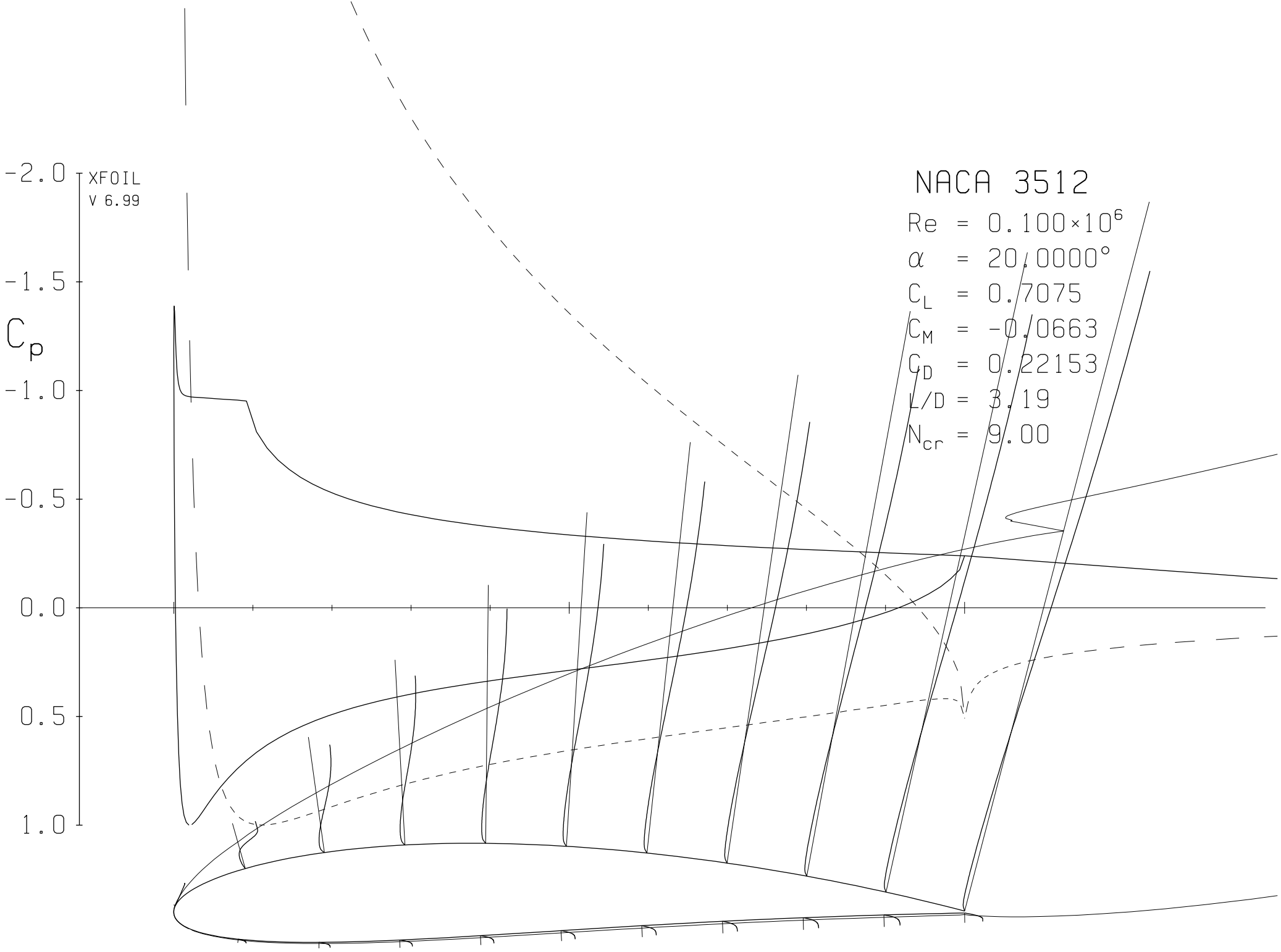
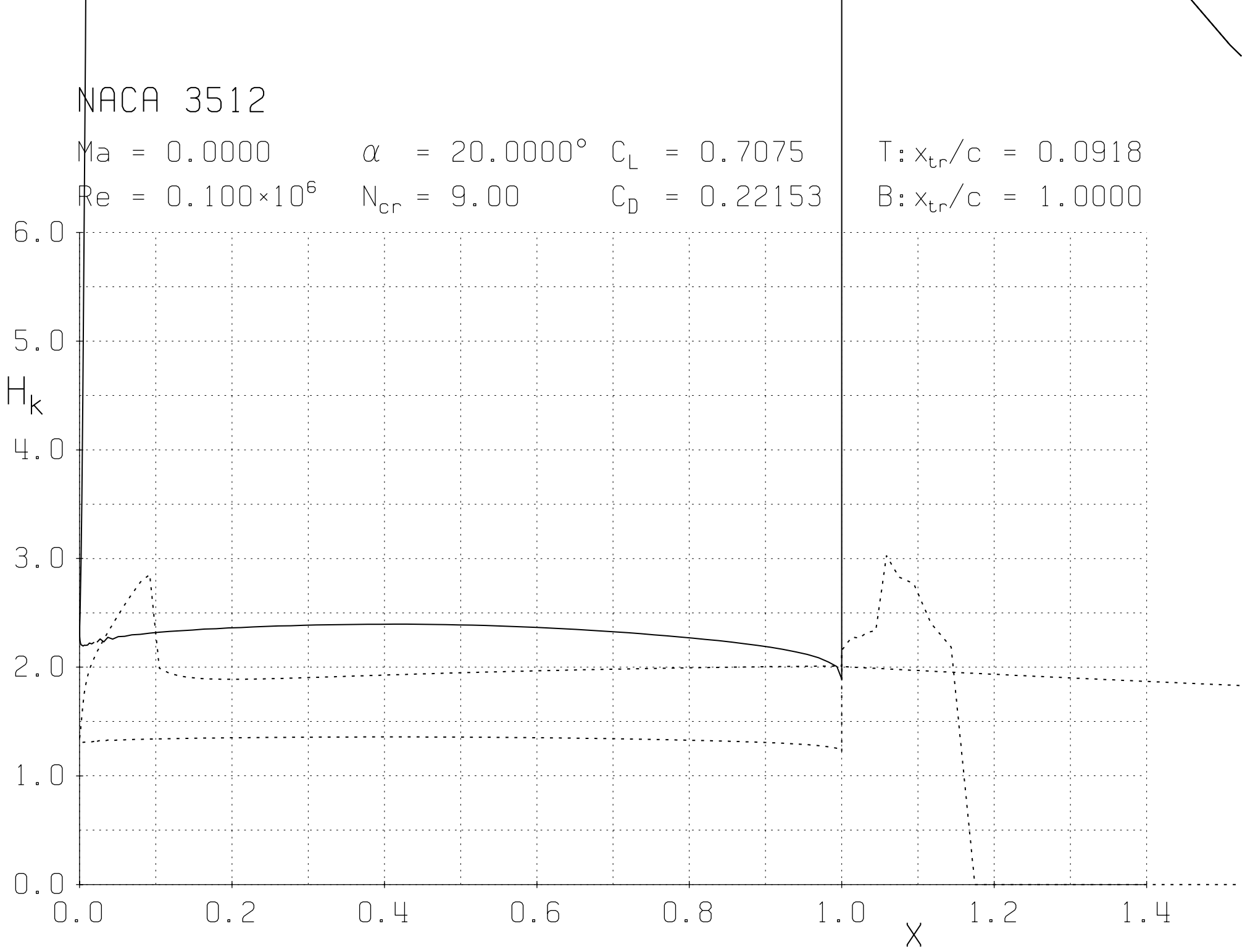
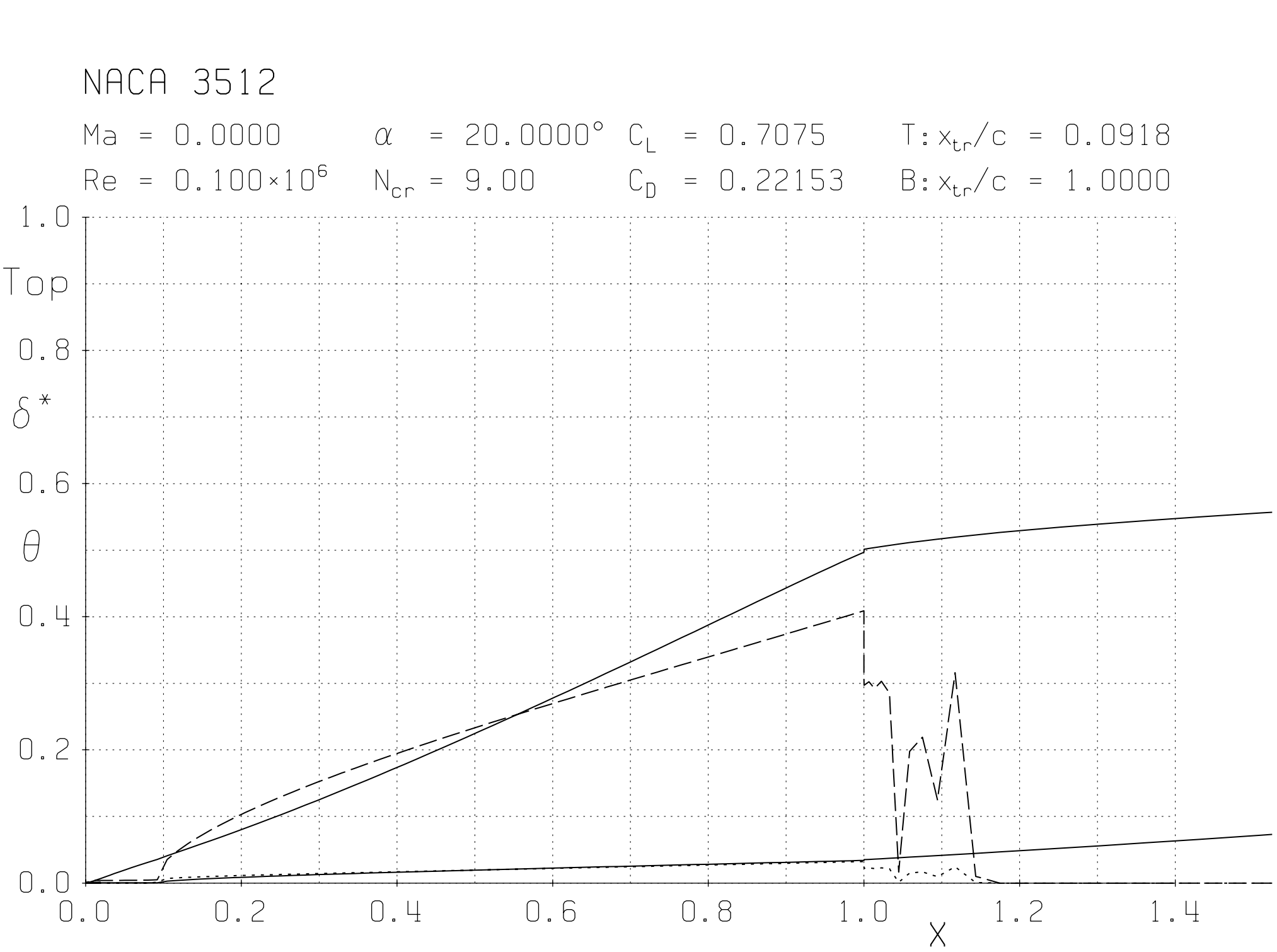
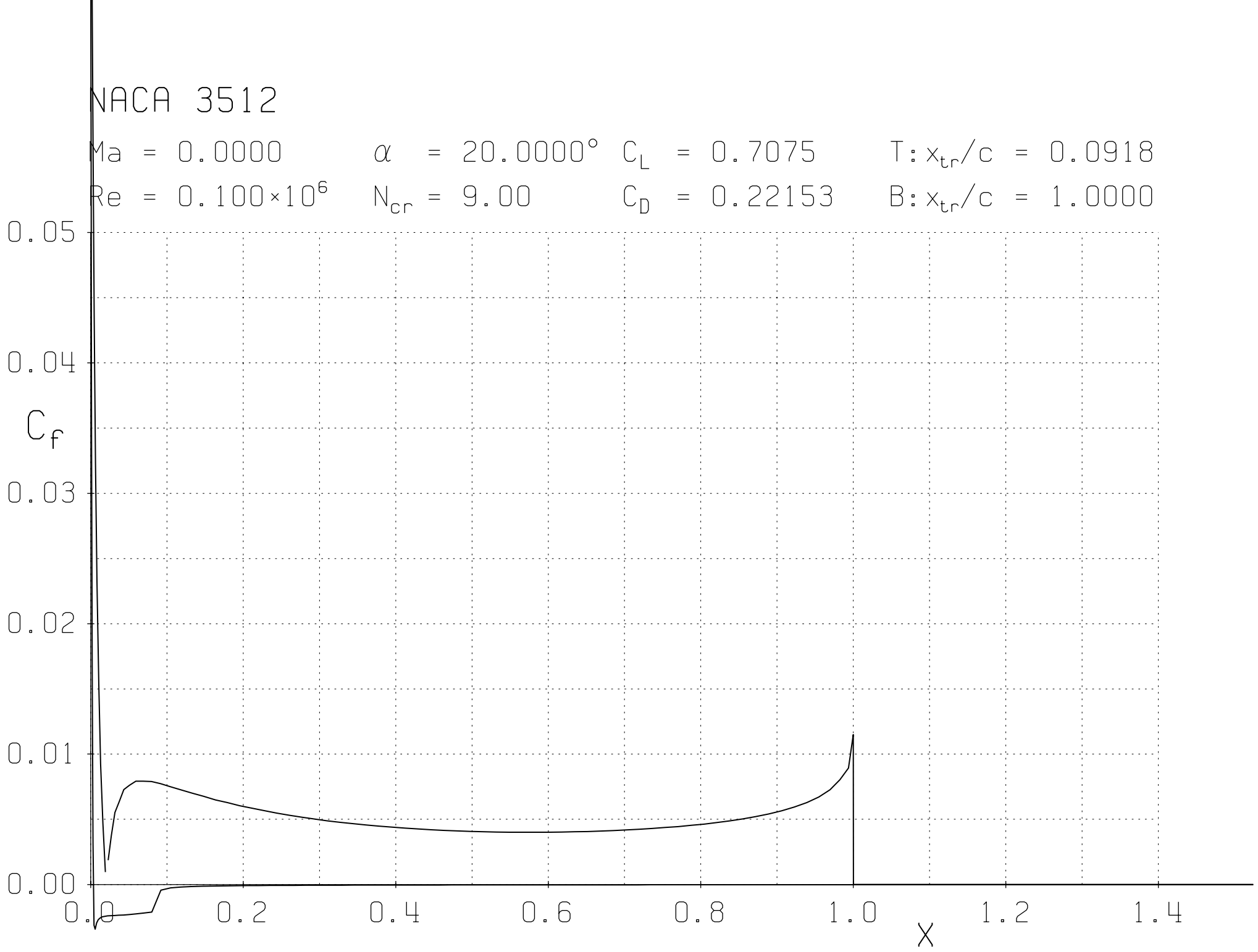
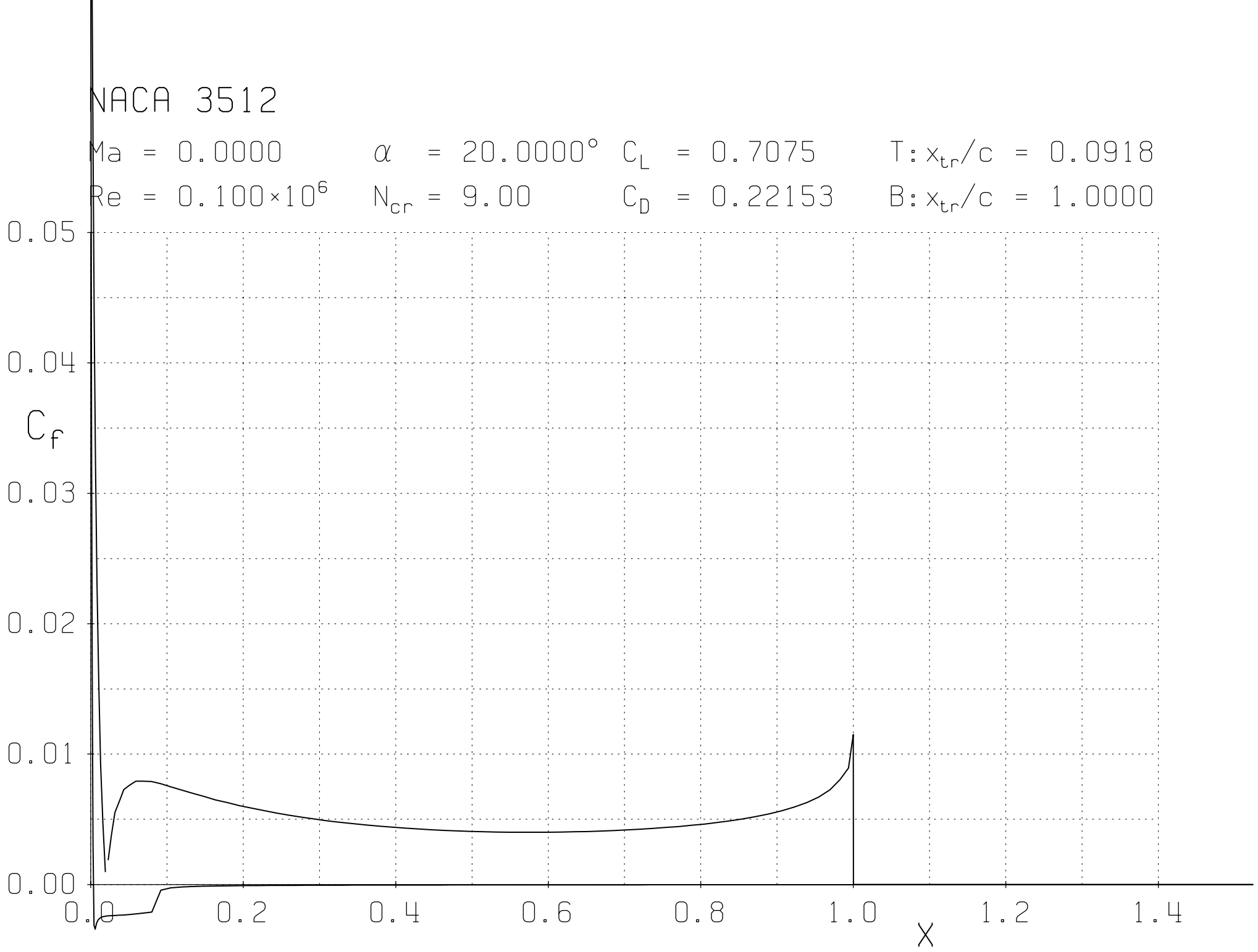
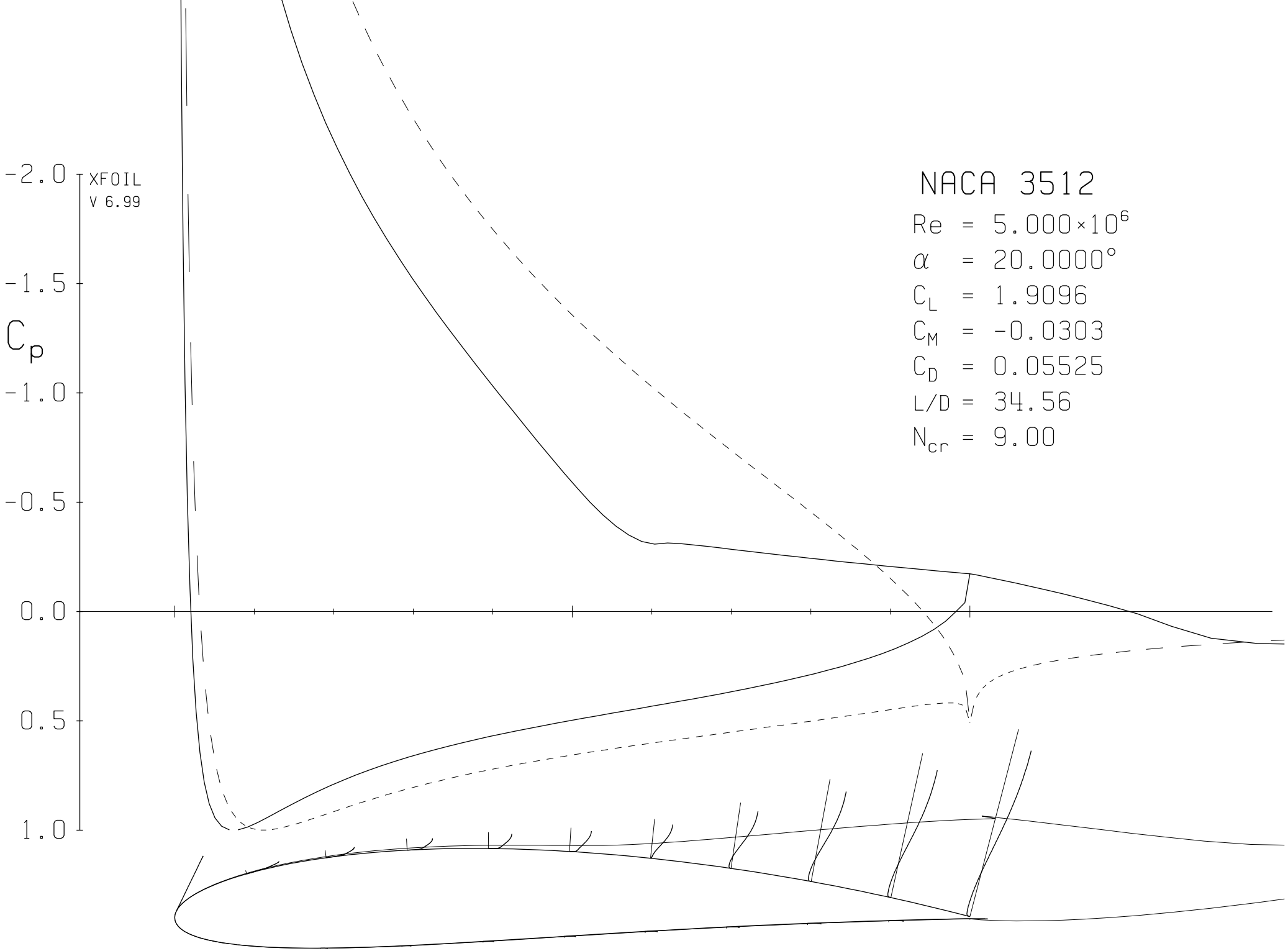

