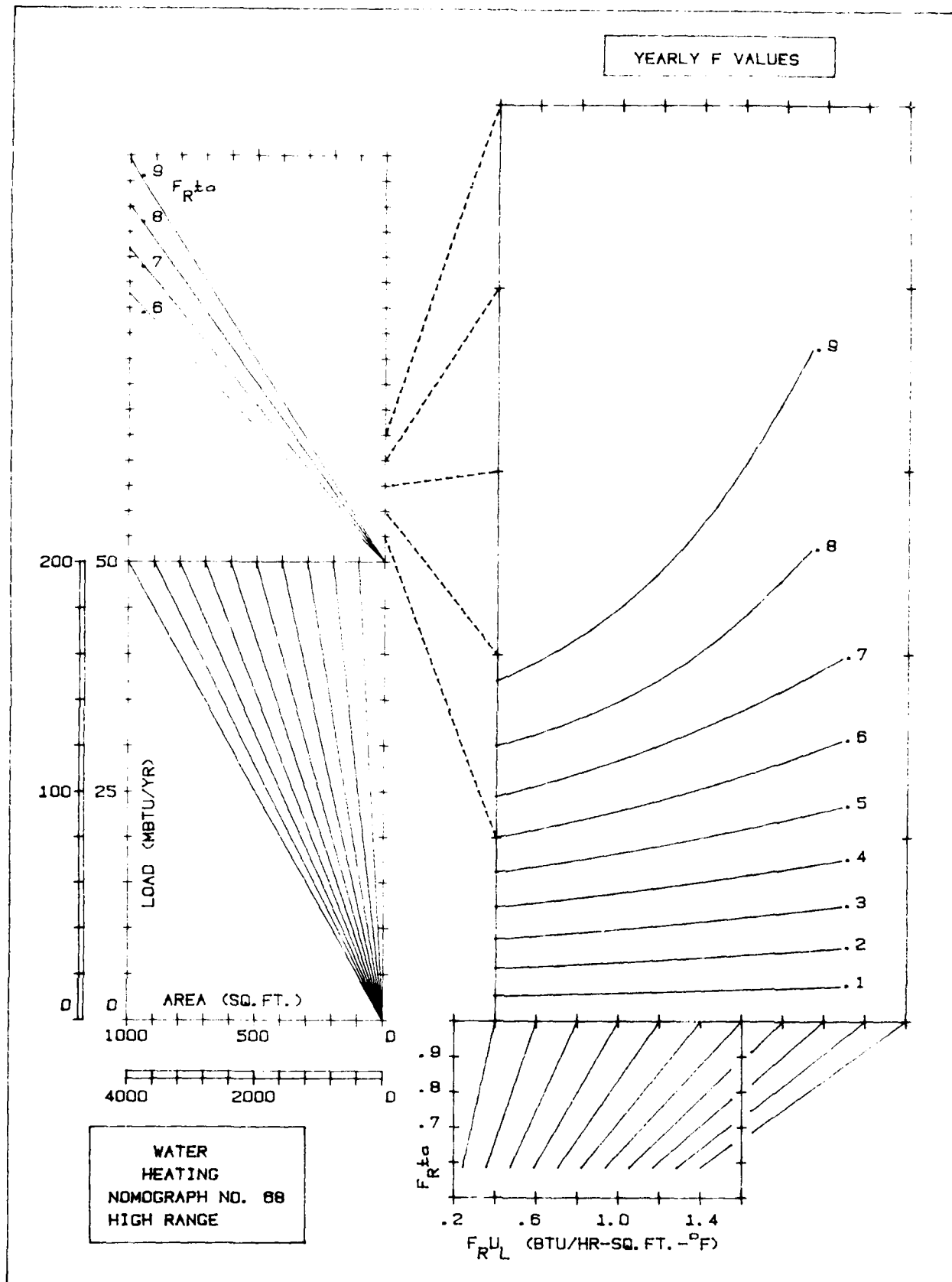
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



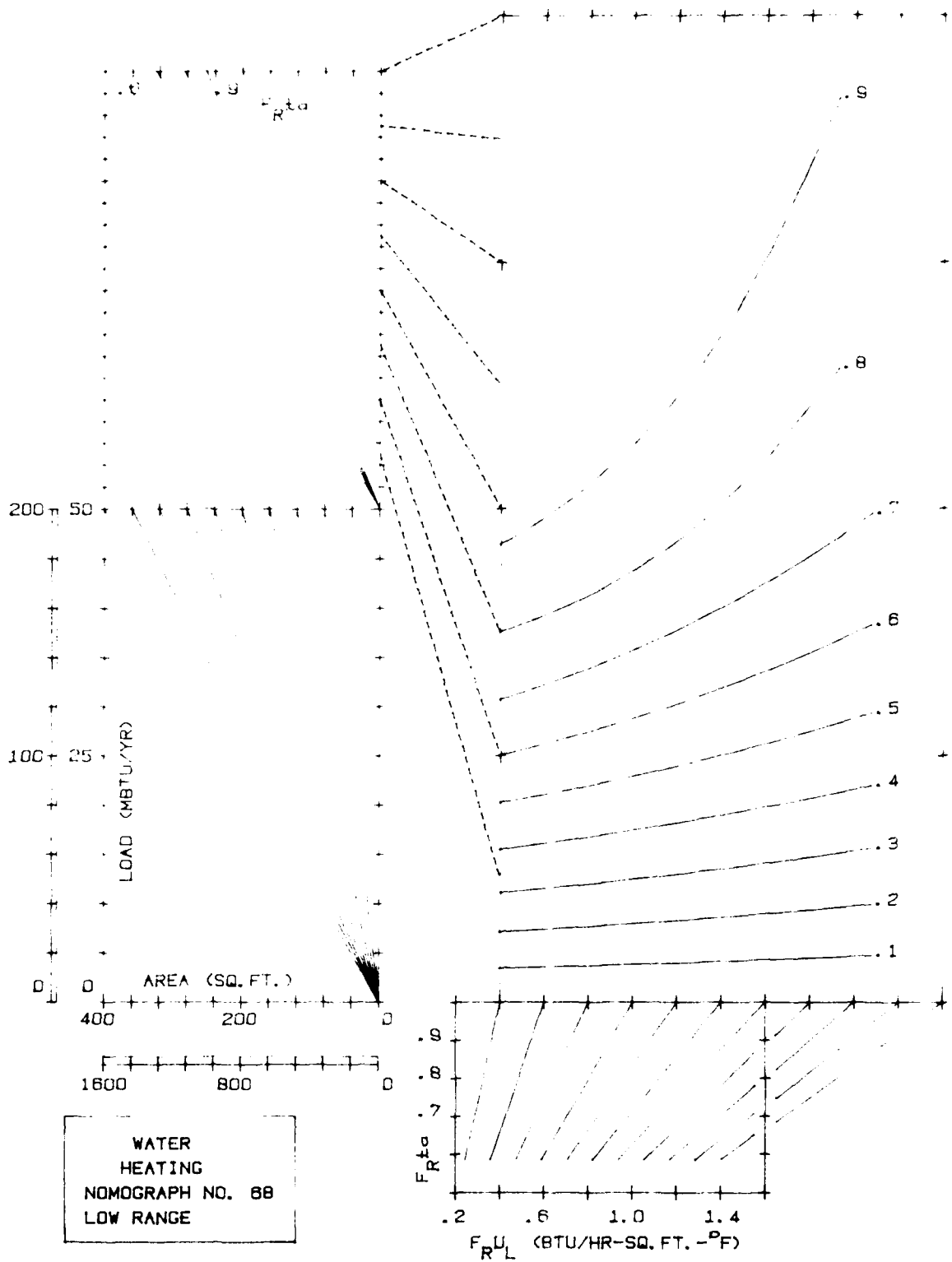
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



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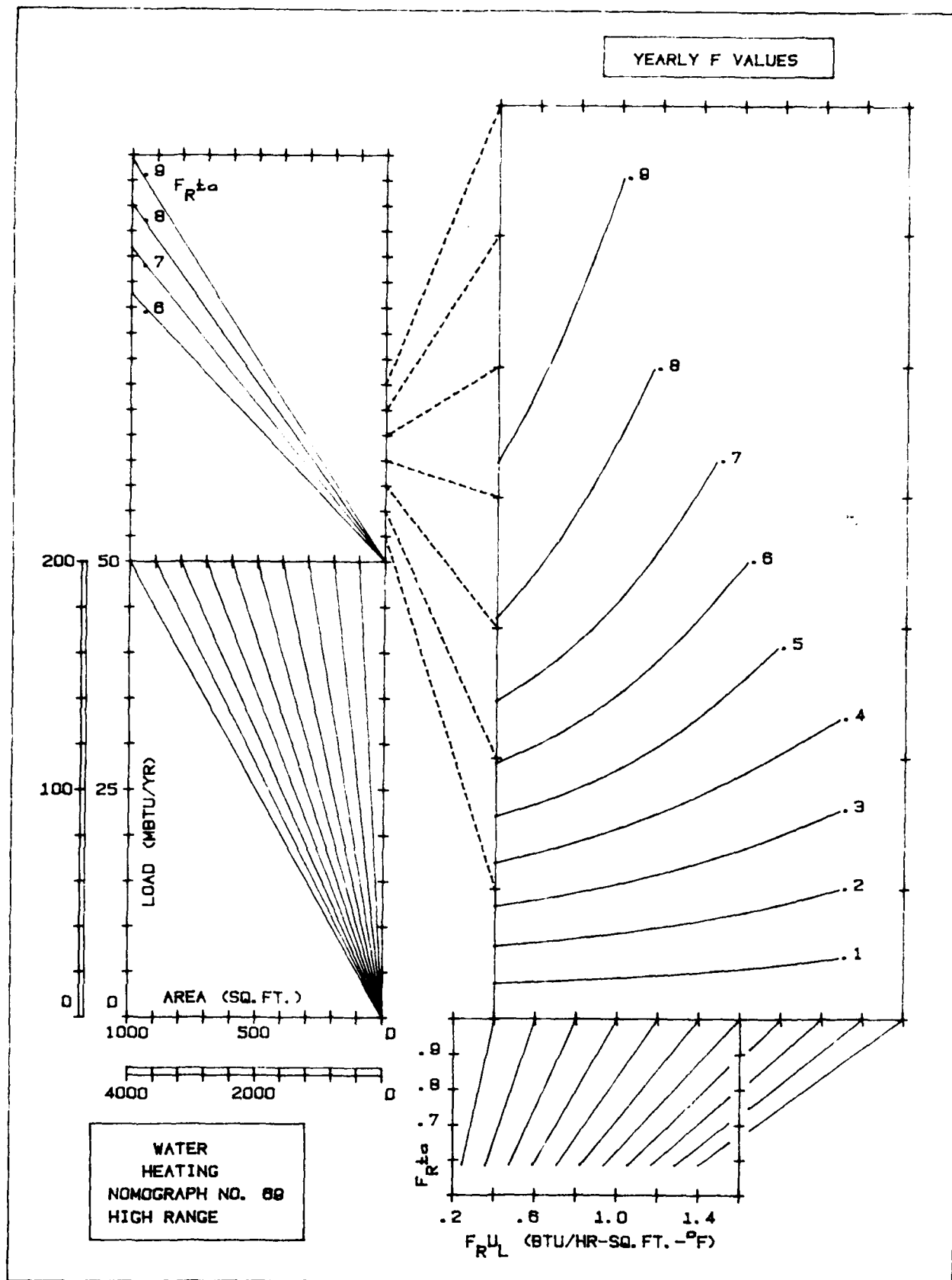
C105

YEARLY F VALUES



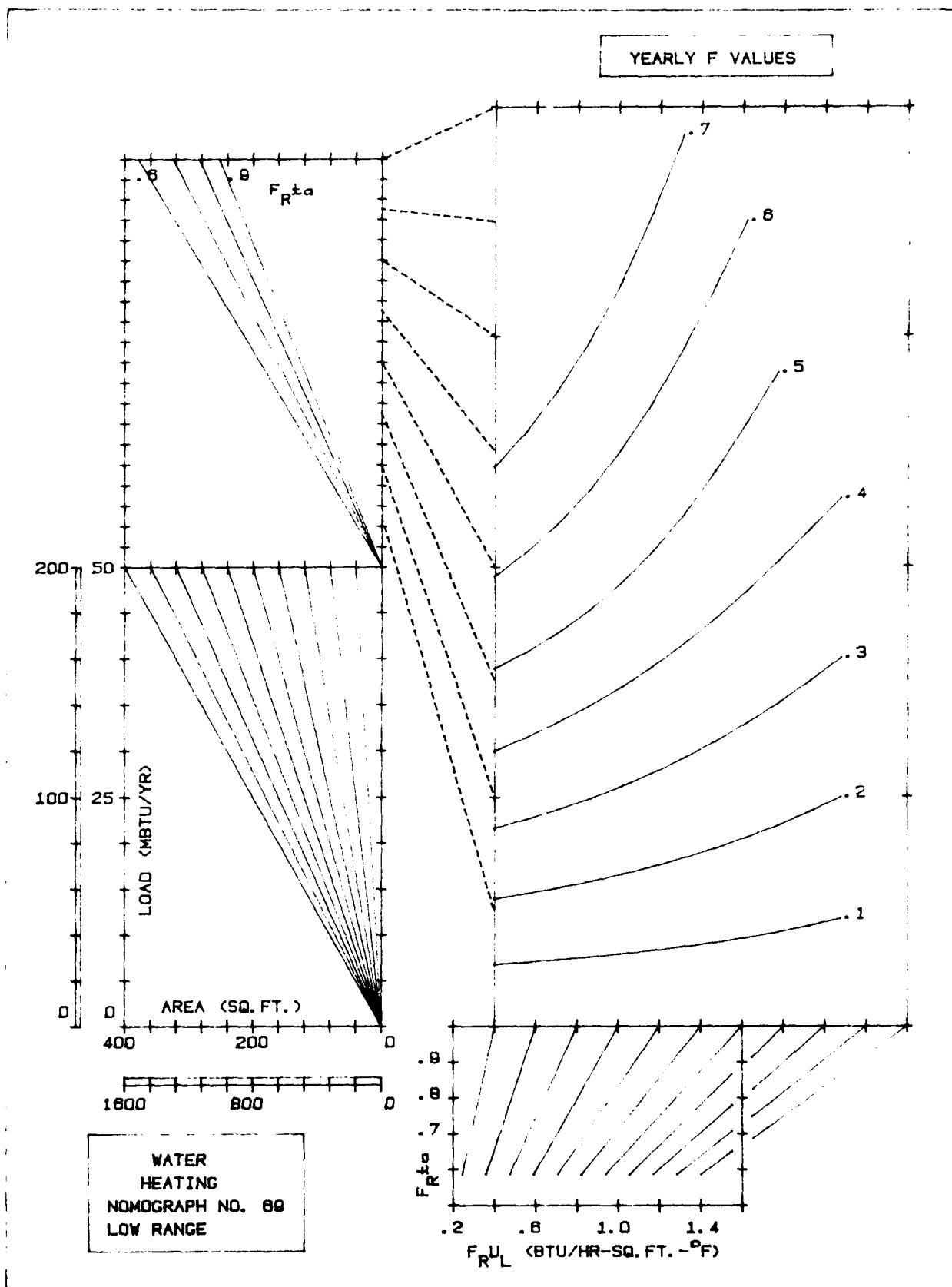
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C106

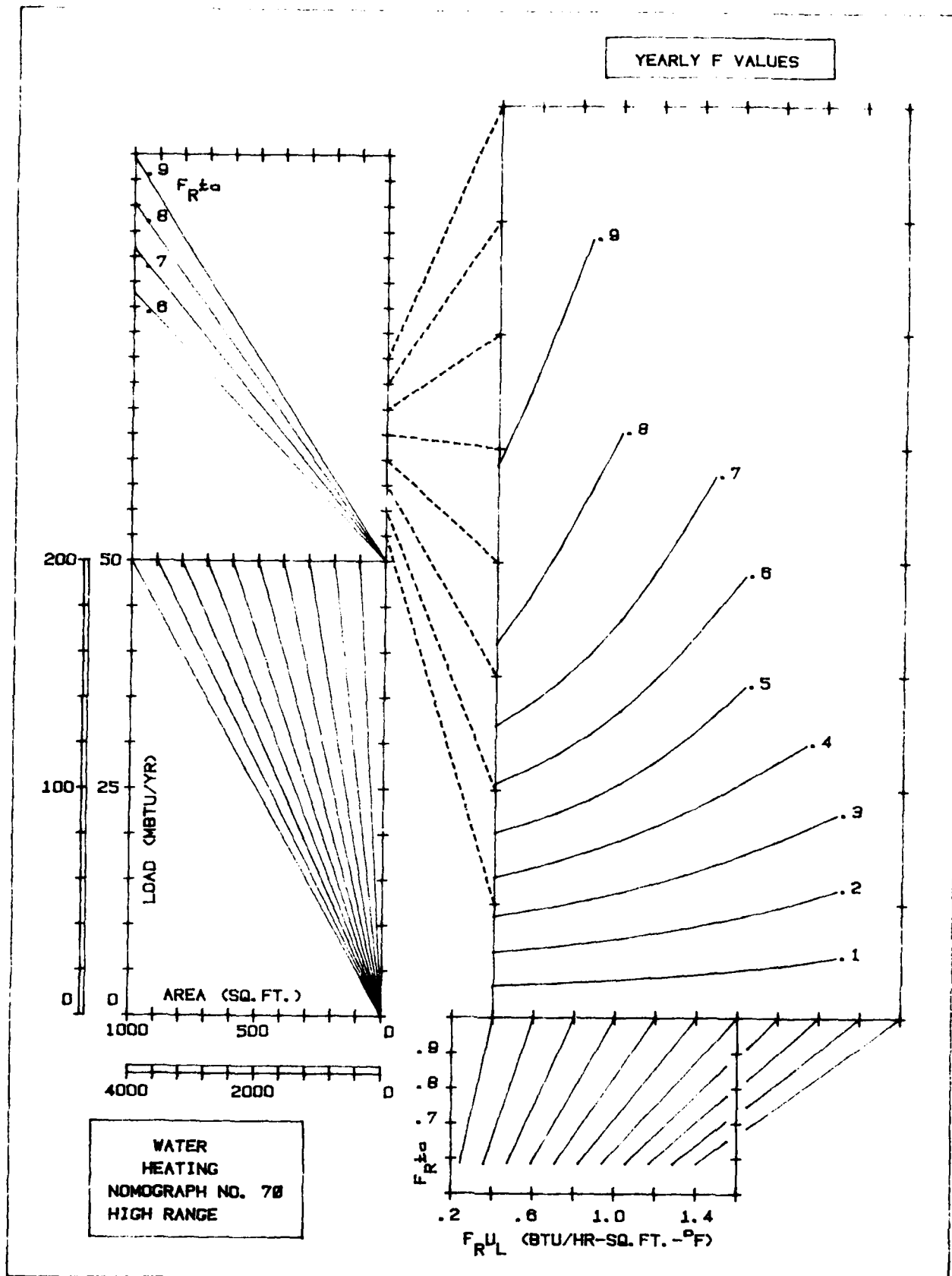


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

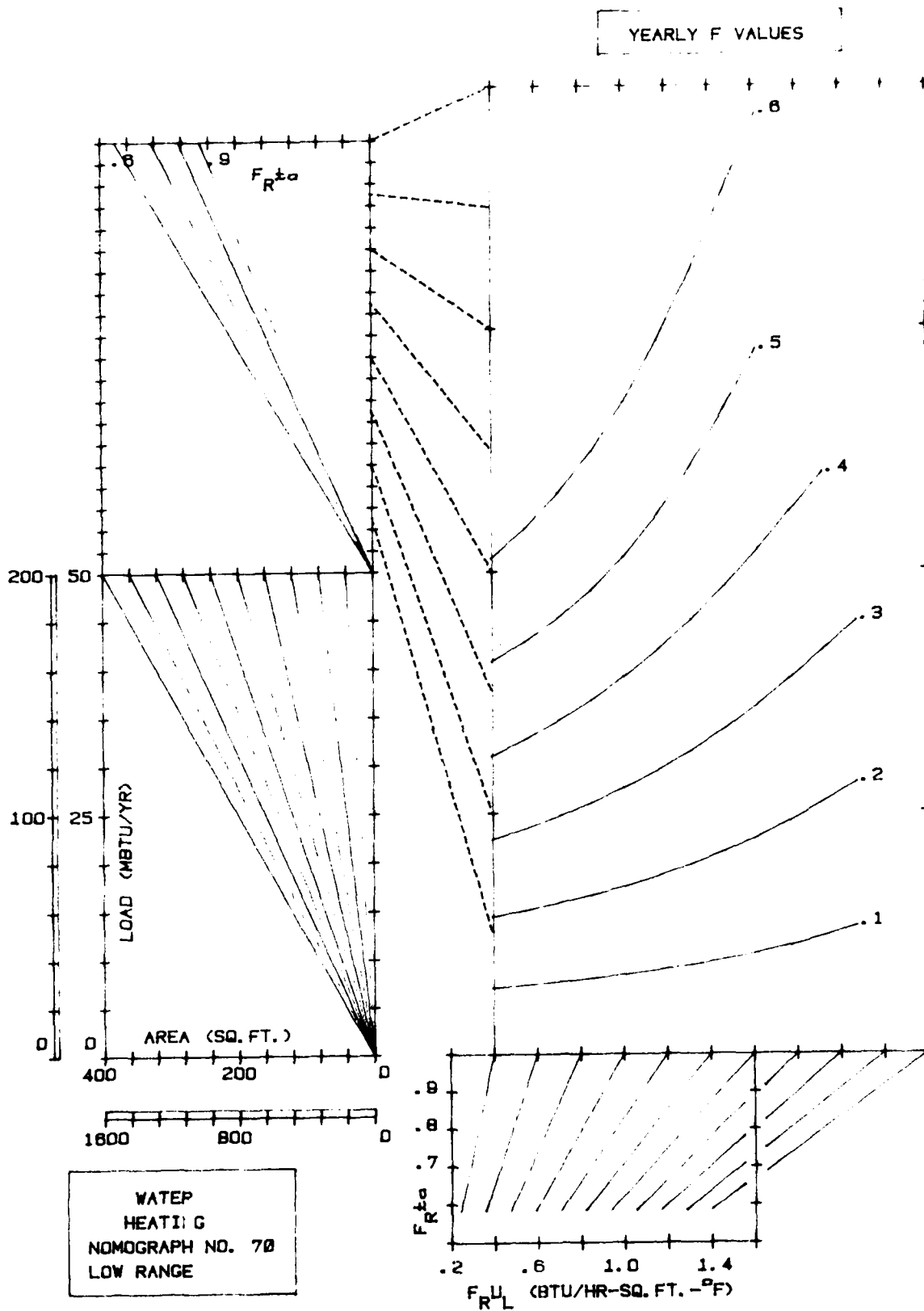
C107



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

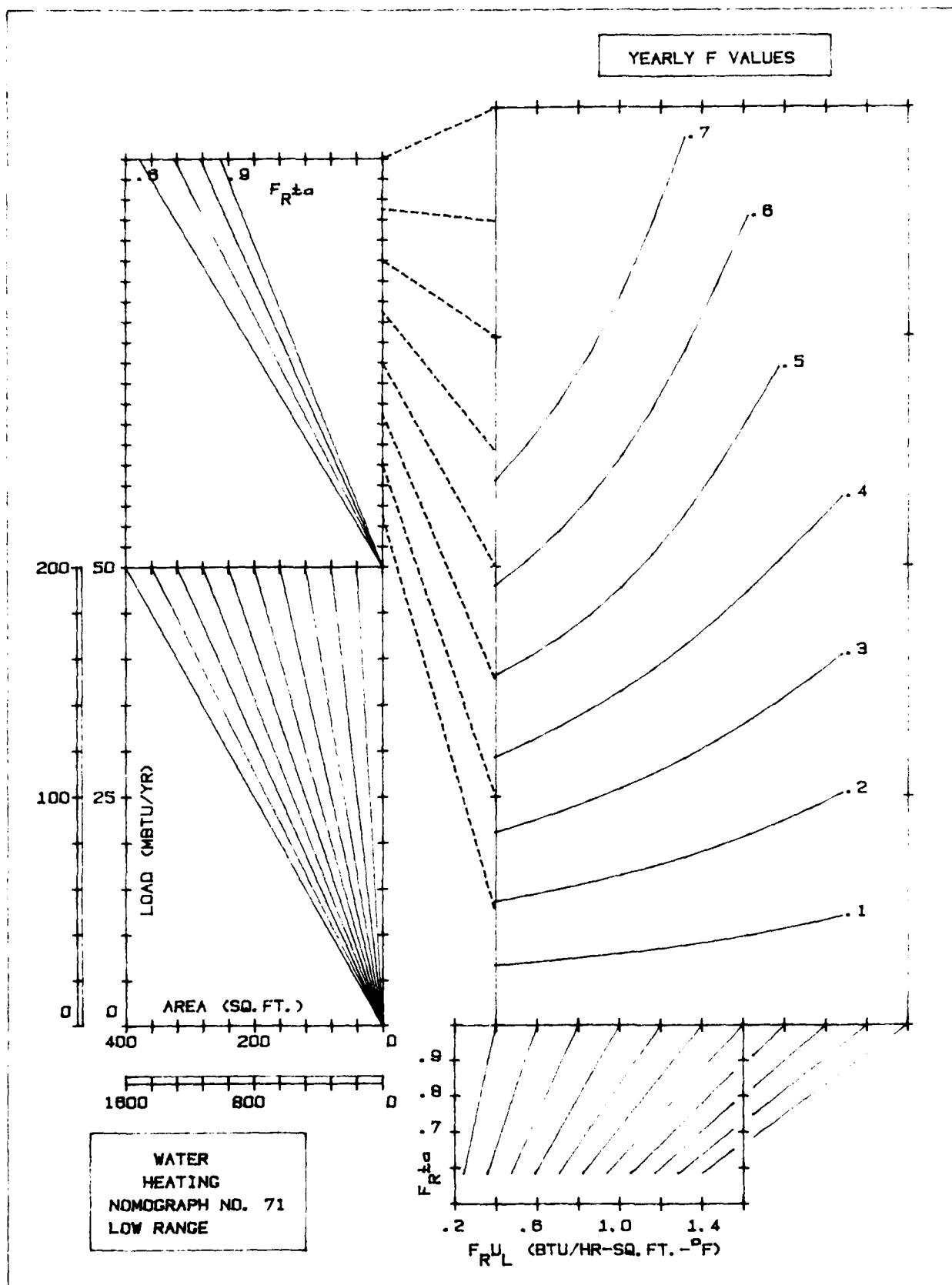


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

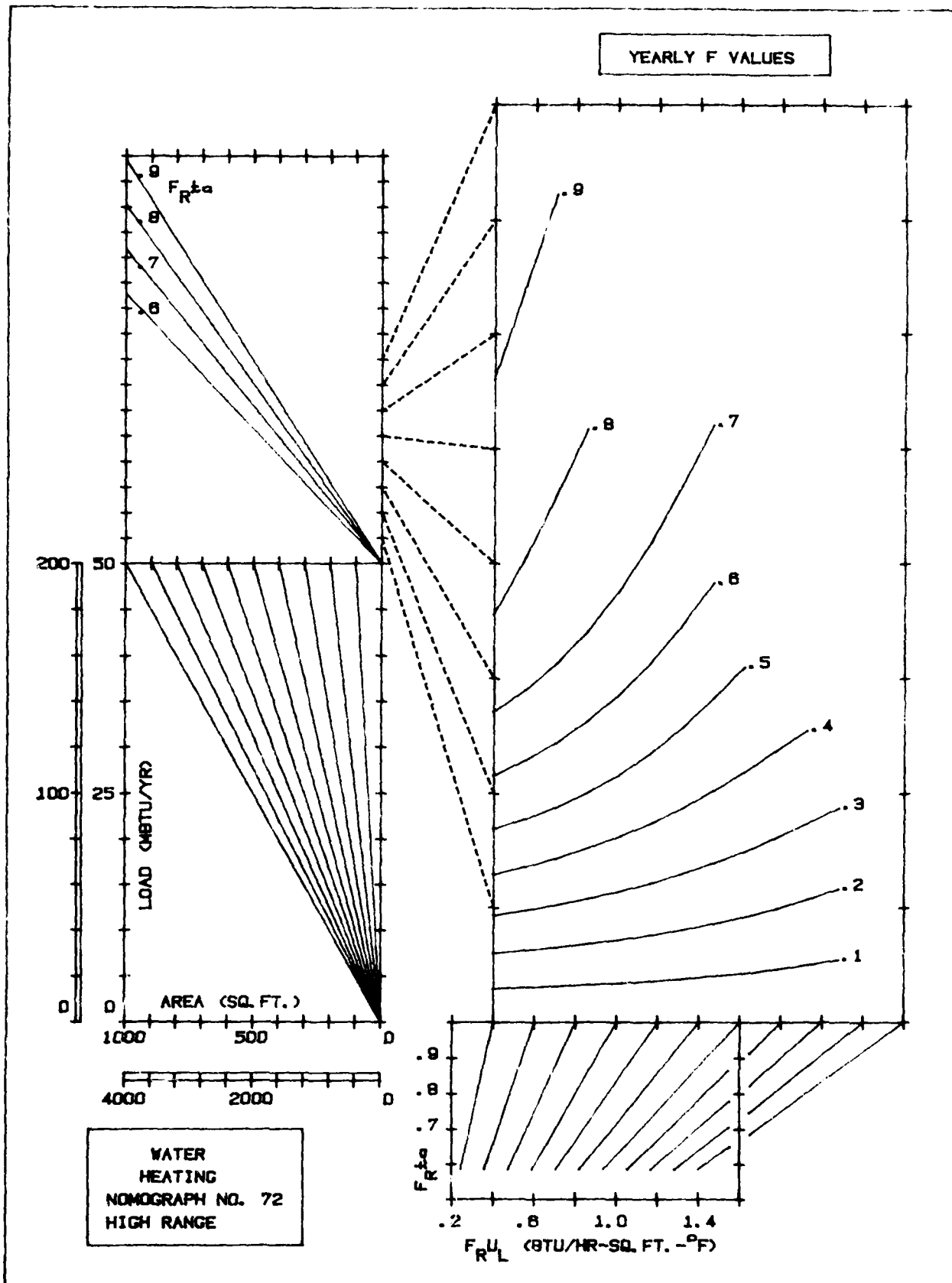


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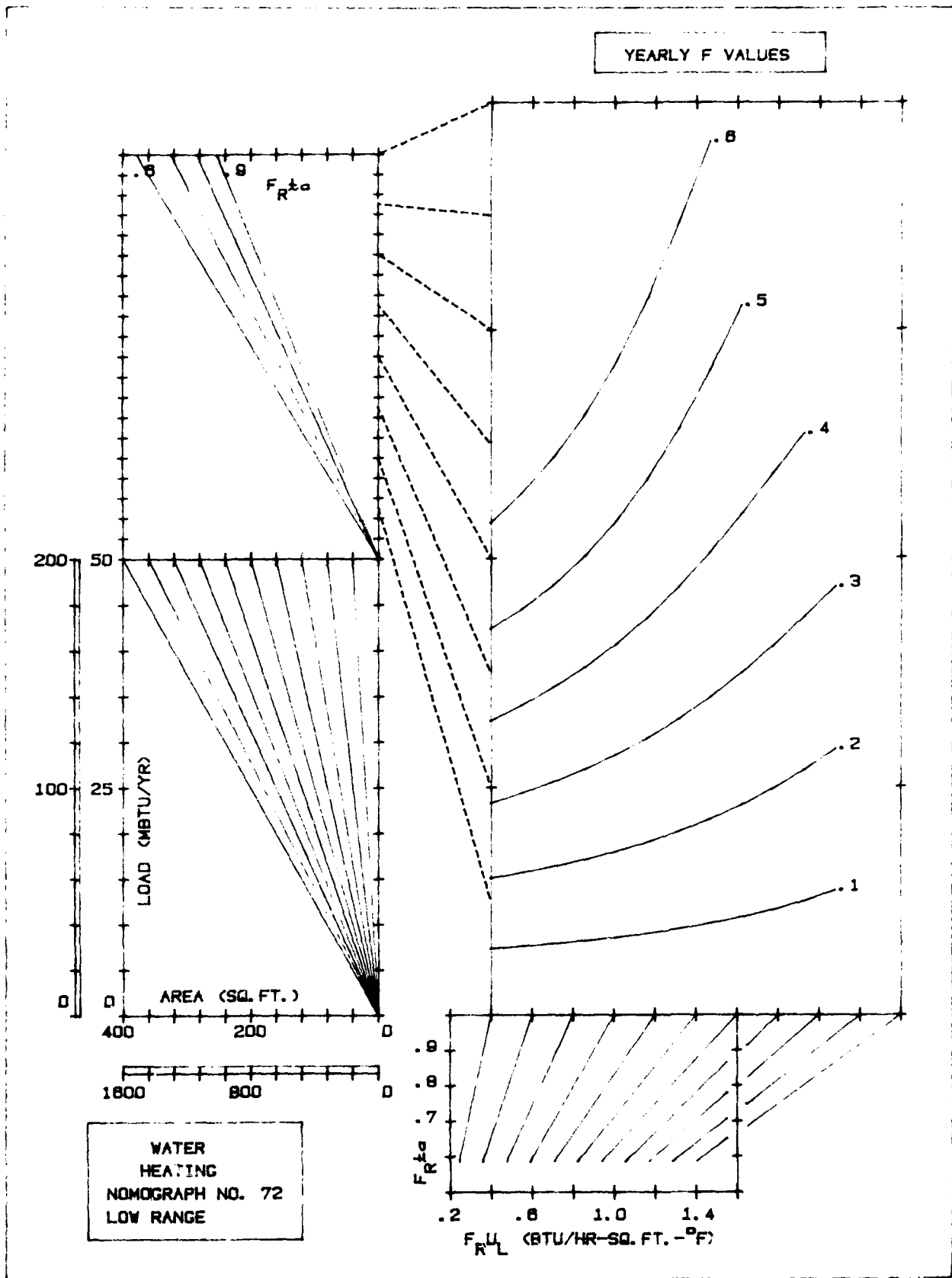
C110



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

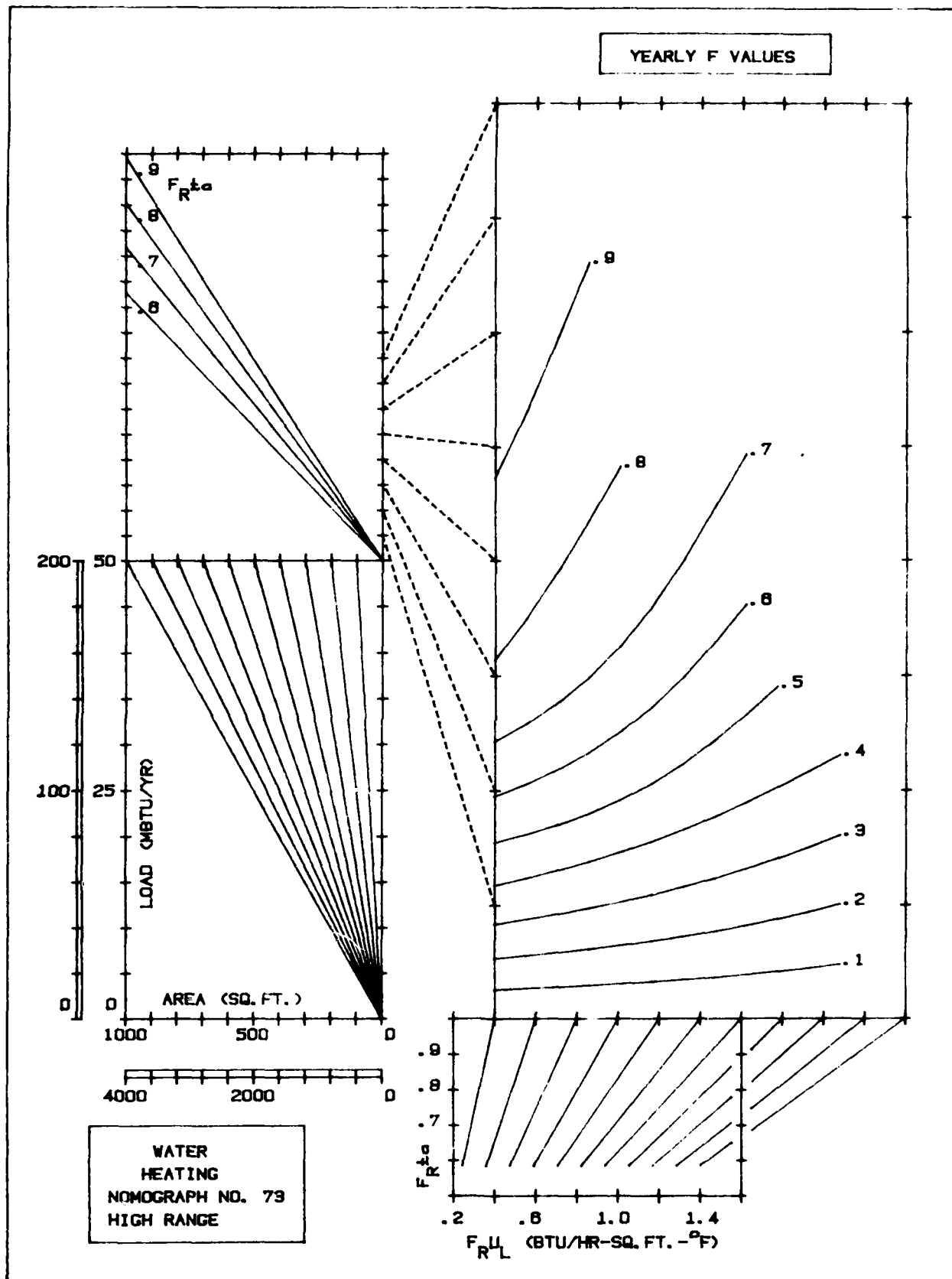


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

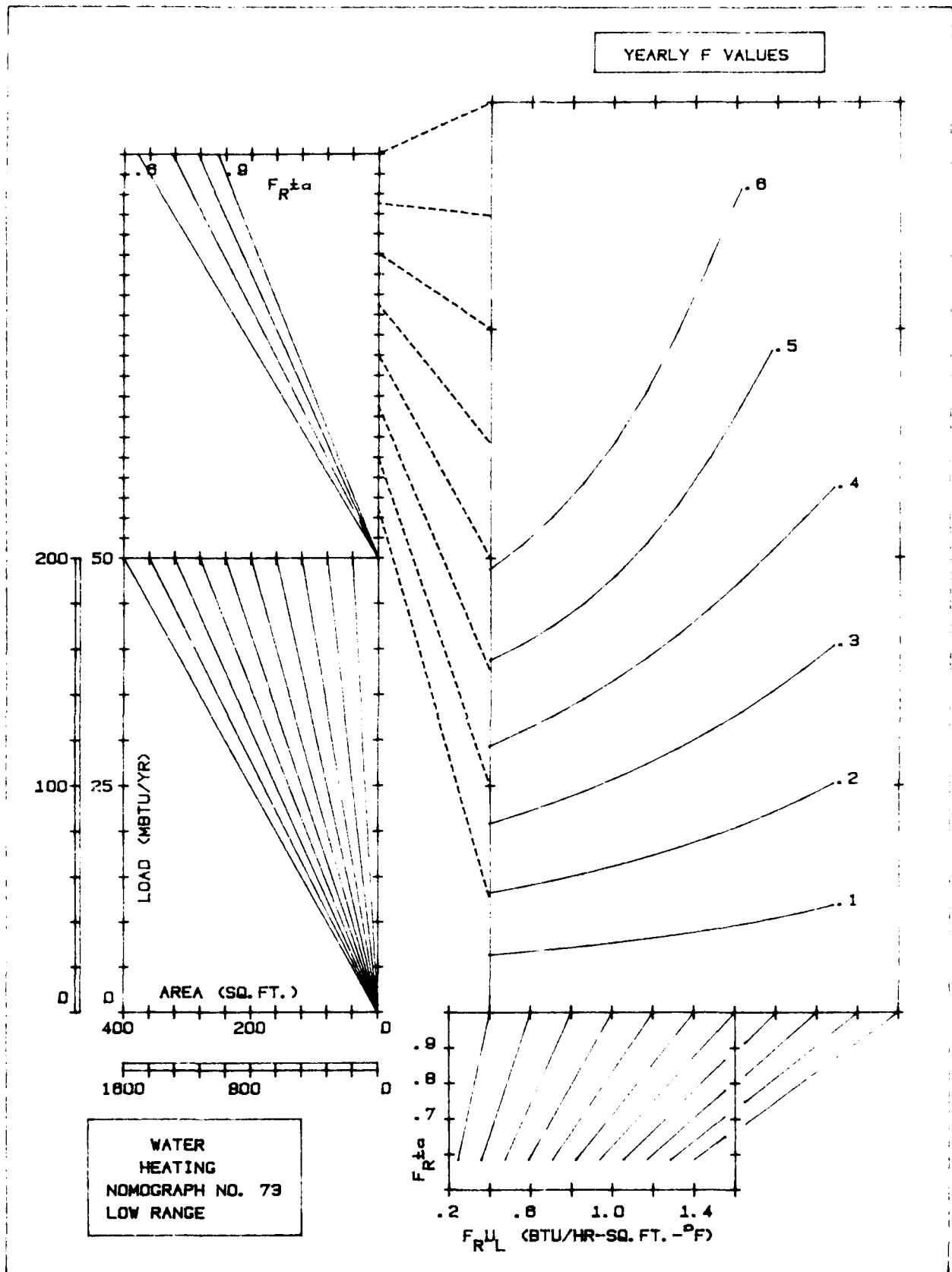


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C114

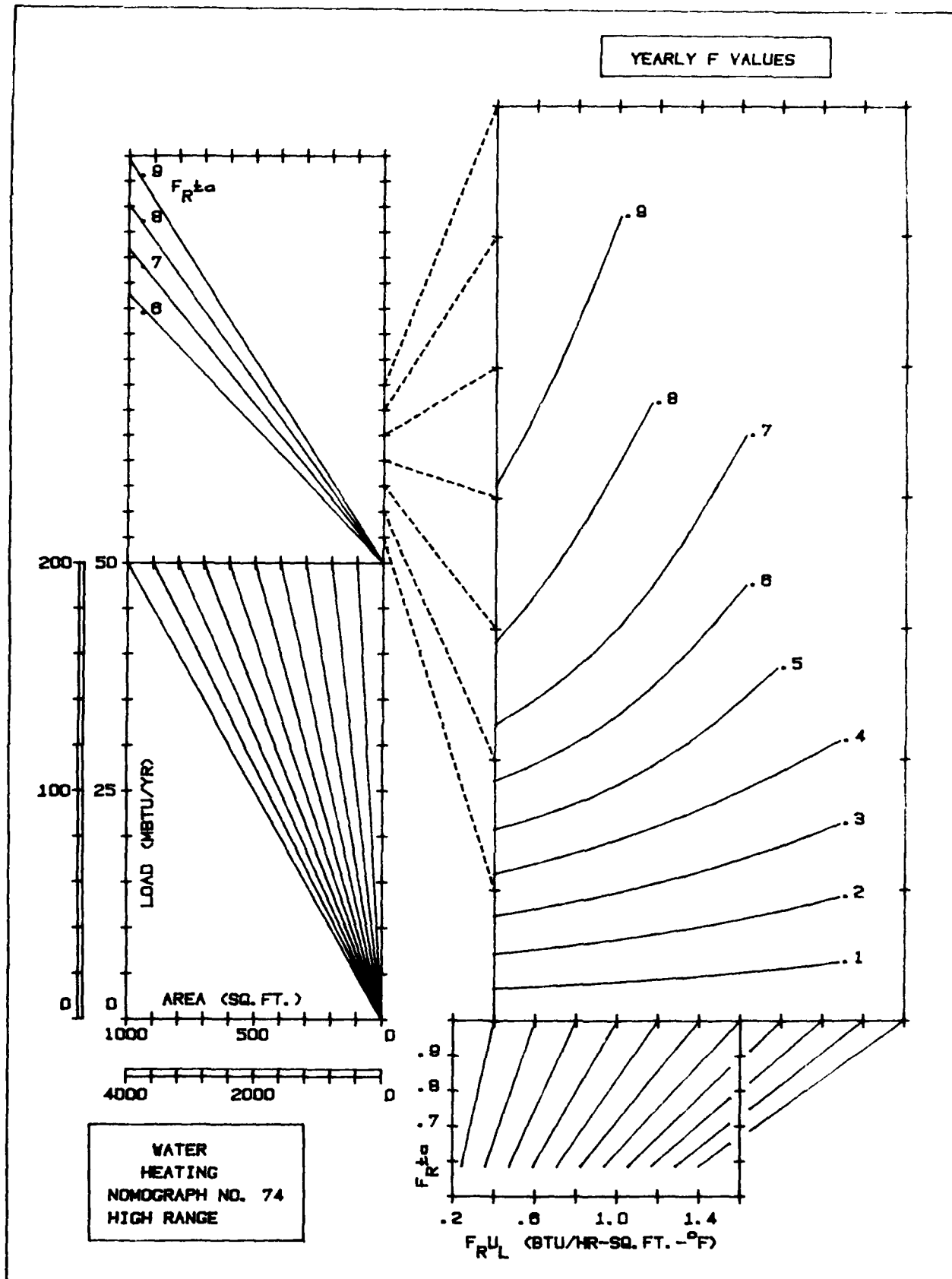


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



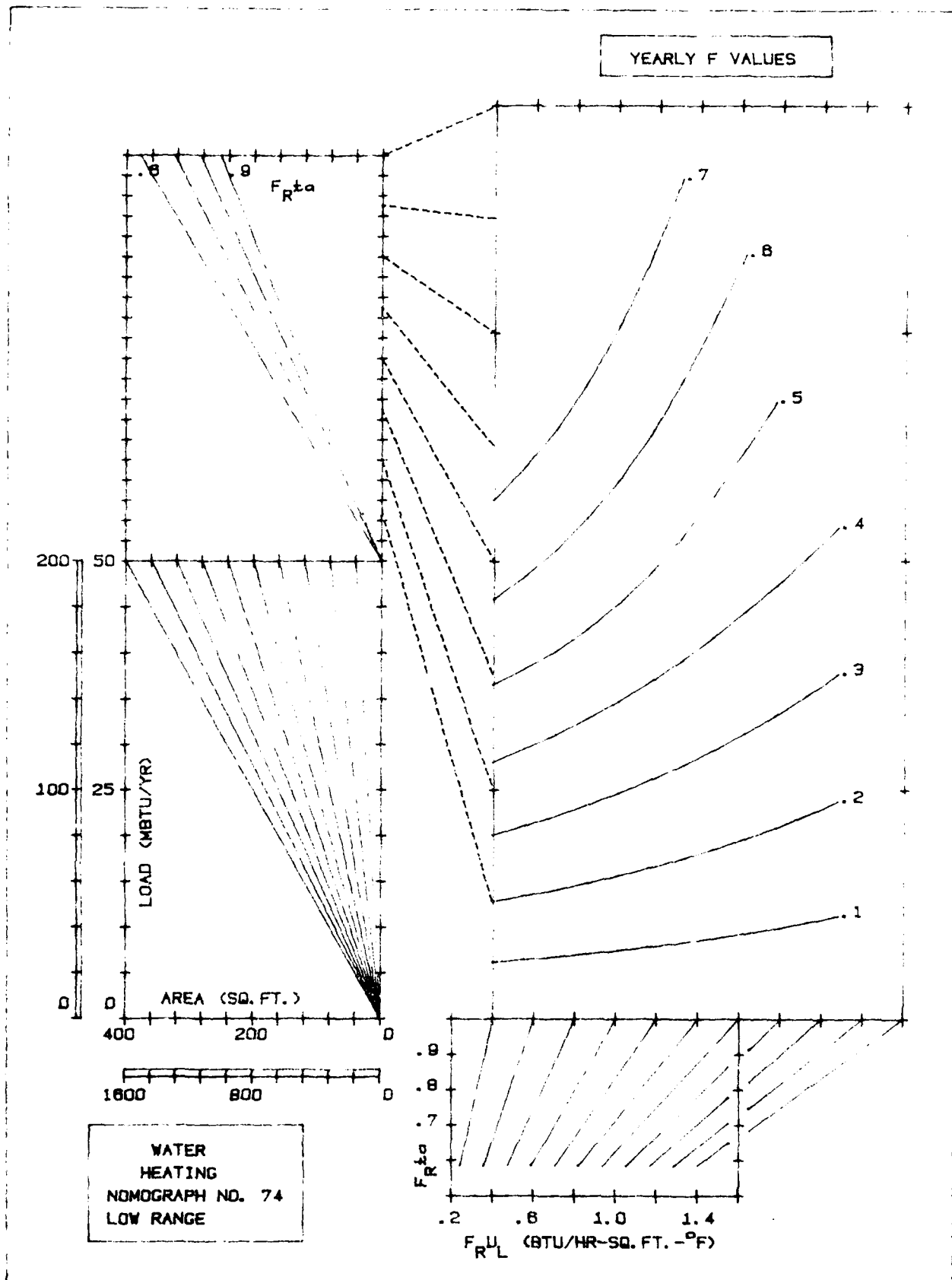
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C116