XFOIL
V 6.99
NACA 3512
Re = 0.100×10^6
α = 20.0000°
C_L = 0.7075
C_M = -0.0663
C_D = 0.22153
L/D = 3.19
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0

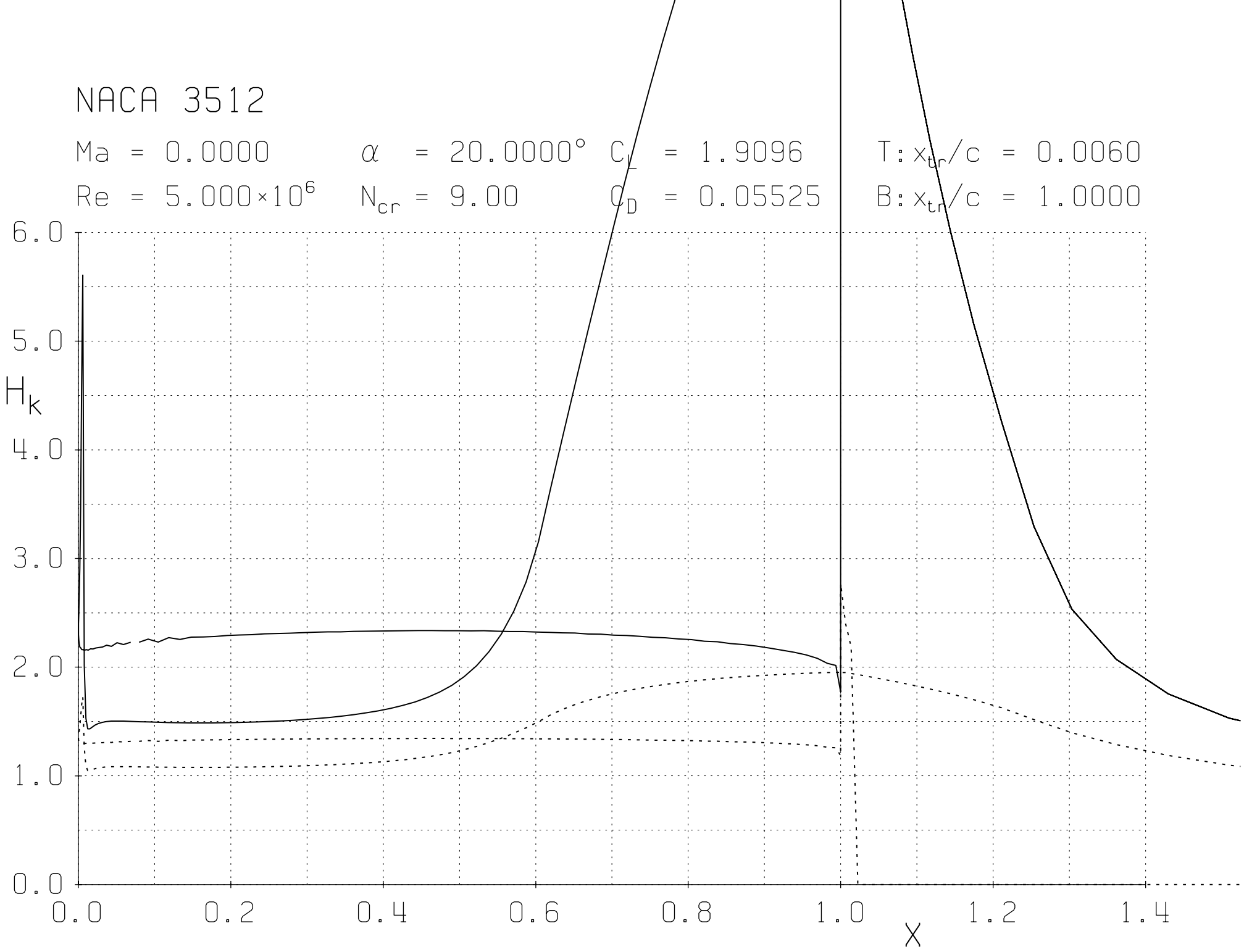

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 0.7075
T: x_tr/c = 0.0918
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.22153
B: x_tr/c = 1.0000
H_k
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

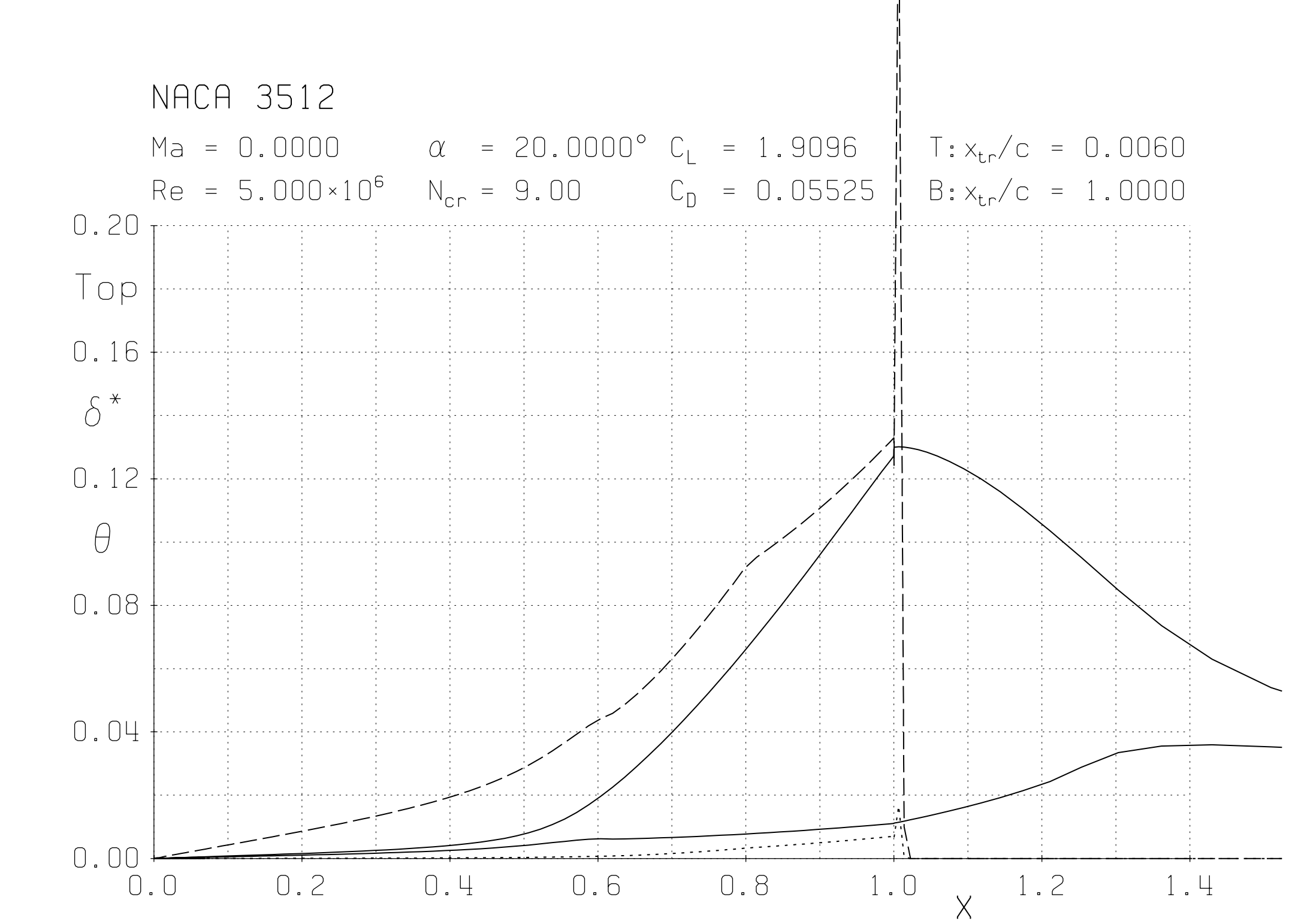

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 0.7075
T: x_tr/c = 0.0918
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.22153
B: x_tr/c = 1.0000
Top
δ*
θ
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

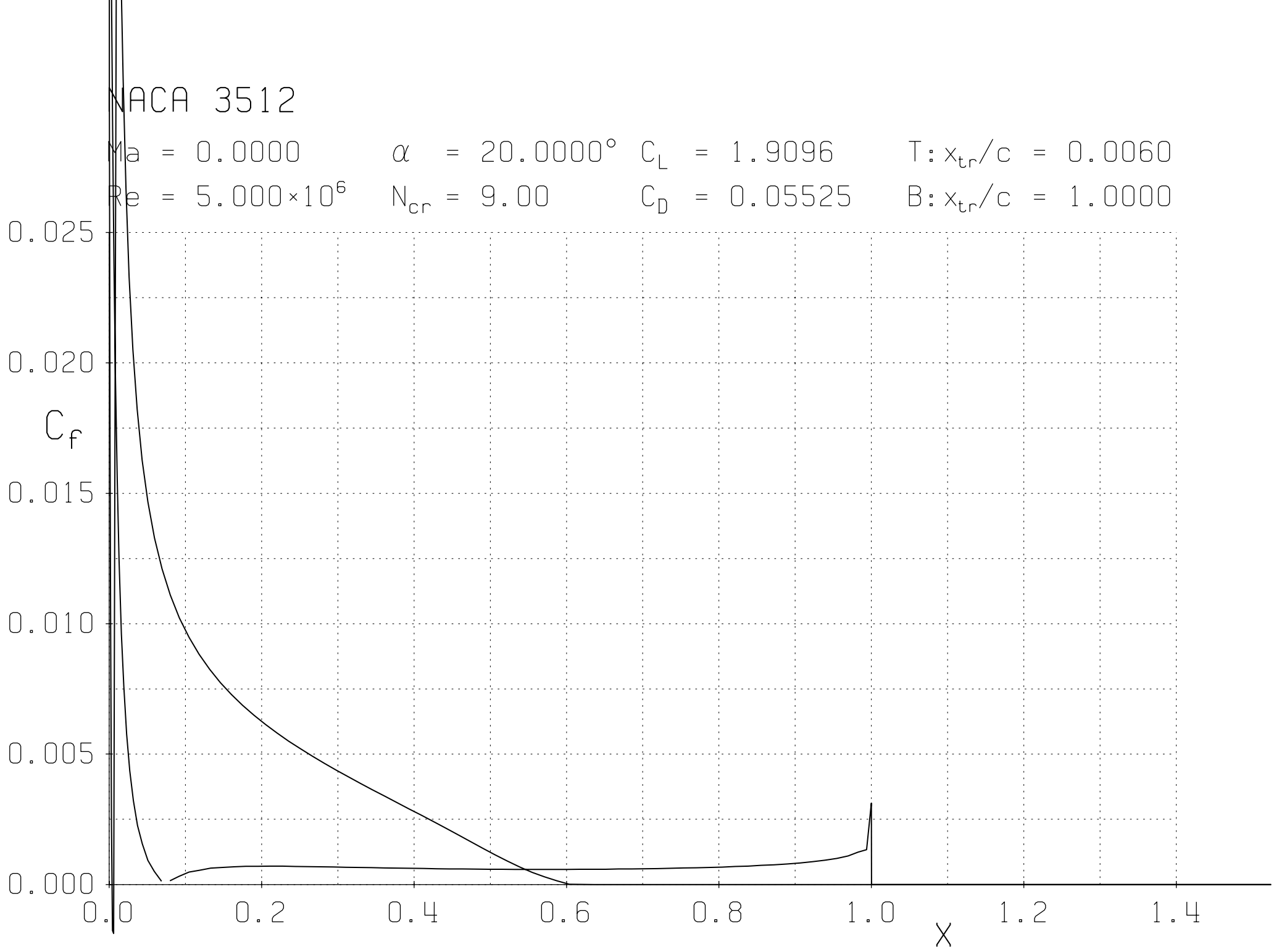

NACA 3512
Ma = 0.0000 α = 20.0000° C_L = 0.7075 T: x_tr/c = 0.0918
Re = 0.100×10^6 N_cr = 9.00 C_D = 0.22153 B: x_tr/c = 1.0000
0.05
0.04
C_f
0.03
0.02
0.01
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