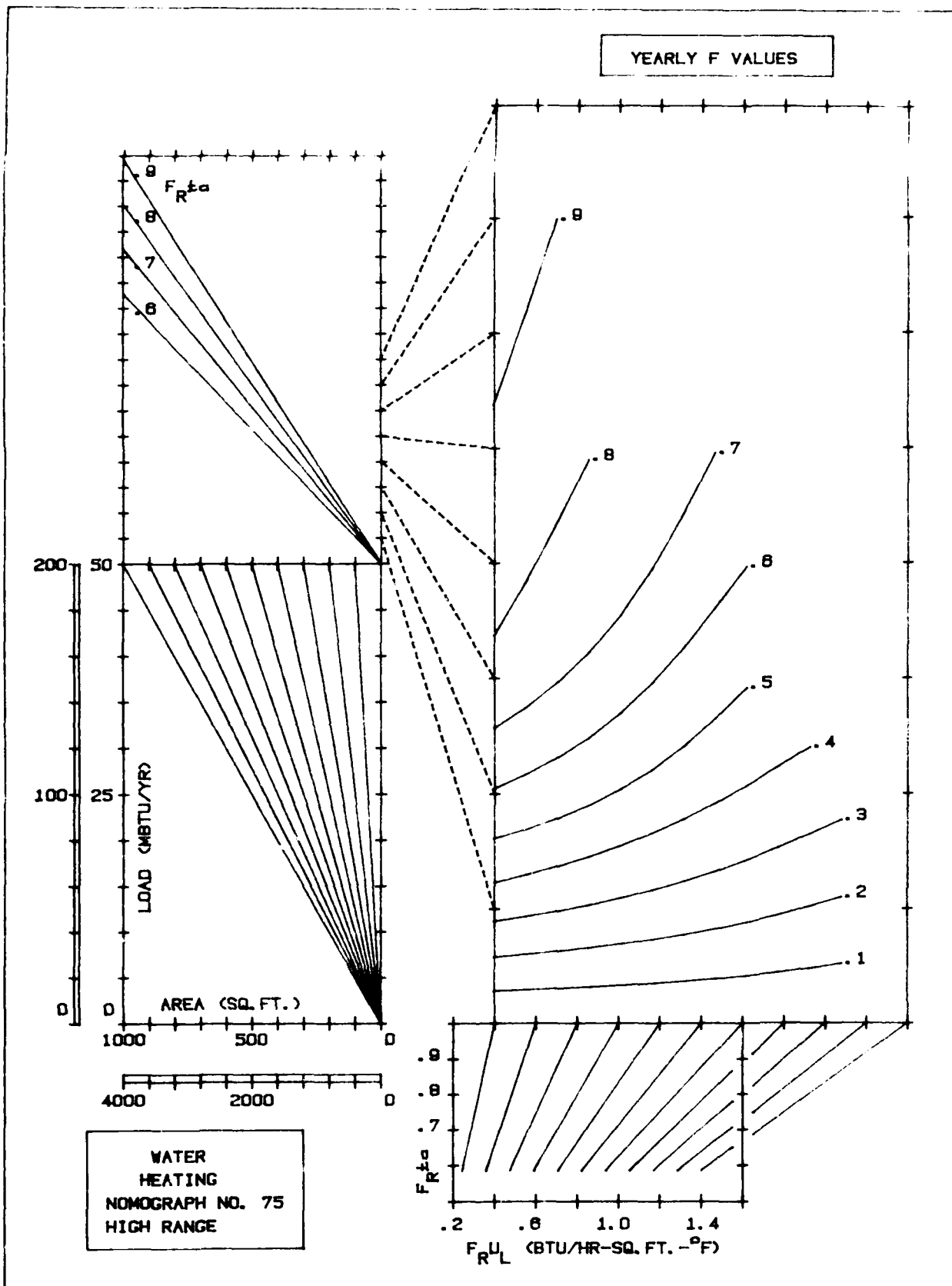
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

C117



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C118

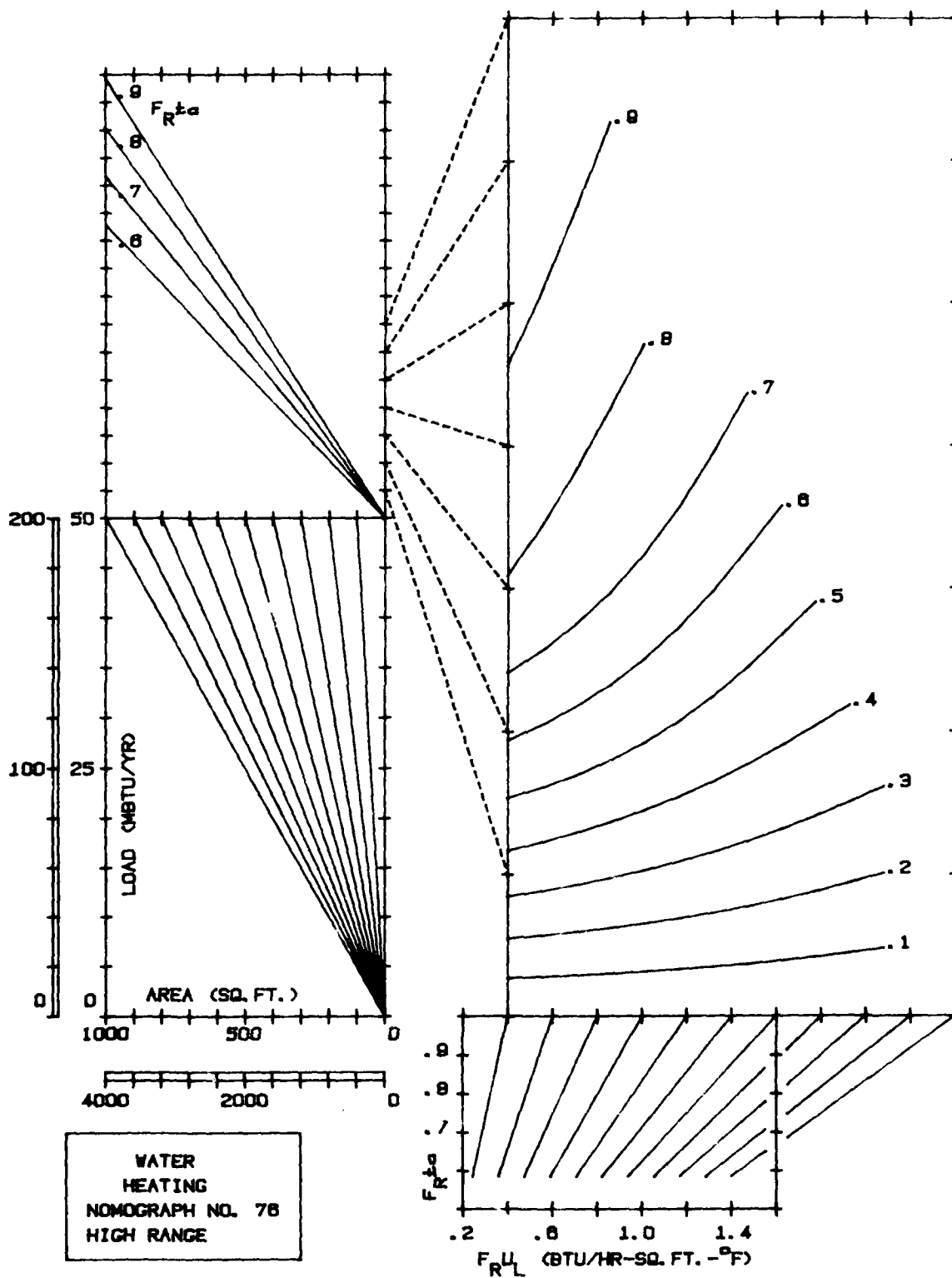


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

C119

C120

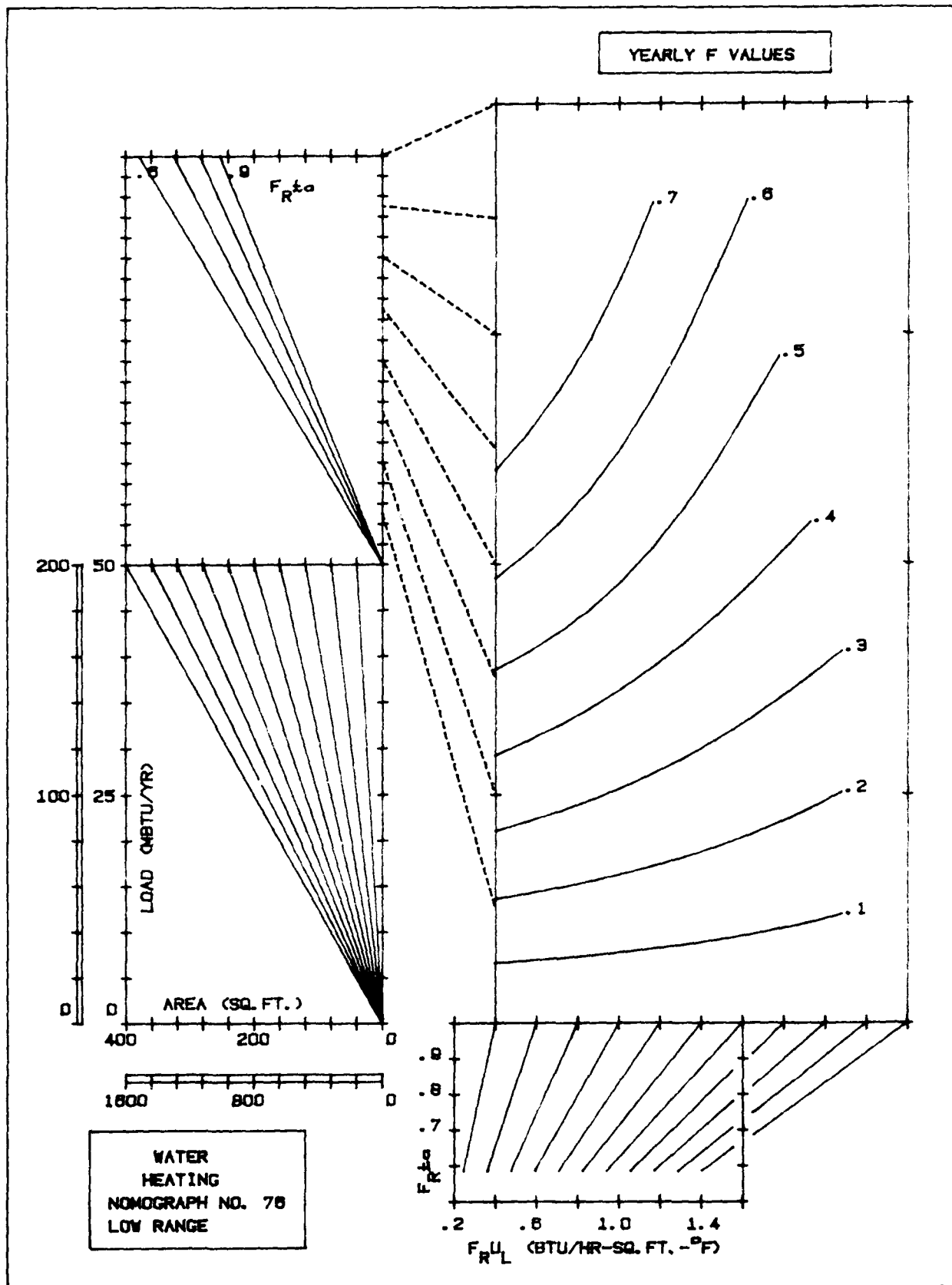
YEARLY F VALUES



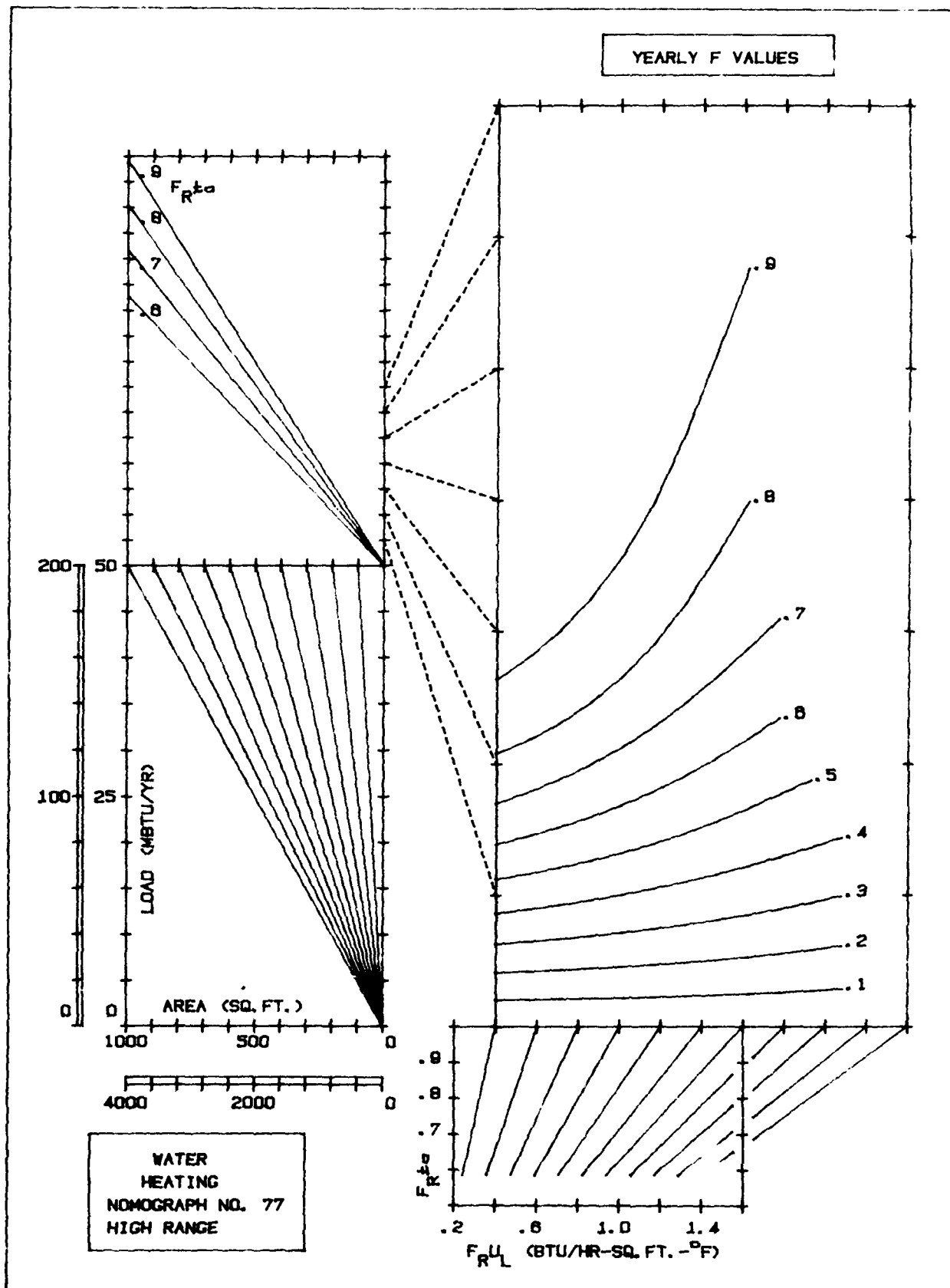
WATER
HEATING
NOMOGRAPH NO. 76
HIGH RANGE

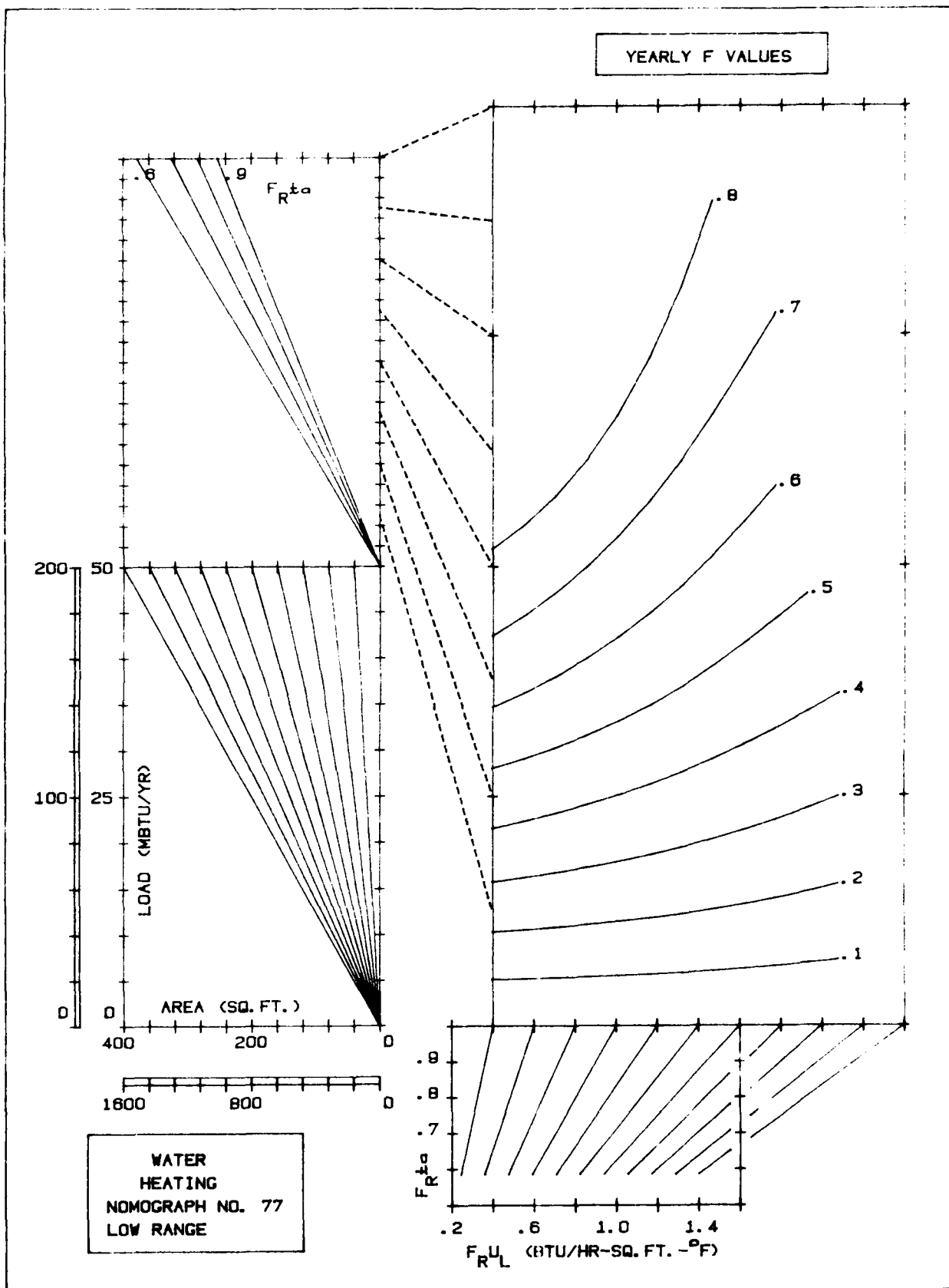
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS

C121

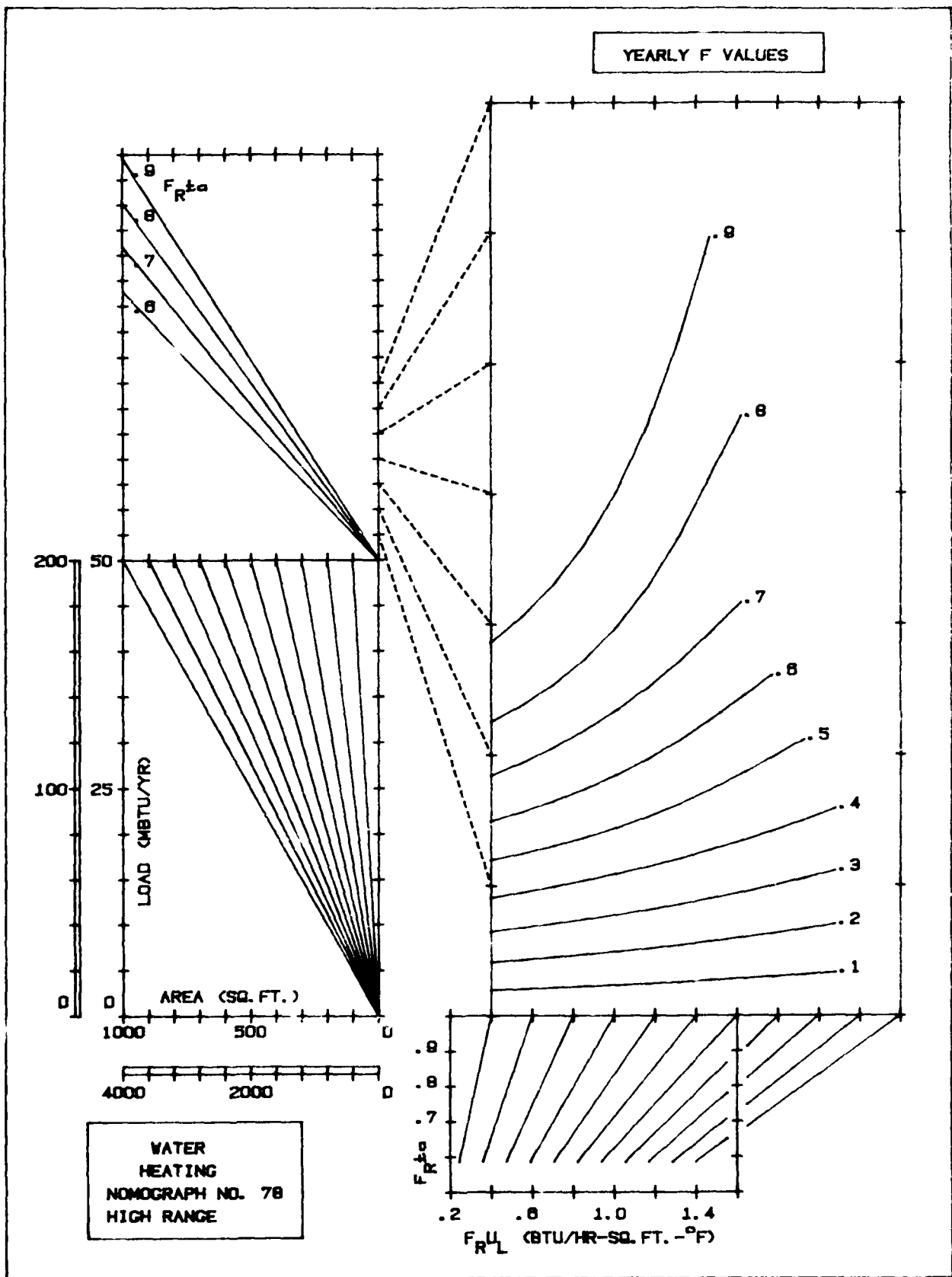


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

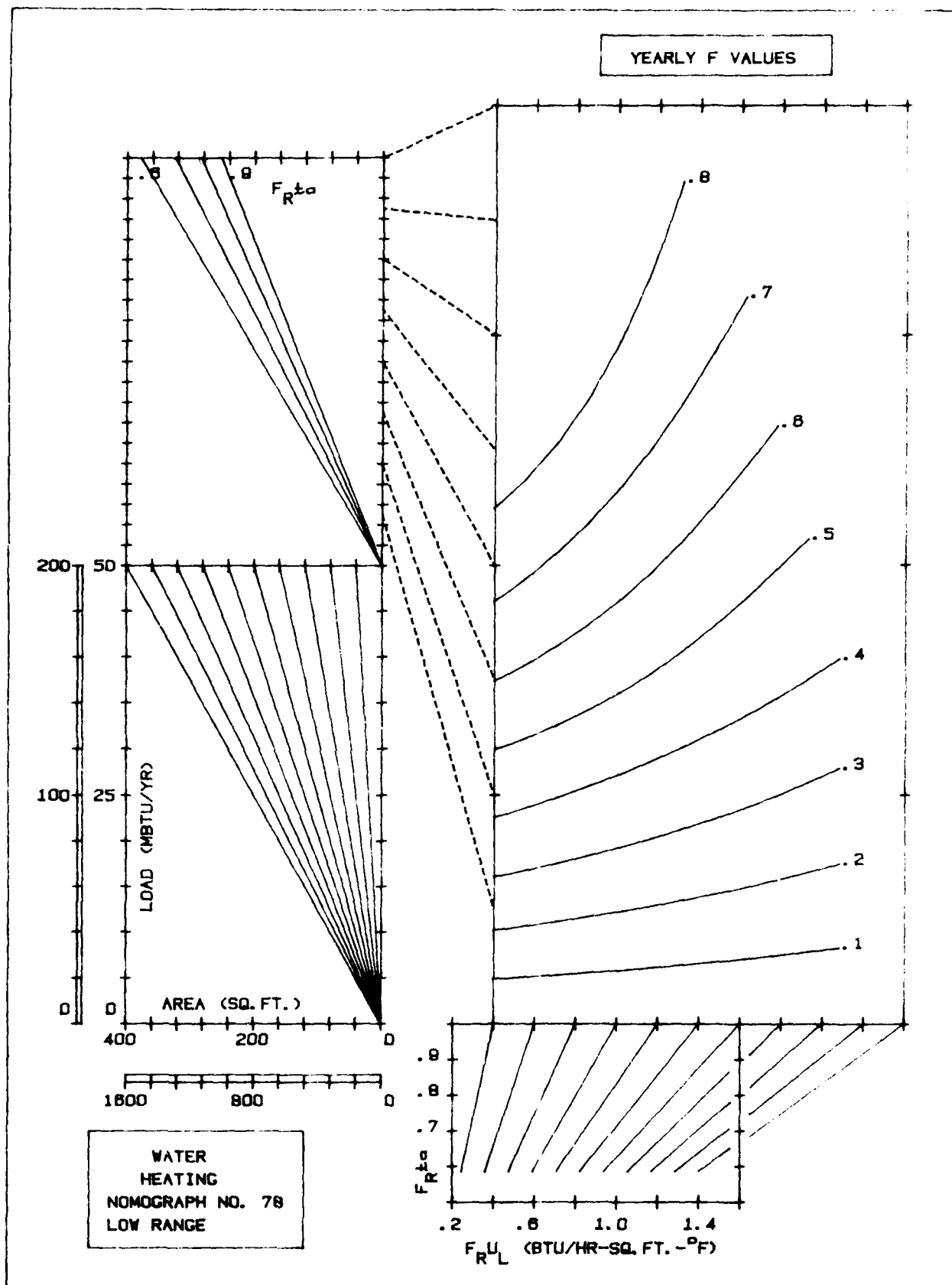




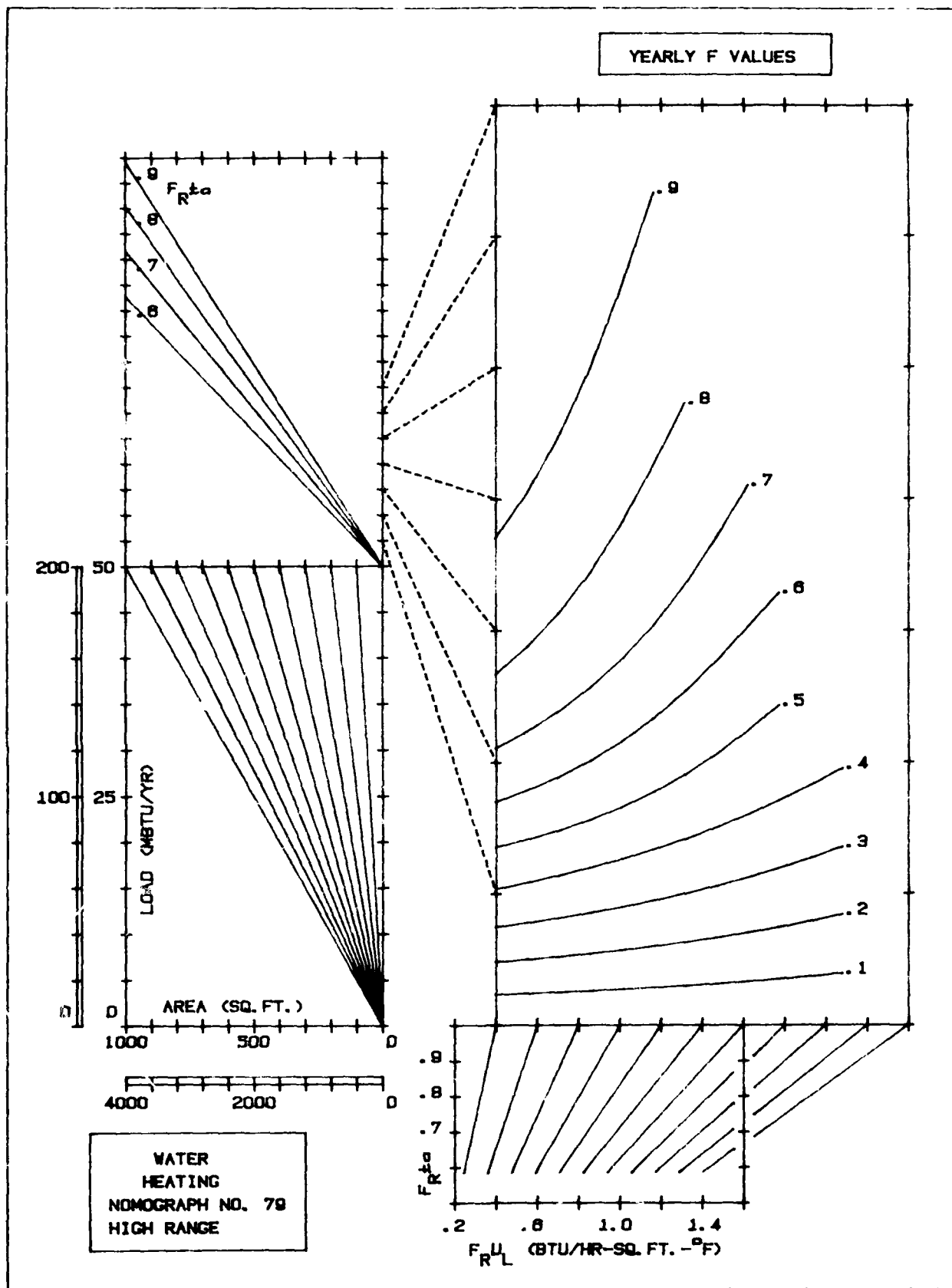
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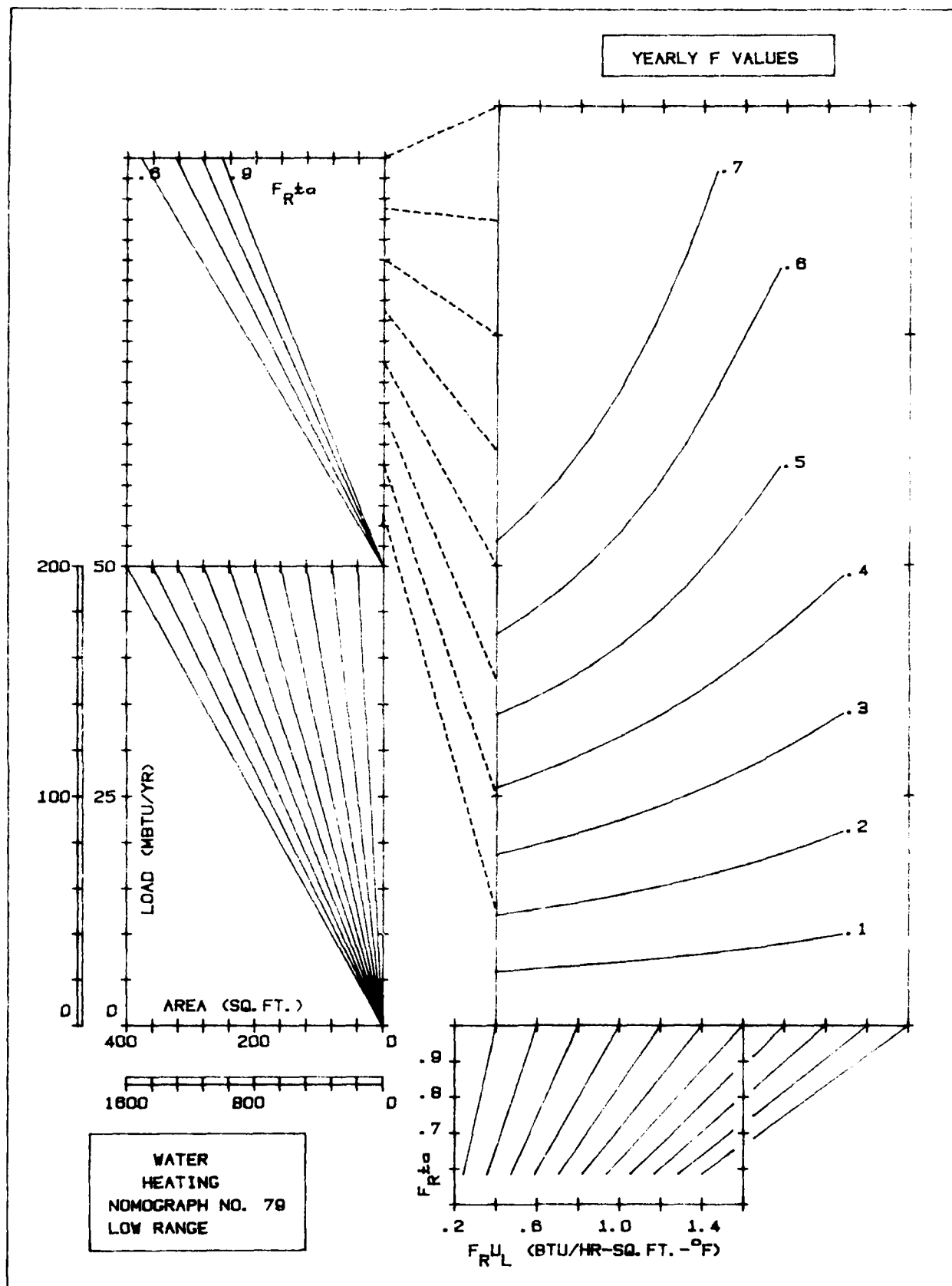
PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

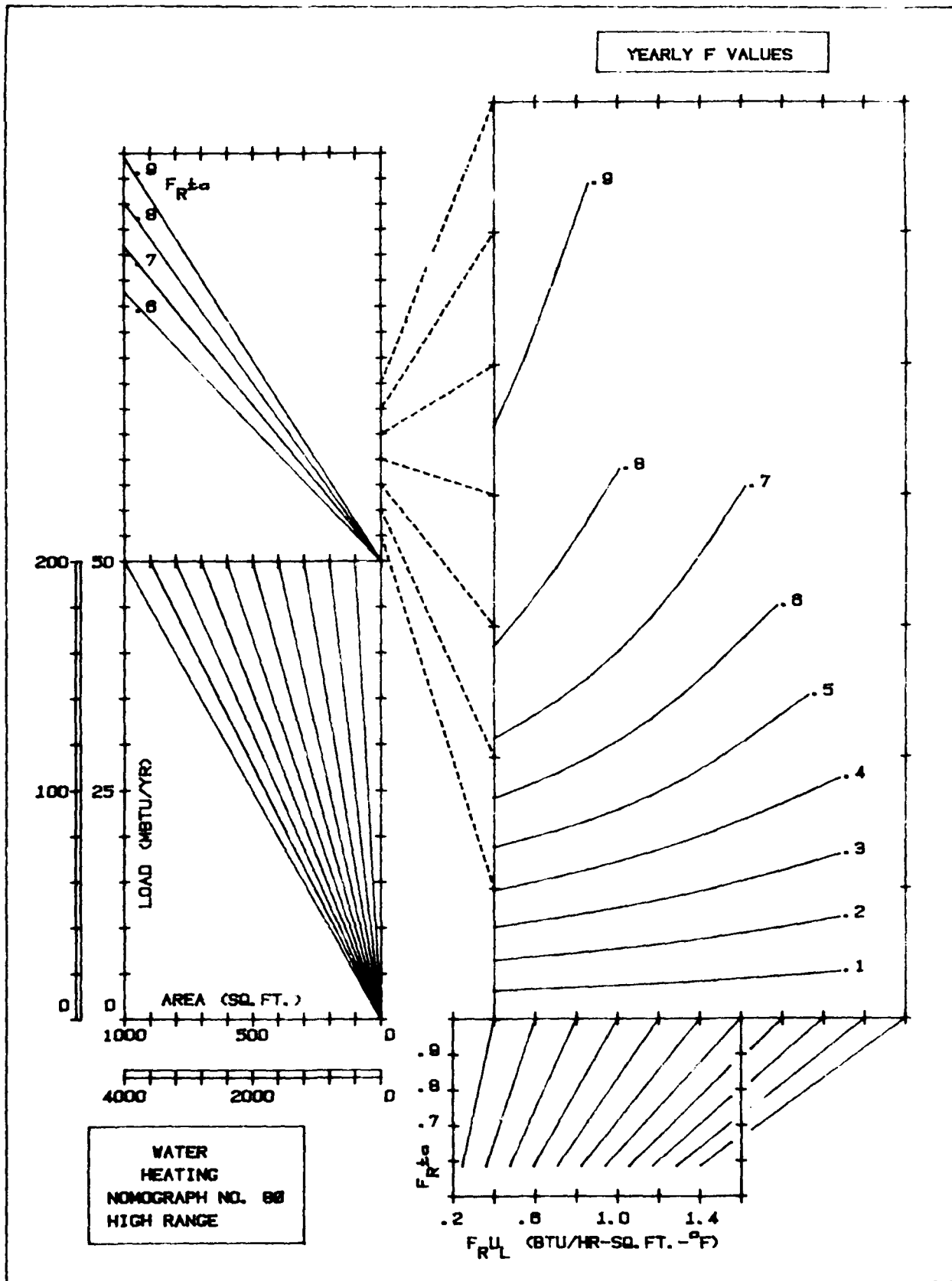


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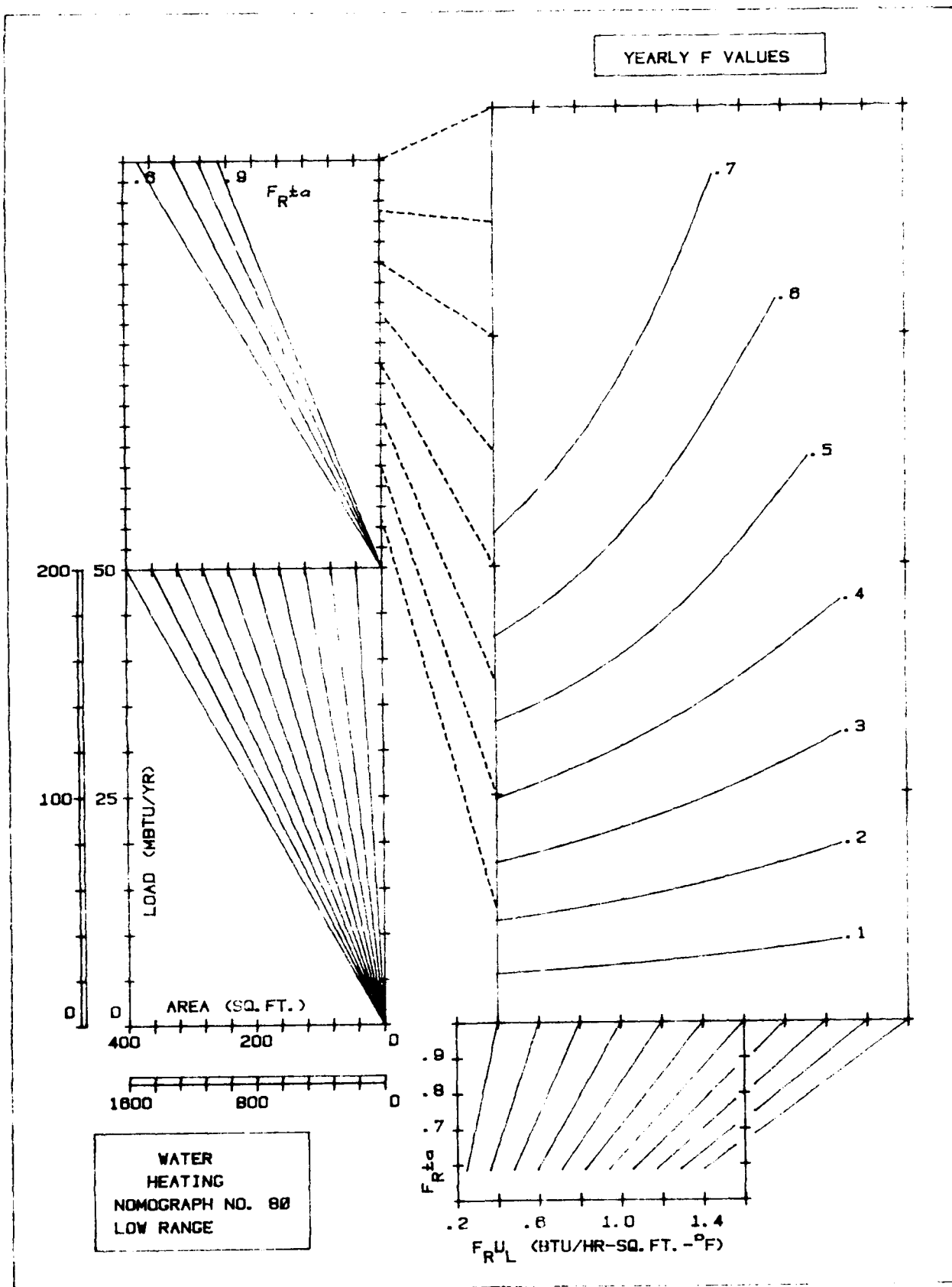