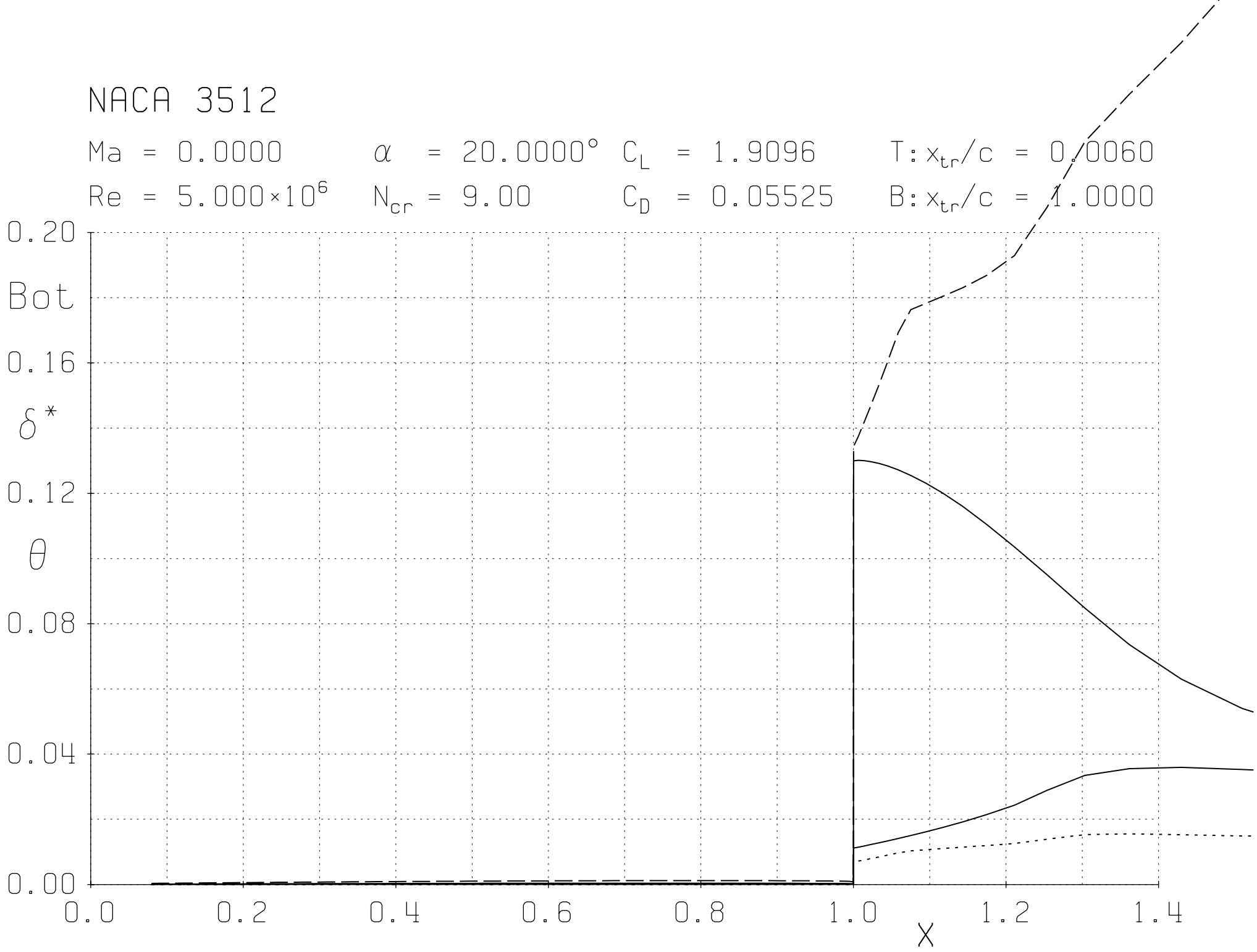

NACA 3512
Ma = 0.0000 α = 20.0000° C_L = 0.7075 T: x_tr/c = 0.0918
Re = 0.100×10^6 N_cr = 9.00 C_D = 0.22153 B: x_tr/c = 1.0000
0.05
0.04
C_f
0.03
0.02
0.01
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

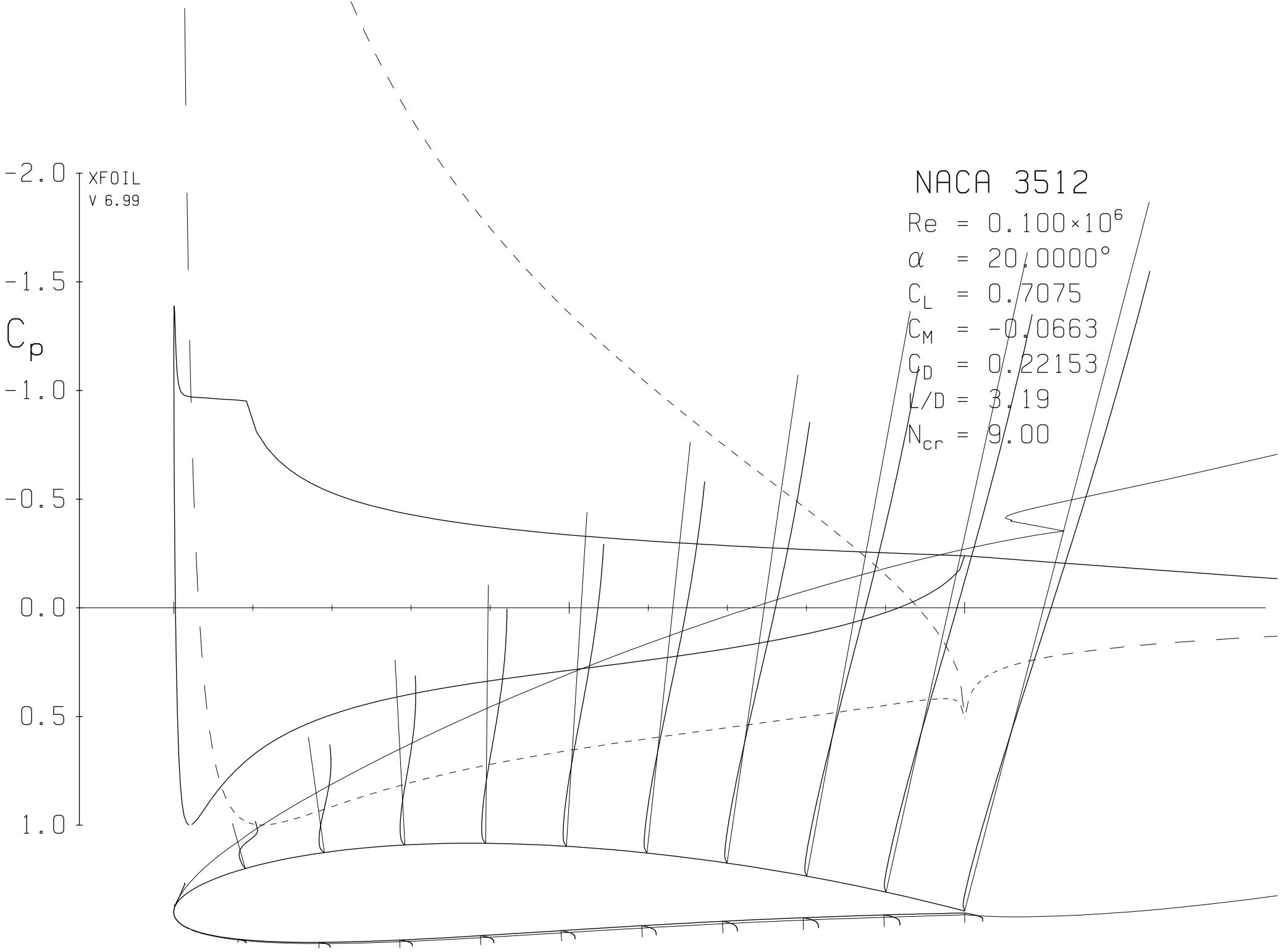

XFOIL
V 6.99
NACA 3512
Re = 5.000×10^6
α = 20.0000°
C_L = 1.9096
C_M = -0.0303
C_D = 0.05525
L/D = 34.56
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0

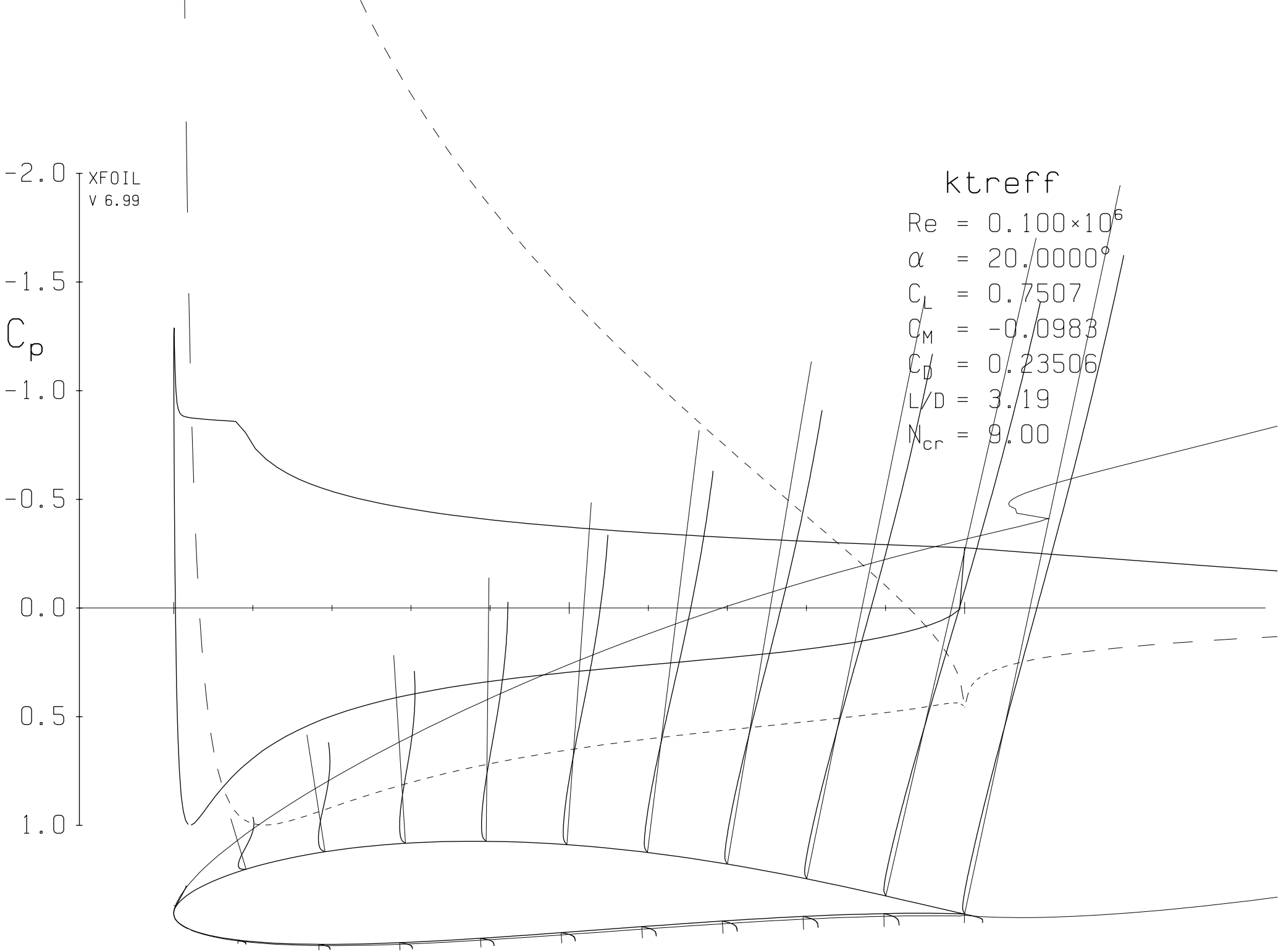

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 1.9096
T: x_tr/c = 0.0060
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.05525
B: x_tr/c = 1.0000
H_k
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

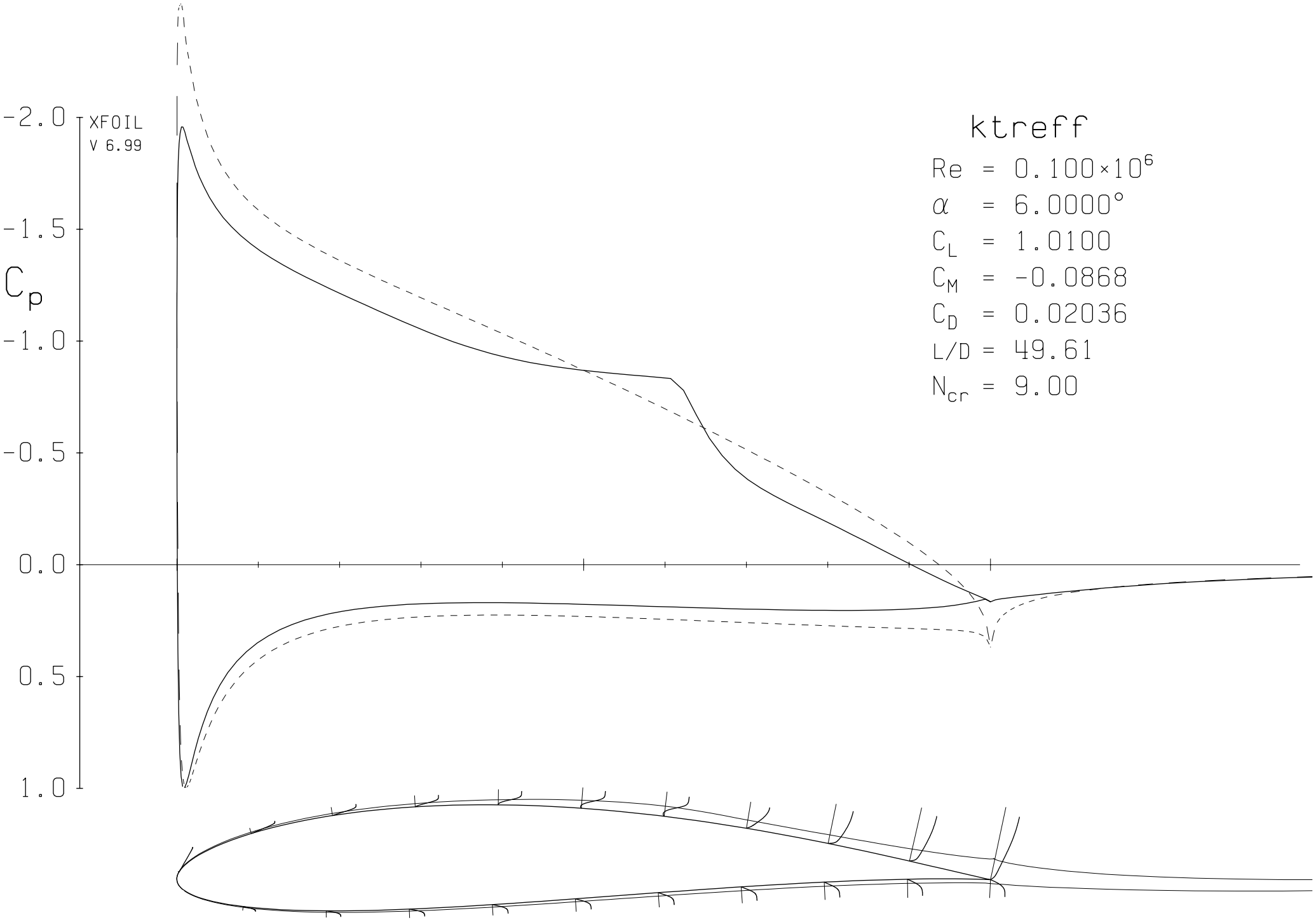

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 1.9096
T: x_tr/c = 0.0060
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.05525
B: x_tr/c = 1.0000
0.20
Top
0.16
δ*
0.12
θ
0.08
0.04
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