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C128

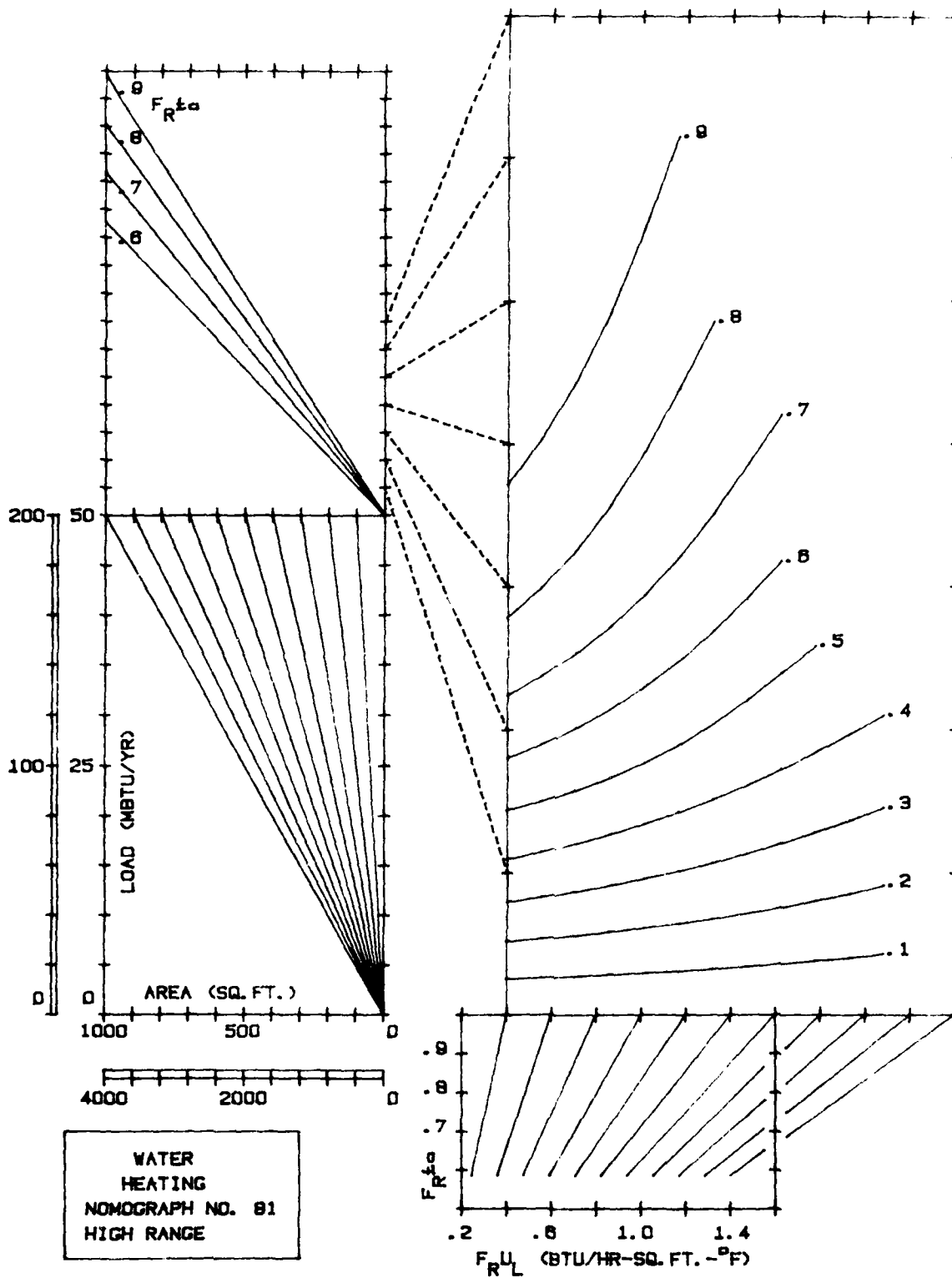


PREPARED 28 JUN 82 FOR AFESC BY USAFA/DFMS



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

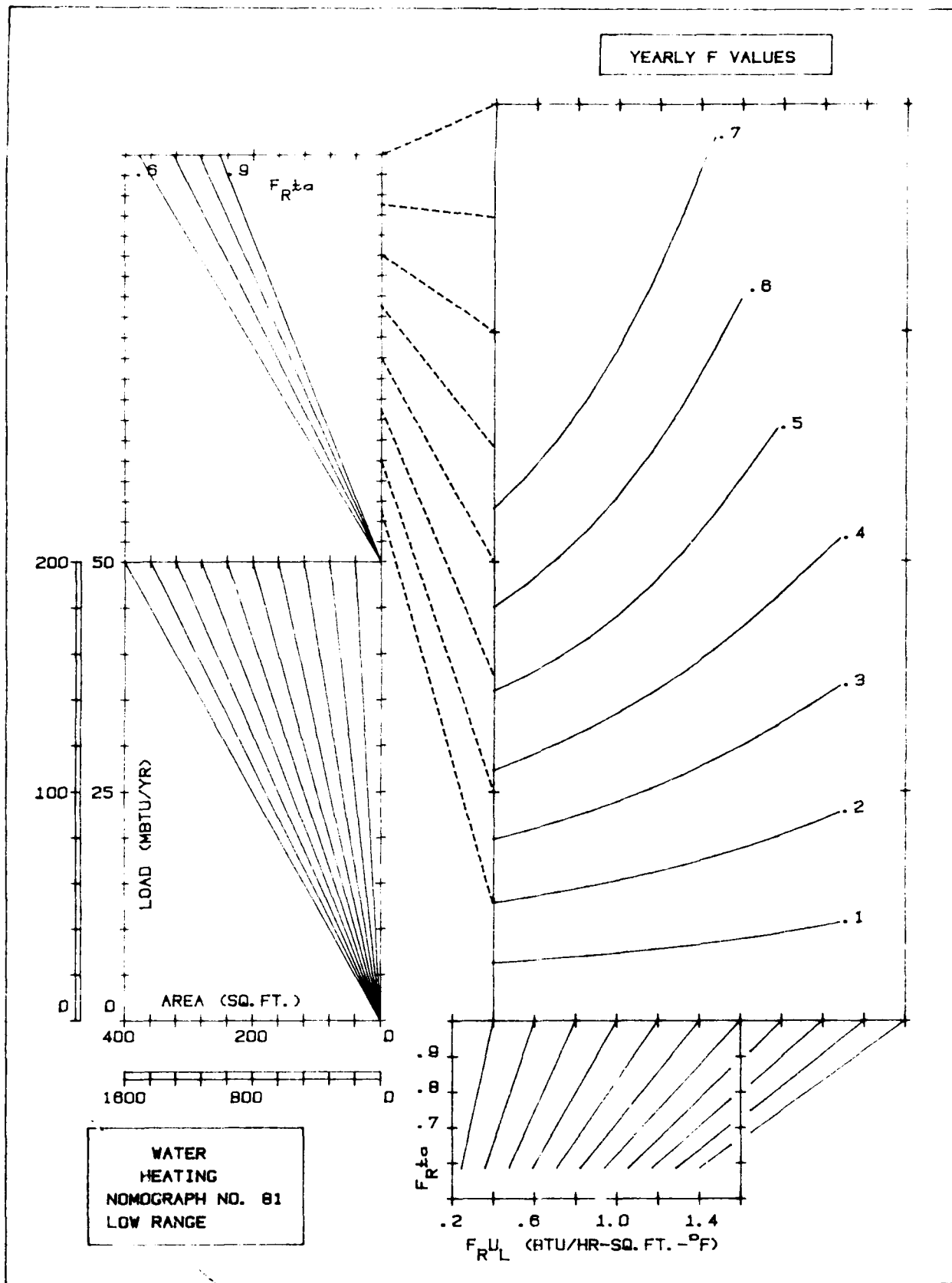
YEARLY F VALUES



WATER
HEATING
NOMOGRAPH NO. 81
HIGH RANGE

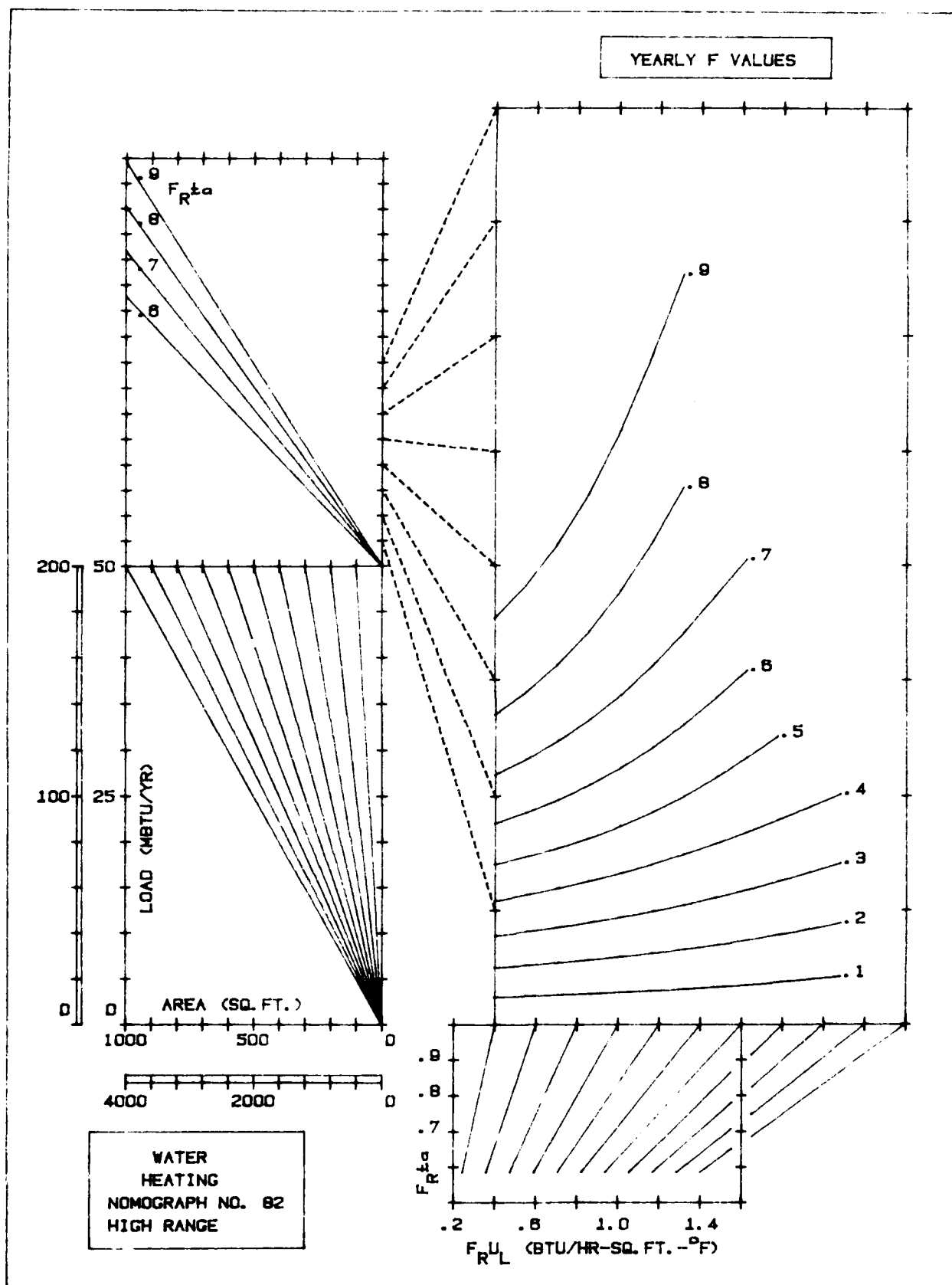
PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C131



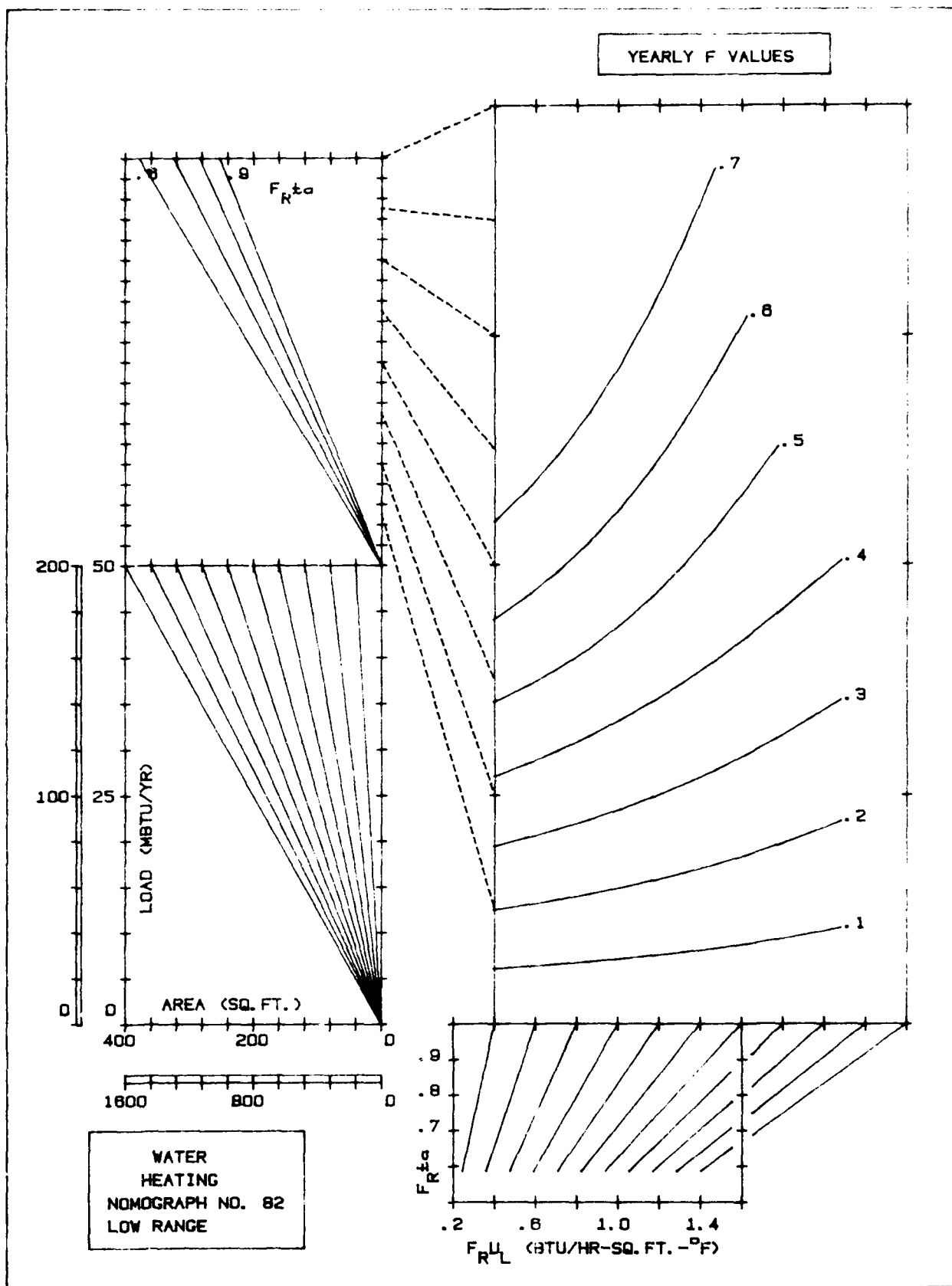
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

CI32



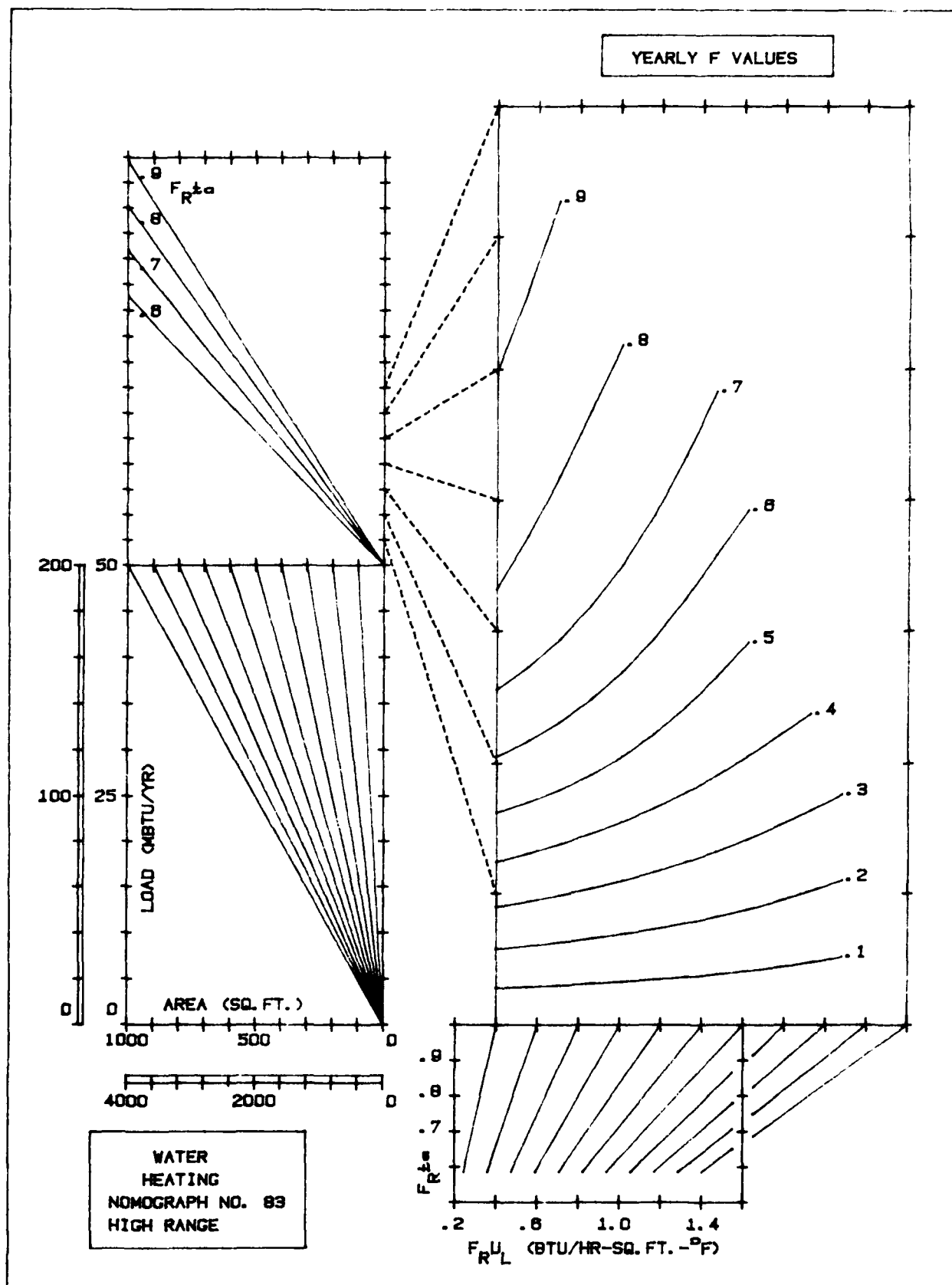
PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C133



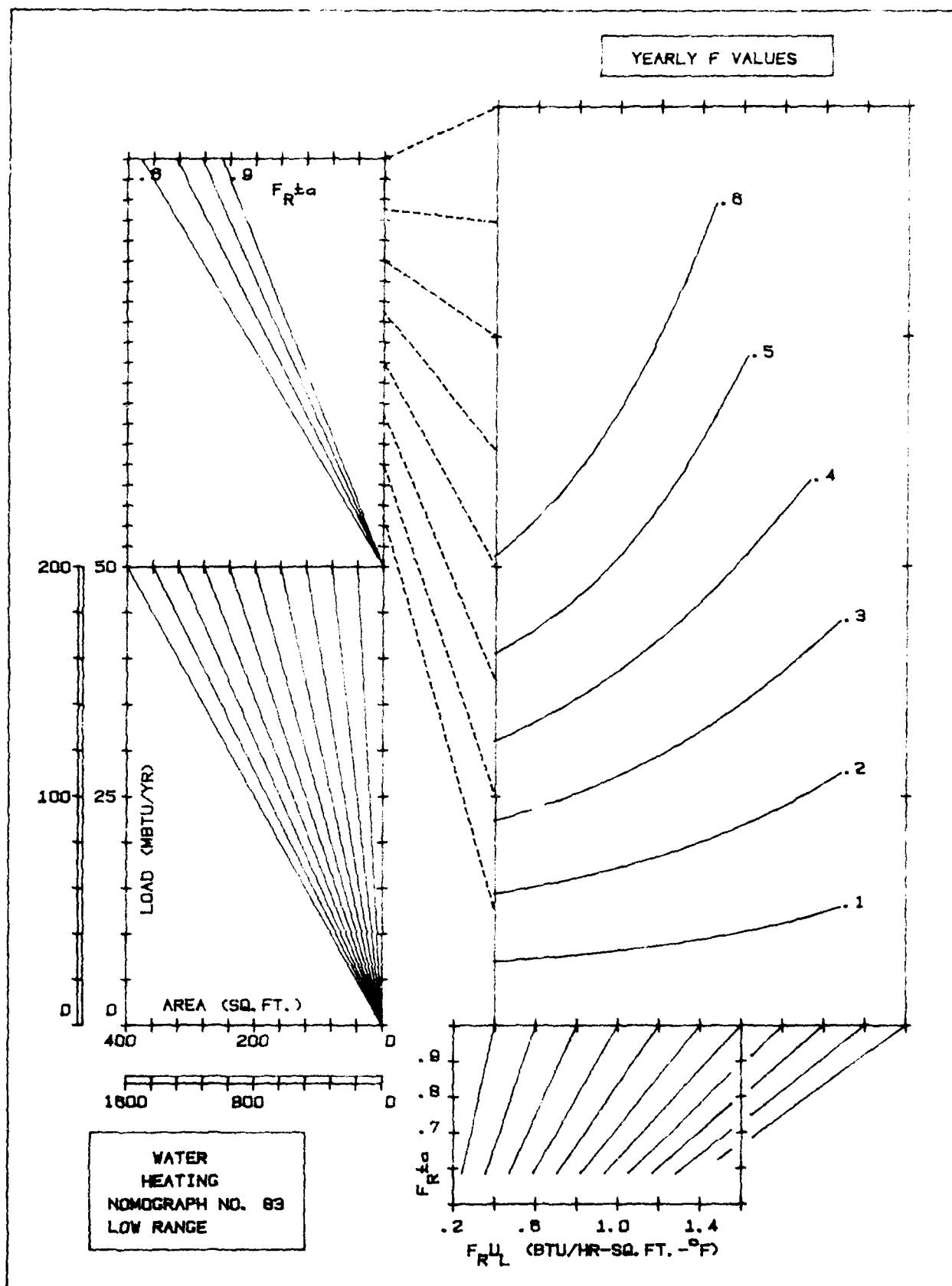
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C134

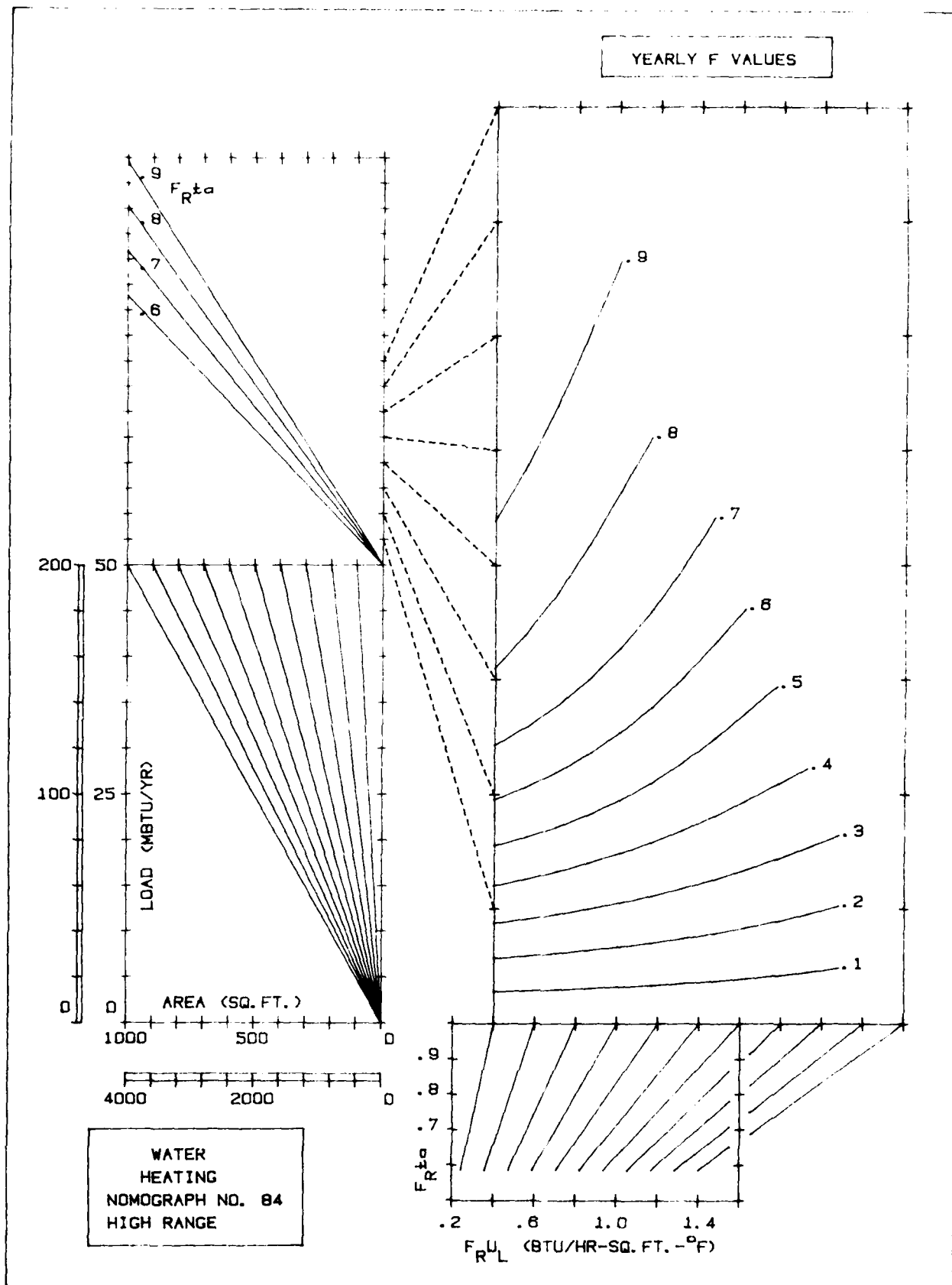


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C135

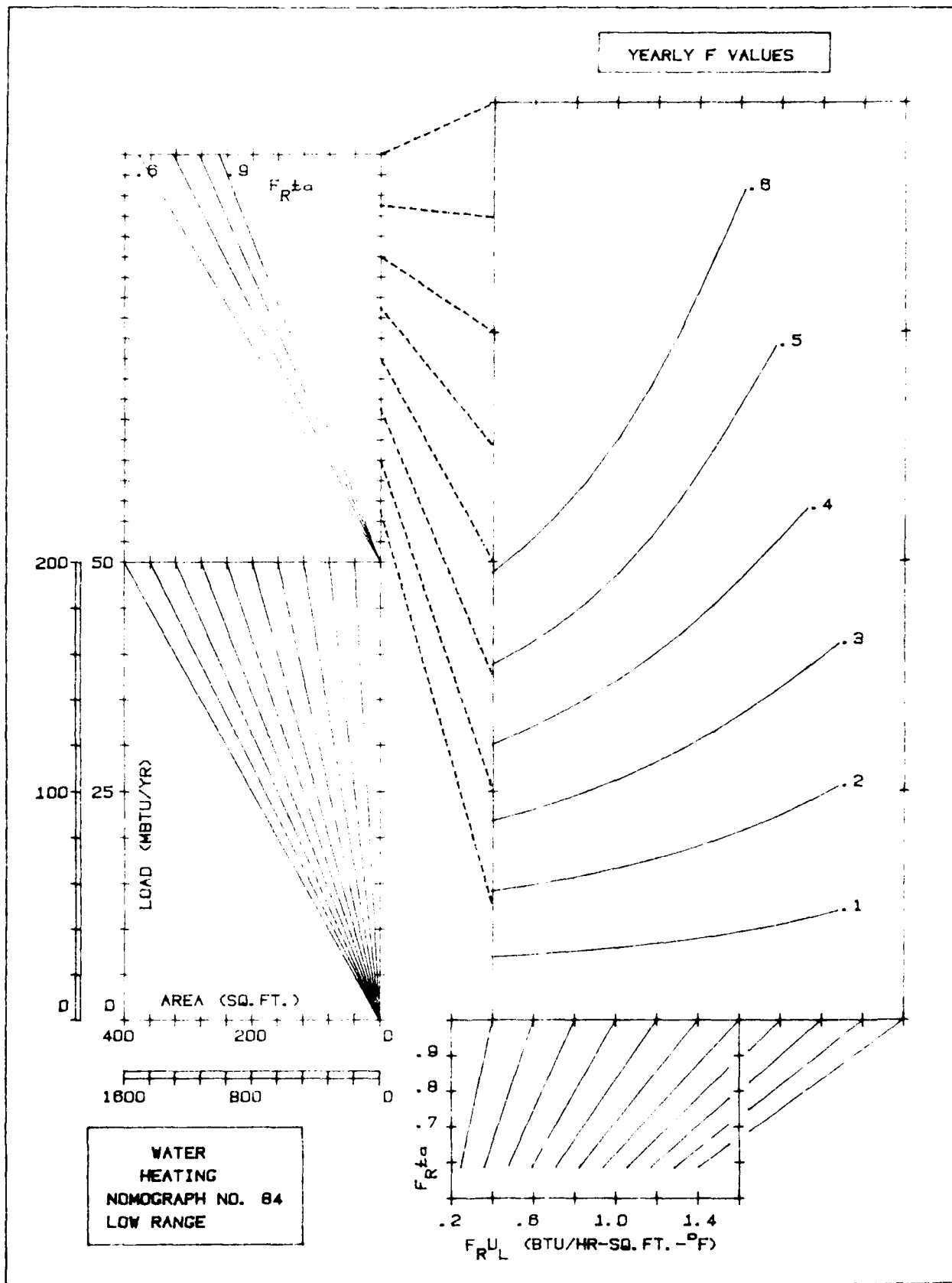


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



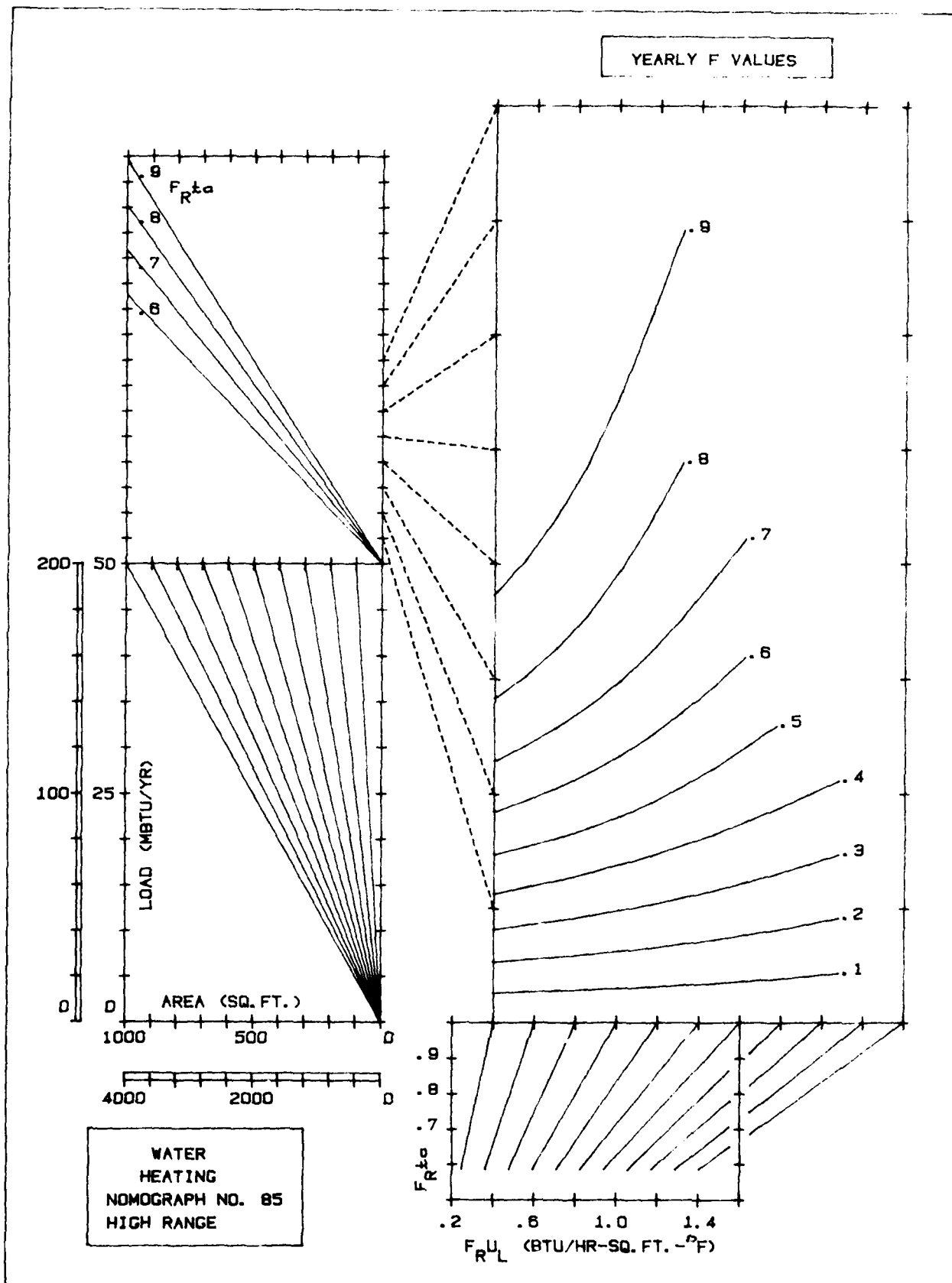
PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C137



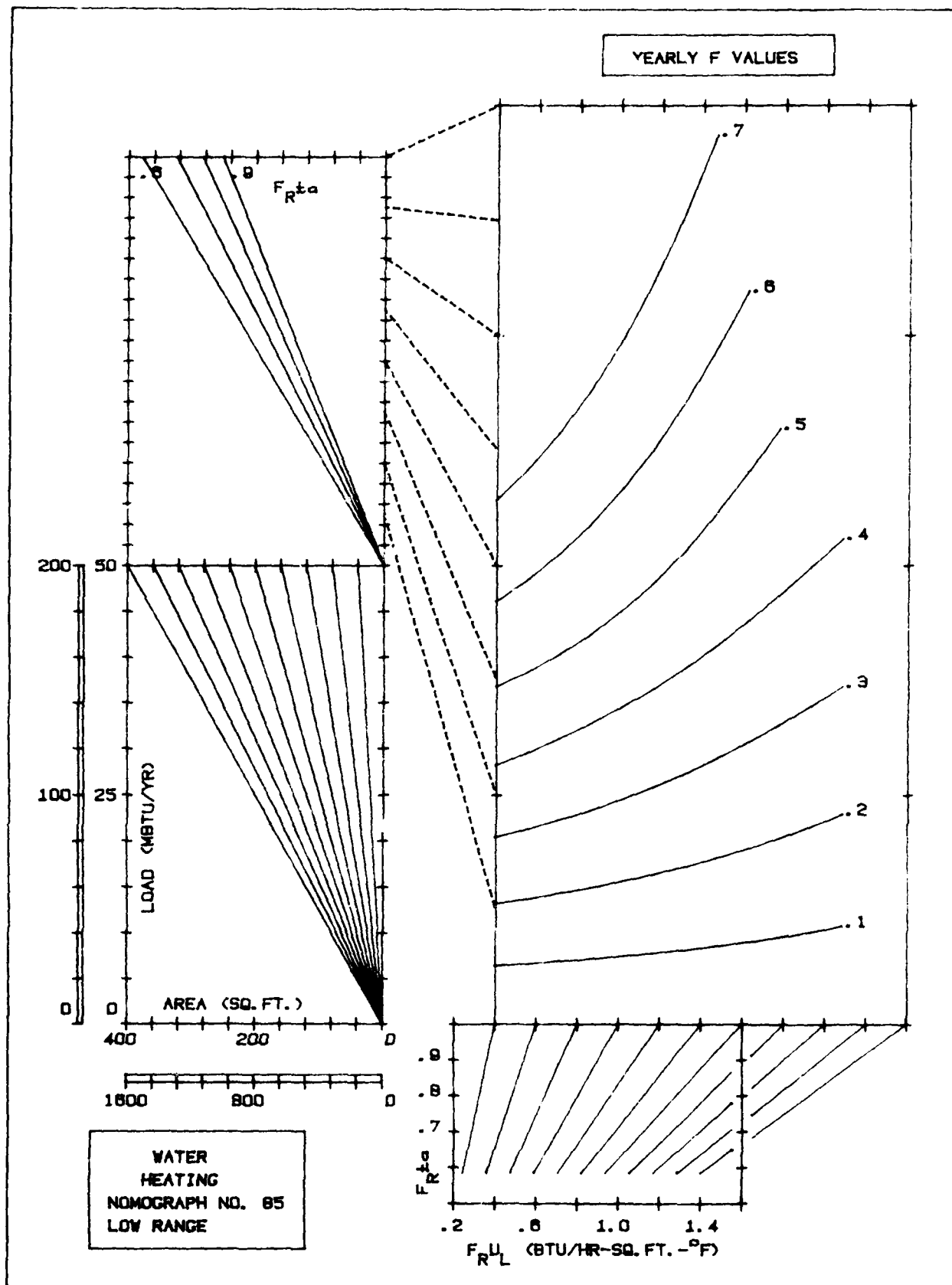
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