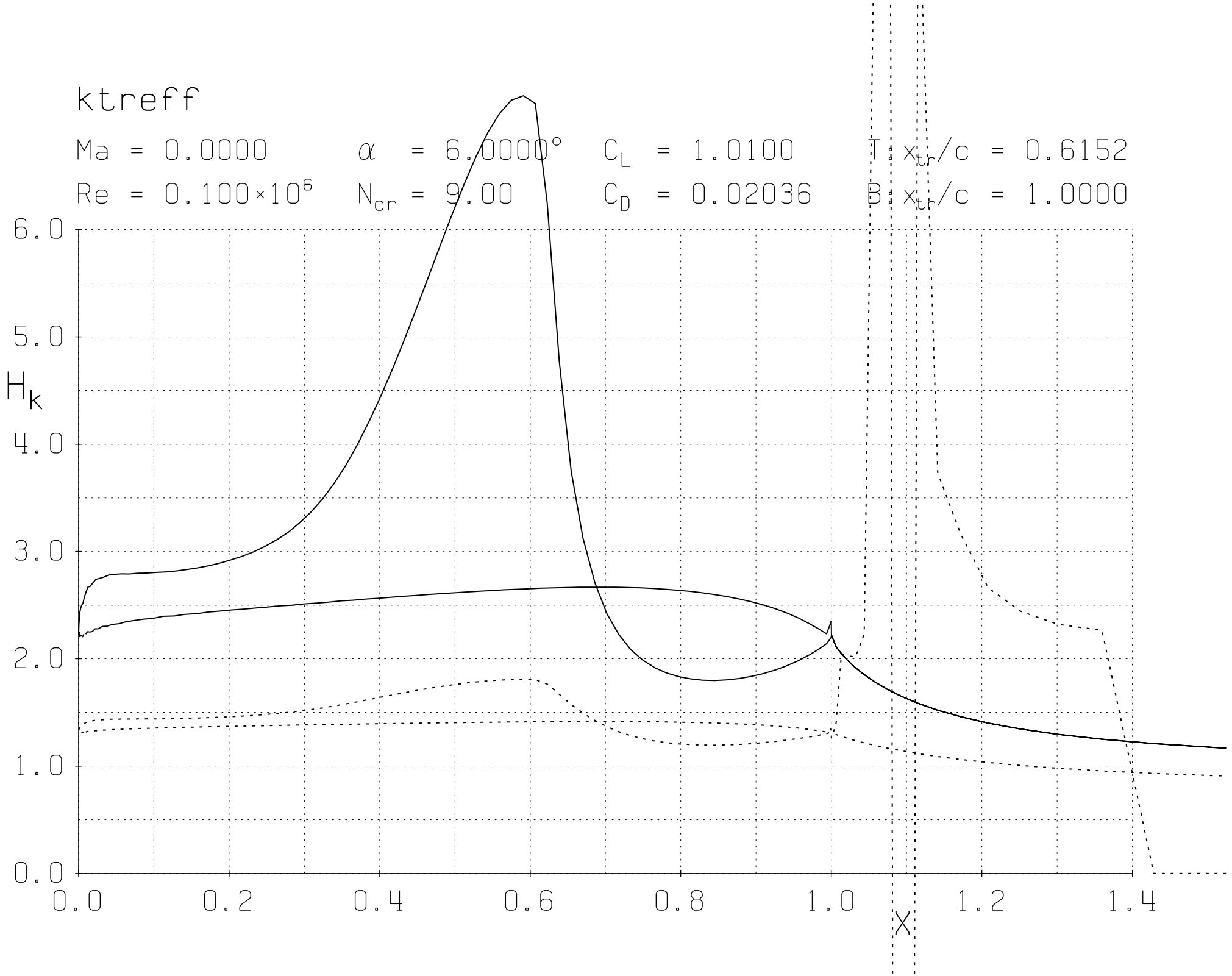

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 1.9096
T: x_tr/c = 0.0060
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.05525
B: x_tr/c = 1.0000
0.025
0.020
C_f
0.015
0.010
0.005
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

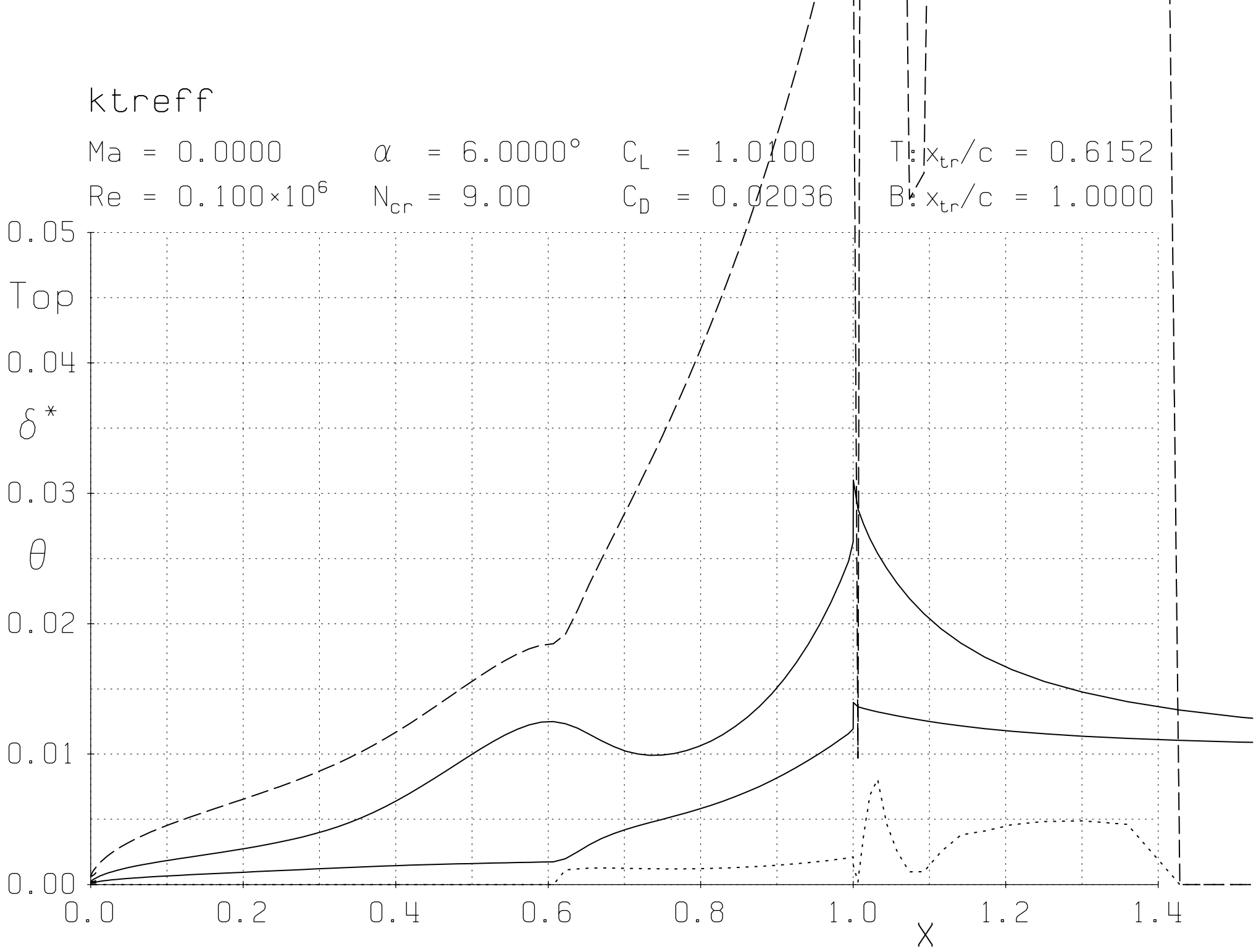

NACA 3512
Ma = 0.0000
α = 20.0000°
C_L = 1.9096
T: x_tr/c = 0.0060
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.05525
B: x_tr/c = 1.0000
Bot
δ*
θ
0.20
0.16
0.12
0.08
0.04
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

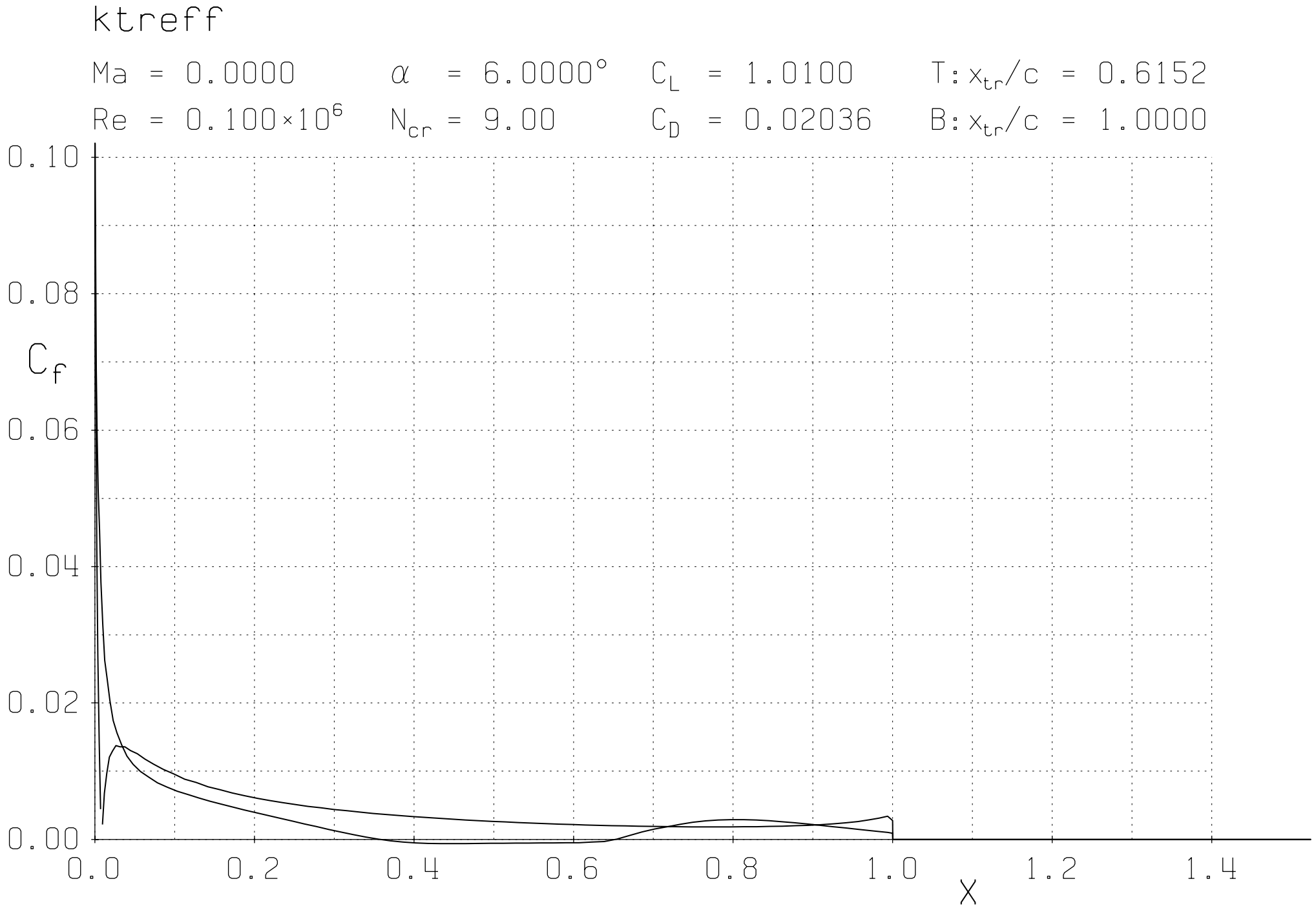

XFOIL
V 6.99
NACA 3512
Re = 0.100×10^6
α = 20.0000°
C_L = 0.7075
C_M = -0.0663
C_D = 0.22153
L/D = 3.19
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0

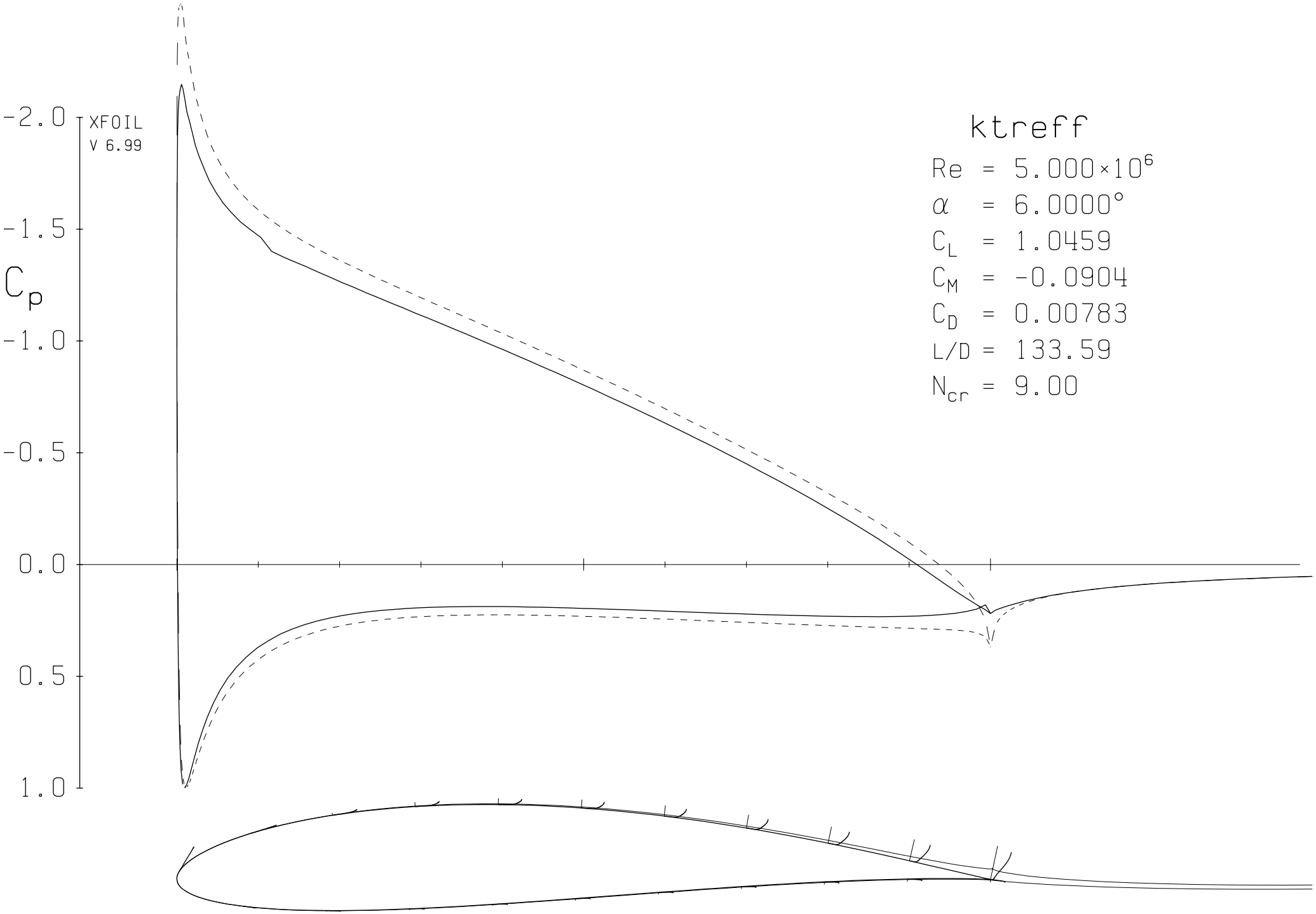

XFOIL
V 6.99
ktreff
Re = 0.100×10^6
α = 20.0000°
C_L = 0.7507
C_M = -0.0983
C_D = 0.23506
L/D = 3.19
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0