CL 38

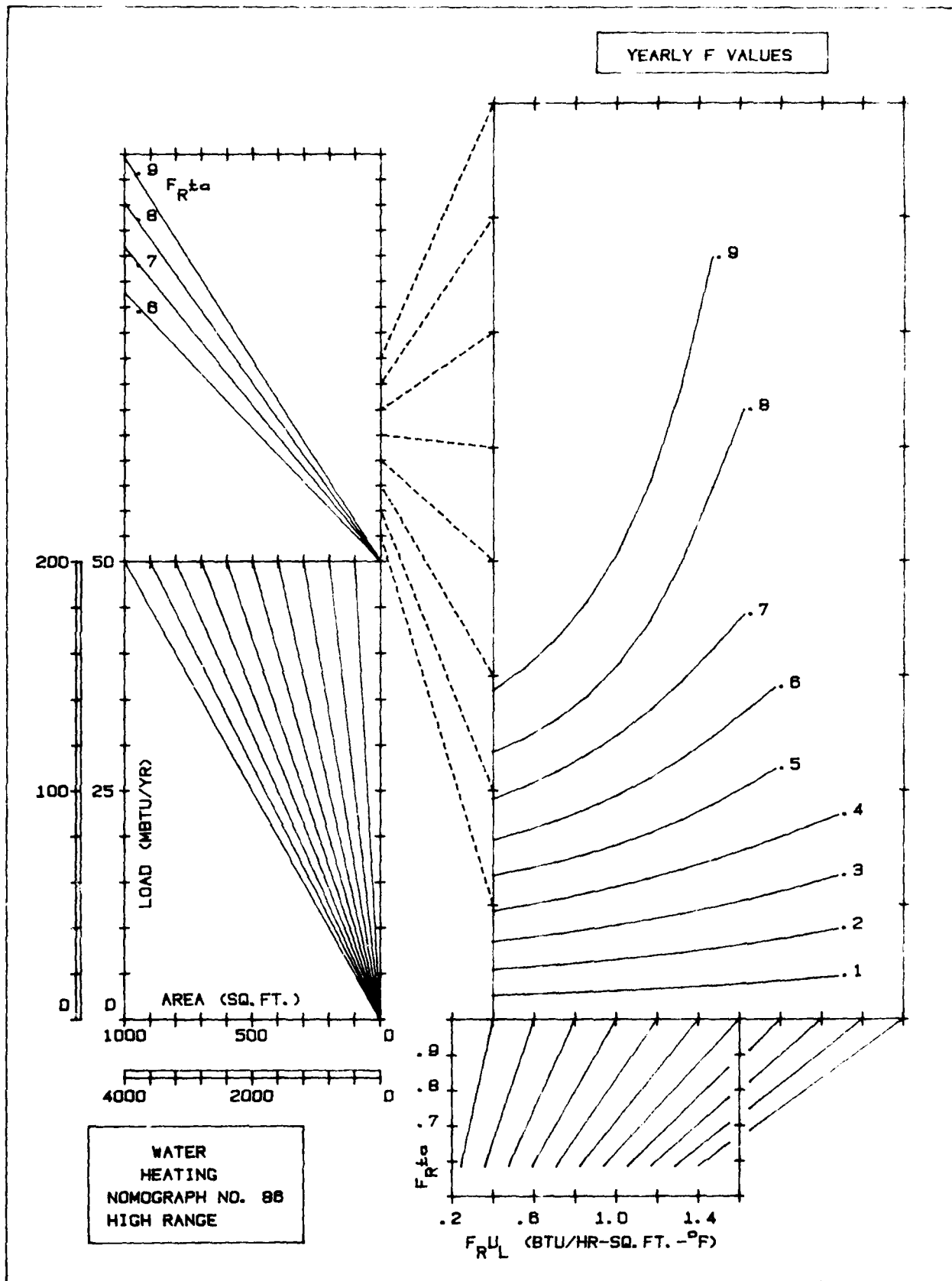


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

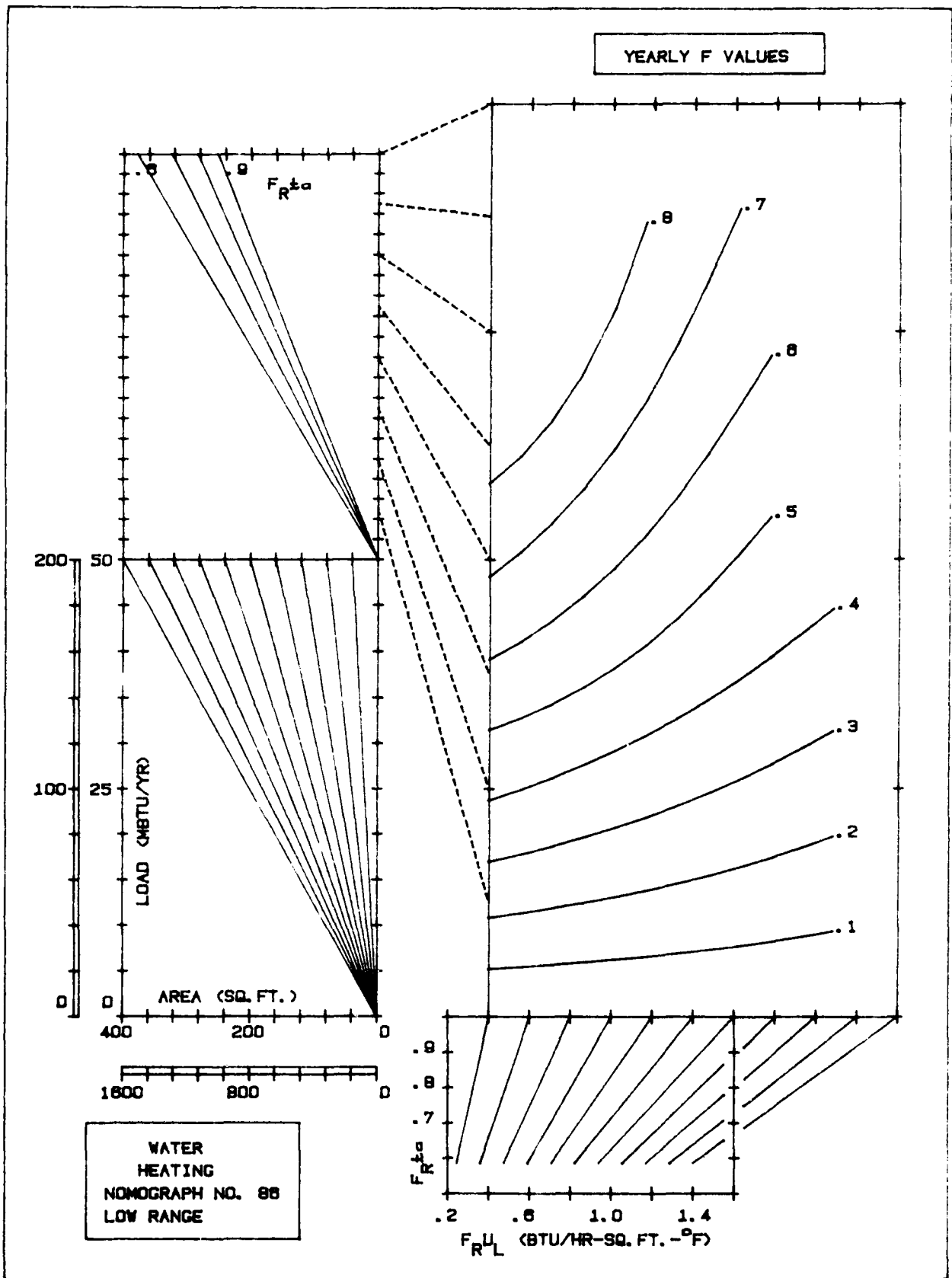
C139



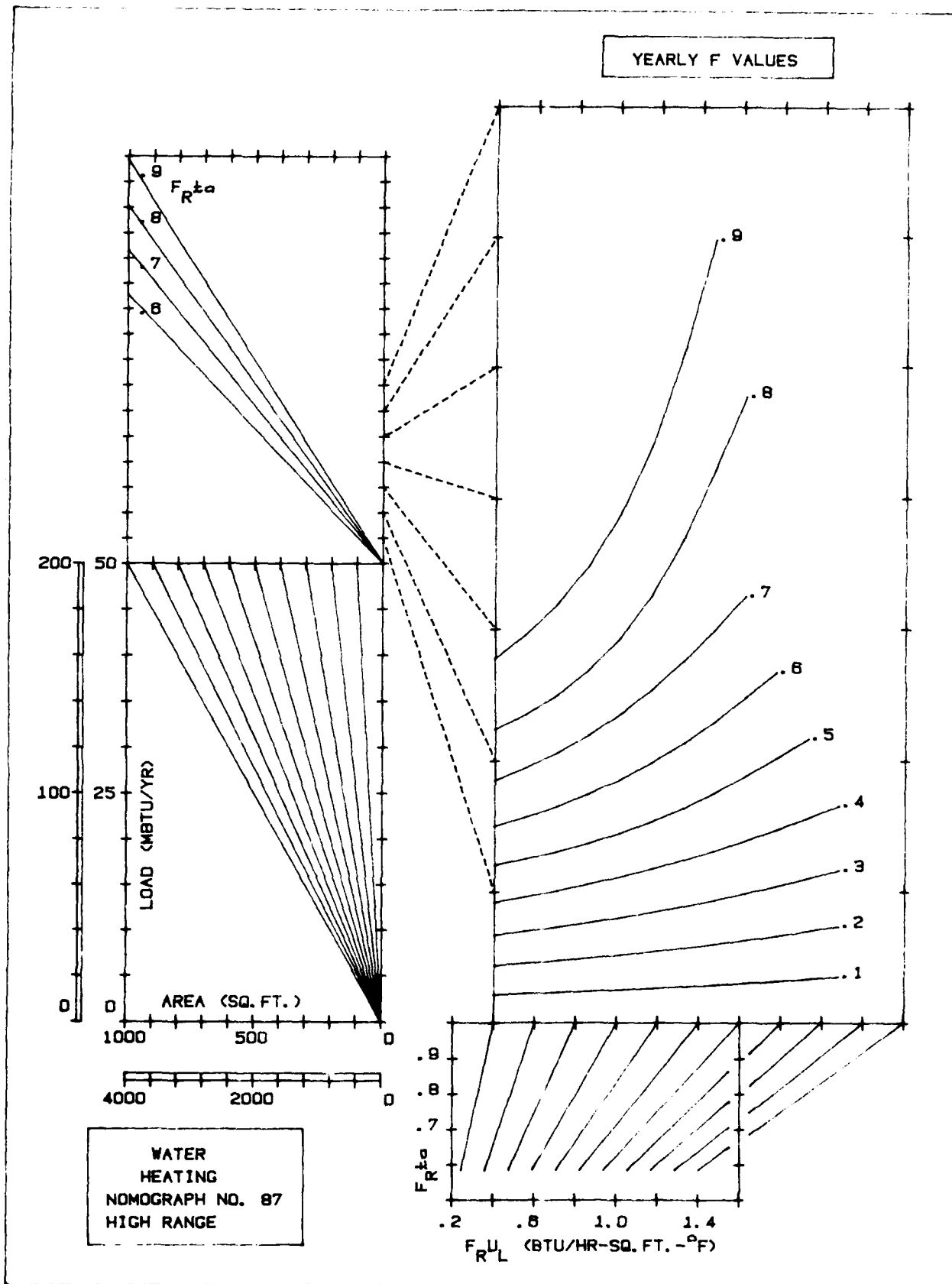
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS



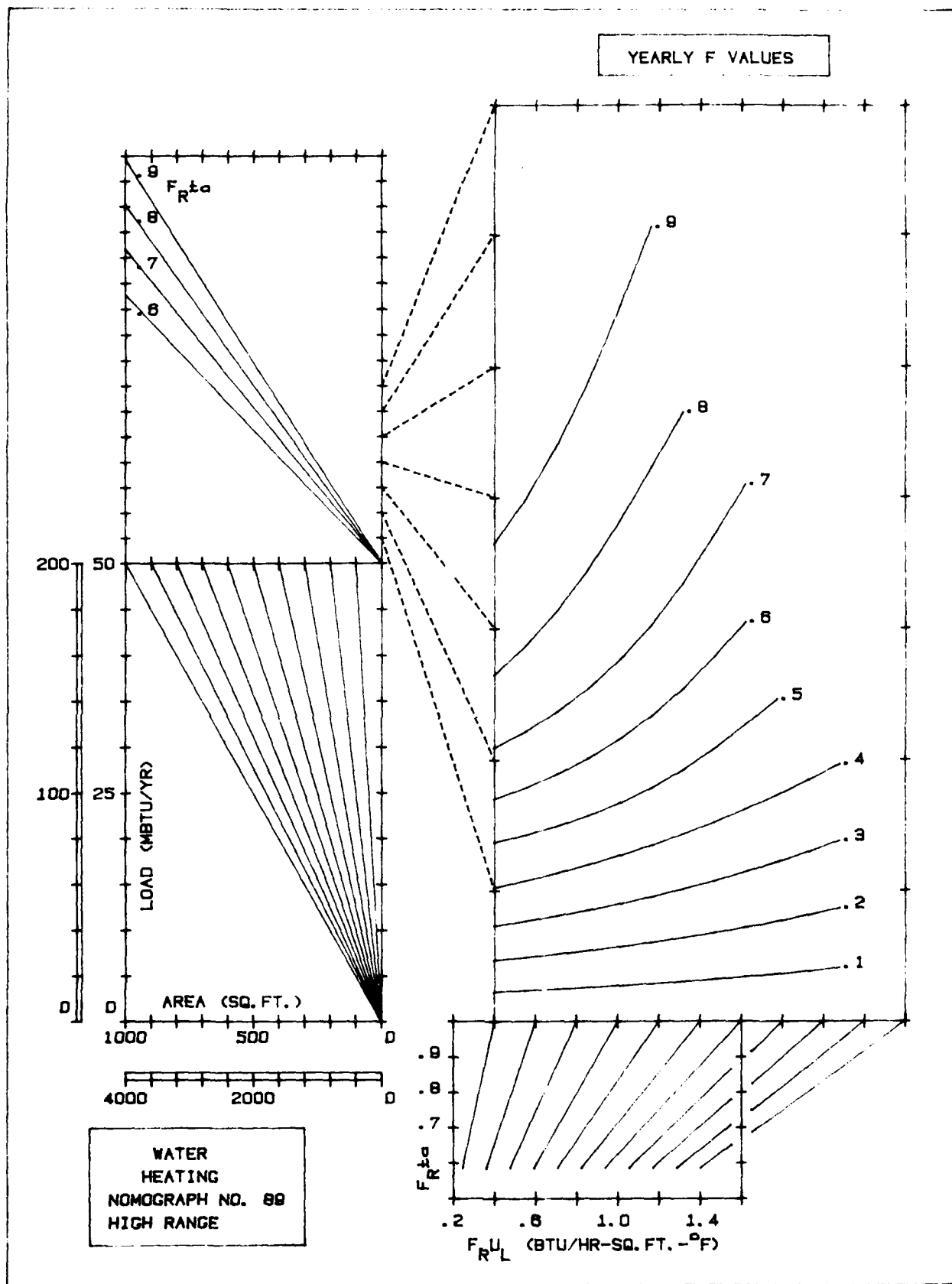
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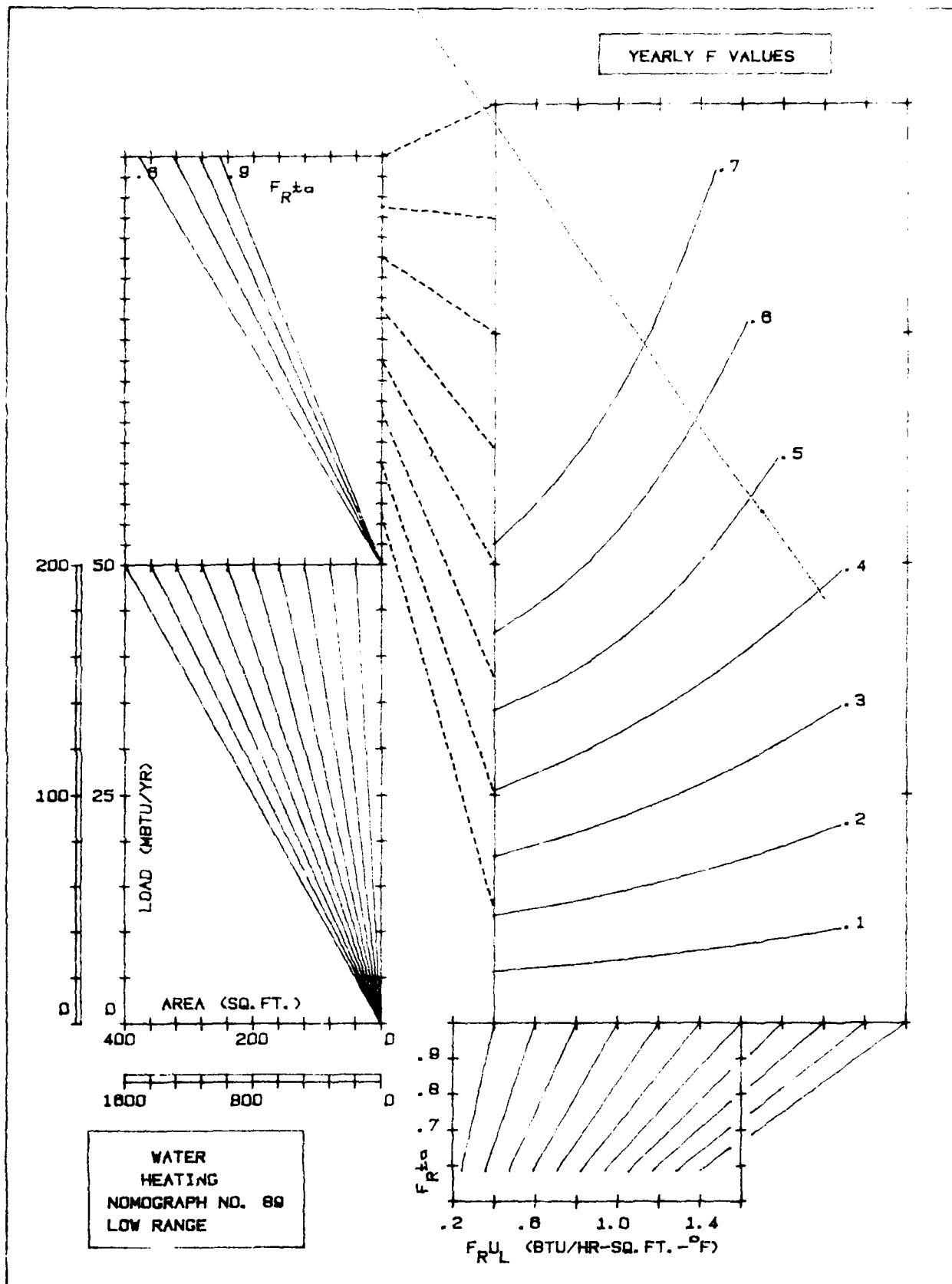


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C143

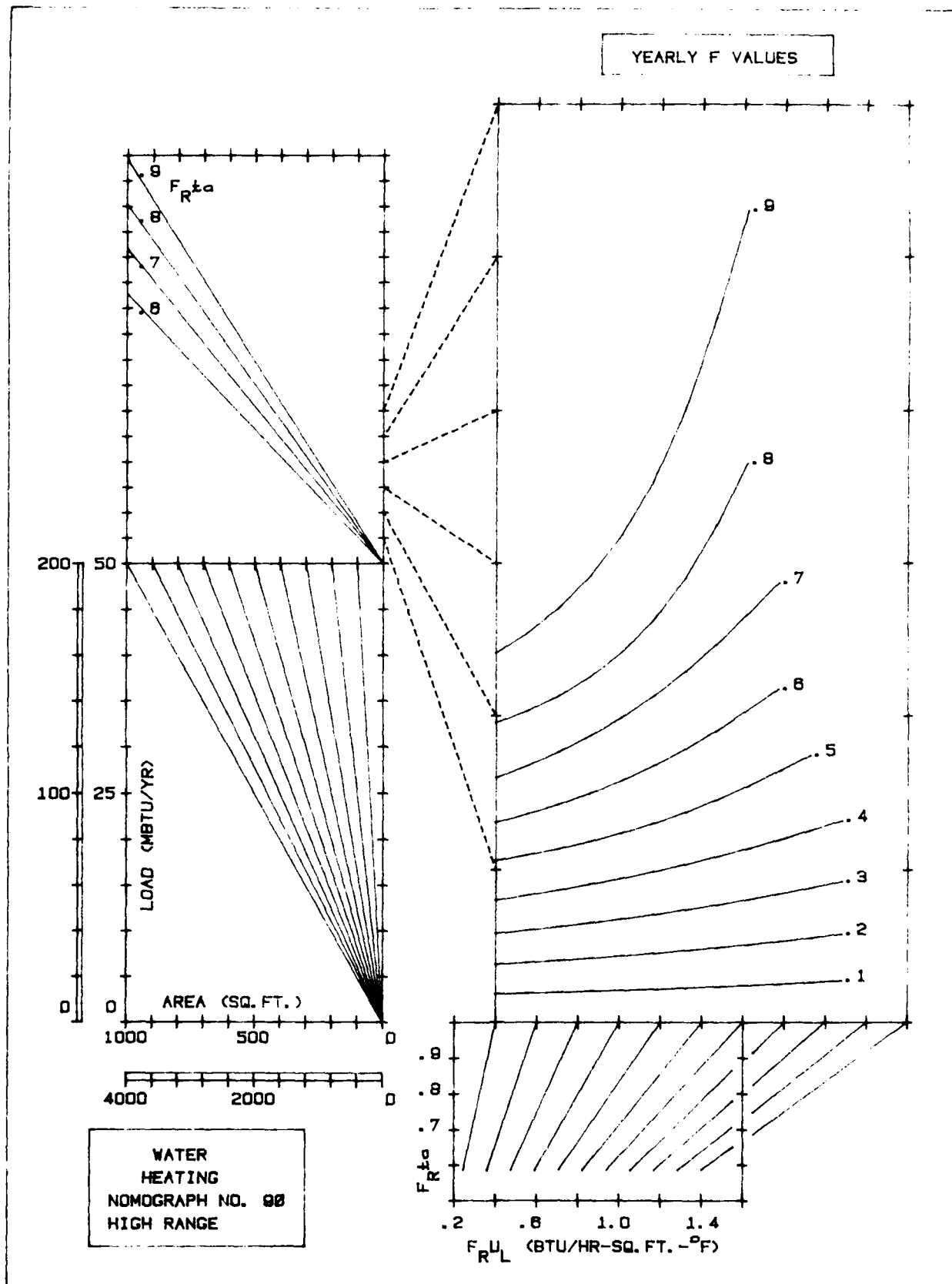
C144





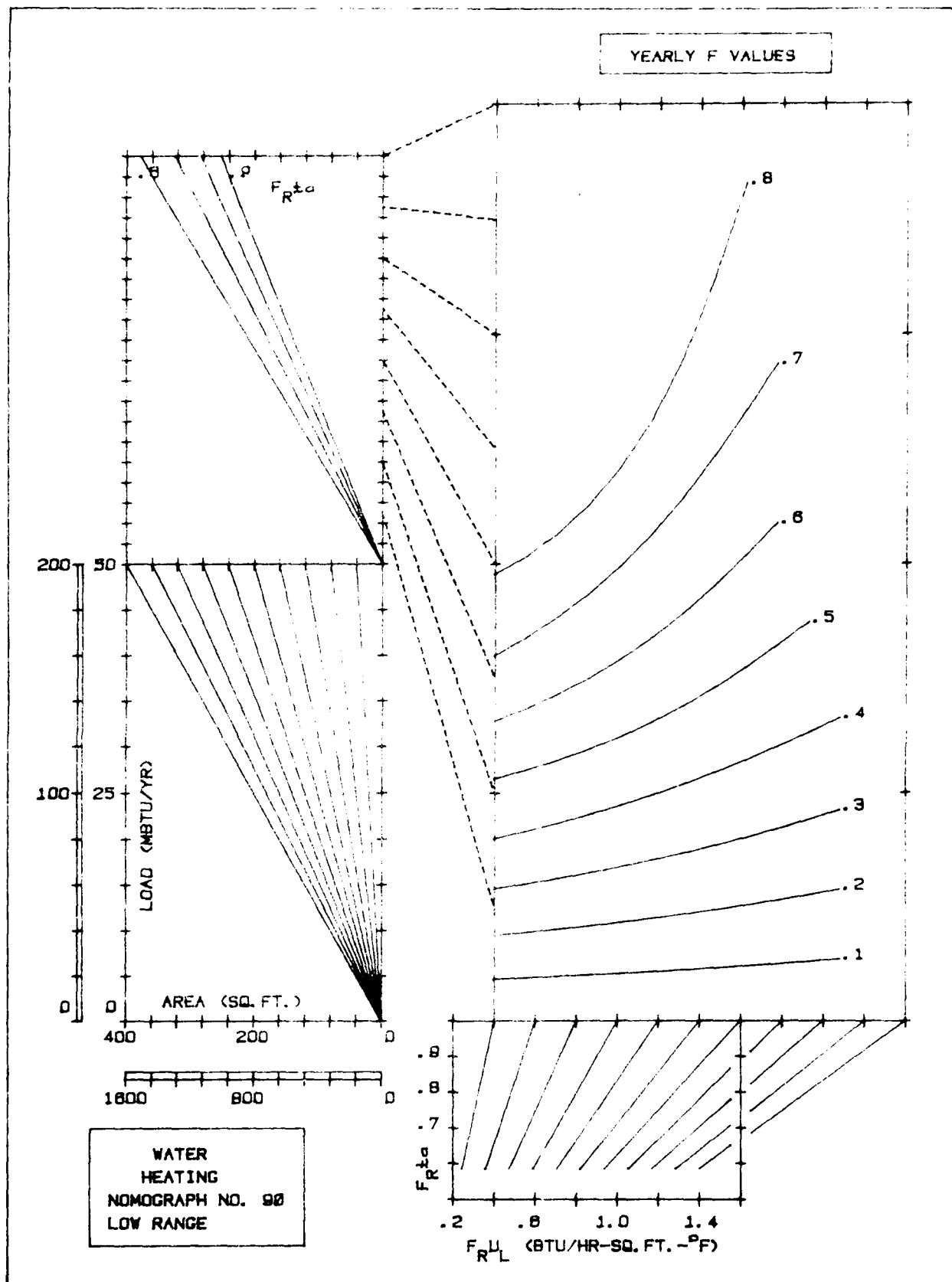
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

(146



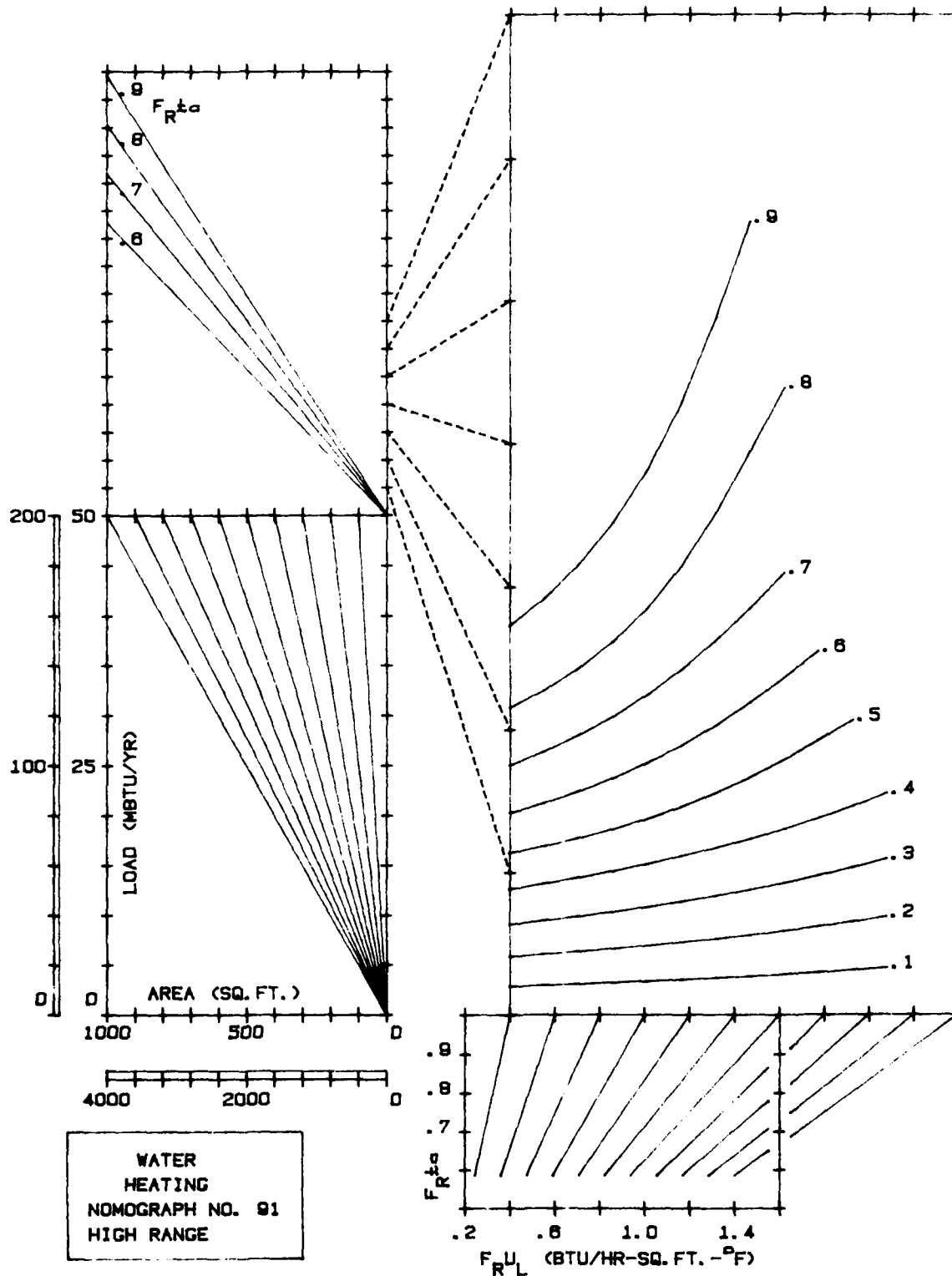
PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C147



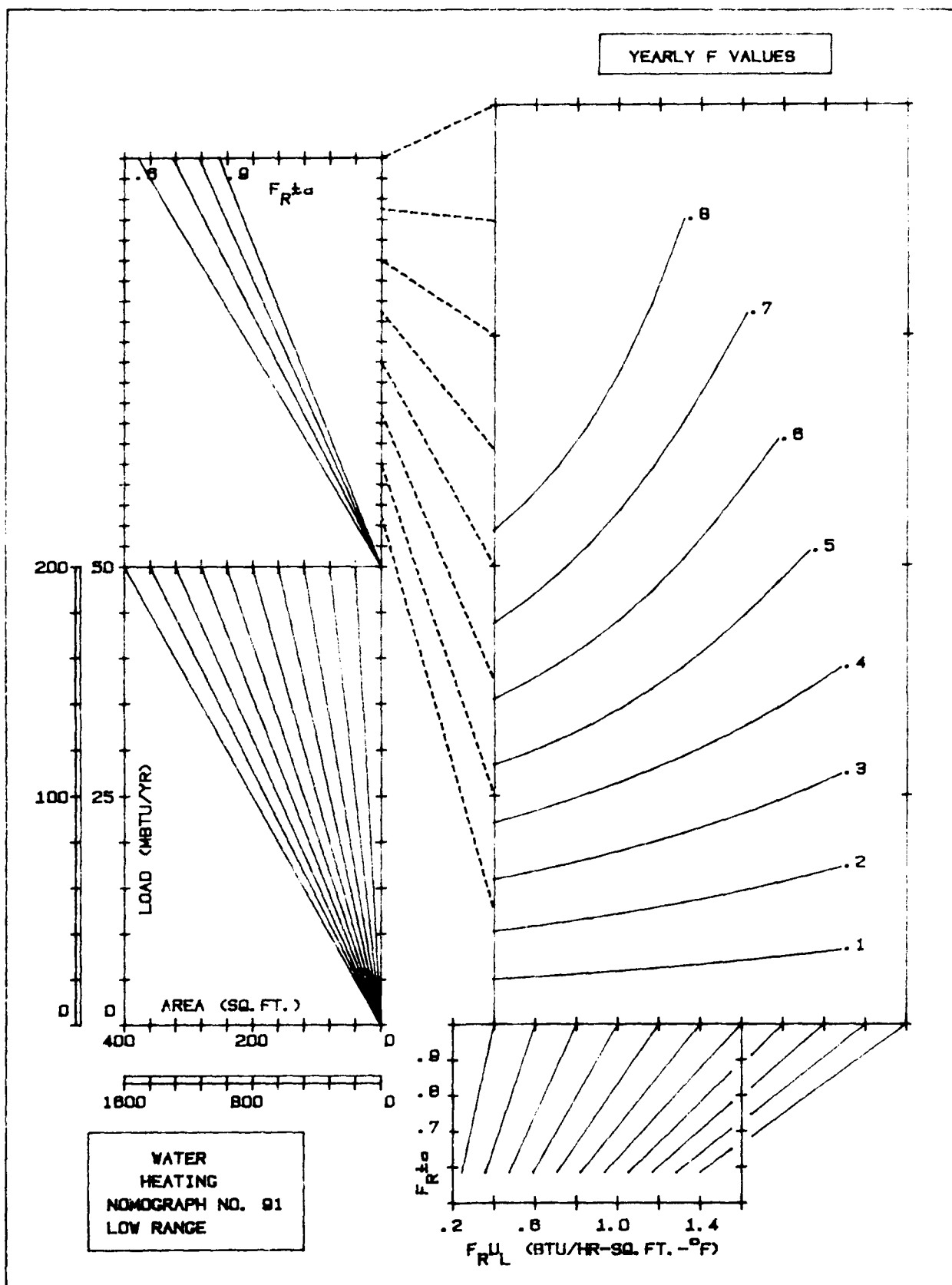
PREPARED 15 JUL 82 FOR AFE9C BY USAFA/DFMS

YEARLY F VALUES

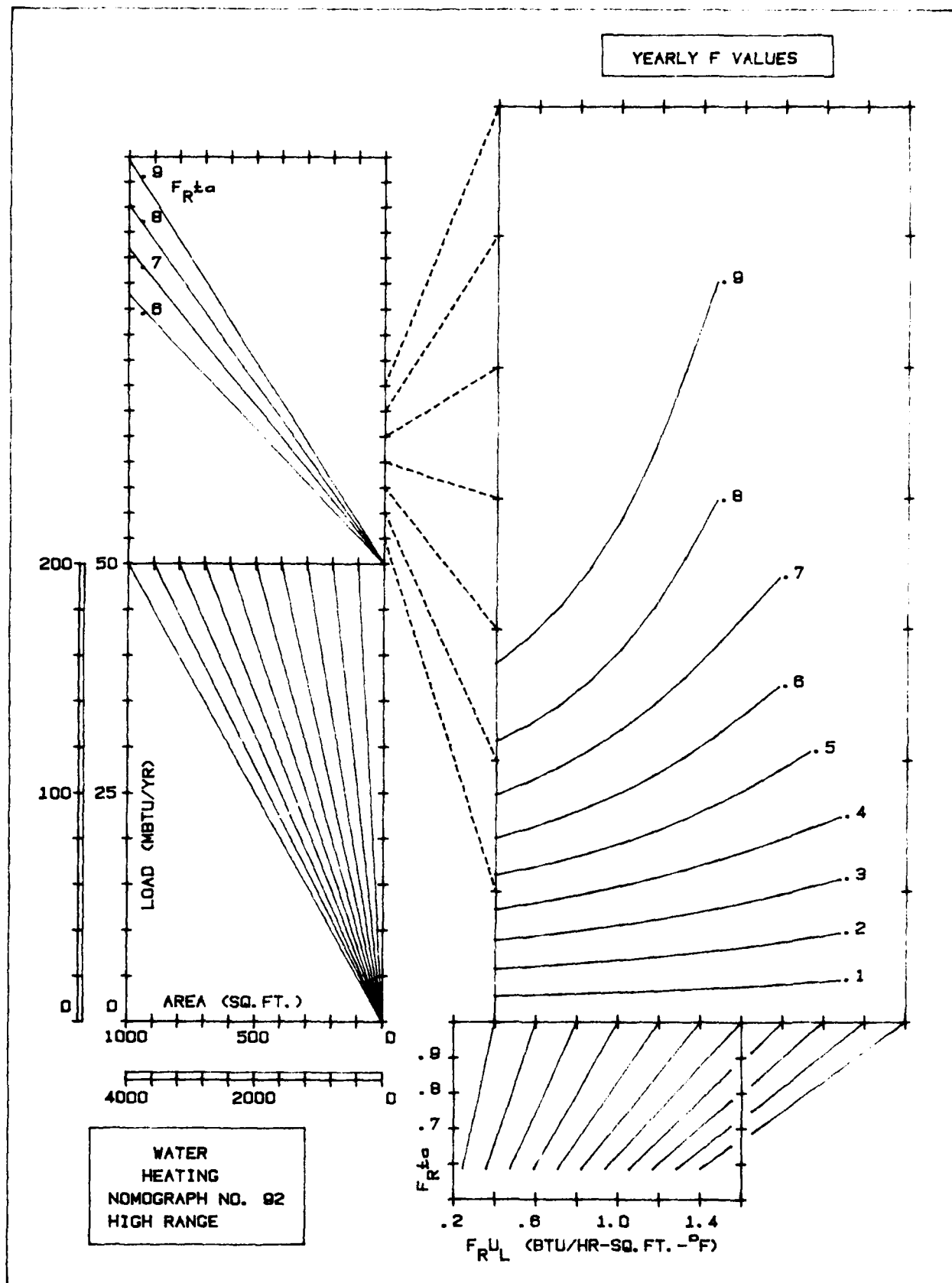


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C149

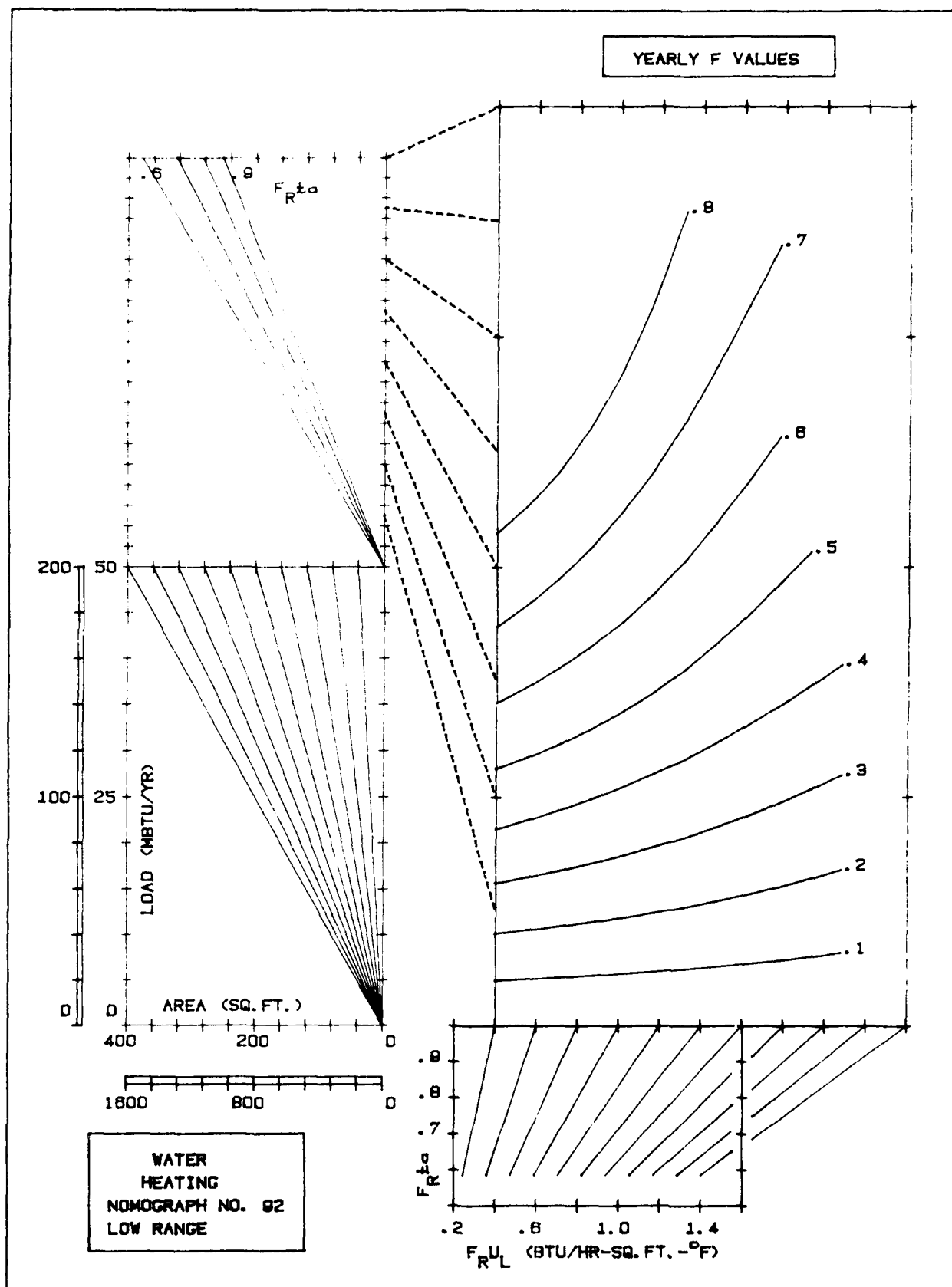


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

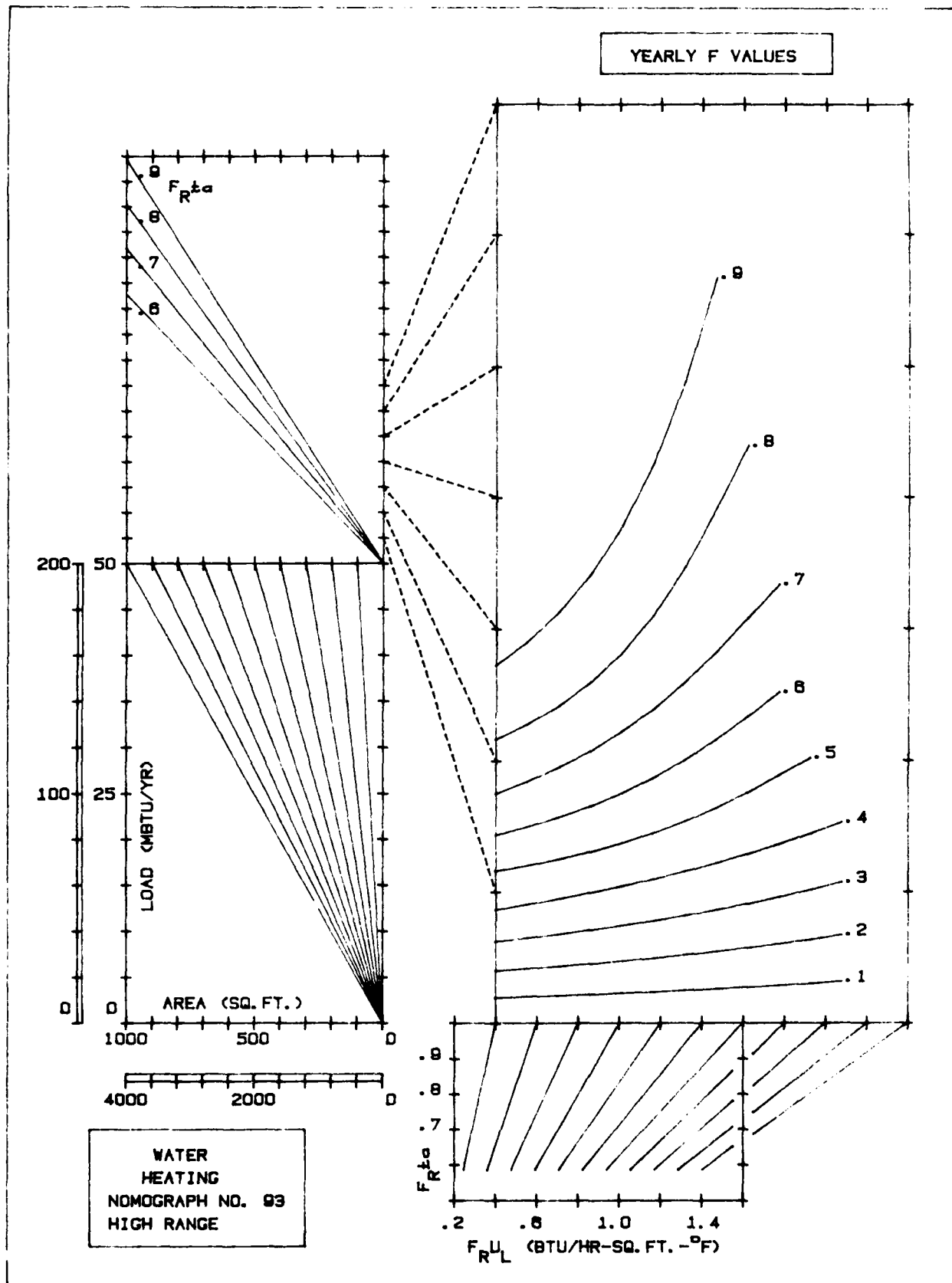


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

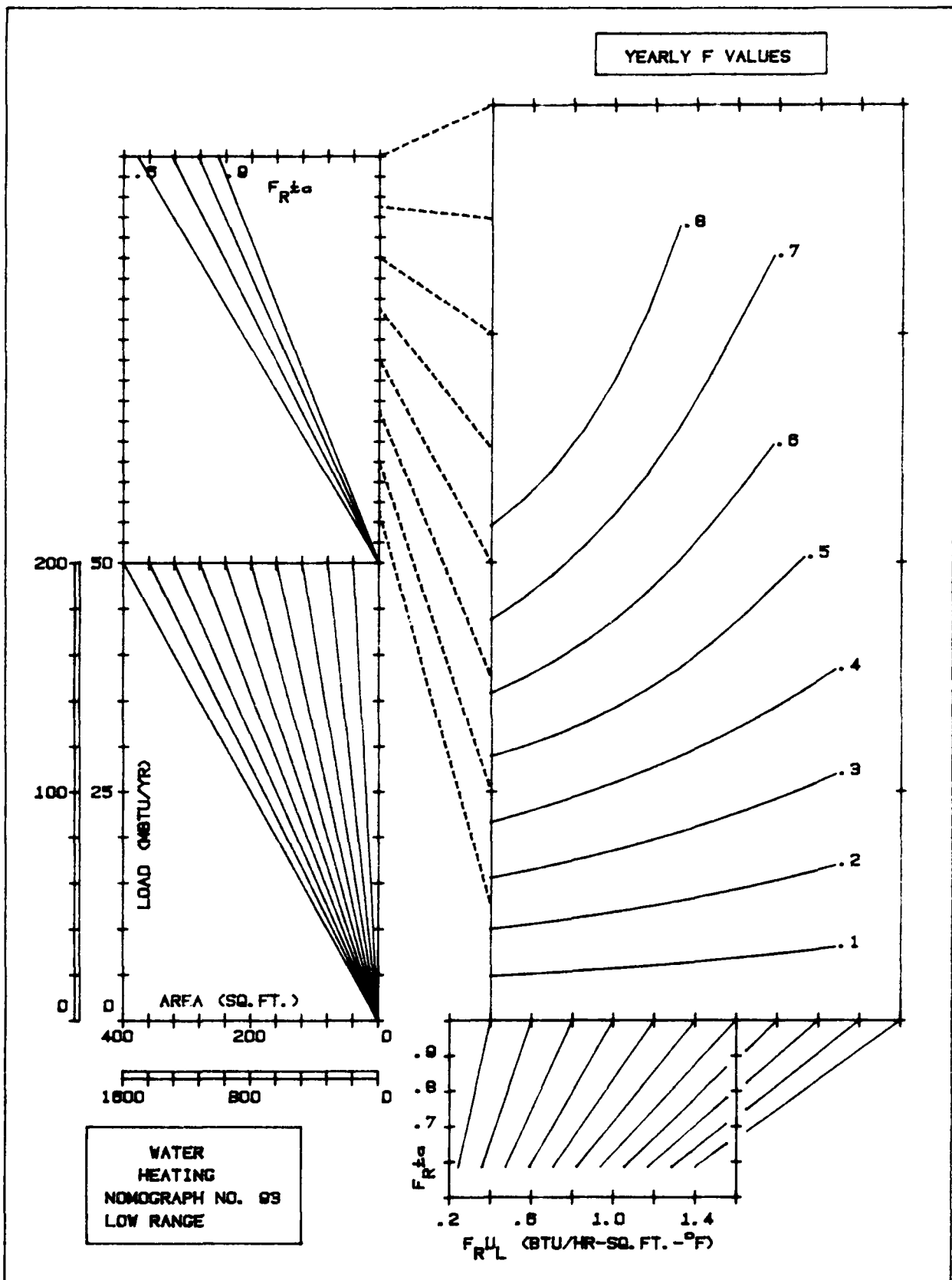
C151



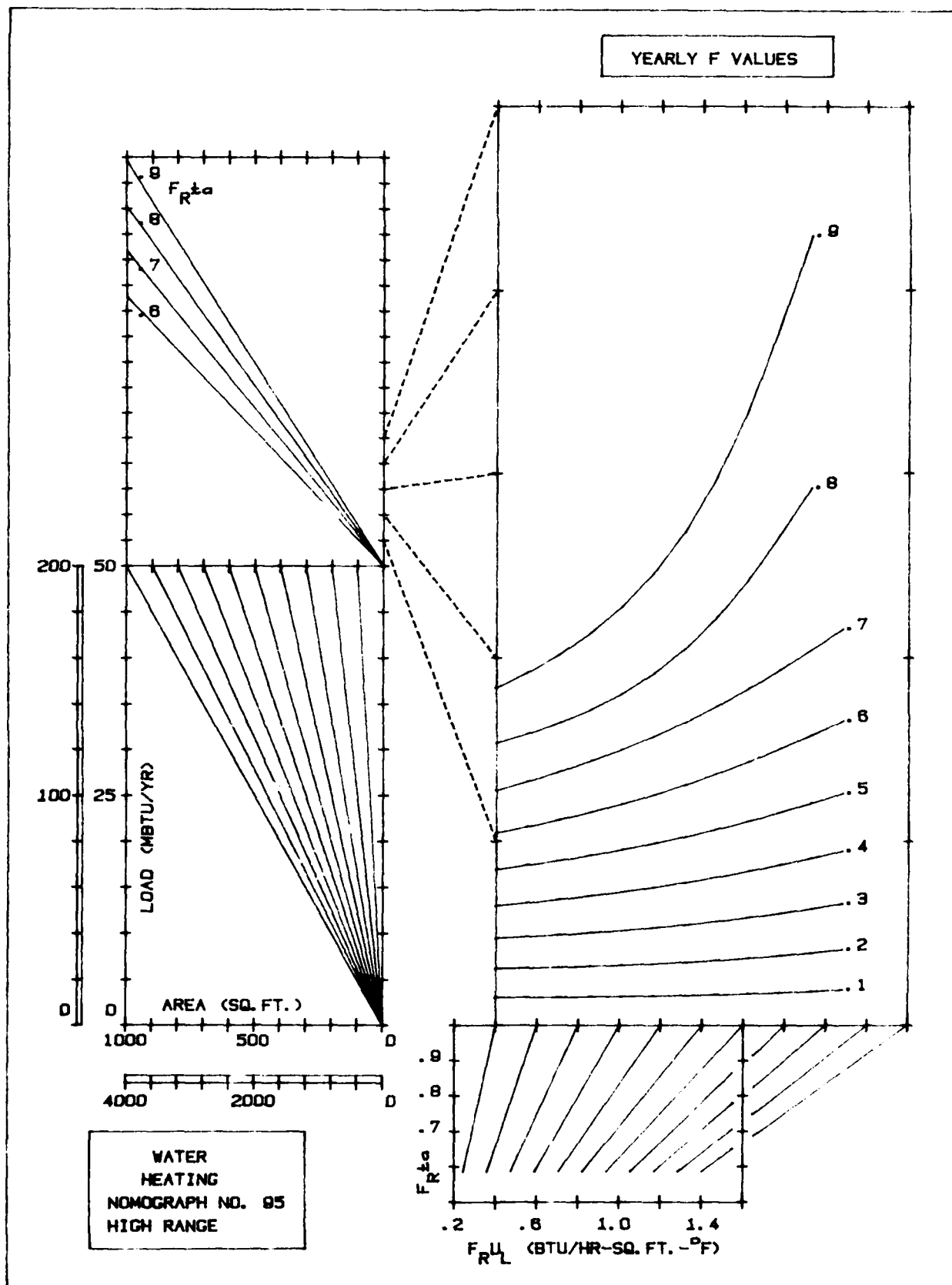
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