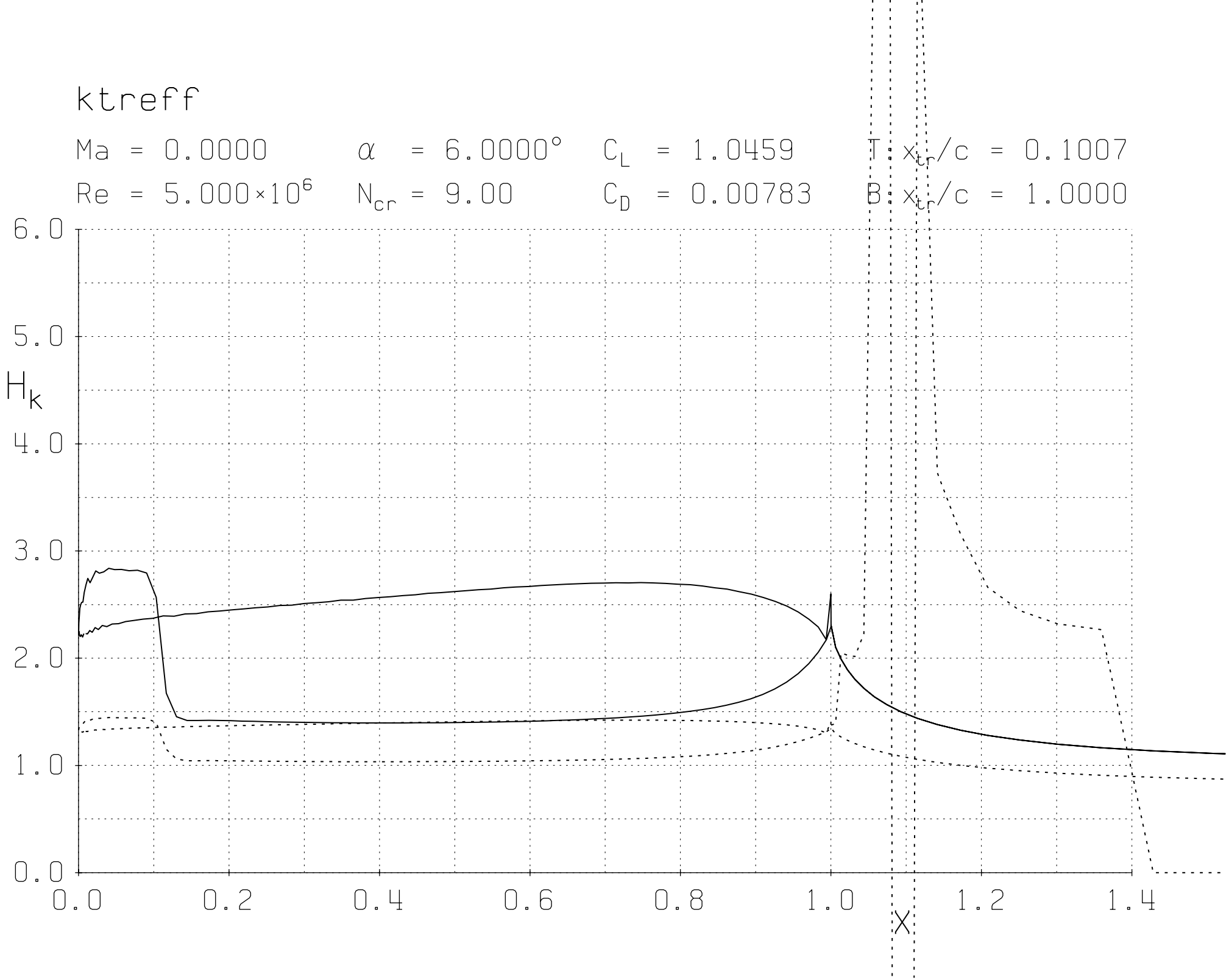

XFOIL
V 6.99
-2.0
-1.5
Cp
-1.0
-0.5
0.0
0.5
1.0
ktreff
Re = 0.100×10^6
α = 6.0000°
C_L = 1.0100
C_M = -0.0868
C_D = 0.02036
L/D = 49.61
N_cr = 9.00

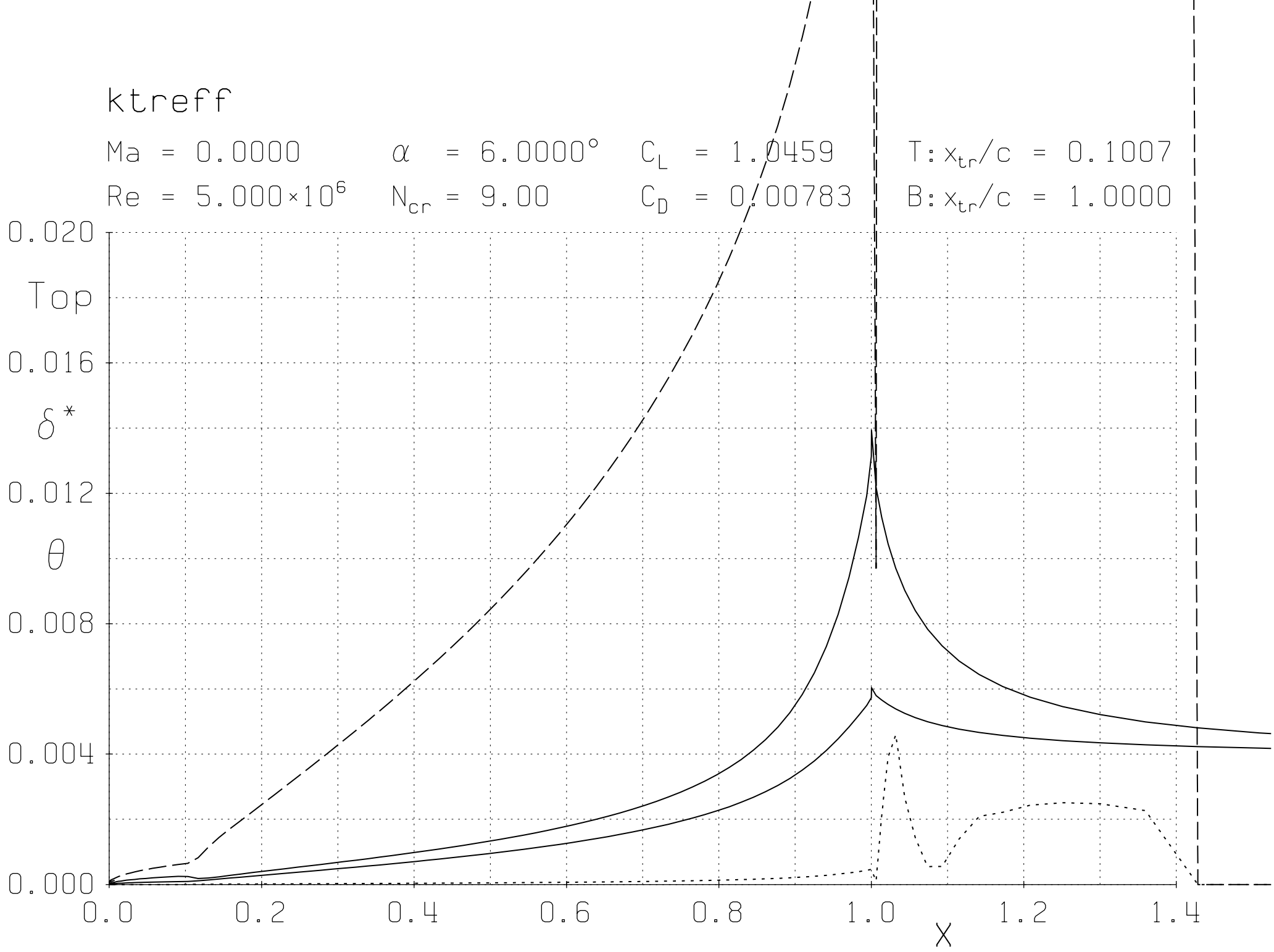

ktreff
Ma = 0.0000
α = 6.0000°
C_L = 1.0100
T: x_tr/c = 0.6152
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.02036
B: x_tr/c = 1.0000
H_k
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

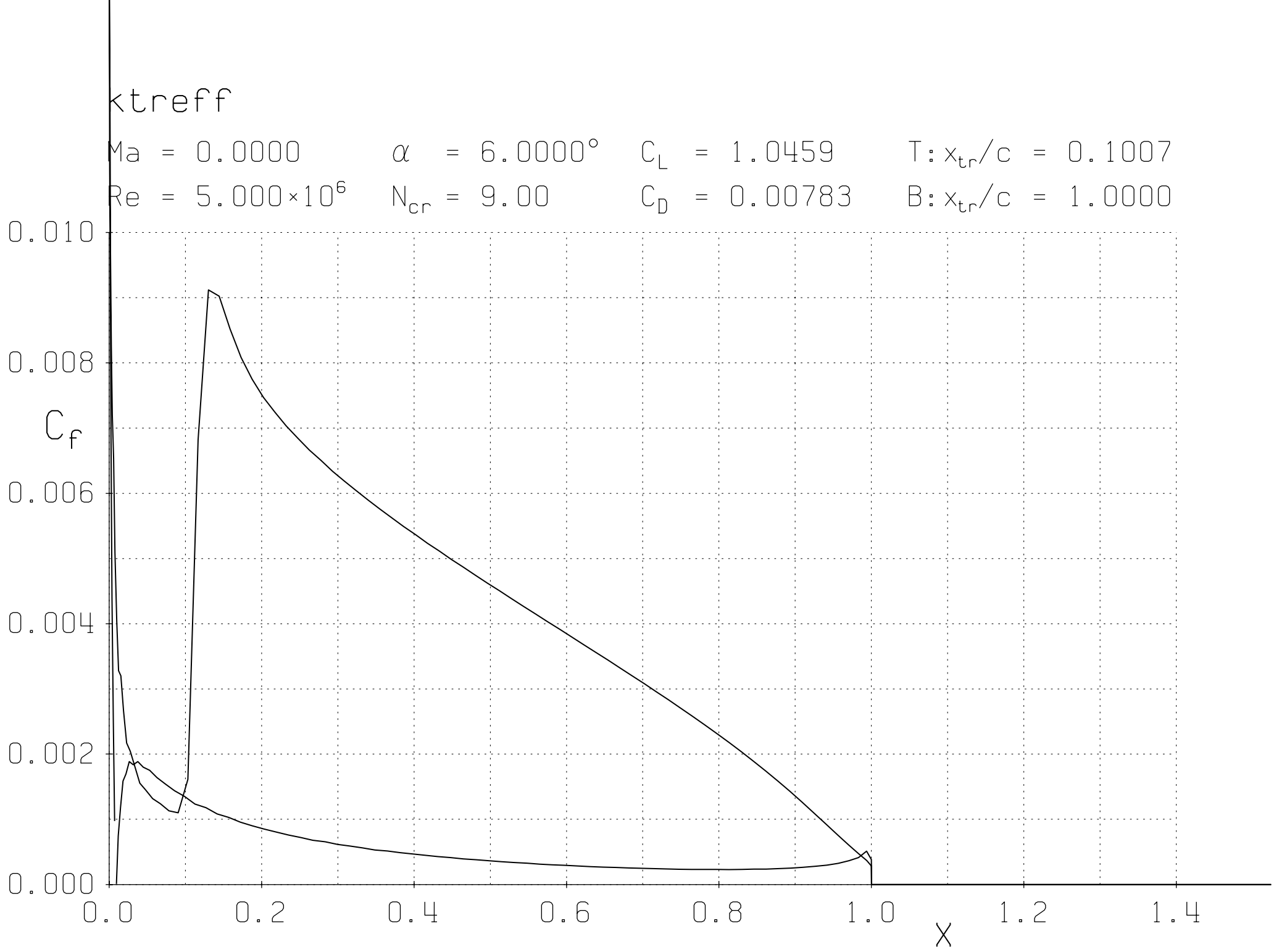

ktreff
Ma = 0.0000 α = 6.0000° C_L = 1.0100 T: x_tr/c = 0.6152
Re = 0.100×10^6 N_cr = 9.00 C_D = 0.02036 B: x_tr/c = 1.0000
0.05
Top
0.04
δ*
0.03
θ
0.02
0.01
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

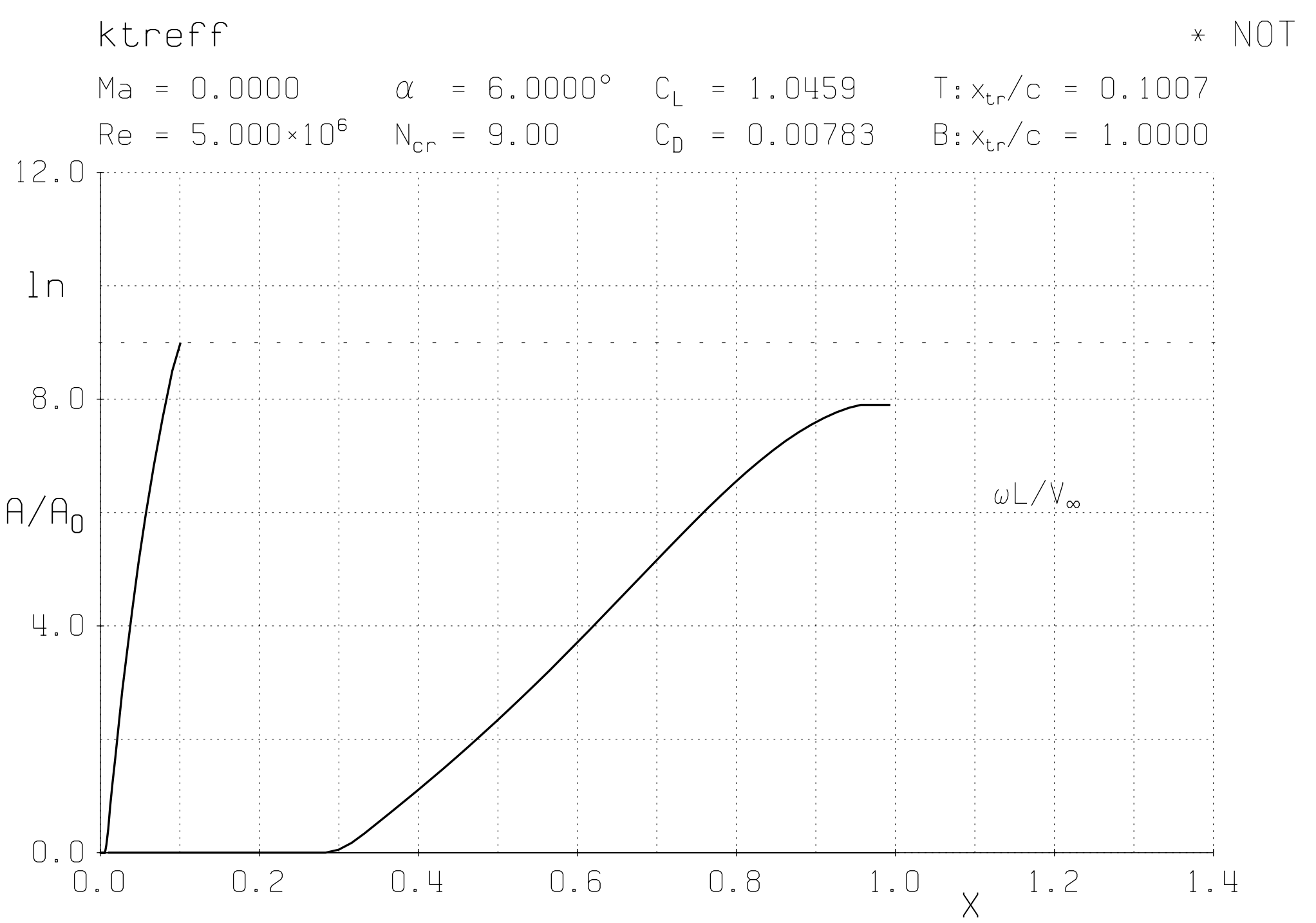

ktreff
Ma = 0.0000
α = 6.0000°
C_L = 1.0100
T: x_tr/c = 0.6152
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.02036
B: x_tr/c = 1.0000
0.10
0.08
C_f
0.06
0.04
0.02
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

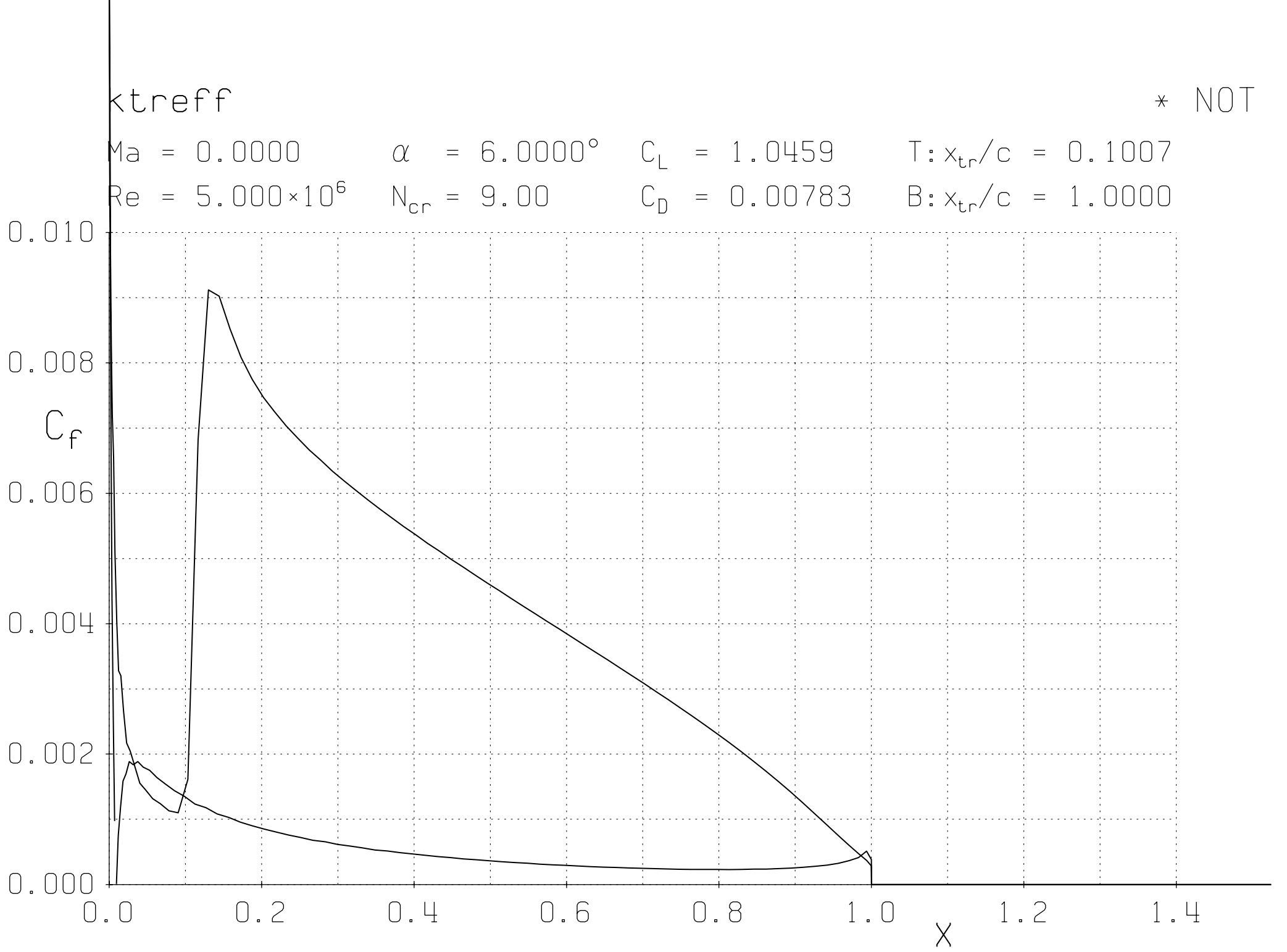

XFOIL
V 6.99
-2.0
-1.5
Cp
-1.0
-0.5
0.0
0.5
1.0
ktreff
Re = 5.000×10^6
α = 6.0000°
C_L = 1.0459
C_M = -0.0904
C_D = 0.00783
L/D = 133.59
N_cr = 9.00