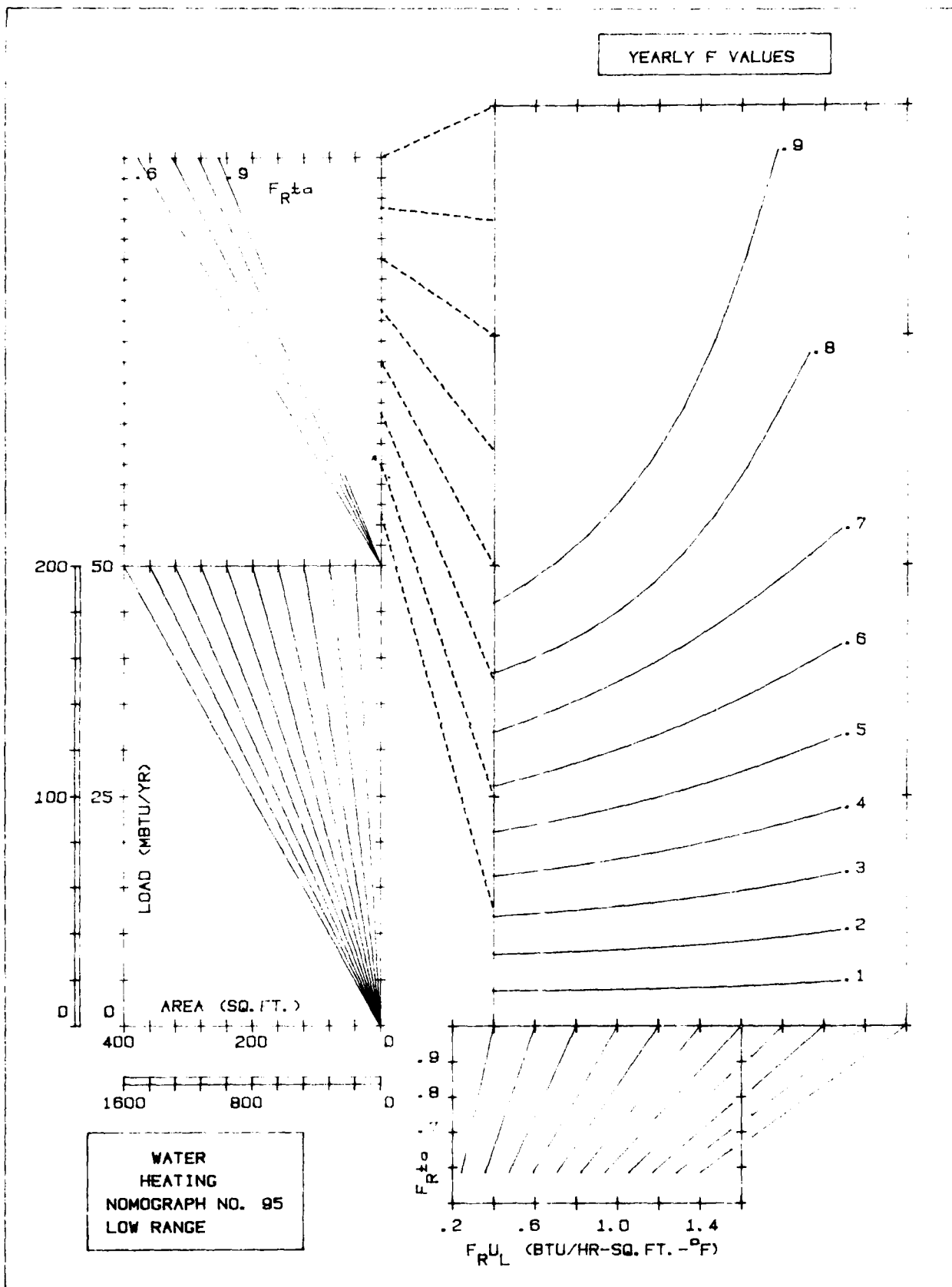


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



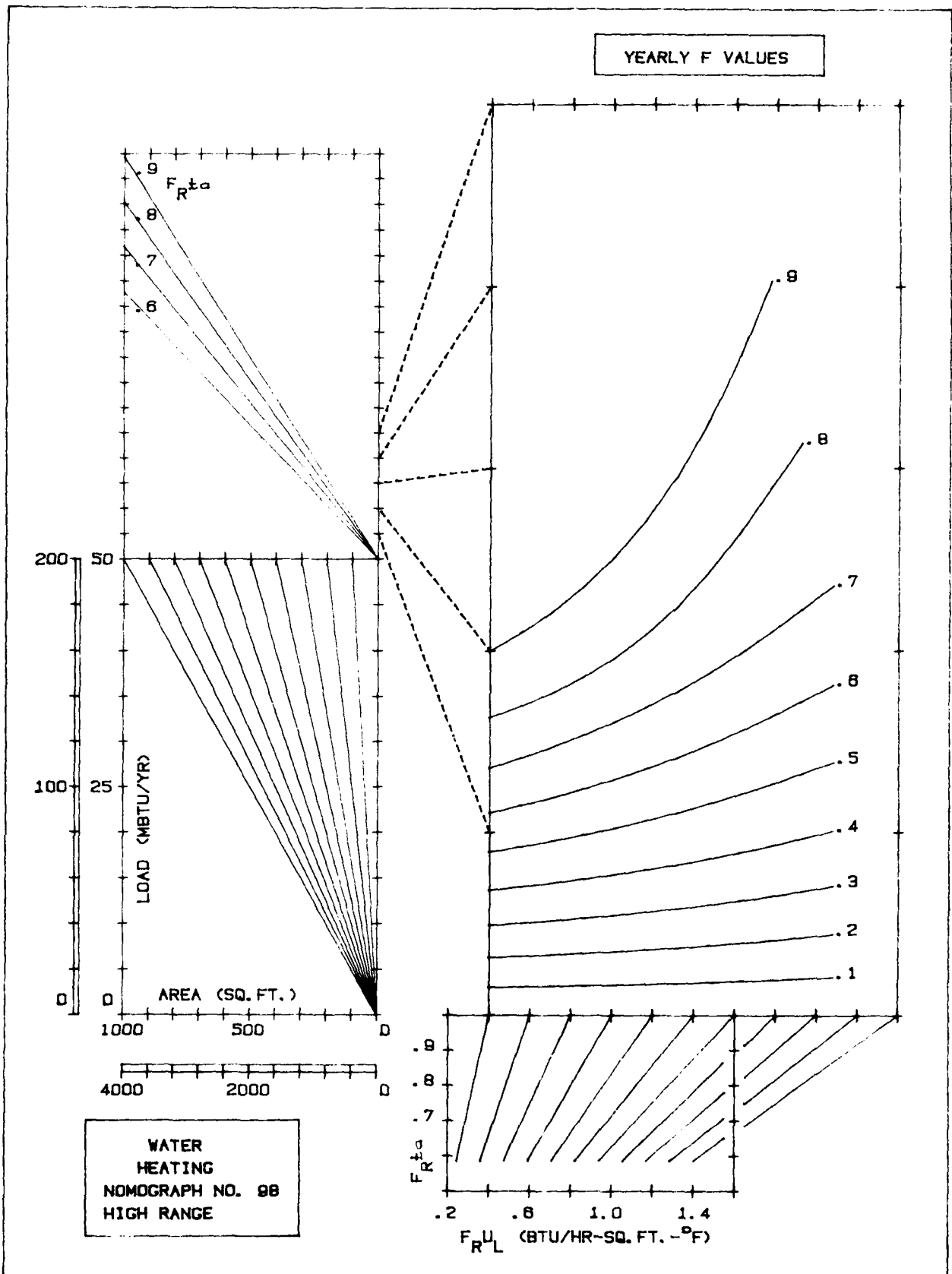
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C155



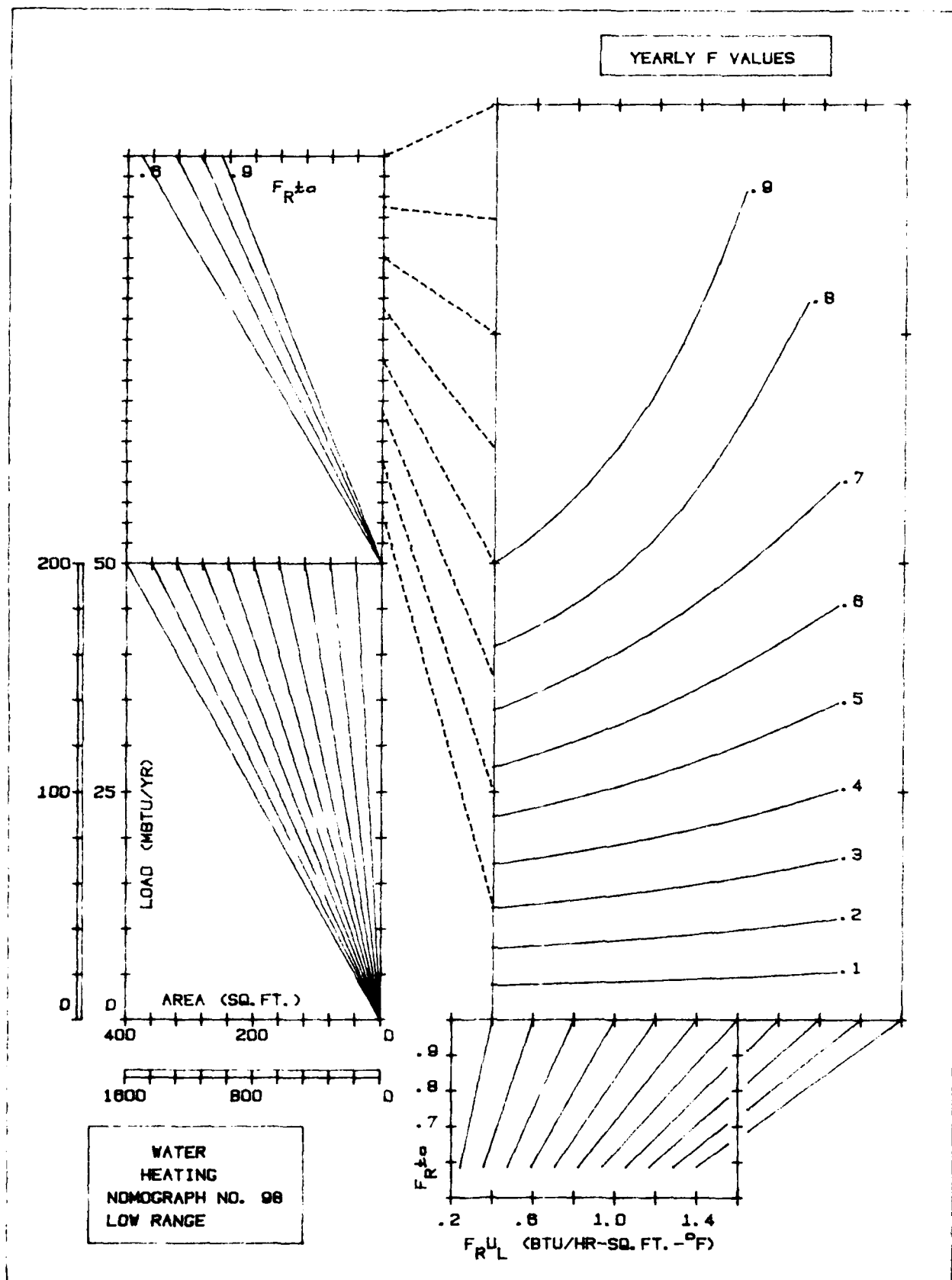
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C156

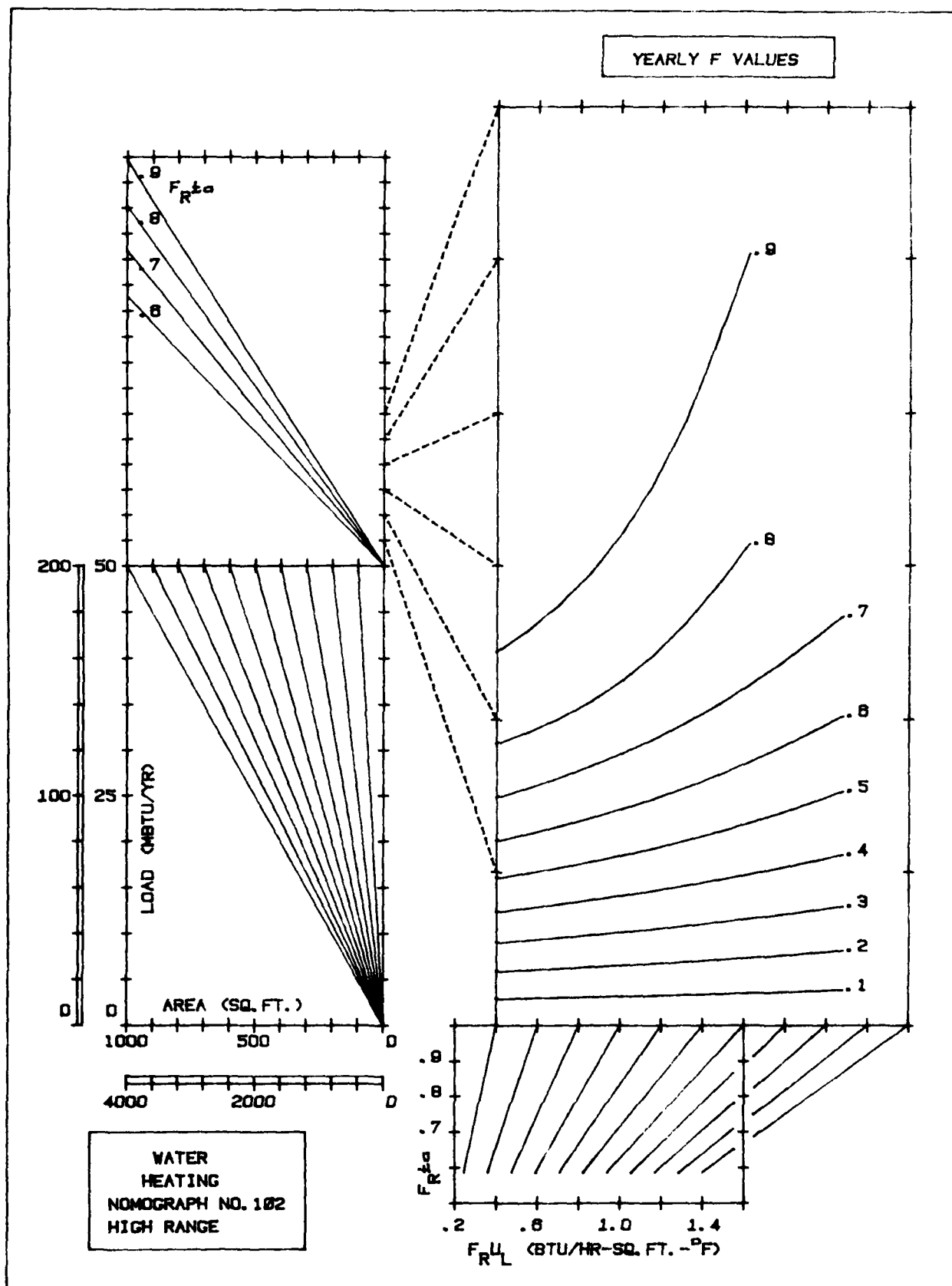


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

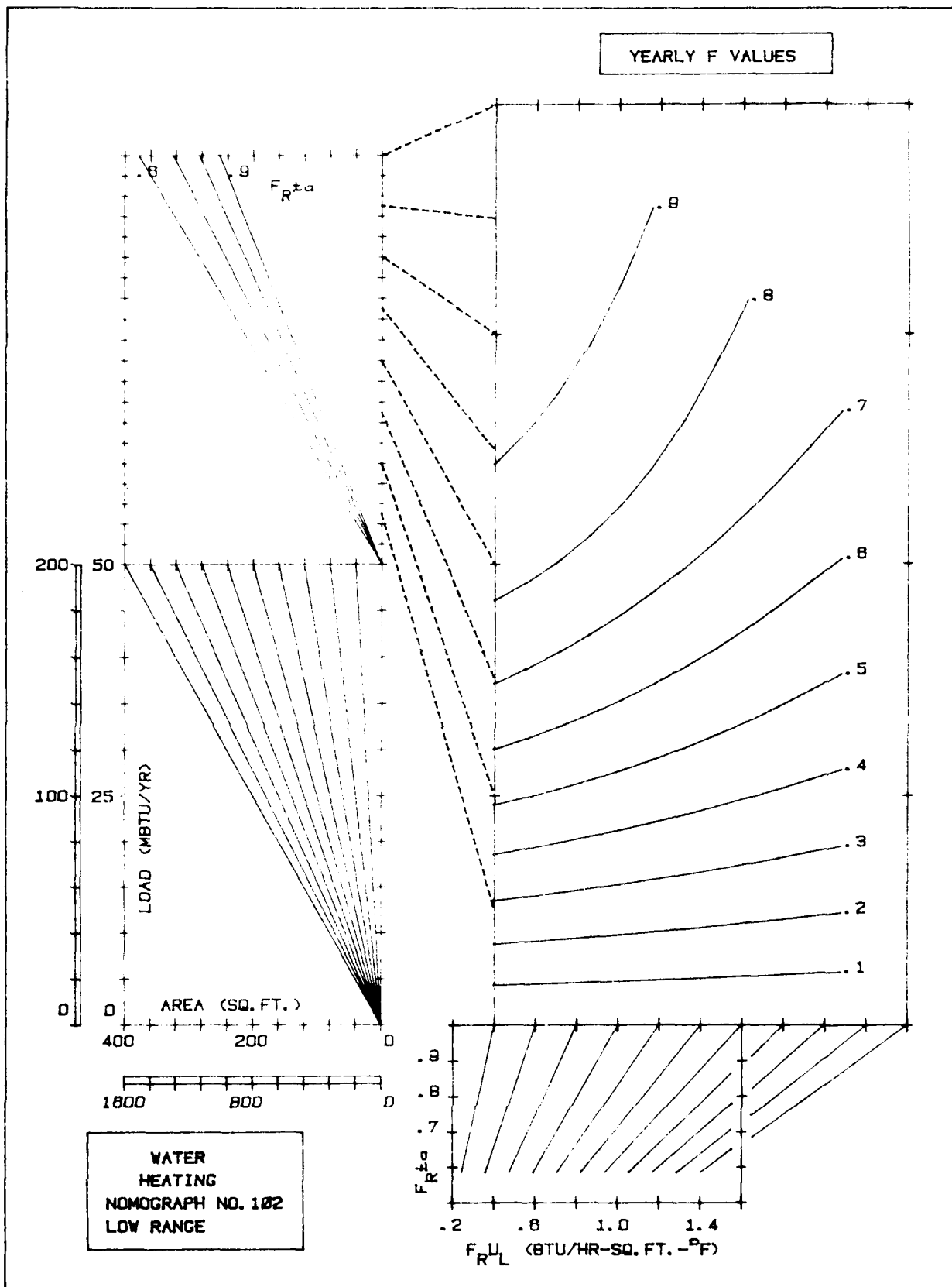
C157



PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

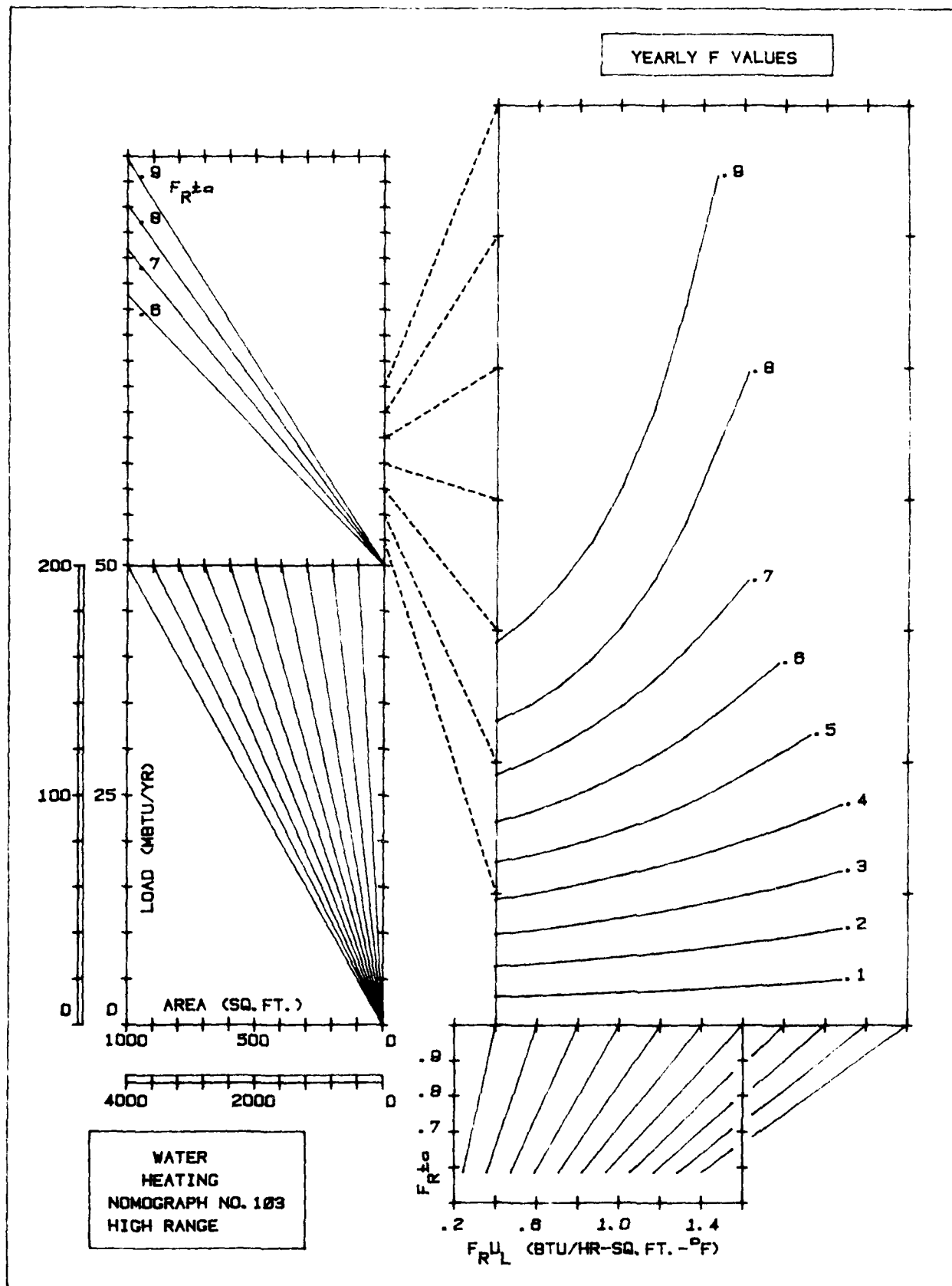


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS



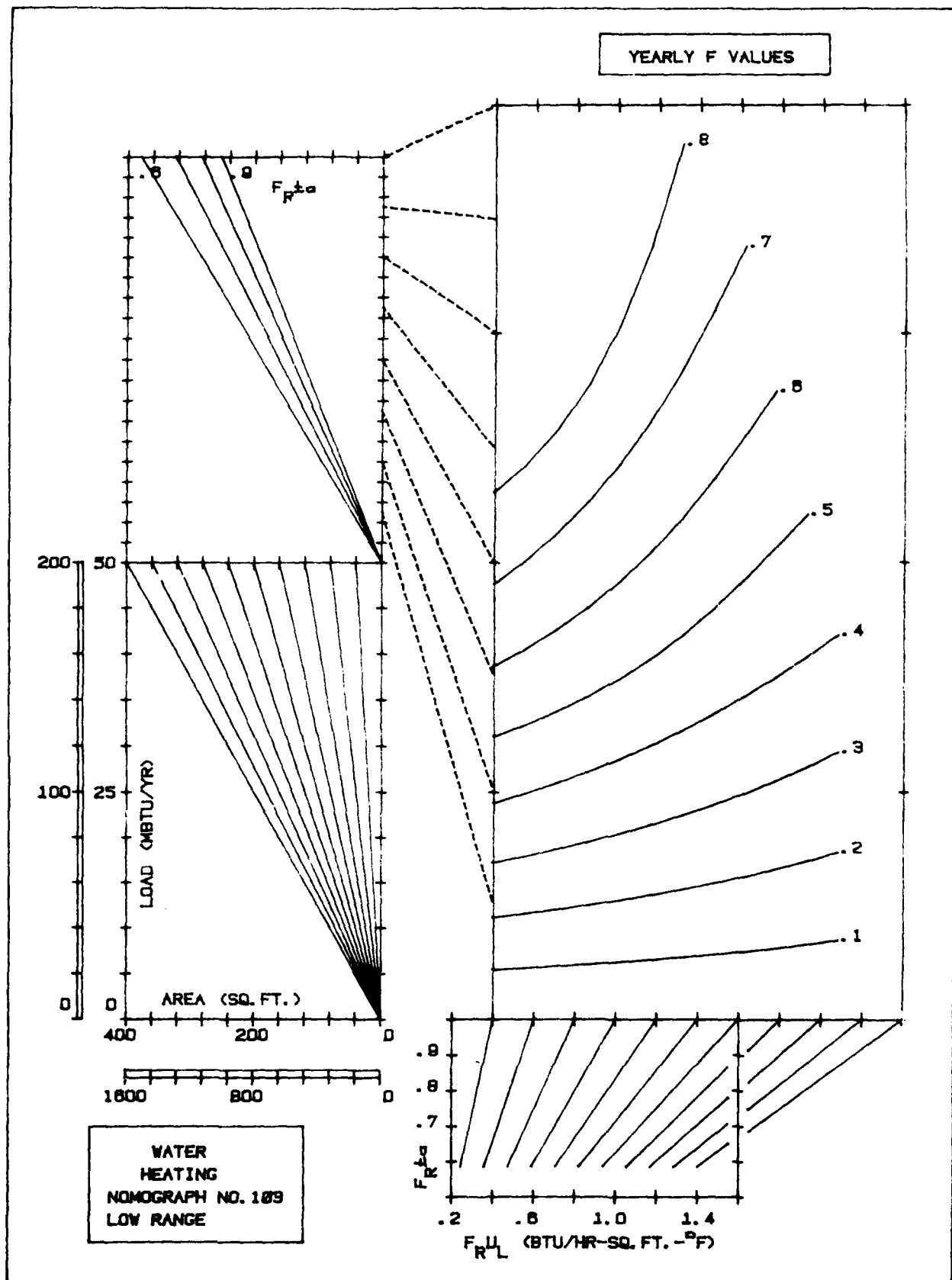
PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

C160



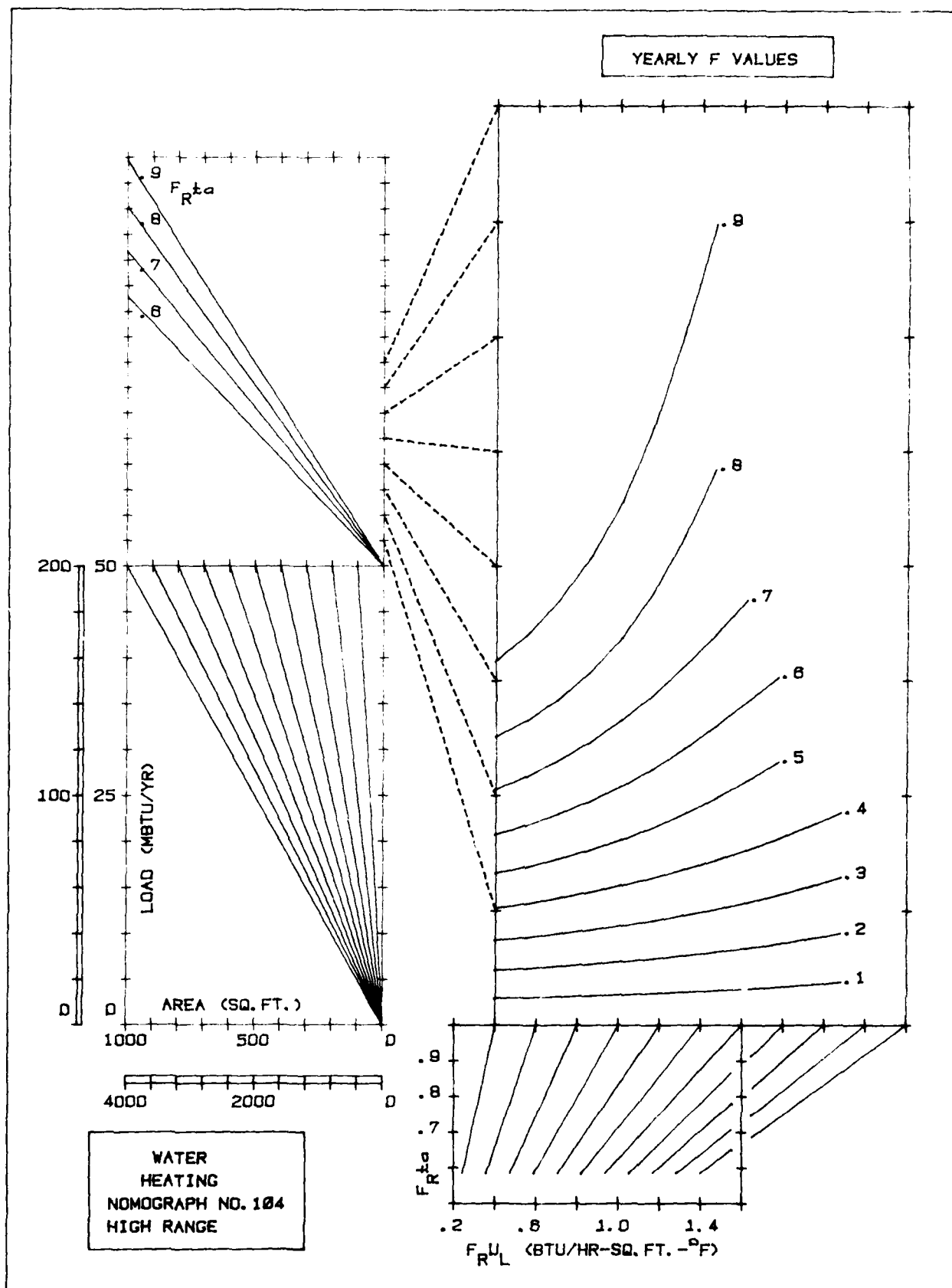
PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