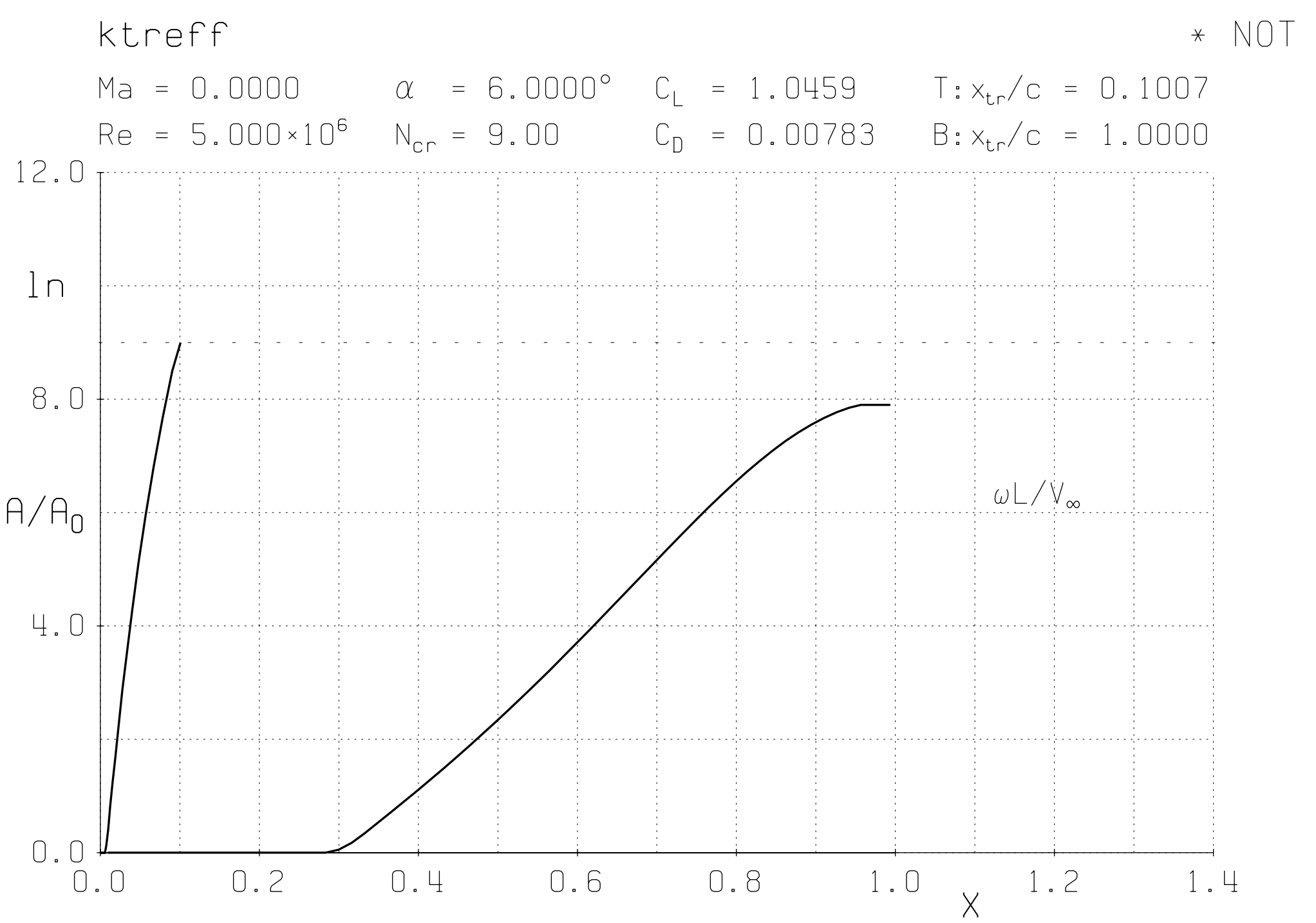

ktreff
Ma = 0.0000 α = 6.0000° C_L = 1.0459 T: x_tr/c = 0.1007
Re = 5.000×10^6 N_cr = 9.00 C_D = 0.00783 B: x_tr/c = 1.0000
H_k
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

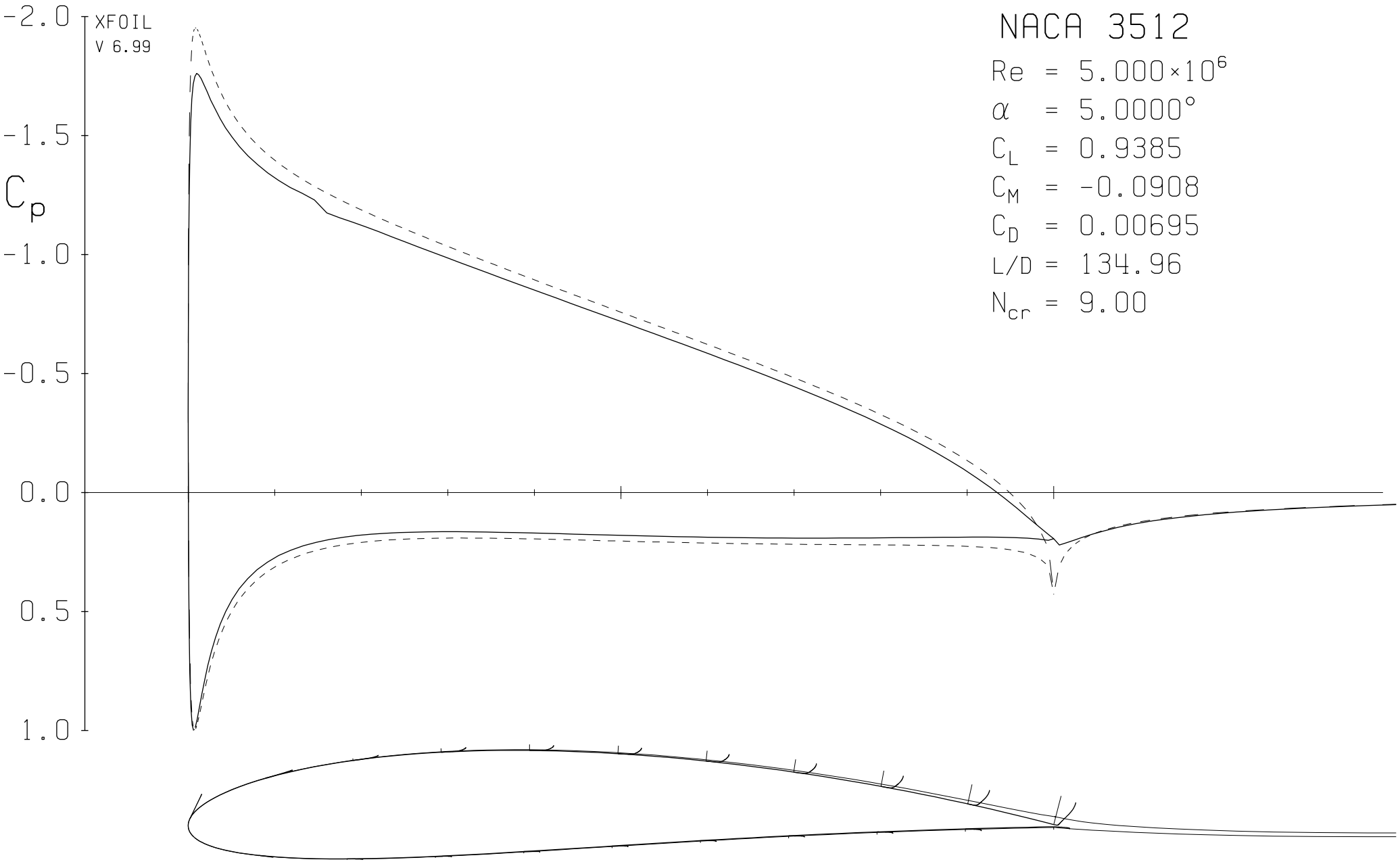

ktreff
Ma = 0.0000
α = 6.0000°
C_L = 1.0459
T: x_tr/c = 0.1007
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00783
B: x_tr/c = 1.0000
0.020
Top
0.016
δ*
0.012
θ
0.008
0.004
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

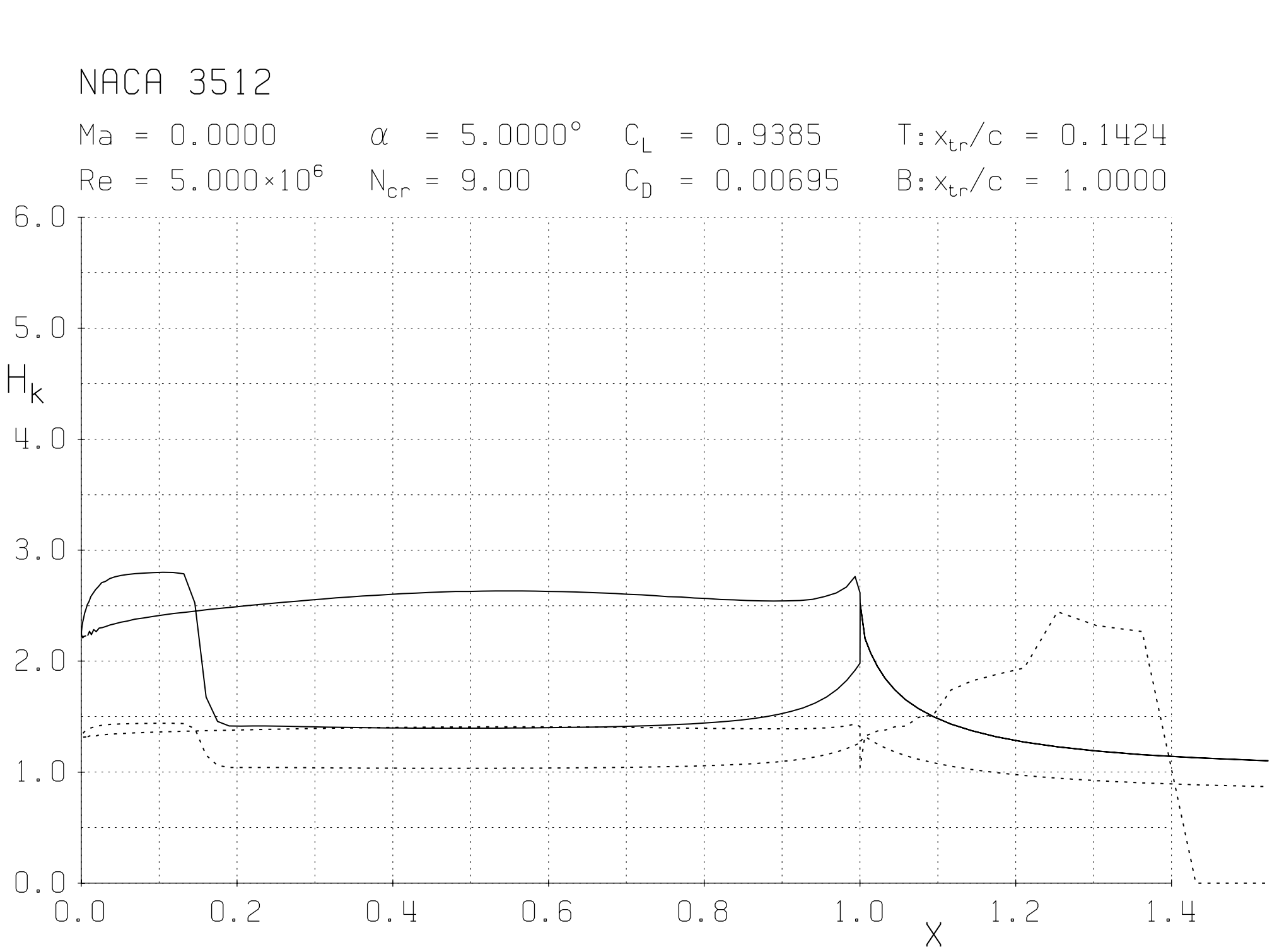

ktreff
Ma = 0.0000
α = 6.0000°
C_L = 1.0459
T: x_tr/c = 0.1007
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00783
B: x_tr/c = 1.0000
0.010
0.008
C_f
0.006
0.004
0.002
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

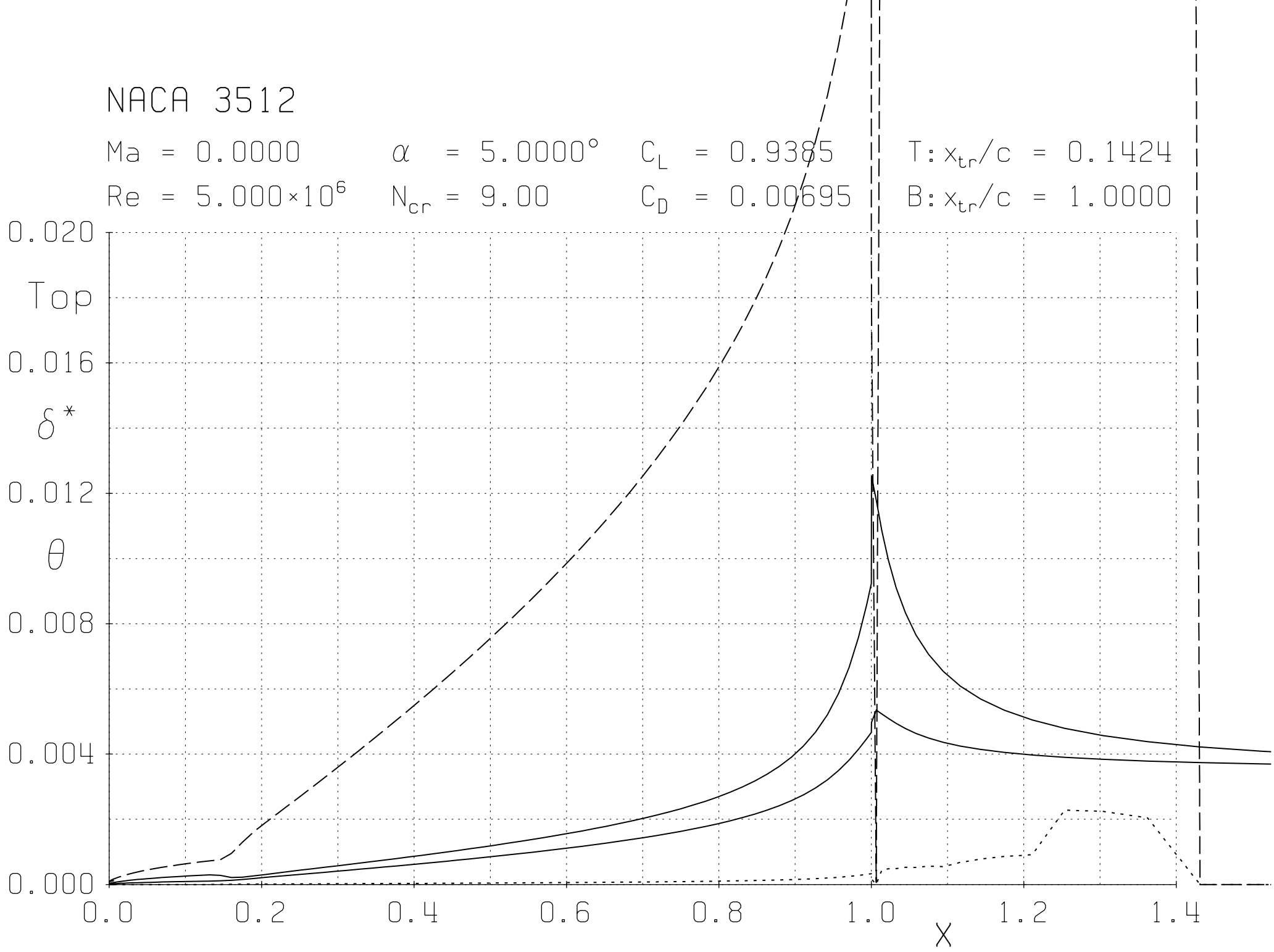

ktreff
* NOT
Ma = 0.0000
α = 6.0000°
C_L = 1.0459
T: x_tr/c = 0.1007
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00783
B: x_tr/c = 1.0000
12.0
ln
8.0
A/A_0
4.0
0.0
ωL/V_∞
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

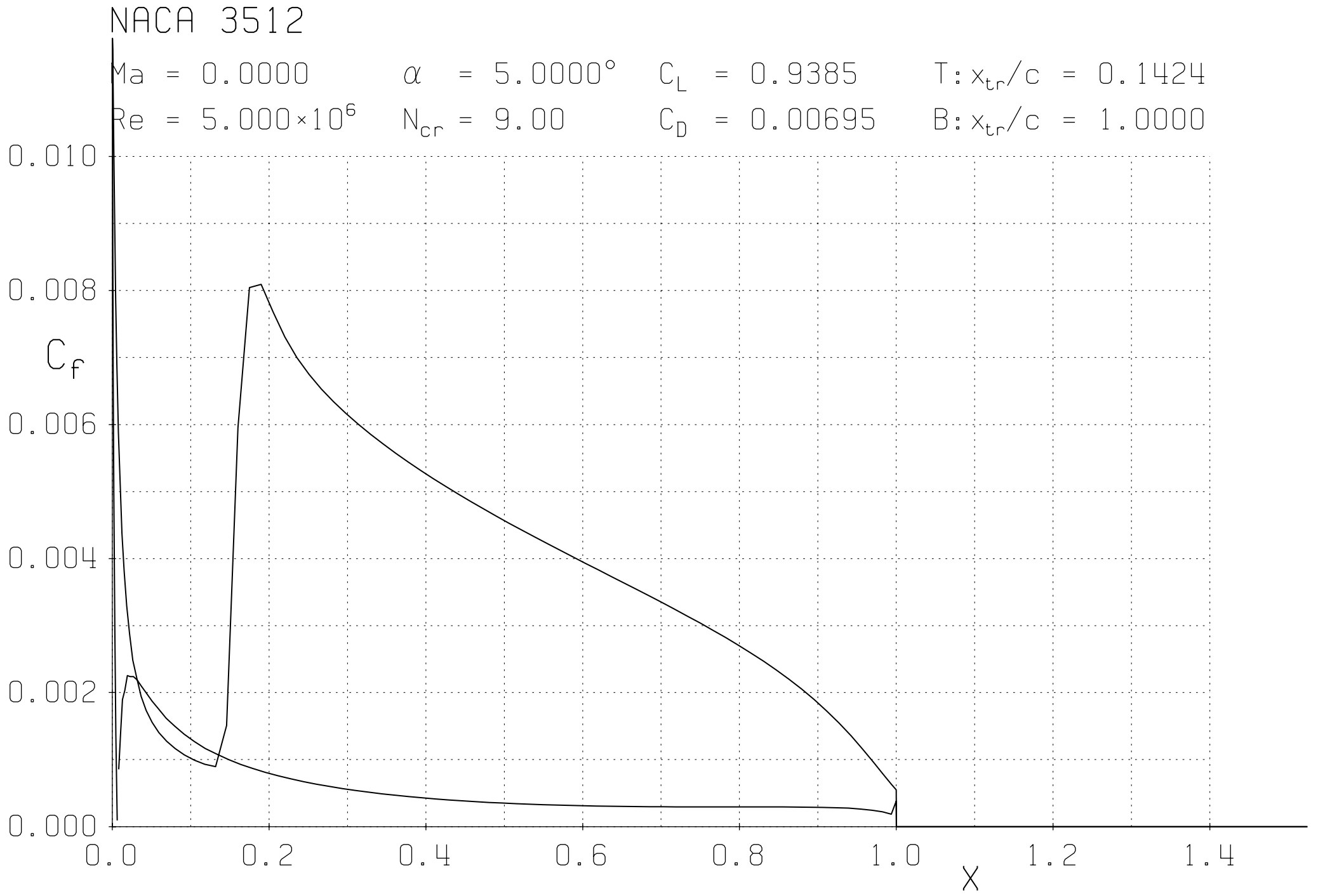

ktreff
* NOT
Ma = 0.0000
α = 6.0000°
C_L = 1.0459
T: x_tr/c = 0.1007
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00783
B: x_tr/c = 1.0000
0.010
0.008
C_f
0.006
0.004
0.002
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

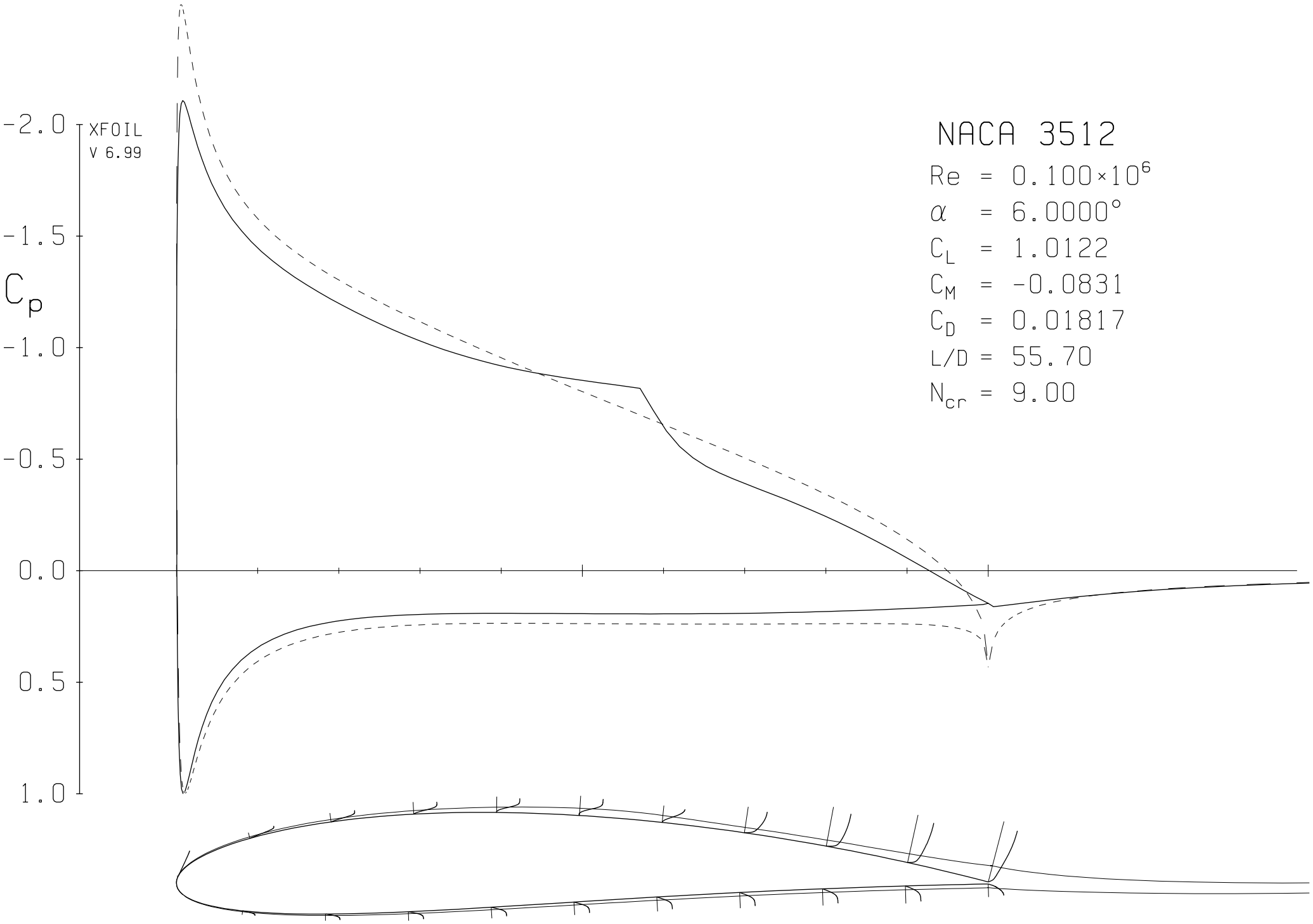

ktreff
* NOT
Ma = 0.0000
α = 6.0000°
C_L = 1.0459
T: x_tr/c = 0.1007
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00783
B: x_tr/c = 1.0000
12.0
ln
8.0
A/A_0
4.0
0.0
ωL/V_∞
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

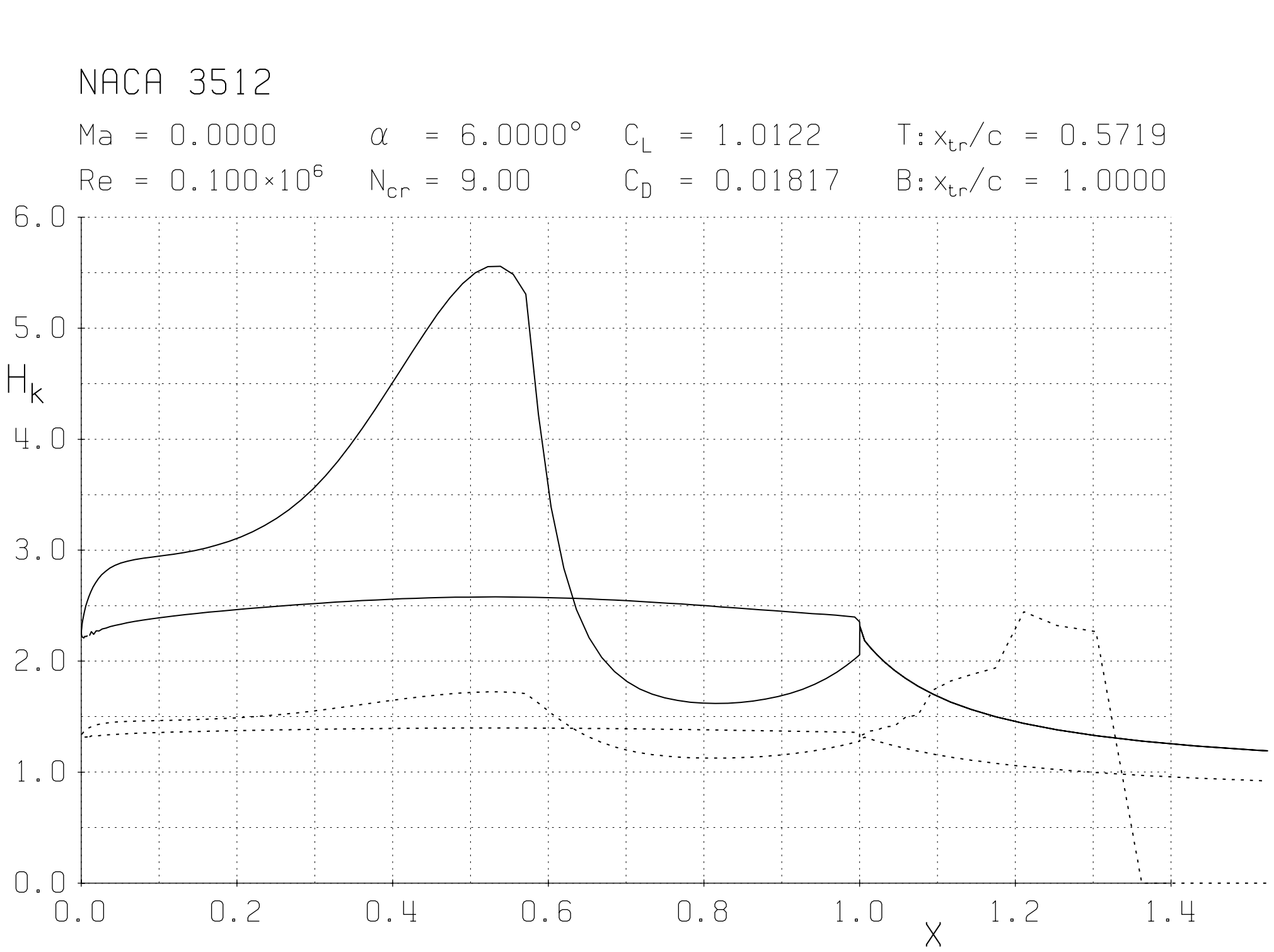

XFOIL
V 6.99
NACA 3512
Re = 5.000×10^6
α = 5.0000°
C_L = 0.9385
C_M = -0.0908
C_D = 0.00695
L/D = 134.96
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0

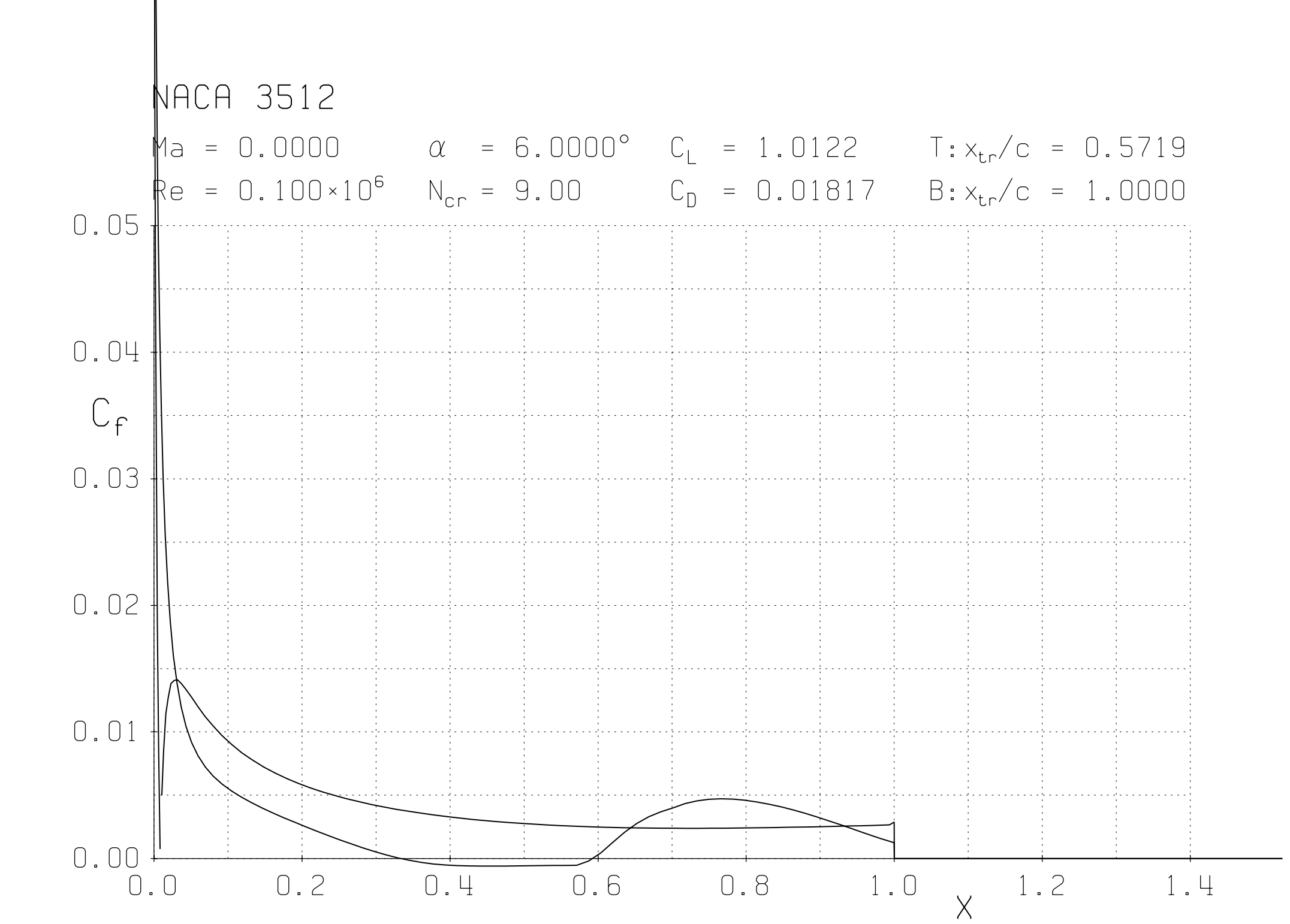

NACA 3512
Ma = 0.0000 α = 5.0000° C_L = 0.9385 T: x_{tr}/c = 0.1424
Re = 5.000×10^6 N_{cr} = 9.00 C_D = 0.00695 B: x_{tr}/c = 1.0000
H_k
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