C161

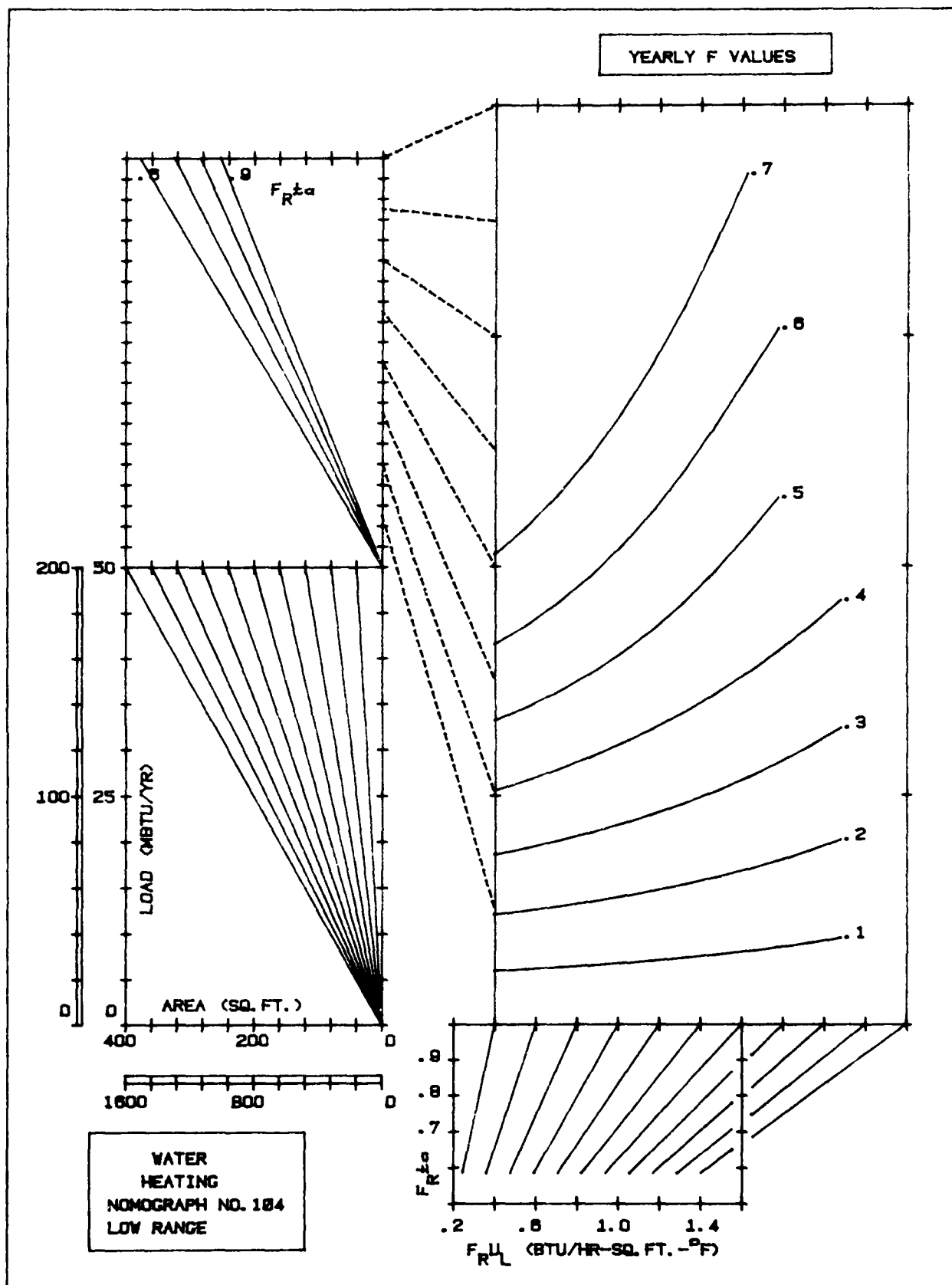


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS

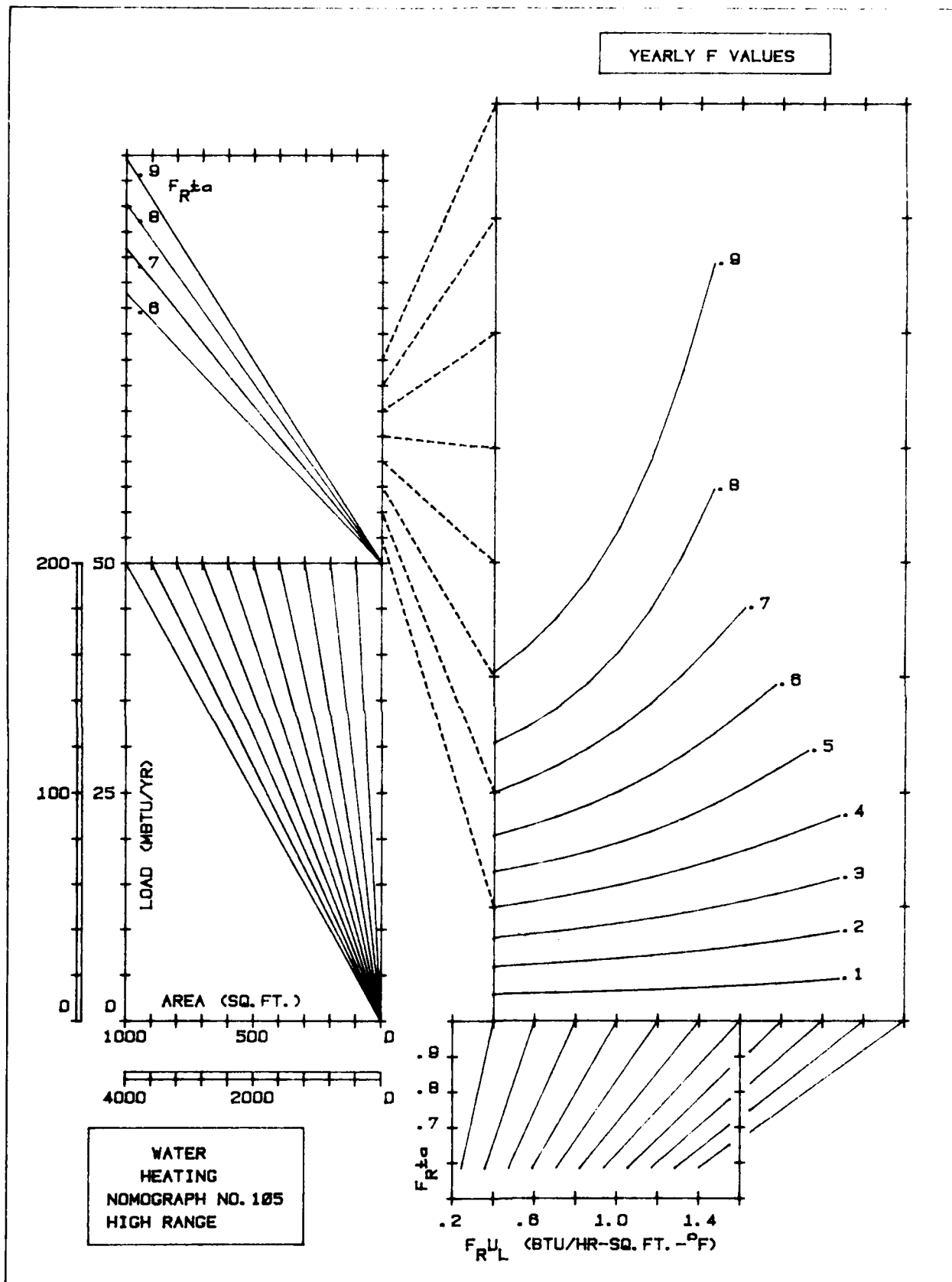
C162



PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

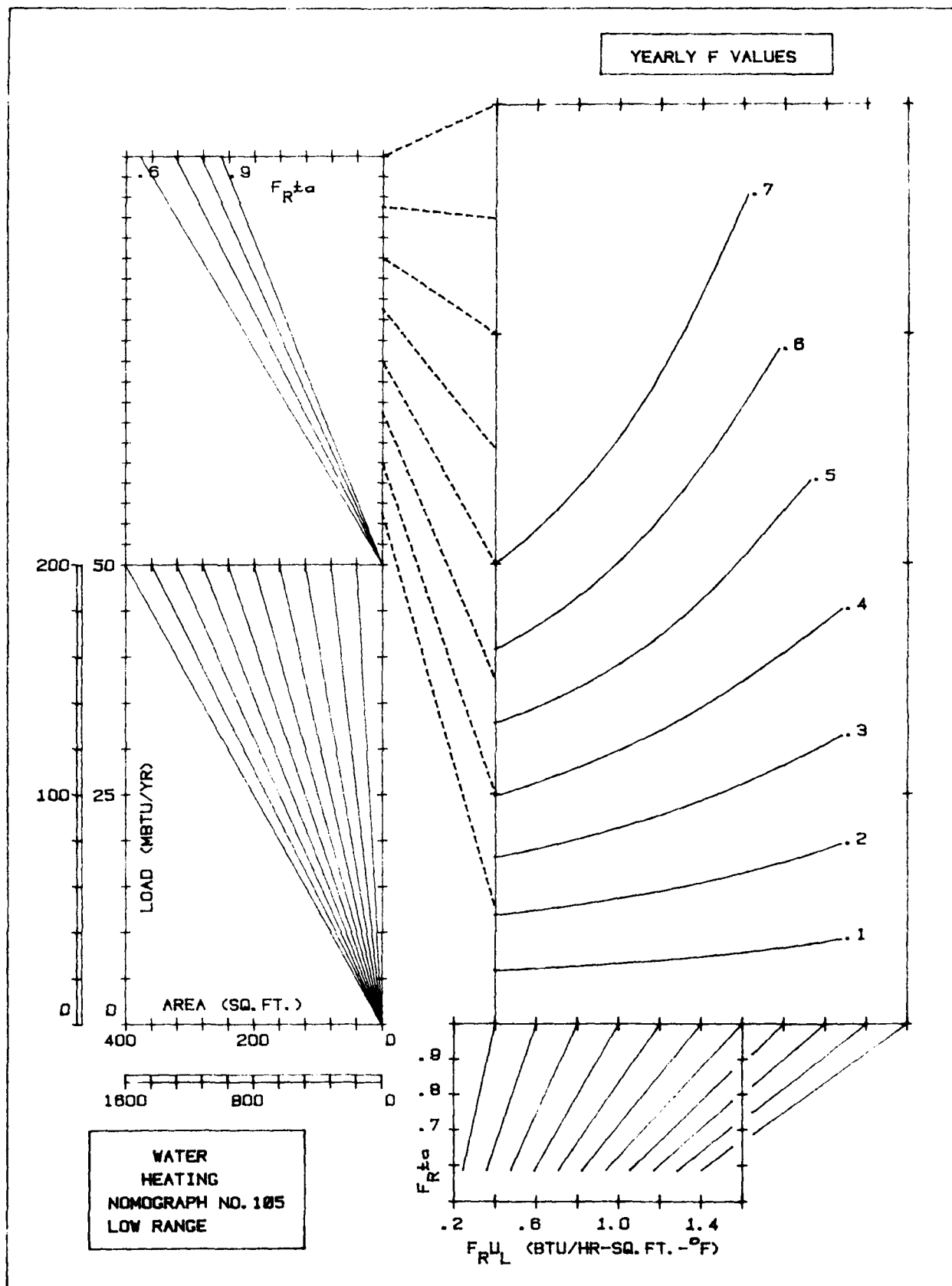


PREPARED 15 JUL 82 FOR AFESC BY USAFA/DFMS



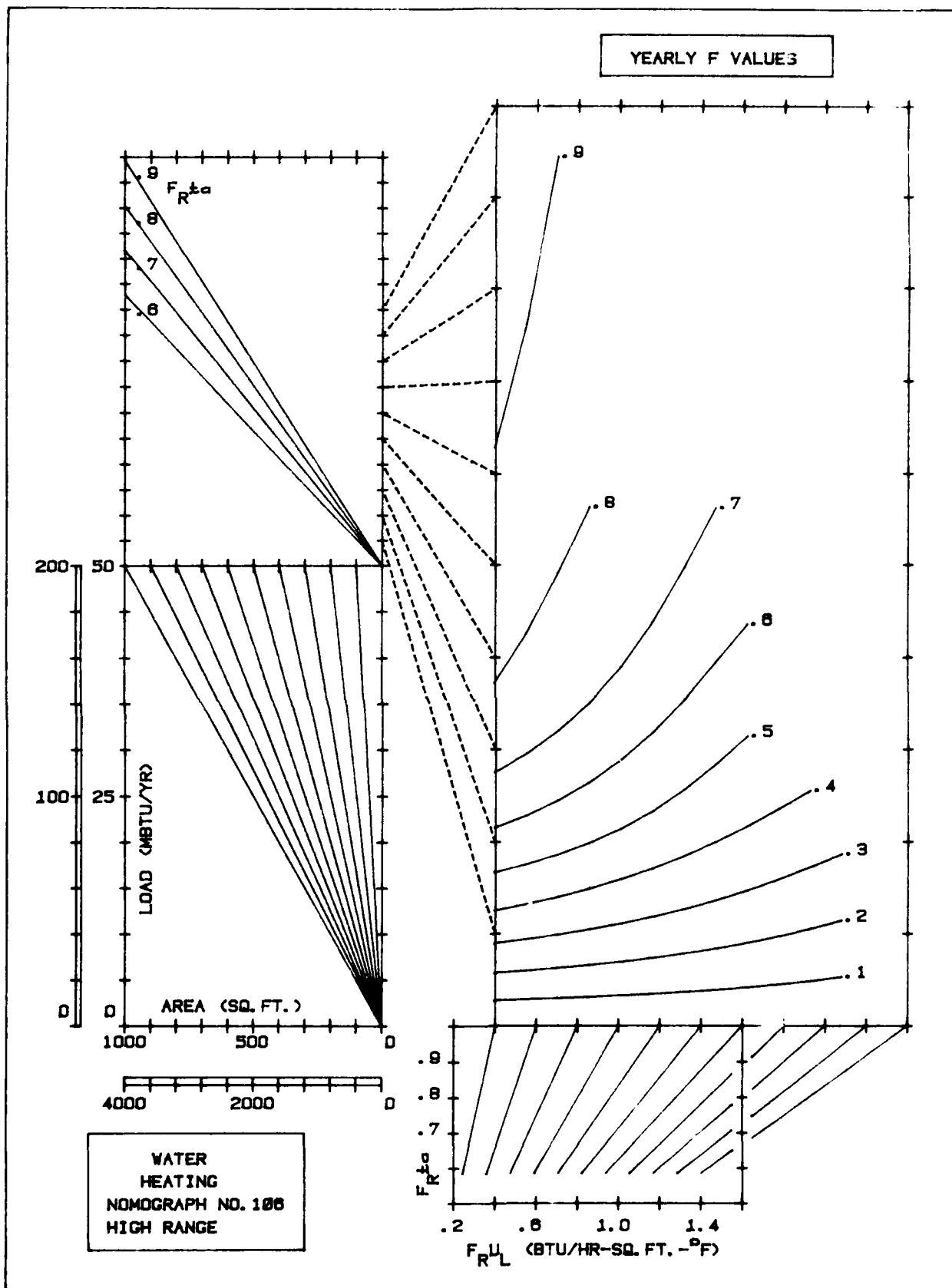
PREPARED 20 JUN 82 FOR AFESC BY USAFA/DFMS

C165



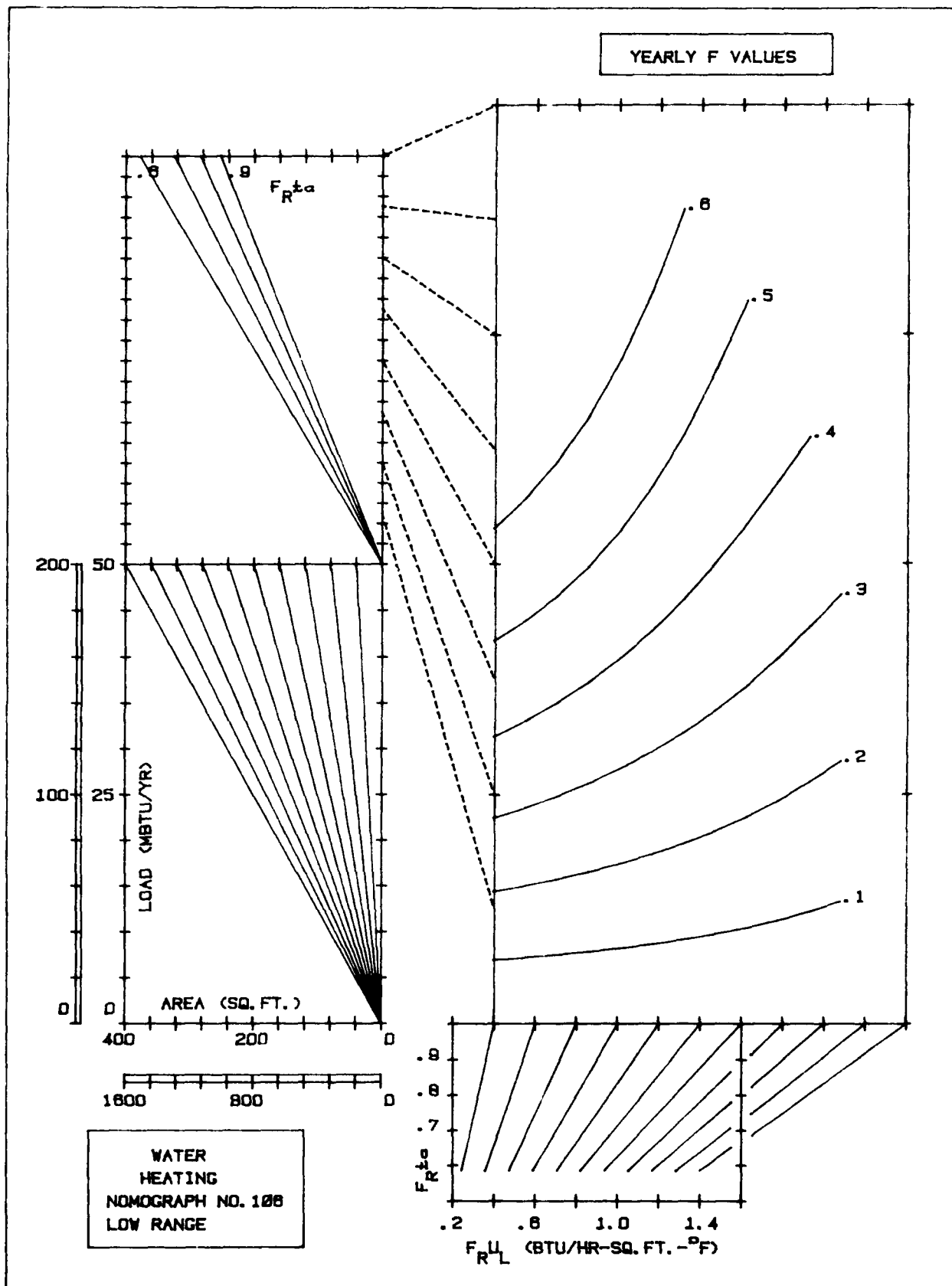
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C166

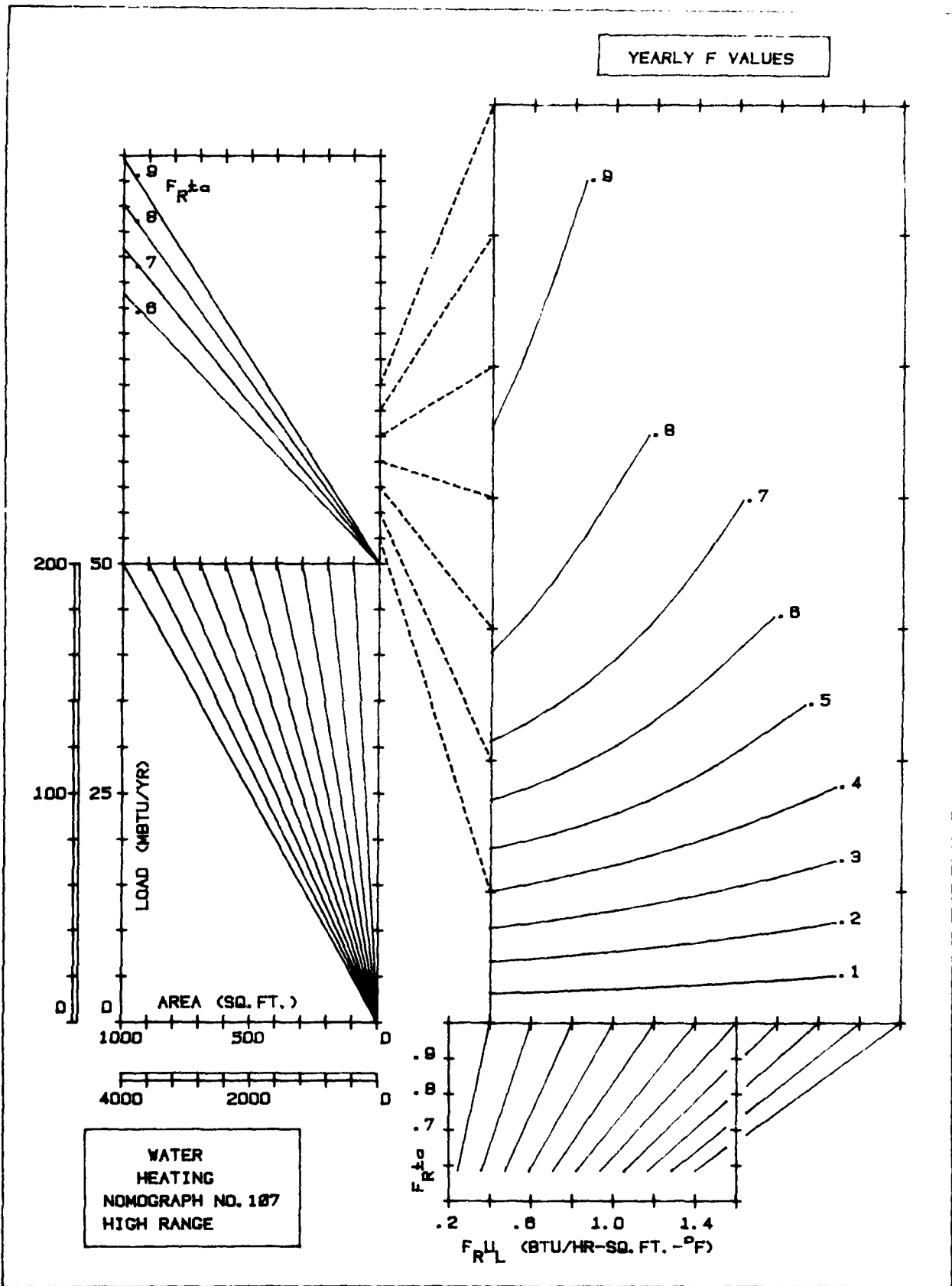


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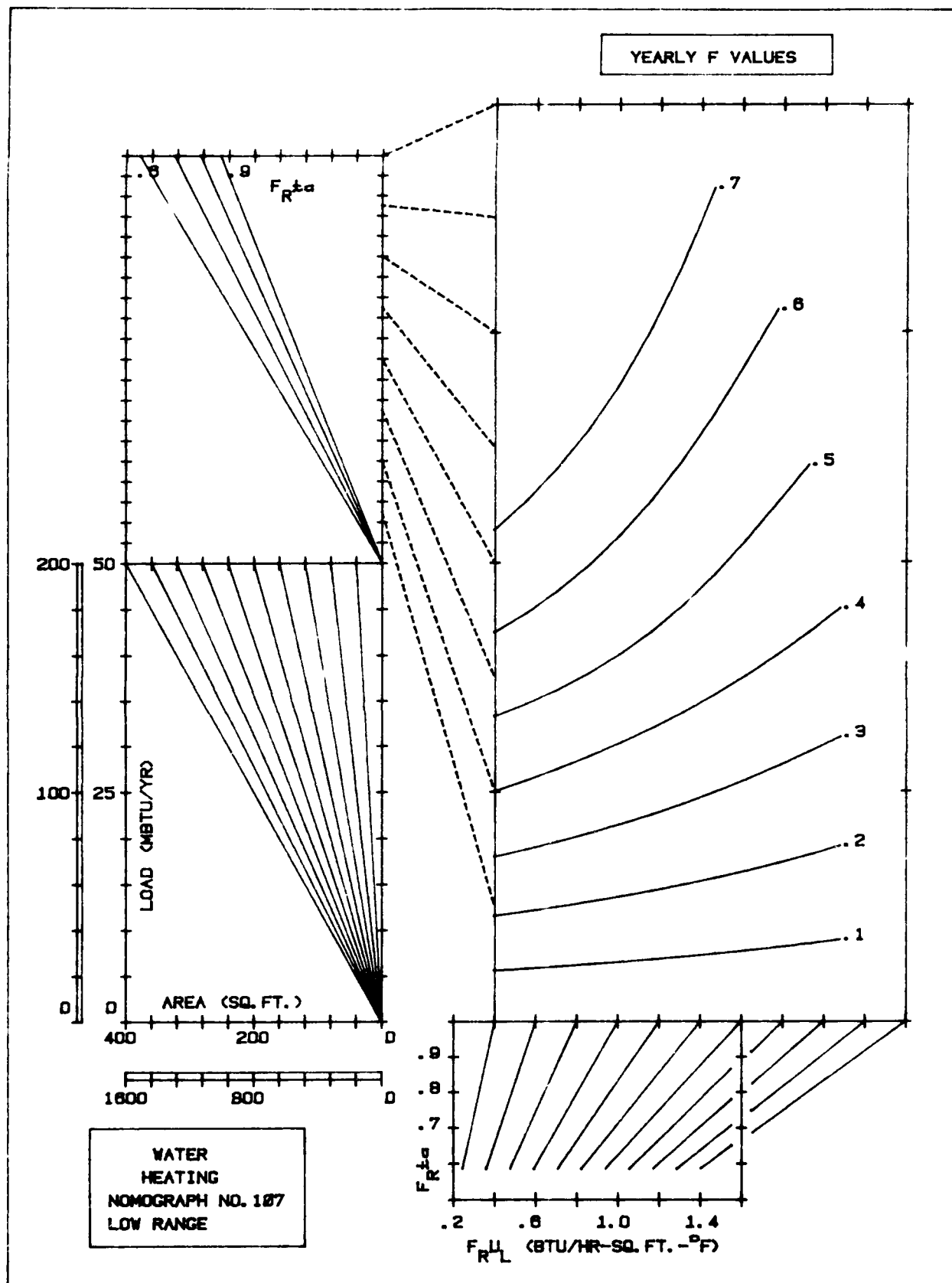
C167



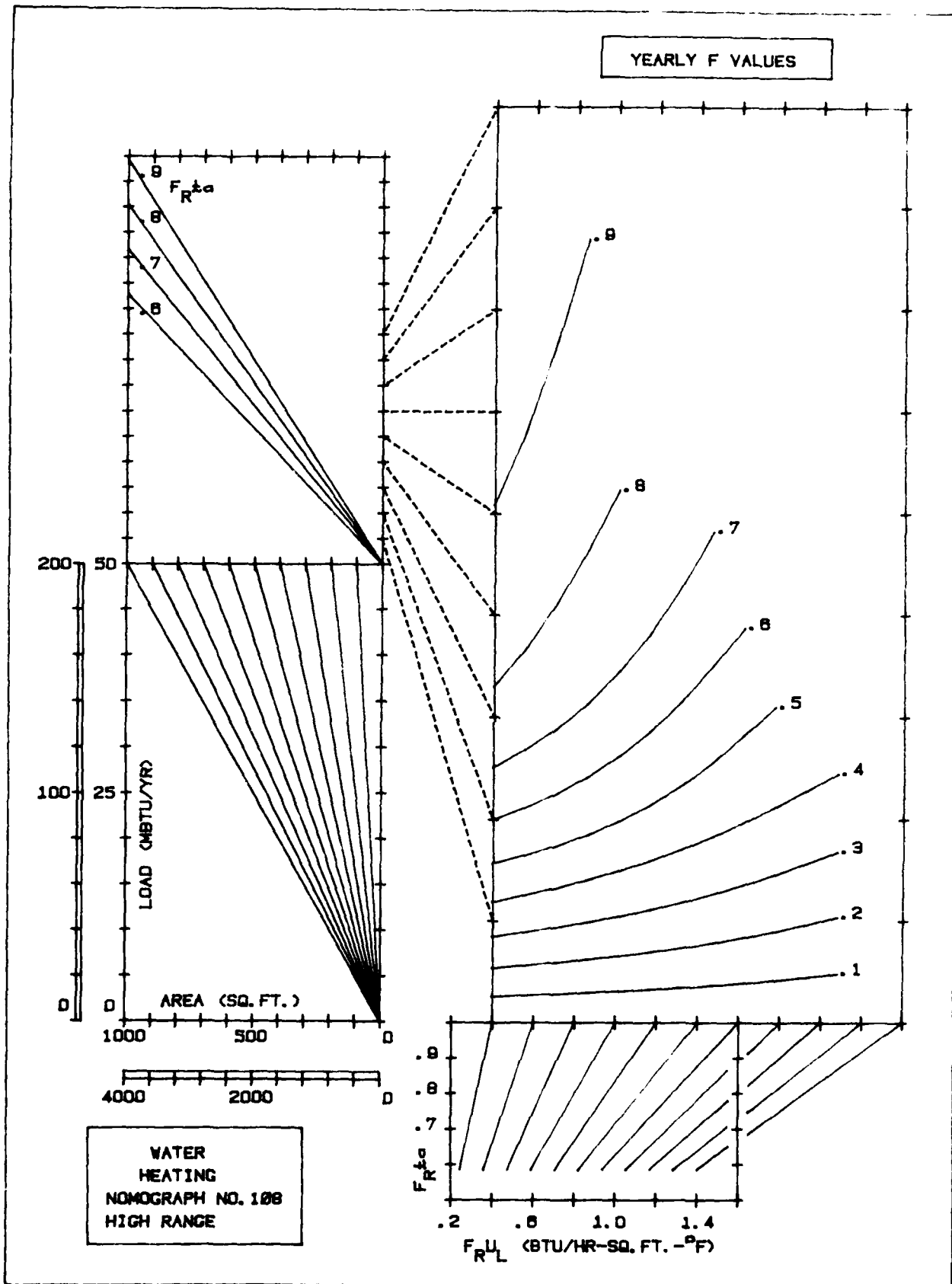
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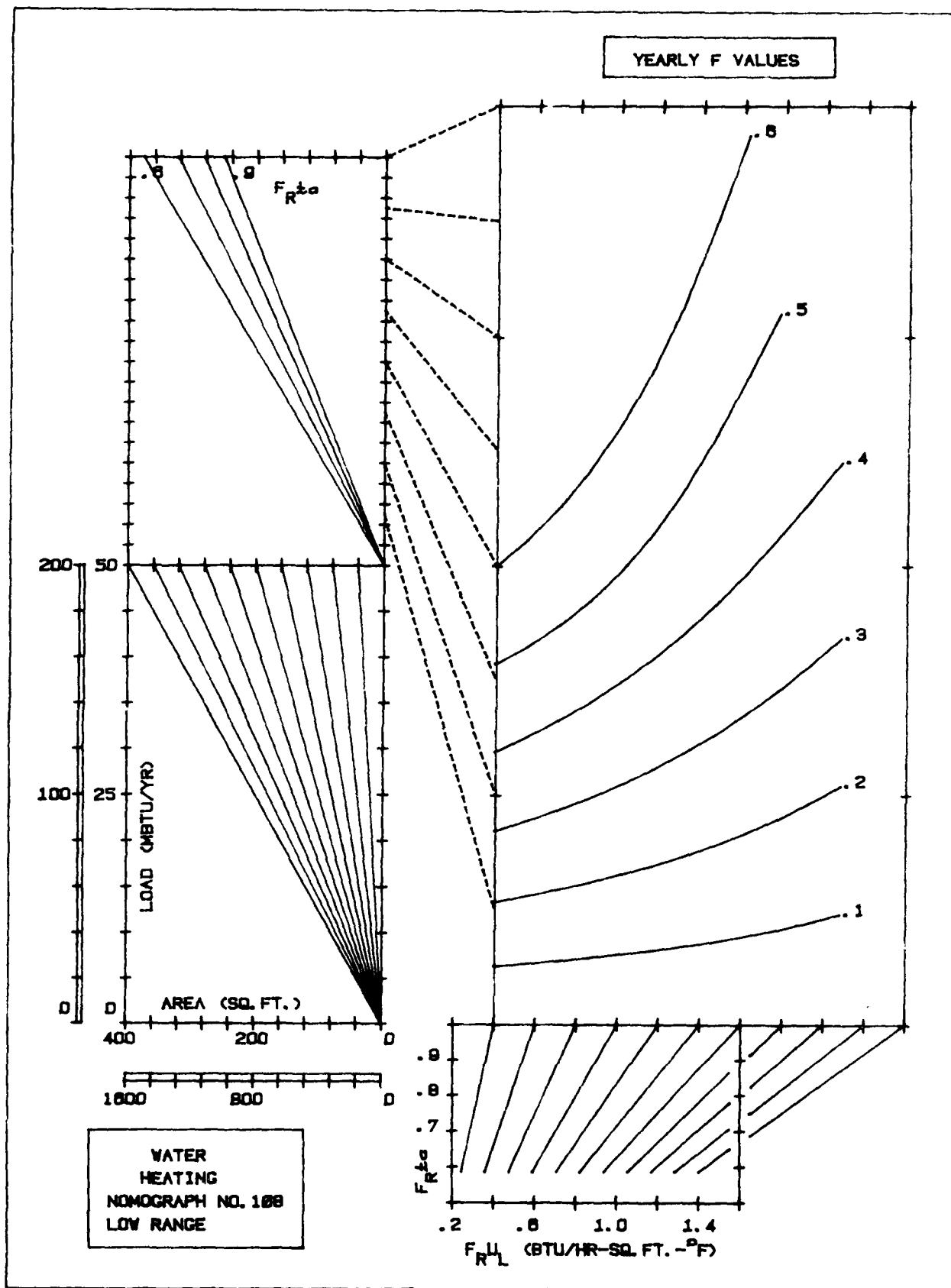
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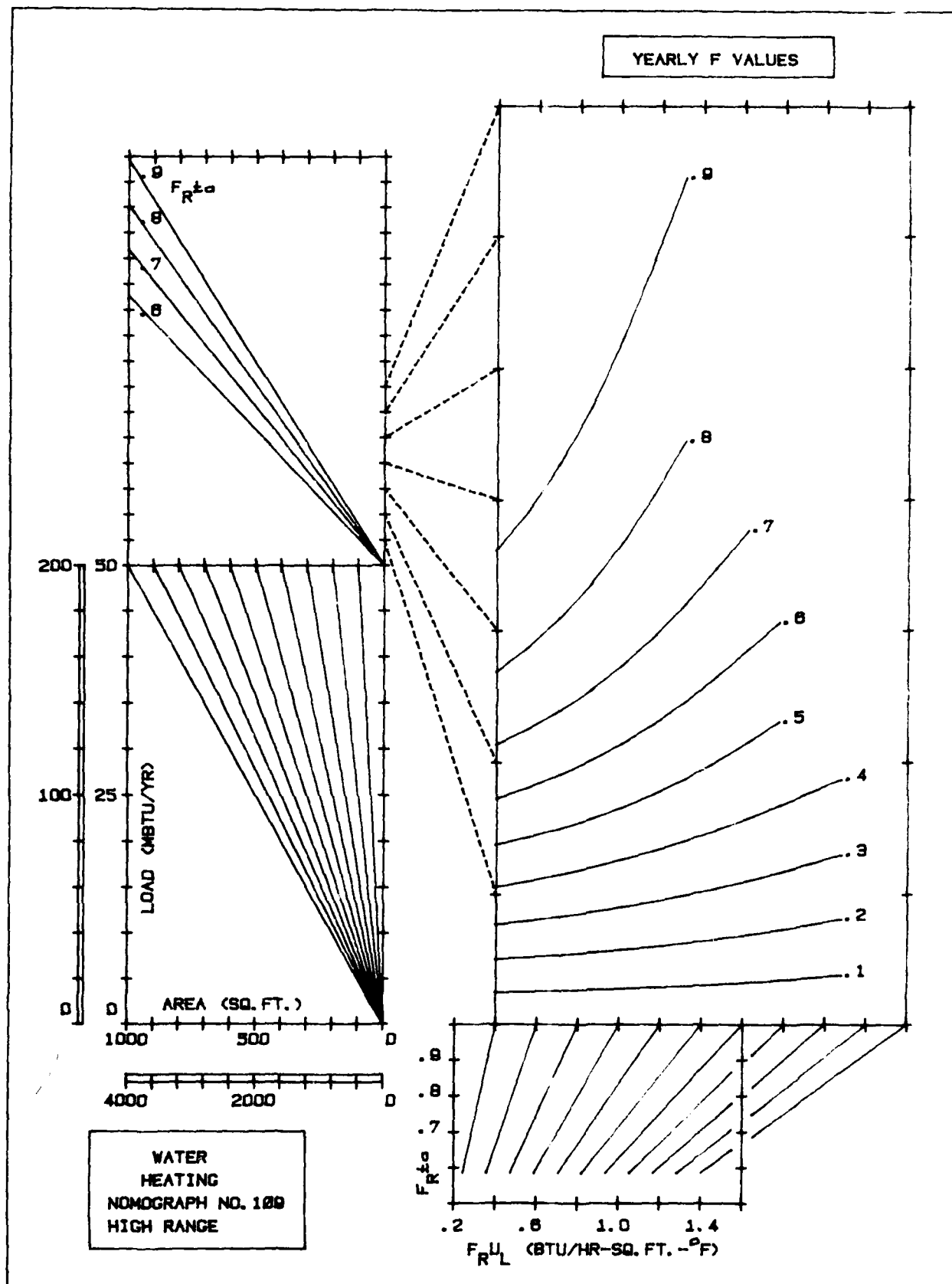
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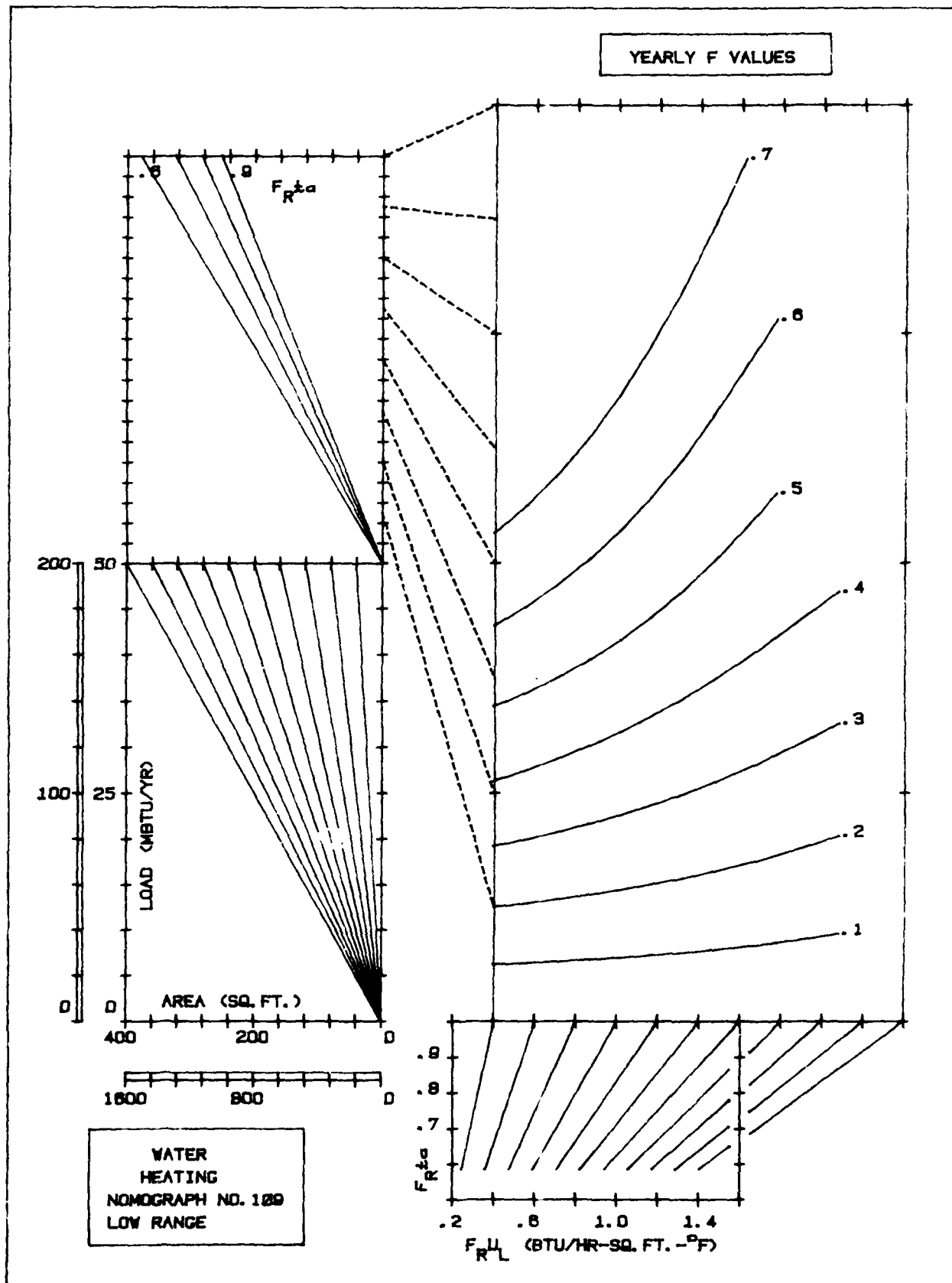
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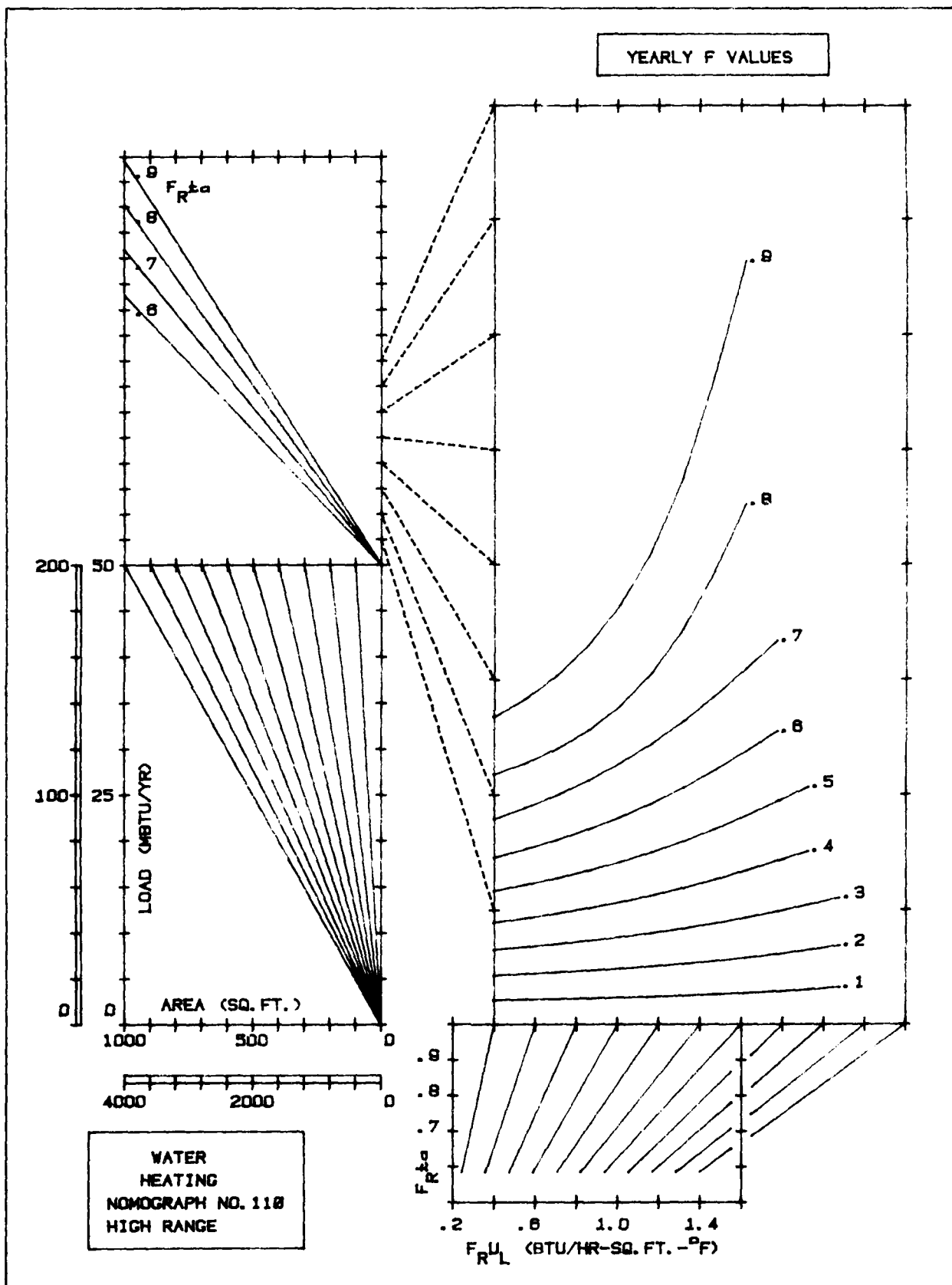


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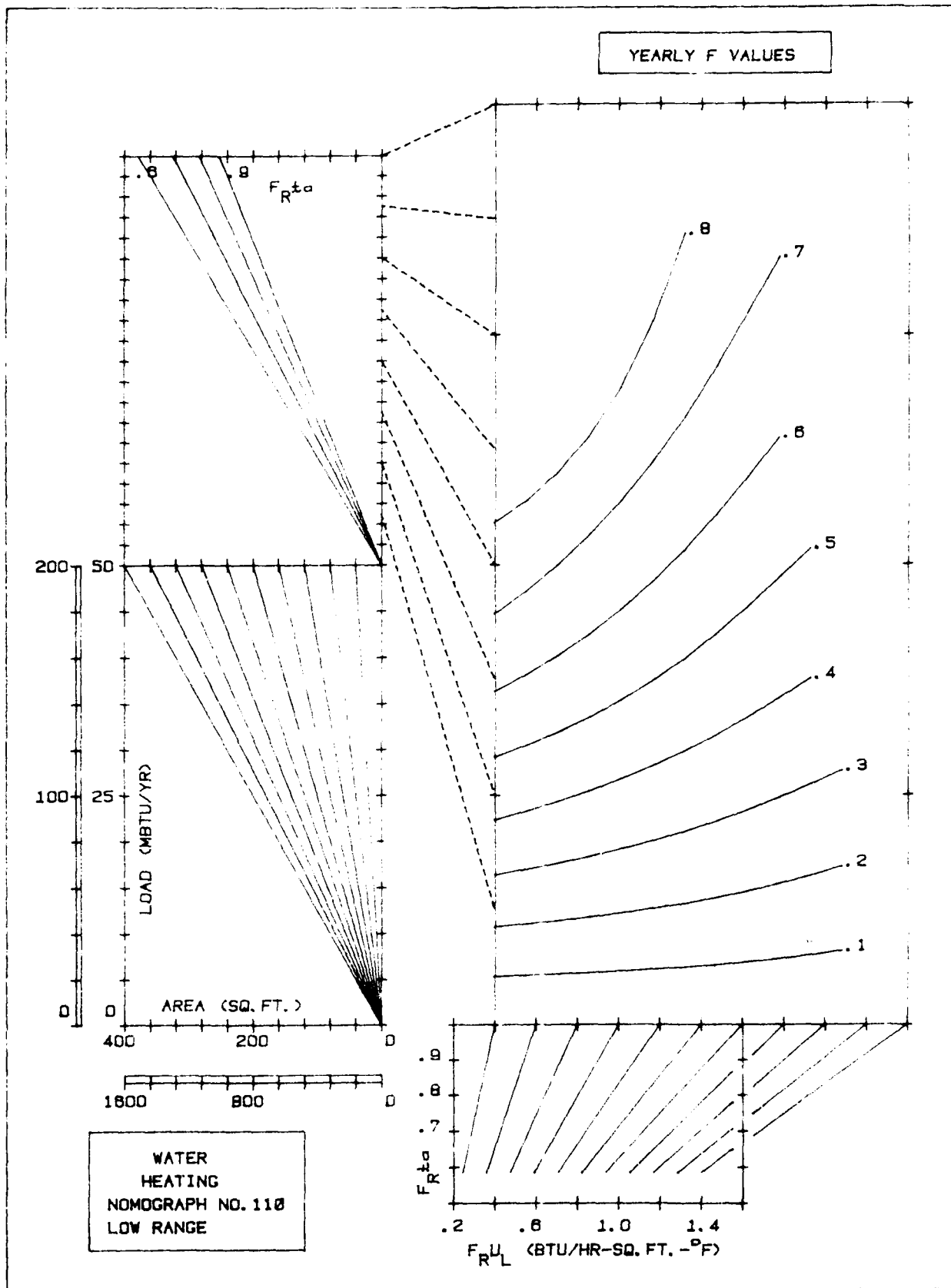
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C174