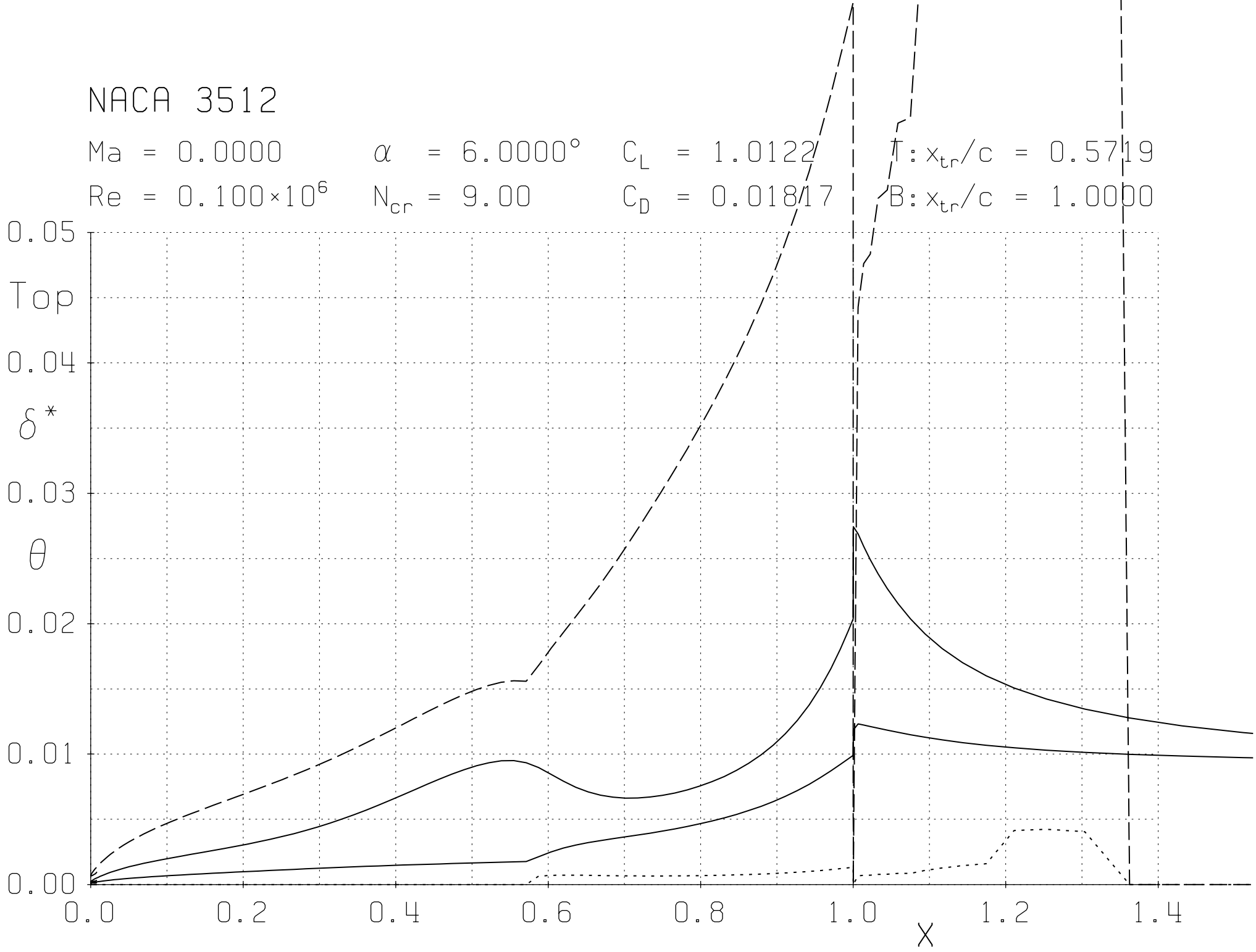

NACA 3512
Ma = 0.0000
α = 5.0000°
C_L = 0.9385
T: x_tr/c = 0.1424
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00695
B: x_tr/c = 1.0000
0.020
Top
0.016
δ*
0.012
θ
0.008
0.004
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

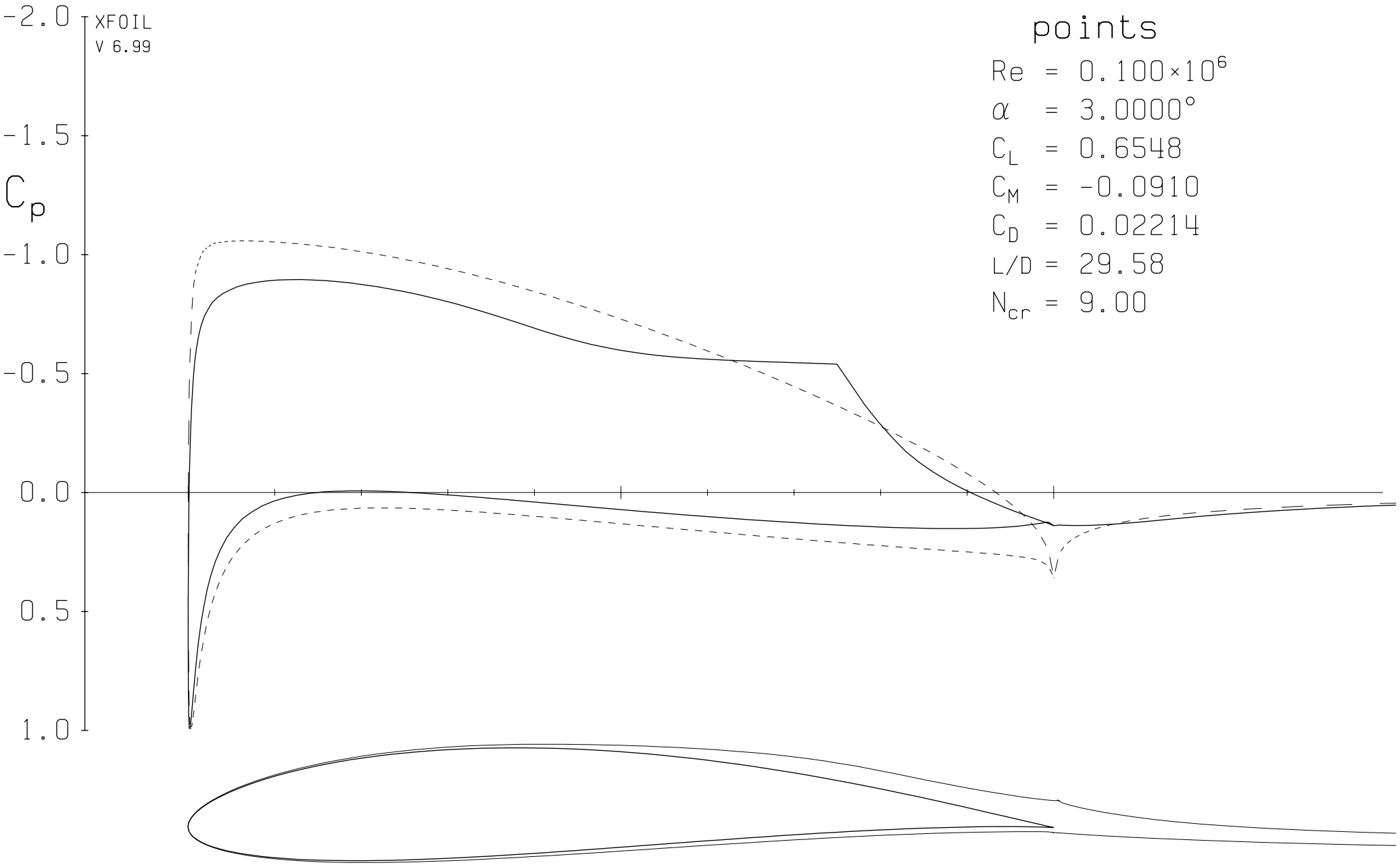

NACA 3512
Ma = 0.0000
α = 5.0000°
C_L = 0.9385
T: x_tr/c = 0.1424
Re = 5.000×10^6
N_cr = 9.00
C_D = 0.00695
B: x_tr/c = 1.0000
0.010
0.008
C_f
0.006
0.004
0.002
0.000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X

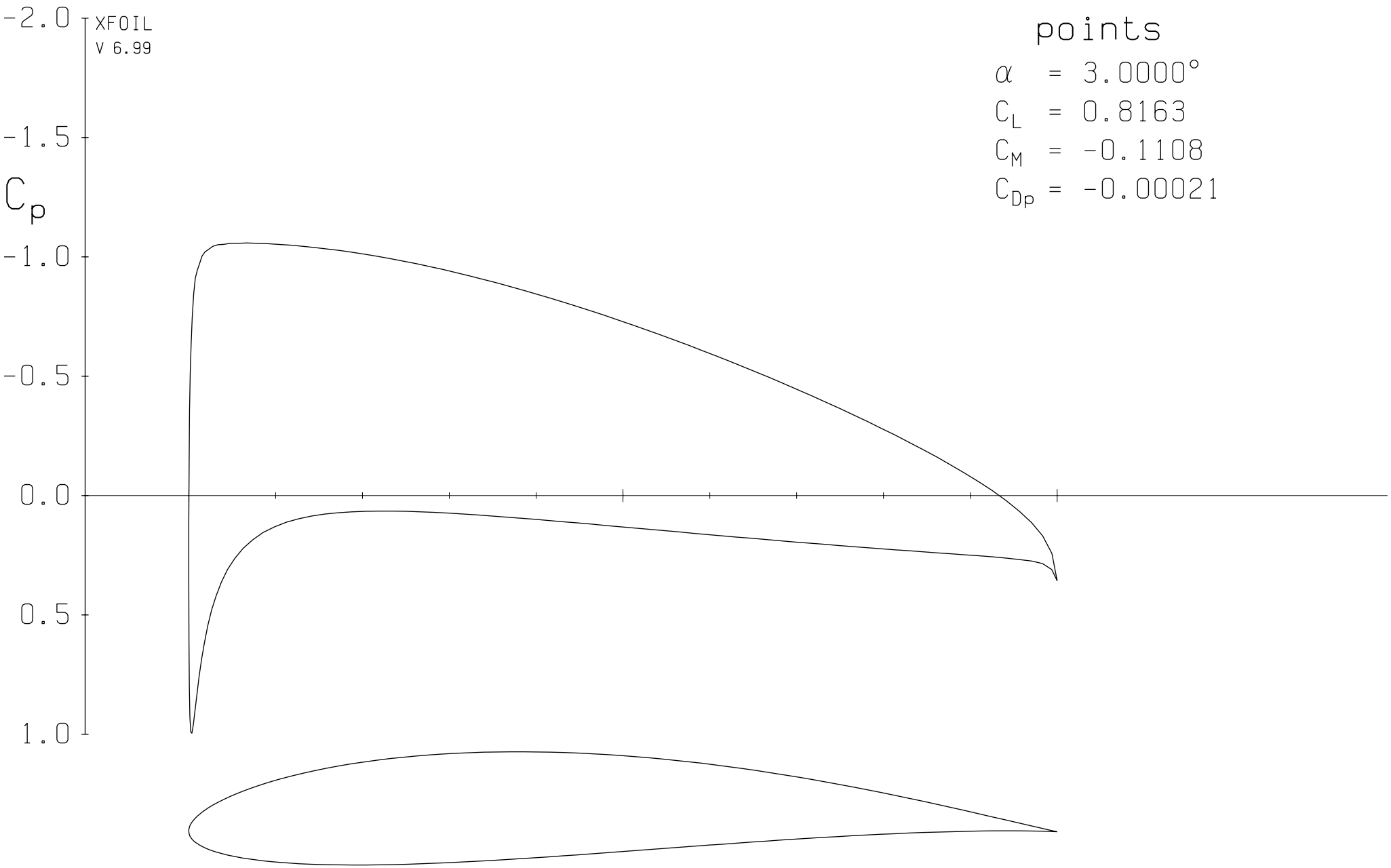

XFOIL
V 6.99
-2.0
-1.5
Cp
-1.0
-0.5
0.0
0.5
1.0
NACA 3512
Re = 0.100×10^6
α = 6.0000°
C_L = 1.0122
C_M = -0.0831
C_D = 0.01817
L/D = 55.70
N_cr = 9.00

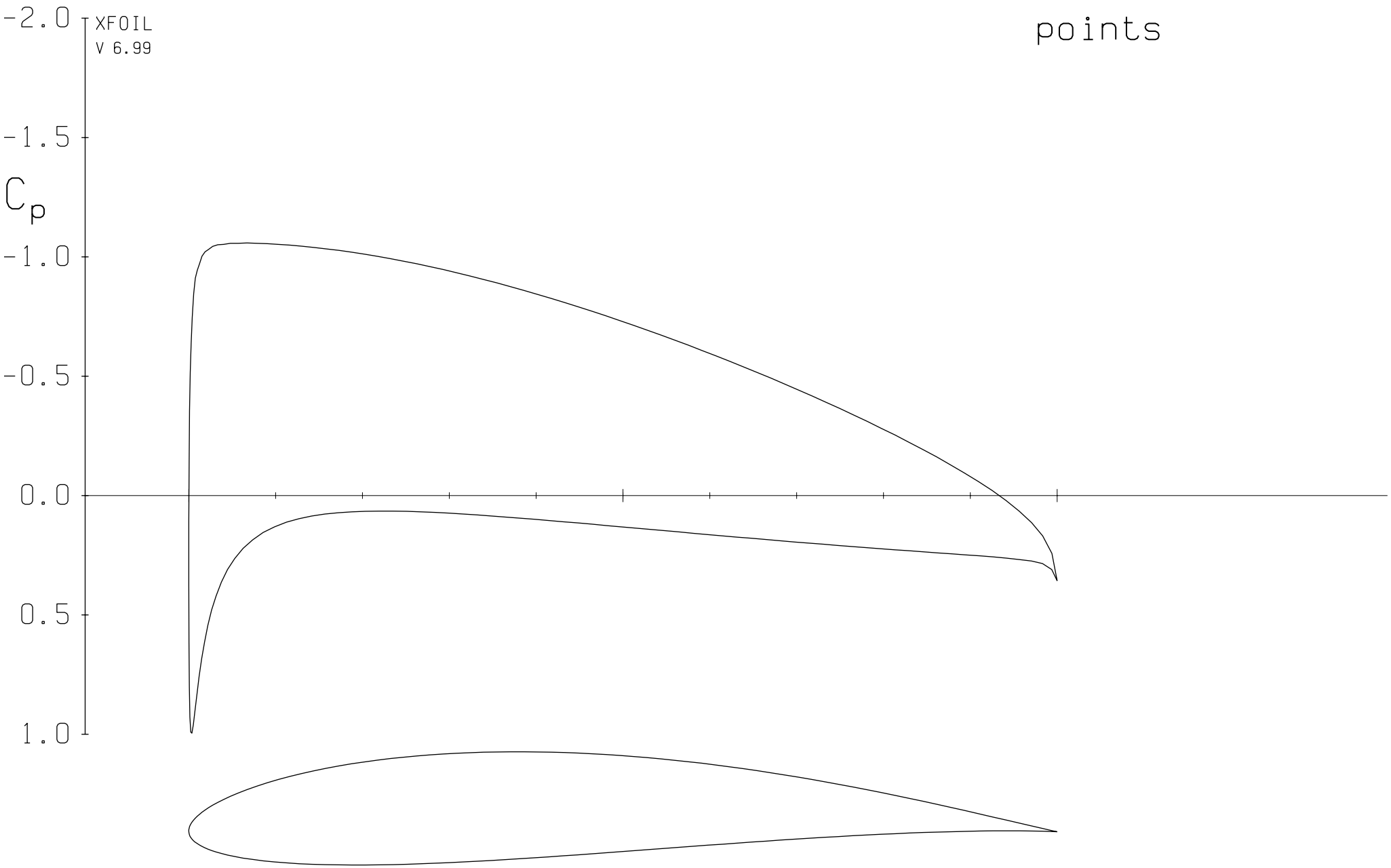

NACA 3512
Ma = 0.0000
α = 6.0000°
C_L = 1.0122
T: x_tr/c = 0.5719
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.01817
B: x_tr/c = 1.0000
6.0
5.0
4.0
3.0
2.0
1.0
0.0
H_k
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X


NACA 3512
Ma = 0.0000
α = 6.0000°
C_L = 1.0122
T: x_tr/c = 0.5719
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.01817
B: x_tr/c = 1.0000
0.05
0.04
C_f
0.03
0.02
0.01
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X


NACA 3512
Ma = 0.0000
α = 6.0000°
C_L = 1.0122
T: x_tr/c = 0.5719
Re = 0.100×10^6
N_cr = 9.00
C_D = 0.01817
B: x_tr/c = 1.0000
0.05
Top
0.04
δ*
0.03
θ
0.02
0.01
0.00
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
X


XFOIL
V 6.99
points
Re = 0.100×10^6
α = 3.0000°
C_L = 0.6548
C_M = -0.0910
C_D = 0.02214
L/D = 29.58
N_cr = 9.00
C_p
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0


-2.0
XFOIL
V 6.99
points
α = 3.0000°
C_L = 0.8163
C_M = -0.1108
C_Dp = -0.00021
-1.5
C_p
-1.0
-0.5
0.0
0.5
1.0


XFOIL
V 6.99
points
-2.0
-1.5
Cp
-1.0
-0.5
0.0
0.5
1.0