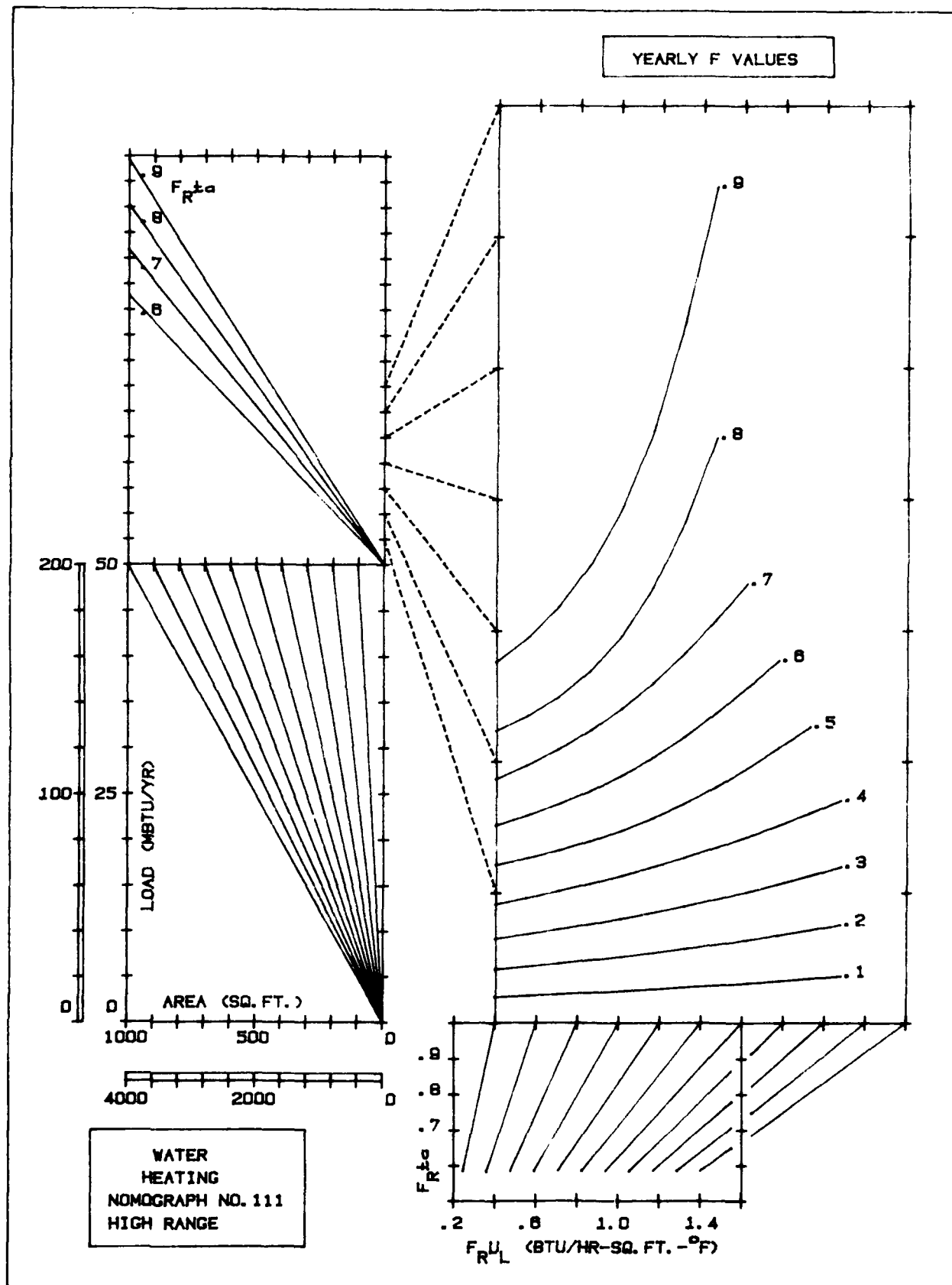


PREPARED 29 JUN 82 FOR AFESC BY USAFA/DFMS

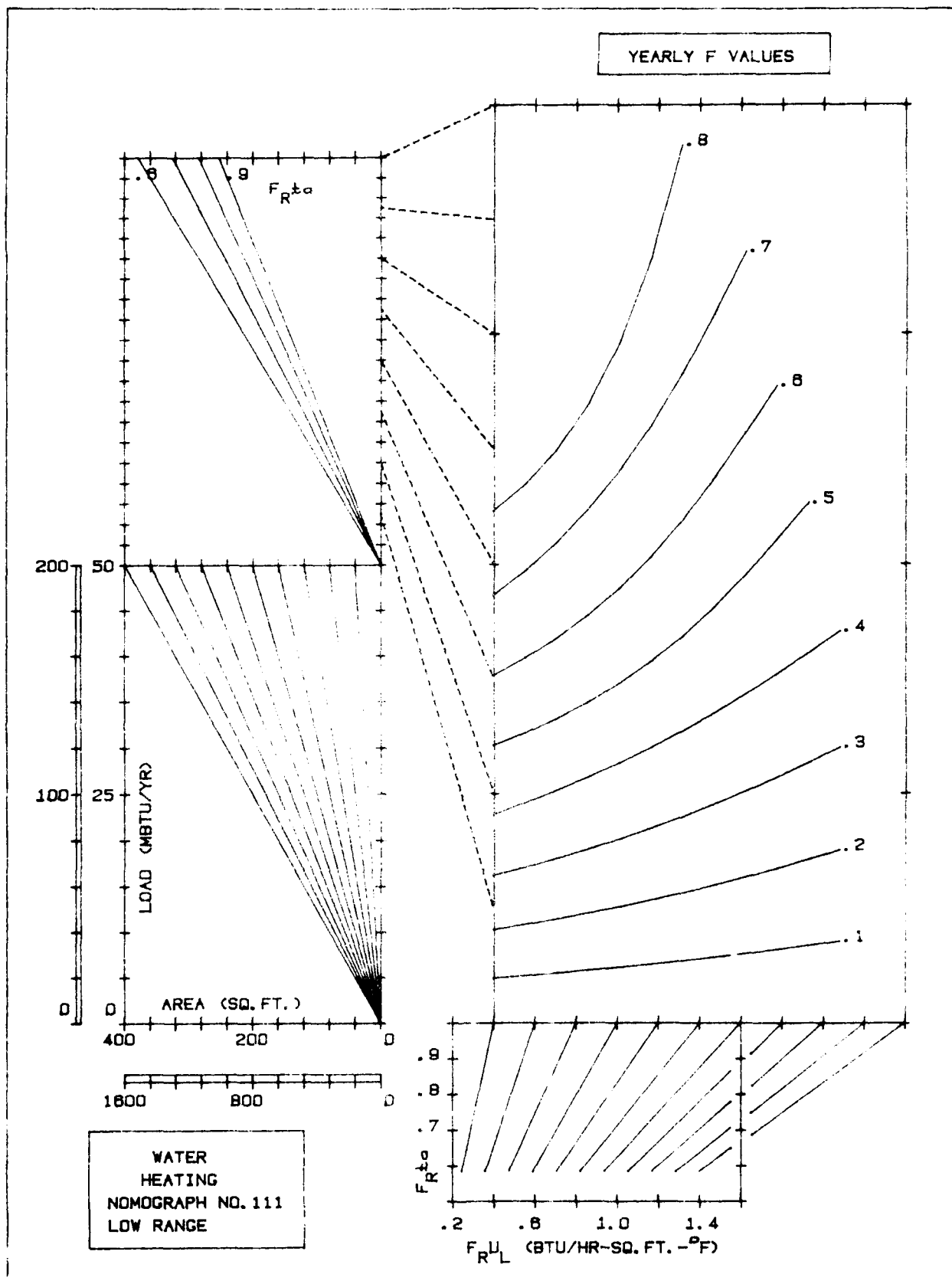
C175



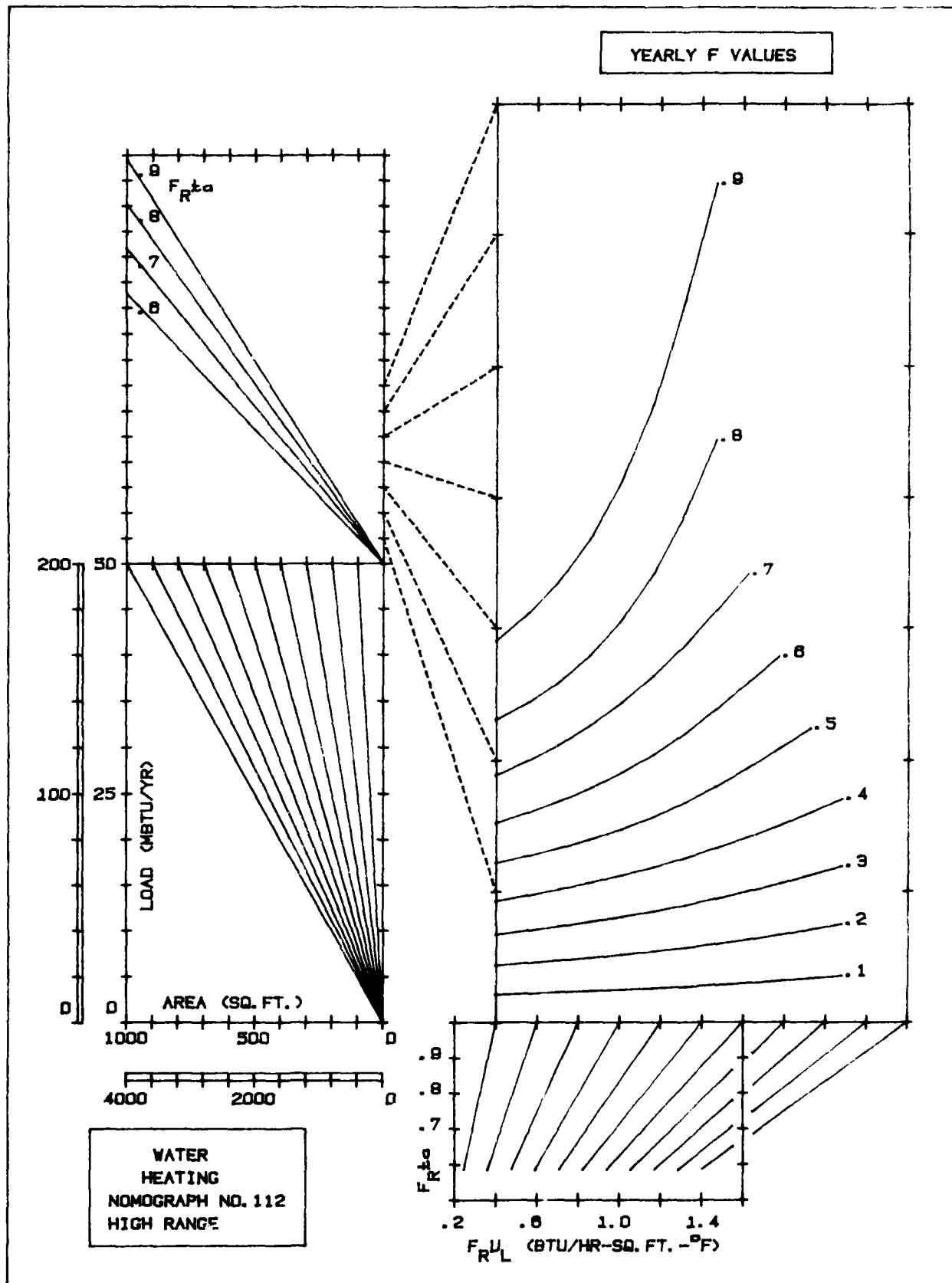
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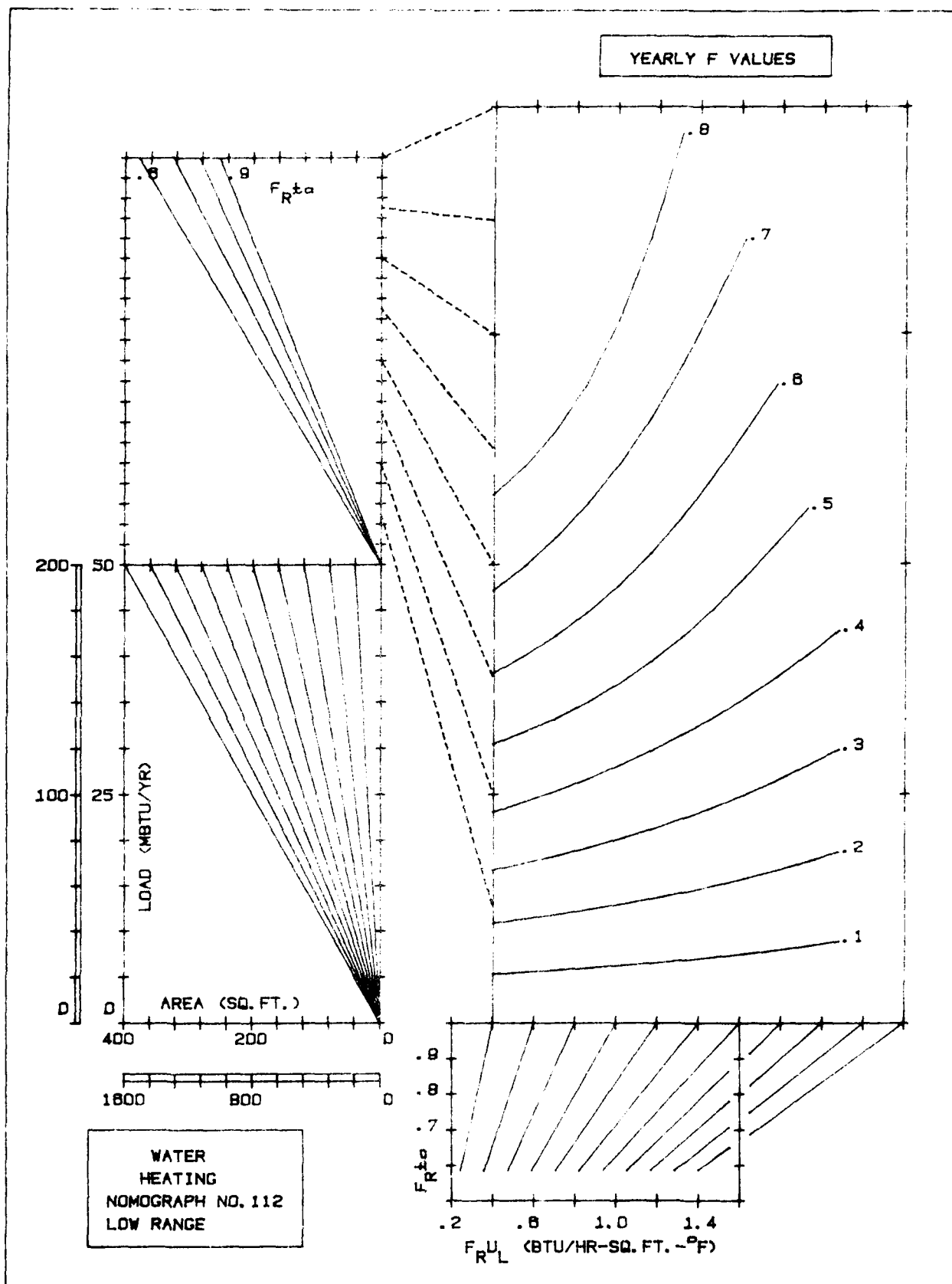
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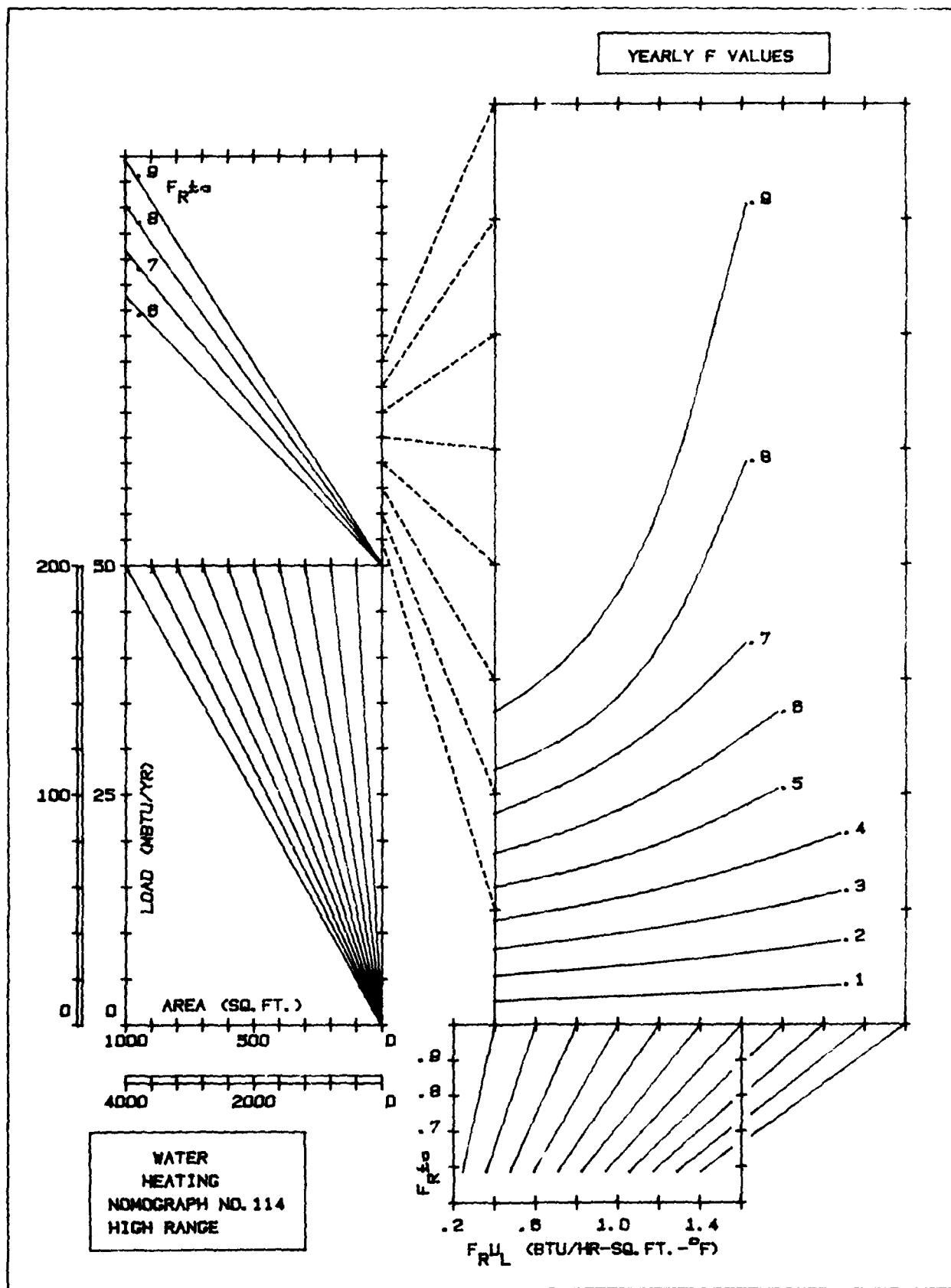
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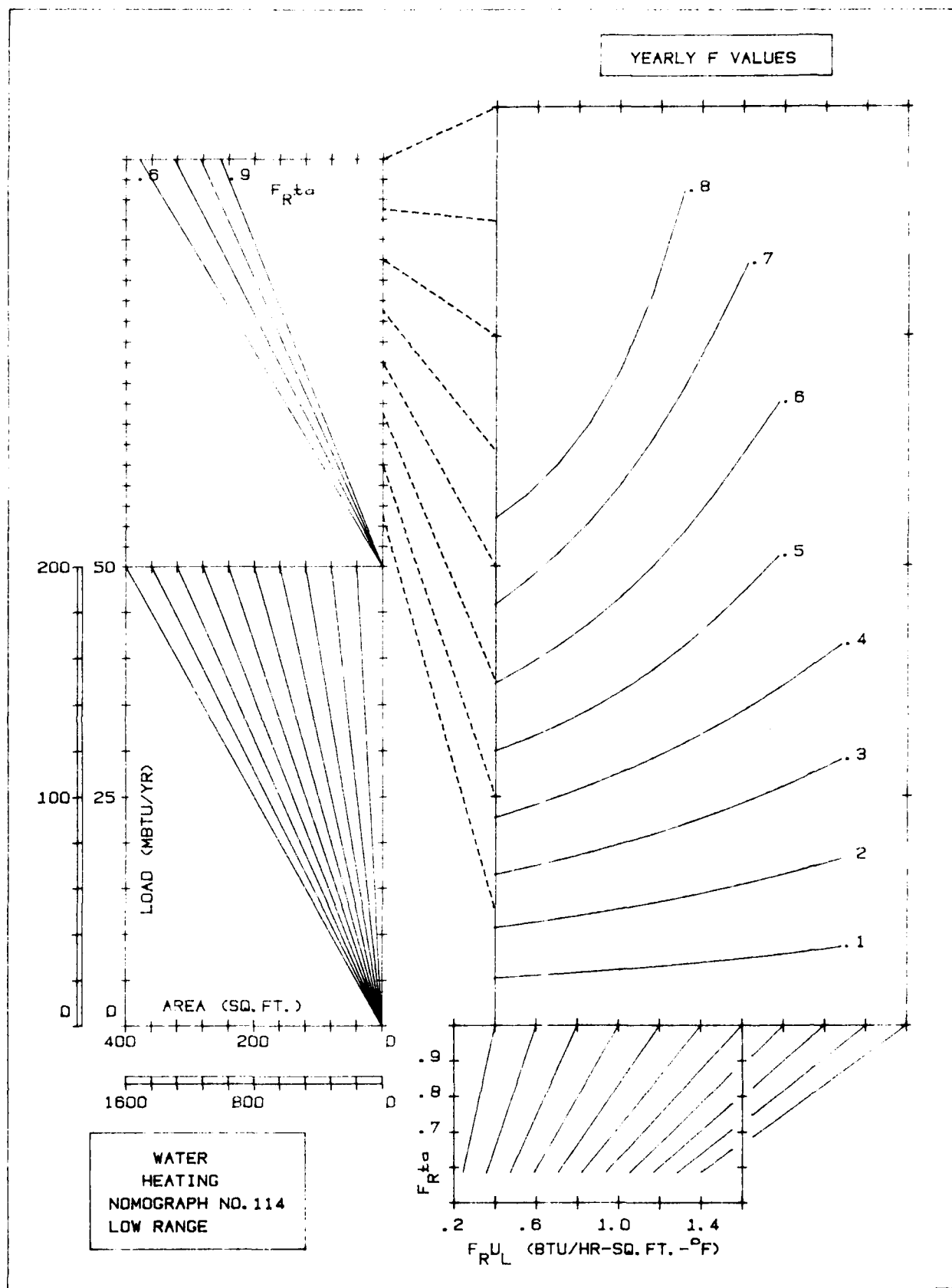
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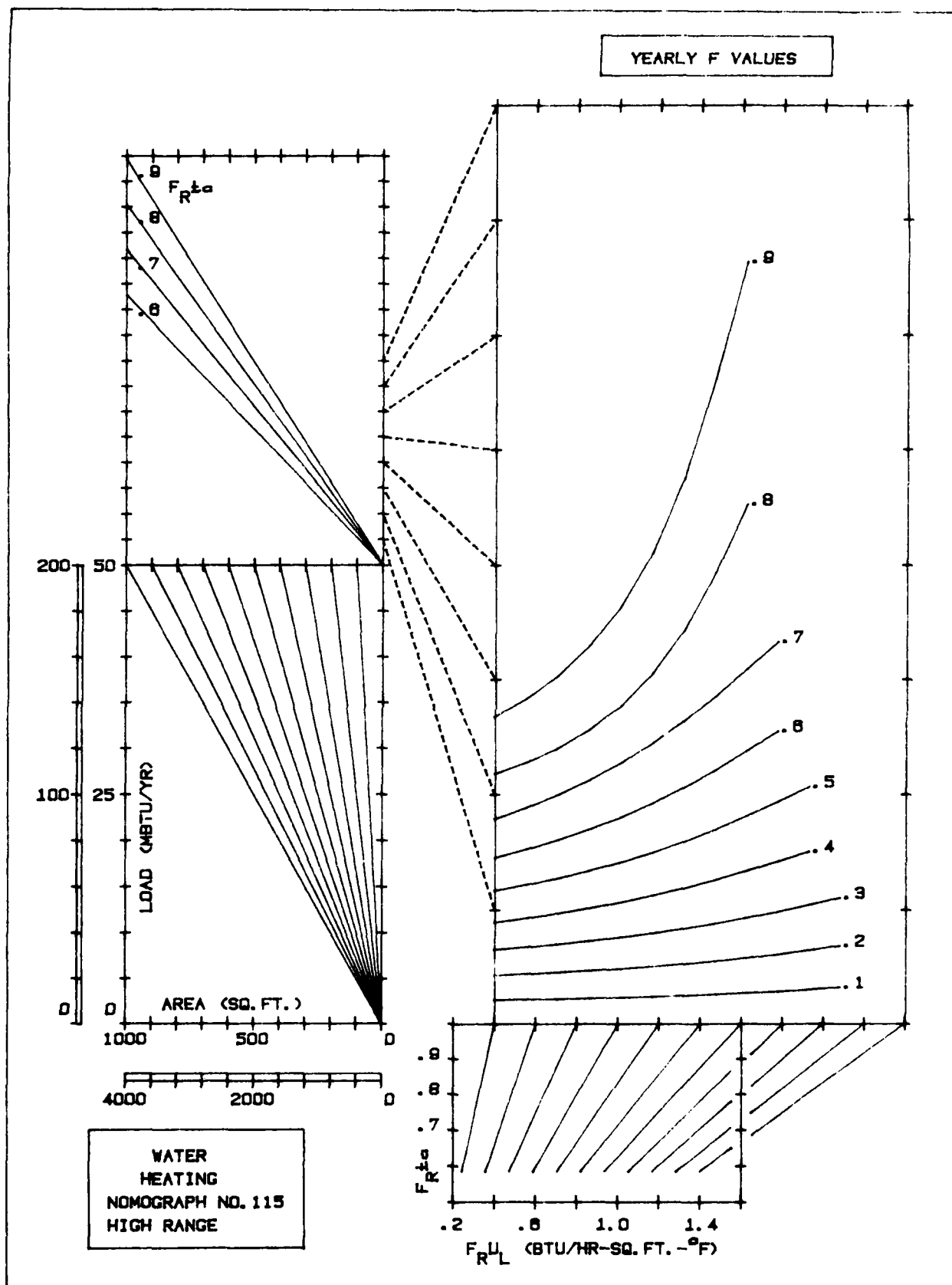
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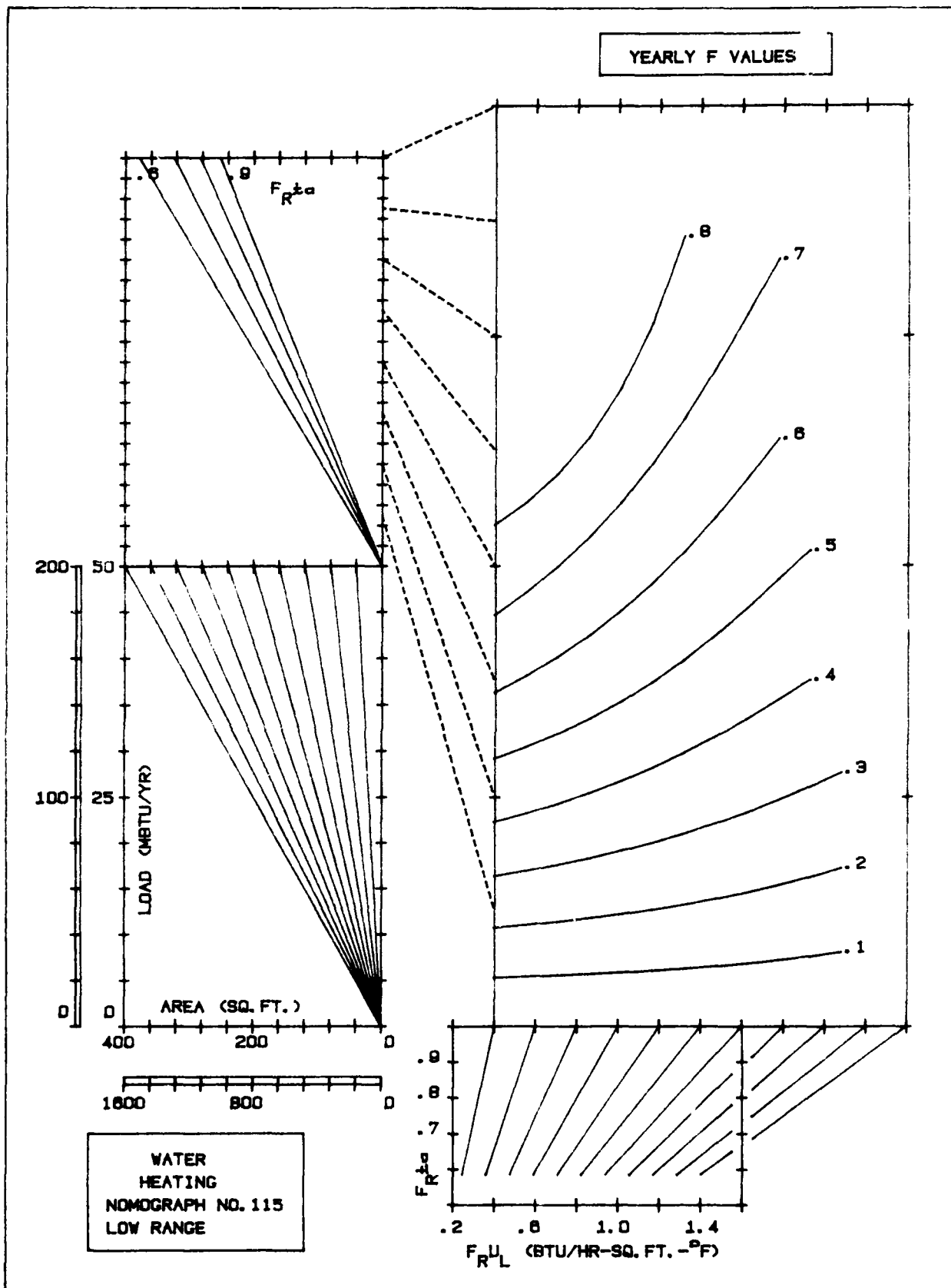
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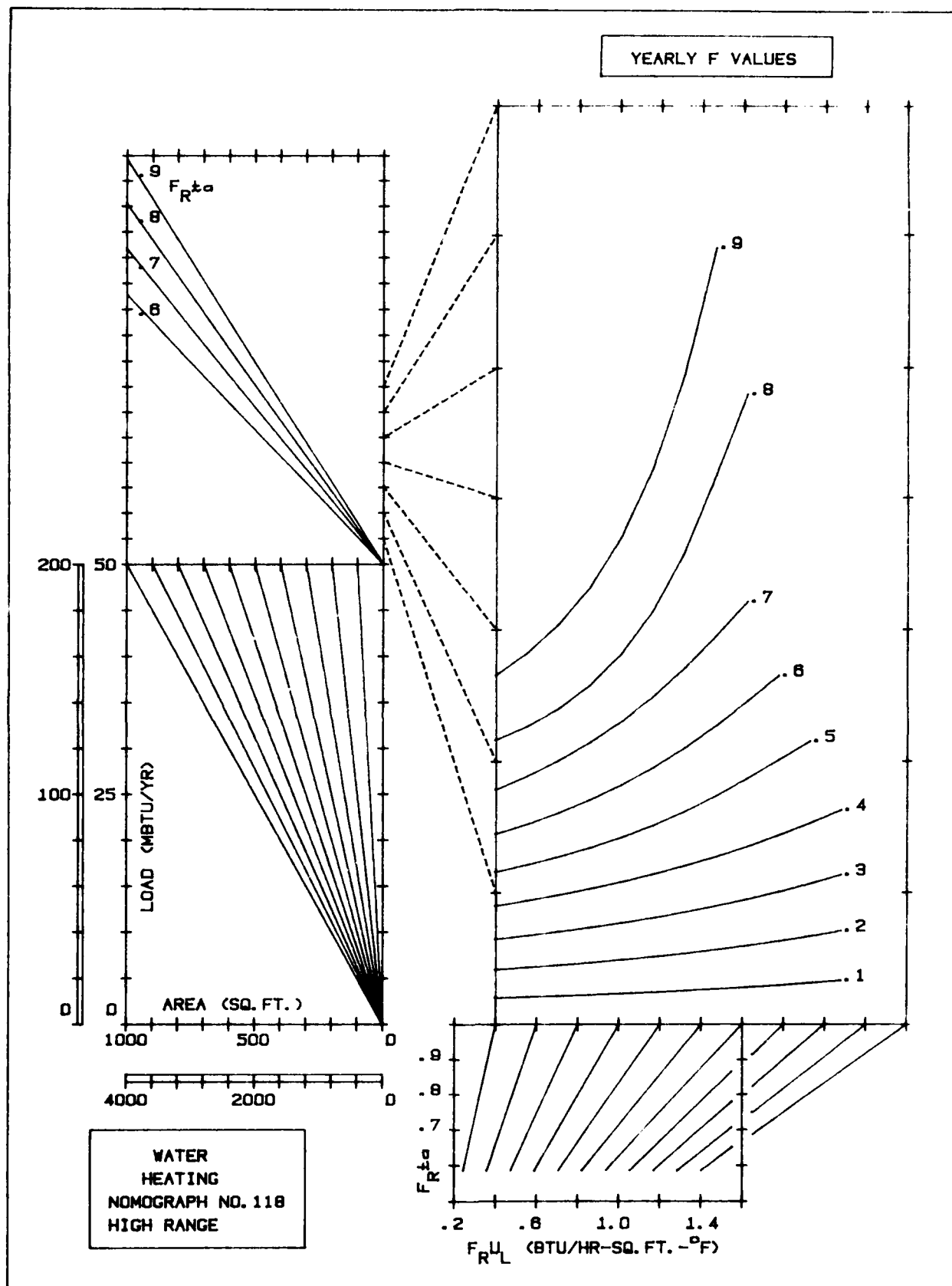
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PREPARED 30 JUN 82 FOR AFESC BY USAFA/DFMS

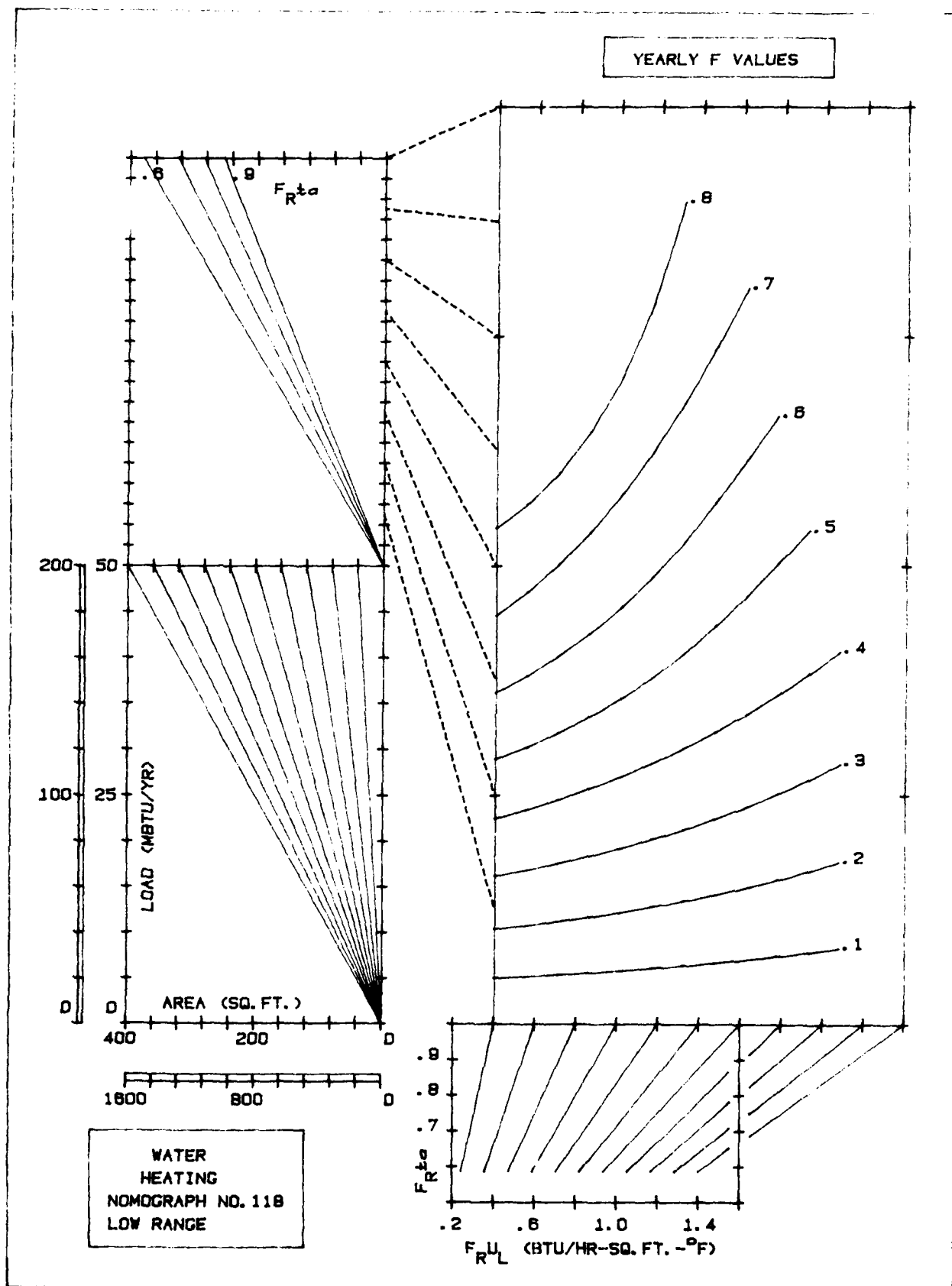


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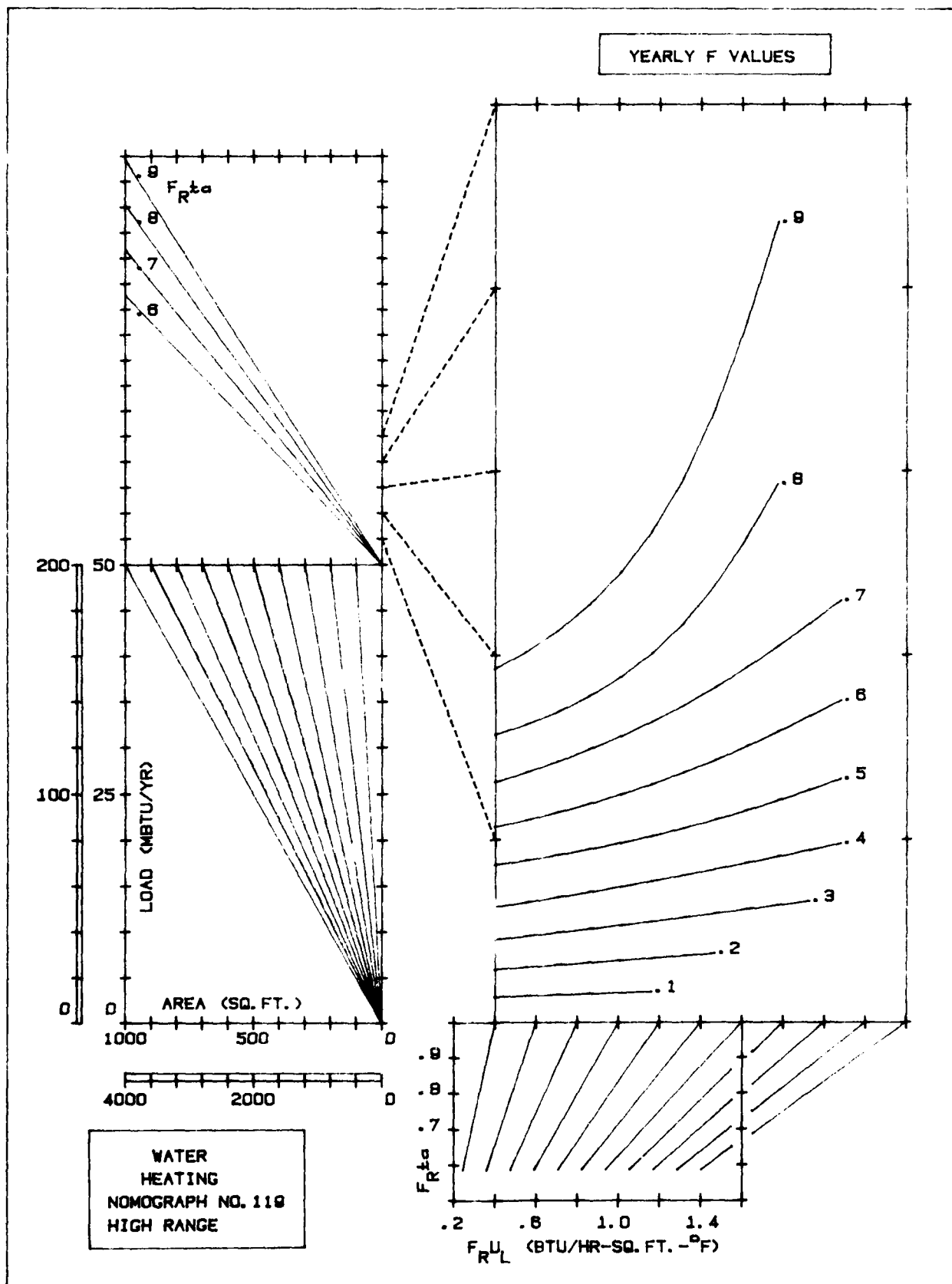


PREPARED 21 JUL 82 FOR AFESC BY USAFA/DFMS

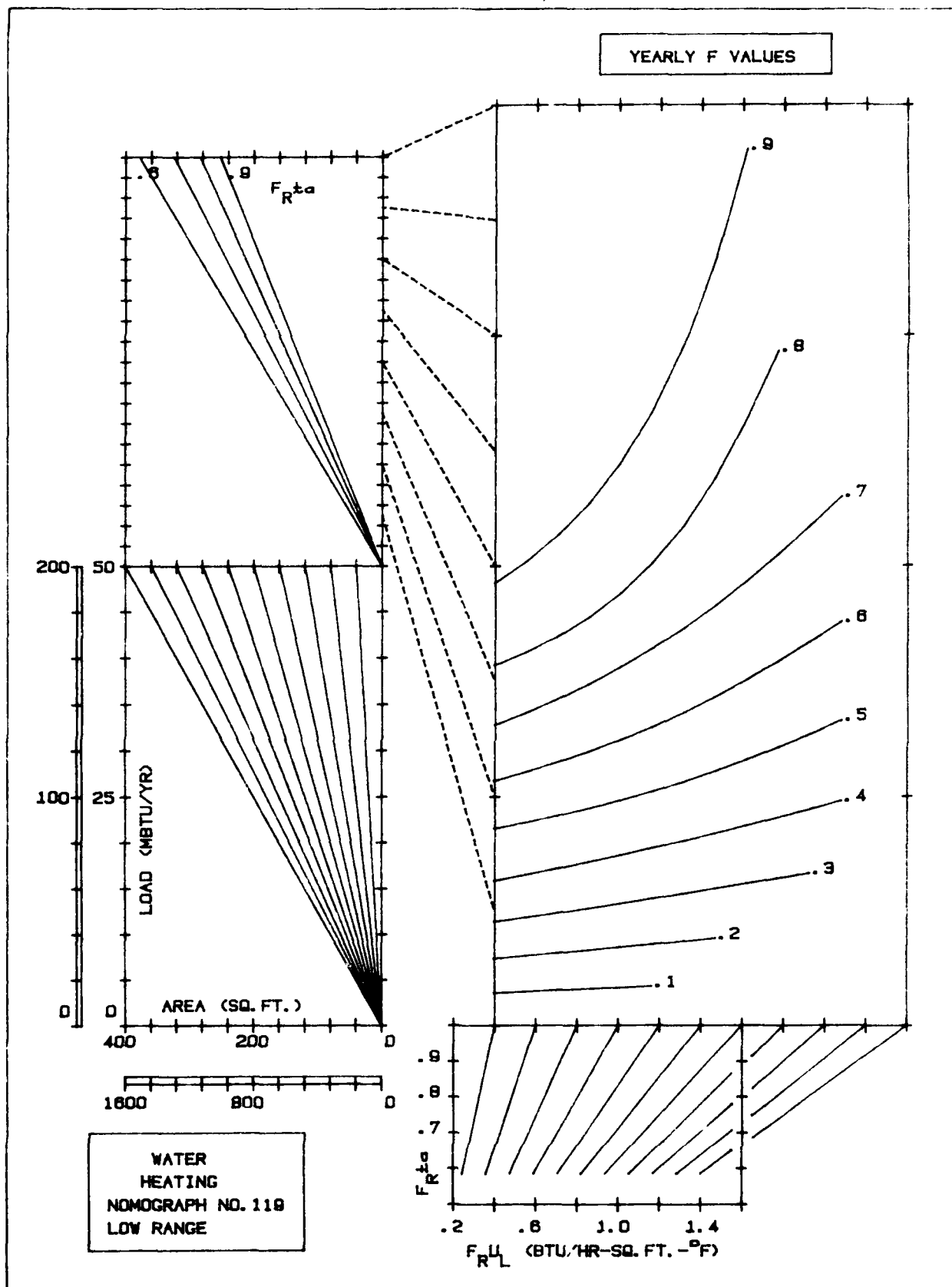
C185



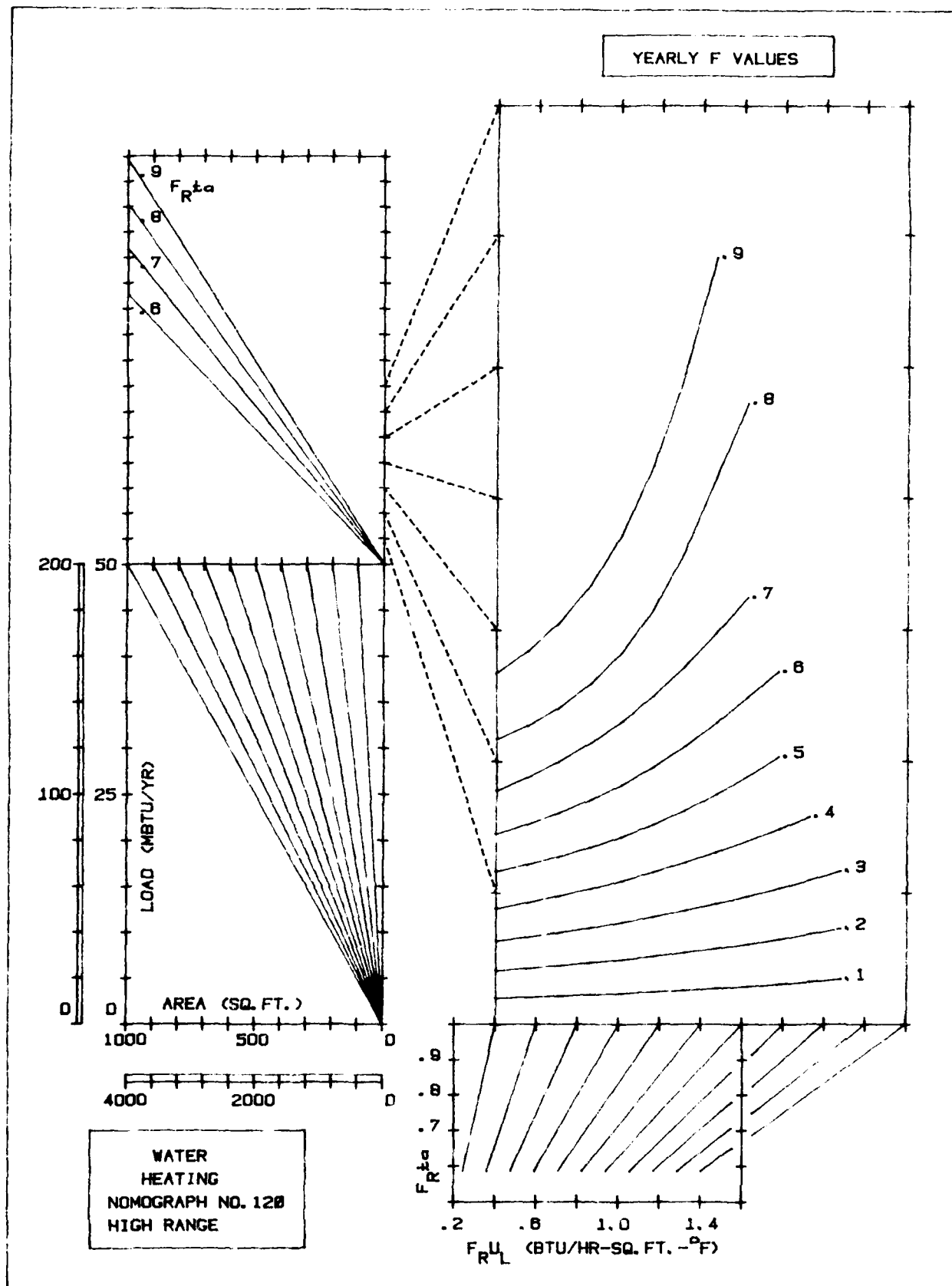
PREPARED 21 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 21 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 21 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 21 JUL 82 FOR AFESC BY USAFA/DFMS

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AIR FORCE ACADEMY CO

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SIMPLIFIED SOLAR FRACTION ESTIMATION FOR SPACE AND WATER HEATIN--ETC(U)

SEP 82 N S PACHECO, D G KNIOLA, J F SHEEDY

UNCLASSIFIED

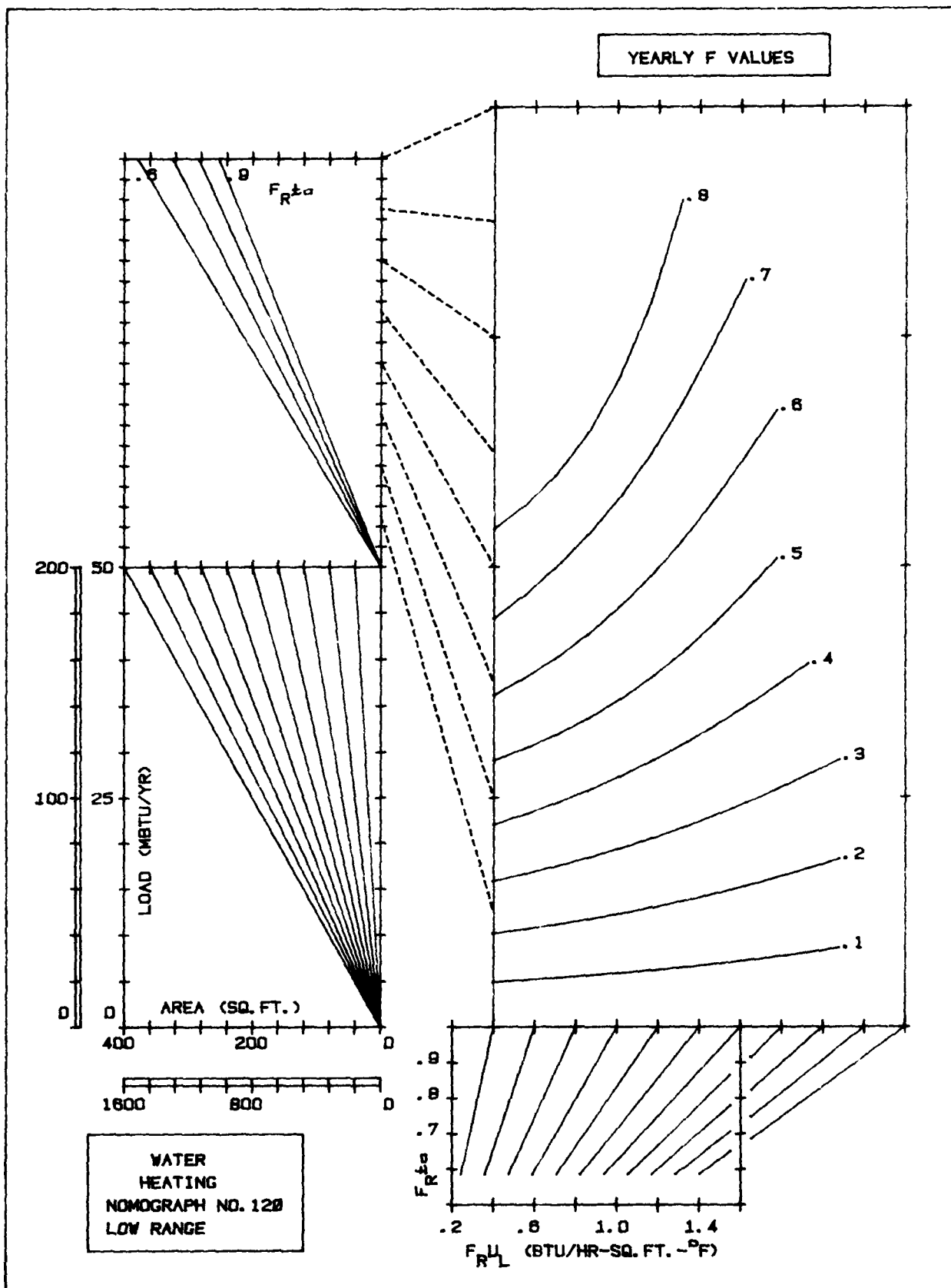
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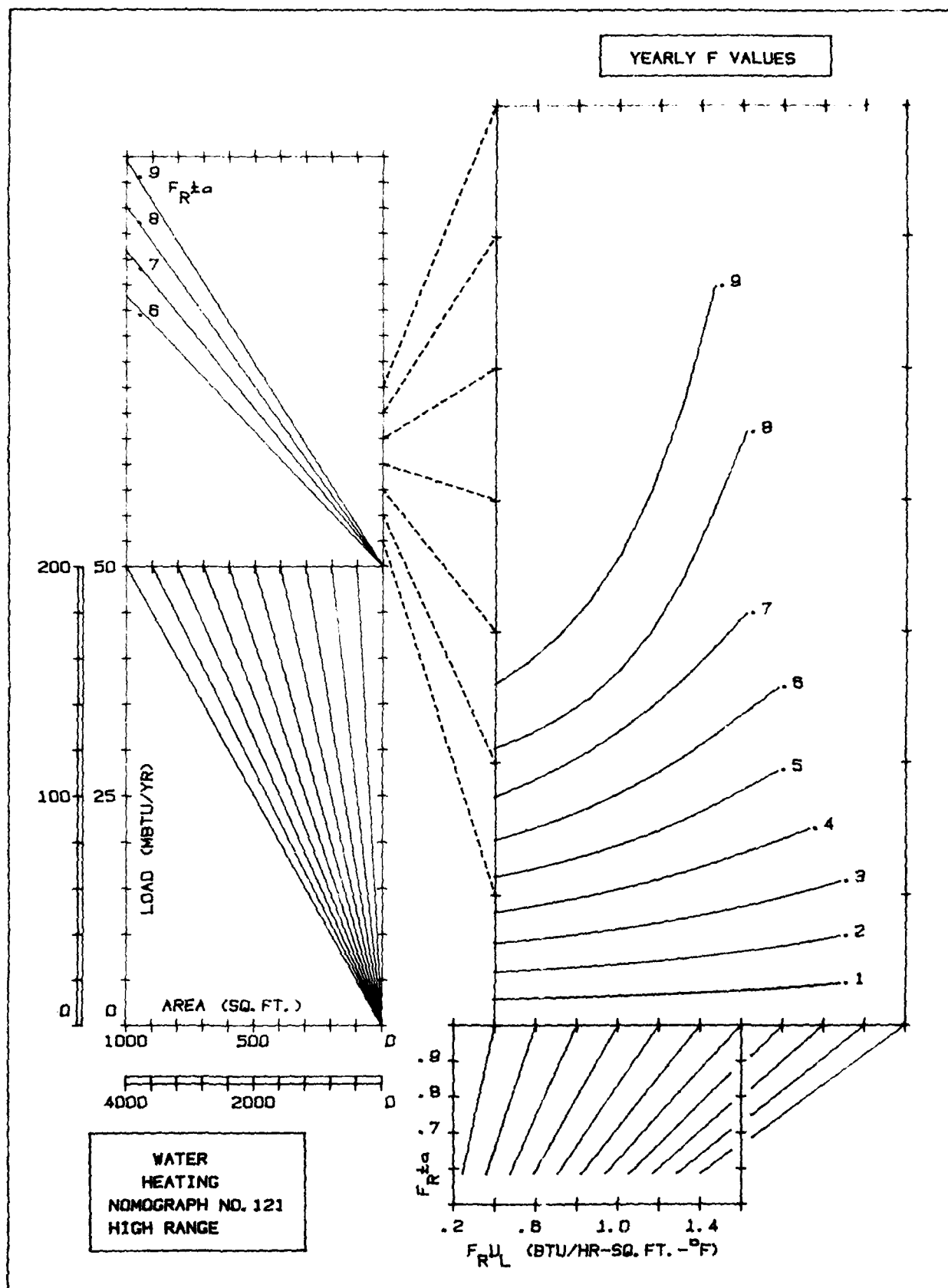
3 OF 3

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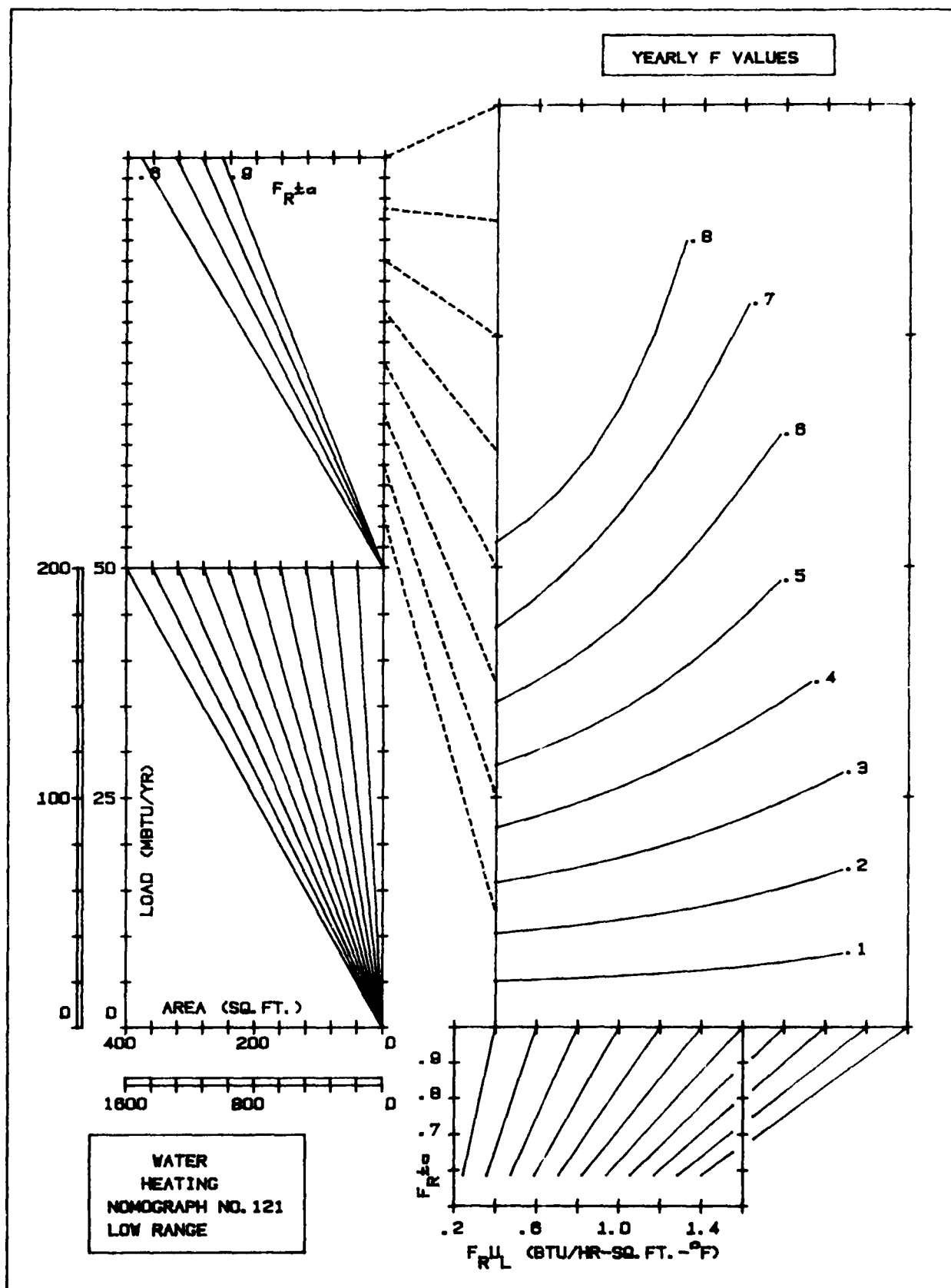
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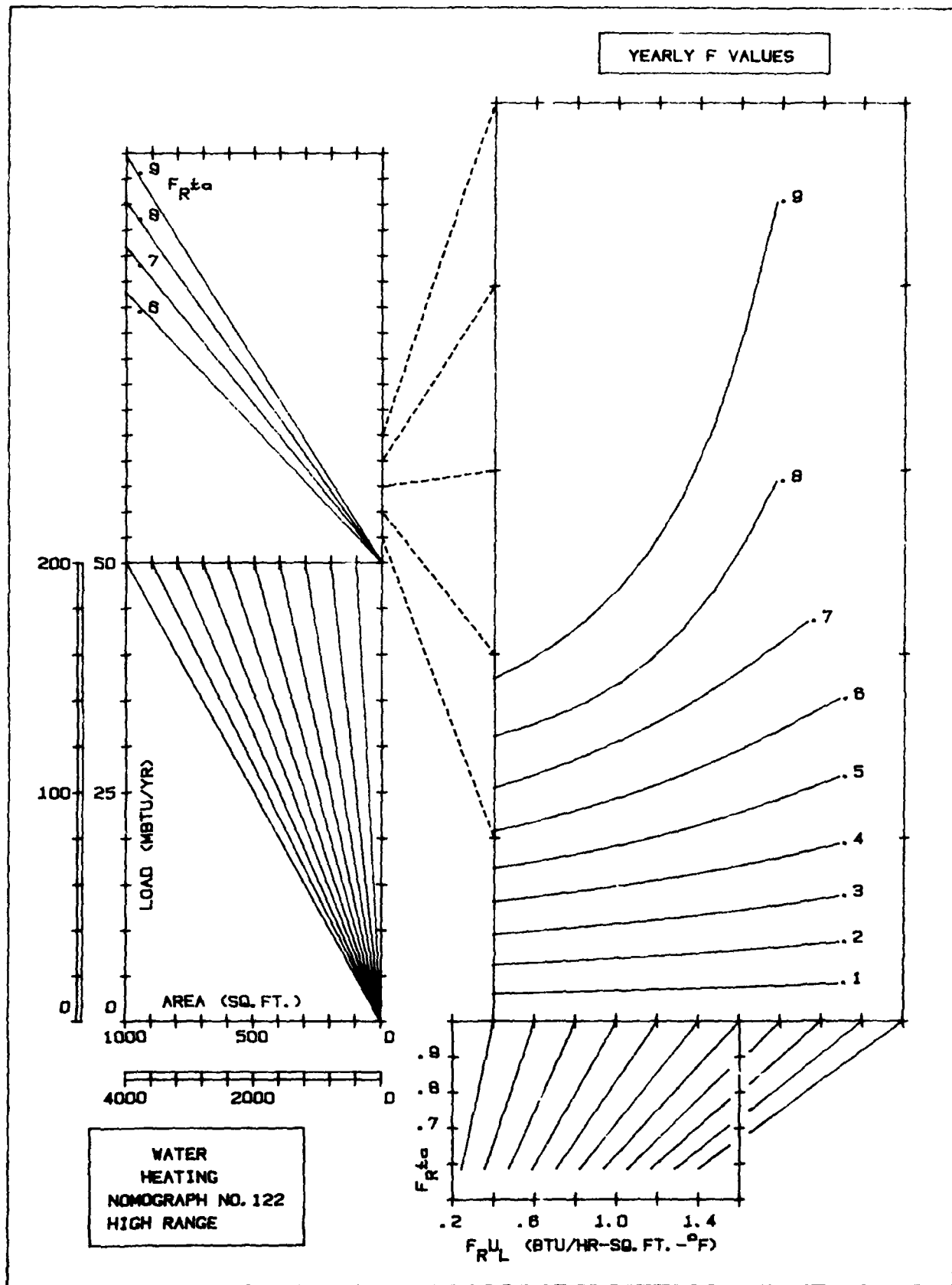
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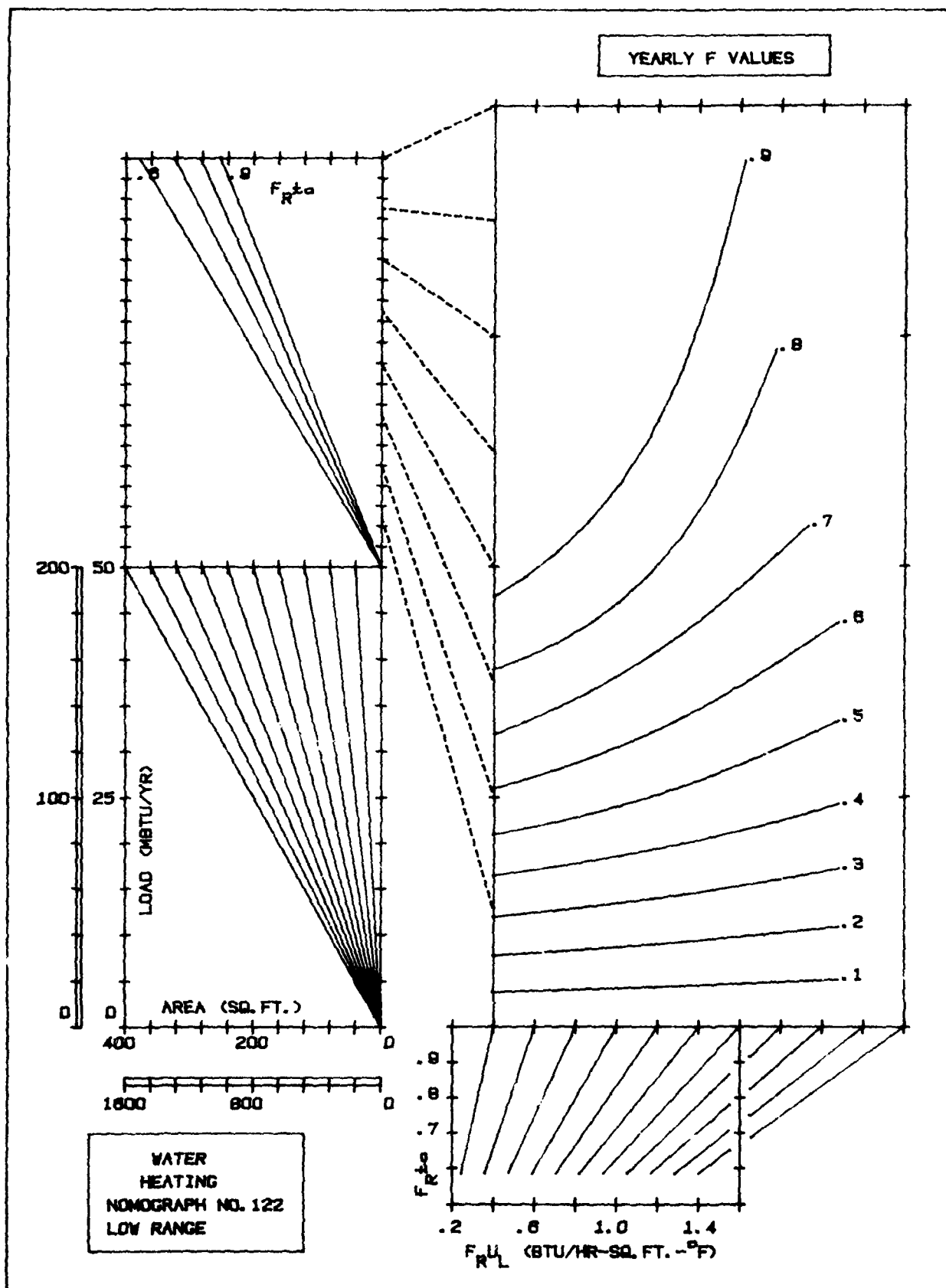
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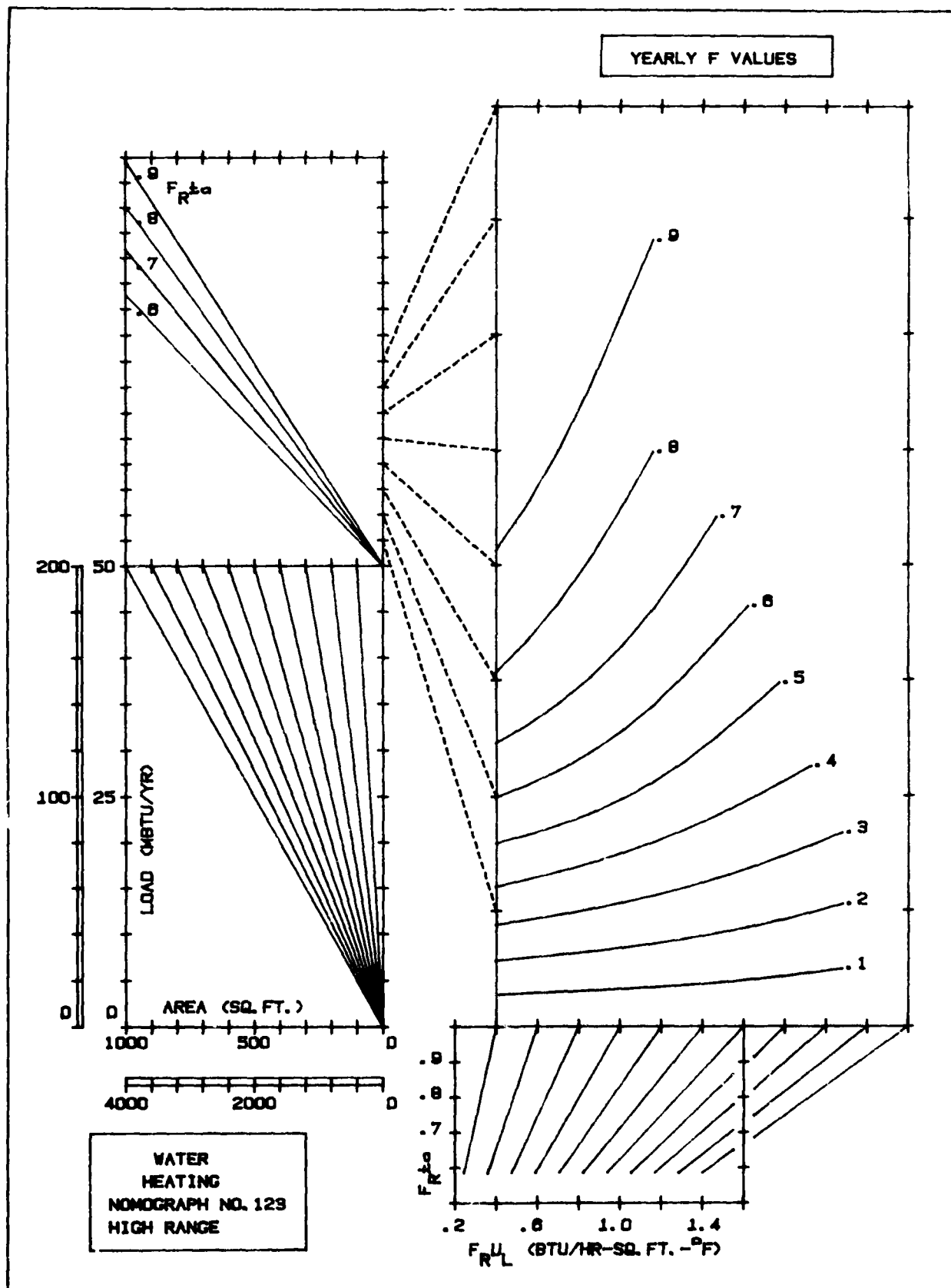
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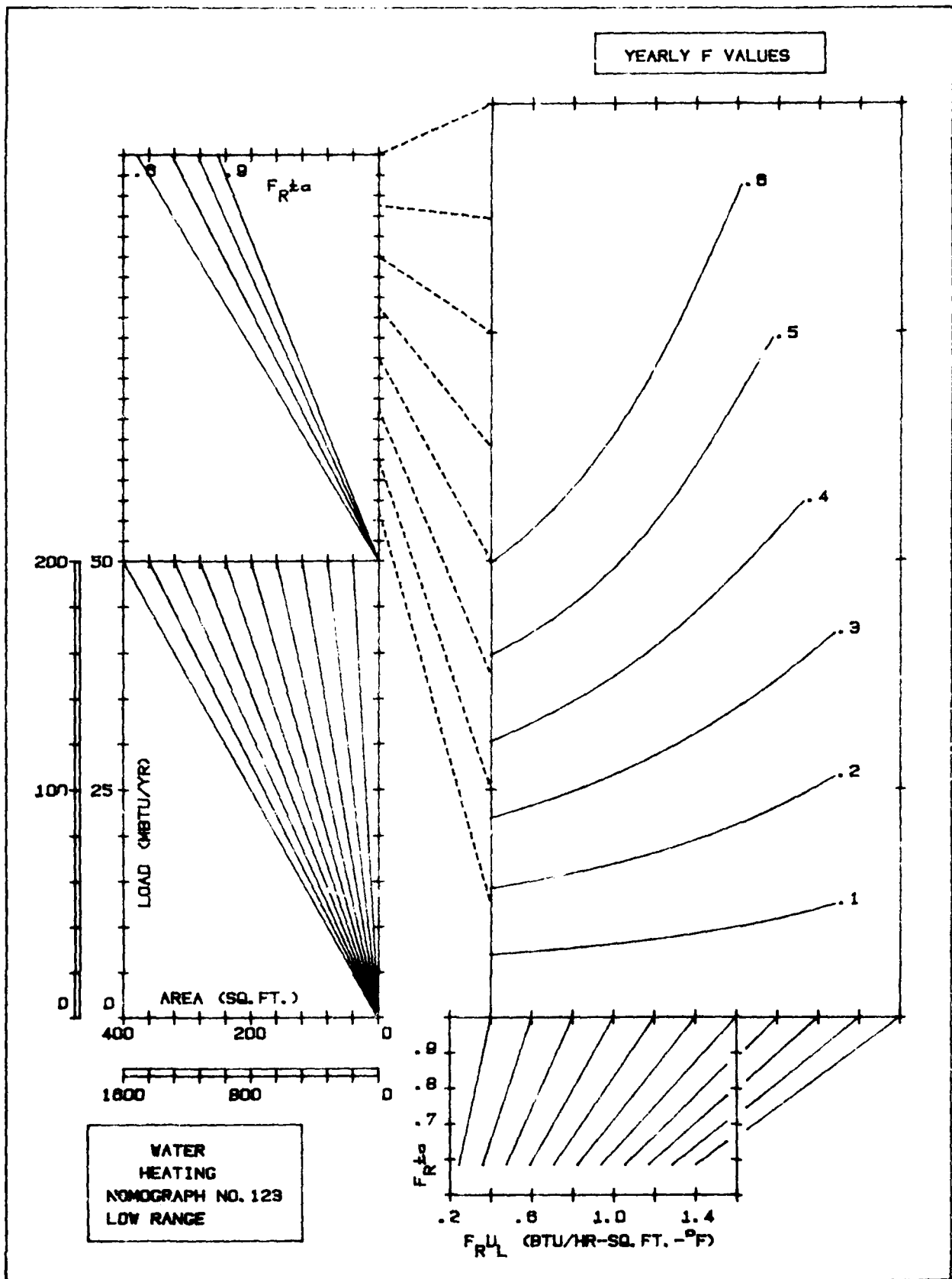
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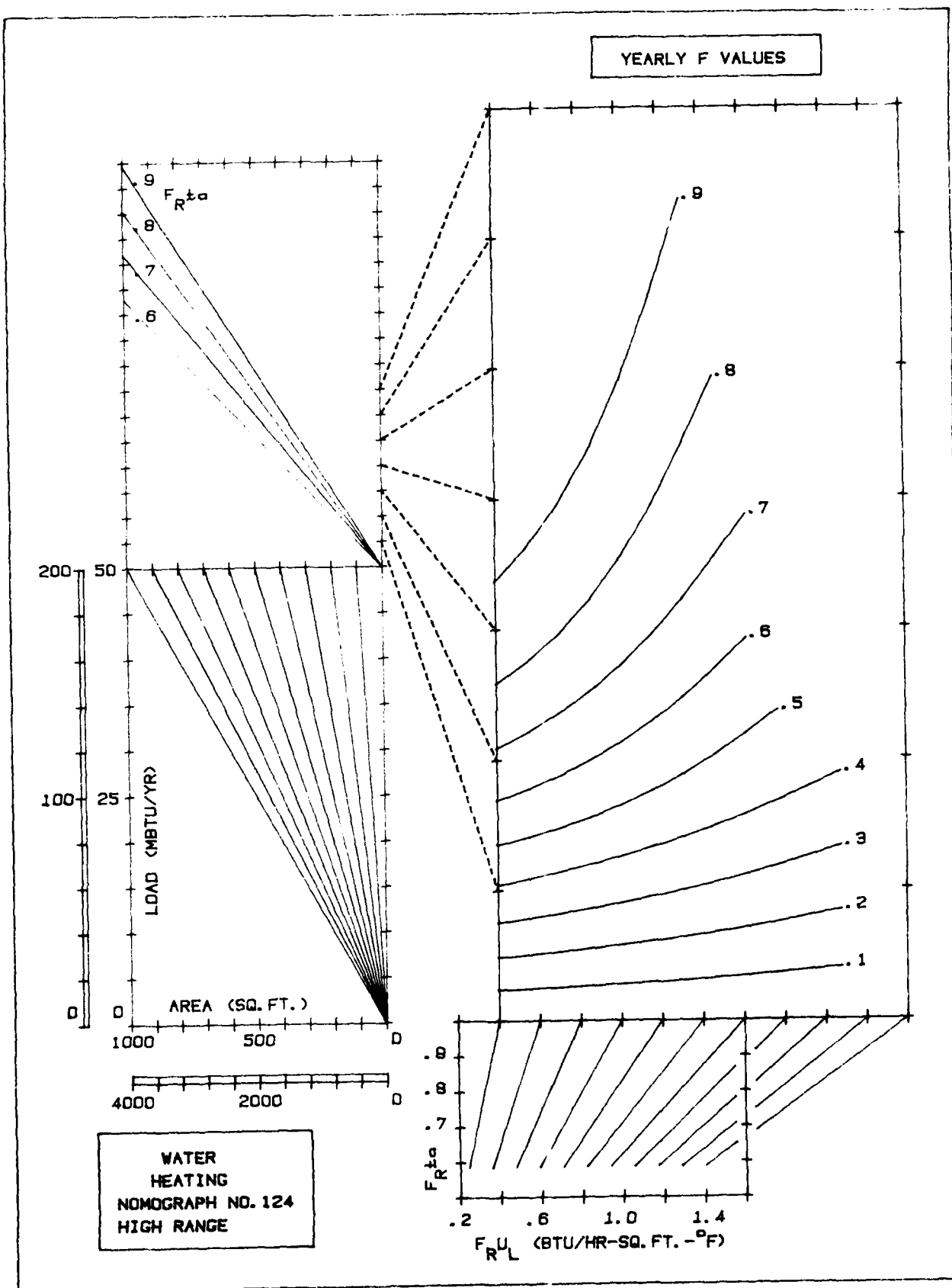
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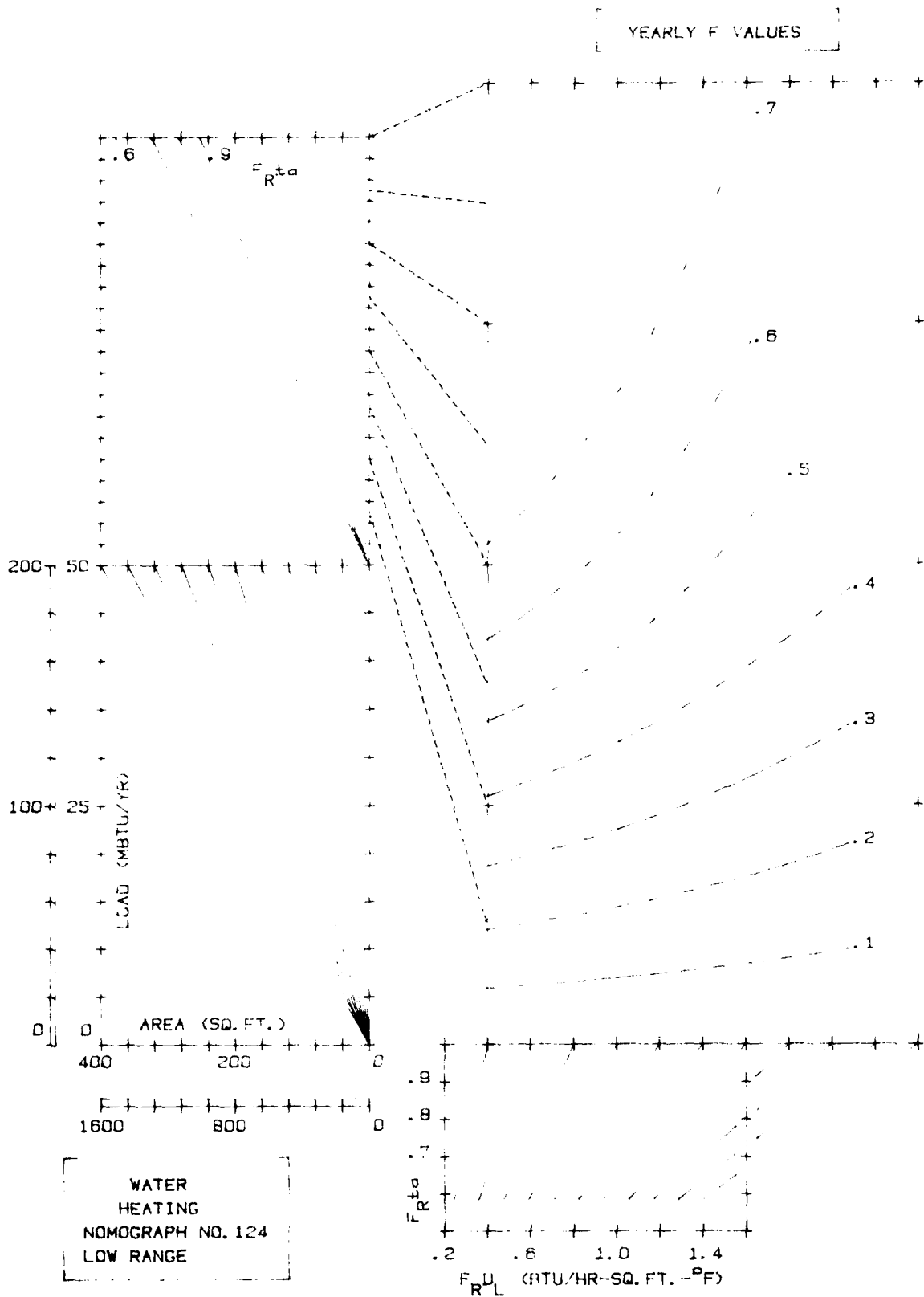
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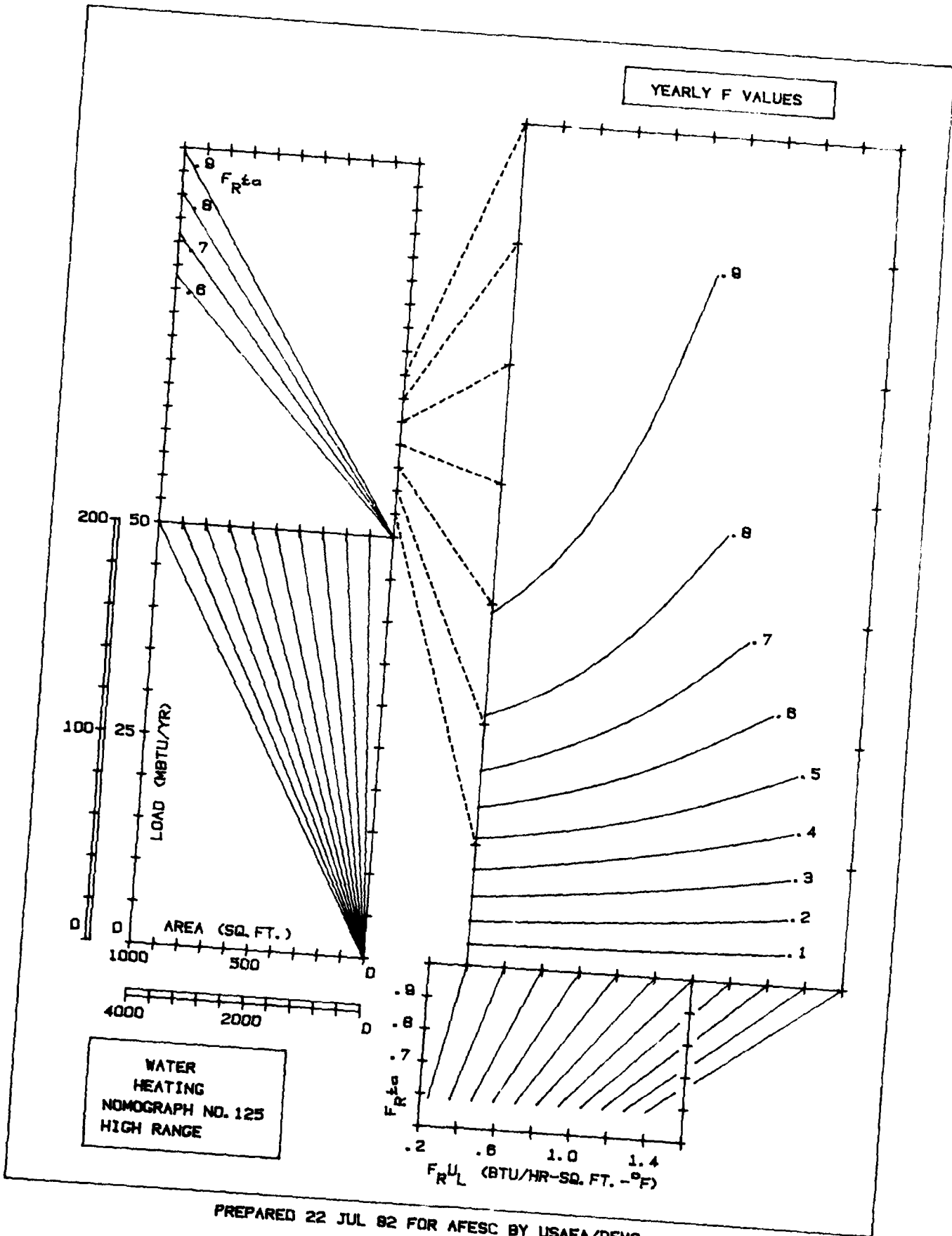


PREPARED 22 JUL 82 FOR AFESC BY USAFA/DFMS

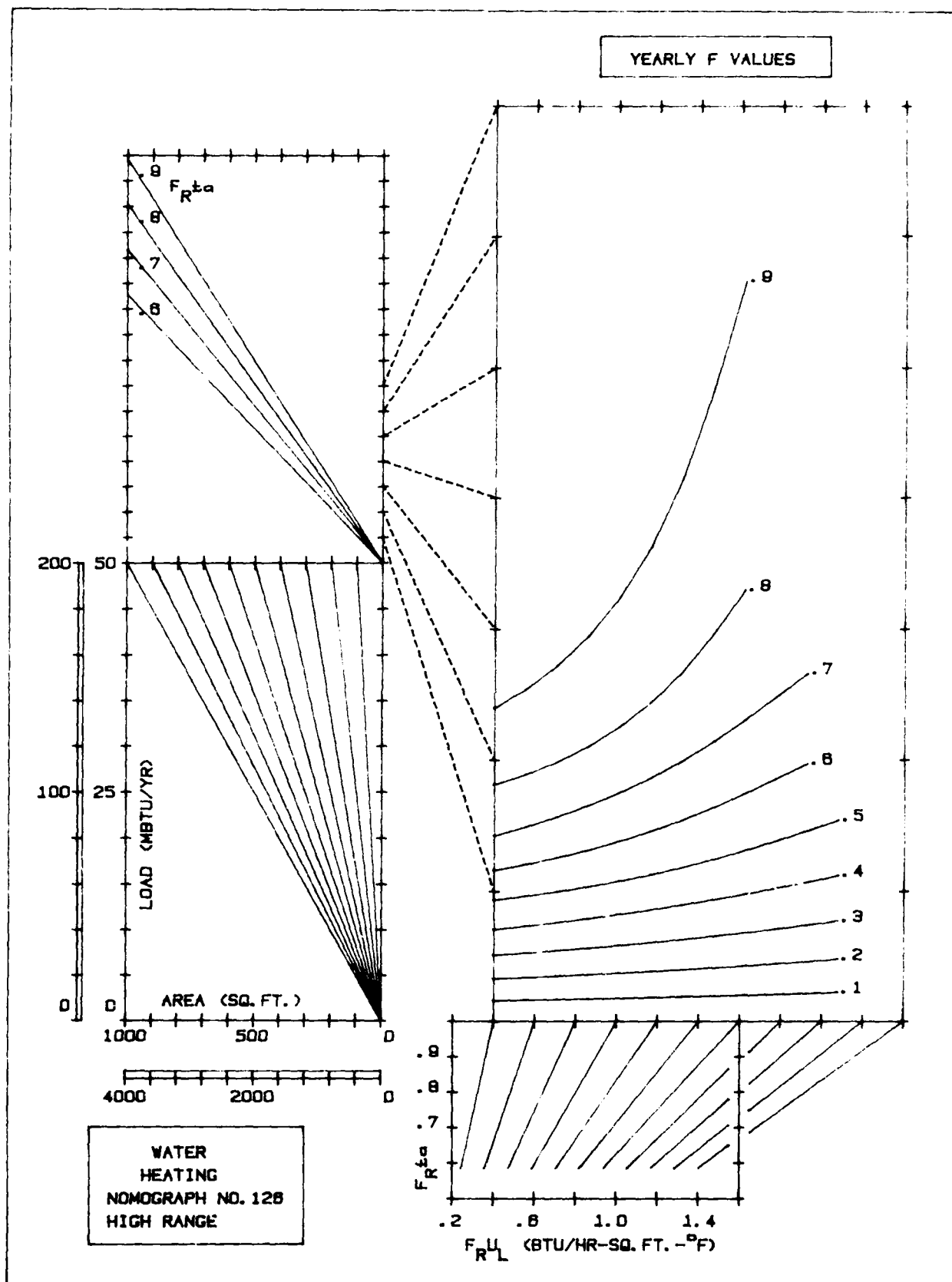


PREPARED 22 JUL 82 FOR AFES: BY USAFA/DFMS

C198

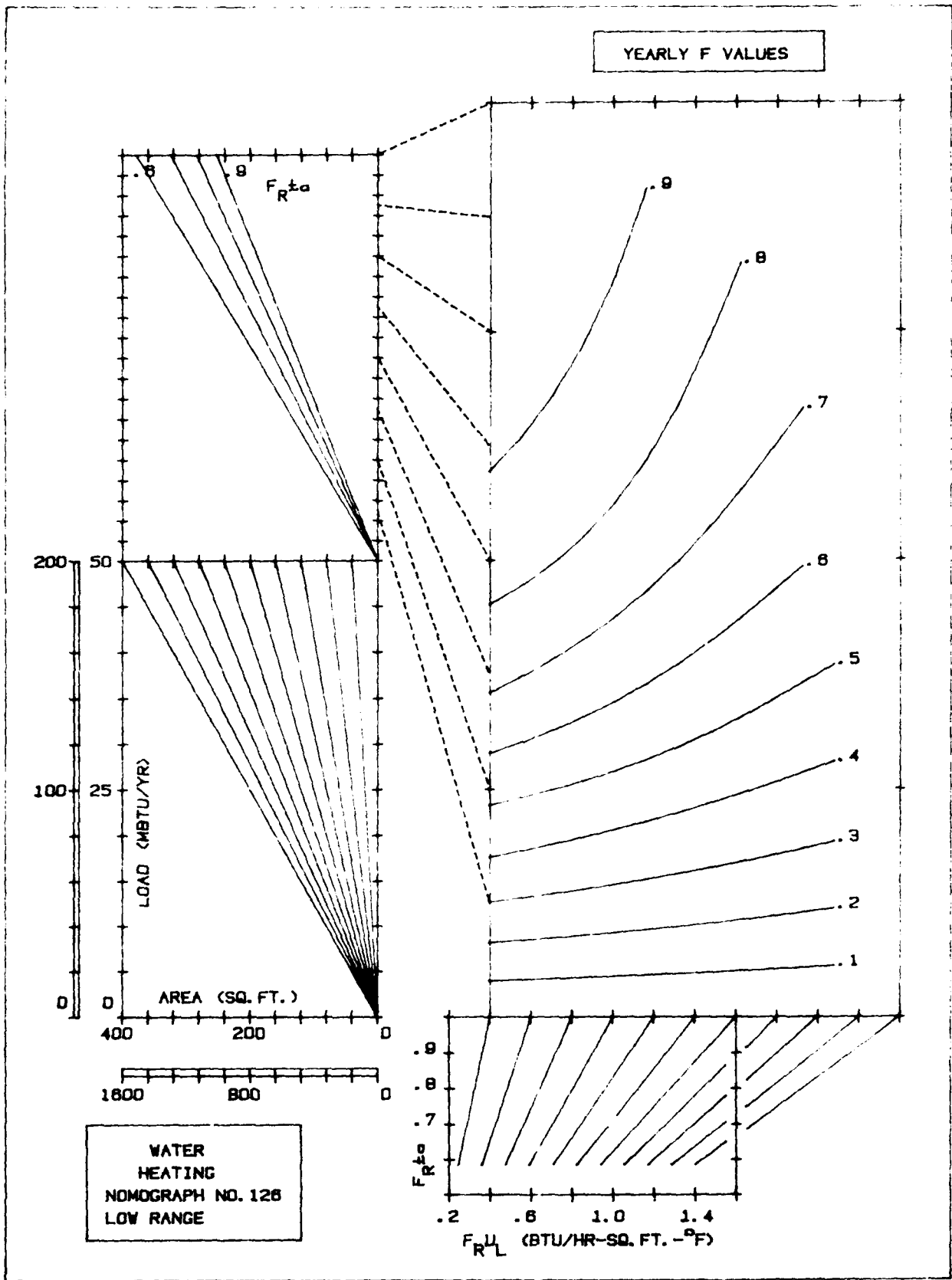


PREPARED 22 JUL 82 FOR AFESC BY USAFA/DFMS



PREPARED 22 JUL 82 FOR AFESC BY USAFA/DFMS

C201



PREPARED 22 JUL 82 FOR AFESC BY USAFA/DFMS

C202

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